

## Olerup SSP® HLA-A\*11

Product number:	101.416-12/04 – including <i>Taq</i> pol.
Lot number:	30F
Expiry date:	2010-November-01
Number of tests:	12 tests – Product No. 101.416-12 4 tests – Product No. 101.416-04
Number of wells per test:	32
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

**This Product Description is only valid for Lot No. 30F.**

### CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*® HLA-A\*11 LOT

The HLA-A\*11 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP*® HLA-A\*11 lot was made (Lot No. Y15).

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

Well	5'-primer	3'-primer	rationale
3	-	Added	Primer added for the A*1133 allele.
8	Added	-	Primer added for the A*1134 allele.
13	Added	Added	Primer pair added for the A*1134 allele.
15	Added	Added	Primer pair added for the A*112402 allele.
20	Added	Added	Primer pair added for the A*1136 allele.

Changes in revision R01 compared to R00:

1. Page 11 corrected.

Changes in revision R02 compared to R01:

2. Length of internal positive control in lane 15 corrected to 800 bp.

## PRODUCT DESCRIPTION

### HLA-A\*11 SSP subtyping

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the HLA-A\*1101 to A\*1136 alleles.

#### PLATE LAYOUT

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

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

The 32 well cut PCR plate is marked with 'HLA-A\*11' in silver/gray ink.  
Well No. 1 is marked with Lot No '30F'.

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

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

#### INTERPRETATION

The interpretation of HLA-A\*11 SSP subtypings will be influenced by most A\*01 alleles, several A\*02 alleles, all A\*03, one A\*23, four A\*24, all A\*25, most A\*26, all A\*29, all A\*30, most A\*31, most A\*32, the A\*33, the A\*34, the A\*36, the A\*4301, all A\*66, all A\*68, the A\*6901, all A\*74 and the A\*8001 alleles when present on the other haplotype. In addition, the B\*0818 and B\*7301 alleles will be amplified by primer mix 10.

#### UNIQUELY IDENTIFIED ALLELES

All the HLA-A\*11 alleles, i.e. **A\*1101 to A\*1136**, recognized by the HLA Nomenclature Committee in July 2008<sup>1</sup> will give rise to unique amplification patterns by the primers in the HLA-A\*11 subtyping kit. alleles.

The HLA-A\*11 subtyping kit cannot distinguish the A\*110101 to A\*110103, A\*110105 to A\*110109 alleles and A\*110201 to A\*110203 alleles.

<sup>1</sup>HLA-A 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).

#### RESOLUTION IN HOMO- AND HETEROZYGOTES

The 35 HLA-A\*11 alleles will give rise to 37 different amplification patterns that can be combined in 703 homozygous and heterozygous combinations. 194 of these genotypes do not give rise to unique amplification patterns. (The different sizes of the specific PCR products generated by the primers in wells 6, 13, 15, 19 and 32 have not been considered in these calculations.)

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++-+-----	--++-+-	--+-----	-----+	1102,1135 = 1116,1135
++-----	--++-+-	+-----	-----	1112,1114 = 1114,112402
++-----	--++-+-	--+-----	-----	1112,1116 = 1116,112402
++-----	--++-+-	-----	-----	1102,1112 = 1102,112402
++-----	--++-+-	--+-----	-----	1101,1116 = 1102,1123 = 1116,1123
+--+-----	--++-+-	-----+	-----	1103,1106 = 1103,1118
+--+-----	--++-+-	-----+	-----	1106,1133 = 1118,1133
+--+-----	--++-+-	-----+	-----	1103,1108 = 1108,1133
+--+-----	--++-+-	-----+	-----	1103,1112 = 1103,112402 = 1103,1125 = 1125,1133
+--+-----	--++-+-	-----	-----	1112,1133 = 112402,1133
+--+-----	--++-+-	-----+	-----	1101,1103 = 1103,1103 = 1103,1120 = 1103,1133 = 1120,1133
+--+-----	--++-+-	-----	-----	1101,1133 = 1133,1133
+--+-----	--++-+-	--+-----	-----+	1106,1135 = 1118,1135
+--+-----	--++-+-	-----+	--+-----	1106,1127 = 1118,1127
+--+-----	--++-+-	-----+	-----	1104,1106 = 1104,1118
+--+-----	--++-+-	--+-----	-----+	1101,1135 = 1112,1135 = 1132,1135
+--+-----	--++-+-	-----	--+-----	1112,1127 = 112402,1127
+--+-----	--++-+-	-----	-----	1104,1112 = 1104,112402
+--+-----	--++-+-	-----	--+-----	1104,1127 = 1127,1127
+--+-----	--++-+-	--+-----	-----+	1123,1135 = 112402,1135 = 1131,1135
+--+-----	--++-+-	-----+	-----	1105,1106 = 1105,1118
+--+-----	--++-+-	-----	-----	1105,1112 = 1105,112402
+--+-----	--++-+-	-----	-----	1101,1105 = 1105,1105
+--+-----	--++-+-	-----+	-----	1106,1108 = 1108,1118
+--+-----	--++-+-	-----+	-----	1106,1134 = 1118,1134
+--+-----	--++-+-	-----+	-----	1106,1109 = 1109,1118
+--+-----	--++-+-	-----+	-----	1106,1107 = 1107,1118
+--+-----	--++-+-	-----+	-----+	1106,1110 = 1110,1118
+--+-----	--++-+-	-----+	-----	1106,1111 = 1111,1118
+--+-----	--++-+-	-----+	-----	1106,1125 = 1118,1125
+--+-----	--++-+-	-----+	-----+	1106,1131 = 1118,1131
+--+-----	--++-+-	-----+	-----	1106,1112 = 1106,112402 = 1118,112402
+--+-----	--++-+-	-----	-----	1112,1122 = 1122,112402
+--+-----	--++-+-	-----+	-----	1106,1113 = 1113,1118
+--+-----	--++-+-	--+-----	-----	1106,111501 = 111501,1118
+--+-----	--++-+-	--+-----	-----	1106,1123 = 1118,1123
+--+-----	--++-+-	--+-----	-----	1106,1136 = 1118,1136
+--+-----	--++-+-	-----+	-----	1106,1120 = 1118,1120
+--+-----	--++-+-	-----+	-----	1106,1121N = 1118,1121N
+--+-----	--++-+-	-----+	+-----	1106,112401 = 1118,112401
+--+-----	--++-+-	-----+	+-----	1106,1126 = 1118,1126
+--+-----	--++-+-	-----+	--+-----	1106,111502 = 111502,1118
+--+-----	--++-+-	-----+	-----+	1106,1129 = 1118,1129
+--+-----	--++-+-	-----+	-----+	1106,1130 = 1118,1130
+--+-----	--++-+-	-----+	-----+	1106,1132 = 1118,1132

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+-----+-- --++--+-	-----+--	-----	1101,1106 = 1101,1118 =
			1106,1106 = 1106,1118 =
			1106,1122 = 1118,1122
+-----+-- --++--+-	-----	-----	1101,1122 = 1122,1122
+-----+-- --++--+-	-----+	-----	1101,1108 = 1108,1120
+-----+-- --++--+-	-----+	-----	1108,112402 = 1108,1125
+-----+-- --++--+-	-----	-----	1112,1134 = 112402,1134
+-----+-- --++--+-	-----	-----	1101,1134 = 1109,1111 =
			1109,1134 = 1111,1134 =
			1134,1134
+-----+-- --++--+-	-----	-----	1109,1112 = 1109,112402
+-----+-- --++--+-	-----	-----	1101,1109 = 1109,1109
+-----+-- --++--+-	-----	-----	1107,1112 = 1107,112402
+-----+-- --++--+-	-----	-----	1101,1107 = 1107,1107
+-----+-- --++--+-	-----	-----+	1110,1112 = 1110,112402
+-----+-- --++--+-	-----	-----+	1101,1110 = 1110,1110
+-----+-- --++--+-	-----	-----	1111,1112 = 1111,112402
+-----+-- --++--+-	-----	-----	1101,1111 = 1111,1111
+-----+-- --++--+-	-----	-----	1112,1113 = 1113,112402
+-----+-- --++--+-	-----	-----	1112,111501 = 111501,112402
+-----+-- --++--+-	-----	-----	1112,1136 = 112402,1136
+-----+-- --++--+-	-----+	-----+	1120,1131 = 1125,1132
+-----+-- --++--+-	-----+	-----	1101,1125 = 1112,1120 =
			1112,1125 = 1120,112402 =
			1120,1125
+-----+-- --++--+-	-----+	-----	1112,1121N = 1121N,112402
+-----+-- --++--+-	-----	-----+	1112,111502 = 111502,112402
+-----+-- --++--+-	-----	-----+	1112,1129 = 112402,1129
+-----+-- --++--+-	-----	-----+	1112,1130 = 112402,1130
+-----+-- --++--+-	-----	-----+	1101,1131 = 1112,1131 =
			1112,1132 = 112402,1132 =
			1131,1132
+-----+-- --++--+-	-----	-----	1101,1112 = 1101,112402 =
			1112,112402
+-----+-- --++--+-	-----	-----	1101,1113 = 1113,1113
+-----+-- --++--+-	-----	-----	1101,111501 = 111501,111501
+-----+-- --++--+-	-----	-----	1101,1117 = 1117,1136 =
			1119,1136
+-----+-- --++--+-	-----	-----	1101,1136 = 1136,1136
+-----+-- --++--+-	-----+	-----	1101,1120 = 1120,1120
+-----+-- --++--+-	-----+	-----	1101,1121N = 1121N,1121N
+-----+-- --++--+-	-----	-----+	1101,111502 = 111502,111502
+-----+-- --++--+-	-----	-----+	1101,1129 = 1129,1129
+-----+-- --++--+-	-----	-----+	1101,1130 = 1130,1130
+-----+-- --++--+-	-----	-----+	1101,1132 = 1132,1132
+-----+-- --++--+-	-----+	-----	112402,1125 = 1125,1125
+-----+-- --++--+-	-----	-----+	112402,1131 = 1131,1131
+-----+-- --++--+-	-----	-----	1102,1114 = 1114,1114
+-----+-- --++--+-	-----	-----	1102,1116 = 1116,1116
+-----+-- --++--+-	-----	-----	1117,1117 = 1117,1119

## SPECIFICITY TABLE

### HLA-A\*11 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for HLA-A\*11 SSP subtyping

Primer Mix	Approx. Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified HLA-A*11 alleles <sup>3</sup>	Other amplified HLA-A alleles <sup>3</sup>
<b>1<sup>4</sup></b>	195 bp	<b>800 bp</b>	110101-110109, 1103-1113, 111501-111502, 1120-1127, 1129-1136	0113, 0117, 0234-023503, 0256, 0262, 0278, 9203, 03010101-0307, 0309-0331, 0333-0335, 0337-0339, 2419, 2613, 2619, 2633, 29010101-2912, 2914-2917, 3018, 340101-3408, 6601, 6602, 6604, 6606, 6607, 680101-680202, 6806-6814, 6816-6819, 6821-6830, 6832-6835, 6837-6843, 6901
<b>2</b>	270 bp	1070 bp	110201-110203, 1114, 1116	
<b>3</b>	190 bp	1070 bp	1103, 1133	0322, 300101-3004, 3006-3020, 3022-3025, 3103, 3104, 3402-3404, 3407, 3408
<b>4<sup>4</sup></b>	235 bp	1070 bp	1104, 1127, 1135	0112, 0114, 0119, 03010101-0317, 0319-0339, 300101-3004, 3006-3013, 3015-3020, 3022-3025, 3103, 3104, 3204, 3402-3404, 3407, 3408, 3601, 3602
<b>5</b>	180 bp	<b>800 bp</b>	1105	
<b>6<sup>7,8</sup></b>	185, 550 bp	1070 bp	1106, 1118, 1122	0238, 9201, 9235, 2603, 2606, 2621, 2630, 2636

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<b>7<sup>4,6</sup></b>	215 bp	1070 bp	1108	01010101-0102, 0104N, 0107-0111N, 0113-0118N, 0121- 0124, 0126-0130, 0318, 3004, 3006, 3017, 3601, 3602 <sup>weakly</sup> , 3604
<b>8<sup>5</sup></b>	95 bp	1070 bp	1109, 1134	
<b>9<sup>7</sup></b>	200 bp	<b>800 bp</b>	1107	
<b>10<sup>5</sup></b>	120 bp	1070 bp	1110	250101-2506, 260101-2606, 2608- 2618, 2620-2629, 2632-2637, 3313, 340101-3408, 6601, 6604-6607, <b>B*0818, B*7301</b>
<b>11</b>	215 bp	<b>800 bp</b>	110101-110103, 110104 <sup>weakly</sup> , 110105-1107, 1109-1122, 1127, 1129, 1130, 1132-1134, 1136	0112, 0119, 0125 <sup>weakly</sup> , 0302, 0310, 0331, 0332
<b>12</b>	235 bp	1070 bp	110101-110103, 110104 <sup>weakly</sup> , 110105-1103, 1105-1125, 1129- 1134, 1136	01010101-0102, 0104N, 0106, 0107, 0109-0111N, 0113, 0116N-0118N, 0121- 0130, 0318, 3604
<b>13<sup>5,9</sup></b>	90, 200 bp	<b>800 bp</b>	1111, 1134	4301
<b>14<sup>5</sup></b>	100 bp	1070 bp	110101-1111, 1113-1116, 1120- 1127, 1129-1136	0113, 0117, 2502, 2613, 2619, 2633, 340101-340102 <sup>weakly</sup> ,3402-3404, 3405 <sup>weakly</sup> , 3406, 3408, 6601, 6604, 6606, 6607
<b>15<sup>5,10</sup></b>	100, 215 bp	<b>800 bp</b>	1112, 112402, 1125, 1131, 1135	0106, 0234-023503 <sup>weakly</sup> , 0256, 0262, 0278, 9203, 03010101-0331, 0333-0339, 2424, 29010101-2903, 2904 <sup>weakly</sup> , 2905- 2917, 300101-3003, 3007-3020, 3022- 3025, 3103, 3104, 3204, 3402-3404,

				3406-3408, 6602, 6606, 680101- 680202, 6806-6814, 6816-6819, 6821- 6830, 6832-6839, 6841-6843, 6901
<b>16<sup>5,7</sup></b>	95 bp	1070 bp	1113	
<b>17</b>	200 bp	1070 bp	1114	0110, 300101-3003, 3007, 3008, 3010- 3016, 3018-3020, 3022, 3024, 3025, 8001
<b>18</b>	245 bp	1070 bp	111501	
<b>19<sup>11</sup></b>	175, 220 bp	1070 bp	1116, 1123, 1135	
<b>20</b>	240 bp	1070bp	1117, 1136	260101-2602, 2604, 260701-2615, 2617- 2619, 2622-2629, 2631-2634, 2636, 2637, 4301
<b>21<sup>5,6</sup></b>	100 bp	1070 bp	1117, 1119	01010101-0104N, 0106, 0108-0112, 0114-0116N, 0118N- 0130, 2444 <sup>weakly</sup> , 250101-250102, 2503-2506, 260101- 2612, 2614-2618, 2620-2629, 2631, 2632, 2634-2637, 3103, 3313, 3601- 3604, 4301, 6605, 7410, 8001
<b>22</b>	230 bp	1070 bp	1106, 1118	0205-020604, 020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242- 9244, 2603, 2606, 2621, 2630, 6815
<b>23<sup>5</sup></b>	80 bp	<b>800 bp</b>	1103, 1108, 1120, 1125	020301-020302 <sup>weakly</sup> , 0213, 0226, 0238, 9217 <sup>weakly</sup> , 9248 <sup>weakly</sup> , 6842 <sup>weakly</sup>

<b>24<sup>4</sup></b>	470 bp	1070 bp	1121N	0104N, 0321N, 2307N, 2411N
<b>25</b>	215 bp	1070 bp	112401	030102, 8001
<b>26</b>	305 bp	1070 bp	1126	0103, 2632, 3313, 3603, 7410
<b>27</b>	250 bp	1070 bp	1127	01010101-0102, 0104N, 0106-0119, 0121-0130, 0318, 8001
<b>28</b>	245 bp	<b>800 bp</b>	111502	
<b>29<sup>5</sup></b>	80 bp	1070 bp	1110	0255, 0324, 2603, 2606, 2621, 2630, 3301, 330301-3307, 3310-3312, 3314- 3316, 3318, 3319, 340101, 3402-3408, 6601-6607, 680101- 6809, 6811N, 6812, 6815-6829, 6831- 6835, 6838-6843, 6901
<b>30</b>	265 bp	1070 bp	1129	
<b>31</b>	285 bp	1070 bp	1130	
<b>32<sup>12</sup></b>	205, 295	1070 bp	1131, 1132, 1135	0307, 3004, 3006, 3009, 3017, 3103, 3104

<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\*11 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.

<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\*11 subtyping.

In addition, wells number 5, 9, 11, 13, 15, 23 and 28 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.



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

<sup>3</sup>Due to the sharing of sequence motifs between HLA-A alleles some non-HLA-A\*11 alleles will be amplified by primer mixes 1, 3, 4, 6, 7 and 10 to 15, 17, 20 to 27, 29 and 32.

<sup>4</sup>Primer mixes 1, 4, 7 and 24 may give rise to nonspecific amplifications.

<sup>5</sup>Short specific PCR fragments are less intense and not as sharp as longer specific bands.

<sup>6</sup>The specific primer pair in primer mixes 7 and 21 may yield less specific PCR product than the other A\*11 primer mixes.

<sup>7</sup>Primer mixes 6, 9 and 16 have a tendency of giving rise to primer oligomer formation. Most pronounced for primer mix 6.

<sup>8</sup>Primer mix 6: Specific PCR product of 185 bp in the A\*1122 allele. Specific PCR product of 550 bp in the A\*1106, 1118 and A\*0238, 9201, 9235, 2603, 2606, 2621, 2630 and 2636 alleles.

<sup>9</sup>Primer mix 13: Specific PCR fragment of 90 bp in the A\*1134 allele. Specific PCR fragment of 200 bp in the A\*1111 and A\*4301 alleles.

<sup>10</sup>Primer mix 15: Specific PCR fragment of 100 bp in the A\*1112 and A\*0234-023503<sup>weakly</sup>, 0256, 0262, 0278, 9203, 0302, 0310, 0318, 0331, 2424, 29010101-2903, 2904<sup>weakly</sup>, 2905-2917, 3017, 3217, 6602, 6606, 680101-680202, 6806-6814, 6816-6819, 6821-6830, 6832-6839, 6841-6843 and 6901 alleles.

Specific PCR fragment of 215 bp in the A\*112402, 1125, 1131, 1135 and A\*0106, 0308, 0329, 0330, 0334, 0336N, 0341, 300201-300204, 3003, 3007, 3009, 3010, 3012, 3013, 3022, 3103, 3104, 3204, 3402-3404, 3406-3408 alleles.

Specific PCR fragment of 100 and 215 bp in the A\*03010101030106, 0303N-0307, 0309, 0311N-0317, 0319-0328, 0333, 0335, 0337-0340, 0342, 300101-300102, 3008, 301101-301102, 3014L-3016, 3018-3020, 3023-3026 alleles, please note that both PCR fragments may not be obtained.

<sup>11</sup>Primer mix 19: Specific PCR product of 175 bp in the A\*1116 and 1135 alleles. Specific PCR product of 220 bp in the A\*1123 allele.

<sup>12</sup>Primer mix 32: Specific PCR fragment of 205 bp in the A\*1131, 1135 and A\*0307, 3004, 3006, 3009, 3017, 3103 and 3104 alleles. Specific PCR fragment of 295 bp in the A\*1132 allele.

<b>INTERPRETATION TABLE</b>																
<b>HLA-A*11 SSP subtyping</b>																
<b>Amplification patterns of the A*1101 to A*1136 alleles</b>																
	<b>Well<sup>5</sup></b>															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Length of spec.	195	270	190	235	180	185	215	95	200	120	215	235	90	100	100	95
PCR product(s)						550							200		215	
Length of int.	800	1070	1070	1070	800	1070	1070	1070	800	1070	800	1070	800	1070	800	1070
pos. control <sup>1</sup>																
5'-primer(s) <sup>2</sup>	127	28	363	363	363	292	363	553	399	261	363	363	102	282	282	503
	5'-ggg <sup>3</sup>	5'-TCC <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-CTC <sup>3</sup>	5'-ATA <sup>3</sup>	5'-TgC <sup>3</sup>	5'-TTA <sup>3</sup>	5'-AAC <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ACC <sup>3</sup>	5'-Cag <sup>3</sup>	5'-Cag <sup>3</sup>	5'-Cag <sup>3</sup>
						413		565					565		363	
						5'-CCC <sup>3</sup>		5'-gCA <sup>3</sup>					5'-gCA <sup>3</sup>		5'-ATA <sup>3</sup>	
3'-primer(s) <sup>3</sup>	282	127	502	559	502	559	539	616	559	341	539	559	257	341	341	559
	5'-gAC <sup>3</sup>	5'-CTT <sup>3</sup>	5'-CtG <sup>3</sup>	5'-CgT <sup>3</sup>	5'-CTC <sup>3</sup>	5'-CCg <sup>3</sup>	5'-TCC <sup>3</sup>	5'-CgT <sup>3</sup>	5'-CCg <sup>3</sup>	5'-CgT <sup>3</sup>	5'-TCT <sup>3</sup>	5'-CCg <sup>3</sup>	5'-gCA <sup>3</sup>	5'-CgT <sup>3</sup>	5'-Cgg <sup>3</sup>	5'-CCg <sup>3</sup>
			524										616		538	
			5'-CAC <sup>3</sup>										5'-CgT <sup>3</sup>		5'-CAA <sup>3</sup>	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HLA-A allele <sup>4</sup>																
*110101-110103, 110105-110109	1										11	12		14		
*110104	1										w	w		14		
*110201-110203		2									11	12		14		
*1103	1		3								11	12		14		
*1104	1			4							11			14		
*1105	1				5						11	12		14		
*1106	1					6					11	12		14		
*1107	1								9		11	12		14		
*1108	1						7					12		14		
*1109	1							8			11	12		14		
*1110	1									10	11	12		14		
*1111	1										11	12	13	14		
*1112	1										11	12			15	
*1113	1										11	12		14		16
*1114		2									11	12		14		
*111501	1										11	12		14		
*111502	1										11	12		14		
*1116		2									11	12		14		
*1117											11	12				
*1118						6					11	12				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

<b>INTERPRETATION TABLE</b>																
<b>HLA-A*11 SSP subtyping</b>																
<b>Amplification patterns of the A*1101 to A*1136 alleles</b>																
<b>Well<sup>5</sup></b>																
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
200	245	175	240	100	230	80	470	215	305	250	245	80	265	285	205	Length of spec.
		220													295	PCR product(s)
1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	800	1070	1070	1070	1070	Length of int.
																pos. control <sup>1</sup>
363	363	363	103	282	103	489	3rd I	363	341	363	363	261	363	363	363	5'-primer(s) <sup>2</sup>
5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-CCT <sup>3</sup>	5'-CAC <sup>3</sup>	5'-CCT <sup>3</sup>	5'-gCCA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ggA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-AAC <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	5'-ATA <sup>3</sup>	
			368													
			5'-gTg <sup>3</sup>													
526	565	497	299	341	292	527	621	538	362	570	565	299	587	605	527	3'-primer(s) <sup>3</sup>
5'-CCg <sup>3</sup>	5'-CAg <sup>3</sup>	5'-Tgg <sup>3</sup>	5'-TCg <sup>3</sup>	5'-CgT <sup>3</sup>	5'-gTg <sup>3</sup>	5'-CCT <sup>3</sup>	5'-CCC <sup>3</sup>	5'-CAg <sup>3</sup>	5'-TCA <sup>3</sup>	5'-CCg <sup>3</sup>	5'-CAA <sup>3</sup>	5'-CCA <sup>3</sup>	5'-CCT <sup>3</sup>	5'-gCA <sup>3</sup>	5'-CAA <sup>3</sup>	
526		542	570												616	
5'-CCA <sup>3</sup>	5'-CTg <sup>3</sup>	5'-CAC <sup>3</sup>													5'-CgC <sup>3</sup>	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																HLA-A allele <sup>4</sup>
																*110101-110103, 110105-110109
																*110104
																*110201-110203
						23										*1103
																*1104
					22											*1105
																*1106
																*1107
						23										*1108
																*1109
												29				*1110
																*1111
																*1112
																*1113
17																*1114
	18															*111501
												28				*111502
		19														*1116
			20	21												*1117
					22											*1118
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Length of spec.	195	270	190	235	180	185	215	95	200	120	215	235	90	100	100	95
PCR product(s)						550							200		215	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*1119											11	12				
*1120	1										11	12		14		
*1121N	1										11	12		14		
*1122	1					6					11	12		14		
*1123	1											12		14		
*112401	1											12		14		
*112402	1											12		14	15	
*1125	1											12		14	15	
*1126	1													14		
*1127	1			4							11			14		
*1129	1										11	12		14		
*1130	1										11	12		14		
*1131	1											12		14	15	
*1132	1										11	12		14		
*1133	1		3								11	12		14		
*1134	1							8			11	12	13	14		
*1135	1			4										14	15	
*1136	1										11	12		14		
*01010101-0102, 0109, 0111N, 0116N, 0118N, 0121-0124, 0126-0130							7					12				
*0103, 3603, 7410																
*0104N							7					12				
*0106												12				
*0107							7					12				
*0108, 0115N							7									
*0110							7					12				
*0112, 0119				4							11					
*0113, 0117	1						7					12		14		
*0114				4			7									
*0120																
*0125											w	12				
*020301-020302, 9217, 9248																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **30F**

Lot-specific information

www.olerup.com

200	245	175	240	100	230	80	470	215	305	250	245	80	265	285	205	Length of spec. PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
		220													295	
				21												*1119
						23										*1120
							24									*1121N
																*1122
		19														*1123
								25								*112401
																*112402
						23										*1125
									26							*1126
										27						*1127
													30			*1129
														31		*1130
															32	*1131
															32	*1132
																*1133
																*1134
		19													32	*1135
			20													*1136
				21						27						*01010101-0102, 0109, 0111N, 0116N, 0118N, 0121-0124, 0126-0130
				21					26							*0103, 3603, 7410
				21			24			27						*0104N
				21						27						*0106
										27						*0107
				21						27						*0108, 0115N
17				21						27						*0110
				21						27						*0112, 0119
										27						*0113, 0117
				21						27						*0114
				21												*0120
				21						27						*0125
						w										*020301-020302, 9217, 9248
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **30F**

Lot-specific information

www.olerup.com

Length of spec.	195	270	190	235	180	185	215	95	200	120	215	235	90	100	100	95
PCR product(s)						550							200		215	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*0205-020604, 020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242- 9244																
*0213, 0226																
*0234-023503, 2904	1															w
*0238						6										
*0255, 3301, 330301- 3307, 3310-3312, 3314-3316, 3318, 3319, 6603, 680301- 6805, 6820, 6831																
*0256, 0262, 0278, 9203, 29010101- 2903, 2905-2912, 2914-2917, 6810, 6813, 6814, 6830, 6837	1															15
*9201, 9235						6										
*03010101- 03010103, 030103- 030106, 0303N- 0306, 0309, 0311N- 0317, 0319, 0320, 0323, 0325-0330, 0333-0335, 0337, 0338, 0339	1			4												15
*030102	1			4												15
*0302, 0310, 0331	1			4							11					15
*0307	1			4												15
*0308, 0336N, 3204				4												15
*0318	1						7					12				15
*0321N	1			4												15
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **30F**

Lot-specific information

www.olerup.com

200	245	175	240	100	230	80	470	215	305	250	245	80	265	285	205	Length of spec.
		220													295	PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
					22											*0205-020604, 020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242- 9244
						23										*0213, 0226
						23										*0234-023503, 2904 *0238
												29				*0255, 3301, 330301- 3307, 3310-3312, 3314-3316, 3318, 3319, 6603, 680301- 6805, 6820, 6831
																*0256, 0262, 0278, 9203, 29010101- 2903, 2905-2912, 2914-2917, 6810, 6813, 6814, 6830, 6837
																*9201, 9235
																*03010101- 03010103, 030103- 030106, 0303N- 0306, 0309, 0311N- 0317, 0319, 0320, 0323, 0325-0330, 0333-0335, 0337, 0338, 0339
								25								*030102
																*0302, 0310, 0331
															32	*0307
																*0308, 0336N, 3204
										27						*0318
							24									*0321N
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **30F**

Lot-specific information

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Length of spec.	195	270	190	235	180	185	215	95	200	120	215	235	90	100	100	95
PCR product(s)						550							200		215	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*0322	1		3	4												15
*0324	1			4												15
*0332				4							11					
*2307N, 2411N																
*2419	1															
*2424, 2913, 6836																15
*2444																
*250101-250102, 2503-2506, 2605, 2616, 2620, 2635										10						
*2502										10				14		
*260101-2602, 2604, 2608-2612, 2614, 2615, 2617, 2618, 2622-2629, 2634, 2637										10						
*2603, 2606, 2621						6				10						
*260701-260702, 2631																
*2613, 2633	1									10				14		
*2619	1													14		
*2630						6										
*2632										10						
*2636						6				10						
*300101-3003, 3007, 3008, 3010-3013, 3015, 3016, 3019, 3020, 3022, 3024, 3025			3	4												15
*3004, 3006			3	4			7									
*3009, 3104			3	4												15
*3014L			3													15
*3017			3	4			7									15
*3018	1		3	4												15
*3023			3	4												15
*3103			3	4												15
*3313										10						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16



Lot No.: **30F**

Lot-specific information

www.olerup.com

200	245	175	240	100	230	80	470	215	305	250	245	80	265	285	205	Length of spec. PCR product(s)
		220													295	Well No.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
												29				*0322
																*0324
																*0332
							24									*2307N, 2411N
																*2419
				w												*2424, 2913, 6836
				21												*2444
																*250101-250102, 2503-2506, 2605, 2616, 2620, 2635
																*2502
			20	21												*260101-2602, 2604, 2608-2612, 2614, 2615, 2617, 2618, 2622-2629, 2634, 2637
				21	22							29				*2603, 2606, 2621
			20	21												*260701-260702, 2631
			20													*2613, 2633
			20													*2619
					22							29				*2630
			20	21					26							*2632
			20	21												*2636
17																*300101-3003, 3007, 3008, 3010-3013, 3015, 3016, 3019, 3020, 3022, 3024, 3025
															32	*3004, 3006
															32	*3009, 3104
17																*3014L
															32	*3017
17																*3018
																*3023
				21											32	*3103
				21					26							*3313
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Length of spec.	195	270	190	235	180	185	215	95	200	120	215	235	90	100	100	95
PCR product(s)						550							200		215	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*340101, 3405	1									10				w		
*340102	1									10				w		
*3402-3404, 3408	1		3	4						10				14	15	
*3406, 6606	1									10				14	15	
*3407	1		3	4						10					15	
*3601				4			7									
*3602				4			w									
*3604							7					12				
*4301													13			
*6601, 6604, 6607	1									10				14		
*6602, 680101- 680202, 6806-6809, 6811N, 6812, 6816- 6819, 6821-6829, 6832-6835, 6838, 6839, 6841, 6843, 6901	1														15	
*6605										10						
*6815																
*6840	1															
*6842	1														15	
*8001																
HLA-A allele <sup>4</sup>																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B*0818, B*7301										10						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

<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\*11 subtyping. In addition, wells number 5, 9, 11, 13, 15, 23 and 28 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> exons, 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> exons, 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.

'w', may be weakly amplified.

200	245	175	240	100	230	80	470	215	305	250	245	80	265	285	205	Length of spec.
		220													295	PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
												29				*340101, 3405
																*340102
												29				*3402-3404, 3408
												29				*3406, 6606
												29				*3407
				21												*3601
				21												*3602
				21												*3604
			20	21												*4301
												29				*6601, 6604, 6607
												29				*6602, 680101- 680202, 6806-6809, 6811N, 6812, 6816- 6819, 6821-6829, 6832-6835, 6838, 6839, 6841, 6843, 6901
				21								29				*6605
					22							29				*6815
												29				*6840
						w						29				*6842
17				21				25		27						*8001
																HLA-A allele <sup>4</sup>
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																B*0818, B*7301
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

<sup>4</sup>The A\*1128 allele has been renamed to A\*111502.

<sup>5</sup>Primer mix 6: Specific PCR product of 185 bp in the A\*1122 allele. Specific PCR product of 550 bp in the A\*1106, 1118 and A\*0238, 9201, 9235, 2603, 2606, 2621, 2630 and 2636 alleles.

<sup>5</sup>Primer mix 13: Specific PCR fragment of 90 bp in the A\*1134 allele. Specific PCR fragment of 200 bp in the A\*1111 and A\*4301 alleles.

Primer mix 15: Specific PCR fragment of 100 bp in the A\*1112 and A\*0234-023503<sup>weakly</sup>, 0256, 0262, 0278, 9203, 0302, 0310, 0318, 0331, 2424, 29010101-2903, 2904<sup>weakly</sup>, 2905-2917, 3017, 3217, 6602, 6606, 680101-680202, 6806-6814, 6816-6819, 6821-6830, 6832-6839, 6841-6843 and 6901 alleles. Specific PCR fragment of 215 bp in the A\*112402, 1125, 1131, 1135 and A\*0106, 0308, 0329, 0330, 0334, 0336N, 0341, 300201-300204, 3003, 3007, 3009, 3010, 3012, 3013, 3022, 3103, 3104, 3204, 3402-3404, 3406-3408 alleles. Specific PCR fragment of 100 and 215 bp in the A\*03010101030106, 0303N-0307, 0309, 0311N-0317, 0319-0328, 0333, 0335, 0337-0340, 0342, 300101-300102, 3008, 301101-301102, 3014L-3016, 3018-3020, 3023-3026 alleles, please note that both PCR fragments may not be obtained.

Primer mix 19: Specific PCR product of 175 bp in the A\*1116 and 1135 alleles. Specific PCR product of 220 bp in the A\*1123 allele.

Primer mix 32: Specific PCR fragment of 205 bp in the A\*1131, 1135 and A\*0307, 3004, 3006, 3009, 3017, 3103 and 3104 alleles. Specific PCR fragment of 295 bp in the A\*1132 allele.

CELL LINE VALIDATION SHEET																				
HLA-A*11 SSP subtyping kit																				
				Prod. No.:	Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					200736801	200736802	200853303	200736804	200736805	200736806	200736807	200853308	200736809	200736810	200736811	200736812	2.0085E+10	200736814	200853315	200736816
	IHWC cell line		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	+	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-

CELL LINE VALIDATION SHEET																					
HLA-A*11 SSP subtyping kit																					
				Prod. No.:	Well																
					17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
					200736817	200736818	200736819	200853320	200736821	200736822	200736823	200736824	200736825	200736826	200736827	200736828	200736829	200736830	200736831	200736832	
	IHWC cell line		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		*0206	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**CERTIFICATE OF ANALYSIS****Olerup SSP<sup>®</sup> HLA-A\*11 SSP****Product number:** 101.416-12/04 – including *Taq* pol.**Lot number:** 30F**Expiry date:** 2010-November-01**Number of tests:** 12 tests – Product No. 101.416-12

4 tests – Product No. 101.416-04

**Number of wells per test:** 32**Well specifications:**

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2007-368-01	13	2008-533-13	25	2007-368-25
2	2007-368-02	14	2007-368-14	26	2007-368-26
3	2008-533-03	15	2008-533-15	27	2007-368-27
4	2007-368-04	16	2007-368-16	28	2007-368-28
5	2007-368-05	17	2007-368-17	29	2007-368-29
6	2007-368-06	18	2007-368-18	30	2007-368-30
7	2007-368-07	19	2007-368-19	31	2007-368-31
8	2008-533-08	20	2008-533-20	32	2007-368-32
9	2007-368-09	21	2007-368-21		
10	2007-368-10	22	2007-368-21		
11	2007-368-11	23	2007-368-23		
12	2007-368-12	24	2007-368-24		

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

No DNAs carrying the alleles to be amplified by primer solutions 2, 8, 9, 13, 16, 18, 19, 26, 28, 30 to 32 were available. The specificities of the primers in primer solutions 13, 26 and 32 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 2, 18, 19, 28, 30 and 31 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 8, 9 and 16 it was only possible to test the 3'-primers, the 5'-primers were not possible to test.

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

**Date of approval:** 2009-May-25

**Approved by:**

**Quality Control, Supervisor**

Lot No.: **30F**

Lot-specific information

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

## Declaration of Conformity

**Product name:** *Olerup* SSP® HLA-A\*11  
**Product number:** 101.416-12/04  
**Lot number:** 30F

**Intended use:** HLA-A\*11 high 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 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, 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-25

Olle Olerup  
Managing Director

Lot No.: **30F**

Lot-specific information

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

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