

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Olerup SSP[®] HLA-B*52

Product number:	101.562-06 – including <i>Taq</i> polymerase 101.562-06u – without <i>Taq</i> polymerase
Lot number:	90R
Expiry date:	2015-July- 01
Number of tests:	6
Number of wells per test:	16
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. 90R.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP[®]* HLA-B*52 LOT (39N).

The HLA-B*52 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-B*52 lot was made (Lot No. 39N).

The HLA-B*52 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

¹As described in section Uniquely Identified Alleles.

The HLA-B*52 primer set is unchanged compared to the previous lot.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

PRODUCT DESCRIPTION

HLA-B*52 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*52:01 to B*52:31 alleles.

PLATE LAYOUT

Each HLA-B*52 test consists of 16 PCR reactions in a 16 well cut PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

The 16 well PCR plate is marked with ‘HLA-B*52’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘90R’.

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 16 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*52 SSP subtypings will be influenced by most other HLA-B alleles. In addition, the C*01:30, C*08:51, C*12:87 and C*15:39 alleles will be amplified by primer mix 1 and the C*02:02:23 allele will be amplified by primer mix 5.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*52, i.e. **B*52:01 to B*52:31**, recognized by the HLA Nomenclature Committee in October 2012¹ will be amplified by the primers in the HLA-B*14 subtyping kit.

The HLA-B*52 kit enables separation of the confirmed HLA-B*52 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*52 alleles is listed below.

The HLA-B*52 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*52:04 and B*52:09 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 2.

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R**Lot-specific information**

The B*52:12 and B*52:27 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 5.

The HLA-B*52 primer set cannot distinguish the silent mutations in the B*52:01:01:01-52:01:16 or the B*52:10:01-52:10:02 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*52 primer set cannot separate the B*52:01:01:01-52:01:16, 52:22-52:25 and 52:30-52:31 alleles and the B*53:28 allele. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B*53 high resolution kit.

The HLA-B*52 primer set cannot separate the B*52:28-52:29 alleles and the B*53:17:01-53:17:02 alleles. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B*53 high resolution kit.

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*52:01:01:01	Confirmed	B*52:05	Confirmed	B*52:23	Unconfirmed
B*52:01:01:02	Unconfirmed	B*52:06:01	Unconfirmed	B*52:24	Unconfirmed
B*52:01:02	Confirmed	B*52:06:02	Confirmed	B*52:25	Unconfirmed
B*52:01:03	Confirmed	B*52:07	Unconfirmed	B*52:26	Unconfirmed
B*52:01:04	Unconfirmed	B*52:08	Confirmed	B*52:27	Unconfirmed
B*52:01:05	Confirmed	B*52:09	Unconfirmed	B*52:28	Unconfirmed
B*52:01:06	Confirmed	B*52:10:01	Unconfirmed	B*52:29	Unconfirmed
B*52:01:07	Confirmed	B*52:10:02	Unconfirmed	B*52:30	Unconfirmed
B*52:01:08	Unconfirmed	B*52:11	Confirmed	B*52:31	Unconfirmed
B*52:01:09	Unconfirmed	B*52:12	Confirmed		
B*52:01:10	Unconfirmed	B*52:13	Unconfirmed		
B*52:01:11	Unconfirmed	B*52:14	Unconfirmed		
B*52:01:12	Unconfirmed	B*52:15	Unconfirmed		
B*52:01:13	Unconfirmed	B*52:16	Unconfirmed		
B*52:01:14	Unconfirmed	B*52:17	Unconfirmed		
B*52:01:15	Unconfirmed	B*52:18	Unconfirmed		
B*52:01:16	Unconfirmed	B*52:19	Unconfirmed		
B*52:02	Confirmed	B*52:20	Unconfirmed		
B*52:03	Unconfirmed	B*52:21	Confirmed		
B*52:04	Unconfirmed	B*52:22	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 50 alleles generate 22 amplification patterns that can be combined in 253 homozygous and heterozygous combinations. 208 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.

---+----- ---+----- *52:19, *52:19 = *52:19, *52:28
 ---+----- ---+----- *52:10:01, *52:10:01 = *52:10:01, *52:28
 ---+----- ---+----- *52:11, *52:11 = *52:11, *52:28
 +-+----- ---+----- *52:01:01:01, *52:01:01:01 = *52:01:01:01, *52:28
 ---+----- ---+----- *52:03, *52:03 = *52:03, *52:10:01 = *52:03, *52:11 = *52:03, *52:28 =

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R

Lot-specific information

*52:10:01, *52:11

+-+----- -++-----+ *52:01:01:01, *52:13 = *52:01:01:01, *52:19 = *52:13, *52:13 = *52:13,
*52:19 = *52:13, *52:28

+-+----- -++-----+ *52:01:01:01, *52:12 = *52:01:01:01, *52:16 = *52:12, *52:12 = *52:12,
*52:16 = *52:12, *52:28 = *52:16, *52:28

+-+----- -++-----+ *52:01:01:01, *52:07 = *52:07, *52:28

+-+----- -++-----+ *52:01:01:01, *52:06:02 = *52:01:01:01, *52:17 = *52:06:02, *52:17 =
*52:06:02, *52:28 = *52:17, *52:17 = *52:17, *52:28

+-+----- -++-----+ *52:01:01:01, *52:08 = *52:01:01:01, *52:18 = *52:08, *52:08 = *52:08,
*52:18 = *52:08, *52:28 = *52:18, *52:28

+-+----- +---+----- *52:01:01:01, *52:14 = *52:14, *52:14 = *52:14, *52:28

+-+----- +---+----- *52:06:01, *52:06:01 = *52:06:01, *52:06:02

+-+-----+ -++-----+ *52:01:01:01, *52:20 = *52:20, *52:20 = *52:20, *52:28

+-+-----+ -++-----+ *52:01:01:01, *52:05 = *52:05, *52:05 = *52:05, *52:28

+-+-----+ -++-----+ *52:01:01:01, *52:10:01 = *52:01:01:01, *52:15 = *52:10:01, *52:15 =
*52:15, *52:15 = *52:15, *52:28

+-+-----+ -++-----+ *52:01:01:01, *52:11 = *52:01:01:01, *52:21 = *52:11, *52:21 = *52:21,
*52:21 = *52:21, *52:28

+-+-----+ -++-----+ *52:01:01:01, *52:02 = *52:02, *52:28

+++----- -++-----+ *52:01:01:01, *52:04 = *52:04, *52:04 = *52:04, *52:28

+-+-----+ -++-----+ *52:12, *52:13 = *52:12, *52:19 = *52:13, *52:16 = *52:16, *52:19

+-+-----+ -++-----+ *52:07, *52:13 = *52:07, *52:19

+-+-----+ -++-----+ *52:07, *52:12 = *52:07, *52:16

+-+-----+ -++-----+ *52:06:02, *52:13 = *52:06:02, *52:19 = *52:13, *52:17 = *52:17, *52:19

+-+-----+ -++-----+ *52:06:02, *52:12 = *52:06:02, *52:16 = *52:12, *52:17 = *52:16, *52:17

+-+-----+ -++-----+ *52:06:02, *52:07 = *52:07, *52:17

+-+-----+ -++-----+ *52:08, *52:13 = *52:08, *52:19 = *52:13, *52:18 = *52:18, *52:19

+-+-----+ -++-----+ *52:08, *52:12 = *52:08, *52:16 = *52:12, *52:18

+-+-----+ -++-----+ *52:07, *52:08 = *52:07, *52:18

+-+-----+ -++-----+ *52:06:02, *52:08 = *52:08, *52:17 = *52:17, *52:18

+-+-----+ -++-----+ *52:13, *52:14 = *52:14, *52:19

+-+-----+ -++-----+ *52:12, *52:14 = *52:14, *52:16

+-+-----+ -++-----+ *52:01:01:01, *52:06:01 = *52:06:01, *52:14 = *52:06:01, *52:17 =
*52:06:01, *52:28 = *52:06:02, *52:14 = *52:14, *52:17

+-+-----+ -++-----+ *52:08, *52:14 = *52:14, *52:18

+-+-----+ -++-----+ *52:13, *52:20 = *52:19, *52:20

+-+-----+ -++-----+ *52:12, *52:20 = *52:16, *52:20

+-+-----+ -++-----+ *52:06:02, *52:20 = *52:17, *52:20

+-+-----+ -++-----+ *52:08, *52:20 = *52:18, *52:20

+-+-----+ -++-----+ *52:05, *52:13 = *52:05, *52:19

+-+-----+ -++-----+ *52:05, *52:12 = *52:05, *52:16

+-+-----+ -++-----+ *52:05, *52:06:02 = *52:05, *52:17

+-+-----+ -++-----+ *52:05, *52:08 = *52:05, *52:18

+-+-----+ -++-----+ *52:10:01, *52:13 = *52:13, *52:15 = *52:15, *52:19

+-+-----+ -++-----+ *52:10:01, *52:12 = *52:10:01, *52:16 = *52:12, *52:15 = *52:15, *52:16

+-+-----+ -++-----+ *52:07, *52:10:01 = *52:07, *52:15

+-+-----+ -++-----+ *52:06:02, *52:10:01 = *52:06:02, *52:15 = *52:10:01, *52:17 = *52:15,
*52:17

+-+-----+ -++-----+ *52:08, *52:10:01 = *52:08, *52:15 = *52:10:01, *52:18 = *52:15, *52:18

+-+-----+ -++-----+ *52:10:01, *52:14 = *52:14, *52:15

+-+-----+ -++-----+ *52:10:01, *52:20 = *52:15, *52:20

+-+-----+ -++-----+ *52:05, *52:10:01 = *52:05, *52:15

+-+-----+ -++-----+ *52:11, *52:13 = *52:13, *52:21 = *52:19, *52:21

+-+-----+ -++-----+ *52:11, *52:12 = *52:11, *52:16 = *52:12, *52:21 = *52:16, *52:21

+-+-----+ -++-----+ *52:07, *52:11 = *52:07, *52:21

+-+-----+ -++-----+ *52:06:02, *52:11 = *52:06:02, *52:21 = *52:11, *52:17 = *52:17, *52:21

+-+-----+ -++-----+ *52:08, *52:11 = *52:08, *52:21 = *52:11, *52:18 = *52:18, *52:21



101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R**Lot-specific information**

+--+-----	+----+-----	*52:11, *52:14 = *52:14, *52:21
+--+-----+	-----+-----	*52:11, *52:20 = *52:20, *52:21
+--+-----+	-----+-----	*52:05, *52:11 = *52:05, *52:21
+--+-----	-----+-----	*52:01:01:01, *52:03 = *52:03, *52:15 = *52:03, *52:21 = *52:10:01, *52:21 = *52:11, *52:15 = *52:15, *52:21
+-----	-----+-----	*52:02, *52:13 = *52:02, *52:19
+-----	-----+-----	*52:02, *52:06:02 = *52:02, *52:17
+-----+	-----+-----	*52:02, *52:10:01 = *52:02, *52:15
+-----	-----+-----	*52:02, *52:11 = *52:02, *52:21
+++-----	-----+-----	*52:04, *52:13 = *52:04, *52:19
+++-----	-----+-----	*52:04, *52:12 = *52:04, *52:16
+++-----	-----+-----	*52:04, *52:06:02 = *52:04, *52:17
+++-----	-+-----	*52:04, *52:08 = *52:04, *52:18
+++-----	-----+-----	*52:04, *52:10:01 = *52:04, *52:15
+++-----	-----+-----	*52:04, *52:11 = *52:04, *52:21
+-----	+-----+-----	*52:06:01, *52:13 = *52:06:01, *52:19
+-----	+-----+-----	*52:06:01, *52:12 = *52:06:01, *52:16
+-----	+-----+-----	*52:06:01, *52:10:01 = *52:06:01, *52:15
+-----	+-----+-----	*52:06:01, *52:11 = *52:06:01, *52:21
+-----	-----+-----	*52:03, *52:12 = *52:03, *52:16
+-----	-----+-----	*52:03, *52:06:02 = *52:03, *52:17
+-----	-+-----	*52:03, *52:08 = *52:03, *52:18

*52:01:01 = *52:01:01:01-52:01:16 and 52:22-52:25 and 52:30-52:31

*52:04 = *52:04 and 52:09

*52:10:01 = *52:10:01-52:10:02

*52:12 = *52:12, 52:26-52:27

*52:28-52:29 = *52:28-52:29

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information
SPECIFICITY TABLE

HLA-B*52 SSP subtyping

Specificities and sizes of the PCR products of the 16 primer mixes used for HLA-B*52 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*52 alleles	Other amplified HLA Class I alleles ^{3,4}
1⁵	95 bp	800 bp	*52:01:01:01-52:02, 52:04-52:09, 52:12-52:18, 52:20-52:27, 52:30-52:31	*13:62, 14:01:01-14:33, 15:37-15:38:02, 18:15, 18:19, 18:30, 18:57, 35:21, 35:96, 35:188, 40:28, 40:51, 40:174, 49:09, 51:01:01-51:01:38, 51:03-51:04, 51:06:01-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:22, 51:24:01-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:37-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:58, 51:60-51:72, 51:74-51:80, 51:82-51:92, 51:94-51:96, 51:98N-51:107, 51:109-51:114, 51:116-51:119, 51:121, 51:123-51:138, 51:140, 51:142, 51:145, 51:147, 53:06, 53:28, 56:05:01-56:06, 56:21, 58:08:01-58:08:02, 78:01:01-78:03, 78:05-78:07, C*01:30, C*08:51, C*12:87, C*15:39
2⁹	135 bp, 235 bp	1070 bp	*52:04, 52:09	*08:52, 15:87, 53:05, 53:16, 57:60
3^{5,6}	95 bp	1070 bp	*52:01:01:01-52:01:16, 52:03-52:15, 52:17, 52:19-52:31	*13:58, 15:202, 15:239, 18:12, 35:10, 35:13, 35:16, 35:28, 35:69, 35:80, 37:01:01-37:01:05, 37:01:07-37:05, 37:07, 37:09-37:27, 37:29-37:37, 40:185, 40:209, 44:83, 44:134, 49:03, 53:17:01-53:17:02, 53:28, 78:05-78:06
4	140 bp	1070 bp	*52:02	*15:13:01-15:13:02, 15:16:01-15:17:02, 15:24, 15:67, 15:87, 15:95, 15:157, 15:162, 15:168, 15:177, 15:196, 15:208, 15:216, 15:222, 15:230, 15:254, 51:104, 57:01:01-57:11, 57:13-57:15, 57:17-57:44, 57:46-57:50, 57:52-57:60, 58:36
5¹⁰	145 bp, 190 bp	1070 bp	*52:03, 52:11, 52:21	*07:02:11, 07:05:03, 15:01:02, 15:09, 15:243, 15:252, 27:04:03, 35:01:10,

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

				35:04:02, 40:01:06, 40:26, 40:95, 44:62, 49:18, 50:14, 51:02:01-51:02:03, 51:02:05, 51:05, 51:23, 51:34, 51:36, 51:40, 51:54, 51:59, 51:61:01-51:61:02, 51:93, 51:108, 51:143-51:144, 51:146, 55:01:04, 78:04, C*02:02:23
6¹¹	135 bp, 180 bp	1070 bp	*52:03, 52:10:01- 52:10:02, 52:15	*35:01:10, 35:04:02, 40:01:06, 44:62 ^w , 51:05 ^w , 51:09:01-51:09:02, 51:19, 51:23 ^w , 51:31, 51:40, 51:54 ^w , 51:73, 51:93, 51:108, 51:122, 51:139, 78:04
7	225 bp	800 bp	*52:05	
8	145 bp	1070 bp	*52:20	*13:58, 18:09, 37:10, 44:83, 44:134, 51:54, 51:78:01-51:78:02, 53:09, 53:11-53:13
9⁵	100 bp	800 bp	*52:06:01, 52:14	*13:46, 15:137, 35:01:08, 35:01:15, 35:29:02, 39:06:01-39:06:02, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 40:86, 45:02, 50:09, 51:01:33, 51:13:01-51:13:02, 51:92, 55:13, 56:22, 59:03, 73:01-73:02
10^{5,12}	95 bp, 245 bp	1070 bp	*52:08, 52:18	*07:78, 07:84, 13:02:01-13:02:15, 13:08Q-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56N, 13:58-13:59, 27:14, 27:81, 39:50, 40:06:01:01-40:06:06, 40:44, 40:53, 40:70, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 45:10, 49:07, 51:10, 51:16, 51:31, 51:34, 51:82, 51:93, 54:26, 55:09, 55:22, 55:24, 73:01-73:02
11^{5,7,13}	85 bp, 225 bp	1070 bp	*52:06:01- 52:06:02, 52:17	*07:38, 08:02-08:03, 08:52, 08:78, 27:23, 37:21, 38:06-38:07, 40:13, 44:06, 51:01:01-51:01:16, 51:01:18-51:06:02, 51:08-51:21, 51:23-51:24:04, 51:26-51:46, 51:48-51:117, 51:119-51:148, 53:01:01-53:08:02, 53:10-53:16, 53:18-53:27, 53:29, 59:01:01:01-59:05

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Lot No.	85 bp	1070 bp	Lot-specific information
12⁵	85 bp	1070 bp	*52:01:01:01-52:05, 52:07-52:17, 52:19-52:31 *13:01:01-13:04, 13:06, 13:08Q, 13:10-13:18, 13:20-13:23, 13:25-13:35, 13:37-13:38, 13:40-13:63N, 15:24, 15:36, 15:43, 15:87, 15:157, 15:256, 27:29, 37:01:01-37:01:08, 37:02-37:04:02, 37:06-37:07, 37:09-37:10, 37:12-37:20, 37:22-37:36, 38:03, 40:19, 40:47, 40:96, 40:109-40:110, 40:117, 40:157, 40:188, 40:201, 44:02:01:01-44:02:21, 44:02:23-44:05:04, 44:07-44:08, 44:10-44:11, 44:14-44:45, 44:47-44:66, 44:68, 44:70-44:74, 44:76-44:89, 44:91-44:96, 44:98-44:112, 44:114-44:126:02, 44:128, 44:130, 44:132-44:165, 47:01:01:01-47:01:02, 47:03-47:08, 48:18, 49:01:01-49:20, 49:22-49:25, 53:17:01-53:17:02, 53:28
13	165 bp	800 bp	*52:01:01:01-52:06:02, 52:08-52:31 *15:20, 15:228, 35:01:01:01-35:01:27, 35:01:29-35:30, 35:32:01-35:42:02, 35:44-35:56, 35:58-35:59, 35:61:01-35:72, 35:74-35:78, 35:80-35:86, 35:88-35:184, 35:186-35:220, 48:02:01-48:02:03, 51:01:01-51:24:04, 51:26-51:41N, 51:43-51:46, 51:48-51:148, 53:01:01-53:29, 56:05:01-56:05:02, 56:21, 56:36, 58:01:01-58:01:09, 58:01:12-58:02, 58:04-58:10N, 58:12-58:19, 58:21-58:29, 58:31N-58:39N, 78:01:01-78:07, 81:03, 83:01 [?]
14⁷	165 bp	1070 bp	*52:07 *07:02:01-07:57, 07:59-07:176, 08:01:01-08:05, 08:07-08:105, 13:01:01-13:04, 13:06-13:23, 13:25-13:60, 13:62-13:63N, 14:01:01-14:33, 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, 15:131-15:227, 15:229-15:264, 18:01:01:01-18:15, 18:17N-18:83, 27:01-27:21, 27:23-27:99, 35:31, 35:35, 35:43:01, 35:46, 35:57, 35:60, 35:79, 35:87, 35:96, 35:98, 35:185, 37:01:01-37:37, 38:01:01-38:42, 39:01:01:01-39:01:01:03, 39:01:03-39:20, 39:22-39:45, 39:47-39:79, 40:01:01-40:16, 40:18-40:40,

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

				40:42-40:226, 41:01-41:25, 42:01:01-42:02, 42:04-42:17, 44:02:01:01-44:65, 44:67-44:117, 44:119-44:165, 45:01-45:14, 46:01:01-46:36, 46:38, 47:01:01:01-47:08, 48:01:01-48:01:03, 48:02:02-48:28, 49:01:01-49:25, 50:01:01-50:02, 50:04-50:19, 51:42, 54:01:01-54:28, 55:01:01-55:05, 55:07-55:57, 56:01:01-56:04, 56:06-56:20:02, 56:22-56:38N, 57:01:01-57:01:10, 57:01:12-57:60, 58:11, 58:20, 59:01:01:01-59:05, 67:01:01-67:03, 81:01-81:02, 81:04N-81:06, 82:01-82:03, 83:01 [?]
15^{5,6,8,14}	95 bp, 170 bp	800 bp	*52:12, 52:16, 52:26-52:27	*07:27, 07:50, 07:84, 08:04, 08:17, 08:54, 13:04, 13:35, 15:03:01-15:04, 15:16:01-15:16:03, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:67-15:69, 15:91, 15:95, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:155-15:156, 15:158, 15:173, 15:210, 15:220, 15:222, 15:235, 15:242, 15:251, 15:253-15:254, 18:01:01:01-18:03, 18:05-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:78, 18:81-18:83, 35:37, 37:01:01-37:20, 37:23-37:25, 37:27-37:37, 38:03, 39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49, 40:12, 40:44, 40:149, 40:159, 41:21-41:22, 42:11, 44:20, 44:47, 44:100, 44:130, 44:156, 45:09, 46:32, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:28, 49:04-49:05, 49:25, 51:37, 51:90, 51:92, 54:14-54:15, 55:23, 55:27
16¹⁵	160 bp, 215 bp	1070 bp	*52:13, 52:19	*08:09, 08:84, 13:46, 15:83, 42:04, 44:20, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 55:20, 55:56, 56:13

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*52 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

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R

Lot-specific information

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*52 SSP subtyping.

In addition, wells number 7, 9, 13 and 15 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 many non-HLA-B*52 alleles will be amplified by primer mixes 1 to 6 and 8 to 16. In addition, the C*01:30, C*08:51, C*12:87 and C*15:39 alleles will be amplified by primer mix 1 and the C*02:02:23 allele will be amplified by primer mix 5.

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

⁶Primer mixes 3 and 15 may give rise to a lower yield of HLA-specific PCR product than the other B*52 primer mixes.

⁷Primer mixes 11 and 14 may have tendencies of unspecific amplifications.

⁸Primer mix 15 may give rise to a weak band of about 550 bp. This band should be disregarded when interpreting HLA-B*52 SSP subtypings.

⁹Primer mix 2: Specific PCR fragment of 135 bp in the B*52:04 allele. Specific PCR fragment of 235 bp in the B*52:09 and in the B*08:52, 15:87, 53:05, 53:16 and 57:60 alleles.

¹⁰Primer mix 5: Specific PCR fragment of 145 bp in the B*52:21 and the B*51:61:01-51:61:02 alleles. Specific PCR fragment of 190 bp in the B*52:03, 52:11, 07:02:11, 07:05:03, 15:09, 15:243, 15:252, 27:04:03, 35:01:10, 35:04:02, 40:01:06, 40:26, 40:95, 44:62, 49:18, 50:14, 51:02:01-51:02:03, 51:02:05, 51:05, 51:23, 51:34, 51:36, 51:40, 51:54, 51:59, 51:93, 51:108, 51:143-51:144, 51:146, 55:01:04 and 78:04 alleles. Specific PCR fragment of 145 and 190 bp in the B*15:01:02 and the C*02:02:23 alleles.

¹¹Primer mix 6: Specific PCR fragment of 135 bp in the B*52:03 and 52:10:01-52:10:02 and the B*35:01:10, 35:04:02, 40:01:06, 51:05^w, 51:09:01-51:09:02, 51:19, 51:31, 51:40, 51:54^w, 51:73, 51:93, 51:122, 51:139 and 78:04 alleles. Specific PCR fragment of 180 bp in the B*52:15 and the B*44:62^w and 51:23^w alleles. Specific PCR fragment of 135 and 180 in the B*51:108 allele.

¹²Primer mix 10: Specific PCR fragment of 95 bp in the B*52:18 allele. Specific PCR fragment of 245 bp in the B*52:08 and the B*07:78, 07:84 and the B*13:02:01-13:02:15, 13:08Q-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56N, 13:58-13:59, 27:14, 27:81, 39:50, 40:06:01:01-40:06:06, 40:44, 40:53, 40:70, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 45:10, 49:07, 51:10, 51:16, 51:31, 51:34, 51:82, 51:93, 54:26, 55:09, 55:22, 55:24 and 73:01-73:02 alleles.

¹³Primer mix 11: Specific PCR fragment of 85 bp in the B*52:06:01-52:06:02 and the B*07:38, 08:02-08:03, 08:52, 08:78, 27:23, 37:21, 38:06-38:07, 40:13, 44:06, 51:01:01-51:01:16, 51:01:18-51:06:02, 51:08-51:21, 51:23-51:24:04, 51:26-51:46, 51:48-51:117, 51:119-51:148, 53:01:01-53:08:02, 53:10-53:16, 53:18-53:27, 53:29 and 59:01:01:01-59:05 alleles. Specific PCR fragment of 225 bp in the B*52:17 allele.

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R**Lot-specific information**

¹⁴Primer mix 15: Specific PCR fragment of 95 bp in the B*52:12 and 52:26 and the B*07:84, 13:04, 13:35, 15:04, 15:16:01-15:16:03, 15:67, 15:95, 15:155, 15:222, 15:254, 35:37, 40:44, 40:159, 41:21, 44:20, 44:47, 44:100, 45:09, 46:32, 49:04-49:05, 51:37, 51:90, 51:92, 54:14-54:15, 55:23 and 55:27 alleles. Specific PCR fragment of 170 bp in the B*52:16 and 52:27 and the B*07:27, 07:50, 08:04, 08:17, 08:54, 15:03:01-15:03:03, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 18:01:01:01-18:03, 18:05-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:78, 18:81-18:83, 37:01:01-37:20, 37:23-37:25, 37:27-37:37, 38:03, 39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:28 and 49:25 alleles.

¹⁵Primer mix 16: Specific PCR fragment of 160 bp in the B*52:13 allele. Specific PCR fragment of 215 bp in the B*52:19 and in the B*52:19 and the B*08:09, 08:84, 13:46, 15:83, 42:04, 44:20, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 55:20, 55:56 and 56:13 alleles.

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

'w', might be weakly amplified.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 90R

Lot-specific information

INTERPRETATION TABLE								
HLA-B*52 SSP subtyping								
Amplification patterns of the B*52:01 to B*52:31 alleles								
	Well ⁹							
	1	2	3	4	5	6	7	8
Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Length of int. pos. control ¹	800	1070	1070	1070	1070	1070	800	1070
5'-primer ²	527	106	206	209	435	435	134	206
	5' -TgA ^{3'}	5' -CCA ^{3'}	5' -gAC ^{3'}	5' -ggC ^{3'}	5' -AAA ^{3'}	5' -AAA ^{3'}	5' -CCC ^{3'}	5' -gAC ^{3'}
3'-primer ³	583	200	259	309	538	527	317	309
	5' -gTg ^{3'}	5' -TCT ^{3'}	5' -CTC ^{3'}	5' -ATC ^{3'}	5' -CCA ^{3'}	5' -CCA ^{3'}	5' -gga ^{3'}	5' -gTg ^{3'}
		302			583	527		
		5' -ggC ^{3'}			5' -gTA ^{3'}	5' -CCA ^{3'}		
						572		
						5' -gCg ^{3'}		
Well No.	1	2	3	4	5	6	7	8
HLA-B allele ⁴								
*52:01:01:01-52:01:16, 52:22-52:25, 52:30-52:31, 53:28 ⁵	1		3					
*52:02	1			4				
*52:03			3		5	6		
*52:04, 52:09 ⁷	1	2	3					
*52:05	1		3				7	
*52:06:01	1		3					
*52:06:02	1		3					
*52:07	1		3					
*52:08	1		3					
*52:10:01-52:10:02			3			6		
*52:11			3		5			
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Well ⁶								
9	10	11	12	13	14	15	16	
100	95	85	85	165	165	95	160	Length of spec. PCR product(s)
	245	225				170	215	
800	1070	1070	1070	800	1070	800	1070	Length of int. pos. control ¹
213	206	133	272	652	652	142	86	5'-primer ²
5'-CCg ^{3'}	5'-gAC ^{3'}	5'-CCA ^{3'}	5'-CTC ^{3'}	5'-CCg ^{3'}	5'-CCA ^{3'}	5'-TCT ^{3'}	5'-CAA ^{3'}	
357	357	272				357	362	
5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-CTT ^{3'}				5'-Tgg ^{3'}	5'-gAC ^{3'}	
272	262	317	317	774	774	272	206	3'-primer ³
5'-TgA ^{3'}	5'-TgC ^{3'}	5'-ggA ^{3'}	5'-ggA ^{3'}	5'-ggT ^{3'}	5'-ggT ^{3'}	5'-Tgg ^{3'}	5'-CCg ^{3'}	
419	559					412	538	
5'-CgA ^{3'}	5'-CTC ^{3'}					5'-gTC ^{3'}	5'-gTC ^{3'}	
9	10	11	12	13	14	15	16	Well No.
								HLA-B allele ⁴
			12	13				*52:01:01:01-52:01:16, 52:22-52:25, 52:30-52:31, 53:28 ⁵
			12	13				*52:02
			12	13				*52:03
			12	13				*52:04, 52:09 ⁷
			12	13				*52:05
9		11		13				*52:06:01
		11		13				*52:06:02
			12		14			*52:07
	10		12	13				*52:08
			12	13				*52:10:01-52:10:02
			12	13				*52:11
9	10	11	12	13	14	15	16	Well No.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*52:12, 52:26-52:27 ⁸	1		3					
*52:13	1		3					
*52:14	1		3					
*52:15	1		3			6		
*52:16	1							
*52:17	1		3					
*52:18	1							
*52:19			3					
*52:20	1		3					8
*52:21	1		3		5			
*52:28-52:29, 53:17:01-53:17:02 ⁶			3					
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160	Length of spec.
	245	225				170	215	PCR product(s)
9	10	11	12	13	14	15	16	Well No.
			12	13		15		*52:12, 52:26-52:27 ⁸
			12	13			16	*52:13
9			12	13				*52:14
			12	13				*52:15
			12	13		15		*52:16
		11	12	13				*52:17
	10			13				*52:18
			12	13			16	*52:19
			12	13				*52:20
			12	13				*52:21
			12	13				*52:28-52:29, 53:17:01-53:17:02 ⁶
9	10	11	12	13	14	15	16	Well No.

101.562-06 – including *Taq* polymerase, IFU-01101.562-06u – without *Taq* polymerase, IFU-02Visit www.olerup-ssp.com for

“Instructions for Use” (IFU)

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*07:02:01-07:02:10, 07:02:12-07:05:02, 07:05:04-07:26, 07:28-07:37, 07:39-07:49N, 07:51-07:57, 07:59-07:77, 07:79-07:83, 07:85-07:176, 08:01:01-08:01:20, 08:05, 08:07-08:08N, 08:10-08:16, 08:18-08:51, 08:53:01-08:53:02, 08:55-08:77, 08:79-08:83, 08:85-08:105, 13:07N, 13:36, 13:39, 15:01:01:01-15:01:01:02N, 15:01:03-15:01:04, 15:01:06-15:02:06, 15:05:01-15:08, 15:10:01-15:12, 15:14-15:15, 15:18:01-15:19, 15:21, 15:23, 15:25:01-15:35, 15:39:01-15:40, 15:42, 15:44-15:46, 15:48-15:53, 15:55-15:58, 15:60, 15:63, 15:65-15:66, 15:70-15:82, 15:84-15:86, 15:88-15:90, 15:92-15:94N, 15:96-15:97, 15:99, 15:101, 15:104-15:122, 15:124-15:126, 15:128-15:129, 15:133-15:136, 15:138-15:150, 15:152-15:154, 15:159-15:161, 15:163-15:167, 15:169-15:172, 15:174-15:176, 15:178-15:195, 15:197-15:201, 15:203-15:207, 15:209N, 15:211-15:215, 15:217-15:219, 15:221, 15:223-15:227, 15:229, 15:231-15:234, 15:236-15:238, 15:240-15:241, 15:244-15:250, 15:255, 15:257-15:264, 18:04, 18:07:01-18:07:02, 18:29, 18:33, 18:79-18:80, 27:01-27:04:02, 27:05:02-27:13, 27:15-27:21, 27:24-27:28, 27:30-27:80, 27:82-27:99, 35:31, 35:43:01, 35:57, 35:60, 35:79, 35:87, 35:185, 38:01:01-38:02:04, 38:04-38:05, 38:08-38:42, 39:01:01:01-39:01:01:03, 39:01:03-39:01:15, 39:03-39:05:02, 39:07, 39:09-39:12, 39:14-39:20, 39:22, 39:24:01-39:32, 39:35-39:38Q, 39:40:01N-39:45, 39:47-39:48, 39:51-39:56, 39:58-39:61, 39:63, 39:65-39:79, 40:01:01-40:01:05, 40:01:07-40:05, 40:07-40:11:02, 40:14:01-40:16, 40:18, 40:20-40:25, 40:27:01-40:27:02, 40:29-40:40, 40:42-40:43, 40:45-40:46, 40:48-40:50, 40:52, 40:54-40:69, 40:71-40:74, 40:76-40:82, 40:84-40:85, 40:87:01-40:92, 40:94, 40:97-40:102, 40:104-40:108, 40:111-40:116, 40:118N-40:126, 40:128-40:130, 40:132-40:147, 40:150-40:156, 40:158, 40:160:01-40:160:02, 40:163-40:164, 40:166, 40:168-40:173, 40:175-40:176, 40:178-40:184, 40:186-40:187, 40:189, 40:191-40:200, 40:202-40:208, 40:210-40:226, 41:01-41:20, 41:23-41:25, 42:01:01-42:02, 42:05:01-42:10, 42:12-42:17, 44:02:22, 44:09, 44:12-44:13, 44:46, 44:67, 44:69, 44:75, 44:90, 44:97, 44:113, 44:127, 44:129, 44:131, 45:01, 45:03-45:08, 45:11-45:14, 46:01:01-46:31, 46:33-46:36, 46:38, 47:02, 48:06, 49:21, 50:01:01-50:02, 50:04-50:08, 50:10-50:13, 50:15-50:19, 54:01:01-54:13, 54:16-54:25, 54:27-54:28, 55:01:01-55:01:03, 55:01:05-55:05, 55:07-55:08, 55:10-55:12, 55:14-55:19, 55:21, 55:25-55:26, 55:28-55:55N, 55:57, 56:01:01-56:04, 56:07-56:12, 56:14-56:20:02, 56:23-56:35, 56:37-56:38N, 57:12, 57:16, 57:45, 57:51, 58:11, 58:20, 67:01:01-67:03, 81:01-81:02, 81:04N-81:06, 82:01-82:03								
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160		Length of spec.	
	245	225				170	215		PCR product(s)	
9	10	11	12	13	14	15	16		Well No.	
					14				*07:02:01-07:02:10, 07:02:12-07:05:02, 07:05:04-07:26, 07:28-07:37, 07:39-07:49N, 07:51-07:57, 07:59-07:77, 07:79-07:83, 07:85-07:176, 08:01:01-08:01:20, 08:05, 08:07-08:08N, 08:10-08:16, 08:18-08:51, 08:53:01-08:53:02, 08:55-08:77, 08:79-08:83, 08:85-08:105, 13:07N, 13:36, 13:39, 15:01:01:01-15:01:01:02N, 15:01:03-15:01:04, 15:01:06-15:02:06, 15:05:01-15:08, 15:10:01-15:12, 15:14-15:15, 15:18:01-15:19, 15:21, 15:23, 15:25:01-15:35, 15:39:01-15:40, 15:42, 15:44-15:46, 15:48-15:53, 15:55-15:58, 15:60, 15:63, 15:65-15:66, 15:70-15:82, 15:84-15:86, 15:88-15:90, 15:92-15:94N, 15:96-15:97, 15:99, 15:101, 15:104-15:122, 15:124-15:126, 15:128-15:129, 15:133-15:136, 15:138-15:150, 15:152-15:154, 15:159-15:161, 15:163-15:167, 15:169-15:172, 15:174-15:176, 15:178-15:195, 15:197-15:201, 15:203-15:207, 15:209N, 15:211-15:215, 15:217-15:219, 15:221, 15:223-15:227, 15:229, 15:231-15:234, 15:236-15:238, 15:240-15:241, 15:244-15:250, 15:255, 15:257-15:264, 18:04, 18:07:01-18:07:02, 18:29, 18:33, 18:79-18:80, 27:01-27:04:02, 27:05:02-27:13, 27:15-27:21, 27:24-27:28, 27:30-27:80, 27:82-27:99, 35:31, 35:43:01, 35:57, 35:60, 35:79, 35:87, 35:185, 38:01:01-38:02:04, 38:04-38:05, 38:08-38:42, 39:01:01:01-39:01:01:03, 39:01:03-39:01:15, 39:03-39:05:02, 39:07, 39:09-39:12, 39:14-39:20, 39:22, 39:24:01-39:32, 39:35-39:38Q, 39:40:01N-39:45, 39:47-39:48, 39:51-39:56, 39:58-39:61, 39:63, 39:65-39:79, 40:01:01-40:01:05, 40:01:07-40:05, 40:07-40:11:02, 40:14:01-40:16, 40:18, 40:20-40:25, 40:27:01-40:27:02, 40:29-40:40, 40:42-40:43, 40:45-40:46, 40:48-40:50, 40:52, 40:54-40:69, 40:71-40:74, 40:76-40:82, 40:84-40:85, 40:87:01-40:92, 40:94, 40:97-40:102, 40:104-40:108, 40:111-40:116, 40:118N-40:126, 40:128-40:130, 40:132-40:147, 40:150-40:156, 40:158, 40:160:01-40:160:02, 40:163-40:164, 40:166, 40:168-40:173, 40:175-40:176, 40:178-40:184, 40:186-40:187, 40:189, 40:191-40:200, 40:202-40:208, 40:210-40:226, 41:01-41:20, 41:23-41:25, 42:01:01-42:02, 42:05:01-42:10, 42:12-42:17, 44:02:22, 44:09, 44:12-44:13, 44:46, 44:67, 44:69, 44:75, 44:90, 44:97, 44:113, 44:127, 44:129, 44:131, 45:01, 45:03-45:08, 45:11-45:14, 46:01:01-46:31, 46:33-46:36, 46:38, 47:02, 48:06, 49:21, 50:01:01-50:02, 50:04-50:08, 50:10-50:13, 50:15-50:19, 54:01:01-54:13, 54:16-54:25, 54:27-54:28, 55:01:01-55:01:03, 55:01:05-55:05, 55:07-55:08, 55:10-55:12, 55:14-55:19, 55:21, 55:25-55:26, 55:28-55:55N, 55:57, 56:01:01-56:04, 56:07-56:12, 56:14-56:20:02, 56:23-56:35, 56:37-56:38N, 57:12, 57:16, 57:45, 57:51, 58:11, 58:20, 67:01:01-67:03, 81:01-81:02, 81:04N-81:06, 82:01-82:03	
9	10	11	12	13	14	15	16		Well No.	

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*07:02:11, 07:05:03, 15:01:02, 15:09, 15:243, 15:252, 27:04:03, 40:26, 50:14, 55:01:04					5			
*07:27, 07:50, 08:04, 08:17, 08:54, 15:03:01-15:04, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:155-15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 18:01:01:01-18:03, 18:05-18:06, 18:08, 18:10-18:11, 18:13-18:14, 18:17N-18:18, 18:20-18:28, 18:31-18:32, 18:34-18:56, 18:58-18:78, 18:81-18:83, 37:08, 39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49, 40:12, 40:149, 41:21-41:22, 42:11, 45:09, 46:32, 48:01:01-48:01:03, 48:03:01-48:05, 48:07-48:17, 48:19-48:28, 54:14-54:15, 55:23, 55:27								
*07:38, 08:02-08:03, 08:78, 27:23, 38:06-38:07, 40:13, 44:06, 51:42, 59:01:01:01-59:02, 59:04-59:05								
*07:78, 13:09, 13:19, 27:14, 27:81, 40:06:01:01-40:06:06, 40:53, 40:70, 40:75, 40:83, 40:93, 40:103, 40:127, 40:131, 40:148, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 45:10, 54:26, 55:09, 55:22, 55:24								
*07:84, 40:44, 40:159								
*08:09, 08:84, 15:83, 42:04, 55:20, 55:56, 56:13								
*08:52		2						
*13:01:01-13:01:06, 13:03, 13:06, 13:10-13:13, 13:17, 13:20-13:23, 13:25-13:26, 13:28-13:29, 13:43, 13:48, 13:50-13:53, 13:57, 13:60, 13:63N, 15:36, 15:43, 15:256, 27:29, 40:19, 40:47, 40:117, 40:157, 40:188, 40:201, 44:02:01:01-44:02:21, 44:02:23-44:05:04, 44:07-44:08, 44:10-44:11, 44:14-44:19N, 44:21-44:45, 44:48-44:61N, 44:63-44:65, 44:68, 44:70-44:74, 44:76-44:82, 44:84-44:89, 44:91-44:96, 44:98-44:99, 44:101-44:112, 44:114-44:117, 44:119-44:126:02, 44:128, 44:132-44:133, 44:135-44:155, 44:157-44:165, 47:01:01:01-47:01:02, 47:03-47:08, 49:01:01-49:02, 49:06, 49:08, 49:10-49:17, 49:19N-49:20, 49:22-49:24								
*13:02:01-13:02:15, 13:08Q, 13:14-13:16, 13:18, 13:27, 13:30-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56N, 13:59, 40:96, 40:109-40:110, 49:07								
*13:04, 37:01:06, 37:06, 37:28, 38:03, 44:47, 44:100, 44:130, 44:156, 48:18, 49:04-49:05, 49:25								
*13:35								
*13:46								
*13:58			3					8
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160	Length of spec.
	245	225				170	215	PCR product(s)
9	10	11	12	13	14	15	16	Well No.
					14			*07:02:11, 07:05:03, 15:01:02, 15:09, 15:243, 15:252, 27:04:03, 40:26, 50:14, 55:01:04
					14	15		*07:27, 07:50, 08:04, 08:17, 08:54, 15:03:01-15:04, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:155-15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 18:01:01:01-18:03, 18:05-18:06, 18:08, 18:10-18:11, 18:13-18:14, 18:17N-18:18, 18:20-18:28, 18:31-18:32, 18:34-18:56, 18:58-18:78, 18:81-18:83, 37:08, 39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49, 40:12, 40:149, 41:21-41:22, 42:11, 45:09, 46:32, 48:01:01-48:01:03, 48:03:01-48:05, 48:07-48:17, 48:19-48:28, 54:14-54:15, 55:23, 55:27
		11			14			*07:38, 08:02-08:03, 08:78, 27:23, 38:06-38:07, 40:13, 44:06, 51:42, 59:01:01:01-59:02, 59:04-59:05
	10				14			*07:78, 13:09, 13:19, 27:14, 27:81, 40:06:01:01-40:06:06, 40:53, 40:70, 40:75, 40:83, 40:93, 40:103, 40:127, 40:131, 40:148, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 45:10, 54:26, 55:09, 55:22, 55:24
	10				14	15		*07:84, 40:44, 40:159
					14		16	*08:09, 08:84, 15:83, 42:04, 55:20, 55:56, 56:13
		11			14			*08:52
			12		14			*13:01:01-13:01:06, 13:03, 13:06, 13:10-13:13, 13:17, 13:20-13:23, 13:25-13:26, 13:28-13:29, 13:43, 13:48, 13:50-13:53, 13:57, 13:60, 13:63N, 15:36, 15:43, 15:256, 27:29, 40:19, 40:47, 40:117, 40:157, 40:188, 40:201, 44:02:01:01-44:02:21, 44:02:23-44:05:04, 44:07-44:08, 44:10-44:11, 44:14-44:19N, 44:21-44:45, 44:48-44:61N, 44:63-44:65, 44:68, 44:70-44:74, 44:76-44:82, 44:84-44:89, 44:91-44:96, 44:98-44:99, 44:101-44:112, 44:114-44:117, 44:119-44:126:02, 44:128, 44:132-44:133, 44:135-44:155, 44:157-44:165, 47:01:01:01-47:01:02, 47:03-47:08, 49:01:01-49:02, 49:06, 49:08, 49:10-49:17, 49:19N-49:20, 49:22-49:24
	10		12		14			*13:02:01-13:02:15, 13:08Q, 13:14-13:16, 13:18, 13:27, 13:30-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56N, 13:59, 40:96, 40:109-40:110, 49:07
			12		14	15		*13:04, 37:01:06, 37:06, 37:28, 38:03, 44:47, 44:100, 44:130, 44:156, 48:18, 49:04-49:05, 49:25
	10		12		14	15		*13:35
9			12		14		16	*13:46
	10		12		14			*13:58
9	10	11	12	13	14	15	16	Well No.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*13:61, 44:66, 44:118								
*13:62, 49:09	1							
*14:01:01-14:33, 15:37-15:38:02, 40:28, 40:51, 40:174, 56:06	1							
*15:13:01-15:13:02, 15:17:01:01-15:17:02, 15:162, 15:168, 15:177, 15:196, 15:208, 15:216, 15:230, 57:01:01-57:01:10, 57:01:12-57:11, 57:13-57:15, 57:17-57:44, 57:46-57:50, 57:52-57:59				4				
*15:16:01-15:16:03, 15:67, 15:95, 15:222, 15:254				4				
*15:20, 15:228, 35:01:01:01-35:01:07, 35:01:09, 35:01:11-35:01:14, 35:01:16-35:01:27, 35:01:29-35:04:01, 35:04:03-35:09:03, 35:11:01-35:12:03, 35:14:01-35:15, 35:17-35:20:02, 35:22-35:27, 35:29:01, 35:30, 35:32:01-35:34, 35:36, 35:38-35:42:02, 35:44-35:45, 35:47-35:56, 35:58-35:59, 35:61:01-35:68:02, 35:70-35:72, 35:74-35:78, 35:81-35:86, 35:88-35:95, 35:97, 35:99-35:184, 35:186-35:187, 35:189-35:220, 58:01:01-58:01:09, 58:01:12-58:02, 58:04-58:07, 58:09-58:10N, 58:12-58:19, 58:21-58:29, 58:31N-58:35, 58:37-58:39N, 81:03								
*15:24, 15:157				4				
*15:87		2		4				
*15:137, 39:06:01-39:06:02, 39:33-39:34, 39:57, 39:62, 39:64, 45:02, 50:09, 55:13, 56:22								
*15:202, 15:239, 40:185, 40:209			3					
*18:09								8
*18:12, 37:01:09, 37:05, 37:11, 37:37			3					
*18:15, 18:19, 18:30, 18:57	1							
*35:01:08, 35:01:15, 35:29:02								
*35:01:10, 35:04:02, 78:04					5	6		
*35:10, 35:13, 35:16, 35:28, 35:69, 35:80			3					
*35:21, 35:188, 51:01:17, 51:07:01-51:07:02, 51:22, 51:118N, 56:05:01-56:05:02, 56:21, 58:08:01-58:08:02, 78:01:01-78:03, 78:07	1							
*35:35, 35:46, 35:98, 48:02:02, 56:36								
*35:37, 48:02:01								
*35:96	1							
*37:01:01-37:01:05, 37:01:07-37:01:08, 37:02-37:04:02, 37:07, 37:09, 37:12-37:20, 37:23-37:25, 37:27, 37:29-37:36			3					
*37:10			3					8
*37:21			3					
*37:22, 37:26, 49:03			3					
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160	Length of spec.
	245	225				170	215	PCR product(s)
9	10	11	12	13	14	15	16	Well No.
			12					*13:61, 44:66, 44:118
			12		14			*13:62, 49:09
					14			*14:01:01-14:33, 15:37-15:38:02, 40:28, 40:51, 40:174, 56:06
					14			*15:13:01-15:13:02, 15:17:01:01-15:17:02, 15:162, 15:168, 15:177, 15:196, 15:208, 15:216, 15:230, 57:01:01-57:01:10, 57:01:12-57:11, 57:13-57:15, 57:17-57:44, 57:46-57:50, 57:52-57:59
					14	15		*15:16:01-15:16:03, 15:67, 15:95, 15:222, 15:254
				13				*15:20, 15:228, 35:01:01:01-35:01:07, 35:01:09, 35:01:11-35:01:14, 35:01:16-35:01:27, 35:01:29-35:04:01, 35:04:03-35:09:03, 35:11:01-35:12:03, 35:14:01-35:15, 35:17-35:20:02, 35:22-35:27, 35:29:01, 35:30, 35:32:01-35:34, 35:36, 35:38-35:42:02, 35:44-35:45, 35:47-35:56, 35:58-35:59, 35:61:01-35:68:02, 35:70-35:72, 35:74-35:78, 35:81-35:86, 35:88-35:95, 35:97, 35:99-35:184, 35:186-35:187, 35:189-35:220, 58:01:01-58:01:09, 58:01:12-58:02, 58:04-58:07, 58:09-58:10N, 58:12-58:19, 58:21-58:29, 58:31N-58:35, 58:37-58:39N, 81:03
			12		14			*15:24, 15:157
			12		14			*15:87
9					14			*15:137, 39:06:01-39:06:02, 39:33-39:34, 39:57, 39:62, 39:64, 45:02, 50:09, 55:13, 56:22
					14			*15:202, 15:239, 40:185, 40:209
					14	15		*18:09
					14	15		*18:12, 37:01:09, 37:05, 37:11, 37:37
					14	15		*18:15, 18:19, 18:30, 18:57
9				13				*35:01:08, 35:01:15, 35:29:02
				13				*35:01:10, 35:04:02, 78:04
				13				*35:10, 35:13, 35:16, 35:28, 35:69, 35:80
				13				*35:21, 35:188, 51:01:17, 51:07:01-51:07:02, 51:22, 51:118N, 56:05:01-56:05:02, 56:21, 58:08:01-58:08:02, 78:01:01-78:03, 78:07
				13	14			*35:35, 35:46, 35:98, 48:02:02, 56:36
				13		15		*35:37, 48:02:01
				13	14			*35:96
			12		14	15		*37:01:01-37:01:05, 37:01:07-37:01:08, 37:02-37:04:02, 37:07, 37:09, 37:12-37:20, 37:23-37:25, 37:27, 37:29-37:36
			12		14	15		*37:10
		11			14			*37:21
			12		14			*37:22, 37:26, 49:03
9	10	11	12	13	14	15	16	Well No.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*39:50, 40:86								
*40:01:06					5	6		
*40:95					5			
*44:20								
*44:62					5	w		
*44:83, 44:134			3					8
*48:02:03								
*49:18					5			
*51:01:01-51:01:16, 51:01:18-51:01:32, 51:01:34-51:01:38, 51:03-51:04, 51:06:01-51:06:02, 51:11N-51:12, 51:14, 51:17- 51:18, 51:21, 51:24:01-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:58, 51:60, 51:62-51:72, 51:74-51:77, 51:79-51:80, 51:83-51:89, 51:91, 51:94-51:96, 51:98N-51:103, 51:105- 51:107, 51:109-51:114, 51:116-51:117, 51:119, 51:121, 51:123- 51:138, 51:140, 51:142, 51:145, 51:147, 53:06	1							
*51:01:33, 51:13:01-51:13:02	1							
*51:02:01-51:02:03, 51:02:05, 51:59, 51:143-51:144, 51:146					5			
*51:02:04, 51:15, 51:53, 51:81, 51:115, 51:120, 51:148, 53:01:01-53:04, 53:07-53:08:02, 53:10, 53:14-53:15, 53:18- 53:27, 53:29								
*51:05, 51:23					5	w		
*51:08, 51:20, 51:44N, 51:97, 51:141								
*51:09:01-51:09:02, 51:19, 51:73, 51:122, 51:139						6		
*51:10								
*51:16, 51:82	1							
*51:31						6		
*51:34					5			
*51:36					5			
*51:37, 51:90	1							
*51:40, 51:108					5	6		
*51:54					5	w		8
*51:61:01-51:61:02	1				5			
*51:78:01-51:78:02	1							8
*51:92	1							
*51:93					5	6		
*51:104	1			4				
*53:05, 53:16		2						
*53:09								8
*53:11-53:13								8
*57:01:11				4				
Well No.	1	2	3	4	5	6	7	8

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160	Length of spec. PCR product(s)
	245	225				170	215	
9	10	11	12	13	14	15	16	Well No.
9	10				14			*39:50, 40:86
					14			*40:01:06
	10				14			*40:95
			12		14	15	16	*44:20
			12		14			*44:62
			12		14			*44:83, 44:134
				13	14	15		*48:02:03
			12		14			*49:18
		11		13				*51:01:01-51:01:16, 51:01:18-51:01:32, 51:01:34-51:01:38, 51:03-51:04, 51:06:01-51:06:02, 51:11N-51:12, 51:14, 51:17- 51:18, 51:21, 51:24:01-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:58, 51:60, 51:62-51:72, 51:74-51:77, 51:79-51:80, 51:83-51:89, 51:91, 51:94-51:96, 51:98N-51:103, 51:105- 51:107, 51:109-51:114, 51:116-51:117, 51:119, 51:121, 51:123- 51:138, 51:140, 51:142, 51:145, 51:147, 53:06
9		11		13				*51:01:33, 51:13:01-51:13:02
		11		13				*51:02:01-51:02:03, 51:02:05, 51:59, 51:143-51:144, 51:146
		11		13				*51:02:04, 51:15, 51:53, 51:81, 51:115, 51:120, 51:148, 53:01:01-53:04, 53:07-53:08:02, 53:10, 53:14-53:15, 53:18- 53:27, 53:29
		11		13				*51:05, 51:23
		11		13			16	*51:08, 51:20, 51:44N, 51:97, 51:141
		11		13				*51:09:01-51:09:02, 51:19, 51:73, 51:122, 51:139
	10	11		13				*51:10
	10	11		13				*51:16, 51:82
	10	11		13				*51:31
	10	11		13				*51:34
		11		13			16	*51:36
		11		13		15		*51:37, 51:90
		11		13				*51:40, 51:108
		11		13				*51:54
		11		13				*51:61:01-51:61:02
		11		13				*51:78:01-51:78:02
9		11		13		15		*51:92
	10	11		13				*51:93
		11		13				*51:104
		11		13				*53:05, 53:16
				13				*53:09
		11		13				*53:11-53:13
								*57:01:11
9	10	11	12	13	14	15	16	Well No.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Length of spec.	95	135	95	140	145	135	225	145
PCR product(s)		235			190	180		
Well No.	1	2	3	4	5	6	7	8
*57:60		2		4				
*58:36				4				
*59:03								
*73:01-73:02								
*78:05-78:06	1		3					
*83:01								
<i>C*01:30, C*08:51, C*12:87, C*15:39</i>	1							
<i>C*02:02:23</i>					5			
HLA-B allele								
Well No.	1	2	3	4	5	6	7	8

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*52 SSP subtyping.

In addition, wells number 7, 9, 13 and 15 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 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, 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.

⁴HLA-B*52 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.10.0, October 2012.

⁵The HLA-B*52 primer set cannot separate the B*52:01:01:01-52:01:16, 52:22-52:25 and 52:30-52:31 alleles and the B*53:28 allele. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B*53 high resolution kit.

⁶The HLA-B*52 primer set cannot separate the B*52:28-52:29 alleles and the B*53:17:01-53:17:02 alleles. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B*53 high resolution kit.

⁷The B*52:04 and B*52:09 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 2.

⁸The B*52:12 and B*52:27 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 5.

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

100	95	85	85	165	165	95	160	Length of spec.
	245	225				170	215	PCR product(s)
9	10	11	12	13	14	15	16	Well No.
					14			*57:60
				13				*58:36
9		11			14			*59:03
9	10							*73:01-73:02
				13				*78:05-78:06
				?	?			*83:01
								<i>C*01:30, C*08:51, C*12:87, C*15:39</i>
								<i>C*02:02:23</i>
								HLA-B allele
9	10	11	12	13	14	15	16	Well No.

⁹Primer mix 2: Specific PCR fragment of 135 bp in the B*52:04 allele. Specific PCR fragment of 235 bp in the B*52:09 and in the B*08:52, 15:87, 53:05, 53:16 and 57:60 alleles.

Primer mix 5: Specific PCR fragment of 145 bp in the B*52:21 and the B*51:61:01-51:61:02 alleles. Specific PCR fragment of 190 bp in the B*52:03, 52:11, 07:02:11, 07:05:03, 15:09, 15:243, 15:252, 27:04:03, 35:01:10, 35:04:02, 40:01:06, 40:26, 40:95, 44:62, 49:18, 50:14, 51:02:01-51:02:03, 51:02:05, 51:05, 51:23, 51:34, 51:36, 51:40, 51:54, 51:59, 51:93, 51:108, 51:143-51:144, 51:146, 55:01:04 and 78:04 alleles. Specific PCR fragment of 145 and 190 bp in the B*15:01:02 and the C*02:02:23 alleles.

Primer mix 6: Specific PCR fragment of 135 bp in the B*52:03 and 52:10:01-52:10:02 and the B*35:01:10, 35:04:02, 40:01:06, 51:05^w, 51:09:01-51:09:02, 51:19, 51:31, 51:40, 51:54^w, 51:73, 51:93, 51:122, 51:139 and 78:04 alleles. Specific PCR fragment of 180 bp in the B*52:15 and the B*44:62^w and 51:23^w alleles. Specific PCR fragment of 135 and 180 in the B*51:108 allele.

Primer mix 10: Specific PCR fragment of 95 bp in the B*52:18 allele. Specific PCR fragment of 245 bp in the B*52:08 and the B*07:78, 07:84 and the B*13:02:01-13:02:15, 13:08Q-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56N, 13:58-13:59, 27:14, 27:81, 39:50, 40:06:01:01-40:06:06, 40:44, 40:53, 40:70, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 45:10, 49:07, 51:10, 51:16, 51:31, 51:34, 51:82, 51:93, 54:26, 55:09, 55:22, 55:24 and 73:01-73:02 alleles.

Primer mix 11: Specific PCR fragment of 85 bp in the B*52:06:01-52:06:02 and the B*07:38, 08:02-08:03, 08:52, 08:78, 27:23, 37:21, 38:06-38:07, 40:13, 44:06, 51:01:01-51:01:16, 51:01:18-51:06:02, 51:08-51:21, 51:23-51:24:04, 51:26-51:46, 51:48-51:117, 51:119-51:148, 53:01:01-53:08:02, 53:10-53:16, 53:18-53:27, 53:29 and 59:01:01:01-59:05 alleles. Specific PCR fragment of 225 bp in the B*52:17 allele.

Primer mix 15: Specific PCR fragment of 95 bp in the B*52:12 and 52:26 and the B*07:84, 13:04, 13:35, 15:04, 15:16:01-15:16:03, 15:67, 15:95, 15:155, 15:222, 15:254, 35:37, 40:44, 40:159, 41:21, 44:20, 44:47, 44:100, 45:09, 46:32, 49:04-49:05, 51:37, 51:90, 51:92, 54:14-54:15, 55:23 and 55:27 alleles. Specific PCR fragment of 170 bp in the B*52:16 and 52:27 and the B*07:27, 07:50, 08:04, 08:17, 08:54, 15:03:01-15:03:03, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 18:01:01:01-18:03, 18:05-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:78, 18:81-18:83, 37:01:01-37:20, 37:23-37:25, 37:27-37:37, 38:03, 39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:28 and 49:25 alleles.

Primer mix 16: Specific PCR fragment of 160 bp in the B*52:13 allele. Specific PCR fragment of 215 bp in the B*52:19 and in the B*52:19 and the B*08:09, 08:84, 13:46, 15:83, 42:04, 44:20, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 55:20, 55:56 and 56:13 alleles.

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

'w', might be weakly amplified.

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

CELL LINE VALIDATION SHEET																					
HLA-B*52 SSP primer set																					
				Prod. No.:	Well																
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
					201078001	201078002	201078003	201078004	201078005	201078006	201078007	201078008	201078009	201078010	201078011	201078012	201078013	201078014	201078015	201078016	
	IHC 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 ¹	*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 ¹	*51:01			+	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-	-
48	9303 TER-ND	*35:01	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	-	-

101.562-06 – including *Taq* polymerase, IFU-01
 101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-B*52 SSP

Product number: 101.562-06 – including *Taq* polymerase
 101.562-06u – without *Taq* polymerase
 Lot number: 90R
 Expiry date: 2015-July- 01
 Number of tests: 6
 Number of wells per test: 16

Well specifications:

Well No.	Production No.	Well No.	Production No.
1	2010-780-01	9	2010-780-09
2	2010-780-02	10	2010-780-10
3	2010-780-03	11	2010-780-11
4	2010-780-04	12	2010-780-12
5	2010-780-05	13	2010-780-13
6	2010-780-06	14	2010-780-14
7	2010-780-07	15	2010-780-15
8	2010-780-08	16	2010-780-16

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

No DNAs carrying the alleles to be amplified by primer solutions 2, 6 to 8 and 16 were available. The specificities of the primers in primer solutions 2, 6, 8 and 16 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer mix 7 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solutions 9, 11 and 16 one or two 5'-primers were not possible to test, and in primer solutions 2 and 10 one 3'-primer was not possible to test. Additional primers in primer solutions 5, 9, 10 and 15 were tested by separately adding one additional 5'-primer or 3'-primer.

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

Date of approval: 2013-March-14

Approved by:

Quality Control, Supervisor

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*52
Product number: 101.562-06/06u
Lot number: 90R

Intended use: HLA-B*52 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 13485:2012, 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, Middlemarch Office Village, Siskin Drive, Coventry CV3 4FJ, United Kingdom. (Notified Body number: 0088.)

Stockholm, Sweden
2013-March-14

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

101.562-06 – including *Taq* polymerase, IFU-01
101.562-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **90R**

Lot-specific information

ADDRESSES:

Manufacturer:

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

Tel: +46-8-717 88 27

Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

Web page: <http://www.olerup-ssp.com>

Distributed by:

Olerup GmbH, Löwengasse 47 / 6, AT-1030 Vienna, Austria.

Tel: +43-1-710 15 00

Fax: +43-1-710 15 00 10

E-mail: support-at@olerup.com

Web page: <http://www.olerup.com>

Olerup Inc., 901 S. Bolmar St., Suite R, West Chester, PA 19382

Tel: 1-877-OLERUP1

Fax: 610-344-7989

E-mail: info.us@olerup.com

Web page: <http://www.olerup.com>

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