

Lot No.: **30F**

Lot-specific information

Olerup SSP[®] HLA-A*11

Product number: 101.416-12u/04u – without *Taq* pol.
Lot number: 30F
Expiry date: 2010-November-01
Number of tests: 12 tests – Product No. 101.416-12u
4 tests – Product No. 101.416-04u
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.

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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 2008¹ 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.

¹HLA-A alleles listed on the IMGT/HLA web page 2008-July-11, release 2.22.0, 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

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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 ¹	Size of control band ²	Amplified HLA-A*11 alleles ³	Other amplified HLA-A alleles ³
1⁴	195 bp	800 bp	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
2	270 bp	1070 bp	110201-110203, 1114, 1116	
3	190 bp	1070 bp	1103, 1133	0322, 300101-3004, 3006-3020, 3022-3025, 3103, 3104, 3402-3404, 3407, 3408
4⁴	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
5	180 bp	800 bp	1105	
6^{7,8}	185, 550 bp	1070 bp	1106, 1118, 1122	0238, 9201, 9235, 2603, 2606, 2621, 2630, 2636

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7^{4,6}	215 bp	1070 bp	1108	01010101-0102, 0104N, 0107-0111N, 0113-0118N, 0121- 0124, 0126-0130, 0318, 3004, 3006, 3017, 3601, 3602 ^{weakly} , 3604
8⁵	95 bp	1070 bp	1109, 1134	
9⁷	200 bp	800 bp	1107	
10⁵	120 bp	1070 bp	1110	250101-2506, 260101-2606, 2608- 2618, 2620-2629, 2632-2637, 3313, 340101-3408, 6601, 6604-6607, B*0818, B*7301
11	215 bp	800 bp	110101-110103, 110104 ^{weakly} , 110105-1107, 1109-1122, 1127, 1129, 1130, 1132-1134, 1136	0112, 0119, 0125 ^{weakly} , 0302, 0310, 0331, 0332
12	235 bp	1070 bp	110101-110103, 110104 ^{weakly} , 110105-1103, 1105-1125, 1129- 1134, 1136	01010101-0102, 0104N, 0106, 0107, 0109-0111N, 0113, 0116N-0118N, 0121- 0130, 0318, 3604
13^{5,9}	90, 200 bp	800 bp	1111, 1134	4301
14⁵	100 bp	1070 bp	110101-1111, 1113-1116, 1120- 1127, 1129-1136	0113, 0117, 2502, 2613, 2619, 2633, 340101-340102 ^{weakly} ,3402-3404, 3405 ^{weakly} , 3406, 3408, 6601, 6604, 6606, 6607
15^{5,10}	100, 215 bp	800 bp	1112, 112402, 1125, 1131, 1135	0106, 0234-023503 ^{weakly} , 0256, 0262, 0278, 9203, 03010101-0331, 0333-0339, 2424, 29010101-2903, 2904 ^{weakly} , 2905- 2917, 300101-3003, 3007-3020, 3022- 3025, 3103, 3104, 3204, 3402-3404,

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				3406-3408, 6602, 6606, 680101-680202, 6806-6814, 6816-6819, 6821-6830, 6832-6839, 6841-6843, 6901
16^{5,7}	95 bp	1070 bp	1113	
17	200 bp	1070 bp	1114	0110, 300101-3003, 3007, 3008, 3010-3016, 3018-3020, 3022, 3024, 3025, 8001
18	245 bp	1070 bp	111501	
19¹¹	175, 220 bp	1070 bp	1116, 1123, 1135	
20	240 bp	1070bp	1117, 1136	260101-2602, 2604, 260701-2615, 2617-2619, 2622-2629, 2631-2634, 2636, 2637, 4301
21^{5,6}	100 bp	1070 bp	1117, 1119	01010101-0104N, 0106, 0108-0112, 0114-0116N, 0118N-0130, 2444 ^{weakly} , 250101-250102, 2503-2506, 260101-2612, 2614-2618, 2620-2629, 2631, 2632, 2634-2637, 3103, 3313, 3601-3604, 4301, 6605, 7410, 8001
22	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
23⁵	80 bp	800 bp	1103, 1108, 1120, 1125	020301-020302 ^{weakly} , 0213, 0226, 0238, 9217 ^{weakly} , 9248 ^{weakly} , 6842 ^{weakly}

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24⁴	470 bp	1070 bp	1121N	0104N, 0321N, 2307N, 2411N
25	215 bp	1070 bp	112401	030102, 8001
26	305 bp	1070 bp	1126	0103, 2632, 3313, 3603, 7410
27	250 bp	1070 bp	1127	01010101-0102, 0104N, 0106-0119, 0121-0130, 0318, 8001
28	245 bp	800 bp	111502	
29⁵	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
30	265 bp	1070 bp	1129	
31	285 bp	1070 bp	1130	
32¹²	205, 295	1070 bp	1131, 1132, 1135	0307, 3004, 3006, 3009, 3017, 3103, 3104

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-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.

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-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.

³Due 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.

⁴Primer mixes 1, 4, 7 and 24 may give rise to nonspecific amplifications.

⁵Short specific PCR fragments are less intense and not as sharp as longer specific bands.

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

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

⁸Primer 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.

⁹Primer 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.

¹⁰Primer mix 15: Specific PCR fragment of 100 bp in the A*1112 and A*0234-023503^{weakly}, 0256, 0262, 0278, 9203, 0302, 0310, 0318, 0331, 2424, 29010101-2903, 2904^{weakly}, 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.

¹¹Primer 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.

¹²Primer 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.

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INTERPRETATION TABLE																
HLA-A*11 SSP subtyping																
Amplification patterns of the A*1101 to A*1136 alleles																
	Well⁵															
	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 ¹																
5'-primer(s) ²	127	28	363	363	363	292	363	553	399	261	363	363	102	282	282	503
	5'-ggg ³	5'-TCC ³	5'-ATA ³	5'-ATA ³	5'-ATA ³	5'-CTC ³	5'-ATA ³	5'-TgC ³	5'-TTA ³	5'-AAC ³	5'-ATA ³	5'-ATA ³	5'-ACC ³	5'-Cag ³	5'-Cag ³	5'-Cag ³
						413		565					565		363	
						5'-CCC ³		5'-gCA ³					5'-gCA ³		5'-ATA ³	
3'-primer(s) ³	282	127	502	559	502	559	539	616	559	341	539	559	257	341	341	559
	5'-gAC ³	5'-CTT ³	5'-CtG ³	5'-CgT ³	5'-CTC ³	5'-CCg ³	5'-TCC ³	5'-CgT ³	5'-CCg ³	5'-CgT ³	5'-TCT ³	5'-CCg ³	5'-gCA ³	5'-CgT ³	5'-Cgg ³	5'-CCg ³
			524										616		538	
			5'-CAC ³										5'-CgT ³		5'-CAA ³	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HLA-A allele ⁴																
*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

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INTERPRETATION TABLE																
HLA-A*11 SSP subtyping																
Amplification patterns of the A*1101 to A*1136 alleles																
Well⁵																
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 ¹
363	363	363	103	282	103	489	3rd I	363	341	363	363	261	363	363	363	5'-primer(s) ²
5'-ATA ³	5'-ATA ³	5'-ATA ³	5'-CCT ³	5'-CAC ³	5'-CCT ³	5'-gCCA ³	5'-ATA ³	5'-ATA ³	5'-ggA ³	5'-ATA ³	5'-ATA ³	5'-AAC ³	5'-ATA ³	5'-ATA ³	5'-ATA ³	
			368													
			5'-gTg ³													
526	565	497	299	341	292	527	621	538	362	570	565	299	587	605	527	3'-primer(s) ³
5'-CCg ³	5'-CAg ³	5'-Tgg ³	5'-TCg ³	5'-CgT ³	5'-gTg ³	5'-CCT ³	5'-CCC ³	5'-CAg ³	5'-TCA ³	5'-CCg ³	5'-CAA ³	5'-CCA ³	5'-CCT ³	5'-gCA ³	5'-CAA ³	
526		542	570												616	
5'-CCA ³		5'-CTg ³	5'-CAC ³												5'-CgC ³	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																HLA-A allele ⁴
																*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.

Lot No.: **30F**

Lot-specific information

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

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		21											295	*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

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

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

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

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.
																*0322
												29				*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.

Lot No.: **30F**

Lot-specific information

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 ⁴																
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

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-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.

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

'w', may be weakly amplified.

Lot No.: **30F**

Lot-specific information

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 ⁴
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.

⁴The A*1128 allele has been renamed to A*111502.

⁵Primer 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.

⁵Primer 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^{weakly}, 0256, 0262, 0278, 9203, 0302, 0310, 0318, 0331, 2424, 29010101-2903, 2904^{weakly}, 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.

Lot No.: **30F**

Lot-specific information

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	+	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-

Lot No.: **30F**

Lot-specific information

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

Lot No.: **30F**

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP[®] HLA-A*11 SSP

Product number: 101.416-12u/04u – without Taq pol.
Lot number: 30F
Expiry date: 2010-November-01
Number of tests: 12 tests – Product No. 101.416-12/12u
4 tests – Product No. 101.416-04/04u
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

Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*11
Product number: 101.416-12u/04u
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

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

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

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

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

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