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Lot No.: 13S Lot-specific information

Olerup SSP® HLA-C*08

Product number: 101.623-12 – including *Taq* polymerase

101.623-12u - without *Taq* polymerase

Lot number: 13S

Expiry date: 2015-October-01

Number of tests: 12 Number of wells per test: 32

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. 13S.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP® HLA-C*08 Lot (84N)

The HLA-C*08 specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup* SSP® HLA-C*08 lot was made (Lot No. 84N).

The HLA-C*08 kit is updated for new alleles to enable separation of:

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

The Lot-specific information for HLA-C*08 including and without *Tag* polymerase is now described in one common Product Insert.

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

Well	5'-primer	3'-primer	rationale
15	-	Added,	3'-primer added for the C*08:16:02 allele, 3'-primer
		Modified	modified for improved specificity of primer pair.
16	Modified	-	Increased yield of HLA specific PCR product.
25	Added	Modified	5'-primer added for the C*08:62 allele, 3'-primer
			modified for improved specificity of primer pair.

CE

¹As described in section Uniquely Identified Alleles.

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PRODUCT DESCRIPTION

HLA-C*08 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the C*08:01 to C*08:74 alleles.

PLATE LAYOUT

Each HLA-C*08 test consists of 32 PCR reactions in a 32 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
25	26	27	28	29	30	31	32

The 24 well PCR plate is marked with 'HLA-C*08' in silver/gray ink.

Well No. 1 is marked with the Lot No. '13S'.

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*08 SSP subtypings will be influenced by other HLA-C alleles, as primer mixes 1 to 9, 11 to 13, 15 to 17, 19 to 22, 24, 25, 28 and 30 to 32 amplify non-HLA-C*08 alleles. In addition, primer mix 1 will amplify the B*58:02 allele, primer mixes 3, 11, 22 and 25 will amplify the B*14:32 allele, primer mix 5 will amplify the B*15:33 and B*15:248 alleles, primer mixes 8, 22 and 25 will amplify the B*18:83 allele, primer mix 16 will amplify the B*67:02 allele, primer mixes 22, 25 and 28 will amplify the B*44:148 allele, primer mix 25 will amplify the A*29:10 and A*68:69 alleles and primer mix 30 will amplify the A*01:01:06 allele.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*08 alleles, i.e. **C*08:01 to C*08:74**, recognized by the HLA Nomenclature Committee in January 2013¹ will be amplified by the primers in the HLA-C*08 SSP kit².

The HLA-C*08 kit enables separation of the confirmed HLA-C*08 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*08 alleles is listed below.

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The HLA-C*08 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*08 primer set cannot distinguish the following silent mutations: the C*08:01:01-08:01:06 and C*08:01:08-08:01:09 alleles, the C*08:02:01-08:02:05 and C*08:02:08-08:02:09 alleles, the 08:03:01-08:03:02 alleles, the C*08:04:01-08:04:03 alleles, the 08:15:01-08:15:02 alleles and the C*08:16:01-08:16:02 alleles.

The C*08:30 and C*08:32 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19.

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

²The HLA-C*08 subtyping kit cannot separate the C*08:15:01-08:15:02 and 08:51 alleles from the C*07:148 and 07:161 alleles. The C*08 and C*07 alleles can be distinguished by the HLA-C low resolution and/or HLA-C*07 kits.

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Lot No.: 13S Lot-specific information

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*08:01:01	Confirmed	C*08:12	Confirmed	C*08:38	Unconfirmed	C*08:69	Unconfirmed
C*08:01:02	Confirmed	C*08:13	Unconfirmed	C*08:39	Unconfirmed	C*08:70	Unconfirmed
C*08:01:03	Unconfirmed	C*08:14	Unconfirmed	C*08:40	Unconfirmed	C*08:71	Unconfirmed
C*08:01:04	Unconfirmed	C*08:15:01	Confirmed	C*08:41	Confirmed	C*08:72	Unconfirmed
C*08:01:05	Unconfirmed	C*08:15:02	Confirmed	C*08:42	Unconfirmed	C*08:73	Unconfirmed
C*08:01:06	Unconfirmed	C*08:16:01	Unconfirmed	C*08:43	Confirmed	C*08:74	Unconfirmed
C*08:01:07	Unconfirmed	C*08:16:02	Unconfirmed	C*08:44	Unconfirmed		
C*08:01:08	Unconfirmed	C*08:17	Unconfirmed	C*08:45	Unconfirmed		
C*08:01:09	Unconfirmed	C*08:18	Unconfirmed	C*08:46	Unconfirmed		
C*08:02:01	Confirmed	C*08:19	Unconfirmed	C*08:47	Unconfirmed		
C*08:02:02	Confirmed	C*08:20	Confirmed	C*08:48	Unconfirmed		
C*08:02:03	Unconfirmed	C*08:21	Confirmed	C*08:49	Unconfirmed		
C*08:02:04	Unconfirmed	C*08:22	Unconfirmed	C*08:50	Unconfirmed		
C*08:02:05	Unconfirmed	C*08:23	Confirmed	C*08:51	Unconfirmed		
C*08:02:06	Unconfirmed	C*08:24	Unconfirmed	C*08:52N	Unconfirmed		
C*08:02:07	Unconfirmed	C*08:25	Unconfirmed	C*08:53	Unconfirmed		
C*08:02:08	Confirmed	C*08:26N	Unconfirmed	C*08:54	Unconfirmed		
C*08:02:09	Unconfirmed	C*08:27	Confirmed	C*08:55N	Unconfirmed		
C*08:03:01	Confirmed	C*08:28	Confirmed	C*08:56	Confirmed		
C*08:03:02	Unconfirmed	C*08:29	Confirmed	C*08:57	Unconfirmed		
C*08:04:01	Confirmed	C*08:30	Confirmed	C*08:58	Unconfirmed		
C*08:04:02	Unconfirmed	C*08:31	Unconfirmed	C*08:59	Unconfirmed		
C*08:04:03	Unconfirmed	C*08:32	Confirmed	C*08:60	Unconfirmed		
C*08:05	Confirmed	C*08:33:01	Unconfirmed	C*08:61	Unconfirmed		
C*08:06	Confirmed	C*08:33:02	Unconfirmed	C*08:62	Unconfirmed		
C*08:07	Unconfirmed	C*08:33:03	Unconfirmed	C*08:63	Unconfirmed		
C*08:08	Unconfirmed	C*08:34	Confirmed	C*08:65	Unconfirmed		
C*08:09	Unconfirmed	C*08:35	Unconfirmed	C*08:66	Unconfirmed		
C*08:10	Confirmed	C*08:36N	Unconfirmed	C*08:67	Unconfirmed		
C*08:11	Confirmed	C*08:37	Unconfirmed	C*08:68	Unconfirmed		

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

RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 96 alleles generate 59 amplification patterns that can be combined in 1770 homozygous and heterozygous combinations. 831 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.

+++	*08:47, *08:47 = *08:47, *08:63
+	*08:29, *08:29 = *08:29, *08:49
+	*08:02:01, *08:02:01 = *08:02:01, *08:49 = *08:02:01, *08:63 = *08:49,
	*08:63
+	*08:57, *08:65 = *08:65, *08:65
+-+	*08:04:01, *08:04:01 = *08:04:01, *08:49 = *08:04:01, *08:57 = *08:49,
	*08:57
+	*08:27, *08:27 = *08:27, *08:29 = *08:27, *08:49
+	*08:29, *08:31 = *08:31, *08:31 = *08:31, *08:49
+	*08:02:01, *08:55N = *08:49, *08:55N = *08:55N, *08:63
+	*08:02:01, *08:02:06 = *08:02:06, *08:02:06 = *08:02:06, *08:49 =
	*08:02:06, *08:63
+	*08:02:01, *08:52N = *08:49, *08:52N = *08:52N, *08:52N = *08:52N.



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Lot No.: 13S	Latenacific information
LOT NO 130	Lot-specific information *08:63
+	*08:02:01, *08:02:07 = *08:02:07, *08:02:07 = *08:02:07, *08:49 =
	*08:02:07, *08:63
+	*08:02:01, *08:43 = *08:43, *08:43 = *08:43, *08:49 = *08:43, *08:63
+	*08:02:01, *08:37 = *08:37, *08:37 = *08:37, *08:49 = *08:37, *08:63
+	*08:02:01, *08:33:01 = *08:33:01, *08:33:01 = *08:33:01, *08:49 =
+	*08:33:01, *08:63 *08:02:01, *08:33:03 = *08:33:03, *08:33:03 = *08:33:03, *08:49 =
	*08:33:03, *08:63
+	*08:02:01, *08:29 = *08:02:01, *08:30 = *08:29, *08:30 = *08:29, *08:63
	= *08:30, *08:30 = *08:30, *08:49 = *08:30, *08:63
+	*08:02:01, *08:18 = *08:18, *08:49 = *08:18, *08:63
	*08:02:01, *08:12 = *08:12, *08:12 = *08:12, *08:49 = *08:12, *08:63 *08:02:01, *08:17 = *08:17, *08:17 = *08:17, *08:49 = *08:17, *08:63
++++	*08:02:01, *08:17 = *06:17, *06:17 = *06:17, *06:49 = *06:17, *06:63 *08:02:01, *08:34 = *08:34, *08:34 = *08:34, *08:63
++	*08:02:01, *08:07 = *08:02:01, *08:47 = *08:07, *08:07 = *08:07, *08:47
	= *08:07, *08:49 = *08:07, *08:63 = *08:47, *08:49
++++	*08:02:01, *08:23 = *08:23, *08:23 = *08:23, *08:49 = *08:23, *08:63
+ +	*08:39, *08:39 = *08:39, *08:57 = *08:39, *08:65
+-+	*08:04:01, *08:65 = *08:04:01, *08:66 = *08:49, *08:65 = *08:49, *08:66
+-+	= *08:57, *08:66 = *08:65, *08:66 = *08:66, *08:66 *08:04:01, *08:29 = *08:29, *08:57
+-+	*08:04:01, *08:13 = *08:13, *08:49 = *08:13, *08:57
+-+	*08:02:01, *08:04:01 = *08:02:01, *08:57 = *08:04:01, *08:63
++	*08:01:01, *08:01:01 = *08:01:01, *08:57 = *08:01:01, *08:65
++	*08:02:01, *08:19 = *08:02:06, *08:19 = *08:02:06, *08:55N = *08:19,
	*08:19 = *08:19, *08:49 = *08:19, *08:55N = *08:19, *08:63
+	*08:02:01, *08:62 = *08:02:06, *08:62 = *08:49, *08:62 = *08:62, *08:62
+	= *08:62, *08:63 *08:02:04 *08:22:02 = *08:02:07 *08:22:02 = *08:02:07 *08:22:02 =
	*08:02:01, *08:33:02 = *08:02:07, *08:33:02 = *08:02:07, *08:33:03 = *08:33:02, *08:33:02 = *08:33:02, *08:33:02 = *08:33:02, *08:33:02, *08:49 =
	*08:33:02, *08:63
+	*08:02:01, *08:35 = *08:33:03, *08:35 = *08:35, *08:35 = *08:35, *08:49
	= *08:35, *08:63
+	*08:29, *08:55N = *08:30, *08:55N
+	*08:02:06, *08:29 = *08:02:06, *08:30
	*08:29, *08:52N = *08:30, *08:52N
+	*08:02:07, *08:29 = *08:02:07, *08:30 *08:29, *08:43 = *08:30, *08:43
+	*08:29, *08:37 = *08:30, *08:37
+	*08:29, *08:33:01 = *08:30, *08:33:01
+	*08:02:01, *08:27 = *08:27, *08:30 = *08:27, *08:33:03 = *08:27, *08:63
	= *08:29, *08:33:03 = *08:30, *08:33:03
+	*08:02:01, *08:31 = *08:30, *08:31 = *08:31, *08:63
	*08:02:01, *08:28 = *08:28, *08:28 = *08:28, *08:49 = *08:28, *08:63
+	*08:02:01, *08:25 = *08:25, *08:49 = *08:25, *08:63 *08:18, *08:29 = *08:18, *08:30
+	*08:12, *08:29 = *08:12, *08:30
+	*08:17, *08:29 = *08:17, *08:30
++	*08:29, *08:34 = *08:30, *08:34
++	*08:07, *08:55N = *08:47, *08:55N
++-	*08:02:06, *08:07 = *08:02:06, *08:47
	*08:07, *08:52N = *08:47, *08:52N
+++++	*08:02:07, *08:07 = *08:02:07, *08:47 *08:07, *08:43 = *08:43, *08:47
++	*08:07, *08:43 = *08:43, *08:47 *08:07, *08:37 = *08:37, *08:47
++	*08:07, *08:33:01 = *08:33:01, *08:47
++	*08:07, *08:33:03 = *08:33:03, *08:47
++	*08:07, *08:29 = *08:07, *08:30 = *08:29, *08:47 = *08:30, *08:47
+	*08:07, *08:18 = *08:18, *08:47
	*08:07, *08:12 = *08:12, *08:47 *08:07, *08:47
+++++	*08:07, *08:17 = *08:17, *08:47 *08:07, *08:34 = *08:34, *08:47
+++++	*08:23, *08:29 = *08:23, *08:30
•	00.20, 00.20 - 00.20, 00.00



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Lot No.: 13S	Lot-specific information
++++	•
+-++	*08:02:01, *08:05 = *08:05, *08:05 = *08:05, *08:15:01 = *08:05, *08:49
	= *08:05, *08:63
++++ +	00.01, 00.00 = 00.00, 00.10 = 00.00
+-+	*08:04:01, *08:54 = *08:49, *08:54 = *08:54, *08:54 = *08:54, *08:57 = *08:54, *08:65 = *08:54, *08:66
+-+	00.01.01, 00.21 = 00.21, 00.01 = 00.21, 00.00 =
+-+	*08:29, *08:65 = *08:29, *08:66 *08:04:01, *08:31 = *08:31, *08:57
+-+	00.01.01, 00.01 = 00.01
+-+	00:10, 00:00 = 00:10, 00:00
+-+	00.01.01, 00.0014 - 00.0014, 00.07
+-+	
+-+	
+-+	00.02.07, 00.07.07 = 00.02.07, 00.07
+-+	00:01:01; 00:10 = 00:10; 00:01
+-+	00.0 , 00.0. , 00.0.
+-+	00.01.01, 00.00.01 = 00.00.01,
	*08:33:03, *08:57 = *08:33:03, *08:65 = *08:33:03, *08:66 = *08:63,
	*08:66
+-+	00.01, 00.00 = 00.00,
+-+	00.02.01, 00.10 = 00.10, 00.00
+-+	00.01.01, 00.10 = 00.10, 00.01
	00.01.01, 00.12 = 00.12, 00.01
++++++	00.01.01, 00.11 = 00.11, 00.01
++++++	30.0 , 30.0 . 30.0 .
+++-+-	00.01.01, 00.01 = 00.01.01, 00.11 = 00.01, 00.01
++	00.01.01, 00.20 = 00.20, 00.01
++++	00.01.01, 00.120 = 00.120, 00.120 = 00.120, 00.00
++	*08:01:01, *08:01:07 = *08:01:07, *08:01:07 = *08:01:07, *08:57 = *08:01:07, *08:65
++++	*08:01:01, *08:42 = *08:42, *08:42 = *08:42, *08:57 = *08:42, *08:65
++	*08:01:01, *08:36N = *08:36N, *08:36N = *08:36N, *08:57 = *08:36N, *08:65
++	
++	
	*08:65
++	
++	*08:01:01, *08:16:01 = *08:16:01, *08:57 = *08:16:01, *08:65
++	*08:01:01, *08:08 = *08:08, *08:08 = *08:08, *08:57 = *08:08, *08:65
++ ++	
	= *08:10, *08:65 = *08:24, *08:24 = *08:24, *08:57 = *08:24, *08:65
+++++	*08:01:01, *08:11 = *08:11, *08:11 = *08:11, *08:57 = *08:11, *08:65
++-+	*08:01:01, *08:03:01 = *08:03:01, *08:03:01 = *08:03:01, *08:57 =
+++	*08:03:01, *08:65 *08:01:01 *08:04:01 = *08:01:01 *08:49 = *08:01:01 *08:66
+++++	00.01.01, 00.01.01 = 00.01.01, 00.10 = 00.01.01, 00.00
+	00.10, 00.02 = 00.0011, 00.02
+	00.02.01, 00.00 = 00.00.02,
+	
+	*08:02:07, *08:27 = *08:27, *08:33:02 = *08:29, *08:33:02 = *08:30,
	*08:33:02
+	00.27, 00.00 - 00.20, 00.00 - 00.00
+	00.20, 00.20 = 00.00
+	30.20, 30.20 = 30.20, 30.00
++	00.07, 00.70 = 00.70, 00.77
	00.07, 00.02 = 00.17, 00.02
++++++	00.07, 00.00.02 = 00.00.02, 00.77
++++++	00.07, 00.00 = 00.00, 00.77
++++++	00.07, 00.27 = 00.27, 00.77
++++ +	00.07, 00.07 = 00.07,
++++-+- +	00.01, 00.20 = 00.20, 00.11
+-+++ +	00.07, 00.20 = 00.20, 00.77
	00.00, 00.20 - 00.10.01, 00.20



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Lot No.: 13S	Lot-specific information
+-+++ +-+	*08:05, *08:29 = *08:05, *08:30
+-++-+-	*08:05, *08:25 = *08:15:01, *08:25
+-++ +	*08:05, *08:07 = *08:05, *08:47
+-++ +	
+-++	
+-++	
+-+	33.3.1, 33.33
+-+ +	00.0 1.0 1, 00.10 = 00.10, 00.01
+-+	
	00.0014, 00.00 = 00.0014, 00.00
+-+	00.02.00, 00.00 = 00.02.00, 00.00
+-+	00.0214, 00.00 - 00.0214, 00.00
+-++	+ *08:02:07, *08:65 = *08:02:07, *08:66 = *08:04:01, *08:33:02 =
	*08:33:02, *08:57 = *08:33:02, *08:65 = *08:33:02, *08:66
+-+	*08:43, *08:65 = *08:43, *08:66
+-+++ +	*08:02:01, *08:39 = *08:33:03, *08:39
+-+	
+-+	00.01, 00.00 = 00.01, 00.00
+-+	00.00.01, 00.00 = 00.00.01, 00.00
-11	00.02.01, 00.01 = 00.01.01, 00.00 = 00.00.00, 00.01 = 00.00,
	*08:54 = *08:35, *08:57 = *08:35, *08:65 = *08:35, *08:66 = *08:54,
	*08:63
+-+	00.00, 00.00 = 00.00,
+-+++ +	00.04.01, 00.20 = 00.20, 00.07
+-++	*08:04:01, *08:25 = *08:25, *08:57
+-+	*08:18, *08:65 = *08:18, *08:66
+-+++++	*08:12, *08:65 = *08:12, *08:66
+-+	,
+-+++++	
+-+++++	
+-++++-+	00.07, 00.00 = 00.07, 00.00 = 00.77, 00.00
+-+++++	00.01, 00.10 = 00.10, 00.11
	00.20, 00.00 = 00.20, 00.00
+-+-++	00.01.01, 00.00 = 00.00, 00.01
++	*08:01:01, *08:56 = *08:22, *08:56 = *08:56, *08:56 = *08:56, *08:57 =
	*08:56, *08:65
++ ++	+ *08:10, *08:20 = *08:20, *08:24
++ ++	+ *08:01:07, *08:10 = *08:01:07, *08:24
++ +++-	
++ ++ +	*08:10, *08:39 = *08:24, *08:39
++ ++	
++ ++++	
++ ++++	00.10, 00.11 = 00.21, 00.11
++ ++	00.10, 00.2014 - 00.21, 00.2014
++ +++	00.10, 00.22 = 00.21
	00.00, 00.10 = 00.00, 00.21
++ ++++	00.10, 00.00 = 00.21, 00.00
+++ -+-++	00.00.00.00.00.00.00.00.00.00.00.00.00.
	*08:09, *08:65
+++ ++	*08:10, *08:11 = *08:11, *08:24
+++	
	= *08:21, *08:65
+++ ++	
++-+	00.10, 00.10.01 = 00.10.01, 00.21
	00.01.01, 00.10 = 00.00.01, 00.10 = 00.00.01,
	*08:40 = *08:40, *08:40 = *08:40, *08:57 = *08:40, *08:65
++-++	
	= *08:38, *08:65
++-+	00.01.01, 00.01 = 00.01.07, 00.00.01 = 00.01.07, 00.01 =
	*08:03:01, *08:61 = *08:57, *08:61 = *08:61, *08:61 = *08:61, *08:65
++-+++	*08:01:01, *08:14 = *08:03:01, *08:14 = *08:03:01, *08:22 = *08:14,
	*08:14 = *08:14, *08:22 = *08:14, *08:57 = *08:14, *08:65
++-+ ++	
++-++	00.00.01, 00.10 = 00.00.01, 00.21
	00.01.01, 00.00 = 00.00.01, 00.00 = 00.00, 00.00 = 00.00,
111	= *08:06, *08:65
+++	00:0::0::0
+++	00.01.01, 00.01.01 = 00.01.01, 00.10 = 00.01.01, 00.00
++++	00.0 00 00 00 00
+++	*08:04:01, *08:36N = *08:36N, *08:49 = *08:36N, *08:66



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Lot No.: 13S	Lot-specific information
+++	•
+++	*08:01:01, *08:27 = *08:01:01, *08:29
+++	· · · · · · · · · · · · · · · · · · ·
+++	
+++	
	*08:16:01, *08:66
+++	
+++	
+++ ++	
	= *08:24, *08:49 = *08:24, *08:66
++++++	
++++	
+-+	
+-+ +	
+-+++ ++	
+-++++	
+-+	
+-+	
+-++++++	
+-+-++ ++	
++ ++++	
+++ ++-++	
+++- ++++	
+++ ++ ++	
++-+	*08:20, *08:38 = *08:38, *08:40
++-++	*08:01:07, *08:40 = *08:20, *08:61 = *08:40, *08:61
++-++	
++-+	
++-+	
++-+	
++-+	
++-+ ++	
++-+ ++	*08:10, *08:38 = *08:24, *08:38
++-+ ++	*08:10, *08:61 = *08:24, *08:61
++-+ ++++	*08:10, *08:14 = *08:14, *08:24
++-+	*08:06, *08:20 = *08:06, *08:40
++-+	*08:01:07, *08:06 = *08:06, *08:61
++-+++	*08:06, *08:14 = *08:06, *08:22
++-+ +++	00.00, 00.10 - 00.00, 00.21
+++	*08:20, *08:27 = *08:20, *08:29
++++	*08:01:07, *08:27 = *08:01:07, *08:29
+++++	*08:27, *08:42 = *08:29, *08:42
+++	00.27, 00.0011
+++	00.27, 00.77 = 00.20, 00.77
++++	00.00.00.00.00.00.00.00.00.00.00.00.00.
	*08:31
+++	00.0 1.0 1, 00.00 = 00.10, 00.00 = 00.00, 00.00
+++	00.22, 00.27 - 00.22
+++	00.10.01, 00.27 = 00.10.01, 00.20
+++	00.00, 00.27 = 00.00, 00.20
+++	00.02.01, 00.20 = 00.20, 00.00.00
+++	00.01.01, 00.02.01 = 00.01.01, 00.00.02 = 00.01.01, 00.02.01 =
	*08:01:07, *08:02:07 = *08:01:07, *08:33:02 = *08:01:07, *08:33:03
++++	00.02.01, 00.12 = 00.00.00, 00.12
+++	
+++	00.01.01, 00.00.01 = 00.02.01, 00.11 = 00.00.01, 00.11 =
	*08:33:03, *08:41
+++	00.02.01, 00.2011 00.00.00
+++	00.02.01, 00.22 = 00.22, 00.00.00
+++	00.02.0.1, 00.1.0.0.1
+++	00.01.01, 00.10 = 00.02.01, 00.00 = 00.00, 00.10 = 00.00,
+++ ++++	*08:33:03 *09:10 *09:54 - *09:24 *09:54
+++ +++	00.10, 00.01 = 00.21, 00.01
TTT	*08:10, *08:27 = *08:10, *08:29 = *08:24, *08:27 = *08:24, *08:29



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	420			
	No.: 13S			Lot-specific information
+++	+++	+		*08:02:01, *08:10 = *08:02:01, *08:24 = *08:10, *08:33:03 = *08:24,
				*08:33:03
	+			*08:11, *08:27 = *08:11, *08:29
++++	++	+		*08:01:01, *08:34 = *08:02:01, *08:11 = *08:11, *08:33:03 = *08:11,
				*08:34
	-+-+			*08:04:01, *08:09 = *08:09, *08:49 = *08:09, *08:66
	+			*08:04:01, *08:21 = *08:21, *08:49 = *08:21, *08:66
	+			*08:04:01, *08:40 = *08:40, *08:49 = *08:40, *08:66
	+			*08:04:01, *08:38 = *08:38, *08:49 = *08:38, *08:66
	+			*08:04:01, *08:61 = *08:49, *08:61 = *08:61, *08:66 *09:03:01 *09:37 = *09:03:01 *09:30
	++			*08:03:01, *08:27 = *08:03:01, *08:29 *08:04:01, *08:44 = *08:44, *08:46 = *08:44, *08:66
	++			*08:04:01, *08:14 = *08:14, *08:49 = *08:14, *08:66 *08:02:01, *08:03:01 = *08:03:01, *08:33:03
	+			*08:04:01, *08:06 = *08:06, *08:49 = *08:06, *08:66
	+			*08:27, *08:56 = *08:29, *08:56
	++			*08:02:07, *08:20 = *08:29, *08:33:02
	++			*08:02:07, *08:42 = *08:33:02, *08:42
	++			*08:02:07, *08:36N = *08:33:02, *08:36N
	++			*08:01:07, *08:33:01 = *08:02:07, *08:41 = *08:33:02, *08:41
	++			*08:02:07, *08:26N = *08:26N, *08:33:02
+++	++	++	+	*08:01:01, *08:28 = *08:20, *08:28
	+++			*08:02:07, *08:22 = *08:22, *08:33:02
+++	+++	+		*08:02:01, *08:56 = *08:22, *08:37 = *08:33:03, *08:56 = *08:37, *08:56
+++	+	+	+	*08:02:07, *08:16:01 = *08:16:01, *08:33:02
+++	++	+	+	*08:01:07, *08:18 = *08:02:07, *08:08 = *08:08, *08:33:02
+++	++	+		*08:08, *08:33:01 = *08:18, *08:41
+++	++	-++-+		*08:10, *08:31 = *08:24, *08:31
+++	+++	+	+-	*08:02:06, *08:10 = *08:02:06, *08:24
+++	+++	+	+	*08:10, *08:52N = *08:24, *08:52N
+++	+++	+	+	*08:02:07, *08:10 = *08:02:07, *08:24 = *08:10, *08:33:02 = *08:24,
				*08:33:02
	+++			*08:10, *08:43 = *08:24, *08:43
	+++			*08:10, *08:37 = *08:24, *08:37
	+++			*08:10, *08:33:01 = *08:24, *08:33:01
	+++			*08:10, *08:35 = *08:24, *08:35
	+++			*08:10, *08:30 = *08:24, *08:30
	+-++			*08:10, *08:12 = *08:12, *08:24
	++-++			*08:10, *08:17 = *08:17, *08:24
	++			*08:01:07, *08:34 = *08:02:07, *08:11 = *08:11, *08:33:02
	++			*08:11, *08:33:01 = *08:34, *08:41
	-+-+			*08:08, *08:34 = *08:11, *08:18
	-+-++			*08:09, *08:27 = *08:09, *08:29
++++	-+-++			*08:02:01, *08:09 = *08:09, *08:17 = *08:09, *08:33:03 = *08:09, *08:34
+++	+++			= *08:11, *08:17 *08:10, *08:34 = *08:24, *08:34
	+++			*08:07, *08:10 = *08:07, *08:24
	+++			*08:10, *08:23 = *08:23, *08:24
	+			*08:21, *08:27 = *08:21, *08:29
+++-+	++	++		*08:01:01, *08:05 = *08:02:01, *08:21 = *08:05, *08:21 = *08:21,
				*08:33:03
++++	+	+-+	+	*08:27, *08:40 = *08:29, *08:40
++++	+	+-+	+	*08:27, *08:38 = *08:29, *08:38
++++	+	+-+	+	*08:27, *08:61 = *08:29, *08:61
++++	++	+-+		*08:14, *08:27 = *08:14, *08:29
++++	+	+	+	*08:02:01, *08:40 = *08:33:03, *08:40
++++	+	+	+	*08:02:01, *08:38 = *08:03:01, *08:52N = *08:33:03, *08:38 = *08:38,
				*08:52N
++++	+	+	+	*08:02:01, *08:61 = *08:02:07, *08:03:01 = *08:02:07, *08:61 =
				*08:03:01, *08:33:02 = *08:33:02, *08:61 = *08:33:03, *08:61
	+			*08:02:01, *08:14 = *08:14, *08:33:03
	+			*08:06, *08:27 = *08:06, *08:29
++++-+	++	+		*08:02:01, *08:06 = *08:03:01, *08:23 = *08:06, *08:23 = *08:06,
				*08:33:03
+++	+	+	+	*08:02:07, *08:56 = *08:33:02, *08:56



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Lot No.: 13S Lot-specific information +++---- *08:16:01, *08:28 = *08:20, *08:25 +++---- +--++-- *08:10, *08:19 = *08:19, *08:24 +++---- +--++-- *08:10, *08:62 = *08:24, *08:62 *08:10, *08:28 = *08:24, *08:28 +++----+ -+-++--- ----+--- *08:02:07, *08:09 = *08:09, *08:33:02 *08:05, *08:20 = *08:21, *08:28 +++-+-- ----+---- +---+--- *08:01:07, *08:05 = *08:02:07, *08:21 = *08:21, *08:33:02 +++-+-- +--++-- +---+-- *08:05, *08:10 = *08:05, *08:24 +++-+-- +--+-- +---+-- *08:05, *08:11 = *08:21, *08:34 ++++--- *08:02:07, *08:40 = *08:33:02, *08:40 ++++--- ---++--- *08:02:07, *08:38 = *08:33:02, *08:38 = *08:52N, *08:61 ++++---- *08:03:01, *08:28 = *08:28, *08:40 ++++--- *08:02:07, *08:14 = *08:14, *08:33:02 ++++-+-- *08:06, *08:52N = *08:23, *08:38 *08:02:07, *08:06 = *08:06, *08:33:02 = *08:23, *08:61 *08:01:01 = *08:01:01-08:01:06, 08:01:08-08:01:09 and 08:46, 08:50, 08:58 and 08:60*08:01:07 = *08:01:07 and 08:44*08:02:01 = *08:02:01-08:02:05, 08:02:08-08:02:09 and 08:45, 08:48, 08:53, 08:67-08:71 and 08:73-08:74 *08:03:01 = *08:03:01-08:03:02 *08:04:01 = *08:04:01-08:04:03 *08:11 = *08:11 and 08:59*08:15:01 = *08:15:01-08:15:02 and 08:51 *08:16:01 = *08:16:01-08:16:02 *08:30 = *08:30 and *08:32*08:65 = *08:65 and 08:72

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Lot No.: 13S

Lot-specific information SPECIFICITY TABLE

HLA-C*08 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for HLA-C*08 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C*08 alleles ³	Other amplified HLA Class I alleles ⁴
1	250 bp	800 bp	*08:01:01-08:01:09, 08:03:01-08:04:03, 08:06, 08:08-08:11, 08:13-08:14, 08:16:01-08:16:02, 08:20-08:22, 08:24, 08:26N, 08:36N, 08:38-08:42, 08:44, 08:46, 08:50, 08:54, 08:56-08:61, 08:65-08:66, 08:72	*01:22, 01:35, 02:03, 02:16:01-02:16:02, 02:18, 04:04:01-04:04:02, 04:06, 04:13, 04:34, 04:58, 04:122, 05:11, 05:17, 05:27, 05:68, 05:79, 06:04, 12:14:01-12:14:02, 12:18:01-12:18:02, 12:20, 12:83, 14:06, 14:15, 15:02:01-15:07, 15:09-15:13, 15:15-15:19, 15:21-15:24, 15:26-15:50, 15:52-15:66, 16:35, 16:40, 16:48, 17:01:01:01-17:16, 17:18-17:19, B*58:02
2 ⁵	115 bp	1070 bp	*08:01:01-08:01:09, 08:03:01-08:03:02, 08:06, 08:08-08:11, 08:14, 08:16:01- 08:16:02, 08:20-08:22, 08:24, 08:26N, 08:36N, 08:38, 08:40-08:42, 08:44, 08:46, 08:50, 08:56, 08:58-08:61	*05:79
3 ⁵	115 bp	800 bp	*08:02:01-08:02:09, 08:04:01-08:05, 08:07, 08:12-08:13, 08:17- 08:19, 08:23, 08:25, 08:27-08:35, 08:37, 08:43, 08:45, 08:48- 08:49, 08:52N-08:55N, 08:62, 08:66-08:71, 08:73-08:74	*04:120, 05:01:01:01-05:01:26, 05:03-05:08, 05:10-05:11, 05:13-05:16, 05:18:01-05:51Q, 05:53-05:61, 05:63-05:67, 05:69-05:75, 05:77-05:78, 05:80-05:87, 07:41, B*14:32
4 ⁵	110 bp	1070 bp	*08:03:01-08:03:02, 08:06, 08:14, 08:38, 08:40, 08:61	*05:79
5	155 bp	1070 bp	*08:05, 08:15:01- 08:15:02, 08:21, 08:51	*01:13, 02:51, 03:87, 04:129, 05:09:01-05:09:02, 05:17, 05:42, 05:46, 05:52, 06:67, 07:101, 07:130, 07:148,



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LOU	No.: 133		Lot-specific information	
				07:161, 16:27, 17:05, B*15:33 , B*15:248
6 ⁹	270 bp, 310 bp	800 bp	*08:06, 08:23	*16:33
7 ⁵	100 bp	1070 bp	*08:07, 08:47	*05:23, 05:62, 07:02:35
8 ¹⁰	225 bp, 290 bp	1070 bp	*08:09, 08:11, 08:34, 08:59	*05:04:01-05:04:02, 07:68, 07:260, B*18:83
9 ¹¹	385 bp, 505 bp	1070 bp	*08:10, 08:24	*05:79
10 ^{5,12}	110 bp, 140 bp	800 bp	*08:09, 08:17	
11 ⁶	280 bp	800 bp	*08:12	*05:16, 05:85, B*14:32
12	165 bp	800 bp	*08:01:01-08:09, 08:11- 08:12, 08:14-08:15:02, 08:17, 08:19-08:24, 08:26N-08:54, 08:56- 08:63, 08:65-08:74	*01:43, 07:101, 07:148, 07:161
13 ⁵	105 bp	800 bp	*08:02:01-08:02:09, 08:05, 08:07, 08:12, 08:17-08:19, 08:23, 08:25, 08:28, 08:30, 08:32-08:35, 08:47, 08:43, 08:45, 08:47-08:48, 08:52N-08:53, 08:55N, 08:62-08:63, 08:67-08:71, 08:73-08:74	*04:120, 05:01:01:01-05:01:26, 05:03-05:07N, 05:10, 05:12-05:16, 05:18:01-05:26, 05:28-05:51Q, 05:53-05:61, 05:63-05:67, 05:69, 05:71-05:78, 05:80-05:87, 07:41
14 ¹³	170 bp, 280 bp	1070 bp	*08:08, 08:18	
15 ⁶	265 bp	1070 bp	*08:13, 08:16:01- 08:16:02, 08:25	*05:29:01-05:29:02
16 ^{5,8,14}	100 bp, 545 bp	1070 bp	*08:14, 08:22, 08:56	*01:21, 02:42, 04:140, 06:05, 07:02:09, 12:16, 15:29, 15:63, B*67:02
17 ¹⁵	375 bp, 430 bp	1070 bp	*08:05, 08:21, 08:25, 08:28	*05:25, 05:42, 05:46
18 ^{5,16}	80 bp, 200 bp	1070 bp	*08:26N, 08:31	
19 ^{5,7, 17}	115 bp, 250 bp	800 bp	*08:27, 08:29-08:32	*05:08
20 ⁵	110 bp	1070 bp	*08:35, 08:54	*05:44:01
21 ⁶	195 bp	1070 bp	*08:01:01-08:01:09, 08:03:01-08:03:02, 08:06, 08:08-08:11,	*01:02:06, 01:04, 01:21, 02:02:05, 02:02:13, 02:05-02:06, 02:10, 02:12, 02:14,



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LOU	NO.: 133		Lot-specific information	
005.18		4070	08:14, 08:16:01- 08:16:02, 08:20-08:22, 08:24, 08:26N-08:27, 08:33:02-08:33:03, 08:35-08:36N, 08:38- 08:42, 08:44, 08:46, 08:50, 08:54, 08:56, 08:58-08:61, 08:65- 08:66, 08:72	02:16:01, 02:17, 02:27:02, 02:33, 02:58, 04:01:01:01-04:01:06, 04:01:09-04:01:48, 04:03-04:20, 04:23-04:144, 05:12, 05:18:01, 06:02:01:01-06:02:01:02, 06:02:03-06:15, 06:17-06:40, 06:42-06:61, 06:63-06:91, 06:93-06:96, 12:02:01-12:03:15, 12:03:18-12:13, 12:14:02-12:31, 12:33-12:94, 14:02:01-14:02:04, 14:02:06-14:16, 14:18-14:49, 15:02:01-15:02:04, 15:02:06-15:02:12, 15:02:14-15:05:05, 15:05:07-15:06:02, 15:07-15:13, 15:15-15:19, 15:21-15:64, 15:66, 16:01:01-16:02:02, 16:02:04-16:02:09, 16:04:01, 16:06-16:26, 16:28-16:55, 17:01:01:01-17:05, 17:07-17:19, 18:01-18:06
22 ^{5,18}	80 bp, 155 bp	1070 bp	*08:33:01, 08:41	*05:18:02-05:18:03, 05:27, 05:39, 07:04:01-07:04:08, 07:11-07:12, 07:63, 07:68, 07:101, 07:139, 07:142, 07:181, 07:199:01-07:199:02, 07:260, 07:272, B*14:32, B*18:83, B*44:148
23 ⁵	95 bp	1070 bp	*08:36N	· ·
24 ^{5,19}	100 bp, 145 bp	1070 bp	*08:37, 08:56	*02:14, 04:42, 05:43, 06:05, 07:02:09, 12:16, 15:23, 15:63, 16:21
25 ^{5,20}	115 bp, 265 bp	1070 bp	*08:39, 08:62	*05:05, 05:12, A*29:10 , A*68:69 , B*14:32 , B*18:83 , B*44:148
26 ⁵	125 bp	1070 bp	*08:42	
27 ⁵	100 bp	1070 bp	*08:43	
28 ^{7,21}	185 bp, 285 bp	1070 bp	*08:01:07, 08:02:07, 08:33:02, 08:44, 08:61	*04:120, 05:10, B*44:148
29 ⁷	205 bp	1070 bp	*08:38, 08:52N	
30 ²²	405 bp, 470 bp	1070 bp	*08:20, 08:28, 08:40	*03:171, 04:144, 05:25, 05:42, 06:73, 07:02:35, 07:41, A*01:06
31	500 bp	1070 bp	*08:02:06, 08:19, 08:62	*04:129, 05:01:20, 05:64
32 ^{5,23}	125 bp, 265 bp	1070 bp	*08:19, 08:55N	*05:64

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Lot No.: 13S Lot-specific information

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-C*08 SSP subtypings.

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

Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers.

PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings.

PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings.

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an 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.

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 1070 base pairs, for most wells, or a band of 800 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-C*08 SSP subtyping.

In addition, wells number 3, 6, 10 to 13 and 19 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.

³For several HLA Class I alleles 1st and/or 4th exon(s) and beyond, as well as intron nucleotide sequences, are not available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. We assume that unknown sequences in these regions are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-C alleles non-HLA-C*08 alleles will be amplified by primer mixes 1 to 9, 11 to 13, 15 to 17, 19 to 22, 24, 25, 28 and 30 to 32 amplify non-HLA-C*08 alleles. In addition, primer mix 1 will amplify the B*58:02 allele, primer mixes 3, 11, 22 and 25 will amplify the B*14:32 allele, primer mix 5 will amplify the B*15:33 and B*15:248 alleles, primer mixes 8, 22 and 25 will amplify the B*18:83 allele primer mix 16 will amplify the B*67:02 allele, primer mixes 22, 25 and 28 will amplify the B*44:148 allele, primer mix 25 will amplify the A*29:10 and A*68:69 alleles and primer mix 30 will amplify the A*01:01:06 allele.

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

⁶Primer mixes 11, 15 and 21 may have tendencies of unspecific amplifications.

⁷Primer mixes 19, 28 and 29 have a tendency to giving rise to primer oligomer formation.

⁸Primer mix 16 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C*08 primer mixes.

⁹Primer mix 6: Specific PCR fragment of 270 bp in the C*08:06 and the C*16:33 alleles. Specific PCR fragment of 310 bp in the C*08:23 allele.

¹⁰Primer mix 8: Specific PCR fragment of 225 bp in the C*08:09, 08:11 and 08:59 and in the C*05:04:01-05:04:02, 07:68 and 07:260 and in the B*18:83 alleles. Specific PCR fragment of 290 bp in the C*08:34 allele.

¹¹Primer mix 9: Specific PCR fragment of 385 bp in the C*08:24 allele. Specific PCR fragment of 505 bp in the C*08:10 and the 05:79 alleles.

¹²Primer mix 10: Specific PCR fragment of 110 bp in the C*08:09 allele. Specific PCR fragment of 140 bp in the C*08:17 allele.

¹³Primer mix 14: Specific PCR fragment of 170 bp in the C*08:18 allele. Specific PCR fragment of 280 bp in the C*08:08 allele.

¹⁴Primer mix 16: Specific PCR fragment of 100 bp in the C*08:14 and the C*01:21, 02:42, 04:140, 06:05, 07:02:09, 12:16 and 15:63 and in the B*67:02 allele. Specific PCR fragment of 545 bp in the C*08:22 and 08:56 and the C*15:29 alleles.

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¹⁵Primer mix 17: Specific PCR fragment of 375 bp in the C*08:05, 08:21 and 08:25 and the C*05:46 alleles. Specific PCR fragment of 430 bp in the C*08:28 and C*05:25 alleles. Specific PCR fragment of 375 and 430 bp in the C*05:42 allele.

¹⁶Primer mix 18: Specific PCR fragment of 80 bp in the C*08:31 allele. Specific PCR fragment of 200 bp in the C*08:26N allele.

¹⁷Primer mix 19: Specific PCR fragment of 115 bp in the C*08:27 and 08:29-08:31 and the C*05:08 alleles. Specific PCR fragment of 250 bp in the C*08:32 allele.

¹⁸Primer mix 22: Specific PCR fragment of 80 bp in the C*08:41 and the C*05:27 and 05:39 allele.

¹⁸Primer mix 22: Specific PCR fragment of 80 bp in the C*08:41 and the C*05:27 and 05:39 allele. Specific PCR fragment of 155 bp in the C*08:33:01 and the C*05:18:02-05:18:03, 07:04:01-07:04:08, 07:11-07:12, 07:63, 07:68, 07:101, 07:139, 07:142, 07:181, 07:199:01-07:199:02, 07:260, 07:272 and in the B*14:32 and B*18:83 alleles. Specific PCR fragments of 80 and 155 bp in the B*44:148 allele.

¹⁹Primer mix 24: Specific PCR fragment of 100 bp in the C*08:56 allele. Specific PCR fragment of 145 bp in the C*08:37 and the C*02:14, 04:42, 05:43, 06:05, 07:02:09, 12:16, 15:23, 15:63 and 16:21 alleles.

²⁰Primer mix 25: Specific PCR fragment of 115 bp in the C*08:39 and the 05:12 allele. Specific PCR fragment of 265 bp in the C *08:62 and the 05:05 and in the A*68:69 and B*14:32 alleles. Specific PCR fragment of 115 bp and 265 bp in the A*29:10 and in the B*18:83 and B*44:148 alleles.

²¹Primer mix 28: Specific PCR fragment of 185 bp in the C*08:01:07, 08:02:07 and 08:33:02 and the 04:120 alleles. Specific PCR fragment of 285 bp in the C*08:44 and 08:61 and the C*05:10 and in the B*44:148 alleles.

²²Primer mix 30: Specific PCR fragment of 405 bp in the C*08:28 and the C*05:25, 05:42, 07:02:35 and 07:41 and the A*01:01:06 alleles. Specific PCR fragment of 470 bp in the C*08:20 and 08:40 and the C*03:171, 04:144 and 06:73 alleles.

²³Primer mix 32: Specific PCR fragment of 125 bp in the C*08:19 and the C*05:64 alleles. Specific PCR fragment of 265 bp in the C*08:55N allele.

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Amplification patte	rns T	of t	he I	HLA	∖-C *	08:	01 t			lalle	eles	•				
			_		-	_	_			40		40	40		4 =	40
Landers	1	<u>2</u>	115	4	5	6	7	8	9	10	_	12 50			15 ເດ	16
Length of spec.	250	115	7	110	155	270	100	225	385	110	280	165	105	170	265	100
PCR product(s)		١ _		١ _		310		290	505	140				280		545
Length of int.	800	1070	800	1070	1070	008	1070	1070	1070	800	800	008	800	1070	1070	1070
pos. control ¹																
5'-primer ²	2 nd I	527	527	527	176	2 nd I	453	351	312	176	361	176	539	173	1 st	142
	-ccA 3	5' -TAC 3'	5' -TgA 3'	5' -TAC 3'	-gCA 3	-ccA 3	^{5'} -AAT ^{3'}	-CAA 3	-AAA 3	-gCA 3	5' -AgT 3'	5' -gCA 3'	5' -gCg 3'	رور	5' -CgA 3'	5' -TCT 3'
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					^{5'} -CAA ^{3'}			^{5′} -gTC ^{3′}	^{5'} -gCA ^{3'}	^{5'} -TAC ^{3'}				5' -AgC		5' -CTA
3'-primer ³	539	601	601	595	289	559	512	601	526	2772	601	302	601	302	175	201
	5' -TCA 3'	5' -CTT 3'	5' -CTT 3'	5' -CCT 3'	^{5'} -AgC ^{3'}	5' -CgC 3'	5' -CCA 3'	^{5′} -CTT ^{3′}	^{5'} -CgT ^{3'}	5' -gCA 3'	^{5′} -CTT ^{3′}	5' -ggC 3'	5' -CTT 3'	5' -ggC 3'	5' -CCg 3'	^{5′} -CTT ^{3′}
					289	299			926	298				601	175	1034
					AgC 3.	·-TCC 3			^{5′} -CAg ^{3′}	·-cTC 3				·cTT 3.	·ccT 3·	AgT 3
					601 5'	ù			22	52				5	ณ์	ū
					-CTC 3" 6											
Well No.	1	2	3	4	5 5	6	7	8	9	10	11	12	13	14	15	16
HLA-C allele ^{4,5}														-	_	
* 08:01:01 -08:01:06, 08:01:08- 08:01:09, 08:46, 08:50, 08:58, 08:60	1	2										12				
*08:01:09, 08:44, 08:50, 08:56, 08:60 *08:01:07, 08:44	1	2										12				
* 08:02:01 -08:02:05, 08:02:08 - 08:02:09, 08:45, 08:48, 08:53, 08:67- 08:71, 08:73-08:74			3										13			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
May 2013			(1				n Vit						

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Lot No.: 13S Lot-specific information

	Lot	No.	: 1,	<u> </u>											natio	
								IN	TE	RF	PRE	ET/	4T	10	T I	ABLE
									HL/	4-C	*08	S	SP	su	bty	ping
					Amı	plifi	cati									:01 to 08:74 alleles
							W	ell ⁸								
17	18	19	20	21	22	23		25	26	27	28	29	30	31	32	
375	8	115	110	195	8	32	100	115	125	100	185	205	405	200	125	Length of spec.
430 3	200	250 1	_	_	155	,	145 1	265 1	_	_	285 1	2	470 4	ιΩ	265 1	-
		_	_									_				PCR product(s)
1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	Length of int.
	,				-	-				-		,		_		pos. control ¹
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1st	44	391	527	2 nd	486	246	97	379	2 nd	527	355	368	341	176	1 st	5'-primer ²
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-CgA	-TAg	-ACT	-TgA	-CCA	-ACC	-CAg	-TCg	Ψ	CCA	-TgA	-TCA	⁵ oTe-		-gCA	-CgA	
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	260	520			560		527	527			459	629	652		368	
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	-CgA 3.	-cgc			Ω		-TAC 3'	-TgT			-gAT	-g.T	-ccA 3		-gTT	
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		539														
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		-gTg														
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289	601	601	595	485	601	302	201	601	412	584	601	526	453	387	175	3'-primer ³
<u>ب</u>	<u>ب</u>	'n	<u>ب</u>		ص ا	<u>ش</u>	<u>ب</u>	<u>ب</u>	<u>ب</u>	<u>ش</u>	'n		Б	<u>ب</u>	3.	
-AgC	ÇŢ	ĊT	ζĊ	င်င်ရ	Ļ	-ggC	ĊŢ	ÇŢŢ	ĊŢ	- 9gC	ĊT	-CgT	-TCA 3	-TCC	-ста ³	
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341							587					846	926		453	
<u>ب</u>							<u>-</u>					.e	<u>ب</u>		3.	
-CgT							ည်					-CAC	-CAg		-тса	
.2												5.	, ,		5.	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																HLA-C allele ^{4,5}
				21												* 08:01:01 -08:01:06, 08:01:08-
											20					08:01:09, 08:46, 08:50, 08:58, 08:60
				21							28					*08:01:07, 08:44 * 08:02:01- 08:02:05, 08:02:08 -
																08:02:01-08.02.05, 08:02:08-
																08:71, 08:73-08:74
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

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Lot No.: 135	_ot-s	-				_										
Length of spec.	250	115	115	110	155	270	100	225	385	110	280	165	105	170	265	100
PCR product(s)						310		290	505	140				280		545
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*08:02:06			3									12	13			
*08:02:07			3									12	13			
*08:03:01 -08:03:02	1	2		4								12				
*08:04:01 -08:04:03	1		3									12				
*08:05			3		5							12	13			
*08:06	1	2		4		6						12				
*08:07			3				7					12	13			
*08:08	1	2										12		14		
*08:09	1	2						8		10		12				
*08:10	1	2							9							
*08:11 , 08:59	1	2						8				12				
*08:12			3								11	12	13			
*08:13	1		3												15	
*08:14	1	2		4								12				16
*08:15:01-08:15:02 , 08:51, 07:148,					5							42				
07:161 ⁶) ၁							12				
*08:16:01-08:16:02	1	2													15	
*08:17			3							10		12	13			
*08:18			3										13	14		
*08:19			3									12	13			
*08:20	1	2										12				
*08:21	1	2			5							12				
*08:22	1	2										12				16
*08:23			3			6						12	13			
*08:24	1	2							9			12				
*08:25			3										13		15	
*08:26N	1	2										12				
*08:27			3									12				
*08:28			3									12	13			
*08:29			3									12				
*08:30, 08:32 ⁷			3									12	13			
*08:31			3									12				
*08:33:01			3									12	13			
*08:33:02			3									12	13			
*08:33:03			3									12	13			
*08:34			3					8				12	13			
*08:35			3									12	13			
*08:36N	1	2										12				
*08:37			3									12	13			
*08:38	1	2		4								12				
*08:39	1											12				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	•	_							•							

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Length of spec	125	500	405	205	185	100	125	115	100	92	80	195	110	115	80	375
PCR product(s	265		470		285			265	145		155			250	200	430
Well No	32	31	30	29	28	27	26		24	23	22	21	20	19	_	17
*08:02:06		31														
*08:02:07					28											
*08:03:01- 08:03:02												21				
*08:04:01 -08:04:03																
*08:05																17
*08:06												21				
*08:07																
*08:08												21				
*08:09												21				
*08:10												21				
* 08:11 , 08:59												21				
*08:12																
*08:13																
*08:14												21				
*08:15:01-08:15:02, 08:51, 07:148																
07:161 ⁶																
*08:16:01-08:16:02												21				
*08:17																
*08:18																
*08:19	32	31														
*08:20			30									21				
*08:21												21				17
*08:22												21				
*08:23																
*08:24												21				
*08:25																17
*08:26N												21			18	
*08:27												21		19		
*08:28			30													17
*08:29														19		
*08:30, 08:32														19		
*08:31														19	18	
*08:33:01											22					
*08:33:02					28							21				
*08:33:03												21				
*08:34																
*08:35												21	20			
*08:36N										23		21				
*08:37									24							
*08:38				29								21				
*08:39								25				21				
Well No	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

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		-	_			tion			· -	-	_			_	1-	_
Length of spec.	250	115	115	110	155	270	100	225	385	110	280	165	105	170	265	100
PCR product(s)						310		290	505	140				280		545
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*08:40	1	2		4								12				
*08:41	1	2										12				
*08:42	1	2										12				
*08:43			3									12	13			
*08:47							7					12	13			
*08:49			3									12				
*08:52N			3									12	13			
*08:54	1		3									12				
*08:55N			3										13			
*08:56	1	2										12				16
*08:57	1											12				
*08:61	1	2		4								12				
*08:62			3									12	13			
*08:63												12				
*08:65, 08:72	1											12				
*08:66	1		3									12				
*01:02:06, 01:04, 02:02:05, 02:02:13, 02:05-02:06, 02:10, 02:12, 02:17, 02:27:02, 02:33, 02:58, 04:01:01:01-04:01:06, 04:01:09-04:01:48, 04:03, 04:05, 04:07-04:12, 04:14-04:20, 04:23-04:33, 04:35-04:41, 04:43-04:57, 04:59Q-04:119, 04:121, 04:123N-04:128, 04:130-04:139, 04:141-04:143, 06:02:01:01-06:02:01:02, 06:02:03-06:03:02, 06:06-06:15, 06:17-06:40, 06:42-06:61, 06:63-06:66, 06:68-06:72, 06:74-06:91, 06:93-06:96, 12:02:01-12:03:15, 12:03:18-12:13, 12:15, 12:17, 12:19, 12:21-12:31, 12:33-12:82, 12:84N-12:94, 14:02:01-14:02:04, 14:02:06-14:05, 14:07N-14:14, 14:16, 14:18-14:49, 15:08, 15:25, 15:51, 16:01:01-16:02:02, 16:02:04-16:02:09, 16:04:01, 16:06-16:20, 16:22-16:26, 16:28-16:32, 16:34, 16:36-16:39, 16:41-16:47, 16:49-16:55, 17:17, 18:01-18:06																
05:09:02, 05:52, 07:130, 16:27, <i>B*15:33, B*15:248</i>					5											
*01:21, 04:140																16
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

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430	200	250			155		145	265			285		470		265	PCR product(s)
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
				21									30			*08:40
				21	22											*08:41
				21					26							*08:42
										27						*08:43
																*08:47
																*08:49
												29				*08:52N
			20	21												*08:54
															32	*08:55N
				21			24									*08:56
																*08:57
				21							28					*08:61
								25						31		*08:62
				04												*08:63
				21												*08:65, 08:72
				21												*08:66
				21												*01:02:06, 01:04, 02:02:05, 02:02:13, 02:05-02:06, 02:10, 02:12, 02:17, 02:27:02, 02:33, 02:58, 04:01:01:01-04:01:06, 04:01:09-04:01:48, 04:03, 04:05, 04:07-04:12, 04:14-04:20, 04:23-04:33, 04:35-04:41, 04:43-04:57, 04:59Q-04:119, 04:121, 04:123N-04:128, 04:130-04:139, 04:141-04:143, 06:02:01:01-06:02:01:02, 06:02:03-06:03:02, 06:06-06:15, 06:17-06:40, 06:42-06:61, 06:63-06:66, 06:68-06:72, 06:74-06:91, 06:93-06:96, 12:02:01-12:03:15, 12:03:18-12:13, 12:15, 12:17, 12:19, 12:21-12:31, 12:33-12:82, 12:84N-12:94, 14:02:01-14:02:04, 14:02:06-14:05, 14:07N-14:14, 14:16, 14:18-14:49, 15:08, 15:25, 15:51, 16:01:01-16:02:02, 16:02:04-16:02:09, 16:04:01, 16:06-16:20, 16:22-16:26, 16:28-16:32, 16:34, 16:36-16:39, 16:41-16:47, 16:49-16:55, 17:17, 18:01-18:06
																*01:13, 02:51, 03:87, 05:09:01-
																05:09:02, 05:52, 07:130, 16:27, B*15:33, B*15:248
				21												*01:21, 04:140
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

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Lot No.: 13S		_				tion				_						_
Length of spec.	250	115	115	110	155	270	100	225	385	110	280	165	105	170	265	100
PCR product(s)						310		290	505	140				280		545
Well No.	1	2	3	4	5	6	7	8	9	_	11	12	13	14	15	16
*01:22, 01:35, 02:03, 02:16:02, 02:18, 05:68, 12:14:01, 15:02:05, 15:02:13, 15:05:06, 15:06:03, 15:65, 17:06, <i>B*58:02</i>	1															
*01:43												12				
*02:14, 04:42, 16:21																
*02:16:01, 04:04:01-04:04:02, 04:06, 04:13, 04:34, 04:58, 04:122, 06:04, 12:14:02, 12:18:01-12:18:02, 12:20, 12:83, 14:06, 14:15, 15:02:01-15:02:04, 15:02:06-15:02:12, 15:02:14-15:05:05, 15:05:07-15:06:02, 15:07, 15:09-15:13, 15:15-15:19, 15:21-15:22, 15:24, 15:26-15:28, 15:30-15:50, 15:52-15:62, 15:64, 15:66, 16:35, 16:40, 16:48, 17:01:01:01-17:04, 17:07-17:16, 17:18-17:19	1															
*02:42, <i>B</i> *67:02																16
*03:171, <i>A*01:01:06</i>																
*04:120			3										13			
*04:129					5											
*04:144, 06:73																
*05:01:01:01-05:01:19, 05:01:21-05:01:26, 05:03, 05:06-05:07N, 05:13-05:15, 05:19-05:22:02, 05:24, 05:26, 05:28, 05:30-05:38, 05:40-05:41, 05:44:02-05:45, 05:47-05:51Q, 05:53-05:61, 05:63, 05:65-05:67, 05:69, 05:71-05:75, 05:77-05:78, 05:80-05:84, 05:86-05:87			3										13			
*05:01:20			3										13			
*05:04:01-05:04:02			3					8					13			
*05:05			3										13			
*05:08			3													
*05:10			3										13			
*05:11	1		3													
*05:12											4 4		13			
*05:16, 05:85	4		3		_						11		13			
*05:17	1		2		5								40			
*05:18:01			3										13 13			
*05:18:02-05:18:03, 05:39 Well No.	1	2	3	Λ	5	6	7	8	9	10	11	12		11	15	16
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21 24 **02:14:01, 15:02:05, 15:05:06, 15:06:03, 15:05:06, 15:06:03, 15:05:06, 15:05:06, 15:06:03, 15:05:06, 15:05:06, 15:06:03, 15:06:03, 15:05:06, 15:06:03, 15:06:03, 15:06:03, 15:06:03, 04:34, 04:04:04:04:04:13, 04:34, 04:58, 04:12 12:14:02, 12:18:01-12:180, 12:183, 14:06, 14:15, 15:02:04, 15:02:04, 15:02:04, 15:02:04, 15:02:04, 15:02:04, 15:02:04, 15:05:05, 15:06:02, 15:07, 15:09-15:15, 15:19, 15:21-15:22, 15:2 15:28, 15:30-15:50, 15:31 15:04, 15:06, 16:35, 16:4 17:01:01:01-17:04, 17:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01:01 15:01 1	oroduct(s)
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*02:42, *03:171, A* 21 28 21 30 *05:01:01:01-05:01:19, 0 05:01:26, 05:03, 05:06-05:07 05:15, 05:19-05:22:02, 05:2 05:28, 05:30-05:38, 05:4 05:61, 05:63, 05:65-05:6 05:71-05:75, 05:77-05:7 05:84, 05: 31 *05:04:01-	122, 06:04, :02, 12:20, , 15:02:01- 6-15:02:12, , 15:05:07- :13, 15:15- :24, 15:26- 5:52-15:62, :40, 16:48,
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21 30 *05:01:01:01-05:01:19, 0	*04:120
21 *04:14 *05:01:01:01-05:01:19, 0 05:01:26, 05:03, 05:06-05:07 05:15, 05:19-05:22:02, 05:2 05:28, 05:30-05:38, 05:4 05:44:02-05:45, 05:47-05:51 05:61, 05:63, 05:65-05:6 05:71-05:75, 05:77-05:7 05:84, 05:	*04:129
*05:01:01:01-05:01:19, 0 05:01:26, 05:03, 05:06-05:07 05:15, 05:19-05:22:02, 05:2 05:28, 05:30-05:38, 05:4 05:44:02-05:45, 05:47-05:51 05:61, 05:63, 05:65-05:6 05:71-05:75, 05:77-05:7 05:84, 05:	144, 06:73
*05:04:01-	, 05:01:21- 07N, 05:13- :24, 05:26, 5:40-05:41, 51Q, 05:53- :67, 05:69,
25	*05:01:20
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	*05:05
	*05:08
28	*05:10
21 25	*05:11 *05:12
	5:16, 05:85
05.	*05:17
21	*05:18:01
*05:18:02-05:18:	
	Well No.

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Length of spec.	250	115	115	110	155	270	100	225	385	110	280	165	105	170	265	100
PCR product(s)						310		290	505	140				280		545
Well No.	1	2	3	4	5	6	7	8	9		11	12	13	14	15	
*05:23			3				7						13			
*05:25			3										13			
*05:27	1		3													
*05:29:01-05:29:02			3										13		15	
*05:42			3		5								13			
*05:43			3										13			
*05:44:01			3										13			
*05:46			3		5								13			
*05:62							7									
*05:64			3										13			
*05:70			3													
*05:76													13			
*05:79	1	2		4					9							
*06:05, 12:16																16
*06:67					5											
*07:02:09																16
*07:02:35							7									
*07:04:01-07:04:08, 07:11-07:12,																
07:63, 07:139, 07:142, 07:181,																
07:199:01-07:199:02, 07:272																
*07:41			3										13			
*07:68, 07:260								8								
*07:101					5							12				
*15:23	1															
*15:29	1															16
*15:63	1															16
*16:33						6										
*17:05	1				5											
A*29:10, A*68:69																
B*14:32			3								11					
B*18:83								8								
B*44:148																
HLA-C allele																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

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UN .	nation														LOT	
Length of sp	125	500	405	205	185	100	125	115	100	95	80	195	110	115	80	375
PCR product	265		470		285			265	145		155			250	200	430
Well I	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
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*07:04:01-07:04:08, 07:11-07:																
07:63, 07:139, 07:142, 07:1											22					
07:199:01-07:199:02, 07:2																
*07			30													
*07:68, 07:2											22					
*07:1											22					
*15									24			21				
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*16												21				
*17												21				
A*29:10, A*68.								25								
B*14.								25			22					
B*18.								25			22					
B*44:1					28			25			22					
HLA-C all																
Well I	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

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Lot No.: 13S Lot-specific information

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-C*08 SSP subtyping.

In addition, wells number 3, 6, 10 to 13 and 19 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band.

²The nucleotide position, in the 2nd, 3rd, 4th or 5th exon or the 1st or 2nd 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.

The nucleotide position, in the 2nd, 3rd, 5th or 6th exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. The sequence of the 3 terminal nucleotides of the primer is given.

⁴The C*08:64 has been shown to be identical to C*08:33:03.

⁵HLA-C*08 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.11.0, January 2013.

⁶The HLA-C*08 subtyping kit cannot separate the C*08:15:01-08:15:02 and 08:51 alleles from the C*07:148 and 07:161 alleles. The C*08 and C*07 alleles can be distinguished by the HLA-C low resolution and/or HLA-C*07 kits.

⁷The C*08:30 and C*08:32 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 19. ⁸Primer mix 8: Specific PCR fragment of 225 bp in the C*08:09, 08:11 and 08:59 and in the

⁸Primer mix 8: Specific PCR fragment of 225 bp in the C*08:09, 08:11 and 08:59 and in the C*05:04:01-05:04:02, 07:68 and 07:260 and in the B*18:83 alleles. Specific PCR fragment of 290 bp in the C*08:34 allele.

Primer mix 9: Specific PCR fragment of 385 bp in the C*08:24 allele. Specific PCR fragment of 505 bp in the C*08:10 and the 05:79 alleles.

Primer mix 10: Specific PCR fragment of 110 bp in the C*08:09 allele. Specific PCR fragment of 140 bp in the C*08:17 allele.

Primer mix 14: Specific PCR fragment of 170 bp in the C*08:18 allele. Specific PCR fragment of 280 bp in the C*08:08 allele.

Primer mix 16: Specific PCR fragment of 100 bp in the C*08:14 and the C*01:21, 02:42, 04:140, 06:05, 07:02:09, 12:16 and 15:63 and in the B*67:02 allele. Specific PCR fragment of 545 bp in the C*08:22 and 08:56 and the C*15:29 alleles.

Primer mix 17: Specific PCR fragment of 375 bp in the C*08:05, 08:21 and 08:25 and the C*05:46 alleles. Specific PCR fragment of 430 bp in the C*08:28 and C*05:25 alleles. Specific PCR fragment of 375 and 430 bp in the C*05:42 allele.

Primer mix 18: Specific PCR fragment of 80 bp in the C*08:31 allele. Specific PCR fragment of 200 bp in the C*08:26N allele.

Primer mix 19: Specific PCR fragment of 115 bp in the C*08:27 and 08:29-08:31 and the C*05:08 alleles. Specific PCR fragment of 250 bp in the C*08:32 allele.

Primer mix 22: Specific PCR fragment of 80 bp in the C*08:41 and the C*05:27 and 05:39 allele. Specific PCR fragment of 155 bp in the C*08:33:01 and the C*05:18:02-05:18:03, 07:04:01-07:04:08, 07:11-07:12, 07:63, 07:68, 07:101, 07:139, 07:142, 07:181, 07:199:01-07:199:02, 07:260, 07:272 and in the B*14:32 and B*18:83 alleles. Specific PCR fragments of 80 and 155 bp in the B*44:148 allele.

Primer mix 24: Specific PCR fragment of 100 bp in the C*08:56 allele. Specific PCR fragment of 145 bp in the C*08:37 and the C*02:14, 04:42, 05:43, 06:05, 07:02:09, 12:16, 15:23, 15:63 and 16:21 alleles.

Primer mix 25: Specific PCR fragment of 115 bp in the C*08:39 and the 05:12 allele. Specific PCR fragment of 265 bp in the C *08:62 and the 05:05 and in the A*68:69 and B*14:32 alleles. Specific PCR fragment of 115 bp and 265 bp in the A*29:10 and in the B*18:83 and B*44:148 alleles.

Primer mix 28: Specific PCR fragment of 185 bp in the C*08:01:07, 08:02:07 and 08:33:02 and the 04:120 alleles. Specific PCR fragment of 285 bp in the C*08:44 and 08:61 and the C*05:10 and in the B*44:148 alleles.

Primer mix 30: Specific PCR fragment of 405 bp in the $C^*08:28$ and the $C^*05:25$, 05:42, 07:02:35 and 07:41 and the $A^*01:01:06$ alleles. Specific PCR fragment of 470 bp in the $C^*08:20$ and 08:40 and the $C^*03:171$, 04:144 and 06:73 alleles.

Primer mix 32: Specific PCR fragment of 125 bp in the C*08:19 and the C*05:64 alleles. Specific PCR fragment of 265 bp in the C*08:55N allele.

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5		KAS011	*06:02	04.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353		*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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8	9007		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*01:02		-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	_
11		PITOUT	*16:01		-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
12	9052		*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13		JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14		OLGA	*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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20		SLE005	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		AMALA	*03:03		-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-
22	9056	KOSE	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1
23	9124	IHL	*01:02	*15:02	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*08:02		-	-	+	-	-	-	-	-	-	-	-	+	+	-	-	-]
26		WT49	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27		CH1007	*07:04	*15:05	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
28		BEL5GB	*05:01	*16:01	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-
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34	9104		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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36	9024		*03:03	*04:01	-	-	÷	-	-	-	-	-	-	-	-	-	÷	-	-	-
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38	9099		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40		WHONP199	*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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42		TAB089	*01:02	400 - :	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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44	9057		*12:03	*47.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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8	9007		*04:01		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
9	9026		*12:03		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
10	9107		*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		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16		SWEIG007	*02:02		-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
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21		AMALA	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22		KOSE	*12:03	*15:02	_	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
23 24	9124	JBUSH	*01:02 *12:03	15:02	_	-		H	+	-		-		-	÷		-		H	-
25	9035		*08:02		Ε.	H			+	-	÷	-	Ë	÷	÷				÷	-
26		WT49	*07:01		_	-			-	-	-	-		-	-	-	-	-		-
27		CH1007	*07:04	*15:05	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
28		BEL5GB	*05:01	*16:01	-	-	-	-	+	Ė	-	-	-	-	-	-	-	-	-	-
29	9050		*16:01	10.01	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
30	9021		*17:01		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
31		DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297		*17:01	*17:03	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104		*12:03		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36		KT17	*03:03	*04:01	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
37		HHKB	*07:02		-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
38	9099		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315		*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40		WHONP199	*01:02	*06:02	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
41		H0301	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
42		TAB089	*01:02	*00.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43		T7526	*01:02	*08:01	-	-	-	-	+	-	-	-	<u> </u>	-	-	-	-	-	-	-
44 45	9057	SHJO	*12:03 *06:02	*17:01	-	-	÷	÷	+	-	÷	-	-	-	÷	-	-	÷	÷	-
46		SCHU	*07:02	17.01	-	H	÷	÷	+	-	÷		E	÷	÷	÷	-	÷	÷	
47		TUBO	*07:04	*15:02	-	-			+	+			H	÷						-
48		TER-ND	*04:01	*16:01	-	-	-		+	т -	-	-	-	-	-	-	-	-	-	-
40	9303	ILIV-IND	04.01	10.01	ட்	_	۰	۰		۰	ت	ت	ت	Ē.	_	ت	_	ت	۰	لت

Visit <u>www.olerup-ssp.com</u> for "Instructions for Use" (IFU)

Lot No.: 13S Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-C*08 SSP

Product number: 101.623-12 – including *Taq* polymerase

101.623-12u - without *Taq* polymerase

Lot number: 13S

Expiry date: 2015-October-01

Number of tests: 12 Number of wells per test: 32

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2010-758-01	13	2010-758-13	25	2013-165-25
2	2010-758-02	14	2010-758-14	26	2011-898-26
3	2010-758-03	15	2013-165-15	27	2011-898-27
4	2010-758-04	16	2013-165-16	28	2012-025-28
5	2010-758-05	17	2010-758-17	29	2012-025-29
6	2010-758-06	18	2010-758-18	30	2012-025-30
7	2010-758-07	19	2010-758-19	31	2012-025-31
8	2010-758-08	20	2010-758-20	32	2012-025-32
9	2011-898-09	21	2010-758-21		
10	2010-758-10	22	2011-898-22	1	
11	2012-025-11	23	2010-758-23]	
12	2010-758-12	24	2012-025-24]	

The specificity of each primer solution of the HLA-C*08 primer set has been tested against 48 well characterized cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 5 to 11, 14, 15, 17 to 20, 23 to 26 and 28 to 32 were available.

The specificity of the primers in primer solutions 5, 7 to 9, 11, 14, 15, 17 to 20, 24, 25, 28 to 32 were tested by adding additional 5'-primers respectively 3'-primers. In primer solutions 6, 10 and 26 it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solutions 23 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solution 8, 9, 14, 18, 19, 29 and 30, one or two 5'-primers were not possible to test. In primer solution 24 and 32, one or two 3'-primers were not possible to test.

In primer solution 16, one additional 5'-primer and one additional 3'-primer were tested by separately adding one 3'-primer respective one 5'-primer. In primer solution 22, one additional 5'-primer was tested by separately adding one 3'-primer.

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

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Lot No.: 13S Lot-specific information

Date of approval: 2013-May-22

Approved by:

Production Quality Control

Visit <u>www.olerup-ssp.com</u> for "Instructions for Use" (IFU)

Lot No.: 13S Lot-specific information

Declaration of Conformity

Product name: Olerup SSP® HLA-C*08

Product number: 101.623-12/12u

Lot number: 13S

Intended use: HLA-C*08 high resolution histocompatibility testing

Manufacturer: Olerup SSP AB

Franzengatan 5

SE-112 51 Stockholm, Sweden

Phone: +46-8-717 88 27 **Fax:** +46-8-717 88 18

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

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

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

Stockholm, Sweden 2013-May-22

Ann-Cathrin Jareman Head of QA and Regulatory Affairs

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

Lot No.: 13S Lot-specific information

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