

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Olerup SSP[®] HLA-C*14

Product number:	101.625-06 – including <i>Taq</i> polymerase 101.625-06u – without <i>Taq</i> polymerase
Lot number:	12S
Expiry date:	2015-October-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. 12S.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*[®] HLA-C*14 LOT (54N)

The HLA-C*14 specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup SSP*[®] HLA-C*14 lot was made (Lot No. 54N).

The HLA-C*14 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-C*14 including and without *Taq* polymerase is described in one common Product Insert.

¹As described in section Uniquely Identified Alleles.

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

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

Well	5'-primer	3'-primer	rationale
10	-	Added	3'-primer added for the C*14:47N allele.
17	-	Added	3'-primer added for the C*14:47N allele.
22	Added	-	5'-primer added for the C*14:24:02 allele.

Change in revision R01 compared to R00:

1. The HLA-C*14:41 allele is amplified by primer mix 2. This has been corrected in the specificity and interpretation tables.

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

PRODUCT DESCRIPTION

HLA-C*14 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the C*14:02 to C*14:49 alleles.

PLATE LAYOUT

Each HLA-C*14 test consists of 24 PCR reactions in a 24 well cut PCR plate.

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

The 24 well cut PCR plate is marked with 'HLA-C*14' in silver/gray ink .

Well No. 1 is marked with the Lot No. '12S'.

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

The PCR plates are heat-sealed with a PCR-compatible foil.

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

INTERPRETATION

The interpretation of HLA-C*14 SSP subtypings will be influenced by five C*01, five C*02, most C*03, most C*04, three C*05, most C*06, most C*07, most C*08, most C*12, six C*15, several C*16, the C*17 and the C*18 alleles when present on the other haplotype.

In addition, primer mix 4 will amplify the B*35:08:02, B*35:08:05 and B*67:02 alleles, primer mix 6 will amplify the B*15:78:03 allele, primer mix 7 will amplify the B*07:13, B*07:15, B*07:160 and B*42:18 alleles, primer mix 8 will amplify the B*55:30 allele, primer mix 11 will amplify the B*15:258N allele and primer mix 15 will amplify the B*35:222 allele.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*14 alleles, i.e. **C*14:02 to C*14:49**, recognized by the HLA Nomenclature Committee in January 2013¹ will be amplified by the primers in the HLA-C*14 SSP kit.

The HLA-C*14 kit enables separation of the confirmed HLA-C*14 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-C*14 alleles is listed below.

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

The HLA-C*14 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 C*14:18 and 14:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

The C*14:24:01-14:24:02 and 14:31 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

The HLA-C*14 subtyping kit cannot distinguish the following silent mutations: the C*14:02:01 and 14:02:04-14:02:11 alleles.

¹HLA-C alleles listed on the IMGT/HLA web page 2013-January-11, release 3.11.0, www.ebi.ac.uk/imgt/hla.

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*14:02:01	Confirmed	C*14:12	Unconfirmed	C*14:31	Unconfirmed
C*14:02:02	Unconfirmed	C*14:13	Unconfirmed	C*14:32	Confirmed
C*14:02:03	Confirmed	C*14:14	Confirmed	C*14:33	Confirmed
C*14:02:04	Unconfirmed	C*14:15	Unconfirmed	C*14:34	Confirmed
C*14:02:05	Confirmed	C*14:16	Confirmed	C*14:35N	Unconfirmed
C*14:02:06	Unconfirmed	C*14:17	Confirmed	C*14:36	Unconfirmed
C*14:02:07	Confirmed	C*14:18	Confirmed	C*14:37	Unconfirmed
C*14:02:08	Unconfirmed	C*14:19	Unconfirmed	C*14:38	Unconfirmed
C*14:02:09	Unconfirmed	C*14:20	Unconfirmed	C*14:39	Unconfirmed
C*14:02:10	Unconfirmed	C*14:21N	Unconfirmed	C*14:40	Unconfirmed
C*14:02:11	Unconfirmed	C*14:22	Unconfirmed	C*14:41	Unconfirmed
C*14:03	Confirmed	C*14:23	Unconfirmed	C*14:42	Unconfirmed
C*14:04	Confirmed	C*14:24:01	Unconfirmed	C*14:43	Unconfirmed
C*14:05	Confirmed	C*14:24:02	Confirmed	C*14:44	Unconfirmed
C*14:06	Unconfirmed	C*14:25	Confirmed	C*14:45	Unconfirmed
C*14:07N	Unconfirmed	C*14:26	Confirmed	C*14:46	Unconfirmed
C*14:08	Unconfirmed	C*14:27	Confirmed	C*14:47N	Unconfirmed
C*14:09	Confirmed	C*14:28	Unconfirmed	C*14:48	Unconfirmed
C*14:10	Confirmed	C*14:29	Confirmed	C*14:49	Unconfirmed
C*14:11	Confirmed	C*14:30	Unconfirmed		

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2013-January-11, release 3.11.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 59 alleles generate 37 amplification patterns that can be combined in 703 homozygous and heterozygous combinations. 460 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.

+----- +----- +----- *14:16, *14:16 = *14:16, *14:45
 +----- ++----- ----- *14:06, *14:06 = *14:06, *14:45
 +-----+----- ----- *14:05, *14:05 = *14:05, *14:09 = *14:05, *14:45 = *14:09, *14:45
 +-----+----- +----- *14:02:02, *14:17 = *14:17, *14:17
 +-----+----- +----- *14:02:01, *14:02:01 = *14:02:01, *14:02:02 = *14:02:01, *14:45 = *14:02:02,

101.625-06 – including Taq polymerase, IFU-01
101.625-06u – without Taq polymerase, IFU-02

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

Lot No.: 12S

Lot-specific information

www.olerup-ssp.com

*14:45
+----- ++---+-- ----- *14:06, *14:15 = *14:15, *14:15 = *14:15, *14:45
+---+--- +----- +----- *14:05, *14:16 = *14:09, *14:16
+---+--- ++----- ----- *14:05, *14:06 = *14:06, *14:09
+---+--- +----- -----+ *14:02:01, *14:33 = *14:02:01, *14:34 = *14:02:02, *14:33 = *14:02:02, *14:34 = *14:33, *14:33 = *14:33, *14:34 = *14:33, *14:45 = *14:34, *14:45
+---+--- +----- +-----+ *14:02:01, *14:25 = *14:02:02, *14:25 = *14:25, *14:25 = *14:25, *14:45
+---+--- +----- -----+ *14:02:01, *14:24:01 = *14:02:02, *14:24:01 = *14:24:01, *14:24:01 = *14:24:01, *14:45
+---+--- +----- -----+ *14:02:01, *14:20 = *14:02:02, *14:20 = *14:20, *14:20 = *14:20, *14:45
+---+--- +----- -----+ *14:02:01, *14:19 = *14:02:01, *14:28 = *14:02:02, *14:19 = *14:19, *14:19 = *14:19, *14:28 = *14:19, *14:45
+---+--- +----- --+----- *14:02:01, *14:18 = *14:02:02, *14:18 = *14:18, *14:18 = *14:18, *14:45
+---+--- +----- +----- *14:02:01, *14:17 = *14:02:01, *14:26 = *14:02:02, *14:26 = *14:17, *14:26 = *14:17, *14:45 = *14:26, *14:45
+---+--- +----- +----- *14:02:01, *14:16 = *14:02:01, *14:27 = *14:02:02, *14:16 = *14:02:02, *14:27 = *14:16, *14:27 = *14:27, *14:27 = *14:27, *14:45
+---+--- +-----+ ----- *14:02:01, *14:13 = *14:02:02, *14:13 = *14:13, *14:13 = *14:13, *14:45
+---+--- +-----+ ----- *14:02:01, *14:11 = *14:02:02, *14:11 = *14:11, *14:11 = *14:11, *14:45
+---+--- +-----+ ----- *14:02:01, *14:14 = *14:02:02, *14:14 = *14:14, *14:14 = *14:14, *14:45
+---+--- +-----+ ----- *14:02:01, *14:23 = *14:02:02, *14:23 = *14:23, *14:23 = *14:23, *14:45
+---+--- +-----+ ----- *14:02:01, *14:07N = *14:02:02, *14:07N = *14:07N, *14:07N = *14:07N, *14:45
+---+--- +-----+ ----- *14:02:01, *14:06 = *14:02:01, *14:21N = *14:02:02, *14:06 = *14:02:02, *14:21N = *14:06, *14:21N = *14:21N, *14:21N = *14:21N, *14:45
+---+--- +-----+ ----- *14:02:01, *14:05 = *14:02:01, *14:09 = *14:02:02, *14:05
-+---+---+ +-----+ ----- *14:02:03, *14:03 = *14:02:03, *14:41 = *14:03, *14:03 = *14:03, *14:41
+---+---+ ++---+-- ----- *14:05, *14:15 = *14:09, *14:15
+---+---+ +-----+ -----+ *14:25, *14:33 = *14:25, *14:34
+---+---+ +-----+ -----+ *14:24:01, *14:33 = *14:24:01, *14:34
+---+---+ +-----+ -----+ *14:20, *14:33 = *14:20, *14:34
+---+---+ +-----+ -----+ *14:02:01, *14:32 = *14:02:02, *14:32 = *14:20, *14:25 = *14:20, *14:32 = *14:25, *14:32 = *14:32, *14:32 = *14:32, *14:45
+---+---+ +-----+ -----+ *14:19, *14:33 = *14:19, *14:34 = *14:28, *14:33 = *14:28, *14:34
+---+---+ +-----+ -----+ *14:19, *14:25 = *14:25, *14:28
+---+---+ +-----+ -----+ *14:19, *14:24:01 = *14:24:01, *14:28
+---+---+ +-----+ -----+ *14:19, *14:20 = *14:20, *14:28
+---+---+ +-----+ -----+ *14:18, *14:33 = *14:18, *14:34
+---+---+ +-----+ -----+ *14:18, *14:19 = *14:18, *14:28
+---+---+ +-----+ -----+ *14:17, *14:33 = *14:17, *14:34 = *14:26, *14:33 = *14:26, *14:34
+---+---+ +-----+ -----+ *14:17, *14:25 = *14:25, *14:26
+---+---+ +-----+ -----+ *14:17, *14:24:01 = *14:24:01, *14:26
+---+---+ +-----+ -----+ *14:17, *14:20 = *14:20, *14:26
+---+---+ +-----+ -----+ *14:17, *14:19 = *14:19, *14:26 = *14:26, *14:28
+---+---+ +-----+ -----+ *14:17, *14:18 = *14:18, *14:26
+---+---+ +-----+ -----+ *14:16, *14:33 = *14:16, *14:34 = *14:27, *14:33 = *14:27, *14:34
+---+---+ +-----+ -----+ *14:16, *14:25 = *14:25, *14:27
+---+---+ +-----+ -----+ *14:16, *14:24:01 = *14:24:01, *14:27
+---+---+ +-----+ -----+ *14:16, *14:20 = *14:20, *14:27
+---+---+ +-----+ -----+ *14:16, *14:19 = *14:19, *14:27 = *14:27, *14:28
+---+---+ +-----+ -----+ *14:16, *14:18 = *14:18, *14:27
+---+---+ +-----+ -----+ *14:16, *14:17 = *14:16, *14:26 = *14:17, *14:27 = *14:26, *14:27
+---+---+ +-----+ -----+ *14:13, *14:33 = *14:13, *14:34
+---+---+ +-----+ -----+ *14:13, *14:19 = *14:13, *14:28
+---+---+ +-----+ -----+ *14:13, *14:17 = *14:13, *14:26
+---+---+ +-----+ -----+ *14:13, *14:16 = *14:13, *14:27
+---+---+ +-----+ -----+ *14:11, *14:33 = *14:11, *14:34
+---+---+ +-----+ -----+ *14:11, *14:19 = *14:11, *14:28
+---+---+ +-----+ -----+ *14:11, *14:17 = *14:11, *14:26
+---+---+ +-----+ -----+ *14:11, *14:16 = *14:11, *14:27
+---+---+ +-----+ -----+ *14:14, *14:33 = *14:14, *14:34
+---+---+ +-----+ -----+ *14:14, *14:19 = *14:14, *14:28
+---+---+ +-----+ -----+ *14:14, *14:17 = *14:14, *14:26



101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 12S

Lot-specific information

www.olerup-ssp.com

+---+--- +---+--- +-----	*14:14, *14:16 = *14:14, *14:27
+---+--- +---+--- -----+	*14:23, *14:33 = *14:23, *14:34
+---+--- +---+--- ---+---	*14:19, *14:23 = *14:23, *14:28
+---+--- +---+--- +-+---	*14:17, *14:23 = *14:23, *14:26
+---+--- +---+--- +-----	*14:16, *14:23 = *14:23, *14:27
+---+--- +---+--- -----+	*14:07N, *14:33 = *14:07N, *14:34
+---+--- +---+--- -----	*14:07N, *14:19 = *14:07N, *14:28
+---+--- +---+--- +-+---	*14:07N, *14:17 = *14:07N, *14:26
+---+--- +---+--- +-----	*14:07N, *14:16 = *14:07N, *14:27
+---+--- +---+--- -----+	*14:06, *14:33 = *14:06, *14:34 = *14:21N, *14:33 = *14:21N, *14:34
+---+--- +---+--- -----+	*14:06, *14:25 = *14:21N, *14:25
+---+--- +---+--- -----+	*14:06, *14:24:01 = *14:21N, *14:24:01
+---+--- +---+--- ---+---	*14:06, *14:20 = *14:20, *14:21N
+---+--- +---+--- ---+---	*14:06, *14:19 = *14:19, *14:21N = *14:21N, *14:28
+---+--- +---+--- -----	*14:06, *14:18 = *14:18, *14:21N
+---+--- +---+--- +-+---	*14:06, *14:17 = *14:06, *14:26 = *14:17, *14:21N = *14:21N, *14:26
+---+--- +---+--- +-----	*14:02:01, *14:47N = *14:02:02, *14:47N = *14:06, *14:27 = *14:06, *14:47N = *14:16, *14:21N = *14:16, *14:47N = *14:21N, *14:27 = *14:21N, *14:47N = *14:27, *14:47N = *14:45, *14:47N = *14:47N, *14:47N
+---+--- +---+--- +-----	*14:06, *14:13 = *14:13, *14:21N
+---+--- +---+--- -----	*14:02:01, *14:15 = *14:02:02, *14:15 = *14:06, *14:11 = *14:11, *14:15 = *14:11, *14:21N = *14:15, *14:21N
+---+--- +---+--- -----	*14:06, *14:14 = *14:14, *14:21N
+---+--- +---+--- -----	*14:06, *14:23 = *14:21N, *14:23
+---+--- +---+--- -----	*14:06, *14:07N = *14:07N, *14:21N
+---+--- +---+--- -----+	*14:05, *14:33 = *14:05, *14:34 = *14:09, *14:33 = *14:09, *14:34
+---+--- +---+--- -----+	*14:05, *14:25 = *14:09, *14:25
+---+--- +---+--- -----+	*14:05, *14:24:01 = *14:09, *14:24:01
+---+--- +---+--- -----	*14:05, *14:20 = *14:09, *14:20
+---+--- +---+--- -----	*14:05, *14:19 = *14:09, *14:19
+---+--- +---+--- ---+---	*14:05, *14:18 = *14:09, *14:18
+---+--- +---+--- +-+---	*14:05, *14:17 = *14:05, *14:26 = *14:09, *14:26
+---+--- +---+--- +-----	*14:05, *14:27 = *14:09, *14:27
+---+--- +---+--- +-----	*14:05, *14:13 = *14:09, *14:13
+---+--- +---+--- +-----	*14:05, *14:11 = *14:09, *14:11
+---+--- +---+--- -----	*14:05, *14:14 = *14:09, *14:14
+---+--- +---+--- -----	*14:05, *14:23 = *14:09, *14:23
+---+--- +---+--- -----	*14:05, *14:07N = *14:07N, *14:09
+---+--- +---+--- -----	*14:05, *14:21N = *14:09, *14:21N
+---+---+ +---+--- -----	*14:02:01, *14:41 = *14:02:02, *14:41 = *14:41, *14:45
+---+---+ +---+--- -----	*14:02:01, *14:12 = *14:02:02, *14:12 = *14:12, *14:12 = *14:12, *14:45
+---+---+ +---+--- -----	*14:02:01, *14:04 = *14:02:02, *14:04 = *14:04, *14:04 = *14:04, *14:45
+---+---+ +---+--- -----	*14:02:01, *14:02:03 = *14:02:02, *14:02:03 = *14:02:03, *14:45
+---+---+ +---+--- -----	*14:02:03, *14:35N = *14:03, *14:35N = *14:35N, *14:41
+---+---+ +---+--- -----	*14:02:03, *14:10 = *14:03, *14:10 = *14:10, *14:10 = *14:10, *14:41
+---+---+ +---+--- -----	*14:03, *14:08 = *14:08, *14:41
+---+---+ +---+--- -----+	*14:32, *14:33 = *14:32, *14:34
+---+---+ +---+--- -----+	*14:19, *14:32 = *14:28, *14:32
+---+---+ +---+--- +-+---	*14:17, *14:32 = *14:26, *14:32
+---+---+ +---+--- +-----+	*14:16, *14:32 = *14:27, *14:32
+---+---+ +---+--- +-----+	*14:06, *14:32 = *14:21N, *14:32
+---+---+ +---+--- +-----+	*14:33, *14:47N = *14:34, *14:47N
+---+---+ +---+--- +-----	*14:19, *14:47N = *14:28, *14:47N
+---+---+ +---+--- +-----	*14:17, *14:47N = *14:26, *14:47N
+---+---+ +---+--- +-----+	*14:15, *14:33 = *14:15, *14:34
+---+---+ +---+--- +-+---	*14:15, *14:17 = *14:15, *14:26
+---+---+ +---+--- +-----	*14:11, *14:47N = *14:15, *14:27 = *14:15, *14:47N
+---+---+ +---+--- -----+	*14:05, *14:32 = *14:09, *14:32
+---+---+ +---+--- +-----	*14:05, *14:47N = *14:09, *14:47N
+---+---+ +---+--- ---+---	*14:19, *14:41 = *14:28, *14:41
+---+---+ +---+--- +-+---	*14:17, *14:41 = *14:26, *14:41
+---+---+ +---+--- +-----	*14:02:01, *14:22 = *14:02:02, *14:22 = *14:16, *14:22 = *14:16, *14:41 = *14:22,



101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 12S

Lot-specific information

www.olerup-ssp.com

*14:22 = *14:22, *14:27 = *14:22, *14:41 = *14:22, *14:45 = *14:27, *14:41
+-----+ +------ ----- *14:06, *14:41 = *14:21N, *14:41
+-----+ +------ ----- *14:05, *14:41 = *14:09, *14:41
+-----+ +------+ -----+ *14:12, *14:33 = *14:12, *14:34
+-----+ +------+ -----+ *14:12, *14:19 = *14:12, *14:28
+-----+ +------+ +------ *14:12, *14:17 = *14:12, *14:26
+-----+ +------+ +----- *14:12, *14:16 = *14:12, *14:27
+-----+ +------+ ----- *14:06, *14:12 = *14:12, *14:21N
+-----+ +------+ -----+ *14:04, *14:33 = *14:04, *14:34
+-----+ +------+ -----+ *14:04, *14:19 = *14:04, *14:28
+-----+ +------+ -----+ *14:04, *14:17 = *14:04, *14:26
+-----+ +------+ +----- *14:04, *14:16 = *14:04, *14:27
+-----+ +------+ ----- *14:04, *14:06 = *14:04, *14:21N
+-----+ +------+ ----- *14:05, *14:12 = *14:09, *14:12
+-----+ +------+ ----- *14:04, *14:05 = *14:04, *14:09
+-----+ +------+ -----+ *14:28, *14:35N = *14:35N, *14:45
+-----+ +------+ ----- *14:05, *14:08 = *14:08, *14:09
+-----+ +------+ -----+ *14:02:03, *14:19 = *14:02:03, *14:28
+-----+ +------+ -----+ *14:02:03, *14:17 = *14:02:03, *14:26
+-----+ +------+ +----- *14:02:03, *14:16 = *14:02:03, *14:27
+-----+ +------+ ----- *14:02:01, *14:08 = *14:02:02, *14:08 = *14:02:03, *14:23 = *14:08, *14:23
+-----+ +------+ ----- *14:02:03, *14:06 = *14:02:03, *14:21N
+-----+ +------+ ----- *14:02:01, *14:03 = *14:02:02, *14:03 = *14:03, *14:45
+-----+ +------+ ----- *14:02:03, *14:05 = *14:02:03, *14:09
+-----+ +------+ +-----+ *14:22, *14:33 = *14:22, *14:34
+-----+ +------+ +-----+ *14:19, *14:22 = *14:22, *14:28
+-----+ +------+ +-----+ *14:17, *14:22 = *14:22, *14:26
+-----+ +------+ +-----+ *14:06, *14:22 = *14:21N, *14:22 = *14:22, *14:47N = *14:41, *14:47N
+-----+ +------+ +-----+ *14:05, *14:22 = *14:09, *14:22
+-----+ +------+ +-----+ *14:02:01, *14:49 = *14:02:02, *14:49 = *14:04, *14:49 = *14:12, *14:49 = *14:13,
*14:49 = *14:45, *14:49 = *14:49, *14:49
+-----+ +------+ +-----+ *14:05, *14:35N = *14:09, *14:35N
+-----+ +------+ +-----+ *14:08, *14:17 = *14:08, *14:26
+-----+ +------+ +-----+ *14:02:01, *14:35N = *14:02:02, *14:35N = *14:03, *14:19 = *14:03, *14:28 =
*14:19, *14:35N
+-----+ +------+ +-----+ *14:03, *14:17 = *14:03, *14:26
+-----+ +------+ +-----+ *14:02:03, *14:22 = *14:03, *14:16 = *14:03, *14:22 = *14:03, *14:27
+-----+ +------+ +-----+ *14:02:01, *14:10 = *14:02:02, *14:10 = *14:03, *14:14 = *14:10, *14:14 = *14:10,
*14:45
+-----+ +------+ +-----+ *14:03, *14:06 = *14:03, *14:21N
+-----+ +------+ +-----+ *14:03, *14:05 = *14:03, *14:09
+-----+ +------+ +-----+ *14:33, *14:49 = *14:34, *14:49
+-----+ +------+ +-----+ *14:19, *14:49 = *14:28, *14:49
+-----+ +------+ +-----+ *14:17, *14:49 = *14:26, *14:49
+-----+ +------+ +-----+ *14:16, *14:49 = *14:27, *14:49
+-----+ +------+ +-----+ *14:06, *14:49 = *14:21N, *14:49
+-----+ +------+ +-----+ *14:05, *14:49 = *14:09, *14:49
+-----+ +------+ +-----+ *14:17, *14:35N = *14:26, *14:35N
+-----+ +------+ +-----+ *14:22, *14:35N = *14:27, *14:35N
+-----+ +------+ +-----+ *14:10, *14:19 = *14:10, *14:28 = *14:14, *14:35N
+-----+ +------+ +-----+ *14:10, *14:17 = *14:10, *14:26
+-----+ +------+ +-----+ *14:10, *14:16 = *14:10, *14:22 = *14:10, *14:27
+-----+ +------+ +-----+ *14:06, *14:10 = *14:10, *14:21N
+-----+ +------+ +-----+ *14:05, *14:10 = *14:09, *14:10

*14:02:01 = *14:02:01, 14:02:04-14:02:11 and 14:30, 14:36-14:37, 14:39-14:40, 14:42-14:44,
14:46 and 14:48
*14:03 = *14:03 and 14:38
*14:18 = *14:18 and 14:29
*14:24 = *14:24:01-14:24:02 and 14:31



101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

SPECIFICITY TABLE

HLA-C*14 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-C*14 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C*14 alleles ³	Other amplified HLA Class I alleles ⁴
1	145 bp	800 bp	*14:02:01-14:02:02, 14:02:04-14:02:11, 14:04-14:07N, 14:09, 14:11-14:33, 14:36-14:37, 14:39-14:40, 14:42-14:49	*07:64
2⁶	145 bp	1070 bp	*14:02:03, 14:03, 14:08, 14:10, 14:35N, 14:38, 14:41	*04:01:01:01-04:01:22, 04:01:24-04:01:48, 04:04:01-04:05, 04:07-04:15:03, 04:17-04:20, 04:23-04:25, 04:26 ^w , 04:27-04:41, 04:43-04:55, 04:57-04:70, 04:72-04:79, 04:81-04:89, 04:90 ^w , 04:91-04:102, 04:104-04:106, 04:108-04:144, 05:78, 12:55, 15:36
3	245 bp	800 bp	*14:04, 14:12, 14:49	*04:01:01:01-04:01:28, 04:01:30-04:01:48, 04:04:01-04:05, 04:07-04:10, 04:12-04:15:03, 04:17-04:20, 04:23-04:25, 04:26 ^w , 04:27-04:28, 04:30-04:35, 04:37-04:41, 04:43-04:54, 04:56-04:70, 04:72-04:79, 04:81-04:89, 04:90 ^w , 04:91-04:102, 04:104-04:106, 04:108-04:144, 05:78, 15:36
4	140 bp	1070 bp	*14:02:03, 14:03, 14:08, 14:10, 14:22, 14:35N, 14:38, 14:41	*01:21, 02:12 ^w , 02:27:01-02:27:02, 03:04:25, 04:11, 04:29, 04:36, 04:55, 07:02:09, 08:01:01-08:09, 08:11-08:63, 08:65-08:74, 12:02:01-12:03:03,

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

				12:03:05-12:03:08, 12:03:10-12:03:23, 12:03:24 ^W , 12:03:25, 12:06-12:08, 12:10:01-12:20, 12:22-12:26, 12:28-12:32, 12:34-12:40, 12:42Q-12:53, 12:55-12:59, 12:61-12:71, 12:72 ^W , 12:73-12:94, 15:07, 15:21 ^W , 15:25, 16:01:01, 16:01:03-16:01:13, 16:04:01, 16:06-16:08, 16:10-16:11, 16:13-16:18, 16:20-16:24, 16:26-16:36, 16:37 ^W , 16:38-16:45, 16:49-16:55, B*35:08:02, B*35:08:05, B*67:02
5	210 bp	1070 bp	*14:02:01-14:04, 14:07N, 14:10-14:14, 14:17-14:27, 14:29-14:34, 14:36-14:44, 14:46-14:49	
6	130 bp	1070 bp	*14:05, 14:09	*03:02:01-03:02:07, 03:02:09-03:04:26, 03:04:28-03:04:29, 03:04:31-03:04:35, 03:06-03:13, 03:15-03:24, 03:26, 03:28-03:40:01, 03:40:03-03:43:01, 03:44-03:57, 03:59-03:85, 03:88, 03:91-03:93, 03:95-03:98, 03:100-03:101, 03:104-03:118, 03:120-03:121N, 03:123-03:127, 03:129-03:134, 03:136-03:142, 03:144-03:152, 03:154-03:166, 03:168-03:177, 03:179-03:185, 04:15:01-04:15:03, 04:17, 04:80, 04:100, 06:02:08, 08:01:07, 08:02:07, 08:33:02, 12:03:20, 16:01:06, B*15:78:03
7	130 bp	1070 bp	*14:04, 14:49	*01:17, 01:23, 03:15, 03:27, 03:38:01-03:38:02, 03:69, 03:130, 03:136, 03:163, 04:01:23, 06:02:01:01-06:02:01:02, 06:02:03-06:04,

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

				06:06-06:43, 06:45-06:60, 06:62-06:76:01, 06:77-06:96, 07:01:01:01-07:02:07, 07:02:10-07:02:28, 07:02:30- 07:20, 07:22-07:33N, 07:35- 07:38:02, 07:41-07:68, 07:70- 07:71, 07:73-07:151, 07:153- 07:155, 07:157-07:176, 07:178-07:209, 07:211- 07:222, 07:223 ^w , 07:224- 07:237, 07:239-07:294, 07:296-07:299, 12:03:04, 12:03:09, 12:04:01, 17:01:01:01-17:01:03, 17:01:05-17:19, 18:01-18:06, B*07:13, B*07:15, B*07:160, B*42:18
8	210 bp	1070 bp	*14:03, 14:10, 14:22, 14:35N, 14:38, 14:41	*01:48, 02:12 ^w , 02:27:01- 02:27:02, 03:02:01-03:03:14, 03:03:15 ^w , 03:03:16- 03:04:16, 03:04:18-03:06, 03:08-03:09, 03:10 ^w , 03:12- 03:14, 03:16-03:17, 03:19- 03:28, 03:29 ^w , 03:30-03:36, 03:38:01-03:38:02, 03:40:01- 03:44, 03:46-03:49, 03:51- 03:63, 03:65-03:98, 03:100- 03:106, 03:108-03:114, 03:116:01-03:129, 03:131- 03:133, 03:135-03:139, 03:141-03:162, 03:164- 03:185, 07:20, 07:96:01- 07:96:02, 07:127, 07:263, 15:07, 15:21 ^w , 15:25, 15:43, 16:34, B*55:30
9	140 bp	1070 bp	*14:02:01, 14:02:03-14:08, 14:10-14:16, 14:18-14:27, 14:29-14:49	*03:17, 03:71, 04:37, 06:02:08, 12:03:20, 16:01:06
10^{5,7}	100 bp, 145 bp, 210 bp	1070 bp	*14:06, 14:15, 14:21N, 14:47N	
11	205 bp	1070 bp	*14:07N	B*15:258N
12⁸	225 bp,	1070 bp	*14:08, 14:23	

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

	320 bp			
13 ^{5,9}	125 bp,	1070 bp	*14:10, 14:14	*04:52, 04:55
	285 bp			
14 ¹⁰	200 bp,	1070 bp	*14:11, 14:15	
	290 bp			
15	150 bp	800 bp	*14:12, 14:49	*01:14, 02:02:13, 03:07, 03:10, 03:15, 03:29, 03:45, 03:163, 04:01:23, 05:01:12, 05:29:02, 06:02:01:01- 06:02:01:02, 06:02:03-06:04, 06:06-06:10, 06:12-06:76:01, 06:77-06:81, 06:83-06:96, 07:07, 07:09, 07:76, 12:04:01, 15:02:10, 17:01:01:01-17:01:03, 17:01:05-17:19, 18:01-18:06, B*35:222
16	410 bp	1070 bp	*14:13, 14:49	*03:15, 03:32, 03:45, 03:60, 03:136, 04:01:01:01- 04:01:04, 04:01:06, 04:01:08, 04:01:10-04:01:32, 04:01:34- 04:01:48, 04:03-04:04:01, 04:05-04:10, 04:12-04:20, 04:23-04:32, 04:34-04:54, 04:56-04:94:01, 04:95N- 04:97, 04:99-04:106, 04:108- 04:144, 06:02:08, 07:02:32, 07:242, 18:01-18:06
17 ¹¹	150 bp,	1070 bp	*14:16, 14:22, 14:27, 14:47N	*02:17
	210 bp			
18 ^{5,12}	90 bp,	1070 bp	*14:17, 14:26	
	185 bp			
19 ^{5,13}	85 bp,	1070 bp	*14:18, 14:29	*04:140
	185 bp			
20 ^{5,14}	105 bp,	1070 bp	*14:19, 14:28, 14:35N	*03:88
	140 bp			
21 ^{5,15}	125 bp,	1070 bp	*14:20, 14:32	
	230 bp			
22 ^{5,16}	95 bp,	1070 bp	*14:24:01- 14:24:02, 14:31	*03:23
	250 bp			
23 ^{5,17}	125 bp,	1070 bp	*14:25, 14:32	*02:17
	230 bp			
24	145 bp	1070 bp	*14:33-14:34	*07:267

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

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-C*14 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.

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-C*14 SSP subtyping.

In addition, wells number 3 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-C alleles non-HLA-C*14 alleles will be amplified by primer mixes 1 to 4, 6 to 9, 13, 15 to 17, 19, 20 and 22 to 24. In addition, primer mix 4 will amplify the B*35:08:02, B*35:08:05 and B*67:02 alleles, primer mix 6 will amplify the B*15:78:03 allele, primer mix 7 will amplify the B*07:13, B*07:15, B*07:160 and B*42:18 alleles, primer mix 8 will amplify the B*55:30 allele, primer mix 11 will amplify the B*15:258N allele and primer mix 15 will amplify the B*35:222 allele.

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

⁶Primer mix 2 may have tendency of unspecific amplification.

⁷Primer mix 10: specific PCR product of 100 bp in the C*14:21N allele. Specific PCR product of 145 bp in the C*14:47N allele. Specific PCR product of 210 bp in the C*14:06 and 14:15 alleles.

⁸Primer mix 12: specific PCR product of 225 bp in the C*14:08 allele. Specific PCR product of 320 bp in the C*14:23 allele.

⁹Primer mix 13: specific PCR product of 125 bp in the C*14:14 allele. Specific PCR product of 285 bp in the C*14:10 and the C*04:52 and 04:55 alleles.

¹⁰Primer mix 14: specific PCR product of 200 bp in the C*14:15 allele. Specific PCR product of 290 bp in the C*14:11 allele.

¹¹Primer mix 17: specific PCR product of 150 bp in the C*14:22, 14:27 and 14:47N alleles. Specific PCR product of 210 bp in the C*14:16 and the C*02:17 alleles.

¹²Primer mix 18: specific PCR product of 90 bp in the C*14:26 allele. Specific PCR product of 185 bp in the C*14:17 allele.

¹³Primer mix 19: specific PCR product of 85 bp in the C*14:18 and the C*04:140 alleles. Specific PCR product of 185 bp in the C*14:29 allele.

¹⁴Primer mix 20: specific PCR product of 105 bp in the C*14:19 and the C*03:88 alleles. Specific PCR product of 140 bp in the C*14:28 and 14:35N alleles.

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

¹⁵Primer mix 21: specific PCR product of 125 bp in the C*14:32 allele. Specific PCR product of 230 bp in the C*14:20 allele.

¹⁶Primer mix 22: specific PCR product of 95 bp in the C*14:24:01-14:24:02 and the C*03:23 alleles. Specific PCR product of 250 bp in the C*14:31 allele.

¹⁷Primer mix 23: specific PCR product of 125 bp in the C*14:32 allele. Specific PCR product of 230 bp in the C*14:25 and the C*02:17 alleles.

‘w’, may be weakly amplified.

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 12S

Lot-specific information

www.olerup-ssp.com

INTERPRETATION TABLE												
HLA-C*14 SSP subtyping												
Amplification patterns of the HLA-C*14:02 to 14:49 alleles												
	Well ⁸											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product(s)	145	145	245	140	210	130	130	210	140	100	205	225
Length of int.	800	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070
pos. control ¹												
5'-primer ²	98	98	98	201	368	368	201	134	361	368	419	356
	5'-CTC ^{3'}	5'-CTC ^{3'}	5'-CTC ^{3'}	5'-CCA ^{3'}	5'-gTT ^{3'}	5'-gTA ^{3'}	5'-CCg ^{3'}	5'-CCA ^{3'}	5'-AgT ^{3'}	5'-gTT ^{3'}	5'-gTC ^{3'}	5'-CCC ^{3'}
												3' ^d
												5'-Cgg ^{3'}
3'-primer(s) ³	201	201	302	302	538	459	289	302	459	426	585	538
	5'-CTC ^{3'}	5'-CTT ^{3'}	5'-ggT ^{3'}	5'-ggC ^{3'}	5'-CCg ^{3'}	5'-AgA ^{3'}	5'-AgC ^{3'}	5'-ggC ^{3'}	5'-AgA ^{3'}	5'-TCT ^{3'}	5'-AgT ^{3'}	5'-CCg ^{3'}
	205						289			471		872
	5'-CCT ^{3'}						5'-AgC ^{3'}			5'-gTT ^{3'}		5'-CCA ^{3'}
										539		
										5'-TCA ^{3'}		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
HLA-C allele ^{4,5}												
*14:02:01, 14:02:04-14:02:11, 14:30, 14:36-14:37, 14:39-14:40, 14:42-14:44, 14:46, 14:48	1				5				9			
*14:02:02	1				5							
*14:02:03		2		4	5				9			
*14:03, 14:38, 14:41		2		4	5			8	9			
*14:04	1		3		5		7		9			
*14:05	1					6			9			
*14:06	1								9	10		
*14:07N	1				5				9		11	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

INTERPRETATION TABLE												
HLA-C*14 SSP subtyping												
Amplification patterns of the HLA-C*14:02 to 14:49 alleles												
Well ⁸												
13	14	15	16	17	18	19	20	21	22	23	24	
125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)
285	290			210	185	185	140	230	250	230		
1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	Length of int. pos. control ¹
98	368	201	341	98	368	98	361	368	406	368	92	5'-primer ²
5'-CTC ^{3'}	5'-gTT ^{3'}	5'-CCg ^{3'}	5'-ggA ^{3'}	5'-CTC ^{3'}	5'-gTT ^{3'}	5'-CTC ^{3'}	5'-AgC ^{3'}	5'-gTT ^{3'}	5'-gCC ^{3'}	5'-gTT ^{3'}	5'-gTg ^{3'}	
				368		368	363		406		101	3'-primer(s) ³
				5'-gTT ^{3'}		5'-gTT ^{3'}	5'-TgA ^{3'}		5'-gCA ^{3'}		5'-CAT ^{3'}	
							395		637			
							5'-gCA ^{3'}		5'-ACC ^{3'}			
180	527	312	459	205	419	142	459	454	459	454	201	
5'-TCC ^{3'}	5'-CCg ^{3'}	5'-AgT ^{3'}	5'-AgA ^{3'}	5'-CCT ^{3'}	5'-CgA ^{3'}	5'-TgA ^{3'}	5'-AgA ^{3'}	5'-CTg ^{3'}	5'-AgA ^{3'}	5'-CTg ^{3'}	5'-CTC ^{3'}	
343	619			471	512	511		559	846	559		
5'-T ^{3'}	5'-TTT ^{3'}			5'-gTT ^{3'}	5'-CCA ^{3'}	5'-CCg ^{3'}		5'-CAG ^{3'}	5'-CAC ^{3'}	5'-CTC ^{3'}		
				538								
				5'-CCA ^{3'}								
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												HLA-C allele ^{4,5}
												*14:02:01, 14:02:04-14:02:11, 14:30, 14:36-14:37, 14:39-14:40, 14:42-14:44, 14:46, 14:48
												*14:02:02
												*14:02:03
												*14:03, 14:38, 14:41
												*14:04
												*14:05
												*14:06
												*14:07N
13	14	15	16	17	18	19	20	21	22	23	24	Well No.



101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Length of spec. PCR product(s)	145	145	245	140	210	130	130	210	140	100	205	225
										145		320
										210		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*14:08		2		4					9			12
*14:09	1					6						
*14:10		2		4	5			8	9			
*14:11	1				5				9			
*14:12	1		3		5				9			
*14:13	1				5				9			
*14:14	1				5				9			
*14:15	1								9	10		
*14:16	1								9			
*14:17	1				5							
*14:18, 14:29 ⁶	1				5				9			
*14:19	1				5				9			
*14:20	1				5				9			
*14:21N	1				5				9	10		
*14:22	1			4	5			8	9			
*14:23	1				5				9			12
*14:24:01-14:24:02, 14:31 ⁷	1				5				9			
*14:25	1				5				9			
*14:26	1				5				9			
*14:27	1				5				9			
*14:28	1											
*14:32	1				5				9			
*14:33	1				5				9			
*14:34					5				9			
*14:35N		2		4				8	9			
*14:45	1								9			
*14:47N	1				5				9	10		
*14:49	1		3		5		7		9			
*01:14, 02:02:13, 05:01:12, 05:29:02, 06:44, 06:61, 15:02:10, B*35:222												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)	
285	290			210	185	185	140	230	250	230			
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	
												*14:08	
												*14:09	
13												*14:10	
	14											*14:11	
		15										*14:12	
			16									*14:13	
13												*14:14	
	14											*14:15	
				17								*14:16	
					18							*14:17	
						19						*14:18, 14:29 ⁶	
							20					*14:19	
								21				*14:20	
												*14:21N	
				17								*14:22	
												*14:23	
									22			*14:24:01-14:24:02, 14:31 ⁷	
										23		*14:25	
					18							*14:26	
				17								*14:27	
							20					*14:28	
								21		23		*14:32	
											24	*14:33	
											24	*14:34	
							20					*14:35N	
												*14:45	
				17								*14:47N	
		15	16									*14:49	
		15										*01:14, 02:02:13, 05:01:12, 05:29:02, 06:44, 06:61, 15:02:10, B*35:222	
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Length of spec.	145	145	245	140	210	130	130	210	140	100	205	225
PCR product(s)										145		320
										210		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*01:17, 01:23, 06:11, 06:82, 07:01:01:01-07:02:07, 07:02:10- 07:02:28, 07:02:30-07:02:31, 07:02:33-07:06, 07:08, 07:10- 07:19, 07:22-07:33N, 07:35- 07:38:02, 07:41-07:63, 07:65- 07:68, 07:70-07:71, 07:73-07:75, 07:77-07:95, 07:97-07:126, 07:128-07:151, 07:153-07:155, 07:157-07:176, 07:178-07:209, 07:211-07:222, 07:224-07:237, 07:239-07:241, 07:243-07:262, 07:264N-07:266, 07:268-07:294, 07:296-07:299, 12:03:04, 12:03:09, <i>B*07:13</i> , <i>B*07:15</i> , <i>B*07:160</i> , <i>B*42:18</i>							7					
*01:21, 07:02:09, 08:01:01- 08:01:06, 08:01:08-08:02:06, 08:02:08-08:09, 08:11-08:33:01, 08:33:03-08:63, 08:65-08:74, 12:02:01-12:03:03, 12:03:05- 12:03:08, 12:03:10-12:03:19, 12:03:21-12:03:23, 12:03:25, 12:06-12:08, 12:10:01-12:20, 12:22-12:26, 12:28-12:32, 12:34- 12:40, 12:42Q-12:53, 12:56- 12:59, 12:61-12:71, 12:73-12:94, 16:01:01, 16:01:03-16:01:05, 16:01:07-16:01:13, 16:04:01, 16:06-16:08, 16:10-16:11, 16:13- 16:18, 16:20-16:24, 16:26-16:33, 16:35-16:36, 16:38-16:45, 16:49- 16:55, <i>B*35:08:02</i> , <i>B*35:08:05</i> , <i>B*67:02</i>				4								
*01:48, 03:02:08, 03:04:27, 03:04:30, 03:05, 03:14, 03:25, 03:40:02, 03:43:02, 03:58, 03:86- 03:87, 03:89-03:90, 03:94, 03:102-03:103, 03:119, 03:122, 03:128, 03:135, 03:143, 03:153, 03:167, 03:178, 15:43, <i>B*55:30</i>								8				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)
285	290			210	185	185	140	230	250	230		
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*01:17, 01:23, 06:11, 06:82, 07:01:01:01-07:02:07, 07:02:10- 07:02:28, 07:02:30-07:02:31, 07:02:33-07:06, 07:08, 07:10- 07:19, 07:22-07:33N, 07:35- 07:38:02, 07:41-07:63, 07:65- 07:68, 07:70-07:71, 07:73-07:75, 07:77-07:95, 07:97-07:126, 07:128-07:151, 07:153-07:155, 07:157-07:176, 07:178-07:209, 07:211-07:222, 07:224-07:237, 07:239-07:241, 07:243-07:262, 07:264N-07:266, 07:268-07:294, 07:296-07:299, 12:03:04, 12:03:09, <i>B*07:13</i> , <i>B*07:15</i> , <i>B*07:160</i> , <i>B*42:18</i>
												*01:21, 07:02:09, 08:01:01- 08:01:06, 08:01:08-08:02:06, 08:02:08-08:09, 08:11-08:33:01, 08:33:03-08:63, 08:65-08:74, 12:02:01-12:03:03, 12:03:05- 12:03:08, 12:03:10-12:03:19, 12:03:21-12:03:23, 12:03:25, 12:06-12:08, 12:10:01-12:20, 12:22-12:26, 12:28-12:32, 12:34- 12:40, 12:42Q-12:53, 12:56- 12:59, 12:61-12:71, 12:73-12:94, 16:01:01, 16:01:03-16:01:05, 16:01:07-16:01:13, 16:04:01, 16:06-16:08, 16:10-16:11, 16:13- 16:18, 16:20-16:24, 16:26-16:33, 16:35-16:36, 16:38-16:45, 16:49- 16:55, <i>B*35:08:02</i> , <i>B*35:08:05</i> , <i>B*67:02</i>
												*01:48, 03:02:08, 03:04:27, 03:04:30, 03:05, 03:14, 03:25, 03:40:02, 03:43:02, 03:58, 03:86- 03:87, 03:89-03:90, 03:94, 03:102-03:103, 03:119, 03:122, 03:128, 03:135, 03:143, 03:153, 03:167, 03:178, 15:43, <i>B*55:30</i>
13	14	15	16	17	18	19	20	21	22	23	24	Well No.



101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Length of spec. PCR product(s)	145				245				140				210				130				130				210				140				100				205				225							
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
*02:12, 15:21				w				w																																								
*02:17																																																
*02:27:01-02:27:02, 15:07, 15:25, 16:34				4				8																																								
*03:02:01-03:02:07, 03:02:09-03:03:14, 03:03:16-03:04:16, 03:04:18-03:04:24, 03:04:26, 03:04:28-03:04:29, 03:04:31-03:04:35, 03:06, 03:08-03:09, 03:12-03:13, 03:16, 03:19-03:22Q, 03:24, 03:26, 03:28, 03:30-03:31, 03:33-03:36, 03:40:01, 03:40:03-03:43:01, 03:44, 03:46-03:49, 03:51-03:57, 03:59, 03:61-03:63, 03:65-03:68, 03:70, 03:72-03:85, 03:91-03:93, 03:95-03:98, 03:100-03:101, 03:104-03:106, 03:108-03:114, 03:116:01-03:118, 03:120-03:121N, 03:123-03:127, 03:129, 03:131-03:133, 03:137-03:139, 03:141-03:142, 03:144-03:152, 03:154-03:162, 03:164-03:166, 03:168-03:177, 03:179-03:185								6				8																																				
*03:03:15								6				w																																				
*03:04:17, 03:11:01-03:11:02, 03:18, 03:37:01-03:37:02, 03:39, 03:50, 03:64:01-03:64:02, 03:107, 03:115, 03:134, 03:140, B*15:78:03								6																																								
*03:04:25				4				6				8																																				
*03:07								6																																								
*03:10, 03:29								6				w																																				
*03:15								6				7																																				
*03:17, 03:71								6				8				9																																
*03:23								6				8																																				
*03:27, 07:20, 07:96:01-07:96:02, 07:127, 07:263												7				8																																
*03:32, 03:60								6				8																																				
*03:38:01-03:38:02, 03:69								6				7				8																																
*03:45								6																																								
*03:88								6				8																																				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4								

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)
285	290			210	185	185	140	230	250	230		
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*02:12, 15:21
				17						23		*02:17
												*02:27:01-02:27:02, 15:07, 15:25, 16:34
												*03:02:01-03:02:07, 03:02:09- 03:03:14, 03:03:16-03:04:16, 03:04:18-03:04:24, 03:04:26, 03:04:28-03:04:29, 03:04:31- 03:04:35, 03:06, 03:08-03:09, 03:12-03:13, 03:16, 03:19- 03:22Q, 03:24, 03:26, 03:28, 03:30-03:31, 03:33-03:36, 03:40:01, 03:40:03-03:43:01, 03:44, 03:46-03:49, 03:51-03:57, 03:59, 03:61-03:63, 03:65-03:68, 03:70, 03:72-03:85, 03:91-03:93, 03:95-03:98, 03:100-03:101, 03:104-03:106, 03:108-03:114, 03:116:01-03:118, 03:120- 03:121N, 03:123-03:127, 03:129, 03:131-03:133, 03:137-03:139, 03:141-03:142, 03:144-03:152, 03:154-03:162, 03:164-03:166, 03:168-03:177, 03:179-03:185
												*03:03:15
												*03:04:17, 03:11:01-03:11:02, 03:18, 03:37:01-03:37:02, 03:39, 03:50, 03:64:01-03:64:02, 03:107, 03:115, 03:134, 03:140, B*15:78:03
												*03:04:25
		15										*03:07
		15										*03:10, 03:29
		15	16									*03:15
												*03:17, 03:71
								22				*03:23
												*03:27, 07:20, 07:96:01-07:96:02, 07:127, 07:263
			16									*03:32, 03:60
												*03:38:01-03:38:02, 03:69
		15	16									*03:45
							20					*03:88
13	14	15	16	17	18	19	20	21	22	23	24	Well No.



101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Length of spec.	145	145	245	140	210	130	130	210	140	100	205	225
PCR product(s)										145		320
										210		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*03:130						6	7					
*03:136						6	7	8				
*03:163						6	7					
*04:01:01:01-04:01:04, 04:01:06, 04:01:08, 04:01:10-04:01:22, 04:01:24-04:01:28, 04:01:30- 04:01:32, 04:01:34-04:01:48, 04:04:01, 04:05, 04:07-04:10, 04:12-04:14, 04:18-04:20, 04:23- 04:25, 04:27-04:28, 04:30-04:32, 04:34-04:35, 04:38-04:41, 04:43- 04:51, 04:53-04:54, 04:57-04:70, 04:72-04:79, 04:81-04:89, 04:91- 04:94:01, 04:95N-04:97, 04:99, 04:101-04:102, 04:104-04:106, 04:108-04:139, 04:141-04:144		2	3									
*04:01:05, 04:01:07, 04:01:09, 04:01:33, 04:04:02, 04:33, 04:94:02, 04:98:01-04:98:02, 05:78, 15:36		2	3									
*04:01:23			3				7					
*04:01:29		2										
*04:03, 04:06, 04:16, 04:42, 04:71, 04:103												
*04:11, 12:55		2		4								
*04:15:01-04:15:03, 04:17, 04:100		2	3			6						
*04:26, 04:90		w	w									
*04:29, 04:36		2		4								
*04:37		2	3						9			
*04:52		2	3									
*04:55		2		4								
*04:56			3									
*04:80						6						
*04:140		2	3									
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)
285	290			210	185	185	140	230	250	230		
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												*03:130
			16									*03:136
		15										*03:163
			16									*04:01:01-04:01:04, 04:01:06, 04:01:08, 04:01:10-04:01:22, 04:01:24-04:01:28, 04:01:30- 04:01:32, 04:01:34-04:01:48, 04:04:01, 04:05, 04:07-04:10, 04:12-04:14, 04:18-04:20, 04:23- 04:25, 04:27-04:28, 04:30-04:32, 04:34-04:35, 04:38-04:41, 04:43- 04:51, 04:53-04:54, 04:57-04:70, 04:72-04:79, 04:81-04:89, 04:91- 04:94:01, 04:95N-04:97, 04:99, 04:101-04:102, 04:104-04:106, 04:108-04:139, 04:141-04:144
												*04:01:05, 04:01:07, 04:01:09, 04:01:33, 04:04:02, 04:33, 04:94:02, 04:98:01-04:98:02, 05:78, 15:36
		15	16									*04:01:23
			16									*04:01:29
			16									*04:03, 04:06, 04:16, 04:42, 04:71, 04:103
												*04:11, 12:55
			16									*04:15:01-04:15:03, 04:17, 04:100
			16									*04:26, 04:90
			16									*04:29, 04:36
			16									*04:37
13			16									*04:52
13												*04:55
			16									*04:56
			16									*04:80
			16			19						*04:140
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Length of spec.	145	145	245	140	210	130	130	210	140	100	205	225
PCR product(s)										145		320
										210		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*06:02:01:01-06:02:01:02, 06:02:03-06:02:07, 06:02:09- 06:04, 06:06-06:10, 06:12-06:43, 06:45-06:60, 06:62-06:76:01, 06:77-06:81, 06:83-06:96, 07:07, 07:09, 07:76, 12:04:01, 17:01:01:01-17:01:03, 17:01:05- 17:19							7					
*06:02:08						6	7		9			
*07:02:32, 07:242							7					
*07:64	1						7					
*07:223							w					
*07:267							7					
*08:01:07, 08:02:07, 08:33:02				4		6						
*12:03:20, 16:01:06				4		6			9			
*12:03:24, 12:72, 16:37				w								
*18:01-18:06							7					
<i>B*15:258N</i>											11	
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 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-C*14 SSP subtyping.

In addition, wells number 3 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 or the 3rd 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 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.

⁴The HLA-Cw*1401 nucleotide sequence has been shown to be identical to C*14:02:01.

⁵HLA-C*14 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.11.0, January 2013.

⁶The C*14:18 and 14:29 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

⁷The C*14:24 and 14:31 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 22.

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 12S				Lot-specific information								www.olerup-ssp.com	
125	200	150	410	150	90	85	105	125	95	125	145	Length of spec. PCR product(s)	
285	290			210	185	185	140	230	250	230			
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	
		15										*06:02:01:01-06:02:01:02, 06:02:03-06:02:07, 06:02:09- 06:04, 06:06-06:10, 06:12-06:43, 06:45-06:60, 06:62-06:76:01, 06:77-06:81, 06:83-06:96, 07:07, 07:09, 07:76, 12:04:01, 17:01:01:01-17:01:03, 17:01:05- 17:19	
		15	16									*06:02:08	
			16									*07:02:32, 07:242	
												*07:64	
												*07:223	
											24	*07:267	
												*08:01:07, 08:02:07, 08:33:02	
												*12:03:20, 16:01:06	
												*12:03:24, 12:72, 16:37	
		15	16									*18:01-18:06	
												<i>B*15:258N</i>	
13	14	15	16	17	18	19	20	21	22	23	24	Well No.	

⁸Primer mix 10: specific PCR product of 100 bp in the C*14:21N allele. Specific PCR product of 145 bp in the C*14:47N allele. Specific PCR product of 210 bp in the C*14:06 and 14:15 alleles.

Primer mix 12: specific PCR product of 225 bp in the C*14:08 allele. Specific PCR product of 320 bp in the C*14:23 allele.

Primer mix 13: specific PCR product of 125 bp in the C*14:14 allele. Specific PCR product of 285 bp in the C*14:10 and the C*04:52 and 04:55 alleles.

Primer mix 14: specific PCR product of 200 bp in the C*14:15 allele. Specific PCR product of 290 bp in the C*14:11 allele.

Primer mix 17: specific PCR product of 150 bp in the C*14:22, 14:27 and 14:47N alleles. Specific PCR product of 210 bp in the C*14:16 and the C*02:17 alleles.

Primer mix 18: specific PCR product of 90 bp in the C*14:26 allele. Specific PCR product of 185 bp in the C*14:17 allele.

Primer mix 19: specific PCR product of 85 bp in the C*14:18 and the C*04:140 alleles. Specific PCR product of 185 bp in the C*14:29 allele.

Primer mix 20: specific PCR product of 105 bp in the C*14:19 and the C*03:88 alleles. Specific PCR product of 140 bp in the C*14:28 and 14:35N alleles.

Primer mix 21: specific PCR product of 125 bp in the C*14:32 allele. Specific PCR product of 230 bp in the C*14:20 allele.

Primer mix 22: specific PCR product of 95 bp in the C*14:24:01-14:24:02 and the C*03:23 alleles. Specific PCR product of 250 bp in the C*14:31 allele.

Primer mix 23: specific PCR product of 125 bp in the C*14:32 allele. Specific PCR product of 230 bp in the C*14:25 and the C*02:17 alleles.

'w', may be weakly amplified.

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

CELL LINE VALIDATION SHEET																			
HLA-C*14 SSP primer set																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				201316201	201316202	201316203	201316204	201316205	201316206	201316207	201316208	201316209	201316210	201316211	201316212	201316213	201316214	201316215	201316216
	IHWC cell line	C*																	
1	9001 SA	*07:02		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
2	9280 LK707	*07:01	*15:05	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
3	9011 E4181324	*12:02		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*03:04	*04:01	-	+	+	-	-	+	-	+	-	-	-	-	-	-	-	+
5	9009 KAS011	*06:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
6	9353 SM	*03:04	*07:02	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-
7	9020 QBL	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*04:01		-	+	+	-	-	-	+	-	-	-	-	-	-	-	-	+
9	9026 YAR	*12:03		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*16:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*06:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
13	9004 JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*03:04		-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*03:03	*07:01	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-
18	9257 32367	*01:02	*07:05	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
19	9038 BM16	*07:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*03:04		-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
21	9064 AMALA	*03:03		-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
22	9056 KOSE	*12:03		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*12:03		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*08:02		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*07:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:04	*15:05	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*05:01	*16:01	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*16:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*17:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
31	9019 DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*17:01	*17:03	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
33	9098 MT14B	*03:04		-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
34	9104 DHIF	*12:03		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*03:03	*04:01	-	+	+	-	-	+	-	+	-	-	-	-	-	-	-	+
37	9065 HHKB	*07:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
38	9099 LZL	*03:03		-	-	-	-	-	+	-	+	-	-	-	-	-	-	-	-
39	9315 CML	*02:02	*07:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*01:02	*06:02	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
41	9055 H0301	*08:02		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*01:02	*08:01	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*12:03		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*06:02	*17:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*07:04	*15:02	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*04:01	*16:01	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-	+



101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: 12S

Lot-specific information

www.olerup-ssp.com

CELL LINE VALIDATION SHEET												
HLA-C*14 SSP primer set												
				Well								
				17	18	19	20	21	22	23	24	
				Prod. No.:	201316217	201316218	201316219	201316220	201316221	201316222	201316223	201316224
	IHWC cell line		C*									
1	9001 SA		*07:02		-	-	-	-	-	-	-	-
2	9280 LK707		*07:01	*15:05	-	-	-	-	-	-	-	-
3	9011 E4181324		*12:02		-	-	-	-	-	-	-	-
4	9275 GU373		*03:04	*04:01	-	-	-	-	-	-	-	-
5	9009 KAS011		*06:02		-	-	-	-	-	-	-	-
6	9353 SM		*03:04	*07:02	-	-	-	-	-	-	-	-
7	9020 QBL		*05:01		-	-	-	-	-	-	-	-
8	9025 DEU		*04:01		-	-	-	-	-	-	-	-
9	9026 YAR		*12:03		-	-	-	-	-	-	-	-
10	9107 LKT3		*01:02		-	-	-	-	-	-	-	-
11	9051 PITOUT		*16:01		-	-	-	-	-	-	-	-
12	9052 DBB		*06:02		-	-	-	-	-	-	-	-
13	9004 JESTHOM		*01:02		-	-	-	-	-	-	-	-
14	9071 OLGA		*01:02	*03:04	-	-	-	-	-	-	-	-
15	9075 DKB		*03:04		-	-	-	-	-	-	-	-
16	9037 SWEIG007		*02:02		-	-	-	-	-	-	-	-
17	9282 CTM3953540		*03:03	*07:01	-	-	-	-	-	-	-	-
18	9257 32367		*01:02	*07:05	-	-	-	-	-	-	-	-
19	9038 BM16		*07:01		-	-	-	-	-	-	-	-
20	9059 SLE005		*03:04		-	-	-	-	-	-	-	-
21	9064 AMALA		*03:03		-	-	-	-	-	-	-	-
22	9056 KOSE		*12:03		-	-	-	-	-	-	-	-
23	9124 IHL		*01:02	*15:02	-	-	-	-	-	-	-	-
24	9035 JBUSH		*12:03		-	-	-	-	-	-	-	-
25	9049 IBW9		*08:02		-	-	-	-	-	-	-	-
26	9285 WT49		*07:01		-	-	-	-	-	-	-	-
27	9191 CH1007		*07:04	*15:05	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*05:01	*16:01	-	-	-	-	-	-	-	-
29	9050 MOU		*16:01		-	-	-	-	-	-	-	-
30	9021 RSH		*17:01		-	-	-	-	-	-	-	-
31	9019 DUCAF		*05:01		-	-	-	-	-	-	-	-
32	9297 HAG		*17:01	*17:03	-	-	-	-	-	-	-	-
33	9098 MT14B		*03:04		-	-	-	-	-	-	-	-
34	9104 DHIF		*12:03		-	-	-	-	-	-	-	-
35	9302 SSTO		*05:01		-	-	-	-	-	-	-	-
36	9024 KT17		*03:03	*04:01	-	-	-	-	-	-	-	-
37	9065 HHKB		*07:02		-	-	-	-	-	-	-	-
38	9099 LZL		*03:03		-	-	-	-	-	-	-	-
39	9315 CML		*02:02	*07:01	-	-	-	-	-	-	-	-
40	9134 WHONP199		*01:02	*06:02	-	-	-	-	-	-	-	-
41	9055 H0301		*08:02		-	-	-	-	-	-	-	-
42	9066 TAB089		*01:02		-	-	-	-	-	-	-	-
43	9076 T7526		*01:02	*08:01	-	-	-	-	-	-	-	-
44	9057 TEM		*12:03		-	-	-	-	-	-	-	-
45	9239 SHJO		*06:02	*17:01	-	-	-	-	-	-	-	-
46	9013 SCHU		*07:02		-	-	-	-	-	-	-	-
47	9045 TUBO		*07:04	*15:02	-	-	-	-	-	-	-	-
48	9303 TER-ND		*04:01	*16:01	-	-	-	-	-	-	-	-

101.625-06 – including *Taq* polymerase, IFU-01
 101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-C*14 SSP

Product number: 101.625-06 – including *Taq* polymerase
 101.625-06u – without *Taq* polymerase

Lot number: 12S

Expiry date: 2015-October-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	2013-162-01	9	2013-162-09	17	2013-162-17
2	2013-162-02	10	2013-162-10	18	2013-162-18
3	2013-162-03	11	2013-162-11	19	2013-162-19
4	2013-162-04	12	2013-162-12	20	2013-162-20
5	2013-162-05	13	2013-162-13	21	2013-162-21
6	2013-162-06	14	2013-162-14	22	2013-162-22
7	2013-162-07	15	2013-162-15	23	2013-162-23
8	2013-162-08	16	2013-162-16	24	2013-162-24

The specificity of each primer solution of the HLA-C*14 primer set has been tested against 48 well characterized IHWC cell line DNAs.

No DNAs carrying the alleles to be amplified by primer mixes 10 to 14 and 17 to 24 were available. The specificities of the primers in primer solutions 10, 12 to 14, 17 to 19, 21 and 23 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solution 11, it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solutions 20, 22 and 24 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 1, 10, 12 to 14, 17, 19, 21 and 23 one or two of the 3'-primers was not possible to test, and in primer solution 12 one of the 5'-primers was not possible to test. Finally, one additional 5'-primer in primer solution 6 was tested by adding one additional 3'-primer.

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

Date of approval: 2013-May-17

Approved by:

Production Quality Control

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® HLA-C*14
Product number: 101.625-06/06u
Lot number: 12S

Intended use: HLA-C*14 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 III, 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.

The Authorized Representative located within the Community is: *Olerup* SSP AB.

Stockholm, Sweden
2013-May-17

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

101.625-06 – including *Taq* polymerase, IFU-01
101.625-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **12S**

Lot-specific information

www.olerup-ssp.com

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**.