

Olerup SSP[®] HLA-A*26

Product number:	101.424-12 – including <i>Taq</i> polymerase
Lot number:	13K
Expiry date:	2012-June-01
Number of tests:	12
Number of wells per test:	32
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 13K.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] HLA-A*26 LOT

The HLA-A*26 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP[®]* HLA-A*26 lot was made (Lot No. 40F).

Two wells have been added to the HLA-A*26 kit,
wells **31 and 32**.
The amplification patterns for some rare HLA-A*26 alleles
only differ by the length of the specific PCR products.

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

Well	5'-primer	3'-primer	rationale
4	Added	-	Primer added for the A*26:03:02 allele.
10	Exchanged	-	New 5'-primer for improved specificity of primer pair.
13	Added	Added	Primer pair added for the A*26:45 allele.
18	-	-	Exchanged positive control primer pair.
19	Added	-	Primer added for the A*26:40 allele.
21	Added	Added	Primer pair added for the A*26:41 allele.
22	Added	-	Primer added for the A*26:38 allele.
26	Added	Added	Primer pair added for the A*26:42 allele.
29	Added	Added	Primer pair added for the A*26:44 allele.
31	New	New	New primer pair for the A*26:39 allele.
32	New	New	New primer pair for the A*26:43 allele.

PRODUCT DESCRIPTION

HLA-A*26 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the A*26:01 to A*26:45 alleles.

PLATE LAYOUT

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

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

The 32 well PCR plate is marked with 'HLA-A*26' in silver/gray ink.

Well No. 1 is marked with the Lot Number '13K'.

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.

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

INTERPRETATION

The interpretation of HLA-A*26 SSP subtypings will be influenced by seven A*01, several A*02, two A*03, most A*11, the A*23:10, four A*24, the A*25, the A*29:19, two A*30, three A*31, two A*33, the A*34, the A*36:03, the A*43:01, the A*66, the A*68, the A*69:01, two A*74 and the A*80:01 alleles when present on the other haplotype.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*26 alleles, i.e. **A*26:01 to A*26:45**, recognized by the HLA Nomenclature Committee in April 2010¹ will give rise to unique amplification patterns by the primers in the HLA-A*26 subtyping kit.

The HLA-A*26 subtyping kit cannot distinguish the A*26:01:01 to A*26:01:13, the A*26:03:01 and A*26:03:02 or the A*26:07:01 and A*26:07:02 alleles.

The A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.

The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.

The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

The A*26:37 and A*26:44 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.

¹HLA-A alleles listed on the IMGT/HLA web page 2010-April-01, release 3.0.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 45 HLA-A*26 alleles generate 41 different patterns, as some alleles have patterns that only differ in size of specific PCR product. These can be combined in 861 homozygous and heterozygous combinations. 346 of these genotypes do not give rise to unique amplification patterns. The different sizes of the specific PCR products generated by the primers in wells 6, 9, 10, 12, 13, 18, 19, 21, 22, 26, 29 and 30 have not been considered in these calculations.

+++-----	-----	-----	-----	26:02,26:05 = 26:02,26:27
+++-----	-+-----	-----	-----	26:02,26:07 = 26:02,26:20
+++-----	--+-----	-----	---+-----	26:01,26:06 = 26:06,26:36
+++-----	-----	-++-----	---+-----	26:21,26:22 = 26:21,26:40
+++-----	-----	-+-----	---+-----	26:21,26:34 = 26:21,26:42
+++-----	-----	-+-----	---+-----	26:01,26:21 = 26:21,26:36
+++-----	-----	--+-----	+-----	26:22,26:30 = 26:30,26:40
+++-----	-----	--+-----	---+-----	26:03,26:22 = 26:03,26:40
+++-----	-----	-----	++-----	26:30,26:34 = 26:30,26:42
+++-----	-----	-----	-+-----	26:03,26:34 = 26:03,26:42
+++-----	-----	-----	---+-----	26:01,26:03 = 26:03,26:36
+++-----	-----	-----	-----	26:04,26:05 = 26:04,26:27
+++-----	-+-----	-----	-----	26:04,26:07 = 26:04,26:20
+++-----	--+-----	-----	-----	26:05,26:28 = 26:27,26:28
+++-----	-----	-----	-----	26:05,26:08 = 26:08,26:27
+++-----	+-----	-----	-----	26:05,26:18 = 26:18,26:27
+++-----	--+-----	-----	-----	26:05,26:14 = 26:14,26:27
+++-----	-----	-----	-----	26:05,26:11N = 26:11N,26:27
+++-----	+-----	-----	-----+-----	26:05,26:29 = 26:27,26:29
+++-----	+-----	-----	-----	26:05,26:12 = 26:12,26:27
+++-----	-+-----	-----	-----	26:05,26:20 = 26:07,26:27 = 26:20,26:27
+++-----	-----	-----	-----	26:05,26:16 = 26:16,26:27
+++-----	-----	-----	-----	26:05,26:17 = 26:17,26:27
+++-----	-----	-----	-----	26:05,26:10 = 26:10,26:27
+++-----	-----	-----	-----+-----	26:05,26:33 = 26:27,26:33
+++-----	-----	-----	-----	26:05,26:13 = 26:13,26:27
+++-----	-----	+-----	-----	26:05,26:09 = 26:09,26:27
+++-----	-----	--+-----	-----	26:05,26:22 = 26:05,26:40 = 26:22,26:27 = 26:27,26:40
+++-----	-----	---+-----	-----	26:05,26:23 = 26:23,26:27
+++-----	-----	-----	-----	26:05,26:24 = 26:24,26:27
+++-----	-----	-----	-----+-----	26:05,26:25N = 26:25N,26:27
+++-----	-----	-----	-----+-----	26:05,26:26 = 26:26,26:27
+++-----	-----	-----	-----	26:05,26:32 = 26:27,26:32
+++-----	-----	-----	-----	26:05,26:34 = 26:05,26:42 = 26:27,26:34 = 26:27,26:42
+++-----	-----	-----	---+-----	26:05,26:35 = 26:27,26:35
+++-----	-----	-----	---+-----	26:05,26:36 = 26:27,26:36
+++-----	-----	-----	-----+-----	26:05,26:37 = 26:27,26:37
+++-----	-----	-----	-----+-----	26:05,26:15 = 26:15,26:27
+++-----	-----	-----	-----+-----	26:05,26:39 = 26:27,26:39
+++-----	-----	-----	-----+-----	26:05,26:43 = 26:27,26:43
+++-----	-----	-----	-----	26:01,26:05 = 26:01,26:27 = 26:05,26:27 = 26:27,26:27
+++-----	+-----	-----	-----	26:08,26:18 = 26:12,26:28 = 26:18,26:28
+++-----	-+-----	-----	-----	26:07,26:28 = 26:20,26:28
+++-----	--+-----	-----	-----	26:22,26:28 = 26:28,26:40
+++-----	-----	-----	-----	26:28,26:34 = 26:28,26:42
+++-----	-----	-----	-----	26:01,26:28 = 26:08,26:14 = 26:08,26:28 = 26:11N,26:28 = 26:14,26:28 = 26:16,26:28 = 26:28,26:28
+++-----	-+-----	-----	-----	26:07,26:08 = 26:08,26:20
+++-----	-----	-----	-----	26:08,26:22 = 26:08,26:40

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+++++ -	-----	-----	-+-----	26:08,26:34 = 26:08,26:42
+++++ -	-----	-----	-----	26:01,26:08 = 26:08,26:08
+++++ +	+ + + -	-----	-----	26:07,26:18 = 26:18,26:20
+++++ +	+ + + -	--+-----	-----	26:18,26:22 = 26:18,26:40
+++++ +	+ + + -	-----	-+-----	26:18,26:34 = 26:18,26:42
+++++ +	+ + + -	-----	-----+ -	26:14,26:29 = 26:15,26:18 = 26:18,26:29
+++++ +	+ + + -	-----	-----	26:01,26:18 = 26:11N,26:18 = 26:12,26:14 =
				26:12,26:18 = 26:14,26:18 = 26:16,26:18 =
				26:18,26:18
+++++ +	-+ + -	-----	-----	26:07,26:14 = 26:14,26:20
+++++ +	-+ + -	-----	-----	26:07,26:11N = 26:11N,26:20
+++++ +	-----	--+-----	-----	26:14,26:22 = 26:14,26:40
+++++ +	-----	-----	-+-----	26:14,26:34 = 26:14,26:42
+++++ +	-----	-----	-----	26:01,26:14 = 26:11N,26:14 = 26:11N,26:16
				= 26:14,26:14 = 26:14,26:16
+++++ +	-----	--+-----	-----	26:11N,26:22 = 26:11N,26:40
+++++ +	-----	-----	-+-----	26:11N,26:34 = 26:11N,26:42
+++++ +	-----	-----	-----	26:01,26:11N = 26:11N,26:11N
+++++ +	+ + - -	-----	-----+ -	26:07,26:29 = 26:20,26:29
+++++ +	+ + - -	-----	-----	26:07,26:12 = 26:12,26:20
+++++ +	+ + + +	-----	-----+ -	26:12,26:33 = 26:13,26:29 = 26:29,26:33
+++++ +	+ + - -	--+-----	-----+ -	26:22,26:29 = 26:29,26:40
+++++ +	+ + - -	--+-----	-----	26:12,26:22 = 26:12,26:40
+++++ +	+ + - -	-----	-+ - - + -	26:29,26:34 = 26:29,26:42
+++++ +	+ + - -	-----	-+ - - + -	26:12,26:34 = 26:12,26:42
+++++ +	+ + - -	-----	-----+ -	26:01,26:29 = 26:12,26:15 = 26:12,26:29 =
				26:15,26:29 = 26:29,26:29
+++++ +	+ + - -	-----	-----	26:01,26:12 = 26:12,26:12
+++++ +	-+ + -	-----	-----	26:07,26:16 = 26:16,26:20
+++++ +	-+ + -	-----	-----	26:07,26:17 = 26:17,26:20
+++++ +	-+ + -	-----	-----	26:07,26:10 = 26:10,26:20
+++++ +	-+ + +	-----	-----+ -	26:07,26:33 = 26:20,26:33
+++++ +	-+ + +	-----	-----	26:07,26:13 = 26:13,26:20
+++++ +	-+ + -	+ + - -	-----	26:07,26:09 = 26:09,26:20
+++++ +	-+ + -	--+-----	-----	26:07,26:22 = 26:07,26:40 = 26:20,26:22 =
				26:20,26:40
+++++ +	-+ + -	--+-----	-----	26:07,26:23 = 26:20,26:23
+++++ +	-+ + -	-----+ -	-----	26:07,26:24 = 26:20,26:24
+++++ +	-+ + -	-----+ -	-----	26:07,26:25N = 26:20,26:25N
+++++ +	-+ + -	-----+ -	-----	26:07,26:26 = 26:20,26:26
+++++ +	-+ + -	-----+ -	-----	26:07,26:32 = 26:20,26:32
+++++ +	-+ + -	-----	-+ + -	26:07,26:34 = 26:07,26:42 = 26:20,26:34 =
				26:20,26:42
+++++ +	-+ + -	-----	--+-----	26:07,26:35 = 26:20,26:35
+++++ +	-+ + -	-----	-----+ -	26:07,26:36 = 26:20,26:36
+++++ +	-+ + -	-----	-----+ -	26:07,26:37 = 26:20,26:37
+++++ +	-+ + -	-----	-----+ -	26:07,26:15 = 26:15,26:20
+++++ +	-+ + -	-----	-----+ -	26:07,26:39 = 26:20,26:39
+++++ +	-+ + -	-----	-----+ -	26:07,26:43 = 26:20,26:43
+++++ +	-+ + -	-----	-----	26:01,26:07 = 26:01,26:20 = 26:07,26:20 =
				26:20,26:20
+++++ +	--+ + +	--+-----	-----	26:19,26:22 = 26:19,26:40
+++++ +	--+ + +	-----	-+-----	26:19,26:34 = 26:19,26:42
+++++ +	--+ + +	-----	-----+ -	26:15,26:19 = 26:19,26:33
+++++ +	--+ + +	-----	-----	26:01,26:19 = 26:13,26:19
+++++ +	--+ + -	--+-----	-----	26:16,26:22 = 26:16,26:40
+++++ +	--+ + -	-----	-+-----	26:16,26:34 = 26:16,26:42
+++++ +	--+ + -	-----	-----	26:01,26:16 = 26:16,26:16
+++++ +	--+ + -	--+-----	-----	26:17,26:22 = 26:17,26:40
+++++ +	--+ + -	-----	-+-----	26:17,26:34 = 26:17,26:42
+++++ +	--+ + -	-----	-----	26:01,26:17 = 26:17,26:17
+++++ +	--+ + -	--+-----	-----	26:10,26:22 = 26:10,26:40
+++++ +	--+ + -	-----	-+-----	26:10,26:34 = 26:10,26:42
+++++ +	--+ + -	-----	-----	26:01,26:10 = 26:10,26:10
+++++ +	--+ + +	--+-----	-----+ -	26:22,26:33 = 26:33,26:40

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++-----	-----++	--+-----	-----	26:13,26:22	=	26:13,26:40
++-----	-----++	-----	--+-----	26:33,26:34	=	26:33,26:42
++-----	-----++	-----	--+-----	26:13,26:34	=	26:13,26:42
++-----	-----++	-----	-----+--	26:01,26:33	=	26:13,26:15 = 26:13,26:33 =
				26:15,26:33	=	26:33,26:33
++-----	-----++	-----	-----	26:01,26:13	=	26:13,26:13
++-----	-----	--+-----	-----	26:22,26:31	=	26:31,26:40
++-----	-----	--+-----	--+-----	26:31,26:34	=	26:31,26:42
++-----	-----	-----	--+-----	26:22,26:23	=	26:23,26:40
++-----	-----	-----	--+-----	26:22,26:24	=	26:24,26:40
++-----	-----	-----	--+-----	26:22,26:25N	=	26:25N,26:40
++-----	-----	-----	--+-----	26:22,26:26	=	26:26,26:40
++-----	-----	-----	--+-----	26:22,26:32	=	26:32,26:40
++-----	-----	-----	--+-----	26:22,26:34	=	26:22,26:42 = 26:40,26:42
++-----	-----	-----	--+-----	26:22,26:35	=	26:35,26:40
++-----	-----	-----	--+-----	26:22,26:36	=	26:36,26:40
++-----	-----	-----	--+-----	26:22,26:37	=	26:37,26:40
++-----	-----	-----	--+-----	26:15,26:22	=	26:15,26:40
++-----	-----	-----	--+-----	26:22,26:39	=	26:39,26:40
++-----	-----	-----	--+-----	26:22,26:43	=	26:40,26:43
++-----	-----	-----	--+-----	26:01,26:22	=	26:01,26:40 = 26:22,26:22 =
				26:22,26:40		
++-----	-----	-----	--+-----	26:23,26:34	=	26:23,26:42
++-----	-----	-----	--+-----	26:01,26:23	=	26:23,26:23
++-----	-----	-----	--+-----	26:24,26:34	=	26:24,26:42
++-----	-----	-----	--+-----	26:01,26:24	=	26:24,26:24
++-----	-----	-----	--+-----	26:25N,26:34	=	26:25N,26:42
++-----	-----	-----	--+-----	26:01,26:25N	=	26:25N,26:25N
++-----	-----	-----	--+-----	26:26,26:34	=	26:26,26:42
++-----	-----	-----	--+-----	26:01,26:26	=	26:26,26:26
++-----	-----	-----	--+-----	26:32,26:34	=	26:32,26:42
++-----	-----	-----	--+-----	26:01,26:32	=	26:32,26:32
++-----	-----	-----	--+-----	26:34,26:35	=	26:35,26:42
++-----	-----	-----	--+-----	26:34,26:36	=	26:36,26:42
++-----	-----	-----	--+-----	26:34,26:37	=	26:37,26:42
++-----	-----	-----	--+-----	26:15,26:34	=	26:15,26:42
++-----	-----	-----	--+-----	26:34,26:39	=	26:39,26:42
++-----	-----	-----	--+-----	26:34,26:43	=	26:42,26:43
++-----	-----	-----	--+-----	26:01,26:34	=	26:01,26:42 = 26:34,26:42 =
				26:42,26:42		
++-----	-----	-----	--+-----	26:01,26:35	=	26:35,26:35
++-----	-----	-----	--+-----	26:01,26:36	=	26:36,26:36
++-----	-----	-----	--+-----	26:01,26:37	=	26:37,26:37
++-----	-----	-----	--+-----	26:01,26:15	=	26:15,26:15
++-----	-----	-----	--+-----	26:01,26:39	=	26:39,26:39
++-----	-----	-----	--+-----	26:01,26:43	=	26:43,26:43
++-----	-----	-----	--+-----	26:03,26:19	=	26:06,26:19
++-----	-----	-----	--+-----	26:06,26:21	=	26:06,26:31
++-----	-----	-----	--+-----	26:03,26:21	=	26:03,26:31 = 26:21,26:21 =
				26:21,26:31		

26:01 = 26:01:01-26:01:10
26:03 = 26:03:01 and 26:03:02
26:07 = 26:07:01 and 26:07:02
26:17 = 26:17 and 26:45
26:24 = 26:24 and 26:41
26:25N = 26:25N and 26:38
26:37 = 26:37 and 26:44

SPECIFICITY TABLE

HLA-A*26 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for HLA-A*26 SSP subtyping.

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-A*26 alleles ³	Other amplified HLA-A alleles ⁴
1	180 bp	800 bp	*26:01:01-26:01:13, 26:03:01-26:03:02, 26:05, 26:07:01-26:08, 26:10-26:28, 26:29 ^w , 26:30-26:33, 26:35-26:39, 26:41-26:45	*02:135, 25:01:01-25:05, 25:07-25:13, 31:24, 43:01, 66:01, 66:04-66:09, 66:10 ^w , 66:11-66:13
2⁵	80 bp	800 bp	*26:01:01-26:02, 26:04, 26:08-26:18, 26:20, 26:22-26:29, 26:32-26:45	*01:51, 33:13
3	140 bp	1070 bp	*26:02	
4	255 bp	800 bp	*26:03:01-26:03:02, 26:06, 26:21, 26:30	*03:09, 11:06, 11:18, 29:19, 30:13, 30:16, 33:24, 68:05, 68:15, 68:20, 74:06
5	180 bp	1070 bp	*26:04	
6^{5,9}	80 bp, 160 bp	1070 bp	*26:05, 26:27	
7	150 bp	800 bp	*26:08, 26:28	*25:04
8	135 bp	1070 bp	*26:11N, 26:14, 26:18, 26:28	*25:09, 31:03-31:04, 34:03, 34:06
9¹⁰	145 bp, 190 bp	1070 bp	*26:12, 26:18, 26:29	*31:03-31:04, 34:06, 66:06, 66:10
10^{5,11}	85 bp, 260 bp	1070 bp	*26:07:01-26:07:02, 26:20	*01:01:13, 02:146
11	140 bp	800 bp	*26:06, 26:19	*31:03
12¹²	135 bp, 240 bp	1070 bp	*26:14, 26:16, 26:18, 26:28	*01:02, 01:20, 24:04, 25:09, 31:03-31:04, 34:03, 34:06
13^{5,13}	110 bp, 255 bp	1070 bp	*26:17, 26:45	
14	145 bp	1070 bp	*26:10	*02:38, 02:101, 02:154, 23:10, 24:10, 24:46
15⁵	100 bp	800 bp	*26:13, 26:19, 26:33	*01:13, 01:17, 03:63, 11:01:01-11:11, 11:13-11:16, 11:20-11:27,

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				11:29-11:39, 11:41-11:59, 25:02, 34:01:01-34:06, 34:08, 66:01, 66:04, 66:06-66:11, 66:13
16	430 bp	1070 bp	*26:13, 26:19, 26:33	*02:34 ^w , 02:35:01-02:35:03, 02:56:01 ^w -02:56:02 ^w , 02:62 ^w , 02:78, 02:103 ^w , 24:19, 34:01:01-34:08, 66:01-66:02, 66:04, 66:06-66:13, 68:01:01-68:02:04, 68:06-68:14, 68:16-68:19, 68:21-68:30, 68:32-68:35, 68:37-68:49N, 69:01
17	175 bp	1070 bp	*26:09	*25:06, 31:03-31:04, 34:01:01-34:08
18 ^{5,6,14}	125 bp, 205 bp	1070 bp	*26:21, 26:31	
19 ¹⁵	190 bp, 245 bp	800 bp	*26:22, 26:40	*01:20 ^w , 02:38, 02:101, 66:09
20 ⁷	210 bp	1070 bp	*26:23	
21 ^{5,16}	115 bp, 205 bp	1070 bp	*26:24, 26:41	
22 ^{5,17}	100 bp , 220 bp	1070 bp	*26:25N, 26:38	
23	165 bp	1070 bp	*26:26	
24	305 bp	1070 bp	*26:32	*01:03, 11:26, 33:13, 36:03, 74:10
25 ⁸	360 bp	1070 bp	*26:30	*02:135, 25:13, 31:04, 66:02-66:03, 66:12
26 ¹⁸	150 bp, 175 bp	1070 bp	*26:34, 26:42	
27	275 bp	1070 bp	*26:35	
28 ⁵	90 bp	1070 bp	*26:03:01-26:03:02, 26:06, 26:21, 26:36	*11:06, 25:11, 80:01
29 ¹⁹	155 bp, 330 bp	1070 bp	*26:37, 26:44	
30 ^{5,20}	125 bp, 235 bp	1070 bp	*26:15, 26:29, 26:33	
31	210 bp	800 bp	*26:39	
32	155 bp	1070 bp	*26:43	*31:03-31:04, 34:02-34:04, 34:06-34:08, 66:06

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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-A*26 SSP typings.

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

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

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

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

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

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A*26 subtyping.

In addition, wells number 2, 4, 7, 11, 15, 19 and 31 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 HLA-A*26 subtyping kit cannot distinguish the A*26:01:01 to A*26:01:13, the A*26:03:01 and A*26:03:02 or the A*26:07:01 and A*26:07:02 alleles.

The A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.

The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.

The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

The A*26:37 and A*26:44 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.

⁴Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A*26 alleles will be amplified by primer mixes 1, 2, 4, 7 to 12, 14 to 17, 19, 24, 25, 28 and 32.

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

⁶Primer mix 18 may have tendencies of primer oligomer formation.

⁷Primer mix 20 may give rise to nonspecific amplification.

⁸Primer mix 25 may yield less specific PCR product than the other A*26 primer mixes.

⁹Primer mix 6: Specific PCR fragment of 80 bp in the A*26:05 allele. Specific PCR fragment of 160 bp in the A*26:27 allele.

¹⁰Primer mix 9: Specific PCR fragment of 145 bp in the A*26:12 and 26:18 and in the A*31:03-31:04, 34:06 and 66:06 alleles. Specific PCR fragment of 190 bp in the A*26:29 and in the A*66:10 alleles.

¹¹Primer mix 10: Specific PCR fragment of 85 bp in the A*26:07:01-26:07:02 and in the A*02:146 alleles. Specific PCR fragment of 260 bp in the A*26:20 and in the A*01:01:13 and 02:146 alleles.

¹²Primer mix 12: Specific PCR fragment of 135 bp in the A*26:14, 26:18 and 26:28 and in the A*25:09, 31:03-31:04, 34:03 and 34:06 alleles. Specific PCR fragment of 240 bp in the A*26:16 and in the A*01:02, 01:20 and 24:04 alleles.

¹³Primer mix 13: Specific PCR fragment of 110 bp in the A*26:45 allele. Specific PCR fragment of 255 bp in the A*26:17 allele.

¹⁴Primer mix 18: Specific PCR fragment of 115 bp in the A*26:31 allele. Specific PCR fragment of 205 bp in the A*26:21 allele.

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¹⁵Primer mix 19: Specific PCR fragment of 190 bp in the A*26:40 allele. Specific PCR fragment of 245 bp in the A*26:22 and in the A*01:20^w, 02:38, 02:101 and 66:09 alleles.

¹⁶Primer mix 21: Specific PCR fragment of 115 bp in the A*26:24 allele. Specific PCR fragment of 205 bp in the A*26:41 allele.

¹⁷Primer mix 22: Specific PCR fragment of 100 bp in the A*26:25N allele. Specific PCR fragment of 220 bp in the A*26:38 allele.

¹⁸Primer mix 26: Specific PCR fragment of 150 bp in the A*26:42 allele. Specific PCR fragment of 175 bp in the A*26:34 allele.

¹⁹Primer mix 29: Specific PCR fragment of 155 bp in the A*26:44 allele. Specific PCR fragment of 330 bp in the A*26:37 allele.

²⁰Primer mix 30: Specific PCR fragment of 125 bp in the A*26:15 and A*26:29 alleles. Specific PCR fragment of 235 bp in the A*26:33 allele.

‘w’, may be weakly amplified.

INTERPRETATION TABLE

HLA-A*26 SSP subtyping

Amplification patterns of the A*26:01 to 26:45 alleles

	Well ⁸															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Length of spec. PCR product(s)	180	80	140	255	180	80	150	135	145	85	140	135	110	145	100	430
Length of int. pos. control ¹	800	800	1070	800	1070	1070	800	1070	1070	1070	800	1070	1070	1070	800	1070
5'-primer(s) ²	418	261	418	74	423	261	423	423	423	78	243	98	228	453	282	28
	5'-Agg ^{3'}	5'-AAC ^{3'}	5'-AgA ^{3'}	5'-C ^{3'}	5'-gCT ^{3'}	5'-AAC ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-gCT ^{3'}	5'-TCT ^{3'}	5'-CCT ^{3'}	5'-CTC ^{3'}	5'-ATg ^{3'}	5'-AAA ^{3'}	5'-CAG ^{3'}	5'-TCg ^{3'}
				78		423				257	416	423	346			
				5'-TCC ^{3'}		5'-gCT ^{3'}				5'-Cgg ^{3'}	5'-gCg ^{3'}	5'-gCT ^{3'}	5'-gTA ^{3'}			
3'-primer(s) ³	559	299	517	292	560	299	524	517	527	299	341	299	299	559	341	282
	5'-CCg ^{3'}	5'-TCg ^{3'}	5'-CgT ^{3'}	5'-gTg ^{3'}	5'-ACA ^{3'}	5'-TCT ^{3'}	5'-CAC ^{3'}	5'-CgC ^{3'}	5'-CCA ^{3'}	5'-TCg ^{3'}	5'-CgT ^{3'}	5'-TCg ^{3'}	5'-TCg ^{3'}	5'-CCg ^{3'}	5'-CgT ^{3'}	5'-gAC ^{3'}
						542	538	519	570		517	517	559	559		290
						5'-CTT ^{3'}	5'-CTg ^{3'}	5'-gga ^{3'}	5'-CCg ^{3'}		5'-CgT ^{3'}	5'-CgC ^{3'}	5'-CCg ^{3'}	5'-CCg ^{3'}		5'-gAA ^{3'}
								524				524				
							5'-CAC ^{3'}					5'-CAC ^{3'}				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HLA-A allele																
*26:01:01-26:01:13	1	2														
*26:02		2	3													
*26:03:01-26:03:02	1			4												
*26:04		2			5											
*26:05	1					6										
*26:06				4							11					
*26:07:01-26:07:02	1									10						
*26:08	1	2					7									
*26:09		2														
*26:10	1	2												14		
*26:11N	1	2						8								
*26:12	1	2							9							
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

INTERPRETATION TABLE

HLA-A*26 SSP subtyping

Amplification patterns of the A*26:01 to 26:45 alleles

Well ⁸																
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
175	125	190	210	115	100	165	305	360	150	275	90	155	125	210	155	Length of spec. PCR product(s)
	205	245		205	220				175			330	235			
1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	800	1070	Length of int. pos. control ¹
423	257	355	392	395	160	652	341	341	98	106	292	28	98	391	423	5'-primer(s) ²
5'-gCT 3'	5'-CCC 3'	5'-CCg 3'	5'-CgA 3'	5'-gCA 3'	5'-ACT 3'	5'-CTg 3'	5'-ggA 3'	5'-ggC 3'	5'-CTA 3'	5'-CCA 3'	5'-CTC 3'	5'-TCg 3'	5'-CTA 3'	5'-ACC 3'	5'-gCT 3'	
	423	410		652	280				423			423				
	5'-gCT 3'	5'-gTT 3'		5'-CTg 3'	5'-CCC 3'				5'-gCT 3'			5'-gCT 3'				
559	341	559	559	559	341	776	362	418	208	341	341	186	180	559	538	3'-primer(s) ³
5'-CgT 3'	5'-CgT 3'	5'-CCg 3'	5'-CCg 3'	5'-CCg 3'	5'-CgT 3'	5'-CAA 3'	5'-TCA 3'	5'-gTC 3'	5'-CCA 3'	5'-CgT 3'	5'-CgT 3'	5'-TCC 3'	5'-TCC 3'	5'-CCg 3'	5'-CAA 3'	
	589			728					559			538	290			
	5'-CTT 3'			5'-CCT 3'					5'-CCA 3'			5'-CAG 3'	5'-gAA 3'			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																HLA-A allele
																*26:01:01-26:01:13
																*26:02
										28						*26:03:01-26:03:02
																*26:04
																*26:05
											28					*26:06
																*26:07:01-26:07:02
																*26:08
17																*26:09
																*26:10
																*26:11N
																*26:12
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

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Length of spec.	180	80	140	255	180	80	150	135	145	85	140	135	110	145	100	430
PCR product(s)						160			190	260		240	255			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*26:13	1	2													15	16
*26:14	1	2						8				12				
*26:15	1	2														
*26:16	1	2										12				
*26:17, 26:45 ⁴	1	2											13			
*26:18	1	2						8	9			12				
*26:19	1										11				15	16
*26:20	1	2								10						
*26:21	1			4												
*26:22	1	2														
*26:23	1	2														
*26:24, 26:41 ⁵	1	2														
*26:25N, 26:38 ⁶	1	2														
*26:26	1	2														
*26:27	1	2				6										
*26:28	1	2					7	8				12				
*26:29	w	2							9							
*26:30	1			4												
*26:31	1															
*26:32	1	2														
*26:33	1	2													15	16
*26:34		2														
*26:35	1	2														
*26:36	1	2														
*26:37, 26:44 ⁷	1	2														
*26:39	1	2														
*26:40		2														
*26:42	1	2														
*26:43	1	2														
*01:01:13, 02:146										10						
*01:02, 24:04												12				
*01:03, 36:03, 74:10																
*01:13, 01:17, 03:63, 11:01:01- 11:05, 11:07-11:11, 11:13-11:16, 11:20- 11:25, 11:27, 11:29- 11:39, 11:41-11:59															15	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **13K**

Lot-specific information

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175	125	190	210	115	100	165	305	360	150	275	90	155	125	210	155	Length of spec. PCR product(s)
	205	245		205	220				175			330	235			Well No.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																*26:13
																*26:14
													30			*26:15
																*26:16
																*26:17, 26:45 ⁴
																*26:18
																*26:19
																*26:20
	18										28					*26:21
		19														*26:22
			20													*26:23
				21												*26:24, 26:41 ⁵
					22											*26:25N, 26:38 ⁶
						23										*26:26
																*26:27
																*26:28
													30			*26:29
								25								*26:30
	18															*26:31
							24									*26:32
													30			*26:33
									26							*26:34
										27						*26:35
											28					*26:36
												29				*26:37, 26:44 ⁷
														31		*26:39
		19														*26:40
									26							*26:42
															32	*26:43
																*01:01:13, 02:146
																*01:02, 24:04
							24									*01:03, 36:03, 74:10
																*01:13, 01:17, 03:63, 11:01:01- 11:05, 11:07-11:11, 11:13-11:16, 11:20- 11:25, 11:27, 11:29- 11:39, 11:41-11:59
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **13K**

Lot-specific information

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Length of spec.	180	80	140	255	180	80	150	135	145	85	140	135	110	145	100	430
PCR product(s)						160			190	260		240	255			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*01:20												12				
*01:51		2														
*02:34, 02:56:01- 02:56:02, 02:62, 02:103																w
*02:35:01- 02:35:03, 02:78, 24:19, 68:01:01- 68:02:04, 68:06- 68:14, 68:16-68:19, 68:21-68:30, 68:32- 68:35, 68:37- 68:49N, 69:01																16
*02:38, 02:101														14		
*02:135, 25:13	1															
*02:154, 23:10, 24:10, 24:46														14		
*03:09, 11:18, 29:19, 30:13, 30:16, 33:24, 68:05, 68:15, 68:20, 74:06				4												
*11:06				4												15
*11:26																15
*25:01:01- 25:01:02, 25:03, 25:05, 25:07-25:08, 25:10, 25:12N, 31:24, 43:01, 66:05	1															
*25:02	1															15
*25:04	1						7									
*25:06																
*25:09	1							8				12				
*25:11	1															
*31:03								8	9		11	12				
*31:04								8	9			12				
*33:13		2														
*34:01:01- 34:01:02, 34:05																15 16
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Lot No.: **13K**

Lot-specific information

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175	125	190	210	115	100	165	305	360	150	275	90	155	125	210	155	Length of spec. PCR product(s)
	205	245		205	220				175			330	235			Well No.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
		w														*01:20
																*01:51
																*02:34, 02:56:01- 02:56:02, 02:62, 02:103
																*02:35:01- 02:35:03, 02:78, 24:19, 68:01:01- 68:02:04, 68:06- 68:14, 68:16-68:19, 68:21-68:30, 68:32- 68:35, 68:37- 68:49N, 69:01
		19														*02:38, 02:101
								25								*02:135, 25:13
																*02:154, 23:10, 24:10, 24:46
																*03:09, 11:18, 29:19, 30:13, 30:16, 33:24, 68:05, 68:15, 68:20, 74:06
											28					*11:06
							24									*11:26
																*25:01:01- 25:01:02, 25:03, 25:05, 25:07-25:08, 25:10, 25:12N, 31:24, 43:01, 66:05
																*25:02
																*25:04
17																*25:06
																*25:09
											28					*25:11
17															32	*31:03
17								25							32	*31:04
							24									*33:13
17																*34:01:01- 34:01:02, 34:05
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

Lot No.: **13K**

Lot-specific information

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Length of spec.	180	80	140	255	180	80	150	135	145	85	140	135	110	145	100	430
PCR product(s)						160			190	260		240	255			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*34:02, 34:04, 34:08															15	16
*34:03								8				12			15	16
*34:06								8	9			12			15	16
*34:07																16
*66:01, 66:04, 66:07-66:08, 66:11, 66:13	1														15	16
*66:02																16
*66:03																
*66:06	1								9						15	16
*66:09	1														15	16
*66:10	w								9						15	16
*66:12	1															16
*80:01																
HLA-A allele																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A*26 subtyping. .

In addition, wells number 2, 4, 7, 11, 15, 19 and 31 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

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

³The nucleotide position, in the 2nd, 3rd or 4th exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nuclotide 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 A*26:17 and A*26:45 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 13.

⁵The A*26:24 and A*26:41 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.

⁶The A*26:25N and A*26:38 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

⁷The A*26:37 and A*26:44 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.

Lot No.: **13K**

Lot-specific information

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175	125	190	210	115	100	165	305	360	150	275	90	155	125	210	155	Length of spec. PCR product(s)
	205	245		205	220				175			330	235			Well No.
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
17															32	*34:02, 34:04, 34:08
17															32	*34:03
17															32	*34:06
17															32	*34:07
																*66:01, 66:04, 66:07-66:08, 66:11, 66:13
								25								*66:02
								25								*66:03
															32	*66:06
		19														*66:09
																*66:10
								25								*66:12
											28					*80:01
																HLA-A allele
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

⁸Primer mix 6: Specific PCR fragment of 80 bp in the A*26:05 allele. Specific PCR fragment of 160 bp in the A*26:27 allele.

Primer mix 9: Specific PCR fragment of 145 bp in the A*26:12 and 26:18 and in the A*31:03-31:04, 34:06 and 66:06 alleles. Specific PCR fragment of 190 bp in the A*26:29 and in the A*66:10 alleles.

Primer mix 10: Specific PCR fragment of 85 bp in the A*26:07:01-26:07:02 and in the A*02:146 alleles. Specific PCR fragment of 260 bp in the A*26:20 and in the A*01:01:13 and 02:146 alleles.

Primer mix 12: Specific PCR fragment of 135 bp in the A*26:14, 26:18 and 26:28 and in the A*25:09, 31:03-31:04, 34:03 and 34:06 alleles. Specific PCR fragment of 240 bp in the A*26:16 and in the A*01:02, 01:20 and 24:04 alleles.

Primer mix 13: Specific PCR fragment of 110 bp in the A*26:45 allele. Specific PCR fragment of 255 bp in the A*26:17 allele.

Primer mix 18: Specific PCR fragment of 115 bp in the A*26:31 allele. Specific PCR fragment of 205 bp in the A*26:21 allele.

Primer mix 19: Specific PCR fragment of 190 bp in the A*26:40 allele. Specific PCR fragment of 245 bp in the A*26:22 and in the A*01:20^w, 02:38, 02:101 and 66:09 alleles.

Primer mix 21: Specific PCR fragment of 115 bp in the A*26:24 allele. Specific PCR fragment of 205 bp in the A*26:41 allele.

Primer mix 22: Specific PCR fragment of 100 bp in the A*26:25N allele. Specific PCR fragment of 220 bp in the A*26:38 allele.

Primer mix 26: Specific PCR fragment of 150 bp in the A*26:42 allele. Specific PCR fragment of 175 bp in the A*26:34 allele.

Primer mix 29: Specific PCR fragment of 155 bp in the A*26:44 allele. Specific PCR fragment of 330 bp in the A*26:37 allele.

Primer mix 30: Specific PCR fragment of 125 bp in the A*26:15 and A*26:29 alleles. Specific PCR fragment of 235 bp in the A*26:33 allele.

⁹‘w’, may be weakly amplified.

CELL LINE VALIDATION SHEET				HLA-A*26 SSP subtyping kit															
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				201072701	201072702	201072703	201072704	201072705	201072706	201072707	201072708	201072709	201072710	201072711	201072712	201072713	201072714	201072715	201072716
	IHWC cell line		A*																
1	9001 SA		*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*02:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324		*01:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373		*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011		*01:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM		*02:01	*26:03	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL		*26:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU		*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR		*26:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3		*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT		*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA		*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB		*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*03:01	*80:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367		*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA		*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL		*02:01	*34:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+
24	9035 JBUSH		*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9		*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49		*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007		*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
28	9320 BEL5GB		*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU		*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH		*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
31	9019 DUCAF		*30:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG		*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B		*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO		*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17		*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
37	9065 HHKB		*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL		*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML		*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301		*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089		*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526		*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM		*66:01		+	-	-	-	-	-	-	-	-	-	-	-	-	+	+
45	9239 SHJO		*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU		*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND		*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*26 SSP

Product number: 101.424-12 – including *Taq* polymerase
Lot number: 13K
Expiry date: 2012-June-01
Number of tests: 12
Number of wells per test: 32

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2010-727-01	13	2010-727-13	25	2010-727-25
2	2010-727-02	14	2010-727-14	26	2010-727-26
3	2010-727-03	15	2010-727-15	27	2010-727-27
4	2010-727-04	16	2010-727-16	28	2010-727-28
5	2010-727-05	17	2010-727-17	29	2010-727-29
6	2010-727-06	18	2010-727-18	30	2010-727-30
7	2010-727-07	19	2010-727-19	31	2010-727-31
8	2010-727-08	20	2010-727-20	32	2010-727-32
9	2010-727-09	21	2010-727-21		
10	2010-727-10	22	2010-727-22		
11	2010-727-11	23	2010-727-23		
12	2010-727-12	24	2010-727-24		

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

No DNAs carrying the alleles to be amplified by primer solutions 6, 8 to 11, 13, 18 to 23, 26, 27, 29 to 31 were available.

The specificities of the primers in primer solutions 6, 8 to 11, 18, 19, 21 and 29 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 23, 26 and 30 it was only possible to test the 5'-primers. In primer solutions 13, 20, 22, 27 and 31 it was only possible to test the 3'-primer. In primer solutions 6, 8, 16, 21 and 29 one of the 3'-primers was not possible to test. In primer solutions 4, 10, 11, 18, 19 and 21 one of the 5'-primers was not possible to test. Additional primers in primer solutions 7 and 12 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer.

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

Date of approval: 2010-June-07

Approved by:

Quality Control, Supervisor

Lot No.: **13K**

Lot-specific information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*26
Product number: 101.424-12
Lot number: 13K

Intended use: HLA-A*26 high resolution histocompatibility testing

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

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 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-June-07

Olle Olerup
Managing Director

Lot No.: **13K**

Lot-specific information

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