

101.113-24/04 – including *Taq* polymerase, IFU-01  
101.113-24u/04u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **3G3**

Lot-specific information  
**Olerup SSP® DRB1\*03**

|                                  |                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------|
| Product number:                  | 101.113-24/04 – including <i>Taq</i> pol.<br>101.113-24u/04u – without <i>Taq</i> pol. |
| Lot number:                      | 3G3                                                                                    |
| Expiry date:                     | 2020-11-01                                                                             |
| Number of tests:                 | 24 tests – Product No. 101.113-24/24u<br>4 tests – Product No. 101.113-04/04u          |
| Number of wells per test:        | 31+1                                                                                   |
| 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. 3G3.**

Complete product documentation consists of generic Instructions for Use (IFU), lot specific Product Insert, Worksheet and Certificate.

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP®  
DRB1\*03 Lot (8E7)**

The DRB1\*03 kit is updated to enable separation of:

- Null and Alternatively expressed alleles
- The product documentation has been updated for new alleles of IMGT 3.31

The format of the Worksheet has been changed.

The DRB1\*03 specificity and interpretation tables have been updated for the DRB alleles described since the previous *Olerup SSP®* DRB1\*03 lot was made (**Lot No. 8E7**).

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

| Well | 5'-primer    | 3'-primer    | rationale                                                                                                     |
|------|--------------|--------------|---------------------------------------------------------------------------------------------------------------|
| 5    | -            | Removed      | 3'-primer removed for increased allelic resolution.                                                           |
| 11   | -            | Modified     | 3'-primer modified for improved HLA-specific amplification.                                                   |
| 19   | Moved, added | Moved, added | 5'-primer moved to well 25 and 29, primer pair moved to well 28. Primer pair added for the DRB1*03:58 allele. |
| 25   | Added        | -            | 5'-primer added from well 19.                                                                                 |
| 27   | -            | Exchanged    | 3'-primer exchanged for the DRB1*03:55 allele.                                                                |
| 28   | Added        | Added        | Primer pair added from well 19.                                                                               |
| 29   | Added        | -            | 5'-primer added from well 19.                                                                                 |

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Well **32** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP<sup>®</sup>* HLA Class I, DRB, DQB1, DPB1 and DQA1 amplicons as well as all the amplicons generated by the control primer pairs matching the human growth hormone gene.

HLA-specific PCR product sizes range from 75 to 200 base pairs.  
The PCR product generated by the positive control primer pair is 430 base pairs.

| Length of PCR product        | 105                  | 200                     | 105                  | 80                   | 75                   | 80                   | 85                   |
|------------------------------|----------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>5'-primer<sup>1</sup></b> | <b>164</b>           | <b>340</b>              | <b>440</b>           | <b>45</b>            | <b>45</b>            | <b>43</b>            | <b>36</b>            |
|                              | 5'-CAC <sup>3'</sup> | 5'-Agg <sup>3'</sup>    | 5'-TTA <sup>3'</sup> | 5'-Tgg <sup>3'</sup> | 5'-Tgg <sup>3'</sup> | 5'-Tgg <sup>3'</sup> | 5'-TAC <sup>3'</sup> |
|                              |                      |                         |                      |                      |                      |                      | <b>36</b>            |
|                              |                      |                         |                      |                      |                      |                      | 5'-TAT <sup>3'</sup> |
| <b>3'-primer<sup>2</sup></b> | <b>231</b>           | <b>2<sup>nd</sup> I</b> | <b>507</b>           | <b>59</b>            | <b>58</b>            | <b>57</b>            | <b>47</b>            |
|                              | 5'-TgC <sup>3'</sup> | 5'-AAA <sup>3'</sup>    | 5'-TTg <sup>3'</sup> | 5'-CTC <sup>3'</sup> | 5'-ggC <sup>3'</sup> | 5'-CTC <sup>3'</sup> | 5'-ACA <sup>3'</sup> |
|                              |                      |                         |                      |                      |                      |                      | <b>48</b>            |
|                              |                      |                         |                      |                      |                      |                      | 5'-gCA <sup>3'</sup> |
|                              |                      |                         |                      |                      |                      |                      | <b>48</b>            |
|                              |                      |                         |                      |                      |                      |                      | 5'-gCC <sup>3'</sup> |
|                              |                      |                         |                      |                      |                      |                      | <b>52</b>            |
|                              |                      |                         |                      |                      |                      |                      | 5'-TgT <sup>3'</sup> |
| <b>A*</b>                    | +                    | +                       | +                    |                      |                      |                      |                      |
| <b>B*</b>                    | +                    | +                       | +                    |                      |                      |                      |                      |
| <b>C*</b>                    | +                    | +                       | +                    |                      |                      |                      |                      |
| <b>DRB1</b>                  |                      |                         |                      | +                    | +                    |                      |                      |
| <b>DRB3</b>                  |                      |                         |                      | +                    | +                    |                      |                      |
| <b>DRB5</b>                  |                      |                         |                      | +                    |                      |                      |                      |
| <b>DQB1</b>                  |                      |                         |                      |                      | +                    |                      |                      |
| <b>DPB1</b>                  |                      |                         |                      |                      |                      | +                    |                      |
| <b>DQA1</b>                  |                      |                         |                      |                      |                      |                      | +                    |

<sup>1</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon, matching the specificity-determining 3'-end of the primer is given. Nucleotide and codon 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>2</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon or the 2<sup>nd</sup> intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide and codon 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.

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Lot-specific information  
**PRODUCT DESCRIPTION**

**DRB1\*03 SSP subtyping**

**CONTENT**

The primer set contains 5'- and 3'-primers for identifying the DRB1\*03:01 to DRB1\*03:142 alleles.

**PLATE LAYOUT**

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

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

The 32 well cut PCR plate is marked with 'DRB1\*03' in silver/gray ink.

Well No. 1 is marked with the Lot No. '3G3'.

Wells 1 to 31 – DRB1\*03 high resolution primers.

Well 32 – Negative Control (NC).

A faint row of numbers is seen between wells 1 and 2 or wells 7 and 8 of the PCR trays. These stem from the manufacture of the trays, and should be disregarded.

The PCR plates are heat-sealed with a PCR-compatible foil.

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

**INTERPRETATION**

Due to the sharing of sequence motifs within the DR52 group of DRB1 alleles, non-DRB1\*03 alleles will be amplified by primer some mixes. For further details see Specificity Table.

**UNIQUELY IDENTIFIED ALLELES**

All the phenotypically different DRB1\*03 alleles, i.e. **DRB1\*03:01 to DRB1\*03:142**, recognized by the HLA Nomenclature Committee in January 2018<sup>1,2</sup> will be amplified by the primers in the DRB1\*03 subtyping kit<sup>3</sup>.

The DRB1\*03 kit enables separation of the confirmed DRB1\*03 alleles as listed in the IMGT/HLA database 3.26.0. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for DRB1\*03 alleles is listed below.

The DRB1\*03 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.

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The following DRB1\*03 alleles can be distinguished by the different sizes of the specific PCR product:

| <b>Alleles</b>    | <b>Primer mix</b> |
|-------------------|-------------------|
| DRB1*03:18, 03:48 | 22                |
| DRB1*03:20, 03:93 | 17                |

<sup>1</sup>DRB1 alleles listed on the IMGT/HLA web page 2018-January-19, release 3.31.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page <http://hla.alleles.org/alleles/deleted.html>.

<sup>3</sup>The DRB1\*03 primer set cannot separate the DRB1\*03:97 and the 14:33 alleles. These alleles can be distinguished by the DR low resolution kit and/or the DRB1\*14 high resolution kit.

The DRB1\*03 primer set cannot separate the DRB1\*03:126 and the 14:95 alleles. These alleles can be distinguished by the DR low resolution kit and/or the DRB1\*14 high resolution kit.

The DRB1\*03 primer set cannot separate the DRB1\*03:35 and the 14:127:01-14:127:02 alleles. These alleles can be distinguished by the DR low resolution kit and/or the DRB1\*14 high resolution kit.

**RESOLUTION IN HOMO- AND HETEROZYGOTES**

Results file with resolution in DRB1\*03 homo- and heterozygotes is available upon request.

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## ALLELE CONFIRMATION STATUS

| Allele           | Status <sup>1</sup> | Allele        | Status <sup>1</sup> | Allele         | Status <sup>1</sup> | Allele      | Status <sup>1</sup> |
|------------------|---------------------|---------------|---------------------|----------------|---------------------|-------------|---------------------|
| DRB1*03:01:01:01 | Confirmed           | DRB1*03:19    | Confirmed           | DRB1*03:68N    | Unconfirmed         | DRB1*03:116 | Unconfirmed         |
| DRB1*03:01:01:02 | Unconfirmed         | DRB1*03:20    | Unconfirmed         | DRB1*03:69     | Unconfirmed         | DRB1*03:117 | Unconfirmed         |
| DRB1*03:01:02    | Confirmed           | DRB1*03:21    | Confirmed           | DRB1*03:70     | Unconfirmed         | DRB1*03:118 | Unconfirmed         |
| DRB1*03:01:03    | Unconfirmed         | DRB1*03:22    | Confirmed           | DRB1*03:71:01  | Confirmed           | DRB1*03:119 | Unconfirmed         |
| DRB1*03:01:04    | Unconfirmed         | DRB1*03:23    | Confirmed           | DRB1*03:71:02  | Unconfirmed         | DRB1*03:120 | Unconfirmed         |
| DRB1*03:01:05    | Unconfirmed         | DRB1*03:24    | Unconfirmed         | DRB1*03:72     | Confirmed           | DRB1*03:121 | Unconfirmed         |
| DRB1*03:01:06    | Unconfirmed         | DRB1*03:25    | Unconfirmed         | DRB1*03:73     | Unconfirmed         | DRB1*03:122 | Unconfirmed         |
| DRB1*03:01:07    | Confirmed           | DRB1*03:26    | Unconfirmed         | DRB1*03:74     | Unconfirmed         | DRB1*03:123 | Unconfirmed         |
| DRB1*03:01:08    | Unconfirmed         | DRB1*03:27    | Confirmed           | DRB1*03:75     | Unconfirmed         | DRB1*03:124 | Confirmed           |
| DRB1*03:01:09    | Unconfirmed         | DRB1*03:28    | Unconfirmed         | DRB1*03:76     | Confirmed           | DRB1*03:125 | Unconfirmed         |
| DRB1*03:01:10    | Unconfirmed         | DRB1*03:29    | Confirmed           | DRB1*03:77     | Unconfirmed         | DRB1*03:126 | Unconfirmed         |
| DRB1*03:01:11    | Confirmed           | DRB1*03:30    | Unconfirmed         | DRB1*03:78     | Unconfirmed         | DRB1*03:127 | Unconfirmed         |
| DRB1*03:01:12    | Confirmed           | DRB1*03:31    | Unconfirmed         | DRB1*03:79     | Unconfirmed         | DRB1*03:128 | Unconfirmed         |
| DRB1*03:01:13    | Unconfirmed         | DRB1*03:32    | Unconfirmed         | DRB1*03:80     | Unconfirmed         | DRB1*03:129 | Unconfirmed         |
| DRB1*03:01:14    | Confirmed           | DRB1*03:33    | Confirmed           | DRB1*03:81     | Unconfirmed         | DRB1*03:130 | Unconfirmed         |
| DRB1*03:01:15    | Confirmed           | DRB1*03:34    | Confirmed           | DRB1*03:82     | Unconfirmed         | DRB1*03:131 | Unconfirmed         |
| DRB1*03:01:16    | Confirmed           | DRB1*03:35    | Unconfirmed         | DRB1*03:83     | Unconfirmed         | DRB1*03:132 | Unconfirmed         |
| DRB1*03:01:17    | Confirmed           | DRB1*03:36    | Unconfirmed         | DRB1*03:84     | Unconfirmed         | DRB1*03:133 | Unconfirmed         |
| DRB1*03:01:18    | Unconfirmed         | DRB1*03:37    | Confirmed           | DRB1*03:85     | Unconfirmed         | DRB1*03:134 | Unconfirmed         |
| DRB1*03:01:19    | Unconfirmed         | DRB1*03:38    | Unconfirmed         | DRB1*03:86     | Unconfirmed         | DRB1*03:135 | Unconfirmed         |
| DRB1*03:01:20    | Confirmed           | DRB1*03:39    | Unconfirmed         | DRB1*03:87     | Unconfirmed         | DRB1*03:136 | Unconfirmed         |
| DRB1*03:01:21    | Unconfirmed         | DRB1*03:40    | Unconfirmed         | DRB1*03:88     | Confirmed           |             |                     |
| DRB1*03:01:22    | Unconfirmed         | DRB1*03:41:01 | Unconfirmed         | DRB1*03:89     | Unconfirmed         |             |                     |
| DRB1*03:01:23    | Unconfirmed         | DRB1*03:41:02 | Unconfirmed         | DRB1*03:90     | Confirmed           |             |                     |
| DRB1*03:01:24    | Unconfirmed         | DRB1*03:42    | Confirmed           | DRB1*03:91     | Unconfirmed         |             |                     |
| DRB1*03:01:25    | Unconfirmed         | DRB1*03:43    | Confirmed           | DRB1*03:92     | Unconfirmed         |             |                     |
| DRB1*03:02:01    | Confirmed           | DRB1*03:44    | Confirmed           | DRB1*03:93     | Confirmed           |             |                     |
| DRB1*03:02:02    | Confirmed           | DRB1*03:45    | Unconfirmed         | DRB1*03:94     | Unconfirmed         |             |                     |
| DRB1*03:02:03    | Unconfirmed         | DRB1*03:46    | Unconfirmed         | DRB1*03:95     | Unconfirmed         |             |                     |
| DRB1*03:03       | Confirmed           | DRB1*03:47    | Confirmed           | DRB1*03:96     | Unconfirmed         |             |                     |
| DRB1*03:04:01    | Confirmed           | DRB1*03:48    | Confirmed           | DRB1*03:97     | Unconfirmed         |             |                     |
| DRB1*03:04:02    | Unconfirmed         | DRB1*03:49    | Unconfirmed         | DRB1*03:98     | Unconfirmed         |             |                     |
| DRB1*03:05:01    | Confirmed           | DRB1*03:50    | Confirmed           | DRB1*03:99     | Unconfirmed         |             |                     |
| DRB1*03:05:02    | Unconfirmed         | DRB1*03:51    | Unconfirmed         | DRB1*03:100:01 | Unconfirmed         |             |                     |
| DRB1*03:05:03    | Confirmed           | DRB1*03:52    | Unconfirmed         | DRB1*03:100:02 | Unconfirmed         |             |                     |
| DRB1*03:06       | Confirmed           | DRB1*03:53    | Confirmed           | DRB1*03:101    | Unconfirmed         |             |                     |
| DRB1*03:07       | Confirmed           | DRB1*03:54    | Unconfirmed         | DRB1*03:102    | Unconfirmed         |             |                     |
| DRB1*03:08       | Confirmed           | DRB1*03:55    | Confirmed           | DRB1*03:103    | Unconfirmed         |             |                     |
| DRB1*03:09       | Unconfirmed         | DRB1*03:56    | Unconfirmed         | DRB1*03:104    | Unconfirmed         |             |                     |
| DRB1*03:10       | Unconfirmed         | DRB1*03:57    | Unconfirmed         | DRB1*03:105    | Unconfirmed         |             |                     |
| DRB1*03:11:01    | Unconfirmed         | DRB1*03:58    | Confirmed           | DRB1*03:106    | Unconfirmed         |             |                     |
| DRB1*03:12       | Unconfirmed         | DRB1*03:59    | Unconfirmed         | DRB1*03:107    | Unconfirmed         |             |                     |
| DRB1*03:13:01    | Confirmed           | DRB1*03:60    | Unconfirmed         | DRB1*03:108    | Unconfirmed         |             |                     |
| DRB1*03:13:02    | Confirmed           | DRB1*03:61    | Unconfirmed         | DRB1*03:109    | Unconfirmed         |             |                     |
| DRB1*03:14       | Confirmed           | DRB1*03:62    | Confirmed           | DRB1*03:110    | Confirmed           |             |                     |
| DRB1*03:15:01    | Confirmed           | DRB1*03:63    | Unconfirmed         | DRB1*03:111    | Unconfirmed         |             |                     |
| DRB1*03:15:02    | Unconfirmed         | DRB1*03:64    | Unconfirmed         | DRB1*03:112    | Confirmed           |             |                     |
| DRB1*03:16       | Confirmed           | DRB1*03:65    | Confirmed           | DRB1*03:113    | Unconfirmed         |             |                     |
| DRB1*03:17       | Unconfirmed         | DRB1*03:66    | Unconfirmed         | DRB1*03:114    | Unconfirmed         |             |                     |
| DRB1*03:18       | Unconfirmed         | DRB1*03:67N   | Unconfirmed         | DRB1*03:115    | Confirmed           |             |                     |

<sup>1</sup>Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2016-October-14, release 3.26.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

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Lot-specific information

## SPECIFICITY TABLE

### DRB1\*03 SSP subtyping

Specificities and sizes of the PCR products of the 31+1 primer mixes used for DRB1\*03 SSP subtyping

| Primer Mix             | Size of spec. PCR product <sup>1</sup> | Size of control band <sup>2</sup> | Amplified DRB1*03 alleles <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                    | Other amplified DRB alleles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|----------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>               | 220 bp                                 | <b>515 bp</b>                     | *03:01:01:01-03:01:26, 03:04:01-03:04:02, 03:06, 03:08, 03:10-03:13:02, 03:15:01-03:16, 03:18-03:20, 03:22-03:23, 03:25-03:26, 03:28, 03:30-03:34, 03:36-03:37, 03:39, 03:42-03:48, 03:50-03:52, 03:55-03:56, 03:58-03:62, 03:64-03:73, 03:75-03:80, 03:82-03:87, 03:89, 03:91-03:96, 03:98-03:100:02, 03:104, 03:106-03:112, 03:114, 03:116-03:118, 03:121, 03:124-03:129, 03:132-03:142 | *09:06, 11:59, 11:83, 11:135, 11:182, 13:27, 13:71, 13:129, 13:144, 13:176, 14:82, 14:95, 14:132, <b>DRB3*01:34</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>2<sup>4,6</sup></b> | 85 bp                                  | 430 bp                            | *03:02:01-03:03, 03:27, 03:29, 03:38, 03:53, 03:74, 03:88, 03:90, 03:102-03:103, 03:115, 03:119, 03:131                                                                                                                                                                                                                                                                                   | *13:15, 13:19, 13:26:01-13:26:02, 13:53, 13:57, 13:85-13:86, 13:104, 13:198, 13:235, 14:02:01:01-14:03:02, 14:06:01-14:06:03, 14:12:01-14:13, 14:18-14:20, 14:24, 14:27:01-14:27:02, 14:29, 14:40-14:41, 14:47-14:49, 14:51, 14:63, 14:67, 14:77-14:78, 14:81, 14:83, 14:85, 14:89, 14:94, 14:98, 14:102, 14:106, 14:108-14:109, 14:115, 14:135, 14:154, 14:156, 14:159-14:160, 14:165, 14:170, 14:174, 14:176-14:177, 14:181                                                                                                                                 |
| <b>3</b>               | 155 bp<br>190 bp                       | <b>515 bp</b>                     | *03:97, 03:126<br><br>*03:02:01-03:02:03, 03:05:01-03:05:03, 03:09, 03:14, 03:27, 03:29, 03:38, 03:53, 03:74, 03:81, 03:88, 03:90, 03:102-03:103, 03:115, 03:122, 03:130-03:131                                                                                                                                                                                                           | *14:18, 14:33, 14:51, 14:59, 14:64, 14:95, 14:106, 14:132-14:134, 14:154<br>*11:09, 11:20, 11:28:02, 11:87, 11:122, 13:02:01:01-13:02:03, 13:02:05-13:02:13, 13:05:01-13:05:03, 13:26:01-13:26:02, 13:29, 13:31, 13:34, 13:36, 13:39, 13:41, 13:50:02-13:50:03, 13:56, 13:63, 13:65, 13:67, 13:73-13:74, 13:85, 13:96:01-13:96:02, 13:99, 13:103-13:104, 13:119-13:120, 13:123-13:124, 13:126, 13:128, 13:136, 13:139-13:140, 13:142N-13:143, 13:145, 13:147, 13:155, 13:157-13:159, 13:165, 13:168, 13:170-13:171:02, 13:179, 13:189, 13:196, 13:198-13:199, |

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|                        |                            |        |                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>4</b>               | 190 bp                     | 430 bp | *03:01:01:01-03:01:26, 03:03, 03:06-03:08, 03:10-03:13:02, 03:15:01-03:16, 03:18-03:20, 03:22-03:24, 03:26, 03:28, 03:32-03:34, 03:36-03:37, 03:39, 03:42, 03:45-03:48, 03:50-03:51, 03:54-03:56, 03:58-03:62, 03:64-03:73, 03:76-03:80, 03:82-03:87, 03:89, 03:91-03:101, 03:104, 03:106-03:114, 03:116-03:117, 03:119-03:121, 03:124-03:129, 03:132-03:142                    | *04:211, 04:230, 11:16, 11:40, 11:58:01, 11:59, 11:83, 11:113, 11:115, 11:182, 12:58, 13:01:01:01-13:01:18, 13:06, 13:09-13:10, 13:15, 13:18, 13:20, 13:27-13:28, 13:32, 13:35, 13:40, 13:42-13:43, 13:51, 13:53, 13:59, 13:61:01-13:61:02, 13:69, 13:71, 13:77-13:80, 13:87, 13:91-13:93, 13:98, 13:102, 13:105, 13:110-13:114, 13:117, 13:121, 13:125, 13:127, 13:129-13:131, 13:137N-13:138, 13:141, 13:144, 13:146, 13:148, 13:153, 13:156, 13:160, 13:163, 13:166, 13:173, 13:176-13:178, 13:181, 13:183-13:187, 13:190-13:193, 13:200N-13:201, 13:205, 13:213-13:215, 13:217-13:218, 13:221-13:223, 13:226, 13:233, 13:238, 13:242:01-13:242:02, 13:245, 14:06:01-14:06:03, 14:12:01-14:12:02, 14:17-14:18, 14:21, 14:29, 14:33, 14:52, 14:59, 14:64, 14:78, 14:80-14:81, 14:83, 14:95, 14:106, 14:108, 14:121, 14:132-14:133, 14:154, 14:165, 14:170, 14:176-14:177, 15:32, <b>DRB3*03:10</b> |
| <b>5<sup>4</sup></b>   | 75 bp                      | 430 bp | *03:04:01-03:04:02                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>6<sup>4,5</sup></b> | 105 bp                     | 430 bp | *03:01:01:01-03:01:26, 03:04:01-03:05:03, 03:08-03:16, 03:18-03:20, 03:22-03:23, 03:25, 03:28, 03:30, 03:32-03:34, 03:36-03:37, 03:39, 03:42-03:48, 03:50-03:52, 03:55-03:59, 03:61-03:73, 03:76-03:79, 03:81, 03:83-03:84, 03:86-03:87, 03:89, 03:91-03:96, 03:98-03:100:02, 03:104, 03:106-03:112, 03:114, 03:116-03:118, 03:121, 03:123-03:130, 03:132-03:137, 03:139-03:142 | *11:59, 11:80, 11:87, 11:135, 11:142, 11:182, 13:27, 13:41, 13:71, 13:129, 13:144, 13:176, 14:95, 14:132, 14:179, <b>DRB3*01:23, DRB3*01:46</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>7<sup>4</sup></b>   | 125 bp<br>150 bp<br>215 bp | 430 bp | *03:08, 03:65, 03:72, 03:140<br>*03:124<br>*03:132                                                                                                                                                                                                                                                                                                                              | *11:59, 11:80, 11:83, 11:87, 11:135, 11:142, 11:182, <b>DRB3*01:42</b><br><b>DRB5*01:04<sup>?</sup></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |



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Lot-specific information

|           |        |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|--------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>8</b>  | 185 bp | 430 bp | *03:02:01-03:03, 03:07, 03:21, 03:29, 03:38, 03:40-03:41:02, 03:49, 03:53, 03:74, 03:88, 03:101-03:103, 03:105, 03:115, 03:119-03:120, 03:131                                                                                                                                                                                                                                                                                                                                                                  | *01:16, 01:55, 04:22, 11:07:01-11:07:02, 11:103:01-11:103:02, 11:107, 11:125, 11:173, 14:76, 14:79, 14:171, 15:25, <b>DRB3*01:09, DRB3*01:36, DRB3*02:04, DRB3*02:19, DRB3*02:22:01-02:22:02, DRB3*02:56, DRB3*03:03-03:04</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>9</b>  | 135 bp | 430 bp | *03:01:01:01-03:01:26, 03:04:01-03:06, 03:09, 03:11:01, 03:13:01 <sup>w</sup> , 03:13:02 <sup>w</sup> , 03:14-03:16, 03:18-03:20, 03:22-03:23, 03:25-03:26, 03:28, 03:30-03:34, 03:36-03:37, 03:39, 03:42-03:45, 03:47-03:48, 03:50-03:52, 03:55-03:63, 03:66, 03:67N <sup>w</sup> , 03:68N-03:73, 03:75-03:78, 03:80-03:84, 03:86-03:87, 03:89, 03:91-03:95, 03:98-03:100:02, 03:104, 03:106-03:109, 03:111-03:112, 03:114, 03:116, 03:117 <sup>w</sup> , 03:118, 03:121-03:129, 03:132-03:139, 03:141-03:142 | *09:01:08, 09:02:01-09:02:02, 13:27, 13:41, 13:71, 13:129, 13:144, 13:176, 14:95, 14:179, <b>DRB3*01:07, DRB3*01:15, DRB3*01:41</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>10</b> | 145 bp | 430 bp | *03:02:01-03:03, 03:06, 03:17, 03:26-03:27, 03:31, 03:35, 03:38, 03:41:01-03:41:02, 03:60, 03:74-03:75, 03:80, 03:85, 03:88, 03:90, 03:102-03:103, 03:115, 03:122, 03:131                                                                                                                                                                                                                                                                                                                                      | *08:20, 11:17, 11:37:01-11:37:02, 11:41, 11:48, 11:50, 11:52, 11:56, 11:83, 11:107, 11:145, 11:149, 11:170-11:171, 11:183-11:184, 11:189, 11:200, 13:03:01-13:03:06, 13:07:01-13:08, 13:12:01-13:13, 13:19, 13:26:01-13:26:02, 13:32-13:33:03, 13:36-13:38, 13:40, 13:47-13:49, 13:53, 13:55, 13:58, 13:60, 13:65, 13:70, 13:72, 13:76, 13:81, 13:84-13:85, 13:88-13:90, 13:94:01-13:95, 13:101, 13:108, 13:115, 13:118, 13:120, 13:122, 13:133-13:135, 13:149, 13:151-13:152, 13:159, 13:164, 13:167, 13:174, 13:180, 13:182, 13:188-13:189, 13:191, 13:194, 13:198, 13:216, 13:219, 13:227-13:228, 13:230-13:232, 13:235, 13:246, 14:01:01-14:03:01, 14:05:01:01-14:09, 14:12:01-14:14, 14:16, 14:18-14:20, 14:22-14:27:02, 14:29, 14:32:01-14:32:03, 14:34, 14:36-14:41, 14:43-14:45, 14:47-14:49, 14:51, 14:54:01:01-14:56, 14:58-14:60, 14:62-14:63, 14:67, 14:69-14:70, 14:74-14:75, 14:77-14:78, 14:80-14:92N, 14:94, 14:96-14:106, 14:108-14:119, 14:121-14:125, 14:127:01-14:127:02, 14:129-14:131, 14:133, 14:135-14:137N, 14:139-14:140, 14:142, 14:144, |

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|                       |                            |               |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                               |
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| <b>11<sup>4</sup></b> | 100 bp<br>125 bp<br>180 bp | <b>515 bp</b> | *03:09, 03:23, 03:112<br>*03:115<br>*03:13:01-03:13:02,<br>03:38, 03:79, 03:88                                                                                                                                                                                                                                                                                                                          | *14:151<br>*11:116, 11:120, 13:39, 13:54, 13:77-13:79,<br>13:100, 13:162-13:163, 13:181, 14:48,<br>14:64, 14:109, 14:115, 14:177, <b>DRB3*01:14</b>                                                                                                                                                           |
| <b>12</b>             | 135 bp<br>190 bp           | 430 bp        | *03:10, 03:110<br>*03:51, 03:76, 03:125                                                                                                                                                                                                                                                                                                                                                                 | *14:82, 14:132<br>*11:59 <sup>w</sup> , 11:80 <sup>w</sup> , 11:83 <sup>w</sup> , 11:87 <sup>w</sup> , 11:135 <sup>w</sup> ,<br>11:142 <sup>w</sup> , 11:182 <sup>w</sup> , 13:27 <sup>w</sup> , 13:41 <sup>w</sup> , 13:71 <sup>w</sup> ,<br>13:129 <sup>w</sup> , 13:176 <sup>w</sup> , 14:179 <sup>w</sup> |
| <b>13<sup>4</sup></b> | 125 bp<br>160 bp<br>225 bp | 430 bp        | *03:115<br>*03:47, 03:62<br>*03:11:01, 03:17, 03:24,<br>03:27, 03:35, 03:81                                                                                                                                                                                                                                                                                                                             | *14:151<br>*11:136, 14:38:01-14:38:02, 14:127:01-<br>14:127:02                                                                                                                                                                                                                                                |
| <b>14<sup>4</sup></b> | 105 bp<br>135 bp<br>245 bp | <b>515 bp</b> | *03:16<br>*03:12, 03:110<br>*03:68N                                                                                                                                                                                                                                                                                                                                                                     | *09:08                                                                                                                                                                                                                                                                                                        |
| <b>15<sup>4</sup></b> | 95 bp<br>155 bp            | 430 bp        | *03:112<br>*03:17, 03:37, 03:62,<br>03:80, 03:140                                                                                                                                                                                                                                                                                                                                                       | *11:39, 11:43, 11:50, 11:115, 11:145,<br>11:151, 11:168, 11:171, 11:174, 13:118,<br>13:131, 13:135, 13:150, 14:59, 14:86, 14:96,<br>14:153-14:154                                                                                                                                                             |
| <b>16<sup>4</sup></b> | 50 bp<br>215 bp            | 430 bp        | *03:14-03:15:02, 03:90<br>*03:132                                                                                                                                                                                                                                                                                                                                                                       | *04:98:01-04:98:02, 11:105, 14:107, 14:111                                                                                                                                                                                                                                                                    |
| <b>17<sup>4</sup></b> | 100 bp<br>230 bp<br>255 bp | 430 bp        | *03:93<br>*03:34<br>*03:20                                                                                                                                                                                                                                                                                                                                                                              | *13:125<br>*11:06:01-11:06:03, 11:21, 11:47, 11:57,<br>11:129, 11:174, 13:58, 13:81, 13:125,<br>13:163, 13:242:01-13:242:02, 14:29, 14:99                                                                                                                                                                     |
| <b>18<sup>4</sup></b> | 120 bp                     | 430 bp        | *03:01:01:01-03:01:26,<br>03:04:01-03:05:03,<br>03:07-03:10, 03:12-<br>03:15:01, 03:16, 03:18-<br>03:23, 03:25, 03:28-<br>03:30, 03:32-03:34,<br>03:36-03:37, 03:39-<br>03:40, 03:42-03:52,<br>03:54-03:59, 03:61-<br>03:73, 03:78-03:79,<br>03:82-03:83, 03:86-<br>03:87, 03:91-03:94,<br>03:96, 03:98-03:101,<br>03:104-03:114, 03:116-<br>03:121, 03:123-03:124,<br>03:127-03:130, 03:132-<br>03:142 | *11:07:01-11:07:02, 11:103:01-11:103:02,<br>11:105, 11:125, 11:173, 15:25,<br><b>DRB3*01:23, DRB3*01:46</b>                                                                                                                                                                                                   |
| <b>19</b>             | 150 bp                     | <b>515 bp</b> | *03:58, 03:65                                                                                                                                                                                                                                                                                                                                                                                           | *04:15, 04:25, 04:36, 04:143, 08:04:01,<br>08:04:04-08:04:07, 08:06, 08:20, 08:22,<br>08:28, 08:31, 08:54, 08:59, 08:67, 08:70,<br>08:75, 08:80, 09:06, 11:03:01-11:04:15,<br>11:06:01-11:06:03, 11:25, 11:35, 11:38,<br>11:40-11:41, 11:43-11:44, 11:46:01-11:47,<br>11:50, 11:54:01-11:56, 11:58:01-11:60,  |

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|                         |                               |               |                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>20<sup>4</sup></b>   | 75 bp<br>120 bp<br>245 bp     | 430 bp        | *03:25, 03:31, 03:75, 03:118<br>*03:28<br>*03:68N                                                                             | *11:80, 11:135, 11:142                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>21<sup>4</sup></b>   | 70 bp<br><br>150 bp           | 430 bp        | *03:21, 03:30, 03:43<br><br>*03:42, 03:87                                                                                     | *11:10:01-11:10:02, 11:12:01-11:13:02, 11:114, 11:179, 11:190-11:191, 11:196, 11:202, 11:218, 12:05, 12:14-12:15, 12:56, 13:57, 13:64, 13:83, 13:107, 13:175, 13:195, 13:204, 14:35, 14:65, 14:72, 14:138, 14:175, 14:187, <b>DRB3*01:23</b><br>*11:30, 13:67, 13:195, <b>DRB3*01:23, DRB3*01:46, DRB3*02:32</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>22<sup>4,5</sup></b> | 95 bp<br>215 bp               | 430 bp        | *03:18<br>*03:48                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>23<sup>4,5</sup></b> | 65 bp<br>165 bp               | 430 bp        | *03:09, 03:23<br>*03:19                                                                                                       | <b>DRB3*01:31</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>24<sup>4,6</sup></b> | 65 bp                         | 430 bp        | *03:02:01-03:03, 03:27, 03:29, 03:38, 03:53, 03:74, 03:88, 03:90, 03:101-03:103, 03:115, 03:119, 03:120 <sup>w</sup> , 03:131 | *12:58 <sup>w</sup> , 13:15, 13:26:01-13:26:02, 13:53, 13:85, 13:104, 13:198, 13:235, 14:02:01:01-14:03:02, 14:06:01-14:06:03, 14:12:01-14:13, 14:18-14:19, 14:24, 14:27:01-14:27:02, 14:29, 14:46-14:48, 14:51-14:52, 14:63, 14:67, 14:78, 14:81, 14:85, 14:89, 14:98, 14:106, 14:108-14:109, 14:115, 14:121, 14:135, 14:154, 14:165, 14:170, 14:174, 14:176-14:177, <b>DRB3*02:20, DRB3*03:10</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>25<sup>4</sup></b>   | 80 bp<br><br>170 bp<br>230 bp | 430 bp        | *03:13:01-03:13:02, 03:67N, 03:88<br>*03:22, 03:32<br>*03:69                                                                  | <b>DRB3*01:01:03, DRB3*02:19</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>26<sup>4</sup></b>   | 115 bp                        | <b>515 bp</b> | *03:26, 03:33, 03:43-03:44, 03:71:01-03:71:02                                                                                 | *11:15, 11:44, 11:49:01-11:50, 11:76, 11:85, 11:114, 11:127, 11:183, 11:196, 13:34, 13:62, 13:64, 13:106, 13:136, 13:151,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|-----------------------|--------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>27<sup>4</sup></b> | 115 bp | <b>515 bp</b> | *03:43, 03:71:01-03:71:02                                                                                                                                                 | 13:174, 13:204, 13:216, 13:221, 14:41, 14:77, 14:97, 14:110, <b>DRB3*01:14</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                       | 150 bp |               | *03:53                                                                                                                                                                    | *11:15, 11:76, 11:114, 11:183, 11:196,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                       | 175 bp |               | *03:46, 03:130                                                                                                                                                            | 13:34, 13:62, 13:64, 13:136, 13:151, 13:174,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                       | 225 bp |               | *03:34, 03:55                                                                                                                                                             | 13:204, 13:221, 14:41, 14:77, 14:110, <b>DRB3*01:14</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>28<sup>4</sup></b> | 75 bp  | <b>430 bp</b> | *03:67N                                                                                                                                                                   | *14:150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                       | 155 bp |               | *03:36, 03:124                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                       | 195 bp |               | *03:45                                                                                                                                                                    | <b>DRB5*01:04<sup>?</sup></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>29</b>             | 155 bp | <b>430 bp</b> | *03:22, 03:40-03:41:02, 03:52, 03:75, 03:105, 03:118                                                                                                                      | *11:07:01-11:07:02, 11:103:01-11:103:02, 11:105, 11:107, 11:125, 11:173                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                       | 180 bp |               | *03:39                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                       | 215 bp |               | *03:92                                                                                                                                                                    | *14:76, 14:79                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>30</b>             | 175 bp | <b>430 bp</b> | *03:01:01:01-03:07, 03:09, 03:11:01-03:41:02, 03:43-03:45, 03:47-03:63, 03:66-03:68N, 03:70-03:86, 03:88-03:91, 03:93-03:110, 03:112-03:129, 03:131-03:139, 03:141-03:142 | *08:20, 13:01:01:01-13:16, 13:18-13:42, 13:44, 13:46-13:66:02, 13:68-13:102, 13:104-13:115, 13:117-13:121, 13:123-13:158, 13:161-13:164, 13:166-13:174, 13:176-13:178, 13:180-13:182, 13:184-13:190, 13:192-13:194, 13:196-13:213, 13:215-13:216, 13:218-13:227, 13:229-13:247, 14:02:01:01-14:03:02, 14:05:01:01-14:06:03, 14:09, 14:12:01-14:14, 14:17-14:21, 14:23:01-14:24, 14:27:01-14:27:02, 14:29-14:30, 14:33, 14:36-14:37, 14:40-14:45, 14:47-14:48, 14:51, 14:56, 14:59, 14:63-14:65, 14:67, 14:77-14:78, 14:80-14:81, 14:83-14:85, 14:89, 14:91, 14:94-14:96, 14:98, 14:100-14:103, 14:106, 14:108-14:109, 14:115-14:116, 14:121, 14:123, 14:127:01-14:127:02, 14:134-14:136, 14:144, 14:154-14:156, 14:159-14:161, 14:165, 14:167, 14:169-14:170, 14:174, 14:176-14:179, 14:181, 14:183, 14:187-14:188N, <b>DRB3*01:14</b> |
|                       |        |               |                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>31</b>             | 205 bp | <b>515 bp</b> | *03:45, 03:92                                                                                                                                                             | *14:76, 14:79                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                       | 245 bp |               | *03:50                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>32<sup>7</sup></b> |        |               | <b>Negative Control</b>                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

<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\*03 SSP subtypings.

When the primers in a primer mix can give rise to HLA-specific PCR products of more than one length this is indicated if the size difference is more than 20 base pairs. Size differences of 20 base pairs or less are not given. For high resolution SSP kits, the alleles listed are specified according to amplicon length.

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

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**Lot No.: 3G3**

**Lot-specific information**

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 internal positive control bands are 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

<sup>3</sup>For several DRB1 alleles 1st and/or 3rd exon(s) and beyond, as well as intron nucleotide sequences, are not 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. Assumption is made that unknown sequences in these regions are conserved within allelic groups.

<sup>4</sup>HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

<sup>5</sup>Primer mixes 6, 22 and 23 may have a tendency of giving rise to primer oligomer formation.

<sup>6</sup>Primer mixes 2 and 24 may give rise to a lower yield of specific PCR product than the other DRB1\*03 primer mixes.

<sup>7</sup>Primer mix 32 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs.

‘?’, nucleotide sequence information not available for the primer matching sequence.

“w”, may be weakly amplified.

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Lot No.: **3G3**

Lot-specific information  
**PRIMER SPECIFICATION**

| Well No.                                 | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                     | 8                    | 9                    | 10                   | 11                   | 12                   |
|------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Length of spec.                          | 220                  | 85                   | 155                  | 190                  | 75                   | 105                  | 125                   | 185                  | 135                  | 145                  | 100                  | 135                  |
| PCR product                              |                      |                      | 190                  |                      |                      |                      | 150                   |                      |                      |                      | 125                  | 190                  |
|                                          |                      |                      |                      |                      |                      |                      | 215                   |                      |                      |                      | 180                  |                      |
| Length of int. pos. control <sup>1</sup> | 515                  | 430                  | 515                  | 430                  | 430                  | 430                  | 430                   | 430                  | 430                  | 430                  | 515                  | 430                  |
| 5'-primer(s) <sup>2</sup>                | 26(164)<br>5'-gTA 3' | 13(125)<br>5'-gTC 3' | 37(196)<br>5'-AgA 3' | 37(196)<br>5'-AgA 3' | 26(164)<br>5'-gTA 3' | 26(164)<br>5'-gTA 3' | 26(164)<br>5'-gTA 3'  | 26(164)<br>5'-gTT 3' | 26(164)<br>5'-gTA 3' | 13(125)<br>5'-gTC 3' | 13(125)<br>5'-gTC 3' | 26(164)<br>5'-gTA 3' |
|                                          |                      |                      |                      |                      |                      |                      | 112(423)<br>5'-CAT 3' |                      |                      |                      |                      |                      |
| 3'-primer(s) <sup>3</sup>                | 86(344)<br>5'-CCA 3' | 28(171)<br>5'-CTC 3' | 74(308)<br>5'-CCT 3' | 86(344)<br>5'-CCA 3' | 37(197)<br>5'-Cgg 3' | 47(227)<br>5'-ggA 3' | 54(247)<br>5'-CCg 3'  | 74(308)<br>5'-CCC 3' | 57(257)<br>5'-CAT 3' | 47(227)<br>5'-ggT 3' | 31(179)<br>5'-ggC 3' | 57(257)<br>5'-CAg 3' |
|                                          |                      |                      | 86(344)<br>5'-CAC 3' |                      |                      | 48(229)<br>5'-CCT 3' | 58(260)<br>5'-CCT 3'  |                      | 57(257)<br>5'-CAT 3' |                      | 34(188)<br>5'-CCC 3' | 57(257)<br>5'-CAg 3' |
|                                          |                      |                      |                      |                      |                      | 48(229)<br>5'-CCA 3' | 149(534)<br>5'-TTC 3' |                      | 57(258)<br>5'-gCg 3' |                      | 40(207)<br>5'-TCT 3' | 74(308)<br>5'-CCg 3' |
|                                          |                      |                      |                      |                      |                      |                      | 170(595)<br>5'-AAg 3' |                      |                      |                      | 60(266)<br>5'-Agg 3' | 79(324)<br>5'-CTC 3' |
| Well No.                                 | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                     | 8                    | 9                    | 10                   | 11                   | 12                   |

| Well No.                                 | 13                   | 14                   | 15                   | 16                    | 17                   | 18                   | 19                   | 20                   | 21                   | 22                   | 23                   | 24                   |
|------------------------------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Length of spec.                          | 125                  | 105                  | 95                   | 50                    | 100                  | 120                  | 100                  | 75                   | 70                   | 95                   | 65                   | 65                   |
| PCR product                              | 160                  | 135                  | 155                  | 215                   | 230                  |                      |                      | 120                  | 150                  | 215                  | 165                  |                      |
|                                          | 225                  | 245                  |                      |                       | 255                  |                      |                      | 245                  |                      |                      |                      |                      |
| Length of int. pos. control <sup>1</sup> | 430                  | 515                  | 430                  | 430                   | 430                  | 430                  | 515                  | 430                  | 430                  | 430                  | 430                  | 430                  |
| 5'-primer(s) <sup>2</sup>                | 13(125)<br>5'-gTC 3' | 26(164)<br>5'-gTA 3' | 13(125)<br>5'-gTC 3' | 74(308)<br>5'-CCg 3'  | 13(125)<br>5'-gTC 3' | 47(227)<br>5'-gTT 3' | 67(286)<br>5'-ACT 3' | 26(164)<br>5'-gTA 3' | 10(116)<br>5'-gCT 3' | 26(164)<br>5'-gTA 3' | 26(164)<br>5'-gTA 3' | 28(171)<br>5'-gAg 3' |
|                                          |                      |                      |                      | 112(423)<br>5'-CAT 3' |                      | 47(227)<br>5'-ATT 3' |                      |                      | 37(197)<br>5'-gTT 3' |                      |                      |                      |
|                                          |                      |                      |                      |                       |                      |                      |                      |                      | 37(197)<br>5'-gTT 3' |                      |                      |                      |
| 3'-primer(s) <sup>3</sup>                | 40(207)<br>5'-TCT 3' | 48(229)<br>5'-CCA 3' | 31(179)<br>5'-ggC 3' | 77(317)<br>5'-Agg 3'  | 32(182)<br>5'-TAC 3' | 73(305)<br>5'-ggC 3' | 86(344)<br>5'-CCA 3' | 37(196)<br>5'-gTA 3' | 47(227)<br>5'-ggA 3' | 45(220)<br>5'-CCg 3' | 34(188)<br>5'-CCC 3' | 37(196)<br>5'-gTT 3' |
|                                          | 52(241)<br>5'-CTg 3' | 57(256)<br>5'-gCT 3' | 51(239)<br>5'-CCC 3' | 77(317)<br>5'-Agg 3'  | 76(313)<br>5'-gTT 3' |                      |                      | 52(241)<br>5'-CTT 3' |                      | 85(340)<br>5'-AAT 3' | 67(286)<br>5'-gAT 3' |                      |
|                                          | 56(254)<br>5'-CAC 3' | 57(257)<br>5'-CAg 3' | 52(241)<br>5'-CTg 3' | 170(595)<br>5'-AAG 3' | 85(341)<br>5'-CAg 3' |                      |                      | 94(367)<br>5'-TCA 3' |                      |                      |                      |                      |
|                                          | 74(308)<br>5'-CCT 3' | 94(367)<br>5'-TCA 3' |                      |                       |                      |                      |                      |                      |                      |                      |                      |                      |
| Well No.                                 | 13                   | 14                   | 15                   | 16                    | 17                   | 18                   | 19                   | 20                   | 21                   | 22                   | 23                   | 24                   |

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Lot-specific information

| Well No.                  | 25                   | 26                   | 27                   | 28                    | 29                   | 30                   | 31                   |
|---------------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|
| Length of spec.           | 80                   | 115                  | 115                  | 75                    | 155                  | 175                  | 205                  |
| PCR product               | 170                  |                      | 150                  | 155                   | 180                  |                      | 245                  |
|                           | 230                  |                      | 175                  | 195                   | 215                  |                      |                      |
|                           |                      |                      | 235                  |                       |                      |                      |                      |
| Length of int.            | 430                  | 515                  | 515                  | 430                   | 430                  | 430                  | 515                  |
| pos. control <sup>1</sup> |                      |                      |                      |                       |                      |                      |                      |
| 5'-primer(s) <sup>2</sup> | 11(118)<br>5'-ACg 3' | 13(125)<br>5'-gTC 3' | 13(125)<br>5'-gTC 3' | 21(149)<br>5'-gAT 3'  | 16(133)<br>5'-gTT 3' | 13(125)<br>5'-gTC 3' | 6(103)<br>5'-CAg 3'  |
|                           | 27(166)<br>5'-ACg 3' |                      |                      | 33(186)<br>5'-AAA 3'  | 27(167)<br>5'-CCg 3' |                      | 16(133)<br>5'-gTT 3' |
|                           | 32(181)<br>5'-TCg 3' |                      |                      | 61(269)<br>5'-CTA 3'  | 32(181)<br>5'-TCg 3' |                      | 21(149)<br>5'-gAT 3' |
|                           | 60(266)<br>5'-gTC 3' |                      |                      | 112(423)<br>5'-CAT 3' | 34(189)<br>5'-CAA 3' |                      |                      |
|                           | 61(269)<br>5'-CTA 3' |                      |                      |                       |                      |                      |                      |
| 3'-primer(s) <sup>3</sup> | 73(305)<br>5'-ggC 3' | 38(199)<br>5'-CAg 3' | 38(199)<br>5'-CAA 3' | 73(305)<br>5'-ggC 3'  | 73(305)<br>5'-ggC 3' | 58(260)<br>5'-CAg 3' | 73(305)<br>5'-ggC 3' |
|                           |                      | 38(199)<br>5'-CAA 3' | 38(199)<br>5'-CAg 3' | 149(534)<br>5'-TTC 3' |                      | 58(260)<br>5'-Cgg 3' |                      |
|                           |                      | 38(200)<br>5'-gCg 3' | 49(232)<br>5'-Cgg 3' |                       |                      | 58(260)<br>5'-CCg 3' |                      |
|                           |                      |                      | 58(260)<br>5'-CgC 3' |                       |                      | 59(264)<br>5'-TAT 3' |                      |
|                           |                      |                      | 76(313)<br>5'-gTT 3' |                       |                      |                      |                      |
|                           |                      |                      | 80(326)<br>5'-gTA 3' |                       |                      |                      |                      |
| Well No.                  | 25                   | 26                   | 27                   | 28                    | 29                   | 30                   | 31                   |

<sup>1</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

<sup>2</sup>The nucleotide position matching the specificity-determining 3'-end of the primer is given. 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 nucleotide position matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. 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.





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101.113-24u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **3G3**

Lot-specific information

| CELL LINE VALIDATION SHEET         |      |            |        |        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |   |  |  |  |  |  |  |  |  |  |  |
|------------------------------------|------|------------|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---|--|--|--|--|--|--|--|--|--|--|
| DRB1*03 SSP subtyping <sup>2</sup> |      |            |        |        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |   |  |  |  |  |  |  |  |  |  |  |
|                                    |      |            |        |        | Well      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |   |  |  |  |  |  |  |  |  |  |  |
|                                    |      |            |        |        | 17        | 18        | 19        | 20        | 21        | 22        | 23        | 24        | 25        | 26        | 27        | 28        | 29        | 30        | 31        |   |  |  |  |  |  |  |  |  |  |  |
|                                    |      |            |        |        | 201777017 | 201432618 | 201891319 | 201432620 | 201432621 | 201432622 | 201432623 | 201432624 | 201891325 | 201777026 | 201891327 | 201891328 | 201891329 | 201777030 | 201432631 |   |  |  |  |  |  |  |  |  |  |  |
| IHWC cell line <sup>1</sup>        |      |            | DRB1   |        |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |   |  |  |  |  |  |  |  |  |  |  |
| 1                                  | 9001 | SA         | *01:01 | *04:05 | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 2                                  | 9280 | LK707      | *15:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 3                                  | 9011 | E4181324   | *15:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 4                                  | 9275 | GU373      | *03:01 |        | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 5                                  | 9009 | KAS011     | *16:01 | *08:03 | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 6                                  | 9353 | SM         | *04:07 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 7                                  | 9020 | QBL        | *03:01 |        | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 8                                  | 9025 | DEU        | *04:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 9                                  | 9026 | YAR        | *04:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 10                                 | 9107 | LKT3       | *04:05 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 11                                 | 9051 | PITOUT     | *07:01 | *13:01 | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 12                                 | 9052 | DBB        | *07:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 13                                 | 9004 | JESTHOM    | *01:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 14                                 | 9071 | OLGA       | *08:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 15                                 | 9075 | DKB        | *09:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 16                                 | 9037 | SWEIG007   | *11:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 17                                 | 9282 | CTM3953540 | *03:01 |        | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 18                                 | 9257 | 32367      | *09:01 |        | *11:01    | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 19                                 | 9038 | BM16       | *12:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 20                                 | 9059 | SLE005     | *13:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 21                                 | 9064 | AMALA      | *14:02 | *14:01 | -         | -         | -         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 22                                 | 9056 | KOSE       | *13:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 23                                 | 9124 | IHL        | *08:03 |        | *14:14    | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 24                                 | 9035 | JBUSH      | *11:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 25                                 | 9049 | IBW9       | *07:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 26                                 | 9285 | WT49       | *03:01 |        | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 27                                 | 9191 | CH1007     | *04:05 |        | *10:01    | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 28                                 | 9320 | BEL5GB     | *04:16 |        | *07:01    | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 29                                 | 9050 | MOU        | *07:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 30                                 | 9021 | RSH        | *03:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 31                                 | 9019 | DUCAF      | *03:01 | *04:06 | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         |   |  |  |  |  |  |  |  |  |  |  |
| 32                                 | 9297 | HAG        | *13:03 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 33                                 | 9098 | MT14B      | *04:04 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 34                                 | 9104 | DHIF       | *11:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 35                                 | 9302 | SSTO       | *04:03 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 36                                 | 9024 | KT17       | *04:03 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 37                                 | 9065 | HHKB       | *13:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 38                                 | 9099 | LZL        | *14:02 |        | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 39                                 | 9315 | CML        | *03:01 |        | *04:01    | -         | +         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | - |  |  |  |  |  |  |  |  |  |  |
| 40                                 | 9134 | WHONP199   | *07:01 |        | *09:01    | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 41                                 | 9055 | H0301      | *13:02 | *12:01 | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | +         | -         |   |  |  |  |  |  |  |  |  |  |  |
| 42                                 | 9066 | TAB089     | *08:03 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 43                                 | 9076 | T7526      | *09:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 44                                 | 9057 | TEM        | *14:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 45                                 | 9239 | SHJO       | *07:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 46                                 | 9013 | SCHU       | *15:01 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 47                                 | 9045 | TUBO       | *11:04 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |
| 48                                 | 9303 | TER-ND     | *01:03 |        | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | - |  |  |  |  |  |  |  |  |  |  |

**101.113-24/04 – including Taq polymerase, IFU-01**  
**101.113-24u/04u – without Taq polymerase, IFU-02**

Visit [www.olerup.com](http://www.olerup.com) for  
**“Instructions for Use” (IFU)**

**Lot No.: 3G3**

**Lot-specific information**

<sup>1</sup>The provided cell line HLA specificities are retrieved from the <http://www.ihwg.org/hla> web site. The specificity of an individual cell line may thus be subject to change.

<sup>2</sup>The specificity of each primer solution in the kit has been tested against 48 well characterized cell line DNAs and where applicable, additional cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 7, 11 to 17, 20 to 23, 25 to 29 and 31 were available. The specificities of the primers in primer solutions 7, 11 to 17, 21, 26 to 29 and 31 were tested by separately adding one, two or three additional 5'-primers, respectively one or two additional 3'-primers. In primer solutions 25 it was only possible to test the 3'-primer, the 5'-primers were not possible to test. In primer solutions 20, 22 and 23 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 6, 7, 11 to 17, 27 and 30 one or more of the 3'-primers were not possible to test.

In primer solutions 18, 21, 28, 29 and 31 one or more of the 5'-primers were not possible to test. In primer solutions 3 and 9 one or two additional 3'-primer was tested by adding one or two additional 5'-primers.

101.113-24/04 – including *Taq* polymerase, IFU-01  
101.113-24u/04u – without *Taq* polymerase, IFU-02

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**Lot No.: 3G3**

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101.113-24/04 – including *Taq* polymerase, IFU-01  
101.113-24u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **3G3**

Lot-specific information

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