

Olerup SSP[®] HLA-A*02

Product number:	101.412-24/04 – including <i>Taq</i> pol.
Lot number:	71F
Expiry date:	2011-March-01
Number of tests:	24 tests – Product No. 101.412-24 4 tests – Product No. 101.412-04
Number of wells per test:	96
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. 71F.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] HLA-A*02 LOT

The HLA-A*02 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous Olerup SSP[®] HLA-A*02 lot was made (Lot No. 91E).

Five wells have been added to the HLA-A*02 kit,
wells **92 to 96**.

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

Well	5'-primer	3'-primer	rationale
14	-	-	Exchanged positive control primer pair.
16	-	Exchanged	Exchanged positive control primer pair and exchanged 3'-primer to decrease primer dimer formation tendencies.
72	Exchanged	-	Increased specificity of specific primer pair.
90	Exchanged	Exchanged	Increased specificity of specific primer pair.
91	-	Exchanged	Decreased primer dimer formation tendency.
92	New	New	New primer pair for the A*9246 allele.
93	New	New	New primer pair for the A*9247 allele.
94	New	New	New primer pair for the A*9250 allele.
95	New	New	New primer pair for the A*9251 allele.
96	New	New	New primer pair for the A*9253 allele.

Change in revision R02 compared to R01:

1. The HLA-A*8001 allele is weakly amplified by primer mix 11. This has been added in the Specificity and Interpretation Tables.

Change in revision R03 compared to R02:

1. The HLA-A*0265, 9252, 2919, 3208, 3324, 6805, 6820 and 7406 alleles are weakly amplified by primer mix 60. This has been changed in the Specificity and Interpretation Tables.

PRODUCT DESCRIPTION

HLA-A*02 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the the A*0201 to A*9256 alleles.

PLATE LAYOUT

Each test consists of 96 PCR reactions in a 96 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
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96

The 96 well cut PCR plate is marked with ‘HLA-A*02’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘71F’.

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

INTERPRETATION

The interpretation of HLA-A*02 SSP subtypings will be influenced by three A*01, most A*03, four A*11, most A*23, most A*24, nine A*26, the A*2907 and A*2919, most A*30, the A*3208, five A*33, the A*3408, the A*68, the A*6901, three A*74 and the A*8001 alleles when present on the other haplotype.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*02 alleles, i.e. **A*0201 to A*9256 alleles**, recognized by the HLA Nomenclature Committee in January 2009¹ will give rise to unique amplification patterns by the primers in the HLA-A*02 subtyping kit.

The HLA-A*02 subtyping kit cannot distinguish the A*02010101, A*02010103 to A*020102, A*020104 to A*020115 and *020118 to A*020122 alleles, the A*020601 to A*020606 alleles, the A*021701 and A*021702 alleles, the A*022001 and A*022002 alleles and the A*027401 and A*027402 alleles.

¹HLA-A alleles listed on the IMGT/HLA web page 2009-January-16, release 2.24.0, www.ebi.ac.uk/imgt/hla.

SPECIFICITY TABLE

HLA-A*02 SSP subtyping

Specificities and sizes of the PCR products of the 96 primer mixes used for HLA-A*02 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-A*02 alleles ³	Other amplified HLA-A alleles ⁴
1⁸	360 bp	800 bp	02010101-020115, 020117-020119, 020121-020606, 0208, 0209, 0212-0214, 0216, 0219-0222, 0224-0232N, 0234, 0236-0238, 0240-0246, 0249-0268, 0270-0277, 0279, 0280, 0282N-0286, 0288N, 0289, 0291-0297, 0299, 9201, 9202, 9204-9207, 9209, 9211, 9213N-9223, 9225N-9227, 9231-9235, 9237-9245, 9247, 9249-9256	0309, 1106, 1118, 2603, 2606, 2621, 2630, 2636, 2919, 3013, 3016, 3208, 6805, 6815, 6820, 7406, 8001 ^{weakly}
2	230 bp	1070 bp	02010101-020102, 020104-020115, 020117-020119, 020121-0204, 0207, 0209, 0212, 0213, 0215N-022002, 0222, 0224-0227, 0229-0234, 0236-0240, 0242, 0243N, 0245-0247, 0249, 0250, 0252, 0253N, 0255-025602, 0258-0260, 0262-0268, 0270, 0271, 0273-0277, 0280, 0282N, 0283N, 0285, 0286, 0288N, 0289, 0292-0297, 9201-9205, 9207, 9209-9211, 9213N-9221, 9223, 9225N, 9230-9235, 9238-9241, 9245, 9247-9253, 9255, 9256	0309, 7406
3⁶	175 bp	1070 bp	02010101-020115, 020117-020119, 020121-020302, 0205-0216, 0218, 022001-0222, 0224-0238, 0240-0243N, 0245-025602, 0258-0264, 0266-0278, 0280-0285, 0287-0297, 0299,	68020101-680202, 6815, 6818N, 6823, 6827, 6828, 6831, 6834, 6840, 6844, 6901

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			9201-9207, 9209, 9211-9234, 9236-9248, 9250, 9251, 9253-9255	
4⁵	80 bp	1070 bp	02010101-020115, 020118- 020119, 020121-020122, 020301-0204, 020601-0207, 0209-0213, 0215N-0222, 0224-023501, 023503-0244, 0245 ^{weakly} , 0246, 0249, 0251- 0254, 025601 ^{weakly} , 0257- 0262, 0264-0277, 0278 ^{weakly} , 0279-0297, 0299, 9201, 9202, 9204-9214, 9216- 9221, 9223-9228, 9230- 9243, 9245-9253, 9256	030103 ^{weakly} , 0323, 260702, 3308, 3309, 6830, 7404
5⁵	125 bp	1070 bp	02010101-020115, 020117- 020119, 020121, 020122, 0204, 020601-0207, 0209- 0211, 0214-0218, 022001- 0221, 0225, 0226, 0228- 0236, 0239-0243N, 0245, 0246, 0248, 0251-0253N, 0255-0262, 0264, 0266, 0267, 0268 ^{weakly} , 0269-0297, 0299, 9201, 9203, 9205- 9214, 9216, 9218-9221, 9223-9234, 9238-9241, 9243-9247, 9249-9251, 9253, 9256	0317 ^{weakly} , 2301, 2304-2319Q, 241301-241302, 2418 ^{weakly} , 2424, 2494, 680801- 680802, 6901
6^{5,6}	75 bp	800 bp	0202-020302, 0205, 0208, 0222, 0247, 0249, 0250, 0263, 9202, 9204, 9215, 9217, 9222, 9236, 9248, 9254, 9255	680101-6807, 6810-6825, 6827- 6846
7	175 bp	1070 bp	0202, 0205, 0208, 0214, 0247, 0263, 9202, 9215, 9254, 9255	
8⁹	415, 505 bp	1070 bp	0202, 0205, 0214, 0232N, 0247, 0263, 9202, 9215, 9254, 9255	
9⁵	105 bp	1070 bp	020301, 020302 ^{weakly} , 0225, 0238, 9217, 9248	2610
10⁵	115 bp	800 bp	020301, 020302 ^{weakly} , 0213, 0226, 0238, 0299, 9217, 9248	0317, 2418, 2456, 2610, 6842
11¹⁰	225, 335 bp	1070 bp	0204, 021701-021702, 0257, 0265, 0289, 9208, 9210,	2312, 2428, 2430, 2442, 2489, 2919,

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			9252	3208, 6805, 6820, 7406, 8001 ^{weakly}
12¹¹	195, 235 bp	1070 bp	0205-020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0285, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242-9244, 9254	1106, 1118, 2603, 2606, 2621, 2630, 6805, 6815, 6820
13^{5,8}	145 bp	800 bp	0205, 0208, 0214, 0284, 9254	
14^{5,8,12}	95, 170 bp	800 bp	0207, 0215N, 0218, 0291, 9203, 9212, 9230	
15^{5,8,13}	125, 265, 305 bp	800 bp	0221, 0287, 0296, 9212, 9229, 9236	
16^{5,14}	110, 155 bp	800 bp	0209, 0249, 0250, 0273, 0293, 9222, 9256	2415, 2441, 2451, 2492, 2610, 68020101-680202, 6815, 6818N, 6825, 6827, 6828, 6831, 6834, 6840, 6844
17¹⁵	205, 360 bp	1070 bp	0210, 021701-021702, 0239, 0283N, 9208, 9210, 9248	2312, 2428, 2430, 2442, 2489
18	175 bp	1070 bp	0211, 0229, 0269, 9228	
19⁵	125 bp	1070 bp	0212, 0213, 0219, 0227, 0237, 0238, 0244, 0254, 9242	24020101-240215, 240217-2405, 2407-2411N, 2414, 2415, 2417, 2419, 2420, 2423, 2425-2453, 2455-2464, 2466-2486N, 2488-2490, 2492, 2493, 2495-2497, 3319, 6809, 6826
20	295 bp	1070 bp	0249	
21⁸	220 bp	1070 bp	0215N	
22	160 bp	1070 bp	0219, 0236, 0237, 0254	2301, 2302, 2305-2319Q, 24020101-240217, 2404-2409N, 2411N, 241301-2415, 2417, 2419, 2420, 2423 ^{weakly} , 2424-2432, 2434-2464, 2466-2474, 2476-2493, 2495-2497, 3319, 6826

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23 ^{5,16}	140, 180 bp	800 bp	021701-021702, 0231, 9208, 9210	2494
24 ⁵	115 bp	1070 bp	0227	2459
25 ⁵	145 bp	1070 bp	0216, 9231	2455 ^{weakly}
26 ^{5,17}	125, 165 bp	800 bp	0233, 0252	
27 ^{5,18}	95, 145 bp	1070 bp	0210, 0228, 0250, 0252, 0273, 0293, 0295, 9210, 9214, 9217, 9222, 9255, 9256	1116, 1135, 3013, 3016, 680101- 6811N, 6813-6846
28	235 bp	800 bp	0208, 022001-022002, 0255- 025602, 0262, 0278, 9203, 9228	2620, 3008, 680302
29	220 bp	1070 bp	0245, 0246, 0248, 025601- 025602 ^{weakly} , 0278 ^{weakly} , 0292, 9203 ^{weakly} , 9229	3008 ^{weakly}
30	160 bp	800 bp	0243N, 9204	
31 ^{5,19}	95, 220 bp	1070 bp	0245, 025601-025602, 0278, 0282N, 9203	2308N, 3008
32 ²⁰	230, 255 bp	1070 bp	0246-0248, 0270, 9229	
33	325 bp	1070 bp	0219, 0236, 0237, 0254	
34 ^{5,21}	120, 180 bp	800 bp	0234-023502, 025601- 025602, 0262, 0278, 0288N, 9203	300101-300102, 3008, 301101- 301102, 3014L- 3020, 3023, 3024, 3026
35 ^{5,22}	110, 155 bp	1070 bp	0240, 0251, 0277, 9230	2301, 2302 ^{weakly} , 2304-2313, 2314 ^{weakly} , 2315- 2319Q, 2424, 2471 ^{weakly}
36 ^{5,23}	85, 445 bp	1070 bp	0224, 0265, 0294N, 9235, 9237, 9252	0309, 1106, 1118, 2603, 2606, 2621, 2630, 2636, 2919, 3013, 3016, 3208, 7406, 8001 ^{weakly}
37 ⁵	140 bp	1070 bp	0238, 0268, 9201, 9254	2310 ^{weakly} , 2410, 2446 ^{weakly} , 2491, 2610
38 ⁵	125 bp	800 bp	0241, 0280, 9217	
39 ⁵	75 bp	1070 bp	0218	
40 ^{5,24}	90, 210 bp	1070 bp	0240, 0251, 0267, 9230	3322
41	185 bp	1070 bp	0202, 0205, 0208, 0214, 021701-021702, 0247, 0257, 0258, 0263, 0275, 9202,	2494

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			9208, 9210, 9215, 9254, 9255	
42	225 bp	800 bp	0234-023503, 025601-025602, 0262, 9203	0113, 0117, 03010101-0307, 0309-0311N, 0313-0331, 0333-0335, 0337-0340, 0342-0346, 3408, 7413
43²⁵	180, 225 bp	800 bp	020301-020302, 0222, 0249, 0271, 9204, 9217, 9236, 9248	2622
44	155 bp	800 bp	0259	
45^{5,26}	105, 185 bp	1070 bp	0219, 0239, 0244, 0260, 0279, 0286	0120, 2414, 2493
46^{5,27}	70, 205 bp	800 bp	0261, 0266	
47	165 bp	800 bp	0263	
48⁵	110 bp	1070 bp	0264, 0272	
49⁵	145 bp	1070 bp	0238, 9201, 9254	2310 ^{weakly} , 2410, 2446 ^{weakly} , 2610
50⁵	140 bp	800 bp	02010102L	
51	410 bp	1070 bp	0265, 0280, 9214, 9217, 9252	0309, 1106, 1118, 2919, 3208, 6805, 6820, 7406, 8001 ^{weakly}
52	185 bp	800 bp	0276	3022
53	225 bp	1070 bp	0214, 021701-021702, 0257, 0258, 9208, 9210	2301, 230301-2313, 2315-2319Q, 241301, 2418, 2424, 2494, 2907
54	350 bp	800 bp	027401-027402	
55	200 bp	1070 bp	0230	
56	275 bp	1070 bp	0253N, 0281, 9224	
57⁵	105 bp	1070 bp	0242	
58	255 bp	800 bp	0211, 023501-023503, 0248, 0269, 0278, 0290, 9228	3008, 680302
59⁵	145 bp	800 bp	0297	
60⁸	345 bp	1070 bp	0250, 0265 ^{weakly} , 0273, 9222, 9235, 9252 ^{weakly}	2603, 2606, 2621, 2630, 2636, 2919 ^{weakly} , 3208 ^{weakly} , 6805 ^{weakly} , 6815, 6820 ^{weakly} , 7406 ^{weakly}
61⁷	185 bp	1070 bp	0250, 0273, 9222, 9256	1116, 1135, 680101-6811N, 6813-6846
62	180 bp	800 bp	0269	680101-6832, 6834-6846

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63	160 bp	800 bp	9205	
64⁵	125 bp	1070 bp	9206, 9245	2472
65	185 bp	1070 bp	9207	
66	170 bp	800 bp	9209	
67⁵	130 bp	800 bp	9211	
68	215 bp	1070 bp	9213N	
69	170 bp	1070 bp	9214	
70⁵	125 bp	800 bp	9215	
71⁸	260 bp	800 bp	9216	
72	265 bp	1070 bp	0219, 0244, 9218, 9235, 9249, 9252	2919
73	200 bp	1070 bp	9219	
74	175 bp	800 bp	9220	
75	205 bp	1070 bp	9221	6814
76	230 bp	800 bp	0250, 9222, 9243	
77⁵	85 bp	1070 bp	9223	
78	240 bp	1070 bp	9224	
79⁸	225 bp	1070 bp	9225N	
80	230 bp	1070 bp	9226	
81	315 bp	1070 bp	9227	
82⁵	130 bp	1070 bp	9231	
83⁵	100 bp	800 bp	9232	
84	185 bp	800 bp	9233	
85⁷	260 bp	800 bp	9234	
86	180 bp	800 bp	9235	
87	155 bp	1070 bp	9238	
88	240 bp	1070 bp	9239	
89⁵	115 bp	1070 bp	9240	3315
90	190 bp	800 bp	9241	
91⁵	110 bp	800 bp	0250, 0273, 0293, 9222, 9256	2415, 2441, 2451, 2492, 2610, 68020101-680202, 6815, 6818N, 6825, 6827, 6828, 6831, 6834, 6840, 6844
92	260 bp	1070 bp	9246	2620
93	250 bp	800 bp	9247	2473
94	210 bp	800 bp	9250	
95⁵	135 bp	800 bp	0252, 9205, 9247, 9251	6806
96	250 bp	1070 bp	9253	

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¹ 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*02 SSP typings.

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

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

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

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

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

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*02 subtyping.

In addition, wells number 6, 10, 13 to 16, 23, 26, 28, 30, 34, 38, 42, 43, 44, 46, 47, 50, 52, 54, 58, 59, 62, 63, 66, 67, 70, 71, 74, 76, 83 to 86, 90, 91 and 93 to 95 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-A alleles 1st and 4th exon nucleotide sequences are not available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the 1st and 4th exons are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A*02 alleles will be amplified by primer mixes 1 to 6, 9 to 12, 16, 17, 19, 22 to 25, 27 to 29, 31, 34 to 37, 40 to 43, 45, 49, 51 to 53, 58, 60 to 62, 64, 72, 75, 89, 91 to 93 and 95.

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

⁶The specific primers in primer mixes 3 and 6 may yield less specific PCR products than the other HLA-A*02 primer mixes.

⁷Primer mixes 61 and 85 have a tendency of giving rise to a primer oligomer artefact.

⁸Primer mixes 1, 13, 14, 15, 21, 60, 71 and 79 have a tendency of giving rise to nonspecific amplifications, most pronounced in wells 1, 60, 71 and 79.

⁹Primer mix 8: Specific PCR fragment of 415 bp in the A*0202, 0205, 0214, 0247, 0263, 9202, 9215, 9254 and 9255 alleles. Specific PCR fragment of 505 bp in the A*0232N allele.

¹⁰Primer mix 11: Specific PCR fragment of 225 bp in the A*0289 allele. Specific PCR fragment of 335 bp in the A*0204, 021701-021702, 0257, 0265, 9208, 9210 and 9252 and the A*2312, 2428, 2430, 2442, 2489, 2919, 3208, 6805, 6820 and 7406 alleles.

Primer mix 11 may give rise to a long fragment of approx. 600 bp in some HLA-A alleles. This band should not be considered in the interpretation of HLA-A*02 typings.

¹¹Primer mix 12: Specific PCR fragment of 195 bp in A*0285 allele. Specific PCR fragment of 235 bp in the A*0205 to 020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242 to 9244 and 9254 and the A*1106, 1118, 2603, 2606, 2621, 2630, 6805, 6815 and 6820 alleles.

¹²Primer mix 14: Specific PCR fragment of 95 bp in A*0291 allele. Specific PCR fragment of 170 bp in the A*0207, 0215N, 0218, 9203, 9212 and 9230 alleles.

¹³Primer mix 15: Specific PCR fragment of 125 bp in the A*0221 allele. Specific PCR fragment of 265 bp in the A*0287, 9212, 9229 and 9236 alleles. Specific PCR fragment of 305 bp in the A*0296 allele.

¹⁴Primer mix 16: Specific PCR fragment of 110 bp in the A*0250, 0273, 0293, 9222 and 9256 alleles. Specific PCR fragment of 155 bp in the A*0209 and 0249 alleles.

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¹⁵Primer mix 17: Specific PCR fragment of 205 bp in the A*0283N allele. Specific PCR fragment of 360 bp in the A*0210, 021701-021702, 0239, 9208, 9210, 9248 and the A*2312, 2428, 2430, 2442 and 2489 alleles.

¹⁶Primer mix 23: Specific PCR fragment of 140 bp in the A*0231 allele. Specific PCR fragment of 180 bp in the A*021701-021702, 9208 and 9210 and the A*2494 alleles.

¹⁷Primer mix 26: Specific PCR fragment of 125 bp in the A*0233 allele. Specific PCR fragment of 165 bp in the A*0252 allele.

¹⁸Primer mix 27: Specific PCR fragments of 95 bp in the A*0228, 9255 and the A*3013 and 3016 alleles. Specific PCR fragments of 145 bp in A*0210, 0250, 0252, 0273, 0293, 0295, 9210, 9214, 9217, 9222, 9256 and the A*1116, 1135, 680101 to 6811N, 6813 to 6846 alleles.

¹⁹Primer mix 31: Specific PCR fragment of 95 bp in A*0282N and in the A*2308 alleles. Specific PCR fragments of 220 bp in A*0245, 025601 to 025602, 0278, 9203 and the A*3008 alleles.

²⁰Primer mix 32: Specific PCR fragment of 230 bp in the A*0246, 0248, 0270 and 9229 alleles. Specific PCR fragment of 255 bp in the A*0247 allele.

²¹Primer mix 34: Specific PCR fragment of 120 bp in the A*0288N allele. Specific PCR fragment of 180 bp in the A*0234 to 023502, 025601 to 025602, 0262, 0278, 9203 and the A*300101-300102, 3008, 301101-301102, 3014L to 3020, 3023, 3024 and 3026 alleles.

Primer mix 34 may give rise to a long fragment of approx. 600 bp in some HLA-A alleles. This band should not be considered in the interpretation of HLA-A*02 typings.

²²Primer mix 35: Specific PCR fragment of 110 bp in A*0240, 0251, 9230 and the A*2301, 2302^{weakly}, 2304 to 2313, 2314^{weakly}, 2315 to 2319Q, 2424 and 2471^{weakly} alleles. Specific PCR fragment of 155 bp in A*0277 allele.

²³Primer mix 36: Specific PCR fragment of 85 bp in A*0294N allele. Specific PCR fragments of 445 bp in the A*0224, 0265, 9235, 9237, 9252 and the A*0309, 1106, 1118, 2603, 2606, 2621, 2630, 2636, 2919, 3013, 3016, 3208, 7406 and 8001^{weakly} alleles.

²⁴Primer mix 40: Specific PCR fragment of 90 bp in the A*0267 allele. Specific PCR fragment of 210 bp in the A*0240, 0251, 9230 and in the A*3322 alleles.

²⁵Primer mix 43: Specific PCR fragment of 180 bp in the A*0271 allele. Specific PCR fragment of 225 bp in the A*020301-020302, 0222, 0249, 9204, 9217, 9236, 9248 and the A*2622 alleles.

²⁶Primer mix 45: Specific PCR fragment of 105 bp in the A*0260 allele. Specific PCR fragment of 185 bp in the A*0219, 0239, 0244, 0279, 0286 and the A*0120, 2414 and 2493 alleles.

²⁷Primer mix 46: Specific PCR fragment of 70 bp in the A*0266 allele. Specific PCR fragment of 205 bp in the A*0261 allele.

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Well No.									1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4
HLA-A allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8					
*0236	+	+	+	+	+																																						
*0237	+	+	+	+																																							
*0238	+	+	+	+					+	+																																	
*0239		+		+	+																																						
*0240	+	+	+	+	+																																						
*0241	+		+	+	+																																						
*0242	+	+	+	+	+																																						
*0243N	+	+	+	+	+																																						
*0244	+			+																																							
*0245	+	+	+	+	W	+																																					
*0246	+	+	+	+	+																																						
*0247		+	+						+	+	+	+																															
*0248			+		+																																						
*0249	+	+	+	+																																							
*0250	+	+	+																																								
*0251	+		+	+	+																																						
*0252	+	+	+	+	+																																						
*0253N	+	+	+	+	+																																						
*0254	+		+																																								
*0255	+	+	+	+	+																																						
*025601	+	+	+	W	+																																						
*025602	+	+	+		+																																						
*0257	+																																										
*0258	+	+	+	+	+																																						
*0259	+	+	+	+	+																																						
*0260	+	+	+	+	+																																						
*0261	+		+	+	+																																						
*0262	+	+	+	+	+																																						
*0263	+	+	+																																								
*0264	+	+	+	+	+																																						
*0265	+	+																																									
*0266	+	+	+	+	+																																						
*0267	+	+	+	+	+																																						
*0268	+	+	+	+	W	+																																					
*0269			+	+	+																																						
*0270	+	+	+	+	+																																						
*0271	+	+	+	+	+																																						
*0272	+		+	+	+																																						
*0273	+	+	+	+	+																																						
*027401-027402	+	+	+	+	+																																						
*0275	+	+	+	+	+																																						
*0276	+	+	+	+	+																																						
*0277	+	+	+	+	+																																						
*0278		+	+	W	+																																						
*0279	+			+	+																																						
*0280	+	+	+	+	+																																						
*0281			+	+	+																																						
*0282N	+	+	+	+	+																																						
*0283N	+	+	+	+	+																																						
*0284	+		+	+	+																																						
*0285	+	+	+	+	+																																						
*0286	+	+		+	+																																						
*0287			+	+	+																																						
*0288N	+	+	+	+	+																																						
*0289	+	+	+	+	+																																						
*0290	+	+	+	+	+																																						
*0291	+		+	+	+																																						
*0292	+	+	+	+	+																																						

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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-A*02 subtyping. .

In addition, wells number 6, 10, 13, 15, 23, 26, 28, 30, 34, 38, 42, 43, 44, 46, 47, 50, 52, 54, 58, 59, 62, 63, 66, 67, 70, 71, 74, 76, 83, 84, 85, 86, 90 and 91 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

²The sequence of A*020116 has been renamed to A*9234.

The sequence of A*020120 has been shown to be identical to A*020118

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

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

³Primer mix 8: Specific PCR fragment of 415 bp in the A*0202, 0205, 0214, 0247, 0263, 9202, 9215, 9254 and 9255 alleles. Specific PCR fragment of 505 bp in the A*0232N allele.

Primer mix 11: Specific PCR fragment of 225 bp in the A*0289 allele. Specific PCR fragment of 335 bp in the A*0204, 021701-021702, 0257, 0265, 9208, 9210 and 9252 and the A*2312, 2428, 2430, 2442, 2489, 2919, 3208, 6805, 6820 and 7406 alleles.

Primer mix 11 may give rise to a long fragment of approx. 600 bp in some HLA-A alleles. This band should not be considered in the interpretation of HLA-A*02 typings.

Primer mix 12: Specific PCR fragment of 195 bp in A*0285 allele. Specific PCR fragment of 235 bp in the A*0205 to 020606, 0208, 0210, 0214, 0221, 0228, 0241, 0244, 0251, 0254, 0257, 0261, 0272, 0279, 0284, 0291, 0299, 9206, 9208, 9222, 9226, 9227, 9237, 9242 to 9244 and 9254 and the A*1106, 1118, 2603, 2606, 2621, 2630, 6805, 6815 and 6820 alleles.

Primer mix 14: Specific PCR fragment of 95 bp in A*0291 allele. Specific PCR fragment of 170 bp in the A*0207, 0215N, 0218, 9203, 9212 and 9230 alleles.

Primer mix 15: Specific PCR fragment of 125 bp in the A*0221 allele. Specific PCR fragment of 265 bp in the A*0287, 9212, 9229 and 9236 alleles. Specific PCR fragment of 305 bp in the A*0296 allele.

Primer mix 16: Specific PCR fragment of 110 bp in the A*0250, 0273, 0293, 9222 and 9256 alleles. Specific PCR fragment of 155 bp in the A*0209 and 0249 alleles.

Primer mix 17: Specific PCR fragment of 205 bp in the A*0283N allele. Specific PCR fragment of 360 bp in the A*0210, 021701-021702, 0239, 9208, 9210, 9248 and the A*2312, 2428, 2430, 2442 and 2489 alleles.

Primer mix 23: Specific PCR fragment of 140 bp in the A*0231 allele. Specific PCR fragment of 180 bp in the A*021701-021702, 9208 and 9210 and the A*2494 alleles.

Primer mix 26: Specific PCR fragment of 125 bp in the A*0233 allele. Specific PCR fragment of 165 bp in the A*0252 allele.

Primer mix 27: Specific PCR fragments of 95 bp in the A*0228, 9255 and the A*3013 and 3016 alleles. Specific PCR fragments of 145 bp in A*0210, 0250, 0252, 0273, 0293, 0295, 9210, 9214, 9217, 9222, 9256 and the A*1116, 1135, 680101 to 6811N, 6813 to 6846 alleles.

Primer mix 31: Specific PCR fragment of 95 bp in A*0282N and in the A*2308 alleles. Specific PCR fragments of 220 bp in A*0245, 025601 to 025602, 0278, 9203 and the A*3008 alleles.

Primer mix 32: Specific PCR fragment of 230 bp in the A*0246, 0248, 0270 and 9229 alleles. Specific PCR fragment of 255 bp in the A*0247 allele.

Primer mix 34: Specific PCR fragment of 120 bp in the A*0288N allele. Specific PCR fragment of 180 bp in the A*0234 to 023502, 025601 to 025602, 0262, 0278, 9203 and the A*300101-300102, 3008, 301101-301102, 3014L to 3020, 3023, 3024 and 3026 alleles.

Primer mix 34 may give rise to a long fragment of approx. 600 bp in some HLA-A alleles. This band should not be considered in the interpretation of HLA-A*02 typings.

Primer mix 35: Specific PCR fragment of 110 bp in A*0240, 0251, 9230 and the A*2301, 2302^{weakly}, 2304 to 2313, 2314^{weakly}, 2315 to 2319Q, 2424 and 2471^{weakly} alleles. Specific PCR fragment of 155 bp in A*0277 allele.

Primer mix 36: Specific PCR fragment of 85 bp in A*0294N allele. Specific PCR fragments of 445 bp in the A*0224, 0265, 9235, 9237, 9252 and the A*0309, 1106, 1118, 2603, 2606, 2621, 2630, 2636, 2919, 3013, 3016, 3208, 7406 and 8001^{weakly} alleles.

Primer mix 40: Specific PCR fragment of 90 bp in the A*0267 allele. Specific PCR fragment of 210 bp in the A*0240, 0251, 9230 and in the A*3322 alleles.

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Primer mix 43: Specific PCR fragment of 180 bp in the A*0271 allele. Specific PCR fragment of 225 bp in the A*020301-020302, 0222, 0249, 9204, 9217, 9236, 9248 and the A*2622 alleles.

Primer mix 45: Specific PCR fragment of 105 bp in the A*0260 allele. Specific PCR fragment of 185 bp in the A*0219, 0239, 0244, 0279, 0286 and the A*0120, 2414 and 2493 alleles.

Primer mix 46: Specific PCR fragment of 70 bp in the A*0266 allele. Specific PCR fragment of 205 bp in the A*0261 allele.

w', might be weakly amplified.

Primers

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	360	230	175	80	125	75	175	415	105	115	225	195
PCR product								505			335	235
Length of int.	800	1070	1070	1070	1070	800	1070	1070	1070	800	1070	1070
pos. control ¹												
5'-primer(s) ²	292	102	362	200	453	506	402	270	453	453	292	98
	5'-CT C 3'	5'-ACA 3'	5'-g Ag 3'	5'-C CA 3'	5'-AAA 3'	5'-g CA 3'	5'-CTg 3'	5'-AAA 3'	5'-AAA 3'	5'-AAA 3'	5'-CT C 3'	5'-C TA 3'
											648	362
											5'-CAA 3'	5'-g Ag 3'
3'-primer(s) ³	368	292	497	240	539	539	538	402	517	527	362	292
	5'-CA T 3'	5'-gTg 3'	5'-Tg g 3'	5'-g gA 3'	5'-TC A 3'	5'-TC C 3'	5'-CCA 3'	5'-C gC 3'	5'-CgT 3'	5'-CC T 3'	5'-TC A 3'	5'-gTg 3'
				241			538	493			831	518
				5'-CgC 3'			5'-CAA 3'	5'-CTA 3'			5'-T CC 3'	5'-CCA 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec.	13	14	15	16	17	18	19	20	21	22	23	24
PCR product	145	95	125	110	205	175	125	295	220	160	140	115
		170	265	155	360						180	
Length of int.			305									
pos. control ¹												
5'-primer(s) ²	800	800	800	800	1070	1070	1070	1070	1070	1070	800	1070
	98	368	78	385	292	144	453	2nd I	666	453	194	453
	5'-C TA 3'	5'-g Tg 3'	5'-TCT 3'	5'-gg C 3'	5'-CT C 3'	5'-gCA 3'	5'-AAA 3'	5'-CC A 3'	5'-gAA 3'	5'-AAA 3'	5'-C gg 3'	5'-AAA 3'
	355	445		666	666						368	
	5'-CC T 3'	5'-TC T 3'		5'-gAA 3'	5'-gAA 3'						5'-g TT 3'	
3'-primer(s) ³	200	497	160	453	368	268	538	538	843	570	292	527
	5'-TC C 3'	5'-Tg g 3'	5'-gTT 3'	5'-T CT 3'	5'-CA A 3'	5'-TTg 3'	5'-CTg 3'	5'-CCg 3'	5'-g TT 3'	5'-C Cg 3'	5'-gTg 3'	5'-CC g 3'
	453		302	779	829	290					506	
	5'-T CT 3'		5'-gg T 3'	5'-CT T 3'	5'-CTA 3'	5'-CA A 3'					5'-Tg T 3'	
			343									
			5'-ACA 3'									
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

Well No.	25	26	27	28	29	30	31	32	33	34	35	36	
Length of spec.	145	125	95	235	220	160	95	230	325	120	110	85	
PCR product		165	145					220	255		180	155	445
Length of int.	1070	800	1070	800	1070	800	1070	1070	1070	800	1070	1070	
pos. control ¹													
5'-primer(s) ²	453	2nd I	238	78	78	666	78	78	2nd I	144	453	292	
	5'-AAA 3'	5'-CC A 3'	5'-Ag A 3'	5'-TCT 3'	5'-TCT 3'	5'-gAA 3'	5'-TCT 3'	5'-TCT 3'	5'-CC A 3'	5'-gCA 3'	5'-AAA 3'	5'-CT C 3'	
			391				564			420			
			5'-AC g 3'				5'-TgA 3'			5'-TAg 3'			
			391										
			5'-AC g 3'										
3'-primer(s) ³	559	368	292	270	257	781	256	265	570	282	524	335	
	5'-CTC 3'	5'-CA g 3'	5'-gTg 3'	5'-A Cg 3'	5'-CC T 3'	5'-C CC 3'	5'-CTg 3'	5'-CCC 3'	5'-C Cg 3'	5'-g AC 3'	5'-CA C 3'	5'-. gC 3'	
		411	497	270		791	616	290		497	569	453	
		5'-T CA 3'	5'-Tg g 3'	5'-A CA 3'		5'-Ag T 3'	5'-CgT 3'	5'-gA C 3'		5'-Tg g 3'	5'-AC A 3'	5'-T Cg 3'	
Well No.	25	26	27	28	29	30	31	32	33	34	35	36	

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Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec.	140	125	75	90	185	225	180	155	105	70	165	110
PCR product				210			225		185	205		
Length of int.	1070	800	1070	1070	1070	800	800	800	1070	800	800	1070
pos. control ¹												
5'-primer(s) ²	453	414	453	355	355	98	355	125	355	78	78	235
	5'-AAA 3'	5'-CAG 3'	5'-AAA 3'	5'-CC g 3'	5'-CC C 3'	5'-C TT 3'	5'-CC g 3'	5'-C gA 3'	5'-CC g 3'	5'-TCT 3'	5'-TCT 3'	5'-Ag A 3'
					692					746		419
					5'-g AA 3'					5'-g AT 3'		5'-g TC 3'
3'-primer(s) ³	542	497	485	403	506	282	494	240	419	241	203	292
	5'-CT T 3'	5'-Tg g 3'	5'-CC T 3'	5'-gCA 3'	5'-Tg T 3'	5'-g AC 3'	5'-TC C 3'	5'-g gA 3'	5'-Cg A 3'	5'-CgC 3'	5'-TC A 3'	5'-gTg 3'
	559			524	831		539		497	777		497
	5'-CCg 3'			5'-CA C 3'	5'-T CC 3'		5'-TC C 3'		5'-Tg A 3'	5'-g CA 3'		5'-Tg g 3'
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
Length of spec.	145	140	410	185	225	350	200	275	105	255	145	345
PCR product												
Length of int.	1070	800	1070	800	1070	800	1070	1070	1070	800	800	1070
pos. control ¹												
5'-primer(s) ²	453	-111	292	98	355	2nd I	81	78	78	78	666	292
	5'-AAA 3'	5'-AT C 3'	5'-CT C 3'	5'-C TC 3'	5'-CC C 3'	5'-CC A 3'	5'-CAG 3'	5'-TCT 3'	5'-TCT 3'	5'-TCT 3'	5'-gAA 3'	5'-CT C 3'
3'-primer(s) ³	559	4	418	240	538	595	240	302	142	292	768	355
	5'-CCg 3'	5'-ggC 3'	5'-gTC 3'	5'-g gA 3'	5'-CAA 3'	5'-CCg 3'	5'-g gA 3'	5'-gg C 3'	5'-TgA 3'	5'-gT C 3'	5'-g Tg 3'	5'-gA T 3'
						595		324				
						5'-CCT 3'		5'-T AC 3'				
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Well No.	61	62	63	64	65	66	67	68	69	70	71	72
Length of spec.	185	180	160	125	185	170	130	215	170	125	260	265
PCR product												
Length of int.	1070	800	800	1070	1070	800	800	1070	1070	800	800	1070
pos. control ¹												
5'-primer(s) ²	355	666	420	530	78	112	406	78	2nd I	78	78	2nd I
	5'-CC A 3'	5'-gAA 3'	5'-TAT 3'	5'-g gT 3'	5'-TCT 3'	5'-CC T 3'	5'-gC A 3'	5'-TCT 3'	5'-CC A 3'	5'-TCT 3'	5'-TCT 3'	5'-CC A 3'
3'-primer(s) ³	497	806	538	616	221	240	497	251	413	164	298	506
	5'-Tg g 3'	5'-CC A 3'	5'-CAA 3'	5'-CgT 3'	5'-AC A 3'	5'-g gA 3'	5'-Tg g 3'	5'-CC T 3'	5'-gC C 3'	5'-gC T 3'	5'-CAG 3'	5'-Tg C 3'
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

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Well No.	73	74	75	76	77	78	79	80	81	82	83	84
Length of spec.	200	175	205	230	85	240	225	230	315	130	100	185
PCR product												
Length of int.	1070	800	1070	800	1070	1070	1070	1070	1070	1070	800	800
pos. control ¹												
5'-primer(s) ²	78	104	453	48	78	666	78	666	2nd I	666	808	78
	5'-TCT 3'	5'-A TA 3'	5'-AAA 3'	5'-gCT 3'	5'-TCT 3'	5'-gAA 3'	5'-TCT 3'	5'-gAA 3'	5'-CC A 3'	5'-gAA 3'	5'-Cg A 3'	5'-TCT 3'
3'-primer(s) ³	239	240	616	106	121	866	260	853	559	755	868	221
	5'-gA T 3'	5'-g gA 3'	5'-CgC 3'	5'-CAT 3'	5'-gCA 3'	5'-AA A 3'	5'-T. T 3'	5'-CAT 3'	5'-ACT 3'	5'-CC A 3'	5'-CAA 3'	5'-AC C 3'
Well No.	73	74	75	76	77	78	79	80	81	82	83	84

Well No.	85	86	87	88	89	90	91	92	93	94	95	96
Length of spec.	260	180	155	240	115	190	110	260	250	210	135	250
PCR product												
Length of int.	800	800	1070	1070	1070	800	800	1070	800	800	800	1070
pos. control ¹												
5'-primer(s) ²	666	2nd I	78	78	652	143	385	78	409	124	412	355
	5'-gAA 3'	5'-CC A 3'	5'-TCT 3'	5'-TCT 3'	5'-CT g 3'	5'-C gT 3'	5'-gg C 3'	5'-TCT 3'	5'-gg C 3'	5'-gC A 3'	5'-AT g 3'	5'-CC g 3'
3'-primer(s) ³	884	423	193	277	727	292	453	299	616	292	506	565
	5'-ggA 3'	5'-T AA 3'	5'-Cgg 3'	5'-ggT 3'	5'-CCA 3'	5'-gTg 3'	5'-T CT 3'	5'-TC g 3'	5'-CgT 3'	5'-gTg 3'	5'-Tg T 3'	5'-CAT 3'
Well No.	85	86	87	88	89	90	91	92	93	94	95	96

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*02 subtyping.

In addition, wells number 6, 10, 13 to 16, 23, 26, 28, 30, 34, 38, 42 to 44, 46, 47, 50, 52, 54, 58, 59, 62, 63, 66, 67, 70, 71, 74, 76, 83 to 86, 90, 91 and 93 to 95 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 5' upstream region, 2nd, 3rd or 4th exons 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.

³The nucleotide position, in the 2nd, 3rd or 4th 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.

				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Lot No.:	200626001	200626002	200957803	200626004	200626005	200626006	200957807	200738508	200626009	200626010	200849411	200626012	200738513	200957814	200738515	200957816
	IHWC cell line	A*	A*																	
1	9001 SA	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*3001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0201	*2603	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0201	*3101	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953549	*0301	*8001	W	-	-	-	-	-	-	-	-	-	W	-	-	-	-	-	-
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217		-	+	-	+	+	-	-	-	-	-	+	-	-	-	-	-	-
22	9056 KOSE	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
23	9061 31227ABO	*0201		+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205		+	-	+	+	-	+	+	+	-	-	-	+	+	-	-	-	-
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*0201	*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	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-A*02 SSP subtyping kit																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Lot No.:	200626017	200626018	200957819	200738520	200738521	200626022	200849423	200738524	200626025	200738526	200849427	200626028	200626029	200626030	200849431	200626032
	IHWC cell line	A*	A*																	
1	9001 SA	*2402		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	
2	9280 LK707	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	9011 E4181324	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275 GU373	*3001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009 KAS011	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353 SM	*0201	*2603	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020 QBL	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	9007 DEM	*0201	*3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	9107 LKT3	*2402		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075 DKB	*2402		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	9282 CTM3953549	*0301	*8001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064 AMALA	*0217		+	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9061 31227ABO	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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	*0201	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

CELL LINE VALIDATION SHEET																				
HLA-A*02 SSP subtyping kit																				
				Well																
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
				Lot No.:	200849433	200738534	200626035	200626036	200738537	200738538	200738539	200738540	200957841	200626042	200626043	200626044	200626045	200626046	200738547	200626048
	IHWC cell line	A*	A*																	
1	9001 SA	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	9280 LK707	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	9011 E4181324	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275 GU373	*3001		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009 KAS011	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353 SM	*0201	*2603	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020 QBL	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	9007 DEM	*0201	*3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	9107 LKT3	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075 DKB	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	9282 CTM3953549	*0301	*8001	-	-	-	W	-	-	-	-	-	+	-	-	-	-	-	-	
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064 AMALA	*0217		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9061 31227ABO	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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	*0201	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

CELL LINE VALIDATION SHEET																			
HLA-A*02 SSP subtyping kit																			
				Well															
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
				200738549	200738550	200738551	200738552	200957853	200738554	200849455	200738556	200957857	200738558	200738559	200738560	200738561	200738562	200738563	200849464
	IHWC cell line	A*	A*	Lot No.:															
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	*3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953549	*0301	*8001	-	-	W	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9061 31227ABO	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*0201	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																			
HLA-A*02 SSP subtyping kit																			
				Well															
				65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
				Lot No.:															
				200738565	200957866	200738567	200738568	200957869	200738570	200738571	200957872	200738573	200738574	200738575	200957876	200738577	200738578	200738579	200738580
	IHWC cell line	A*	A*																
1	9001 SA	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*3001		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*0101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0201	*2603	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9007 DEM	*0201	*3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953549	*0301	*8001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9061 31227ABO	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*0201	*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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																			
HLA-A*02 SSP subtyping kit																			
				Well															
				81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
				200738581	200738582	200738583	200738584	200738585	200849486	200849487	200849488	200849489	200957890	200957891	200957892	200957893	200957894	200957895	200957896
	IHWC cell line	A*	A*	Lot No.:															
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	*3101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*2601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953549	*0301	*8001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*3301	*7401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9061 31227ABO	*0201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*3301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CJ1007	*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	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31012		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*0201	*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.: **71F**

Lot-specific information

www.olerup-ssp.com

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*02 SSP

Product number: 101.412-24/04 – including *Taq* pol.

Lot number: 71F

Expiry date: 2011-March-01

Number of tests: 24 tests – Product No. 101.412-24

4 tests – Product No. 101.412-04

Number of wells per test: 96

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2006-260-01	33	2008-494-33	65	2007-385-65
2	2006-260-02	34	2007-385-34	66	2009-578-66
3	2009-578-03	35	2006-260-35	67	2007-385-67
4	2006-260-04	36	2006-260-36	68	2007-385-68
5	2006-260-05	37	2007-385-37	69	2009-578-69
6	2006-260-06	38	2007-385-38	70	2007-385-70
7	2009-578-07	39	2007-385-39	71	2007-385-71
8	2007-385-08	40	2007-385-40	72	2009-578-72
9	2006-260-09	41	2009-578-41	73	2007-385-73
10	2006-260-10	42	2006-260-42	74	2007-385-74
11	2008-494-11	43	2006-260-43	75	2007-385-75
12	2006-260-12	44	2006-260-44	76	2009-578-76
13	2006-260-13	45	2006-260-45	77	2007-385-77
14	2009-578-14	46	2006-260-46	78	2007-385-78
15	2007-385-15	47	2007-385-47	79	2007-385-79
16	2009-578-16	48	2006-260-48	80	2007-385-80
17	2006-260-17	49	2007-385-49	81	2007-385-81
18	2006-260-18	50	2007-385-50	82	2007-385-82
19	2009-578-19	51	2007-385-51	83	2007-385-83
20	2007-385-20	52	2007-385-52	84	2007-385-84
21	2007-385-21	53	2009-578-53	85	2007-385-85
22	2006-260-22	54	2007-385-54	86	2008-494-86
23	2008-494-23	55	2008-494-55	87	2008-494-87
24	2007-385-24	56	2007-385-56	88	2008-494-88
25	2006-260-25	57	2009-578-57	89	2008-494-89
26	2007-385-26	58	2007-385-58	90	2009-578-90
27	2008-494-27	59	2007-385-59	91	2009-578-91
28	2006-260-28	60	2007-385-60	92	2009-578-92
29	2006-260-29	61	2007-385-61	93	2009-578-93
30	2006-260-30	62	2007-385-62	94	2009-578-94
31	2008-494-31	63	2007-385-63	95	2009-578-95
32	2006-260-32	64	2008-494-64	96	2009-578-96

Lot No.: **71F**

Lot-specific information

www.olerup-ssp.com

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

No DNAs carrying the alleles to be amplified by primer solutions 15, 20, 21, 24, 26, 32, 33, 38 to 40, 43, 44 to 48, 50, 52, 54, 56, 57, 59, 63 to 90 and 92 to 96 were available.

The specificities of the primers in primer solutions 15, 20, 26, 32, 33, 40, 45, 46, 52, 56, 69, 70, 72, 92, 93 and 95 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer.

In primer solutions 21, 24, 29, 30, 39, 47, 54, 57, 59, 65, 68, 71, 73, 75 to 82, 84 to 89 and 96 it was only possible to test the 5'-primer, the 3'-primer were not possible to test.

In primer solutions 38, 44, 48, 63, 64, 66, 67, 74, 90 and 94 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solutions 4, 8, 12, 15, 17, 18, 26, 28, 32, 35 to 37, 40, 43, 45, 46 and 56 one of the 3'-primers was not possible to test.

In primer solutions 11, 14, 23, 27, 34, 41 and 46 one of the 5'-primers was not possible to test.

In primer solutions 50 and 83 neither the 5'-primer nor the 3'-primer was possible to test.

Additional primers in primer solutions 10 to 13, 17, 23, 27, 31, 34 and 41 were tested by separately adding either one additional 3'-primer or one additional 5'-primer.

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

Date of approval: 2010-February-15

Approved by:

Quality Control, Supervisor

Lot No.: **71F**

Lot-specific information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*02
Product number: 101.412-24/04
Lot number: 71F

Intended use: HLA-A*02 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
2010-February-15

Olle Olerup
Managing Director

Lot No.: **71F**

Lot-specific information

www.olerup-ssp.com

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E-mail: info-ssp@olerup.com

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Distributed by:

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

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Fax: 610-344-7989

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