

Olerup SSP[®] HLA-B*15

Product number:	101.516-24u/04u – without <i>Taq</i> pol.
Lot number:	23L
Expiry date:	2013-September-01
Number of tests:	24 tests – Product No. 101.516-24u 4 tests – Product No. 101.516-04u
Number of wells per test:	96
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C

This Product Description is only valid for Lot No. 23L.

**CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP[®]*
HLA-B*15 LOT**

The HLA-B*15 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-B*15 lot was made (**Lot No. 65G**).

The amplification patterns for some rare HLA-B*15 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
10	Modified	-	Improved yield of specific PCR product, exchanged positive control primer pair.
14	Modified	-	Improved yield of specific PCR product.
24	-	Added	Primer added for the B*15:209N allele.
32	-	Added	Primers added for the B*15:190N and B*15:196 alleles.
33	-	Added	Primer added for the B*15:192 allele.
50	-	Added	Primer added for the B*15:206 allele.
54	-	Added	Primer added for the B*15:187 allele.
59	Added	Added	Primer pairs added for the B*15:191 and B*15:198 alleles.
67	-	Added	Primer added for the B*15:183 allele.
70	-	Added	Primer added for the B*15:208 allele.
71	-	Added	Primer added for the B*15:205 allele.
72	Added	-	Primer added for the B*15:201 allele.

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75	Added	-	Primer added for the B*15:201 allele.
79	-	Added	Primer added for the B*15:182N allele.
84	Added	-	Primer added for the B*15:197 allele.
85	-	Added	Improved allelic resolution.
86	-	Added	Primer added for the B*15:193 allele.
87	Added	Added	Primer pair added for the B*15:204 allele.
90	Added	Added	Primer pair added for the B*15:202 allele.
91	Added	Added	Primer pairs added for the B*15:184 and B'15:203 alleles.
95	-	Added	Primer added for the B*15:181N allele.

PRODUCT DESCRIPTION

HLA-B*15 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*15:01:01:01 to B*15:209N alleles.

PLATE LAYOUT

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

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	96

The 96 well cut PCR plate is marked with ‘HLA-B*15’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘23L’.

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

The interpretation of HLA-B*15 SSP subtypings will be influenced by many other HLA-B alleles. In addition, the A*68:56 allele will be amplified by primer mixes 3 and 50, the C*06:20 and C*12:50 alleles will be amplified by primer mix 3, the C*07:46 allele will be amplified by primer mix 7, the C*02:03 allele will be amplified by primer mix 9, the C*03:81 and C*15:15 alleles will be amplified by primer mix 22, the C*03:87, C*05:27 and C*05:39 alleles will be amplified by primer mix 27, the C*07:68, C*07:140, and C*07:151 alleles will be amplified by primer mix 34, the C*15:08 allele will be amplified by primer mix 37, the C*12:36 allele will be amplified by primer mix 54, the C*06:33 allele will be amplified by primer mix 59 and the C*03:48 allele will be amplified by primer mix 64.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*15 alleles, i.e. **B*15:01 to B*15:209N**, recognized by the HLA Nomenclature Committee in October 2010¹ will give rise to unique amplification patterns by the primers in the HLA-B*15 subtyping kit².

The B*15:166 and 15:193 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 86.

The HLA-B*15 subtyping kit cannot distinguish the B*15:01:01:01, 15:01:03, 15:01:06-15:01:13, 15:01:15-15:01:16 and 15:01:18-15:01:20 alleles, the B*15:02:01-15:02:05 alleles, the B*15:03:01-15:03:02 alleles, the B*15:05:01-15:05:02 alleles, the B*15:07:01-15:07:02 alleles, the B*15:11:01-15:11:02 and 15:11:05 alleles, the B*15:17:01:01-15:17:02 alleles, the B*15:18:01 and 15:18:04 alleles, the B*15:25:01-15:25:03 alleles, the B*15:27:01-15:27:03 alleles, the B*15:38:01-15:38:02 alleles, the B*15:39:01-15:39:02 alleles or the B*15:78:01-15:78:02 alleles.

¹HLA-B alleles listed on the IMGT/HLA web page 2010-October-15, release 3.2.0, www.ebi.ac.uk/imgt/hla.

²The B*15:180 and B*56:03 alleles will give rise to identical amplification patterns. These alleles can e.g. be distinguished by the HLA-B low resolution primer set.

SPECIFICITY TABLE

HLA-B*15 SSP subtyping

Specificities and sizes of the PCR products of the 96 primer mixes used for HLA-B*15 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*15 alleles ³	Other amplified Class I alleles ⁴
1	395 bp	800 bp	*15:01:01:01-15:01:04, 15:01:06-15:07:02, 15:12-15:15, 15:19-15:20, 15:24-15:28, 15:30-15:36, 15:38:01-15:40, 15:42-15:43, 15:45-15:50, 15:53-15:55, 15:57-15:58, 15:60-15:65, 15:69-15:71, 15:73, 15:75, 15:77-15:79N, 15:81-15:89, 15:91-15:92, 15:94N, 15:96, 15:98, 15:102-15:107, 15:109-15:113, 15:116-15:118, 15:120-15:123, 15:125-15:129, 15:131-15:132, 15:135-15:138, 15:140-15:142, 15:144-15:147, 15:150-15:151, 15:154-15:160, 15:163-15:167, 15:169-15:175, 15:178-15:179, 15:181N-15:185, 15:187-15:188, 15:190N, 15:192-15:195, 15:199, 15:201-15:207	*40:12
2	290 bp	1070 bp	*15:01:01:01-15:01:03, 15:01:06-15:02:05, 15:03:03-15:08, 15:10:02-15:11:03, 15:11:05-15:15, 15:17:01:01-15:17:02, 15:19-15:21, 15:24-15:28, 15:30-15:36, 15:38:01-15:40, 15:42-15:46, 15:48, 15:50, 15:55-15:58, 15:60, 15:63, 15:65-15:66, 15:70-15:71, 15:73, 15:75-15:79N, 15:81-15:89, 15:92, 15:94N, 15:96-15:97, 15:101-15:102, 15:104-15:107, 15:109-15:113, 15:116-15:118, 15:120-15:122, 15:125-15:126, 15:128-15:129, 15:135-15:150, 15:152, 15:154-15:155, 15:157, 15:159-15:160, 15:162-15:172, 15:174-15:175, 15:177-15:179, 15:181N-15:185, 15:187-15:196, 15:199, 15:201-15:209N	*46:01:01-46:26
3 ⁵	120 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06-15:01:16, 15:01:17 ^w , 15:01:18-15:01:20, 15:04, 15:07:01-15:08, 15:11:01-15:12, 15:14-15:15,	*07:100, 13:31, 18:19, 27:25, 35:14:01-35:14:02, 35:43:01-35:44, 35:62, 35:67, 35:79, 35:86, 35:102, 35:117, 35:135, 39:36, 45:05,

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			15:19, 15:24, 15:26N-15:28, 15:30, 15:32, 15:34-15:35, 15:38:01-15:38:02, 15:43, 15:45-15:46, 15:50, 15:53-15:54, 15:56-15:58, 15:60, 15:63, 15:66, 15:68, 15:70-15:71, 15:73, 15:75-15:77, 15:79N, 15:81-15:82, 15:85, 15:87, 15:90, 15:92, 15:94N, 15:96-15:97, 15:101-15:102, 15:104-15:105, 15:109-15:111N, 15:113, 15:117-15:118, 15:120, 15:122, 15:125-15:126, 15:128-15:129, 15:135, 15:137, 15:140, 15:142-15:149N, 15:152, 15:154, 15:157, 15:159-15:160, 15:163-15:167, 15:169, 15:171-15:172, 15:174-15:175, 15:178, 15:180-15:184, 15:187, 15:189-15:193, 15:201-15:203, 15:205-15:207, 15:209N	46:01:01-46:02, 46:04-46:05, 46:07N, 46:09-46:10, 46:12, 46:14-46:17, 46:20, 46:22-46:24, 51:61, 52:21, 54:06, 55:21, 56:03, A*68:56, C*06:20, C*12:50
4	180 bp	800 bp	*15:01:01:02N	
5⁸	385 bp	1070 bp	*15:02:01-15:02:05, 15:08-15:11:05, 15:13, 15:15, 15:18:01-15:18:04, 15:21, 15:23, 15:29, 15:31, 15:37, 15:44, 15:51-15:52, 15:55, 15:64, 15:72, 15:76, 15:80, 15:88-15:90, 15:93, 15:99, 15:108, 15:112, 15:114-15:115, 15:119, 15:121, 15:124, 15:133-15:134, 15:139, 15:143-15:144, 15:148, 15:153, 15:161, 15:170, 15:176, 15:186, 15:189, 15:191, 15:194, 15:197-15:198, 15:200, 15:209N	
6	525 bp	1070 bp	*15:02:01-15:02:05, 15:13, 15:21, 15:25:01-15:25:03, 15:36, 15:44, 15:62, 15:77, 15:80, 15:85, 15:88-15:89, 15:106, 15:112, 15:121, 15:139, 15:144, 15:154, 15:165, 15:170, 15:194, 15:204	
7	330 bp	1070 bp	*15:03:01-15:03:03, 15:09-15:10:02, 15:18:01-15:18:04, 15:23, 15:29, 15:37, 15:46-15:47, 15:49, 15:51-15:54, 15:61-15:62, 15:64, 15:69, 15:72, 15:74, 15:80, 15:90-15:91, 15:93, 15:98-15:99, 15:103, 15:106, 15:108, 15:114-15:115, 15:119, 15:123-15:124, 15:127, 15:131-15:134, 15:143, 15:151, 15:153, 15:156, 15:158, 15:161, 15:173, 15:176, 15:186, 15:197-15:198, 15:200	*40:12, C*07:46

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8⁵	105 bp	1070 bp	*15:04, 15:16, 15:67, 15:95, 15:137, 15:155	*13:04, 35:37, 39:06:01-39:06:02, 39:33-39:34, 39:50, 39:57, 39:62, 40:86, 45:02, 45:09, 49:04-49:05, 50:09, 51:13:01-51:13:02, 51:37, 51:63, 51:92, 51:97, 52:14, 54:14, 55:13, 55:23, 55:32, 56:22, 59:03, 73:01-73:02
9	200 bp	1070 bp	*15:05:01-15:05:02, 15:31, 15:52, 15:55, 15:91, 15:107, 15:114, 15:123-15:124, 15:151, 15:185, 15:188	*07:48, 08:13, 08:25, 08:40 ^w , 13:10- 13:11, 18:01:01-18:01:05, 18:01:07- 18:01:09, 18:03-18:07:02, 18:09- 18:12, 18:13 ^w , 18:14, 18:17N, 18:20, 18:23N-18:26, 18:28-18:29, 18:31- 18:51, 27:07, 27:11, 27:32-27:34, 27:43, 27:70, 35:05:01-35:05:02, 35:22, 35:31-35:32, 35:51, 35:66 ^w , 35:68:02, 35:72, 35:89, 35:97, 35:114, 35:151, 39:01:11, 39:30, 39:43, 40:01:01-40:01:03, 40:01:05- 40:01:11, 40:01:13-40:02:08, 40:02:10-40:03, 40:07-40:11:01, 40:12-40:14:03, 40:18-40:22N, 40:24-40:25, 40:27, 40:29, 40:31, 40:33, 40:35-40:40, 40:42-40:43, 40:45-40:50, 40:52, 40:54-40:58, 40:61-40:63, 40:65-40:67, 40:69, 40:71-40:74, 40:76-40:82, 40:84- 40:85, 40:87-40:92, 40:94, 40:97, 40:99, 40:101-40:102, 40:104- 40:108, 40:111-40:119, 40:121- 40:123, 40:124:02, 40:126, 40:128 ^w , 40:130, 40:132-40:135, 40:138- 40:142N, 40:144N-40:147, 40:149- 40:157, 44:31, 44:54, 44:65, 44:82, 46:06, 46:13:01-46:13:03, 46:21:01- 46:21:02, 46:26, 48:01:01-48:01:03, 48:03:01, 48:04, 48:06-48:07, 48:09- 48:14, 48:16, 48:18, 48:20, 48:22- 48:23, 48:24 ^w , 51:81, 53:14, 54:09, 55:04, 55:08, 56:02, 56:04, 56:10, 56:18, 58:16, 58:18, 58:27, 81:01- 81:05, C*02:03
10¹⁰	300 bp, 520 bp,	1070 bp	*15:06, 15:27:01-15:27:03, 15:37- 15:38:02, 15:84, 15:109, 15:112, 15:185, 15:195	
11^{5,7,8}	140 bp	1070 bp	*15:07:01-15:07:02, 15:45, 15:55, 15:68, 15:126, 15:207	*07:68:01-07:68:02, 07:100, 14:05, 14:13, 18:14, 27:32, 35:05:01- 35:05:02, 35:22, 35:51,35:58, 35:66, 35:72, 35:89, 35:97, 38:19, 39:03, 39:14, 39:24, 39:29, 39:37, 40:35, 40:71, 42:10, 44:54, 44:106, 46:12, 48:12, 48:14, 51:64, 53:14, 58:18

12	405 bp	1070 bp	*15:08, 15:29, 15:49, 15:56, 15:191	
13¹¹	395 bp, 435 bp	800 bp	*15:09-15:10:02, 15:18:01-15:18:04, 15:21, 15:23, 15:37, 15:44, 15:51-15:52, 15:66, 15:72, 15:79N-15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:133-15:134, 15:153, 15:161, 15:176, 15:186, 15:189, 15:197-15:198, 15:200	
14¹²	465 bp, 515 bp	1070 bp	*15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:83, 15:90, 15:99, 15:110, 15:150, 15:188	
15⁵	105 bp	1070 bp	*15:01:02, 15:09	*07:02:11, 07:05:03, 40:01:06, 40:26, 51:06, 51:59, 51:64
16^{5,13}	120 bp, 190 bp	1070 bp	*15:12, 15:19, 15:116, 15:124	*40:52, 40:59, 46:06, 48:23
17	435 bp	1070 bp	*15:13, 15:16-15:17:02, 15:23-15:24, 15:67, 15:87, 15:95, 15:157, 15:162, 15:168, 15:177, 15:196, 15:208	
18	195 bp	1070 bp	*15:14, 15:91, 15:131, 15:161	*35:45, 35:71, 44:17, 44:43:01-44:43:02, 45:09, 46:17, 53:22, 58:07
19⁸	400 bp	800 bp	*15:16-15:17:02, 15:67, 15:74, 15:95, 15:162, 15:168, 15:177, 15:196, 15:208	
20^{7,14}	360 bp, 505 bp	1070 bp	*15:16, 15:34, 15:62, 15:67, 15:85-15:86, 15:95, 15:105, 15:137, 15:194	*46:11, 46:18
21¹⁵	205 bp, 425 bp	1070 bp	*15:16, 15:43, 15:67, 15:95	
22⁷	190 bp	800 bp	*15:01:01:01-15:01:04, 15:01:06-15:01:20, 15:03:01-15:05:02, 15:07:01-15:11:05, 15:12 ^w , 15:14-15:16, 15:18:01-15:18:04, 15:19 ^w , 15:20, 15:23-15:24, 15:26N-15:30, 15:32-15:35, 15:37-15:39:02, 15:43, 15:45-15:46, 15:48, 15:51, 15:53-15:54, 15:56-15:58, 15:60-15:68, 15:70-15:76, 15:78:01-15:82, 15:84-15:85, 15:87, 15:90-15:92, 15:94N-15:99, 15:101-15:105, 15:107-15:111N, 15:113, 15:115-15:116, 15:118-15:120, 15:122-15:123, 15:125-15:127, 15:129, 15:131-15:136, 15:140-15:143, 15:145-15:155, 15:157-15:161, 15:163-15:167, 15:169, 15:171-15:176, 15:178-15:185, 15:187, 15:189-15:195,	*07:20, 07:24, 07:60, 07:100, 08:21, 08:25, 13:03-13:04, 18:36, 35:01:01:01-35:03:05, 35:03:07-35:14:02, 35:16-35:30, 35:32, 35:34, 35:36-35:59, 35:61-35:64, 35:67-35:72, 35:74-35:85, 35:89-35:92, 35:94-35:95, 35:97-35:130N, 35:132-35:151, 39:32-39:33, 40:05, 40:26, 40:28, 40:63, 40:71, 40:92, 44:10, 44:14, 44:17, 44:43:01-44:43:02, 44:45, 44:51, 44:62, 44:77, 44:82, 44:107, 45:09, 46:01:01-46:02, 46:04-46:05, 46:07N-46:17, 46:19-46:20, 46:22-46:26, 48:02:01-48:02:02, 49:04, 51:01:01-51:09:02, 51:11N-51:15, 51:19-51:20, 51:22-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:37-51:41N, 51:43-51:46, 51:48-51:80,

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23⁸	230 bp	1070 bp	*15:19	*46:24
24¹⁶	205 bp, 300 bp	1070 bp	*15:26N, 15:33, 15:72, 15:78:01- 15:78:02, 15:107, 15:116, 15:141, 15:150, 15:188, 15:209N	*46:06
25¹⁷	315 bp, 385 bp	1070 bp	*15:28, 15:46, 15:53, 15:106	
26	230 bp	1070 bp	*15:32	
27⁵	115 bp	1070 bp	*15:33	C*03:87, C*05:27, C*05:39
28	240 bp	1070 bp	*15:35, 15:141	
29	255 bp	1070 bp	*15:37-15:38:02, 15:185	*14:05-14:06:01, 14:13, 18:01:01- 18:01:05, 18:01:07-18:01:09, 18:03- 18:07:02, 18:09, 18:12-18:15, 18:17N, 18:19-18:20, 18:23N-18:26, 18:28-18:34, 18:36-18:51, 39:32, 39:43, 39:48, 40:51, 40:113, 51:06, 51:45, 51:62, 51:64
30^{8,18}	320 bp, 355 bp	1070 bp	*15:40, 15:47, 15:49, 15:52, 15:75, 15:114, 15:117, 15:124, 15:138	*46:06
31^{7,19}	320 bp, 395 bp	1070 bp	*15:44, 15:50, 15:69, 15:83, 15:86, 15:93, 15:114, 15:121, 15:153, 15:186, 15:188, 15:199	*46:03, 46:18, 46:21:01-46:21:02
32^{7,8,20}	275 bp, 350 bp, 380 bp	1070 bp	*15:48, 15:108, 15:136, 15:190N, 15:196	*46:19
33²¹	200 bp, 255 bp, 340 bp	1070 bp	*15:18:03, 15:42, 15:73, 15:86, 15:118, 15:192	*46:11, 46:18
34^{7,8}	160 bp	1070 bp	*15:51, 15:179, 15:199	*08:28, 08:35, 08:37, 35:115, 42:09, 44:17, 45:09, 51:97, 53:22, 57:24, C*07:68, C*07:140, C*07:151
35	165 bp	1070 bp	*15:30, 15:58, 15:73, 15:150	*13:31, 35:44, 39:36, 48:19, 51:61, 52:21, 55:21
36²²	360 bp, 435 bp	800 bp	*15:36, 15:82, 15:89, 15:115	
37	170 bp	1070 bp	*15:47, 15:49, 15:65, 15:84, 15:99	*07:02:01-07:02:17, 07:02:19-07:03, 07:05:01-07:13, 07:15-07:16, 07:18:01-07:18:02, 07:20-07:24,

				07:27, 07:29-07:33, 07:35-07:42, 07:44, 07:45 ^w , 07:46-07:47, 07:49N-07:51, 07:52 ^w , 07:53-07:54, 07:56-07:65, 07:67N-07:79, 07:81-07:95, 07:97-07:99, 07:101-07:114, 07:116-07:117, 08:20, 08:40, 13:18, 18:13, 18:21, 18:30, 35:08:01-35:08:04, 35:18, 35:45, 35:61, 35:66, 35:80, 35:99-35:100, 35:105, 35:142, 37:07, 39:08 ^w , 39:11 ^w , 39:33, 40:15-40:16, 40:23, 40:32, 40:98, 40:128, 46:03, 48:05, 48:08, 51:05, 51:29, 51:54, 51:82, 53:11, 53:16, 53:24, 54:10, 54:20, 55:09, 55:37, 57:02:01-57:02:02, 57:12-57:13, 57:19, 57:28N, 57:30, 58:22, C*15:08
38⁶	225 bp	1070 bp	*15:61, 15:70, 15:76, 15:101, 15:180, 15:189	*07:29 ^w , 07:65, 07:72, 07:86, 08:01:01 ^w -08:01:13 ^w , 08:04 ^w -08:05 ^w , 08:07 ^w -08:22 ^w , 08:24 ^w -08:25 ^w , 08:26, 08:27 ^w -08:49 ^w , 08:50, 08:51 ^w -08:53 ^w , 08:55 ^w -08:65 ^w , 14:11, 35:29, 35:69, 35:76, 35:136, 39:04, 40:43 ^w , 44:90, 45:06 ^w , 46:01:01 ^w , 46:01:03 ^w -46:01:05 ^w , 46:03 ^w -46:04 ^w , 46:06 ^w -46:26 ^w , 51:20 ^w , 53:23 ^w , 54:01, 54:03-54:11, 54:12 ^w , 54:13-54:22, 55:01:01-55:02:06, 55:03 ^w , 55:04-55:05, 55:07-55:09, 55:11, 55:12 ^w , 55:13-55:15, 55:16 ^w , 55:17, 55:19-55:24, 55:25 ^w , 55:26-55:30, 55:32-55:48, 56:01:01-56:06, 56:08-56:20, 56:21 ^w , 56:22, 56:24-56:30, 78:01, 78:03, 78:07, 83:01
39²³	305 bp, 325 bp, 380 bp	800 bp	*15:60, 15:95, 15:119	
40^{7,24}	220 bp, 425 bp	1070 bp	*15:13, 15:16-15:17:02, 15:23-15:24, 15:67, 15:71, 15:95, 15:157, 15:162, 15:168, 15:175, 15:177, 15:196, 15:208	
41	465 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06-15:08, 15:11:01-15:16, 15:18:01-15:19, 15:21, 15:23-15:29, 15:31-15:36, 15:38:01-15:40, 15:43-15:44, 15:46-15:47, 15:49-15:57, 15:60-15:62, 15:64-15:72, 15:74-15:76, 15:78:01-15:82, 15:84-15:85, 15:87-15:89, 15:91-15:98, 15:101-15:129, 15:131-15:132, 15:134-15:136, 15:138-15:149N,	*35:43:01-35:43:02, 46:01:01-46:10, 46:12-46:17, 46:19-46:26, 56:03

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42²⁵	345 bp, 460 bp	1070 bp	15:151-15:161, 15:163-15:167, 15:169-15:176, 15:178-15:187, 15:189-15:195, 15:197-15:207, 15:209N *15:02:01-15:03:03, 15:05:01- 15:06, 15:09-15:10:02, 15:13, 15:16-15:18:04, 15:21, 15:23, 15:25:01-15:25:03, 15:29, 15:31, 15:36-15:37, 15:39:01-15:40, 15:44, 15:48, 15:52, 15:55, 15:61- 15:62, 15:64, 15:67, 15:69, 15:72- 15:74, 15:80, 15:86, 15:88 ^w , 15:89- 15:91, 15:93, 15:95, 15:98, 15:103, 15:106-15:108, 15:112, 15:114- 15:115, 15:119, 15:121, 15:123- 15:124, 15:127, 15:131-15:134, 15:136, 15:138-15:139, 15:151, 15:153, 15:155-15:156, 15:158, 15:161-15:162, 15:170, 15:173, 15:176 ^w , 15:177, 15:185-15:186, 15:188, 15:194-15:198, 15:200 ^w , 15:204, 15:208	*46:06, 46:08, 46:11, 46:13:01- 46:13:03, 46:18-46:19, 46:21:01- 46:21:02, 46:26
43	525 bp	1070 bp	*15:04, 15:16, 15:67, 15:83, 15:95, 15:137, 15:155	*46:11, 46:18
44	515 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06- 15:01:13, 15:01:15-15:01:20, 15:03:01-15:03:03, 15:05:01- 15:05:02, 15:07:01-15:11:02, 15:11:04-15:12, 15:14-15:15, 15:17:01:01-15:18:01, 15:18:03- 15:19, 15:23-15:24, 15:26N ^w , 15:28-15:31, 15:33-15:35, 15:37- 15:40, 15:43, 15:45-15:58, 15:60- 15:61, 15:63-15:66, 15:68-15:76, 15:78:01-15:79N, 15:81-15:82, 15:87, 15:90-15:94N, 15:96-15:99, 15:101-15:105, 15:107-15:108, 15:111N, 15:113-15:120, 15:122- 15:128, 15:131-15:136, 15:138, 15:140-15:143, 15:145-15:153, 15:156-15:169, 15:171-15:183, 15:185-15:193, 15:196-15:203, 15:205-15:209N	*35:43:01-35:43:02, 46:01:01-46:10, 46:12-46:17, 46:19-46:26, 56:03
45	475 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06- 15:01:20, 15:03:01-15:05:02, 15:07:01-15:12, 15:14-15:16, 15:18:01-15:19, 15:23-15:24, 15:26N-15:30, 15:32-15:35, 15:37- 15:40, 15:43, 15:45-15:54, 15:56- 15:58, 15:60-15:76, 15:78:01- 15:87, 15:90-15:99, 15:101- 15:105, 15:107-15:111N,	*35:43:01-35:43:02, 46:01:01-46:26, 56:03

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			15:113-15:120, 15:122-15:127, 15:129, 15:131-15:136, 15:138, 15:140-15:143, 15:145-15:155, 15:157-15:161, 15:163-15:167, 15:169, 15:171-15:176, 15:178- 15:195, 15:197-15:203, 15:205- 15:206, 15:209N	
46	355 bp	800 bp	*15:01:01:01-15:01:04, 15:01:06- 15:04, 15:06-15:19, 15:21, 15:23- 15:30, 15:32-15:40, 15:43-15:47, 15:49-15:50, 15:53-15:54, 15:56- 15:58, 15:60-15:74, 15:76-15:82, 15:85, 15:87, 15:89-15:90, 15:92- 15:99, 15:101-15:104, 15:106, 15:108-15:110, 15:112-15:113, 15:115-15:122, 15:125-15:129, 15:131-15:135, 15:137-15:144, 15:146-15:150, 15:152-15:154, 15:156-15:161, 15:163-15:175, 15:177-15:178, 15:180-15:184, 15:187, 15:189-15:199, 15:201- 15:209N	*35:43:01-35:43:02, 46:01:01-46:05, 46:07N-46:08, 46:10, 46:12, 46:14- 46:17, 46:20, 46:22-46:24, 56:03
47	320 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06- 15:19, 15:21, 15:23-15:39:02, 15:43, 15:45-15:46, 15:48, 15:51, 15:53-15:58, 15:60-15:68, 15:70- 15:82, 15:84-15:85, 15:87-15:92, 15:94N-15:99, 15:101-15:113, 15:115-15:116, 15:118-15:120, 15:122-15:123, 15:125-15:129, 15:131-15:137, 15:139-15:185, 15:187, 15:189-15:198, 15:200- 15:209N	*35:43:01-35:43:02, 46:01:01-46:02, 46:04-46:05, 46:07N-46:17, 46:19- 46:20, 46:22-46:26, 56:03
48	420 bp	1070 bp	*15:01:01:01-15:01:04, 15:01:06- 15:01:16, 15:01:17 ^w , 15:01:18- 15:19, 15:21, 15:23-15:32, 15:34- 15:40, 15:43-15:58, 15:60-15:71, 15:73-15:77, 15:79N-15:99, 15:101-15:106, 15:108-15:115, 15:117-15:129, 15:131-15:140, 15:142-15:149N, 15:151-15:187, 15:189-15:209N	*35:43:01-35:43:02, 46:01:01-46:05, 46:07N-46:26, 56:03
49⁵	135 bp	1070 bp	*15:57, 15:135	*13:39
50^{5,8,26}	85 bp, 185 bp	1070 bp	*15:67, 15:206	*35:110, A*68:56
51⁵	135 bp	1070 bp	*15:98, 15:109, 15:163	
52⁸	345 bp	800 bp	*15:92	
53	210 bp	800 bp	*15:96	
54²⁷	250 bp, 410 bp	800 bp	*15:97, 15:187	C*12:36

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55	250 bp	1070 bp	*15:102	
56⁵	70 bp	1070 bp	*15:103	
57	345 bp	1070 bp	*15:111N	
58	170 bp	1070 bp	*15:113	
59²⁸	230 bp, 375 bp, 420 bp	800 bp	*15:94N, 15:191, 15:198	C*06:33
60	385 bp	800 bp	*15:120	
61²⁹	160 bp, 205 bp	1070 bp	*15:125, 15:175	*44:22, 44:105
62⁵	105 bp	1070 bp	*15:126	
63	175 bp	1070 bp	*15:127	
64	365 bp	800 bp	*15:122	C*03:48
65	520 bp	1070 bp	*15:129	
66	435 bp	1070 bp	*15:02:01-15:02:05, 15:13, 15:20-15:21, 15:25:01-15:25:03, 15:36, 15:44, 15:77, 15:85, 15:88-15:89, 15:112, 15:118, 15:121, 15:139, 15:144, 15:154, 15:194, 15:204	*13:01:01-13:01:05, 13:06-13:07N, 13:12-13:13, 13:17, 13:20-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 35:46, 40:137, 44:08, 44:57, 44:60, 57:01:01-57:10, 57:12-57:15, 57:17-57:33, 57:34 ^w , 57:35-57:37
67³⁰	265 bp, 300 bp	800 bp	*15:53, 15:132, 15:183	*46:10
68	215 bp	1070 bp	*15:134	
69⁵	130 bp	1070 bp	*15:57	
70^{5,31}	90 bp, 185 bp	1070 bp	*15:138, 15:208	*07:68:01-07:68:02, 18:35, 35:66, 40:77, 40:87, 40:121, 40:158, 48:12, 48:14
71³²	315 bp, 400 bp	1070 bp	*15:139, 15:205	
72³³	295 bp, 390 bp	1070 bp	*15:140, 15:201	
73⁵	110 bp	1070 bp	*15:142	*07:29, 08:01:11, 08:56, 51:68
74⁵	75 bp	800 bp	*15:145, 15:176	
75³⁴	280 bp, 390 bp	1070 bp	*15:146, 15:201	
76	475 bp	1070 bp	*15:02:01-15:02:05, 15:06, 15:13, 15:17:01:01-15:17:02, 15:21, 15:25:01-15:25:03, 15:31, 15:36, 15:44, 15:55, 15:77, 15:88-15:89, 15:106, 15:112, 15:121, 15:128, 15:137, 15:139, 15:144, 15:156, 15:162, 15:168, 15:170, 15:177, 15:196, 15:204, 15:208	
77	195 bp	1070 bp	*15:104	
78	385 bp	1070 bp	*15:147	

79 ³⁵	215 bp, 420 bp	800 bp	*15:148, 15:182N	
80 ⁵	85 bp	1070 bp	*15:149N	
81 ⁸	395 bp	1070 bp	*15:11:01-15:11:05, 15:143, 15:148-15:149N, 15:152, 15:209N	
82 ⁵	80 bp	1070 bp	*15:81	
83 ⁸	210 bp	1070 bp	*15:159	*07:23, 40:79, 41:14
84 ³⁶	155 bp, 235 bp	1070 bp	*15:167, 15:197	*35:117
85 ³⁷	340 bp, 395 bp, 420 bp	1070 bp	*15:76, 15:101, 15:157, 15:164	
86 ³⁸	230 bp, 400 bp	1070 bp	*15:166, 15:193	
87 ^{5,39}	85 bp, 295 bp	1070 bp	*15:71, 15:169, 15:175, 15:204	*18:29, 35:50, 37:22, 41:12, 46:14, 49:03, 54:02, 55:16
88 ⁴⁰	240 bp, 445 bp	1070 bp	*15:158, 15:171	
89	370 bp	1070 bp	*15:160	
90 ^{5,41}	95 bp, 195 bp	800 bp	*15:173, 15:202	*18:12, 35:10, 35:13, 35:16, 35:28, 35:69, 35:80, 37:01:01-37:01:05, 37:01:07-37:05, 37:07, 37:09-37:25, 44:83, 49:03, 50:11, 52:01:01- 52:01:06, 52:03-52:15, 52:17, 52:19- 52:22, 53:17, 78:05-78:06
91 ^{5,9,42}	135 bp, 325 bp	1070 bp	*15:170, 15:184, 15:203	
92	155 bp	1070 bp	*15:172	
93 ⁷	295 bp	1070 bp	*15:177	
94 ⁴³	285 bp, 325 bp	1070 bp	*15:123, 15:178	
95 ⁴⁴	340 bp, 395 bp	1070 bp	*15:40, 15:47, 15:49, 15:52, 15:114, 15:117, 15:124, 15:138, 15:181N	*46:06
96	185 bp	1070 bp	*15:174	

¹ Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B*15 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.

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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*15 subtyping.

In addition, wells number 4, 13, 19, 22, 36, 39, 46, 52 to 54, 59, 60, 64, 67, 74, 79 and 90 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 B*15:180 and B*56:03 alleles will give rise to identical amplification patterns. These alleles can e.g. be distinguished by the HLA-B low resolution primer set.

The B*15:166 and 15:193 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 86.

For several HLA-B alleles first exon nucleotide sequences are not available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in the first exon are conserved within allelic groups. We also assume that the B*15- and B*46-specific sequence motifs in the 2nd and 3rd intron is conserved within the HLA-B*15 and HLA-B*46 groups of alleles.

⁴Due to the sharing of sequence motifs between HLA-B alleles, non-HLA-B*15 alleles will be amplified by many HLA-B*15 primer mixes. In addition, the A*68:56 allele will be amplified by primer mixes 3 and 50, the C*06:20 and C*12:50 alleles will be amplified by primer mix 3, the C*07:46 allele will be amplified by primer mix 7, the C*02:03 allele will be amplified by primer mix 9, the C*03:81 and C*15:15 alleles will be amplified by primer mix 22, the C*03:87, C*05:27 and C*05:39 alleles will be amplified by primer mix 27, the C*07:68, C*07:140, and C*07:151 alleles will be amplified by primer mix 34, the C*15:08 allele will be amplified by primer mix 37, the C*12:36 allele will be amplified by primer mix 54, the C*06:33 allele will be amplified by primer mix 59 and the C*03:48 allele will be amplified by primer mix 64.

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

⁶The specific primer pairs in primer mix 38 may give rise to less specific PCR product than the other HLA-B15 primer mixes.

⁷Primer mixes 11, 20, 22, 31, 32, 34, 40 and 93 might have a tendency of giving rise to primer oligomer artifacts.

⁸Primer mixes 5, 11, 19, 23, 30, 32, 34, 50, 52, 81 and 83 might give rise to non-specific amplifications.

⁹Primer solution 91 may give rise to a long unspecific amplification product of approximately 800 bp. This should be disregarded when interpreting the B*15 typings.

¹⁰Primer solution 10: Specific PCR fragment of 300 bp in the B*15:37-15:38:02 and 15:185 alleles. Specific PCR fragment of 520 bp in the B*15:06, 15:27:01-15:27:03, 15:84, 15:109, 15:112 and 15:195 alleles.

¹¹Primer solution 13: Specific PCR fragment of 395 bp in the B*15:09-15:10:02, 15:18:01-15:18:04, 15:21, 15:23, 15:37, 15:44, 15:51-15:52, 15:66, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:133-15:134, 15:153, 15:161, 15:176, 15:186, 15:189, 15:197-15:198 and 15:200 alleles. Specific PCR fragment of 435 bp in the B*15:79N allele.

¹²Primer mix 14: Specific PCR fragment of 465 bp in B*15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:83, 15:90, 15:99, 15:150 and 15:188 alleles. Specific PCR fragment of 515 bp in the B*15:110 allele.

¹³Primer mix 16: Specific PCR fragment of 120 bp in the B*15:116 and 15:124 and the B*40:52, 40:59, 46:06 and 48:23 alleles. Specific PCR fragment of 190 bp in the B*15:12 and 15:19 alleles.

¹⁴Primer mix 20: Specific PCR fragment of 360 bp in B*15:105 allele. Specific PCR fragment of 505 bp in the B*15:16, 15:34, 15:62, 15:67, 15:85-15:86, 15:95, 15:137 and 15:194 and the B*46:11 and 46:18 alleles.

¹⁵Primer solution 21: Specific PCR fragment of 205 bp in the B*15:16, 15:67 and 15:95 alleles. Specific PCR fragment of 425 bp in the B*15:43 allele.

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¹⁶Primer mix 24: Specific PCR fragment of 205 bp in the B*15:26N allele. Specific PCR fragment of 300 bp in the B*15:33, 15:72, 15:78:01-15:78:02, 15:107, 15:116, 15:141, 15:150, 15:188 and 15:209N and the B*46:06 alleles.

¹⁷Primer solution 25: Specific PCR fragment of 315 bp in the B*15:46, 15:53 and 15:106 alleles. Specific PCR fragment of 385 bp in the B*15:28 allele.

¹⁸Primer solution 30: Specific PCR fragment of 320 bp in the B*15:40, 15:47, 15:49, 15:52, 15:114, 15:117, 15:124 and 15:138 and the B*46:06 alleles. Specific PCR fragment of 355 bp in the B*15:75 allele.

¹⁹Primer mix 31: Specific PCR fragment of 320 bp in the B*15:44, 15:50, 15:69, 15:83, 15:86, 15:93, 15:121, 15:186, 15:188 and 15:199 and the B*46:03, 46:18 and 46:21:01-46:21:02 alleles. Specific PCR fragment of 395 bp in the B*15:114 and 15:153 alleles.

²⁰Primer mix 32: Specific PCR fragment of 275 bp in the B*15:196 allele. Specific PCR fragment of 350 bp in the B*15:190N allele. Specific PCR fragment of 380 bp in the B*15:48, 15:108 and 15:136 and the B*46:19 alleles.

²¹Primer solution 33: Specific PCR fragment of 200 bp in the B*15:118 allele. Specific PCR fragment of 255 bp in the B*15:18:03, 15:42, 15:73 and 15:86 and the B*46:11 and 46:18 alleles. Specific PCR fragment of 340 bp in the B*15:192 allele.

²²Primer solution 36: Specific PCR fragment of 360 bp in the B*15:82 allele. Specific PCR fragment of 435 bp in the B*15:36, 15:89 and 15:115 alleles.

²³Primer solution 39: Specific PCR fragment of 305 bp in the B*15:60 allele. Specific PCR fragment of 325 bp in the B*15:119 allele. Specific PCR fragment of 380 bp in the B*15:95 allele.

²⁴Primer solution 40: Specific PCR fragment of 220 bp in the B*15:71 and B*15:175 alleles. Specific PCR fragment of 425 bp in the B*15:13, 15:16-15:17:02, 15:23-15:24, 15:67, 15:95, 15:157, 15:162, 15:168, 15:177, 15:196 and 15:208 alleles.

²⁵Primer mix 42: Specific PCR fragment of 345 bp in the B*15:02:01-15:03:03, 15:05:01-15:06, 15:09-15:10:02, 15:13, 15:16-15:18:02, 15:18:04, 15:21, 15:23, 15:25:01-15:25:03, 15:29, 15:31, 15:36-15:37, 15:39:01-15:40, 15:44, 15:48, 15:52, 15:55, 15:61-15:62, 15:64, 15:67, 15:69, 15:72, 15:74, 15:80, 15:88^w, 15:89-15:91, 15:93, 15:95, 15:98, 15:103, 15:106-15:108, 15:112, 15:114-15:115, 15:119, 15:121, 15:123-15:124, 15:127, 15:131-15:134, 15:136, 15:138-15:139, 15:151, 15:153, 15:155-15:156, 15:158, 15:161-15:162, 15:170, 15:173, 15:176^w, 15:177, 15:185-15:186, 15:188, 15:194-15:198, 15:200^w, 15:204 and 15:208 and in the B*46:06, 46:08, 46:13:01-46:13:03, 46:19, 46:21:01-46:21:02 and 46:26 alleles. Specific PCR fragment of 460 bp in the B*15:73 allele. PCR fragment of 345 and 460 bp in the B*15:18:03, 15:86 and the B*46:11 and 46:18 alleles.

²⁶Primer mix 50: Specific PCR fragment of 85 bp in the B*15:67 and the B*35:110 and in the A*68:56 alleles. Specific PCR fragment of 185 bp in the B*15:206 allele.

²⁷Primer mix 54: Specific PCR fragment of 250 bp in the B*15:187 and in the C*12:36 alleles. Specific PCR fragment of 410 bp in the B*15:97 allele.

²⁸Primer mix 59: Specific PCR fragment of 230 bp in the B*15:191 and in the C*06:33 alleles. Specific PCR fragment of 375 bp in the B*15:198 allele. Specific PCR fragment of 420 bp in the B*15:94N allele.

²⁹Primer mix 61: Specific PCR fragment of 160 bp in the B*15:175 allele. Specific PCR fragment of 205 bp in the B*15:125 and the B*44:22 and 44:105 alleles.

³⁰Primer mix 67: Specific PCR fragment of 265 bp in the B*15:53 and 15:183 and the B*46:10 alleles. Specific PCR fragment of 300 bp in the B*15:132 allele.

³¹Primer mix 70: Specific PCR fragment of 90 bp in the B*15:208 allele. Specific PCR fragment of 185 bp in the B*15:138 and the B*07:68:01-07:68:02, 18:35, 35:66, 40:77, 40:87, 40:121, 40:158, 48:12 and 48:14 alleles.

³²Primer mix 71: Specific PCR fragment of 315 bp in the B*15:205 allele. Specific PCR fragment of 400 bp in the B*15:139 allele.

³³Primer mix 72: Specific PCR fragment of 295 bp in the B*15:140 allele. Specific PCR fragment of 390 bp in the B*15:201 allele.

³⁴Primer mix 75: Specific PCR fragment of 280 bp in the B*15:146 allele. Specific PCR fragment of 390 bp in the B*15:201

³⁵Primer mix 79: Specific PCR fragment of 215 bp in the B*15:182N allele. Specific PCR fragment of 420 bp in the B*15:148 allele.

³⁶Primer mix 84: Specific PCR fragment of 155 bp in the B*15:167 allele. Specific PCR fragment of 235 bp in the B*15:197 and the B*35:117 alleles.

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³⁷Primer mix 85: Specific PCR fragment of 340 bp in the B*15:157 allele. Specific PCR fragment of 395 bp in the B*15:76 and 15:101 alleles. Specific PCR fragment of 420 bp in the B*15:164 allele.

³⁸Primer mix 86: Specific PCR fragment of 230 bp in the B*15:166 allele. Specific PCR fragment of 400 bp in the B*15:193 allele.

³⁹Primer mix 87: Specific PCR fragment of 85 bp in the B*15:71, 15:175 and 15:204 and the B*18:29, 35:50, 37:22, 41:12, 46:14, 49:03, 54:02 and 55:16 alleles. Specific PCR fragment of 295 bp in the B*15:169 allele.

⁴⁰Primer mix 88: Specific PCR fragment of 240 bp in the B*15:171 allele. Specific PCR fragment of 445 bp in the B*15:158 allele.

⁴¹Primer mix 90: Specific PCR fragment of 95 bp in the B*15:202 and the B*18:12, 35:13, 35:16, 35:28, 35:69, 35:80, 37:01:01-37:01:05, 37:01:07-37:05, 37:07, 37:09-37:25, 44:83, 49:03, 52:01:01-52:01:06, 52:03-52:15, 52:17, 52:19-52:22, 53:17 and 78:05-78:06 alleles. Specific PCR fragment of 195 bp in the B*15:173 and the B*50:11 alleles. Specific PCR fragment of 95 and 195 bp in the B*35:10 allele.

⁴²Primer mix 91: Specific PCR fragment of 135 bp in the B*15:184 and 15:203 alleles. Specific PCR fragment of 325 bp in the B*15:170 allele.

⁴³Primer mix 94: Specific PCR fragment of 285 bp in the B*15:123 allele. Specific PCR fragment of 325 bp in the B*15:178 allele.

⁴⁴Primer mix 95: Specific PCR fragment of 340 bp in the B*15:181N allele. Specific PCR fragment of 395 bp in the B*15:40, 15:47, 15:49, 15:52, 15:114, 15:117, 15:124 and 15:138 and the B*46:06 alleles.

‘w’, might be weakly amplified.

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Well No.									1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4			
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8								
*15:159	+	+	+																			+															+		+	+	+	+	+			
*15:160	+	+	+																				+															+		+	+	+	+	+		
*15:161					+		+					+											+															+		+	+	+	+	+		
*15:162		+																				+		+														+		+			+	+		
*15:163	+	+	+																				+																+		+	+	+	+	+	
*15:164	+	+	+																				+																+		+	+	+	+	+	
*15:165	+	+	+			+																	+																+		+	+	+	+	+	
*15:166, 15:193 ³	+	+	+																				+															+		+	+	+	+	+		
*15:167	+	+	+																				+															+		+	+	+	+	+		
*15:168		+																				+		+														+		+		+	+	+		
*15:169	+	+	+																				+																+		+	+	+	+	+	
*15:170	+	+			+	+																		+															+		+	+	+	+	+	
*15:171	+	+	+																				+																+		+	+	+	+	+	
*15:172	+	+	+																				+																+		+	+	+	+	+	
*15:173	+						+																+																+		+	+	+	+	+	
*15:174	+	+	+																				+																+		+	+	+	+	+	
*15:175	+	+	+																				+															+		+	+	+	+	+	+	
*15:176					+		+					+											+																+	W	+	+	+	+	+	
*15:177		+																				+		+														+		+	+	+	+	+		
*15:178	+	+	+																				+																+		+	+	+	+	+	
*15:179	+	+																					+																+		+	+	+	+	+	
*15:180, 56:03 ⁴	+	+		+																			+																+		+	+	+	+	+	
*15:181N	+	+	+																				+																+		+	+	+	+	+	
*15:182N	+	+	+																				+																+		+	+	+	+	+	
*15:183	+	+	+																				+																+		+	+	+	+	+	
*15:184	+	+	+																				+																+		+	+	+	+	+	
*15:185	+	+							+	+													+							+										+		+	+	+	+	+
*15:186					+		+					+											+																	+		+	+	+	+	+
*15:187	+	+	+																				+																+		+	+	+	+	+	
*15:188	+	+							+				+										+																+		+	+	+	+	+	
*15:189	+	+	+		+							+											+																+		+	+	+	+	+	
*15:190N	+	+	+																				+																+		+	+	+	+	+	
*15:191	+	+	+		+							+											+																+		+	+	+	+	+	
*15:192	+	+	+																				+																+		+	+	+	+	+	
*15:194	+	+			+	+																	+																+		+	+	+	+	+	
*15:195	+	+							+														+																+		+	+	+	+	+	
*15:196		+																					+		+														+		+	+	+	+	+	
*15:197					+		+					+											+																+		+	+	+	+	+	
*15:198					+		+					+											+																+		+	+	+	+	+	
*15:199	+	+																					+																+		+	+	+	+	+	
*15:200					+		+					+											+																+	W	+	+	+	+	+	
*15:201	+	+	+																				+																+		+	+	+	+	+	
*15:202	+	+	+																				+																+		+	+	+	+	+	
*15:203	+	+	+																				+																+		+	+	+	+	+	
*15:204	+	+					+																+																+	+		+	+	+	+	
*15:205	+	+	+																				+																+		+	+	+	+	+	
*15:206	+	+	+																				+																+		+	+	+	+	+	
*15:207	+	+	+									+											+																+		+	+	+	+	+	
*15:208		+																					+		+													+		+	+	+	+	+		
*15:209N		+	+		+																		+		+														+		+	+	+	+	+	
Well No.									1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4				
HLA-B allele ²	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8								

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*15 subtyping. .

In addition, wells number 4, 13, 19, 22, 36, 39, 46, 52 to 54, 59, 60, 64, 67, 74, 79 and 90 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

²The sequence of B*150105 has been renamed to B*15:120.

The sequence of B*1522 has been named in error and identical to B*35:43.

The sequence of B*1541 has been shown to be identical to B*15:39.

The sequence of B*1559 has been renamed B*35:44.

The sequence of B*9530 has been renamed to B*15:27:02.

The B*15:100 allele has never been assigned.

³The B*15:166 and 15:193 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 86.

⁴The B*15:180 and B*56:03 alleles will give rise to identical amplification patterns. These alleles can e.g. be distinguished by the HLA-B low resolution primer set.

⁵Primer solution 10: Specific PCR fragment of 300 bp in the B*15:37-15:38:02 and 15:185 alleles. Specific PCR fragment of 520 bp in the B*15:06, 15:27:01-15:27:03, 15:84, 15:109, 15:112 and 15:195 alleles.

Primer solution 13: Specific PCR fragment of 395 bp in the B*15:09-15:10:02, 15:18:01-15:18:04, 15:21, 15:23, 15:37, 15:44, 15:51-15:52, 15:66, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:133-15:134, 15:153, 15:161, 15:176, 15:186, 15:189, 15:197-15:198 and 15:200 alleles. Specific PCR fragment of 435 bp in the B*15:79N allele.

Primer mix 14: Specific PCR fragment of 465 bp in B*15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:83, 15:90, 15:99, 15:150 and 15:188 alleles. Specific PCR fragment of 515 bp in the B*15:110 allele.

Primer mix 16: Specific PCR fragment of 120 bp in the B*15:116 and 15:124 and the B*40:52, 40:59, 46:06 and 48:23 alleles. Specific PCR fragment of 190 bp in the B*15:12 and 15:19 alleles.

Primer mix 20: Specific PCR fragment of 360 bp in B*15:105 allele. Specific PCR fragment of 505 bp in the B*15:16, 15:34, 15:62, 15:67, 15:85-15:86, 15:95, 15:137 and 15:194 and the B*46:11 and 46:18 alleles.

Primer solution 21: Specific PCR fragment of 205 bp in the B*15:16, 15:67 and 15:95 alleles. Specific PCR fragment of 425 bp in the B*15:43 allele.

Primer mix 24: Specific PCR fragment of 205 bp in the B*15:26N allele. Specific PCR fragment of 300 bp in the B*15:33, 15:72, 15:78:01-15:78:02, 15:107, 15:116, 15:141, 15:150, 15:188 and 15:209N and the B*46:06 alleles.

Primer solution 25: Specific PCR fragment of 315 bp in the B*15:46, 15:53 and 15:106 alleles. Specific PCR fragment of 385 bp in the B*15:28 allele.

Primer solution 30: Specific PCR fragment of 320 bp in the B*15:40, 15:47, 15:49, 15:52, 15:114, 15:117, 15:124 and 15:138 and the B*46:06 alleles. Specific PCR fragment of 355 bp in the B*15:75 allele.

Primer mix 31: Specific PCR fragment of 320 bp in the B*15:44, 15:50, 15:69, 15:83, 15:86, 15:93, 15:121, 15:186, 15:188 and 15:199 and the B*46:03, 46:18 and 46:21:01-46:21:02 alleles. Specific PCR fragment of 395 bp in the B*15:114 and 15:153 alleles.

Primer mix 32: Specific PCR fragment of 275 bp in the B*15:196 allele. Specific PCR fragment of 350 bp in the B*15:190N allele. Specific PCR fragment of 380 bp in the B*15:48, 15:108 and 15:136 and the B*46:19 alleles.

Primer solution 33: Specific PCR fragment of 200 bp in the B*15:118 allele. Specific PCR fragment of 255 bp in the B*15:18:03, 15:42, 15:73 and 15:86 and the B*46:11 and 46:18 alleles. Specific PCR fragment of 340 bp in the B*15:192 allele.

Primer solution 36: Specific PCR fragment of 360 bp in the B*15:82 allele. Specific PCR fragment of 435 bp in the B*15:36, 15:89 and 15:115 alleles.

Primer solution 39: Specific PCR fragment of 305 bp in the B*15:60 allele. Specific PCR fragment of 325 bp in the B*15:119 allele. Specific PCR fragment of 380 bp in the B*15:95 allele.

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Primer solution 40: Specific PCR fragment of 220 bp in the B*15:71 and B*15.175 alleles. Specific PCR fragment of 425 bp in the B*15:13, 15:16-15:17:02, 15:23-15:24, 15:67, 15:95, 15:157, 15:162, 15:168, 15:177, 15:196 and 15:208 alleles.

Primer mix 42: Specific PCR fragment of 345 bp in the B*15:02:01-15:03:03, 15:05:01-15:06, 15:09-15:10:02, 15:13, 15:16-15:18:02, 15:18:04, 15:21, 15:23, 15:25:01-15:25:03, 15:29, 15:31, 15:36-15:37, 15:39:01-15:40, 15:44, 15:48, 15:52, 15:55, 15:61-15:62, 15:64, 15:67, 15:69, 15:72, 15:74, 15:80, 15:88^w, 15:89-15:91, 15:93, 15:95, 15:98, 15:103, 15:106-15:108, 15:112, 15:114-15:115, 15:119, 15:121, 15:123-15:124, 15:127, 15:131-15:134, 15:136, 15:138-15:139, 15:151, 15:153, 15:155-15:156, 15:158, 15:161-15:162, 15:170, 15:173, 15:176^w, 15:177, 15:185-15:186, 15:188, 15:194-15:198, 15:200^w, 15:204 and 15:208 and in the B*46:06, 46:08, 46:13:01-46:13:03, 46:19, 46:21:01-46:21:02 and 46:26 alleles. Specific PCR fragment of 460 bp in the B*15:73 allele. PCR fragment of 345 and 460 bp in the B*15:18:03, 15:86 and the B*46:11 and 46:18 alleles.

Primer mix 50: Specific PCR fragment of 85 bp in the B*15:67 and the B*35:110 and in the A*68:56 alleles. Specific PCR fragment of 185 bp in the B*15:206 allele.

Primer mix 54: Specific PCR fragment of 250 bp in the B*15:187 and in the C*12:36 alleles. Specific PCR fragment of 410 bp in the B*15:97 allele.

Primer mix 59: Specific PCR fragment of 230 bp in the B*15:191 and in the C*06:33 alleles. Specific PCR fragment of 375 bp in the B*15:198 allele. Specific PCR fragment of 420 bp in the B*15:94N allele.

Primer mix 61: Specific PCR fragment of 160 bp in the B*15:175 allele. Specific PCR fragment of 205 bp in the B*15:125 and the B*44:22 and 44:105 alleles.

Primer mix 67: Specific PCR fragment of 265 bp in the B*15:53 and 15:183 and the B*46:10 alleles. Specific PCR fragment of 300 bp in the B*15:132 allele.

Primer mix 70: Specific PCR fragment of 90 bp in the B*15:208 allele. Specific PCR fragment of 185 bp in the B*15:138 and the B*07:68:01-07:68:02, 18:35, 35:66, 40:77, 40:87, 40:121, 40:158, 48:12 and 48:14 alleles.

Primer mix 71: Specific PCR fragment of 315 bp in the B*15:205 allele. Specific PCR fragment of 400 bp in the B*15:139 allele.

Primer mix 72: Specific PCR fragment of 295 bp in the B*15:140 allele. Specific PCR fragment of 390 bp in the B*15:201 allele.

Primer mix 75: Specific PCR fragment of 280 bp in the B*15:146 allele. Specific PCR fragment of 390 bp in the B*15:201

Primer mix 79: Specific PCR fragment of 215 bp in the B*15:182N allele. Specific PCR fragment of 420 bp in the B*15:148 allele.

Primer mix 84: Specific PCR fragment of 155 bp in the B*15:167 allele. Specific PCR fragment of 235 bp in the B*15:197 and the B*35:117 alleles.

Primer mix 85: Specific PCR fragment of 340 bp in the B*15:157 allele. Specific PCR fragment of 395 bp in the B*15:76 and 15:101 alleles. Specific PCR fragment of 420 bp in the B*15:164 allele.

Primer mix 86: Specific PCR fragment of 230 bp in the B*15:166 allele. Specific PCR fragment of 400 bp in the B*15:193 allele.

Primer mix 87: Specific PCR fragment of 85 bp in the B*15:71, 15:175 and 15:204 and the B*18:29, 35:50, 37:22, 41:12, 46:14, 49:03, 54:02 and 55:16 alleles. Specific PCR fragment of 295 bp in the B*15:169 allele.

Primer mix 88: Specific PCR fragment of 240 bp in the B*15:171 allele. Specific PCR fragment of 445 bp in the B*15:158 allele.

Primer mix 90: Specific PCR fragment of 95 bp in the B*15:202 and the B*18:12, 35:13, 35:16, 35:28, 35:69, 35:80, 37:01:01-37:01:05, 37:01:07-37:05, 37:07, 37:09-37:25, 44:83, 49:03, 52:01:01-52:01:06, 52:03-52:15, 52:17, 52:19-52:22, 53:17 and 78:05-78:06 alleles. Specific PCR fragment of 195 bp in the B*15:173 and the B*50:11 alleles. Specific PCR fragment of 95 and 195 bp in the B*35:10 allele.

Primer mix 91: Specific PCR fragment of 135 bp in the B*15:184 and 15:203 alleles. Specific PCR fragment of 325 bp in the B*15:170 allele.

Primer mix 94: Specific PCR fragment of 285 bp in the B*15:123 allele. Specific PCR fragment of 325 bp in the B*15:178 allele.

Primer mix 95: Specific PCR fragment of 340 bp in the B*15:181N allele. Specific PCR fragment of 395 bp in the B*15:40, 15:47, 15:49, 15:52, 15:114, 15:117, 15:124 and 15:138 and the B*46:06 alleles.

w', might be weakly amplified.

Primers

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
5'-primer(s) ¹	45 5'-ggA 3'	45 5'-ggA 3'	463 5'-TgA 3'	45 5'-ggA 3'	45 5'-ggA 3'	355 5'-TCA 3'	45 5'-ggA 3'	357 5'-Tgg 3'	369 5'-TAC 3'	360 5'-CAC 3'	363 5'-AgC 3'	45 5'-ggA 3'
										368 5'-gTT 3'		
										583 5'-gAC 3'		
3'-primer(s) ²	272 5'-Tgg 3'	165 5'-Tgg 3'	538 5'-CCA 3'	1 st I 5'-gAC 3'	259 5'-gTT 3'	3 rd I 5'-ATC 3'	206 5'-CCT 3'	419 5'-Cgg 3'	527 5'-CCA 3'	3 rd I 5'-ATC 3'	463 5'-gCT 3'	272 5'-TgA 3'
			545 5'-AgA 3'					419 5'-CgA 3'				287 5'-TCC 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
5'-primer(s) ¹	45 5'-ggA 3'	368 5'-gTg 3'	369 5'-TAC 3'	419 5'-gTC 3'	45 5'-ggA 3'	419 5'-gTC 3'	45 5'-ggA 3'	379 5'-ACC 3'	45 5'-ggA 3'	409 5'-ggC 3'	821 5'-gCT 3'	2 nd I 5'-CAA 3'
		419 5'-gTA 3'						523 5'-CCT 3'				
3'-primer(s) ²	272 5'-TgC 3'	3 rd I 5'-ATC 3'	435 5'-TCT 3'	499 5'-ggA 3'	309 5'-ATC 3'	572 5'-gCg 3'	266 5'-TCC 3'	3 rd I 5'-ATC 3'	83 5'-TgA 3'	559 5'-CAg 3'	916 5'-gAT 3'	369 5'-CCT 3'
	311 5'-ggT 3'			570 5'-CCg 3'			278 5'-TgA 3'		301 5'-gTC 3'			463 5'-gCg 3'
												471 5'-gTT 3'
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
5'-primer(s) ¹	45 5'-ggA 3'	368 5'-gTC 3'	485 5'-CAA 3'	362 5'-gAC 3'	369 5'-TAC 3'	526 5'-gTC 3'	488 5'-ggg 3'	2 nd I 5'-CAA 3'	2 nd I 5'-CAA 3'	419 5'-gTC 3'	412 5'-ATA 3'	45 5'-ggA 3'
						560 5'-CgA 3'	560 5'-CAC 3'					
3'-primer(s) ²	193 5'-CgT 3'	558 5'-Agg 3'	559 5'-CAg 3'	559 5'-CAg 3'	583 5'-gTg 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	437 5'-AAA 3'	362 5'-TCA 3'	538 5'-gTC 3'	538 5'-CCA 3'	238 5'-CCT 3'
	263 5'-gTA 3'							513 5'-TCT 3'	420 5'-gCT 3'			309 5'-gTg 3'
								544 5'-ggT 3'	505 5'-gCT 3'			
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
5'-primer(s) ¹	409 5'-ggC 3'	106 5'-CCA 3'	45 5'-ggA 3'	45 5'-ggA 3'	419 5'-gTC 3'	420 5'-TTA 3'	357 5'-Tgg 3'	369 5'-TAC 3'	409 5'-ggC 3'	527 5'-TgA 3'	560 5'-CCT 3'	463 5'-TgA 3'
						539 5'-gCT 3'						
3'-primer(s) ²	538 5'-CCg 3'	292 5'-gTC 3'	181 5'-gTT 3'	97 5'-gTg 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'	3 rd I 5'-ATC 3'
			203 5'-CTg 3'	302 5'-ggT 3'								
			257 5'-CCT 3'									
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
5'-primer(s) ¹	209 5'-ggC 3'	463 5'-TgA 3'	106 5'-CCA 3'	45 5'-gga 3'	419 5'-gTC 3'	45 5'-gga 3'	3 rd I 5'-Agg 3'	25 5'-CCg 3'	539 5'-gTg 3'	145 5'-CAA 3'	45 5'-gga 3'	45 5'-gga 3'
											673 5'-CCA 3'	
3'-primer(s) ²	302 5'-ggT 3'	506 5'-TgT 3'	200 5'-TCA 3'	221 5'-ATA 3'	589 5'-CTT 3'	127 5'-CTg 3'	779 5'-CTA 3'	56 5'-TCg 3'	3 rd I 5'-ATC 3'	272 5'-Tgg 3'	107 5'-ACT 3'	261 5'-gTA 3'
		608 5'-gCC 3'	200 5'-TCA 3'			288 5'-gTg 3'					295 5'-TCA 3'	916 5'-gAT 3'
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Well No.	61	62	63	64	65	66	67	68	69	70	71	72
5'-primer(s) ¹	106 5'-CCg 3'	363 5'-AgC 3'	419 5'-gTC 3'	45 5'-gga 3'	363 5'-AAT 3'	209 5'-ggC 3'	45 5'-gga 3'	419 5'-gTC 3'	209 5'-ggC 3'	463 5'-TgA 3'	45 5'-gga 3'	662 5'-CCT 3'
	151 5'-gCC 3'					209 5'-ggC 3'						754 5'-ACg 3'
3'-primer(s) ²	272 5'-Tgg 3'	425 5'-CgC 3'	554 5'-CCg 3'	242 5'-CCA 3'	3 rd I 5'-ATC 3'	353 5'-TgA 3'	142 5'-ggT 3'	593 5'-CgC 3'	299 5'-TCA 3'	510 5'-CAA 3'	189 5'-gCT 3'	916 5'-gAT 3'
						362 5'-TCA 3'	177 5'-AAA 3'			605 5'-gCT 3'	277 5'-ggC 3'	
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

Well No.	73	74	75	76	77	78	79	80	81	82	83	84
5'-primer(s) ¹	97 5'-TCg 3'	523 5'-CCg 3'	662 5'-CCT 3'	409 5'-ggt 3'	3 rd I 5'-Agg 3'	495 5'-CAC 3'	45 5'-gga 3'	267 5'-Ag 3'	45 5'-gga 3'	106 5'-CCA 3'	322 5'-gCC 3'	363 5'-AgT 3'
			769 5'-Agg 3'									446 5'-CgT 3'
3'-primer(s) ²	165 5'-Tgg 3'	559 5'-CAg 3'	916 5'-gAT 3'	3 rd I 5'-ATC 3'	723 5'-Tgg 3'	3 rd I 5'-ATC 3'	93 5'-AAC 3'	311 5'-ggt 3'	272 5'-TgT 3'	146 5'-CCg 3'	2 nd I 5'-TCg 3'	559 5'-CAg 3'
							296 5'-CTT 3'					
Well No.	73	74	75	76	77	78	79	80	81	82	83	84

Well No.	85	86	87	88	89	90	91	92	93	94	95	96
5'-primer(s) ¹	45 5'-ggA 3'	2 nd I 5'-CAA 3'	97 5'-TCC 3'	45 5'-gga 3'	45 5'-gga 3'	206 5'-gAC 3'	45 5'-gga 3'	463 5'-TgA 3'	45 5'-gga 3'	2 nd I 5'-CAA 3'	2 nd I 5'-CAA 3'	463 5'-TgA 3'
			2 nd I 5'-CAA 3'			463 5'-TgA 3'	365 5'-gAC 3'			767 5'-ggg 3'		
							376 5'-gCA 3'					
3'-primer(s) ²	218 5'-gCA 3'	394 5'-gCT 3'	142 5'-TgC 3'	118 5'-gCT 3'	247 5'-ATg 3'	259 5'-CTC 3'	203 5'-TCT 3'	578 5'-TgT 3'	173 5'-TCC 3'	487 5'-CgT 3'	502 5'-CTA 3'	605 5'-gCA 3'
	272 5'-TgT 3'	565 5'-CAT 3'	457 5'-gTA 3'	323 5'-AgA 3'		616 5'-CgT 3'	463 5'-gCT 3'			916 5'-gAT 3'	559 5'-CTC 3'	
	296 5'-CTg 3'											
Well No.	85	86	87	88	89	90	91	92	93	94	95	96

¹The nucleotide position, in the 1st, 2nd, 3rd or 4th exons or 2nd or 3rd intron, matching the specificity-determining 3'-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. 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.

²The nucleotide position, in the 2nd, 3rd or 5th exons or the 1st or 3rd intron, 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. We assume that the B*15- and B*46-specific sequence motifs in the 2nd and 3rd intron are conserved within the HLA-B*15 and HLA-B*46 groups of alleles.

CELL LINE VALIDATION SHEET																				
HLA-B*15 SSP subtyping kit																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	200967201	200967202	200849903	200967204	200849905	200849906	200967207	200849908	200849909	201184010	200849911	200849912	200967213	201184014	200849915	200849916
IHWC cell line		B*																		
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*52:01	*73:01	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
3	9011	E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*15:10	*53:01	-	-	-	-	+	-	+	-	-	-	-	+	+	-	-	-
5	9009	KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*18:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
8	9025	DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*15:01	*15:20	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*40:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
16	9037	SWEIG007	*40:02		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
17	9282	CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
18	9257	32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*18:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
20	9059	SLE005	*40:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
21	9064	AMALA	*15:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
24	9035	JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*18:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
32	9297	HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*40:01		-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-
34	9104	DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*15:01	*35:01	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*15:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*13:02	*46:01	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*46:01		-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*46:01		-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-B*15 SSP subtyping kit																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	200849917	200849918	200849919	200849920	200967221	200849922	200849923	201184024	200849925	200849926	200849927	200849928	200849929	200849930	200849931	201184032
IHWC cell line		B*																		
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*52:01	*73:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*52:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*15:10	*53:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*39:01	*51:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
8	9025	DEU	*35:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*57:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*15:01	*15:20	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*14:01	*56:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
20	9059	SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*15:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*35:03		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*40:02	*56:02	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*58:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*07:05	*51:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
32	9297	HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*15:01	*35:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*15:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*13:02	*46:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*46:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*46:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*51:01		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*35:01	*44:03	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-B*15 SSP subtyping kit																				
				Well																
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
				Prod. No.:	201184033	200849934	200849935	200967236	200849937	200849938	200849939	200967240	200849941	200849942	200849943	200967244	200967245	200849946	200849947	200849948
	IHWC cell line		B*																	
1	9001 SA		*07:02	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*52:01 *73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324		*52:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373		*15:10 *53:01	-	-	-	-	-	-	-	-	-	-	-	+	+	-	-	-	-
5	9009 KAS011		*37:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM		*39:01 *51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL		*18:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU		*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR		*38:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3		*54:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT		*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB		*57:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM		*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA		*15:01 *15:20	-	-	-	-	-	-	-	-	-	+	+	-	+	+	+	+	+
15	9075 DKB		*40:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*40:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*08:01 *55:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367		*14:01 *56:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16		*18:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005		*40:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA		*15:01	-	-	-	-	-	-	-	-	-	+	-	-	+	+	+	+	+
22	9056 KOSE		*35:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL		*40:02 *56:02	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH		*38:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9		*14:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49		*58:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007		*07:05 *51:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*44:02 *44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU		*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH		*42:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF		*18:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG		*41:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B		*40:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*38:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO		*44:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17		*15:01 *35:01	-	-	-	-	-	-	-	-	-	+	-	-	+	+	+	+	+
37	9065 HHKB		*07:02	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL		*15:01	-	-	-	-	-	-	-	-	-	+	-	-	+	+	+	+	+
39	9315 CML		*08:01 *27:05	-	-	-	-	-	-	W	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*13:02 *46:01	-	-	-	-	-	-	+	-	-	+	-	-	+	+	+	+	+
41	9055 H0301		*14:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089		*46:01	-	-	-	-	-	+	-	-	-	+	-	-	+	+	+	+	+
43	9076 T7526		*46:01	-	-	-	-	-	+	-	-	-	+	-	-	+	+	+	+	+
44	9057 TEM		*38:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO		*42:01 *50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU		*07:02	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND		*35:01 *44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																			
HLA-B*15 SSP subtyping kit																			
				Well															
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
			Prod. No.:	200849949	201184050	200967251	200849952	200849953	201184054	200849955	200849956	200849957	200849958	201184059	200849960	200967261	200849962	200849963	200849964
	IHWC cell line	B*																	
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-B*15 SSP subtyping kit																				
				Well																
				65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
				Prod. No.:	200849965	200967266	201184067	200849968	200849969	201184070	201184071	201184072	200849973	200849974	201184075	200849976	200849977	200849978	201184079	200967280
IHWC cell line		B*																		
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*57:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*15:01	*15:20	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CELL LINE VALIDATION SHEET																				
HLA-B*15 SSP subtyping kit																				
				Well																
				Prod. No.:																
				81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	
				200967281	200967282	200967283	201184084	201184085	201184086	201184087	200967288	200967289	201184090	201184091	200967292	200967293	200967294	201184095	200967296	
IHWC cell line		B*																		
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	9280	LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	9011	E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275	GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009	KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353	SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020	QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	9025	DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026	YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	9107	LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	9051	PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	9052	DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004	JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071	OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075	DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	9037	SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	9282	CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	9257	32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	9038	BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059	SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064	AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	9056	KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9124	IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035	JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	9049	IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285	WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	9191	CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	9320	BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	9050	MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	9021	RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	9019	DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	9297	HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	9098	MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104	DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	9302	SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	9024	KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38	9099	LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	9315	CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	9134	WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41	9055	H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	9066	TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	9076	T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	9057	TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45	9239	SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	9045	TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	9303	TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

CERTIFICATE OF ANALYSIS**Olerup SSP® HLA-B*15 SSP**Product number: **101.516-24u/04u – without *Taq* pol.**Lot number: **23L**Expiry date: **2013-September-01**Number of tests: **24 tests – Product No. 101.516-24u****4 tests – Product No. 101.516-04u**Number of wells per test: **96****Well specifications:**

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2009-672-01	33	2011-840-33	65	2008-499-65
2	2009-672-02	34	2008-499-34	66	2009-672-66
3	2008-499-03	35	2008-499-35	67	2011-840-67
4	2009-672-04	36	2009-672-36	68	2008-499-68
5	2008-499-05	37	2008-499-37	69	2008-499-69
6	2008-499-06	38	2008-499-38	70	2011-840-70
7	2009-672-07	39	2008-499-39	71	2011-840-71
8	2008-499-08	40	2009-672-40	72	2011-840-72
9	2008-499-09	41	2008-499-41	73	2008-499-73
10	2011-840-10	42	2008-499-42	74	2008-499-74
11	2008-499-11	43	2008-499-43	75	2011-840-75
12	2008-499-12	44	2009-672-44	76	2008-499-76
13	2009-672-13	45	2009-672-45	77	2008-499-77
14	2011-840-14	46	2008-499-46	78	2008-499-78
15	2008-499-15	47	2008-499-47	79	2011-840-79
16	2008-499-16	48	2008-499-48	80	2009-672-80
17	2008-499-17	49	2008-499-49	81	2009-672-81
18	2008-499-18	50	2011-840-50	82	2009-672-82
19	2008-499-19	51	2009-672-51	83	2009-672-83
20	2008-499-20	52	2008-499-52	84	2011-840-84
21	2009-672-21	53	2008-499-53	85	2011-840-85
22	2008-499-22	54	2011-840-54	86	2011-840-86
23	2008-499-23	55	2008-499-55	87	2011-840-87
24	2011-840-24	56	2008-499-56	88	2009-672-88
25	2008-499-25	57	2008-499-57	89	2009-672-89
26	2008-499-26	58	2008-499-58	90	2011-840-90
27	2008-499-27	59	2011-840-59	91	2011-840-91
28	2008-499-28	60	2008-499-60	92	2009-672-92
29	2008-499-29	61	2009-672-61	93	2009-672-93
30	2008-499-30	62	2008-499-62	94	2009-672-94
31	2008-499-31	63	2008-499-63	95	2011-840-95
32	2011-840-32	64	2008-499-64	96	2009-672-96

Lot No.: **23L**

Lot-specific information

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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 4, 10, 18, 24 to 27, 30 to 34, 36, 39, 49 to 65, 67 to 75, 77 to 80 and 82 to 89 and 91 to 96 were available. The specificities of the primers in primer solutions 10, 18, 24 to 27, 30, 31, 33, 34, 36, 49, 53, 59, 61, 65, 67, 70, 73, 85, 87, 91, 94 and 95 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer.

In primer solutions 4, 32, 39, 50 to 52, 54 to 56, 60, 62 to 64, 68, 69, 71, 77, 79, 82, 86, 88, 89, 92, 93 and 96 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 57, 58, 72, 74, 75, 78, 80, 83 and 84 it was only possible to test the 3'-primers, the 5'-primers were not possible to test.

In primer solutions 3, 12, 13, 19, 21, 24, 25, 33, 36, 59, 67, 70, 85, 87, 90, 91, 94 and 95 one or two 3'-primers were not possible to test. In primer solutions 10, 14, 20, 30, 31, 59, 61, 91 and 94 one or two 5'-primers were not possible to test.

Additional primers in primer solutions 16, 40, 42 and 90 were tested by separately adding one additional 5'-primer or one additional 3'-primer.

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

Date of approval: 2011-April-15

Approved by:

Quality Control, Supervisor

Lot No.: **23L**

Lot-specific information

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Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*15
Product number: 101.516-24u/04u
Lot number: 23L

Intended use: HLA-B*15 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
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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.

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(Notified Body number: 0088.)

Saltsjöbaden, Sweden
2011-April-15

Olle Olerup

Lot No.: **23L**

Lot-specific information

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