

Olerup SSP[®] HLA-C low resolution

| | |
|----------------------------------|--|
| Product number: | 101.601-24/12 – including <i>Taq</i> pol. |
| Lot number: | 34F |
| Expiry date: | 2010-November-01 |
| Number of tests: | 24 tests – Product No. 101.601-24 12 tests – Product No. 101.601-12 |
| Number of wells per test: | 23 + 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. 34F.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*[®] HLA-C LOW RESOLUTION LOT

The HLA-C low resolution specificity and interpretation tables have been updated for the HLA-Cw alleles described since the previous *Olerup SSP*[®] HLA-C low resolution lot was made (**Lot No. Y22**).

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

| Well | 5'-primer | 3'-primer | rationale |
|------|-----------|------------------------|--|
| 1 | - | Added | Primer added for the Cw*0121 allele. |
| 2 | - | Removed | Increased resolution. |
| 5 | Removed | Removed | Primer pair moved to vial 19 and internal positive control primer pair changed to decrease primer dimer formation tendency. |
| 9 | - | - | Changed internal positive control primer pair to decrease primer dimer formation tendency. |
| 10 | Added | 1 added 1 exchanged | Primer pair added for the Cw*0813 allele. Primer exchanged to not amplify the Cw*0520 allele. Changed internal positive control primer pair. |
| 12 | Exchanged | - | Primer exchanged to not amplify the Cw*040105 allele. |
| 13 | Exchanged | - | Primer exchanged to not amplify the |

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| | | | |
|----|------------------------|------------------------|---|
| | | | Cw*0753 allele. |
| 15 | Modified | - | Primer improved for increased specificity. Changed internal positive control primer pair. |
| 19 | 1 exchanged 1 added | 1 exchanged 1 added | Primer pair moved from vial 5. Primer pair added for the Cw*0433 allele. |
| 22 | 1 removed 1 added | 1 removed 1 added | Primer pair for Cw*0804 removed to decrease primer dimer formation tendency. Primer pair added for the Cw*0432 allele. |

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Well **24** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup* SSP[®] 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 |
|------------------------------|----------------------|-------------------------|----------------------|-----------------------|-----------------------|-----------------------|
| 5'-primer¹ | 164 | 340 | 440 | 45 | 45 | 43 |
| | 5'-CAC ^{3'} | 5'-Agg ^{3'} | 5'-TTA ^{3'} | 5'-Tg g ^{3'} | 5'-Tg g ^{3'} | 5'-Tg g ^{3'} |
| 3'-primer² | 231 | 2nd I | 507 | 59 | 58 | 57 |
| | 5'-TgC ^{3'} | 5'-AAA ^{3'} | 5'-TTg ^{3'} | 5'-CTC ^{3'} | 5'-ggC ^{3'} | 5'-CTC ^{3'} |
| A* | + | + | + | | | |
| B* | + | + | + | | | |
| Cw* | + | + | + | | | |
| DRB1 | | | | + | + | |
| DRB3 | | | | + | + | |
| DRB5 | | | | + | | |
| DQB1 | | | | | + | |
| DPB1 | | | | | | + |

¹The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon or the 2nd intron, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd 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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

PRODUCT DESCRIPTION

HLA-C-low resolution SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for grouping the HLA-Cw*0102 to Cw*1803 alleles into the groups Cw*01xx to Cw*18xx.

PLATE LAYOUT

Each test consists of 24 PCR reactions in a 24 well cut PCR plate.

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |

Wells 1 to 23 – HLA-Cw low resolution primers.

Well 24 – Negative Control.

The 24 well cut PCR plate is marked with 'HLA-C low' in silver/gray ink.

Well No. 1 is marked with the Lot No. '34F'.

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

Please note: When removing each 24 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

Only HLA-Cw alleles will be amplified by the HLA-C low resolution typing kit, except that primer mix 13 will amplify the B*6702 allele and primer mix 20 will amplify the B*1403 allele. Thus, the interpretation of HLA-C low resolution typings is only influenced by these HLA-B alleles and not by other HLA class I genes.

UNIQUELY IDENTIFIED ALLELES

All the HLA-Cw alleles, i.e. Cw*0102 to Cw*1803, recognized by the HLA Nomenclature Committee in October 2008¹ will be amplified by the primers in the HLA-C low resolution SSP kit. The HLA-Cw alleles will be grouped into the Cw*01xx to Cw*18xx groups.

¹HLA-Cw alleles listed on the IMGT/HLA web page 2008-October-10, release 2.23.0, www.ebi.ac.uk/imgt/hla.

SPECIFICITY TABLE

HLA-C low resolution SSP typing

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

| Primer Mix | Size of spec. PCR product ¹ | Size of control band ² | Amplified HLA class I ³ alleles |
|-------------------|--|-----------------------------------|---|
| 1 ⁴ | 155, 370 bp | 800 bp | 010201-0122 |
| 2 | 270 bp | 800 bp | 0110, 020201-020203, 020205-0222, 0432, 0608, 1701-1704, 1803 |
| 3 | 280 bp | 800 bp | 020201-020203, 020205-0203, 0204 ^{weakly} , 0205-0213, 0214 ^{weakly} , 0215-0222, 030201-030203, 030401-0310, 0314-0317, 0319, 0323-0329, 0332-033802, 0340-0342, 0344-0348, 0403, 0406, 0416, 0603, 150201-1509, 151002, 1511, 1513, 1515-1521 |
| 4 ⁹ | 155 bp | 1070 bp | 030201-030406, 0305-0315, 0317-0340, 0342-0350 |
| 5 | 280 bp | 800 bp | 030301-030305, 031101-0313, 0320N-0322Q, 0330, 0331, 0343, 0349, 0350, 1512 |
| 6 | 125 bp | 1070 bp | 020201-020203, 020205-0220, 0222, 04010101-040106, 0403-041502, 0417-0420, 0423-0436, 1511 |
| 7 | 165 bp | 1070 bp | 050101-050104, 0503-0521, 0605, 0810, 1221 |
| 8 | 130, 240, 355 bp | 800 bp | 0206, 0339, 06020101-06020102, 060203-0616N, 0618, 1215, 1216, 150201-1503, 1507, 1508, 151001-1513, 1515-1518, 1521 |
| 9 ⁵ | 245, 425 bp | 800 bp | 070101-0733N, 0735-0764 |
| 10 ^{6,9} | 115, 170, 260, 390 bp | 1070 bp | 080101-0819 |
| 11 | 340 bp | 1070 bp | 0114, 020201-020203, 020205-0211, 0213-0222, 0307, 0315, 0345, 04010101-040106, 0403-0410, 0412-0420, 0423-0428, 0430-0435, 050101-050104, 0503-0521, 06020101-06020102, 060203-0610, 0612-0618, |

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| | | | |
|-------------------------|------------------|---------------|---|
| | | | 0707, 0709, 0749, 0810, 120401-1205, 1209, 1221, 1404, 150201-1506, 1508-1513, 1515-1520, 1602, 1609, 1612, 1701-1704, 1801-1803 |
| 12 | 100, 160, 220 bp | 1070 bp | 0104, 0121, 120201-12030102, 120303-120306, 120402-1208, 1210-1213, 1215-1221 |
| 13^{8,9} | 130, 250 bp | 800 bp | 0121, 0212, 04010101-040106, 0403-0409N, 0412-0420, 0423-0435, 0805, 120201-120303, 120305-120306, 120402, 1206-1208, 1210-1220, 1503, 1516, 160101-1602, 1606-1612, B*6702 |
| 14¹⁰ | 220 bp | 800 bp | 0104, 0109, 0205, 0217, 06020101-06020102, 060203, 0603, 0607-0613, 0615-0618, 12030101-1207, 1211-1213, 1215, 1219, 160401 |
| 15⁹ | 255 bp | 1070 bp | 020201 ^{weakly} , 020202-020203, 020205-0213, 0215-0222, 0307, 0310, 0315, 0329, 0345, 0403, 0406, 0416, 050101-050104, 0503-0519, 0521, 0603, 0810, 120401-1205, 1209, 1221, 150201-1506, 1508-1513, 1515-1521, 1602, 1609, 1612, 1701-1704 |
| 16⁹ | 95, 255 bp | 1070 bp | 0411, 0429, 0436, 0511, 0517, 0764, 0804, 0813, 140201-1411 |
| 17^{7,9} | 110, 335 bp | 1070 bp | 0206, 1208, 1215, 150201-1513, 1515-1521 |
| 18⁸ | 190, 250 bp | 1070 bp | 0213, 0218, 04010101-040106, 0403-0410, 0412-0420, 0423-0432, 0434-0436, 0517, 0605, 0731, 080101-080102, 0803, 0806, 0808-0811, 0814, 0816, 1214, 160101-1602, 160401, 1606-1612 |
| 19 | 225, 260 bp | 800 bp | 0433, 0807, 1214, 1701-1704 |
| 20 | 220, 425 bp | 800 bp | 010201-0103, 0106-0108, 0110-0120, 0516, 0605, 0606, 0707, 0709, 0749, 0812, 1209, 140201-1405, 1407N, 1410, 1411, 1801-1803, B*1403 |
| 21 | 325, 380 bp | 1070 bp | 0103, 0222, 030301-030407, 0306-0312, 0314, 0318-0324, 0326, 0328-0332, 0334, 0337-0350, 04010101-040106, 0403-0420, 0424-0436, 050101-050104, 0503, 0505-0521, 0609, 0614, 0710, 0728, 0741, 0743, 080101-0808, 0810, |

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| | | | |
|-----------------------|-------------|---------|--|
| | | | 0812-0819, 150201-1513, 1515-1521, 1701-1704, 1801-1803 |
| 22⁸ | 135 bp | 1070 bp | 030201-0317, 0319-033802, 0340-0350, 0432, 0603, 1803 |
| 23 | 160, 235 bp | 1070 bp | 06020101-06020102, 060203, 0604, 0606-0618, 070101-0725, 072701-0732N, 0735-0738, 0741-0763, 1216, 160101-1602, 1606-1612, 1801-1803 |

¹Alleles 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-C 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 lengths 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.

²The 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-C low resolution typing.

In addition, wells number 2, 3, 5, 8, 9, 13, 14, 19 and 20 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.

³For several HLA-C alleles only partial 1st and 4th exon nucleotide sequences are available. In these instances it is not known whether some of the primers of the HLA-C low resolution SSP sets are completely matched with the target sequences or not. We assume that unknown sequences are conserved within allelic groups.

⁴Primer mix 1 will for most Cw*01 alleles give rise to two specific PCR fragments.

⁵Primer mix 9 will for most Cw*07 alleles give rise to two specific PCR fragments.

⁶Primer mix 10 will for most Cw*08 alleles give rise to multiple specific PCR fragments.

⁷Primer mix 17 will for most Cw*15 alleles give rise to two specific PCR fragments.

⁸Primer mixes 13, 18 and 22 have a tendency of giving rise to primer oligomer artifacts.

⁹Primer mixes 4, 10, 13, 15, 16 and 17 yield somewhat less intense specific PCR fragments than the other HLA-C low resolution primer mixes.

¹⁰Primer mix 14 might faintly amplify the Cw*0102 to 0103, the Cw*0105 to Cw*0119 and the Cw*140201 to 1409 alleles.

| INTERPRETATION TABLE | | | | | | | | | | | | |
|---|-------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|-------------------------|-------------------------|----------------------|
| HLA-Cw low resolution SSP typing | | | | | | | | | | | | |
| Amplification patterns of the Cw*0102 to Cw*1803 alleles | | | | | | | | | | | | |
| | Well | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Length of spec. | 155 | 270 | 280 | 155 | 280 | 125 | 165 | 130 | 245 | 115 | 340 | 100 |
| PCR product(s) | 370 | | | | | | | 240 | 425 | 170 | | 160 |
| | | | | | | | | 355 | | 260 | | 220 |
| | | | | | | | | | | 390 | | |
| Length of int. | 800 | 800 | 800 | 1070 | 800 | 1070 | 1070 | 800 | 800 | 1070 | 1070 | 1070 |
| pos. control¹ | | | | | | | | | | | | |
| 5'-primer(s)² | 89 | 2nd I | 105 | 477 | 105 | 112 | 176 | 28 | 47 | 1st I | 1st I | 361 |
| | 5'-gAA ^{3'} | 5'-CCA ^{3'} | 5'-gCT ^{3'} | 5'-gCC ^{3'} | 5'-gCT ^{3'} | 5'-CCT ^{3'} | 5'-gCA ^{3'} | 5'-TCA ^{3'} | 5'-Agg ^{3'} | 5'-CgA ^{3'} | 5'-CgA ^{3'} | 5'-AgT ^{3'} |
| | 368 | | | | | 118 | | 2nd I | 648 | 176 | | 419 |
| | 5'-gTg ^{3'} | | | | | 5'-CCA ^{3'} | | 5'-CCA ^{3'} | 5'-CAC ^{3'} | 5'-gCA ^{3'} | | 5'-gTC ^{3'} |
| | | | | | | | | | | 527 | | |
| | | | | | | | | | | 5'-TAC ^{3'} | | |
| 3'-primer(s)³ | 201 | 559 | 343 | 589 | 343 | 201 | 302 | 97 | 302 | 175 | 302 | 474 |
| | 5'-CTC ^{3'} | 5'-CTC ^{3'} | 5'-ACC ^{3'} | 5'-CTT ^{3'} | 5'-ACT ^{3'} | 5'-CTT ^{3'} | 5'-ggT ^{3'} | 5'-gTC ^{3'} | 5'-ggC ^{3'} | 5'-CCg ^{3'} | 5'-ggT ^{3'} | 5'-gCA ^{3'} |
| | 201 | | | | | | | 213 | 853 | 302 | | 477 |
| | 5'-CTT ^{3'} | | | | | | | 5'-Cgg ^{3'} | 5'-CAT ^{3'} | 5'-ggC ^{3'} | | 5'-gCA ^{3'} |
| | 3rd I | | | | | | | 420 | | 601 | | 538 |
| | 5'-CTC ^{3'} | | | | | | | 5'-gCT ^{3'} | | 5'-CTT ^{3'} | | 5'-gCA ^{3'} |
| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| HLA-Cw allele⁴ | | | | | | | | | | | | |
| *010201-010206, 0106-0108, 0111-0113, 0115-0120 | 1 | | | | | | | | | | | |
| *0103 | 1 | | | | | | | | | | | |
| *0104 | 1 | | | | | | | | | | | 12 |
| *0105, 0122 | 1 | | | | | | | | | | | |
| *0109 | 1 | | | | | | | | | | | |
| *0110 | 1 | 2 | | | | | | | | | | |
| *0114 | 1 | | | | | | | | | | 11 | |
| *0121 | 1 | | | | | | | | | | | 12 |
| *020201 | | 2 | 3 | | | 6 | | | | | 11 | |
| *020202-020203, 020205-0203, 0207-0211, 0215, 0216, 0219, 0220 | | 2 | 3 | | | 6 | | | | | 11 | |
| *0204 | | 2 | w | | | 6 | | | | | 11 | |
| *0205, 0217 | | 2 | 3 | | | 6 | | | | | 11 | |
| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

| INTERPRETATION TABLE | | | | | | | | | | | |
|---|----------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|---|
| HLA-Cw low resolution SSP typing | | | | | | | | | | | |
| Amplification patterns of the Cw*0102 to Cw*1803 alleles | | | | | | | | | | | |
| Well | | | | | | | | | | | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| 130 | 220 | 255 | 95 | 110 | 190 | 225 | 220 | 325 | 135 | 160 | Length of spec. |
| 250 | | | 255 | 335 | 250 | 260 | 425 | 380 | | 235 | PCR product(s) |
| | | | | | | | | | | | |
| 800 | 800 | 1070 | 1070 | 1070 | 1070 | 800 | 800 | 1070 | 1070 | 1070 | Length of int. pos. control¹ |
| 201 | 361 | 98 | 98 | 201 | 201 | 112 | 47 | 355 | 105 | 97 | 5'-primer(s)² |
| 5'-CCA ^{3'} | 5'-AgT ^{3'} | 5'-CTA ^{3'} | 5'-CTC ^{3'} | 5'-CCA ^{3'} | 5'-CCA ^{3'} | 5'-CCT ^{3'} | 5'-Agg ^{3'} | 5'-TCA ^{3'} | 5'-gCT ^{3'} | 5'-TCg ^{3'} | |
| 2nd I | | | 485 | 409 | 2nd I | 2nd I | 361 | 412 | 459 | 418 | |
| 5'-CCA ^{3'} | | | 5'-CAA ^{3'} | 5'-ggC ^{3'} | 5'-CCA ^{3'} | 5'-CCA ^{3'} | 5'-AgT ^{3'} | 5'-ATA ^{3'} | 5'-gAT ^{3'} | 5'-Agg ^{3'} | |
| | | | | | 361 | | | | | 419 | |
| | | | | | 5'-AgT ^{3'} | | | | | 5'-gTC ^{3'} | |
| | | | | | | | | | | | |
| 289 | 538 | 312 | 311 | 270 | 341 | 341 | 302 | 3rd I | 201 | 289 | 3'-primer(s)³ |
| 5'-AgC ^{3'} | 5'-CCA ^{3'} | 5'-AgT ^{3'} | 5'-ggT ^{3'} | 5'-TAg ^{3'} | 5'-CgT ^{3'} | 5'-Cgg ^{3'} | 5'-ggT ^{3'} | 5'-CTC ^{3'} | 5'-CTC ^{3'} | 5'-AgC ^{3'} | |
| 539 | 538 | | 539 | 3rd I | 341 | 512 | 538 | | 559 | 539 | |
| 5'-TCT ^{3'} | 5'-gCA ^{3'} | | 5'-TCA ^{3'} | 5'-CTC ^{3'} | 5'-ggT ^{3'} | 5'-CCA ^{3'} | 5'-CCg ^{3'} | | 5'-CTC ^{3'} | 5'-TCT ^{3'} | |
| | | | | | 527 | | | | | | |
| | | | | | 5'-CCg ^{3'} | | | | | | |
| | | | | | | | | | | | |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. HLA-Cw allele⁴ |
| | | | | | | | 20 | | | | *010201-010206, 0106-0108, 0111-0113, 0115-0120 |
| | | | | | | | 20 | 21 | | | *0103 |
| | 14 | | | | | | | | | | *0104 |
| | | | | | | | | | | | *0105, 0122 |
| | 14 | | | | | | | | | | *0109 |
| | | | | | | | 20 | | | | *0110 |
| | | | | | | | 20 | | | | *0114 |
| 13 | | | | | | | | | | | *0121 |
| | | w | | | | | | | | | *020201 |
| | | 15 | | | | | | | | | *020202-020203, 020205-0203, 0207-0211, 0215, 0216, 0219, 0220 |
| | | 15 | | | | | | | | | *0204 |
| | 14 | 15 | | | | | | | | | *0205, 0217 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

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| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| *0206 | | 2 | 3 | | | 6 | | 8 | | | 11 | |
| *0212 | | 2 | 3 | | | 6 | | | | | | |
| *0213, 0218 | | 2 | 3 | | | 6 | | | | | 11 | |
| *0214 | | 2 | w | | | 6 | | | | | 11 | |
| *0221 | | 2 | 3 | | | | | | | | 11 | |
| *0222 | | 2 | 3 | | | 6 | | | | | 11 | |
| *030201-030203, 0305, 0317, 0325, 0327, 0333, 0335, 0336 | | | 3 | 4 | | | | | | | | |
| *030301-030305, 031101- 031102, 0312, 0320N- 0322Q, 0330, 0331, 0343, 0349, 0350 | | | | 4 | 5 | | | | | | | |
| *030401-030406, 0306, 0308, 0309, 0314, 0319, 0323, 0324, 0326, 0328, 0332, 0334, 0337- 033802, 0340, 0342, 0344, 0346-0348 | | | 3 | 4 | | | | | | | | |
| *030407, 0341 | | | 3 | | | | | | | | | |
| *0307, 0345 | | | 3 | 4 | | | | | | | 11 | |
| *0310, 0329 | | | 3 | 4 | | | | | | | | |
| *0313 | | | | 4 | 5 | | | | | | | |
| *0315 | | | 3 | 4 | | | | | | | 11 | |
| *0316 | | | 3 | | | | | | | | | |
| *0318 | | | | 4 | | | | | | | | |
| *0339 | | | | 4 | | | | 8 | | | | |
| *04010101-040106, 040401-0405, 0407- 0409N, 0412-041502, 0417-0420, 0424-0428, 0430, 0431, 0434, 0435 | | | | | | 6 | | | | | 11 | |
| *0403, 0406 | | | 3 | | | 6 | | | | | 11 | |
| *0410 | | | | | | 6 | | | | | 11 | |
| *0411 | | | | | | 6 | | | | | | |
| *0416 | | | 3 | | | | | | | | 11 | |
| *0423 | | | | | | 6 | | | | | 11 | |
| *0429 | | | | | | 6 | | | | | | |
| *0432 | | 2 | | | | 6 | | | | | 11 | |
| *0433 | | | | | | 6 | | | | | 11 | |
| *0436 | | | | | | 6 | | | | | | |
| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

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| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
|----|----|----|----|----|----|----|----|----|----|----|--|
| | | 15 | | 17 | | | | | | | *0206 |
| 13 | | 15 | | | | | | | | | *0212 |
| | | 15 | | | 18 | | | | | | *0213, 0218 |
| | | | | | | | | | | | *0214 |
| | | 15 | | | | | | | | | *0221 |
| | | 15 | | | | | | 21 | | | *0222 |
| | | | | | | | | | 22 | | *030201-030203, 0305, 0317, 0325, 0327, 0333, 0335, 0336 |
| | | | | | | | | 21 | 22 | | *030301-030305, 031101 031102, 0312, 0320N- 0322Q, 0330, 0331, 0343, 0349, 0350 |
| | | | | | | | | 21 | 22 | | *030401-030406, 0306, 0308, 0309, 0314, 0319, 0323, 0324, 0326, 0328, 0332, 0334, 0337- 033802, 0340, 0342, 0344, 0346-0348 |
| | | | | | | | | 21 | 22 | | *030407, 0341 |
| | | 15 | | | | | | 21 | 22 | | *0307, 0345 |
| | | 15 | | | | | | 21 | 22 | | *0310, 0329 |
| | | | | | | | | | 22 | | *0313 |
| | | 15 | | | | | | | 22 | | *0315 |
| | | | | | | | | | 22 | | *0316 |
| | | | | | | | | 21 | | | *0318 |
| | | | | | | | | 21 | | | *0339 |
| 13 | | | | | 18 | | | 21 | | | *04010101-040106, 040401-0405, 0407- 0409N, 0412-041502, 0417-0420, 0424-0428, 0430, 0431, 0434, 0435 |
| 13 | | 15 | | | 18 | | | 21 | | | *0403, 0406 |
| | | | | | 18 | | | 21 | | | *0410 |
| | | | 16 | | | 19 | | 21 | | | *0411 |
| 13 | | 15 | | | 18 | | | 21 | | | *0416 |
| 13 | | | | | 18 | | | | | | *0423 |
| 13 | | | 16 | | 18 | | | 21 | | | *0429 |
| 13 | | | | | 18 | | | 21 | 22 | | *0432 |
| 13 | | | | | | 19 | | 21 | | | *0433 |
| | | | 16 | | 18 | | | 21 | | | *0436 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

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Lot-specific information

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| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|
| *050101-050104, 0503, 0505-0510, 0512-0515, 0518, 0519, 0521 | | | | | | | 7 | | | | 11 | |
| *0504 | | | | | | | 7 | | | | 11 | |
| *0511 | | | | | | | 7 | | | | 11 | |
| *0516 | | | | | | | 7 | | | | 11 | |
| *0517 | | | | | | | 7 | | | | 11 | |
| *0520 | | | | | | | 7 | | | | 11 | |
| *06020101-06020102, 060203, 0607, 0610, 0612, 0613, 0615, 0616N, 0618 | | | | | | | | 8 | | | 11 | |
| *0603 | | | 3 | | | | | 8 | | | 11 | |
| *0604 | | | | | | | | 8 | | | 11 | |
| *0605 | | | | | | | 7 | 8 | | | 11 | |
| *0606 | | | | | | | | 8 | | | 11 | |
| *0608 | | 2 | | | | | | 8 | | | 11 | |
| *0609 | | | | | | | | 8 | | | 11 | |
| *0611 | | | | | | | | 8 | | | | |
| *0614 | | | | | | | | 8 | | | 11 | |
| *0617 | | | | | | | | | | | 11 | |
| *070101-0706, 0708, 0711-0725, 072701- 072702, 0729, 0730, 0732N, 0735-0738, 0742, 0744-0748, 0750-0763 | | | | | | | | | 9 | | | |
| *0707, 0709, 0749 | | | | | | | | | 9 | | 11 | |
| *0710, 0728, 0741, 0743 | | | | | | | | | 9 | | | |
| *0726, 0733N, 0739, 0740 | | | | | | | | | 9 | | | |
| *0731 | | | | | | | | | 9 | | | |
| *0764 | | | | | | | | | 9 | | | |
| *080101-080102, 0803, 0806, 0808, 0814, 0816 | | | | | | | | | | 10 | | |
| *0802, 0815, 0817-0819 | | | | | | | | | | 10 | | |
| *0804, 0813 | | | | | | | | | | 10 | | |
| *0805 | | | | | | | | | | 10 | | |
| *0807 | | | | | | | | | | 10 | | |
| *0809, 0811 | | | | | | | | | | 10 | | |
| *0810 | | | | | | | 7 | | | 10 | 11 | |
| *0812 | | | | | | | | | | 10 | | |
| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

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Lot-specific information

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| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
|----|----|----|----|----|----|----|----|----|----|----|---|
| | | 15 | | | | | | 21 | | | *050101-050104, 0503, 0505-0510, 0512-0515, 0518, 0519, 0521 |
| | | 15 | | | | | | | | | *0504 |
| | | 15 | 16 | | | | | 21 | | | *0511 |
| | | 15 | | | | | 20 | 21 | | | *0516 |
| | | 15 | 16 | | 18 | | | 21 | | | *0517 |
| | | | | | | | | 21 | | | *0520 |
| | 14 | | | | | | | | | 23 | *06020101-06020102, 060203, 0607, 0610, 0612, 0613, 0615, 0616N, 0618 |
| | 14 | 15 | | | | | | | 22 | | *0603 |
| | | | | | | | | | | 23 | *0604 |
| | | | | | 18 | | 20 | | | | *0605 |
| | | | | | | | 20 | | | 23 | *0606 |
| | 14 | | | | | | | | | 23 | *0608 |
| | 14 | | | | | | | 21 | | 23 | *0609 |
| | 14 | | | | | | | | | 23 | *0611 |
| | | | | | | | | 21 | | 23 | *0614 |
| | 14 | | | | | | | | | 23 | *0617 |
| | | | | | | | | | | 23 | *070101-0706, 0708, 0711-0725, 072701- 072702, 0729, 0730, 0732N, 0735-0738, 0742, 0744-0748, 0750-0763 |
| | | | | | | | 20 | | | 23 | *0707, 0709, 0749 |
| | | | | | | | | 21 | | 23 | *0710, 0728, 0741, 0743 |
| | | | | | | | | | | | *0726, 0733N, 0739, 0740 |
| | | | | | 18 | | | | | 23 | *0731 |
| | | | 16 | | | | | | | | *0764 |
| | | | | | 18 | | | 21 | | | *080101-080102, 0803, 0806, 0808, 0814, 0816 |
| | | | | | | | | 21 | | | *0802, 0815, 0817-0819 |
| | | | 16 | | | | | 21 | | | *0804, 0813 |
| 13 | | | | | | | | 21 | | | *0805 |
| | | | | | | 19 | | 21 | | | *0807 |
| | | | | | 18 | | | | | | *0809, 0811 |
| | | 15 | | | 18 | | | 21 | | | *0810 |
| | | | | | | | 20 | 21 | | | *0812 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

Lot No.: **34F**

Lot-specific information

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| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--|---|---|---|---|---|---|---|---|---|----|----|----|
| *120201-120203, 1210, 1217, 1218, 1220 | | | | | | | | | | | | 12 |
| *12030101-12030102, 120303, 120305-120306, 1206, 1207, 1211-1213, 1219 | | | | | | | | | | | | 12 |
| *120302 | | | | | | | | | | | | |
| *120304 | | | | | | | | | | | | 12 |
| *120401 | | | | | | | | | | | 11 | |
| *120402 | | | | | | | | | | | 11 | 12 |
| *1205 | | | | | | | | | | | 11 | 12 |
| *1208 | | | | | | | | | | | | 12 |
| *1209 | | | | | | | | | | | 11 | |
| *1214 | | | | | | | | | | | | |
| *1215 | | | | | | | | 8 | | | | 12 |
| *1216 | | | | | | | | 8 | | | | 12 |
| *1221 | | | | | | | 7 | | | | 11 | 12 |
| *140201-1403, 1405, 1407N, 1410, 1411 | | | | | | | | | | | | |
| *1404 | | | | | | | | | | | 11 | |
| *1406, 1408, 1409 | | | | | | | | | | | | |
| *150201-150204, 1508, 151002, 1513, 1515, 1517, 1518 | | | 3 | | | | | 8 | | | 11 | |
| *1503, 1516 | | | 3 | | | | | 8 | | | 11 | |
| *1504-1506, 1509, 1519, 1520 | | | 3 | | | | | | | | 11 | |
| *1507 | | | 3 | | | | | 8 | | | | |
| *151001 | | | | | | | | 8 | | | 11 | |
| *1511 | | | 3 | | | 6 | | 8 | | | 11 | |
| *1512 | | | | | 5 | | | 8 | | | 11 | |
| *1521 | | | 3 | | | | | 8 | | | | |
| *160101-160103, 1606-1608, 1610, 1611 | | | | | | | | | | | | |
| *1602, 1609, 1612 | | | | | | | | | | | 11 | |
| *160401 | | | | | | | | | | | | |
| *1701-1704 | | 2 | | | | | | | | | 11 | |
| *1801, 1802 | | | | | | | | | | | 11 | |
| *1803 | | 2 | | | | | | | | | 11 | |
| HLA-Cw allele ⁴ | | | | | | | | | | | | |
| B*1403 | | | | | | | | | | | | |
| B*6702 | | | | | | | | | | | | |
| Well No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

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| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |
|----|----|----|----|----|----|----|----|----|----|----|---|
| 13 | | | | | | | | | | | *120201-120203, 1210, 1217, 1218, 1220 |
| 13 | 14 | | | | | | | | | | *12030101-12030102, 120303, 120305-120306, 1206, 1207, 1211-1213, 1219 |
| 13 | 14 | | | | | | | | | | *120302 |
| | 14 | | | | | | | | | | *120304 |
| | 14 | 15 | | | | | | | | | *120401 |
| 13 | 14 | 15 | | | | | | | | | *120402 |
| | 14 | 15 | | | | | | | | | *1205 |
| 13 | | | | 17 | | | | | | | *1208 |
| | | 15 | | | | | 20 | | | | *1209 |
| 13 | | | | | 18 | 19 | | | | | *1214 |
| 13 | 14 | | | 17 | | | | | | | *1215 |
| 13 | | | | | | | | | | 23 | *1216 |
| | | 15 | | | | | | | | | *1221 |
| | | | 16 | | | | 20 | | | | *140201-1403, 1405, 1407N, 1410, 1411 |
| | | | 16 | | | | 20 | | | | *1404 |
| | | | 16 | | | | | | | | *1406, 1408, 1409 |
| | | 15 | | 17 | | | | 21 | | | *150201-150204, 1508, 151002, 1513, 1515, 1517, 1518 |
| 13 | | 15 | | 17 | | | | 21 | | | *1503, 1516 |
| | | 15 | | 17 | | | | 21 | | | *1504-1506, 1509, 1519, 1520 |
| | | | | 17 | | | | 21 | | | *1507 |
| | | 15 | | 17 | | | | 21 | | | *151001 |
| | | 15 | | 17 | | | | 21 | | | *1511 |
| | | 15 | | 17 | | | | 21 | | | *1512 |
| | | 15 | | 17 | | | | 21 | | | *1521 |
| 13 | | | | | 18 | | | | | 23 | *160101-160103, 1606- 1608, 1610, 1611 |
| 13 | | 15 | | | 18 | | | | | 23 | *1602, 1609, 1612 |
| | 14 | | | | 18 | | | | | | *160401 |
| | | 15 | | | | 19 | | 21 | | | *1701-1704 |
| | | | | | | | 20 | 21 | | 23 | *1801, 1802 |
| | | | | | | | 20 | 21 | 22 | 23 | *1803 |
| | | | | | | | | | | | HLA-Cw allele ⁴ |
| | | | | | | | 20 | | | | B*1403 |
| 13 | | | | | | | | | | | B*6702 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Well No. |

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¹The 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-C low resolution SSP typing.

In addition, wells number 2, 3, 5, 8, 9, 13, 14, 19 and 20 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

²The nucleotide position, in the 1st, 2nd, 3rd or 4th exon or the 1st or 2nd intron, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position, in the 1st, 2nd, 3rd or 4th exon or the 3rd intron, 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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴The sequence of the Cw*0101 allele has been shown to be identical to Cw*0102.

The sequence of the Cw*0201 allele has been shown to be identical to Cw*02022.

The sequence of the Cw*020204 allele has been shown to be identical to Cw*0210.

The sequence of the Cw*0301 allele has been shown to be identical to Cw*0304.

The sequence of the Cw*0402 allele has been shown to be identical to Cw*04011.

The sequence of the Cw*0421 allele has been shown to be identical to Cw*041502.

The sequence of the Cw*0422 allele has been shown to be identical to Cw*0421.

The sequence of the Cw*0502 allele has been shown to be identical to Cw*0509.

The sequence of the Cw*0601 allele has been shown to be identical to Cw*0602.

The sequence of the Cw*060202 allele has been shown to be identical to Cw*0617.

The sequence of the Cw*0734 allele has been shown to be identical to Cw*072702.

The sequence of the Cw*1101 allele has been shown to be in error.

The sequence of the Cw*1201 allele has been shown to be identical to Cw*12022.

The sequence of Cw*1301 has been shown to be in error.

The sequence of the Cw*1401 allele has been shown to be identical to Cw*1402.

The sequence of the Cw*1501 allele has been shown to be identical to Cw*1502.

The sequence of the Cw*1514 allele has been shown to be identical to Cw*151002.

The sequence of the Cw*1603 allele has been shown to be identical to Cw*1403.

The sequence of the Cw*16042 allele has been shown to be identical to Cw*16041.

The sequence of the Cw*1605 allele has been shown to be identical to Cw*16041.

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| CELL LINE VALIDATION SHEET | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|----------------|--|-------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| HLA-C low resolution SSP primer set | | | | | | | | | | | | | | | | | | | |
| | | | | Well | | | | | | | | | | | | | | | |
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | 200848401 | 200848402 | 200848403 | 200848404 | 200848405 | 200848406 | 200848407 | 200848408 | 200848409 | 200853710 | 200848411 | 200848412 | 200848413 | 200848414 | 200853715 | 200848416 |
| | IHWC cell line | | Cw* | Prod. No.: | | | | | | | | | | | | | | | |
| 1 | 9001 SA | | *0702 | | - | - | - | - | - | - | - | + | - | - | - | - | - | - | - |
| 2 | 9280 LK707 | | *0701 | *1505 | - | - | + | - | - | - | - | + | - | + | - | - | - | + | - |
| 3 | 9011 E4181324 | | *1202 | | - | - | - | - | - | - | - | - | - | - | + | + | - | - | - |
| 4 | 9275 GU373 | | *0304 | *0401 | - | - | + | + | - | + | - | - | - | + | - | + | - | - | - |
| 5 | 9009 KAS011 | | *0602 | | - | - | - | - | - | - | - | + | - | - | + | - | - | + | - |
| 6 | 9353 SM | | *0304 | *0702 | - | - | + | + | - | - | - | - | + | - | - | - | - | - | - |
| 7 | 9020 QBL | | *0501 | | - | - | - | - | - | - | + | - | - | + | - | - | - | + | - |
| 8 | 9007 DEM | | *0602 | | - | - | - | - | - | - | - | + | - | - | + | - | - | + | - |
| 9 | 9026 YAR | | *1203 | | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| 10 | 9107 LKT3 | | *0102 | | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 11 | 9051 PITOUT | | *1601 | | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - |
| 12 | 9052 DBB | | *0602 | | - | - | - | - | - | - | - | + | - | - | + | - | - | + | - |
| 13 | 9004 JESTHOM | | *0102 | | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 14 | 9071 OLGA | | *0102 | *0304 | + | - | + | + | - | - | - | - | - | - | - | - | - | - | - |
| 15 | 9075 DKB | | *0304 | | - | - | + | + | - | - | - | - | - | - | - | - | - | - | - |
| 16 | 9037 SWEIG007 | | *0202 | | - | + | + | - | - | + | - | - | - | + | - | - | - | + | - |
| 17 | 9282 CTM395354 | | *0303 | *0701 | - | - | - | + | + | - | - | - | + | - | - | - | - | - | - |
| 18 | 9257 32367 | | *0102 | *0705 | + | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 19 | 9038 BM16 | | *0701 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 20 | 9059 SLE005 | | *0304 | | - | - | + | + | - | - | - | - | - | - | - | - | - | - | - |
| 21 | 9064 AMALA | | *0303 | | - | - | - | + | + | - | - | - | - | - | - | - | - | - | - |
| 22 | 9056 KOSE | | *1203 | | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| 23 | 9124 IHL | | *0102 | *1502 | + | - | + | - | - | - | - | + | - | - | + | - | - | + | - |
| 24 | 9035 JBUSH | | *1203 | | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| 25 | 9049 IBW9 | | *0802 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 26 | 9285 WT49 | | *0701 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 27 | 9191 CH1007 | | *0704 | *1505 | - | - | + | - | - | - | - | - | + | - | + | - | - | + | - |
| 28 | 9320 BEL5GB | | *0501 | *1601 | - | - | - | - | - | - | + | - | - | + | - | - | - | + | - |
| 29 | 9050 MOU | | *1601 | | - | - | - | - | - | - | - | - | - | - | - | + | - | - | - |
| 30 | 9021 RSH | | *1701 | | - | + | - | - | - | - | - | - | - | + | - | - | - | + | - |
| 31 | 9019 DUCAF | | *0501 | | - | - | - | - | - | - | + | - | - | + | - | - | - | + | - |
| 32 | 9297 HAG | | *1701 | *1703 | - | + | - | - | - | - | - | - | - | + | - | - | - | + | - |
| 33 | 9098 MT14B | | *0304 | | - | - | + | + | - | - | - | - | - | - | - | - | - | - | - |
| 34 | 9104 DHIF | | *1203 | | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| 35 | 9302 SSTO | | *0501 | | - | - | - | - | - | - | + | - | - | + | - | - | - | + | - |
| 36 | 9024 KT17 | | *0303 | *0401 | - | - | - | + | + | + | - | - | - | + | - | - | - | - | - |
| 37 | 9065 HHKB | | *0702 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 38 | 9099 LZL | | *0303 | | - | - | - | + | + | - | - | - | - | - | - | - | - | - | - |
| 39 | 9315 CML | | *0202 | *0701 | - | + | + | - | - | + | - | - | + | - | + | - | - | + | - |
| 40 | 9134 WHONP199 | | *0102 | *0602 | + | - | - | - | - | - | - | + | - | - | + | - | - | + | - |
| 41 | 9055 H0301 | | *0802 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 42 | 9066 TAB089 | | *0102 | | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 43 | 9076 T7526 | | *0102 | *0801 | + | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 44 | 9057 TEM | | *1203 | | - | - | - | - | - | - | - | - | - | - | + | + | + | - | - |
| 45 | 9239 SHJO | | *0602 | *1701 | - | + | - | - | - | - | - | + | - | - | + | - | - | + | - |
| 46 | 9013 SCHU | | *0702 | | - | - | - | - | - | - | - | - | + | - | - | - | - | - | - |
| 47 | 9045 TUBO | | *0704 | *1502 | - | - | + | - | - | - | - | + | - | + | - | - | - | + | - |
| 48 | 9303 TER-ND | | *0401 | *1601 | - | - | - | - | - | + | - | - | - | + | - | + | - | - | - |



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| CELL LINE VALIDATION SHEET | | | | | | | | | | | | | | |
|--|----------------------|-----------|------------|-------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|
| HLA-C low resolution SSP primer set | | | | | Well | | | | | | | | | |
| | | | | | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | |
| | | | | | Prod. No.: | 200848417 | 200848418 | 200853719 | 200848420 | 200848421 | 200848422 | 200848423 | | |
| | IHC cell line | | Cw* | | | | | | | | | | | |
| 1 | 9001 | SA | *0702 | | - | - | - | - | - | - | - | + | | |
| 2 | 9280 | LK707 | *0701 | *1505 | + | - | - | - | + | - | - | + | | |
| 3 | 9011 | E4181324 | *1202 | | - | - | - | - | - | - | - | - | | |
| 4 | 9275 | GU373 | *0304 | *0401 | - | + | - | - | + | + | - | - | | |
| 5 | 9009 | KAS011 | *0602 | | - | - | - | - | - | - | - | + | | |
| 6 | 9353 | SM | *0304 | *0702 | - | - | - | - | + | + | + | + | | |
| 7 | 9020 | QBL | *0501 | | - | - | - | - | + | - | - | - | | |
| 8 | 9007 | DEM | *0602 | | - | - | - | - | - | - | - | + | | |
| 9 | 9026 | YAR | *1203 | | - | - | - | - | - | - | - | - | | |
| 10 | 9107 | LKT3 | *0102 | | - | - | - | + | - | - | - | - | | |
| 11 | 9051 | PITOUT | *1601 | | - | + | - | - | - | - | - | + | | |
| 12 | 9052 | DBB | *0602 | | - | - | - | - | - | - | - | + | | |
| 13 | 9004 | JESTHOM | *0102 | | - | - | - | + | - | - | - | - | | |
| 14 | 9071 | OLGA | *0102 | *0304 | - | - | - | + | + | + | - | - | | |
| 15 | 9075 | DKB | *0304 | | - | - | - | - | + | + | - | - | | |
| 16 | 9037 | SWEIG007 | *0202 | | - | - | - | - | - | - | - | - | | |
| 17 | 9282 | CTM395354 | *0303 | *0701 | - | - | - | - | + | + | + | - | | |
| 18 | 9257 | 32367 | *0102 | *0705 | - | - | - | + | - | - | + | - | | |
| 19 | 9038 | BM16 | *0701 | | - | - | - | - | - | - | - | + | | |
| 20 | 9059 | SLE005 | *0304 | | - | - | - | - | + | + | - | - | | |
| 21 | 9064 | AMALA | *0303 | | - | - | - | - | + | + | - | - | | |
| 22 | 9056 | KOSE | *1203 | | - | - | - | - | - | - | - | - | | |
| 23 | 9124 | IHL | *0102 | *1502 | + | - | - | + | + | - | - | - | | |
| 24 | 9035 | JBUSH | *1203 | | - | - | - | - | - | - | - | - | | |
| 25 | 9049 | IBW9 | *0802 | | - | - | - | - | + | - | - | - | | |
| 26 | 9285 | WT49 | *0701 | | - | - | - | - | - | - | - | + | | |
| 27 | 9191 | CH1007 | *0704 | *1505 | + | - | - | - | + | - | + | - | | |
| 28 | 9320 | BEL5GB | *0501 | *1601 | - | + | - | - | + | - | + | - | | |
| 29 | 9050 | MOU | *1601 | | - | + | - | - | - | - | - | + | | |
| 30 | 9021 | RSH | *1701 | | - | - | + | - | + | - | - | - | | |
| 31 | 9019 | DUCAF | *0501 | | - | - | - | - | + | - | - | - | | |
| 32 | 9297 | HAG | *1701 | *1703 | - | - | + | - | + | - | - | - | | |
| 33 | 9098 | MT14B | *0304 | | - | - | - | - | + | + | - | - | | |
| 34 | 9104 | DHIF | *1203 | | - | - | - | - | - | - | - | - | | |
| 35 | 9302 | SSTO | *0501 | | - | - | - | - | + | - | - | - | | |
| 36 | 9024 | KT17 | *0303 | *0401 | - | + | - | - | + | + | - | - | | |
| 37 | 9065 | HHKB | *0702 | | - | - | - | - | - | - | - | + | | |
| 38 | 9099 | LZL | *0303 | | - | - | - | - | + | + | - | - | | |
| 39 | 9315 | CML | *0202 | *0701 | - | - | - | - | - | - | - | + | | |
| 40 | 9134 | WHONP199 | *0102 | *0602 | - | - | - | + | - | - | + | - | | |
| 41 | 9055 | H0301 | *0802 | | - | - | - | - | + | - | - | - | | |
| 42 | 9066 | TAB089 | *0102 | | - | - | - | + | - | - | - | - | | |
| 43 | 9076 | T7526 | *0102 | *0801 | - | + | - | + | + | - | - | - | | |
| 44 | 9057 | TEM | *1203 | | - | - | - | - | - | - | - | - | | |
| 45 | 9239 | SHJO | *0602 | *1701 | - | - | + | - | + | - | + | - | | |
| 46 | 9013 | SCHU | *0702 | | - | - | - | - | - | - | - | + | | |
| 47 | 9045 | TUBO | *0704 | *1502 | + | - | - | - | + | - | + | - | | |
| 48 | 9303 | TER-ND | *0401 | *1601 | - | + | - | - | + | - | + | - | | |



CERTIFICATE OF ANALYSIS

Olerup SSP[®] HLA-C low resolution SSP

Product number: 101.601-24/12 – including *Taq* pol.
Lot number: 34F
Expiry date: 2010-November-01
Number of tests: 24 tests – Product No. 101.601-24
12 tests – Product No. 101.601-12
Number of wells per test: 23 + 1

Well specifications:

| Well No. | Production No. | Well No. | Production No. | Well No. | Production No. |
|----------|----------------|----------|----------------|----------|----------------|
| 1 | 2008-484-01 | 9 | 2008-484-09 | 17 | 2008-484-17 |
| 2 | 2008-484-02 | 10 | 2008-537-10 | 18 | 2008-484-18 |
| 3 | 2008-484-03 | 11 | 2008-484-11 | 19 | 2008-537-19 |
| 4 | 2008-484-04 | 12 | 2008-484-12 | 20 | 2008-484-20 |
| 5 | 2008-484-05 | 13 | 2008-484-13 | 21 | 2008-484-21 |
| 6 | 2008-484-06 | 14 | 2008-484-14 | 22 | 2008-484-22 |
| 7 | 2008-484-07 | 15 | 2008-537-15 | 23 | 2008-484-23 |
| 8 | 2008-484-08 | 16 | 2008-484-16 | | |

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 solution 23 were tested by separately adding one 3'-primer. Additional 3'-primers in primer solutions 1 and 10 were tested by separately adding one 5'-primer. Additional 5'- and 3'-primers in primer solutions 19 and 22 were tested by separately adding one 3'-primer, respectively one 5'-primer.

The negative control primer pairs, **Production No. 2008-495-01**, can detect contamination with PCR products diluted 10^{-7} .

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

Date of approval: 2009-May-25

Approved by:

Quality Control, Supervisor

Lot No.: **34F**

Lot-specific information

www.olerup.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-C low resolution
Product number: 101.601-24/12
Lot number: 34F

Intended use: HLA-C low resolution histocompatibility 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 13485:2004, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex III, as transposed into the national laws of the Member States of the European Union.

The Technical Construction 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.

Saltsjöbaden, Sweden
2009-May-25

Olle Olerup
Managing Director

Lot No.: **34F**

Lot-specific information

www.olerup.com

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