

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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

Lot No.: **75S**

Lot-specific Information

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Olerup SSP® HLA-A*29

Product number:	101.428-12 – including <i>Taq</i> polymerase 101.428-12u – without <i>Taq</i> polymerase
Lot number:	75S
Expiry date:	2016-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. 75S.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*® HLA-A*29 Lot (92N)

The HLA-A*29 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-A*29 including and without
Taq polymerase is now described in one common Product Insert.

¹As described in section Uniquely Identified Alleles.

The HLA-A*29 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP*® HLA-A*29 lot was made (Lot No. 92N).

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

Well	5'-primer	3'-primer	rationale
3	-	Added	3'-primer for the A*29:35 allele added from well 24.
6	-	Moved, added	3'-primer for the A*29:20 allele moved to well 7, 3'-primer added for the A*29:40 allele.
7	-	Added	3'-primer added from well 6.
8	Added	Added	Primer pair added for the A*29:46 allele.
10	Added	-	5'-primer added for the A*29:43 allele.
11	-	Added	3'-primer for the A*29:35 allele added from well 24.
16	Added	-	5'-primer added for the A*29:43 allele.
17	-	Added	3'-primer added for the A*29:40 allele.
19	Added	Added	Primer pair added from well 20.
20	Added, moved	Added, moved	Primer pair added for the A*29:44, primer pair moved to well 19.
24	Added	Moved, added	3'-primers moved to wells 3 and 11, primer pairs added for the A*29:36 and A*29:37 alleles.

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PRODUCT DESCRIPTION

HLA-A*29 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the A*29:01 to A*29:55 alleles.

PLATE LAYOUT

Each 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-A*29' in silver/gray ink.

Well No. 1 is marked with the Lot No. '75S'.

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

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

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

INTERPRETATION

The interpretation of HLA-A*29 SSP subtypings will be influenced by three A*01, eight A*02, four A*03, four A*11, three A*23, six A*24, two A*26, the A*30:47, seven A*31, most A*32, seven A*33, the A*66:09, the A*68:58 and the A*74 alleles when present on the other haplotype. In addition the C*03:03:20 allele will be amplified by primer mix 20.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*29 alleles, i.e. **A*29:01 to A*29:55 alleles**, recognized by the HLA Nomenclature Committee in April 2012¹ will be amplified by the primers in the HLA-A*29 subtyping kit.

The HLA-A*29 kit enables separation of the confirmed HLA-A*29 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-A*29 alleles is listed below.

The HLA-A*29 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles

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Lot No.: 75S**Lot-specific Information**www.olerup-ssp.com

The HLA-A*29 subtyping kit cannot distinguish following silent mutations: the A*29:01:01:01 and 29:01:02-29:01:04 alleles and the A*29:02:01:01-29:02:03 and 29:02:05-29:02:13 alleles.

The A*29:06 and A*29:34 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 7.

The A*29:07 and A*29:46 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 8.

¹HLA-A alleles listed on the IMGT/HLA web page 2013-July-25, release 3.13.1, www.ebi.ac.uk/imgt/hla.

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
A*29:01:01:01	Confirmed	A*29:04	Unconfirmed	A*29:24	Unconfirmed	A*29:44	Confirmed
A*29:01:01:02N	Unconfirmed	A*29:05	Unconfirmed	A*29:25	Unconfirmed	A*29:45	Unconfirmed
A*29:01:02	Unconfirmed	A*29:06	Unconfirmed	A*29:26	Confirmed	A*29:46	Unconfirmed
A*29:01:03	Unconfirmed	A*29:07	Unconfirmed	A*29:27	Unconfirmed	A*29:47	Unconfirmed
A*29:01:04	Unconfirmed	A*29:08N	Unconfirmed	A*29:28	Unconfirmed	A*29:48	Unconfirmed
A*29:02:01:01	Confirmed	A*29:09	Confirmed	A*29:29	Unconfirmed	A*29:49	Unconfirmed
A*29:02:01:02	Unconfirmed	A*29:10	Confirmed	A*29:30	Unconfirmed	A*29:50	Unconfirmed
A*29:02:02	Confirmed	A*29:11	Confirmed	A*29:31	Unconfirmed	A*29:51	Unconfirmed
A*29:02:03	Confirmed	A*29:12	Confirmed	A*29:32	Unconfirmed	A*29:52	Unconfirmed
A*29:02:04	Confirmed	A*29:13	Unconfirmed	A*29:33	Unconfirmed	A*29:53	Unconfirmed
A*29:02:05	Unconfirmed	A*29:14	Unconfirmed	A*29:34	Confirmed	A*29:54	Unconfirmed
A*29:02:06	Confirmed	A*29:15	Unconfirmed	A*29:35	Confirmed	A*29:55	Unconfirmed
A*29:02:07	Unconfirmed	A*29:16	Unconfirmed	A*29:36	Confirmed		
A*29:02:08	Unconfirmed	A*29:17	Unconfirmed	A*29:37	Unconfirmed		
A*29:02:09	Unconfirmed	A*29:18	Unconfirmed	A*29:38	Unconfirmed		
A*29:02:10	Unconfirmed	A*29:19	Unconfirmed	A*29:39	Unconfirmed		
A*29:02:11	Unconfirmed	A*29:20	Confirmed	A*29:40	Confirmed		
A*29:02:12	Unconfirmed	A*29:21	Confirmed	A*29:41	Unconfirmed		
A*29:02:13	Unconfirmed	A*29:22	Confirmed	A*29:42	Unconfirmed		
A*29:03	Unconfirmed	A*29:23	Unconfirmed	A*29:43	Confirmed		

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2013-July-25, release 3.13.1, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 72 alleles generate 40 amplification patterns that can be combined in 820 homozygous and heterozygous combinations. 450 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.

```

-----  ---+---+  -----  *29:02:04, *29:02:04 = *29:02:04, *29:18
---+-----  -----+---  -----+---  *29:13, *29:13 = *29:13, *29:39
---+-----  -----+---  -----+---  *29:02:01:01, *29:02:01:01 = *29:02:01:01, *29:39
-----  ---+---+  ---+-----  *29:02:04, *29:25 = *29:18, *29:25
---+-----  -----+---  -----+  *29:02:01:01, *29:36 = *29:02:01:01, *29:37 = *29:36, *29:36 = *29:36,
                                     *29:37 = *29:36, *29:39

```

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Lot No.: 75S	Lot-specific Information	www.olerup-ssp.com	
---+-----	-----+-	-----+---	*29:02:01:01, *29:29 = *29:29, *29:29 = *29:29, *29:39
---+-----	-----+-	-----+---	*29:02:01:01, *29:22 = *29:22, *29:22 = *29:22, *29:39
---+-----	-----+-	---+-----	*29:02:01:01, *29:44 = *29:39, *29:44 = *29:44, *29:44
---+-----	-----+-	---+-----	*29:02:01:01, *29:25 = *29:02:01:01, *29:26 = *29:25, *29:26 = *29:25, *29:39 = *29:26, *29:26 = *29:26, *29:39
---+-----	-----+-	-+-----	*29:02:01:01, *29:23 = *29:23, *29:23 = *29:23, *29:39
---+-----	-----+-	+-----	*29:02:01:01, *29:27 = *29:27, *29:27 = *29:27, *29:39
---+-----	-----++	-----	*29:02:01:01, *29:21 = *29:21, *29:21 = *29:21, *29:39
---+-----	-----++	-----	*29:02:01:01, *29:11 = *29:11, *29:11 = *29:11, *29:39
---+-----	---+-----	-----	*29:02:01:01, *29:02:04 = *29:02:01:01, *29:18 = *29:02:04, *29:39 = *29:18, *29:39
---+-----	---+-----	-----	*29:02:01:01, *29:10 = *29:02:01:01, *29:14 = *29:10, *29:10 = *29:10, *29:14 = *29:10, *29:39 = *29:14, *29:39
---+-----	-+-----	-----	*29:02:01:01, *29:09 = *29:09, *29:09 = *29:09, *29:39
---+-----	+-----	-----	*29:02:01:01, *29:08N = *29:08N, *29:08N = *29:08N, *29:39
---+-----	-----+-	-----	*29:02:01:01, *29:07 = *29:07, *29:07 = *29:07, *29:39
---+-----	-----+-	-----	*29:02:01:01, *29:06 = *29:06, *29:06 = *29:06, *29:39
---+-----	-----+-	-----	*29:02:01:01, *29:05 = *29:05, *29:05 = *29:05, *29:39
---+-----	-----+-	-----	*29:19, *29:19 = *29:19, *29:39
---+-----	-----+-	-----	*29:02:01:01, *29:04 = *29:04, *29:04 = *29:04, *29:39
---+-----	-----+-	-----	*29:02:01:01, *29:03 = *29:03, *29:03 = *29:03, *29:39
+-----	-----++	+-----	*29:01:01:01, *29:24 = *29:24, *29:24
+-----	-----++	-----	*29:01:01:01, *29:15 = *29:15, *29:15
+-----	-----++	-----	*29:01:01:01, *29:12 = *29:12, *29:12
+-----	---+-----	-----	*29:01:01:01, *29:02:04 = *29:01:01:01, *29:18 = *29:01:01:01, *29:48 = *29:02:04, *29:48
+-----	-+-----	-----	*29:01:01:01, *29:17 = *29:17, *29:17
+-----	+-----	-----	*29:01:01:01, *29:16 = *29:16, *29:16
+-----	-----++	-----	*29:01:01:01, *29:49 = *29:49, *29:49
+-----	-----++	-----	*29:01:01:01, *29:20 = *29:20, *29:20
+-----	-----++	-----	*29:01:01:01, *29:02:01:01 = *29:01:01:01, *29:39
++-----	-----++	-----	*29:01:01:01, *29:01:01:02N = *29:01:01:02N, *29:01:01:02N
---+-----	-----++	-----++	*29:29, *29:36 = *29:29, *29:37
---+-----	-----++	---+-----	*29:22, *29:36 = *29:22, *29:37
---+-----	-----++	---+-----	*29:36, *29:44 = *29:37, *29:44
---+-----	-----++	---+-----	*29:25, *29:36 = *29:25, *29:37 = *29:26, *29:36 = *29:26, *29:37
---+-----	-----++	---+-----	*29:25, *29:29 = *29:26, *29:29
---+-----	-----++	---+-----	*29:13, *29:25 = *29:13, *29:26
---+-----	-----++	---+-----	*29:22, *29:25 = *29:22, *29:26
---+-----	-----++	---+-----	*29:25, *29:44 = *29:26, *29:44
---+-----	-----++	-+-----	*29:23, *29:36 = *29:23, *29:37
---+-----	-----++	-+-----	*29:23, *29:25 = *29:23, *29:26
---+-----	-----++	+-----	*29:27, *29:36 = *29:27, *29:37
---+-----	-----++	+-----	*29:25, *29:27 = *29:26, *29:27
---+-----	-----++	-----	*29:21, *29:36 = *29:21, *29:37
---+-----	-----++	-----	*29:21, *29:25 = *29:21, *29:26
---+-----	-----++	-----	*29:11, *29:36 = *29:11, *29:37
---+-----	-----++	-----	*29:11, *29:25 = *29:11, *29:26
---+-----	---+-----	-----	*29:02:04, *29:36 = *29:02:04, *29:37 = *29:18, *29:36
---+-----	---+-----	-----	*29:02:04, *29:29 = *29:18, *29:29
---+-----	---+-----	-----	*29:02:04, *29:13 = *29:13, *29:18
---+-----	---+-----	-----	*29:02:04, *29:22 = *29:18, *29:22
---+-----	---+-----	-----	*29:02:04, *29:44 = *29:18, *29:44
---+-----	---+-----	-----	*29:02:04, *29:26 = *29:18, *29:26
---+-----	---+-----	-+-----	*29:02:04, *29:23 = *29:18, *29:23
---+-----	---+-----	+-----	*29:02:04, *29:27 = *29:18, *29:27
---+-----	---+-----	-----	*29:02:04, *29:21 = *29:18, *29:21

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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---+-----	*29:02:04, *29:11 = *29:11, *29:18	
---+-----	*29:10, *29:36 = *29:10, *29:37 = *29:14, *29:36	
---+-----	*29:10, *29:29 = *29:14, *29:29	
---+-----	*29:10, *29:13 = *29:13, *29:14	
---+-----	*29:10, *29:22 = *29:14, *29:22	
---+-----	*29:10, *29:44 = *29:14, *29:44	
---+-----	*29:10, *29:25 = *29:10, *29:26 = *29:14, *29:25 = *29:14, *29:26	
---+-----	*29:10, *29:23 = *29:14, *29:23	
---+-----	*29:10, *29:27 = *29:14, *29:27	
---+-----	*29:10, *29:21 = *29:14, *29:21	
---+-----	*29:10, *29:11 = *29:11, *29:14	
---+-----	*29:02:04, *29:10 = *29:02:04, *29:14 = *29:10, *29:18	
---+-----	*29:09, *29:36 = *29:09, *29:37	
---+-----	*29:09, *29:25 = *29:09, *29:26	
---+-----	*29:02:01:01, *29:43 = *29:09, *29:21 = *29:09, *29:43 = *29:21, *29:43 = *29:39, *29:43 = *29:43, *29:43	
---+-----	*29:02:04, *29:09 = *29:09, *29:18	
---+-----	*29:09, *29:10 = *29:09, *29:14	
---+-----	*29:08N, *29:36 = *29:08N, *29:37	
---+-----	*29:08N, *29:25 = *29:08N, *29:26	
---+-----	*29:02:04, *29:08N = *29:08N, *29:18	
---+-----	*29:08N, *29:10 = *29:08N, *29:14	
---+-----	*29:07, *29:36 = *29:07, *29:37	
---+-----	*29:07, *29:25 = *29:07, *29:26	
---+-----	*29:02:04, *29:07 = *29:07, *29:18	
---+-----	*29:07, *29:10 = *29:07, *29:14	
---+-----	*29:06, *29:36 = *29:06, *29:37	
---+-----	*29:06, *29:25 = *29:06, *29:26	
---+-----	*29:02:04, *29:06 = *29:06, *29:18	
---+-----	*29:06, *29:10 = *29:06, *29:14	
---+-----	*29:05, *29:36 = *29:05, *29:37	
---+-----	*29:05, *29:25 = *29:05, *29:26	
---+-----	*29:02:01:01, *29:40 = *29:05, *29:27 = *29:05, *29:40 = *29:27, *29:40 = *29:39, *29:40 = *29:40, *29:40	
---+-----	*29:02:04, *29:05 = *29:05, *29:18	
---+-----	*29:05, *29:10 = *29:05, *29:14	
---+-----	*29:02:01:01, *29:19 = *29:05, *29:06 = *29:05, *29:19 = *29:06, *29:19	
---+-----	*29:04, *29:36 = *29:04, *29:37	
---+-----	*29:04, *29:25 = *29:04, *29:26	
---+-----	*29:02:04, *29:04 = *29:04, *29:18	
---+-----	*29:04, *29:10 = *29:04, *29:14	
---+-----	*29:03, *29:36 = *29:03, *29:37	
---+-----	*29:03, *29:25 = *29:03, *29:26	
---+-----	*29:02:04, *29:03 = *29:03, *29:18	
---+-----	*29:02:01:01, *29:35 = *29:03, *29:10 = *29:03, *29:14 = *29:03, *29:35 = *29:10, *29:35 = *29:14, *29:35 = *29:35, *29:35 = *29:35, *29:39	
+-----	*29:02:04, *29:24 = *29:18, *29:24 = *29:24, *29:48	
+-----	*29:02:04, *29:15 = *29:15, *29:18 = *29:15, *29:48	
+-----	*29:02:04, *29:12 = *29:12, *29:18 = *29:12, *29:48	
+-----	*29:02:04, *29:17 = *29:17, *29:18 = *29:17, *29:48	
+-----	*29:02:04, *29:16 = *29:16, *29:18 = *29:16, *29:48	
+-----	*29:02:04, *29:49 = *29:18, *29:49 = *29:48, *29:49	
+-----	*29:02:04, *29:20 = *29:18, *29:20 = *29:20, *29:48	
+-----	*29:01:01:01, *29:36 = *29:01:01:01, *29:37	
+-----	*29:01:01:01, *29:27 = *29:02:01:01, *29:24 = *29:24, *29:27 = *29:24, *29:39	
+-----	*29:01:01:01, *29:21 = *29:02:01:01, *29:15 = *29:15, *29:21 = *29:15,	

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++-----	*29:39	
++-----	*29:01:01:01, *29:11 = *29:02:01:01, *29:12 = *29:11, *29:12 = *29:12,	
++-----	*29:39	
++-----	*29:01:01:01, *29:10 = *29:01:01:01, *29:14	
++-----	*29:01:01:01, *29:09 = *29:02:01:01, *29:17 = *29:09, *29:17 = *29:17,	
++-----	*29:39	
++-----	*29:01:01:01, *29:08N = *29:02:01:01, *29:16 = *29:08N, *29:16 =	
++-----	*29:16, *29:39	
++-----	*29:01:01:01, *29:07 = *29:02:01:01, *29:49 = *29:07, *29:49 = *29:39,	
++-----	*29:49	
++-----	*29:01:01:01, *29:06 = *29:02:01:01, *29:20 = *29:06, *29:20 = *29:20,	
++-----	*29:39	
++-----	*29:01:01:02N, *29:02:04 = *29:01:01:02N, *29:18 = *29:01:01:02N,	
++-----	*29:48	
++-----	*29:01:01:02N, *29:02:01:01 = *29:01:01:02N, *29:39	
++-----	*29:36, *29:43 = *29:37, *29:43	
++-----	*29:25, *29:43 = *29:26, *29:43	
++-----	*29:02:04, *29:43 = *29:18, *29:43	
++-----	*29:10, *29:43 = *29:14, *29:43	
++-----	*29:36, *29:40 = *29:37, *29:40	
++-----	*29:25, *29:40 = *29:26, *29:40	
++-----	*29:02:04, *29:40 = *29:18, *29:40	
++-----	*29:10, *29:40 = *29:14, *29:40	
++-----	*29:19, *29:25 = *29:19, *29:26	
++-----	*29:06, *29:40 = *29:19, *29:27 = *29:19, *29:40	
++-----	*29:02:04, *29:19 = *29:18, *29:19	
++-----	*29:10, *29:19 = *29:14, *29:19	
++-----	*29:35, *29:36 = *29:35, *29:37	
++-----	*29:25, *29:35 = *29:26, *29:35	
++-----	*29:02:04, *29:35 = *29:18, *29:35	
++-----	*29:01:01:01, *29:33 = *29:17, *29:33 = *29:33, *29:33	
++-----	*29:24, *29:36 = *29:24, *29:37	
++-----	*29:15, *29:36 = *29:15, *29:37	
++-----	*29:15, *29:27 = *29:21, *29:24	
++-----	*29:12, *29:36 = *29:12, *29:37	
++-----	*29:11, *29:24 = *29:12, *29:27	
++-----	*29:11, *29:15 = *29:12, *29:21	
++-----	*29:10, *29:24 = *29:14, *29:24	
++-----	*29:10, *29:15 = *29:14, *29:15	
++-----	*29:10, *29:12 = *29:12, *29:14	
++-----	*29:17, *29:36 = *29:17, *29:37	
++-----	*29:09, *29:24 = *29:17, *29:27	
++-----	*29:01:01:01, *29:43 = *29:09, *29:15 = *29:15, *29:43 = *29:17, *29:21	
++-----	= *29:17, *29:43	
++-----	*29:09, *29:12 = *29:11, *29:17	
++-----	*29:10, *29:17 = *29:14, *29:17	
++-----	*29:16, *29:36 = *29:16, *29:37	
++-----	*29:08N, *29:24 = *29:16, *29:27	
++-----	*29:08N, *29:15 = *29:16, *29:21	
++-----	*29:08N, *29:12 = *29:11, *29:16	
++-----	*29:10, *29:16 = *29:14, *29:16	
++-----	*29:08N, *29:17 = *29:09, *29:16	
++-----	*29:36, *29:49 = *29:37, *29:49	
++-----	*29:07, *29:24 = *29:27, *29:49	
++-----	*29:07, *29:15 = *29:21, *29:49	
++-----	*29:07, *29:12 = *29:11, *29:49	
++-----	*29:10, *29:49 = *29:14, *29:49	

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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+--+-----+ -+-----+- -----	*29:07, *29:17 = *29:09, *29:49
+--+-----+ +-----+- -----	*29:07, *29:16 = *29:08N, *29:49
+--+-----+ -----+- -----+	*29:20, *29:36 = *29:20, *29:37
+--+-----+ -----+- +-----	*29:06, *29:24 = *29:20, *29:27
+--+-----+ -----++- -----	*29:06, *29:15 = *29:20, *29:21
+--+-----+ -----++- -----	*29:06, *29:12 = *29:11, *29:20
+--+-----+ -+-----+- -----	*29:10, *29:20 = *29:14, *29:20
+--+-----+ -+-----+- -----	*29:06, *29:17 = *29:09, *29:20
+--+-----+ +-----+- -----	*29:06, *29:16 = *29:08N, *29:20
+--+-----+ -----+- -----	*29:06, *29:49 = *29:07, *29:20
+--+-----+ -----+- +-----	*29:01:01:01, *29:40 = *29:05, *29:24 = *29:24, *29:40
+--+-----+ -----+- -----	*29:01:01:01, *29:19 = *29:05, *29:20 = *29:19, *29:20
+++-----+ -----+- -----+	*29:01:01:02N, *29:36 = *29:01:01:02N, *29:37
+++-----+ -+-----+- -----	*29:01:01:02N, *29:10 = *29:01:01:02N, *29:14
+--+-----+ -+-----+- -----	*29:02:04, *29:33 = *29:18, *29:33 = *29:33, *29:48
+--+-----+ -----+- +-----	*29:19, *29:24 = *29:20, *29:40
+--+-----+ -+-----+- -----	*29:02:01:01, *29:33 = *29:03, *29:33 = *29:05, *29:33 = *29:09, *29:33 = *29:33, *29:39
+--+-----+ -+-----+- -----+	*29:33, *29:36 = *29:33, *29:37
+--+-----+ -+-----+- +-----	*29:27, *29:33 = *29:33, *29:40
+--+-----+ -+-----+- -----	*29:21, *29:33 = *29:33, *29:43
+--+-----+ -+-----+- -----	*29:10, *29:33 = *29:14, *29:33 = *29:33, *29:35
+--+-----+ -+-----+- -----	*29:06, *29:33 = *29:19, *29:33

*29:01:01:01 = *29:01:01:01, 29:01:02-29:01:04 and the 29:28 and 29:55

*29:02:01:01 = *29:02:01:01-29:02:03, 29:02:05-29:02:13 and the 29:30-29:32, 29:38, 29:41-29:42, 29:45, 29:47 and 29:50-29:54

*29:06 = *29:06 and 29:34

*29:07 = *29:07 and 29:46

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot-specific Information

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SPECIFICITY TABLE

HLA-A*29 SSP subtyping

Specificities and sizes of the PCR products of the 24 primer mixes used for HLA-A*29 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-A*29 alleles ³	Other amplified HLA-A alleles ⁴
1	480 bp	800 bp	*29:01:01:01-29:01:04, 29:12, 29:15-29:17, 29:20, 29:24, 29:28, 29:33, 29:48-29:49, 29:55	
2	130 bp	1070 bp	*29:01:01:02N	
3	440 bp	800 bp	*29:02:01:01-29:02:03, 29:02:05-29:11, 29:13-29:14, 29:19, 29:21-29:23, 29:26-29:27, 29:29-29:32, 29:34-29:47, 29:50-29:54	*11:01:42
4^{5,8}	120 bp, 165 bp	800 bp	*29:03, 29:33, 29:35	*23:03:01, 24:208, 31:05, 32:13, 33:10
5	130 bp	1070 bp	*29:04	
6^{5,9}	105 bp, 130 bp	800 bp	*29:05, 29:19, 29:33, 29:40	*11:01:28, 24:208, 31:24, 32:02, 32:22, 33:59
7^{5,10}	105 bp, 210 bp	1070 bp	*29:06, 29:19-29:20, 29:34	*31:51, 32:12
8^{5,11}	85 bp, 160 bp	800 bp	*29:07, 29:46, 29:49	*11:139, 23:53, 24:17, 24:41, 24:208
9^{5,6,12}	80 bp, 170 bp	1070 bp	*29:08N, 29:16	*03:27
10^{5,13}	95 bp, 165 bp	800 bp	*29:09, 29:17, 29:33, 29:43	*03:01:18, 11:01:28, 24:208, 31:24, 32:33:01, 33:34
11^{5,14}	110 bp, 195 bp	800 bp	*29:10, 29:14, 29:35	
12^{5,6}	80 bp	800 bp	*29:02:04, 29:18, 29:48	*03:01:39, 32:01:01-32:01:07, 32:01:09-32:03, 32:05-32:55:02, 32:57-32:58, 74:01-74:13, 74:15-74:17

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: 75S		Lot-specific Information		www.olerup-ssp.com
13 ^{5,6,15}	85 bp, 165 bp	1070 bp	*29:11-29:12	*31:16, 33:58
14	200 bp	1070 bp	*29:01:01:01-29:13, 29:15- 29:17, 29:19-29:36, 29:38- 29:47, 29:49-29:55	
15	240 bp	1070 bp	*29:01:01:01-29:12, 29:14- 29:18, 29:20-29:36, 29:38, 29:40-29:47, 29:49-29:55	*33:13, 33:48
16 ^{5,6,16}	95 bp, 160 bp	1070 bp	*29:15, 29:21, 29:43	*02:221, 23:41
17 ¹⁷	135 bp, 190 bp	1070 bp	*29:24, 29:27, 29:40	
18	185 bp	1070 bp	*29:23	
19 ^{7,18}	160 bp, 505 bp	1070 bp	*29:25-29:26	
20 ^{5,6}	105 bp	1070 bp	*29:44	*02:65, 11:01:28, 32:01:01-32:01:06, 32:01:08-32:01:11, 32:01:13-32:03, 32:05-32:27N, 32:29-32:33:01, 32:34-32:58, 74:01- 74:17, C*03:03:20
21	185 bp	1070 bp	*29:22	*01:20, 01:66, 01:130, 02:19, 02:44, 02:149, 02:309, 02:408, 02:436, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09
22	260 bp	1070 bp	*29:13	*24:82, 31:07-31:08, 31:10, 32:42
23 ⁵	115 bp	800 bp	*29:29	*11:128, 26:85, 68:58
24 ¹⁹	225 bp, 260 bp	1070 bp	*29:36-29:37	*32:07

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-A*29 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.

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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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-A*29 subtyping.

In addition, wells number 3, 4, 6, 8, 10 to 12 and 23 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-A alleles a few non-HLA-A*29 alleles will be amplified by primer mixes 3, 4, 6 to 10, 12, 13, 15, 16 and 20 to 24.

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

⁶Primer mixes 9, 12, 13, 16 and 20 may have tendencies of unspecific amplifications.

⁷Primer mix 19 has a tendency to giving rise to primer oligomer formation.

⁸Primer mix 4: Specific PCR fragment of 120 bp in the A*29:35 allele. Specific PCR fragment of 165 bp in the A*29:03 and 29:33 and the A*23:03:01, 24:208, 31:05, 32:13 and 33:10 alleles.

⁹Primer mix 6: Specific PCR fragment of 105 bp in the A*29:19 allele. Specific PCR fragment of 130 bp in the A*29:05, 29:33 and 29:40 and the A*11:01:28, 31:24, 32:02, 32:22 and 33:59 alleles.

¹⁰Primer mix 7: Specific PCR fragment of 105 bp in the A*29:19, 29:20 and 29:34 alleles. Specific PCR fragment of 210 bp in the A*29:06 and the A*31:51 and 32:12 alleles.

¹¹Primer mix 8: Specific PCR fragment of 85 bp in the A*29:07 and 29:49 and the A*11:139, 23:53, 24:17, 24:41 and 24:208 alleles. Specific PCR fragment of 160 bp in the A*29:46 allele.

¹²Primer mix 9: Specific PCR fragment of 80 bp in the A*29:16 and in the A*03:27 alleles. Specific PCR fragment of 170 bp in the A*29:08N allele.

¹³Primer mix 10: Specific PCR fragment of 95 bp in the A*29:09 and 29:33 and the A*03:01:18, 11:01:28, 24:208, 31:24, 32:33:01 and 33:34 alleles. Specific PCR fragment of 165 bp in the A*29:17 and 29:43 alleles.

¹⁴Primer mix 11: Specific PCR fragment of 110 bp in the A*29:14 and 29:35 alleles. Specific PCR fragment of 195 bp in the A*29:10 allele.

¹⁵Primer mix 13: Specific PCR fragment of 85 bp in the A*29:11 allele. Specific PCR fragment of 165 bp in the A*29:12 and the A*31:16 and 33:58 alleles.

¹⁶Primer mix 16: Specific PCR fragment of 95 bp in the A*29:15 and the A*02:221 and 23:41 alleles. Specific PCR fragment of 160 bp in the A*29:21 and 29:43 alleles.

¹⁷Primer mix 17: Specific PCR fragment of 135 bp in the A*29:24 and 29:40 alleles. Specific PCR fragment of 190 bp in the A*29:27 allele.

¹⁸Primer mix 19: Specific PCR fragment of 160 bp in the A*29:25 alleles. Specific PCR fragment of 505 bp in the A*29:26 allele.

¹⁹Primer mix 24: Specific PCR fragment of 225 bp in the A*29:37 and the A*32:07 alleles. Specific PCR fragment of 260 bp in the A*29:36 allele.

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot-specific Information

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INTERPRETATION TABLE												
HLA-A*29 SSP subtyping												
Amplification patterns of the A*29:01 to 29:55 alleles												
	Well⁷											
	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	480	130	440	120	130	105	105	85	80	95	110	80
PCR product(s)				165		130	210	160	170	165	195	
Length of int.	800	1070	800	800	1070	800	1070	800	1070	800	800	800
pos. control¹												
5'-primer(s)²	180	808	219	448	180	219	219	368	97	130	180	180
	5' - TTT 3'	5' - CgT 3'	5' - gCA 3'	5' - CCT 3'	5' - TTT 3'	5' - gCA 3'	5' - gCA 3'	5' - gTT 3'	5' - TCA 3'	5' - AgA 3'	5' - TTT 3'	5' - TTT 3'
						448	448	652	413	140	448	
						5' - CCT 3'	5' - CCT 3'	5' - CTg 3'	5' - CCg 3'	5' - CAA 3'	5' - CCT 3'	
										448		
										5' - CCT 3'		
3'-primer(s)³	376	895	376	526	268	282	282	413	224	257	238	218
	5' - gTg 3'	5' - CTC 3'	5' - gTC 3'	5' - CAT 3'	5' - ATg 3'	5' - gAg 3'	5' - gAg 3'	5' - gCC 3'	5' - TCT 3'	5' - gCA 3'	5' - CCT 3'	5' - gCg 3'
				570		533	282	773	454	502	526	
				5' - CCg 3'		5' - gCC 3'	5' - gAg 3'	5' - gCT 3'	5' - CTg 3'	5' - CTT 3'	5' - CAT 3'	
						539	616				601	
						5' - TCT 3'	5' - CgC 3'				5' - CTT 3'	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
HLA-A allele⁴												
*29:01:01:01, 29:01:02-29:01:04, 29:28, 29:55	1											
*29:01:01:02N	1	2										
*29:02:01:01-29:02:03, 29:02:05-29:02:13, 29:30-29:32, 29:38, 29:41-29:42, 29:45, 29:47, 29:50-29:54			3									
*29:02:04												12
*29:03			3	4								
*29:04			3		5							
*29:05			3			6						
*29:06, 29:34⁵			3				7					
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

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101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot-specific Information

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Length of spec.	480	130	440	120	130	105	105	85	80	95	110	80
PCR product(s)				165		130	210	160	170	165	195	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*29:07, 29:46 ⁶			3					8				
*29:08N			3						9			
*29:09			3							10		
*29:10			3								11	
*29:11			3									
*29:12	1											
*29:13			3									
*29:14			3								11	
*29:15	1											
*29:16	1								9			
*29:17	1									10		
*29:18												12
*29:19			3			6	7					
*29:20	1						7					
*29:21			3									
*29:22			3									
*29:23			3									
*29:24	1											
*29:25												
*29:26			3									
*29:27			3									
*29:29			3									
*29:33	1			4		6				10		
*29:35			3	4							11	
*29:36			3									
*29:37			3									
*29:39			3									
*29:40			3			6						
*29:43			3							10		
*29:44			3									
*29:48	1											12
*29:49	1							8				
*01:20, 01:66, 01:130, 02:19, 02:44, 02:149, 02:309, 02:408, 02:436, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

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85	200	240	95	135	185	160	105	185	260	115	225	Length of spec.
165			160	190		505						PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
	14	15										*29:07, 29:46 ⁶
	14	15										*29:08N
	14	15										*29:09
	14	15										*29:10
13	14	15										*29:11
13	14	15										*29:12
	14								22			*29:13
		15										*29:14
	14	15	16									*29:15
	14	15										*29:16
	14	15										*29:17
		15										*29:18
	14											*29:19
	14	15										*29:20
	14	15	16									*29:21
	14	15						21				*29:22
	14	15			18							*29:23
	14	15		17								*29:24
	14	15				19						*29:25
	14	15				19						*29:26
	14	15		17								*29:27
	14	15								23		*29:29
	14	15										*29:33
	14	15										*29:35
	14	15									24	*29:36
											24	*29:37
	14											*29:39
	14	15		17								*29:40
	14	15	16									*29:43
	14	15					20					*29:44
												*29:48
	14	15										*29:49
								21				*01:20, 01:66, 01:130, 02:19, 02:44, 02:149, 02:309, 02:408, 02:436, 03:95, 24:14, 24:93, 26:22, 30:47, 33:22, 66:09
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

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Length of spec.	480	130	440	120	130	105	105	85	80	95	110	80
PCR product(s)				165		130	210	160	170	165	195	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12
*02:65, 32:01:08, 32:56N, 74:14N, C*03:03:20												
*02:221, 23:41												
*03:01:18, 33:34										10		
*03:01:39, 32:01:07, 32:01:12, 32:28, 32:33:02												12
*03:27									9			
*11:01:28						6				10		
*11:01:42			3									
*11:128, 26:85, 68:58												
*11:139, 23:53, 24:17, 24:41								8				
*23:03:01, 31:05, 33:10				4								
*24:82, 31:07-31:08, 31:10												
*24:208				4		6		8		10		
*31:16, 33:58												
*31:24						6				10		
*31:51							7					
*32:01:01-32:01:06, 32:01:09- 32:01:11, 32:01:13-32:01:15, 32:03, 32:05-32:06, 32:08- 32:11Q, 32:14-32:21, 32:23- 32:27N, 32:29-32:32, 32:34- 32:41, 32:43-32:55:02, 32:57- 32:58, 74:01-74:13, 74:15- 74:17												12
*32:02, 32:22						6						12
*32:07												12
*32:12							7					12
*32:13				4								12
*32:33:01										10		12
*32:42												12
*33:13, 33:48												
*33:59						6						
HLA-A allele												
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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85	200	240	95	135	185	160	105	185	260	115	225	Length of spec.
165			160	190		505						PCR product(s)
13	14	15	16	17	18	19	20	21	22	23	24	Well No.
							20					*02:65, 32:01:08, 32:56N, 74:14N, C*03:03:20
			16									*02:221, 23:41
												*03:01:18, 33:34
												*03:01:39, 32:01:07, 32:01:12, 32:28, 32:33:02
												*03:27
							20					*11:01:28
												*11:01:42
										23		*11:128, 26:85, 68:58
												*11:139, 23:53, 24:17, 24:41
												*23:03:01, 31:05, 33:10
									22			*24:82, 31:07-31:08, 31:10
												*24:208
13												*31:16, 33:58
												*31:24
												*31:51
							20					*32:01:01-32:01:06, 32:01:09- 32:01:11, 32:01:13-32:01:15, 32:03, 32:05-32:06, 32:08- 32:11Q, 32:14-32:21, 32:23- 32:27N, 32:29-32:32, 32:34- 32:41, 32:43-32:55:02, 32:57- 32:58, 74:01-74:13, 74:15- 74:17
							20					*32:02, 32:22
							20				24	*32:07
							20					*32:12
							20					*32:13
							20					*32:33:01
							20		22			*32:42
		15										*33:13, 33:48
												*33:59
												HLA-A allele
13	14	15	16	17	18	19	20	21	22	23	24	Well No.

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: 75S**Lot-specific Information****www.olerup-ssp.com**

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-A*29 subtyping.

In addition, wells number 3, 4, 6, 8, 10 to 12 and 23 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 exons or in 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 exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴HLA-A*29 alleles in bold lettering are listed as confirmed alleles on the on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.13.1, July 2013.

⁵The A*29:06 and A*29:34 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 7.

⁶The A*29:07 and A*29:46 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 8.

⁷Primer mix 6: Specific PCR fragment of 105 bp in the A*29:19, allele. Specific PCR fragment of 130 bp in the A*29:05, 29:33 and 29:40 and the A*11:01:28, 31:24, 32:02, 32:22 and 33:59 alleles.

Primer mix 7: Specific PCR fragment of 105 bp in the A*29:19, 29:20 and 29:34 alleles. Specific PCR fragment of 210 bp in the A*29:06 and the A*31:51 and 32:12 alleles.

Primer mix 8: Specific PCR fragment of 85 bp in the A*29:07 and 29:49 and the A*11:139, 23:53, 24:17, 24:41 and 24:208 alleles. Specific PCR fragment of 160 bp in the A*29:46 allele.

Primer mix 9: Specific PCR fragment of 80 bp in the A*29:16 and in the A*03:27 alleles. Specific PCR fragment of 170 bp in the A*29:08N allele.

Primer mix 10: Specific PCR fragment of 95 bp in the A*29:09 and 29:33 and the A*03:01:18, 11:01:28, 24:208, 31:24, 32:33:01 and 33:34 alleles. Specific PCR fragment of 165 bp in the A*29:17 and 29:43 alleles.

Primer mix 11: Specific PCR fragment of 110 bp in the A*29:14 and 29:35 alleles. Specific PCR fragment of 195 bp in the A*29:10 allele.

Primer mix 13: Specific PCR fragment of 85 bp in the A*29:11 allele. Specific PCR fragment of 165 bp in the A*29:12 and the A*31:16 and 33:58 alleles.

Primer mix 16: Specific PCR fragment of 95 bp in the A*29:15 and the A*02:221 and 23:41 alleles. Specific PCR fragment of 160 bp in the A*29:21 and 29:43 alleles.

Primer mix 17: Specific PCR fragment of 135 bp in the A*29:24 and 29:40 alleles. Specific PCR fragment of 190 bp in the A*29:27 allele.

Primer mix 19: Specific PCR fragment of 160 bp in the A*29:25alleles. Specific PCR fragment of 505 bp in the A*29:26 allele.

Primer mix 24: Specific PCR fragment of 225 bp in the A*29:37 and the A*32:07 alleles. Specific PCR fragment of 260 bp in the A*29:36 allele.

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

Lot-specific Information

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CELL LINE VALIDATION SHEET																					
HLA-A*29 SSP subtyping kit																					
					Lot No.:	Well															
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
						201323601	201323602	201323603	201323604	201323605	201323606	201323607	201323608	201323609	201323610	201323611	201323612	201323613	201323614	201323615	201203216
	IHWC cell line	A*	A*																		
1	9001 SA	*24:02				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*02:01				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*01:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275 GU373	*30:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009 KAS011	*01:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353 SM	*02:01	*26:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7	9020 QBL	*26:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8	9007 DEM	*31:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026 YAR	*26:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	9107 LKT3	*24:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	9051 PITOUT	*29:02			-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	-	
12	9052 DBB	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004 JESTHOM	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071 OLGA	*31:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075 DKB	*24:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	9037 SWEIG007	*29:02			-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	-	
17	9282 CTM3953540	*03:01	*80:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	9257 32367	*33:03	*74:01		-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	
19	9038 BM16	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059 SLE005	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064 AMALA	*02:17			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	9056 KOSE	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9124 IHL	*02:01	*34:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035 JBUSH	*32:01			-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	
25	9049 IBW9	*33:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285 WT49	*02:05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	9191 CH1007	*24:10	*29:01		+	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-	
28	9320 BEL5GB	*02:01	*29:02		-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	-	
29	9050 MOU	*29:02			-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	-	
30	9021 RSH	*30:01	*68:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	9019 DUCAF	*30:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	9297 HAG	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	9098 MT14B	*31:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104 DHIF	*31:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	9302 SСТО	*32:01			-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	
36	9024 KT17	*02:06	*11:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	9065 HHKB	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38	9099 LZL	*02:17			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	9315 CML	*01:01	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	9134 WHONP199	*02:07	*30:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41	9055 H0301	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	9066 TAB089	*02:07			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	9076 T7526	*02:06	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	9057 TEM	*66:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
45	9239 SHJO	*23:01	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	9013 SCHU	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	9045 TUBO	*02:16	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	9303 TER-ND	*02:01	*11:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

101.428-12 – including *Taq* polymerase, IFU-01
 101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

Lot-specific Information

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CELL LINE VALIDATION SHEET													
HLA-A*29 SSP subtyping kit													
					Lot No.:	Well							
						17	18	19	20	21	22	23	24
						201323617	201323618	201323619	201323620	201323621	201323622	201323623	201323624
	IHWC cell line		A*	A*									
1	9001	SA	*24:02		-	-	-	-	-	-	-	-	-
2	9280	LK707	*02:01		-	-	-	-	-	-	-	-	-
3	9011	E4181324	*01:01		-	-	-	-	-	-	-	-	-
4	9275	GU373	*30:01		-	-	-	-	-	-	-	-	-
5	9009	KAS011	*01:01		-	-	-	-	-	-	-	-	-
6	9353	SM	*02:01	*26:03	-	-	-	-	-	-	-	-	-
7	9020	QBL	*26:01		-	-	-	-	-	-	-	-	-
8	9007	DEM	*31:01		-	-	-	-	-	-	-	-	-
9	9026	YAR	*26:01		-	-	-	-	-	-	-	-	-
10	9107	LKT3	*24:02		-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*29:02		-	-	-	-	-	-	-	-	-
12	9052	DBB	*02:01		-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*02:01		-	-	-	-	-	-	-	-	-
14	9071	OLGA	*31:01		-	-	-	-	-	-	-	-	-
15	9075	DKB	*24:02		-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*29:02		-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:01	*80:01	-	-	-	-	-	-	-	-	-
18	9257	32367	*33:03	*74:01	-	-	-	+	-	-	-	-	-
19	9038	BM16	*02:01		-	-	-	-	-	-	-	-	-
20	9059	SLE005	*02:01		-	-	-	-	-	-	-	-	-
21	9064	AMALA	*02:17		-	-	-	-	-	-	-	-	-
22	9056	KOSE	*02:01		-	-	-	-	-	-	-	-	-
23	9124	IHL	*02:01	*34:01	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*32:01		-	-	-	+	-	-	-	-	-
25	9049	IBW9	*33:01		-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:05		-	-	-	-	-	-	-	-	-
27	9191	CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-
29	9050	MOU	*29:02		-	-	-	-	-	-	-	-	-
30	9021	RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*30:02		-	-	-	-	-	-	-	-	-
32	9297	HAG	*02:01		-	-	-	-	-	-	-	-	-
33	9098	MT14B	*31:01		-	-	-	-	-	-	-	-	-
34	9104	DHIF	*31:01		-	-	-	-	-	-	-	-	-
35	9302	SSTO	*32:01		-	-	-	+	-	-	-	-	-
36	9024	KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*03:01		-	-	-	-	-	-	-	-	-
38	9099	LZL	*02:17		-	-	-	-	-	-	-	-	-
39	9315	CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		-	-	-	-	-	-	-	-	-
42	9066	TAB089	*02:07		-	-	-	-	-	-	-	-	-
43	9076	T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-
44	9057	TEM	*66:01		-	-	-	-	-	-	-	-	-
45	9239	SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*03:01		-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

Lot-specific Information

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CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*29 SSP

Product number: 101.428-12 – including *Taq* polymerase
101.428-12u – without *Taq* polymerase
Lot number: 75S
Expiry date: 2016-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	2013-236-01	9	2013-236-09	17	2013-236-17
2	2013-236-02	10	2013-236-10	18	2013-236-18
3	2013-236-03	11	2013-236-11	19	2013-236-19
4	2013-236-04	12	2013-236-12	20	2013-236-20
5	2013-236-05	13	2013-236-13	21	2013-236-21
6	2013-236-06	14	2013-236-14	22	2013-236-22
7	2013-236-07	15	2013-236-15	23	2013-236-23
8	2013-236-08	16	2013-236-16	24	2013-236-24

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

No DNAs carrying the alleles to be amplified by primer solutions 2, 4 to 7, 9 to 11, 13, 17 to 29 and 21 to 24 were available. The specificities of the primers in primer solutions 4, 6, 7, 10, 11, 21, 22 and 24 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 2, 5, 9, 13, 17 to 19 and 23 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solution 4, 6, 7, 11 and 24 one or two of the 3'-primers was not possible to test, and in primer solutions 10 and 16 one of the 5'-primers was not possible to test. Additional primers in primer solutions 8 and 16 were tested by separately adding one 5'-primer respectively one 3'-primer.

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

Date of approval: 2013-October-25

Approved by:

Production Quality Control

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

Lot-specific Information

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Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*29
Product number: 101.428-12
Lot number: 75S

Intended use: HLA-A*29 high resolution histocompatibility testing

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

We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 and ISO 13485:2012, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

The Technical Documentation File is maintained at *Olerup* SSP AB, Franzengatan 5, SE-112 51 Stockholm, Sweden.

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

Stockholm, Sweden
2013-October-25

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

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101.428-12 – including *Taq* polymerase, IFU-01
101.428-12u – without *Taq* polymerase, IFU-02

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Lot No.: **75S**

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**.