

Olerup SSP[®] HLA-A-B-DR SSP Combi Tray

Product number:	101.701-24u/06u – without <i>Taq</i> pol.
Lot number:	78G
Expiry date:	2012-March-01
Number of tests:	24 tests – Product No. 101.701-24u 6 tests – Product No. 101.701-06u
Number of wells per test:	95 +1
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 78G.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] HLA-A-B-DR SSP COMBI TRAY LOT

The **HLA-A low resolution** specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP[®]* HLA-A-B-DR SSP Combi Tray lot was made (**Lot No. 23G**).

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

Well	5'-primer	3'-primer	rationale
1	Added	-	Primer added for the A*0143 allele.
23	Added	Added	Primer pair added for the A*0363 allele.

The **HLA-B low resolution** specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-A-B-DR SSP Combi Tray lot was made (**Lot No. 23G**).

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

Well	5'-primer	3'-primer	rationale
34	Moved	Moved	Primer pair moved to well 38, for increased specificity.
38	Added	Added	Primer pair from well 34.
43	Added	-	Primer pair added for the B*8203 allele.
62	-	Added	Primer added for the B*5218 allele.
63	Exchanged	-	Improved allelic resolution.

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The **HLA-DR low resolution** specificity and interpretation tables have been updated for the HLA-DRB alleles described since the previous *Olerup* SSP® HLA-A-B-DR SSP Combi Tray lot was made (**Lot No. 23G**).

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

Well	5'-primer	3'-primer	rationale
73	-	Added	New primer for the DRB1*0123 and DRB1*0124 alleles.
75	-	Exchanged, added	Exchanged 3'-primers to amplify all DRB1*15 alleles and no DRB1*16 alleles.
90	Added	Added	Primer pair added for the DRB4*01030102N allele.
93	Added	-	Primer added for the DRB1*0114 allele.
94	-	Added	Primer added for the DRB4*0108 allele.

Changes in revision R01 compared to R00:

1. The HLA-B*5150 allele is amplified in primer mix 60.
2. The DRB1*1419 and 1421 alleles are weakly amplified in primer mix 91.

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

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

Length of PCR product	105	200	105	80	75	80
5'-primer¹	164	340	440	45	45	43
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tg g ^{3'}	5'-Tg g ^{3'}	5'-Tg g ^{3'}
3'-primer²	231	2nd I	507	59	58	57
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}
A*	+	+	+			
B*	+	+	+			
Cw*	+	+	+			
DRB1				+	+	
DRB3				+	+	
DRB5				+		
DQB1					+	
DPB1						+

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

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

PRODUCT DESCRIPTION

HLA-A-B-DR SSP Combi Tray

CONTENT

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

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

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

PLATE LAYOUT

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

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

Wells 1 to 24 – HLA-A low resolution primers.

Wells 25 to 72 – HLA-B low resolution primers.

Wells 73 to 95 – HLA-DR low resolution primers.

Well 96 – Negative Control.

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

Well No. 1 is marked with the Lot No. '78G'.

A faint row of numbers is seen between wells 1 and 2 or wells 7 and 8 of the PCR trays. These stem from the manufacture of the trays, and should be disregarded.

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

INTERPRETATION

Only HLA-A alleles will be amplified by the 24 wells of the HLA-A low resolution primer set, **wells 1 to 24**, except that primer mix 6 will amplify the B*1827 allele. Thus, the interpretation of HLA-A low resolution is only influenced by this HLA-B allele and not by other HLA Class I genes.

Only HLA-B alleles will be amplified by the 48 wells of the HLA-B low resolution, primer set, **wells 25 to 72**, except that the Cw*0130 allele will be weakly amplified by primer mix 28, the Cw*0206 allele will be weakly amplified by primer mix 67,

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the Cw*0223 allele will be amplified by primer mix 25, the HLA-Cw*0305, 0325 and 0327 alleles will be amplified by primer mix 27, the Cw*0620 allele will be amplified by primer mix 69, the Cw*0746 allele will be amplified by primer mix 32, the Cw*150204 allele will be amplified by primer mix 64 and the Cw*1525 allele will be amplified by primer mix 53. Thus, the interpretation of HLA-B low resolution typings is only influenced by these HLA-Cw alleles and not by other alleles of other HLA class I genes.

Only HLA-DRB alleles will be amplified by the 23 wells the DR low resolution primer set, **wells 73 to 95**. Thus, the interpretation of DR low resolution typings is not influenced by other HLA class II genes.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A alleles, i.e. **A*0101 to A*8001**, recognized by the HLA Nomenclature Committee in January 2010¹ will be amplified by the primers in the HLA-A low resolution primer set, **wells 1 to 24**. The HLA-A alleles will be grouped into their corresponding serological specificities².

All the HLA-B alleles, i.e. **B*0702 to B*8301**, recognized by the HLA Nomenclature Committee in January 2010¹ will be amplified by the primers in the HLA-B low resolution primer set, **wells 25 to 72**. The HLA-B alleles will be grouped into their corresponding serological specificities³.

All the HLA-DRB1, -DRB3, -DRB4⁴ and -DRB5 alleles, i.e. **DRB1*010101 to 1003, DRB3*01010201 to DRB3*0303, DRB4*01010101 to DRB4*0108, DRB5*010101 to DRB5*0205**, recognized by the HLA Nomenclature Committee in January 2010¹ will be amplified by the primers in the DR low resolution primer set, **wells 73 to 95**. The HLA-DRB alleles will be grouped into their corresponding serological specificities⁵.

¹HLA-A, HLA-B and HLA-DRB alleles listed on the IMGT/HLA web page 2010-January-15, release 2.28.0, www.ebi.ac.uk/imgt/hla.

²The A*0318 and A*2619 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.
The A*2314, A*2405, A*241302 and A*2424 alleles will give rise to identical amplification patterns. These four alleles can be separated by the respective high resolution SSP primer sets.

The A*2631, A*6611 and A*6612 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

³The B*0826, B*0850 and the B*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*1408 and the B*3925N, B*3930, B*3932 to 3934, 3947 and 3950 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*180702, B*1829 and the B*3532, B*3537, B*3553N, B*3564, B*356801-356802 and B*3599 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*4109 and the B*4502 and B*4503 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

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

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

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⁴The DRB4*0201N and DRB4*0301N null alleles will not be amplified by the DR low resolution primer set.

⁵The DRB1*0809, DRB1*0821 and DRB1*1415 alleles yield identical amplification patterns except for the specific PCR product yielded by the DRB3 gene in linkage disequilibrium with the DRB1*1415 allele.

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

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

The DRB1*1313 and DRB1*1484 alleles yield identical amplification patterns with the DR low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

SPECIFICITY TABLE

HLA-A low resolution primer set

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-A low resolution SSP typing

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	HLA-A serology ³	Amplified HLA-A alleles ^{4,9,10}
1⁵	120, 140 bp	800 bp	A1, A36	*01010101-0104N, 0106-0151, 3601-3605
2⁶	135, 200, 255 bp	1070 bp	A2, A203, A210, A19, A28	*02010101-020115, 020117-020119, 020121-022202, 0224-023501, 023503-0247, 0249-029702, 0299, 9201-9221, 9223-9228, 9230-9299
3	205, 235 bp	1070 bp	A1, A3, A11, A32, A34, A36	*0112, 0119, 0121, 03010101-0317, 0319-0374, 1125, 2492, 3029, 3204, 3402-3404, 3407, 3408, 3602
4	190 bp	800 bp	A1, A3, A11, A30, A36	*01010101-0104N, 0106, 0107, 0109-0111N, 0113, 0116N-0118N, 0120-0129, 0131N-0151, 0278, 9269, 0312, 0318, 110101-1127, 1129-1155, 2619, 3008, 3604
5	160, 535 bp	800 bp	A3, A9, A23, A24, A2403, A31, A32	*0330, 230101-2325, 24020101-2411N, 241301-2415, 2417-2464, 2466-2488, 2490N-2499, 3108, 3205, 3213
6	165, 200 bp	800 bp	A2, A9, A23, A24, A29, A80	*9222, 230101-2325, 2405, 241302, 2424, 2907, 8001, B*1827
7	175, 200 bp	1070 bp	A2, A3, A9, A23, A24, A2403, A26	*021701 ^w , 021702 ^w , 2314, 24020101-2411N, 241301, 241302, 2417-2450, 2454-2456, 2458-2463, 2466-2491, 2493, 2495-2499, 2616, 3319, 6845
8	165, 200 bp	800 bp	A2, A3, A10, A11, A25, A26, A28, A32, A34, A66, A68, A69	*0151, 0255, 0324, 0350, 1110, 250101-2511, 260101-2606, 2608-2615, 2617, 2618, 2620-2642, 3215, 340101-3408, 6601-6612, 680101-6848, 6901
9⁵	75 bp	800 bp	A3, A25, A32	*250101-2511, 320101-3202, 3204, 3206-3221
10^{5,7}	85 bp	1070 bp	A10, A26	*0151, 9246, 260101-2602, 2604, 260701-2618, 2620, 2622-2629, 2632-2642, 3313

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11 ⁵⁻⁷	80, 175, 500 bp	1070 bp	A1, A9, A10, A11, A26, A31, A34, A66	*0113, 0128, 0363, 110101-1127, 1129-1155, 2419, 2444, 2603, 2606, 2621, 3103, 340101-3408, 6601, 6604-6610
12	185 bp	800 bp	A10, A25, A26, A31, A34, A43, A66	*1111, 2506, 2609, 3103, 3104, 340101-3408, 4301, 6602, 6603
13	175, 225 bp	1070 bp	A1, A2, A3, A10, A25, A26, A34, A43, A66	*0113, 0234-023503, 025601, 025602, 0262, 9203, 9235, 03010101-0307, 0309-0311N, 0313-0331, 0333-0335, 0337-0340, 0342-0356, 0358, 0360-0371, 0373, 0374, 250101-2505, 2507-2511, 260101-260113, 2602 ^w , 2603, 2605-2608, 2610-2633, 2635-2642, 3408, 4301, 6601, 6604-6612, 7413
14	200, 240 bp	1070 bp	A29	*29010101-2922, 3313
15 ⁵	90, 135, 205 bp	1070 bp	A1, A30	*0113, 0128, 0343, 300101-3004, 3006-3020, 3022-3034
16	370, 395 bp	1070 bp	A24, A31, A32	*2914, 310102-3128, 3205
17	150, 180 bp	1070 bp	A32	*0343, 2913, 320101-3203, 3205-3221
18	200 bp	1070 bp	A33, A68	*330101-330103, 330301-3329, 6829
19	160, 200 bp	800 bp	A74	*2919, 7401-7414N
20	155, 200, 240 bp	800 bp	A2, A210, A25, A68	*0210, 0234-023503, 0239, 0246, 0248, 0250, 0252, 025601, 025602, 0262, 0270, 0273, 0278, 0293, 0295, 9203, 9210, 9214, 9217, 9222, 9229, 9256, 2494, 2505, 680101-6848
21	240, 375 bp	800 bp	A2, A26, A28, A68, A69	*0255, 2482, 2622, 3322, 6609, 6829, 6901
22 ^{5,8}	85, 240 bp	800 bp	A2, A36	*0234-023503, 0246, 0248, 025601, 025602, 0262, 0270, 0278, 9203, 9229, 3601-3605
23 ^{5,7,11}	75, 160, 495 bp	800 bp	A2, A26, A28, A36, A68, A80	*0255, 0341, 0363, 2603, 2605, 2606, 2621, 2630, 3324, 3602, 6805, 6815, 6820, 8001
24	360 bp	1070 bp	A1, A11, A36, A80	*01010101-0104N, 0106, 0108-0129, 0131N-0135, 0137-0149, 0151, 0341, 0363, 110101-110114, 110116-1111, 1113-1117, 1119-1127, 1129-1140, 1142-1155, 3313, 3601-3605, 7410, 8001

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 low resolution SSP typings.

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

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

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

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

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

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

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

In addition, wells number 4, 5, 6, 8, 9, 12 and 19 to 23 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.

³The serological reactivity of all HLA-A alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the www.ebi.ac.uk/imgt/hla web site, the information available at the www.worldmarrow.org web site, the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

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

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

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

⁶The primer pairs in wells 2 and 11 will in most samples give rise to two or three specific PCR fragments.

⁷Primer mixes 10, 11 and 23 may yield less specific PCR product than the other primer mixes.

⁸Primer mix 22 might faintly amplify most A*11 alleles.

⁹The A*0318 and A*2619 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

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

The A*2631, A*6611 and A*6612 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

¹⁰Primer mix 6 will amplify the B*1827 allele.

¹¹Primer mix 23 may have a tendency of primer dimer formation.

'w', might be weakly amplified.

SPECIFICITY TABLE

HLA-B low resolution primer set

Specificities and sizes of the PCR products of the 48 primer mixes used for HLA-B low resolution SSP typing

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	HLA-B serol. ³	Amplified HLA-B alleles ^{4,5}
25^{6,10}	110 bp	800 bp	7, 703, 40, 41, 42, 48, 61	*070201-071802, 0720-0732, 0734-0739, 0741-0747, 0749N, 0750, 0752, 0754-0759, 0761-0799, 9538, 3707, 4015, 4016, 4023, 4032, 4098, 4108, 420501, 420502, 4805, 4808, 4815, Cw*0223
26	215 bp	1070 bp	8, 44	*080101-0825, 0827-0849, 0851-0854, 9542, 4449, 5168
27	140, 235 bp	1070 bp	7, 8, 13, 15, 35, 4005, 44, 49, 61, 62, 77	*0720, 0724, 0760, 0821, 0825, 130101-1304, 1306-1308Q, 1310-1323, 1325-1336, 1507, 1536 ^w , 1545, 1555, 1568, 1589 ^w , 9526, 3505, 3516, 3517, 3522, 3530, 3551, 3558, 3572, 3589, 3597, 4005, 4071, 4408 ^w , 4454, 4457 ^w , 4460, 4612, 4620, 5164, 5314, 5818, Cw*0305, 0325, 0327
28^{7,8}	130, 265 bp	1070 bp	12, 13, 14, 17, 21, 35, 40, 41, 44, 45, 47, 49, 50, 60, 61, 64, 65	*130101-1304, 1306-1313, 1315-1323, 1325-1336, 1401-1404, 1407N, 1409, 1411, 1412, 1414-1418, 1546, 1553, 9506, 1844, 3546, 3547, 3563, 400101-400108, 4007, 4010, 401401-4016, 4022N, 4023, 4025, 4030-4034, 4036, 4038, 4042, 4043, 4045, 4047-4049, 4051-4055, 4058-4063, 4065-4067, 4069, 407201-4073, 4076, 4077, 4079-4081, 4084, 4087, 4088, 4092, 4101-4112, 44020101-440306, 440308-440502, 4409-4439, 4441-4443, 4445-4456N, 4458N-4480, 4482, 4484-4499, 4501-4511, 47010101-4705, 490101-4902, 4904-4909, 500101-5002, 5004-5006, 5008, 5009,

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Cw*0130				
29⁸	185, 235 bp	800 bp	7, 16, 17, 27, 2708, 37, 38, 3901, 3902, 39, 64, 67	*1401, 1407N, 1408, 1410, 1412, 1414, 2701-2706, 2708-2710, 2712, 2713, 2716-2718, 2720, 2723, 2726, 2727, 2729, 2731, 2735-2737, 2739-2742, 2744-2746, 2748-2761, 3702, 380101-3803, 3807-3822, 39010101, 39010102L, 390103- 390108, 390110, 390201, 3903, 390501-390602, 3907 [?] , 3908, 3909, 3911, 3914, 3915, 3918, 391902, 3922, 3924-3944, 3946-3948, 3950- 3956, 4704, 4705, 4821, 670101
30⁸	185 bp	800 bp	14, 35, 38, 39, 65	*140201, 140202, 140204-140602, 1409, 1411, 1413, 1415-1418, 3526, 3805, 3904
31	290 bp	1070 bp	15, 22, 62, 63, 71, 72, 75, 76, 77, 46	*15010101-150103, 150106- 150204, 150303-1508, 151002- 151103, 1512-1515, 15170101- 151702, 1519-1521, 1524-1528, 1530-1536, 153801-1540, 1542- 1546, 1548, 1550, 1555-1558, 1560, 1563, 1565, 1566, 1570, 1571, 1573, 1575-1579N, 1581-1589, 1592, 1594N, 1596, 1597, 9501, 9502, 9504-9507, 9509-9513, 9516- 9518, 9520-9522, 9525, 9526, 9528, 9529, 9535-9550, 9552, 9554, 9555, 9557, 9559, 9560, 9562-9572, 9574, 9575, 9577, 9578, 9581N-9585, 460101-4622
32¹³	165, 220, 330 bp	1070 bp	5, 8, 12, 21, 22, 37, 41, 42, 44, 45, 48, 51, 56, 57, 60, 62, 70, 71, 72, 82	*080101-0805, 0808N-081203, 0815-0819N, 0821-0824, 0826, 0827, 0829-0836, 0838, 0839, 0841-0848, 0850-0854, 150301- 150303, 1509-151002, 151801- 151804, 1523, 1529, 1537, 1546, 1547, 1549, 1551-1554, 1561, 1562, 1564, 1569, 1572, 1574, 1580, 1583, 1590, 1591, 1593, 1598, 1599, 9503, 9506, 9508, 9514, 9515, 9519, 9523, 9524, 9527, 9531-9534, 9543, 9551, 9553, 9556, 9558, 9561, 9573, 9576, 9586, 3587, 3712, 4012, 4101-410302, 4105-4109, 4111, 4112, 420101- 4202, 4204-4208, 4210-4213, 4414, 4415, 4418, 4420, 4462, 4501-4511,

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				5108, 5120, 5136, 5144N, 5219, 5520, 5613, 5709, 8201-8203, Cw*0746
33^{9,11}	165, 390 bp	1070 bp	5, 17, 21, 35, 51, 5102, 5103, 52, 56, 62, 63, 70, 78	*150102, 1509, 1516-151702, 1567, 1595, 9562, 9568, 9577, 350110, 350402, 4026, 4028, 4462, 510101-510103, 510105-510203, 5103-510902, 5111N, 5112, 511302, 5114, 5117-5120, 5122, 5123, 512403, 5126-5130, 5132, 5133, 5137-5141N, 5143, 5144N, 5146, 5148-5161, 5163-5180, 5183-5189, 520101-520104, 5202-5207, 5209-5213, 5215-5219, 560501-5606, 5621, 5808, 7801-7806
34⁹	180 bp	800 bp	13, 22, 55, 60	*0778, 130101-130206, 1307N-1309, 1311, 1314-1320, 132201-1323, 1325, 1327-1334, 1336, 4048, 4510, 4907, 5509, 5522, 5524
35⁶	105, 195 bp	1070 bp	8, 12, 27, 38, 39, 3902, 40, 44, 45, 48, 60, 70, 71, 72, 82	*0727, 0750, 0804, 0817, 0854, 150301-150303, 1547, 1549, 1554, 1561, 1562, 1564, 1568, 1569, 1591, 1598, 9503, 9523, 9527, 9531, 9532, 9551, 9556, 9558, 9573, 1837, 2718, 2729, 3803, 390201, 390202, 3908, 391301, 391302, 3923, 3939, 3949, 4012, 4046, 4093, 4211, 4410, 4415, 4418, 4440, 4444, 4501, 4505-4507, 4511, 480101-4805, 4807-4821, 5002, 5216, 5518, 8201-8203
36	280 bp	1070 bp	5, 7, 8, 13, 15, 16, 17, 18, 22, 35, 40, 42, 44, 46, 48, 49, 51, 53, 55, 56, 57, 58, 60, 61, 62, 63, 70, 71, 72, 75, 76, 77, 78	*0709, 0711, 0717, 0828, 0835, 0837, 1304, 1310, 1326, 15010101-150104, 150106-1508, 151101-1516, 151801-1521, 1523-1529, 1531-1536, 153801-1540, 1543, 1544, 1546, 1547, 1549-1557, 1560-1562, 1564-1572, 1574-1576, 157801-1582, 1584, 1585, 1587-1589, 1591-1598, 9501-9529, 9531, 9532, 9534-9536, 9538-9549N, 9551-9561, 9563-9567, 9569-9576, 9578, 9581N-9586, 180101-1815, 1817N-1825, 1827-1840, 1842-1847, 2741, 350101-350119, 3505, 3507-350804, 3510, 3511, 351401-3517, 3519-3521, 3523-3530, 3532,

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				3535, 3537, 3540N-3543, 3545-3554, 3557, 3558, 3561-3564, 3566-3569, 3571, 3572, 3576-3580, 3582, 3586, 3589-3594, 3597, 3599, 3907, 3943, 4003, 4020, 4038, 4052, 4059, 4060, 4209, 4417, 4443, 4509, 460101-4610, 4612-4617, 4619-4622, 480201, 480202, 4814, 4904, 4905, 5137, 5145, 5163, 530101-5303, 5305, 5306, 530801-5318, 5320, 5321, 5406, 5409, 5414, 5514, 5523, 5532, 5603, 5609, 5618, 570101-570106, 5706, 5708, 5710, 5711, 5713-5716, 5718-5727, 5729, 580101-5802, 5804-5807, 5809-5819, 5821-5826
37	195 bp	1070 bp	27, 35, 37, 44, 58, 76	*1512, 1514, 1519, 1591, 9531, 9561, 3545, 3571, 370101-3709, 3712, 3713, 3715-3721, 3817, 4417, 4443, 4509, 4617, 5807
38⁶	105, 395, 435 bp	1070 bp	5, 7, 15, 41, 42, 62, 63, 70, 71, 75, 77	*0704, 0725, 1509-151002, 1513, 1516-151804, 1521, 1523, 1524, 1537, 1544, 1551, 1552, 1566, 1567, 1572, 1580, 1587, 1590, 1593, 1595, 1599, 9508, 9514, 9515, 9519, 9524, 9533, 9534, 9553, 9557, 9561, 9562, 9568, 9576, 9577, 9586, 4108, 420501, 420502
39⁶	115 bp	1070 bp	18	*180101-180701, 1808-1815, 1817N-1828, 1830-1836, 1838-1847
40⁶	80 bp	1070 bp	7, 27, 2708, 44, 60	*0773, 2701-2721, 2723-2751, 2753-2762, 3822, 4046, 4093, 4440, 4444
41	150 bp	800 bp	12, 13, 17, 18, 22, 27, 35, 37, 39, 44, 45, 47, 48, 51, 53, 56, 57, 58, 62, 70, 75, 77, 78	*0849, 130101-130103, 1306, 1307N, 1312, 1313, 1317, 1320, 132201-1323, 1325, 1326, 1328, 1329, 1336, 1410, 150201-150204, 1513, 1520, 1521, 152501, 152502, 1536, 1544, 1562, 1577, 1580, 1585, 1588, 1589, 9506, 9512, 9521, 9539, 9544, 9554, 9565, 9570, 1822, 2719, 2730, 350101-350403, 3506-350804, 3510-3517, 3519-3521, 3523-3530, 3533-3536, 3538-3542, 3545-3550, 3552, 3554-3557, 3559, 3561-3563, 3565Q,

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				3569-3571, 3574, 3576-3578, 3580-3585, 3590-3596, 3598, 370101-370107, 3703N-3706, 3708, 3710, 3711, 3713-3721, 3820, 3942, 4028, 44020101-4414, 4416, 4417, 4419N, 4421-4430, 4432-4440, 4442-4446, 4448-4452N, 4455-446402, 4466-4498, 480201, 480202, 5104, 5142, 5146, 5156, 530101-5313, 5315-5321, 5514, 5609, 5611, 5612, 570101-570104, 570106-5710, 5712, 5714-5720, 5722-5727, 5729, 580101, 580102, 580104, 5804, 5805, 5809-5815, 5817N, 5819, 5821-5824, 5828, 8301
42	135 bp	1070 bp	8, 18, 22, 35, 39, 78	*0765, 0832, 180101-1808, 1810-1815, 1817N-1836, 1838-1847, 350101-350302, 350401-3518, 352001-352402, 3528-3545, 3548, 3550-3555, 3557-3562, 3564-3572, 3574-3599, 3711, 391901, 391902, 5606, 7801-7805
43^{6,10,13}	60, 245, 400 bp	1070 bp	5, 15, 44, 48, 60, 62, 63, 70, 71, 72, 75, 76, 77, 82	*15010101-150104, 150106-1521, 1523-1540, 1542-1558, 1560-1567, 1569-1575, 1576 ^w , 1577-1599, 9501-9529, 9531-9578, 9581N-9586, 4012, 4410, 8201-8203
44	210 bp	800 bp	27, 37	*0727, 0849, 370101-3721, 3817
45	170 bp	800 bp	16, 35, 38, 39, 3901, 3902, 67, 72	*1569, 9586, 3535, 380101-3809, 3811-3821, 39010101, 39010102L, 390103-3920, 3922-3924, 3926-3929, 3931, 3935, 3937-3942, 3944-3946, 3948, 3949, 3951-3956, 5820, 670101-6702
46⁶	110 bp	1070 bp	38	*380101-3803, 3805, 3808-3822
47	395 bp	1070 bp	14, 16, 38, 39, 3901, 64, 65	*0769, 0785, 1401-1418, 380101-380202, 3804, 3805, 3808-3822, 39010101, 39010102L, 390103-390110, 3903-3907, 3909, 3911, 3912, 3914, 3915, 3918-391902, 3922, 3924-3938Q, 3940N-3948, 3950-3956
48	425 bp	1070 bp	7, 703, 8, 14, 15, 16, 21, 39, 3901,	*070201-0726, 0728-0735, 0737, 0739-0764, 0766-0780, 0782-0799, 080101-080110, 0804-0835, 0837-0851, 0853, 0854, 1401-140204,

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			3902, 40, 41, 42, 45, 48, 50, 60, 61, 64, 65, 67, 70, 73, 81	1403-1418, 39010101, 39010102L, 390103-3920, 3922-3956, 400101-400108, 4007, 4009 [?] -4011 [?] , 401401 [?] -4015 [?] , 4016, 4018 [?] , 4021 [?] , 4022N [?] , 4023, 4024 [?] -4038 [?] , 4042 [?] -4046 [?] , 4048 [?] -4050 [?] , 4051, 4052 [?] -4058 [?] , 4059, 4060, 4061 [?] -4065 [?] , 4066, 4067 [?] -4069 [?] , 4071 [?] , 407201-4073, 4074 [?] , 4075 [?] , 4077, 4078 [?] , 4079, 4080 [?] -4088 [?] , 4090 [?] -4093 [?] , 4095 [?] , 4098 [?] , 4099 [?] , 4101-4112, 420101-4202, 4204-4213, 4501-4511, 480101-4817, 4819-4821, 500101-5002, 5004-5009, 670101-6702, 7301, 8102
49¹²	175 bp	1070 bp	15, 40, 44, 48, 60, 62, 71	*9516, 9524, 400101-400106, 400108, 4007, 4010, 4012, 4021-4023, 4025, 4033, 4036, 4038, 4042, 4043, 4046-4049, 4051, 4052, 4054, 4055, 4060-4063, 4065-4067, 4069, 4073, 4074, 4076, 4079, 4081, 4084, 4087, 4088, 4092, 4431, 4606, 480301, 480302
50	130 bp	1070 bp	21, 4005, 41, 50, 60, 61	*400201-400602, 4008, 4009, 4011, 4013, 4018-4020, 4024, 4026-4029, 4035, 4037, 4039, 4040, 4044, 4050, 4056, 4057, 4064, 4068, 4070, 4071, 4074, 4075, 4078, 4082, 4085, 4086, 4089-4091, 4094-4099
51⁶	105 bp	1070 bp	7, 8, 22, 41, 42	*0704, 0725, 080101-0805, 0807-081203, 0814-0819N, 0821-0824, 0826-0839, 0841-0854, 3587, 4101-4108, 4110-4112, 420101-4202, 4204-4207, 4209-4213, 5520
52	325 bp	1070 bp	7, 22, 27, 2708, 35, 42, 45, 46, 54, 55, 56, 67, 73, 78, 81, 82	*070201-070219, 0704-0707, 0709-0712, 0713 ^w , 0714, 0715 ^w , 0717-0726, 0728-0731, 0733-0736, 0739-0746, 0747 ^w , 0748, 0749N, 0751-0768, 0770-0784, 0786-0799, 1576, 9501, 2701-2711, 2713-2715, 2717, 2719-2721, 2724-2728, 2730-2738, 2740-2758, 2760-2762, 3576, 420101-4202, 4204-4206, 4208-4210, 4212, 4213, 4490, 4497, 4506, 460101-460103, 4602 ^w , 4603-4622, 5401-5419, 550101-5505,

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				5507-5517, 5519-5539, 560101-5616, 5618-5622, 5624-5627, 670101, 670102, 6702 ^w , 7301, 8101-8104N, 8201-8203, 8301
53⁶	115, 195, 225, 260 bp	1070 bp	35, 37, 44, 47, 57	*0849, 3538, 3545, 3571, 370101-370107, 3703N-3706, 3708, 3710-3721, 4213, 44020101-4414, 4416, 4417, 4419N-4436, 4438-4463, 4465-4499, 5142, 5707, 5709, 5724, 8301, Cw*1525
54	215 bp	800 bp	5, 8, 12, 17, 21, 22, 41, 42, 44, 45, 51, 5102, 5103, 52, 53, 56, 62	*0809, 1583, 4101, 4105-4107, 4109, 4112, 4204, 4406, 4415, 4418, 4420, 4501-4511, 510101, 510103-510108, 510110-510201, 510203-5104, 5106-510901, 5110-5114, 5116-512403, 5126-5146, 5148-5153, 5155-5177, 5179-5188, 520102, 520104, 5202, 5203, 520601, 520602, 5209, 5219, 5306, 5520, 5613, 5808
55	130, 270 bp	1070 bp	17, 18, 22, 35, 37, 46, 51, 53, 62, 78	*1410, 1557 ^w , 1822, 3521, 352401, 352402, 3581, 3596, 3704, 4028, 460101-4622, 5104, 5146, 5156, 5302, 5306, 5714, 5809
56⁶	90, 410 bp	1070 bp	15, 22, 27, 35, 47, 54, 55, 56, 78, 81, 82	*0765, 2701 ^w , 2702-2711, 2713-2715, 2717, 2719-2721, 2724-2728, 2730-2738, 2740-2758, 2760-2762, 3576, 4490, 4497, 47010101-4703, 5401-5419, 550101-5505, 5507-5517, 5519-5539, 560101-5616, 5618-5622, 5624-5627, 8101, 8201-8203, 8301
57⁶	90, 175 bp	1070 bp	15, 27, 35, 48, 60, 62, 75, 77, 81	*1336, 150201-150204, 1508, 151101-151104, 1513, 1515, 1521, 1531, 1544, 1555, 1576 ^w , 1588, 1589, 9512, 9521, 9539, 9544, 9548, 9570, 2724, 3546, 4031, 4045, 4080, 480101, 480102, 4804, 4806, 4807, 4809, 4811, 4815, 4816, 4818-4820, 5535 ^w , 8101-8104N
58	145, 430 bp	1070 bp	44, 49, 59, 61	*4013, 4019, 4418, 4425, 4450, 4495, 490101, 490102, 4904-4909, 5412, 5621, 5901-5905
59⁶	120, 210 bp	800 bp	5, 13, 15, 17, 22, 35,	*0778, 0784, 1316, 1331 ^w , 1504 ^w , 1516, 1542, 1567, 1595, 9537 ^w ,

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			45, 49, 50, 51, 5102, 5103, 52, 55, 56, 62, 63, 78	4095, 490101, 4902-4909, 500101- 5002, 5004-5009, 510101-5103, 5105, 5107-510902, 5111N-5114, 5116-512403, 5126-5141N, 5143, 5144N, 5148-5155, 5157, 5158, 5160, 5161 ^w , 5163, 5165-5180, 5182-5189, 520101-5219, 550101- 550106, 5503, 5505, 5509, 5511, 5515, 5517, 5521 ^w , 5524, 5525, 5528, 5529, 5531, 5533, 5536, 5538, 560501-5606, 5621, 5625, 5808, 7801-7806
60	430 bp	1070 bp	5, 17, 27, 44, 51, 5102, 5103, 52, 53, 57, 58, 61	*2702, 2730, 2753, 2757, 2762, 4013, 4019, 4406, 4425, 4450, 4495, 510101-512403, 5126-5146, 5148-5153, 5155-5177, 5179-5189, 520101-5219, 530101-5302, 5304- 530802, 5310, 5314-5321, 570101- 5711, 5713-5727, 5729, 580101- 5802, 5804-5816, 5818-5828
61	145 bp	1070 bp	12, 21, 35, 40, 4005, 41, 45, 47, 50, 60, 61	*1546, 1553, 9506, 9543, 3519, 3547, 3563, 400101-4011, 401401- 4016, 4018, 4020, 4022N-4040, 4042-4045, 4048-4075, 4077-4092, 4094, 4095, 4097-4099, 4101-4104, 4105 [?] , 4106-4112, 4409, 4446, 4475, 4490, 4501-4511, 4702, 4703 ^w , 500101-5002, 5004, 5005, 5007-5009
62	300 bp	1070 bp	7, 12, 13, 15, 17, 18, 21, 27, 2708, 35, 37, 38, 39, 3902, 40, 4005, 41, 44, 45, 47, 48, 49, 50, 52, 60, 61, 62, 70, 72, 76	*0754, 0817, 0838, 0854, 130101- 1304, 1306, 1308Q-1323, 1325- 1335, 15010101-150104, 150106- 150116, 150301-1507, 1512, 1514, 1519, 1520, 1524-152703, 1530, 1532-1536, 153801-1540, 1542, 1543, 1545-1550, 1553, 1554, 1556-1558, 1560-1563, 1565, 1566, 1568-1571, 1573-1575, 1577- 1579N, 1581-1587, 1591, 1592, 1594N, 1596-1598, 9501-9507, 9509-9511N, 9513, 9516-9518, 9522, 9523, 9525-9529, 9531, 9532, 9535-9538, 9540-9542, 9545-9547, 9550-9552, 9554-9560, 9563-9567, 9569, 9571-9575, 9578, 9581N- 9585, 1812, 2701-2721, 2724-2762, 3510, 3513, 3516, 3528, 3563, 3569, 3580, 370101-3707, 3709-

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				3721, 3803, 3804, 390201, 390202, 3908, 391301, 391302, 3922, 3923, 3949, 400101-4007, 4009-4016, 4018-4024, 4026-4040, 4042-4067, 4070-4099, 4101-4112, 4211, 44020101-440502, 4407-4411, 4413-4499, 4501-4511, 47010101-4705, 480101-4805, 4807-4815, 4817-4821, 490101-4909, 500101-5002, 5004-5009, 520101-5219, 5317, 5518, 5534, 7805, 7806
63	160, 330 bp	1070 bp	22, 44, 45, 47, 54	*44020101-440212, 4406, 4408, 4409, 4411, 4412, 4416, 4419N-4424, 4427, 4433, 4434, 4441, 4444, 4448, 4449, 4452N, 4453, 4455, 4459, 4463, 4466-4468, 4471-4474, 4480, 4483, 4484, 4486, 4487, 4489-4491, 4493, 4495, 4497, 4499, 5401-5419, 8301
64	180, 210 bp	1070 bp	13, 15, 18, 35, 39, 40, 54, 55, 56, 59, 78	*0765, 1306, 1542, 1586, 1804, 3560, 3917, 4058, 4508, 4618, 5401, 5402, 5405N, 5407, 5408N, 5410, 5412, 5413, 5416-5419, 550101-5503, 5505, 5507, 5510-5512, 5515, 5516, 5518, 5519, 5521, 5525, 5526, 5529-5531, 5533-5539, 560501, 5606, 5610, 5623, 5901, 5905, 7801, 780202, 7803, Cw*150204
65¹⁴	180 bp	1070 bp	12, 15, 21, 22, 44, 45, 49, 50, 51, 56, 61, 62, 82	*1303, 1573, 4071, 4410, 4415, 4418, 4501, 4504-4507, 4511, 4611, 490101-4903, 4906, 4908, 4909, 500101-5002, 5004-5008, 5115, 5162, 5403, 560101-5602, 5604, 5607, 5608, 5613, 5614, 5616, 5617, 5620, 5624-5627, 5904, 8201-8203
66^{6,10}	90, 240 bp	800 bp	57	*5514, 570101-5715, 5717-5719, 5721-5727, 5729
67⁶	90 bp	1070 bp	5, 13, 15, 17, 39, 55, 56, 58, 60, 61, 62, 71	*1311, 151803, 1573, 3917, 4048, 4071, 5162, 5602, 5604, 5610, 580101-5802, 5804-5828, Cw*0206^w
68^{6,8}	95 bp	1070 bp	8, 18, 22, 35, 37, 38, 39, 44, 51,	*0765 ^w , 0832, 180101-1811, 1813-1815, 1817N-1836, 1838-1847, 350101-350902, 3511-351202,

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			5102, 5103, 53, 78	351401-3515, 3517, 3518, 352001- 352402, 3527, 3529-3545, 3548, 3550-3562, 3564-356802, 3570- 3572, 3574, 3575, 3576 ^w , 3577- 3579, 3581-3599, 3708, 3806, 3807, 391901, 391902, 4406, 510101- 512403, 5126-5146, 5148-5189, 530101-5316, 5318-5321, 5606 ^w , 7801-7804
69⁶	115, 150 bp	1070 bp	15, 18,22, 27, 35, 39, 46, 55, 62, 72, 73, 75, 76	*1331, 15010101-150104, 150106- 150116, 1504, 1507, 1508, 151101- 1512, 1514, 1515, 1519, 1524, 1526N-1528, 1530, 1532, 1534, 1535, 153801, 153802, 1543, 1545, 1546, 1550, 1553, 1554, 1556-1558, 1560, 1563, 1566, 1568, 1570, 1571, 1573, 1575-1577, 1579N, 1581, 1582, 1585, 1587, 1592, 1594N, 1596, 1597, 9501, 9502, 9504, 9505, 9509-9511N, 9513, 9517, 9518, 9520, 9522, 9525, 9526, 9528, 9529, 9535, 9537, 9540, 9542-9549N, 9552, 9554, 9557, 9559, 9560, 9563-9567, 9569, 9571, 9572, 9574, 9575, 9578, 9581N-9584, 1819, 2725, 351401, 351402, 3543, 3544, 3562, 3567, 3579, 3586, 3918, 3936, 460101- 4602, 4604, 4605, 4607N, 4609, 4610, 4612, 4614-4617, 4620, 4622, 5161, 5406, 5521, 5603, 7301, Cw*0620
70¹⁵	360 bp	1070 bp	Bw4	
71	350 bp	1070 bp	Bw6	
72¹⁰	285 bp	800 bp	7, 703, 8, 35, 40, 41, 42, 48, 53, 60, 61, 81	*070201-0706, 0708-071802, 0720- 0732, 0734-0739, 0741-0752, 0754- 0759, 0761-0776, 0779-0783, 0785- 0799, 080101-0808N, 0810, 0811, 0813-0815, 0817-0854, 3566, 3587, 3707, 4015, 4016, 4030-4032, 4034, 4045, 4059, 4080, 4098, 410201, 410202, 4104, 4110, 4111, 420101- 4202, 420501-4207, 4209-4213, 480101, 480102, 4805-4812, 4814- 4820, 5315, 8101-8104N

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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-B low resolution SSP typings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective 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-B low resolution typing.

In addition, wells number 29, 30, 34, 41, 44, 45, 54, 59, 66 and 72 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.

³The serological reactivity of all HLA-B alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the www.ebi.ac.uk/imgt/hla web site, the information available at the www.worldmarrow.org web site, the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

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

The B*0826, B*0850 and the B*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*1408 and the B*3925N, B*3930, B*3932 to 3934, 3947 and 3950 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*180702, B*1829 and the B*3532, B*3537, B*3553N, B*3564, B*356801-356802 and B*3599 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*4109 and the B*4502 and B*4503 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

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

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

⁵The Cw*0130 allele will be weakly amplified by primer mix 28, the Cw*0206 allele will be weakly amplified by primer mix 67, the Cw*0223 allele will be amplified by primer mix 25, the HLA-Cw*0305, 0325 and 0327 alleles will be amplified by primer mix 27, the Cw*0620 allele will be amplified by primer mix 69, the Cw*0746 allele will be amplified by primer mix 32, the Cw*150204 allele will be amplified by primer mix 64 and the Cw*1525 allele will be amplified by primer mix 53.

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

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⁷Primer mix 28 may yield less specific PCR product than the other HLA-B low resolution primer mixes in B*40, B*41, B*45, B*49 and B*50 alleles.

⁸Primer mixes 28, 29, 30, and 68 may yield less specific PCR product than the other HLA-B low resolution primer mixes.

⁹Primer mixes 33 and 34 have a higher tendency than other primer mixes to give rise to nonspecific amplifications.

¹⁰Primer mixes 25, 43, 66 and 72 may give rise to a primer oligomer artifact.

¹¹The B*57 and B*58 alleles might be faintly amplified by primer mix 33.

¹²The Cw*1701 to Cw*1704 alleles might be faintly amplified by primer mix 49.

¹³Primer mixes 32 and 43 may generate a false band of about 800 base pairs. This band should be disregarded when interpreting HLA-B low resolution typings.

¹⁴The Cw*0312 allele might be faintly amplified by primer mix 65.

¹⁵The Bw4-associated HLA-A specificities A23, A24, A2403, A25 and A32 are not amplified by the primer pair in primer mix 70.

‘w’, might be weakly amplified.

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

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SPECIFICITY TABLE

Specificities and sizes of the PCR products of the 24 primer mixes used for DR low resolution SSP typing

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	DR serology ³	Amplified HLA-DRB ⁴ alleles
73 ^{6,8}	200 bp, 255 bp	515 bp	1	*010101-010205, 0104-0131
74	200 bp	430 bp	1/103	*0103
75	210 bp	430 bp	2, 15	*15010101-1543
76	210 bp	430 bp	16	*160101-160502, 1607-1615
77 ^{6,11}	120 bp, 220 bp	430 bp	3, 11, 17, 18	*03010101-0352, 1107, 1153, 1525
78 ^{5,6,11}	80 bp, 210 bp	430 bp	3, 6, 11, 13, 14, 17	*03010101-030108, 0304-0306, 0308-0316, 0318-0320, 0322, 0323, 0325, 0326, 0328, 0330, 0331, 0333, 0334, 0336, 0337, 0343-0348, 0350-0352, 110201-1103, 111101, 111102, 111401, 111402, 1116, 1120, 1121, 1136, 1140, 1141, 1148, 1159, 1163, 116501, 116502, 1168, 1170, 1173, 1176, 1179, 1180, 1183, 1185-1187, 130101-1304, 1308, 1310, 1315-1317, 1319, 1320, 1322-1324, 1327-1329, 1331-1341, 1343, 1345, 1348, 1351-1354, 1357, 1359, 1361, 1363-1366, 1368-1376, 1378-1381, 1383-1385, 1387-1397, 1416, 1419, 1421, 1482, 1495
79 ^{5,6}	85 bp, 210 bp	430 bp	3, 6, 11, 13, 14, 1403, 18	*030201-0303, 0327, 0329, 0338, 111301 ^w , 111302 ^w , 1126, 1134, 1315, 1319, 1326, 1344, 1353, 1357, 1385, 1386, 1402-140302, 140601, 140602, 1409, 1412, 1413, 1417-1421, 1424, 1427, 1429, 1430, 143201 ^w , 143202 ^w , 1433, 1440, 1441, 1447-1449, 1451, 1463, 1465 ^w , 1467, 1477, 1478, 1480, 1481, 1483, 1485, 1489, 1494
80 ^{5,6}	100 bp, 175 bp	430 bp	3, 4	*040101-0489
81 ⁶	210 bp, 230 bp	430 bp	7, 13, 14	*07010101-070103, 0703-0717, 1317, 1450
82 ⁶	170 bp, 215 bp,	515 bp	8, 11, 12, 14	*080101-0819, 0821-0839, 1167, 1204, 1216, 1411, 1415, 1468, 1493

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83⁵⁻⁷	250 bp 85 bp, 135 bp, 180 bp	430 bp	3, 9, 11	*0308, 090102-0909, 1107, 1153
84⁸	205 bp	430 bp	10	*100101-1003
85^{5,6}	100 bp, 170 bp	430 bp	3, 8, 11, 13, 14	*0308, 0831, 110101-1170, 1172-1189
86^{5,6}	85 bp, 105 bp	430 bp	12	*0832, 120101-1220
87	210 bp	430 bp	6, 11, 13, 14, 1403	*0820, 110101-110405, 110601, 110602, 110801-111202, 111401-1116, 1118-1121, 1123-1125, 112701-1133, 1135-1151, 115401, 115402, 1156-1166, 1168, 1170, 1172-1181, 1183-1188, 130101-1308, 1310-1316, 1318-1343, 1345-1385, 1387-1397, 140301, 140302, 1412, 1416, 1419, 1421, 1422, 1425, 1427, 1440, 1453, 1463, 1467, 1469, 1474, 1477, 1478, 1484, 1485
88⁶	195 bp, 210 bp	430 bp	6, 8, 11, 12, 13, 14	*080101-080203, 080401-0809, 0811, 0816, 0817, 0820-0822, 0824, 0826, 0828, 0831, 0839, 110101-110602, 1109-111202, 111401-1116, 1120, 1121, 1123-1125, 112701-1130, 1132, 1133, 1135-1141, 1143, 1144, 1146-1151, 115401-1156, 115801-1163, 116501-1170, 1172, 1174-1178, 1180-1188, 120201-120204, 1213, 1215, 1216, 1218-1220, 130101-130201, 130203, 1304-130502, 130701-1309, 131101, 131102, 131401-1324, 1326-1329, 1331, 1332, 1334-1336, 1338-1343, 1345-1355, 1357, 1359, 1361-1365, 1367-1376, 1378-1380, 1383, 1384, 1387, 1391-1393, 1396, 1397, 1415, 1416, 1422, 1424, 1425, 1427, 1437, 1453, 1473
89¹¹	175 bp	430 bp	3, 6, 11, 13, 14, 1403, 17, 18	*03010101-0307, 0309, 031101-0341, 0343-0345, 0347-0352, 0820, 130101-1316, 1318-1342, 1344, 1346-1366, 1368-1397, 1402-140302, 140501-140602, 1409, 1412-1414, 1417-1421, 142301, 142303, 1424, 1427, 1429, 1430, 1433, 1436, 1437, 1440-1445, 1447, 1448, 1451, 1456, 1459, 1463-1465, 1467, 1477,

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				1478, 1480, 1481, 1483-1485, 1489, 1491, 1494-1496
90 ^{5,6,10}	100 bp, 140 bp, 155 bp	430 bp	4, 6, 8,13, 14, 1404	*0462, 0469, 0473, 0808, 1169, 1182, 1345, 140101, 140102, 1404, 140701, 140702, 1410, 1416, 1422, 1425, 1426, 1428, 1431-143202, 1435, 1437-1439, 1449, 1450, 1453-1455, 1457, 1458, 1460-1462, 1468-1471, 1473-1476, 1479, 1482, 1486-1488, 1490, 1493, DRB4*01030102N
91 ^{5,6,8,9}	110 bp, 135 bp, 170 bp	430 bp	3, 4, 6, 9, 11, 13, 14, 1404	*0310, 090102-090105, 090201, 090202, 0904-0909, 111301, 111302, 1117, 1152, 1343, 140101-1402, 1404-1411, 1413, 1414, 1416-1418, 1419 ^w , 1420, 1421 ^w , 1422-142303, 1426, 1428-1436, 1438, 1439, 1441, 1443-1452, 1454-1457, 1459-1462, 1464, 1465, 1468, 1470-1476, 1479-1483, 1486-1488, 1490-1496, 1527, 1534
92 ^{5,6,8}	110 bp, 175 bp, 225 bp	430 bp	2 ^w , 3, 4, 6, 8, 11, 13, 14, 1403, 1404, 16 ^w	*0310, 0809, 0820, 0821, 0832, 0835, 111301, 111302, 1117, 1123, 1125, 1131, 1145, 1152, 1155, 1164, 1189, 1313, 1318, 1343, 1345, 1347, 1355, 140101-140103, 140301-140503, 140701-1408, 1410-1412, 1414-1416, 1418, 1422-142303, 1425-1428, 1431-143202, 1434-1436, 1438-1440, 1442-1445, 1449, 1450, 1453-1465, 1467-1479, 1481, 1482, 1484-1493, 1495, 1496, 1521 ^w , 1604 ^w
93 ^{5,6,10,11}	100 bp, 165 bp, 240 bp	430 bp	52	DRB3*01010201-0114, DRB3*0201-0225, DRB3*030101-0303
94	215 bp	430 bp	53	DRB4*01010101-0108
95	175 bp	430 bp	51	DRB5*010101-0114, DRB5*0202-0205
96 ¹²	-	-		Negative control

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 DR low resolution SSP typings. When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective 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, e.g. the primers in wells 75, 80, 90, 91 and 92.

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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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 73 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, well number 82 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

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

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

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

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

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

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

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

The DRB1*1313 and DRB1*1484 alleles yield identical amplification patterns with the DR low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

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

⁶Individual alleles can give rise to two differently sized specific PCR fragments in primer mixes 73, 77 to 83, 85, 86, 88 and 90 to 93.

⁷Primer mix 83 may give rise to nonspecific amplifications.

⁸Primer mixes 73, 84, 91 and 92 may give rise to primer oligomer formation.

⁹Primer mix 91 has a tendency of primer oligomer formation and also has an intense primer cloud due to the high number of primers present in the primer mix.

¹⁰The DRB4*01030102N allele is amplified by the primer pairs in well No. 90 and 94, whereas the DRB4*0201N and DRB4*0301N null alleles are not amplified by these primer pairs.

¹¹Due to sharing of sequence motifs in codon 38, DRB3*0114 will also be amplified in primer mixes 77, 78 and 89 in addition to primer mix 93.

¹²Primer mix 96 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by control primer pairs. PCR product sizes range from 75 to 200 base pairs. The PCR product generated by the control primer pair is 430 base pairs.

‘w’, might be weakly amplified.

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

‘w’, might be weakly amplified.

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Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
HLA-A allele ⁴	ser ⁵																								
*01010101-0104N, 0106, 0109-0111N, 0116N-0118N, 0120, 0122N-0127N, 0129, 0131N-0135, 0137- 0149	A1, null	1			4																				24
*0107, 0136, 0150	A1	1			4																				
*0108, 0114, 0115N	A1, null	1																							24
*0112, 0119	A1	1		3																					24
*0113	A1	1			4						11			13		15									24
*0121	A1	1		3	4																				24
*0128	-	1			4						11					15									24
*0130	-	1																							
*0151	-	1			4				8		10														24
*02010101-020115, 020117-020119, 020121-0209, 0211- 0216, 0218-022202, 0224-0233, 0236-0238, 0240-0245, 0247, 0249, 0251, 0253N, 0254, 0257-0261, 0263-0269, 0271, 0272, 027401- 0277, 0279-0292, 0294N, 0296-029702, 0299, 9201, 9202, 9204- 9209, 9211-9213N, 9215, 9216, 9218-9221, 9223-9228, 9230-9234, 9236-9245, 9247-9255, 9257-9268, 9270-9299	A2, A203, A19, null				2																				
*0210, 0239, 0250, 0252, 0273, 0293, 0295, 9210, 9214, 9217, 9256	A210, A2		2																		20				
*021701, 021702	A2		2						w																
*0234, 023501, 023503, 025601, 025602, 0262, 9203	A2		2											13							20			22	
*023502	A2													13							20			22	
*0246, 0270	A2		2																		20			22	
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

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Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*0248, 9229	A2																				20		22		
*0255	A2,28		2						8													21		23	
*0278	-		2		4																20		22		
*9222	A2						6														20				
*9235	-		2											13											
*9246	-		2								10														
*9269	-		2		4																				
*03010101-0307, 0309-0311N, 0313-0317, 0319-0323, 0325-0329, 0331, 0333-0335, 0337-0340, 0342, 0344-0349, 0351-0356, 0358, 0360-0362, 0364-0371, 0373, 0374	A3, null				3									13											
*0308, 0332, 0336N, 0357, 0359, 0372	A3, null				3																				
*0312	A3				3	4																			
*0318, 2619 ⁷	-				4									13											
*0324, 0350	A3				3				8					13											
*0330	A3				3		5							13											
*0341	-				3																			23	24
*0343	-				3									13		15		17							
*0363	-				3							11		13										23	24
*110101-110114, 110116-1109, 1113-1117, 1119-112402, 1126, 1127, 1129-1140, 1142-1155	A11, null				4								11												24
*110115, 1112, 1118, 1141	A11				4								11												
*1110	A11				4				8				11												24
*1111	-				4								11	12											24
*1125	A11				3	4							11												24
*230101-2313, 2315-2325	A23, null					5	6																		
*2314, 2405, 241302, 2424 ⁸	A23, A9, A24					5	6	7																	
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

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Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*24020101-2404, 2406-2411N, 241301, 2417, 2418, 2420-2423, 2425-2443, 2445N-2450, 2454-2456, 2458-2463, 2466-2481, 2483N-2488, 2490N, 2491, 2493, 2495-2499	A3, A9, A24, A, 2403, null					5		7																	
*2414, 2415, 2451-2453, 2457, 2464	A24					5																			
*2419, 2444	A9					5		7				11													
*2482	-					5		7														21			
*2489	-							7																	
*2492	-			3		5																			
*2494	-					5																20			
*250101-2504, 2507-2511	A25								8	9				13											
*2505	A25								8	9				13								20			
*2506	A25								8	9			12												
*260101-260113, 2608, 2610-2615, 2617, 2618, 2620, 2623-2629, 2632, 2633, 2635-2642	A10, A26, null								8			10		13											
*2602	A26								8			10		w											
*2603, 2606, 2621	A26								8			11		13										23	
*2604, 2634	A26								8			10													
*2605, 2630	A26								8					13										23	
*260701, 260702	A26											10		13											
*2609	A26								8			10		12											
*2616	A26								7			10		13											
*2622	A26								8			10		13									21		
*2631, 6611, 6612 ⁹	A26, -								8					13											
*29010101-2906, 2908N-2912, 2915-2918, 2920-2922	A29, null														14										
*2907	A29							6							14										
*2913	-														14			17							
*2914	-														14		16								
*2919	-														14					19					
*300101-3004, 3006, 3007, 3009-3020, 3022-3028, 3030-3034	A30															15									
*3008	A30				4											15									
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

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Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*3029	-			3												15									
*310102-3102, 3105-3107, 3109-3128	A31, null, -																16								
*3103	A31										11	12					16								
*3104	A31											12					16								
*3108	A31/ A24					5											16								
*320101-3202, 3206-3212, 3214, 3216-3221	A32									9								17							
*3203	A32																	17							
*3204	A32/ A3			3						9															
*3205	A32					5											16	17							
*3213	A32					5				9								17							
*3215	A32								8	9								17							
*330101-330103, 330301-3312, 3314-3318, 3320, 3321, 3323, 3325-3329	A33, -																	18							
*3313	-									10				14				18						24	
*3319	-							7										18							
*3322	-																	18			21				
*3324	-																	18					23		
*340101, 340102, 3405, 3406	A34, A10								8		11	12													
*3402-3404, 3407	A34			3					8		11	12													
*3408	A34			3					8		11	12	13												
*3601, 3603, 3605	A36	1																					22	24	
*3602	A36	1		3																			22	23	24
*3604	A36	1			4																		22	24	
*4301	A43												12	13											
*6601, 6604-6608, 6610	A66, A26								8		11		13												
*6602, 6603	A66, A10								8			12													
*6609	-								8		11		13									21			
*680101-6804, 6806-6814, 6816-6819, 6821-6828, 6830-6844, 6846-6848	A28, A68, null								8												20				
*6805, 6815, 6820	A68								8												20		23		
*6829	A68								8									18	20	21					
*6845	-							7	8												20				
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

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Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*6901	A69								8													21			
*7401-7409, 7411, 7412N, 7414N	A74, null																			19					
*7410	-																			19					24
*7413	-													13						19					
*8001	A80						6																	23	24
HLA-A allele ⁴	ser ⁵																								
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B*1827							6																		
Well No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

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 low resolution SSP typing.

In addition, wells number 4, 5, 6, 8, 9, 12 and 19 to 23 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 exon, 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 exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴The sequence of the A*0105N has been shown to be identical to A*0104N.

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

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

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

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

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

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

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

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

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

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

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

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

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

⁵The serological reactivity of all HLA-A alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the www.ebi.ac.uk/imgt/hla web site, the information available at the www.worldmarrow.org web site, the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

⁶The primer pairs in vials 2 and 11 will in most samples give rise to multiple specific PCR fragments.

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

⁸The A*2314, A*2405, A*241302 and A*2424 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

⁹The A*2631, A*6611 and A*6612 alleles will give rise to identical amplification patterns. These two alleles can be separated by the respective high resolution SSP primer sets.

'w', may be weakly amplified.

		INTERPRETATION TABLE																																																
		HLA-B low resolution SSP																																																
		Amplification patterns of the B*0702 to B*8301 alleles⁶																																																
		Well																																																
		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
Length of spec.		110	215	140	130	185	185	290	165	165	180	105	280	195	105	115	80	150	135	60	210	170	110	395	425	110	215	140	130	185	185	290	165	165	180	105	280	195	105	115	80	150	135	60	210	170	110	395	425	
PCR product(s)				235	265	235			330	390		195			435					400								235	265	235			330	390		195							400							
Length of int. pos. control¹		800	1070	1070	1070	800	800	1070	1070	1070	800	1070	1070	1070	1070	1070	1070	800	1070	1070	800	800	1070	1070	800	1070	1070	1070	800	800	1070	1070	1070	1070	1070	1070	1070	800	1070	1070	800	800	1070	1070	800	1070	1070			
5'-primer(s)²		527	97	209	103	103	103	46	45	46	420	206	419	142	45	161	167	355	206	45	142	409	246	44	527	97	209	103	103	103	46	45	46	420	206	419	142	45	161	167	355	206	45	142	409	246	44			
3'-primer(s)³		605	272	309	193	246	246	165	206	266	559	272	301	301	272	234	204	463	302	259	311	544	317	272	302	605	272	309	193	246	246	165	206	266	559	272	301	301	272	234	204	463	302	259	311	544	317	272	302	
		5'-TgA	5'-TCg	5'-ggC	5'-CCg	5'-CCT	5'-CCg	5'-ggA	5'-ggA	5'-ggA	5'-TTA	5'-AgA	5'-gTC	5'-TCT	5'-ggA	5'-Cgg	5'-gCT	5'-TCA	5'-gAC	5'-ggA	5'-TCT	5'-ggC	5'-gAA	5'-ggC	5'-TgA	5'-TCg	5'-ggC	5'-CCg	5'-CCT	5'-CCg	5'-ggA	5'-ggA	5'-ggA	5'-TTA	5'-AgA	5'-gTC	5'-TCT	5'-ggA	5'-Cgg	5'-gCT	5'-TCA	5'-gAC	5'-ggA	5'-TCT	5'-ggC	5'-gAA	5'-ggC			
		540		363	103	363			367	435		420		419	540					368	368	420			540		363	103	363			367	435		420		419	540					368	368	420					
		5'-gAC		5'-AgC	5'-CCg	5'-AAT			5'-Tgg	5'-AAA		5'-TTA		5'-gTC	5'-gAC					5'-gTT	5'-gTC	5'-TTA			5'-gAC		5'-AgC	5'-CCg	5'-AAT			5'-Tgg	5'-AAA		5'-TTA		5'-gTC	5'-gAC					5'-gTT	5'-gTC	5'-TTA					
				363	361				412											567					363	361				412												567								
				5'-AgC	5'-AgT				5'-ATA											5'-ggA					5'-AgC	5'-AgT				5'-ATA													5'-ggA							
		5'-gCT	5'-Tgg	5'-gTg	5'-CgT	5'-TAT	5'-TAT	5'-Tgg	5'-CCT	5'-TCC	5'-CTC	5'-Tgg	5'-TAT	5'-gTC	5'-TgC	5'-TCT	5'-TCT	5'-gCT	5'-ggC	5'-gTT	5'-ggg	5'-ggT	5'-ggA	5'-TgC	5'-ggT	5'-gCT	5'-Tgg	5'-gTg	5'-CgT	5'-TAT	5'-TAT	5'-Tgg	5'-CCT	5'-TCC	5'-TCC	5'-CTC	5'-Tgg	5'-TAT	5'-gTC	5'-TgC	5'-TCT	5'-TCT	5'-gCT	5'-ggC	5'-gTT	5'-ggg	5'-ggT	5'-ggA	5'-TgC	5'-ggT
		272	559	193	583	246			538	559		572		301	309					266	311			302	302	272	559	193	583	246			538	559		572		301	309					266	311			302	302	
		5'-TgA	5'-CAg	5'-CgT	5'-gTg	5'-TAT			5'-gTC	5'-CAg		5'-gCg		5'-gTC	5'-ATC					5'-TCC	5'-ggg	5'-gTA		5'-ggC	5'-ggC	5'-TgA	5'-CAg	5'-CgT	5'-gTg	5'-TAT			5'-gTC	5'-CAg		5'-gCg		5'-gTC	5'-ATC					5'-TCC	5'-ggg	5'-gTA		5'-ggC	5'-ggC	
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
HLA-B allele ⁴	ser. ⁵																									
*070201-070219, 070501-0706, 0710, 0712, 0714, 071801, 071802, 0721-0723, 0726, 0728-0731, 0734, 0735, 0739, 0741-0746, 0749N, 0752, 0755-0759, 0761-0764, 0766- 0768, 0770-0772, 0774-0776, 0779, 0780, 0782, 0783, 0786-0799	B7, null	25																								48
*0703, 0708, 0716, 0732, 0737	B7, B703	25																								48
*0704, 0725	B7	25													38											48
*0707, 0777	B7	25																								48
*0709, 0711, 0717	B7	25										36														48
*0713, 0715, 0747	B7	25																								48
*0719, 0733, 0740, 0753	B7, B42																									48
*0720, 0724	B7	25		27																						48
*0727	-	25										35									44					
*0736, 0781	B7	25																								
*0738	-	25																								
*0748, 0751	B7																									48
*0750	-	25										35														48
*0754	B7	25																								48
*0760	-			27																						48
*0765	-	25																		42						
*0769, 0785	-	25																							47	48
*0773	-	25															40									48
*0778	-	25										34														48
*0784	-	25																								48
*080101-080110, 0805, 0808N, 0810, 0811, 0815, 0818, 0819N, 0822-0824, 0827, 0829-0831, 0833, 0834, 0839, 0841-0848, 0851, 0853	B8, Null			26					32																	48
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	ser. ⁵	Well No. HLA-B allele ⁴	
			52																			71	72	B7, null	*070201-070219, 070501-0706, 0710, 0712, 0714, 071801, 071802, 0721-0723, 0726, 0728-0731, 0734, 0735, 0739, 0741-0746, 0749N, 0752, 0755-0759, 0761-0764, 0766- 0768, 0770-0772, 0774-0776, 0779, 0780, 0782, 0783, 0786-0799	
																						71	72	B7, B703	*0703, 0708, 0716, 0732, 0737	
		51	52																			71	72	B7	*0704, 0725	
			52																			71		B7	*0707, 0777	
			52																			71	72	B7	*0709, 0711, 0717	
			w																			71	72	B7	*0713, 0715, 0747	
			52																			71		B7, B42	*0719, 0733, 0740, 0753	
			52																			71	72	B7	*0720, 0724	
																					70	72	-		*0727	
			52																		70	72	B7		*0736, 0781	
																					70	72	-		*0738	
			52																			71	72	B7	*0748, 0751	
																						71	72	-		*0750
			52									62										71	72	B7		*0754
			52																			71		-		*0760
			52				56							64					w			71	72	-		*0765
																						71	72	-		*0769, 0785
			52																			71	72	-		*0773
			52							59												71		-		*0778
			52							59												71		-		*0784
		51																					71	72	B8, Null	*080101-080110, 0805, 0808N, 0810, 0811, 0815, 0818, 0819N, 0822-0824, 0827, 0829-0831, 0833, 0834, 0839, 0841-0848, 0851, 0853
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
*0802, 0803, 0852	B8		26						32																	
*0804	B8		26						32			35														48
*0806, 0813, 0820, 0840	B8		26																							48
*0807, 0814	B8		26																							48
*0809	B8		26						32																	48
*081201-081203, 0816	B8		26						32																	48
*0817, 0854	-		26						32			35														48
*0821	B8		26	27					32																	48
*0825	B8		26	27																						48
*0826, 0850, 4207	B8, -								32																	48
*0828, 0837	B8		26									36														48
*0832	B8		26						32										42							48
*0835	-		26						32			36														48
*0836	-		26						32																	48
*0838	-		26						32																	48
*0849	-		26															41			44					48
*130101-130103, 1317, 1320, 132201- 1323, 1325, 1328, 1329	B13			27	28						34							41								
*130201-130206, 1308Q, 1315, 1318, 1319, 1327, 1330, 1332-1334	B13			27	28						34															
*1303	B49/ B15			27	28																					
*1304, 1310	B13, B49/ B15			27	28							36														
*1306	B13			27	28													41								
*1307N	Null			27	28						34							41								
*1309	-				28						34															
*1311	B13			27	28						34															
*1312, 1313	B13			27	28													41								
*1314	B13			27							34															
*1316	B13			27	28						34															
*1321, 1335	-			27	28																					
*1326	-			27	28							36						41								
*1331	-			27	28						34															
*1336	-			27	28						34							41								
*1401, 1407N, 1412, 1414	B64, null				28	29																			47	48
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
		51																			70	72	B8	*0802, 0803, 0852	
		51																				71	72	B8	*0804
																						71	72	B8	*0806, 0813, 0820, 0840
		51																				71	72	B8	*0807, 0814
		51		54																		71		B8	*0809
		51																				71		B8	*081201-081203, 0816
		51										62										71	72	-	*0817, 0854
		51																				71	72	B8	*0821
																						71	72	B8	*0825
		51																				71	72	B8, -	*0826, 0850, 4207
		51																				71	72	B8	*0828, 0837
		51																	68			71	72	B8	*0832
		51																				71	72	-	*0835
		51																				71	72	-	*0836
		51										62										71	72	-	*0838
		51		53																		71	72	-	*0849
												62										70		B13	*130101-130103, 1317, 1320, 132201- 1323, 1325, 1328, 1329
												62										70		B13	*130201-130206, 1308Q, 1315, 1318, 1319, 1327, 1330, 1332-1334
												62				65						70		B49/ B15	*1303
												62										70		B13, B49/ B15	*1304, 1310
												62	64									70		B13	*1306
																						70		Null	*1307N
												62											71	-	*1309
												62						67				70		B13	*1311
												62										70		B13	*1312, 1313
												62										70		B13	*1314
										59		62										70		B13	*1316
												62										70		-	*1321, 1335
												62										70		-	*1326
										w		62									69	70		-	*1331
								57														70		-	*1336
																						71		B64, null	*1401, 1407N, 1412, 1414
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
*140201, 140202, 140204, 1403, 1404, 1409, 1411, 1415- 1418	B65, B14				28		30																		47	48	
*140203	B65				28																					47	48
*140205	B65				28		30																			47	
*1405-140602, 1413	B14						30																			47	48
*1408, 3925N, 3930, 3932-3934, 3947, 3950	-, B39, null					29																				47	48
*1410	-					29												41								47	48
*15010101, 15010102N, 150103, 150106-150116, 1526N-152703, 1532, 1534, 1535, 153801, 153802, 1550, 1556, 1560, 1570, 1571, 1575, 1579N, 1581, 1582, 1592, 1594N, 1596, 1597, 9502, 9504, 9505, 9509- 9511N, 9513, 9517, 9518, 9522, 9525, 9528, 9529, 9535, 9540, 9545-9547, 9552, 9559, 9560, 9563, 9564, 9566, 9567, 9569, 9571, 9572, 9574, 9575, 9578, 9581N-9584	B15, B62, null							31				36								43							
*150102	B62							31		33		36								43							
*150104	B62											36								43							
*150201-150204, 1588, 9512, 9521, 9539, 9570	B75							31				36						41		43							
*150301, 150302, 1547, 1549, 1561, 1598, 9503, 9523, 9527, 9532, 9551, 9556, 9558, 9573	B70, B72								32			35	36							43							
*150303	B72							31	32			35	36							43							
*1504	B62							31				36								43							
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	Well No.		
																						71		B65, B14	*140201, 140202, 140204, 1403, 1404, 1409, 1411, 1415-1418	
																						71		B65	*140203	
																						71		B65	*140205	
																						71		B14	*1405-140602, 1413	
																						71		B39, null	*1408, 3925N, 3930, 3932-3934, 3947, 3950	
						55																71		-	*1410	
													62								69		71		B15, B62, null	*15010101, 15010102N, 150103, 150106-150116, 1526N-152703, 1532, 1534, 1535, 153801, 153802, 1550, 1556, 1560, 1570, 1571, 1575, 1579N, 1581, 1582, 1592, 1594N, 1596, 1597, 9502, 9504, 9505, 9509-9511N, 9513, 9517, 9518, 9522, 9525, 9528, 9529, 9535, 9540, 9545-9547, 9552, 9559, 9560, 9563, 9564, 9566, 9567, 9569, 9571, 9572, 9574, 9575, 9578, 9581N-9584
												62								69		71		B62	*150102	
												62								69		71		B62	*150104	
								57															71		B75	*150201-150204, 1588, 9512, 9521, 9539, 9570
												62											71		B70, B72	*150301, 150302, 1547, 1549, 1561, 1598, 9503, 9523, 9527, 9532, 9551, 9556, 9558, 9573
												62											71		B72	*150303
								w				62									69		71		B62	*1504
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	Well No.		

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
*150501-1506, 1533, 1539, 1540, 1565, 157801, 157802, 1584, 9507, 9536, 9541, 9555, 9585	B62							31					36							43					
*1507, 9526	B62			27				31					36							43					
*1508, 151101-151103, 1515, 9548	B62, B75							31					36							43					
*1509	B70								32	33					38					43					
*151001, 1537, 1590, 1599, 9533	B70, B71								32						38					43					
*151002	B71							31	32						38					43					
*151104	B75												36							43					
*1512, 1514, 1519	B76							31					36	37						43					
*1513	B77							31					36		38			41		43					
*1516, 1567, 1595	B63									33			36		38					43					
*15170101-151702, 9562, 9568, 9577	B63							31		33					38					43					
*151801, 151802, 151804, 1551, 1552, 1572, 1593, 9508, 9514, 9519, 9534, 9553, 9576	B70, B71								32				36		38					43					
*151803	B71								32				36		38					43					
*1520, 152501, 152502	B62							31					36					41		43					
*1521, 1544	B75							31					36		38			41		43					
*1523, 9515	B5, B70								32				36		38					43					
*1524, 1587, 9557	B15, B62							31					36		38					43					
*1528, 9520, 9549N	B62, null							31					36							43					
*1529	B70								32				36							43					
*1530, 1558, 1563	B62							31												43					
*1531	B75							31					36							43					
*1536	-			w				31					36					41		43					
*1542	B15							31												43					
*1543	B15							31					36							43					
*1545	B62			27				31												43					
*1546	-				28			31	32				36							43					
*1548, 9550	B62							31												43					
*1553	-				28				32				36							43					
*1554	B72								32			35	36							43					
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
													62									71		B62	*150501-1506, 1533, 1539, 1540, 1565, 157801, 157802, 1584, 9507, 9536, 9541, 9555, 9585
													62							69		71		B62	*1507, 9526
								57												69		71		B62, B75	*1508, 151101-151103, 1515, 9548
																						71		B70	*1509
																						71		B70, B71	*151001, 1537, 1590, 1599, 9533
																						71		B71	*151002
								57												69		71		B75	*151104
													62							69		71		B76	*1512, 1514, 1519
								57														70		B77	*1513
									59													70		B63	*1516, 1567, 1595
																						70		B63	*15170101-151702, 9562, 9568, 9577
																							71	B70, B71	*151801, 151802, 151804, 1551, 1552, 1572, 1593, 9508, 9514, 9519, 9534, 9553, 9576
																	67					71		B71	*151803
													62										71	B62	*1520, 152501, 152502
								57														71		B75	*1521, 1544
																					70			B5, B70	*1523, 9515
													62							69		70		B15, B62	*1524, 1587, 9557
																				69		71		B62, null	*1528, 9520, 9549N
																						71		B70	*1529
													62							69		71		B62	*1530, 1558, 1563
								57														71		B75	*1531
													62								70			-	*1536
									59				62		64							71		B15	*1542
													62							69		70		B15	*1543
													62							69		71		B62	*1545
												61	62							69		71		-	*1546
													62									71		B62	*1548, 9550
												61	62							69		71		-	*1553
													62							69		71		B72	*1554
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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*1555	B15			27				31					36							43					
*1557	B62							31					36							43					
*1562	-								32			35	36					41		43					
*1564	B71								32			35	36							43					
*1566	B62							31					36		38					43					
*1568	-			27								35	36												
*1569	B72								32			35	36							43		45			
*1573	B62							31												43					
*1574	B72								32				36							43					
*1576	-							31					36							w					
*1577	B62							31										41		43					
*1580	B70								32				36		38			41		43					
*1583	B62							31	32											43					
*1585, 9554, 9565	B62							31					36					41		43					
*1586	-							31												43					
*1589	B77			w				31					36					41		43					
*1591, 9531	-								32			35	36	37						43					
*9501	-							31					36							43					
*9506	-				28			31	32				36					41		43					
*9516	B62							31					36							43					
*9524	B71								32				36		38					43					
*9537	-							31												43					
*9538	-	25						31					36							43					
*9542	-		26					31					36							43					
*9543	-							31	32				36							43					
*9544	-							31					36					41		43					
*9561	-								32				36	37	38					43					
*9586	-								32				36		38					43		45			
*180101-1803, 1805-180701, 1808, 1810, 1811, 1813-1815, 1817N, 1818, 1820, 1821, 1823N-1825, 1827, 1828, 1830-1836, 1838-1840, 1842, 1843, 1845-1847	B18, null												36			39				42					
*1804	B18												36			39				42					
*180702, 1829, 3532, 3537, 3553N, 3564, 356801, 356802, 3599	B18, B35, null												36							42					
*1809	B18												36			39									
*1812	B18												36			39				42					
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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								57														71		B15	*1555
					w								62								69	71		B62	*1557
													62									71		-	*1562
																						71		B71	*1564
													62								69	71		B62	*1566
													62								69	71		-	*1568
													62									71		B72	*1569
													62			65	67				69	71		B62	*1573
													62									71		B72	*1574
			52					w													69	71		-	*1576
													62									71		B62	*1577
																						71		B70	*1580
					54								62									71		B62	*1583
													62								69	71		B62	*1585, 9554, 9565
													62	64								71		-	*1586
								57														70		B77	*1589
													62									71		-	*1591, 9531
			52										62								69	71		-	*9501
												61	62									71		-	*9506
49													62									71		B62	*9516
49																						71		B71	*9524
									w				62								69	71		-	*9537
													62									71		-	*9538
													62								69	71		-	*9542
												61									69	71		-	*9543
								57													69	71		-	*9544
																						71		-	*9561
																						71		-	*9586
																					68		71	B18, null	*180101-1803, 1805-180701, 1808, 1810, 1811, 1813-1815, 1817N, 1818, 1820, 1821, 1823N-1825, 1827, 1828, 1830-1836, 1838-1840, 1842, 1843, 1845-1847
														64							68		71	B18	*1804
																					68		71	B18, B35, null	*180702, 1829, 3532, 3537, 3553N, 3564, 356801, 356802, 3599
																					68	70		B18	*1809
												62										71		B18	*1812
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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*1819	B18											36				39			42						
*1822	B18											36				39		41	42						
*1826, 1841	B18															39			42						
*1837	-											35	36												
*1844	-				28								36			39			42						
*2701	B27					29											40								
*2702, 2753, 2757	B27					29											40								
*2703-2706, 2709, 2710, 2713, 2717, 2720, 2727, 2731, 2735-2737, 2745, 2746, 2748-2751, 2754-2756, 2758, 2760, 2761	B27					29											40								
*2707, 2711, 2714, 2715, 2721, 2728, 2732, 2734, 2738, 2743, 2747	B27																40								
*2708, 2726, 2740, 2742, 2744	B2708, B27					29											40								
*2712	-					29											40								
*2716, 2739, 2759N	B27					29											40								
*2718	-					29						35					40								
*2719	B27																40	41							
*2723	-					29											40								
*2724	B27																40								
*2725	B27																40								
*2729	B27					29						35					40								
*2730	B27																40	41							
*2733	-																40								
*2741	-					29							36				40								
*2752	-					29											40								
*2762	-																40								
*350101-350109, 350111-350119, 3507- 350804, 3511, 3515, 352001, 352002, 3523, 3529, 3540N- 3542, 3548, 3550, 3552, 3554, 3557, 3561, 3577, 3578, 3582, 3590-3594	B35, null											36						41	42						
*350110	B35									33		36						41	42						
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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																			68	69	71			B18	*1819	
						55													68		71			B18	*1822	
																			68		71			B18	*1826, 1841	
																					71			-	*1837	
																			68		71			-	*1844	
			52				w					62									70			B27	*2701	
			52				56			60		62									70			B27	*2702, 2753, 2757	
			52				56					62										70		B27	*2703-2706, 2709, 2710, 2713, 2717, 2720, 2727, 2731, 2735-2737, 2745, 2746, 2748-2751, 2754-2756, 2758, 2760, 2761	
			52				56					62										70		B27	*2707, 2711, 2714, 2715, 2721, 2728, 2732, 2734, 2738, 2743, 2747	
			52				56					62										71		B2708, B27	*2708, 2726, 2740, 2742, 2744	
												62										71		-	*2712	
												62										70		B27	*2716, 2739, 2759N	
												62										71		-	*2718	
			52				56					62										70		B27	*2719	
																						70		-	*2723	
			52				56	57				62										70		B27	*2724	
			52				56					62									69	70		B27	*2725	
												62										70		B27	*2729	
			52				56			60		62										70		B27	*2730	
			52				56					62										71		-	*2733	
			52				56					62										70		-	*2741	
			52				56					62										70		-	*2752	
			52				56			60		62										70		-	*2762	
																					68		71	B35, null	*350101-350109, 350111-350119, 3507- 350804, 3511, 3515, 352001, 352002, 3523, 3529, 3540N- 3542, 3548, 3550, 3552, 3554, 3557, 3561, 3577, 3578, 3582, 3590-3594	
																					68		71	B35	*350110	
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	

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*350201-350302, 350401, 350403, 3506, 351201, 351202, 3533, 3534, 3536, 3539, 3555, 3559, 3565Q, 3570, 3574, 3583-3585, 3595, 3598	B35																	41	42						
*350303, 3556	B35																	41							
*350402	B35									33								41	42						
*3505, 3551, 3558, 3572, 3589, 3597	B35			27								36							42						
*350901, 350902, 3518, 3531, 3575, 3588	B35																		42						
*3510, 3528, 3569, 3580	B35											36						41	42						
*3513	B35																	41	42						
*351401, 351402, 3562	B35											36						41	42						
*3516	B35			27								36						41	42						
*3517, 3530	B35			27								36						41	42						
*3519	B35											36						41							
*3521, 352401, 352402	B35, B78											36						41	42						
*3522	B35			27															42						
*3525, 3549	B35											36						41							
*3526	B35						30					36						41							
*3527	B35											36						41							
*3535	B35											36						41	42			45			
*3538	B35																	41	42						
*3543, 3567, 3579, 3586	B35											36							42						
*3544	B35																		42						
*3545, 3571	B35											36	37					41	42						
*3546	B35				28							36						41							
*3547	B35				28							36						41							
*3560	B35																		42						
*3563	-				28							36						41							
*3566	B35											36							42						
*3576	B35/ 22											36						41	42						
*3581, 3596	-																	41	42						
*3587	-								32										42						
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	Well No.	
																			68			71	B35	*350201-350302, 350401, 350403, 3506, 351201, 351202, 3533, 3534, 3536, 3539, 3555, 3559, 3565Q, 3570, 3574, 3583-3585, 3595, 3598	
																			68			71	B35	*350303, 3556	
																			68			71	B35	*350402	
																			68			71	B35	*3505, 3551, 3558, 3572, 3589, 3597	
																			68			71	B35	*350901, 350902, 3518, 3531, 3575, 3588	
												62										71	B35	*3510, 3528, 3569, 3580	
												62										71	B35	*3513	
																			68	69		71	B35	*351401, 351402, 3562	
												62										71	B35	*3516	
																			68			71	B35	*3517, 3530	
												61										71	B35	*3519	
						55													68			71	B35, B78	*3521, 352401, 352402	
																			68			71	B35	*3522	
																						71	B35	*3525, 3549	
																						71	B35	*3526	
																			68			71	B35	*3527	
																			68			71	B35	*3535	
																			68			71	B35	*3538	
																			68	69		71	B35	*3543, 3567, 3579, 3586	
																			68	69		71	B35	*3544	
																			68			71	B35	*3545, 3571	
								57														71	B35	*3546	
												61										71	B35	*3547	
															64				68			71	B35	*3560	
												61	62									71	-	*3563	
																			68			71	72	B35	*3566
						52													w			71	B35/ 22	*3576	
																			68			71	-	*3581, 3596	
																			68			71	72	-	*3587
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	Well No.	

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*370101-370107, 3703N, 3706, 3713, 3715-3721	B37, null													37				41			44					
*3702	B37/ B27					29								37							44					
*3704	B37													37				41			44					
*3705	-													37				41			44					
*3707	-	25												37							44					
*3708	B37													37				41			44					
*3709	B37													37							44					
*3710	B37																	41			44					
*3711	-																	41	42		44					
*3712	B37								32					37							44					
*3714	-																	41			44					
*380101-380202, 3808, 3809, 3811- 3816, 3818, 3819, 3821	B38					29																45	46	47		
*3803	B38					29						35										45	46			
*3804	B38																					45		47		
*3805	B38						30															45	46	47		
*3806	B38																					45				
*3807	B38					29																45				
*3810	B38					29																	46	47		
*3817	-					29								37							44	45	46	47		
*3820	-					29												41				45	46	47		
*3822	-					29											40						46	47		
*39010101, 39010102L, 390103- 390108, 390110, 3903, 390501-390602, 3909, 3911, 3914, 3915, 3924, 3926- 3929, 3931, 3935, 3937, 3938Q, 3940N, 3941, 3944, 3946, 3948, 3951-3956	B3901, B39, null					29																45		47	48	
*390109, 3912, 3945	B3902, B39																						45		47	48
*390201, 3908	B3902, B39					29						35										45			48	
*390202, 391301, 391302, 3923, 3949	B3902, B39											35										45			48	
*3904	B39					30																45		47	48	
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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				53									62								70			B37, null	*370101-370107, 3703N, 3706, 3713, 3715-3721
													62								70			B37/ B27	*3702
				53		55							62								70			B37	*3704
				53									62									71		-	*3705
													62								70	72		-	*3707
				53														68			70			B37	*3708
													62								70			B37	*3709
				53									62								70			B37	*3710
				53									62									71		-	*3711
				53									62								70			B37	*3712
				53									62								70	w		-	*3714
																					70			B38	*380101-380202, 3808, 3809, 3811- 3816, 3818, 3819, 3821
													62								70			B38	*3803
													62								70			B38	*3804
																					70			B38	*3805
																			68		70			B38	*3806
																			68		70			B38	*3807
																					70			B38	*3810
																					70			-	*3817
																					70			-	*3820
																					70			-	*3822
																						71		B3901, B39, null	*39010101, 39010102L, 390103- 390108, 390110, 3903, 390501-390602, 3909, 3911, 3914, 3915, 3924, 3926- 3929, 3931, 3935, 3937, 3938Q, 3940N, 3941, 3944, 3946, 3948, 3951-3956
																						71		B3902, B39	*390109, 3912, 3945
													62									71		B3902, B39	*390201, 3908
													62									71		B3902, B39	*390202, 391301, 391302, 3923, 3949
																						71		B39	*3904
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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*3907	B16					?						36										45	47	48	
*3910, 3916, 3920	B39																					45			48
*3917	B39																					45			48
*3918	B39					29																45	47	48	
*391901	B39																		42			45	47	48	
*391902	B39					29													42			45	47	48	
*3922	B39					29																45	47	48	
*3936	-					29																		47	48
*3939	B39					29						35										45			48
*3942	B39					29												41				45	47	48	
*3943	-					29							36											47	48
*400101-400106, 400108, 4007, 4051, 4066, 4073, 4079	B60				28																				48
*400107, 407201, 407202, 4077	B60				28																				48
*400201-400209, 4004, 40060101- 400602, 4039, 4040, 4070, 4089, 4094, 4097	B41, B61																								
*4003, 4020	B61												36												
*4005	B4005				27																				
*4008	B61																								
*4009, 4011, 4018, 4024, 4027, 4029, 4035, 4037, 4044, 4050, 4056, 4057, 4064, 4075, 4078, 4082, 4085, 4086, 4090, 4091, 4099	B61																								?
*4010, 4022N, 4033, 4036, 4042, 4043, 4049, 4054, 4055, 4061-4063, 4065, 4067, 4081, 4084, 4087, 4088, 4092	B60, null				28																				?
*4012	B60/ B48								32			35									43				
*4013, 4019	B61																								
*401401-401403, 4053	B60, B61				28																				?
*4015, 4032	B40	25			28																				?
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
																						71		B16	*3907
																						71		B39	*3910, 3916, 3920
															64			67				71		B39	*3917
																				69		71		B39	*3918
																						68		B39	*391901
																						68		B39	*391902
													62									71		B39	*3922
																					69		71	-	*3936
																						71		B39	*3939
																						71		B39	*3942
																						71		-	*3943
49												61	62									71		B60	*400101-400106, 400108, 4007, 4051, 4066, 4073, 4079
												61	62									71		B60	*400107, 407201, 407202, 4077
	50											61	62									71		B41, B61	*400201-400209, 4004, 40060101- 400602, 4039, 4040, 4070, 4089, 4094, 4097
	50											61	62									71		B61	*4003, 4020
	50											61	62									71		B4005	*4005
	50											61										71		B61	*4008
	50											61	62									71		B61	*4009, 4011, 4018, 4024, 4027, 4029, 4035, 4037, 4044, 4050, 4056, 4057, 4064, 4075, 4078, 4082, 4085, 4086, 4090, 4091, 4099
49												61	62									71		B60, null	*4010, 4022N, 4033, 4036, 4042, 4043, 4049, 4054, 4055, 4061-4063, 4065, 4067, 4081, 4084, 4087, 4088, 4092
49													62									71		B60/ B48	*4012
	50								58		60		62									70		B61	*4013, 4019
												61	62									71		B60, B61	*401401-401403, 4053
												61	62									71	72	B40	*4015, 4032
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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*4016	B61	25			28																				48	
*4021	B40/ B15																									?
*4023	B40	25			28																					48
*4025, 4069	B40, B60				28																					?
*4026	B21									33																?
*4028	-									33								41								?
*4030, 4034	B60				28																					?
*4031, 4045, 4080	B60				28																					?
*4038, 4052	B60				28								36													?
*4046	B60											35					40									?
*4047	B40				28																					?
*4048	B60				28					34																?
*4058	B40				28																					?
*4059	B40				28								36													48
*4060	-				28								36													48
*4068	-																									?
*4071	B61			27																						?
*4074	B60																									?
*4076	B60				28																					?
*4083	-																									?
*4093	-											35					40									?
*4095	-																									?
*4096	-																									?
*4098	-	25																								?
*4101, 4106, 4107, 4112	B41				28				32																	48
*410201, 410202, 4111	B41				28				32																	48
*410301, 410302	B41				28				32																	48
*4104, 4110	B41				28																					48
*4105	B41				28				32																	48
*4108	B41	25			28				32						38											48
*4109, 4502, 4503	-				28				32																	48
*420101-4202, 4206, 4210, 4212	B42								32																	48
*4204	B42								32																	48
*420501, 420502	B42	25							32						38											48
*4208	B42								32																	48
*4209	B42												36													48
*4211	-								32			35														48
*4213	-								32																	48
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	
												61	62									71	72	B61	*4016	
49													62										71	B40/ B15	*4021	
49												61	62										71	B40	*4023	
49												61											71	B40, B60	*4025, 4069	
	50											61	62										71	B21	*4026	
	50				55							61	62										71	-	*4028	
												61	62										71	72	B60	*4030, 4034
								57				61	62										71	72	B60	*4031, 4045, 4080
49												61	62										71	B60	*4038, 4052	
49													62										71	B60	*4046	
49													62								70			B40	*4047	
49												61	62				67						71	B60	*4048	
												61	62		64								71	B40	*4058	
												61	62										71	72	B40	*4059
49												61	62										71	-	*4060	
	50											61											71	-	*4068	
	50											61	62			65	67						71	B61	*4071	
49	50											61	62										71	B60	*4074	
49													62											B60	*4076	
												61	62										71	-	*4083	
													62										71	-	*4093	
	50								59			61	62										71	-	*4095	
	50												62								70			-	*4096	
	50											61	62										71	72	-	*4098
	51				54							61	62										71	B41	*4101, 4106, 4107, 4112	
	51											61	62										71	72	B41	*410201, 410202, 4111
	51											61	62										71	B41	*410301, 410302	
	51											61	62										71	72	B41	*4104, 4110
	51				54							?	62										71	B41	*4105	
	51											61	62										71	B41	*4108	
					54							61	62										71	-	*4109, 4502, 4503	
	51	52																					71	72	B42	*420101-4202, 4206, 4210, 4212
	51	52			54																		71	B42	*4204	
	51	52																					71	72	B42	*420501, 420502
		52																					71	B42	*4208	
	51	52																					71	72	B42	*4209
	51												62										71	72	-	*4211
	51	52	53																				71	72	-	*4213
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	

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*44020101-440212, 4411, 4416, 4419N, 4421-4424, 4427, 4433, 4434, 4448, 4452N, 4455, 4459, 4463, 4466-4468, 4471-4474, 4480, 4484, 4486, 4487, 4489, 4491, 4493	B44, B47, null				28													41							
*440301-440306, 440308-440502, 4413, 4426, 442801-4430, 4432, 4435, 4436, 4438, 4439, 4442, 4445, 4451, 4456N, 4458N, 4461N, 4469, 4470, 4476-4479, 4482, 4485, 4488, 4492, 4494, 4496, 4498	B44				28													41							
*440307, 4407, 4481	B44																	41							
*4406	B44																	41							
*4408	B44			w														41							
*4409	B45				28													41							
*4410	B44				28							35						41		43					
*4412	B44				28													41							
*4414	B44				28				32									41							
*4415	B12				28				32			35						41							
*4417, 4443	B44				28								36	37				41							
*4418	B44				28				32			35						41							
*4420	B44				28				32									41							
*4425, 4450	B44				28													41							
*4431	B44				28													41							
*4437, 446401, 446402	B44				28													41							
*4440	B44											35					40	41							
*4441, 4453, 4499	B44				28													41							
*4444	B44											35					40	41							
*4446, 4475	B12				28													41							
*4447, 4465	B44				28													41							
*4449	B44			26	28													41							
*4454	B44				27	28												41							
*4457	-				w													41							
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
				53									62	63							70			B44, B47, null	*44020101-440212, 4411, 4416, 4419N, 4421-4424, 4427, 4433, 4434, 4448, 4452N, 4455, 4459, 4463, 4466-4468, 4471-4474, 4480, 4484, 4486, 4487, 4489, 4491, 4493
				53									62								70			B44	*440301-440306, 440308-440502, 4413, 4426, 442801-4430, 4432, 4435, 4436, 4438, 4439, 4442, 4445, 4451, 4456N, 4458N, 4461N, 4469, 4470, 4476-4479, 4482, 4485, 4488, 4492, 4494, 4496, 4498
				53									62								70			B44	*440307, 4407, 4481
				53	54					60			63					68			70			B44	*4406
				53									62	63							70			B44	*4408
				53								61	62	63								71		B45	*4409
				53									62			65					70			B44	*4410
				53										63							70			B44	*4412
				53									62								70			B44	*4414
					54								62			65					70			B12	*4415
				53									62								70			B44	*4417, 4443
					54				58				62			65					70			B44	*4418
				53	54								62	63							70			B44	*4420
				53					58	60			62								70			B44	*4425, 4450
49				53									62								70			B44	*4431
													62								70			B44	*4437, 446401, 446402
				53									62								70			B44	*4440
				53									62	63							70			B44	*4441, 4453, 4499
				53									62	63							70			B44	*4444
				53								61	62									71		B12	*4446, 4475
				53									62								70			B44	*4447, 4465
				53									62	63							70			B44	*4449
				53									62								70			B44	*4454
				53									62								70			-	*4457
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
*4460	-			27	28													41							
*4462	-				28				32	33								41							
*4483	-																	41							
*4490	-				28													41							
*4495	-				28													41							
*4497	-				28													41							
*4501, 4505, 4507, 4511	B45				28				32			35													48
*4504	B21				28				32																48
*4506	B45				28				32			35													48
*4508	-				28				32																48
*4509	-				28				32				36	37											48
*4510	-				28				32	34															48
*460101-460103, 4604, 4605, 4607N, 4609, 4610, 4614- 4616, 4622	B46, null								31				36												
*4602	B46								31				36												
*4603, 4608, 461301, 461302, 4619, 4621	B46								31				36												
*4606	-								31				36												
*4611	B22								31																
*4612, 4620	-				27				31				36												
*4617	-								31				36	37											
*4618	-								31																
*47010101, 47010102	B47				28																				
*4702	B47				28																				
*4703	B47				28																				
*4704, 4705	B17				28	29																			
*480101, 480102, 4807, 4809, 4811, 4819, 4820	B48											35													48
*480201, 480202	B48/ B70											35	36					41							48
*480301, 480302	B48											35													48
*4804	B48											35													48
*4805, 4808	B48	25										35													48
*4806	-																								48
*4810, 4812, 4817	B48											35													48
*4813	-											35													48
*4814	B48											35	36												48
*4815	B48	25										35													48
*4816	B48											35													48
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	
				53									62								70			-	*4460	
				53									62								70			-	*4462	
				53									62	63							70			-	*4483	
			52	53			56					61	62	63								71		-	*4490	
				53					58		60		62	63								70		-	*4495	
			52	53			56						62	63								70		-	*4497	
					54							61	62			65						71		B45	*4501, 4505, 4507, 4511	
					54							61	62			65						71		B21	*4504	
			52		54							61	62			65						71		B45	*4506	
					54							61	62		64							71		-	*4508	
					54							61	62									71		-	*4509	
					54							61	62									71		-	*4510	
			52			55															69	71		B46, null	*460101-460103, 4604, 4605, 4607N, 4609, 4610, 4614- 4616, 4622	
			w			55															69	71		B46	*4602	
			52			55																71		B46	*4603, 4608, 461301, 461302, 4619, 4621	
49			52			55																71		-	*4606	
			52			55										65						71		B22	*4611	
			52			55															69	71		-	*4612, 4620	
			52			55															69	71		-	*4617	
			52			55									64							71		-	*4618	
							56						62									70		B47	*47010101, 47010102	
							56					61	62									71		B47	*4702	
							56					w	62									70	w	B47	*4703	
													62									70		B17	*4704, 4705	
								57					62										71	72	B48	*480101, 480102, 4807, 4809, 4811, 4819, 4820
													62										71		B48/ B70	*480201, 480202
49													62									71		B48	*480301, 480302	
								57					62									71		B48	*4804	
													62									71	72	B48	*4805, 4808	
								57					62									71	72	-	*4806	
													62									71	72	B48	*4810, 4812, 4817	
													62									71		-	*4813	
													62									71	72	B48	*4814	
								57					62									71	72	B48	*4815	
								57					62									71	72	B48	*4816	
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.	

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*4818	B48											35														
*4821	-					29						35														48
*490101, 4906, 4908, 4909	B49				28																					
*490102	B49				28																					
*4902	B49				28																					
*4903	B49																									
*4904, 4905	B49				28								36													
*4907	-				28						34															
*500101, 500102, 5004, 5005, 5008	B50				28																					48
*5002	B45				28							35														48
*5006	-				28																					48
*5007	-																									48
*5009	-				28																					48
*510101, 510103, 510105-510108, 510110-510201, 510203, 5103, 5107, 510901, 5111N, 5112, 511302, 5114, 5117-5119, 5122, 5123, 512403, 5126-5130, 5132, 5133, 5138-5141N, 5143, 5148-5153, 5155, 5157, 5158, 5160, 5165-5167, 5169-5177, 5179, 5180, 5183-5188	B51, B5102, B5103, null										33															
*510102, 510109, 510202, 5105, 510902, 5189	B51, B5102										33															
*510104, 510204, 511301, 5116, 5121, 512401, 512402, 5131, 5134, 5135, 5182	B51, B5102																									
*5104, 5146, 5156	B51										33							41								
*5106, 5159	B51										33															
*5108, 5120, 5144N	B51, null								32	33																
*5110, 5181	B51																									
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
								57					62								70	72		B48	*4818
													62									71		-	*4821
									58	59			62			65					70			B49	*490101, 4906, 4908, 4909
									58				62			65					70			B49	*490102
										59			62			65					70			B49	*4902
										59			62			65					70			B49	*4903
									58	59			62								70			B49	*4904, 4905
									58	59			62								70			-	*4907
										59		61	62			65						71		B50	*500101, 500102, 5004, 5005, 5008
										59		61	62			65						71		B45	*5002
										59			62			65						71		-	*5006
										59		61	62			65						71		-	*5007
										59		61	62									71		-	*5009
					54					59	60								68		70			B51, B5102, B5103, null	*510101, 510103, 510105-510108, 510110-510201, 510203, 5103, 5107, 510901, 5111N, 5112, 511302, 5114, 5117-5119, 5122, 5123, 512403, 5126-5130, 5132, 5133, 5138-5141N, 5143, 5148-5153, 5155, 5157, 5158, 5160, 5165-5167, 5169-5177, 5179, 5180, 5183-5188
										59	60								68		70			B51, B5102	*510102, 510109, 510202, 5105, 510902, 5189
					54					59	60								68		70			B51, B5102	*510104, 510204, 511301, 5116, 5121, 512401, 512402, 5131, 5134, 5135, 5182
					54	55					60								68		70			B51	*5104, 5146, 5156
					54						60								68		70			B51	*5106, 5159
					54					59	60								68		70			B51, null	*5108, 5120, 5144N
					54						60								68		70			B51	*5110, 5181
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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*5115	-																								
*5136	B51								32																
*5137, 5163	B51									33			36												
*5142	-																	41							
*5145	-												36												
*5154, 5178	-									33															
*5161	-									33															
*5162	-																								
*5164	-				27					33															
*5168	-		26							33															
*520101, 520103, 5204, 5205, 5207, 5210-5213, 5215, 5217, 5218	B52									33															
*520102, 520104, 5202, 5203, 520601, 520602, 5209	B52									33															
*520105, 5208, 5214	B52																								
*5216	-									33		35													
*5219	-								32	33															
*530101-530105, 5305, 530801, 530802, 5310, 5316, 5318, 5320, 5321	B53												36					41							
*5302	B53												36					41							
*5303, 5309, 5311- 5313	B35, B53												36					41							
*5304, 5307, 5319	B53																	41							
*5306	B53/ B51												36					41							
*5314	-				27								36												
*5315	-												36					41							
*5317	-												36					41							
*5401, 5402, 5405N, 5407, 5408N, 5410, 5413, 5416-5419	B54, null																								
*5403	B22																								
*5404, 5411, 5415	B54																								
*5406	-												36												
*5409, 5414	-												36												
*5412	-																								
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

Lot No.: **78G**

Lot-specific information

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
										60						65		68		70				-	*5115
					54					59	60							68		70				B51	*5136
					54					59	60							68		70				B51	*5137, 5163
				53	54						60							68		70				-	*5142
					54						60							68		70				-	*5145
										59								68		70				-	*5154, 5178
					54					w	60							68	69	70				-	*5161
					54						60					65	67	68		70				-	*5162
					54						60							68		70				-	*5164
					54					59	60							68		70				-	*5168
										59	60		62								70			B52	*520101, 520103, 5204, 5205, 5207, 5210-5213, 5215, 5217, 5218
					54					59	60		62								70			B52	*520102, 520104, 5202, 5203, 520601, 520602, 5209
										59	60		62								70			B52	*520105, 5208, 5214
										59	60		62								70			-	*5216
					54					59	60		62								70			-	*5219
											60								68		70			B53	*530101-530105, 5305, 530801, 530802, 5310, 5316, 5318, 5320, 5321
						55					60								68		70			B53	*5302
																			68		70			B35, B53	*5303, 5309, 5311- 5313
											60								68		70			B53	*5304, 5307, 5319
					54	55					60								68		70			B53/ B51	*5306
											60								68		70			-	*5314
											60								68		70	72		-	*5315
											60		62								70			-	*5317
			52				56						63	64								71		B54, null	*5401, 5402, 5405N, 5407, 5408N, 5410, 5413, 5416-5419
			52				56						63		65							71		B22	*5403
			52				56						63									71		B54	*5404, 5411, 5415
			52				56						63							69	71			-	*5406
			52				56						63									71		-	*5409, 5414
			52				56		58				63	64								70		-	*5412
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
*550101-550106, 5503, 5505, 5511, 5515, 5525, 5529, 5531, 5533, 5536, 5538	B55																								
*550201-550205, 5507, 5510, 5512, 5516, 5519, 5526, 5530, 5537, 5539	B54, B55																								
*5504, 5508, 5513, 5527, 5615, 5619N, 5622	B55, B56, null																								
*5509, 5524	B22, B55										34														
*5514	-											36						41							
*5517, 5528	B55																								
*5518	-											35													
*5520	B22								32																
*5521	B55																								
*5522	B22										34														
*5523, 5532, 5618	B55												36												
*5534	-																								
*5535	-																								
*560101-560103, 5608, 5614, 5616, 5620, 5624, 5626, 5627	B56																								
*5602, 5604	B56																								
*5603	B22/15												36												
*560501	B56									33															
*560502	B56									33															
*5606	B78									33									42						
*5607	B56																								
*5609	B56												36						41						
*5610	B55																								
*5611, 5612	B22, B56																		41						
*5613	B56								32																
*5617	B56																								
*5621	-									33															
*5623	-																								
*5625	-																								
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
			52				56			59					64							71		B55	*550101-550106, 5503, 5505, 5511, 5515, 5525, 5529, 5531, 5533, 5536, 5538
			52				56								64							71		B54, B55	*550201-550205, 5507, 5510, 5512, 5516, 5519, 5526, 5530, 5537, 5539
			52				56															71		B55, B56, null	*5504, 5508, 5513, 5527, 5615, 5619N, 5622
			52				56			59												71		B22, B55	*5509, 5524
			52				56										66					71		-	*5514
			52				56			59												71		B55	*5517, 5528
													62		64							71		-	*5518
		51	52		54		56															71		B22	*5520
			52				56			w					64						69	71		B55	*5521
			52				56															71		B22	*5522
			52				56															71		B55	*5523, 5532, 5618
			52				56						62		64							71		-	*5534
			52				56	w							64							71		-	*5535
			52				56										65					71		B56	*560101-560103, 5608, 5614, 5616, 5620, 5624, 5626, 5627
			52				56										65		67			71		B56	*5602, 5604
			52				56															69	71	B22/15	*5603
			52				56			59					64							71		B56	*560501
			52				56			59												71		B56	*560502
			52				56			59					64					w		71		B78	*5606
			52				56										65					70		B56	*5607
			52				56															71		B56	*5609
			52				56								64							71		B55	*5610
			52				56															71		B22, B56	*5611, 5612
			52		54		56										65					71		B56	*5613
																	65					71		B56	*5617
			52				56			58	59											70		-	*5621
															64							71		-	*5623
			52				56			59							65					71		-	*5625
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
*570101-570104, 570106, 5706, 5708, 5710, 5715, 5718, 5719, 5722, 5723, 5725-5727, 5729	B57												36					41							
*570105, 5711, 5713, 5721	B57												36												
*570201-5705, 5717	B57																	41							
*5707	B57																	41							
*5709	B57								32									41							
*5712	B57																	41							
*5714	-												36					41							
*5716, 5720	-												36					41							
*5724	-												36					41							
*580101, 580102, 580104, 5804, 5805, 5810N-5815, 5819, 5821-5824	B58, null												36					41							
*580103, 5802, 5806, 5816, 5825, 5826	B58												36												
*5807	B58												36	37											
*5808	B17/ B5									33															
*5809	B17												36					41							
*5817N	Null												36					41							
*5818	-			27									36												
*5820	-																						45		
*5827	-																								
*5828	-																	41							
*5901, 5905	B59																								
*5902, 5903	B59																								
*5904	-																								
*670101	B67					29																	45		48
*670102	B67																						45		48
*6702	-																						45		48
*7301	B73																								48
*7801, 780202, 7803	B78									33									42						
*780201, 7804	B35, B78									33									42						
*7805	-									33									42						
*7806	-									33															
*8101	B81																								
*8102	B81																								48
*8103, 8104N	-																								
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
											60						66				70			B57	*570101-570104, 570106, 5706, 5708, 5710, 5715, 5718, 5719, 5722, 5723, 5725-5727, 5729
											60						66				70			B57	*570105, 5711, 5713, 5721
											60						66				70			B57	*570201-5705, 5717
				53							60						66				70			B57	*5707
				53							60						66				70			B57	*5709
											60						66				71			B57	*5712
						55					60						66				70			-	*5714
											60										70			-	*5716, 5720
				53							60						66				70			-	*5724
											60							67			70			B58, null	*580101, 580102, 580104, 5804, 5805, 5810N-5815, 5819, 5821-5824
											60							67			70			B58	*580103, 5802, 5806, 5816, 5825, 5826
											60							67			70			B58	*5807
				54						59	60							67			70			B17/ B5	*5808
					55						60							67			70			B17	*5809
											60							67			70			Null	*5817N
											60							67			70			-	*5818
											60							67			70			-	*5820
											60							67			70			-	*5827
											60							67			70			-	*5828
									58						64						70			B59	*5901, 5905
									58												70			B59	*5902, 5903
									58							65					70			-	*5904
			52																		71			B67	*670101
			52																		71			B67	*670102
			w																		71			-	*6702
			52																		69	71		B73	*7301
										59					64						68	71		B78	*7801, 780202, 7803
										59											68	71		B35, B78	*780201, 7804
										59		62									71			-	*7805
										59	62										71			-	*7806
			52				56	57													71	72		B81	*8101
			52					57													71	72		B81	*8102
			52					57													71	72		-	*8103, 8104N
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

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Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
*8201-8203	B82								32			35								43					
*8301	-																	41							
HLA-B allele ⁴																									
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Cw*0130					28																				
Cw*0206																									
Cw*0223		25																							
Cw*0305, 0325, 0327				27																					
Cw*0620																									
Cw*0746									32																
Cw*150204																									
Cw*1525																									
Well No.		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48

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-B low resolution typing.

In addition, wells number 29, 30, 34, 41, 44, 45, 54, 59, 66 and 72 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 exon or in the 1st 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, or 3rd exon or the 1st or 3rd introns, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴The sequence of the B*0701 allele has been shown to be in error.

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

The B*1324 allele has been renamed B*132202

The B*150105 allele has been corrected and renamed B*9520

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
			52				56									65						71		B82	*8201-8203
			52	53			56							63								71		-	*8301
																									HLA-B allele ⁴
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.
																		w							<i>Cw*0130</i>
																									<i>Cw*0206</i>
																									<i>Cw*0223</i>
																									<i>Cw*0305, 0325, 0327</i>
																					69				<i>Cw*0620</i>
																									<i>Cw*0746</i>
															64										<i>Cw*150204</i>
				53																					<i>Cw*1525</i>
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		Well No.

⁵The serological reactivity of all HLA-B alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the www.ebi.ac.uk/imgt/hla web site, the information available at the www.worldmarrow.org web site, the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

⁶ The B*0826, B*0850 and the B*4207 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets. The B*1408 and the B*3925N, B*3930, B*3932 to 3934, 3947 and 3950 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*180702, B*1829 and the B*3532, B*3537, B*3553N, B*3564, B*356801-356802 and B*3599 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

The B*4109 and the B*4502 and B*4503 alleles give rise to identical amplification patterns with the HLA-B low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

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

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

'ser', serological HLA specificity.

'w', might be weakly amplified.

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

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INTERPRETATION TABLE													
DR low resolution SSP typing													
Amplification patterns of the DRB1*0101 to DRB1*1003 alleles													
		Well											
		73	74	75	76	77	78	79	80	81	82	83	84
Length of spec.		200	200	210	210	120	80	85	100	210	170	85	205
PCR product(s)		255				220	210	210	175	230	215	135	
											250	180	
Length of int.													
pos control ¹		515	430	430	430	430	430	430	430	430	515	430	430
5'-primer(s) ²		14 (129) 5'-gAA ^{3'}	14 (129) 5'-gAA ^{3'}	13 (126) 5'-Agg ^{3'}	13 (126) 5'-Agg ^{3'}	13 (125) 5'-gTC ^{3'}	13 (125) 5'-gTC ^{3'}	13 (125) 5'-gTC ^{3'}	13 (125) 5'-ACA ^{3'}	14 (127) 5'-ATA ^{3'}	16 (133) 5'-gTT ^{3'}	26 (165) 5'-TAT ^{3'}	31 (178) 5'-gCg ^{3'}
				13 (126) 5'-AAG ^{3'}	13 (126) 5'-AAG ^{3'}	47 (227) 5'-gTT ^{3'}	16 (133) 5'-gTT ^{3'}		13 (125) 5'-ACC ^{3'}	14 (127) 5'-ATA ^{3'}	16 (133) 5'-gTT ^{3'}	58 (261) 5'-gAg ^{3'}	
									13 (125) 5'-ATA ^{3'}	16 (133) 5'-gTT ^{3'}			
									13 (125) 5'-gTC ^{3'}				
3'-primer(s) ³		67 (286) 5'-gAg ^{3'}	67 (286) 5'-gAT ^{3'}	67 (286) 5'-gAT ^{3'}	67 (286) 5'-gAA ^{3'}	73 (305) 5'-ggC ^{3'}	26 (164) 5'-ggT ^{3'}	28 (171) 5'-CTC ^{3'}	33 (184) 5'-gTg ^{3'}	71 (298) 5'-CTC ^{3'}	58 (260) 5'-CCT ^{3'}	57 (257) 5'-CgA ^{3'}	86 (344) 5'-CAC ^{3'}
		67 (286) 5'-gAg ^{3'}		70 (295) 5'-CTg ^{3'}	67 (286) 5'-gAg ^{3'}	73 (305) 5'-ggC ^{3'}	71 (299) 5'-gCT ^{3'}	70 (295) 5'-CTg ^{3'}	58 (260) 5'-Cgg ^{3'}	73 (305) 5'-ggC ^{3'}	74 (307) 5'-CAG ^{3'}	73 (305) 5'-ggC ^{3'}	86 (344) 5'-CCA ^{3'}
		67 (286) 5'-gAT ^{3'}		71 (298) 5'-CgC ^{3'}	72 (303) 5'-gCg ^{3'}	74 (308) 5'-CCC ^{3'}				77 (317) 5'-AAT ^{3'}	86 (344) 5'-CAC ^{3'}	78 (319) 5'-CAC ^{3'}	
		71 (299) 5'-gCg ^{3'}		71 (299) 5'-gCT ^{3'}						78 (319) 5'-CAC ^{3'}			
		86 (344) 5'-CCA ^{3'}		73 (305) 5'-ggC ^{3'}									
Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84

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Well No.	DR	73	74	75	76	77	78	79	80	81	82	83	84
DRB1 allele⁴	ser⁵												
*010101-010205, 0104-0131	1	73											
*0103	1/103		74										
*03010101-030108, 0304-0306, 0309, 031101-0316, 0318-0320, 0322, 0323, 0325, 0326, 0328, 0330, 0331, 0333, 0334, 0336, 0337, 0343-0345, 0347, 0348, 0350-0352	3, 17					77	78						
*030201-0303, 0327, 0329, 0338	3, 18					77		79					
*0307, 0317, 0321, 0324, 0332, 0335, 0339-0341, 0349	3					77							
*0308	3					77	78					83	
*0310	3					77	78						
*0342	-					77							
*0346	-					77	78						
*040101-0461, 0463-0468, 0470-047202, 0474-0489	3, 4								80				
*0462, 0469, 0473	4								80				
*07010101-070103, 0703-0717	7, null									81			
*080101-080203, 080401-0807, 0811, 0816, 0817, 0822, 0824, 0826, 0828, 0839	8										82		
*080302, 0810, 0812-0815, 0818, 0819, 0823, 0825, 0827, 0829-083002, 0833, 0834, 0836-0838	8										82		
*0808	8										82		
*0809, 0821, 1415	8										82		
*0820, 1318, 1347, 1355	-/13												
*0831, 1167	8, 11										82		
*0832	-										82		
*0835	-										82		
*090102-090105, 090201, 090202, 0904-0909	9											83	
*090106, 0903	9											83	
*100101-1003	10												84
Well No.	ser⁵	73	74	75	76	77	78	79	80	81	82	83	84

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85	86	87	88	89	90	91	92	93	94	95	96	DR	Well No.
												ser ⁵	DRB1 allele ⁴
												1	*010101-010205, 0104-0131
												1/103	*0103
				89								3, 17	*03010101-030108, 0304-0306, 0309, 031101-0316, 0318-0320, 0322, 0323, 0325, 0326, 0328, 0330, 0331, 0333, 0334, 0336, 0337, 0343-0345, 0347, 0348, 0350-0352
				89								3, 18	*030201-0303, 0327, 0329, 0338
				89								3	*0307, 0317, 0321, 0324, 0332, 0335, 0339-0341, 0349
85												3	*0308
						91	92					3	*0310
												-	*0342
												-	*0346
												3, 4	*040101-0461, 0463-0468, 0470-047202, 0474-0489
					90							4	*0462, 0469, 0473
												7, null	*07010101-070103, 0703-0717
			88									8	*080101-080203, 080401-0807, 0811, 0816, 0817, 0822, 0824, 0826, 0828, 0839
												8	*080302, 0810, 0812-0815, 0818, 0819, 0823, 0825, 0827, 0829-083002, 0833, 0834, 0836-0838
			88		90							8	*0808
			88				92					8	*0809, 0821, 1415
		87	88	89			92					-/13	*0820, 1318, 1347, 1355
85			88									8, 11	*0831, 1167
	86						92					-	*0832
							92					-	*0835
						91						9	*090102-090105, 090201, 090202, 0904-0909
												9	*090106, 0903
												10	*100101-1003
85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.

Negative Control

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84
*110101-110111, 110401-110405, 110601, 110602, 1109-111002, 111201, 111202, 1115, 1124, 112701-1130, 1132, 1133, 1135, 1137-1139, 1143, 1144, 1146, 1147, 1149-1151, 115401, 115402, 1156, 115801, 115802, 1160-1162, 1166, 1172, 1174, 1175, 1177, 1178, 1181, 1184, 1188	11												
*110201-1103, 111101, 111102, 111401, 111402, 1116, 1120, 1121, 1136, 1140, 1141, 1148, 1159, 1163, 116501, 116502, 1168, 1170, 1176, 1180, 1183, 1185-1187	11, 13						78						
*1105	11												
*1107, 1153	11					77						83	
*110801, 110802, 1118-111902, 1142, 1157	11												
*111301, 111302	11							w					
*1117, 1152	11, 14												
*1122	-												
*1123, 1125	11												
*1126, 1134	11							79					
*1131, 1145, 1164	11												
*1155	11												
*1169, 1182	-												
*1173, 1179	-						78						
*1189	-												
*120101-120103, 120302, 1205-1212, 1214, 1217	12												
*120201-120204, 1213, 1215, 1218-1220	12												
*1204	12										82		
*1216	-										82		
Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.
85		87	88									11	*110101-110111, 110401-110405, 110601, 110602, 1109-111002, 111201, 111202, 1115, 1124, 112701-1130, 1132, 1133, 1135, 1137-1139, 1143, 1144, 1146, 1147, 1149-1151, 115401, 115402, 1156, 115801, 115802, 1160-1162, 1166, 1172, 1174, 1175, 1177, 1178, 1181, 1184, 1188
85		87	88									11, 13	*110201-1103, 111101, 111102, 111401, 111402, 1116, 1120, 1121, 1136, 1140, 1141, 1148, 1159, 1163, 116501, 116502, 1168, 1170, 1176, 1180, 1183, 1185-1187
85			88									11	*1105
85												11	*1107, 1153
85		87										11	*110801, 110802, 1118-111902, 1142, 1157
85						91	92					11	*111301, 111302
85						91	92					11, 14	*1117, 1152
85												-	*1122
85		87	88				92					11	*1123, 1125
85												11	*1126, 1134
85		87					92					11	*1131, 1145, 1164
85			88				92					11	*1155
85			88		90							-	*1169, 1182
85		87										-	*1173, 1179
85							92					-	*1189
	86											12	*120101-120103, 120302, 1205-1212, 1214, 1217
	86		88									12	*120201-120204, 1213, 1215, 1218-1220
	86											12	*1204
	86		88									-	*1216
85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.

Negative Control

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84
*130101-130201, 130203, 1304, 1308, 1316, 1320, 1322-1324, 1327-1329, 1331, 1332, 1334-1336, 1338-1341, 1348, 1351, 1352, 1354, 1359, 1361, 1363-1365, 1368-1376, 1378-1380, 1383, 1384, 1387, 1391-1393, 1396, 1397	11, 13, 14						78						
*130202, 130301-130304, 1310, 133301-133303, 1337, 1366, 1381, 1388-1390, 1394, 1395	13						78						
*130501, 130502, 130701, 130702, 131101, 131102, 131401-131403, 132101, 132102, 1342, 1346, 1349-135002, 1362	6, 11, 13												
*1306, 1312, 1325, 1330, 1356, 1358, 1360, 1377, 1382	6, 11, 13												
*1309	13												
*1313, 1484	13, -												
*1315, 1319, 1353, 1357	13						78	79					
*1317	13						78			81			
*1326	14							79					
*1343	13						78						
*1344, 1386	-							79					
*1345	13						78						
*1367	13												
*1385	-						78	79					
*140101, 140102, 1404, 140701, 140702, 1410, 1426, 1428, 1431, 1435, 1438, 1439, 1454, 1455, 1457, 1460-1462, 1470, 1471, 1475, 1476, 1479, 1486-1488, 1490	4, 6, 14, 1404												
*140103, 1408, 142302, 1434, 1472, 1492N	14												
Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.
		87	88	89								11, 13, 14	*130101-130201, 130203, 1304, 1308, 1316, 1320, 1322-1324, 1327-1329, 1331, 1332, 1334-1336, 1338-1341, 1348, 1351, 1352, 1354, 1359, 1361, 1363-1365, 1368-1376, 1378-1380, 1383, 1384, 1387, 1391-1393, 1396, 1397
		87		89								13	*130202, 130301-130304, 1310, 133301-133303, 1337, 1366, 1381, 1388- 1390, 1394, 1395
		87	88	89								6, 11, 13	*130501, 130502, 130701, 130702, 131101, 131102, 131401-131403, 132101, 132102, 1342, 1346, 1349- 135002, 1362
		87		89								6, 11, 13	*1306, 1312, 1325, 1330, 1356, 1358, 1360, 1377, 1382
			88	89								13	*1309
		87		89			92					13, -	*1313, 1484
		87	88	89								13	*1315, 1319, 1353, 1357
			88									13	*1317
		87	88	89								14	*1326
		87	88			91	92					13	*1343
				89								-	*1344, 1386
		87	88		90		92					13	*1345
		87	88									13	*1367
		87		89								-	*1385
					90	91	92					4, 6, 14, 1404	*140101, 140102, 1404, 140701, 140702, 1410, 1426, 1428, 1431, 1435, 1438, 1439, 1454, 1455, 1457, 1460-1462, 1470, 1471, 1475, 1476, 1479, 1486-1488, 1490
						91	92					14	*140103, 1408, 142302, 1434, 1472, 1492N
85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84
*1402, 140601, 140602, 1409, 1413, 1417, 1420, 1429, 1430, 1433, 1441, 1447, 1448, 1451, 1480, 1483, 1494	6, 14							79					
*140301, 140302, 1412, 1440, 1463, 1467, 1477, 1478, 1485	6, 14, 1403							79					
*140501-140503, 1414, 142301, 142303, 1436, 1443-1445, 1456, 1459, 1464, 1491, 1496	14												
*1411	14										82		
*1416	6						78						
*1418, 1481	14							79					
*1419, 1421	14						78	79					
*1422	14												
*1424	14							79					
*1425, 1453	6, 13, 14												
*1427	14							79					
*143201, 143202	14							w					
*1437	14												
*1442	-												
*1446, 1452	14												
*1449	14							79					
*1450	14									81			
*1458	14												
*1465	6							w					
*1468, 1493	14										82		
*1469	-												
*1473	-												
*1474	-												
*1482	-							78					
*1489	-								79				
*1495	-							78					
*150101-1520, 1522-1524, 1526, 1528-1533, 1535-1543	2, 15, Null			75									
*1521	2			75									
*1525	-			75		77							
*1527, 1534	-			75									
*160101-1603, 160501, 160502, 1607-1615	16				76								
*1604	16				76								
Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84

Lot No.: **78G**

Lot-specific information

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85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.
				89		91						6, 14	*1402, 140601, 140602, 1409, 1413, 1417, 1420, 1429, 1430, 1433, 1441, 1447, 1448, 1451, 1480, 1483, 1494
		87		89			92					6, 14, 1403	*140301, 140302, 1412, 1440, 1463, 1467, 1477, 1478, 1485
				89		91	92					14	*140501-140503, 1414, 142301, 142303, 1436, 1443-1445, 1456, 1459, 1464, 1491, 1496
						91	92					14	*1411
		87	88		90	91	92					6	*1416
				89		91	92					14	*1418, 1481
		87		89		w						14	*1419, 1421
		87	88		90	91	92					14	*1422
			88	89								14	*1424
		87	88		90		92					6, 13, 14	*1425, 1453
		87	88	89			92					14	*1427
					90	91	92					14	*143201, 143202
			88	89	90							14	*1437
				89			92					-	*1442
						91						14	*1446, 1452
					90	91	92					14	*1449
					90	91	92					14	*1450
					90		92					14	*1458
				89		91	92					6	*1465
					90	91	92					14	*1468, 1493
		87			90		92					-	*1469
			88		90	91	92					-	*1473
		87			90	91	92					-	*1474
					90	91	92					-	*1482
				89			92					-	*1489
				89		91	92					-	*1495
												2, 15, Null	*15010101-1520, 1522-1524, 1526, 1528-1533, 1535-1543
							w					2	*1521
												-	*1525
						91						-	*1527, 1534
												16	*160101-1603, 160501, 160502, 1607-1615
							w					16	*1604
85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.

Negative Control

Lot No.: **78G**

Lot-specific information

www.olerup-ssp.com

Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84
DRB3*01010201-0114, DRB3*0201-0225, DRB3*030101-0303	52												
DRB4*01010101- 01030101, 010302-0108	51												
DRB4*01030102N	Null												
DRB5*010101-0114, DRB5*0202-0205	51												
Well No.	ser ⁵	73	74	75	76	77	78	79	80	81	82	83	84

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 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 73 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DR low resolution typing.

In addition, well number 82 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to allow kit identification.

²The codon, and in parenthesis the nucleotide, in the 2nd exon, matching the specificity-determining 3'-end of the primer is given. Codon and 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. Empty spaces indicate codon boundaries.

³The codon, and in parenthesis the nucleotide, in the 2nd exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and 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. Empty spaces indicate codon boundaries.

Lot No.: **78G**

Lot-specific information

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85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.	
								93				Negative Control	52	DRB3*01010201-0114, DRB3*0201-0225, DRB3*030101-0303
									94				51	DRB4*01010101- 01030101, 010302-0108
					90				94				Null	DRB4*01030102N
										95			51	DRB5*010101-0114, DRB5*0202-0205
85	86	87	88	89	90	91	92	93	94	95	96	ser ⁵	Well No.	

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

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

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

The DRB1*1313 and DRB1*1484 alleles yield identical amplification patterns with the DR low resolution primer set. These alleles can be separated by the respective high resolution primer sets.

⁵The serological reactivity of all DRB alleles is not known. In this table we use the information in the HLA Dictionary 2004 on the www.ebi.ac.uk/imgt/hla web site, the information available at the www.worldmarrow.org web site, the expert-assigned serological grouping in Tissue Antigens (2009) 73:95-170, and have also inferred the serological grouping from the naming of the sequence-defined allele.

‘ser’, serological HLA specificity.

‘w’, may be weakly amplified.

Lot No.: **78G**

Lot-specific information

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CELL LINE VALIDATION SHEET																				
HLA-A low resolution primer set																				
				Lot No.:	Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					200966901	200855002	200855003	200855004	200855005	200855006	200855007	200855008	200855009	200855010	200855011	200855012	200959313	201068714	200855015	200855016
	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	9025 DEU	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
9	9026 YAR	*2601			-	-	-	-	-	-	-	+	-	+	-	-	+	-	-	-
10	9107 LKT3	*2402			-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
12	9052 DBB	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*2402			-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
17	9282 CTM3953540	*0301	*8001		-	-	+	-	-	+	-	-	-	-	-	-	+	-	-	-
18	9257 32367	*3303	*7401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*0217			-	+	-	-	-	-	W	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*0201	*3401		-	+	-	-	-	-	-	+	-	-	+	+	-	-	-	-
24	9035 JBUSH	*3201			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
25	9049 IBW9	*3301			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*0205			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*2410	*2901		-	-	-	-	+	-	+	-	-	-	-	-	-	+	-	-
28	9320 BEL5GB	*0201	*2902		-	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-
29	9050 MOU	*2902			-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
30	9021 RSH	*3001	*6802		-	-	-	-	-	-	-	+	-	-	-	-	-	-	+	+
31	9019 DUCAF	*3002			-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
32	9297 HAG	*0201			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3101			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*3201			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
36	9024 KT17	*0206	*1101		-	+	-	+	-	-	-	-	-	-	+	-	-	-	-	-
37	9065 HHKB	*0301			-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-
38	9099 LZL	*0217			-	+	-	-	-	-	W	-	-	-	-	-	-	-	-	-
39	9315 CML	*0101	*0301		+	-	+	+	-	-	-	-	-	-	-	-	-	+	-	-
40	9134 WHONP199	*0207	*3001		-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	+
41	9055 H0301	*0301			-	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-
42	9066 TAB089	*0207			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*0207			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*6601			-	-	-	-	-	-	-	+	-	-	+	-	+	-	-	-
45	9239 SHJO	*2301	*2402		-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*0301			-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-
47	9045 TUBO	*0216	*0301		-	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-
48	9303 TER-ND	*0201	*1101		-	+	-	+	-	-	-	-	-	-	+	-	-	-	-	-

Lot No.: **78G**

Lot-specific information

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CELL LINE VALIDATION SHEET												
HLA-A low resolution primer set					Well							
					17	18	19	20	21	22	23	24
				Lot No.:	200855017	200855018	200855019	200959320	200855021	200855022	201068723	201068724
	IHC 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	9025 DEU	*3101			-	-	-	-	-	-	-	-
9	9026 YAR	*2601			-	-	-	-	-	-	-	-
10	9107 LKT3	*2402			-	-	-	-	-	-	-	-
11	9051 PITOUT	*2902			-	-	-	-	-	-	-	-
12	9052 DBB	*0201			-	-	-	-	-	-	-	-
13	9004 JESTHOM	*0201			-	-	-	-	-	-	-	-
14	9071 OLGA	*3101			-	-	-	-	-	-	-	-
15	9075 DKB	*2402			-	-	-	-	-	-	-	-
16	9037 SWEIG007	*2902			-	-	-	-	-	-	-	-
17	9282 CTM3953540	*0301	*8001		-	+	-	-	-	-	+	+
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.: **78G**

Lot-specific information

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				Well															
				25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		Prod. No.:		200959401	200959402	200963303	201068804	200963305	200963306	200959407	200959408	200967009	201068810	200959411	200959412	200963313	200959414	200959415	200959416
IHC cell line		B*																	
1	9001 SA	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*5201	*7301	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
3	9011 E4181324	*52011		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
4	9275 GU373	*1510	*5301	-	-	-	-	-	-	-	+	-	-	-	+	-	+	-	-
5	9009 KAS011	*3701		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
6	9353 SM	*3901	*5101	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-
7	9020 QBL	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
8	9025 DEU	*3501		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
9	9026 YAR	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*5401		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*5701		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
13	9004 JESTHOM	*2705		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	+
14	9071 OLGA	*1501	*1520	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
15	9075 DKB	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*4002		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*0801	*5501	-	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-
18	9257 32367	*1401	*5601	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
20	9059 SLE005	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*1501		-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
22	9056 KOSE	*3503		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*4002	*5602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*1402		-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*5801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
27	9191 CH1007	*0705	*5101	+	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
28	9320 BEL5GB	*4402	*4403	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*4403		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*4201		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
31	9019 DUCAF	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
32	9297 HAG	*4102		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-
33	9098 MT14B	*4001		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*4402		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*1501	*3501	-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
37	9065 HHKB	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*1501		-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
39	9315 CML	*0801	*2705	-	+	-	-	+	-	-	+	-	-	-	-	-	-	-	+
40	9134 WHONP199	*1302	*4601	-	-	+	+	-	-	+	-	-	+	-	+	-	-	-	-
41	9055 H0301	*1402		-	-	-	+	-	+	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*4601		-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
43	9076 T7526	*4601		-	-	-	-	-	-	+	-	-	-	-	+	-	-	-	-
44	9057 TEM	*3801		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*4201	*5001	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-
46	9013 SCHU	*0702		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*5101		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
48	9303 TER-ND	*3501	*4403	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-	-

				Well															
				41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Prod. No.:				200963317	200959418	201068819	200963320	200959421	200959422	200959423	200959424	200959425	200963326	200963327	200959428	200963329	200959430	200959431	200963332
IHC cell line		B*																	
1	9001 SA	*0702		-	-	-	+	-	-	-	+	-	-	-	+	-	-	-	-
2	9280 LK707	*5201	*7301	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-
3	9011 E4181324	*52011		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*1510	*5301	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*3701		+	-	-	+	-	-	-	-	-	-	-	-	+	-	-	-
6	9353 SM	*3901	*5101	-	-	-	-	+	-	+	+	-	-	-	-	-	+	-	-
7	9020 QBL	*1801		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*3501		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*3801		-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*5401		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+
11	9051 PITOUT	*4403		+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
12	9052 DBB	*5701		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*2705		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+
14	9071 OLGA	*1501	*1520	+	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*4001		-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
16	9037 SWEIG007	*4002		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
17	9282 CTM3953540	*0801	*5501	-	-	-	-	-	-	-	+	-	-	+	+	-	-	-	+
18	9257 32367	*1401	*5601	-	-	-	-	-	-	+	+	-	-	-	+	-	-	-	+
19	9038 BM16	*1801		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*4001		-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
21	9064 AMALA	*1501		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*3503		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*4002	*5602	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	+
24	9035 JBUSH	*3801		-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*1402		-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-
26	9285 WT49	*5801		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*0705	*5101	-	-	-	-	-	-	-	+	-	-	-	+	-	+	-	-
28	9320 BEL5GB	*4402	*4403	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
29	9050 MOU	*4403		+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
30	9021 RSH	*4201		-	-	-	-	-	-	-	+	-	-	+	+	-	-	-	-
31	9019 DUCAF	*1801		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*4102		-	-	-	-	-	-	-	+	-	-	+	-	-	-	-	-
33	9098 MT14B	*4001		-	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-
34	9104 DHIF	*3801		-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*4402		+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
36	9024 KT17	*1501	*3501	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*0702		-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-
38	9099 LZL	*1501		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*0801	*2705	-	-	-	-	-	-	-	+	-	-	+	+	-	-	-	+
40	9134 WHONP199	*1302	*4601	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
41	9055 H0301	*1402		-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-
42	9066 TAB089	*4601		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
43	9076 T7526	*4601		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
44	9057 TEM	*3801		-	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*4201	*5001	-	-	-	-	-	-	-	+	-	-	+	+	-	-	-	-
46	9013 SCHU	*0702		-	-	-	-	-	-	-	+	-	-	-	+	-	-	-	-
47	9045 TUBO	*5101		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
48	9303 TER-ND	*3501	*4403	+	+	-	-	-	-	-	-	-	-	-	-	+	-	-	-

Lot No.: **78G**

Lot-specific information

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				Well																
				57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	
		Prod. No.:		200959433	200959434	200959435	200959436	200959437	201068838	201068839	201068840	200959441	200959442	200963343	200959444	200959445	200959446	200959447	200963348	
IHC cell line		B*																		
1	9001 SA	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
2	9280 LK707	*5201	*7301	-	-	+	+	-	+	-	-	-	-	-	-	-	-	+	-	-
3	9011 E4181324	*52011		-	-	+	+	-	+	-	-	-	-	-	-	+	+	+	-	
4	9275 GU373	*1510	*5301	-	-	-	+	-	-	-	-	-	-	-	+	-	+	+	-	
5	9009 KAS011	*3701		-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	
6	9353 SM	*3901	*5101	-	-	+	+	-	-	-	-	-	-	-	+	-	+	+	-	
7	9020 QBL	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	
8	9025 DEU	*3501		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	
9	9026 YAR	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	
10	9107 LKT3	*5401		-	-	-	-	-	-	-	+	+	-	-	-	-	-	+	-	
11	9051 PITOUT	*4403		-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	
12	9052 DBB	*5701		-	-	-	+	-	-	-	-	-	+	-	-	-	+	-	-	
13	9004 JESTHOM	*2705		-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	
14	9071 OLGA	*1501	*1520	-	-	-	-	-	+	-	-	-	-	-	-	+	-	+	-	
15	9075 DKB	*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	
16	9037 SWEIG007	*4002		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	
17	9282 CTM3953540	*0801	*5501	-	-	+	-	-	-	-	+	-	-	-	-	-	-	+	+	
18	9257 32367	*1401	*5601	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	
19	9038 BM16	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	
20	9059 SLE005	*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	
21	9064 AMALA	*1501		-	-	-	-	-	+	-	-	-	-	-	-	+	-	+	-	
22	9056 KOSE	*3503		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	
23	9124 IHL	*4002	*5602	-	-	-	-	+	+	-	-	+	-	+	-	-	-	+	-	
24	9035 JBUSH	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	
25	9049 IBW9	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
26	9285 WT49	*5801		-	-	-	+	-	-	-	-	-	-	+	-	-	+	-	-	
27	9191 CH1007	*0705	*5101	-	-	+	+	-	-	-	-	-	-	-	+	-	+	+	+	
28	9320 BEL5GB	*4402	*4403	-	-	-	-	-	+	+	-	-	-	-	-	-	+	-	-	
29	9050 MOU	*4403		-	-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	
30	9021 RSH	*4201		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	
31	9019 DUCAF	*1801		-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	
32	9297 HAG	*4102		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+	
33	9098 MT14B	*4001		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	
34	9104 DHIF	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	
35	9302 SSTO	*4402		-	-	-	-	-	+	+	-	-	-	-	-	-	+	-	-	
36	9024 KT17	*1501	*3501	-	-	-	-	-	+	-	-	-	-	+	+	-	+	-	-	
37	9065 HHKB	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	
38	9099 LZL	*1501		-	-	-	-	-	+	-	-	-	-	-	-	+	-	+	-	
39	9315 CML	*0801	*2705	-	-	-	-	-	+	-	-	-	-	-	-	-	+	+	+	
40	9134 WHONP199	*1302	*4601	-	-	-	-	-	+	-	-	-	-	-	-	+	+	+	-	
41	9055 H0301	*1402		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
42	9066 TAB089	*4601		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	
43	9076 T7526	*4601		-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-	
44	9057 TEM	*3801		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
45	9239 SHJO	*4201	*5001	-	-	+	-	+	+	-	-	+	-	-	-	-	-	+	+	
46	9013 SCHU	*0702		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	
47	9045 TUBO	*5101		-	-	+	+	-	-	-	-	-	-	-	+	-	+	-	-	
48	9303 TER-ND	*3501	*4403	-	-	-	-	-	+	-	-	-	-	-	+	-	+	+	-	

CELL LINE VALIDATION SHEET																				
DR low resolution primer set																				
				Well																
				73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	
				Prod. No.:	201068901	201068902	201068903	201068904	201068905	201068906	201068907	201068908	201068909	201068910	201068911	201068912	201068913	201068914	201068915	201068916
IHWC cell line		DRB1																		
1	9001 SA	*0101			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*1502	*0405		-	-	+	-	-	-	-	+	-	-	-	-	-	-	-	-
3	9011 E4181324	*1502			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*1601			-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*0407	*0803		-	-	-	-	-	-	-	+	-	+	-	-	-	-	-	-
7	9020 QBL	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*0401			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
9	9026 YAR	*0402			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
10	9107 LKT3	*0405			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
11	9051 PITOUT	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
12	9052 DBB	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
13	9004 JESTHOM	*0101			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*0802			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+
15	9075 DKB	*0901			-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
16	9037 SWEIG007	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
17	9282 CTM3953540	*0301	*1301		-	-	-	-	+	+	-	-	-	-	-	-	-	-	+	+
18	9257 32367	*0901	*1101		-	-	-	-	-	-	-	-	-	-	+	-	+	-	+	+
19	9038 BM16	*1201			-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
20	9059 SLE005	*1302			-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
21	9064 AMALA	*1402			-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*1302	*1401		-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
23	9124 IHL	*0803	*1414		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
24	9035 JBUSH	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
25	9049 IBW9	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
26	9285 WT49	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*0405	*1001		-	-	-	-	-	-	-	-	+	-	-	-	+	-	-	-
28	9320 BEL5GB	*0416	*0701		-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
29	9050 MOU	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
30	9021 RSH	*0302			-	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*0301			-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*1303			-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	-
33	9098 MT14B	*0404			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
34	9104 DHIF	*1101			-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+
35	9302 SSTO	*0403			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
36	9024 KT17	*0403	*0406		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
37	9065 HHKB	*1301			-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
38	9099 LZL	*1402			-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
39	9315 CML	*0301	*0401		-	-	-	-	+	+	-	+	-	-	-	-	-	-	-	-
40	9134 WHONP199	*0701	*0901		-	-	-	-	-	-	-	-	+	-	+	-	-	-	-	-
41	9055 H0301	*1302			-	-	-	-	-	+	-	-	-	-	-	-	-	-	+	+
42	9066 TAB089	*0803			-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
43	9076 T7526	*0901			-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-
44	9057 TEM	*1401			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*0701			-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
46	9013 SCHU	*1501			-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*1104	*1201		-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+
48	9303 TER-ND	*0103			-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Lot-specific information

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CELL LINE VALIDATION SHEET												
DR low resolution primer set												
				Prod. No.:	Well							
					89	90	91	92	93	94	95	
					201068917	201068918	201068919	201068920	201068921	201068922	201068923	
	IHWC cell line		DRB1									
1	9001 SA		*0101		-	-	-	-	-	-	-	
2	9280 LK707		*1502	*0405	-	-	-	-	-	+	+	
3	9011 E4181324		*1502		-	-	-	-	-	-	+	
4	9275 GU373		*0301		+	-	-	-	+	-	-	
5	9009 KAS011		*1601		-	-	-	-	-	-	+	
6	9353 SM		*0407	*0803	-	-	-	-	-	+	-	
7	9020 QBL		*0301		+	-	-	-	+	-	-	
8	9025 DEU		*0401		-	-	-	-	-	-	-	
9	9026 YAR		*0402		-	-	-	-	-	+	-	
10	9107 LKT3		*0405		-	-	-	-	-	+	-	
11	9051 PITOUT		*0701		-	-	-	-	-	+	-	
12	9052 DBB		*0701		-	+	-	-	-	+	-	
13	9004 JESTHOM		*0101		-	-	-	-	-	-	-	
14	9071 OLGA		*0802		-	-	-	-	-	-	-	
15	9075 DKB		*0901		-	-	+	-	-	+	-	
16	9037 SWEIG007		*1101		-	-	-	-	+	-	-	
17	9282 CTM3953540		*0301	*1301	+	-	-	-	-	-	-	
18	9257 32367		*0901	*1101	-	-	+	-	+	+	-	
19	9038 BM16		*1201		-	-	-	-	+	-	-	
20	9059 SLE005		*1302		+	-	-	-	+	-	-	
21	9064 AMALA		*1402		+	-	+	-	+	-	-	
22	9056 KOSE		*1302	*1401	+	+	+	+	+	-	-	
23	9124 IHL		*0803	*1414	+	-	+	+	+	-	-	
24	9035 JBUSH		*1101		-	-	-	-	+	-	-	
25	9049 IBW9		*0701		-	-	-	-	-	+	-	
26	9285 WT49		*0301		+	-	-	-	+	-	-	
27	9191 CH1007		*0405	*1001	-	-	-	-	-	+	-	
28	9320 BEL5GB		*0416	*0701	-	-	-	-	-	+	-	
29	9050 MOU		*0701		-	-	-	-	-	+	-	
30	9021 RSH		*0302		+	-	-	-	+	-	-	
31	9019 DUCAF		*0301		+	-	-	-	+	-	-	
32	9297 HAG		*1303		+	-	-	-	+	-	-	
33	9098 MT14B		*0404		-	-	-	-	-	+	-	
34	9104 DHIF		*1101		-	-	-	-	+	-	-	
35	9302 SSTO		*0403		-	-	-	-	-	+	-	
36	9024 KT17		*0403	*0406	-	-	-	-	-	+	-	
37	9065 HHKB		*1301		+	-	-	-	+	-	-	
38	9099 LZL		*1402		+	-	+	-	+	-	-	
39	9315 CML		*0301	*0401	+	-	-	-	+	+	-	
40	9134 WHONP199		*0701	*0901	-	-	+	-	-	+	-	
41	9055 H0301		*1302		+	-	-	-	+	-	-	
42	9066 TAB089		*0803		-	-	-	-	-	-	-	
43	9076 T7526		*0901		-	-	+	-	-	+	-	
44	9057 TEM		*1401		-	+	+	+	+	-	-	
45	9239 SHJO		*0701		-	-	-	-	+	-	-	
46	9013 SCHU		*1501		-	-	-	-	-	-	+	
47	9045 TUBO		*1104	*1201	-	-	-	-	+	-	-	
48	9303 TER-ND		*0103		-	-	-	-	-	-	-	

Lot No.: **78G**

Lot-specific information

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CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A-B-DR SSP Combi Tray

Product number: 101.701-24u/06u – without *Taq* pol.
Lot number: 78G
Expiry date: 2012-March-01
Number of tests: 24 tests – Product No. 101.701-24u
6 tests – Product No. 101.701-06u
Number of wells per test: 95 + 1

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2009-669-01	9	2008-550-09	17	2008-550-17
2	2008-550-02	10	2008-550-10	18	2008-550-18
3	2008-550-03	11	2008-550-11	19	2008-550-19
4	2008-550-04	12	2008-550-12	20	2009-593-20
5	2008-550-05	13	2009-593-13	21	2008-550-21
6	2008-550-06	14	2010-687-14	22	2008-550-22
7	2008-550-07	15	2008-550-15	23	2010-687-23
8	2008-550-08	16	2008-550-16	24	2010-687-24

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

Additional 5'- and 3'-primers in primer solutions 4 to 8, 12, 15, 17 and 20 to 23 were tested by separately adding one 3'-primer, respectively one 5'-primer. One additional 5'-primer in primer solutions 1 and 10 was tested by separately adding one 3'-primer. Additional 3'-primers in primer solutions 3, 14, 16, 18, 19 and 23 were tested by separately adding one 5'-primer. One respectively two 5'-primers in primer solutions 2 and 15 were not possible to test, and one 3'-primer in primer solutions 3, 18 and 19 were not possible to test.

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
25	2009-594-01	41	2009-633-17	57	2009-594-33
26	2009-594-02	42	2009-594-18	58	2009-594-34
27	2009-633-03	43	2010-688-19	59	2009-594-35
28	2010-688-04	44	2009-633-20	60	2009-594-36
29	2009-633-05	45	2009-594-21	61	2009-594-37
30	2009-633-06	46	2009-594-22	62	2010-688-38
31	2009-594-07	47	2009-594-23	63	2010-688-39
32	2009-594-08	48	2009-594-24	64	2010-688-40
33	2009-670-09	49	2009-594-25	65	2009-594-41
34	2010-688-10	50	2009-633-26	66	2009-594-42
35	2009-594-11	51	2009-633-27	67	2009-633-43
36	2009-594-12	52	2009-594-28	68	2009-594-44
37	2009-633-13	53	2009-633-29	69	2009-594-45
38	2009-670-14	54	2009-594-30	70	2009-594-46
39	2009-594-15	55	2009-594-31	71	2009-594-47
40	2009-594-16	56	2009-633-32	72	2009-633-48

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

Additional 5'-primers and 3'-primers in primer solutions 27, 38, 43, 53, 55 and 64 were tested by separately adding one additional 3'-primer, respectively one additional 5'-primer. Additional 3'-primers in primer solutions 26, 37 and 59 were tested by separately adding one additional 5'-primer. Additional 5'-primers in primer solutions 25, 45 and 72 were tested by separately adding one additional 3'-primer. One 5'-primer in primer solution 55 and one 3'-primer in primer solution 62 were not possible to test.

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
73	2010-689-01	81	2010-689-09	89	2010-689-17
74	2010-689-02	82	2010-689-10	90	2010-689-41
75	2010-689-03	83	2010-689-11	91	2010-689-19
76	2010-689-04	84	2010-689-12	92	2010-689-20
77	2010-689-05	85	2010-689-13	93	2010-689-21
78	2010-689-06	86	2010-689-14	94	2010-689-22
79	2010-689-07	87	2010-689-15	95	2010-689-23
80	2010-689-08	88	2010-689-16		

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

Additional 5'- and 3'-primers in primer solutions 81, 83 and 90 were tested by separately adding one 3'-primer, respectively one 5'-primer. Additional 5'-primer in primer solutions 78, 87, 88 and 93 were tested by separately adding one 3'-primer. Additional 3'-primers in primer solutions 73, 75, 82, 84 and 92 were tested by separately adding one 5'-primer. One of the 5'-primers in primer solution 75, 76, 81, 82 and 88, and three of the 5'-primers in primer solution 80 were not possible to test. One of the 3'-primers

Lot No.: **78G**

Lot-specific information

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in primer solution 73 and 94 were not possible to test. In primer solution 75 and 85, one 5'-primer and one respective two 3'-primers were not possible to test.

The negative control primer pairs, **Production No. 2009-614-01**, can detect contamination with PCR products diluted 10^{-7} .

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

Date of approval: 2010-July-02

Approved by:

Quality Control, Supervisor

Lot No.: **78G**

Lot-specific information

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Declaration of Conformity

Product name: *Olerup* SSP® HLA-A-B-DR SSP Combi Tray
Product number: 101.701-24u/06u
Lot number: 78G

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

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

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

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

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

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

Saltsjöbaden, Sweden
2010-July-02

Olle Olerup
Managing Director

Lot No.: **78G**

Lot-specific information

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