

Lot No.: **10F**

Lot-specific information

## **Olerup SSP<sup>®</sup> HLA-A-B-DR-DQ SSP Combi Tray**

**Product number:** 101.708-24u – without *Taq* pol.  
**Lot number:** 10F  
**Expiry date:** 2010-September-01  
**Number of tests:** 24 tests  
**Number of wells per test:** 95 +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. 10F.**

### **CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP<sup>®</sup>* HLA-A-B-DR-DQ SSP COMBI TRAY LOT**

The **HLA-A low resolution** specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-A-B-DR-DQ SSP Combi Tray lot was made (**Lot No. Y19**).

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

Well	5'-primer	3'-primer	rationale
15	Exchanged	-	To amplify the A*3121 allele.

The **HLA-B low resolution** specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-A-B-DR-DQ SSP Combi Tray lot was made (**Lot No. Y19**).

The HLA-B low resolution primer set is unchanged compared to the previous lot.

The **HLA-DR low resolution** specificity and interpretation tables have been updated for the HLA-DRB alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-A-B-DR-DQ SSP Combi Tray lot was made (**Lot No. Y19**).

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

Well	5'-primer	3'-primer	rationale
67	Added	-	Primer added for the DRB1*1528 allele.

The **DQ low resolution** specificity and interpretation tables have been updated for the HLA-DQB1 alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-A-B-DR-DQ SSP Combi Tray lot was made (**Lot No. Y19**).

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

Well	5'-primer	3'-primer	rationale
94	Modified	-	Increased yield of specific PCR product
95	Exchanged	-	Primer exchanged to amplify the DQB1*0403 allele.

Lot No.: **10F**

Lot-specific information

Well 96 contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup* SSP<sup>®</sup> HLA Class I, DRB, DQB1 and DPB1 amplicons as well as the amplicons generated by control primer pairs.

PCR product sizes range from 75 to 430 base pairs.  
The PCR product generated by the control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80
<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>
	5'-CAC <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-Tg g <sup>3'</sup>	5'-Tg g <sup>3'</sup>	5'-Tg g <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>
	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>
<b>A*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>B*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>Cw*</b>	<b>+</b>	<b>+</b>	<b>+</b>			
<b>DRB1</b>				<b>+</b>	<b>+</b>	
<b>DRB3</b>				<b>+</b>	<b>+</b>	
<b>DRB5</b>				<b>+</b>		
<b>DQB1</b>					<b>+</b>	
<b>DPB1</b>						<b>+</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.

Lot No.: **10F**

Lot-specific information

## PRODUCT DESCRIPTION

### HLA-A-B-DR-DQ SSP Combi Tray

#### CONTENT

The primer set contains 5'- and 3'-primers for grouping the HLA-A\*0101 to A\*8001 alleles into the corresponding serological groups A1 to A80.

The primer set contains 5'- and 3'-primers for grouping the B\*0702 to B\*8301 alleles into the corresponding serological groups B7 to B81 as well as primer pairs for recognizing the Bw4 and Bw6 sequence motifs.

The primer set contains 5'- and 3'-primers for grouping the DRB1\*0101 to DRB1\*1003 alleles into the corresponding serological groups DR1 to DR18 as well as primer pairs for recognizing the DRB3, DRB4 and DRB5 groups of alleles.

The primer set contains 5'- and 3'-primers for grouping the DQB1 alleles into the serological groups DQ2 to DQ9.

*Please note that DQB1 amplifications usually are somewhat less pronounced than e.g. DRB and DQA1 amplifications even when using the same DNA preparation and exactly the same experimental procedures.*

#### PLATE LAYOUT

Each test consists of 96 PCR reactions in a 96 well PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	ctrl

Wells 1 to 21 – HLA-A low resolution primers.

Wells 22 to 64 – HLA-B low resolution primers.

Wells 65 to 87 – HLA-DR low resolution primers.

Wells 88 to 95 – HLA-DQ low resolution primers.

Well 96 – Negative Control.

The 96 well PCR plate is marked with 'A-B-DR-DQ' in silver/gray ink.

Well No. 1 is marked with the Lot No. '10F'.

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

#### INTERPRETATION

Only HLA-A alleles will be amplified by the 21 wells of the HLA-A low resolution primer set, **wells 1 to 21**, except that primer mix 5 will amplify the B\*1827 allele. Thus, the interpretation of HLA-A low resolution is only influenced by this HLA-B allele and not by other HLA Class I genes.

Lot No.: **10F**

Lot-specific information

Only HLA-B alleles will be amplified by the 43 wells of the HLA-B low resolution, primer set, **wells 22 to 64**, except that the HLA-Cw\*0305, 0325 and 0327 alleles will be amplified by primer mix 24, that the Cw\*0746 allele will be amplified by primer mix 29, that the Cw\*0206 allele will be weakly amplified by primer mix 31 and that the Cw\*150204 allele will be amplified by primer mix 58. Thus, the interpretation of HLA-B low resolution typings is only influenced by these six HLA-Cw alleles and not by other alleles of other HLA class I genes.

Only HLA-DRB alleles will be amplified by the 23 wells the DR low resolution primer set, **wells 65 to 87**. Thus, the interpretation of DR low resolution typings is not influenced by other HLA class II genes.

Only the DQB1 alleles will be amplified by the 8 wells the DQ low resolution primer set, **wells 88 to 95**. Thus, the interpretation of DQ low resolution typings is not influenced the DQB2 and DQB3 genes.

### UNIQUELY IDENTIFIED ALLELES

All the HLA-A alleles, i.e. **A\*0101 to A\*8001**, recognized by the HLA Nomenclature Committee in July 2008<sup>1</sup> will be amplified by the primers in the HLA-A low resolution primer set, **wells 1 to 21**. The HLA-A alleles will be grouped into their corresponding serological specificities<sup>3</sup>.

All the HLA-B alleles<sup>2</sup>, i.e. **B\*0702 to B\*8301**, recognized by the HLA Nomenclature Committee in July 2008<sup>1</sup> will be amplified by the primers in the HLA-B low resolution primer set, **wells 22 to 64**. The HLA-B alleles will be grouped into their corresponding serological specificities<sup>4</sup>.

All the HLA-DRB1, -DRB3, -DRB4<sup>5</sup> and -DRB5 alleles, i.e. **DRB1\*010101 to 1003, DRB3\*010101 to DRB3\*0303, DRB4\*010101 to DRB4\*0107, DRB5\*010101 to DRB5\*0205**, recognized by the HLA Nomenclature Committee in July 2008<sup>2</sup> will be amplified by the primers in the DR low resolution primer set, **wells 65 to 87**. The HLA-DRB alleles will be grouped into their corresponding serological specificities<sup>6</sup>.

All the DQB1 alleles, i.e. **DQB1\*050101 to 0505, DQB1\*060101 to 0634, DQB1\*020101 to 0205, DQB1\*030101 to 0321 and DQB1\*0401 to 0403**, recognized by the HLA Nomenclature Committee in July 2008<sup>2</sup> will be amplified by the primers in the DQ low resolution primer set. The DQB1 alleles will be grouped into their corresponding serological specificities, i.e.:

DQ5(1) = DQB1\*050101-0505<sup>7</sup>  
DQ6(1) = DQB1\*060101-0634<sup>7</sup>  
DQ2 = DQB1\*020101-0205  
DQ3 = DQB1\*030101-0321<sup>7</sup>  
DQ7(3) = DQB1\*030101-030103, DQB1\*0304  
DQ8(3) = DQB1\*030201, DQB1\*030501, DQB1\*0310  
DQ9(3) = DQB1\*030302  
DQ4 = DQB1\*0401-0403<sup>7</sup>

**Lot No.: 10F**

**Lot-specific information**

<sup>1</sup>HLA-A, HLA-B, HLA-DRB and HLA-DQB1 alleles listed on the IMGT/HLA web page 2008-July-11, release 2.22.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>The nucleotide sequences of the B\*3589 and B\*4093 alleles are not yet retrievable from the GenBank or EMBL data banks.

<sup>3</sup>The A\*0318 and A\*2619 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

The A\*2314, A\*2405, A\*241302 and A\*2424 alleles will give rise to identical amplification patterns. These four alleles can be separated by the respective high resolution SSP primer sets.

<sup>4</sup>The B\*0826 and the B\*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*1408 and the B\*3925N, B\*3930 and B\*3932 to 3934 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*1829 and the B\*3523, B\*3537, B\*3553N, B\*3564, B\*3566 and B\*356801-356802 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5504, B\*5508, B\*5513, B\*5527 and the B\*5615, B\*5619N and B\*5622 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5523, B\*5532 and the B\*5618 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

<sup>5</sup>The DRB4\*0201N and DRB4\*0301N null alleles will not be amplified by the DR low resolution primer set.

<sup>6</sup>The DRB1\*0809, DRB1\*0821 and DRB4\*1415 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1415 allele.

The DRB1\*0820, DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles.

The DRB1\*0831 and DRB1\*1167 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1167 allele.

<sup>7</sup>The serological split of the DQB1\*0505, DQB1\*0606 to 0608 alleles, the DQB1\*0610 to 0634, the DQB1\*030202-030204, DQB1\*030303, DQB1\*030502 to 0321 and the DQB1\*0403 alleles is not known. In this table we have inferred the serological grouping from the naming of the sequence-defined allele.

Lot No.: **10F**

Lot-specific information

## SPECIFICITY TABLE

### HLA-A low resolution primer set

Specificities and sizes of the PCR products of the 21 primer mixes used for HLA-A low resolution SSP typing

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	HLA-A serology <sup>3</sup>	Amplified HLA-A alleles <sup>4,10,11</sup>
<b>1<sup>5</sup></b>	120, 145 bp	<b>800 bp</b>	A1, A36	01010101-0104N, 0106-0130, 3601-3604
<b>2<sup>6</sup></b>	135, 200, 255 bp	1070 bp	A2	02010101-020115, 020117-0222, 0224-023501, 023503-0247, 0249-0297, 0299, 9201-9221, 9223-9228, 9230-9248
<b>3<sup>7</sup></b>	205, 235 bp	1070 bp	A1, A3, A11, A32, A34, A36	0112, 0119, 0121, 03010101-0317, 0319-0339, 1125, 3204, 3402-3404, 3407, 3408, 3602
<b>4<sup>7</sup></b>	190 bp	<b>800 bp</b>	A1, A2, A3, A11, A26, A30, A36	01010101-0104N, 0106, 0107, 0109-0111N, 0113, 0116N-0118N, 0120-0129, 0278, 0312, 0318, 110101-1127, 1129-1136, 2619, 3008, 3604
<b>5</b>	165, 200 bp	<b>800 bp</b>	A2, A23, A24, A29, A80	9222, 2301-2319Q, 2405, 241302, 2424, 2907, 8001, <b>B*1827</b>
<b>6</b>	175, 205 bp	1070 bp	A2, A23, A24, A26, A33	021701-021702 <sup>weakly</sup> , 2314, 24020101-2411N, 241301-241302, 2417-2450, 2454-2456, 2458-2463, 2466-2491, 2616, 3319
<b>7</b>	165, 200 bp	<b>800 bp</b>	A2, A3, A11, A25, A26, A32, A34, A66, A68, A69	0255, 0324, 1110, 250101-2506, 260101-2606, 2608-2615, 2617, 2618, 2620-2637, 3215, 340101-3408, 6601-6607, 680101-6843, 6901
<b>8<sup>5</sup></b>	75 bp	<b>800 bp</b>	A25, A32	250101-2506, 320101-3202, 3204, 3206-3216
<b>9<sup>5</sup></b>	85 bp	1070 bp	A2, A26, A33	9246, 260101-2602, 2604, 260701-2618, 2620, 2622-2629, 2632-2637, 3313
<b>10<sup>5,7,8</sup></b>	80, 175, 500 bp	1070 bp	A1, A11, A24, A26, A31, A34, A66	0113, 0128, 110101-1127, 1129-1136, 2419, 2444, 2603, 2606, 2621, 3103, 340101-3408, 6601, 6604-6607

Lot No.: **10F**

Lot-specific information

<b>11</b>	185 bp	<b>800 bp</b>	A11, A25, A26, A31, A34, A43, A66	1111, 2506, 2609, 3103, 3104, 340101-3408, 4301, 6602, 6603
<b>12<sup>7</sup></b>	175, 225 bp	1070 bp	A1, A2, A3, A25, A26, A34, A43, A66	0113, 0234-023503, 0256, 0262, 9203, 9235, 03010101-0307, 0309-0311N, 0313-0331, 0333-0335, 0337-0339, 250101-2505, 260101-260106, 2602 <sup>weakly</sup> , 2603, 2605-2608, 2610-2633, 2635-2637, 3408, 4301, 6601, 6604-6607
<b>13</b>	200, 240 bp	1070 bp	A29, A33	29010101-2917, 3313
<b>14<sup>5</sup></b>	90, 135 bp	1070 bp	A1, A30	0113, 0128, 300101-3004, 3006-3020, 3022-3025
<b>15</b>	370, 400 bp	1070 bp	A31, A32	2914, 310102-3122, 3205
<b>16</b>	180 bp	1070 bp	A29, A32	2913, 320101-3203, 3205-3216
<b>17</b>	200 bp	1070 bp	A33, A68	3301, 330301-3319, 6829
<b>18</b>	160, 200 bp	<b>800 bp</b>	A74	7401-7412N
<b>19<sup>9</sup></b>	155, 240 bp	<b>800 bp</b>	A2, A210, A25, A30, A68	0210, 0234-023503, 0239, 0246, 0248, 0250, 0252, 0256, 0262, 0270, 0273, 0278, 0293, 0295, 9203, 9210, 9214, 9217, 9222, 9229, 2505, 3008, 680101-6843
<b>20</b>	240, 375 bp	<b>800 bp</b>	A2, A24, A26, A68, A69	0255, 2482, 2622, 6829, 6901
<b>21<sup>5</sup></b>	75, 160 bp	<b>800 bp</b>	A2, A26, A68, A80	0255, 2603, 2605, 2606, 2621, 2630, 6805, 6815, 6820, 8001

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

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

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

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

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low

**Lot No.: 10F**

**Lot-specific information**

amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

<sup>2</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A low resolution typing.

In addition, wells number 4, 5, 7, 8, 11, 18 to 21 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

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

<sup>3</sup>The serological reactivity of all HLA-A alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>For several HLA-A alleles only partial 1<sup>st</sup> exon nucleotide sequences are available. We assume that unknown sequences are conserved within allelic groups.

Nucleotide sequence information is available for only exons 2 and 3 of many HLA Class I alleles and for only exon 2 of many HLA Class II alleles and not for other exons or for the introns of these alleles. We assume that unknown sequences in these exons and in the introns are conserved within loci and within allelic groups.

<sup>5</sup>Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

<sup>6</sup>The primer pairs in vial 2 will in most samples give rise to two specific PCR fragments.

<sup>7</sup>Primer mixes 3, 4, 10 and 12 may give rise to nonspecific amplifications.

<sup>6</sup>The primer pairs in vial 10 will in most samples give rise to two to three specific PCR fragments.

<sup>9</sup>Primer mix 19 may give rise to nonspecific amplifications.

<sup>10</sup>The A\*0318 and A\*2619 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

The A\*2314, A\*2405, A\*241302 and A\*2424 alleles will give rise to identical amplification patterns. These four alleles can be separated by the respective high resolution SSP primer sets.

<sup>11</sup>Primer mix 6 will amplify the B\*1827 allele.

'w', might be weakly amplified.

Lot No.: **10F**

Lot-specific information

## SPECIFICITY TABLE

### HLA-B low resolution primer set

Specificities and sizes of the PCR products of the 43 primer mixes used for HLA-B low resolution SSP typing

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	HLA-B serol. <sup>3</sup>	Amplified HLA-B alleles <sup>4</sup>
<b>22<sup>5,6</sup></b>	110 bp	<b>800 bp</b>	7, 15, 37, 40, 41, 42, 48	070201-071802, 0720-0732, 0734-0739, 0741-0747, 0749N, 0750, 0752, 0754-0759, 0761-0766, 9538, 3707, 4015, 4016, 4023, 4032, 4108, 420501-420502, 4805, 4808, 4815
<b>23</b>	215 bp	1070 bp	8, 15, 44	080101-0825, 0827-0836, 9542, 4449
<b>24<sup>7</sup></b>	140, 235 bp	1070 bp	7, 8, 13, 15, 35, 40, 4005, 44, 46, 53, 57, 58	0720, 0724, 0760, 0821, 0825, 1301-1304, 1306-1308Q, 1310-1322, 150106-150108, 1507, 152702-152703, 1536, 1545, 1555, 1568, 1589, 9526, 9535-9537, 9539-9542, 9544-9549N, 3505, 3516, 3517, 3522, 3530, 3551, 3558, 3572, 4005, 4071, 4408, 4454, 4457, 4460, 4611-4616, 5314, 5714, 5715, 5717, 5818, <b>Cw*0305, Cw*0325, Cw*0327</b>
<b>25<sup>8</sup></b>	130, 265 bp	1070 bp	13, 14, 15, 35, 40, 41, 44, 45, 47, 49, 50	1301-1304, 1306-1313, 1315-1322, 1401-1404, 1407N, 1409, 1546, 1553, 9506, 3547, 3563, 400101-400106, 4007, 4010, 401401-4016, 4022N, 4023, 4025, 4030-4034, 4036, 4038, 4042, 4043, 4045, 4047-4049, 4051-4055, 4058-4063, 4065-4067, 4069, 407201-4073, 4076, 4077, 4079-4081, 4084, 4087, 4088, 4092, 4101-4108, 44020101-4405, 4409-4439, 4441-4443, 4445-4456N, 4458N-446402, 4501-4509, 47010101-4705, 4901, 4902, 4904, 4905, 5001, 5002, 5004
<b>26<sup>9</sup></b>	185, 235 bp	1070 bp	14, 16, 27, 37, 38, 39, 47, 64, 67	1401, 1407N, 1408, 2701-270402, 270502-2706, 2708-2710, 2712, 2713, 2716-2718, 2720, 2723, 2726, 2727, 2729, 2731, 2735-2737, 2739-2742, 3702, 380101-3803, 3807-3817, 39010101-39010102L, 390103-390201, 3903, 3905-390602, 3907 <sup>?</sup> , 3908, 3909,

Lot No.: **10F**

Lot-specific information

<b>27<sup>9</sup></b>	185 bp	<b>800 bp</b>	14, 35, 38, 39, 65	3911, 3914, 3915, 3918, 391902, 3922, 3924-3944, 4704, 4705, 670101 140201-140602, 1409, 3526, 3805, 3904, 3907 <sup>?</sup>
<b>28</b>	290 bp	1070 bp	15, 62, 63, 75, 76, 77, 46	15010101-150103, 150106-150107, 1502, 1504-1508, 151101-1515, 15170101-151702, 1519-1521, 1524-152701, 152703, 1528, 1530-1536, 1538-1540, 1542-1546, 1548, 1550, 1555-1558, 1560, 1563, 1565, 1566, 1568, 1570, 1571, 1573, 1575-1579N, 1581-1589, 1592, 1594N, 1596, 1597, 9501, 9502, 9504-9507, 9509-9513, 9516-9518, 9520-9522, 9525, 9526, 9528, 9529, 9535-9549N, 460101-4616
<b>29</b>	165, 220, 330 bp	1070 bp	8, 15, 35, 37, 40, 41, 42, 44, 45, 51, 56, 57, 70, 71, 72	080101-0805, 0808N-0812, 0815-0819N, 0821-0824, 0826, 0827, 0829-0836, 1503, 1509, 1510, 1518, 1523, 1529, 1537, 1546, 1547, 1549, 1551-1554, 1561, 1562, 1564, 1568, 1569, 1572, 1574, 1580, 1583, 1590, 1591, 1593, 1598, 1599, 9503, 9506, 9508, 9514, 9515, 9519, 9523, 9524, 9527, 9531-9534, 9543, 3587, 3712, 4012, 4101-410302, 4105-4108, 4201, 4202, 4204-4208, 4414, 4415, 4418, 4420, 4462, 4501-4509, 5108, 5120, 5136, 5144N, 5613, 5709, 8201, 8202, <b>Cw*0746</b>
<b>30<sup>5,9,10</sup></b>	165, 390 bp	<b>800 bp</b>	15, 35, 40, 44, 51, 52, 56, 58, 62, 63, 70, 78	150102, 1509, 1516-151702, 1567, 1595, 350402, 4026, 4028, 4462, 510101-510103, 510105-510902, 5111N, 5112, 511302, 5114, 5117-5120, 5122, 5123, 5126-5130, 5132, 5133, 5137-5141N, 5143, 5144N, 5146, 5148-5157, 520101-5207, 5209-5213, 560501-5606, 5621, 5808, 7801-7806
<b>31<sup>9</sup></b>	180, 395 bp	<b>800 bp</b>	13, 15, 40, 55, 62, 70, 71, 72, 75	1301-130204, 1307N-1309, 1311, 1314-1320, 1322, 1509, 1510, 1518, 1521, 1523, 1537, 1544, 1551, 1552, 1566, 1572, 1580, 1590, 1593, 1599, 9508, 9514, 9515, 9519, 9524, 9533, 9534, 4048, 5522, 5524, <b>Cw*0206<sup>weakly</sup></b>
<b>32<sup>5,6</sup></b>	105, 195 bp	1070 bp	7, 8, 15, 27, 38, 39, 40, 44, 45,	0727, 0750, 0804, 0817, 1503, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527,

Lot No.: **10F**

Lot-specific information

			48, 55, 72	9531, 9532, 2718, 2729, 3803, 390201-390202, 3908, 391301-391302, 3923, 3939, 4012, 4046, 4410, 4415, 4418, 4440, 4444, 4501, 4505-4507, 480101-4805, 4807-4819, 5002, 5518, 8201, 8202
<b>33</b>	195 bp	1070 bp	15, 35, 37, 38, 44, 45, 58, 76	1512, 1514, 1519, 1591, 9531, 3545, 3571, 370101-3709, 3712, 3713, 3817, 4417, 4443, 4509, 5807
<b>34<sup>6</sup></b>	105, 435	1070 bp	7, 15, 41, 42, 59, 62, 63, 77	0704, 0725, 1513, 1516-151702, 1523, 1524, 1567, 1587, 1595, 4108, 420501-420502
<b>35<sup>6</sup></b>	115 bp	1070 bp	18	180101-1815, 1817N-1828
<b>36<sup>6</sup></b>	80 bp	1070 bp	27, 40, 44	2701-270402, 270502-2721, 2723-2743, 4046, 4440, 4444
<b>37</b>	150 bp	1070 bp	13, 15, 18, 27, 35, 37, 39, 40, 44, 48, 51, 53, 55, 56, 57, 58, 62, 75, 77	1301, 1306, 1307N, 1312, 1313, 1317, 1320, 1322, 1502, 1513, 1520, 1521, 1525, 1536, 1544, 1562, 1577, 1580, 1585, 1588, 1589, 9506, 9512, 9521, 9539, 9544, 1822, 2719, 2730, 350101-350403, 3506-350803, 3510-3517, 3519-3521, 3523-3530, 3533-3536, 3538-3542, 3545-3550, 3552, 3554-3557, 3559, 3561-3563, 3565Q, 3569-3571, 3574, 3576-3578, 3580-3585, 3590-3594, 370101-370104, 3703N-3706, 3708, 3710, 3711, 3713, 3942, 4028, 44020101-4414, 4416, 4417, 4419N, 4421-4430, 4432-4440, 4442-4446, 4448-4452N, 4455-446402, 4802, 5104, 5142, 5146, 5156, 530101-5313, 5315, 5316, 5514, 5609, 5611, 5612, 570101-5710, 5712, 5714-5717, 580101-580102, 5804, 5805, 5809-5815, 5817N, 5819, 8301
<b>38</b>	135 bp	1070 bp	7, 8, 18, 35, 37, 39, 56, 78	0765, 0832, 180101-1808, 1810-1815, 1817N-1829, 350101-3518, 352001-3524, 3528-3545, 3548, 3550-3555, 3557-3562, 3564-3572, 3774-3588, 3590-3594, 3711, 3714, 391901-391902, 5606, 7801-7805
<b>39<sup>5,6</sup></b>	245, 400 bp	1070 bp	15, 62, 63, 70, 71, 72, 75, 76, 77, 40, 44	15010101-150104, 150106-1521, 1523-1540, 1542-1558, 1560-1599, 9501-9529, 9531-9549N, 4012, 4410, 8201, 8202
<b>40<sup>5,9,11</sup></b>	205 bp	<b>800 bp</b>	7, 8, 15, 18, 37, 38	0727, 0802, 9515, 1809, 370101-3704, 3705 <sup>weakly</sup> , 3706-3710, 3712, 3713,

Lot No.: **10F**

Lot-specific information

<b>41</b>	170 bp	<b>800 bp</b>	15, 35, 38, 39, 67	380201-3804, 3808, 3815, 3817 1569, 9536, 3535, 380101-3809, 3811- 3817, 39010101-39010102L, 390103- 3920, 3922-3924, 3926-3929, 3931, 3935, 3937-3942, 3944, 3945, 670101- 6702
<b>42<sup>6</sup></b>	110 bp	1070 bp	38	380101-3803, 3805, 3808-3817
<b>43</b>	400 bp	1070 bp	14, 38, 39, 64, 65	1401-1409, 380101-380202, 3804, 3805, 3808-3817, 39010101- 39010102L, 390103-390105, 3903- 3907, 3909, 3911, 3912, 3914, 3915, 3918-391902, 3922, 3924-3938Q, 3940N, 3941, 3944, 3945
<b>44</b>	430 bp	1070 bp	7, 8, 14, 39, 40, 41, 42, 45, 48, 50, 60, 64, 65, 67, 73	070201-0726, 0728-0735, 0737, 0739- 0764, 0766, 080101-080105, 0804- 0835, 1401-1409, 39010101- 39010102L, 390103-3920, 3922-3945, 400101-400106, 4007, 4009-4011 <sup>?</sup> , 401401-4016 <sup>?</sup> , 4018 <sup>?</sup> , 4021 <sup>?</sup> , 4022N <sup>?</sup> , 4023, 4024-4038 <sup>?</sup> , 4040 <sup>?</sup> , 4042-4046 <sup>?</sup> , 4048-4050 <sup>?</sup> , 4051, 4052-4058 <sup>?</sup> , 4059, 4060, 4061-4069 <sup>?</sup> , 4071 <sup>?</sup> , 407201 <sup>?</sup> , 407202, 4073-4076 <sup>?</sup> , 4077, 4078 <sup>?</sup> , 4079, 4080-4088 <sup>?</sup> , 4101-4108, 4201, 4202, 4204-4209, 4501-4509, 480101- 4817, 4819, 5001, 5002, 5004, 670101- 6702, 7301, 8102
<b>45<sup>5,11</sup></b>	175 bp	1070 bp	15, 40, 44, 46, 48, 60	9516, 9524, 400101-400106, 4007, 4010, 4012, 4021-4023, 4025, 4033, 4036, 4038, 4042, 4043, 4046-4049, 4051, 4052, 4054, 4055, 4060-4063, 4065-4067, 4069, 4073, 4074, 4076, 4079, 4081, 4084, 4087, 4088, 4092, 4431, 4606, 480301-480302, 4817
<b>46<sup>6</sup></b>	110 bp	1070 bp	7, 8, 35, 41, 42, 55	0704, 0719, 0725, 080101-0805, 0807- 0812, 0814-0819N, 0821-0824, 0826- 0836, 3587, 4101-4108, 4201, 4202, 4204-4207, 4209, 5520
<b>47</b>	325 bp	1070 bp	7, 15, 27, 35, 42, 45, 46, 54, 55, 56, 67, 73, 81	070201-070207, 0704-0707, 0709- 0712, 0713 <sup>weakly</sup> , 0714, 0715 <sup>weakly</sup> , 0717- 0726, 0728-0731, 0733-0736, 0739- 0749N, 0751-0766, 1576, 9501, 2701- 270402, 270502-2711, 2713-2715, 2717, 2719-2721, 2724-2728, 2730- 2738, 2740-2743, 3576, 4201, 4202, 4204-4206, 4208, 4209, 4506, 460101- 460102, 4602 <sup>weakly</sup> , 4603-4616, 5401-

Lot No.: **10F**

Lot-specific information

				5415, 550101-5505, 5507-5517, 5519-5532, 5601-5616, 5618-5622, 670101-670102, 6702 <sup>weakly</sup> , 7301, 8101-8104N, 8201, 8202, 8301
<b>48</b> <sup>6,12</sup>	110, 195, 225, 260 bp	1070 bp	35, 37, 44, 47, 51, 57	3538, 3545, 3571, 370101-370104, 3703N-3706, 3708, 3710-3713, 44020101-4414, 4416, 4417, 4419N-4436, 4438-4463, 5142, 5707, 5709, 8301
<b>49</b>	130, 270 bp	1070 bp	18, 35, 37, 40, 46, 51, 53, 57, 58	1822, 3521, 3524, 3581, 3704, 4028, 460101-4616, 5104, 5146, 5156, 5302, 5306, 5714, 5809
<b>50</b> <sup>6</sup>	90, 410 bp	1070 bp	7, 27, 35, 47, 54, 55, 56, 81	0765, 2702-270402, 270502-2711, 2713-2715, 2717, 2719-2721, 2724-2728, 2730-2738, 2740-2743, 3576, 47010101-4703, 5401-5415, 550101-5505, 5507-5517, 5519-5532, 5601-5616, 5618-5622, 8101, 8201, 8202, 8301
<b>51</b> <sup>6</sup>	90, 175 bp	1070 bp	15, 27, 35, 40, 48, 62, 75, 77, 81	1502, 1508, 151101-151103, 1513, 1515, 1521, 1531, 1544, 1555, 1588, 1589, 9512, 9521, 9539, 9544, 9548, 2724, 3546, 4031, 4045, 4080, 480101-480102, 4804, 4806, 4807, 4809, 4811, 4815, 4816, 4818, 4819, 8101-8104N
<b>52</b>	145 bp	1070 bp	40, 44, 49	4013, 4019, 4418, 4425, 4450, 4901, 4904, 4905
<b>53</b> <sup>6</sup>	120, 210 bp	<b>800 bp</b>	13, 15, 45, 49, 50, 51, 52, 55, 56, 58, 62, 63, 78	1316, 1504 <sup>weakly</sup> , 1516, 1542, 1567, 1595, 9537, 4901-4905, 5001, 5002, 5004, 510101-5103, 5105, 5107-510902, 5111N-5114, 5116-152402, 5126-5141N, 5143, 5144N, 5148-5155, 5157, 520101-5214, 550101-550104, 5503, 5505, 5509, 5511, 5515, 5517, 5521, 5524, 5525, 5528, 5529, 5531, 560501-5606, 5621, 5808, 7801-7806
<b>54</b>	430 bp	1070 bp	27, 40, 44, 45, 51, 52, 53, 57, 58, 59	2702, 2730, 4013, 4019, 4406, 4425, 4450, 510101-512402, 5126-5146, 5148, 5149, 5151-5153, 5155, 520101-5212, 530101-5302, 5304-5308, 5310, 5314-5316, 570101-5711, 5713-5716, 580101-5802, 5804-5816, 5902
<b>55</b>	145 bp	1070 bp	15, 35, 40, 41, 44, 45, 47, 50, 72	1546, 1553, 9506, 9543, 3519, 3547, 3563, 400101-4011, 401401-4016, 4018, 4020, 4022N-4040, 4042-4045, 4048-4075, 4077-4092, 4101-4104, 4105 <sup>?</sup> , 4106-4108, 4409, 4446, 4501-

Lot No.: **10F**

Lot-specific information

<b>56<sup>9</sup></b>	300 bp	1070 bp	7, 8, 13, 15, 18, 27, 35, 37, 38, 39, 40, 41, 44, 45, 46, 47, 48, 49, 50, 52, 55, 57, 58, 62, 72, 76, 78	4509, 4702, 5001, 5002, 5004 0754, 0817, 1301-1304, 1306, 1308Q- 1322, 15010101-150104, 150106- 150108, 1503-1507, 1512, 1514, 1519, 1520, 1524-152703, 1530, 1532-1536, 1538-1540, 1542, 1543, 1545-1550, 1553, 1554, 1556-1558, 1560-1563, 1565, 1566, 1568-1571, 1573-1575, 1577-1579N, 1581-1587, 1591, 1592, 1594N, 1596-1598, 9502-9507, 9509- 9511N, 9513, 9516-9518, 9522, 9523, 9525-9529, 9531, 9532, 9535-9538, 9540-9542, 9545-9547, 1812, 2701- 270402, 270502-2721, 2724-2743, 3510, 3513, 3516, 3528, 3563, 3569, 3580, 370101-3707, 3709-3714, 3803, 3804, 390201-390202, 3908, 391301- 391302, 3922, 3923, 400101-4007, 4009-4016, 4018-4024, 4026-4040, 4042-4067, 4070-4092, 4101-4108, 44020101-4405, 4407-4411, 4413- 446402, 4501-4505, 4507-4509, 4610- 4616, 47010101-4705, 480101-4805, 4807-4815, 4817-4819, 4901-4905, 5001, 5002, 5004, 520101-5214, 5518, 5712-5717, 580102, 5815-5819, 7805, 7806
<b>57</b>	160, 215 bp	1070 bp	15, 37, 44, 54	150104, 370104, 44020101-440205, 4406, 4408, 4409, 4411, 4412, 4416, 4419N-4424, 4427, 4433, 4434, 4441, 4444, 4448, 4449, 4451-4453, 4455, 4459, 4463, 5401-5415, 8301
<b>58<sup>9</sup></b>	180, 210 bp	1070 bp	7, 13, 15, 18, 35, 39, 40, 45, 54, 55, 56, 59, 78	0765, 1306, 1542, 1586, 1804, 3560, 3917, 4058, 4508, 5401, 5402, 5405N, 5407, 5408N, 5410, 5412, 5413, 550101-5503, 5505, 5507, 5510-5512, 5515, 5516, 5518, 5519, 5521, 5525, 5526, 5529-5531, 560501, 5606, 5610, 5623, 5901, 7801, 780202, 7803, <b>Cw*150204</b>
<b>59<sup>13</sup></b>	180 bp	1070 bp	13, 15, 40, 44, 45, 46, 49, 50, 51, 54, 56	1303, 1573, 4071, 4410, 4415, 4418, 4501, 4504-4507, 4611, 4901-4903, 5001, 5002, 5004, 5115, 5403, 5601, 5602, 5604, 5607, 5608, 5613, 5614, 5616, 5617, 5620, 8201, 8202
<b>60<sup>6</sup></b>	90, 240 bp	<b>800 bp</b>	55, 57	5514, 570101-5715, 5717
<b>61<sup>6</sup></b>	95 bp	1070 bp	7, 8, 18,	0765, 0832, 180101-1811, 1813-1815,

Lot No.: **10F**

Lot-specific information

			35, 37, 38, 39, 44, 51, 52, 53, 78	1817N-1829, 350101-350902, 3511, 3512, 351401-3515, 3517, 3518, 352001-3524, 3527, 3529-3545, 3548, 3550-3562, 3564-356802, 3570-3572, 3574-3579, 3581-3588, 3590-3594, 3708, 3806, 3807, 391901-391902, 4406, 510101-512402, 5126-5146, 5148-5157, 530101-5316, 7801-7804
<b>62<sup>5,6</sup></b>	115, 150 bp	1070 bp	15, 18, 27, 35, 39, 46, 54, 55, 56, 62, 73, 75, 76	15010101-150104, 150106-150108, 1504, 1507, 1508, 151101-1512, 1514, 1515, 1519, 1524, 1526N-1528, 1530, 1532, 1534, 1535, 1538, 1543, 1545, 1546, 1550, 1553, 1554, 1556-1558, 1560, 1563, 1566, 1568, 1570, 1571, 1573, 1575-1577, 1579N, 1581, 1582, 1585, 1587, 1592, 1594N, 1596, 1597, 9501, 9502, 9504, 9505, 9509-9511N, 9513, 9517, 9518, 9520, 9522, 9525, 9526, 9528, 9529, 9535, 9537, 9540, 9542-9549N, 1819, 2725, 351401- 351402, 3543, 3544, 3562, 3567, 3579, 3586, 3918, 3936, 460101-4602, 4604, 4605, 4607N, 4609, 4610, 4612, 4614- 4616, 5406, 5521, 5603, 7301
<b>63</b>	360 bp	1070 bp	Bw4 <sup>14</sup>	
<b>64</b>	355 bp	1070 bp	Bw6	

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

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

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

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

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

<sup>2</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B low resolution typing.

In addition, wells number 27, 30, 31, 40, 41, 53 and 60 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

**Lot No.: 10F**

**Lot-specific information**

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

<sup>3</sup>The serological reactivity of all HLA-B alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>Nucleotide sequence information is available for only exons 2 and 3 of many HLA Class I alleles and for only exon 2 of many HLA Class II alleles and not for other exons or for the introns of these alleles. We assume that unknown sequences in these exons and in the introns are conserved within loci and within allelic groups.

The nucleotide sequences of the B\*3589 and B\*4093 alleles are not yet retrievable from the GenBank or EMBL data banks.

The B\*0826 and the B\*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*1408 and the B\*3925N, B\*3930 and B\*3932 to 3934 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*1829 and the B\*3523, B\*3537, B\*3553N, B\*3564, B\*3566 and B\*356801-356802 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5504, B\*5508, B\*5513, B\*5527 and the B\*5615, B\*5619N and B\*5622 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5523, B\*5532 and the B\*5618 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

<sup>5</sup>Primer mixes 22, 30, 32, 39, 40, 45 and 62 may give rise to a primer oligomer artifact.

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

<sup>7</sup>Primer mix 24 will amplify the Cw\*0305, Cw\*0325 and Cw\*0327 alleles.

<sup>8</sup>Primer mix 25 may yield less specific PCR product than the other HLA-B low resolution primer mixes in B\*40, B\*41, B\*45, B\*49 and B\*50 alleles.

<sup>9</sup>Primer mixes 26, 27, 30, 31, 40, 56 and 58 have a higher tendency than other primer mixes to give rise to nonspecific amplifications.

<sup>10</sup>The B\*57 and B\*58 alleles might be faintly amplified by primer mix 30.

<sup>11</sup>The Cw\*1701 to Cw\*1704 alleles might be faintly amplified by primer mix 45.

<sup>12</sup>Primer mix 48 might generate a false band of about 500 base pairs. This band should be disregarded when interpreting HLA-B low resolution typings.

<sup>13</sup>The Cw\*0312 allele might be faintly amplified by primer mix 59.

<sup>14</sup>The Bw4-associated HLA-A specificities A23, A24, A2403, A25 and A32 are not amplified by the primer pair in primer mix 70.

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

Lot No.: **10F**

Lot-specific information

## SPECIFICITY TABLE

Specificities and sizes of the PCR products of the 23 primer mixes used for DR low resolution SSP typing

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	DR serology <sup>3</sup>	Amplified HLA-DRB <sup>4</sup> alleles
<b>65</b>	205 bp	<b>515 bp</b>	1	010101-010204, 0104-0120
<b>66</b>	195 bp	430 bp	103	0103
<b>67<sup>6</sup></b>	215, 260 bp	430 bp	15	150101-1531
<b>68</b>	210 bp	430 bp	16	160101-160502, 1607-1613N
<b>69</b>	220 bp	430 bp	3, 17, 18, 11	030101-0340, 1107, 1153
<b>70<sup>5,6</sup></b>	80, 210 bp	430 bp	3, 17, 11, 13, 14	030101-030106, 0304-0306, 0308-0316, 0318-0320, 0322, 0323, 0325, 0326, 0328, 0330, 0331, 0333, 0334, 0336, 0337, 110201-1103, 111101-111102, 111401-111402, 1116, 1120, 1121, 1136, 1140, 1141, 1148, 1159, 1163, 116501-116502, 1168, 130101-1304, 1308, 1310, 1315-1317, 1319, 1320, 1322-1324, 1327-1329, 1331-1341, 1343, 1345, 1348, 1351-1354, 1357, 1359, 1361, 1363-1366, 1368-1376, 1378-1381, 1383-1385, 1416, 1419, 1421
<b>71<sup>5,6</sup></b>	80, 210 bp	430 bp	3, 18, 11, 13, 14	030201-0303, 0327, 0329, 0338, 1126, 1134, 1315, 1319, 1326, 1344, 1353, 1357, 1385, 1386, 1402-140302, 1406, 1409, 1412, 1413, 1417-1421, 1424, 1427, 1429, 1430, 1433, 1440, 1441, 1447-1449, 1451, 1463, 1467, 1477, 1478, 1480, 1481
<b>72<sup>5,6</sup></b>	100, 175 bp	430 bp	4	040101-0477
<b>73</b>	205, 230 bp	430 bp	7, 13, 14	070101-070102, 0703-0715, 1317, 1450
<b>74<sup>5,6</sup></b>	165, 215, 250 bp	<b>515 bp</b>	8, 12, 14	080101-080203, 080302-0819, 0821-0835, 1167, 1204, 1216, 1411, 1415, 1468
<b>75<sup>5</sup></b>	85, 130,	430 bp	3, 9, 11	0308, 090102-0907, 1107,

Lot No.: **10F**

Lot-specific information

	180 bp			1153
<b>76</b>	205 bp	430 bp	10	100101-1003
<b>77<sup>5</sup></b>	100, 170 bp	430 bp	11, 3, 8	0308, 0831, 110101-1169
<b>78<sup>5</sup></b>	85, 105 bp	430 bp	12, 8	0832, 120101-120203, 120302-1216
<b>79</b>	210 bp	430 bp	13, 8, 11, 14	0820, 110101-110404, 110601-110602, 110801-111202, 111401-1116, 1118-1121, 1123-1125, 112701-1133, 1135-1151, 115401-115402, 1156-1166, 1168, 130101-1308, 1310-1316, 1318-1343, 1345-1385, 140301-140302, 1412, 1416, 1419, 1421, 1422, 1425, 1427, 1440, 1453, 1463, 1467, 1469, 1474, 1477, 1478
<b>80<sup>6</sup></b>	195, 210 bp	430 bp	13, 8, 11, 12, 14	080101-080203, 080401-0809, 0811, 0816, 0817, 0820-0822, 0824, 0826, 0828, 0831, 110101-110602, 1109-111202, 111401-1116, 1120, 1121, 1123-1125, 112701-1130, 1132, 1133, 1135-1141, 1143, 1144, 1146-1151, 115401-1156, 1158-1163, 116501-1169, 120201-120203, 1213, 1215, 1216, 130101-130201, 130203, 1304-130502, 130701-1309, 131101-131102, 131401-1324, 1326-1329, 1331, 1332, 1334-1336, 1338-1343, 1345-1355, 1357, 1359, 1361-1365, 1367-1376, 1378-1380, 1383, 1384, 1415, 1416, 1422, 1424, 1425, 1427, 1437, 1453, 1473
<b>81</b>	175 bp	430 bp	3, 13, 14, 8	030101-0307, 0309, 0311-0340, 0820, 130101-1316, 1318-1342, 1344, 1346-1366, 1368-1386, 1402-140302, 140501-1406, 1409, 1412-1414, 1417-1421, 142301, 1424, 1427, 1429, 1430, 1433, 1436, 1437, 1440-1445, 1447, 1448, 1451, 1456, 1459, 1463-

Lot No.: **10F**

Lot-specific information

				1465, 1467, 1477, 1478, 1480, 1481
<b>82<sup>5-7</sup></b>	100, 140 bp	430 bp	14, 4, 8,13	0462, 0469, 0473, 0808, 1169, 1345, 140101-140102, 1404, 140701-140702, 1410, 1416, 1422, 1425, 1426, 1428, 1431-143202, 1435, 1437-1439, 1449, 1450, 1453-1455, 1457, 1458, 1460-1462, 1468-1471, 1473-1476, 1479
<b>83<sup>5-7,8</sup></b>	110, 135, 170 bp	<b>515 bp</b>	14, 3, 9, 11, 12, 13, 15	0308, 0310, 090102-0902, 0904-0907, 110404, 1109, 1110, 111202, 1113, 1116, 1117, 1120, 1122, 1140, 1146, 1152, 1158, 1159, 1204, 1343, 140101-1402, 1404-1411, 1413, 1414, 1416-142302, 1426, 1428-1436, 1438, 1439, 1441, 1443-1452, 1454-1457, 1459-1462, 1464, 1465, 1468, 1470-1476, 1479-1481, 1527
<b>84<sup>5-7</sup></b>	110, 175, 225 bp	430 bp	14, 3, 8, 11, 13, 15, 16	0310, 0809, 0820, 0821, 0832, 0835, 090104, 1113, 1117, 1123, 1125, 1131, 1145, 1152, 1155, 1164, 1313, 1318, 1343, 1345, 1347, 1355, 140101-140103, 140301-140503, 140701-1408, 1410-1412, 1414-1416, 1418, 1422-142302, 1425-1428, 1431-143202, 1434-1436, 1438-1440, 1442-1445, 1449, 1450, 1453-1465, 1467-1479, 1481, 1521 <sup>weakly</sup> , 1604 <sup>weakly</sup>
<b>85</b>	230 bp	430 bp	52	DRB3*01010201-0111, 0201-0223, 030101-0303
<b>86<sup>9</sup></b>	215 bp	430 bp	53	DRB4*01010101-0107
<b>87</b>	260 bp	430 bp	51	DRB1*0907, DRB5*010101-0113, 0202-0205

<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 DR low resolution SSP typings. When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective length of the specific PCR product(s) of the alleles amplified by these primer mixes are given. Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers, e.g. the primers in wells 67, 82, 83 and 84.

**Lot No.: 10F**

**Lot-specific information**

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

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

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

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

Well number 65 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, wells number 74 and 83 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

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

<sup>3</sup>The serological reactivity of all DRB alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>For several DRB alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP set are completely matched with the target sequences or not. We assume that unknown sequences in the first hyperpolymorphic region of the second exon of DRB alleles are conserved within allelic groups and that unknown sequences of codons 87 to 92 are identical with the DRB1\*0101 consensus sequence.

Nucleotide sequence information is available for only exons 2 and 3 of many HLA Class I alleles and for only exon 2 of many HLA Class II alleles and not for other exons or for the introns of these alleles. We assume that unknown sequences in these exons and in the introns are conserved within loci and within allelic groups.

The DRB1\*0809, DRB1\*0821 and DRB4\*1415 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1415 allele.

The DRB1\*0820, DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles.

The DRB1\*0831 and DRB1\*1167 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1167 allele.

<sup>5</sup>Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

<sup>6</sup>Individual alleles can give rise to two differently sized specific PCR fragments in these primer mixes.

<sup>7</sup>These primer mixes may give rise to nonspecific amplifications.

<sup>8</sup>Primer mix 83 has a tendency of primer oligomer formation and also has an intense primer cloud due to the high number of primers present in the primer mix.

<sup>9</sup>The DRB4\*01030102N allele is amplified by the primer pair in well No. 86, whereas the DRB4\*0201N and DRB4\*0301N null alleles are not amplified by this primer pair.

Lot No.: **10F**

Lot-specific information

## SPECIFICITY TABLE

### DQ low resolution SSP typing

Specificities and sizes of the PCR products of the 8 primer mixes used for DQ low resolution SSP typing

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	DQ serology <sup>3</sup>	Amplified DQB1 alleles <sup>4</sup>
<b>88</b>	220 bp	<b>515 bp</b>	5	050101-0505
<b>89</b>	220, 270 bp	430 bp	6	060101-0630
<b>90</b>	205 bp	430 bp	2	020101-0205
<b>91<sup>5</sup></b>	130, 145 bp	<b>515 bp</b>	2, 3, 6, 8	020101-0202, 0204, 0205, 030201-030204, 030501, 030503, 0307, 0308, 0311, 0318, 0629
<b>92<sup>5</sup></b>	220 bp	<b>515 bp</b>	3, 7, 8	030101-030104, 0304, 0309, 0310, 0313, 0314, 0316, 0319, 0321
<b>93<sup>5</sup></b>	220 bp	<b>515 bp</b>	2, 3, 4, 8, 9	020101-0205, 030201-030204, 030302-030303, 0306-0308, 0311, 0312, 0315, 0318, 0320, 0403
<b>94<sup>5,6</sup></b>	135 bp	<b>515 bp</b>	3, 7, 8, 9	030101-030204, 030302-0321
<b>95<sup>5</sup></b>	210 bp	430 bp	4	0401-0403

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

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

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

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

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

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

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DQ low resolution typing.

In addition, wells number 91, 92, 93 and 94 contain the primer pair giving rise to the longer, 515

Lot No.: **10F**

**Lot-specific information**

bp, internal positive control band in order to allow kit identification.

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

<sup>3</sup>The serological reactivity of the DQB1\*0505, DQB1\*0606 to 0608 alleles, the DQB1\*0610 to 0633, the DQB1\*030202-030204, DQB1\*030303, DQB1\*030502 to 0321 and the DQB1\*0403 alleles is not known. In this table we have inferred the serological grouping from the naming of the sequence-defined allele.

<sup>4</sup>For several DQB1 alleles only partial second exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the 5'- and 3'-ends of the second exon of the DQB1 gene are conserved within allelic groups.

<sup>5</sup>These primer mixes may yield somewhat less intense specific PCR fragments than the other DQ low resolution primer mixes.

<sup>6</sup>This primer mix may give rise to nonspecific amplifications.

Lot No.: 10F

Lot-specific information

INTERPRETATION TABLE																						
HLA-A low resolution SSP typing																						
Amplification patterns of the A*0101 to A*8001 alleles																						
		Well <sup>6</sup>																				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Length of spec.		120	135	205	190	155	165	165	75	85	80	185	175	200	90	370	180	200	160	155	240	75
PCR product(s)		145	200	235		200	205	200			175		225	240	135	400			200	240	375	160
			255								500											
Length of int.		800	1070	1070	800	800	1060	700	800	970	1070	800	1070	1070	1070	1070	1070	1070	800	800	800	800
pos. control <sup>1</sup>																						
5'-primer(s) <sup>2</sup>		98	78	363	98	105	98	97	266	257	302	103	98	98	203	41	180	98	180	78	28	176
		5'-CTT <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-CTA <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-CTA <sup>3'</sup>	5'-ACg <sup>3'</sup>	5'-Cgg <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-CCT <sup>3'</sup>	5'-CTT <sup>3'</sup>	5'-CAC <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-CTT <sup>3'</sup>	5'-TTT <sup>3'</sup>	5'-CAC <sup>3'</sup>	5'-TTT <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-TCg <sup>3'</sup>	5'-gCA <sup>3'</sup>
		123	106		413	175	368	102	266	261	385	423	423		363					391	261	261
		5'-AgT <sup>3'</sup>	5'-CCA <sup>3'</sup>		5'-CCg <sup>3'</sup>	5'-gCA <sup>3'</sup>	5'-gTT <sup>3'</sup>	5'-ACA <sup>3'</sup>	5'-ACg <sup>3'</sup>	5'-AAC <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-gCT <sup>3'</sup>	5'-gCT <sup>3'</sup>		5'-ATA <sup>3'</sup>					5'-ACg <sup>3'</sup>	5'-AAC <sup>3'</sup>	5'-AAC <sup>3'</sup>
			144			358		413												391		
			5'-gCA <sup>3'</sup>			5'-gTT <sup>3'</sup>		5'-CCg <sup>3'</sup>												5'-ACg <sup>3'</sup>		
			144																			
			5'-TCA <sup>3'</sup>																			
3'-primer(s) <sup>3</sup>		203	240	527	256	255	259	259	302	299	341	257	282	257	299	238	316	256	299	265	97	292
		5'-TCT <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CTg <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-gTT <sup>3'</sup>	5'-gTT <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-TCg <sup>3'</sup>	5'-CgT <sup>3'</sup>	5'-gCA <sup>3'</sup>	5'-gAC <sup>3'</sup>	5'-gCA <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CCT <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-ggT <sup>3'</sup>	5'-gTT <sup>3'</sup>
			292	527	559	292	502	537			521	559	559	299	411	265		259	299	282	355	292
			5'-gtg <sup>3'</sup>	5'-CCT <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-gTT <sup>3'</sup>	5'-CTT <sup>3'</sup>	5'-CCA <sup>3'</sup>			5'-ggg <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-TCg <sup>3'</sup>	5'-TCA <sup>3'</sup>	5'-CCC <sup>3'</sup>		5'-gTT <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-gAC <sup>3'</sup>	5'-gAC <sup>3'</sup>	5'-gtg <sup>3'</sup>
				555		502	539				559								341	506		299
				5'-CCA <sup>3'</sup>		5'-CTg <sup>3'</sup>	5'-TCT <sup>3'</sup>				5'-CgT <sup>3'</sup>								5'-CgT <sup>3'</sup>	5'-TgT <sup>3'</sup>		5'-TCT <sup>3'</sup>
				555		538																
			5'-gCA <sup>3'</sup>		5'-CAG <sup>3'</sup>																	
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
HLA-A allele <sup>4</sup>	ser <sup>5</sup>																					
*01010101-0104N, 0106, 0109-0111N, 0116N-0118N, 0120, 0122N-0127N, 0129	A1, null	1			4																	
*0107	-	1			4																	
*0108, 0114, 0115N	1	1																				
*0112, 0119	-	1		3																		
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

Lot No.: **10F**

Lot-specific information

Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
*0113	-	1			4						10		12		14								
*0121	-	1		3	4																		
*0128	-	1			4						10				14								
*0130	-	1																					
*02010101-020115, 020117-0209, 0211-0216, 0218-0222, 0224-0233, 0236-0238, 0240-0245, 0247, 0249, 0251, 0253N, 0254, 0257-0261, 0263-0269, 0271, 0272, 027401-0277, 0279-0292, 0294N, 0296, 0297, 0299, 9201, 9202, 9204-9209, 9211-9213N, 9215, 9216, 9218-9221, 9223-9228, 9230-9234, 9236-9245, 9247, 9248		2																					
*0210, 0239, 0250, 0252, 0273, 0293, 0295, 9210, 9214, 9217	A210		2																			19	
*021701-021702	A2		2					w															
*0234, 023501, 023503, 0256, 0262, 9203	-		2										12									19	
*023502	-												12									19	
*0246, 0270	-		2																			19	
*0248, 9229	-																					19	
*0255	-		2					7														20 21	
*0278	-		2		4																	19	
*9222	-					5																19	
*9235	-		2										12										
*9246	-		2							9													
*03010101-0307, 0309-0311N, 0313-0317, 0319-0323, 0325-0329, 0331, 0333-0335, 0337-0339		A3																					
*0308, 0332, 0336N	-			3																			
*0312	-			3	4																		
*0318, 2619 <sup>7</sup>	-				4								12										
*0324	-			3				7					12										
*0330	-			3									12										
*110101-1109, 1113-1117, 1119-112402, 1126, 1127, 1129-1136		A11																					
		4							10														
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	

Lot No.: **10F**

Lot-specific information

Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
*1110	-				4			7			10											
*1111	-				4						10	11										
*1112, 1118	-				4						10											
*1125	-				3	4					10											
*2301-2313, 2315-2319Q	A23					5																
*2314, 2405, 241302, 2424 <sup>8</sup>	-					5	6															
*24020101-2404, 2406-2411N, 241301, 2417, 2418, 2420-2423, 2425-2443, 2445N-2450, 2454-2456, 2458-2463, 2466-2481, 2483N-2488, 2490, 2491	A24							6														
*2414, 2415, 2451-2453, 2457, 2464	A24																					
*2419, 2444	-							6			10											
*2482	-							6														20
*2489	-							6														
*250101-2504	A25							7	8				12									
*2505	-							7	8				12							19		
*2506	-							7	8			11										
*260101-260106, 2608, 2610-2615, 2617, 2618, 2620, 2623-2629, 2632, 2633, 2635-2637	A26, null							7		9			12									
*2602	A26							7		9			w									
*2603, 2606, 2621	A26							7			10		12									21
*2604, 2634	A26							7		9												
*2605, 2630	A26							7					12									21
*260701-260702	A26									9			12									
*2609	A26							7		9		11										
*2616	-							6		9			12									
*2622	-							7		9			12									20
*2631	-							7					12									
*29010101-2906, 2908N-2912, 2915-2917	A29													13								
*2907	-					5								13								
*2913	-													13			16					
*2914	-													13	15							
*300101-3004, 3006, 3007, 3009-3020, 3022-3025	A30														14							
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

Lot No.: **10F**

Lot-specific information

Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
*3008	-	4												14			19					
*310102-3102, 3105-3107, 3109-3122	A31													15								
*3103	-							10 11						15								
*3104	A31							11						15								
*3108	-													15								
*320101-3202, 3206-3212, 3214, 3216	A32							8									16					
*3203	-																16					
*3204	A3	3						8														
*3205	-													15			16					
*3213	-							8									16					
*3215	-	7						8									16					
*3301, 330301-3312, 3314-3318	A33																17					
*3313	-							9						13			17					
*3319	-	6															17					
*340101-340102, 3405, 3406	A34	7						10 11														
*3402-3404, 3407	-	3						7						10 11								
*3408	-	3						7						10 11			12					
*3601, 3603	A36	1																				
*3602	-	1	3																			
*3604	-	1	4																			
*4301	A43							11 12														
*6601, 6604-6607	A66	7						10						12								
*6602, 6603	A66	7						11														
*680101-6804, 6806-6814, 6816-6819, 6821-6828, 6830-6843	A68	7															19					
*6805, 6815, 6820	-	7															19			21		
*6829	-	7												17			19			20		
*6901	A69	7																		20		
*7401-7409, 7411, 7412N	A74																18					
*7410	-																18					
*8001	A80	5																		21		
HLA-A allele <sup>4</sup>	ser <sup>5</sup>																					
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
B*1827						5																
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

**Lot No.: 10F**

**Lot-specific information**

<sup>1</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A low resolution SSP typing.

In addition, wells number 4, 5, 7, 8, 11, 18 to 21 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The nucleotide position, in the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> exon, 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, in the 2<sup>nd</sup>, or 3<sup>rd</sup> exon, 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.

<sup>4</sup>The sequence of the A\*0105N has been shown to be identical to A\*0104N.

The A\*020116 allele has been renamed to A\*9234.

The A\*020120 has been renamed to A\*020118.

The sequence of the A\*0223 allele has been shown to be identical to A\*0222.

The sequence of the A\*0298 allele has been shown to be identical to A\*0296.

The A\*1128 allele has been renamed to A\*111502.

The sequence of the A\*2401 allele has been shown to be in error.

The sequence of the A\*2412 allele has been shown to be identical to A\*2408.

The A\*2416 allele has been renamed to A\*3108.

The A\*2465 allele has been renamed to A\*241302.

The sequence of the A\*3005 allele has been shown to be identical to A\*3004.

The A\*3021 allele has been renamed to A\*301102.

The sequence of the A\*31011 allele has been shown to be identical to A\*310102.

The sequence of the A\*3302 allele has been shown to be identical to A\*3303.

<sup>5</sup>The serological reactivity of all HLA-A alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

<sup>6</sup>The primer pairs in vials 2 and 10 will in most samples give rise to two specific PCR fragments.

<sup>7</sup>The A\*0318 and A\*2619 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

<sup>8</sup>The A\*2314, A\*2405, A\*2424 and A\*2465 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets. 'w', may be weakly amplified.

Lot No.: 10F

Lot-specific information

INTERPRETATION TABLE																								
HLA-B low resolution SSP																								
Amplification patterns of the B*0702 to B*8301 alleles <sup>6</sup>																								
		Well																						
		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Length of spec.		110	215	140	130	185	185	290	165	165	180	105	195	105	115	80	150	135	245	205	170	110	400	430
PCR product(s)				235	265	235			220	390	395	195		435					400					
									330															
Length of int. pos. control <sup>1</sup>		800	1070	1070	1070	1070	800	1070	1070	800	800	1070	1070	1070	1070	1070	1070	1070	1070	800	800	1070	1070	1070
5'-primer(s) <sup>2</sup>		527	97	209	103	103	103	45	45	45	45	206	142	45	161	167	355	206	45	142	409	246	44	44
		5'-TgA <sup>3'</sup>	5'-TCg <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-CC <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-AgA <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-Cgg <sup>3'</sup>	5'-gCT <sup>3'</sup>	5'-TCA <sup>3'</sup>	5'-gAC <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-ggC <sup>3'</sup>
		540		363	361	363			357	435	420	420	419	540					368		420			
		5'-gAC <sup>3'</sup>		5'-AgC <sup>3'</sup>	5'-AgT <sup>3'</sup>	5'-AAT <sup>3'</sup>			5'-Tgg <sup>3'</sup>	5'-AAA <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-gTC <sup>3'</sup>	5'-gAC <sup>3'</sup>					5'-gTT <sup>3'</sup>		5'-TTA <sup>3'</sup>			
									412															
									5'-ATA <sup>3'</sup>															
3'-primer(s) <sup>3</sup>		605	272	309	193	246	246	165	206	266	272	272	301	309	234	204	463	302	259	301	544	317	272	301
		5'-gCT <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-CgT <sup>3'</sup>	5'-TAT <sup>3'</sup>	5'-TAT <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-CCT <sup>3'</sup>	5'-TCC <sup>3'</sup>	5'-TgC <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-gTC <sup>3'</sup>	5'-ATC <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-gCT <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-gTT <sup>3'</sup>	5'-gTC <sup>3'</sup>	5'-ggT <sup>3'</sup>	5'-ggA <sup>3'</sup>	5'-TgC <sup>3'</sup>	5'-ggC <sup>3'</sup>
			272	559	583	559			538	559	559	572	570	605					266	309				302
			5'-TgA <sup>3'</sup>	5'-CAG <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-CTC <sup>3'</sup>			5'-gTC <sup>3'</sup>	5'-CAG <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-gCg <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-gCT <sup>3'</sup>					5'-TCC <sup>3'</sup>	5'-gTg <sup>3'</sup>				5'-ggT <sup>3'</sup>
													572							272				
																				292				
																				572				
																			5'-gCg <sup>3'</sup>					
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
HLA-B allele <sup>4</sup>	ser. <sup>5</sup>																							
*070201-070207, 070501-0706, 0710, 0712, 0714, 071801- 071802, 0721-0723, 0726, 0728-0731, 0734, 0735, 0739, 0741, 0743-0747, 0749N, 0752, 0755- 0759, 0761-0764, 0766	B7	22																						44





Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
*0703, 0708, 0716, 0732, 0737	B7, B703	22																						44	
*0704, 0725	B7	22											34												44
*0707, 0742	B7	22																							44
*0709, 0711, 0717	B7	22																							44
*0713, 0715	-	22																							44
*0719	-																								44
*0720, 0724	-	22	24																						44
*0727	-	22									32								40						
*0733, 0753	-																								44
*0736	-	22																							
*0738	-	22																							
*0740, 0748, 0751	-																								44
*0750	-	22									32														44
*0754	-	22																							44
*0760	-		24																						44
*0765	-	22																38							
*080101-080105, 0805, 0808N, 0810, 0811, 0815, 0818, 0819N, 0822-0824, 0827, 0829, 0830N, 0833, 0834	B8, Null		23						29																44
*0802	B8		23					29											40						
*0803	B8		23					29																	
*0804	-		23					29			32														44
*0806, 0813, 0820	B8		23																						44
*0807, 0814	-		23																						44
*0809	-		23					29																	44
*0812, 0816, 0831	-		23					29																	44
*0817	-		23					29			32														44
*0821	-		23	24				29																	44
*0825	-		23	24																					44
*0826, 4207	-							29																	44
*0828	-		23																						44
*0832	-		23					29										38							44
*0835	-		23					29																	44
*0836	-		23					29																	
*1301, 1317, 1320, 1322	B13		24	25							31							37							
*130201-130204, 1308Q, 1315, 1318, 1319	B13		24	25							31														
*1303	-		24	25																					
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
																			64	B7, B703	*0703, 0708, 0716, 0732, 0737
	46	47																	64	B7	*0704, 0725
		47																	64	B7	*0707, 0742
		47																	64	B7	*0709, 0711, 0717
	w																		64	-	*0713, 0715
	46	47																	64	-	*0719
		47																	64	-	*0720, 0724
																		63	-	-	*0727
		47																	64	-	*0733, 0753
		47																63	-	-	*0736
																		63	-	-	*0738
		47																	64	-	*0740, 0748, 0751
																			64	-	*0750
		47									56								64	-	*0754
		47																	64	-	*0760
		47			50								58			61			64	-	*0765
	46																		64	B8, Null	*080101-080105, 0805, 0808N, 0810, 0811, 0815, 0818, 0819N, 0822-0824, 0827, 0829, 0830N, 0833, 0834
	46																	63	B8	-	*0802
	46																	63	B8	-	*0803
	46																	64	-	-	*0804
																			64	B8	*0806, 0813, 0820
	46																		64	-	*0807, 0814
	46																		64	-	*0809
	46																		64	-	*0812, 0816, 0831
	46										56								64	-	*0817
	46																		64	-	*0821
																			64	-	*0825
	46																		64	-	*0826, 4207
	46																		64	-	*0828
	46															61			64	-	*0832
	46																		64	-	*0835
	46																		64	-	*0836
											56								63	B13	*1301, 1317, 1320, 1322
											56								63	B13	*130201-130204, 1308Q, 1315, 1318, 1319
											56			59					63	-	*1303
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*1304, 1310	-			24	25																			
*1306	-			24	25												37							
*1307N	Null			24	25					31							37							
*1309	-				25					31														
*1311	-			24	25					31														
*1312, 1313	-			24	25												37							
*1314	-			24						31														
*1316	-			24	25					31														
*1321	-			24	25																			
*1401, 1407N	B64				25	26																	43	44
*140201-1404, 1409	B65				25		27																43	44
*1405-140602	-						27																43	44
*1408, 3925N, 3930, 3932-3934	-					26																	43	44
*15010101- 15010102N, 150103, 1526N, 152701, 1532, 1534, 1535, 1538, 1550, 1556, 1557, 1560, 1570, 1571, 1575, 1579N, 1581, 1582, 1592, 1594N, 1596, 1597, 9502, 9504, 9505, 9509- 9511N, 9513, 9517, 9518, 9522, 9525, 9528, 9529	B62, Null, B15							28										39						
*150102	B62							28		30									39					
*150104	B62																		39					
*150106-150107, 1507	B62			24				28											39					
*150108				24															39					
*1502, 1588, 9512, 9521	B75							28									37		39					
*1503, 1547, 1549, 1561, 1598, 9503, 9523, 9527, 9532	B72								29		32								39					
*1504								28											39					
*1505, 1506, 1533, 1539, 1540, 1565, 1578, 1584, 9507	B62, B15							28											39					
*1508, 151101-151103, 1515	B75							28											39					
*1509	B70								29	30	31								39					
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
											56							63		-	*1304, 1310
											56	58						63		-	*1306
																		63		Null	*1307N
											56							64		-	*1309
											56							63		-	*1311
											56							63		-	*1312, 1313
											56							63		-	*1314
						53					56							63		-	*1316
											56							63		-	*1321
																		64	B64		*1401, 1407N
																		64	B65		*140201-1404, 1409
																		64	-		*1405-140602
																		64	-		*1408, 3925N, 3930, 3932-3934
											56							62	64	B62, Null, B15	*15010101-15010102N, 150103, 1526N, 152701, 1532, 1534, 1535, 1538, 1550, 1556, 1557, 1560, 1570, 1571, 1575, 1579N, 1581, 1582, 1592, 1594N, 1596, 1597, 9502, 9504, 9505, 9509-9511N, 9513, 9517, 9518, 9522, 9525, 9528, 9529
											56							62	64	B62	*150102
											56	57						62	64	B62	*150104
											56							62	64	B62	*150106-150107, 1507
											56							62	64		*150108
						51													64	B75	*1502, 1588, 9512, 9521
											56								64	B72	*1503, 1547, 1549, 1561, 1598, 9503, 9523, 9527, 9532
							w				56							62	64		*1504
											56								64	B62, B15	*1505, 1506, 1533, 1539, 1540, 1565, 1578, 1584, 9507
						51												62	64	B75	*1508, 151101-151103, 1515
																		64	B70		*1509
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: 10F

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*1510, 1537, 1590, 1599, 9533	B71								29	31									39					
*1512, 1514, 1519	B76							28				33							39					
*1513	B77							28						34			37		39					
*1516, 1567, 1595	B63									30				34					39					
*15170101-151702	B63							28		30				34					39					
*1518, 1551, 1552, 1572, 1593, 9508, 9514, 9519, 9534	B71								29	31									39					
*1520, 1525	B62							28									37		39					
*1521, 1544	B75							28		31							37		39					
*1523	-								29	31				34					39					
*1524, 1587	B62							28						34					39					
*152702	-			24															39					
*152703	-			24				28											39					
*1528	B15							28											39					
*1529	B15								29										39					
*1530, 1558, 1563	B62, B15							28											39					
*1531	B75							28											39					
*1536	-			24				28									37		39					
*1542	-							28											39					
*1543	-							28											39					
*1545	B62			24				28											39					
*1546	B72				25			28	29										39					
*1548	B62							28											39					
*1553	-				25				29										39					
*1554	-								29			32							39					
*1555	-			24				28											39					
*1562	-								29			32					37		39					
*1564	-								29			32							39					
*1566	-							28		31									39					
*1568	-			24				28	29			32							39					
*1569	-								29			32							39		41			
*1573	-							28											39					
*1574	-								29										39					
*1576, 9501	-							28											39					
*1577	-							28									37		39					
*1580	-								29	31							37		39					
*1583	-							28	29										39					
*1585	-							28									37		39					
*1586	-							28											39					
*1589	-			24				28									37		39					
*1591, 9531	-								29			32	33						39					

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	
																			64	B71	*1510, 1537, 1590, 1599, 9533	
											56							62	64	B76	*1512, 1514, 1519	
						51													63	B77	*1513	
								53											63	B63	*1516, 1567, 1595	
																			63	B63	*15170101-151702	
																				64	B71	*1518, 1551, 1552, 1572, 1593, 9508, 9514, 9519, 9534
											56									64	B62	*1520, 1525
						51														64	B75	*1521, 1544
																			63	-	*1523	
											56							62	63	B62	*1524, 1587	
											56							62	64	-	*152702	
											56							62	64	-	*152703	
																		62	64	B15	*1528	
																			64	B15	*1529	
											56							62	64	B62, B15	*1530, 1558, 1563	
						51														64	B75	*1531
											56								63	-	*1536	
								53			56		58							64	-	*1542
											56							62	63	-	*1543	
											56							62	64	B62	*1545	
										55	56							62	64	B72	*1546	
											56									64	B62	*1548
										55	56							62	64	-	*1553	
											56							62	64	-	*1554	
						51														64	-	*1555
											56									64	-	*1562
																				64	-	*1564
											56							62	64	-	*1566	
											56							62	64	-	*1568	
											56									64	-	*1569
											56			59				62	64	-	*1573	
											56									64	-	*1574
		47																62	64	-	*1576, 9501	
											56							62	64	-	*1577	
																				64	-	*1580
											56									64	-	*1583
											56							62	64	-	*1585	
											56		58							64	-	*1586
						51														63	-	*1589
											56									64	-	*1591, 9531
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*9506	-				25			28	29								37		39					
*9515	-								29		31								39	40				
*9516	-							28											39					
*9520	-							28											39					
*9524	-								29		31								39					
*9526, 9535, 9540, 9545-9547	-			24				28											39					
*9536	-			24				28											39		41			
*9537	-			24				28											39					
*9538	-	22						28											39					
*9539	-			24				28									37		39					
*9541	-			24				28											39					
*9542	-			23	24			28											39					
*9543	-							28	29										39					
*9544	-			24				28									37		39					
*9548	-			24				28											39					
*9549N	-			24				28											39					
*180101-1803, 1805- 1808, 1810, 1811, 1813 1815, 1817N, 1818, 1820, 1821, 1823N- 1825, 1827, 1828	B18														35			38						
*1804	-														35			38						
*1809	-														35					40				
*1812	-														35			38						
*1819	-														35			38						
*1822	-														35		37	38						
*1826	-														35			38						
*1829, 3532, 3537, 3553N, 3564, 356801- 356802																			38					
*2701	B27					26											36							
*2702	B27					26											36							
*2703-270402, 270502- 2706, 2709, 2710, 2713, 2717, 2720, 2727, 2731, 2735-2737	B27					26											36							
*2707, 2711, 2714, 2715, 2721, 2728, 2732, 2734, 2738, 2743	B27																36							
*2708, 2726, 2740, 2742	B2708					26											36							
*2712	-					26											36							
*2716, 2739	-					26											36							
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	
										55	56								64	-	*9506	
																		63		64	-	*9515
45											56									64	-	*9516
																	62		64		-	*9520
45																				64	-	*9524
											56							62		64	-	*9526, 9535, 9540, 9545-9547
											56									64	-	*9536
							53				56							62		64	-	*9537
											56									64	-	*9538
						51														64	-	*9539
											56									64	-	*9541
											56							62		64	-	*9542
										55								62		64	-	*9543
						51												62		64	-	*9544
						51												62		64	-	*9548
																		62		64	-	*9549N
																61				64	B18	*180101-1803, 1805-1808, 1810, 1811, 1813, 1815, 1817N, 1818, 1820, 1821, 1823N-1825, 1827, 1828
													58			61				64	-	*1804
																61		63			-	*1809
											56									64	-	*1812
																61	62			64	-	*1819
				49												61				64	-	*1822
																61				64	-	*1826
																61				64	-	*1829, 3532, 3537, 3553N, 3564, 356801-356802
		47									56									63	B27	*2701
		47			50				54		56									63	B27	*2702
		47			50						56									63	B27	*2703-270402, 270502-2706, 2709, 2710, 2713, 2717, 2720, 2727, 2731, 2735-2737
		47			50						56									63	B27	*2707, 2711, 2714, 2715, 2721, 2728, 2732, 2734, 2738, 2743
		47			50						56									64	B2708	*2708, 2726, 2740, 2742
											56									64	-	*2712
											56									63	-	*2716, 2739
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*2718	-					26					32					36								
*2719	-															36	37							
*2723	-					26										36								
*2724	-															36								
*2725	-															36								
*2729	-					26					32					36								
*2730	-															36	37							
*2733	-															36								
*2741	-					26										36								
*350101-350107, 3507-350803, 3511, 3515, 352001-352002, 3523, 3529, 3540N-3542, 3548, 3550, 3552, 3554, 3557, 3561, 3577, 3578, 3582, 3590 3594	B35																37	38						
*350201-350401, 350403, 3506, 3512, 3533, 3534, 3536, 3539, 3555, 3559, 3565Q, 3570, 3574, 3583-3585	B35																37	38						
*350402	-									30							37	38						
*3505, 3551, 3558, 3572	B35			24														38						
*350901-350902, 3518, 3531, 3575, 3588	B35																	38						
*3510, 3528, 3569, 3580	-																37	38						
*3513	B35																37	38						
*351401-351402, 3562	B35																37	38						
*3516	-			24													37	38						
*3517, 3530	B35			24													37	38						
*3519	B35																37							
*3521, 3524	-																37	38						
*3522	-			24														38						
*3525, 3549	-																37							
*3526	-						27										37							
*3527	B35																37							
*3535	-																37	38			41			
*3538	-																37	38						
*3543, 3567, 3579, 3586	B35																	38						

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	
											56								64	-	*2718	
		47			50						56								63	-	*2719	
																			63	-	*2723	
		47			50	51					56								63	-	*2724	
		47			50						56						62	63		-	*2725	
											56								63	-	*2729	
		47			50				54		56								63	-	*2730	
		47			50						56									64	-	*2733
		47			50						56								63	-	*2741	
																61				B35	*350101-350107, 3507-350803, 3511, 3515, 352001-352002, 3523, 3529, 3540N-3542, 3548, 3550, 3552, 3554, 3557, 3561, 3577, 3578, 3582, 3590 3594	
																61				B35	*350201-350401, 350403, 3506, 3512, 3533, 3534, 3536, 3539, 3555, 3559, 3565Q, 3570, 3574, 3583-3585	
																61					*350402	
																61				B35	*3505, 3551, 3558, 3572	
																61				B35	*350901-350902, 3518, 3531, 3575, 3588	
											56										*3510, 3528, 3569, 3580	
											56									B35	*3513	
																61	62			B35	*351401-351402, 3562	
											56										*3516	
																61				B35	*3517, 3530	
										55										B35	*3519	
				49												61					*3521, 3524	
																61					*3522	
																					*3525, 3549	
																					*3526	
																61				B35	*3527	
																61					*3535	
				48												61					*3538	
																61	62			B35	*3543, 3567, 3579, 3586	
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*3544	-																	38						
*3545, 3571	-											33					37	38						
*3546	-																37							
*3547	-				25												37							
*3556	-																37							
*3560	-																	38						
*3563	-				25												37							
*3566	-																	38						
3576	-																37	38						
*3581	-																37	38						
*3587	-								29									38						
*370101-370103, 3703N, 3706, 3713	B37, Null											33					37			40				
*370104	-											33					37			40				
*3702	-					26						33								40				
*3704	-											33					37			40				
*3705	-											33					37			w				
*3707	-	22										33								40				
*3708	-											33					37			40				
*3709	-											33								40				
*3710	-																37			40				
*3711	-																37	38						
*3712	-								29			33								40				
*3714	-																	38						
*380101-380102, 3809, 3811-3814, 3816	B38					26															41	42	43	
*380201-380202, 3808, 3815	B38					26														40	41	42	43	
*3803	B16					26						32								40	41	42		
*3804	-																			40	41		43	
*3805	-						27														41	42	43	
*3806	-																				41			
*3807	-					26															41			
*3810	-					26																42	43	
*3817	-					26						33								40	41	42	43	
*39010101-39010102L, 390103-390105, 3903, 3905-390602, 3909, 3911, 3914, 3915, 3924, 3926-3929, 3931, 3935, 3937, 3938Q, 3940N, 3941, 3944	B3901, B39					26															41		43	44
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
																61	62	64	-		*3544
			48													61		64	-		*3545, 3571
						51												64	-		*3546
										55								64	-		*3547
																61		64	-		*3556
													58			61		64	-		*3560
										55	56							64	-		*3563
																61		64	-		*3566
		47			50											61		64	-		3576
				49												61		64	-		*3581
	46															61		64	-		*3587
			48								56							63	B37, Null		*370101-370103, 3703N, 3706, 3713
			48								56	57						63	-		*370104
											56							63	-		*3702
			48	49							56							63	-		*3704
			48								56							64	-		*3705
											56							63	-		*3707
			48													61		63	-		*3708
											56							63	-		*3709
			48								56							63	-		*3710
			48								56							64	-		*3711
			48								56							63	-		*3712
											56							63	64	-	*3714
																		63	B38		*380101-380102, 3809, 3811-3814, 3816
																		63	B38		*380201-380202, 3808, 3815
											56							63	B16		*3803
											56							63	-		*3804
																		63	-		*3805
																61		63	-		*3806
																61		63	-		*3807
																		63	-		*3810
																		63	-		*3817
																		64	B3901, B39		*39010101-39010102L, 390103-390105, 3903, 3905-390602, 3909, 3911, 3914, 3915, 3924, 3926-3929, 3931, 3935, 3937, 3938Q, 3940N, 3941, 3944
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: 10F

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*390201, 3908	B3902, B39					26						32									41			44
*390202, 391301-391302, 3923	B3902, B39											32									41			44
*3904	B39						27														41		43	44
*3907	-					?	?														41		43	44
*3910, 3916, 3920	B39																				41			44
*3912, 3945	-																				41		43	44
*3917	-																				41			44
*3918	-					26															41		43	44
*391901	-																	38			41		43	44
*391902	-					26												38			41		43	44
*3922	-					26															41		43	44
*3936	-					26																	43	44
*3939	-					26						32									41			44
*3942	-					26												37			41			44
*3943	-					26																		44
*400101-400106, 4007	B60, B40				25																			44
*400201-400203, 4004, 40060101-400602, 4039	B61, B40																							
*4003, 4020	B40																							
*4005	B4005			24																				
*4008	-																							
*4009, 4011, 4018, 4024, 4027, 4029, 4035, 4037, 4040, 4044, 4050, 4056, 4057, 4064, 4075, 4078, 4082, 4085, 4086	B61, B40																							?
*4010, 4022N, 4033, 4036, 4042, 4043, 4049, 4054, 4055, 4061, 4063, 4065-4067, 4073, 4081, 4084, 4087, 4088	Null, B40, B60				25																			?
*4012	-							29			32								39					
*4013, 4019	-																							
*401401-401403, 4053, 407201	-				25																			?
*4015, 4016, 4032	B61	22			25																			?
*4021	-																							?
*4023	-	22			25																			44
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
											56								64	B3902, B39	*390201, 3908
											56								64	B3902, B39	*390202, 391301-391302, 3923
																			64	B39	*3904
																			64	-	*3907
																			64	B39	*3910, 3916, 3920
																			64	-	*3912, 3945
													58						64	-	*3917
																	62	64	-	-	*3918
																61			64	-	*391901
																61			64	-	*391902
											56								64	-	*3922
																	62	64	-	-	*3936
																			64	-	*3939
																			64	-	*3942
																			64	-	*3943
45										55	56								64	B60, B40	*400101-400106, 4007
										55	56								64	B61, B40	*400201-400203, 4004, 40060101-400602, 4039
										55	56								64	B40	*4003, 4020
										55	56								64	B4005	*4005
										55									64	-	*4008
										55	56								64	B61, B40	*4009, 4011, 4018, 4024, 4027, 4029, 4035, 4037, 4040, 4044, 4050, 4056, 4057, 4064, 4075, 4078, 4082, 4085, 4086
45										55	56								64	Null, B40, B60	*4010, 4022N, 4033, 4036, 4042, 4043, 4049, 4054, 4055, 4061, 4063, 4065-4067, 4073, 4081, 4084, 4087, 4088
45											56								64	-	*4012
						52		54			56								63	-	*4013, 4019
										55	56								64	-	*401401-401403, 4053, 407201
										55	56								64	B61	*4015, 4016, 4032
45											56								64	-	*4021
45										55	56								64	-	*4023
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*4025	-				25																			?
*4026	B21									30														?
*4028	-									30							37							?
*4030, 4034	-				25																			?
*4031, 4045, 4080	-				25																			?
*4038, 4052	-				25																			?
*4046	-										32					36								?
*4047	-				25																			?
*4048	-				25					31														?
*4051, 4079	-				25																			44
*4058	-				25																			?
*4059	-				25																			44
*4060	-				25																			44
*4068	-																							?
*4069	-				25																			?
*4070, 4089-4091	-																							?
*4071	-			24																				?
*407202, 4077	-				25																			44
*4074	-																							?
*4076	-				25																			?
*4083	-																							?
*4092	-				25																			?
*4101, 4106, 4107	B41				25				29															44
*4102	B41				25				29															44
*410301-410302	B41				25				29															44
*4104	-				25																			44
*4105	-				25				29															44
*4108	-	22			25				29				34											44
*4201, 4202, 4206	B42								29															44
*4204	-								29															44
*420501-420502	-	22							29				34											44
*4208	-								29															44
*4209	-																							44
*44020101-440205, 4411, 4416, 4419N, 4421-4424, 4427, 4433, 4434, 4448, 4451, 4452N, 4455, 4459, 4463	B44, B47, Null				25												37							
*440301-4405, 4413, 4426, 442801-4430, 4432, 4435, 4436, 4438, 4439, 4442, 4445, 4456N, 4458N, 4461N	B44				25												37							
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
45										55									64	-	*4025
										55	56								64	B21	*4026
			49							55	56								64	-	*4028
										55	56								64	-	*4030, 4034
						51				55	56								64	-	*4031, 4045, 4080
45										55	56								64	-	*4038, 4052
45											56								64	-	*4046
45											56							63		-	*4047
45										55	56								64	-	*4048
45										55	56								64	-	*4051, 4079
										55	56		58						64	-	*4058
										55	56								64	-	*4059
45										55	56								64	-	*4060
										55									64	-	*4068
45										55									64	-	*4069
										55	56								64	-	*4070, 4089-4091
										55	56			59					64	-	*4071
										55	56								64	-	*407202, 4077
45										55	56								64	-	*4074
45											56									-	*4076
										55	56								64	-	*4083
45										55	56								64	-	*4092
	46									55	56								64	B41	*4101, 4106, 4107
	46									55	56								64	B41	*4102
	46									55	56								64	B41	*410301-410302
	46									55	56								64	-	*4104
	46									? 56									64	-	*4105
	46									55	56								64	-	*4108
	46	47																	64	B42	*4201, 4202, 4206
	46	47																	64	-	*4204
	46	47																	64	-	*420501-420502
		47																	64	-	*4208
	46	47																	64	-	*4209
			48								56	57						63		B44, B47, Null	*44020101-440205, 4411, 4416, 4419N, 4421-4424, 4427, 4433, 4434, 4448, 4451, 4452N, 4455, 4459, 4463
				48							56							63		B44	*440301-4405, 4413, 4426, 442801-4430, 4432, 4435, 4436, 4438, 4439, 4442, 4445, 4456N, 4458N, 4461N
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*4406	B44																37							
*4407																	37							
*4408	B44			24													37							
*4409	B12				25												37							
*4410	-				25						32						37	39						
*4412	-				25												37							
*4414	-				25				29								37							
*4415	-				25				29		32													
*4417, 4443	-				25							33					37							
*4418	-				25				29		32													
*4420	-				25				29															
*4425, 4450	-				25												37							
*4431	-				25																			
*4437	-				25												37							
*4440	-										32					36	37							
*4441	-				25																			
*4444	-										32					36	37							
*4446	-				25												37							
*4447	-				25																			
*4449	-		23		25												37							
*4450	-				25												37							
*4453	-				25																			
*4454	-				24	25																		
*4457	-				24												37							
*4460	-				24	25											37							
*4462	-				25				29	30							37							
*446401-446402	-				25												37							
*4501, 4505, 4507	B45				25				29		32													44
*4502, 4503	-				25				29															44
*4504	-				25				29															44
*4506	-				25				29		32													44
*4508	-				25				29															44
*4509	-				25				29			33												44
*460101-460102, 4604, 4605, 4607N, 4609	B46								28															
*4602	-								28															
*4603, 4608	-								28															
*4606	-								28															
*4610	-								28															
*4611	-				24				28															
*4612, 4614-4616	-				24				28															
*4613	-				24				28															
*47010101-47010102	B47				25																			
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	
			48						54			57				61		63		B44	*4406	
			48								56							63			*4407	
			48								56	57						63		B44	*4408	
			48							55	56	57							64		B12	*4409
			48								56			59				63		-	*4410	
			48									57						63		-	*4412	
			48								56							63		-	*4414	
											56			59				63		-	*4415	
			48								56							63		-	*4417, 4443	
							52				56			59				63		-	*4418	
			48								56	57						63		-	*4420	
			48				52		54		56							63		-	*4425, 4450	
45			48								56							63		-	*4431	
											56							63		-	*4437	
			48								56							63		-	*4440	
			48								56	57						63		-	*4441	
			48								56	57						63		-	*4444	
			48							55	56								64		*4446	
			48								56							63		-	*4447	
			48								56	57						63		-	*4449	
			48				52		54		56							63		-	*4450	
			48								56	57						63		-	*4453	
			48								56							63		-	*4454	
			48								56							63		-	*4457	
			48								56							63		-	*4460	
			48								56							63		-	*4462	
											56							63		-	*446401-446402	
										55	56			59					64	B45	*4501, 4505, 4507	
										55	56								64	-	*4502, 4503	
										55	56			59					64	-	*4504	
		47								55				59					64	-	*4506	
										55	56		58						64	-	*4508	
										55	56								64	-	*4509	
		47		49													62	64	B46	*460101-460102, 4604, 4605, 4607N, 4609		
		w		49													62	64	-		*4602	
		47		49															64	-	*4603, 4608	
45		47		49															64	-	*4606	
		47		49							56						62	64	-		*4610	
		47		49							56			59				64	-		*4611	
		47		49							56					62	64	-			*4612, 4614-4616	
		47		49							56							64	-		*4613	
					50						56							63	B47	*47010101-47010102		
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.	

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
*4702	-				25																				
*4703	-				25																				
*4704, 4705	-				25	26																			
*480101-480102, 4807, 4809, 4811, 4819	B48											32													44
*4802	-											32					37								44
*480301-480302	B48											32													44
*4804	B48											32													44
*4805, 4808	B48	22										32													44
*4806	-																								44
*4810, 4812	-											32													44
*4813	-											32													44
*4814	-											32													44
*4815	-	22										32													44
*4816	-											32													44
*4817	-											32													44
*4818	-											32													44
*4901	B49				25																				
*4902	-				25																				
*4903	-																								
*4904, 4905	-				25																				
*5001, 5004	B50				25																				44
*5002	B45				25							32													44
*510101, 510103, 510105-510108, 510201, 510203, 5103, 5107, 510901, 5111N, 5112, 511302, 5114, 5117-5119, 5122, 5123, 5126-5130, 5132, 5133, 5138-5141N, 5143, 5148, 5149, 5151-5153, 5155	B51, B5102, B5103, Null											30													
*510102, 510109, 510202, 5105, 510902	B51											30													
*510104, 511301, 5116, 5121, 512401-512402, 5131, 5134, 5135	B51, B52																								
*5104, 5146	B51											30					37								
*5106	B51											30													
*5108, 5120, 5144N	B51								29			30													
*5110	-																								
*5115	-																								
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
					50					55	56							64		-	*4702
					50						56							63	w	-	*4703
										56								63		-	*4704, 4705
						51					56								64	B48	*480101-480102, 4807, 4809, 4811, 4819
										56									64	-	*4802
45										56									64	B48	*480301-480302
						51				56									64	B48	*4804
										56									64	B48	*4805, 4808
						51													64	-	*4806
										56									64	-	*4810, 4812
										56									64	-	*4813
										56									64	-	*4814
						51				56									64	-	*4815
						51													64	-	*4816
45										56									64	-	*4817
						51				56									63	-	*4818
							52	53		56				59					63	B49	*4901
								53		56				59					63	-	*4902
								53		56				59					63	-	*4903
							52	53		56									63	-	*4904, 4905
							53			55	56			59					64	B50	*5001, 5004
								53		55	56			59					64	B45	*5002
									53	54					61				63	B51, B5102, B5103, Null	*510101, 510103, 510105-510108, 510201, 510203, 5103, 5107, 510901, 5111N, 5112, 511302, 5114, 5117-5119, 5122, 5123, 5126-5130, 5132, 5133, 5138-5141N, 5143, 5148, 5149, 5151-5153, 5155
									53	54					61				63	B51	*510102, 510109, 510202, 5105, 510902
									53	54					61				63	B51, B52	*510104, 511301, 5116, 5121, 512401-512402, 5131, 5134, 5135
				49					54						61				63	B51	*5104, 5146
									54						61				63	B51	*5106
								53	54						61				63	B51	*5108, 5120, 5144N
									54						61				63	-	*5110
									54					59	61				63	-	*5115
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*5136	-								29															
*5137	-									30														
*5142	-																							
*5145	-																							
*5150, 5154	-									30														
*5156	-									30														
*5157	-									30														
*520101, 520103, 5204, 5205, 5207, 5210, 5212	B52									30														
*520102, 520104-5203, 520601-520602, 5209	B52									30														
*5208	-																							
*5213	-									30														
*5214	-																							
*530101-530104, 5305, 5308, 5310, 5316	B53																							
*5302	B53																							
*5303, 5309, 5311- 5313	-																							
*5304, 5307	-																							
*5306	B53																							
*5314	-			24																				
*5315	-																							
*5401, 5402, 5405N, 5407, 5408N, 5410, 5413	B54																							
*5403	-																							
*5404, 5411, 5415	-																							
*5406	-																							
*5409, 5414	-																							
*5412	-																							
*550101-550104, 5503, 5505, 5511, 5515, 5525, 5529, 5531	B55																							
*550201-550202, 5507, 5510, 5512, 5516, 5519, 5526, 5530	B54, B55																							
*5504, 5508, 5513, 5527, 5615, 5619N, 5622	B55																							
*5509, 5517, 5528	-																							
*5514	-																							
*5518	-																							
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
								53	54							61		63		-	*5136
								53	54							61		63		-	*5137
			48						54							61		63		-	*5142
									54							61		63		-	*5145
								53								61		63		-	*5150, 5154
				49												61		63		-	*5156
								53								61		63		-	*5157
								53	54		56							63		B52	*520101, 520103, 5204, 5205, 5207, 5210 5212
								53	54		56							63		B52	*520102, 520104-5203, 520601-520602, 5209
								53	54		56							63		-	*5208
								53			56							63		-	*5213
								53			56							63		-	*5214
									54							61		63		B53	*530101-530104, 5305, 5308, 5310, 5316
				49					54							61		63		B53	*5302
																61		63		-	*5303, 5309, 5311- 5313
									54							61		63		-	*5304, 5307
				49					54							61		63		B53	*5306
									54							61		63		-	*5314
									54							61		63		-	*5315
		47			50							57	58						64	B54	*5401, 5402, 5405N, 5407, 5408N, 5410, 5413
		47			50							57		59					64	-	*5403
		47			50							57							64	-	*5404, 5411, 5415
		47			50							57					62	64		-	*5406
		47			50							57							64	-	*5409, 5414
		47			50							57	58					63		-	*5412
		47			50			53					58						64	B55	*550101-550104, 5503, 5505, 5511, 5515, 5525, 5529, 5531
		47			50								58						64	B54, B55	*550201-550202, 5507, 5510, 5512, 5516, 5519, 5526, 5530
		47			50														64	B55	*5504, 5508, 5513, 5527, 5615, 5619N, 5622
		47			50			53											64	-	*5509, 5517, 5528
		47			50										60				64	-	*5514
											56	58							64	-	*5518
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: **10F**

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	
*5520	-																								
*5521	-																								
*5522	-										31														
*5523, 5532, 5618	-																								
*5524	-										31														
*5601, 5608, 5614, 5616, 5620	B56																								
*5602, 5604	B56																								
*5603	B22																								
*560501	-										30														
*560502	-										30														
*5606	B78										30							38							
*5607	-																								
*5609	-																	37							
*5610	-																								
*5611, 5612	-																	37							
*5613	-								29																
*5617	-																								
*5621	-										30														
*5623	-																								
*570101-570103, 5706, 5708, 5710	B57																	37							
*5702-5705	B57																	37							
*5707	-																	37							
*5709	-								29									37							
*5711	-																								
*5712	-																	37							
*5713	-																								
*5714	-			24														37							
*5715	-			24														37							
*5716	-																	37							
*5717	-			24														37							
*580101, 5804, 5805, 5810N-5814	B58																	37							
*580102, 5815	-																	37							
*5802, 5806	B58																								
*5807	-												33												
*5808	-										30														
*5809	-																	37							
*5816																									
*5817N, 5819																		37							
*5818				24																					
*5901	B59																								
*5902	-																								
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
	46	47			50														64	-	*5520
		47			50			53					58				62		64	-	*5521
			47		50														64	-	*5522
			47		50														64	-	*5523, 5532, 5618
			47		50			53											64	-	*5524
		47			50									59					64	B56	*5601, 5608, 5614, 5616, 5620
			47		50									59					64	B56	*5602, 5604
			47		50												62		64	B22	*5603
			47		50			53					58						64	-	*560501
			47		50			53											64	-	*560502
			47		50			53					58						64	B78	*5606
			47		50									59				63		-	*5607
			47		50														64	-	*5609
			47		50								58						64	-	*5610
			47		50														64	-	*5611, 5612
			47		50									59					64	-	*5613
														59					64	-	*5617
			47		50			53											63	-	*5621
													58						64	-	*5623
									54						60			63		B57	*570101-570103, 5706, 5708, 5710
									54						60			63		B57	*5702-5705
			48						54						60			63		-	*5707
			48						54						60			63		-	*5709
									54						60			63		-	*5711
										56					60			64		-	*5712
									54	56					60			63		-	*5713
				49					54	56					60			63		-	*5714
									54	56					60			63		-	*5715
									54	56								63		-	*5716
										56					60			63		-	*5717
									54									63		B58	*580101, 5804, 5805, 5810N-5814
									54	56								63		-	*580102, 5815
									54									63		B58	*5802, 5806
									54									63		-	*5807
								53	54									63		-	*5808
				49					54									63		-	*5809
									54	56								63		-	*5816
										56								63		-	*5817N, 5819
										56								63		-	*5818
													58					63		B59	*5901
									54									63		-	*5902
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

Lot No.: 10F

Lot-specific information

Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
*5903	-																							
*670101	B67					26															41			44
*670102	B67																				41			44
*6702	-																				41			44
*7301	B73																							44
*7801, 780202, 7803	B78									30								38						
*780201, 7804	B78									30								38						
*7805	-									30								38						
*7806	-									30														
*8101	B81																							
*8102	-																							44
*8103, 8104N	-																							
*8201, 8202	-								29											39				
*8301	-																	37						
HLA-B allele <sup>4</sup>	ser. <sup>5</sup>																							
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Cw*0206										w														
Cw*0305, 0325, 0327				24																				
Cw*0746									29															
Cw*150204																								
Well No.		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

<sup>1</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B low resolution typing.

In addition, wells number 27, 30, 31, 40, 41, 53 and 60 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The nucleotide position, in the 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> exon or in the 1<sup>st</sup> intron, 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, in the 2<sup>nd</sup>, or 3<sup>rd</sup> exon or the 1<sup>st</sup> or 3<sup>rd</sup> introns, 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.

Lot No.: **10F**

Lot-specific information

45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
																		63		-	*5903
		47																	64	B67	*670101
		47																	64	B67	*670102
		w																	64	-	*6702
		47																62	64	B73	*7301
							53						58			61			64	B78	*7801, 780202, 7803
							53									61			64	B78	*780201, 7804
							53				56								64	-	*7805
							53				56								64	-	*7806
		47			50	51													64	B81	*8101
		47				51													64	-	*8102
		47				51													64	-	*8103, 8104N
		47			50									59					64	-	*8201, 8202
		47	48		50							57							64	-	*8301
																				ser. <sup>5</sup>	HLA-B allele <sup>4</sup>
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.
																					Cw*0206
																					Cw*0305, 0325, 0327
																					Cw*0746
													58								Cw*150204
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64		Well No.

<sup>4</sup>The nucleotide sequences of the B\*3589 and B\*4093 alleles are not yet retrievable from the GenBank or EMBL data banks.

The sequence of the B\*0701 allele has been shown to be in error.

The sequence of the B\*1305 allele has been shown to be identical to B\*1304.

The B\*1522 allele has been renamed B\*3543.

The sequence of the B\*1541 allele has been shown to be identical to B\*1539.

The B\*1559 allele has been renamed B\*3544.

The sequence of the B\*1816 allele has been shown to be identical to B\*1814.

The sequence of the B\*27051 allele has been shown to be identical to B\*270502.

The sequence of the B\*2722 allele has been shown to be identical to the corrected B\*2706 sequence.

The B\*3573 allele has been renamed B\*350803.

The sequence of the B\*39012 allele has been shown to be identical to B\*390101.

The sequence of the B\*3921 allele has been shown to be identical to B\*3924.

The sequence of the B\*4017 allele has been shown to be identical to B\*4016.

The sequence of the B\*4041 allele has been shown to be identical to B\*4040.

The sequence of the B\*4203 allele has been shown to be in error.

The sequence of the B\*4401 allele has been shown to be identical to B\*4402.

The sequence of the B\*5003 allele has been shown to be identical to B\*5002.

The sequence of the B\*5125 allele has been shown to be identical to B\*5122.

The B\*5147 allele has been renamed B\*510902.

The sequence of the B\*5506 allele has been shown to be identical to B\*5504.

The sequence of the B\*5803 allele has never been assigned.

The B\*7901 allele has been renamed B\*1518.

The B\*9530 allele has been renamed B\*152702.

The B\*0826 and the B\*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*1408 and the B\*3925N, B\*3930 and B\*3932 to 3934 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

**Lot No.: 10F**

**Lot-specific information**

The B\*1829 and the B\*3523, B\*3537, B\*3553N, B\*3564, B\*3566 and B\*356801-356802 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5504, B\*5508, B\*5513, B\*5527 and the B\*5615, B\*5619N and B\*5622 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B\*5523, B\*5532 and the B\*5618 give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

<sup>5</sup>The serological reactivity of all HLA-B alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

'ser', serological HLA specificity.

'w', might be weakly amplified.

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

Lot No.: 10F

Lot-specific information

		INTERPRETATION TABLE																									
		DR low resolution SSP typing																									
		Amplification patterns of the DRB1*0101 to DRB1*1001 alleles																									
		Well																									
		65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87			
Length of spec.		205	195	215	210	220	80	80	100	205	165	85	205	100	85	210	195	175	100	110	110	230	215	260			
PCR product(s)				260			210	210	175	230	215	130		170	105		210		140	135	175						
											250	180								170	225						
Length of int.		515	430	430	430	430	430	430	430	430	515	430	430	430	430	430	430	430	430	515	430	430	430	430			
pos. control <sup>1</sup>																											
5'-primer(s) <sup>2</sup>		14	14	13	13	5	13	13	13	14	16	26	31	13	16	10	10	13	37	26	13	10	28	13			
		5'-gAA <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-A CA <sup>3'</sup>	5'-AT A <sup>3'</sup>	5'-gT T <sup>3'</sup>	5'-TAT <sup>3'</sup>	5'-gC g <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-gT T <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-g TA <sup>3'</sup>	5'-g TA <sup>3'</sup>	5'-g TC <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-g AT <sup>3'</sup>	5'-g TA <sup>3'</sup>			
					13		16		13	14	16	58		16		13	13		37	34	34	10		13			
					5'-AAg <sup>3'</sup>		5'-gT T <sup>3'</sup>		5'-A CC <sup>3'</sup>	5'-AT A <sup>3'</sup>	5'-gT T <sup>3'</sup>	5'-gAg <sup>3'</sup>		5'-gT C <sup>3'</sup>		5'-g TC <sup>3'</sup>	5'-g TC <sup>3'</sup>		5'-g TT <sup>3'</sup>	5'-CAG <sup>3'</sup>	5'-CAG <sup>3'</sup>	5'-g CT <sup>3'</sup>		13			
									13	16				38		16								13			
									5'-A TA <sup>3'</sup>	5'-gT T <sup>3'</sup>				5'-C gT <sup>3'</sup>		5'-gT T <sup>3'</sup>								13			
																5'-gT C <sup>3'</sup>	16										
3'-primer(s) <sup>3</sup>		67	67	70	67	73	26	28	33	71	58	57	86	58	30	70	67	58	57	57	57	73	87	87			
		5'-gAg <sup>3'</sup>	5'-gAT <sup>3'</sup>	5'-CTg <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-g gC <sup>3'</sup>	5'-g gT <sup>3'</sup>	5'-CT C <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-C CT <sup>3'</sup>	5'-C gA <sup>3'</sup>	5'-C AC <sup>3'</sup>	5'-C CT <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-C gg <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-g gC <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-CTC <sup>3'</sup>			
		71		71	67	73	71	70	58	73	74	73	86	58	38	71	67	58	71	58	60	73					
		5'-gC g <sup>3'</sup>		5'-CgC <sup>3'</sup>	5'-gAg <sup>3'</sup>	5'-g gC <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-CTg <sup>3'</sup>	5'-C gg <sup>3'</sup>	5'-g gC <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-g gC <sup>3'</sup>	5'-C CA <sup>3'</sup>	5'-C CT <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-C Ag <sup>3'</sup>	5'-CgC <sup>3'</sup>	5'-C CT <sup>3'</sup>	5'-gTg <sup>3'</sup>	5'-g gC <sup>3'</sup>					
				86	72					77	86	78				71				70	70						
				5'-C CA <sup>3'</sup>	5'-gC g <sup>3'</sup>					5'-A AT <sup>3'</sup>	5'-C AC <sup>3'</sup>	5'-CAC <sup>3'</sup>				5'-CTC <sup>3'</sup>				5'-CTg <sup>3'</sup>	5'-T CC <sup>3'</sup>						
										78						71				70	74						
										5'-CAC <sup>3'</sup>						5'-CgC <sup>3'</sup>				5'-T CC <sup>3'</sup>	5'-CAG <sup>3'</sup>						
Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87			
DRB1 allele <sup>4</sup>	ser <sup>5</sup>																										
*010101-010204, 0104-0120	1	65																									
*0103	103		66																								
Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87			

Lot No.: **10F**

Lot-specific information

Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
*030101-030106, 0304-0306, 0309, 0311-0316, 0318-0320, 0322, 0323, 0325, 0326, 0328, 0330, 0331, 0333, 0334, 0336, 0337	17					69	70											81						
*030201-0303, 0327, 0329, 0338	18					69		71										81						
*0307, 0317, 0321, 0324, 0332, 0335, 0339, 0340	-					69												81						
*0308	-					69	70					75		77							83			
*0310	-					69	70														83	84		
*040101-0461, 0463-0468, 0470-0472, 0474-0477	4								72															
*0462, 0469, 0473	-								72												82			
*070101-070102, 0703-0715	7									73														
*080101-080203, 080401-0807, 0811, 0816, 0817, 0822, 0824, 0826, 0828	8										74						80							
*080302, 0810, 0812-0815, 0818, 0819, 0823, 0825, 0827, 0829, 0830, 0833, 0834	8										74													
*0808	-										74						80		82					
*0809, 0821, 1415	8										74						80				84			
*0820, 1318, 1347, 1355	8,13															79	80	81			84			
*0831, 1167	-										74				77		80							
*0832	-										74				78						84			
*0835											74										84			
*090102-090103, 0902, 0904-0906	9											75									83			
*090104												75									83	84		
*0903	9											75												
*0907												75									83			87
*100101-1003	10												76											
*110101-110107, 110401-110403, 110601-110602, 111201, 1115, 1124, 112701-1130, 1132, 1133, 1135, 1137-1139, 1143, 1144, 1147, 1149-1151, 115401-115402, 1156, 1160-1162, 1166	11														77		79	80						

Lot No.: **10F**

Lot-specific information

Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
*110201-1103, 111101-111102, 111401-111402, 1121, 1136, 1141, 1148, 1163, 116501-116502, 1168	11						70							77	79	80								
*110404, 1109, 1110, 111202, 1146, 1158	11													77	79	80				83				
*1105	11													77		80								
*1107, 1153	-					69					75			77										
*110801-110802, 1118-111902, 1142, 1157	11													77	79									
*1113, 1117, 1152	11													77						83	84			
*1116, 1120, 1140, 1159	-						70							77	79	80				83				
*1122	-													77						83				
*1123, 1125	11													77	79	80					84			
*1126, 1134	11							71						77										
*1131, 1145, 1164	-													77	79						84			
*1155	-													77		80					84			
*1169	-													77		80				82				
*120101-120102, 120302, 1205-1212, 1214	12														78									
*120201-120203, 1213, 1215	12														78	80								
*1204	-										74				78					83				
*1216	-										74				78	80								
*130101-130201, 130203, 1304, 1308, 1316, 1320, 1322-1324, 1327-1329, 1331, 1332, 1334-1336, 1338-1341, 1348, 1351, 1352, 1354, 1359, 1361, 1363-1365, 1368-1376, 1378-1380, 1383, 1384	13						70									79	80	81						
*130202, 130301-130302, 1310, 1333, 1337, 1366, 1381	13						70									79		81						
*130501-130502, 130701-130702, 131101-131102, 131401-131403, 1321, 1342, 1346, 1349-135002, 1362	13															79	80	81						
*1306, 1312, 1325, 1330, 1356, 1358, 1360, 1377, 1382	13															79		81						
Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87

Lot No.: **10F**

Lot-specific information

Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
*1309	13																80	81						
*1313	-															79	80	81			84			
*1315, 1319, 1353, 1357	-						70	71								79	80	81						
*1317	13						70			73							80							
*1326	-							71								79	80	81						
*1343	-						70									79	80			83	84			
*1344, 1386	-							71										81						
*1345	-						70									79	80		82		84			
*1367	-															79	80							
*1385	-						70	71								79		81						
*140101-140102, 1404, 140701-140702, 1410, 1426, 1428, 1431-143202, 1435, 1438, 1439, 1454, 1455, 1457, 1460-1462, 1470, 1471, 1475, 1476, 1479	14																			82	83	84		
*140103, 1408, 142302, 1434, 1472	-																				83	84		
*1402, 1406, 1409, 1413, 1417, 1420, 1429, 1430, 1433, 1441, 1447, 1448, 1451, 1480	14							71											81		83			
*140301-140302, 1412, 1440, 1463, 1467, 1477, 1478	14							71								79		81			84			
*140501-140503, 1414, 142301, 1436, 1443-1445, 1456, 1459, 1464, 1465	14																		81		83	84		
*1411	-										74										83	84		
*1416	6						70									79	80		82	83	84			
*1418, 1481	-							71											81		83	84		
*1419, 1421	-						70	71								79		81		83				
*1422	-															79	80		82	83	84			
*1424	-							71									80	81						
*1425, 1453	-															79	80		82		84			
*1427	14							71								79	80	81			84			
*1437	-																80	81	82					
*1442																			81			84		
*1446, 1452	-																				83			
*1449	-							71												82	83	84		
*1450	-									73											82	83	84	
*1458	-																			82		84		
*1468	-										74										82	83	84	
Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87

Lot No.: **10F**

Lot-specific information

Well No.	DR	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
*1469	-															79		82		84				
*1473	-																80	82	83	84				
*1474	-															79		82	83	84				
*150101-1520, 1522-1526, 1528-1531	15			67																				
*1521	-			67																	w			
*1527	-			67																83				
*160101-1603, 160501-160502, 1607-1613N	16				68																			
*1604	16				68																w			
Well No.		65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87
DRB1 allele <sup>4</sup>	ser <sup>5</sup>																							
DRB3*01010201-0111, 0201-0223, 030101-0303	52																						85	
DRB4*01010101-0107	53																							86
DRB5*010101-0113, 0202-0205	51																							87
Well No.	ser <sup>5</sup>	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87

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

Well number 65 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, wells number 74 and 83 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The codon, in the 2<sup>nd</sup> exon, matching the specificity-determining 3'-end of the primer is given. 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. Empty spaces indicate codon boundaries.

<sup>3</sup>The codon, in the 2<sup>nd</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. 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. Empty spaces indicate codon boundaries.

<sup>4</sup>The DRB1\*0809, DRB1\*0821 and DRB4\*1415 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1415 allele.

The DRB1\*0820, DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1318, DRB1\*1347 and DRB1\*1355 alleles.

The DRB1\*0831 and DRB1\*1167 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1\*1167 allele.

The sequence of the DRB1\*0702 allele has been shown to be identical to DRB1\*070101.

The sequence of the DRB1\*08031 allele has been shown to be identical to DRB1\*080302.

The sequence of the DRB1\*09011 allele has been shown to be identical to DRB1\*090102.

The sequence of the DRB1\*12031 allele has been shown to be identical to DRB1\*1201.

The sequence of the DRB1\*1466 allele has been shown to be identical to DRB1\*142302.

The sequence of the DRB1\*1606 allele has been shown to be identical to DRB1\*1605.

The sequence of the DRB3\*010101 allele has been shown to be identical to DRB3\*01010201.

The DRB4\*0101102N allele has been renamed DRB4\*01030102N.

The sequence of the DRB5\*0201 allele has been shown to be identical to DRB5\*0202.

<sup>5</sup>The serological reactivity of all DRB alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site and the information available at the [www.worldmarrow.org](http://www.worldmarrow.org) web site and have also inferred the serological grouping from the naming of the sequence-defined allele.

'ser', serological HLA specificity.

'w', may be weakly amplified.

'f', may be faintly amplified.

'?', nucleotide sequence information for the primer matching region(s) is not known.

Lot No.: **10F**

Lot-specific information

<b>INTERPRETATION TABLE</b>									
<b>DQ low resolution SSP typing</b>									
<b>Amplification patterns of the DQB1*0501 to DQB1*0403 alleles</b>									
		Well							
		88	89	90	91	92	93	94	95
Length of spec.		220	220	205	130	220	220	135	210
PCR product(s)			270		145				
Length of int.		<b>515</b>	430	430	<b>515</b>	<b>515</b>	<b>515</b>	<b>515</b>	430
pos. control <sup>1</sup>									
5'-primer(s) <sup>2</sup>		26	9	30	21	26	26	55	21
		5'-g gg <sup>3'</sup>	5'-g TT <sup>3'</sup>	5'-A Ag <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-T TA <sup>3'</sup>	5'-T CT <sup>3'</sup>	5'-g CC <sup>3'</sup>	5'-ACC <sup>3'</sup>
			26		26			55	
			5'-T TA <sup>3'</sup>		5'-T CT <sup>3'</sup>			5'-g CA <sup>3'</sup>	
			26						
			5'-T CT <sup>3'</sup>						
3'-primer(s) <sup>3</sup>		87	86	86	57	86	86	86	77
		5'-g gT <sup>3'</sup>	5'-A Cg <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-C gg <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-g CT <sup>3'</sup>	5'-AC g <sup>3'</sup>
			86						
			5'-A CC <sup>3'</sup>						
Well No.		88	89	90	91	92	93	94	95
DQB1 allele <sup>4</sup>	ser. <sup>5</sup>								
*050101-0505	5	88							
*060101-0628, 0630-0634	6		89						
*0629	6		89		91				
*020101-0202, 0204, 0205	2			90	91		93		
*0203	2			90			93		
*030101-030104, 0304, 0309, 0310, 0313, 0314, 0316, 0319, 0321	3, 7, 8					92		94	
*030201-030204, 0307, 0308, 0311, 0318	3, 8				91		93	94	
*030302-030303, 0306, 0312, 0315, 0320	3, 9						93	94	
*030501, 030503	3, 8				91			94	
*030502, 030504, 0317								94	
*0401, 0402	4								95
*0403	4						93		95
DQB1 allele <sup>4</sup>	ser. <sup>5</sup>								
Well No.		88	89	90	91	92	93	94	95

Lot No.: **10F**

**Lot-specific information**

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

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DQ low resolution typing.

In addition, wells number 91, 92, 93 and 94 contain the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The codon, in the 2<sup>nd</sup> exon, matching the specificity-determining 3'-end of the primer is given. 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. Empty spaces indicate codon boundaries.

<sup>3</sup>The codon, in the 2<sup>nd</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. 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. Empty spaces indicate codon boundaries.

<sup>4</sup>The sequence of the DQB1\*030301 allele has been shown to be identical to DQB1\*030302.

<sup>5</sup>The serological reactivity of the DQB1\*0505, DQB1\*0606 to 0608 alleles, the DQB1\*0610 to 0634, the DQB1\*030202-030204, DQB1\*030303, DQB1\*030502 to 0321 and the DQB1\*0403 alleles is not known. In this table we have inferred the serological grouping from the naming of the sequence-defined allele.

Lot No.: **10F**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-A low resolution primer set																			
				Lot No.:	Well														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
					200739101	200739102	200739103	200739104	200739106	200739107	200739108	200739109	200739110	200739111	200739112	200739113	200739114	20847015	200847016
	IHWC cell line	A*	A*																
1	9001 SA	*2402			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
2	9280 LK707	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101			+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*3001			-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
5	9009 KAS011	*0101			+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0201	*2603		-	+	-	-	-	-	+	-	-	+	-	+	-	-	-
7	9020 QBL	*2601			-	-	-	-	-	-	+	-	+	-	-	+	-	-	-
8	9007 DEM	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601			-	-	-	-	-	-	+	-	+	-	-	+	-	-	-
10	9107 LKT3	*2402			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902			-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
12	9052 DBB	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9067 BTB	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902			-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
17	9008 WILJON	*2501			-	-	-	-	-	-	+	+	-	-	-	+	-	-	-
18	9257 32367	*3303	*7401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217			-	+	-	-	-	W	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*0201	*3401		-	+	-	-	-	-	+	-	+	+	-	-	-	-	-
24	9035 JBUSH	*3201			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
25	9049 IBW9	*3301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*2410	*2901		-	-	-	-	-	+	-	-	-	-	-	-	+	-	-
28	9320 BEL5GB	*0201	*2902		-	+	-	-	-	-	-	-	-	-	-	-	+	-	-
29	9050 MOU	*2902			-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
30	9021 RSH	*3001	*6802		-	-	-	-	-	-	+	-	-	-	-	-	-	+	+
31	9019 DUCAF	*3002			-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
32	9297 HAG	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*3201			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
36	9024 KT17	*0206	*1101		-	+	-	+	-	-	-	-	-	+	-	-	-	-	-
37	9065 HHKB	*0301			-	-	+	-	-	-	-	-	-	-	-	+	-	-	-
38	9099 LZL	*0217			-	+	-	-	-	W	-	-	-	-	-	-	-	-	-
39	9315 CML	*0101	*0301		+	-	+	+	-	-	-	-	-	-	-	+	-	-	-
40	9134 WHONP199	*0207	*3001		-	+	-	-	-	-	-	-	-	-	-	-	-	+	+
41	9055 H0301	*0301			-	-	+	-	-	-	-	-	-	-	-	+	-	-	-
42	9066 TAB089	*0207			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*0207			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*6601			-	-	-	-	-	-	+	-	-	+	-	+	-	-	-
45	9239 SHJO	*2301	*2402		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*0301			-	-	+	-	-	-	-	-	-	-	-	+	-	-	-
47	9045 TUBO	*0216	*0301		-	+	+	-	-	-	-	-	-	-	-	+	-	-	-
48	9303 TER-ND	*0201	*1101		-	+	-	+	-	-	-	-	-	+	-	-	-	-	-

Lot No.: **10F**

Lot-specific information

CELL LINE VALIDATION SHEET										
HLA-A low resolution primer set										
					Well					
					16	17	18	19	20	21
				Lot No.:	200739717	200739718	200739719	200739720	200739721	200739723
	IHWC cell line	A*	A*							
1	9001 SA	*2402			-	-	-	-	-	-
2	9280 LK707	*0201			-	-	-	-	-	-
3	9011 E4181324	*0101			-	-	-	-	-	-
4	9275 GU373	*3001			-	-	-	-	-	-
5	9009 KAS011	*0101			-	-	-	-	-	-
6	9353 SM	*0201	*2603		-	-	-	-	-	+
7	9020 QBL	*2601			-	-	-	-	-	-
8	9007 DEM	*0201			-	-	-	-	-	-
9	9026 YAR	*2601			-	-	-	-	-	-
10	9107 LKT3	*2402			-	-	-	-	-	-
11	9051 PITOUT	*2902			-	-	-	-	-	-
12	9052 DBB	*0201			-	-	-	-	-	-
13	9067 BTB	*0201			-	-	-	-	-	-
14	9071 OLGA	*3101			-	-	-	-	-	-
15	9075 DKB	*2402			-	-	-	-	-	-
16	9037 SWEIG007	*2902			-	-	-	-	-	-
17	9008 WILJON	*2501			-	-	-	-	-	-
18	9257 32367	*3303	*7401		-	+	+	-	-	-
19	9038 BM16	*0201			-	-	-	-	-	-
20	9059 SLE005	*0201			-	-	-	-	-	-
21	9064 AMALA	*0217			-	-	-	-	-	-
22	9056 KOSE	*0201			-	-	-	-	-	-
23	9124 IHL	*0201	*3401		-	-	-	-	-	-
24	9035 JBUSH	*3201			+	-	-	-	-	-
25	9049 IBW9	*3301			-	+	-	-	-	-
26	9285 WT49	*0205			-	-	-	-	-	-
27	9191 CH1007	*2410	*2901		-	-	-	-	-	-
28	9320 BEL5GB	*0201	*2902		-	-	-	-	-	-
29	9050 MOU	*2902			-	-	-	-	-	-
30	9021 RSH	*3001	*6802		-	-	-	+	-	-
31	9019 DUCAF	*3002			-	-	-	-	-	-
32	9297 HAG	*0201			-	-	-	-	-	-
33	9098 MT14B	*3101			-	-	-	-	-	-
34	9104 DHIF	*3101			-	-	-	-	-	-
35	9302 SSTO	*3201			+	-	-	-	-	-
36	9024 KT17	*0206	*1101		-	-	-	-	-	-
37	9065 HHKB	*0301			-	-	-	-	-	-
38	9099 LZL	*0217			-	-	-	-	-	-
39	9315 CML	*0101	*0301		-	-	-	-	-	-
40	9134 WHONP199	*0207	*3001		-	-	-	-	-	-
41	9055 H0301	*0301			-	-	-	-	-	-
42	9066 TAB089	*0207			-	-	-	-	-	-
43	9076 T7526	*0207			-	-	-	-	-	-
44	9057 TEM	*6601			-	-	-	-	-	-
45	9239 SHJO	*2301	*2402		-	-	-	-	-	-
46	9013 SCHU	*0301			-	-	-	-	-	-
47	9045 TUBO	*0216	*0301		-	-	-	-	-	-
48	9303 TER-ND	*0201	*1101		-	-	-	-	-	-

Lot No.: **10F**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																						
<b>HLA-B low resolution SSP kit</b>																						
				<b>Well</b>																		
				22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
				Prod. No.:	2008480101	2008480102	2008480103	2008480104	2008480105	2008480106	2008480107	2008480108	2008480109	2008480110	2008480111	2008480113	2008480114	2008480115	2008480116			
<b>IHC cell line</b>		<b>B*</b>																				
1	9001	SA	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
2	9280	LK707	*5201	*7301	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-			
3	9011	E4181324	*52011		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-			
4	9275	GU373	*1510	*5301	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-			
5	9009	KAS011	*3701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-			
6	9353	SM	*3901	*5101	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-			
7	9020	QBL	*1801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
8	9007	DEM	*5701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
9	9026	YAR	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-			
10	9107	LKT3	*5401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11	9051	PITOUT	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
12	9052	DBB	*5701		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13	9067	BTB	*2705		-	-	-	-	+	-	-	-	-	-	-	-	-	-	+			
14	9071	OLGA	*1501	*1520	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
15	9075	DKB	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
16	9037	SWEIG007	*4002		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
17	9008	WILJON	*1801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
18	9257	32367	*1401	*5601	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-			
19	9038	BM16	*1801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
20	9059	SLE005	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
21	9064	AMALA	*1501		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
22	9056	KOSE	*3503		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
23	9124	IHL	*4002	*5602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
24	9035	JBUSH	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-			
25	9049	IBW9	*1402		-	-	-	+	-	+	-	-	-	-	-	-	-	-	-			
26	9285	WT49	*5801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
27	9191	CH1007	*0705	*5101	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-			
28	9320	BEL5GB	*4402	*4403	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
29	9050	MOU	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
30	9021	RSH	*4201		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-			
31	9019	DUCAF	*1801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-			
32	9297	HAG	*4102		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-			
33	9098	MT14B	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
34	9104	DHIF	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-			
35	9302	SSTO	*4402		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			
36	9024	KT17	*1501	*3501	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
37	9065	HHKB	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
38	9099	LZL	*1501		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
39	9315	CML	*0801	*2705	-	+	-	-	+	-	-	+	-	-	-	-	-	-	+			
40	9134	WHONP199	*1302	*4601	-	-	+	+	-	-	+	-	-	+	-	-	-	-	-			
41	9055	H0301	*1402		-	-	-	+	-	+	-	-	-	-	-	-	-	-	-			
42	9066	TAB089	*4601		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
43	9076	T7526	*4601		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-			
44	9057	TEM	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-			
45	9239	SHJO	*4201	*5001	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-			
46	9013	SCHU	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
47	9045	TUBO	*5101		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-			
48	9303	TER-ND	*3501	*4403	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-			

Lot No.: **10F**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																		
<b>HLA-B low resolution SSP kit</b>																		
				Prod. No.:	Well													
					37	38	39	40	41	42	43	44	45	46	47	48	49	50
	IHWC cell line	B*			200848017	200848018	200848019	200848020	200848021	200848022	200848023	200848024	200848025	200848027	200848028	200848029	200848031	200848032
1	9001 SA	*0702			-	-	-	+	-	-	-	+	-	-	+	-	-	-
2	9280 LK707	*5201	*7301		-	-	-	-	-	-	-	+	-	-	+	-	-	-
3	9011 E4181324	*52011			-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*1510	*5301		+	-	+	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*3701			+	-	-	+	-	-	-	-	-	-	-	+	-	-
6	9353 SM	*3901	*5101		-	-	-	-	+	-	+	+	-	-	-	-	-	-
7	9020 QBL	*1801			-	+	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*5701			+	+	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*3801			-	-	-	-	-	+	+	-	-	-	-	-	-	-
10	9107 LKT3	*5401			-	-	-	-	-	-	-	-	-	-	+	-	-	+
11	9051 PITOUT	*4403			+	-	-	-	-	-	-	-	-	-	-	+	-	-
12	9052 DBB	*5701			+	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9067 BTB	*2705			-	-	-	-	-	-	-	-	-	-	+	-	-	+
14	9071 OLGA	*1501	*1520		+	-	+	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*4001			-	-	-	-	-	-	-	+	+	-	-	-	-	-
16	9037 SWEIG007	*4002			-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9008 WILJON	*1801			-	+	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*1401	*5601		-	-	-	-	-	-	+	+	-	-	+	-	-	+
19	9038 BM16	*1801			-	+	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*4001			-	-	-	-	-	-	-	+	+	-	-	-	-	-
21	9064 AMALA	*1501			-	-	+	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*3503			+	+	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*4002	*5602		-	-	-	-	-	-	-	-	-	-	+	-	-	+
24	9035 JBUSH	*3801			-	-	-	-	+	+	+	-	-	-	-	-	-	-
25	9049 IBW9	*1402			-	-	-	-	-	-	+	+	-	-	-	-	-	-
26	9285 WT49	*5801			+	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*0705	*5101		-	-	-	-	-	-	-	+	-	-	+	-	-	-
28	9320 BEL5GB	*4402	*4403		+	-	-	-	-	-	-	-	-	-	-	+	-	-
29	9050 MOU	*4403			+	-	-	-	-	-	-	-	-	-	-	+	-	-
30	9021 RSH	*4201			-	-	-	-	-	-	-	+	-	+	+	-	-	-
31	9019 DUCAF	*1801			-	+	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*4102			-	-	-	-	-	-	-	+	-	+	-	-	-	-
33	9098 MT14B	*4001			-	-	-	-	-	-	-	+	+	-	-	-	-	-
34	9104 DHIF	*3801			-	-	-	-	+	+	+	-	-	-	-	-	-	-
35	9302 SSTO	*4402			+	-	-	-	-	-	-	-	-	-	-	+	-	-
36	9024 KT17	*1501	*3501		+	+	+	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*0702			-	-	-	-	-	-	-	+	-	-	+	-	-	-
38	9099 LZL	*1501			-	-	+	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*0801	*2705		-	-	-	-	-	-	-	+	-	+	+	-	-	+
40	9134 WHONP199	*1302	*4601		-	-	-	-	-	-	-	-	-	-	+	-	+	-
41	9055 H0301	*1402			-	-	-	-	-	-	+	+	-	-	-	-	-	-
42	9066 TAB089	*4601			-	-	-	-	-	-	-	-	-	-	+	-	+	-
43	9076 T7526	*4601			-	-	-	-	-	-	-	-	-	-	+	-	+	-
44	9057 TEM	*3801			-	-	-	-	+	+	+	-	-	-	-	-	-	-
45	9239 SHJO	*4201	*5001		-	-	-	-	-	-	-	+	-	+	+	-	-	-
46	9013 SCHU	*0702			-	-	-	-	-	-	-	+	-	-	+	-	-	-
47	9045 TUBO	*5101			-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*3501	*4403		+	+	-	-	-	-	-	-	-	-	-	+	-	-

Lot No.: 10F

Lot-specific information

CELL LINE VALIDATION SHEET					Well															
HLA-B low resolution SSP kit																				
				Prod. No.:	51	52	53	54	55	56	57	58	59	60	61	62	63	64		
					200848033	200848034	200848035	200848036	200848037	200848038	200848039	200848040	200848041	200848042	200848044	200848045	200848046	200848047		
	IHWC cell line		B*																	
1	9001 SA		*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
2	9280 LK707		*5201	*7301	-	-	+	+	-	+	-	-	-	-	-	-	-	+		
3	9011 E4181324		*52011		-	-	+	+	-	+	-	-	-	-	-	+	+	+		
4	9275 GU373		*1510	*5301	-	-	-	+	-	-	-	-	-	-	+	-	+	+		
5	9009 KAS011		*3701		-	-	-	-	-	+	-	-	-	-	-	-	-	+		
6	9353 SM		*3901	*5101	-	-	+	+	-	-	-	-	-	-	+	-	+	+		
7	9020 QBL		*1801		-	-	-	-	-	-	-	-	-	-	+	-	-	+		
8	9007 DEM		*5701		-	-	-	+	-	-	-	-	-	+	-	-	+	-		
9	9026 YAR		*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
10	9107 LKT3		*5401		-	-	-	-	-	-	+	+	-	-	-	-	-	+		
11	9051 PITOUT		*4403		-	-	-	-	-	+	-	-	-	-	-	-	-	+		
12	9052 DBB		*5701		-	-	-	+	-	-	-	-	-	+	-	-	-	+		
13	9067 BTB		*2705		-	-	-	-	-	+	-	-	-	-	-	-	-	+		
14	9071 OLGA		*1501	*1520	-	-	-	-	-	+	-	-	-	-	-	+	-	+		
15	9075 DKB		*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	+		
16	9037 SWEIG007		*4002		-	-	-	-	+	+	-	-	-	-	-	-	-	+		
17	9008 WILJON		*1801		-	-	-	-	-	-	-	-	-	-	+	-	-	+		
18	9257 32367		*1401	*5601	-	-	-	-	-	-	-	-	+	-	-	-	-	+		
19	9038 BM16		*1801		-	-	-	-	-	-	-	-	-	-	+	-	-	+		
20	9059 SLE005		*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	+		
21	9064 AMALA		*1501		-	-	-	-	-	+	-	-	-	-	-	+	-	+		
22	9056 KOSE		*3503		-	-	-	-	-	-	-	-	-	-	+	-	-	+		
23	9124 IHL		*4002	*5602	-	-	-	-	+	+	-	-	+	-	-	-	-	+		
24	9035 JBUSH		*3801		-	-	-	-	-	-	-	-	-	-	-	-	+	-		
25	9049 IBW9		*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
26	9285 WT49		*5801		-	-	-	+	-	-	-	-	-	-	-	-	-	+		
27	9191 CH1007		*0705	*5101	-	-	+	+	-	-	-	-	-	-	+	-	+	+		
28	9320 BEL5GB		*4402	*4403	-	-	-	-	-	+	+	-	-	-	-	-	+	+		
29	9050 MOU		*4403		-	-	-	-	-	+	-	-	-	-	-	-	-	+		
30	9021 RSH		*4201		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
31	9019 DUCAF		*1801		-	-	-	-	-	-	-	-	-	-	+	-	-	+		
32	9297 HAG		*4102		-	-	-	-	+	+	-	-	-	-	-	-	-	+		
33	9098 MT14B		*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	+		
34	9104 DHIF		*3801		-	-	-	-	-	-	-	-	-	-	-	-	+	-		
35	9302 SSTO		*4402		-	-	-	-	-	+	+	-	-	-	-	-	+	-		
36	9024 KT17		*1501	*3501	-	-	-	-	-	+	-	-	-	-	+	+	-	+		
37	9065 HHKB		*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
38	9099 LZL		*1501		-	-	-	-	-	+	-	-	-	-	-	+	-	+		
39	9315 CML		*0801	*2705	-	-	-	-	-	+	-	-	-	-	-	-	+	+		
40	9134 WHONP199		*1302	*4601	-	-	-	-	-	+	-	-	-	-	-	+	+	+		
41	9055 H0301		*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
42	9066 TAB089		*4601		-	-	-	-	-	-	-	-	-	-	-	-	+	+		
43	9076 T7526		*4601		-	-	-	-	-	-	-	-	-	-	-	-	+	+		
44	9057 TEM		*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
45	9239 SHJO		*4201	*5001	-	-	+	-	+	+	-	-	+	-	-	-	-	+		
46	9013 SCHU		*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	+		
47	9045 TUBO		*5101		-	-	+	+	-	-	-	-	-	-	+	-	+	-		
48	9303 TER-ND		*3501	*4403	-	-	-	-	-	+	-	-	-	-	+	-	+	+		

Lot No.: 10F

Lot-specific information

CELL LINE VALIDATION SHEET																					
DR low resolution primer set																					
				Prod. No.:	Well																
					65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
	IHWC cell line	DRB1			200850201	200850202	200850203	200850204	200850205	200850206	200850207	200850208	200850209	200850210	200850211	200850212	200850213	200850214	200850215	200850216	
1	9001 SA	*0101			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*1502	*0405		-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*1502			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*1601			-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0407	*0803		-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-	-
7	9020 QBL	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0401	*1602		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-
9	9026 YAR	*0402			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*0405			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
12	9052 DBB	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
13	9067 BTB	*0801			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+
14	9071 OLGA	*0802			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	+
15	9075 DKB	*0901			-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
16	9037 SWEIG007	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+	+
17	9008 WILJON	*1501			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*0901	*1101		-	-	-	-	-	-	-	-	-	-	+	-	+	-	+	+	+
19	9038 BM16	*1201			-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
20	9059 SLE005	*1302			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+
21	9064 AMALA	*1402			-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*1302	*1401		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+
23	9124 IHL	*0803	*1414		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
24	9035 JBUSH	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+	+
25	9049 IBW9	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
26	9285 WT49	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*0405	*1001		-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-
28	9320 BEL5GB	*0416	*0701		-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-
29	9050 MOU	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
30	9021 RSH	*0302			-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*1303			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-
33	9098 MT14B	*0404			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+	+
35	9302 SSTO	*0403			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
36	9024 KT17	*0403	*0406		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*1301			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+
38	9099 LZL	*1402			-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*0301	*0401		-	-	-	-	+	+	-	+	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*0701	*0901		-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-
41	9055 H0301	*1302			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	+	+
42	9066 TAB089	*0803			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
43	9076 T7526	*0901			-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
44	9057 TEM	*1401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
46	9013 SCHU	*1501			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*1104	*1201		-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
48	9303 TER-ND	*0103			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Lot No.: 10F

Lot-specific Information

CELL LINE VALIDATION SHEET					Well								
DR low resolution primer set					81	82	83	84	85	86	87		
				Prod. No.:	200850217	200850218	200850219	200850220	200850221	200850222	200850223		
	IHCW cell line		DRB1										
1	9001	SA	*0101		-	-	-	-	-	-	-	-	-
2	9280	LK707	*1502	*0405	-	-	-	-	-	-	+	+	-
3	9011	E4181324	*1502		-	-	-	-	-	-	-	-	+
4	9275	GU373	*0301		+	-	-	-	+	-	-	-	-
5	9009	KAS011	*1601		-	-	-	-	-	-	-	-	+
6	9353	SM	*0407	*0803	-	-	-	-	-	-	+	-	-
7	9020	QBL	*0301		+	-	-	-	+	-	-	-	-
8	9007	DEM	*0401	*1602	-	-	-	-	-	-	+	+	-
9	9026	YAR	*0402		-	-	-	-	-	-	+	-	-
10	9107	LKT3	*0405		-	-	-	-	-	-	+	-	-
11	9051	PITOUT	*0701		-	-	-	-	-	-	+	-	-
12	9052	DBB	*0701		-	-	-	-	-	-	+	-	-
13	9067	BTB	*0801		-	-	-	-	-	-	-	-	-
14	9071	OLGA	*0802		-	-	-	-	-	-	-	-	-
15	9075	DKB	*0901		-	-	+	-	-	-	+	-	-
16	9037	SWEIG007	*1101		-	-	-	-	+	-	-	-	-
17	9008	WILJON	*1501		-	-	-	-	-	-	-	-	+
18	9257	32367	*0901	*1101	-	-	+	-	+	+	-	-	-
19	9038	BM16	*1201		-	-	-	-	+	-	-	-	-
20	9059	SLE005	*1302		+	-	-	-	+	-	-	-	-
21	9064	AMALA	*1402		+	-	+	-	+	-	-	-	-
22	9056	KOSE	*1302	*1401	+	+	+	+	+	-	-	-	-
23	9124	IHL	*0803	*1414	+	-	+	+	+	-	-	-	-
24	9035	JBUSH	*1101		-	-	-	-	+	-	-	-	-
25	9049	IBW9	*0701		-	-	-	-	-	-	+	-	-
26	9285	WT49	*0301		+	-	-	-	+	-	-	-	-
27	9191	CH1007	*0405	*1001	-	-	-	-	-	-	+	-	-
28	9320	BEL5GB	*0416	*0701	-	-	-	-	-	-	+	-	-
29	9050	MOU	*0701		-	-	-	-	-	-	+	-	-
30	9021	RSH	*0302		+	-	-	-	+	-	-	-	-
31	9019	DUCAF	*0301		+	-	-	-	+	-	-	-	-
32	9297	HAG	*1303		+	-	-	-	+	-	-	-	-
33	9098	MT14B	*0404		-	-	-	-	-	-	+	-	-
34	9104	DHIF	*1101		-	-	-	-	+	-	-	-	-
35	9302	SSTO	*0403		-	-	-	-	-	-	+	-	-
36	9024	KT17	*0403	*0406	-	-	-	-	-	-	+	-	-
37	9065	HHKB	*1301		+	-	-	-	+	-	-	-	-
38	9099	LZL	*1402		+	-	+	-	+	-	-	-	-
39	9315	CML	*0301	*0401	+	-	-	-	+	+	-	-	-
40	9134	WHONP199	*0701	*0901	-	-	+	-	-	-	+	-	-
41	9055	H0301	*1302		+	-	-	-	+	-	-	-	-
42	9066	TAB089	*0803		-	-	-	-	-	-	-	-	-
43	9076	T7526	*0901		-	-	+	-	-	-	+	-	-
44	9057	TEM	*1401		-	+	+	+	+	-	-	-	-
45	9239	SHJO	*0701		-	-	-	-	-	-	+	-	-
46	9013	SCHU	*1501		-	-	-	-	-	-	-	-	+
47	9045	TUBO	*1104	*1201	-	-	-	-	+	-	-	-	-
48	9303	TER-ND	*0103		-	-	-	-	-	-	-	-	-

Lot No.: 10F

Lot-specific Information

CELL LINE VALIDATION SHEET											
DQ low resolution primer set											
				Well							
				88	89	90	91	92	93	94	95
				200844601	200844602	200844603	200844604	200844605	200844606	200844607	200847108
			Production No.								
	IHWC cell line		DQB1								
1	9001 SA		*0501		+	-	-	-	-	-	-
2	9280 LK707		*0601	*0202	-	+	+	+	-	+	-
3	9011 E4181324		*0601		-	+	-	-	-	-	-
4	9275 GU373		*0201		-	-	+	+	-	+	-
5	9009 KAS011		*0502		+	-	-	-	-	-	-
6	9353 SM		*0302	*0601	-	+	-	+	-	+	+
7	9020 QBL		*0201		-	-	+	+	-	+	-
8	9007 DEM		*0302	*0502	+	-	-	+	-	+	+
9	9026 YAR		*0302		-	-	-	+	-	+	-
10	9107 LKT3		*0401		-	-	-	-	-	-	+
11	9051 PITOUT		*0202		-	-	+	+	-	+	-
12	9052 DBB		*0303		-	-	-	-	-	+	+
13	9067 BTB		*0402		-	-	-	-	-	-	+
14	9071 OLGA		*0402		-	-	-	-	-	-	+
15	9075 DKB		*0303		-	-	-	-	-	+	+
16	9037 SWEIG007		*0301		-	-	-	-	+	-	+
17	9008 WILJON		*0602	*0603	-	+	-	-	-	-	-
18	9257 32367		*0602	*0202	-	+	+	+	-	+	-
19	9038 BM16		*0301		-	-	-	-	+	-	+
20	9059 SLE005		*0604		-	+	-	-	-	-	-
21	9064 AMALA		*0301		-	-	-	-	+	-	+
22	9056 KOSE		*0503	*0604	+	+	-	-	-	-	-
23	9124 IHL		*0503	*0601	+	+	-	-	-	-	-
24	9035 JBUSH		*0301		-	-	-	-	+	-	+
25	9049 IBW9		*0202		-	-	+	+	-	+	-
26	9285 WT49		*0201		-	-	+	+	-	+	-
27	9191 CH1007		*0401	*0501	+	-	-	-	-	-	+
28	9320 BEL5GB		*0202	*0301	-	-	+	+	+	+	-
29	9050 MOU		*0202		-	-	+	+	-	+	-
30	9021 RSH		*0402		-	-	-	-	-	-	+
31	9019 DUCAF		*0201		-	-	+	+	-	+	-
32	9297 HAG		*0301		-	-	-	-	+	-	+
33	9098 MT14B		*0302		-	-	-	+	-	+	-
34	9104 DHIF		*0301		-	-	-	-	+	-	+
35	9302 SSTO		*0305		-	-	-	+	-	-	+
36	9024 KT17		*0302		-	-	-	+	-	+	+
37	9065 HHKB		*0603		-	+	-	-	-	-	-
38	9099 LZL		*0301		-	-	-	-	+	-	+
39	9315 CML		*0201	*0301	-	-	+	+	+	+	+
40	9134 WHONP199		*0202	*0303	-	-	+	+	-	+	+
41	9055 H0301		*0609		-	+	-	-	-	-	-
42	9066 TAB089		*0601		-	+	-	-	-	-	-
43	9076 T7526		*0303		-	-	-	-	-	+	+
44	9057 TEM		*0503		+	-	-	-	-	-	-
45	9239 SHJO		*0202		-	-	+	+	-	+	-
46	9013 SCHU		*0602		-	+	-	-	-	-	-
47	9045 TUBO		*0301		-	-	-	-	+	-	+
48	9303 TER-ND		*0501		+	-	-	-	-	-	-

Lot No.: **10F**

Lot-specific Information

## CERTIFICATE OF ANALYSIS

### Olerup SSP® HLA-A-B-DR-DQ SSP Combi Tray

Product number: 101.708-24u – without Taq pol.  
 Lot number: 10F  
 Expiry date: 2010-September-01  
 Number of tests: 24 tests  
 Number of wells per test: 95 + 1

#### Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2007-397-01	9	2007-397-10	17	2007-397-18
2	2007-397-02	10	2007-332-11	18	2007-397-29
3	2007-397-03	11	2007-397-12	19	2007-397-20
4	2007-397-04	12	2007-397-13	20	2007-397-21
5	2007-332-06	13	2007-397-14	21	2007-397-23
6	2007-397-07	14	2008-470-15		
7	2007-397-08	15	2008-470-16		
8	2007-397-09	16	2007-397-17		

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

Additional 5'-primers in primer solutions 7 and 9 were tested by separately adding one 3'-primer. Additional 3'-primers in primer solutions 3, 4, 7, 13, 15, 17, 18 and 21 were tested by separately adding one 5'-primer. Additional 5'- and 3'-primers in primer solutions 6 and 11 were tested by separately adding one 3'-primer, respectively one 5'-primer.

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
22	2008-480-01	38	2008-480-18	54	2008-480-36
23	2008-480-02	39	2008-480-19	55	2008-480-37
24	2008-480-03	40	2008-480-20	56	2008-480-38
25	2008-480-04	41	2008-480-21	57	2008-480-39
26	2008-480-05	42	2008-480-22	58	2008-480-40
27	2008-480-06	43	2008-480-23	59	2008-480-41
28	2008-480-07	44	2008-480-24	60	2008-480-42
29	2008-480-08	45	2008-480-25	61	2008-480-44
30	2008-480-09	46	2008-480-27	62	2008-480-45
31	2008-480-10	47	2008-480-28	63	2008-480-47
32	2008-480-11	48	2008-480-29	64	2008-480-48
33	2008-480-13	49	2008-480-31		
34	2008-480-14	50	2008-480-32		
35	2008-480-15	51	2008-480-33		
36	2008-480-16	52	2008-480-34		
37	2008-480-17	53	2008-480-35		

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

Additional 5'-primers and 3'-primers in primer solutions 23, 24, 29, 31, 32, 34, 39, 40, 49, 58, 60 and 62 were tested by separately adding one additional 3'-primer,

Lot No.: **10F**

**Lot-specific Information**

respectively one additional 5'-primer. Additional 3'-primers in primer solutions 33, 44, 48 and 53 were tested by separately adding one additional 5'-primer. Additional 5'-primers in primer solutions 41 and 48 were tested by separately adding one additional 3'-primer.

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
65	2008-502-01	73	2008-502-09	81	2008-502-17
66	2008-502-02	74	2008-502-10	82	2008-502-41
67	2008-502-03	75	2008-502-11	83	2008-502-19
68	2008-502-04	76	2008-502-12	84	2008-502-20
69	2008-502-05	77	2008-502-13	85	2008-502-21
70	2008-502-06	78	2008-502-14	86	2008-502-22
71	2008-502-07	79	2008-502-15	87	2008-502-23
72	2008-502-08	80	2008-502-16		

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

The reactivities of one additional 3'-primer in primer solution 67, one additional 3'-primer in primer solution 68, one additional 5'-primer in primer solution 70, one additional 3'-primer in primer solution 73, one additional primer pair in primer solutions 72, 73 and 75, two additional 5'-primers in primer solution 77, one additional primer pair in primer solution 82, one additional 3'-primer in primer solution 83 and one additional 3'-primer in primer solution 84 were tested by separately adding another 5'-primer or 3'-primer. One of the 5'-primers in primer solution 84 and one of the 5'-primers in primer solution 77 were not possible to test.

Well No.	Production No.
88	2008-446-01
89	2008-446-02
90	2008-446-03
91	2008-446-04
92	2008-446-05
93	2008-446-06
94	2008-446-07
95	2008-471-08

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

The negative control primer pairs, **Production No. 2008-417-01**, can detect contamination with PCR products diluted  $10^{-7}$ .

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

**Date of approval:** 2009-May-26

**Approved by**

**Quality Control, Supervisor**

Lot No.: **10F**

Lot-specific Information

## Declaration of Conformity

**Product name:** *Olerup* SSP® HLA-A-B-DR-DQ SSP Combi Tray  
**Product number:** 101.708-24u  
**Lot number:** 10F

**Intended use:** HLA-A, HLA-B, HLA-DR and HLA-DQ low resolution histo-compatibility testing

**Manufacturer:** *Olerup* SSP AB  
Hasselstigen 1  
SE-133 33 Saltsjöbaden, Sweden  
**Phone:** +46-8-717 88 27  
**Fax:** +46-8-717 88 18

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

The Technical Documentation File is maintained at *Olerup* SSP AB, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

The Authorized Representative located within the Community is: *Olerup* SSP AB.

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

Saltsjöbaden, Sweden  
2009-May-26

Olle Olerup  
Managing Director

Lot No.: **10F**

Lot-specific Information

Lot No.: **10F**

Lot-specific Information

**ADDRESSES:**

**Manufacturer:**

**Olerup SSP AB**, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

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

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

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

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

**Distributed by:**

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

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

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

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

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

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

**Tel:** 1-877-OLERUP1

**Fax:** 610-344-7989

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

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

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