

**Olerup SSP® DRB1\*13**

|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Product number:                  | 101.116-24/03 – including <i>Taq</i> pol.                             |
| Lot number:                      | 03G                                                                   |
| Expiry date:                     | 2011-July 01                                                          |
| Number of tests:                 | 24 tests – Product No. 101.116-24<br>3 tests – Product No. 101.116-03 |
| Number of wells per test:        | 32                                                                    |
| Storage - pre-aliquoted primers: | dark at -20°C                                                         |
| - PCR Master Mix:                | -20°C                                                                 |
| - Adhesive PCR seals             | RT                                                                    |
| - Product Insert                 | RT                                                                    |

**This Product Description is only valid for Lot No. 03G.**

**CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*®  
DRB1\*13 LOT**

The DRB1\*13 specificity and interpretation tables have been updated for the DRB alleles described since the previous *Olerup SSP*® DRB1\*13 lot was made (**Lot No. 82E**).

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot.

| Well | 5'-primer | 3'-primer | rationale                                                         |
|------|-----------|-----------|-------------------------------------------------------------------|
| 16   | Added     | -         | Primer added for increased amplification of the DRB1*1369 allele. |
| 18   | -         | Added     | Primer added for the DRB1*1387 allele.                            |
| 19   | -         | Added     | Primer added for the DRB1*1387 allele.                            |
| 27   | -         | Added     | Primer added for increased amplification of the DRB1*1380 allele. |

Change in revision R01 compared to R00:

1. The DRB1\*1310 and 1381 alleles are amplified in primer mix 30. This has been corrected in the specificity and interpretation tables.

## PRODUCT DESCRIPTION

### DRB1\*13 SSP subtyping

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB1\*1301 to DRB1\*1388 alleles.

#### PLATE LAYOUT

Each test consists of 32 PCR reactions in a 32 well cut PCR plate.

|    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

The 32 well cut PCR plate is marked with 'DRB1\*13' in silver/gray ink.

Well No. 1 is marked with the Lot No '03G'.

The PCR plates are covered with a PCR-compatible foil.

**Please note:** When removing each 32 well PCR plate, make sure that the remaining plates stay covered. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

#### INTERPRETATION

The interpretation of DRB1\*13 PCR-SSP subtypings will be influenced by all DRB1\*03 alleles, five DRB1\*04 alleles, five DRB1\*08 alleles, most DRB1\*11 alleles, the DRB1\*12 alleles, most DRB1\*14 alleles, most DRB1\*15 alleles and the DRB1\*1608 allele when present on the other haplotype. In addition, the DRB3\*0108, DRB3\*0206 and DRB3\*0220 alleles will be amplified by primer mix 7.

#### UNIQUELY IDENTIFIED ALLELES

All the phenotypically different DRB1\*13 alleles, i.e. **DRB1\*1301 to DRB1\*1388**, recognized by the HLA Nomenclature Committee in May 2009<sup>1</sup> will give rise to unique amplification patterns by the primers in the DRB1\*13 subtyping kit.

The DRB1\*13 subtyping kit cannot distinguish the DRB1\*130101 and 130102 alleles, the DRB1\*130201 and 130203 alleles, the DRB1\*130301 and 130302 alleles, DRB1\*130501 and 130502, the DRB1\*130701 and 130702, the DRB1\*131401 to 131403 alleles and the the DRB1\*135001 and 135002 alleles.

<sup>1</sup>HLA-A alleles listed on the IMGT/HLA web page 2009-May-11, release 2.25.2, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

## RESOLUTION IN HOMO- AND HETEROZYGOTES

The 88 DRB1\*13 alleles give rise to 90 different amplification patterns, DRB1\*130101-130102 and 130103, DRB1\*130201/130203 and 130202 having different amplification patterns. These can be combined in 4095 homozygous and heterozygous combinations. 1416 of these genotypes do not give rise to unique amplification patterns. The different lengths of the specific PCR products in lanes 15, 17 to 20, 22 to 24, 31 and 32 were not considered in these calculations.

```
+++++++- +---+---+ ----- +++----- 1358,1363 = 1363,1381
+++++++- +---+---+ -+----- +----- 1336,1355 = 1347,1365 = 1355,1365
+++++++- +---+---+ -----+-- +-+----- 1331,1349 = 1346,1365
+++++++- +---+---+ ----- +-+----- 1302,1349 = 1314,1365 = 1321,1336
                                     = 1321,1365
+++++++- +---+---+ ----- +----- 1307,1365 = 1336,1349 = 1349,1365
+++++++- +---+---+ ----- --+----- 1350,1365 = 1362,1365
+++++++- ++---+---+ -+----- +---+---+ 1349,1387 = 1351,1355 = 1355,1387
+++++++- ++---+---+ -+----- +---+---+ 1301,1355 = 1349,1361 = 1355,1361
+++++++- ++---+---+ -+----- +-----+-- 1332,1347 = 1332,1355 = 1340,1355
+++++++- ++---+---+ ----- +-+---+-- 1314,1332 = 1321,1332 = 1321,1340
+++++++- ++---+---+ ----- +-----+-- 1307,1332 = 1332,1349 = 1340,1349
+++++++- ++---+---+ -----+ +-+---+-- 1321,1335 = 1321,1379
+++++++- ++---+---+ ----- +-+---+-- 1324,1333 = 1333,1375
+++++++- ++---+---+ -+----- +-+---+-- 1304,1347 = 1304,1355 = 1313,1324
                                     = 1313,1375 = 1322,1355
+++++++- ++---+---+ -+----- +-----+-- 1347,1348 = 1348,1355 = 1355,1370
+++++++- ++---+---+ ----- +-+---+-- 1303,1324 = 1303,1375 = 1337,1375
+++++++- ++---+---+ ----- +-+---+-- 1304,1307 = 1304,1349 = 1312,1324
                                     = 1312,1375 = 1322,1349
+++++++- ++---+---+ ----- +-+---+-- 1314,1348 = 1321,1348 = 1321,1370
                                     = 1348,1362
+++++++- ++---+---+ ----- +-----+-- 1307,1348 = 1348,1349 = 1349,1370
+++++++- ++---+---+ ----- +-+---+-- 1324,1366 = 1366,1375
+++++++- ++---+---+ ----- +-+---+-- 1304,1314 = 1304,1321 = 1304,1362
                                     = 1321,1322 = 1324,1330 =
                                     1330,1375 = 1375,1382
+++++++- +---+---+ -+----- +----- 1338,1347 = 1338,1355
+++++++- +---+---+ ----- +-+----- 1314,1338 = 1321,1338 = 1323,1349
                                     = 1338,1362
+++++++- +---+---+ ----- +----- 1307,1338 = 1338,1349
+++++++- -+---+---+ -----+-- +-+---+-- 1354,1358 = 1354,1381
+++++++- -+---+---+ ----- +-+---+-- 1324,1358 = 1324,1381 = 1358,1375
                                     = 1375,1381
+++++++- ++---+---+ +----- +-+----- 1326,1358 = 1326,1381
+++++++- +---+---+ +----- +++----- 1326,1330 = 1326,1366
+++++++- +---+---+ +----- +-+----- 1303,1326 = 1312,1326 = 1326,1333
+++++++- ++---+---+ -+----- +++----- 1312,1318 = 1313,1318 = 1313,1342
+++++++- ++---+---+ -+----- +-----+ 1347,1381 = 1355,1381
+++++++- ++---+---+ ----- +-+----- 1314,1381 = 1321,1381 = 1362,1381
+++++++- ++---+---+ ----- +-----+ 1307,1381 = 1349,1381
+++++++- ++---+---+ -+----- +-----+ 1347,1358 = 1355,1358
+++++++- ++---+---+ ----- +-+----- 1314,1358 = 1321,1358 = 1358,1362
+++++++- ++---+---+ ----- +-----+ 1307,1358 = 1349,1358
+++++++- +---+---+ -+----- +-----+ 1333,1347 = 1333,1355
+++++++- +---+---+ ----- +-+----- 1314,1333 = 1321,1333 = 1333,1362
+++++++- +---+---+ ----- +-----+ 1307,1333 = 1333,1349
+++++++- +---+---+ -+----- +-+----- 1347,1366 = 1355,1366
+++++++- +---+---+ -+----- +-----+ 1303,1347 = 1303,1355 = 1337,1355
```

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |          |          |          |                                                                             |
|----------|----------|----------|----------|-----------------------------------------------------------------------------|
| +++++--- | +---+--- | -----    | +--+---+ | 1303,1314 = 1303,1321 = 1303,1362<br>= 1307,1366 = 1321,1337 =<br>1349,1366 |
| +++++--- | +---+--- | -----    | +-----+  | 1303,1307 = 1303,1349 = 1337,1349                                           |
| +++++--- | +---+--- | -----    | +--+---+ | 1314,1366 = 1321,1366 = 1362,1366                                           |
| +++++--- | +---+--- | +-----   | +--+---+ | 1313,1314 = 1313,1321 = 1313,1362<br>= 1330,1347 = 1330,1355 =<br>1355,1382 |
| +++++--- | +---+--- | +-----   | +-----   | 1307,1313 = 1312,1347 = 1312,1355<br>= 1313,1347 = 1313,1349 =<br>1313,1355 |
| +++++--- | +---+--- | -----    | +--+---+ | 1307,1330 = 1312,1314 = 1312,1321<br>= 1312,1362 = 1330,1349 =<br>1349,1382 |
| +++++--- | +---+--- | -----    | +-----   | 1307,1312 = 1312,1349                                                       |
| +++++--- | +-----   | -----    | +--+---+ | 1314,1330 = 1321,1330 = 1321,1382<br>= 1330,1362                            |
| ++++-++- | ++-++-+  | -----    | +--+---+ | 1324,1365 = 1336,1375 = 1365,1375                                           |
| ++++-++- | -++-++-+ | -----    | +--+---+ | 1324,1332 = 1332,1375 = 1340,1375                                           |
| ++++-++- | -++-++-+ | -----    | +--+---+ | 1335,1375 = 1375,1379                                                       |
| ++++-++- | -++-++-+ | -----    | +--+---+ | 1301,1375 = 1369,1375                                                       |
| ++++-++- | ++++++-  | -----    | +--+---+ | 1324,1338 = 1338,1375                                                       |
| ++++-++- | -++++-+  | -----    | +--+---+ | 1308,1375 = 1375,1384                                                       |
| ++++-++- | -++++-+  | -----    | +--+---+ | 1324,1348 = 1348,1375 = 1370,1375                                           |
| ++++-++- | -++-++-+ | -----    | +--+---+ | 1352,1375 = 1375,1383                                                       |
| ++++-++- | -++-++-+ | -----    | +--+---+ | 1304,1324 = 1304,1375 = 1322,1375                                           |
| +++-++++ | ++-++-++ | +-----   | -++-++-+ | 130103,1326 = 1326,1328                                                     |
| +++-++++ | ++-++-++ | +-----   | -++-++-+ | 1301,1326 = 1326,1380                                                       |
| +++-++++ | ++-++-++ | -----    | -++-++-+ | 1305,1335 = 1305,1379                                                       |
| +++-++++ | ++-++-++ | -----    | -++-++-+ | 1335,1350 = 1350,1379                                                       |
| +++-++++ | ++-++-++ | -----    | -++-++-+ | 1302,1342 = 1306,1363                                                       |
| +++-++++ | ++-++-++ | +-----   | -++-++-+ | 1316,1326 = 1326,1374                                                       |
| +++-++++ | ++-++-++ | -----    | +--+---+ | 1307,1331 = 1336,1346                                                       |
| +++-++++ | ++-++-++ | -----    | +--+---+ | 1302,1307 = 1314,1336                                                       |
| +++-++++ | ++-++-++ | -----    | -++-++-+ | 1336,1350 = 1336,1362                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1305,1316 = 1305,1374                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1316,1350 = 1350,1374 = 1362,1374                                           |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1350,1373 = 1362,1373                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1341,1350 = 1341,1362                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | +--+---+ | 1302,1346 = 1314,1331 = 1331,1346                                           |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1331,1350 = 1331,1362                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1334,1350 = 1334,1362                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1339,1350 = 1339,1362                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1302,1350 = 1302,1362                                                       |
| +++-++++ | ++-++-++ | +-----   | -++-++-+ | 130202,1350 = 130202,1362                                                   |
| +++-++++ | ++-++-++ | -++-++-+ | +--+---+ | 1307,1387 = 1347,1351 = 1347,1387                                           |
| +++-++++ | ++-++-++ | -++-++-+ | +--+---+ | 1301,1347 = 1307,1361 = 1347,1361                                           |
| +++-++++ | ++-++-++ | -++-++-+ | +--+---+ | 1335,1346 = 1346,1379                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | +--+---+ | 1314,1335 = 1314,1379                                                       |
| +++-++++ | ++-++-++ | -++-++-+ | -++-++-+ | 1335,1362 = 1362,1379                                                       |
| +++-++++ | -++-++-+ | +-----   | +--+---+ | 1324,1377 = 1354,1377                                                       |
| +++-++++ | -++-++-+ | -++-++-+ | -++-++-+ | 1318,1351 = 1318,1387 = 1342,1387                                           |
| +++-++++ | -++-++-+ | -++-++-+ | -++-++-+ | 1318,1335 = 1318,1379                                                       |
| +++-++++ | -++-++-+ | -++-++-+ | -++-++-+ | 1301,1318 = 1318,1361 = 1342,1361                                           |
| +++-++++ | -++-++-+ | -++-++-+ | +--+---+ | 1311,1335 = 1311,1379                                                       |
| +++-++++ | -++-++-+ | -++-++-+ | -++-++-+ | 1335,1342 = 1342,1379                                                       |
| +++-++++ | ++++++-  | -----    | +--+---+ | 1314,1319 = 1319,1362                                                       |
| +++-++++ | ++++++-  | -----    | +--+---+ | 1314,1376 = 1362,1376                                                       |
| +++-++++ | ++++++-  | -----    | +--+---+ | 1314,1372 = 1362,1372                                                       |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |          |       |           |                                                  |
|----------|----------|-------|-----------|--------------------------------------------------|
| +++---++ | ++-++-++ | ----- | +--+---++ | 1308,1314 = 1308,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1370 = 1362,1370                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1384 = 1362,1384                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1357 = 1357,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1383 = 1362,1383                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1322 = 1322,1362 = 1324,1382                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1368 = 1346,1352 = 1346,1368                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1352 = 1352,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1345 = 1345,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1323 = 1323,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1306,1326 = 1310,1326                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1350,1385 = 1362,1385                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1377 = 1346,1377                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1337 = 1337,1362                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1314,1382 = 1362,1382                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1335,1363 = 1363,1379                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1308,1363 = 1363,1370                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1302,1354 = 1331,1354 = 1339,1354                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1322,1363 = 1363,1383                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1316,1363 = 1363,1374                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1301,1354 = 1335,1354 = 1354,1369<br>= 1354,1379 |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1324,1335 = 1324,1379                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1301,1324 = 1324,1369                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1308,1354 = 1354,1384                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1308,1324 = 1324,1384                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1352,1354 = 1354,1368 = 1354,1383                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1324,1352 = 1324,1383                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1329,1358 = 1329,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1358,1374 = 1374,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1358,1373 = 1373,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1341,1358 = 1341,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1331,1358 = 1331,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1334,1358 = 1334,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1339,1358 = 1339,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1302,1358 = 1302,1381                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1336,1358 = 1336,1381 = 1358,1365<br>= 1365,1381 |
| +++---++ | ++-++-++ | ----- | +--+---++ | 130202,1358 = 130202,1381                        |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1302,1388 = 1303,1329                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1312,1329 = 1325,1365                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1336,1388 = 1365,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1333,1336 = 1333,1365                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1313,1336 = 1313,1365                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1302,1303 = 1336,1366 = 1365,1366                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1302,1312 = 1330,1336 = 1330,1365<br>= 1365,1382 |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1336 = 1303,1365 = 1337,1365                |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1312,1336 = 1312,1365                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 130202,1303 = 130202,1312                        |
| +++---++ | ++-++-++ | ----- | +--+---++ | 130202,1330 = 130202,1366                        |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1371 = 1327,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1378 = 1379,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1343 = 1359,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1301,1388 = 1303,1320                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1332,1388 = 1340,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1309 = 1309,1388                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1315 = 1315,1333                            |
| +++---++ | ++-++-++ | ----- | +--+---++ | 1303,1353 = 1333,1353                            |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |          |         |          |             |   |             |             |
|----------|----------|---------|----------|-------------|---|-------------|-------------|
| ++-++-++ | ++-++-++ | -----   | +-----+  | 1332,1333   | = | 1333,1340   |             |
| ++-++-++ | ++-++-++ | -+----- | +---+--- | 1312,1387   | = | 1313,1351   | = 1313,1387 |
| ++-++-++ | ++-++-++ | -+----- | +---+--- | 1301,1313   | = | 1312,1361   | = 1313,1361 |
| ++-++-++ | ++-++-++ | -+----- | +---+--- | 1313,1332   | = | 1313,1340   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1332,1366   | = | 1340,1366   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1330,1332   | = | 1330,1340   | = 1332,1382 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1332   | = | 1303,1340   | = 1332,1337 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1312,1332   | = | 1312,1340   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1335,1366   | = | 1366,1379   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1330,1335   | = | 1330,1379   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1371   | = | 1371,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1378   | = | 1378,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1343,1358   | = | 1343,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1320,1358   | = | 1320,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1369   | = | 1369,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1315,1358   | = | 1315,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1353,1358   | = | 1353,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1328,1358   | = | 1328,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1380   | = | 1380,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1387   | = | 1381,1387   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1361   | = | 1361,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1351,1358   | = | 1351,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1327,1358   | = | 1327,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 130103,1358 | = | 130103,1381 |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1379   | = | 1379,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1335,1358   | = | 1335,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1359   | = | 1359,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1301,1358   | = | 1301,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1332,1358   | = | 1332,1381   | = 1340,1358 |
|          |          |         |          |             |   |             | = 1340,1381 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1388   | = | 1322,1388   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1348,1388   | = | 1370,1388   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1357   | = | 1333,1357   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1319   | = | 1319,1333   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1333   | = | 1322,1333   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1333,1348   | = | 1333,1370   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1313   | = | 1313,1322   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1313,1348   | = | 1313,1370   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1304   | = | 1303,1322   | = 1304,1337 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1312   | = | 1312,1322   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1348,1366   | = | 1366,1370   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1330,1348   | = | 1330,1370   | = 1348,1382 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1345,1358   | = | 1345,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1323,1358   | = | 1323,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1348   | = | 1303,1370   | = 1337,1348 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1312,1348   | = | 1312,1370   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1338,1358   | = | 1338,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1366   | = | 1322,1366   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1304,1330   | = | 1304,1382   | = 1322,1330 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1323   | = | 1338,1366   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1312,1323   | = | 1330,1338   | = 1338,1382 |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1303,1338   | = | 1337,1338   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1357,1358   | = | 1357,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1319,1358   | = | 1319,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1364   | = | 1364,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1376   | = | 1376,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1383   | = | 1381,1383   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1358,1372   | = | 1372,1381   |             |
| ++-++-++ | ++-++-++ | -----   | +---+--- | 1308,1358   | = | 1308,1381   |             |

Lot No.: 03G

Lot-specific information

www.olerup.com

|         |         |       |         |                                                                             |
|---------|---------|-------|---------|-----------------------------------------------------------------------------|
| ++-+++- | -+-+++- | ----- | +--+--+ | 1304,1358 = 1304,1381 = 1322,1358<br>= 1322,1381                            |
| ++-+++- | -+-+++- | ----- | +-----  | 1348,1358 = 1348,1381 = 1358,1370<br>= 1370,1381                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1316,1358 = 1316,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1368 = 1368,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1352,1358 = 1352,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1384 = 1381,1384                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1385 = 1381,1385                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1385 = 1366,1385                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1385 = 1312,1385 = 1333,1385                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1306,1388 = 1310,1388                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1306,1333 = 1310,1333                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1377 = 1312,1377                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1306 = 1303,1310 = 1310,1312                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1377 = 1366,1377                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1306,1366 = 1310,1330 = 1310,1366                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1377 = 1377,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1306,1381 = 1310,1358 = 1310,1381                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1360 = 1360,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1388 = 1381,1388                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1333,1358 = 1333,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1381 = 1358,1366 = 1366,1381<br>= 1381,1382                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1358 = 1303,1381 = 1312,1381<br>= 1337,1358 = 1337,1381                |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1358 = 1358,1382                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1360 = 1360,1366                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1360 = 1312,1360                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1325 = 1330,1388 = 1366,1388<br>= 1382,1388                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1388 = 1312,1388 = 1337,1388                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1386 = 1330,1333 = 1333,1366<br>= 1333,1382 = 1333,1386                |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1333 = 1312,1333 = 1333,1333<br>= 1333,1337                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1313 = 1313,1337                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1330 = 1303,1366 = 1303,1382<br>= 1312,1366 = 1330,1337 =<br>1337,1366 |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1303,1303 = 1303,1312 = 1303,1337<br>= 1312,1337                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1366 = 1366,1366 = 1366,1382                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1313,1330 = 1313,1382                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1312,1313 = 1313,1313                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1312,1330 = 1312,1382                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1330,1330 = 1330,1382                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1358,1381 = 1381,1381                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1332,1336 = 1332,1365 = 1340,1365                                           |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1304,1336 = 1304,1365 = 1322,1365<br>= 1365,1383                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1308,1365 = 1336,1348 = 1348,1365<br>= 1365,1370                            |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1302,1338 = 1323,1365                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1336,1338 = 1338,1365                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1316,1365 = 1365,1374                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1336,1365 = 1365,1365                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1301,1338 = 1338,1369                                                       |
| ++-+++- | -+-+++- | ----- | +--+--+ | 1332,1338 = 1338,1340                                                       |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|         |         |       |         |                                                                             |
|---------|---------|-------|---------|-----------------------------------------------------------------------------|
| ++-+--+ | -++++-- | ----- | --++-+- | 1309,1332 = 1320,1332                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1353 = 1315,1348 = 1332,1357                                           |
| ++-+--+ | -+----- | ----- | +-----  | 1319,1332 = 1348,1353                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1348 = 1304,1332 = 1304,1340<br>= 1322,1332 = 1332,1383 =<br>1348,1369 |
| ++-+--+ | -+----- | ----- | +-----  | 1308,1332 = 1332,1348 = 1332,1370<br>= 1340,1348                            |
| ++-+--+ | -+----- | ----- | +-----  | 1332,1332 = 1332,1340                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1335 = 1304,1379                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1304 = 1304,1369                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1338,1352 = 1338,1383                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1308,1338 = 1338,1384                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1338 = 1322,1338                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1338,1348 = 1338,1370                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1319 = 1348,1357                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1376 = 1348,1364                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1308 = 1304,1384 = 1348,1352<br>= 1348,1383                            |
| ++-+--+ | -+----- | ----- | +-----  | 1308,1348 = 1348,1384                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1348 = 1304,1370 = 1322,1348                                           |
| ++-+--+ | -+----- | ----- | +-----  | 1348,1348 = 1348,1370                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1352 = 1304,1383                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1304,1304 = 1304,1322                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1335,1356 = 1356,1379                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1385 = 1315,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1340,1385 = 1353,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1302,1377 = 1331,1377 = 1339,1377                                           |
| ++-+--+ | -+----- | ----- | +-----  | 130202,1306 = 130202,1310                                                   |
| ++-+--+ | -+----- | ----- | +-----  | 1357,1385 = 1383,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1308,1385 = 1319,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1316,1356 = 1356,1374                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1302,1325 = 1329,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1316,1385 = 1374,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 130103,1360 = 1328,1360                                                     |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1360 = 1360,1380                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1325,1327 = 1371,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1325,1335 = 1325,1379 = 1378,1382                                           |
| ++-+--+ | -+----- | ----- | +-----  | 1325,1359 = 1343,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1325 = 1320,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1309,1325 = 1309,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1353,1382 = 1353,1386                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1335,1386 = 1379,1386                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1315,1382 = 1315,1386                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1335,1382 = 1379,1382                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1320,1377 = 1377,1378                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1306,1384 = 1340,1344                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1306,1383 = 1344,1369                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 130103,1377 = 1328,1377                                                     |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1377 = 1335,1377 = 1368,1377<br>= 1377,1379 = 1377,1380                |
| ++-+--+ | -+----- | ----- | +-----  | 1335,1344 = 1344,1379                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1310,1335 = 1310,1379                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1306,1335 = 1306,1379                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1301,1344 = 1306,1352                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1319,1382 = 1319,1386                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1357,1382 = 1357,1386                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1306,1385 = 1310,1385                                                       |
| ++-+--+ | -+----- | ----- | +-----  | 1382,1385 = 1385,1386                                                       |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |           |          |           |                                                              |
|----------|-----------|----------|-----------|--------------------------------------------------------------|
| ++---++- | +++++---  | +-----   | +---+---+ | 1306,1360 = 1310,1360                                        |
| ++---++- | ++-++---  | -----    | +---+---+ | 1306,1337 = 1310,1337                                        |
| ++---++- | -++-+---  | +-----+  | ---+---+  | 1306,1377 = 1310,1377 = 1377,1377                            |
| ++---++- | -++-+---  | -----    | ---+---+  | 1306,1310 = 1310,1310                                        |
| ++---+++ | +++++---  | ---+---  | ---+---+  | 1320,1374 = 1329,1351                                        |
| ++---+++ | +++++---  | ---+---+ | ---+---+  | 1339,1371 = 1341,1378                                        |
| ++---+++ | +++++---  | ---+---  | ---+---+  | 1302,1371 = 1320,1341 = 1327,1329<br>= 1341,1371             |
| ++---+++ | +++++---  | -----+   | ---+---+  | 130103,1329 = 1320,1334                                      |
| ++---+++ | +++++---  | -----+   | ---+---+  | 1302,1378 = 1320,1339 = 1329,1335<br>= 1329,1379 = 1339,1378 |
| ++---+++ | +++++---  | -----    | ---+---+  | 1302,1343 = 1329,1359                                        |
| ++---+++ | +++++---  | -----    | ---+---+  | 1301,1329 = 1302,1320                                        |
| ++---+++ | +++++---  | -----    | ---+---+  | 1302,1309 = 1309,1329                                        |
| ++---+++ | ++-+---+  | +-----+  | ---+---+  | 130103,130202 = 130202,1328                                  |
| ++---+++ | ++-+---+  | +-----+  | ---+---+  | 1302,1328 = 1328,1334 = 1334,1380                            |
| ++---+++ | ++-+---+  | +-----+  | ---+---+  | 130202,1335 = 130202,1379                                    |
| ++---+++ | ++-+---+  | +-----   | ---+---+  | 1301,130202 = 130202,1380                                    |
| ++---+++ | ++-+---+  | -++-+--- | ---+---+  | 1302,1387 = 1361,1374 = 1374,1387                            |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1327,1374 = 1341,1351                                        |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 130103,1374 = 1334,1351                                      |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1335,1374 = 1339,1351 = 1374,1379                            |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1301,1374 = 1302,1351 = 1351,1374                            |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1335,1373 = 1373,1379                                        |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 130103,1341 = 1327,1334                                      |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1327,1339 = 1335,1341 = 1341,1379                            |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1301,1341 = 1302,1327 = 1327,1341                            |
| ++---+++ | ++-+---+  | ---+---+ | ---+---+  | 1331,1335 = 1331,1379                                        |
| ++---+++ | ++-+---+  | -----+   | ---+---+  | 130103,1339 = 1334,1335 =<br>1334,1379                       |
| ++---+++ | ++-+---+  | -----+   | ---+---+  | 1301,1334 = 130103,1302 =<br>130103,1334                     |
| ++---+++ | ++-+---+  | -----+   | ---+---+  | 1301,1339 = 1302,1335 = 1302,1379<br>= 1335,1339 = 1339,1379 |
| ++---++- | +++++---+ | -----    | +---+---+ | 1308,1329 = 1329,1370                                        |
| ++---++- | +++++---+ | -----    | +---+---+ | 1322,1329 = 1329,1383                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1308,1374 = 1370,1374                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1308,1373 = 1370,1373                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1308,1341 = 1341,1370                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1308,1331 = 1331,1370                                        |
| ++---++- | ++-++++   | -----+   | +---+---+ | 1302,1376 = 1308,1334 = 1334,1370<br>= 1334,1376             |
| ++---++- | ++-++++   | -----+   | +---+---+ | 1308,1339 = 1339,1370                                        |
| ++---++- | ++-++++   | -----    | +---+---+ | 1322,1336 = 1336,1383                                        |
| ++---++- | ++-++++   | -----    | +---+---+ | 1302,1308 = 1302,1370                                        |
| ++---++- | ++-++++   | -----    | +---+---+ | 1308,1336 = 1336,1370                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1322,1374 = 1374,1383                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1322,1373 = 1373,1383                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1322,1341 = 1341,1383                                        |
| ++---++- | ++-++++   | ---+---  | +---+---+ | 1322,1331 = 1331,1383                                        |
| ++---++- | ++-++++   | -----+   | +---+---+ | 1322,1334 = 1334,1383                                        |
| ++---++- | ++-++++   | -----+   | ---+---+  | 1302,1364 = 1334,1364                                        |
| ++---++- | ++-++++   | -----+   | +---+---+ | 1322,1339 = 1339,1383                                        |
| ++---++- | ++-++++   | -----    | +---+---+ | 1302,1322 = 1302,1383                                        |
| ++---++- | ++-++++   | -----+   | ---+---+  | 1302,1368 = 1331,1368                                        |
| ++---++- | ++-++++   | ---+---  | ---+---   | 1316,1329 = 1329,1374                                        |
| ++---++- | ++-++++   | ---+---  | ---+---   | 1316,1336 = 1336,1374                                        |
| ++---++- | ++-++++   | ---+---  | +---+---  | 1323,1367 = 1323,1373                                        |
| ++---++- | ++-++++   | ---+---  | ---+---+  | 1302,1317 = 1317,1373                                        |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |             |            |           |                                   |
|----------|-------------|------------|-----------|-----------------------------------|
| ++-----+ | +---+-----+ | +--+-----  | --+-----+ | 130202,1316 = 130202,1374         |
| ++-----+ | +---+-----+ | +---+----- | --+-----+ | 130202,1367 = 130202,1373         |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1373 = 1367,1374 = 1373,1374 |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1341 = 1341,1374             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1331 = 1331,1374             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1334 = 1334,1374             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1339 = 1339,1374             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1316 = 1302,1374 = 1316,1374 |
|          |             |            |           | = 1374,1374                       |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1341,1367 = 1341,1373             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1331,1367 = 1331,1373             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1334,1367 = 1334,1373             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1339,1367 = 1339,1373             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1367 = 1302,1373 = 1367,1373 |
|          |             |            |           | = 1373,1373                       |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1341 = 1341,1341             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1331 = 1331,1331             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1334 = 1334,1334             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1302,1339 = 1339,1339             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1308,1367 = 1367,1370             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1322,1367 = 1367,1383             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1320,1345 = 1323,1343             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1335,1345 = 1345,1379             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1323,1335 = 1323,1379             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1301,1345 = 1323,1359 = 1345,1359 |
|          |             |            |           | = 1345,1369                       |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1301,1323 = 1323,1369             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1319 = 1319,1320             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1308,1371 = 1370,1371             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1376 = 1320,1376             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1308,1378 = 1370,1378             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1308,1343 = 1309,1372 = 1320,1372 |
|          |             |            |           | = 1343,1370 = 1343,1372           |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1308,1309 = 1308,1320 = 1320,1370 |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1353 = 1320,1353             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1384 = 1320,1384             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1340 = 1320,1340             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1357 = 1320,1357             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1322,1371 = 1371,1383             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1364 = 1320,1364             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1322,1378 = 1378,1383             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1322,1343 = 1343,1383             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1383 = 1320,1322 = 1320,1383 |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1369 = 1320,1369             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1315 = 1315,1320             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1328 = 1320,1328             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1380 = 1320,1380             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1387 = 1320,1387             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1361 = 1320,1361             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1371 = 1351,1371             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1378 = 1351,1378             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1316,1343 = 1343,1351             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1351 = 1316,1320 = 1320,1351 |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1327,1378 = 1335,1371 = 1371,1379 |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1327,1343 = 1359,1371             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1301,1371 = 1309,1327 = 1309,1371 |
|          |             |            |           | = 1320,1327 = 1327,1371           |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 1309,1368 = 1320,1368             |
| ++-----+ | +---+-----+ | ---+-----  | --+-----  | 130103,1309 = 130103,1320         |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |           |        |          |                                   |
|----------|-----------|--------|----------|-----------------------------------|
| ++-----+ | -++++---+ | -----+ | --++-++- | 1335,1343 = 1343,1379 = 1359,1378 |
| ++-----+ | -++++---+ | -----+ | --++-++- | 1301,1378 = 1309,1335 = 1309,1378 |
|          |           |        |          | = 1309,1379 = 1320,1335 =         |
|          |           |        |          | 1320,1379 = 1335,1378 = 1378,1379 |
| ++-----+ | -++++---+ | -----  | +---+--- | 1309,1352 = 1320,1352             |
| ++-----+ | -++++---+ | -----  | --++-++- | 1301,1343 = 1309,1343 = 1309,1359 |
|          |           |        |          | = 1320,1359 = 1343,1359           |
| ++-----+ | -++++---+ | -----  | --++-++- | 1301,1309 = 1301,1320 = 1309,1320 |
| ++-----+ | -++++---+ | -----  | +-----   | 130103,1319 = 1315,1376           |
| ++-----+ | -++++---+ | -----  | +-----   | 1315,1372 = 1319,1359             |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1319 = 1308,1315 = 1315,1319 |
|          |           |        |          | = 1315,1370 = 1319,1369 =         |
|          |           |        |          | 1322,1353 = 1340,1357 = 1353,1357 |
|          |           |        |          | = 1353,1383                       |
| ++-----+ | -++++---+ | -----  | +-----   | 1308,1353 = 1319,1340 = 1319,1353 |
|          |           |        |          | = 1353,1370                       |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1328 = 1328,1370 = 1328,1376 |
|          |           |        |          | = 1376,1380                       |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1380 = 1370,1380             |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1387 = 1370,1387             |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1361 = 1361,1370             |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1351 = 1351,1370             |
| ++-----+ | -++++---+ | +----- | +-----   | 1308,1327 = 1327,1370             |
| ++-----+ | -++++---+ | +----- | +-----   | 130103,1372 = 1359,1376           |
| ++-----+ | -++++---+ | +----- | +-----   | 1301,1376 = 130103,1308 =         |
|          |           |        |          | 130103,1370 = 130103,1376 =       |
|          |           |        |          | 1369,1376                         |
| ++-----+ | -++++---+ | -----  | +-----   | 1308,1379 = 1370,1379             |
| ++-----+ | -++++---+ | -----  | +-----   | 1308,1335 = 1335,1370             |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1372 = 1308,1359 = 1359,1370 |
|          |           |        |          | = 1359,1372 = 1369,1372           |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1308 = 1301,1370 = 1308,1369 |
|          |           |        |          | = 1322,1340 = 1340,1383 =         |
|          |           |        |          | 1369,1370 = 1369,1384             |
| ++-----+ | -++++---+ | -----  | +-----   | 1308,1340 = 1340,1370             |
| ++-----+ | -++++---+ | -----  | +-----   | 1315,1384 = 1352,1353             |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1353 = 1315,1340 = 1315,1353 |
| ++-----+ | -++++---+ | -----  | +-----   | 1340,1353 = 1353,1353             |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1384 = 1340,1352             |
| ++-----+ | -++++---+ | -----  | +-----   | 1335,1357 = 1357,1379             |
| ++-----+ | -++++---+ | -----  | +-----   | 1301,1357 = 1315,1322 = 1315,1357 |
|          |           |        |          | = 1315,1383 = 1357,1369           |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1328 = 1328,1383             |
| ++-----+ | -++++---+ | +----- | +-----   | 1328,1364 = 1328,1369 = 1364,1380 |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1380 = 1380,1383             |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1387 = 1383,1387             |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1361 = 1361,1383             |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1351 = 1351,1383             |
| ++-----+ | -++++---+ | +----- | +-----   | 1316,1369 = 1351,1369             |
| ++-----+ | -++++---+ | +----- | +-----   | 1301,1317 = 1317,1369             |
| ++-----+ | -++++---+ | +----- | +-----   | 1322,1327 = 1327,1383             |
| ++-----+ | -++++---+ | +----- | +-----   | 1335,1364 = 1364,1379             |
| ++-----+ | -++++---+ | +----- | +-----   | 130103,1322 = 130103,1383         |
| ++-----+ | -++++---+ | +----- | +-----   | 1301,1364 = 130103,1364 =         |
|          |           |        |          | 130103,1369 = 1364,1369           |
| ++-----+ | -++++---+ | -----  | +-----   | 1322,1335 = 1322,1379 = 1335,1383 |
|          |           |        |          | = 1379,1383                       |
| ++-----+ | -++++---+ | -----  | +-----   | 1335,1369 = 1369,1379             |
| ++-----+ | -++++---+ | -----  | +-----   | 1322,1359 = 1359,1383             |

Lot No.: 03G

Lot-specific information

www.olerup.com

|          |          |           |           |                                                                                         |
|----------|----------|-----------|-----------|-----------------------------------------------------------------------------------------|
| ++-----+ | -+-+-+-+ | -----     | +---+---  | 1301,1322 = 1301,1383 = 1322,1369<br>= 1352,1369 = 1369,1383                            |
| ++-----+ | -+-+-+-+ | -----     | ---++---  | 1301,1369 = 1369,1369                                                                   |
| ++-----+ | -+-+-+-+ | ---+----- | ---++++-- | 1315,1316 = 1315,1351                                                                   |
| ++-----+ | -+-+-+-+ | -----+    | ---++++-- | 1315,1335 = 1315,1379                                                                   |
| ++-----+ | -+-+-+-+ | -----     | ---++++-- | 1301,1315 = 1315,1315                                                                   |
| ++-----+ | -+-+-+-+ | +---+---  | ---++---  | 1316,1328 = 1328,1351                                                                   |
| ++-----+ | -+-+-+-+ | +---+---  | ---++---  | 1316,1380 = 1351,1380                                                                   |
| ++-----+ | -+-+-+-+ | +-----+   | ---++---  | 1328,1335 = 1328,1379                                                                   |
| ++-----+ | -+-+-+-+ | +-----+   | ---++---  | 1301,1328 = 130103,1328 =<br>130103,1380 = 1328,1328 =<br>1328,1380                     |
| ++-----+ | -+-+-+-+ | +-----+   | ---++---  | 1335,1380 = 1379,1380                                                                   |
| ++-----+ | -+-+-+-+ | +-----    | ---++---  | 1301,1380 = 1380,1380                                                                   |
| ++-----+ | -+-+-+-+ | -++-----  | ---++---  | 1335,1387 = 1379,1387                                                                   |
| ++-----+ | -+-+-+-+ | -++-----  | ---++---  | 1301,1387 = 1316,1361 = 1316,1387<br>= 1351,1361 = 1351,1387 =<br>1361,1387 = 1387,1387 |
| ++-----+ | -+-+-+-+ | -+-----+  | ---++---  | 1335,1361 = 1361,1379                                                                   |
| ++-----+ | -+-+-+-+ | -+-----   | ---++---  | 1301,1361 = 1361,1361                                                                   |
| ++-----+ | -+-+-+-+ | ---+----- | ---++++-- | 1316,1327 = 1327,1351                                                                   |
| ++-----+ | -+-+-+-+ | ---+----- | ---++++-- | 130103,1316 = 130103,1351                                                               |
| ++-----+ | -+-+-+-+ | ---+----- | ---++++-- | 1316,1335 = 1316,1379 = 1335,1351<br>= 1351,1379                                        |
| ++-----+ | -+-+-+-+ | ---+----- | ---++---  | 1316,1359 = 1351,1359                                                                   |
| ++-----+ | -+-+-+-+ | ---+----- | ---++---  | 1301,1316 = 1301,1351 = 1316,1351<br>= 1351,1351                                        |
| ++-----+ | -+-+-+-+ | -----+--- | ---++---  | 1327,1335 = 1327,1379                                                                   |
| ++-----+ | -+-+-+-+ | -----+--- | ---++---  | 1301,1327 = 1327,1327                                                                   |
| ++-----+ | -+-+-+-+ | -----+--- | ---++---  | 1335,1368 = 1368,1379                                                                   |
| ++-----+ | -+-+-+-+ | -----++   | ---++++-- | 130103,1335 = 130103,1379                                                               |
| ++-----+ | -+-+-+-+ | -----+    | ---++---  | 1301,130103 = 130103,130103                                                             |
| ++-----+ | -+-+-+-+ | -----+    | +---+---  | 1335,1352 = 1352,1379                                                                   |
| ++-----+ | -+-+-+-+ | -----+    | ---++---  | 1335,1359 = 1359,1379                                                                   |
| ++-----+ | -+-+-+-+ | -----+    | ---++---  | 1301,1335 = 1301,1379 = 1335,1379<br>= 1379,1379                                        |
| ++-----+ | -+-+-+-+ | -----     | ---++---  | 1301,1359 = 1359,1359                                                                   |
| ++-----+ | +++++++  | -----     | +---+---  | 1308,1345 = 1323,1372 = 1345,1372<br>= 1345,1384                                        |
| ++-----+ | +++++++  | -----     | +---+---  | 1308,1323 = 1323,1384                                                                   |
| ++-----+ | +++++++  | -----     | +---+---  | 1345,1352 = 1345,1383                                                                   |
| ++-----+ | +++++++  | -----     | +---+---  | 1323,1352 = 1323,1383                                                                   |
| ++-----+ | +++++++  | -----+    | +-----    | 1319,1364 = 1357,1376                                                                   |
| ++-----+ | +++++++  | -----     | +-----    | 1308,1357 = 1319,1322 = 1319,1352<br>= 1319,1357 = 1319,1383 =<br>1357,1370 = 1357,1384 |
| ++-----+ | +++++++  | -----     | +-----    | 1308,1319 = 1319,1319 = 1319,1370<br>= 1319,1384                                        |
| ++-----+ | +++++++  | ---+----- | +---+---  | 1308,1316 = 1316,1370                                                                   |
| ++-----+ | +++++++  | ---+----- | +---+---  | 1308,1317 = 1317,1384                                                                   |
| ++-----+ | +++++++  | -----+--- | +---+---  | 1308,1368 = 1368,1370                                                                   |
| ++-----+ | +++++++  | -----+    | +---+---  | 1308,1364 = 1322,1376 = 1352,1376<br>= 1364,1370 = 1364,1376 =<br>1364,1384 = 1376,1383 |
| ++-----+ | +++++++  | -----+    | +-----    | 1308,1376 = 1370,1376 = 1376,1376<br>= 1376,1384                                        |
| ++-----+ | +++++++  | -----     | +---+---  | 1322,1372 = 1352,1372 = 1372,1383                                                       |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|          |          |       |         |                                                                                         |
|----------|----------|-------|---------|-----------------------------------------------------------------------------------------|
| ++---+-- | -+-----+ | ----- | +--+--+ | 1308,1322 = 1308,1352 = 1308,1383<br>= 1322,1384 = 1352,1370 =<br>1370,1383 = 1383,1384 |
| ++---+-- | -+-----+ | ----- | +-----+ | 1308,1372 = 1370,1372 = 1372,1372<br>= 1372,1384                                        |
| ++---+-- | -+-----+ | ----- | +-----+ | 1308,1308 = 1308,1370 = 1308,1384<br>= 1370,1384                                        |
| ++---+-- | -+-----+ | ----- | +-----+ | 1322,1357 = 1352,1357 = 1357,1357<br>= 1357,1383                                        |
| ++---+-- | -+-----+ | ----- | +--+--+ | 1316,1322 = 1316,1383                                                                   |
| ++---+-- | -+-----+ | ----- | +--+--+ | 1317,1352 = 1317,1383                                                                   |
| ++---+-- | -+-----+ | ----- | +--+--+ | 1322,1368 = 1368,1383                                                                   |
| ++---+-- | -+-----+ | ----- | +--+--+ | 1322,1364 = 1352,1364 = 1364,1383                                                       |
| ++---+-- | -+-----+ | ----- | +--+--+ | 1322,1352 = 1322,1383 = 1352,1383<br>= 1383,1383                                        |
| +++++--  | +++++--  | ----- | +--+--+ | 1324,1388 = 1375,1388                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1324,1355 = 1347,1375 = 1355,1375                                                       |
| +++++--  | +++++--  | ----- | +--+--+ | 1307,1375 = 1324,1349 = 1349,1375                                                       |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1375 = 1321,1324 = 1321,1375<br>= 1362,1375                                        |
| +++++--  | -+-----+ | ----- | +--+--+ | 1311,1375 = 1344,1375                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1318,1349 = 1318,1355 = 1342,1355                                                       |
| +++++--  | +++++--  | ----- | +++++-- | 1311,1355 = 1344,1355                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1311,1349 = 1344,1349                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1311,1321 = 1321,1344                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1347,1388 = 1355,1388                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1388 = 1321,1388 = 1362,1388                                                       |
| +++++--  | +++++--  | ----- | +--+--+ | 1307,1388 = 1349,1388                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1355 = 1321,1347 = 1321,1355<br>= 1355,1362                                        |
| +++++--  | +++++--  | ----- | +--+--+ | 1307,1355 = 1347,1349 = 1347,1355<br>= 1349,1355 = 1355,1355                            |
| +++++--  | +++++--  | ----- | +--+--+ | 1307,1321 = 1314,1349 = 1321,1349<br>= 1349,1362                                        |
| +++++--  | +++++--  | ----- | +--+--+ | 1307,1349 = 1349,1349                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1321 = 1321,1321 = 1321,1362                                                       |
| +++++--  | -+-----+ | ----- | +--+--+ | 1324,1375 = 1375,1375                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1311,1363 = 1344,1363                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1329 = 1356,1363                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1329,1350 = 1329,1362                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1363 = 1350,1363 = 1362,1363                                                       |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1354 = 1346,1354 = 1354,1362                                                       |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1324 = 1324,1362                                                                   |
| +++++--  | -+-----+ | ----- | +--+--+ | 1311,1354 = 1344,1354                                                                   |
| +++++--  | -+-----+ | ----- | +--+--+ | 1311,1324 = 1324,1344                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1318 = 1318,1350                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1342 = 1342,1350                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1311,1326 = 1326,1344                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1311 = 1305,1344                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1311,1350 = 1344,1350                                                                   |
| +++++--  | +++++--  | ----- | +--+--+ | 1314,1356 = 1325,1350                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1350,1356 = 1356,1362                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1314,1326 = 1326,1386                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1326 = 1326,1350 = 1326,1362                                                       |
| +++++--  | +++++--  | ----- | +++++-- | 1350,1367 = 1362,1367                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1305,1305 = 1305,1350 = 1305,1362                                                       |
| +++++--  | +++++--  | ----- | +++++-- | 1350,1350 = 1350,1362                                                                   |
| +++++--  | +++++--  | ----- | +++++-- | 1307,1318 = 1318,1347 = 1342,1347                                                       |
| +++++--  | +++++--  | ----- | +++++-- | 1311,1318 = 1318,1344                                                                   |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|           |           |          |            |                                                  |
|-----------|-----------|----------|------------|--------------------------------------------------|
| +-+-+---+ | -+-----   | -+-----  | -+++-----  | 1318,1318 = 1318,1342                            |
| +-+-+---+ | -+-----   | -----    | ++++-----  | 1311,1342 = 1342,1344                            |
| +-+-+---+ | +-+-+---+ | -+-----  | +---+----- | 1311,1347 = 1344,1347                            |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1307,1311 = 1307,1344                            |
| +-+-+---+ | +-+-+---+ | -----+-- | +---+----- | 1311,1346 = 1344,1346                            |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1311,1314 = 1311,1362 = 1314,1344<br>= 1344,1362 |
| +-+-+---+ | +-+-+---+ | +-----   | +---+----- | 1314,1360 = 1360,1362                            |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1314,1325 = 1325,1362                            |
| +-+-+---+ | +-+-+---+ | -+-----  | +---+----- | 1314,1347 = 1347,1362                            |
| +-+-+---+ | +-+-+---+ | -+-----  | +---+----- | 1307,1347 = 1347,1347                            |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1307,1314 = 1307,1362                            |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1314,1386 = 1362,1386                            |
| +-+-+---+ | +-+-+---+ | -----+-- | +---+----- | 1314,1346 = 1346,1346 = 1346,1362                |
| +-+-+---+ | +-+-+---+ | -----    | +---+----- | 1314,1314 = 1314,1362                            |
| +-+-+---+ | -+-----   | -----    | +---+----- | 1311,1311 = 1311,1344                            |
| +-+-+---+ | -+++--+-- | -----+-- | +---+---+  | 1320,1354 = 1354,1378                            |
| +-+-+---+ | -+++--+-- | -----+-- | +---+---+  | 1324,1354 = 1354,1354                            |
| +-+-+---+ | -+++--+-- | -----+-- | +---+---+  | 1320,1371 = 1371,1371                            |
| +-+-+---+ | -+++--+-- | -----+-- | +---+---+  | 1320,1378 = 1378,1378                            |

1301 = 130101 and 130102  
1302 = 130201 and 130203  
1303 = 130301 and 130302  
1305 = 130501 and 130502  
1307 = 130701 and 130702  
1311 = 131101 and 131102  
1314 = 131401 to 131403  
1350 = 135001 and 135002

## SPECIFICITY TABLE

### DRB1\*13 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for DRB1\*13 SSP subtyping

| Primer Mix           | Size of spec. PCR product <sup>1</sup> | Size of contr. band <sup>2</sup> | Amplified DRB1*13 alleles <sup>3</sup>                                                                                                                                                                                                                                      | Other amplified DRB alleles <sup>3,4</sup>                                                                                                                                                                                                                                                                         |
|----------------------|----------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>             | 175 bp                                 | <b>515 bp</b>                    | 130101-1316,<br>1318-1342,<br>1344, 1346-<br>1366, 1368-1388                                                                                                                                                                                                                | 03010101-030105,<br>030201-0307, 0309, 0311-<br>0341, 0820, 1402-140302,<br>140501-1406, 1409, 1412-<br>1414, 1417-1421, 142301,<br>142302 <sup>w</sup> , 1424, 1427,<br>1429, 1430, 1433, 1436,<br>1437, 1440-1445, 1447,<br>1448, 1451, 1456, 1459,<br>1463-1465, 1467, 1477,<br>1478, 1480, 1481, 1483-<br>1485 |
| <b>2<sup>5</sup></b> | 200 bp                                 | 430 bp                           | 130101-1304,<br>1306, 1308-<br>1310, 1312,<br>1313, 1315,<br>1316, 1319,<br>1322, 1323,<br>1327, 1328,<br>1330-1341,<br>1345, 1348,<br>1351-1353,<br>1357-1359,<br>1361, 1364-<br>1366, 1368-<br>1370, 1372,<br>1373, 1374 <sup>w</sup> ,<br>1376, 1377,<br>1379-1385, 1387 | 110201, 110202, 111401,<br>111402, 1116, 1118-1121,<br>1131, 1145, 1148, 116501,<br>116502, 1170, 1416, 1424,<br>1437, 1463, 1467, 1478                                                                                                                                                                            |
| <b>3</b>             | 200 bp                                 | 430 bp                           | 130501, 130502,<br>130701, 130702,<br>131101, 131102,<br>131401-131403,<br>1318, 1321,<br>1324, 1326,<br>1342, 1346,<br>1347, 1349-                                                                                                                                         | 0820, 110101-110107,<br>1103-110404, 110601,<br>110602, 1109-111202,<br>1115, 1123-1125, 112701-<br>1129, 1132, 1133, 1135,<br>1137-1141, 1143, 1144,<br>1146, 1147, 1149-1151,<br>115401-1156, 1158-1163,                                                                                                         |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|          |        |               |                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|--------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |        |               | 135002, 1354,<br>1355, 1362,<br>1363, 1375                                                                                                                                                                                                                                  | 1166, 1172, 1422, 1425,<br>1427, 1453                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>4</b> | 170 bp | 430 bp        | 130301-1304,<br>1312, 1313,<br>1321, 1330,<br>1332, 1333,<br>1338, 1348,<br>1349, 1355,<br>1358, 1365,<br>1366, 1375,<br>1381, 1388                                                                                                                                         | 0312, 1413, 1463, 1465,<br>1478, 1485                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>5</b> | 220 bp | 430 bp        | 130301, 130302,<br>130501-130702,<br>1310-131403,<br>1318, 1321,<br>1325, 1326,<br>1330, 1333,<br>1337, 1342,<br>1344, 1346,<br>1347, 1349-<br>135002, 1355,<br>1356, 1358,<br>1360, 1362,<br>1366, 1377,<br>1381, 1382,<br>1385, 1386,<br>1388                             | 0820, 110101-110107,<br>110401-110404, 110601,<br>110602, 110801-111002,<br>111201-111302, 1115,<br>1117-111902, 1123-1129,<br>1131-1135, 1137-1139,<br>1142-1147, 1149, 1150,<br>1152, 115401-1158, 1160-<br>1162, 1164, 1166, 1172,<br>140101-140302, 140501-<br>1409, 1412-1414, 1417-<br>142302, 1425-1427, 1429,<br>1430, 143201-1436, 1438-<br>1445, 1447-1449, 1451,<br>1453-1455, 1458-1460,<br>1462-1465, 1467, 1469,<br>1470, 1472, 1474, 1475,<br>1477, 1478, 1480-1485 |
| <b>6</b> | 215 bp | <b>515 bp</b> | 130101-130203,<br>1304, 1308,<br>1309, 1315,<br>1316, 1319,<br>1320, 1322-<br>1324, 1327-<br>1329, 1331,<br>1332, 1334-<br>1336, 1338-<br>1341, 1343,<br>1345, 1348,<br>1351-1354,<br>1357, 1359,<br>1361, 1363-<br>1365, 1368-<br>1376, 1378-<br>1380, 1383,<br>1384, 1387 | 110201-1103, 111101,<br>111102, 111401, 111402,<br>1116, 1120, 1121, 1136,<br>1140, 1141, 1148, 1155,<br>1159, 1163, 116501,<br>116502, 1168-1170, 1416,<br>1424, 1437                                                                                                                                                                                                                                                                                                             |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|                      |        |        |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>7<sup>7</sup></b> | 190 bp | 430 bp | 130201-130203,<br>130501, 130502,<br>1326, 1329,<br>1331, 1334,<br>1336, 1339,<br>1341, 135001 <sup>w</sup> ,<br>135002, 1356,<br>1363, 1365,<br>1367, 1373,<br>1374, 1385                                                                                                            | 030201, 030202, 030501,<br>030502, 0309, 0314, 0327,<br>0329, 0338, 1109, 1120,<br>1128 <sup>w</sup> , 1402-140302,<br>1409, 1413, 1419, 1424,<br>1427, 1430, 1446-1448,<br>1451, 1463, 1467, 1485,<br>1608, <b>DRB3*0108</b> ,<br><b>DRB3*0206, 0220</b>                                                                                                                                                                                                                                       |
| <b>8<sup>7</sup></b> | 190 bp | 430 bp | 130101-130103,<br>1306, 1309,<br>1310, 1315,<br>1318, 1320,<br>1327, 1328,<br>1332, 1335,<br>1340, 1342,<br>1343, 1351,<br>1353, 1359,<br>1361, 1369,<br>1371, 1377-<br>1380, 1387                                                                                                    | 03010101-030106, 0303,<br>0306-0308, 0310-031302,<br>0315, 0316, 0318-0320,<br>0322-0324, 0326, 0328,<br>0332-0334, 0336, 0337,<br>0339, 1116, 1140, 1158,<br>1159, 1406, 1412, 1417,<br>1418, 1421, 1429, 1433,<br>1452, 1459, 1464, 1478,<br>1480, 1481, 1483, 1532                                                                                                                                                                                                                           |
| <b>9</b>             | 260 bp | 430 bp | 130201-130302,<br>130501, 130502,<br>130701, 130702,<br>1312-131403,<br>1321, 1323,<br>1325, 1326,<br>1329-1331,<br>1333, 1334,<br>1336-1339,<br>1341, 1345-<br>1347, 1349-<br>135002, 1355,<br>1356, 1360,<br>1362, 1363,<br>1365, 1366,<br>1373, 1374,<br>1382, 1385,<br>1386, 1388 | 030201, 030202, 030501,<br>030502, 0309, 0314, 0317,<br>0327, 0329, 0335, 0338,<br>0340, 0341, 110101-<br>110107, 110801-111202,<br>111401-1115, 111901-<br>1120, 1123, 1124, 1126-<br>1129, 1131-1133, 1137,<br>1139, 1145, 1149, 1151,<br>1153, 1161, 1162, 1164,<br>1166, 1168, 1169, 1172,<br>1402-140302, 140701,<br>140702, 1409, 1413, 1414,<br>1419, 1422, 1424, 1425,<br>1427, 1430, 1436, 1440-<br>1442, 144401, 144402,<br>1447-1449, 1451, 1453,<br>1463, 1467, 1469, 1477,<br>1485 |
| <b>10</b>            | 260 bp | 430 bp | 130101-130103,<br>1304, 1306,<br>1308-131102,<br>1315, 1318-<br>1320, 1322,<br>1324, 1327,                                                                                                                                                                                            | 03010101-030106, 0303,<br>0304, 0306-0308, 0310-<br>031302, 0315, 0316, 0318-<br>0326, 0328, 0330-0334,<br>0336, 0337, 0339, 0820,<br>110201-110404, 110601-                                                                                                                                                                                                                                                                                                                                    |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|                       |        |               |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------|--------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |        |               | 1328, 1332,<br>1335, 1340,<br>1342-1344,<br>1348, 1351-<br>1354, 1357-<br>1359, 1361,<br>1364, 1368-<br>1372, 1375-<br>1381, 1383,<br>1384, 1387                                                                       | 1107, 111301, 111302,<br>1116-1118, 1121, 1125,<br>1134-1136, 1138, 1140-<br>1144, 1146-1148, 1150,<br>1152, 115401-1160, 1163,<br>116501, 116502, 1170,<br>140101-140103, 140501-<br>1406, 1408, 1412, 1416-<br>1418, 1420, 1421, 142301,<br>142302, 1426, 1429,<br>143201-1435, 1437-1439,<br>1443, 1445, 1454-1456,<br>1458-1460, 1462, 1464,<br>1465, 1470, 1472, 1474,<br>1475, 1478, 1480-1484 |
| <b>11<sup>7</sup></b> | 205 bp | 430 bp        | 1309, 1320,<br>1325, 1329,<br>1343, 1356,<br>1360, 1371,<br>1378, 1388                                                                                                                                                 | 110801, 110802, 1136,<br>1142, 1157, 1164, 1168,<br>1169, 140301, 140302,<br>1412, 1424, 1437, 1440,<br>1469, 1474, 1477, 1484,<br>1485                                                                                                                                                                                                                                                              |
| <b>12</b>             | 215 bp | 430 bp        | 130101-1304,<br>1308, 1310,<br>1315, 1316,<br>1319, 1320,<br>1322-1324,<br>1326-1329,<br>1331-1341,<br>1343, 1345,<br>1348, 1351-<br>1354, 1357,<br>1359-1361,<br>1363-1366,<br>1368-1381,<br>1383-1385,<br>1387, 1388 | 110103, 110201-1103,<br>111101, 111102, 111401,<br>111402, 1116, 111902-<br>1121, 1136, 1140, 1141,<br>1148, 1159, 1163, 116501,<br>116502, 1168, 1170, 1416,<br>1419, 1421                                                                                                                                                                                                                          |
| <b>13</b>             | 145 bp | <b>515 bp</b> | 130301, 130302,<br>130701-1308,<br>1312, 1313,<br>1319, 1326,<br>1332, 1333,<br>1336-1338,<br>1340, 1347-<br>1349, 1353,<br>1355, 1358,<br>1360, 1365,<br>1370, 1372,<br>1376, 1381,                                   | 030201-0303, 0306, 0317,<br>0326, 0327, 0331, 0335,<br>0338, 0341, 0820, 1117,<br>1137, 1141, 1148, 1150,<br>1152, 1156, 140101-<br>140301, 140501-1409,<br>1412-1414, 1416, 1418-<br>1420, 1422-1427, 1429,<br>143201, 143202, 1434,<br>1436-1441, 1443-1445,<br>1447-1449, 1451, 1454-<br>1456, 1458-1460, 1462,                                                                                   |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|                          |                     |               |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                      |
|--------------------------|---------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                     |               | 1384, 1385,<br>1388                                                                                                                                                                                                                                       | 1463, 1467, 1469, 1470,<br>1474, 1475, 1477, 1478,<br>1480-1485                                                                                                                                                                                      |
| <b>14<sup>8</sup></b>    | 145 bp              | 430 bp        | 1304, 1308,<br>1317, 1319,<br>1322-1324,<br>1338, 1345,<br>1348, 1354,<br>1357, 1364,<br>1369, 1370,<br>1372, 1375,<br>1376, 1383                                                                                                                         | 0402, 0414, 0437, 110201-<br>1103, 111101, 111102,<br>111401, 111402, 1121,<br>1136, 1141, 1148, 1163,<br>116501, 116502, 1168,<br>1170, 1416, 1457, 1510                                                                                            |
| <b>15<sup>6,10</sup></b> | 85, 235<br>bp       | <b>515 bp</b> | 1315, 1319,<br>1326, 1333,<br>1353, 1357,<br>1385, 1386                                                                                                                                                                                                   | 03010101, 03010102,<br>030103-031301, 0316,<br>0318-0323, 0325-0334,<br>0336-0341, 1107, 112702,<br>1402-140302, 1406, 1412,<br>1413, 1418-1420, 1424,<br>1427, 1429, 1440, 1441,<br>1447-1449, 1451, 1463,<br>1467, 1477, 1478, 1481,<br>1483, 1485 |
| <b>16<sup>7</sup></b>    | 150 bp              | 430 bp        | 130101-130201,<br>130203, 1308,<br>1315, 1316,<br>1319, 1320,<br>1327-1329,<br>1331, 1332,<br>1334-1336,<br>1339-1341,<br>1343, 1351-<br>1353, 1357,<br>1359, 1361,<br>1363-1365,<br>1367-1369,<br>1371-1374,<br>1376, 1378-<br>1380, 1383,<br>1384, 1387 | 1116, 1120, 1140, 1159,<br>1416, 1457, 1510                                                                                                                                                                                                          |
| <b>17<sup>11</sup></b>   | 145, 220,<br>255 bp | 430 bp        | 130202, 1326,<br>1328, 1360,<br>1377, 1380                                                                                                                                                                                                                | 0316, 110103, 111902                                                                                                                                                                                                                                 |
| <b>18<sup>6,12</sup></b> | 110, 230<br>bp      | 430 bp        | 1313, 1318,<br>1347, 1355,<br>1361, 1387                                                                                                                                                                                                                  | 030102, 030202, 031302,<br>0317, 0324, 0327, 0335,<br>0820, 1123, 1125, 112701,<br>1145, 1155, 1164, 140301,<br>140302, 1412, 1427, 1438,                                                                                                            |

|                            |                             |               |                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------|-----------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            |                             |               |                                                                                                                                                                                                                                  | 1440, 1447, 1455, 1463,<br>1467, 1477, 1478, 1484,<br>1485                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>19<sup>6,8,13</sup></b> | 110, 150,<br>205, 260<br>bp | 430 bp        | 1316, 1351,<br>1374, 1387                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>20<sup>8,9,14</sup></b> | 180, 205,<br>225 bp         | <b>515 bp</b> | 1317, 1367,<br>1373                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>21<sup>9</sup></b>      | 175 bp                      | 430 bp        | 1327, 1341,<br>1371                                                                                                                                                                                                              | 1159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>22<sup>6,15</sup></b>   | 110, 175<br>bp              | 430 bp        | 1331, 1346,<br>1354, 1368,<br>1377                                                                                                                                                                                               | 0338, 1124, 1448                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>23<sup>6,16</sup></b>   | 115, 235,<br>255 bp         | 430 bp        | 130103, 1328,<br>1334, 1364,<br>1376                                                                                                                                                                                             | 110105, 110403, 110602,<br>111301, 111302, 1117,<br>1152, 115401, 140101,<br>140103, 140501, 140502,<br>140701-1408, 1414, 1418,<br>142301, 142302, 1426,<br>143202, 1434-1436, 1439,<br>1441-144401, 1445, 1454-<br>1456, 1458-1460, 1462,<br>1464, 1465, 1470, 1472,<br>1477, 1482                                                                                                                                                                                                                 |
| <b>24<sup>17</sup></b>     | 145, 180<br>bp              | 430 bp        | 1335, 1339,<br>1354, 1377-1379                                                                                                                                                                                                   | 031301, 031302, 0338,<br>1448, 1464                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>25<sup>6</sup></b>      | 110 bp                      | 430 bp        | 130301-1304,<br>130701-1308,<br>131101-131403,<br>1319, 1321-<br>1325, 1330,<br>1333, 1337,<br>1338, 1344-<br>1349, 1352,<br>1354, 1355,<br>1357, 1358,<br>1360, 1366,<br>1370, 1372,<br>1375, 1376,<br>1381-1384,<br>1386, 1388 | 0304, 0317, 0321, 0325,<br>0330, 0331, 0335, 0340,<br>0341, 0820, 110101-<br>110404, 110601-110802,<br>111001-111402, 1117-<br>111902, 1121, 1123, 1125-<br>112702, 1129, 1131-1139,<br>1141-1143, 1145-1148,<br>1151-1157, 1160-1166,<br>1168-1170, 1172, 140101-<br>140103, 140501-140503,<br>140701-1408, 1414, 1416,<br>1420, 1422-142302, 1425,<br>1426, 143201, 143202,<br>1434-1440, 1442-1445,<br>1449, 1453-1456, 1458,<br>1460, 1462, 1465, 1469,<br>1470, 1472, 1474, 1475,<br>1482, 1484 |
| <b>26</b>                  | 145 bp                      | <b>515 bp</b> | 130501, 130502,<br>1318, 1326,                                                                                                                                                                                                   | 0809, 0821, 1109-111002,<br>1140, 1146, 1159, 1162,                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

|                       |        |               |                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|--------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>27</b>             | 145 bp | <b>515 bp</b> | 1342, 1363                                                                                                                                                                                                                                                                               | 1415, 1422, 1427, 1473                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                       |        |               | 130101-130203,<br>1304-1306,<br>1309-131102,<br>131401-1316,<br>1318, 1320-<br>1325, 1327-<br>1331, 1334,<br>1339, 1341-<br>1346, 135001-<br>1352, 1354,<br>1356, 1357,<br>1359, 1361-<br>1364, 1366,<br>1368, 1369,<br>1371, 1373-<br>1375, 1377-<br>1380, 1382,<br>1383, 1386,<br>1387 | 03010101-030106, 0304-<br>030502, 0307-0316, 0318-<br>0325, 0328-0330, 0332-<br>0334, 0336, 0337, 0339,<br>0340, 110101-110106,<br>110201-110404, 110601-<br>1116, 1118-1121, 1123-<br>1129, 1131-1136, 1138-<br>1140, 1142-1147, 1149,<br>1151, 1153-1155, 1157-<br>1166, 1168-1170, 1172,<br>1417, 1421, 1430, 1433,<br>1435, 1442, 1453, 1464,<br>1465, 1472                                                                                                                                                                                       |
| <b>28</b>             | 160 bp | 430 bp        | 130101-130103,<br>1304, 1306,<br>1309-131102,<br>1315, 1317,<br>1318, 1320,<br>1322, 1324,<br>1327, 1328,<br>1335, 1342-<br>1344, 1351,<br>1352, 1354,<br>1357, 1359,<br>1361, 1364,<br>1368, 1369,<br>1371, 1375,<br>1377-1380,<br>1383, 1387                                           | 03010101-030106, 0304,<br>0307, 0308, 0310-031302,<br>0315, 0316, 0318-0325,<br>0328, 0330, 0332-0334,<br>0336, 0337, 0339, 0442,<br>0459, 0828, 110201-<br>110404, 110601-1107,<br>111301, 111302, 1116,<br>1118, 1121, 1125, 1134-<br>1136, 1138, 1140, 1142-<br>1144, 1146, 1147, 115401-<br>1155, 1157-1160, 1163,<br>116501, 116502, 1167,<br>1170, 120101-1210, 1212-<br>1215, 1217-1219, 1417,<br>1421, 1433, 1435, 1464,<br>1465, 1472, 15010101-<br>150106, 15030101-1506,<br>1509, 1510, 1512, 1513,<br>1516-1518, 1520-1525,<br>1528, 1532 |
|                       |        |               | 1315, 1319,<br>1353, 1357,<br>1385                                                                                                                                                                                                                                                       | 0832, 120101, 120102,<br>120302-1206, 1208-1211,<br>1214, 1217, 1463, 1467,<br>1478                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>29<sup>9</sup></b> | 155 bp | 430 bp        |                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                            |                    |               |                                                                                                                                                                                                                                                      |                                                                                                                                   |
|----------------------------|--------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>30<sup>6</sup></b>      | 85 bp              | <b>515 bp</b> | 130101-130103,<br>1304, 1308,<br>1310, 1315,<br>1317, 1319,<br>1320, 1322,<br>1324, 1327,<br>1328, 1332,<br>1335, 1340,<br>1343, 1348,<br>1351-1354,<br>1357, 1359,<br>1361, 1364,<br>1368-1372,<br>1375, 1376,<br>1378-1381,<br>1383, 1384,<br>1387 | 0402, 0437, 110201-1103,<br>1116, 1121, 1136, 1140,<br>1141, 1148, 1155, 1159,<br>1163, 116501, 116502,<br>1170, 1416, 1457, 1510 |
| <b>31<sup>6,9,18</sup></b> | 75, 170,<br>205 bp | 430 bp        | 1343, 1345,<br>1359, 1372                                                                                                                                                                                                                            | 1416                                                                                                                              |
| <b>32<sup>19</sup></b>     | 220, 255<br>bp     | 430 bp        | 130202, 130301,<br>130302, 1310,<br>1326, 1333,<br>1337, 1358,<br>1360, 1366,<br>1377, 1381,<br>1385, 1388                                                                                                                                           | 0320, 110103, 110601,<br>110602, 111902, 1121,<br>1147, 1157, 1419, 1421,<br>1429                                                 |

<sup>1</sup>Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of DRB1\*13 SSP typings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective length of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.

PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.

PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

<sup>2</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1\*13 subtyping.

In addition, wells number 6, 13, 15, 20, 26, 27 and 30 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

In the presence of a specific amplification the intensity of the control band often decreases.

<sup>3</sup>For several DRB alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the first hyperpolymorphic region of the second exon of DRB alleles are conserved within allelic groups and that unknown sequences of codons 87 to 92 are identical with the DRB1\*0101 consensus sequence.

<sup>4</sup>Due to the sharing of sequence motifs within the DR52 group of DRB1 alleles, all DRB1\*03 alleles, as well as most DRB1\*11 and DRB1\*14 alleles are amplified by some of the DRB1\*13 primer mixes. In addition, five DRB1\*04 alleles, five DRB1\*08 alleles, the DRB1\*12 alleles, most DRB1\*15 allele, the DRB1\*1608 and the DRB3\*0108, the DRB3\*0206 and DRB3\*0220 alleles are amplified by one or a few of the DRB1\*13 primer mixes.

<sup>5</sup>Primer mix 2 may faintly amplify the DRB1\*1329 allele.

<sup>6</sup>Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

<sup>7</sup>Primer mixes 7, 8, 11 and 16 may yield somewhat less intense specific PCR fragments than the other DRB1\*13 primer mixes. Most pronounced for primer mix 11.

<sup>8</sup>Primer mixes 14, 19 and 20 may give rise to nonspecific amplifications, most pronounced in primer mix 19.

<sup>9</sup>Primer mixes 20, 21, 29 and 31 have a tendency of giving rise to a primer oligomer artefact, most pronounced in primer mix 31.

<sup>10</sup>Primer mix 15: 85 bp fragment in the DRB1\*1315, 1319, 1326, 1353, 1357, 1385, 1386 and the 030202, 0327, 1402-140302, 1406, 1412, 1413, 1418-1420, 1424, 1427, 1429, 1440, 1441, 1447-1449, 1451, 1463, 1467, 1477, 1478, 1481, 1483 and 1485 alleles.

235 bp fragment in the DRB1\*1333 and the 03010101-03010102, 030103-030104, 0304-0313, 0316, 0318-0323, 0325, 0326, 0328, 0330-0334, 0336, 0336, 0337, 0339-0341, 1107 and 112702 alleles. 85 and 235 bp fragments in DRB1\*030201, 0303 and 0329, 0338 alleles, due to primer competition both specific PCR fragments may not be visible.

<sup>11</sup>Primer mix 17: 145 bp fragment in the DRB1\*1380 and the 0316 alleles. 220 bp fragment in the DRB1\*130202, 1326, 1360, 1377 the 110103 and 111902 alleles. 255 bp fragment in the DRB1\*1328 allele.

<sup>12</sup>Primer mix 18: 110 bp fragment in the DRB1\*1387 allele. 230 bp fragment in the DRB1\*1313, 1318, 1347, 1355, 1361 and 030102, 030202-031302, 0317, 0324, 0327, 0335, 0820, 1123, 1125, 112701, 1145, 1155, 1164, 140301, 140302, 1412, 1427, 1438, 1440, 1447, 1455, 1463, 1467, 1477, 1478, 1484 and 1485 alleles.

<sup>13</sup>Primer mix 19: 110 bp fragment in the DRB1\*1387 allele. 150 bp fragment in the DRB1\*1351 allele. 205 bp fragment in the DRB1\*1374 allele. 260 bp fragment in the DRB1\*1316 allele.

<sup>14</sup>Primer mix 20: 180 bp fragment in the DRB1\*1317 allele. 205 bp fragment in the DRB1\*1373 allele. 225 bp fragment in the DRB1\*1367 allele.

<sup>15</sup>Primer mix 22: 110 bp fragment in the DRB1\*1368 and the 1124 alleles. 175 bp fragment in the DRB1\*1331, 1346, 1354, 1377, 0338 and 1448 alleles.

<sup>16</sup>Primer mix 23: 115 bp fragment in the DRB1\*1334, 1364 and the 1441 and 1477 alleles. 235 bp fragment in the DRB1\*130103, 1376 and the 110105, 110403, 110602, 111301-111302, 1117, 1152, 115401, 140101, 140103, 140501-140502, 140701-1408, 1414, 1418, 142301-142302, 1426, 143202, 1434-1436, 1439, 1442-144401, 1445, 1454-1456, 1458-1460, 1462, 1464, 1465, 1470, 1472 and 1482 alleles. 255 bp fragment in the DRB1\*1328 allele.

<sup>17</sup>Primer mix 24: 145 bp fragment in the DRB1\*1335 allele. 180 bp fragment in the DRB1\*1339, 1354, 1377 to 1379 and the 031301-031302, 0338, 1448 and 1464 alleles.

<sup>18</sup>Primer mix 31: Specific PCR fragment of 75 bp in the DRB1\*1343, 1345 and the 1416 alleles. Specific PCR fragment of 170 bp in the DRB1\*1359 allele. Specific PCR fragment of 205 bp in the DRB1\*1372 allele.

<sup>19</sup>Primer mix 32: 220 bp fragment in the DRB1\*130202-130302, 1310, 1326, 1333, 1337, 1360, 1366, 1377, 1385, 1388 and the 110103, 111902, 1419 and 1421 alleles. 255 bp fragment in the DRB1\*1358 and the 0320, 110601-110602, 1121, 1147, 1157 and 1429 alleles. 220 and 255 bp fragment in the DRB1\*1381 allele.

‘w’, may be weakly amplified.

## INTERPRETATION TABLE

### DRB1\*13 SSP subtyping

Amplification patterns of the DRB1\*1301 to \*1388 alleles

|                                          | Well <sup>4</sup> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|------------------------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                          | 1                 | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        |
| Length of spec.                          | 175               | 200       | 200       | 170       | 220       | 215       | 190       | 190       | 260       | 260       | 205       | 215       | 145       | 145       | 85        | 150       |
| PCR product                              |                   |           |           |           |           |           |           |           |           |           |           |           |           |           | 235       |           |
| Length of int. pos. control <sup>1</sup> | 515               | 430       | 430       | 430       | 430       | 515       | 430       | 430       | 430       | 430       | 430       | 430       | 515       | 430       | 515       | 430       |
| 5'-primer(s) <sup>2</sup>                | 13(125)           | 13(125)   | 13(125)   | 13(125)   | 13(125)   | 13(125)   | 37(196)   | 37(196)   | 13(125)   | 13(125)   | 13(125)   | 13(125)   | 13(125)   | 32(181)   | 13(125)   | 34(189)   |
|                                          | 5'-gTC 3'         | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-AgA 3' | 5'-AgA 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-TCT 3' | 5'-gTC 3' | 5'-CAg 3' |
|                                          |                   |           |           |           |           |           | 37(196)   |           |           |           |           |           |           | 34(189)   |           | 34(189)   |
|                                          |                   |           |           |           |           |           | 5'-AgA 3' |           |           |           |           |           |           | 5'-CAA 3' |           | 5'-CAg 3' |
|                                          |                   |           |           |           |           |           |           |           |           |           |           |           |           | 37(197)   |           |           |
|                                          |                   |           |           |           |           |           |           |           |           |           |           |           |           | 5'-gTT 3' |           |           |
| 3'-primer(s) <sup>3</sup>                | 58(260)           | 67(286)   | 67(286)   | 57(256)   | 71(298)   | 71(298)   | 86(344)   | 86(344)   | 86(344)   | 86(344)   | 67(286)   | 71(299)   | 47(227)   | 71(298)   | 28(171)   | 71(298)   |
|                                          | 5'-Cgg 3'         | 5'-gAT 3' | 5'-gAA 3' | 5'-gCT 3' | 5'-CTT 3' | 5'-CTC 3' | 5'-CAC 3' | 5'-CCA 3' | 5'-CAC 3' | 5'-CCA 3' | 5'-gAg 3' | 5'-gCT 3' | 5'-ggT 3' | 5'-CTC 3' | 5'-CTC 3' | 5'-CTC 3' |
|                                          | 58(260)           | 67(286)   | 67(286)   |           | 71(298)   | 71(298)   |           |           |           |           | 67(286)   | 72(303)   |           |           | 77(317)   |           |
|                                          | 5'-CAg 3'         | 5'-gAT 3' | 5'-gAA 3' |           | 5'-CCT 3' | 5'-CgC 3' |           |           |           |           | 5'-gAg 3' | 5'-gCg 3' |           |           | 5'-AgT 3' |           |
|                                          |                   | 67(286)   |           |           | 74(307)   |           |           |           |           |           | 71(299)   |           |           |           |           |           |
|                                          |                   | 5'-gAT 3' |           |           | 5'-CAg 3' |           |           |           |           |           | 5'-gCg 3' |           |           |           |           |           |
|                                          |                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|                                          |                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| Well No.                                 | 1                 | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        |
| DRB1 allele                              |                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| *130101, 130102                          | 1                 | 2         |           |           |           | 6         |           | 8         |           | 10        |           | 12        |           |           |           | 16        |
| *130103                                  | 1                 | 2         |           |           |           | 6         |           | 8         |           | 10        |           | 12        |           |           |           | 16        |
| *130201, 130203                          | 1                 | 2         |           |           |           | 6         | 7         |           | 9         |           |           | 12        |           |           |           | 16        |
| *130202                                  | 1                 | 2         |           |           |           | 6         | 7         |           | 9         |           |           | 12        |           |           |           |           |
| *130301, 130302                          | 1                 | 2         |           | 4         | 5         |           |           |           | 9         |           |           | 12        | 13        |           |           |           |
| *1304                                    | 1                 | 2         |           | 4         |           | 6         |           |           |           | 10        |           | 12        |           | 14        |           |           |
| *130501, 130502                          | 1                 |           | 3         |           | 5         |           | 7         |           | 9         |           |           |           |           |           |           |           |
| *130701, 130702                          | 1                 |           | 3         |           | 5         |           |           |           | 9         |           |           |           | 13        |           |           |           |
| *1308                                    | 1                 | 2         |           |           |           | 6         |           |           |           | 10        |           | 12        | 13        | 14        |           | 16        |
| Well No.                                 | 1                 | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        |

| Well <sup>4</sup> |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                           |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------------|
| 17                | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        | 30        | 31        | 32        |                           |
| 145               | 110       | 110       | 180       | 175       | 110       | 115       | 145       | 110       | 145       | 145       | 160       | 155       | 85        | 75        | 220       | Length of spec.           |
| 220               | 230       | 150       | 205       |           | 175       | 235       | 180       |           |           |           |           |           |           | 170       | 255       | PCR product               |
| 255               |           | 205       | 225       |           |           | 255       |           |           |           |           |           |           |           | 205       |           |                           |
|                   |           | 260       |           |           |           |           |           |           |           |           |           |           |           |           |           |                           |
| 430               | 430       | 430       | 515       | 430       | 430       | 430       | 430       | 430       | 515       | 515       | 430       | 430       | 515       | 430       | 430       | Length of int.            |
|                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | pos. control <sup>1</sup> |
| 13(125)           | 13(125)   | 13(125)   | 10(116)   | 26(164)   | 13(125)   | 13(125)   | 13(125)   | 13(125)   | 32(181)   | 13(125)   | 47(227)   | 28(171)   | 71(299)   | 16(135)   | 13(125)   | 5'-primer(s) <sup>2</sup> |
| 5'-gTC 3'         | 5'-gTC 3' | 5'-gTC 3' | 5'-gCT 3' | 5'-gTA 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-gTC 3' | 5'-TCC 3' | 5'-gTC 3' | 5'-gTT 3' | 5'-gAg 3' | 5'-CgA 3' | 5'-CAA 3' | 5'-gTC 3' |                           |
|                   |           |           | 16(133)   |           |           |           |           |           |           |           |           | 28(171)   |           | 27(167)   |           |                           |
|                   |           |           | 5'-gTT 3' |           |           |           |           |           |           |           |           | 5'-gAg 3' |           | 5'-CCA 3' |           |                           |
|                   |           |           | 25(161)   |           |           |           |           |           |           |           |           |           |           | 60(265)   |           |                           |
|                   |           |           | 5'-gCT 3' |           |           |           |           |           |           |           |           |           |           | 5'-AgC 3' |           |                           |
|                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |                           |
| 48(229)           | 37(196)   | 37(196)   | 71(299)   | 71(299)   | 37(196)   | 38(199)   | 48(230)   | 37(196)   | 67(286)   | 47(227)   | 86(344)   | 67(286)   | 86(344)   | 71(298)   | 71(298)   | 3'-primer(s) <sup>3</sup> |
| 5'-CCA 3'         | 5'-gAT 3' | 5'-gAT 3' | 5'-gCT 3' | 5'-gCT 3' | 5'-gTC 3' | 5'-CAg 3' | 5'-CCA 3' | 5'-gAA 3' | 5'-gAA 3' | 5'-ggA 3' | 5'-CCA 3' | 5'-gAT 3' | 5'-CCA 3' | 5'-CTC 3' | 5'-CTT 3' |                           |
| 72(303)           | 74(307)   | 50(235)   |           |           | 57(257)   | 78(321)   | 60(266)   | 37(196)   | 67(286)   | 48(229)   |           | 67(286)   |           |           | 72(303)   |                           |
| 5'-gCg 3'         | 5'-CAg 3' | 5'-CAA 3' |           |           | 5'-CgA 3' | 5'-CAA 3' | 5'-Agg 3' | 5'-gTA 3' | 5'-gAA 3' | 5'-CCA 3' |           | 5'-gAT 3' |           |           | 5'-gCg 3' |                           |
| 84(337)           | 77(318)   | 68(290)   |           |           |           | 84(337)   |           | 37(196)   |           |           |           |           |           |           | 85(341)   |                           |
| 5'-CCg 3'         | 5'-TAA 3' | 5'-CCC 3' |           |           |           | 5'-CCg 3' |           | 5'-ggA 3' |           |           |           |           |           |           | 5'-CAg 3' |                           |
|                   |           | 86(344)   |           |           |           |           |           |           |           |           |           |           |           |           |           |                           |
|                   |           | 5'-CAT 3' |           |           |           |           |           |           |           |           |           |           |           |           |           |                           |
| 17                | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        | 30        | 31        | 32        | Well No.                  |
|                   |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           | DRB1 allele               |
|                   |           |           |           |           |           |           |           |           |           | 27        | 28        |           | 30        |           |           | *130101, 130102           |
|                   |           |           |           |           |           | 23        |           |           |           | 27        | 28        |           | 30        |           |           | *130103                   |
|                   |           |           |           |           |           |           |           |           |           | 27        |           |           |           |           |           | *130201, 130203           |
| 17                |           |           |           |           |           |           |           |           |           | 27        |           |           |           |           | 32        | *130202                   |
|                   |           |           |           |           |           |           |           | 25        |           |           |           |           |           |           | 32        | *130301, 130302           |
|                   |           |           |           |           |           |           |           | 25        |           | 27        | 28        |           | 30        |           |           | *1304                     |
|                   |           |           |           |           |           |           |           |           | 26        | 27        |           |           |           |           |           | *130501, 130502           |
|                   |           |           |           |           |           |           |           | 25        |           |           |           |           |           |           |           | *130701, 130702           |
|                   |           |           |           |           |           |           |           | 25        |           |           |           |           | 30        |           |           | *1308                     |
| 17                | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        | 30        | 31        | 32        | Well No.                  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

| Length of spec.<br>PCR product | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                       | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *1306                          | 1   | 2   |     |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1309                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  | 11  |     |     |     |     |     |
| *1310                          | 1   | 2   |     |     | 5   |     |     | 8   |     | 10  |     | 12  |     |     |     |     |
| *131101, 131102                | 1   |     | 3   |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *1312                          | 1   | 2   |     | 4   | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1313                          | 1   | 2   |     | 4   | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *131401-131403                 | 1   |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1315                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     | 15  | 16  |
| *1316                          | 1   | 2   |     |     |     | 6   |     |     |     |     |     | 12  |     |     |     | 16  |
| *1317                          |     |     |     |     |     |     |     |     |     |     |     |     |     | 14  |     |     |
| *1318                          | 1   |     | 3   |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1319                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  | 15  | 16  |
| *1320                          | 1   |     |     |     |     | 6   |     | 8   |     | 10  | 11  | 12  |     |     |     | 16  |
| *1321                          | 1   |     | 3   | 4   | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1322                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1323                          | 1   | 2   |     |     |     | 6   |     |     | 9   |     |     | 12  |     | 14  |     |     |
| *1324                          | 1   |     | 3   |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1325                          | 1   |     |     |     | 5   |     |     |     | 9   |     | 11  |     |     |     |     |     |
| *1326                          | 1   |     | 3   |     | 5   |     | 7   |     | 9   |     |     | 12  | 13  |     | 15  |     |
| *1327                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1328                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1329                          | 1   |     |     |     |     | 6   | 7   |     | 9   |     | 11  | 12  |     |     |     | 16  |
| *1330                          | 1   | 2   |     | 4   | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1331                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1332                          | 1   | 2   |     | 4   |     | 6   |     | 8   |     | 10  |     | 12  | 13  |     |     | 16  |
| *1333                          | 1   | 2   |     | 4   | 5   |     |     |     | 9   |     |     | 12  | 13  |     | 15  |     |
| *1334                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1335                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1336                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  | 13  |     |     | 16  |
| *1337                          | 1   | 2   |     |     | 5   |     |     |     | 9   |     |     | 12  | 13  |     |     |     |
| *1338                          | 1   | 2   |     | 4   |     | 6   |     |     | 9   |     |     | 12  | 13  | 14  |     |     |
| *1339                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1340                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  | 13  |     |     | 16  |
| *1341                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1342                          | 1   |     | 3   |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1343                          |     |     |     |     |     | 6   |     | 8   |     | 10  | 11  | 12  |     |     |     | 16  |
| *1344                          | 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| Well No.                       | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|--------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                       |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *1306                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *1309                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     | 32  | *1310                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *131101, 131102                |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1312                          |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1313                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *131401-131403                 |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  | 29  | 30 |     |     | *1315                          |
|     |     | 19  |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1316                          |
|     |     |     | 20  |     |     |     |     |     |     |     | 28  |     | 30 |     |     | *1317                          |
|     | 18  |     |     |     |     |     |     |     | 26  | 27  | 28  |     |    |     |     | *1318                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     | 29  | 30 |     |     | *1319                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1320                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1321                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1322                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1323                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1324                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1325                          |
| 17  |     |     |     |     |     |     |     |     | 26  |     |     |     |    |     | 32  | *1326                          |
|     |     |     |     | 21  |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1327                          |
| 17  |     |     |     |     |     | 23  |     |     |     | 27  | 28  |     | 30 |     |     | *1328                          |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1329                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1330                          |
|     |     |     |     | 22  |     |     |     |     |     | 27  |     |     |    |     |     | *1331                          |
|     |     |     |     |     |     |     |     |     |     |     |     |     | 30 |     |     | *1332                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     | 32  | *1333                          |
|     |     |     |     |     |     | 23  |     |     |     | 27  |     |     |    |     |     | *1334                          |
|     |     |     |     |     |     |     | 24  |     |     |     | 28  |     | 30 |     |     | *1335                          |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1336                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     | 32  | *1337                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1338                          |
|     |     |     |     |     |     |     | 24  |     |     | 27  |     |     |    |     |     | *1339                          |
|     |     |     |     |     |     |     |     |     |     |     |     |     | 30 |     |     | *1340                          |
|     |     |     |     | 21  |     |     |     |     |     | 27  |     |     |    |     |     | *1341                          |
|     |     |     |     |     |     |     |     |     | 26  | 27  | 28  |     |    |     |     | *1342                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 | 31  |     | *1343                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1344                          |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                       |

| Length of spec.<br>PCR product | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                       | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *1345                          |     | 2   |     |     |     | 6   |     |     | 9   |     |     | 12  |     | 14  |     |     |
| *1346                          | 1   |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1347                          | 1   |     | 3   |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1348                          | 1   | 2   |     | 4   |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     |     |
| *1349                          | 1   |     | 3   | 4   | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *135001                        | 1   |     | 3   |     | 5   |     | w   |     | 9   |     |     |     |     |     |     |     |
| *135002                        | 1   |     | 3   |     | 5   |     | 7   |     | 9   |     |     |     |     |     |     |     |
| *1351                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1352                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     |     |     | 16  |
| *1353                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  | 13  |     | 15  | 16  |
| *1354                          | 1   |     | 3   |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1355                          | 1   |     | 3   | 4   | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1356                          | 1   |     |     |     | 5   |     | 7   |     | 9   |     | 11  |     |     |     |     |     |
| *1357                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  | 15  | 16  |
| *1358                          | 1   | 2   |     | 4   | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1359                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1360                          | 1   |     |     |     | 5   |     |     |     | 9   |     | 11  | 12  | 13  |     |     |     |
| *1361                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1362                          | 1   |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1363                          | 1   |     | 3   |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1364                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     | 16  |
| *1365                          | 1   | 2   |     | 4   |     | 6   | 7   |     | 9   |     |     | 12  | 13  |     |     | 16  |
| *1366                          | 1   | 2   |     | 4   | 5   |     |     |     | 9   |     |     | 12  |     |     |     |     |
| *1367                          |     |     |     |     |     |     | 7   |     |     |     |     |     |     |     |     | 16  |
| *1368                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     |     |     | 16  |
| *1369                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     | 14  |     | 16  |
| *1370                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     |     |
| *1371                          | 1   |     |     |     |     | 6   |     | 8   |     | 10  | 11  | 12  |     |     |     | 16  |
| *1372                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     | 16  |
| *1373                          | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1374                          | 1   | w   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1375                          | 1   |     | 3   | 4   |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1376                          | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     | 16  |
| *1377                          | 1   | 2   |     |     | 5   |     |     | 8   |     | 10  |     | 12  |     |     |     |     |
| *1378                          | 1   |     |     |     |     | 6   |     | 8   |     | 10  | 11  | 12  |     |     |     | 16  |
| *1379                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1380                          | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| Well No.                       | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|--------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    | 31  |     | *1345                          |
|     |     |     |     |     | 22  |     |     | 25  |     | 27  |     |     |    |     |     | *1346                          |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1347                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     |     | *1348                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1349                          |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *135001                        |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *135002                        |
|     |     | 19  |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1351                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1352                          |
|     |     |     |     |     |     |     |     |     |     |     |     | 29  | 30 |     |     | *1353                          |
|     |     |     |     |     | 22  |     | 24  | 25  |     | 27  | 28  |     | 30 |     |     | *1354                          |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1355                          |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1356                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  | 29  | 30 |     |     | *1357                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     | 32  | *1358                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 | 31  |     | *1359                          |
| 17  |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     | 32  | *1360                          |
|     | 18  |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1361                          |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1362                          |
|     |     |     |     |     |     |     |     |     | 26  | 27  |     |     |    |     |     | *1363                          |
|     |     |     |     |     | 23  |     |     |     |     | 27  | 28  |     | 30 |     |     | *1364                          |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1365                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     | 32  | *1366                          |
|     |     |     | 20  |     |     |     |     |     |     |     |     |     |    |     |     | *1367                          |
|     |     |     |     |     | 22  |     |     |     |     | 27  | 28  |     | 30 |     |     | *1368                          |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1369                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     |     | *1370                          |
|     |     |     |     | 21  |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1371                          |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 | 31  |     | *1372                          |
|     |     |     | 20  |     |     |     |     |     |     | 27  |     |     |    |     |     | *1373                          |
|     |     | 19  |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1374                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1375                          |
|     |     |     |     |     | 23  |     |     | 25  |     |     |     |     | 30 |     |     | *1376                          |
| 17  |     |     |     |     | 22  |     | 24  |     |     | 27  | 28  |     |    |     | 32  | *1377                          |
|     |     |     |     |     |     |     | 24  |     |     | 27  | 28  |     | 30 |     |     | *1378                          |
|     |     |     |     |     |     |     | 24  |     |     | 27  | 28  |     | 30 |     |     | *1379                          |
| 17  |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1380                          |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                       |

Lot No.: **03G**

Lot-specific information

www.olerup.com

| Length of spec.<br>PCR product                                                                                              | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|-----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                                                                                                             |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                                                                                                             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                                                                                                                    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *1381                                                                                                                       | 1   | 2   |     | 4   | 5   |     |     |     |     | 10  |     | 12  | 13  |     |     |     |
| *1382                                                                                                                       | 1   | 2   |     |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1383                                                                                                                       | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     | 16  |
| *1384                                                                                                                       | 1   | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  |     |     | 16  |
| *1385                                                                                                                       | 1   | 2   |     |     | 5   |     | 7   |     | 9   |     |     | 12  | 13  |     | 15  |     |
| *1386                                                                                                                       | 1   |     |     |     | 5   |     |     |     | 9   |     |     |     |     |     | 15  |     |
| *1387                                                                                                                       | 1   | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1388                                                                                                                       | 1   |     |     | 4   | 5   |     |     |     | 9   |     | 11  | 12  | 13  |     |     |     |
| *03010101,<br>03010102,<br>030103-030105,<br>0307, 0311, 0318,<br>0319, 0322, 0323,<br>0328, 0332-0334,<br>0336, 0337, 0339 | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *030102, 0324                                                                                                               | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *030106, 0308,<br>0310                                                                                                      |     |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *030201                                                                                                                     | 1   |     |     |     |     |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *030202, 0327                                                                                                               | 1   |     |     |     |     |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *0303, 0306, 0326                                                                                                           | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     | 13  |     | 15  |     |
| *0304, 0321,<br>0325, 0330                                                                                                  | 1   |     |     |     |     |     |     |     |     | 10  |     |     |     |     | 15  |     |
| *030501, 030502,<br>0309, 0329                                                                                              | 1   |     |     |     |     |     | 7   |     | 9   |     |     |     |     |     | 15  |     |
| *0312                                                                                                                       | 1   |     |     | 4   |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *031301                                                                                                                     | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *031302                                                                                                                     | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *0314                                                                                                                       | 1   |     |     |     |     |     | 7   |     | 9   |     |     |     |     |     |     |     |
| *0315                                                                                                                       | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *0316                                                                                                                       | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *0317, 0335                                                                                                                 | 1   |     |     |     |     |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *0320                                                                                                                       | 1   |     |     |     |     |     |     | 8   |     | 10  |     |     |     |     | 15  |     |
| *0331                                                                                                                       | 1   |     |     |     |     |     |     |     |     | 10  |     |     | 13  |     | 15  |     |
| *0338                                                                                                                       | 1   |     |     |     |     |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *0340                                                                                                                       | 1   |     |     |     |     |     |     |     | 9   |     |     |     |     |     | 15  |     |
| *0341                                                                                                                       | 1   |     |     |     |     |     |     |     | 9   |     |     |     | 13  |     | 15  |     |
| Well No.                                                                                                                    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                             |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----------------------------------------------------------------------------------------------------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product                                                                                              |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                                                                                                             |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                                                                                                             |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                             |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                                    |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     | 32  | *1381                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1382                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1383                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     |     | *1384                                                                                                                       |
|     |     |     |     |     |     |     |     |     |     |     |     | 29  |    |     | 32  | *1385                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1386                                                                                                                       |
|     | 18  | 19  |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1387                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     | 32  | *1388                                                                                                                       |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *03010101,<br>03010102,<br>030103-030105,<br>0307, 0311, 0318,<br>0319, 0322, 0323,<br>0328, 0332-0334,<br>0336, 0337, 0339 |
|     | 18  |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *030102, 0324                                                                                                               |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *030106, 0308,<br>0310                                                                                                      |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *030201                                                                                                                     |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *030202, 0327                                                                                                               |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *0303, 0306, 0326                                                                                                           |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *0304, 0321,<br>0325, 0330                                                                                                  |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *030501, 030502,<br>0309, 0329                                                                                              |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *0312                                                                                                                       |
|     |     |     |     |     |     |     | 24  |     |     | 27  | 28  |     |    |     |     | *031301                                                                                                                     |
|     | 18  |     |     |     |     |     | 24  |     |     | 27  | 28  |     |    |     |     | *031302                                                                                                                     |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *0314                                                                                                                       |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *0315                                                                                                                       |
| 17  |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *0316                                                                                                                       |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *0317, 0335                                                                                                                 |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     | 32  | *0320                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *0331                                                                                                                       |
|     |     |     |     |     | 22  |     | 24  |     |     |     |     |     |    |     |     | *0338                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *0340                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *0341                                                                                                                       |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                                    |

| Length of spec.                                                                                                                                                                       | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCR product                                                                                                                                                                           |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                                                                                                                                                                       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                                                                                                                                                                       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                                                                                                                                                                              | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *0402, 0437                                                                                                                                                                           |     |     |     |     |     |     |     |     |     |     |     |     |     | 14  |     |     |
| *0414                                                                                                                                                                                 |     |     |     |     |     |     |     |     |     |     |     |     |     | 14  |     |     |
| *0442, 0459, 0828,<br>1167, 120201-<br>120204, 1207,<br>1212, 1213, 1215,<br>1218, 1219,<br>15010101-150106,<br>15030101-1506,<br>1509, 1512, 1513,<br>1516-1518, 1520-<br>1525, 1528 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| *0809, 0821, 1415,<br>1473                                                                                                                                                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| *0820                                                                                                                                                                                 | 1   |     | 3   |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *0832, 1211                                                                                                                                                                           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| *110101, 110102,<br>110104, 110106,<br>111201, 111202,<br>1129, 1132, 1133,<br>1139, 1161, 1166,<br>1172, 1453                                                                        |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *110103                                                                                                                                                                               |     |     | 3   |     | 5   |     |     |     | 9   |     | 12  |     |     |     |     |     |
| *110105                                                                                                                                                                               |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *110107                                                                                                                                                                               |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *110201, 110202,<br>116501, 116502,<br>1170                                                                                                                                           |     | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1103, 1163                                                                                                                                                                           |     |     | 3   |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *110401, 110402,<br>110404, 1135,<br>1138, 1143,<br>115402, 1160                                                                                                                      |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *110403, 115401                                                                                                                                                                       |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *110601, 1147                                                                                                                                                                         |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *110602                                                                                                                                                                               |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *1107                                                                                                                                                                                 |     |     |     |     |     |     |     |     |     | 10  |     |     |     |     | 15  |     |
| Well No.                                                                                                                                                                              | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                                                                                       |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product                                                                                                                                                        |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                                                                                                                                                                       |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                                                                                                                                                                       |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                                                                                       |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                                                                                              |
|     |     |     |     |     |     |     |     |     |     |     |     |     | 30 |     |     | *0402, 0437                                                                                                                                                                           |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *0414                                                                                                                                                                                 |
|     |     |     |     |     |     |     |     |     |     |     | 28  |     |    |     |     | *0442, 0459, 0828,<br>1167, 120201-<br>120204, 1207,<br>1212, 1213, 1215,<br>1218, 1219,<br>15010101-150106,<br>15030101-1506,<br>1509, 1512, 1513,<br>1516-1518, 1520-<br>1525, 1528 |
|     |     |     |     |     |     |     |     | 26  |     |     |     |     |    |     |     | *0809, 0821, 1415,<br>1473                                                                                                                                                            |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *0820                                                                                                                                                                                 |
|     |     |     |     |     |     |     |     |     |     |     |     | 29  |    |     |     | *0832, 1211                                                                                                                                                                           |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *110101, 110102,<br>110104, 110106,<br>111201, 111202,<br>1129, 1132, 1133,<br>1139, 1161, 1166,<br>1172, 1453                                                                        |
| 17  |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     | 32  | *110103                                                                                                                                                                               |
|     |     |     |     |     |     | 23  |     | 25  |     | 27  |     |     |    |     |     | *110105                                                                                                                                                                               |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *110107                                                                                                                                                                               |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *110201, 110202,<br>116501, 116502,<br>1170                                                                                                                                           |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1103, 1163                                                                                                                                                                           |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *110401, 110402,<br>110404, 1135,<br>1138, 1143,<br>115402, 1160                                                                                                                      |
|     |     |     |     |     |     | 23  |     | 25  |     | 27  | 28  |     |    |     |     | *110403, 115401                                                                                                                                                                       |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     | 32  | *110601, 1147                                                                                                                                                                         |
|     |     |     |     |     |     | 23  |     | 25  |     | 27  | 28  |     |    |     | 32  | *110602                                                                                                                                                                               |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1107                                                                                                                                                                                 |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                                                                                              |

Lot No.: **03G**

Lot-specific information

www.olerup.com

| Length of spec.                                                                                 | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|-------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCR product                                                                                     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                                                                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                                                                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                                                                                        | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *110801, 110802                                                                                 |     |     |     |     | 5   |     |     |     | 9   |     | 11  |     |     |     |     |     |
| *1109                                                                                           |     |     | 3   |     | 5   |     | 7   |     | 9   |     |     |     |     |     |     |     |
| *111001, 111002, 1162                                                                           |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *111101, 111102                                                                                 |     |     | 3   |     |     | 6   |     |     | 9   |     |     | 12  |     | 14  |     |     |
| *111301, 111302, 1435, 1472                                                                     |     |     |     |     | 5   |     |     |     | 10  |     |     |     |     |     |     |     |
| *111401, 111402                                                                                 |     | 2   |     |     |     | 6   |     |     | 9   |     |     | 12  |     | 14  |     |     |
| *1115, 1149                                                                                     |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1116                                                                                           |     | 2   |     |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1117, 1152, 140101, 140103, 1408, 1426, 143202, 1434, 1439, 1454, 1458, 1460, 1462, 1470, 1482 |     |     |     |     | 5   |     |     |     | 10  |     |     |     | 13  |     |     |     |
| *1118                                                                                           |     | 2   |     |     | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *111901, 1131                                                                                   |     | 2   |     |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *111902                                                                                         |     | 2   |     |     | 5   |     |     |     | 9   |     |     | 12  |     |     |     |     |
| *1120                                                                                           |     | 2   |     |     |     | 6   | 7   |     | 9   |     |     | 12  |     |     |     | 16  |
| *1121                                                                                           |     | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  |     | 14  |     |     |
| *1123, 112701                                                                                   |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1124                                                                                           |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1125                                                                                           |     |     | 3   |     | 5   |     |     |     | 10  |     |     |     |     |     |     |     |
| *1126                                                                                           |     |     |     |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *112702                                                                                         |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     |     |     | 15  |     |
| *1128                                                                                           |     |     | 3   |     | 5   |     | w   |     | 9   |     |     |     |     |     |     |     |
| *1134                                                                                           |     |     |     |     | 5   |     |     |     | 10  |     |     |     |     |     |     |     |
| *1136                                                                                           |     |     |     |     |     | 6   |     |     |     | 10  | 11  | 12  |     | 14  |     |     |
| *1137, 1425                                                                                     |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1140                                                                                           |     |     | 3   |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1141                                                                                           |     |     | 3   |     |     | 6   |     |     | 10  |     |     | 12  | 13  | 14  |     |     |
| *1142                                                                                           |     |     |     |     | 5   |     |     |     |     | 10  | 11  |     |     |     |     |     |
| *1144                                                                                           |     |     | 3   |     | 5   |     |     |     | 10  |     |     |     |     |     |     |     |
| *1145                                                                                           |     | 2   |     |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *1146                                                                                           |     |     | 3   |     | 5   |     |     |     | 10  |     |     |     |     |     |     |     |
| Well No.                                                                                        | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-------------------------------------------------------------------------------------------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product                                                                                    |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                                                                                                   |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                                                                                                   |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                                                                                   |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *110801, 110802                                                                                                   |
|     |     |     |     |     |     |     |     |     | 26  | 27  |     |     |    |     |     | *1109                                                                                                             |
|     |     |     |     |     |     |     |     | 25  | 26  | 27  |     |     |    |     |     | *111001, 111002,<br>1162                                                                                          |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *111101, 111102                                                                                                   |
|     |     |     |     |     | 23  |     |     | 25  |     | 27  | 28  |     |    |     |     | *111301, 111302,<br>1435, 1472                                                                                    |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *111401, 111402                                                                                                   |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1115, 1149                                                                                                       |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     | 30 |     |     | *1116                                                                                                             |
|     |     |     |     |     | 23  |     |     | 25  |     |     |     |     |    |     |     | *1117, 1152,<br>140101, 140103,<br>1408, 1426,<br>143202, 1434,<br>1439, 1454, 1458,<br>1460, 1462, 1470,<br>1482 |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1118                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *111901, 1131                                                                                                     |
| 17  |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     | 32  | *111902                                                                                                           |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1120                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     | 32  | *1121                                                                                                             |
| 18  |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1123, 112701                                                                                                     |
|     |     |     |     |     | 22  |     |     |     |     | 27  |     |     |    |     |     | *1124                                                                                                             |
| 18  |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1125                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1126                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *112702                                                                                                           |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1128                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1134                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1136                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1137, 1425                                                                                                       |
|     |     |     |     |     |     |     |     |     | 26  | 27  | 28  |     | 30 |     |     | *1140                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     |     | *1141                                                                                                             |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     |     | *1142                                                                                                             |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *1144                                                                                                             |
| 18  |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1145                                                                                                             |
|     |     |     |     |     |     |     |     | 25  | 26  | 27  | 28  |     |    |     |     | *1146                                                                                                             |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                                                                          |

| Length of spec.                                            | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCR product                                                |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                                            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                                                   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *1148                                                      |     | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     |     |
| *1150                                                      |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1151                                                      |     |     | 3   |     |     |     |     |     | 9   |     |     |     |     |     |     |     |
| *1153                                                      |     |     |     |     |     |     |     |     | 9   |     |     |     |     |     |     |     |
| *1155                                                      |     |     | 3   |     | 5   | 6   |     |     |     | 10  |     |     |     |     |     |     |
| *1156                                                      |     |     | 3   |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1157                                                      |     |     |     |     | 5   |     |     |     |     | 10  | 11  |     |     |     |     |     |
| *1158                                                      |     |     | 3   |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1159                                                      |     |     | 3   |     |     | 6   |     | 8   |     | 10  |     | 12  |     |     |     | 16  |
| *1164                                                      |     |     |     |     | 5   |     |     |     | 9   |     | 11  |     |     |     |     |     |
| *1168                                                      |     |     |     |     |     | 6   |     |     | 9   |     | 11  | 12  |     | 14  |     |     |
| *1169                                                      |     |     |     |     |     | 6   |     |     | 9   |     | 11  |     |     |     |     |     |
| *120101, 120102,<br>120302-1206, 1208-<br>1210, 1214, 1217 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| *140102, 143201,<br>1475                                   |     |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1402, 1451                                                | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *140301                                                    | 1   |     |     |     | 5   |     | 7   |     | 9   |     | 11  |     | 13  |     | 15  |     |
| *140302                                                    | 1   |     |     |     | 5   |     | 7   |     | 9   |     | 11  |     |     |     | 15  |     |
| *140501, 140502,<br>142301, 1443,<br>1445                  | 1   |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *140503                                                    | 1   |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1406, 1481, 1483                                          | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     | 13  |     | 15  |     |
| *140701, 140702                                            |     |     |     |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1409                                                      | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     |     |     |
| *1412                                                      | 1   |     |     |     | 5   |     |     | 8   |     | 10  | 11  |     | 13  |     | 15  |     |
| *1413                                                      | 1   |     |     | 4   | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1414, 1436,<br>144401                                     | 1   |     |     |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1416                                                      |     | 2   |     |     |     | 6   |     |     |     | 10  |     | 12  | 13  | 14  |     | 16  |
| *1417, 1433                                                | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1418                                                      | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     | 13  |     | 15  |     |
| *1419                                                      | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     | 12  | 13  |     | 15  |     |
| *1420                                                      | 1   |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     | 15  |     |
| *1421                                                      | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     | 12  |     |     |     |     |
| Well No.                                                   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

Lot No.: **03G**

Lot-specific information

www.olerup.com

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                           |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----------------------------------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product                            |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                                           |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                                           |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                                           |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                  |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 |     |     | *1148                                                     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1150                                                     |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1151                                                     |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1153                                                     |
|     | 18  |     |     |     |     |     |     | 25  |     | 27  | 28  |     | 30 |     |     | *1155                                                     |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1156                                                     |
|     |     |     |     |     |     |     |     | 25  |     | 27  | 28  |     |    |     | 32  | *1157                                                     |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *1158                                                     |
|     |     |     |     | 21  |     |     |     |     | 26  | 27  | 28  |     | 30 |     |     | *1159                                                     |
|     | 18  |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1164                                                     |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1168                                                     |
|     |     |     |     |     |     |     |     | 25  |     | 27  |     |     |    |     |     | *1169                                                     |
|     |     |     |     |     |     |     |     |     |     |     | 28  | 29  |    |     |     | *120101, 120102,<br>120302-1206, 1208<br>1210, 1214, 1217 |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *140102, 143201,<br>1475                                  |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1402, 1451                                               |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *140301                                                   |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *140302                                                   |
|     |     |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *140501, 140502,<br>142301, 1443,<br>1445                 |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *140503                                                   |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1406, 1481, 1483                                         |
|     |     |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *140701, 140702                                           |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1409                                                     |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1412                                                     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1413                                                     |
|     |     |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *1414, 1436,<br>144401                                    |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     | 30 | 31  |     | *1416                                                     |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     |     | *1417, 1433                                               |
|     |     |     |     |     |     | 23  |     |     |     |     |     |     |    |     |     | *1418                                                     |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     | 32  | *1419                                                     |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1420                                                     |
|     |     |     |     |     |     |     |     |     |     | 27  | 28  |     |    |     | 32  | *1421                                                     |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                                  |

| Length of spec.                               | 175 | 200 | 200 | 170 | 220 | 215 | 190 | 190 | 260 | 260 | 205 | 215 | 145 | 145 | 85  | 150 |
|-----------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCR product                                   |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 235 |     |
|                                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|                                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Well No.                                      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |
| *1422                                         |     |     | 3   |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *142302                                       | w   |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1424                                         | 1   | 2   |     |     |     | 6   | 7   |     | 9   |     | 11  |     | 13  |     | 15  |     |
| *1427                                         | 1   |     | 3   |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1429                                         | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     | 13  |     | 15  |     |
| *1430                                         | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     |     |     |     |     |     |
| *1437                                         | 1   | 2   |     |     |     | 6   |     |     |     | 10  | 11  |     | 13  |     |     |     |
| *1438                                         |     |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1440                                         | 1   |     |     |     | 5   |     |     |     | 9   |     | 11  |     | 13  |     | 15  |     |
| *1441                                         | 1   |     |     |     | 5   |     |     |     | 9   |     |     |     | 13  |     | 15  |     |
| *1442                                         | 1   |     |     |     | 5   |     |     |     | 9   |     |     |     |     |     |     |     |
| *144402                                       | 1   |     |     |     | 5   |     |     |     | 9   |     |     |     | 13  |     |     |     |
| *1446, 1608,<br>DRB3*0108,<br>DRB3*0206, 0220 |     |     |     |     |     |     | 7   |     |     |     |     |     |     |     |     |     |
| *1447                                         | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1448                                         | 1   |     |     |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1449                                         |     |     |     |     | 5   |     |     |     | 9   |     |     |     | 13  |     | 15  |     |
| *1452                                         |     |     |     |     |     |     | 8   |     |     |     |     |     |     |     |     |     |
| *1455                                         |     |     |     |     | 5   |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1456                                         | 1   |     |     |     |     |     |     |     |     | 10  |     |     | 13  |     |     |     |
| *1457                                         |     |     |     |     |     |     |     |     |     |     |     |     |     | 14  |     | 16  |
| *1459                                         | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     | 13  |     |     |     |
| *1463                                         | 1   | 2   |     | 4   | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1464                                         | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     |     |     |     |     |
| *1465                                         | 1   |     |     | 4   | 5   |     |     |     |     | 10  |     |     |     |     |     |     |
| *1467                                         | 1   | 2   |     |     | 5   |     | 7   |     | 9   |     |     |     | 13  |     | 15  |     |
| *1469                                         |     |     |     |     | 5   |     |     |     | 9   |     | 11  |     | 13  |     |     |     |
| *1474                                         |     |     |     |     | 5   |     |     |     |     | 10  | 11  |     | 13  |     |     |     |
| *1477                                         | 1   |     |     |     | 5   |     |     |     | 9   |     | 11  |     | 13  |     | 15  |     |
| *1478                                         | 1   | 2   |     | 4   | 5   |     |     | 8   |     | 10  |     |     | 13  |     | 15  |     |
| *1480                                         | 1   |     |     |     | 5   |     |     | 8   |     | 10  |     |     | 13  |     |     |     |
| *1484                                         | 1   |     |     |     | 5   |     |     |     |     | 10  | 11  |     | 13  |     |     |     |
| *1485                                         | 1   |     |     | 4   | 5   |     | 7   |     | 9   |     | 11  |     | 13  |     | 15  |     |
| *1510                                         |     |     |     |     |     |     |     |     |     |     |     |     |     | 14  |     | 16  |
| *1532                                         |     |     |     |     |     |     |     | 8   |     |     |     |     |     |     |     |     |
| Well No.                                      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     |                                               |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----------------------------------------------|
| 145 | 110 | 110 | 180 | 175 | 110 | 115 | 145 | 110 | 145 | 145 | 160 | 155 | 85 | 75  | 220 | Length of spec.<br>PCR product                |
| 220 | 230 | 150 | 205 |     | 175 | 235 | 180 |     |     |     |     |     |    | 170 | 255 |                                               |
| 255 |     | 205 | 225 |     |     | 255 |     |     |     |     |     |     |    | 205 |     |                                               |
|     |     | 260 |     |     |     |     |     |     |     |     |     |     |    |     |     |                                               |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                      |
|     |     |     |     |     |     |     |     | 25  | 26  |     |     |     |    |     |     | *1422                                         |
|     |     |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *142302                                       |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1424                                         |
|     | 18  |     |     |     |     |     |     |     | 26  |     |     |     |    |     |     | *1427                                         |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     | 32  | *1429                                         |
|     |     |     |     |     |     |     |     |     |     | 27  |     |     |    |     |     | *1430                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1437                                         |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1438                                         |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1440                                         |
|     |     |     |     |     |     | 23  |     |     |     |     |     |     |    |     |     | *1441                                         |
|     |     |     |     |     |     | 23  |     | 25  |     | 27  |     |     |    |     |     | *1442                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *144402                                       |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1446, 1608,<br>DRB3*0108,<br>DRB3*0206, 0220 |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1447                                         |
|     |     |     |     |     | 22  |     | 24  |     |     |     |     |     |    |     |     | *1448                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1449                                         |
|     | 18  |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *1452                                         |
|     |     |     |     |     |     | 23  |     | 25  |     |     |     |     |    |     |     | *1455                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1456                                         |
|     |     |     |     |     |     |     |     |     |     |     |     |     | 30 |     |     | *1457                                         |
|     |     |     |     |     |     | 23  |     |     |     |     |     |     |    |     |     | *1459                                         |
|     | 18  |     |     |     |     |     |     |     |     |     |     | 29  |    |     |     | *1463                                         |
|     |     |     |     |     |     | 23  | 24  |     |     | 27  | 28  |     |    |     |     | *1464                                         |
|     |     |     |     |     |     | 23  |     | 25  |     | 27  | 28  |     |    |     |     | *1465                                         |
|     | 18  |     |     |     |     |     |     |     |     |     |     | 29  |    |     |     | *1467                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1469                                         |
|     |     |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1474                                         |
|     | 18  |     |     |     |     | 23  |     |     |     |     |     |     |    |     |     | *1477                                         |
|     | 18  |     |     |     |     |     |     |     |     |     |     | 29  |    |     |     | *1478                                         |
|     |     |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1480                                         |
|     | 18  |     |     |     |     |     |     | 25  |     |     |     |     |    |     |     | *1484                                         |
|     | 18  |     |     |     |     |     |     |     |     |     |     |     |    |     |     | *1485                                         |
|     |     |     |     |     |     |     |     |     |     | 28  |     | 30  |    |     |     | *1510                                         |
|     |     |     |     |     |     |     |     |     |     | 28  |     |     |    |     |     | *1532                                         |
| 17  | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30 | 31  | 32  | Well No.                                      |

**Lot No.: 03G**

**Lot-specific information**

**www.olerup.com**

<sup>1</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1\*13 subtyping.

In addition, wells number 6, 13, 15, 20, 26, 27 and 30 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

In the presence of a specific amplification the intensity of the control band often decreases.

<sup>2</sup>The codon, in the 2<sup>nd</sup> exon, and in parenthesis the nucleotide, matching the specificity-determining 3'-end of the primer is given. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The codon, in the 2<sup>nd</sup> exon, and in parenthesis the nucleotide, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>4</sup>Primer mix 15: 85 bp fragment in the DRB1\*1315, 1319, 1326, 1353, 1357, 1385, 1386 and the 030202, 0327, 1402-140302, 1406, 1412, 1413, 1418-1420, 1424, 1427, 1429, 1440, 1441, 1447-1449, 1451, 1463, 1467, 1477, 1478, 1481, 1483 and 1485 alleles.

235 bp fragment in the DRB1\*1333 and the 03010101-03010102, 030103-030104, 0304-0313, 0316, 0318-0323, 0325, 0326, 0328, 0330-0334, 0336, 0336, 0337, 0339-0341, 1107 and 112702 alleles. 85 and 235 bp fragments in DRB1\*030201, 0303 and 0329, 0338 alleles, due to primer competition both specific PCR fragments may not be visible.

Primer mix 17: 145 bp fragment in the DRB1\*1380 and the 0316 alleles. 220 bp fragment in the DRB1\*130202, 1326, 1360, 1377 the 110103 and 111902 alleles. 255 bp fragment in the DRB1\*1328 allele.

Primer mix 18: 110 bp fragment in the DRB1\*1387 allele. 230 bp fragment in the DRB1\*1313, 1318, 1347, 1355, 1361 and 030102, 030202-031302, 0317, 0324, 0327, 0335, 0820, 1123, 1125, 112701, 1145, 1155, 1164, 140301, 140302, 1412, 1427, 1438, 1440, 1447, 1455, 1463, 1467, 1477, 1478, 1484 and 1485 alleles.

Primer mix 19: 110 bp fragment in the DRB1\*1387 allele. 150 bp fragment in the DRB1\*1351 allele. 205 bp fragment in the DRB1\*1374 allele. 260 bp fragment in the DRB1\*1316 allele.

Primer mix 20: 180 bp fragment in the DRB1\*1317 allele. 205 bp fragment in the DRB1\*1373 allele. 225 bp fragment in the DRB1\*1367 allele.

Primer mix 22: 110 bp fragment in the DRB1\*1368 and the 1124 alleles. 175 bp fragment in the DRB1\*1331, 1346, 1354, 1377, 0338 and 1448 alleles.

Primer mix 23: 115 bp fragment in the DRB1\*1334, 1364 and the 1441 and 1477 alleles. 235 bp fragment in the DRB1\*130103, 1376 and the 110105, 110403, 110602, 111301-111302, 1117, 1152, 115401, 140101, 140103, 140501-140502, 140701-1408, 1414, 1418, 142301-142302, 1426, 143202, 1434-1436, 1439, 1442-144401, 1445, 1454-1456, 1458-1460, 1462, 1464, 1465, 1470, 1472 and 1482 alleles. 255 bp fragment in the DRB1\*1328 allele.

Primer mix 24: 145 bp fragment in the DRB1\*1335 allele. 180 bp fragment in the DRB1\*1339, 1354, 1377 to 1379 and the 031301-031302, 0338, 1448 and 1464 alleles.

Primer mix 31: Specific PCR fragment of 75 bp in the DRB1\*1343, 1345 and the 1416 alleles. Specific PCR fragment of 170 bp in the DRB1\*1359 allele. Specific PCR fragment of 205 bp in the DRB1\*1372 allele.

Primer mix 32: 220 bp fragment in the DRB1\*130202-130302, 1310, 1326, 1333, 1337, 1360, 1366, 1377, 1385, 1388 and the 110103, 111902, 1419 and 1421 alleles. 255 bp fragment in the DRB1\*1358 and the 0320, 110601-110602, 1121, 1147, 1157 and 1429 alleles. 220 and 255 bp fragment in the DRB1\*1381 allele.

'w', may be weakly amplified.

| CELL LINE VALIDATION SHEET |                |            |       |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|----------------------------|----------------|------------|-------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| DRB1*13 SSP subtyping kit  |                |            |       |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|                            |                |            |       |            | Well      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|                            |                |            |       |            | 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         | 9         | 10        | 11        | 12        | 13        | 14        | 15        | 16        |
|                            |                |            |       | Prod. No.: | 200622401 | 200961202 | 200622403 | 200622404 | 200622405 | 200622406 | 200622407 | 200622408 | 200622409 | 200622410 | 200848611 | 200622412 | 200622413 | 200961214 | 200622415 | 200961216 |
|                            | IHCW cell line |            | DRB1  |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
| 1                          | 9001           | SA         | *0101 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 2                          | 9280           | LK707      | *1502 | *0405      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 3                          | 9011           | E4181324   | *1502 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 4                          | 9275           | GU373      | *0301 |            | +         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         |
| 5                          | 9009           | KAS011     | *1601 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 6                          | 9353           | SM         | *0407 | *0803      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 7                          | 9020           | QBL        | *0301 |            | +         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         |
| 8                          | 9025           | DEU        | *0401 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 9                          | 9026           | YAR        | *0402 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | f         | -         | -         |
| 10                         | 9107           | LKT3       | *0405 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 11                         | 9051           | PITOUT     | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 12                         | 9052           | DBB        | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 13                         | 9004           | JESTHOM    | *0101 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 14                         | 9071           | OLGA       | *0802 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 15                         | 9075           | DKB        | *0901 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 16                         | 9037           | SWEIG007   | *1101 |            | -         | -         | +         | -         | +         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | -         |
| 17                         | 9282           | CTM3953540 | *0301 | *1301      | +         | +         | -         | -         | -         | +         | -         | +         | -         | +         | -         | +         | -         | -         | +         | +         |
| 18                         | 9257           | 32367      | *0901 | *1101      | -         | -         | +         | -         | +         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | -         |
| 19                         | 9038           | BM16       | *1201 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 20                         | 9059           | SLE005     | *1302 |            | +         | +         | -         | -         | -         | +         | +         | -         | +         | -         | -         | +         | -         | -         | -         | +         |
| 21                         | 9064           | AMALA      | *1402 |            | +         | -         | -         | -         | +         | -         | +         | -         | +         | -         | -         | -         | +         | -         | +         | -         |
| 22                         | 9056           | KOSE       | *1302 | *1401      | +         | +         | -         | -         | +         | +         | +         | -         | +         | +         | -         | +         | +         | -         | -         | +         |
| 23                         | 9124           | IHL        | *0803 | *1414      | +         | -         | -         | -         | +         | -         | -         | -         | +         | -         | -         | -         | +         | -         | -         | -         |
| 24                         | 9035           | JBUSH      | *1101 |            | -         | -         | +         | -         | +         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | -         |
| 25                         | 9049           | IBW9       | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 26                         | 9285           | WT49       | *0301 |            | +         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         |
| 27                         | 9191           | CH1007     | *0405 | *1001      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 28                         | 9320           | BEL5GB     | *0416 | *0701      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 29                         | 9050           | MOU        | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 30                         | 9021           | RSH        | *0302 |            | +         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | +         | -         | +         | -         |
| 31                         | 9019           | DUCAF      | *0301 |            | +         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         |
| 32                         | 9297           | HAG        | *1303 |            | +         | +         | -         | +         | +         | -         | -         | -         | +         | -         | -         | +         | +         | -         | -         | -         |
| 33                         | 9098           | MT14B      | *0404 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 34                         | 9104           | DHIF       | *1101 |            | -         | -         | +         | -         | +         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | -         |
| 35                         | 9302           | SSTO       | *0403 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 36                         | 9024           | KT17       | *0403 | *0406      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 37                         | 9065           | HHKB       | *1301 |            | +         | +         | -         | -         | -         | +         | -         | +         | -         | +         | -         | +         | -         | -         | -         | +         |
| 38                         | 9099           | LZL        | *1402 |            | +         | -         | -         | -         | +         | -         | +         | -         | +         | -         | -         | -         | +         | -         | +         | -         |
| 39                         | 9315           | CML        | *0301 | *0401      | +         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         |
| 40                         | 9134           | WHONP199   | *0701 | *0901      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 41                         | 9055           | H0301      | *1302 |            | +         | +         | -         | -         | -         | +         | +         | -         | +         | -         | -         | +         | -         | -         | -         | +         |
| 42                         | 9066           | TAB089     | *0803 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 43                         | 9076           | T7526      | *0901 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 44                         | 9057           | TEM        | *1401 |            | -         | -         | -         | -         | +         | -         | -         | -         | -         | +         | -         | -         | +         | -         | -         | -         |
| 45                         | 9239           | SHJO       | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 46                         | 9013           | SCHU       | *1501 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| 47                         | 9045           | TUBO       | *1104 | *1201      | -         | -         | +         | -         | +         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         |
| 48                         | 9303           | TER-ND     | *0103 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

| CELL LINE VALIDATION SHEET |                |            |       |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |    |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------|----------------|------------|-------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----|---|---|---|---|---|---|---|---|---|---|--|
| DRB1*13 SSP subtyping kit  |                |            |       |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |    |   |   |   |   |   |   |   |   |   |   |  |
|                            |                |            |       |            | Well      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |    |   |   |   |   |   |   |   |   |   |   |  |
|                            |                |            |       |            |           | 17        | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        | 30        | 31        | 32 |   |   |   |   |   |   |   |   |   |   |  |
|                            |                |            |       | Prod. No.: | 200848617 | 200961218 | 200961219 | 200734720 | 200734721 | 200622422 | 200734723 | 200622424 | 200622425 | 200848626 | 200961227 | 200622428 | 200622429 | 200622430 | 200961231 | 200622432 |    |   |   |   |   |   |   |   |   |   |   |  |
|                            | IHWC cell line |            | DRB1  |            |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |    |   |   |   |   |   |   |   |   |   |   |  |
| 1                          | 9001           | SA         | *0101 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 2                          | 9280           | LK707      | *1502 | *0405      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 3                          | 9011           | E4181324   | *1502 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 4                          | 9275           | GU373      | *0301 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 5                          | 9009           | KAS011     | *1601 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 6                          | 9353           | SM         | *0407 | *0803      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 7                          | 9020           | QBL        | *0301 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 8                          | 9025           | DEU        | *0401 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 9                          | 9026           | YAR        | *0402 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 10                         | 9107           | LKT3       | *0405 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 11                         | 9051           | PITOUT     | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 12                         | 9052           | DBB        | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 13                         | 9004           | JESTHOM    | *0101 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 14                         | 9071           | OLGA       | *0802 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 15                         | 9075           | DKB        | *0901 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 16                         | 9037           | SWEIG007   | *1101 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 17                         | 9282           | CTM3953540 | *0301 | *1301      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | +         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 18                         | 9257           | 32367      | *0901 | *1101      | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 19                         | 9038           | BM16       | *1201 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 20                         | 9059           | SLE005     | *1302 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 21                         | 9064           | AMALA      | *1402 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 22                         | 9056           | KOSE       | *1302 | *1401      | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | +         | -         | +         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 23                         | 9124           | IHL        | *0803 | *1414      | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | +         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 24                         | 9035           | JBUSH      | *1101 |            | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | +         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 25                         | 9049           | IBW9       | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 26                         | 9285           | WT49       | *0301 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 27                         | 9191           | CH1007     | *0405 | *1001      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 28                         | 9320           | BEL5GB     | *0416 | *0701      | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 29                         | 9050           | MOU        | *0701 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 30                         | 9021           | RSH        | *0302 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 31                         | 9019           | DUCAF      | *0301 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | +         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | - | - |  |
| 32                         | 9297           | HAG        | *1303 |            | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | -         | -  | - | - | - | - | - | - | - | - | + | - |  |
| 33                         | 9098           | MT14B      | *0404 |            | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -  |   |   |   |   |   |   |   |   |   |   |  |

## CERTIFICATE OF ANALYSIS

### **Olerup SSP® DRB1\*13 SSP**

**Product number:** 101.116-24/03 – including *Taq* pol.  
**Lot number:** 03G  
**Expiry date:** 2011-July-01  
**Number of tests:** 24 tests – Product No. 101.116-24  
 3 tests – Product No. 101.116-03  
**Number of wells per test:** 32

#### **Well specifications:**

| Well No. | Production No. | Well No. | Production No. | Well No. | Production No. |
|----------|----------------|----------|----------------|----------|----------------|
| 1        | 2006-224-01    | 13       | 2006-224-13    | 25       | 2006-224-25    |
| 2        | 2009-612-02    | 14       | 2009-612-14    | 26       | 2008-486-26    |
| 3        | 2006-224-03    | 15       | 2005-224-15    | 27       | 2009-612-27    |
| 4        | 2006-224-04    | 16       | 2009-612-16    | 28       | 2006-224-28    |
| 5        | 2006-224-05    | 17       | 2008-486-17    | 29       | 2006-224-29    |
| 6        | 2006-224-06    | 18       | 2009-612-18    | 30       | 2006-224-30    |
| 7        | 2006-224-07    | 19       | 2009-612-19    | 31       | 2009-612-31    |
| 8        | 2006-224-08    | 20       | 2007-347-20    | 32       | 2006-224-32    |
| 9        | 2006-224-09    | 21       | 2007-347-21    |          |                |
| 10       | 2006-224-10    | 22       | 2006-224-22    |          |                |
| 11       | 2008-486-11    | 23       | 2007-347-23    |          |                |
| 12       | 2006-224-12    | 24       | 2006-224-24    |          |                |

The specificity of each primer solution of the kit has been tested against 48 well characterized IHWC cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 11, 17 to 21, 24, 31 and 32 were available. The specificities of the primers in primer solution 11, 17, 18, 20, 21, 24 and 31 were tested by separately adding one additional 5'-primer or one additional 3'-primer, respectively. In primer solution 19 it was only possible to test the 5'-primer, the 3'-primers were not possible to test. In primer solution 7, 26 and 31 one of the 5'-primers was not possible to test. One or more of the 3'-primers in primer solutions 17, 18, 22, 23, 24 and 27 were not possible to test.

Additional 3'-primers in primer solutions 2, 5, 6, 12 and 32 were tested by separately adding one 5'-primer. One additional 5'-primer in primer solution 14 was tested by separately adding one 3'-primer.

**Results:** No false positive or false negative amplifications were obtained.

**Date of approval:** 2011-October-24

**Approved by:**

**Quality Control, Supervisor**

## Declaration of Conformity

**Product name:** *Olerup* SSP® DRB1\*13  
**Product number:** 101.116-24/03  
**Lot number:** 03G

**Intended use:** DRB1\*13 high resolution histocompatibility testing

**Manufacturer:** *Olerup* SSP AB  
Franzengatan 5  
SE-112 51 Stockholm, Sweden  
**Phone:** +46-8-717 88 27  
**Fax:** +46-8-717 88 18

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2000 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

The Technical Documentation File is maintained at *Olerup* SSP AB, Franzengatan 5, SE-112 51 Stockholm, Sweden.

Notified Body: Lloyd's Register Quality Assurance Limited, Hiramford, Middlemarch Office Village, Siskin Drive, Coventry CV3 4FJ, United Kingdom. (Notified Body number: 0088.)

Saltsjöbaden, Sweden  
2011-October-24

Ann-Cathrin Jareman  
Head of QA and Regulatory Affairs







Lot No.: **03G**

Lot-specific information

[www.olerup.com](http://www.olerup.com)

**ADDRESSES:**

**Manufacturer:**

**Olerup SSP AB**, Franzengatan 5, SE-112 51 Stockholm, Sweden.

**Tel:** +46-8-717 88 27

**Fax:** +46-8-717 88 18

**E-mail:** [info-ssp@olerup.com](mailto:info-ssp@olerup.com)

**Web page:** <http://www.olerup-ssp.com>

**Distributed by:**

**Olerup GmbH**, Löwengasse 47 / 6, AT-1030 Vienna, Austria.

**Tel:** +43-1-710 15 00

**Fax:** +43-1-710 15 00 10

**E-mail:** [support-at@olerup.com](mailto:support-at@olerup.com)

**Web page:** <http://www.olerup.com>

**Olerup Inc.**, 901 S. Bolmar St., Suite R, West Chester, PA 19382

**Tel:** 1-877-OLERUP1

**Fax:** 610-344-7989

**E-mail:** [info.us@olerup.com](mailto:info.us@olerup.com)

**Web page:** <http://www.olerup.com>

For information on *Olerup* SSP distributors worldwide, contact **Olerup GmbH**.