101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R

Lot-specific information

Olerup SSP® HLA-C*16

Product number:	**101.627-12 – including *Taq* polymerase** **101.627-12u – without *Taq* polymerase**
Lot number:	**23R**
Expiry date:	**2015-March-01**
Number of tests:	**12**
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. 23R.

CHANGES COMPARED TO THE PREVIOUS *OLERUP* SSP® HLA-C*16 LOT (18M)

The HLA-C*16 kit is updated for new alleles to enable separation of:

- Confirmed[1] 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

One wells has been added to the HLA-C*16 kit, well **24**.

The Lot-specific information for HLA-C*16 including and without *Taq* polymerase is now described in one common Product Insert.

[1]As described in section Uniquely Identified Alleles.

The HLA-C*16 specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup* SSP® HLA-C*16 lot was made **(Lot No. 18M)**.

Lot No.: 23R **Lot-specific information**

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

Well	5'-primer	3'-primer	rationale
2	Exchanged	-	Exchanged 5'-primer for improved allelic resolution.
6	Added	-	5'-primer added for the C*16:39 allele.
8	-	Added	3'-primer added for the C*16:38 allele.
9	Added	Added	Primer pairs added for the C*16:35 and 16:52 alleles.
12	-	Modified	3'-primer modified for improved specificity.
15	Added	-	5'-primer added for the C*16:39 allele.
18	-	Added	3'-primer added for the C*16:38 allele.
23	-	Modified, added	3'-primer modified for improved specificity, 3'-primer added for the C*16:42 allele.
24	New	New	New primer pairs for the C*16:40 and 16:49 alleles.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

PRODUCT DESCRIPTION

HLA-C*16 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the C*16:01 to C*16:52 alleles.

PLATE LAYOUT

Each HLA-C*16 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 PCR plate is marked with 'HLA-C*16' in silver/gray ink.
Well No. 1 is marked with the Lot No. '23R'.
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*16 SSP subtypings will be influenced by many other HLA-C 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 5 will amplify the A*24:174 allele, primer mixes 5, 7 and 11 will amplify the B*46:25 allele, primer mix 6 will amplify the A*24:106 allele and primer mix 11 will amplify the A*24:73, A*24:157, B*07:66 and B*51:55 alleles.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*16 alleles, i.e. **C*16:01 to C*16:52**, recognized by the HLA Nomenclature Committee in July 2012[1] will be amplified by the primers in the HLA-C*16 SSP kit.

The HLA-C*16 kit enables separation of the confirmed HLA-C*16 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*16 alleles is listed below.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

The HLA-C*16 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 HLA-C*16 subtyping kit cannot distinguish the following silent mutations: the C*16:01:01 and 16:01:03-16:01:10 alleles, the C*16:02:01-16:02:09 alleles or the C*16:15:01-16:15:02 alleles.

The C*16:15:01-16:15:02 and C*16:20 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 11.
The C*16:16Q and C*16:17 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 12.
The C*16:27 and C*16:32 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 20.
The C*16:28 and the C*16:31and 16:50 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

[1]HLA-C alleles listed on the IMGT/HLA web page 2012-July-12, 3.9.0, www.ebi.ac.uk/imgt/hla.

ALLELE CONFIRMATION STATUS

Allele	Status[1]	Allele	Status[1]	Allele	Status[1]	Allele	Status[1]
C*16:01:01	**Confirmed**	C*16:06	Unconfirmed	**C*16:24**	**Confirmed**	C*16:44	Unconfirmed
C*16:01:02	Unconfirmed	C*16:07:01	Unconfirmed	**C*16:25**	**Confirmed**	C*16:45	Unconfirmed
C*16:01:03	**Confirmed**	**C*16:07:02**	**Confirmed**	**C*16:26**	**Confirmed**	C*16:46	Unconfirmed
C*16:01:04	**Confirmed**	**C*16:08**	**Confirmed**	**C*16:27**	**Confirmed**	C*16:47	Unconfirmed
C*16:01:05	**Confirmed**	C*16:09	Unconfirmed	C*16:28	Unconfirmed	C*16:48	Unconfirmed
C*16:01:06	Unconfirmed	C*16:10	Unconfirmed	C*16:29	Unconfirmed	**C*16:49**	**Confirmed**
C*16:01:07	Unconfirmed	C*16:11	Unconfirmed	C*16:30N	Unconfirmed	C*16:50	Unconfirmed
C*16:01:08	Unconfirmed	C*16:12	Unconfirmed	C*16:31	Unconfirmed	C*16:51	Unconfirmed
C*16:01:09	Unconfirmed	**C*16:13**	**Confirmed**	C*16:32	Unconfirmed	**C*16:52**	**Confirmed**
C*16:01:10	Unconfirmed	**C*16:14**	**Confirmed**	C*16:33	Unconfirmed		
C*16:02:01	**Confirmed**	**C*16:15:01**	**Confirmed**	C*16:34	Unconfirmed		
C*16:02:02	**Confirmed**	C*16:15:02	Unconfirmed	**C*16:35**	**Confirmed**		
C*16:02:03	**Confirmed**	**C*16:16Q**	**Confirmed**	C*16:36	Unconfirmed		
C*16:02:04	Unconfirmed	C*16:17	Unconfirmed	C*16:37	Unconfirmed		
C*16:02:05	Unconfirmed	**C*16:18**	**Confirmed**	**C*16:38**	**Confirmed**		
C*16:02:06	Unconfirmed	**C*16:19**	**Confirmed**	**C*16:39**	**Confirmed**		
C*16:02:07	Unconfirmed	C*16:20	Unconfirmed	C*16:40	Unconfirmed		
C*16:02:08	Unconfirmed	C*16:21	Unconfirmed	C*16:41	Unconfirmed		
C*16:02:09	Unconfirmed	**C*16:22**	**Confirmed**	**C*16:42**	**Confirmed**		
C*16:04:01	**Confirmed**	C*16:23	Unconfirmed	C*16:43	Unconfirmed		

[1]Allele status "confirmed" or "unconfirmed" as listed on the IMGT/HLA web page 2012-July-12, release 3.9.0, www.ebi.ac.uk/imgt/hla.

Lot No.: 23R **Lot-specific information**

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 69 alleles generate 39 amplification patterns that can be combined in 780 homozygous and heterozygous combinations. 449 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.

---++--- -------+ --------	*16:07:02, *16:07:02 = *16:07:02, *16:43
---++--- ---+---- --------	*16:22, *16:22 = *16:22, *16:43
+--+-+-- -------- --------	*16:10, *16:10 = *16:10, *16:45
+--++--- -------- --------	*16:01:01, *16:01:01 = *16:01:01, *16:01:02 = *16:01:01, *16:43 = *16:01:01, *16:45 = *16:01:02, *16:43 = *16:01:02, *16:45 = *16:43, *16:45
+-++---- -------- --------	*16:04:01, *16:04:01 = *16:04:01, *16:45
++--+--- -------- --------	*16:01:02, *16:02:01 = *16:02:01, *16:02:01
---++-+- -------+ --------	*16:07:01, *16:07:01 = *16:07:01, *16:07:02 = *16:07:01, *16:43
---++--- -------+ --------	*16:06, *16:06 = *16:06, *16:07:02 = *16:06, *16:43
+--++--- -------- -------+	*16:01:01, *16:40 = *16:01:01, *16:49 = *16:01:02, *16:40 = *16:01:02, *16:49 = *16:40, *16:49 = *16:43, *16:49 = *16:45, *16:49 = *16:49, *16:49
+--++--- -------- ------+-	*16:01:01, *16:30N = *16:01:02, *16:30N = *16:30N, *16:30N = *16:30N, *16:43 = *16:30N, *16:45
+--++--- -------- -----+--	*16:01:01, *16:24 = *16:01:02, *16:24 = *16:24, *16:24 = *16:24, *16:43 = *16:24, *16:45
+--++--- -------- ----+---	*16:01:01, *16:23 = *16:01:02, *16:23 = *16:23, *16:23 = *16:23, *16:43 = *16:23, *16:45
+--++--- -------- ---+----	*16:01:01, *16:27 = *16:01:02, *16:27 = *16:27, *16:27 = *16:27, *16:43 = *16:27, *16:45
+--++--- -------- --+-----	*16:01:01, *16:28 = *16:01:02, *16:28 = *16:28, *16:28 = *16:28, *16:43 = *16:28, *16:45
+--++--- -------+ --------	*16:01:01, *16:07:02 = *16:01:02, *16:07:02 = *16:07:02, *16:45
+--++--- ------+- --------	*16:01:01, *16:21 = *16:01:02, *16:21 = *16:21, *16:21 = *16:21, *16:43 = *16:21, *16:45
+--++--- -----+-- --------	*16:01:01, *16:18 = *16:01:02, *16:18 = *16:18, *16:18 = *16:18, *16:43 = *16:18, *16:45
+--++--- ----+--- --------	*16:01:01, *16:14 = *16:01:02, *16:14 = *16:14, *16:14 = *16:14, *16:43 = *16:14, *16:45
+--++--- ---+---- --------	*16:01:01, *16:16Q = *16:01:01, *16:22 = *16:01:02, *16:16Q = *16:01:02, *16:22 = *16:16Q, *16:16Q = *16:16Q, *16:22 = *16:16Q, *16:43 = *16:16Q, *16:45 = *16:22, *16:45
+--++--- --+----- --------	*16:01:01, *16:15:01 = *16:01:02, *16:15:01 = *16:15:01, *16:15:01 = *16:15:01, *16:43 = *16:15:01, *16:45
+--++--- -+------ --------	*16:01:01, *16:13 = *16:01:02, *16:13 = *16:13, *16:13 = *16:13, *16:43 = *16:13, *16:45
+--++--- +------- --------	*16:01:01, *16:35 = *16:01:01, *16:52 = *16:01:02, *16:35 = *16:01:02, *16:52 = *16:35, *16:52 = *16:43, *16:52 = *16:45, *16:52 = *16:52, *16:52
+--++--+ -------- --------	*16:01:01, *16:08 = *16:01:02, *16:08 = *16:08, *16:08 = *16:08, *16:43 = *16:08, *16:45
+--++--- -------- --------	*16:01:01, *16:10 = *16:01:01, *16:11 = *16:01:02, *16:10 = *16:01:02, *16:11 = *16:10, *16:11 = *16:10, *16:43 = *16:11, *16:11 = *16:11, *16:43 = *16:11, *16:45
+-++---- -------- ------+-	*16:04:01, *16:42 = *16:42, *16:42 = *16:42, *16:45
+-++---- -------- --+-----	*16:04:01, *16:29 = *16:29, *16:29 = *16:29, *16:45
+-++--- -------- --------	*16:01:01, *16:04:01 = *16:01:02, *16:04:01 = *16:04:01, *16:43
++--+--- --+----- --------	*16:01:02, *16:25 = *16:02:01, *16:25 = *16:25, *16:25
++--+--- -+------ --------	*16:01:02, *16:19 = *16:02:01, *16:19 = *16:19, *16:19
++--+--- +------- --------	*16:01:02, *16:12 = *16:01:02, *16:48 = *16:02:01, *16:12 = *16:02:01, *16:48 = *16:12, *16:12 = *16:12, *16:48
++--+-+- -------- --------	*16:01:02, *16:09 = *16:02:01, *16:09 = *16:09, *16:09
++-++--- -------- --------	*16:01:01, *16:02:01 = *16:02:01, *16:43 = *16:02:01, *16:45
+--++--- -------- ------++	*16:30N, *16:40 = *16:30N, *16:49
+--++--- -------- -----+-+	*16:24, *16:40 = *16:24, *16:49
+--++--- -------- ----+--+	*16:23, *16:40 = *16:23, *16:49
+--++--- -------- ---+---+	*16:27, *16:40 = *16:27, *16:49
+--++--- -------- --+----+	*16:28, *16:40 = *16:28, *16:49
+--++--- -------- ++------	*16:01:01, *16:26 = *16:01:02, *16:26 = *16:26, *16:26 = *16:26, *16:43 = *16:26, *16:45
+--++--- ------+- -------+	*16:21, *16:40 = *16:21, *16:49
+--++--- -----+-- -------+	*16:18, *16:40 = *16:18, *16:49
+--++--- ----+--- -------+	*16:14, *16:40 = *16:14, *16:49
+--++--- ---+---- -------+	*16:16Q, *16:40 = *16:16Q, *16:49 = *16:22, *16:49
+--++--- ---+---- ------+-	*16:16Q, *16:30N = *16:22, *16:30N
+--++--- ---+---- -----+--	*16:16Q, *16:24 = *16:22, *16:24
+--++--- ---+---- ----+---	*16:16Q, *16:23 = *16:22, *16:23
+--++--- ---+---- ---+----	*16:16Q, *16:27 = *16:22, *16:27

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R

Lot-specific information
+--++--- ---+--- --+----- *16:16Q, *16:28 = *16:22, *16:28
+--++--- ---+--+- -------- *16:16Q, *16:21 = *16:21, *16:22
+--++--- ---+-+-- -------- *16:16Q, *16:18 = *16:18, *16:22
+--++--- ---++--- -------- *16:14, *16:16Q = *16:14, *16:22
+--++--- --+----- -------+ *16:15:01, *16:40 = *16:15:01, *16:49
+--++--- --++---- -------- *16:15:01, *16:16Q = *16:15:01, *16:22
+--++--- -+------ -------+ *16:13, *16:40 = *16:13, *16:49
+--++--- -+-+---- -------- *16:13, *16:16Q = *16:13, *16:22
+--++--- +------- -------+ *16:35, *16:49 = *16:40, *16:52 = *16:49, *16:52
+--++--- +------- ------+- *16:30N, *16:35 = *16:30N, *16:52
+--++--- +------- -----+-- *16:24, *16:35 = *16:24, *16:52
+--++--- +------- ----+--- *16:23, *16:35 = *16:23, *16:52
+--++--- +------- ---+---- *16:27, *16:35 = *16:27, *16:52
+--++--- +------- --+----- *16:28, *16:35 = *16:28, *16:52
+--++--- +-----+- -------- *16:21, *16:35 = *16:21, *16:52
+--++--- +----+-- -------- *16:18, *16:35 = *16:18, *16:52
+--++--- +---+--- -------- *16:14, *16:35 = *16:14, *16:52
+--++--- +--+---- -------- *16:16Q, *16:35 = *16:16Q, *16:52 = *16:22, *16:52
+--++--- +-+----- -------- *16:15:01, *16:35 = *16:15:01, *16:52
+--++--- ++------ -------- *16:13, *16:35 = *16:13, *16:52
+--++--+ -------- -------+ *16:08, *16:40 = *16:08, *16:49
+--++--+ -------- -+------ *16:01:01, *16:38 = *16:01:02, *16:38 = *16:08, *16:38 = *16:38, *16:38 = *16:38, *16:43 = *16:38, *16:45
+--++--+ ---+---- -------- *16:08, *16:16Q = *16:08, *16:22
+--++--+ +------- -------- *16:08, *16:35 = *16:08, *16:52
+--++-+- -------+ -------- *16:01:01, *16:07:01 = *16:01:02, *16:07:01 = *16:07:01, *16:45
+--++--- -------- -------+ *16:10, *16:49 = *16:11, *16:40 = *16:11, *16:49
+--++--- -------- ------+- *16:10, *16:30N = *16:11, *16:30N
+--++--- -------- -----+-- *16:10, *16:24 = *16:11, *16:24
+--++--- -------- ----+--- *16:10, *16:23 = *16:11, *16:23
+--++--- -------- ---+---- *16:10, *16:27 = *16:11, *16:27
+--++--- -------- --+----- *16:10, *16:28 = *16:11, *16:28
+--++--- -------+ -------- *16:01:01, *16:06 = *16:01:02, *16:06 = *16:06, *16:10 = *16:06, *16:11 = *16:06, *16:45 = *16:07:02, *16:10 = *16:07:02, *16:11
+--++--- ------+- -------- *16:01:01, *16:39 = *16:01:02, *16:39 = *16:10, *16:21 = *16:10, *16:39 = *16:11, *16:21 = *16:11, *16:39 = *16:21, *16:39 = *16:39, *16:39 = *16:39, *16:43 = *16:39, *16:45
+--++--- -----+-- -------- *16:10, *16:18 = *16:11, *16:18
+--++--- ----+--- -------- *16:10, *16:14 = *16:11, *16:14
+--++--- ---+---- -------- *16:10, *16:16Q = *16:10, *16:22 = *16:11, *16:16Q = *16:11, *16:22
+--++--- --+----- -------- *16:10, *16:15:01 = *16:11, *16:15:01
+--++--- -+------ -------- *16:10, *16:13 = *16:11, *16:13
+--++--- +------- -------- *16:10, *16:52 = *16:11, *16:35 = *16:11, *16:52
+--+++-+ -------- -------- *16:08, *16:10 = *16:08, *16:11
+-+++--- -------- ------+- *16:01:01, *16:42 = *16:01:02, *16:42 = *16:04:01, *16:30N = *16:30N, *16:42 = *16:42, *16:43
+-+++--- -------- --+----- *16:01:01, *16:29 = *16:01:02, *16:29 = *16:04:01, *16:28 = *16:28, *16:29 = *16:29, *16:43
+-+++--- ---+---- -------- *16:04:01, *16:16Q = *16:04:01, *16:22
++-+--- -------- ++------ *16:01:02, *16:46 = *16:02:01, *16:46 = *16:46, *16:46
++-+--- +-+----- -------- *16:12, *16:25 = *16:25, *16:48
++-+--- ++------ -------- *16:12, *16:19 = *16:19, *16:48
++-+-+- +------- -------- *16:09, *16:12 = *16:09, *16:48
++-++--- -------- -------+ *16:02:01, *16:40 = *16:02:01, *16:49
++-++--- ---+---- -------- *16:02:01, *16:16Q = *16:02:01, *16:22
++-++--- --+----- -------- *16:01:01, *16:25 = *16:02:01, *16:15:01 = *16:15:01, *16:25 = *16:25, *16:43 = *16:25, *16:45
++-++--- -+------ -------- *16:01:01, *16:19 = *16:02:01, *16:13 = *16:13, *16:19 = *16:19, *16:43 = *16:19, *16:45
++-++--- +------- -------- *16:01:01, *16:12 = *16:01:01, *16:48 = *16:02:01, *16:35 = *16:02:01, *16:52 = *16:12, *16:35 = *16:12, *16:43 = *16:12, *16:45 = *16:12, *16:52 = *16:48, *16:52
++-++-+- -------- -------- *16:01:01, *16:09 = *16:09, *16:43 = *16:09, *16:45
++-+++-- -------- -------- *16:02:01, *16:10 = *16:02:01, *16:11
+--++--- -------- ++------+ *16:26, *16:40 = *16:26, *16:49
+--++--- ---+---- ++------ *16:16Q, *16:26 = *16:22, *16:26

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R

+--++--- +------- ++-------	**Lot-specific information**
+--++--- +------- ++-------	*16:26, *16:35 = *16:26, *16:52
+--++--+ ------- -+------+	*16:38, *16:40 = *16:38, *16:49
+--++--+ ------- ++-------	*16:08, *16:26 = *16:26, *16:38
+--++--+ ---+---- -+-------	*16:16Q, *16:38 = *16:22, *16:38
+--++--+ +------- -+-------	*16:35, *16:38 = *16:38, *16:52
+--++--- ------- ++-------	*16:10, *16:26 = *16:11, *16:26
+--++--- ------+- -------+	*16:39, *16:40 = *16:39, *16:49
+--++--- ------++ --------	*16:06, *16:21 = *16:06, *16:39 = *16:07:02, *16:39
+--++--- ---+--+- --------	*16:16Q, *16:39 = *16:22, *16:39
+--++--- +-----+- --------	*16:35, *16:39 = *16:39, *16:52
+--+++-+ ------- -+-------	*16:10, *16:38 = *16:11, *16:38
+--++++- -------+ --------	*16:07:01, *16:10 = *16:07:01, *16:11
+-++---- ------- --+---+-	*16:28, *16:42 = *16:29, *16:30N
+-++---- ---+---- ------+-	*16:16Q, *16:42 = *16:22, *16:42
+-++---- ---+---- --+-----	*16:16Q, *16:29 = *16:22, *16:29
++--+--- +------- ++-------	*16:12, *16:46 = *16:46, *16:48
++-++--- ------- ++-------	*16:01:01, *16:46 = *16:02:01, *16:26 = *16:26, *16:46 = *16:43, *16:46 = *16:45, *16:46
++-++--- --+----- -------+	*16:25, *16:40 = *16:25, *16:49
++-++--- --++---- --------	*16:16Q, *16:25 = *16:22, *16:25
++-++--- -+------ -------+	*16:19, *16:40 = *16:19, *16:49
++-++--- -+-+---- --------	*16:16Q, *16:19 = *16:19, *16:22
++-++--- -++----- --------	*16:13, *16:25 = *16:15:01, *16:19
++-++--- +------- -------+	*16:12, *16:40 = *16:12, *16:49 = *16:48, *16:49
++-++--- +------- ------+-	*16:12, *16:30N = *16:30N, *16:48
++-++--- +------- -----+--	*16:12, *16:24 = *16:24, *16:48
++-++--- +------- ----+---	*16:12, *16:23 = *16:23, *16:48
++-++--- +------- ---+----	*16:12, *16:27 = *16:27, *16:48
++-++--- +------- --+-----	*16:12, *16:28 = *16:28, *16:48
++-++--- +-----+- --------	*16:12, *16:21 = *16:21, *16:48
++-++--- +----+-- --------	*16:12, *16:18 = *16:18, *16:48
++-++--- +---+--- --------	*16:12, *16:14 = *16:14, *16:48
++-++--- +--+---- --------	*16:12, *16:16Q = *16:12, *16:22 = *16:16Q, *16:48
++-++--- +-+----- --------	*16:12, *16:15:01 = *16:15:01, *16:48 = *16:25, *16:35 = *16:25, *16:52
++-++--- ++------ --------	*16:12, *16:13 = *16:13, *16:48 = *16:19, *16:35 = *16:19, *16:52
++-++--+ +------- --------	*16:08, *16:12 = *16:08, *16:48
++-++-+- -------- -------+	*16:09, *16:40 = *16:09, *16:49
++-++-+- -------+ --------	*16:02:01, *16:07:01 = *16:07:01, *16:09 = *16:07:02, *16:09
++-++-+- ---+---- --------	*16:09, *16:16Q = *16:09, *16:22
++-++-+- +------- --------	*16:09, *16:35 = *16:09, *16:52
++-++--- --+----- --------	*16:10, *16:25 = *16:11, *16:25
++-++--- -+------ --------	*16:10, *16:19 = *16:11, *16:19
++-++--- +------- --------	*16:10, *16:12 = *16:11, *16:12 = *16:11, *16:48
++-+++- -------- --------	*16:09, *16:10 = *16:09, *16:11
++-++--- -------- ++-----+	*16:40, *16:46 = *16:46, *16:49
++-++--- ---+---- ++-------	*16:16Q, *16:46 = *16:22, *16:46
++-++--- --+----- ++-------	*16:15:01, *16:46 = *16:25, *16:26
++-++--- -+------ ++-------	*16:13, *16:46 = *16:19, *16:26
++-++--- +------- ++-------	*16:12, *16:26 = *16:26, *16:48 = *16:35, *16:46 = *16:46, *16:52
++-++--+ -------- ++-------	*16:08, *16:46 = *16:38, *16:46
++-++--+ +------- -+-------	*16:12, *16:38 = *16:38, *16:48
++-++--- -------- ++-------	*16:10, *16:46 = *16:11, *16:46
++-++--- +-----+- --------	*16:12, *16:39 = *16:39, *16:48

*16:01:01 = *16:01:01 and 16:01:03-16:01:10 and 16:34, 16:36, 1637, 16:41, 16:44 and 16:51
*16:02:01 = *16:02:01-16:02:09 and 16:47
*16:04:01 = *16:04:01 and 16:33
*16:15:01 = *16:15:01-16:15:02 and 16:20
*16:16Q = *16:16Q and 16:17
*16:27 = *16:27 and 16:32
*16:28 = *16:28, 16:31 and 16:50

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

SPECIFICITY TABLE

HLA-C*16 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-C*16 SSP subtyping

Primer Mix	Size of spec. PCR product[1]	Size of control band[2]	Amplified HLA-C*16 alleles[3]	Other amplified HLA Class I alleles[4]
1	205 bp	**800 bp**	*16:01:01-16:02:09, 16:04:01, 16:08-16:21, 16:23-16:34, 16:36-16:39, 16:41-16:42, 16:44-16:47, 16:49-16:52	*06:31
2[5]	75 bp	1070 bp	*16:02:01-16:02:09, 16:09, 16:12, 16:19, 16:25, 16:46-16:48	*01:14, 01:59, 02:02:01-02:02:03, 02:02:05-02:02:11, 02:02:13-02:11, 02:13-02:26:03, 02:28-02:40, 02:42-02:63, 03:07, 03:15, 03:45, 03:130, 03:140, 03:163, 04:01:01:01-04:01:28, 04:01:30-04:01:41, 04:03-04:10, 04:12-04:20, 04:23-04:28, 04:30-04:35, 04:37-04:54, 04:56-04:91, 04:93N-04:111, 04:113-04:127, 05:01:01:01-05:01:21, 05:03-05:35, 05:37-05:81, 06:02:01:01-06:02:01:02, 06:02:03-06:02:11, 06:02:14-06:10, 06:12-06:43, 06:45-06:51, 06:53-06:87, 07:49, 07:76, 07:238, 08:10, 12:04:01-12:05, 12:09, 12:21, 12:33, 12:41, 12:54, 12:60, 14:04, 14:12, 15:11, 15:16-15:17, 17:01:01:01-17:13, 18:01-18:04
3[6]	220 bp	**800 bp**	*16:04:01, 16:29, 16:33, 16:42	*01:04, 01:09, 02:05, 02:17, 06:02:01:01-06:02:01:02, 06:02:03-06:02:15, 06:02:17-06:03:02, 06:07-06:13, 06:15-06:34, 06:36-06:39, 06:41-06:71, 06:73-06:78, 06:80, 06:82-06:87, 12:03:01:01-12:07, 12:11-12:13, 12:15, 12:23, 12:25-12:26, 12:28-12:29, 12:31-12:35, 12:37-12:39N, 12:42Q-12:43, 12:45-12:48, 12:50-12:55, 12:57-12:63, 12:65-12:66, 12:70-12:71, 12:75-12:79, 12:81-12:82, 14:16

Lot No.: 23R **Lot-specific information**

4[7]	140 bp	**800 bp**	*16:01:01, 16:01:03-16:01:10, 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, 16:49-16:52	*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, 08:11-08:64, 12:02:01-12:03:03, 12:03:05-12:03:08, 12:03:10-12:03:22, 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], 12:73-12:82, 14:02:03, 14:03, 14:08, 14:10, 14:22, 14:35N, 14:38, 14:41, 15:07, 15:21[W], 15:25, **B*35:08:02, B*35:08:05, B*67:02**
5	160 bp	**800 bp**	*16:01:01-16:02:09, 16:06-16:09, 16:11-16:28, 16:30N-16:32, 16:34, 16:36-16:39, 16:41, 16:43-16:44, 16:46-16:47, 16:49-16:52	*07:53, 07:216, **A*24:174, B*46:25**
6[8]	130 bp, 160 bp, 210 bp	1070 bp	*16:06, 16:10-16:11, 16:39	*02:21, 07:216, **A*24:106**
7[5, 9]	100 bp, 210 bp	1070 bp	*16:07:01, 16:09	*02:34, **B*46:25**
8	135 bp	1070 bp	*16:08, 16:38	
9[5,7,10]	85 bp, 140 bp, 205 bp	1070 bp	*16:12, 16:35, 16:48, 16:52	*04:69, 07:31, 07:177, 14:15
10[11]	215 bp, 350 bp	**800 bp**	*16:13, 16:19	*04:101, 05:81, 06:87, 07:24, 07:114, 07:218, 12:45
11[7,12]	170 bp, 540 bp	1070 bp	*16:15:01-16:15:02, 16:20, 16:25	*04:14, 04:68, 07:53, 07:216, **A*24:73, A*24:157, B*07:66, B*46:25, B*51:55**
12[5, 13]	105 bp, 210 bp, 245 bp	1070 bp	*16:16Q-16:17, 16:22	*01:27
13	130 bp	1070 bp	*16:14	*06:32, 12:40
14[7]	210 bp	1070 bp	*16:18	
15	145 bp	1070 bp	*16:21, 16:39	*02:14, 04:42, 05:43, 06:05, 07:02:09, 08:37, 12:16, 15:23

16	375 bp	1070 bp	*16:06-16:07:02	*01:05, 01:21, 01:36, 01:55, 02:02:01-02:02:03, 02:02:05-02:02:08, 02:02:10-02:04, 02:06-02:16:02, 02:18-02:36, 02:38N-02:40, 02:42-02:56, 02:58-02:61, 02:63, 03:05, 03:13, 03:25, 03:27, 03:35, 03:135, 04:01:01:01-04:01:23, 04:01:25-04:01:41, 04:03-04:20, 04:23-04:36, 04:38-04:39, 04:41-04:79, 04:81-04:99, 04:101-04:109, 04:111-04:116, 04:118-04:127, 05:01:01:01-05:01:20, 05:03-05:06, 05:08-05:09:02, 05:11-05:15, 05:17-05:30, 05:32-05:81, 07:01:01:01-07:01:10, 07:01:12-07:03, 07:05-07:09, 07:13-07:30, 07:32N-07:33N, 07:35-07:42, 07:44, 07:46-07:62, 07:64-07:100, 07:102-07:138, 07:140-07:141:02, 07:143-07:176, 07:178-07:180, 07:182-07:183, 07:185-07:194, 07:197-07:263, 08:01:01-08:11, 08:13-08:33:02, 08:35-08:43, 08:45-08:60, 08:62-08:64, 12:02:01-12:02:09, 12:08, 12:10:01-12:10:02, 12:14:01-12:14:02, 12:16-12:18:02, 12:21-12:22, 12:27, 12:30, 12:36, 12:40-12:41, 12:49, 12:56, 12:64, 12:67-12:69, 12:72-12:74, 12:80N, 14:09, 15:22, 18:01-18:05
17	180 bp	1070 bp	*16:26, 16:46	*02:49, 04:01:01:01-04:01:09, 04:01:11-04:01:22, 04:01:24-04:01:41, 04:03-04:10, 04:12-04:20, 04:23-04:26, 04:28-04:32, 04:34-04:51, 04:53-04:54, 04:56-04:106, 04:108-04:115N, 04:117-04:127, 05:25, 05:42, 06:05, 06:76:02, 07:02:09, 08:28, 12:28, 15:25
18[5,14]	120 bp, 255 bp	1070 bp	*16:26, 16:38, 16:46	*01:23, 01:58, 02:49, 04:03, 04:06, 04:80, 05:25, 05:42, 06:02:01:01-06:02:01:02, 06:02:03-06:02:09, 06:02:11-06:25, 06:27-06:29, 06:31-06:52, 06:54-06:87, 07:01:01:01-07:01:22, 07:01:24-07:02:10, 07:02:12-07:02:36, 07:04:01-07:04:04, 07:04:06-07:06, 07:08-07:15, 07:17-07:19, 07:21-07:33N, 07:35, 07:37-07:50, 07:52-07:55N, 07:57-07:58, 07:61N-07:63, 07:65-07:78, 07:80-07:87, 07:89-07:95, 07:97-07:108, 07:110-07:126,

				07:128-07:176, 07:178-07:180, 07:182-07:226, 07:228-07:262, 08:28, 12:28, 15:25, 17:11, 18:01-18:05
19[5,15]	110 bp, 240 bp	**800 bp**	*16:28-16:29, 16:31, 16:50	*01:10, 02:05, 02:17, 06:08, 06:22, 14:25
20[5,16]	95 bp, 145 bp	1070 bp	*16:27, 16:32	
21	210 bp	1070 bp	*16:23	
22	210 bp	**800 bp**	*16:24	*03:108, 03:150, 07:25
23[5,7,17]	95 bp, 170 bp	1070 bp	*16:30N, 16:42	*05:56
24[18]	445 bp, 595 bp	1070 bp	*16:40, 16:49	

[1]Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-C*16 high resolution SSP typings.
When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 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 specific PCR product(s) of the alleles amplified by these primer mixes are given.
Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.
PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.
PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.
Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherit 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.
[2]The 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*16 SSP subtyping.
In addition, wells number 3 to 5, 10, 19 and 22 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band.
In the presence of a specific amplification the intensity of the control band often decreases.
[3]For several HLA-C alleles 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.
[4]Due to the sharing of sequence motifs between HLA-C alleles non-HLA-C*16 alleles will be amplified by primer mixes 1 to 7, 9 to 13, 15 to 19, 22 and 23. In addition, primer mix 4 will amplify the B*35:08:02, B*35:08:05 and B*67:02 alleles, primer mix 5 will amplify the A*24:174 allele, primer mixes 5, 7 and 11 will amplify the B*46:25 allele, primer mix 6 will amplify the A*24:106 allele and primer mix 11 will amplify the A*24:73, A*24:157, B*07:66 and B*51:55 alleles
[5]Short specific PCR fragments are less intense and not as sharp as longer specific bands.
[6]Primer mix 3 may give a lower yield of specific PCR product than the other C*16 primer mixes.
[7]Primer mixes 4, 9, 11, 14 and 23 may have tendencies of unspecific amplifications.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

[8]Primer mix 6: Specific PCR fragment of 130 bp in the C*16:11 and 16:39 and in the C*02:21 allele. Specific PCR fragment of 160 bp in the C*16:10 and in the A*24:106 alleles. Specific PCR fragment of 210 bp in the C*16:06 and the C*07:216 alleles.

[9]Primer mix 7: Specific PCR fragment of 100 bp in the C*16:09 and in the C*02:34 alleles. Specific PCR fragment of 210 bp in the C*16:07:01 and the B*46:25 alleles.

[10]Primer mix 9: Specific PCR fragment of 85 bp in the C*16:12 and the C*04:69 alleles.
Specific PCR fragment of 140 bp in the C*16:52 allele.
Specific PCR fragment of 205 bp in the C*16:35 and 16:48 and the C*07:31, 07:177 and 14:15 alleles.

[11]Primer mix 10: Specific PCR fragment of 215 bp in the C*16:19 and the C*04:101 and 07:114 alleles. Specific PCR fragment of 350 bp in the C*16:13 and the C*05:81, 06:87, 07:24, 07:218 and 12:45 alleles.

[12]Primer mix 11: Specific PCR fragment of 170 bp in the C*16:20 and in the A*24:73, A*24:157, B*07:66, B*46:25 and B*51:55 alleles. Specific PCR fragment of 540 bp in the C*16:15:01-16:15:02 and 16:25 and the C*04:14, 04:68, 07:53 and 07:216 alleles.

[13]Primer mix 12: Specific PCR fragment of 105 bp in the C*16:17 and in the C*01:27 alleles. Specific PCR fragment of 210 bp in the C*16:22 allele. Specific PCR fragment of 245 bp in the C*16:16Q allele.

[14]Primer mix 18: Specific PCR fragment of 120 bp in the C *16:28 allele. Specific PCR fragment of 255 bp in the C*16:26 and 16:46 and the C*01:23, 01:58, 02:49, 04:03, 04:06, 04:80, 05:25, 05:42, 06:02:01:01-06:02:01:02, 06:02:03-06:02:09, 06:02:11-06:25, 06:27-06:29, 06:31-06:52, 06:54-06:87, 07:01:01:01-07:01:22, 07:01:24-07:02:10, 07:02:12-07:02:36, 07:04:01-07:04:04, 07:04:06-07:06, 07:08-07:15, 07:17-07:19, 07:21-07:33N, 07:35, 07:37-07:50, 07:52-07:55N, 07:57-07:58, 07:61N-07:63, 07:65-07:78, 07:80-07:87, 07:89-07:95, 07:97-07:108, 07:110-07:126, 07:128-07:176, 07:178-07:180, 07:182-07:226, 07:228-07:262, 08:28, 12:28, 15:25, 17:11 and 18:01-18:05 alleles.

[15]Primer mix 19: Specific PCR fragment of 110 bp in the C*16:28 allele. Specific PCR fragment of 240 bp in the C*16:29, 16:31 and 16:50 and the C*01:10, 02:05, 02:17, 06:08, 06:22 and 14:25 alleles.

[16]Primer mix 20: Specific PCR fragment of 95 bp in the C*16:27 allele. Specific PCR fragment of 145 bp in the C *16:32 allele.

[17]Primer mix 23: Specific PCR fragment of 95 bp in the C*16:42 and the C*05:56 alleles. Specific PCR fragment of 170 bp in the C*16:30N allele.

[18]Primer mix 24: Specific PCR fragment of 445 bp in the C*16:40 allele. Specific PCR fragment of 595 bp in the C*16:49 allele.

'w' might be weakly amplified.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

INTERPRETATION TABLE

HLA-C*16 SSP subtyping

Amplification patterns of the HLA-C*16:01 to 16:52 alleles

	Well[10]											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	205	75	220	140	160	130	100	135	85	215	170	105
PCR product(s)						160	210		140	350	540	210
						210			205			245
Length of int. pos. control[1]	800	1070	800	800	800	1070	1070	1070	1070	800	1070	1070
5'-primer(s)[2]	360	270	361	201	419	113	244	126	256	385	289	361
	5'-CAg 3'	5'-AAg 3'	5'-AgT 3'	5'-CCA 3'	5'-gTC 3'	5'-CCA 3'	5'-CgC 3'	5'-ggA 3'	5'-ACg 3'	5'-ggT 3'	5'-Agg 3'	5'-AgT 3'
	361					124	369		361	523	409	
	5'-AgT 3'					5'-gCC 3'	5'-TAC 3'		5'-AgT 3'	5'-CCg 3'	5'-ggC 3'	
						368						
						5'-gTC 3'						
						418						
						5'-Agg 3'						
3'-primer(s)[3]	527	302	538	302	539	201	302	205	302	3rd I	539	427
	5'-CCg 3'	5'-ggT 3'	5'-CCA 3'	5'-ggC 3'	5'-TCT 3'	5'-CTT 3'	5'-ggT 3'	5'-CCT 3'	5'-ggT 3'	5'-CTC 3'	5'-TCT 3'	5'-gTA 3'
	527					539	539	220	461			530
	5'-CCg 3'					5'-TCT 3'	5'-TCT 3'	5'-CgA 3'	5'-gCT 3'			5'-CCA 3'
									527			563
									5'-CCg 3'			5'-CgT 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

INTERPRETATION TABLE

HLA-C*16 SSP subtyping

Amplification patterns of the HLA-C*16:01 to 16:52 alleles

Well[10]												
13	14	15	16	17	18	19	20	21	22	23	24	
130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
1070	1070	1070	1070	1070	1070	**800**	1070	1070	**800**	1070	1070	Length of int. pos. control[1]
126	368	97	361	201	126	361	436	368	524	201	379	5'-primer(s)[2]
5' -ggA 3'	5' -gTg 3'	5' -TCg 3'	5' -AgA 3'	5' -CCA 3'	5' -ggA 3'	5' -AgT 3'	5' -AgA 3'	5' -gTT 3'	5' -CCA 3'	5' -CCA 3'	5' -ACg 3'	
		124					485				527	
		5' -gCC 3'					5' -CAA 3'				5' -TgA 3'	
214	539	201	3rd I	341	205	430	539	539	3rd I	257	3rd I	3'-primer(s)[3]
5' -CCA 3'	5' -TCT 3'	5' -CTT 3'	5' -CTC 3'	5' -CgT 3'	5' -CCT 3'	5' -gCg 3'	5' -TCT 3'	5' -TCT 3'	5' -CTC 3'	5' -CCT 3'	5' -gCA 3'	
					341	559				331		
					5' -CgT 3'	5' -CTC 3'				5' -CTA 3'		
						565						
						5' -CAT 3'						
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

CE

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
HLA-C allele[4,5]												
***16:01:01, 16:01:03**-16:01:10, 16:34, 16:36, 16:41, 16:44, 16:51	**1**			**4**	**5**							
*16:01:02	**1**				**5**							
***16:02:01-**16:02:09, 16:47	**1**	**2**			**5**							
***16:04:01,** 16:33	**1**		**3**	**4**								
*16:06				**4**	**5**	**6**						
*16:07:01				**4**	**5**		**7**					
***16:07:02**				**4**	**5**							
***16:08**	**1**			**4**	**5**			**8**				
*16:09	**1**	**2**			**5**		**7**					
*16:10	**1**			**4**		**6**						
*16:11	**1**			**4**	**5**	**6**						
*16:12	**1**	**2**			**5**				**9**			
***16:13**	**1**			**4**	**5**					**10**		
***16:14**	**1**			**4**	**5**							
***16:15:01-**16:15:02, 16:20[6]	**1**			**4**	**5**						**11**	
***16:16Q,** 16:17[7]	**1**			**4**	**5**							**12**
***16:18**	**1**			**4**	**5**							
***16:19**	**1**	**2**			**5**					**10**		
*16:21	**1**			**4**	**5**							
***16:22**				**4**	**5**							**12**
*16:23	**1**			**4**	**5**							
***16:24**	**1**			**4**	**5**							
***16:25**	**1**	**2**			**5**						**11**	
***16:26**	**1**			**4**	**5**							
***16:27,** 16:32[8]	**1**			**4**	**5**							
*16:28, 16:31, 16:50[9]	**1**			**4**	**5**							
*16:29	**1**		**3**	**4**								
*16:30N	**1**			**4**	**5**							
***16:35**				**4**					**9**			
*16:37	**1**			**w**	**5**							
***16:38**	**1**			**4**	**5**			**8**				
***16:39**	**1**			**4**	**5**	**6**						
*16:40				**4**								
***16:42**	**1**		**3**	**4**								
*16:43				**4**	**5**							
*16:45	**1**			**4**								
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
												HLA-C allele[4,5]
												***16:01:01, 16:01:03**-16:01:10, 16:34, 16:36, 16:41, 16:44, 16:51
												*16:01:02
												***16:02:01-**16:02:09, 16:47
												***16:04:01,** 16:33
			16									*16:06
			16									*16:07:01
			16									***16:07:02**
												***16:08**
												*16:09
												*16:10
												*16:11
												*16:12
												***16:13**
13												***16:14**
												***16:15:01-**16:15:02, 16:20[6]
												***16:16Q,** 16:17[7]
	14											***16:18**
												***16:19**
		15										*16:21
												***16:22**
								21				*16:23
									22			***16:24**
												***16:25**
				17	18							***16:26**
							20					***16:27,** 16:32[8]
						19						*16:28, 16:31, 16:50[9]
						19						*16:29
										23		*16:30N
												***16:35**
												*16:37
					18							***16:38**
		15										***16:39**
											24	*16:40
										23		***16:42**
												*16:43
												*16:45
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
*16:46	**1**	**2**			**5**							
*16:48		**2**							**9**			
***16:49**	**1**			**4**	**5**							
***16:52**	**1**			**4**	**5**				**9**			
*01:04, 01:09, 12:03:04, 12:03:09, 14:16			**3**									
*01:05, 01:36, 01:55, 02:02:12, 03:05, 03:13, 03:25, 03:27, 03:35, 03:135, 05:36, 07:01:23, 07:02:11, 07:03, 07:07, 07:16, 07:20, 07:36, 07:51, 07:56:01-07:56:02, 07:59-07:60, 07:64, 07:79, 07:88, 07:96, 07:109, 07:127, 07:227N, 07:263, 12:27, 14:09, 15:22												
*01:10, 14:25												
*01:14, 01:59, 02:02:09, 02:37, 02:57, 02:62, 03:07, 03:15, 03:45, 03:130, 03:140, 03:163, 05:01:21, 05:07N, 05:10, 05:16, 05:31, 12:09, 14:04, 14:12, 15:11, 15:16-15:17, 17:01:01:01-17:10, 17:12-17:13		**2**										
*01:21, 02:27:01-02:27:02, 04:11, 04:55, 08:01:01-08:09, 08:11, 08:13-08:27, 08:29-08:33:02, 08:35-08:36N, 08:38-08:43, 08:45-08:60, 08:62-08:64, 12:02:01-12:02:09, 12:08, 12:10:01-12:10:02, 12:14:01-12:14:02, 12:17-12:18:02, 12:22, 12:30, 12:36, 12:49, 12:56, 12:64, 12:67-12:69, 12:73-12:74, 12:80N				**4**								
*01:23, 01:58, 07:01:11, 07:04:01-07:04:04, 07:04:06-07:04:08, 07:10-07:12, 07:43, 07:45, 07:63, 07:101, 07:139, 07:142, 07:184, 07:195-07:196												
*01:27												**12**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
				17	18							*16:46
												*16:48
											24	***16:49**
												***16:52**
												*01:04, 01:09, 12:03:04, 12:03:09, 14:16
			16									*01:05, 01:36, 01:55, 02:02:12, 03:05, 03:13, 03:25, 03:27, 03:35, 03:135, 05:36, 07:01:23, 07:02:11, 07:03, 07:07, 07:16, 07:20, 07:36, 07:51, 07:56:01-07:56:02, 07:59-07:60, 07:64, 07:79, 07:88, 07:96, 07:109, 07:127, 07:227N, 07:263, 12:27, 14:09, 15:22
						19						*01:10, 14:25
												*01:14, 01:59, 02:02:09, 02:37, 02:57, 02:62, 03:07, 03:15, 03:45, 03:130, 03:140, 03:163, 05:01:21, 05:07N, 05:10, 05:16, 05:31, 12:09, 14:04, 14:12, 15:11, 15:16-15:17, 17:01:01:01-17:10, 17:12-17:13
			16									*01:21, 02:27:01-02:27:02, 04:11, 04:55, 08:01:01-08:09, 08:11, 08:13-08:27, 08:29-08:33:02, 08:35-08:36N, 08:38-08:43, 08:45-08:60, 08:62-08:64, 12:02:01-12:02:09, 12:08, 12:10:01-12:10:02, 12:14:01-12:14:02, 12:17-12:18:02, 12:22, 12:30, 12:36, 12:49, 12:56, 12:64, 12:67-12:69, 12:73-12:74, 12:80N
					18							*01:23, 01:58, 07:01:11, 07:04:01-07:04:04, 07:04:06-07:04:08, 07:10-07:12, 07:43, 07:45, 07:63, 07:101, 07:139, 07:142, 07:184, 07:195-07:196
												*01:27
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
*02:02:01-02:02:03, 02:02:05-02:02:08, 02:02:10-02:02:11, 02:02:13-02:04, 02:06-02:11, 02:13, 02:15-02:16:02, 02:18-02:20, 02:22-02:26:03, 02:28-02:33, 02:35-02:36, 02:38N-02:40, 02:42-02:48, 02:50-02:56, 02:58-02:61, 02:63, 04:01:10, 04:01:23, 04:27, 04:33, 04:52, 04:107, 04:116, 05:01:01:01-05:01:20, 05:03-05:06, 05:08-05:09:02, 05:11-05:15, 05:17-05:24, 05:26-05:30, 05:32-05:35, 05:37-05:41, 05:44:01-05:55, 05:57-05:80, 08:10, 12:21, 12:41		**2**										
*02:05, 02:17		**2**	**3**									
*02:12, 12:72				**w**								
*02:14, 05:43		**2**										
*02:21		**2**				**6**						
*02:34		**2**					**7**					
*02:49, 04:03, 04:06, 05:25, 05:42		**2**										
*03:04:25, 08:12, 08:34, 08:44, 08:61, 12:19-12:20, 12:24, 12:44, 14:02:03, 14:03, 14:08, 14:10, 14:22, 14:35N, 14:38, 14:41, 15:07, *B*35:08:02, B*35:08:05, B*67:02*				**4**								
*03:108, 03:150												
*04:01:01:01-04:01:09, 04:01:11-04:01:22, 04:01:25-04:01:28, 04:01:30-04:01:41, 04:04:01-04:05, 04:07-04:10, 04:12-04:13, 04:15:01-04:20, 04:23-04:26, 04:28, 04:30-04:32, 04:34-04:35, 04:38-04:39, 04:41, 04:43-04:51, 04:53-04:54, 04:56-04:67, 04:70-04:79, 04:81-04:91, 04:93N-04:99, 04:102-04:106, 04:108-04:109, 04:111, 04:113-04:115N, 04:118-04:127		**2**										
*04:01:24, 04:37, 04:40, 04:100, 04:110, 04:117		**2**										
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

CE

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
			16									*02:02:01-02:02:03, 02:02:05-02:02:08, 02:02:10-02:02:11, 02:02:13-02:04, 02:06-02:11, 02:13, 02:15-02:16:02, 02:18-02:20, 02:22-02:26:03, 02:28-02:33, 02:35-02:36, 02:38N-02:40, 02:42-02:48, 02:50-02:56, 02:58-02:61, 02:63, 04:01:10, 04:01:23, 04:27, 04:33, 04:52, 04:107, 04:116, 05:01:01:01-05:01:20, 05:03-05:06, 05:08-05:09:02, 05:11-05:15, 05:17-05:24, 05:26-05:30, 05:32-05:35, 05:37-05:41, 05:44:01-05:55, 05:57-05:80, 08:10, 12:21, 12:41
						19						*02:05, 02:17
			16									*02:12, 12:72
		15	16									*02:14, 05:43
			16									*02:21
			16									*02:34
			16	17	18							*02:49, 04:03, 04:06, 05:25, 05:42
												*03:04:25, 08:12, 08:34, 08:44, 08:61, 12:19-12:20, 12:24, 12:44, 14:02:03, 14:03, 14:08, 14:10, 14:22, 14:35N, 14:38, 14:41, 15:07, *B*35:08:02, B*35:08:05, B*67:02*
									22			*03:108, 03:150
			16	17								*04:01:01:01-04:01:09, 04:01:11-04:01:22, 04:01:25-04:01:28, 04:01:30-04:01:41, 04:04:01-04:05, 04:07-04:10, 04:12-04:13, 04:15:01-04:20, 04:23-04:26, 04:28, 04:30-04:32, 04:34-04:35, 04:38-04:39, 04:41, 04:43-04:51, 04:53-04:54, 04:56-04:67, 04:70-04:79, 04:81-04:91, 04:93N-04:99, 04:102-04:106, 04:108-04:109, 04:111, 04:113-04:115N, 04:118-04:127
				17								*04:01:24, 04:37, 04:40, 04:100, 04:110, 04:117
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
*04:01:29, 04:92, 04:112												
*04:14, 04:68		**2**									**11**	
*04:29, 04:36				**4**								
*04:42		**2**										
*04:69		**2**							**9**			
*04:80		**2**										
*04:101		**2**								**10**		
*05:56		**2**										
*05:81		**2**								**10**		
*06:02:01:01-06:02:01:02, 06:02:03-06:02:09, 06:02:11, 06:02:14-06:02:15, 06:02:17-06:03:02, 06:07, 06:09-06:10, 06:12-06:13, 06:15-06:21, 06:23-06:25, 06:27-06:29, 06:33-06:34, 06:36-06:39, 06:41-06:43, 06:45-06:51, 06:54-06:71, 06:73-06:76:01, 06:77-06:78, 06:80, 06:82-06:86		**2**	**3**									
*06:02:10, 06:26, 06:30, 06:53, 12:04:01-12:05, 12:33, 12:54, 12:60		**2**	**3**									
*06:02:12-06:02:13, 06:11, 06:44, 06:52			**3**									
*06:02:16, 06:04, 06:06, 06:14, 06:35, 06:40, 06:72, 06:79N, 06:81, 17:11		**2**										
*06:05		**2**										
*06:08, 06:22		**2**	**3**									
*06:31	**1**	**2**	**3**									
*06:32		**2**	**3**									
*06:76:02		**2**	**3**									
*06:87		**2**	**3**							**10**		
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
			16	17								*04:01:29, 04:92, 04:112
			16	17								*04:14, 04:68
			16	17								*04:29, 04:36
		15	16	17								*04:42
			16	17								*04:69
				17	18							*04:80
			16	17								*04:101
			16							23		*05:56
			16									*05:81
					18							*06:02:01:01-06:02:01:02, 06:02:03-06:02:09, 06:02:11, 06:02:14-06:02:15, 06:02:17-06:03:02, 06:07, 06:09-06:10, 06:12-06:13, 06:15-06:21, 06:23-06:25, 06:27-06:29, 06:33-06:34, 06:36-06:39, 06:41-06:43, 06:45-06:51, 06:54-06:71, 06:73-06:76:01, 06:77-06:78, 06:80, 06:82-06:86
												*06:02:10, 06:26, 06:30, 06:53, 12:04:01-12:05, 12:33, 12:54, 12:60
					18							*06:02:12-06:02:13, 06:11, 06:44, 06:52
					18							*06:02:16, 06:04, 06:06, 06:14, 06:35, 06:40, 06:72, 06:79N, 06:81, 17:11
		15		17	18							*06:05
					18	19						*06:08, 06:22
					18							*06:31
13					18							*06:32
				17	18							*06:76:02
					18							*06:87
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
*07:01:01:01-07:01:10, 07:01:12-07:01:22, 07:01:24-07:02:08, 07:02:10, 07:02:12-07:02:36, 07:05-07:06, 07:08-07:09, 07:13-07:15, 07:17-07:19, 07:21-07:23, 07:26-07:30, 07:32N-07:33N, 07:35, 07:37-07:42, 07:44, 07:46-07:48, 07:50, 07:52, 07:54-07:55N, 07:57-07:58, 07:61N-07:62, 07:65-07:75, 07:77-07:78, 07:80-07:87, 07:89-07:95, 07:97-07:100, 07:102-07:108, 07:110-07:113, 07:115-07:126, 07:128-07:138, 07:140-07:141:02, 07:143-07:176, 07:178-07:180, 07:182-07:183, 07:185-07:194, 07:197-07:215, 07:217, 07:219-07:226, 07:228-07:237, 07:239-07:262, 18:05												
*07:02:09				**4**								
*07:24, 07:114, 07:218										**10**		
*07:25												
*07:31									**9**			
*07:49, 07:76, 07:238, 18:01-18:04		**2**										
*07:53					**5**						**11**	
*07:177, 14:15									**9**			
*07:216					**5**	**6**					**11**	
*08:28				**4**								
*08:37, 12:16				**4**								
*12:03:01:01-12:03:03, 12:03:05-12:03:08, 12:03:10-12:03:22, 12:06-12:07, 12:11-12:13, 12:15, 12:23, 12:25-12:26, 12:29, 12:31-12:32, 12:34-12:35, 12:37-12:39N, 12:42Q-12:43, 12:46N-12:48, 12:50-12:53, 12:55, 12:57-12:59, 12:61-12:63, 12:65-12:66, 12:70-12:71, 12:75-12:79, 12:81-12:82			**3**	**4**								
*12:28			**3**	**4**								
*12:40				**4**								
*12:45			**3**	**4**						**10**		
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

CE

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	Length of spec.
					255	240	145			170	595	PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
			16		18							*07:01:01:01-07:01:10, 07:01:12-07:01:22, 07:01:24-07:02:08, 07:02:10, 07:02:12-07:02:36, 07:05-07:06, 07:08-07:09, 07:13-07:15, 07:17-07:19, 07:21-07:23, 07:26-07:30, 07:32N-07:33N, 07:35, 07:37-07:42, 07:44, 07:46-07:48, 07:50, 07:52, 07:54-07:55N, 07:57-07:58, 07:61N-07:62, 07:65-07:75, 07:77-07:78, 07:80-07:87, 07:89-07:95, 07:97-07:100, 07:102-07:108, 07:110-07:113, 07:115-07:126, 07:128-07:138, 07:140-07:141:02, 07:143-07:176, 07:178-07:180, 07:182-07:183, 07:185-07:194, 07:197-07:215, 07:217, 07:219-07:226, 07:228-07:237, 07:239-07:262, 18:05
		15	16	17	18							*07:02:09
			16		18							*07:24, 07:114, 07:218
			16		18				22			*07:25
					18							*07:31
			16		18							*07:49, 07:76, 07:238, 18:01-18:04
			16		18							*07:53
												*07:177, 14:15
			16		18							*07:216
			16	17	18							*08:28
		15	16									*08:37, 12:16
												*12:03:01:01-12:03:03, 12:03:05-12:03:08, 12:03:10-12:03:22, 12:06-12:07, 12:11-12:13, 12:15, 12:23, 12:25-12:26, 12:29, 12:31-12:32, 12:34-12:35, 12:37-12:39N, 12:42Q-12:43, 12:46N-12:48, 12:50-12:53, 12:55, 12:57-12:59, 12:61-12:63, 12:65-12:66, 12:70-12:71, 12:75-12:79, 12:81-12:82
				17	18							*12:28
13			16									*12:40
												*12:45
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

Length of spec.	**205**	**75**	**220**	**140**	**160**	**130**	**100**	**135**	**85**	**215**	**170**	**105**
PCR product(s)						**160**	**210**		**140**	**350**	**540**	**210**
						210			**205**			**245**
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
*15:21				**w**								
*15:23												
*15:25				**4**								
*A*24:73, A*24:157, B*07:66, B*51:55*											**11**	
*A*24:106*						**6**						
*A*24:174*					**5**							
*B*46:25*					**5**		**7**				**11**	
Well No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**

[1]The 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*16 SSP subtyping.
In addition, wells number 3 to 5, 10, 19 and 22 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band.
[2]The nucleotide position, in the 2nd or 3rd 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.
[3]The nucleotide position, in the 2nd or 3rd exon or the 3rd intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.
[4]The HLA-C*1603 nucleotide sequence has been shown to be identical to C*14:03.
The HLA-C*16042 nucleotide sequence has been shown to be identical to C*16:04:01.
The HLA-C*1605 nucleotide sequence has been shown to be identical to C*16:04:01.
[5]HLA-C*16 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.9.0, July 2012.
[6]The C*16:15:01-16:15:02 and C*16:20 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 11.
[7]The C*16:16Q and C*16:17 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 12.
[8]The C*16:27 and C*16:32 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 20.
[9]The C*16:28 and the C*16:31and 16:50 alleles may be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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"Instructions for Use" (IFU)

Lot No.: 23R **Lot-specific information**

130	210	145	375	180	120	110	95	210	210	95	445	**Length of spec.**
					255	240	145			170	595	**PCR product(s)**
13	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**Well No.**
												*15:21
		15										*15:23
				17	**18**							*15:25
												*A*24:73, A*24:157, B*07:66, B*51:55*
												*A*24:106*
												*A*24:174*
												*B*46:25*
13	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**Well No.**

[10]Primer mix 6: Specific PCR fragment of 130 bp in the C*16:11 and 16:39 and in the C*02:21 allele. Specific PCR fragment of 160 bp in the C*16:10 and in the A*24:106 alleles. Specific PCR fragment of 210 bp in the C*16:06 and the C*07:216 alleles.
Primer mix 7: Specific PCR fragment of 100 bp in the C*16:09 and in the C*02:34 alleles. Specific PCR fragment of 210 bp in the C*16:07:01 and the B*46:25 alleles.
Primer mix 9: Specific PCR fragment of 85 bp in the C*16:12 and the C*04:69 alleles.
Specific PCR fragment of 140 bp in the C*16:52 allele.
Specific PCR fragment of 205 bp in the C*16:35 and 16:48 and the C*07:31, 07:177 and 14:15 alleles.
Primer mix 10: Specific PCR fragment of 215 bp in the C*16:19 and the C*04:101 and 07:114 alleles. Specific PCR fragment of 350 bp in the C*16:13 and the C*05:81, 06:87, 07:24, 07:218 and 12:45 alleles.
Primer mix 11: Specific PCR fragment of 170 bp in the C*16:20 and in the A*24:73, A*24:157, B*07:66, B*46:25 and B*51:55 alleles. Specific PCR fragment of 540 bp in the C*16:15:01-16:15:02 and 16:25 and the C*04:14, 04:68, 07:53 and 07:216 alleles.
Primer mix 12: Specific PCR fragment of 105 bp in the C*16:17 and in the C*01:27 alleles. Specific PCR fragment of 210 bp in the C*16:22 allele. Specific PCR fragment of 245 bp in the C*16:16Q allele.
Primer mix 18: Specific PCR fragment of 120 bp in the C *16:28 allele. Specific PCR fragment of 255 bp in the C*16:26 and 16:46 and the C*01:23, 01:58, 02:49, 04:03, 04:06, 04:80, 05:25, 05:42, 06:02:01:01-06:02:01:02, 06:02:03-06:02:09, 06:02:11-06:25, 06:27-06:29, 06:31-06:52, 06:54-06:87, 07:01:01:01-07:01:22, 07:01:24-07:02:10, 07:02:12-07:02:36, 07:04:01-07:04:04, 07:04:06-07:06, 07:08-07:15, 07:17-07:19, 07:21-07:33N, 07:35, 07:37-07:50, 07:52-07:55N, 07:57-07:58, 07:61N-07:63, 07:65-07:78, 07:80-07:87, 07:89-07:95, 07:97-07:108, 07:110-07:126, 07:128-07:176, 07:178-07:180, 07:182-07:226, 07:228-07:262, 08:28, 12:28, 15:25, 17:11 and 18:01-18:05 alleles.
Primer mix 19: Specific PCR fragment of 110 bp in the C*16:28 allele. Specific PCR fragment of 240 bp in the C*16:29, 16:31 and 16:50 and the C*01:10, 02:05, 02:17, 06:08, 06:22 and 14:25 alleles.
Primer mix 20: Specific PCR fragment of 95 bp in the C*16:27 allele. Specific PCR fragment of 145 bp in the C *16:32 allele.
Primer mix 23: Specific PCR fragment of 95 bp in the C*16:42 and the C*05:56 alleles. Specific PCR fragment of 170 bp in the C*16:30N allele.
Primer mix 24: Specific PCR fragment of 445 bp in the C*16:40 allele. Specific PCR fragment of 595 bp in the C*16:49 allele.
'w' might be weakly amplified.

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-C*16 SSP primer set

					Well													
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	201186001	201206402	201073703	201206404	201073705	201206406	201206407	201206408	201206409	201073710	201073711	201206412	201073713	201073714	201206415	201186016
	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	9007	DEM	*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	+	+	-	+	+	-	-	-	-	-	-	-	-	-	-	+

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-C*16 SSP primer set

					Well							
					17	18	19	20	21	22	23	24
				Prod. No.:	201186017	201206418	201186019	201186020	201186021	201206422	201206423	201206424
	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	9007	DEM	*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	+	-	-	-	-	-	-	-

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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Lot No.: 23R **Lot-specific information**

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-C*16 SSP

Product number: **101.627-12 – including *Taq* polymerase**
101.627-12u – without *Taq* polymerase
Lot number: **23R**
Expiry date: **2015-March-01**
Number of tests: **12**
Number of wells per test: **24**

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2011-860-01	9	2012-064-09	17	2011-860-17
2	2012-064-02	10	2010-737-10	18	2012-064-18
3	2010-737-03	11	2010-737-11	19	2011-860-19
4	2012-064-04	12	2012-064-12	20	2011-860-20
5	2010-737-05	13	2010-737-13	21	2011-860-21
6	2012-064-06	14	2010-737-14	22	2012-064-22
7	2012-064-07	15	2012-064-15	23	2012-064-23
8	2012-064-08	16	2011-860-16	24	2012-064-24

The specificity of each primer solution of the HLA-C*16 primer set has been tested against 48 well characterized cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 6 to 15 and 19 to 24 were available. The specificity of the primers in primer solutions 6, 7, 9, 11, 14, 15, 19 to 22 and 24 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer.
In primer solutions 10 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solutions 8, 12, 13 and 23 it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solutions 1, 6, 7, 15 and 20 one to three of the 5'-primers were not possible to test, and in primer solutions 9, 18 and 19 one respectively two of the 3'-primers were not possible to test.

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

Date of approval: 2012-September-14

Approved by:

Production Quality Control

101.627-12– including *Taq* polymerase, IFU-01
101.627-12u – without *Taq* polymerase, IFU-02

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

Lot No.: 23R **Lot-specific information**

Declaration of Conformity

Product name: *Olerup* SSP® HLA-C*16
Product number: 101.627-12
Lot number: 23R

Intended use: HLA-C*16 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Franzengatan 5
SE-112 51 Stockholm, Sweden
Phone: +46-8-717 88 27
Fax: +46-8-717 88 18

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex 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
2012-September-14

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.627-12– including *Taq* polymerase, IFU-01
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Lot No.: 23R **Lot-specific information**

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