

Olerup SSP® HLA-B*58

Product number:	101.568-06 – including <i>Taq</i> polymerase
Lot number:	16L
Expiry date:	2013-August-01
Number of tests:	6
Number of wells per test:	24
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. 16L.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP® HLA-B*58 LOT

The HLA-B*58 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP®* HLA-B*58 lot was made (Lot No. 35G).

Three wells have been added to the HLA-B*58 kit, wells **22 to 24**.
The amplification patterns for some rare HLA-B*58 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
9	Added	Added	Primer pair added for the B*58:23 allele.
10	-	Added	Primer added for the B*58:24 allele.
17	Added	Added	Primer pair added for the B*58:22 allele.
18	-	Added	Primer added for the B*58:25 allele.
20	-	Added	Primer added for the B*58:29 allele.
22	New	New	New primer pair for the B*58:30 allele.
23	New	New	New primer pairs for the B*58:26 and B*58:31N alleles.
24	New	New	New primer pairs for the B*58:27 and B*58:28 alleles.

PRODUCT DESCRIPTION

HLA-B*58 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*58:01 to B*58:31N alleles.

PLATE LAYOUT

Each test consists of 24 PCR reactions in a 24 well PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24

The 24 well cut PCR plate is marked with 'HLA-B*58' in silver/gray ink.

Well No. 1 is marked with the Lot No. '16L'.

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 heat-sealed with a PCR-compatible foil.

Please note: When removing each 24 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

The interpretation of HLA-B*58 SSP subtypings will be influenced by the B*07, the B*08, the B*13, the B*14, the B*15, the B*18, the B*27, the B*35, the B*37, the B*38, the B*39, the B*40, the B*41, the B*42, the B*44, the B*45, the B*46, the B*47, the B*48, the B*49, the B*50, the B*51, the B*52, the B*53, the B*54, the B*55, the B*56, the B*57, the B*59, the B*67, the B*78, the B*81, the B*82 and the B*83:01 alleles when present on the other haplotype.

In addition, the A*02:01:33 allele will be amplified by primer mix 9, the A*24:64 and C*01:06 alleles will be weakly amplified by primer mix 11, the C*01:35, C*03:17, C*03:71 and C*14:20 alleles will be amplified by primer mix 3, the C*03:28, C*03:49, C*04:80, C*05:10 and C*15:08 alleles will be amplified by primer mix 17, the C*03:102 allele will be amplified by primer mix 2, the C*07:81 allele will be amplified by primer mix 5, the C*15:18 and C*15:39 alleles will be amplified by primer mix 10 and the C*15:24 allele will be amplified by primer mix 24.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*58 alleles, i.e. **B*58:01 to B*58:31N** recognized by the HLA Nomenclature Committee in October 2010¹ will give rise to unique amplification patterns by the primers in the HLA-B*58 subtyping kit.

The B*58:09 and B*58:24 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 10.

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The B*58:21 and B*58:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 20.

The HLA-B*58 primer set cannot distinguish the B*58:01:01-58:01:08 alleles.

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

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 37 alleles generate 28 amplification patterns that can be combined in 406 homozygous and heterozygous combinations. 215 of these genotypes do not give rise to unique amplification patterns. The different lengths of the specific PCR products were not considered in these calculations.

+++++---	----+---	-----	*58:04, *58:06 = *58:06, *58:15
+++++---	---+---	-----	*58:04, *58:07 = *58:07, *58:15
+++++---	---+---	-+-----	*58:04, *58:25 = *58:15, *58:25
+++++---	---+---	-----	*58:02, *58:04 = *58:02, *58:15
+++---+	----+---	-----	*58:01:01, *58:06 = *58:06, *58:19
+++-----	---+---	-+-----	*58:01:01, *58:25 = *58:02, *58:17N = *58:17N, *58:25
+++---+	----+---	-----	*58:04, *58:05 = *58:05, *58:15
+++---+	+---+---	-----	*58:04, *58:08 = *58:08, *58:15
+++---+	----+---	-----	*58:04, *58:19 = *58:15, *58:19
+++---+	+---+---	-----	*58:04, *58:23 = *58:15, *58:23
+++---+	---+---	-----	*58:04, *58:09 = *58:09, *58:15
+++---+	----+---	-----	*58:04, *58:10N = *58:10N, *58:15
+++---+	----+---	-----	*58:04, *58:11 = *58:04, *58:20 = *58:11, *58:15 = *58:15, *58:20
+++---+	----+---	-----	*58:04, *58:12 = *58:12, *58:15
+++---+	----+---	-----	*58:04, *58:13 = *58:13, *58:15
+++---+	----+---	+-----	*58:04, *58:18 = *58:15, *58:18
+++---+	----+---	+-----	*58:04, *58:16 = *58:04, *58:22 = *58:15, *58:16 = *58:15, *58:22
+++---+	----+---	-+-----	*58:04, *58:17N = *58:15, *58:17N
+++---+	----+---	-----	*58:04, *58:21 = *58:15, *58:21
+++---+	----+---	-----	*58:04, *58:14 = *58:14, *58:15
+++---+	----+---	-----	*58:04, *58:30 = *58:15, *58:30
+++---+	----+---	-----	*58:04, *58:26 = *58:04, *58:31N = *58:15, *58:26 = *58:15, *58:31N
+++---+	----+---	-----	*58:04, *58:27 = *58:04, *58:28 = *58:15, *58:27 = *58:15, *58:28
+++---+	----+---	-----	*58:01:01, *58:04 = *58:01:01, *58:15 = *58:04, *58:15 = *58:15, *58:15
+++---+	----+---	-----	*58:05, *58:11 = *58:05, *58:20
+++---+	----+---	+-----	*58:05, *58:16 = *58:05, *58:22
+++---+	----+---	-----	*58:05, *58:26 = *58:05, *58:31N
+++---+	----+---	-----	*58:05, *58:27 = *58:05, *58:28
+++---+	----+---	-----	*58:01:01, *58:05 = *58:05, *58:05
+++---+	+---+---	-----	*58:01:01, *58:08 = *58:08, *58:19 = *58:08, *58:23 = *58:19, *58:23
+++---+	----+---	-----	*58:11, *58:19 = *58:19, *58:20
+++---+	----+---	+-----	*58:16, *58:19 = *58:19, *58:22
+++---+	----+---	-----	*58:19, *58:26 = *58:19, *58:31N
+++---+	----+---	-----	*58:19, *58:27 = *58:19, *58:28
+++---+	----+---	-----	*58:01:01, *58:19 = *58:19, *58:19
+++---+	+---+---	-----	*58:11, *58:23 = *58:20, *58:23
+++---+	+---+---	+-----	*58:16, *58:23 = *58:22, *58:23
+++---+	+---+---	-----	*58:23, *58:26 = *58:23, *58:31N
+++---+	+---+---	-----	*58:23, *58:27 = *58:23, *58:28
+++---+	+---+---	-----	*58:01:01, *58:23 = *58:23, *58:23
+++---+	+---+---	-----	*58:09, *58:11 = *58:09, *58:20
+++---+	+---+---	+-----	*58:09, *58:16 = *58:09, *58:22
+++---+	+---+---	-----	*58:09, *58:26 = *58:09, *58:31N

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++-----	-+---+---	-----+	*58:09, *58:27 = *58:09, *58:28
++-----	-+---+---	-----	*58:01:01, *58:09 = *58:09, *58:09
++-----	-----++	-----	*58:10N, *58:11 = *58:10N, *58:20
++-----	-----++	+-----	*58:10N, *58:16 = *58:10N, *58:22
++-----	-----++	-----+	*58:10N, *58:26 = *58:10N, *58:31N
++-----	-----++	-----+	*58:10N, *58:27 = *58:10N, *58:28
++-----	-----++	-----	*58:01:01, *58:10N = *58:10N, *58:10N
++-----	-----++	-----	*58:11, *58:12 = *58:12, *58:20
++-----	-----++	-----	*58:11, *58:13 = *58:13, *58:20
++-----	-----++	+-----	*58:11, *58:16 = *58:11, *58:22 = *58:20, *58:22
++-----	-----++	-+-----	*58:11, *58:17N = *58:17N, *58:20
++-----	-----++	-----+	*58:11, *58:21 = *58:20, *58:21
++-----	-----++	-----	*58:11, *58:14 = *58:14, *58:20
++-----	-----++	-----	*58:11, *58:30 = *58:20, *58:30
++-----	-----++	-----+	*58:11, *58:26 = *58:11, *58:31N = *58:20, *58:31N
++-----	-----++	-----+	*58:11, *58:27 = *58:11, *58:28 = *58:20, *58:28
++-----	-----++	-----	*58:01:01, *58:11 = *58:01:01, *58:20
++-----	-----++	+-----	*58:12, *58:16 = *58:12, *58:22
++-----	-----++	-----+	*58:12, *58:26 = *58:12, *58:31N
++-----	-----++	-----+	*58:12, *58:27 = *58:12, *58:28
++-----	-----++	-----	*58:01:01, *58:12 = *58:12, *58:12
++-----	-----++	+-----	*58:13, *58:16 = *58:13, *58:22
++-----	-----++	-----+	*58:13, *58:26 = *58:13, *58:31N
++-----	-----++	-----+	*58:13, *58:27 = *58:13, *58:28
++-----	-----++	-----	*58:01:01, *58:13 = *58:13, *58:13
++-----	-----++	++-----	*58:16, *58:17N = *58:17N, *58:22
++-----	-----++	+-----	*58:01:01, *58:18 = *58:18, *58:22
++-----	-----++	+-----	*58:16, *58:21 = *58:21, *58:22
++-----	-----++	+-----	*58:14, *58:16 = *58:14, *58:22
++-----	-----++	+-----	*58:16, *58:30 = *58:22, *58:30
++-----	-----++	+-----	*58:16, *58:31N = *58:22, *58:26 = *58:22, *58:31N
++-----	-----++	+-----	*58:16, *58:28 = *58:22, *58:27 = *58:22, *58:28
++-----	-----++	+-----	*58:01:01, *58:16 = *58:01:01, *58:22 = *58:16, *58:22 = *58:22, *58:22
++-----	-----++	-+-----	*58:17N, *58:26 = *58:17N, *58:31N
++-----	-----++	-+-----	*58:17N, *58:27 = *58:17N, *58:28
++-----	-----++	-+-----	*58:01:01, *58:17N = *58:17N, *58:17N
++-----	-----++	-----+	*58:21, *58:26 = *58:21, *58:31N
++-----	-----++	-----+	*58:21, *58:27 = *58:21, *58:28
++-----	-----++	-----	*58:01:01, *58:21 = *58:21, *58:21
++-----	-----++	-----+	*58:14, *58:26 = *58:14, *58:31N
++-----	-----++	-----+	*58:14, *58:27 = *58:14, *58:28
++-----	-----++	-----	*58:01:01, *58:14 = *58:14, *58:14
++-----	-----++	-----+	*58:26, *58:30 = *58:30, *58:31N
++-----	-----++	-----+	*58:27, *58:30 = *58:28, *58:30
++-----	-----++	-----	*58:01:01, *58:30 = *58:30, *58:30
++-----	-----++	-----+	*58:26, *58:28 = *58:27, *58:31N = *58:28, *58:31N
++-----	-----++	-----+	*58:01:01, *58:26 = *58:01:01, *58:31N = *58:26, *58:31N = *58:31N, *58:31N
++-----	-----++	-----+	*58:01:01, *58:27 = *58:01:01, *58:28 = *58:27, *58:28 = *58:28, *58:28
++-----	-----++	-----	*58:11, *58:11 = *58:11, *58:20
+-----+	-+---+---	-----	*58:02, *58:07 = *58:07, *58:07
+-----	-+---+---	-+-----	*58:02, *58:25 = *58:25, *58:25
+-----	-+---+---	+-----	*58:16, *58:18 = *58:18, *58:18

*58:01:01 = *58:01:01-58:01:08
*58:09 = *58:09 and 58:24
*58:21 = *58:21 and 58:29

SPECIFICITY TABLE

HLA-B*58 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-B*58 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*58 alleles ^{3,4}	Other amplified HLA Class I alleles ^{3,5}
1 ⁶	90 bp	800 bp	*58:01:01-58:02, 58:05-58:31N	
2	150 bp	800 bp	*58:01:01-58:01:08, 58:04-58:05, 58:09-58:15, 58:17N, 58:19, 58:21-58:24, 58:28-58:31N	*08:49, 13:01:01-13:01:05, 13:06-13:07N, 13:12-13:13, 13:17, 13:20, 13:22:01-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 14:10, 15:02:01-15:02:05, 15:13, 15:20-15:21, 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, 18:22, 27:19, 27:30, 35:01:01:01-35:04:03, 35:06-35:08:04, 35:10-35:17, 35:19-35:21, 35:23-35:30, 35:33-35:36, 35:38-35:42:02, 35:45-35:50, 35:52, 35:54-35:57, 35:59, 35:61-35:63, 35:65Q, 35:69-35:71, 35:74, 35:76-35:78, 35:80-35:85, 35:90-35:96, 35:98, 35:100-35:101:02, 35:103-35:113, 35:115-35:116, 35:120-35:126, 35:128-35:134N, 35:136-35:150, 37:01:01-37:01:07, 37:03N-37:06, 37:08, 37:10-37:11, 37:13-37:25, 38:20, 39:42, 40:28, 44:02:01:01-44:14, 44:16-44:17, 44:19N, 44:21-44:30, 44:32-44:40, 44:42-44:46, 44:48-44:52N, 44:55-44:64:02, 44:66-44:98, 44:101-44:105, 44:107-44:115, 48:02:01-48:02:02, 51:04, 51:42, 51:46, 51:56, 53:01:01-53:13, 53:15-53:24, 55:14, 56:09, 56:11-56:12, 57:01:01-57:01:04, 57:01:06-57:10, 57:12, 57:14-57:20, 57:22-57:30, 57:32-57:37, 83:01, C*03:102
3	240 bp	800 bp	*58:02, 58:06-58:07, 58:25	*14:19, 57:11, C*01:35, C*03:17, C*03:71, C*14:20
4 ⁹	190 bp, 230 bp	1070 bp	*58:04, 58:15	

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5⁶	90 bp	1070 bp	*58:05	*15:124, 40:77, 40:87, 48:14, C*07:81
6	170 bp	1070 bp	*58:06, 58:08, 58:19	*07:02:01-07:24, 07:26-07:47, 07:49N-07:50, 07:52-07:117, 08:20, 08:53, 13:16, 13:20, 13:31, 14:01:01-14:19, 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, 15:42-15:47, 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, 18:15, 18:19, 18:21, 18:30, 27:04:01-27:04:03, 27:06, 27:10, 27:15, 27:18, 27:20-27:21, 27:24-27:25, 27:40, 27:54, 27:63, 27:66N, 27:68-27:69, 35:11:01-35:11:02, 35:14:01-35:14:02, 35:21, 35:43:01-35:44, 35:58, 35:67, 35:79, 35:86, 35:96, 35:99, 35:102, 35:117-35:118, 35:135, 37:07, 37:13, 38:10, 39:18, 39:35-39:36, 40:05, 40:15-40:16, 40:23, 40:26, 40:28, 40:32, 40:51, 40:95, 40:98, 40:148, 40:158, 44:76, 44:79, 46:01:01-46:05, 46:07N-46:08, 46:10, 46:12, 46:14-46:17, 46:20, 46:22-46:24, 48:05, 48:08, 48:15, 49:01:01-49:10, 49:12-49:15, 50:01:01-50:02, 50:04-50:12, 51:01:01-51:04, 51:06-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:24:04, 51:26-51:30, 51:32-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:72, 51:74-51:80, 51:82-51:92, 51:94-51:96, 51:98N-51:106, 52:01:01-52:02, 52:04-52:09, 52:11-52:18, 52:20-52:22, 53:06, 53:08:01-53:08:02, 54:06, 54:20, 55:01:01-55:01:06, 55:03, 55:05, 55:09, 55:11, 55:14-55:15, 55:17, 55:21, 55:24-55:25, 55:28-55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 56:03, 56:05:01-56:06, 56:21, 56:25, 57:09, 57:13, 57:22, 78:01-78:03, 78:05-78:07
7^{6,7}	80 bp	1070 bp	*58:06, 58:08, 58:19	*07:02:13 ^w , 07:68:02 ^w , 13:16, 13:20, 14:01:01-14:02:06, 14:03 ^w , 14:04-14:11, 14:12 ^w , 14:13-14:19, 15:03:02, 15:39:02,

				15:42, 18:15, 35:11:01, 35:21, 35:58, 35:96, 38:10, 39:35, 40:28, 40:95, 44:76 ^W , 44:79, 49:01:01, 49:02-49:10, 49:12-49:15, 50:01:01-50:02, 50:04-50:12, 51:01:01-51:04, 51:06-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:24:01, 51:24:04, 51:26-51:28, 51:29 ^W , 51:30, 51:32-51:35, 51:37-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:53, 51:55 ^W , 51:56-51:60, 51:62-51:70, 51:74-51:80, 51:82 ^W , 51:83-51:86, 51:88-51:90, 51:92, 51:94-51:96, 51:98N-51:106, 52:01:01-52:02, 52:04-52:09, 52:11-52:18, 52:20, 52:22, 53:06, 53:08:01, 54:20 ^W , 55:01:01-55:01:06, 55:03, 55:05, 55:09 ^W , 55:11, 55:14-55:15, 55:17, 55:24-55:25, 55:28-55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 56:05:01-56:06, 56:21, 56:25, 78:01-78:03, 78:05-78:07
8	250 bp	1070 bp	*58:07	
9	160 bp	800 bp	*58:08, 58:23	A*02:01:33
10^{6,10}	115 bp, 270 bp	800 bp	*58:09, 58:24	*14:10, 18:22, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 37:04:01-37:04:02, 40:28, 51:04, 51:46, 51:56, 53:02, 53:06, 57:14, C*15:18, C*15:39
11	205 bp	1070 bp	*58:02, 58:07, 58:25	*18:44, 57:11, A*24:64^W, C*01:06^W
12	235 bp	1070 bp	*58:10N	
13	165 bp	1070 bp	*58:01:01-58:02, 58:04-58:10N, 58:12-58:19, 58:21-58:31N	*15:20, 35:01:01:01-35:30, 35:32-35:42:02, 35:44-35:56, 35:58-35:59, 35:61-35:72, 35:74-35:78, 35:80-35:86, 35:88-35:151, 48:02:01-48:02:02, 51:01:01-51:24:04, 51:26-51:41N, 51:43-51:46, 51:48-51:106, 52:01:01-52:06:02, 52:08-52:22, 53:01:01-53:24, 56:05:01-56:05:02, 56:21, 78:01-78:07, 81:03, 83:01 [?]
14^B	165 bp	1070 bp	*58:11, 58:20	*07:02:01-07:57, 07:59-07:117, 08:01:01-08:05, 08:07-08:66, 13:01:01-13:04, 13:06-13:23, 13:25-13:40, 14:01:01-14:19, 15:01:01:01-15:01:04, 15:01:06-15:19, 15:21, 15:23-15:40, 15:42-15:58, 15:60-15:99, 15:101, 15:103-15:129, 15:131-15:209N, 18:01:01-18:15, 18:17N-18:52, 27:01-27:21, 27:23-27:73, 35:31, 35:35, 35:43:01-35:43:02, 35:46, 35:57,

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				35:60, 35:79, 35:87, 35:96, 35:98, 37:01:01-37:25, 38:01:01-38:26, 39:01:01:01-39:01:01:02L, 39:01:03-39:20, 39:22-39:45, 39:47-39:62, 40:01:01-40:16, 40:18-40:40, 40:42-40:158, 41:01-41:16, 42:01:01-42:02, 42:04-42:14, 44:02:01:01-44:65, 44:67-44:115, 45:01-45:13, 46:01:01-46:26, 47:01:01:01-47:07, 48:01:01-48:01:03, 48:02:02-48:24, 49:01:01-49:15, 50:01:01-50:02, 50:04-50:12, 51:42, 52:07, 54:01-54:23, 55:01:01-55:05, 55:07-55:48, 56:01:01-56:04, 56:06-56:20, 56:22-56:30, 57:01:01-57:37, 59:01-59:05, 67:01:01-67:03, 81:01-81:02, 81:04N-81:05, 82:01-82:03, 83:01 [?]
15	155 bp	1070 bp	*58:12	
16	145 bp	1070 bp	*58:13	*49:06
17^{7,11}	225 bp, 375 bp	1070 bp	*58:16, 58:18, 58:22	*07:12, 07:14, 07:18:01-07:18:02, 35:08:01-35:08:04, 35:18, 35:45, 35:61, 35:80, 35:100, 35:105, 35:142, 44:04, 44:28:01-44:28:02, 44:56N, 44:76, 53:11, 53:16, 53:24, 57:02:01-57:02:02, 57:04-57:05, 57:12-57:13, 57:19, 57:28N, 57:30, C*03:28, C*03:49, C*04:80, C*05:10, C*15:08
18^{6,12}	70 bp, 140 bp	1070 bp	*58:17N, 58:25	
19⁶	95 bp	800 bp	*58:18	*07:09, 07:11, 07:17, 08:28, 08:35, 08:37, 15:07:01-15:07:02, 15:55, 15:68, 15:126, 15:207, 18:14, 35:05:01-35:05:02, 35:51, 35:58, 35:66, 35:72, 35:89, 35:97, 35:114, 40:03, 40:105, 42:09, 46:12, 48:14, 53:14
20^{6,13}	85 bp, 170 bp	1070 bp	*58:21, 58:29	*18:51
21	440 bp	1070 bp	*58:14	
22	180 bp	1070 bp	*58:30	*35:70
23¹⁴	150 bp, 260 bp	1070 bp	*58:26, 58:31N	*35:75
24⁶	95 bp	1070 bp	*58:27-58:28	*07:05:01-07:06, 07:32, 07:34, 07:40, 07:53, 07:69, 07:80, 07:90, 07:97, 07:105, 07:112, 08:01:01-08:05, 08:08N, 08:10-08:11, 08:13, 08:15, 08:17-08:27, 08:29, 08:31-08:34, 08:36, 08:38-08:48, 08:50-08:66, 13:13, 13:21, 14:13, 27:07,

27:11, 27:24, 27:33, 27:43, 35:02:01-35:02:04, 35:04:01-35:04:03, 35:09:01-35:09:02, 35:12:01-35:12:02, 35:18, 35:22, 35:31, 35:81, 35:83, 35:87-35:88, 35:95, 35:129N, 35:149, 37:12, 39:14, 40:02:01-40:02:11, 40:04-40:05, 40:08, 40:13, 40:15-40:16, 40:19, 40:28-40:30, 40:34-40:35, 40:37, 40:39-40:40, 40:45, 40:50, 40:56-40:58, 40:64, 40:68, 40:78, 40:80, 40:82, 40:85, 40:89-40:91, 40:94, 40:97, 40:99, 40:104, 40:107, 40:111, 40:115, 40:119, 40:122, 40:129, 40:133Q, 40:137, 40:142N-40:145, 40:157, 41:02:01-41:02:03, 41:10-41:11, 41:13, 41:15, 42:01:01-42:02, 42:05:01-42:05:02, 42:07-42:08, 42:10-42:14, 44:62, 44:77, 44:82, 48:01:01-48:01:03, 48:04-48:06, 48:09-48:13, 48:15-48:16, 48:18-48:20, 48:22, 48:24, 51:04, 51:46, 51:56, 51:64, 51:81, 53:19, 55:04, 56:12, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:12, 57:17, 81:01-81:05, **C*15:24**

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B*58 SSP typings.

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

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

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

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

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

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*58 subtyping.

In addition, wells number 2, 3, 9, 10 and 19 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.

³Primer mixes 13 and 14: For many HLA-B alleles fourth exon nucleotide sequences are not available. We assume that unknown sequences in the fourth exon are conserved within allelic groups.

⁴The B*58:09 and B*58:24 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 10.

The B*58:21 and B*58:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 20.

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⁵Due to the sharing of sequence motifs between HLA-B alleles some non-HLA-B*58 alleles will be amplified by primer mixes 2, 3, 5 to 7, 9 to 11, 13, 14, 16, 17, 19, 20 and 22 to 24. In addition, the A*02:01:33 allele will be amplified by primer mix 9, the A*24:64 and C*01:06 alleles will be weakly amplified by primer mix 11, the C*01:35, C*03:17, C*03:71 and C*14:20 alleles will be amplified by primer mix 3, the C*03:28, C*03:49, C*04:80, C*05:10 and C*15:08 alleles will be amplified by primer mix 17, the C*03:102 allele will be amplified by primer mix 2, the C*07:81 allele will be amplified by primer mix 5, the C*15:18 and C*15:39 alleles will be amplified by primer mix 10 and the C*15:24 allele will be amplified by primer mix 24.

⁶Short specific PCR fragments are less intense and not as sharp as longer specific bands.

⁷Primer mixes 7 and 17 have a tendency of giving rise to nonspecific amplifications.

⁸Primer mix 14 has a tendency of primer dimer formation.

⁹Primer mix 4: Specific PCR fragment of 190 bp in the B*58:04 allele. Specific PCR fragment of 230 bp in the B*58:15 allele.

¹⁰Primer mix 10: Specific PCR fragment of 115 bp in the B*58:24 and in the C*15:18 alleles. Specific PCR fragment of 270 bp in the B*58:09 and in the B*14:10, 18:22, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 37:04:01-37:04:02, 40:28, 51:04, 51:46, 51:56, 53:02, 53:06 and 57:14 and in the C*15:39 alleles.

¹¹Primer mix 17: Specific PCR fragment of 225 bp in the B*58:22 and in the B*07:12, 07:14, 07:18:01-07:18:02, 35:08:01-35:08:04, 35:18, 35:45, 35:61, 35:80, 35:100, 35:105, 35:142, 44:04, 44:28:01-44:28:02, 44:56N, 44:76, 53:11, 53:16, 53:24, 57:02:01-57:02:02, 57:04-57:05, 57:12-57:13, 57:19, 57:28N and 57:30 and the C*03:28, C*03:49, C*04:80, C*05:10 and C*15:08 alleles. Specific PCR fragment of 375 bp in the B*58:16 and 58:18 alleles.

¹²Primer mix 18: Specific PCR fragment of 70 bp in the B*58:25 allele. Specific PCR fragment of 140 bp in the B*58:17N allele.

¹³Primer mix 20: Specific PCR fragment of 85 bp in the B*58:29 allele. Specific PCR fragment of 170 bp in the B*58:21 and the B*18:51 alleles.

¹⁴Primer mix 23: Specific PCR fragment of 150 bp in the B*58:26 and the B*35:75 alleles. Specific PCR fragment of 260 bp in the B*58:31N allele.

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

‘w’, might be weakly amplified.

INTERPRETATION TABLE

HLA-B*58 SSP subtyping

Amplification patterns of the B*58:01 to B*58:31N alleles

	Well ⁷											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	90	150	240	190	90	170	80	250	160	115	205	235
PCR product(s)				230						270		
Length of int. pos. control ¹	800	800	800	1070	1070	1070	1070	1070	800	800	1070	1070
5'-primer(s) ²	209	355	361	106	463	527	486	361	141	355	361	367
	5'-ggA 3'	5'-TCA 3'	5'-AgT 3'	5'-CCA 3'	5'-TgA 3'	5'-TgA 3'	5'-ACC 3'	5'-AgT 3'	5'-ATT 3'	5'-TCA 3'	5'-AgT 3'	5'-T.T 3'
									355			
									5'-TCA 3'			
3'-primer(s) ³	256	463	559	256	512	3 rd I	527	572	256	430	527	559
	5'-CCC 3'	5'-gCT 3'	5'-CAg 3'	5'-CTC 3'	5'-CCA 3'	5'-TAT 3'	5'-CCT 3'	5'-gCg 3'	5'-CCC 3'	5'-gCg 3'	5'-CCA 3'	5'-CAg 3'
				296					479	583		
				5'-CTg 3'					5'-CCA 3'	5'-gTg 3'		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
HLA-B allele ⁴												
*58:01:01-58:01:08	1	2										
*58:02	1		3								11	
*58:04		2		4								
*58:05	1	2			5							
*58:06	1		3			6	7					
*58:07	1		3					8			11	
*58:08	1					6	7		9			
*58:09, 58:24 ⁵	1	2								10		
*58:10N	1	2										12
*58:11	1	2										
*58:12	1	2										
*58:13	1	2										
*58:14	1	2										
*58:15	1	2		4								
*58:16	1											
*58:17N	1	2										
*58:18	1											
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

INTERPRETATION TABLE												
HLA-B*58 SSP subtyping												
Amplification patterns of the B*58:01 to B*58:31N alleles												
Well ⁷												
13	14	15	16	17	18	19	20	21	22	23	24	
165	165	155	145	225	70	95	85	440	180	150	95	Length of spec. PCR product(s)
				375	140		170			260		Length of int. pos. control ¹
1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070	5'-primer(s) ²
652	652	142	454	281	209	363	209	206	635	355	355	
5'-CCg ^{3'}	5'-CCA ^{3'}	5'-TCT ^{3'}	5'-ACA ^{3'}	5'-CTC ^{3'}	5'-gga ^{3'}	5'-AgC ^{3'}	5'-gga ^{3'}	5'-gAC ^{3'}	5'-ACg ^{3'}	5'-TCC ^{3'}	5'-TCA ^{3'}	
				355						652	363	
				5'-TCA ^{3'}						5'-CCg ^{3'}	5'-AgC ^{3'}	
774	774	256	559	369	239	419	252	362	774	463	412	3'-primer(s) ³
5'-ggT ^{3'}	5'-ggT ^{3'}	5'-CCC ^{3'}	5'-CAG ^{3'}	5'-CCg ^{3'}	5'-gCg ^{3'}	5'-Cgg ^{3'}	5'-TCg ^{3'}	5'-TCA ^{3'}	5'-ggT ^{3'}	5'-gCT ^{3'}	5'-gTT ^{3'}	
				538	309		340			870		
				5'-CCg ^{3'}	5'-A.C ^{3'}		5'-ggT ^{3'}			5'-gA ^{3'}		
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												HLA-B allele ⁴
13												*58:01:01-58:01:08
13												*58:02
13												*58:04
13												*58:05
13												*58:06
13												*58:07
13												*58:08
13												*58:09, 58:24 ⁵
13												*58:10N
	14											*58:11
13		15										*58:12
13			16									*58:13
13								21				*58:14
13												*58:15
13				17								*58:16
13					18							*58:17N
13				17		19						*58:18
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

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Length of spec.	90	150	240	190	90	170	80	250	160	115	205	235
PCR product(s)				230						270		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*58:19	1	2				6	7					
*58:20	1											
*58:21, 58:29 ⁶	1	2										
*58:22	1	2										
*58:23	1	2							9			
*58:25	1		3								11	
*58:26	1											
*58:27	1											
*58:28	1	2										
*58:30	1	2										
*58:31N	1	2										
*07:02:01-07:02:12, 07:02:14-07:04, 07:07-07:08, 07:10, 07:13, 07:15-07:16, 07:19-07:24, 07:26-07:31, 07:33, 07:35-07:39, 07:41-07:47, 07:49N-07:50, 07:52, 07:54-07:57, 07:59-07:68:01, 07:70-07:79, 07:81-07:89, 07:91-07:96:02, 07:98-07:104, 07:106-07:111N, 07:113-07:117, 13:31, 15:01:01:01-15:01:04, 15:01:06-15:01:20, 15:03:01, 15:03:03-15:04, 15:06, 15:08-15:12, 15:14-15:19, 15:23-15:24, 15:26N-15:30, 15:32-15:35, 15:37-15:39:01, 15:40, 15:43, 15:45-15:47, 15:49-15:50, 15:53-15:54, 15:56-15:58, 15:60-15:61, 15:63-15:67, 15:69-15:74, 15:76, 15:78:01-15:79N, 15:81-15:82, 15:87, 15:90, 15:92-15:99, 15:101, 15:103-15:104, 15:108-15:110, 15:113, 15:115-15:120, 15:122, 15:125, 15:127-15:129, 15:131-15:135, 15:137-15:138, 15:140-15:143, 15:146-15:150, 15:152-15:153, 15:156-15:161, 15:163-15:164, 15:166-15:169, 15:171-15:175, 15:177-15:178, 15:180-15:184, 15:187, 15:189-15:193, 15:195-15:199, 15:201-15:203, 15:205-15:206, 15:208-15:209N, 18:19, 18:21, 18:30, 27:04:01-27:04:03, 27:06, 27:10, 27:15, 27:18, 27:20-27:21, 27:25, 27:40, 27:54, 27:63, 27:66N, 27:68-27:69, 35:43:01-35:43:02, 35:79, 37:07, 39:18, 39:36, 40:23, 40:26, 40:32, 40:51, 40:98, 40:148, 40:158, 46:01:01-46:05, 46:07N-46:08, 46:10, 46:14-46:17, 46:20, 46:22-46:24, 48:08, 49:01:02, 54:06, 55:21, 56:03						6						
*07:02:13, 07:68:02, 14:03, 14:12, 54:20, 55:09						6	w					
*07:05:01-07:06, 07:32, 07:34, 07:40, 07:53, 07:69, 07:80, 07:90, 07:97, 07:105, 07:112, 08:20, 08:53, 27:24, 40:05, 40:15-40:16, 48:05, 48:15						6						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

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165	165	155	145	225	70	95	85	440	180	150	95	Length of spec. PCR product(s)
				375	140		170			260		
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
13												*58:19
	14											*58:20
13							20					*58:21, 58:29 ⁶
13				17								*58:22
13												*58:23
13					18							*58:25
13										23		*58:26
13											24	*58:27
13											24	*58:28
13								22				*58:30
13										23		*58:31N
	14											*07:02:01-07:02:12, 07:02:14-07:04, 07:07-07:08, 07:10, 07:13, 07:15-07:16, 07:19-07:24, 07:26-07:31, 07:33, 07:35-07:39, 07:41-07:47, 07:49N-07:50, 07:52, 07:54-07:57, 07:59-07:68:01, 07:70-07:79, 07:81-07:89, 07:91-07:96:02, 07:98-07:104, 07:106-07:111N, 07:113-07:117, 13:31, 15:01:01:01-15:01:04, 15:01:06-15:01:20, 15:03:01, 15:03:03-15:04, 15:06, 15:08-15:12, 15:14-15:19, 15:23-15:24, 15:26N-15:30, 15:32-15:35, 15:37-15:39:01, 15:40, 15:43, 15:45-15:47, 15:49-15:50, 15:53-15:54, 15:56-15:58, 15:60-15:61, 15:63-15:67, 15:69-15:74, 15:76, 15:78:01-15:79N, 15:81-15:82, 15:87, 15:90, 15:92-15:99, 15:101, 15:103-15:104, 15:108-15:110, 15:113, 15:115-15:120, 15:122, 15:125, 15:127-15:129, 15:131-15:135, 15:137-15:138, 15:140-15:143, 15:146-15:150, 15:152-15:153, 15:156-15:161, 15:163-15:164, 15:166-15:169, 15:171-15:175, 15:177-15:178, 15:180-15:184, 15:187, 15:189-15:193, 15:195-15:199, 15:201-15:203, 15:205-15:206, 15:208-15:209N, 18:19, 18:21, 18:30, 27:04:01-27:04:03, 27:06, 27:10, 27:15, 27:18, 27:20-27:21, 27:25, 27:40, 27:54, 27:63, 27:66N, 27:68-27:69, 35:43:01-35:43:02, 35:79, 37:07, 39:18, 39:36, 40:23, 40:26, 40:32, 40:51, 40:98, 40:148, 40:158, 46:01:01-46:05, 46:07N-46:08, 46:10, 46:14-46:17, 46:20, 46:22-46:24, 48:08, 49:01:02, 54:06, 55:21, 56:03
	14											*07:02:13, 07:68:02, 14:03, 14:12, 54:20, 55:09
	14										24	*07:05:01-07:06, 07:32, 07:34, 07:40, 07:53, 07:69, 07:80, 07:90, 07:97, 07:105, 07:112, 08:20, 08:53, 27:24, 40:05, 40:15-40:16, 48:05, 48:15
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

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Length of spec.	90	150	240	190	90	170	80	250	160	115	205	235
PCR product(s)				230						270		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*07:09, 07:11, 07:17, 15:07:01-15:07:02, 15:68, 15:126, 15:207, 46:12						6						
*07:12, 07:14, 07:18:01-07:18:02, 57:13						6						
*07:25, 07:48, 07:51, 08:07, 08:09, 08:12:01-08:12:03, 08:14, 08:16, 08:30N, 13:02:01-13:04, 13:08Q-13:11, 13:14-13:15, 13:18-13:19, 13:27, 13:30, 13:32-13:35, 13:37-13:38, 13:40, 15:05:01-15:05:02, 15:31, 15:48, 15:51-15:52, 15:75, 15:83-15:84, 15:86, 15:91, 15:105, 15:107, 15:111N, 15:114, 15:123, 15:136, 15:145, 15:151, 15:155, 15:162, 15:176, 15:179, 15:185- 15:186, 15:188, 15:200, 18:01:01-18:13, 18:17N- 18:18, 18:20, 18:23N-18:29, 18:31-18:43, 18:45-18:50, 18:52, 27:01-27:03, 27:05:02-27:05:15, 27:08-27:09, 27:12-27:14, 27:16-27:17, 27:23, 27:26-27:29, 27:31- 27:32, 27:34-27:39, 27:41-27:42, 27:44-27:53, 27:55- 27:62, 27:64N-27:65N, 27:67, 27:70-27:73, 35:60, 37:02, 37:09, 38:01:01-38:09, 38:11-38:19, 38:21- 38:26, 39:01:01:01-39:01:01:02L, 39:01:03-39:13:02, 39:15-39:17, 39:19:01-39:20, 39:22-39:34, 39:37- 39:41, 39:43-39:45, 39:47-39:62, 40:01:01-40:01:17, 40:06:01:01-40:07, 40:09-40:12, 40:14:01-40:14:03, 40:18, 40:20-40:22N, 40:24-40:25, 40:27, 40:31, 40:33, 40:36, 40:38, 40:42-40:44, 40:46-40:49, 40:52- 40:55, 40:59-40:63, 40:65-40:67, 40:69-40:76, 40:79, 40:81, 40:83-40:84, 40:86, 40:88, 40:92-40:93, 40:96, 40:100-40:103, 40:106, 40:108-40:110, 40:112- 40:114, 40:116-40:118N, 40:120-40:121, 40:123- 40:128, 40:130-40:132, 40:134-40:136, 40:138- 40:141, 40:146-40:147, 40:149-40:156, 41:01, 41:03:01-41:09, 41:12, 41:14, 41:16, 42:04, 42:06, 44:15, 44:18, 44:20, 44:31, 44:41, 44:47, 44:53-44:54, 44:65, 44:99-44:100, 44:106, 45:01-45:13, 46:06, 46:09, 46:11, 46:13:01-46:13:03, 46:18-46:19, 46:21:01-46:21:02, 46:25-46:26, 47:01:01:01-47:07, 48:03:01-48:03:02, 48:07, 48:17, 48:21, 48:23, 49:11, 54:01-54:05N, 54:07-54:19, 54:21-54:23, 55:02:01- 55:02:06, 55:07-55:08, 55:10, 55:12-55:13, 55:16, 55:18-55:20, 55:22-55:23, 55:26-55:27, 55:30, 55:32, 55:34-55:35, 55:37, 55:39, 55:41-55:43, 55:46-55:48, 56:01:01-56:02, 56:04, 56:07-56:08, 56:10, 56:13- 56:20, 56:22-56:24, 56:26-56:30, 57:01:05, 57:21, 57:31, 59:01-59:05, 67:01:01-67:03, 82:01-82:03												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

165	165	155	145	225	70	95	85	440	180	150	95	Length of spec.
				375	140		170			260		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
	14					19						*07:09, 07:11, 07:17, 15:07:01-15:07:02, 15:68, 15:126, 15:207, 46:12
	14			17								*07:12, 07:14, 07:18:01-07:18:02, 57:13
	14											*07:25, 07:48, 07:51, 08:07, 08:09, 08:12:01-08:12:03, 08:14, 08:16, 08:30N, 13:02:01-13:04, 13:08Q-13:11, 13:14-13:15, 13:18-13:19, 13:27, 13:30, 13:32-13:35, 13:37-13:38, 13:40, 15:05:01-15:05:02, 15:31, 15:48, 15:51-15:52, 15:75, 15:83-15:84, 15:86, 15:91, 15:105, 15:107, 15:111N, 15:114, 15:123, 15:136, 15:145, 15:151, 15:155, 15:162, 15:176, 15:179, 15:185-15:186, 15:188, 15:200, 18:01:01-18:13, 18:17N-18:18, 18:20, 18:23N-18:29, 18:31-18:43, 18:45-18:50, 18:52, 27:01-27:03, 27:05:02-27:05:15, 27:08-27:09, 27:12-27:14, 27:16-27:17, 27:23, 27:26-27:29, 27:31-27:32, 27:34-27:39, 27:41-27:42, 27:44-27:53, 27:55-27:62, 27:64N-27:65N, 27:67, 27:70-27:73, 35:60, 37:02, 37:09, 38:01:01-38:09, 38:11-38:19, 38:21-38:26, 39:01:01:01-39:01:01:02L, 39:01:03-39:13:02, 39:15-39:17, 39:19:01-39:20, 39:22-39:34, 39:37-39:41, 39:43-39:45, 39:47-39:62, 40:01:01-40:01:17, 40:06:01:01-40:07, 40:09-40:12, 40:14:01-40:14:03, 40:18, 40:20-40:22N, 40:24-40:25, 40:27, 40:31, 40:33, 40:36, 40:38, 40:42-40:44, 40:46-40:49, 40:52-40:55, 40:59-40:63, 40:65-40:67, 40:69-40:76, 40:79, 40:81, 40:83-40:84, 40:86, 40:88, 40:92-40:93, 40:96, 40:100-40:103, 40:106, 40:108-40:110, 40:112-40:114, 40:116-40:118N, 40:120-40:121, 40:123-40:128, 40:130-40:132, 40:134-40:136, 40:138-40:141, 40:146-40:147, 40:149-40:156, 41:01, 41:03:01-41:09, 41:12, 41:14, 41:16, 42:04, 42:06, 44:15, 44:18, 44:20, 44:31, 44:41, 44:47, 44:53-44:54, 44:65, 44:99-44:100, 44:106, 45:01-45:13, 46:06, 46:09, 46:11, 46:13:01-46:13:03, 46:18-46:19, 46:21:01-46:21:02, 46:25-46:26, 47:01:01:01-47:07, 48:03:01-48:03:02, 48:07, 48:17, 48:21, 48:23, 49:11, 54:01-54:05N, 54:07-54:19, 54:21-54:23, 55:02:01-55:02:06, 55:07-55:08, 55:10, 55:12-55:13, 55:16, 55:18-55:20, 55:22-55:23, 55:26-55:27, 55:30, 55:32, 55:34-55:35, 55:37, 55:39, 55:41-55:43, 55:46-55:48, 56:01:01-56:02, 56:04, 56:07-56:08, 56:10, 56:13-56:20, 56:22-56:24, 56:26-56:30, 57:01:05, 57:21, 57:31, 59:01-59:05, 67:01:01-67:03, 82:01-82:03
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

Length of spec.	90	150	240	190	90	170	80	250	160	115	205	235
PCR product(s)				230						270		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*07:58, 15:102						6						
*08:01:01-08:05, 08:08N, 08:10-08:11, 08:13, 08:15, 08:17-08:19N, 08:21-08:27, 08:29, 08:31-08:34, 08:36, 08:38-08:48, 08:50-08:52, 08:54-08:66, 13:21, 27:07, 27:11, 27:33, 27:43, 35:31, 35:87, 37:12, 39:14, 40:02:01-40:02:11, 40:04, 40:08, 40:13, 40:19, 40:29-40:30, 40:34-40:35, 40:37, 40:39-40:40, 40:45, 40:50, 40:56-40:58, 40:64, 40:68, 40:78, 40:80, 40:82, 40:85, 40:89-40:91, 40:94, 40:97, 40:99, 40:104, 40:107, 40:111, 40:115, 40:119, 40:122, 40:129, 40:133Q, 40:137, 40:142N-40:145, 40:157, 41:02:01-41:02:03, 41:10-41:11, 41:13, 41:15, 42:01:01-42:02, 42:05:01-42:05:02, 42:07-42:08, 42:10-42:14, 48:01:01-48:01:03, 48:04, 48:06, 48:09-48:13, 48:16, 48:18-48:20, 48:22, 48:24, 55:04, 81:01-81:02, 81:04N-81:05												
*08:28, 08:35, 08:37, 15:55, 18:14, 40:03, 40:105, 42:09												
*08:49, 13:01:01-13:01:05, 13:06-13:07N, 13:12, 13:17, 13:22:01-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 15:88, 27:19, 27:30, 35:57, 37:01:01-37:01:07, 37:03N, 37:05-37:06, 37:08, 37:10-37:11, 37:14-37:25, 38:20, 39:42, 44:02:01:01-44:03:12, 44:05:01-44:14, 44:16-44:17, 44:19N, 44:21-44:27, 44:29-44:30, 44:32-44:40, 44:42-44:46, 44:48-44:52N, 44:55, 44:57-44:61N, 44:63-44:64:02, 44:67-44:75, 44:78, 44:80-44:81, 44:83-44:98, 44:101-44:105, 44:107-44:115, 51:42, 56:09, 56:11, 57:01:01-57:01:04, 57:01:06-57:01:10, 57:06, 57:08, 57:10, 57:15-57:16, 57:18, 57:20, 57:23-57:27, 57:29, 57:32-57:37		2										
*13:13, 44:62, 44:77, 44:82, 56:12, 57:03:01-57:03:02, 57:07, 57:17		2										
*13:16, 14:01:01-14:02:06, 14:04-14:09, 14:11, 14:14-14:18, 15:03:02, 15:39:02, 15:42, 18:15, 38:10, 39:35, 40:95, 49:01:01, 49:02-49:05, 49:07-49:10, 49:12-49:15, 50:01:01-50:02, 50:04-50:12, 52:07, 55:01:01-55:01:06, 55:03, 55:05, 55:11, 55:15, 55:17, 55:24-55:25, 55:28-55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 56:06, 56:25						6	7					
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

165	165	155	145	225	70	95	85	440	180	150	95	Length of spec. PCR product(s)	
				375	140		170			260			
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	
												*07:58, 15:102	
	14										24	*08:01:01-08:05, 08:08N, 08:10-08:11, 08:13, 08:15, 08:17-08:19N, 08:21-08:27, 08:29, 08:31-08:34, 08:36, 08:38-08:48, 08:50-08:52, 08:54-08:66, 13:21, 27:07, 27:11, 27:33, 27:43, 35:31, 35:87, 37:12, 39:14, 40:02:01-40:02:11, 40:04, 40:08, 40:13, 40:19, 40:29-40:30, 40:34-40:35, 40:37, 40:39-40:40, 40:45, 40:50, 40:56-40:58, 40:64, 40:68, 40:78, 40:80, 40:82, 40:85, 40:89-40:91, 40:94, 40:97, 40:99, 40:104, 40:107, 40:111, 40:115, 40:119, 40:122, 40:129, 40:133Q, 40:137, 40:142N-40:145, 40:157, 41:02:01-41:02:03, 41:10-41:11, 41:13, 41:15, 42:01:01-42:02, 42:05:01-42:05:02, 42:07-42:08, 42:10-42:14, 48:01:01-48:01:03, 48:04, 48:06, 48:09-48:13, 48:16, 48:18-48:20, 48:22, 48:24, 55:04, 81:01-81:02, 81:04N-81:05	
	14					19						*08:28, 08:35, 08:37, 15:55, 18:14, 40:03, 40:105, 42:09	
	14											*08:49, 13:01:01-13:01:05, 13:06-13:07N, 13:12, 13:17, 13:22:01-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 15:88, 27:19, 27:30, 35:57, 37:01:01-37:01:07, 37:03N, 37:05-37:06, 37:08, 37:10-37:11, 37:14-37:25, 38:20, 39:42, 44:02:01:01-44:03:12, 44:05:01-44:14, 44:16-44:17, 44:19N, 44:21-44:27, 44:29-44:30, 44:32-44:40, 44:42-44:46, 44:48-44:52N, 44:55, 44:57-44:61N, 44:63-44:64:02, 44:67-44:75, 44:78, 44:80-44:81, 44:83-44:98, 44:101-44:105, 44:107-44:115, 51:42, 56:09, 56:11, 57:01:01-57:01:04, 57:01:06-57:01:10, 57:06, 57:08, 57:10, 57:15-57:16, 57:18, 57:20, 57:23-57:27, 57:29, 57:32-57:37	
	14										24	*13:13, 44:62, 44:77, 44:82, 56:12, 57:03:01-57:03:02, 57:07, 57:17	
	14											*13:16, 14:01:01-14:02:06, 14:04-14:09, 14:11, 14:14-14:18, 15:03:02, 15:39:02, 15:42, 18:15, 38:10, 39:35, 40:95, 49:01:01, 49:02-49:05, 49:07-49:10, 49:12-49:15, 50:01:01-50:02, 50:04-50:12, 52:07, 55:01:01-55:01:06, 55:03, 55:05, 55:11, 55:15, 55:17, 55:24-55:25, 55:28-55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 56:06, 56:25	
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

Length of spec. PCR product(s)	90	150	240	190	90	170	80	250	160	115	205	235
				230						270		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*13:20, 44:79, 55:14		2				6	7					
*14:10		2				6	7			10		
*14:13						6	7					
*14:19			3			6	7					
*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, 15:89, 15:106, 15:112, 15:121, 15:139, 15:144, 15:154, 15:165, 15:170, 15:194, 15:204, 37:13, 57:22		2				6						
*15:20, 35:01:01:01-35:01:22, 35:03:01-35:03:07, 35:06-35:07, 35:10, 35:13, 35:15-35:17, 35:19-35:20:02, 35:23, 35:25-35:30, 35:33-35:34, 35:36, 35:38-35:42:02, 35:47-35:50, 35:52, 35:54-35:56, 35:59, 35:62-35:63, 35:65Q, 35:69, 35:71, 35:74, 35:76-35:78, 35:82, 35:84-35:85, 35:90-35:94, 35:101:01-35:101:02, 35:103-35:104, 35:106-35:108:02, 35:110-35:113, 35:115-35:116, 35:120-35:126, 35:128, 35:130N-35:134N, 35:136-35:141, 35:143-35:148, 35:150, 48:02:01, 53:01:01-53:01:05, 53:03-53:05, 53:07, 53:09-53:10, 53:12-53:13, 53:15, 53:17-53:18, 53:20-53:23		2										
*15:124, 40:77, 40:87					5							
*18:22, 37:04:01-37:04:02, 57:14		2								10		
*18:44											11	
*18:51												
*35:02:01-35:02:04, 35:04:01-35:04:03, 35:12:01-35:12:02, 35:83, 35:95, 35:129N, 35:149, 53:19		2										
*35:05:01-35:05:02, 35:51, 35:66, 35:72, 35:89, 35:97, 35:114, 53:14												
*35:08:01-35:08:04, 35:45, 35:61, 35:80, 35:100, 35:105, 35:142, 53:11, 53:16, 53:24		2										
*35:09:01-35:09:02, 35:22, 35:88, 51:81, 81:03												
*35:11:01, 53:08:01		2				6	7					
*35:11:02, 35:14:01-35:14:02, 53:08:02		2				6						
*35:18												
*35:21, 53:06		2				6	7			10		
*35:24:01-35:24:02, 35:109, 53:02		2								10		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

165	165	155	145	225	70	95	85	440	180	150	95	Length of spec. PCR product(s)
				375	140		170			260		Well No.
13	14	15	16	17	18	19	20	21	22	23	24	
	14											*13:20, 44:79, 55:14
	14											*14:10
	14										24	*14:13
	14											*14:19
	14											*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, 15:89, 15:106, 15:112, 15:121, 15:139, 15:144, 15:154, 15:165, 15:170, 15:194, 15:204, 37:13, 57:22
13												*15:20, 35:01:01:01-35:01:22, 35:03:01-35:03:07, 35:06-35:07, 35:10, 35:13, 35:15-35:17, 35:19-35:20:02, 35:23, 35:25-35:30, 35:33-35:34, 35:36, 35:38-35:42:02, 35:47-35:50, 35:52, 35:54-35:56, 35:59, 35:62-35:63, 35:65Q, 35:69, 35:71, 35:74, 35:76-35:78, 35:82, 35:84-35:85, 35:90-35:94, 35:101:01-35:101:02, 35:103-35:104, 35:106-35:108:02, 35:110-35:113, 35:115-35:116, 35:120-35:126, 35:128, 35:130N-35:134N, 35:136-35:141, 35:143-35:148, 35:150, 48:02:01, 53:01:01-53:01:05, 53:03-53:05, 53:07, 53:09-53:10, 53:12-53:13, 53:15, 53:17-53:18, 53:20-53:23
	14											*15:124, 40:77, 40:87
	14											*18:22, 37:04:01-37:04:02, 57:14
	14											*18:44
	14						20					*18:51
13											24	*35:02:01-35:02:04, 35:04:01-35:04:03, 35:12:01-35:12:02, 35:83, 35:95, 35:129N, 35:149, 53:19
13						19						*35:05:01-35:05:02, 35:51, 35:66, 35:72, 35:89, 35:97, 35:114, 53:14
13				17								*35:08:01-35:08:04, 35:45, 35:61, 35:80, 35:100, 35:105, 35:142, 53:11, 53:16, 53:24
13											24	*35:09:01-35:09:02, 35:22, 35:88, 51:81, 81:03
13												*35:11:01, 53:08:01
13												*35:11:02, 35:14:01-35:14:02, 53:08:02
13				17							24	*35:18
13												*35:21, 53:06
13												*35:24:01-35:24:02, 35:109, 53:02
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

Length of spec.	90	150	240	190	90	170	80	250	160	115	205	235
PCR product(s)				230						270		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*35:32, 35:37, 35:53N, 35:64, 35:68:01-35:68:02, 35:119, 35:127, 35:151, 51:05, 51:08-51:10, 51:15, 51:19-51:20, 51:31, 51:40, 51:44N, 51:54, 51:73, 51:93, 51:97, 52:03, 52:10, 52:19, 78:04												
*35:35, 35:46, 35:98, 48:02:02		2										
*35:44, 35:67, 35:86, 35:99, 35:102, 35:117-35:118, 35:135, 51:24:02-51:24:03, 51:36, 51:61, 51:71-51:72, 51:87, 51:91, 52:21						6						
*35:58						6	7					
*35:70		2										
*35:75												
*35:81		2								10		
*35:96		2				6	7			10		
*40:28		2				6	7			10		
*44:04, 44:28:01-44:28:02, 44:56N, 57:04, 57:19, 57:28N, 57:30		2										
*44:66, C*03:102		2										
*44:76		2				6	w					
*48:14					5							
*49:06						6	7					
*51:01:01-51:03, 51:06-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:24:01, 51:24:04, 51:26-51:28, 51:30, 51:32-51:35, 51:37-51:39, 51:41N, 51:43, 51:45, 51:48-51:52, 51:57-51:60, 51:62-51:63, 51:65-51:70, 51:74-51:80, 51:83-51:86, 51:88-51:90, 51:92, 51:94-51:96, 51:98N-51:106, 52:01:01-52:02, 52:04-52:06:02, 52:08-52:09, 52:11-52:18, 52:20, 52:22, 56:05:01-56:05:02, 56:21, 78:01-78:03, 78:05-78:07						6	7					
*51:04, 51:46, 51:56		2				6	7			10		
*51:29, 51:55, 51:82						6	w					
*51:53							7					
*51:64						6	7					
*57:02:01-57:02:02, 57:05, 57:12		2										
*57:09		2				6						
*57:11			3								11	
*83:01		2										
A*02:01:33									9			
A*24:64, C*01:06											w	
C*01:35, C*03:17, C*03:71, C*14:20			3									
C*03:28, C*03:49, C*04:80, C*05:10, C*15:08												
C*07:81					5							
C*15:18, C*15:39										10		
C*15:24												
HLA-B allele ⁴												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Lot No.: **16L**

Lot-specific Information

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165	165	155	145	225	70	95	85	440	180	150	95	Length of spec.
				375	140		170			260		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
13												*35:32, 35:37, 35:53N, 35:64, 35:68:01-35:68:02, 35:119, 35:127, 35:151, 51:05, 51:08-51:10, 51:15, 51:19-51:20, 51:31, 51:40, 51:44N, 51:54, 51:73, 51:93, 51:97, 52:03, 52:10, 52:19, 78:04
13	14											*35:35, 35:46, 35:98, 48:02:02
13												*35:44, 35:67, 35:86, 35:99, 35:102, 35:117-35:118, 35:135, 51:24:02-51:24:03, 51:36, 51:61, 51:71-51:72, 51:87, 51:91, 52:21
13						19						*35:58
13								22				*35:70
13										23		*35:75
13											24	*35:81
13	14											*35:96
	14										24	*40:28
	14			17								*44:04, 44:28:01-44:28:02, 44:56N, 57:04, 57:19, 57:28N, 57:30
												*44:66, C*03:102
	14			17								*44:76
	14					19						*48:14
	14		16									*49:06
13												*51:01:01-51:03, 51:06-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:24:01, 51:24:04, 51:26-51:28, 51:30, 51:32-51:35, 51:37-51:39, 51:41N, 51:43, 51:45, 51:48-51:52, 51:57-51:60, 51:62-51:63, 51:65-51:70, 51:74-51:80, 51:83-51:86, 51:88-51:90, 51:92, 51:94-51:96, 51:98N-51:106, 52:01:01-52:02, 52:04-52:06:02, 52:08-52:09, 52:11-52:18, 52:20, 52:22, 56:05:01-56:05:02, 56:21, 78:01-78:03, 78:05-78:07
13											24	*51:04, 51:46, 51:56
13												*51:29, 51:55, 51:82
13												*51:53
13											24	*51:64
	14			17							24	*57:02:01-57:02:02, 57:05, 57:12
	14										24	*57:09
	14											*57:11
?	?											*83:01
												A*02:01:33
												A*24:64, C*01:06
												C*01:35, C*03:17, C*03:71, C*14:20
				17								C*03:28, C*03:49, C*04:80, C*05:10, C*15:08
												C*07:81
												C*15:18, C*15:39
											24	C*15:24
												HLA-B allele ⁴
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

Lot No.: **16L**

Lot-specific Information

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA- B*58 subtyping.

In addition, wells number 2, 3, 9, 10 and 19 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.

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

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

⁴The B*5803 allele was never assigned.

⁵The B*58:09 and B*58:24 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 10.

⁶The B*58:21 and B*58:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 20.

⁷Primer mix 4: Specific PCR fragment of 190 bp in the B*58:04 allele. Specific PCR fragment of 230 bp in the B*58:15 allele.

Primer mix 10: Specific PCR fragment of 115 bp in the B*58:24 and in the C*15:18 alleles. Specific PCR fragment of 270 bp in the B*58:09 and in the B*14:10, 18:22, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 37:04:01-37:04:02, 40:28, 51:04, 51:46, 51:56, 53:02, 53:06 and 57:14 and in the C*15:39 alleles.

Primer mix 17: Specific PCR fragment of 225 bp in the B*58:22 and in the B*07:12, 07:14, 07:18:01-07:18:02, 35:08:01-35:08:04, 35:18, 35:45, 35:61, 35:80, 35:100, 35:105, 35:142, 44:04, 44:28:01-44:28:02, 44:56N, 44:76, 53:11, 53:16, 53:24, 57:02:01-57:02:02, 57:04-57:05, 57:12-57:13, 57:19, 57:28N and 57:30 and the C*03:28, C*03:49, C*04:80, C*05:10 and C*15:08 alleles. Specific PCR fragment of 375 bp in the B*58:16 and 58:18 alleles.

Primer mix 18: Specific PCR fragment of 70 bp in the B*58:25 allele. Specific PCR fragment of 140 bp in the B*58:17N allele.

Primer mix 20: Specific PCR fragment of 85 bp in the B*58:29 allele. Specific PCR fragment of 170 bp in the B*58:21 and the B*18:51 alleles.

Primer mix 23: Specific PCR fragment of 150 bp in the B*58:26 and the B*35:75 alleles. Specific PCR fragment of 260 bp in the B*58:31N allele.

'w', might be weakly amplified.

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

CELL LINE VALIDATION SHEET																			
HLA-B*58 SSP subtyping kit																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	IHWC cell line	B*		200851501	200618102	200618103	200738004	200618105	201183306	200964307	200738008	201183309	201183310	200618111	200618112	200618113	200964314	201183315	200624716
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	9025 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	-	+	-	-	-	-	-	-	-	-	-	-	+	+	-	-

Lot No.: **16L**

Lot-specific Information

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CELL LINE VALIDATION SHEET											
HLA-B*58 SSP subtyping kit											
			Prod. No.:	Well							
				17	18	19	20	21	22	23	24
				201183317	201183318	200851519	201183320	200851521	201183322	201183323	201183324
	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	9025 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*58 SSP

Product number: 101.568-06 – including *Taq* polymerase
Lot number: 16L
Expiry date: 2013-August-01
Number of tests: 6
Number of wells per test: 24

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2008-515-01	9	2011-833-09	17	2011-833-17
2	2006-181-02	10	2011-833-10	18	2011-833-18
3	2006-181-03	11	2006-181-11	19	2008-515-19
4	2007-380-04	12	2006-181-12	20	2011-833-20
5	2006-181-05	13	2006-181-13	21	2008-515-21
6	2011-833-06	14	2009-643-14	22	2011-833-22
7	2009-643-07	15	2011-833-15	23	2011-833-23
8	2007-380-08	16	2006-247-16	24	2011-833-24

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

No DNAs carrying the alleles to be amplified by primer solutions 4, 5, 8 to 10, 12, 15, 16, 18, and 20 to 23 were available. The specificities of the primers in primer solutions 5, 8 to 10, 15 and 23 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solution 4, 18, 20 and 21 it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solutions 12, 16 and 22 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 9, 10 and 23, one 3'-primer was not possible to test. Additional primers in primer solution 17 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: 2011-February-24

Approved by:

Quality Control, Supervisor

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*58
Product number: 101.568-06
Lot number: 16L

Intended use: HLA-B*58 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
2011-February-24

Olle Olerup
Managing Director

Lot No.: **16L**

Lot-specific Information

www.olerup-ssp.com

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