

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information
Olerup SSP[®] HLA-B*56

Product number:	101.571-06 – including <i>Taq</i> polymerase 101.571-06u – without <i>Taq</i> polymerase
Lot number:	85R
Expiry date:	2015-July-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. 85R.

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®]
HLA-B*56 LOT (60M)**

The HLA-B*56 kit is updated for new alleles to enable separation of:

- Confirmed¹ alleles as listed in the IMGT/HLA database
- Polymorphisms in exons outside of the region encoding the peptide binding domain
- Null and Alternatively expressed alleles

The Lot-specific information for HLA- B*56 including and without
Taq polymerase is now described in one common Product Insert.

¹As described in section Uniquely Identified Alleles.

The HLA-B*56 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-B*56 lot was made (**Lot No. 60M**).

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

Well	5'-primer	3'-primer	rationale
7	Added	Moved, added	Primer pair added for the B*56:33 allele, 3'-primer moved to well 12 for improved allelic resolution.
12	-	Added	Primer from well 7.
14	-	-	Exchanged positive control primer pair.
16	Added	Added	Primer pair added for the B*56:36 allele, exchanged positive control primer pair.
17	Added	Added	Primer pair added for the B*56:38N allele.
22	Added	Added	5'-primer added for the B*56:36 allele, primer pair added for resolution of the B*56:05:02 and B*56:06 alleles.

Change in revision R01 compared to R00:

1. Primer mix 3 may amplify the C*03:19 and C*03:102 alleles. A foot note has been added in the Specificity Table.

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PRODUCT DESCRIPTION

HLA-B*56 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*56:01 to B*56:38N 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 PCR plate is marked with 'HLA-B*56' in silver/gray ink.

Well No. 1 is marked with the Lot No. '85R'.

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

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

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

INTERPRETATION

The interpretation of HLA-B*56 SSP subtypings will be influenced by fifteen B*07, ten B*08, most B*13, two B*14, many B*15, most B*18, seven B*27, most B*35, most B*37, fifteen B*38, ten B*39, several B*40, two B*41, the B*42:09, most B*44, the B*45, eight B*46, five B*48, the B*49, the B*50, the B*51, the B*52, the B*53, the B*54, the B*55, most B*57, most B*58, the B*59, the B*78, most B*81, the B*82 and the B*83:01 alleles when present on the other haplotype.

In addition, the A*02:339, C*03:12, C*03:19 and C*15:26 alleles will be weakly amplified by primer mix 14, the A*24:146 allele will be amplified by primer mix 24, the C*02:06, C*02:47, C*07:289, C*12:15, C*15:37 and C*15:58 alleles will be amplified by primer mix 4, the C*02:56, C*06:20, C*07:81 and C*07:168 alleles will be amplified by primer mix 1, the C*03:81 and C*03:152 alleles will be amplified by primer mix 17, the C*03:102 allele by primer mix 10 and weakly by primer mix 14, the C*03:175 allele will be amplified by primer mix 6, the C*06:89, C*07:123, C*07:173 and C*16:20 alleles will be amplified by primer mix 22 and the C*15:09, C*15:19, C*15:27 and C*15:61 alleles will be amplified by primer mixes 6 and 22.

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UNIQUELY IDENTIFIED ALLELES

All the HLA-B*56 alleles, i.e. **B*56:01 to B*56:38N**, recognized by the HLA Nomenclature Committee in October 2012¹ will be amplified by the primers in the HLA-B*56 subtyping kit².

The HLA-B*56 kit enables separation of the confirmed HLA-B*56 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA-B*56 alleles is listed below.

The HLA-B*56 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles

The B*56:13 and 56:28N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 15.

The B*56:17 and 56:26 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.

The B*56:19N and 56:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

The HLA-B*56 subtyping kit cannot distinguish the silent mutations in the B*56:01:01- 56:01:04 alleles and the B*56:20:01-56:20:02 alleles.

¹HLA-B alleles listed on the IMGT/HLA web page 2012-October-17, release 3.10.0, www.ebi.ac.uk/imgt/hla.

²The HLA-B*56 primer set cannot separate the B*56:09 and B*35:78 alleles. These alleles can be distinguished by the HLA-B low resolution and/or B*35 kits.

The HLA-B*56 primer set cannot separate the B*56:18 and B*07:65 alleles. These alleles can be distinguished by the HLA-B low resolution and/or B*07 kits.

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ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*56:01:01	Confirmed	B*56:17	Unconfirmed	B*56:36	Confirmed
B*56:01:02	Confirmed	B*56:18	Unconfirmed	B*56:37	Unconfirmed
B*56:01:03	Confirmed	B*56:19N	Unconfirmed	B*56:38N	Unconfirmed
B*56:01:04	Confirmed	B*56:20:01	Unconfirmed		
B*56:02	Confirmed	B*56:20:02	Unconfirmed		
B*56:03	Confirmed	B*56:21	Unconfirmed		
B*56:04	Confirmed	B*56:22	Unconfirmed		
B*56:05:01	Confirmed	B*56:23	Unconfirmed		
B*56:05:02	Confirmed	B*56:24	Unconfirmed		
B*56:06	Confirmed	B*56:25	Confirmed		
B*56:07	Confirmed	B*56:26	Confirmed		
B*56:08	Unconfirmed	B*56:27	Confirmed		
B*56:09	Unconfirmed	B*56:28N	Confirmed		
B*56:10	Confirmed	B*56:29	Unconfirmed		
B*56:11	Unconfirmed	B*56:30	Unconfirmed		
B*56:12	Unconfirmed	B*56:31	Unconfirmed		
B*56:13	Unconfirmed	B*56:32	Unconfirmed		
B*56:14	Confirmed	B*56:33	Unconfirmed		
B*56:15	Confirmed	B*56:34	Unconfirmed		
B*56:16	Confirmed	B*56:35	Unconfirmed		

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2012-October-17, release 3.10.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 43 alleles generate 33 amplification patterns that can be combined in 561 homozygous and heterozygous combinations. 256 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.

-+-----	+-----	-----+	*56:18, *56:31 = *56:31, *56:31
-+-----	-----	-----+	*56:18, *56:32 = *56:32, *56:32
++-----	-+-----	-----	*56:09, *56:09 = *56:09, *56:12
-+-----	-----	+-----+	*56:05:02, *56:21 = *56:21, *56:21
-+-----	-----	+-----+	*56:05:02, *56:06 = *56:05:02, *56:18 = *56:06, *56:06 = *56:06, *56:18
-+-----	-----	+-----	*56:05:01, *56:05:01 = *56:05:01, *56:05:02
++-----	-+-----	+-----	*56:09, *56:15 = *56:12, *56:15
++-----	-+-----	-----	*56:09, *56:11 = *56:09, *56:22 = *56:11, *56:11 = *56:11, *56:12 = *56:11, *56:22 = *56:12, *56:22
-+-----	-----	+-----+	*56:06, *56:21 = *56:18, *56:21
-+-----	+-----	+-----	*56:05:02, *56:31 = *56:06, *56:31
-+-----	-----	+-----	*56:05:01, *56:06 = *56:05:01, *56:18 = *56:05:01, *56:32 = *56:05:02, *56:32 = *56:06, *56:32
++-+-----	-+-----	-----	*56:09, *56:10 = *56:10, *56:12
+++-----	-+-----	-----+	*56:01:01, *56:20:01 = *56:01:01, *56:24 = *56:20:01, *56:24 = *56:24, *56:24
+++-----	-+-----	-----+	*56:01:01, *56:17 = *56:17, *56:17

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+++-----	---+-----	---+-----	*56:01:01, *56:19N = *56:19N, *56:19N
+++-----	---+-----	---+-----	*56:01:01, *56:16 = *56:16, *56:16
+++-----	---+-----	+-----	*56:01:01, *56:15 = *56:01:01, *56:38N = *56:15, *56:38N = *56:38N, *56:38N
+++-----	---+-----	-----	*56:01:01, *56:13 = *56:13, *56:13
+++-----	---+-----	-----	*56:01:01, *56:22 = *56:01:01, *56:30 = *56:22, *56:30 = *56:30, *56:30
+++-----	---+-----	-----	*56:01:01, *56:25 = *56:25, *56:25
+++-----	---+-----	-----	*56:01:01, *56:09 = *56:01:01, *56:12
+++-----	+-----	-----	*56:01:01, *56:07 = *56:07, *56:07
+++-----	+-----	-----	*56:01:01, *56:08 = *56:01:01, *56:14 = *56:08, *56:08 = *56:08, *56:14
++++-----	+-----	-----	*56:02, *56:09 = *56:02, *56:12
+++-----	+++-----	-----	*56:09, *56:23 = *56:12, *56:23
+++-----	---+-----	-----	*56:17, *56:20:01 = *56:17, *56:24
+++-----	---+-----	-----	*56:19N, *56:20:01 = *56:19N, *56:24
+++-----	---+-----	-----	*56:16, *56:20:01 = *56:16, *56:24
+++-----	---+-----	+-----	*56:15, *56:20:01 = *56:15, *56:24 = *56:20:01, *56:38N = *56:24, *56:38N
+++-----	---+-----	+-----	*56:15, *56:17 = *56:17, *56:38N
+++-----	---+-----	+-----	*56:15, *56:19N = *56:19N, *56:38N
+++-----	---+-----	+++-----	*56:15, *56:16 = *56:16, *56:38N
+++-----	---+-----	-----	*56:01:01, *56:36 = *56:18, *56:36 = *56:36, *56:36
+++-----	---+-----	-----	*56:13, *56:20:01 = *56:13, *56:24
+++-----	---+-----	+-----	*56:13, *56:15 = *56:13, *56:38N
+++-----	---+-----	+-----	*56:15, *56:27 = *56:27, *56:38N
+++-----	---+-----	-----	*56:20:01, *56:22 = *56:20:01, *56:30 = *56:22, *56:24 = *56:24, *56:30
+++-----	---+-----	-----	*56:17, *56:22 = *56:17, *56:30
+++-----	---+-----	-----	*56:19N, *56:22 = *56:19N, *56:30
+++-----	---+-----	+-----	*56:16, *56:22 = *56:16, *56:30
+++-----	---+-----	+-----	*56:15, *56:30 = *56:22, *56:38N = *56:30, *56:38N
+++-----	---+-----	-----	*56:13, *56:22 = *56:13, *56:30
+++-----	---+-----	-----	*56:22, *56:27 = *56:27, *56:30
+++-----	---+-----	-----	*56:20:01, *56:25 = *56:24, *56:25
+++-----	---+-----	-----	*56:01:01, *56:23 = *56:17, *56:23 = *56:17, *56:25 = *56:23, *56:25
+++-----	---+-----	+-----	*56:15, *56:25 = *56:25, *56:38N
+++-----	---+-----	-----	*56:22, *56:25 = *56:25, *56:30
+++-----	---+-----	-----	*56:09, *56:20:01 = *56:09, *56:24 = *56:12, *56:24
+++-----	---+-----	-----	*56:09, *56:17 = *56:12, *56:17
+++-----	---+-----	-----	*56:09, *56:19N = *56:12, *56:19N
+++-----	---+-----	+-----	*56:09, *56:16 = *56:12, *56:16
+++-----	---+-----	+-----	*56:09, *56:38N = *56:12, *56:38N
+++-----	---+-----	-----	*56:09, *56:13 = *56:12, *56:13
+++-----	---+-----	-----	*56:01:01, *56:11 = *56:09, *56:30 = *56:11, *56:30 = *56:12, *56:30
+++-----	---+-----	-----	*56:09, *56:25 = *56:12, *56:25
+++-----	+-----	-----	*56:07, *56:20:01 = *56:07, *56:24
+++-----	+-----	-----	*56:01:01, *56:31 = *56:07, *56:18 = *56:07, *56:31
+++-----	+-----	+-----	*56:07, *56:15 = *56:07, *56:38N
+++-----	+-----	-----	*56:07, *56:22 = *56:07, *56:30
+++-----	+++-----	-----	*56:07, *56:09 = *56:07, *56:12
+++-----	+-----	-----	*56:08, *56:20:01 = *56:08, *56:24 = *56:14, *56:20:01 = *56:14, *56:24
+++-----	+-----	-----	*56:08, *56:18 = *56:14, *56:18
+++-----	+-----	-----	*56:08, *56:17 = *56:14, *56:17

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+++-----+ --+----- --+-----	*56:08, *56:19N = *56:14, *56:19N
+++-----+ --+----- --+-----	*56:08, *56:16 = *56:14, *56:16
+++-----+ --+----- +-----	*56:08, *56:15 = *56:08, *56:38N = *56:14, *56:15 = *56:14, *56:38N
+++-----+ --+-----+ -----	*56:08, *56:13 = *56:13, *56:14
+++-----+ --+-----+ -----	*56:08, *56:27 = *56:14, *56:27
+++-----+ --+-----+ -----	*56:08, *56:22 = *56:08, *56:30 = *56:14, *56:22 = *56:14, *56:30
+++-----+ --+-----+ -----	*56:08, *56:25 = *56:14, *56:25
+++-----+ --+-----+ -----	*56:08, *56:09 = *56:08, *56:12 = *56:09, *56:14 = *56:12, *56:14
+++-----+ ++-----+ -----	*56:07, *56:08 = *56:07, *56:14
+++-----+ --+-----+ -----	*56:20:01, *56:33 = *56:24, *56:33
+++-----+ --+-----+ +-----	*56:01:01, *56:05:02 = *56:05:02, *56:33 = *56:05:02, *56:38N = *56:15, *56:33 = *56:33, *56:38N
+++-----+ --+-----+ -----	*56:22, *56:33 = *56:30, *56:33
+++-----+ --+-----+ -----	*56:09, *56:33 = *56:12, *56:33
+++-----+ --+-----+ -----	*56:03, *56:08 = *56:03, *56:14
++++-----+ --+-----+ -----	*56:02, *56:20:01 = *56:02, *56:24
++++-----+ --+-----+ -----	*56:01:01, *56:04 = *56:02, *56:27
++++-----+ --+-----+ -----	*56:01:01, *56:10 = *56:02, *56:25 = *56:10, *56:25
++++-----+ --+-----+ -----	*56:02, *56:08 = *56:02, *56:14
++++-----+ --+-----+ +-----	*56:20:01, *56:36 = *56:24, *56:36
++++-----+ --+-----+ +-----	*56:15, *56:36 = *56:36, *56:38N
++++-----+ --+-----+ +-----	*56:22, *56:36 = *56:30, *56:36
++++-----+ --+-----+ +-----	*56:20:01, *56:23 = *56:23, *56:24
++++-----+ --+-----+ +-----	*56:09, *56:36 = *56:12, *56:36
++++-----+ --+-----+ +-----	*56:11, *56:20:01 = *56:11, *56:24
++++-----+ ++-----+ +-----	*56:07, *56:36 = *56:31, *56:36
++++-----+ --+-----+ +-----	*56:08, *56:36 = *56:14, *56:36
++++-----+ --+-----+ +-----	*56:08, *56:23 = *56:14, *56:23
++++-----+ --+-----+ +-----	*56:08, *56:11 = *56:11, *56:14
++++-----+ ++-----+ +-----	*56:08, *56:31 = *56:14, *56:31
++++-----+ --+-----+ +-----	*56:01:01, *56:21 = *56:21, *56:33 = *56:21, *56:38N
++++-----+ --+-----+ +-----	*56:01:01, *56:06 = *56:06, *56:33 = *56:06, *56:38N
++++-----+ --+-----+ +-----	*56:05:02, *56:08 = *56:05:02, *56:14
++++-----+ --+-----+ +-----	*56:08, *56:32 = *56:14, *56:32
++++-----+ --+-----+ +-----	*56:01:01, *56:05:01 = *56:05:01, *56:33 = *56:05:01, *56:38N
++++-----+ --+-----+ +-----	*56:10, *56:20:01 = *56:10, *56:24
++++-----+ --+-----+ +-----	*56:02, *56:23 = *56:10, *56:17
++++-----+ --+-----+ +-----	*56:04, *56:25 = *56:10, *56:27
++++-----+ --+-----+ +-----	*56:04, *56:08 = *56:04, *56:14
++++-----+ --+-----+ +-----	*56:08, *56:10 = *56:10, *56:14
++++-----+ --+-----+ +-----	*56:05:02, *56:36 = *56:06, *56:36
++++-----+ --+-----+ +-----	*56:08, *56:21 = *56:14, *56:21
++++-----+ --+-----+ +-----	*56:06, *56:08 = *56:06, *56:14
++++-----+ --+-----+ +-----	*56:05:01, *56:08 = *56:05:01, *56:14

*56:01:01 = *56:01:01-56:01:04 and 56:34-56:35

*56:13 = *56:13 and 56:28N

*56:17 = *56:17 and 56:26

*56:19N = *56:19N and 56:29

*56:20:01 = *56:20:01-56:20:02

*56:25 = *56:25 and 56:37

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SPECIFICITY TABLE

HLA-B*56 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-B*56 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*56 alleles ³	Other amplified HLA Class I alleles ⁴
1⁵	125 bp	800 bp	*56:01:01-56:02, 56:07-56:11, 56:13-56:17, 56:19N, 56:22-56:26, 56:28N-56:30, 56:33-56:38N	*13:01:01-13:04, 13:06-13:09, 13:11-13:20, 13:22:01-13:23, 13:25-13:34, 13:36-13:61, 13:63N, 14:22, 15:16:01-15:16:03, 15:20, 15:34, 15:42, 15:62, 15:67, 15:85-15:86, 15:95, 15:137, 15:194, 15:222, 15:254, 18:22, 18:52, 27:14, 35:01:01:01-35:05:02, 35:06-35:08:06, 35:10-35:11:03, 35:13-35:15, 35:19-35:21, 35:23-35:30, 35:33-35:38, 35:40N-35:42:02, 35:45-35:50, 35:52, 35:54-35:58, 35:60, 35:62-35:63, 35:65Q-35:66, 35:68:01-35:72, 35:74-35:78, 35:80-35:85, 35:89-35:98, 35:100-35:101:02, 35:103-35:112, 35:115-35:116, 35:119-35:124, 35:126-35:134N, 35:136-35:148, 35:150-35:163, 35:166-35:173N, 35:175-35:178, 35:180-35:184, 35:186-35:195, 35:197-35:198, 35:200, 35:202-35:204, 35:206-35:207, 35:209-35:214, 35:216N-35:220, 40:28, 44:10, 44:15, 44:18, 44:48, 45:01-45:14, 46:11, 46:18, 46:33, 48:02:01-48:02:03, 48:25, 49:01:01-49:25, 50:01:01, 50:01:03-50:02, 50:05-50:19, 51:15, 51:56:01-51:56:02, 53:01:01-53:06, 53:08:01-53:29, 54:01:01-54:05N, 54:07-54:08N, 54:10, 54:12-54:28, 55:01:01-55:01:05, 55:01:07-55:02:03, 55:02:05-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:16, 55:18-55:19, 55:21-55:37, 55:39-55:48, 55:50, 55:52-55:57, 57:05, 58:01:01-58:01:02, 58:01:04-58:02, 58:04-58:07, 58:09, 58:11-58:19, 58:21-58:26, 58:28-58:29, 58:31N-58:39N, 59:01:01:01-59:01:01:02, 59:03-59:05, 82:01-82:03, C*02:56, C*06:20, C*07:81, C*07:168
2	400 bp	1070 bp	*56:01:01-56:13, 56:15-56:32,	*07:65, 13:54, 27:77, 35:76, 35:78, 40:166 [?] , 44:90, 54:01:01-54:06, 54:08N-54:23,

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			56:34-56:38N	54:25-54:28, 55:01:01-55:05, 55:07-55:17, 55:19-55:33, 55:35-55:46, 55:48-55:57, 81:01, 81:03 [?] -81:04N [?] , 81:06 [?] , 82:01-82:03, 83:01
3²⁰	180 bp	1070 bp	*56:01:01-56:02, 56:04, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:24-56:30, 56:33-56:38N	*13:03, 13:48, 15:73, 40:71, 44:10, 44:15, 44:18, 44:140, 45:01, 45:04-45:07, 45:11-45:14, 46:11, 49:01:01-49:03, 49:06, 49:08-49:17, 49:19N-49:25, 50:01:01-50:02, 50:04-50:08, 50:10-50:13, 50:15-50:19, 51:15, 51:62, 51:106, 52:25, 54:03, 59:04, 82:01-82:03
4⁵	105 bp	800 bp	*56:02, 56:04, 56:10	*13:11, 15:18:03, 15:73, 15:86, 15:224, 39:17, 40:48, 40:71, 51:62, 82:01-82:03, C*02:06, C*02:47, C*07:289, C*12:15, C*15:37, C*15:58
5	285 bp	1070 bp	*56:03	*40:10:02, 54:01:02, 55:35
6^{5,9}	105 bp, 150 bp	800 bp	*56:05:01, 56:32	*07:09 ^w , 07:11 ^w , 07:162 ^w , 15:03:01-15:03:03, 15:16:01-15:16:03, 15:18:01-15:18:05, 15:23, 15:29, 15:39:01-15:40, 15:47:01 ^w -15:47:02 ^w , 15:49 ^w , 15:61-15:62, 15:64:01-15:64:02, 15:65 ^w , 15:67, 15:69, 15:72, 15:74, 15:80, 15:93, 15:95, 15:98, 15:103, 15:108, 15:115, 15:119, 15:127, 15:131-15:132, 15:134, 15:138, 15:153, 15:158, 15:161, 15:173, 15:176, 15:194-15:195, 15:197-15:198, 15:210, 15:220, 15:221 ^w , 15:223, 15:226N, 15:238, 15:242, 15:254-15:255, 15:263, 18:15, 18:21 ^w , 18:30 ^w , 18:57, 27:05:18, 35:11:01-35:11:02, 35:11:03 ^w , 35:21, 35:58, 35:99 ^w , 35:188, 39:63, 46:03 ^w , 46:08, 48:25, 49:04, 51:37, 51:45, 53:06, 53:08:01-53:08:02, 53:28, 55:14, 57:13 ^w , 57:22, 58:06, 58:19, C*03:175, C*15:09, C*15:19, C*15:27, C*15:61
7^{5,6,10}	120 bp, 170 bp	800 bp	*56:05:01-56:06, 56:21, 56:33	*13:62, 15:21, 15:44, 15:66, 15:189, 35:26, 35:82, 35:85, 35:135, 38:28, 40:95, 49:18, 50:14, 51:01:01-51:01:03, 51:01:05-51:01:12, 51:01:14-51:02:03, 51:02:05-51:03, 51:05, 51:07:01-51:09:02, 51:11N-51:12, 51:13:02-51:14, 51:16-51:23, 51:24:03-51:24:04, 51:26-51:37, 51:39-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63, 51:65-51:80, 51:82-51:91, 51:93-51:134, 51:136-51:138,

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8	395 bp	1070 bp	*56:08, 56:14	*35:186
9¹¹	145 bp, 205 bp	800 bp	*56:07, 56:31	*07:149, 08:02, 15:38:01-15:38:02, 15:115, 15:185, 18:01:01:01-18:01:13, 18:01:15- 18:09, 18:12-18:15, 18:17N-18:19, 18:22- 18:25, 18:27-18:34, 18:36-18:40, 18:42- 18:55, 18:57, 18:59-18:60, 18:62-18:83, 27:01, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 38:02:01-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 39:43, 44:40, 44:44, 44:130, 44:156, 51:37, 51:45, 53:02, 53:06, 53:28, 57:14, 58:09
10⁷	150 bp	800 bp	*56:09, 56:11- 56:12	*08:49, 13:01:01-13:01:06, 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, 13:43, 13:50-13:52, 13:57, 13:60-13:61, 13:63N, 14:10, 15:02:01-15:02:06, 15:13:01-15:13:02, 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, 15:213-15:214, 15:223, 15:240, 15:250, 18:22, 18:69, 27:19, 27:30, 35:01:01:01-35:04:03, 35:06-35:08:06, 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, 35:61:01-35:63, 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, 35:152-35:173N, 35:175-35:184, 35:186-35:198, 35:200-35:204, 35:206- 35:220, 37:01:01-37:01:07, 37:01:09, 37:03N-37:06, 37:08, 37:10-37:11, 37:13- 37:37, 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, 44:107-44:134, 44:136-44:137, 44:139-44:157, 44:159-44:165, 46:33, 48:02:01-48:02:03, 48:25, 50:17, 51:04,

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				51:42, 51:46, 51:56:01-51:56:02, 51:139, 53:01:01-53:13, 53:15-53:29, 55:14, 57:01:01-57:01:04, 57:01:06-57:10, 57:12, 57:14-57:20, 57:22-57:30, 57:32-57:46, 57:48-57:60, 58:01:01-58:01:02, 58:01:04-58:01:12, 58:04-58:05, 58:09-58:15, 58:17N, 58:19, 58:21-58:24, 58:28-58:29, 58:31N-58:37, 58:39N, 83:01, C*03:102
11⁵	105 bp	800 bp	*56:01:01-56:01:04, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:38N	*07:78, 13:02:01-13:02:14, 13:03, 13:08Q-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:48-13:49N, 13:53-13:56N, 13:58, 15:42, 35:60, 44:15, 44:18, 45:01, 45:03-45:08, 45:10-45:14, 46:11, 46:18, 49:01:01-49:03, 49:06-49:17, 49:19N-49:25, 50:01:01-50:02, 50:04-50:08, 50:10-50:11, 50:13, 50:15, 50:18-50:19, 51:15, 52:25, 54:01:01-54:03, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:16-54:28, 55:01:01-55:01:03, 55:01:05-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:09-55:12, 55:15-55:16, 55:18-55:19, 55:21-55:22, 55:24-55:26, 55:29-55:31, 55:33-55:38, 55:40-55:41, 55:43, 55:45-55:48, 55:50, 55:52, 55:54-55:57, 59:01:01:01-59:01:01:02, 59:04-59:05
12^{7,12}	150 bp, 180 bp	800 bp	*56:10, 56:23, 56:25, 56:37	*07:78, 13:06, 13:16, 13:20, 13:31 ^w , 13:48, 13:53, 15:42, 15:73 ^w , 15:86, 15:224, 35:60, 46:18, 51:62, 51:106, 52:25, 54:01:01-54:02, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:17-54:25, 54:27-54:28, 55:01:01-55:03, 55:05, 55:07, 55:09-55:12, 55:15-55:16, 55:18-55:19, 55:21, 55:24-55:26, 55:29-55:31, 55:33-55:40, 55:42-55:45, 55:47-55:48, 55:50, 55:52-55:57, 59:01:01:01-59:01:01:02, 59:05
13^{5,7,13}	70 bp, 180 bp	1070 bp	*56:11, 56:22, 56:30	*15:58, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 38:30, 39:32-39:33, 39:74, 51:13:01-51:13:02, 51:92, 52:14, 53:04, 58:34

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14^{5,8}	80 bp	800 bp	*56:04, 56:27	*15:18:03, 15:73, 15:224, 39:17, 40:48, 40:71, 44:140, 50:04, 51:62, 55:38, A*02:339^w, C*03:12^w, C*03:19^w, C*03:102^w, C*15:26^w
15¹⁴	160 bp, 380 bp	1070 bp	*56:13, 56:28N	*44:15, 44:18, 44:140, 45:01, 45:04-45:08, 45:10-45:14, 55:56, 82:01-82:03
16	160 bp	800 bp	*56:36	*08:87, 40:166, 44:02:01:01-44:02:26, 44:06, 44:08-44:09, 44:11-44:12, 44:16, 44:19N-44:24, 44:27:01-44:27:02, 44:33-44:34:02, 44:41:01-44:41:02, 44:44, 44:48-44:49, 44:52N-44:53, 44:55, 44:59:01-44:59:02, 44:63, 44:66-44:68, 44:71-44:74, 44:80, 44:83-44:84, 44:86-44:87, 44:89-44:91, 44:93, 44:95, 44:97, 44:99-44:102, 44:104, 44:106, 44:112-44:113, 44:116, 44:118-44:119, 44:121, 44:126:01-44:127, 44:131-44:132, 44:137-44:138Q, 44:142Q, 44:145, 44:148-44:149N, 44:151-44:152, 44:162, 45:06, 83:01
17^{5,7,15}	80 bp, 180 bp	1070 bp	*56:05:01-56:06, 56:15, 56:21, 56:38N	*07:20, 07:24, 07:60, 07:100, 07:131, 08:21, 08:25, 13:62, 15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 27:76, 35:02:01-35:02:05, 35:04:01-35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:34, 35:39, 35:44, 35:81, 35:83, 35:95, 35:129N, 35:149, 35:154, 35:162, 35:172, 35:182-35:184, 35:199, 35:201, 35:211, 35:220, 40:05, 40:26, 40:28, 40:63, 40:92, 40:174, 41:17, 44:62, 44:77, 44:82, 44:107, 44:123, 49:18, 50:14, 51:01:01-51:01:14, 51:01:16-51:01:31, 51:01:33-51:09:02, 51:11N-51:12, 51:18-51:20, 51:22-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64-51:80, 51:83-51:84, 51:86-51:91, 51:94-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:142, 51:145-51:148, 52:01:01:01-52:07, 52:09-52:13, 52:15-52:24, 52:27-52:31, 53:19, 55:08, 55:51, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 58:08:01-58:08:02, 58:28, 78:01:01-78:06, C*03:81, C*03:152

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18⁶	295 bp	800 bp	*56:16	*40:149, 41:22, 49:25, 54:21, 55:10, 57:58, 82:01-82:03
19^{5,16}	75 bp, 185 bp	800 bp	*56:19N, 56:29	*07:176, 39:40:01N-39:40:02N
20	215 bp	1070 bp		*07:02:19, 15:01:04, 37:01:04, 40:94, 51:01:18, 54:01:01, 54:01:03-54:28, 58:01:08
21^{5,17}	110 bp, 170 bp	1070 bp	*56:17, 56:23, 56:26	*07:37, 27:77
22^{5,18}	105 bp, 175 bp	800 bp	*56:06, 56:18, 56:31-56:32, 56:36	*07:65, 07:134, 08:37, 08:89, 15:50, 15:69, 15:93, 15:186, 15:199, 18:01:01:01-18:01:13, 18:01:15-18:01:17, 18:02-18:09, 18:11-18:15, 18:17N-18:19, 18:22-18:25, 18:27-18:34, 18:37-18:40, 18:42-18:49, 18:51-18:55, 18:59-18:60, 18:62-18:83, 35:35, 35:76, 35:93, 35:188, 35:190, 37:35, 39:07, 39:43, 40:166, 42:09, 44:90, 45:06, 46:03, 46:21:01-46:21:02, 46:29, 54:09, 54:14, 55:14, 55:23, 57:26, 58:05, 58:35, C*06:89, C*07:123, C*07:173, C*15:09, C*15:19, C*15:27, C*15:61, C*16:20
23^{5,19}	85 bp, 350 bp	1070 bp	*56:20:01- 56:20:02, 56:24	*07:78, 40:48
24⁷	380 bp	1070 bp	*56:21	*08:03, 08:52, 08:78, 40:13, 40:19, 40:109, 40:117, 48:18, 49:18, 51:01:01-51:01:07, 51:01:09-51:01:14, 51:01:16-51:12, 51:16-51:24:04, 51:26-51:36, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:49, 51:51-51:53, 51:55-51:61:02, 51:64-51:77, 51:79-51:84, 51:86-51:89, 51:91, 51:93-51:96, 51:98N-51:105, 51:107-51:134, 51:136-51:148, 52:01:01:01-52:11, 52:13, 52:15-52:19, 52:21-52:24, 52:27-52:31, 53:19, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:17, 57:39, 57:42, 57:46, 57:57, 58:08:01-58:08:02, 58:27-58:28, 59:02, A*24:146

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*56 high resolution SSP typings.

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

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.

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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 1 070 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*56 subtyping.

In addition, wells number 4, 6, 7, 9 to 12, 14, 16, 18, 19 and 22 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

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

³For several HLA Class I alleles 1st and/or 4th exon(s) and beyond, as well as intron 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 these regions are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B*56 alleles will be amplified by all primer mixes. In addition, the A*02:339, C*03:12, C*03:19 and C*15:26 alleles will be weakly amplified by primer mix 14, the A*24:146 allele will be amplified by primer mix 24, the C*02:06, C*02:47, C*07:289, C*12:15, C*15:37 and C*15:58 alleles will be amplified by primer mix 4, the C*02:56, C*06:20, C*07:81 and C*07:168 alleles will be amplified by primer mix 1, the C*03:81 and C*03:152 alleles will be amplified by primer mix 17, the C*03:102 allele by primer mix 10 and weakly by primer mix 14, the C*03:175 allele will be amplified by primer mix 6, the C*06:89, C*07:123, C*07:173 and C*16:20 alleles will be amplified by primer mix 22 and the C*15:09, C*15:19, C*15:27 and C*15:61 alleles will be amplified by primer mixes 6 and 22.

⁵HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

⁶Primer mix 7 and 18 may give rise to a lower yield of HLA-specific PCR product than the other B*56 primer mixes.

⁷Primer mixes 10, 12, 13, 17 and 24 may have tendencies of unspecific amplifications.

⁸Primer mixes 14 has a tendency to giving rise to primer oligomer formation.

⁹Primer mix 6: Specific PCR fragment of 105 bp in the B*56:05:01 and the B*27:05:18 and 39:63 alleles. Specific PCR fragment of 150 bp in the B*56:32 and in the B*07:09^w, 07:11^w, 07:162^w, 15:03:01-15:03:03, 15:16:01-15:16:03, 15:18:01-15:18:05, 15:23, 15:29, 15:39:01-15:40, 15:47:01^w-15:47:02^w, 15:49^w, 15:61-15:62, 15:64:01-15:64:02, 15:65^w, 15:67, 15:69, 15:72, 15:74, 15:80, 15:93, 15:95, 15:98, 15:103, 15:108, 15:115, 15:119, 15:127, 15:131-15:132, 15:134, 15:138, 15:153, 15:158, 15:161, 15:173, 15:176, 15:194-15:195, 15:197-15:198, 15:210, 15:220, 15:221^w, 15:223, 15:226N, 15:238, 15:242, 15:254-15:255, 15:263, 18:15, 18:21^w, 18:30^w, 18:57, 35:11:01-35:11:02, 35:11:03^w, 35:21, 35:58, 35:99^w, 35:188, 46:03^w, 46:08, 48:25, 49:04, 51:37, 51:45, 53:06, 53:08:01-53:08:02, 53:28, 55:14, 57:13^w, 57:22, 58:06 and 58:19 and the C*03:175, C*15:09, 15:19, 15:27, 15:61 alleles.

¹⁰Primer mix 7: Specific PCR fragment of 120 bp in the B*56:05:01-56:06 and 56:21 and the B*13:62, 40:95, 49:18, 50:14, 51:01:01-51:01:03, 51:01:05-51:01:12, 51:01:14-51:02:03, 51:02:05-51:03, 51:05, 51:07:01-51:09:02, 51:11N-51:12, 51:13:02-51:14, 51:16-51:23, 51:24:03-51:24:04, 51:26-51:37, 51:39-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63, 51:65-51:80, 51:82-51:91, 51:93-51:134, 51:136-51:138, 51:140-51:147, 52:01:01-52:01:04, 52:01:06-52:01:14, 52:01:16-52:13, 52:15-52:24, 52:26-52:31, 55:01:04, 58:08:01-58:08:02 and 78:01:01-78:07 alleles. Specific PCR fragment of 170 bp in the B*56:33 and the B*15:21, 15:44, 15:66, 15:189, 35:26, 35:82, 35:85, 35:135 and 38:28 alleles.

¹¹Primer mix 9: Specific PCR fragment of 145 bp in the B*56:07 and the B*07:149, 08:02, 15:115, 27:01, 38:02:01-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 44:40, 44:44, 44:130 and 44:156 alleles. Specific PCR fragment of 205 bp in the B*56:31 and the B*15:38:01-15:38:02, 15:185, 18:01:01-18:01:13, 18:01:15-18:09, 18:12-18:15, 18:17N-18:19, 18:22-

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18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:83, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 39:43, 51:37, 51:45, 53:02, 53:06, 53:28, 57:14 and 58:09 alleles.

¹²Primer mix 12: Specific PCR fragment of 150 bp in the B*56:25 and 56:37 and the B*07:78, 13:16, 13:20, 13:31^w, 13:48, 15:73^w, 51:62, 51:106, 52:25, 55:09 and 55:24 alleles. Specific PCR fragment of 180 bp in the B*56:10 and 56:23 and the B*13:06, 13:53, 15:86, 15:224, 35:60, 46:18, 54:01:01-54:02, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:17-54:19, 54:21-54:25, 54:27-54:28, 55:02:01-55:02:06, 55:07, 55:10, 55:12, 55:16, 55:18-55:19, 55:26, 55:30, 55:34-55:35, 55:37, 55:39, 55:42-55:43, 55:47-55:48, 55:50, 55:56-55:57, 59:01:01:01-59:01:01:02 and 59:05 alleles. Specific PCR fragment of 150 and 180 bp in the B*15:42, 54:20, 55:01:01-55:01:10, 55:03, 55:05, 55:11, 55:15, 55:21, 55:25, 55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45 and 55:52-55:55N alleles.

¹³Primer mix 13: Specific PCR fragment of 70 bp in the B*56:30 allele. Specific PCR fragment of 180 bp in the B*56:11 and 56:22 and the B*15:58, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 38:30, 39:32-39:33, 39:74, 51:13:01-51:13:02, 51:92, 52:14, 53:04 and 58:34 alleles.

¹⁴Primer mix 15: Specific PCR fragment of 160 bp in the B*56:13 and the B*44:15, 44:18, 44:140, 45:01, 45:04-45:08, 45:10-45:14, 55:56 and 82:01-82:03 alleles. Specific PCR fragment of 380 bp in the B*56:28N allele.

¹⁵Primer mix 17: Specific PCR fragment of 80 bp in the B*56:38N allele. Specific PCR fragment of 180 bp in the B*56:05:01-56:06, 56:15 and 56:21 and in the B*07:20, 07:24, 07:60, 07:100, 07:131, 08:21, 08:25, 13:62, 15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 27:76, 35:02:01-35:02:05, 35:04:01-35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:34, 35:39, 35:44, 35:81, 35:83, 35:95, 35:129N, 35:149, 35:154, 35:162, 35:172, 35:182-35:184, 35:199, 35:201, 35:211, 35:220, 40:05, 40:26, 40:28, 40:63, 40:92, 40:174, 41:17, 44:62, 44:77, 44:82, 44:107, 44:123, 49:18, 50:14, 51:01:01-51:01:14, 51:01:16-51:01:31, 51:01:33-51:09:02, 51:11N-51:12, 51:18-51:20, 51:22-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64-51:80, 51:83-51:84, 51:86-51:91, 51:94-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:142, 51:145-51:148, 52:01:01:01-52:07, 52:09-52:13, 52:15-52:24, 52:27-52:31, 53:19, 55:08, 55:51, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 58:08:01-58:08:02, 58:28 and 78:01:01-78:06 and the C*03:81 and C*03:152 alleles.

¹⁶Primer mix 19: Specific PCR fragment of 75 bp in the B*56:29 and the B*07:176 alleles. Specific PCR fragment of 185 bp in the B*56:19N and the B*39:40:01N-39:40:02N alleles.

¹⁷Primer mix 21: Specific PCR fragment of 110 bp in the B*56:17 and 56:23 and in the B*07:37 and 27:77 alleles. Specific PCR fragment of 170 bp in the B*56:26 allele.

¹⁸Primer mix 22: Specific PCR fragment of 105 bp in the B*56:06 and the B*07:65, 07:134 and 35:76 alleles. Specific PCR fragment of 175 bp in the B*56:36 and the B*40:166, 44:90 and 45:06 alleles.

¹⁹Primer mix 23: Specific PCR fragment of 85 bp in the B56:20:01-56:20:02 and in the B*07:78 and 40:48 alleles. Specific PCR fragment of 350 bp in the B*56:24 allele.

²⁰Primer mix 3 may amplify the C*03:19 and C*03:102 alleles.

^w, might be weakly amplified.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

INTERPRETATION TABLE												
HLA-B*56 SSP subtyping												
Amplification patterns of the B*56:01 to B*56:38N alleles												
	Well¹⁰											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product(s)	125	400	180	105	285	105	120	395	145	150	105	150
Length of int. pos. control¹	800	1070	1070	800	1070	800	800	1070	800	800	800	800
5'-primer²	379	41	420	355	48	141	142	41	206	355	357	420
	5' -ACC 3'	5' -CTg 3'	5' -TTA 3'	5' -CCC 3'	5' -gCC 3'	5' -ATT 3'	5' -TCg 3'	5' -CTg 3'	5' -AgA 3'	5' -TCA 3'	5' -Tgg 3'	5' -TTA 3'
						419	357		419			
						5' -gTC 3'	5' -Tgg 3'		5' -gTC 3'			
3'-primer(s)³	463	272	559	420	165	204	272	269	309	463	420	527
	5' -gCT 3'	5' -TgT 3'	5' -Cag 3'	5' -gCT 3'	5' -Tgg 3'	5' -TCT 3'	5' -TgC 3'	5' -ACT 3'	5' -gTg 3'	5' -gCT 3'	5' -gCT 3'	5' -CCT 3'
	463	277	564			527	435		583			559
	5' -gCT 3'	5' -ggC 3'	5' -ACT 3'			5' -CCT 3'	5' -TCT 3'		5' -gTg 3'			5' -CgT 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
HLA-B allele⁴												
*56:01:01-56:01:04, 56:34-56:35	1	2	3								11	
*56:02	1	2	3	4								
*56:03		2			5							
*56:04		2	3	4								
*56:05:01		2				6	7					
*56:05:02		2					7					
*56:06		2					7					
*56:07	1	2	3						9		11	
*56:08	1	2	3					8			11	
*56:09, 35:78⁵	1	2								10		
*56:10	1	2		4								12
*56:11	1	2								10		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

INTERPRETATION TABLE											
HLA-B*56 SSP subtyping											
Amplification patterns of the B*56:01 to B*56:38N alleles											
Well ¹⁰											
13	14	15	16	17	18	19	20	21	22	23	24
70	80	160	160	80	295	75	215	110	105	85	380
180		380		180		185		170	175	350	
1070	800	1070	800	1070	800	800	1070	1070	800	1070	1070
420	379	41	144	166	15	206	1 st I	206	144	420	317
5' -TTC 3'	5' -ACg 3'	5' -CTg 3'	5' -ACC 3'	5' -CgT 3'	5' -gCA 3'	5' -AgA 3'	5' -CAg 3'	5' -AgA 3'	5' -ACC 3'	5' -TTA 3'	5' -gCT 3'
420		420	418	419		419			206	701	
5' -TTC 3'		5' -TTA 3'	5' -Agg 3'	5' -gTA 3'		5' -gTT 3'			5' -gAC 3'	5' -CCT 3'	
530									419		
5' -ggT 3'									5' -gTC 3'		
559	420	252	272	204	142	239	175	277	272	463	412
5' -Cag 3'	5' -gCT 3'	5' -TCT 3'	5' -TgT 3'	5' -TCT 3'	5' -TgA 3'	5' -gCT 3'	5' -CCg 3'	5' -ggC 3'	5' -TgT 3'	5' -gCg 3'	5' -gTT 3'
		538	538	559		564		335	559	916	
		5' -gTC 3'	5' -gTC 3'	5' -Cag 3'		5' -ACT 3'		5' -CgT 3'	5' -CgT 3'	5' -gAT 3'	
13	14	15	16	17	18	19	20	21	22	23	24
	14										
				17							
				17							
				17					22		
13											
13	14	15	16	17	18	19	20	21	22	23	24

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*56:12		2								10		
*56:13, 56:28N ⁷	1	2	3								11	
*56:14	1		3					8			11	
*56:15	1	2										
*56:16	1	2	3								11	
*56:17, 56:26 ⁸	1	2	3								11	
*56:18, 07:65 ⁶		2										
*56:19N, 56:29 ⁹	1	2	3								11	
*56:20:01-56:20:02		2	3								11	
*56:21		2					7					
*56:22	1	2										
*56:23	1	2									11	12
*56:24	1	2	3								11	
*56:25, 56:37	1	2	3								11	12
*56:27		2	3								11	
*56:30	1	2	3								11	
*56:31		2							9			
*56:32		2				6						
*56:33	1		3				7				11	
*56:36	1	2	3								11	
*56:38N	1	2	3								11	
*07:02:19, 15:01:04, 40:94												
*07:09, 07:11, 07:162, 15:47:01-15:47:02, 15:49, 15:65, 15:221, 18:21, 35:99, 57:13						w						
*07:20, 07:24, 07:60, 07:100, 07:131, 08:21, 08:25, 15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 27:76, 35:09:01-35:09:03, 35:18, 35:22, 35:44, 35:199, 40:05, 40:26, 40:63, 40:92, 40:174, 41:17, 51:135, C*03:81, C*03:152												
*07:37												
*07:78											11	12
*07:134, 08:37, 08:89, 15:50, 15:186, 15:199, 18:11, 39:07, 42:09, 46:21:01-46:21:02, 46:29, C*06:89, C*07:123, C*07:173, C*16:20												
*07:149, 08:02, 15:38:01-15:38:02, 15:185, 18:01:18, 18:36, 18:50, 27:01, 38:02:01- 38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35									9			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*56:12
		15										*56:13, 56:28N ⁷
												*56:14
				17								*56:15
					18							*56:16
								21				*56:17, 56:26 ⁸
									22			*56:18, 07:65 ⁶
						19						*56:19N, 56:29 ⁹
										23		*56:20:01-56:20:02
				17							24	*56:21
13												*56:22
								21				*56:23
										23		*56:24
												*56:25, 56:37
	14											*56:27
13												*56:30
									22			*56:31
									22			*56:32
												*56:33
			16						22			*56:36
				17								*56:38N
							20					*07:02:19, 15:01:04, 40:94
												*07:09, 07:11, 07:162, 15:47:01-15:47:02, 15:49, 15:65, 15:221, 18:21, 35:99, 57:13
				17								*07:20, 07:24, 07:60, 07:100, 07:131, 08:21, 08:25, 15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 27:76, 35:09:01-35:09:03, 35:18, 35:22, 35:44, 35:199, 40:05, 40:26, 40:63, 40:92, 40:174, 41:17, 51:135, C*03:81, C*03:152
								21				*07:37
										23		*07:78
									22			*07:134, 08:37, 08:89, 15:50, 15:186, 15:199, 18:11, 39:07, 42:09, 46:21:01-46:21:02, 46:29, C*06:89, C*07:123, C*07:173, C*16:20
												*07:149, 08:02, 15:38:01-15:38:02, 15:185, 18:01:18, 18:36, 18:50, 27:01, 38:02:01- 38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*07:176, 39:40:01N-39:40:02N												
*08:03, 08:52, 08:78, 40:13, 40:19, 40:109, 40:117, 48:18, 51:10, 51:81, 58:27, 59:02, A*24:146												
*08:49, 14:10, 15:02:01-15:02:06, 15:13:01-15:13:02, 15:25:01-15:25:03, 15:36, 15:77, 15:88-15:89, 15:106, 15:112, 15:121, 15:139, 15:144, 15:154, 15:165, 15:170, 15:204, 15:213-15:214, 15:240, 15:250, 27:19, 27:30, 35:16-35:17, 35:61:01-35:61:02, 35:113, 35:125, 35:164-35:165N, 35:196, 35:208, 35:215, 37:01:01-37:01:03, 37:01:05-37:01:07, 37:01:09, 37:03N-37:06, 37:08, 37:10-37:11, 37:13-37:34, 37:36-37:37, 38:20, 39:42, 44:03:01-44:05:04, 44:07, 44:13-44:14, 44:17, 44:25-44:26, 44:28:01-44:30, 44:32, 44:35-44:39, 44:42-44:43:02, 44:45-44:46, 44:50-44:51, 44:56N-44:58N, 44:60-44:61N, 44:64:01-44:64:02, 44:69-44:70, 44:75-44:76, 44:78-44:79, 44:81, 44:85, 44:88, 44:92, 44:94, 44:96, 44:98, 44:103, 44:105, 44:108N-44:111, 44:114-44:115, 44:117, 44:120, 44:122, 44:124-44:125, 44:128-44:129, 44:133-44:134, 44:136, 44:139, 44:141, 44:143-44:144, 44:146-44:147, 44:150, 44:153-44:155, 44:157, 44:159-44:161, 44:163-44:165, 51:42, 53:07, 57:01:01-57:01:04, 57:01:06-57:01:14, 57:04, 57:06, 57:08, 57:10, 57:15-57:16, 57:18-57:20, 57:23-57:25, 57:27, 57:29-57:30, 57:32-57:38, 57:40-57:41, 57:43-57:45, 57:48-57:56, 57:59-57:60, 58:10N										10		
*08:87, 44:20, 44:41:01-44:41:02, 44:53, 44:99-44:100, 44:106, 44:138Q												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
						19						*07:176, 39:40:01N-39:40:02N
											24	*08:03, 08:52, 08:78, 40:13, 40:19, 40:109, 40:117, 48:18, 51:10, 51:81, 58:27, 59:02, A*24:146
												*08:49, 14:10, 15:02:01-15:02:06, 15:13:01- 15:13:02, 15:25:01-15:25:03, 15:36, 15:77, 15:88-15:89, 15:106, 15:112, 15:121, 15:139, 15:144, 15:154, 15:165, 15:170, 15:204, 15:213-15:214, 15:240, 15:250, 27:19, 27:30, 35:16-35:17, 35:61:01-35:61:02, 35:113, 35:125, 35:164-35:165N, 35:196, 35:208, 35:215, 37:01:01-37:01:03, 37:01:05- 37:01:07, 37:01:09, 37:03N-37:06, 37:08, 37:10-37:11, 37:13-37:34, 37:36-37:37, 38:20, 39:42, 44:03:01-44:05:04, 44:07, 44:13- 44:14, 44:17, 44:25-44:26, 44:28:01-44:30, 44:32, 44:35-44:39, 44:42-44:43:02, 44:45- 44:46, 44:50-44:51, 44:56N-44:58N, 44:60- 44:61N, 44:64:01-44:64:02, 44:69-44:70, 44:75-44:76, 44:78-44:79, 44:81, 44:85, 44:88, 44:92, 44:94, 44:96, 44:98, 44:103, 44:105, 44:108N-44:111, 44:114-44:115, 44:117, 44:120, 44:122, 44:124-44:125, 44:128-44:129, 44:133-44:134, 44:136, 44:139, 44:141, 44:143-44:144, 44:146- 44:147, 44:150, 44:153-44:155, 44:157, 44:159-44:161, 44:163-44:165, 51:42, 53:07, 57:01:01-57:01:04, 57:01:06-57:01:14, 57:04, 57:06, 57:08, 57:10, 57:15-57:16, 57:18- 57:20, 57:23-57:25, 57:27, 57:29-57:30, 57:32- 57:38, 57:40-57:41, 57:43-57:45, 57:48- 57:56, 57:59-57:60, 58:10N
			16									*08:87, 44:20, 44:41:01-44:41:02, 44:53, 44:99-44:100, 44:106, 44:138Q
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*13:01:01-13:01:06, 13:07N, 13:12-13:13, 13:17, 13:22:01-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 13:43, 13:50-13:52, 13:57, 13:60-13:61, 13:63N, 15:20, 15:85, 35:01:01-35:01:36, 35:03:06, 35:07-35:08:06, 35:10, 35:14:01-35:15, 35:19-35:20:02, 35:23, 35:25, 35:27-35:30, 35:33, 35:40N-35:42:02, 35:45-35:50, 35:52, 35:54, 35:57, 35:62-35:63, 35:65Q, 35:69, 35:71, 35:77, 35:80, 35:90-35:92, 35:94, 35:96, 35:100-35:101:02, 35:103-35:105, 35:107-35:108:02, 35:110-35:112, 35:115-35:116, 35:120-35:124, 35:126, 35:130N-35:134N, 35:137-35:148, 35:157-35:159, 35:161, 35:166, 35:168, 35:170-35:171, 35:173N, 35:175-35:178, 35:180, 35:187, 35:189, 35:191-35:192, 35:194, 35:197, 35:200, 35:202-35:203, 35:206-35:207, 35:209-35:210, 35:212-35:214, 35:216N-35:219, 46:33, 48:02:01-48:02:03, 53:01:01-53:01:07, 53:03, 53:05, 53:09-53:13, 53:15-53:18, 53:20-53:27, 53:29, 58:01:01-58:01:02, 58:01:04-58:01:07, 58:01:09-58:01:12, 58:04, 58:11-58:15, 58:17N, 58:21-58:24, 58:29, 58:31N-58:33, 58:36-58:37, 58:39N	1									10		
*13:02:01-13:02:14, 13:08Q-13:09, 13:14-13:15, 13:18-13:19, 13:27, 13:30, 13:32-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:49N, 13:55-13:56N, 13:58, 45:03, 49:07	1										11	
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*13:06, 13:20	1									10		12
*13:11	1			4								
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

Visit www.olerup-ssp.com for
 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*13:01:01-13:01:06, 13:07N, 13:12-13:13, 13:17, 13:22:01-13:23, 13:25-13:26, 13:28-13:29, 13:36, 13:39, 13:43, 13:50-13:52, 13:57, 13:60-13:61, 13:63N, 15:20, 15:85, 35:01:01:01-35:01:36, 35:03:06, 35:07-35:08:06, 35:10, 35:14:01-35:15, 35:19-35:20:02, 35:23, 35:25, 35:27-35:30, 35:33, 35:40N-35:42:02, 35:45-35:50, 35:52, 35:54, 35:57, 35:62-35:63, 35:65Q, 35:69, 35:71, 35:77, 35:80, 35:90-35:92, 35:94, 35:96, 35:100-35:101:02, 35:103-35:105, 35:107-35:108:02, 35:110-35:112, 35:115-35:116, 35:120-35:124, 35:126, 35:130N-35:134N, 35:137-35:148, 35:157-35:159, 35:161, 35:166, 35:168, 35:170-35:171, 35:173N, 35:175-35:178, 35:180, 35:187, 35:189, 35:191-35:192, 35:194, 35:197, 35:200, 35:202-35:203, 35:206-35:207, 35:209-35:210, 35:212-35:214, 35:216N-35:219, 46:33, 48:02:01-48:02:03, 53:01:01-53:01:07, 53:03, 53:05, 53:09-53:13, 53:15-53:18, 53:20-53:27, 53:29, 58:01:01-58:01:02, 58:01:04-58:01:07, 58:01:09-58:01:12, 58:04, 58:11-58:15, 58:17N, 58:21-58:24, 58:29, 58:31N-58:33, 58:36-58:37, 58:39N
												*13:02:01-13:02:14, 13:08Q-13:09, 13:14-13:15, 13:18-13:19, 13:27, 13:30, 13:32-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:49N, 13:55-13:56N, 13:58, 45:03, 49:07
												*13:02:15, 13:04, 13:46-13:47, 13:59, 14:22, 15:34, 15:137, 15:222, 27:14, 35:05:01-35:05:02, 35:37, 35:66, 35:68:01-35:68:02, 35:72, 35:89, 35:97, 35:119, 45:02, 45:09, 49:05, 50:09, 53:14, 58:02, 58:07, 58:16, 58:18, 58:25-58:26, 58:38, 59:03, C*02:56, C*06:20, C*07:81, C*07:168
												*13:03, 46:11, 49:01:01-49:03, 49:06, 49:08-49:17, 49:19N-49:24, 50:01:01, 50:01:03-50:02, 50:05-50:08, 50:10-50:11, 50:13, 50:15, 50:18-50:19, 51:15, 59:04
												*13:06, 13:20
												*13:11
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*13:16, 13:53, 15:42, 35:60, 46:18, 55:18, 55:34, 55:47, 59:01:01:01-59:01:01:02, 59:05	1										11	12
*13:31	1										11	w
*13:48	1		3								11	12
*13:54, 55:22, 55:41, 55:46	1	2									11	
*13:62, 51:01:08, 51:50, 51:54, 51:78:01- 51:78:02, 51:90, 52:12, 52:20, 78:01:01-78:06							7					
*15:03:01-15:03:03, 15:18:01-15:18:02, 15:18:04-15:18:05, 15:23, 15:29, 15:39:01- 15:40, 15:61, 15:64:01-15:64:02, 15:72, 15:74, 15:98, 15:103, 15:108, 15:119, 15:127, 15:131-15:132, 15:134, 15:138, 15:153, 15:158, 15:161, 15:173, 15:176, 15:195, 15:197-15:198, 15:210, 15:220, 15:226N, 15:238, 15:242, 15:255, 15:263, 27:05:18, 39:63, 46:08, C*03:175						6						
*15:16:01-15:16:03, 15:67, 15:95, 15:254, 35:58, 49:04, 58:06	1					6						
*15:18:03				4		6						
*15:21, 15:44							7			10		
*15:58, 15:133, 15:229, 15:253, 35:205, 38:30, 39:32-39:33, 39:74, 51:13:01, 51:92, 52:14												
*15:62, 15:194, 35:11:01-35:11:02, 48:25, 53:08:01-53:08:02, 58:19	1					6				10		
*15:66, 15:189, 35:135, 38:28, 40:95, 51:01:15, 51:14, 51:63, 51:85, 51:97, 52:26, 78:07							7					
*15:69, 15:93, C*15:09, C*15:19, C*15:27, C*15:61						6						
*15:73			3	4								w
*15:80, 15:223, 57:22						6				10		
*15:86	1			4								12
*15:115, 18:57, 51:45						6			9			
*15:224				4								12
*18:01:01:01-18:01:13, 18:01:15-18:01:17, 18:02-18:09, 18:12-18:14, 18:17N-18:19, 18:23N-18:25, 18:27-18:29, 18:31-18:34, 18:37-18:40, 18:42-18:49, 18:51, 18:53- 18:55, 18:59-18:60, 18:62-18:68, 18:70- 18:83, 39:43									9			
*18:15						6			9			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*13:16, 13:53, 15:42, 35:60, 46:18, 55:18, 55:34, 55:47, 59:01:01:01-59:01:01:02, 59:05
												*13:31
												*13:48
												*13:54, 55:22, 55:41, 55:46
				17								*13:62, 51:01:08, 51:50, 51:54, 51:78:01-51:78:02, 51:90, 52:12, 52:20, 78:01:01-78:06
												*15:03:01-15:03:03, 15:18:01-15:18:02, 15:18:04-15:18:05, 15:23, 15:29, 15:39:01-15:40, 15:61, 15:64:01-15:64:02, 15:72, 15:74, 15:98, 15:103, 15:108, 15:119, 15:127, 15:131-15:132, 15:134, 15:138, 15:153, 15:158, 15:161, 15:173, 15:176, 15:195, 15:197-15:198, 15:210, 15:220, 15:226N, 15:238, 15:242, 15:255, 15:263, 27:05:18, 39:63, 46:08, C*03:175
												*15:16:01-15:16:03, 15:67, 15:95, 15:254, 35:58, 49:04, 58:06
	14											*15:18:03
												*15:21, 15:44
13												*15:58, 15:133, 15:229, 15:253, 35:205, 38:30, 39:32-39:33, 39:74, 51:13:01, 51:92, 52:14
												*15:62, 15:194, 35:11:01-35:11:02, 48:25, 53:08:01-53:08:02, 58:19
												*15:66, 15:189, 35:135, 38:28, 40:95, 51:01:15, 51:14, 51:63, 51:85, 51:97, 52:26, 78:07
									22			*15:69, 15:93, C*15:09, C*15:19, C*15:27, C*15:61
	14											*15:73
												*15:80, 15:223, 57:22
												*15:86
												*15:115, 18:57, 51:45
	14											*15:224
									22			*18:01:01:01-18:01:13, 18:01:15-18:01:17, 18:02-18:09, 18:12-18:14, 18:17N-18:19, 18:23N-18:25, 18:27-18:29, 18:31-18:34, 18:37-18:40, 18:42-18:49, 18:51, 18:53-18:55, 18:59-18:60, 18:62-18:68, 18:70-18:83, 39:43
									22			*18:15
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*18:22, 35:190	1								9	10		
*18:30						w			9			
*18:52	1								9			
*18:69									9	10		
*27:77		2										
*35:02:01-35:02:05, 35:04:01-35:04:03, 35:34, 35:81, 35:83, 35:95, 35:129N, 35:154, 35:162, 35:172, 35:182-35:184, 35:211, 35:220, 40:28	1									10		
*35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:70, 35:74, 35:84, 35:98, 35:106, 35:109, 35:128, 35:136, 35:150, 35:152-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:181, 35:193, 35:195, 35:198, 35:204, 53:04, 58:34	1									10		
*35:11:03	1					w				10		
*35:12:01-35:12:03, 35:39, 35:149, 35:201, 44:62, 44:77, 44:82, 44:107, 44:123, 57:12, 57:28N										10		
*35:21, 53:06, 53:28	1					6			9	10		
*35:24:01-35:24:02, 53:02, 58:09	1								9	10		
*35:26, 35:82	1						7			10		
*35:35, 35:93, 58:05, 58:35	1									10		
*35:59, 35:179										10		
*35:75, 35:127, 35:151	1											
*35:76	1	2								10		
*35:85	1						7			10		
*35:186	1							8		10		
*35:188	1					6			9	10		
*37:01:04										10		
*37:35, 57:26										10		
*39:17				4								
*40:10:02					5							
*40:48				4								
*40:71			3	4								
*40:149, 41:22												
*40:166		?										
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
									22			*18:22, 35:190
									22			*18:30
									22			*18:52
									22			*18:69
								21				*27:77
				17								*35:02:01-35:02:05, 35:04:01-35:04:03, 35:34, 35:81, 35:83, 35:95, 35:129N, 35:154, 35:162, 35:172, 35:182-35:184, 35:211, 35:220, 40:28
13												*35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:70, 35:74, 35:84, 35:98, 35:106, 35:109, 35:128, 35:136, 35:150, 35:152-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:181, 35:193, 35:195, 35:198, 35:204, 53:04, 58:34
												*35:11:03
				17								*35:12:01-35:12:03, 35:39, 35:149, 35:201, 44:62, 44:77, 44:82, 44:107, 44:123, 57:12, 57:28N
												*35:21, 53:06, 53:28
												*35:24:01-35:24:02, 53:02, 58:09
												*35:26, 35:82
13									22			*35:35, 35:93, 58:05, 58:35
13												*35:59, 35:179
												*35:75, 35:127, 35:151
									22			*35:76
13												*35:85
												*35:186
									22			*35:188
							20					*37:01:04
									22			*37:35, 57:26
	14											*39:17
												*40:10:02
	14									23		*40:48
	14											*40:71
					18							*40:149, 41:22
			16						22			*40:166
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*44:02:01:01-44:02:26, 44:06, 44:08-44:09, 44:11-44:12, 44:16, 44:19N, 44:21-44:24, 44:27:01-44:27:02, 44:33-44:34:02, 44:49, 44:52N, 44:55, 44:59:01-44:59:02, 44:63, 44:66-44:68, 44:71-44:74, 44:80, 44:83-44:84, 44:86-44:87, 44:89, 44:91, 44:93, 44:95, 44:97, 44:101-44:102, 44:104, 44:112-44:113, 44:116, 44:118-44:119, 44:121, 44:126:01-44:127, 44:131-44:132, 44:137, 44:142Q, 44:145, 44:148-44:149N, 44:151-44:152, 44:162										10		
*44:10, 50:17	1		3							10		
*44:15, 44:18, 45:01, 45:04-45:05, 45:07, 45:11-45:14	1		3								11	
*44:40, 44:130, 44:156, 57:14									9	10		
*44:44									9	10		
*44:48	1									10		
*44:90		2								10		
*44:140			3							10		
*45:06	1		3								11	
*45:08, 45:10	1										11	
*46:03						w						
*49:18	1						7					
*49:25	1		3								11	
*50:01:02			3								11	
*50:04			3								11	
*50:12, 50:16	1		3									
*50:14	1						7					
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
			16									*44:02:01:01-44:02:26, 44:06, 44:08-44:09, 44:11-44:12, 44:16, 44:19N, 44:21-44:24, 44:27:01-44:27:02, 44:33-44:34:02, 44:49, 44:52N, 44:55, 44:59:01-44:59:02, 44:63, 44:66-44:68, 44:71-44:74, 44:80, 44:83-44:84, 44:86-44:87, 44:89, 44:91, 44:93, 44:95, 44:97, 44:101-44:102, 44:104, 44:112-44:113, 44:116, 44:118-44:119, 44:121, 44:126:01-44:127, 44:131-44:132, 44:137, 44:142Q, 44:145, 44:148-44:149N, 44:151-44:152, 44:162
												*44:10, 50:17
		15										*44:15, 44:18, 45:01, 45:04-45:05, 45:07, 45:11-45:14
												*44:40, 44:130, 44:156, 57:14
			16									*44:44
			16									*44:48
			16						22			*44:90
	14	15										*44:140
		15	16						22			*45:06
		15										*45:08, 45:10
									22			*46:03
				17							24	*49:18
					18							*49:25
												*50:01:02
	14											*50:04
												*50:12, 50:16
				17								*50:14
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*51:01:01-51:01:03, 51:01:05-51:01:07, 51:01:09-51:01:12, 51:01:14, 51:01:16- 51:01:17, 51:01:19-51:01:31, 51:01:33- 51:02:03, 51:02:05-51:03, 51:05, 51:07:01- 51:09:02, 51:11N-51:12, 51:18-51:20, 51:22- 51:23, 51:24:03-51:24:04, 51:26-51:30, 51:32- 51:33, 51:35, 51:39-51:41N, 51:43-51:44N, 51:48-51:49, 51:51-51:53, 51:55, 51:57- 51:58, 51:60-51:61:02, 51:65-51:77, 51:79- 51:80, 51:83-51:84, 51:86-51:89, 51:91, 51:94- 51:96, 51:98N-51:100, 51:102-51:105, 51:107- 51:134, 51:136-51:138, 51:140-51:142, 51:145-51:147, 52:01:01:01-52:01:04, 52:01:06-52:01:14, 52:01:16-52:07, 52:09- 52:11, 52:13, 52:15-52:19, 52:21-52:24, 52:27- 52:31, 58:08:01-58:08:02							7					
*51:01:04, 51:01:13, 51:02:04, 51:06:01- 51:06:02, 51:24:01-51:24:02, 51:38, 51:59, 51:64, 51:148, 52:01:05, 52:01:15												
*51:01:18							7					
*51:01:32, 51:16-51:17, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:101, 51:143-51:144, 52:08							7					
*51:04, 51:46, 51:139, 57:02:01-57:03:02, 57:07, 57:09, 57:17, 57:39, 57:42, 57:46, 57:57										10		
*51:13:02							7					
*51:37						6	7		9			
*51:56:01-51:56:02, 53:19, 57:05, 58:28	1									10		
*51:62			3	4								12
*51:106			3				7					12
*52:25			3								11	12
*54:01:01, 54:01:03-54:02, 54:05N, 54:08N, 54:10, 54:12-54:13, 54:17-54:20, 54:22- 54:23, 54:25, 54:27-54:28	1	2									11	12
*54:01:02, 55:35	1	2			5						11	12
*54:03	1	2	3								11	
*54:04, 54:15	1	2										
*54:06, 54:11		2										
*54:07, 54:24	1										11	12
*54:09		2										
*54:14	1	2										
*54:16, 54:26	1	2									11	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
				17							24	*51:01:01-51:01:03, 51:01:05-51:01:07, 51:01:09-51:01:12, 51:01:14, 51:01:16- 51:01:17, 51:01:19-51:01:31, 51:01:33- 51:02:03, 51:02:05-51:03, 51:05, 51:07:01- 51:09:02, 51:11N-51:12, 51:18-51:20, 51:22- 51:23, 51:24:03-51:24:04, 51:26-51:30, 51:32- 51:33, 51:35, 51:39-51:41N, 51:43-51:44N, 51:48-51:49, 51:51-51:53, 51:55, 51:57- 51:58, 51:60-51:61:02, 51:65-51:77, 51:79- 51:80, 51:83-51:84, 51:86-51:89, 51:91, 51:94- 51:96, 51:98N-51:100, 51:102-51:105, 51:107- 51:134, 51:136-51:138, 51:140-51:142, 51:145-51:147, 52:01:01:01-52:01:04, 52:01:06-52:01:14, 52:01:16-52:07, 52:09- 52:11, 52:13, 52:15-52:19, 52:21-52:24, 52:27- 52:31, 58:08:01-58:08:02
				17							24	*51:01:04, 51:01:13, 51:02:04, 51:06:01- 51:06:02, 51:24:01-51:24:02, 51:38, 51:59, 51:64, 51:148, 52:01:05, 52:01:15
				17			20				24	*51:01:18
											24	*51:01:32, 51:16-51:17, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:101, 51:143-51:144, 52:08
				17							24	*51:04, 51:46, 51:139, 57:02:01-57:03:02, 57:07, 57:09, 57:17, 57:39, 57:42, 57:46, 57:57
13												*51:13:02
												*51:37
				17							24	*51:56:01-51:56:02, 53:19, 57:05, 58:28
	14											*51:62
												*51:106
												*52:25
							20					*54:01:01, 54:01:03-54:02, 54:05N, 54:08N, 54:10, 54:12-54:13, 54:17-54:20, 54:22- 54:23, 54:25, 54:27-54:28
												*54:01:02, 55:35
							20					*54:03
							20					*54:04, 54:15
							20					*54:06, 54:11
							20					*54:07, 54:24
							20		22			*54:09
							20		22			*54:14
							20					*54:16, 54:26
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

Length of spec.	125	400	180	105	285	105	120	395	145	150	105	150
PCR product(s)						150	170		205			180
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*54:21	1	2									11	12
*55:01:01-55:01:03, 55:01:05, 55:01:08-55:02:03, 55:02:05-55:03, 55:05, 55:07, 55:09, 55:11-55:12, 55:15-55:16, 55:19, 55:21, 55:24-55:26, 55:29-55:31, 55:33, 55:36-55:37, 55:40, 55:43, 55:45, 55:48, 55:50, 55:52, 55:54-55:55N, 55:57	1	2									11	12
*55:01:04	1	2					7					12
*55:01:06, 55:02:04		2									11	12
*55:01:07, 55:39, 55:42, 55:44, 55:53	1	2										12
*55:04, 55:17, 55:20, 55:49, 81:01		2										
*55:08, 55:51		2										
*55:10	1	2									11	12
*55:13, 55:27-55:28, 55:32	1	2										
*55:14		2				6				10		
*55:23	1	2										
*55:38		2									11	12
*55:56	1	2									11	12
*57:58										10		
*58:01:08	1									10		
*81:03-81:04N, 81:06		?										
*82:01-82:03	1	2	3	4								
*83:01		2								10		
A*02:339, C*03:12, C*03:19, C*15:26												
C*02:06, C*02:47, C*07:289, C*12:15, C*15:37, C*15:58				4								
C*03:102										10		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

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 1 070 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*56 subtyping.

In addition, wells number 4, 6, 7, 9 to 12, 14, 16, 18, 19 and 22 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

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

³The nucleotide position, in the 2nd, 3rd or 5th exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **85R**

Lot-specific information

70	80	160	160	80	295	75	215	110	105	85	380	Length of spec.
180		380		180		185		170	175	350		PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
					18		20					*54:21
												*55:01:01-55:01:03, 55:01:05, 55:01:08-55:02:03, 55:02:05-55:03, 55:05, 55:07, 55:09, 55:11-55:12, 55:15-55:16, 55:19, 55:21, 55:24-55:26, 55:29-55:31, 55:33, 55:36-55:37, 55:40, 55:43, 55:45, 55:48, 55:50, 55:52, 55:54-55:55N, 55:57
												*55:01:04
												*55:01:06, 55:02:04
												*55:01:07, 55:39, 55:42, 55:44, 55:53
												*55:04, 55:17, 55:20, 55:49, 81:01
				17								*55:08, 55:51
					18							*55:10
												*55:13, 55:27-55:28, 55:32
									22			*55:14
									22			*55:23
	14											*55:38
		15										*55:56
					18							*57:58
							20					*58:01:08
												*81:03-81:04N, 81:06
		15			18							*82:01-82:03
			16									*83:01
	w											A*02:339, C*03:12, C*03:19, C*15:26
												C*02:06, C*02:47, C*07:289, C*12:15, C*15:37, C*15:58
	w											C*03:102
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

⁴HLA-B*56 alleles in bold lettering are listed as confirmed alleles on the on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.10.0, October 2012.

⁵The HLA-B*56 primer set cannot separate the B*56:09 and B*35:78 alleles. These alleles can be distinguished by the HLA-B low resolution and/or B*35 kits.

⁶The HLA-B*56 primer set cannot separate the B*56:18 and B*07:65 alleles. These alleles can be distinguished by the HLA-B low resolution and/or B*07 kits.

⁷The B*56:13 and 56:28N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 15.

⁸The B*56:17 and 56:26 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 21.

⁹The B*56:19N and 56:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

¹⁰Primer mix 6: Specific PCR fragment of 105 bp in the B*56:05:01 and the B*27:05:18 and 39:63 alleles. Specific PCR fragment of 150 bp in the B*56:32 and in the B*07:09^w, 07:11^w, 07:162^w, 15:03:01-15:03:03, 15:16:01-15:16:03, 15:18:01-15:18:05, 15:23, 15:29, 15:39:01-15:40, 15:47:01^w-15:47:02^w, 15:49^w, 15:61-15:62, 15:64:01-15:64:02, 15:65^w, 15:67, 15:69, 15:72, 15:74, 15:80, 15:93, 15:95, 15:98, 15:103, 15:108,

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: 85R**Lot-specific information**

15:115, 15:119, 15:127, 15:131-15:132, 15:134, 15:138, 15:153, 15:158, 15:161, 15:173, 15:176, 15:194-15:195, 15:197-15:198, 15:210, 15:220, 15:221^w, 15:223, 15:226N, 15:238, 15:242, 15:254-15:255, 15:263, 18:15, 18:21^w, 18:30^w, 18:57, 35:11:01-35:11:02, 35:11:03^w, 35:21, 35:58, 35:99^w, 35:188, 46:03^w, 46:08, 48:25, 49:04, 51:37, 51:45, 53:06, 53:08:01-53:08:02, 53:28, 55:14, 57:13^w, 57:22, 58:06 and 58:19 and the C*03:175, C*15:09, 15:19, 15:27, 15:61 alleles.

Primer mix 7: Specific PCR fragment of 120 bp in the B*56:05:01-56:06 and 56:21 and the B*13:62, 40:95, 49:18, 50:14, 51:01:01-51:01:03, 51:01:05-51:01:12, 51:01:14-51:02:03, 51:02:05-51:03, 51:05, 51:07:01-51:09:02, 51:11N-51:12, 51:13:02-51:14, 51:16-51:23, 51:24:03-51:24:04, 51:26-51:37, 51:39-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63, 51:65-51:80, 51:82-51:91, 51:93-51:134, 51:136-51:138, 51:140-51:147, 52:01:01:01-52:01:04, 52:01:06-52:01:14, 52:01:16-52:13, 52:15-52:24, 52:26-52:31, 55:01:04, 58:08:01-58:08:02 and 78:01:01-78:07 alleles. Specific PCR fragment of 170 bp in the B*56:33 and the B*15:21, 15:44, 15:66, 15:189, 35:26, 35:82, 35:85, 35:135 and 38:28 alleles.

Primer mix 9: Specific PCR fragment of 145 bp in the B*56:07 and the B*07:149, 08:02, 15:115, 27:01, 38:02:01-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 44:40, 44:44, 44:130 and 44:156 alleles. Specific PCR fragment of 205 bp in the B*56:31 and the B*15:38:01-15:38:02, 15:185, 18:01:01:01-18:01:13, 18:01:15-18:09, 18:12-18:15, 18:17N-18:19, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:83, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 39:43, 51:37, 51:45, 53:02, 53:06, 53:28, 57:14 and 58:09 alleles.

Primer mix 12: Specific PCR fragment of 150 bp in the B*56:25 and 56:37 and the B*07:78, 13:16, 13:20, 13:31^w, 13:48, 15:73^w, 51:62, 51:106, 52:25, 55:09 and 55:24 alleles. Specific PCR fragment of 180 bp in the B*56:10 and 56:23 and the B*13:06, 13:53, 15:86, 15:224, 35:60, 46:18, 54:01:01-54:02, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:17-54:19, 54:21-54:25, 54:27-54:28, 55:02:01-55:02:06, 55:07, 55:10, 55:12, 55:16, 55:18-55:19, 55:26, 55:30, 55:34-55:35, 55:37, 55:39, 55:42-55:43, 55:47-55:48, 55:50, 55:56-55:57, 59:01:01:01-59:01:01:02 and 59:05 alleles. Specific PCR fragment of 150 and 180 bp in the B*15:42, 54:20, 55:01:01-55:01:10, 55:03, 55:05, 55:11, 55:15, 55:21, 55:25, 55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45 and 55:52-55:55N alleles.

Primer mix 13: Specific PCR fragment of 70 bp in the B*56:30 allele. Specific PCR fragment of 180 bp in the B*56:11 and 56:22 and the B*15:58, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 38:30, 39:32-39:33, 39:74, 51:13:01-51:13:02, 51:92, 52:14, 53:04 and 58:34 alleles.

Primer mix 15: Specific PCR fragment of 160 bp in the B*56:13 and the B*44:15, 44:18, 44:140, 45:01, 45:04-45:08, 45:10-45:14, 55:56 and 82:01-82:03 alleles. Specific PCR fragment of 380 bp in the B*56:28N allele.

Primer mix 17: Specific PCR fragment of 80 bp in the B*56:38N allele. Specific PCR fragment of 180 bp in the B*56:05:01-56:06, 56:15 and 56:21 and in the B*07:20, 07:24, 07:60, 07:100, 07:131, 08:21, 08:25, 13:62, 15:09-15:10:02, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 27:76, 35:02:01-35:02:05, 35:04:01-35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:34, 35:39, 35:44, 35:81, 35:83, 35:95, 35:129N, 35:149, 35:154, 35:162, 35:172, 35:182-35:184, 35:199, 35:201, 35:211, 35:220, 40:05, 40:26, 40:28, 40:63, 40:92, 40:174, 41:17, 44:62, 44:77, 44:82, 44:107, 44:123, 49:18, 50:14, 51:01:01-51:01:14, 51:01:16-51:01:31, 51:01:33-51:09:02, 51:11N-51:12, 51:18-51:20, 51:22-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64-51:80, 51:83-51:84, 51:86-51:91, 51:94-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:142, 51:145-51:148, 52:01:01:01-52:07, 52:09-52:13, 52:15-52:24, 52:27-52:31, 53:19, 55:08, 55:51, 57:02:01-57:03:02, 57:05, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 58:08:01-58:08:02, 58:28 and 78:01:01-78:06 and the C*03:81 and C*03:152 alleles.

Primer mix 19: Specific PCR fragment of 75 bp in the B*56:29 and the B*07:176 alleles. Specific PCR fragment of 185 bp in the B*56:19N and the B*39:40:01N-39:40:02N alleles.

Primer mix 21: Specific PCR fragment of 110 bp in the B*56:17 and 56:23 and in the B*07:37 and 27:77 alleles. Specific PCR fragment of 170 bp in the B*56:26 allele.

Primer mix 22: Specific PCR fragment of 105 bp in the B*56:06 and the B*07:65, 07:134 and 35:76 alleles. Specific PCR fragment of 175 bp in the B*56:36 and the B*40:166, 44:90 and 45:06 alleles.

Primer mix 23: Specific PCR fragment of 85 bp in the B56:20:01-56:20:02 and in the B*07:78 and 40:48 alleles. Specific PCR fragment of 350 bp in the B*56:24 allele.

‘w’, may be weakly amplified.

101.571-06 – including *Taq* polymerase, IFU-01
 101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-B*56 SSP subtyping kit																				
					Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	201075001	201075002	201075003	201075004	201075005	201189306	201313207	201075008	201189309	201075010	201075011	201313212	201189313	201313214	201075015	201313216
	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	W	+	+	+	-	-	-	-	-	-	-	-	-	-	-	-
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	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-

101.571-06 – including *Taq* polymerase, IFU-01101.571-06u – without *Taq* polymerase, IFU-02Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)Lot No.: **85R**

Lot-specific information

CELL LINE VALIDATION SHEET													
HLA-B*56 SSP subtyping kit													
					Well								
					17	18	19	20	21	22	23	24	
				Prod. No.:	201313217	201189318	201075019	201075020	201075021	201313222	201075023	201075024	
	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	-	-	-	-	-	-	-	-	

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-B*56 SSP

Product number: 101.571-06 – including *Taq* polymerase
101.571-06u – without *Taq* polymerase
Lot number: 85R
Expiry date: 2015-July-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	2010-750-01	9	2011-893-09	17	2013-132-17
2	2010-750-02	10	2010-750-10	18	2011-893-18
3	2010-750-03	11	2010-750-11	19	2010-750-19
4	2010-750-04	12	2013-132-12	20	2010-750-20
5	2010-750-05	13	2011-893-13	21	2010-750-21
6	2011-893-06	14	2013-132-14	22	2013-132-22
7	2013-132-07	15	2010-750-15	23	2010-750-23
8	2010-750-08	16	2013-132-16	24	2010-750-24

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

No DNAs carrying the alleles to be amplified by primer solutions 8, 19, 21 and 23 were available. The specificities of the primers in primer solutions 8 and 23 were tested by separately adding one additional 5'-primer, respectively one or two additional 3'-primers. In primer solutions 19 and 21, it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 1, 2, 3 and 15 one or two 3'-primers were not possible to test, and in primer solutions 13, 17 and 23, one 5'-primer was not possible to test. Additional 5'-primers and 3'-primers in primer solutions 6, 15 to 17 and 22 were tested by separately adding one 5'-primer and/or 3'-primer.

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

Date of approval: 2013-January-28

Approved by:

Production Quality Control

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*56
Product number: 101.571-06/06u
Lot number: 85R

Intended use: HLA-B*56 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Franzengatan 5
SE-112 51 Stockholm, 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, Franzengatan 5, SE-112 51 Stockholm, Sweden.

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

Stockholm, Sweden
2013-January-28

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

101.571-06 – including *Taq* polymerase, IFU-01
101.571-06u – without *Taq* polymerase, IFU-02

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Lot No.: **85R**

Lot-specific information

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