

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information
Olerup SSP[®] HLA-B*39

Product number:	101.566-12/04 – including <i>Taq</i> pol. 101.566-12u/04u – without <i>Taq</i> pol.
Lot number:	87S
Expiry date:	2016-May-01
Number of tests:	12 tests – Product No. 101.566-12/12u 4 tests – Product No. 101.566-04/04u
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. 87S.

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®]
HLA-B*39 LOT (47R)**

The HLA-B*39 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP[®]* HLA-B*39 lot was made (**Lot No. 47R**).

The HLA-B*39 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
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The Lot-specific information for HLA- B*39 including and without *Taq* polymerase is described in one common Product Insert.

¹As described in section Uniquely Identified Alleles.

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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
5	-	Added	3'-primer added for the B*39:01:15 allele.
9	Moved, exchanged	Moved	Primer pair moved to well 22, 5'-primer exchanged for decreased tendency of primer oligomer formation.
10	-	Added	3'-primer added for B*39:43 allele, for improved allelic resolution.
13	Moved	Moved	Primer pair moved to well 17.
17	Added	Added	Primer pair added from well 13.
18	-	Added	3'-primer added from well 22.
22	Moved, added	Moved, added	Primer pairs moved to wells 18 and 32, primer pair added from well 9.
30	-	Added	3'-primer added for B*39:75 allele.
31	Exchanged	Exchanged	Primer pair exchanged for decreased tendency of unspecific amplifications.
32	Added	Added	Primer pair added for the B*39:77 allele, 5'-primer added from well 22.

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PRODUCT DESCRIPTION

HLA-B*39 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*39:01 to B*39:83 alleles.

PLATE LAYOUT

Each 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 32 well cut PCR plate is marked with 'HLA-B*39' in silver/gray ink.

Well No. 1 is marked with the Lot Number '87S'.

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 32 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-B*39 SSP subtypings will be influenced by most B*07, the B*08, most B*13, the B*14, several B*15, the B*18, several B*27, several B*35, most B*37, the B*38, several B*40, most B*41, the B*42, ten B*44, four B*45, two B*46, most B*48, three B*49, two B*50, several B*51, most B*52, most B*53, the B*54, the B*55, the B*56, several B*57, eight B*58, the B*59, the B*67, the B*73, the B*78, the B*81, the B*82 and the B*83:01 alleles when present on the other haplotype.

In addition, primer mix 1 will amplify the C*05:70 and C*06:40, C*07:137:01-07:137:02 alleles, primer mix 3 will amplify the C*12:87 allele, primer mix 7 will amplify the A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02 and C*15:51 alleles, primer mix 10 will amplify the C*12:87 allele, primer mix 12 will amplify the C*15:51 allele, primer mix 16 will amplify the C*07:137:01-07:137:02 alleles, primer mix 20 will amplify the C*07:137:01-07:137:02 and C*15:51 alleles, primer mix 21 will amplify the C*05:70 and C*07:137:01-07:137:02 alleles, primer mix 25 will amplify the C*15:31 allele, primer mix 26 will amplify the C*01:30 and C*12:87 alleles, primer mix 27 will amplify the C*15:39 allele, primer mix 28 will amplify the C*15:15 allele, primer mix 30 will amplify the A*02:403, A*30:63, C*05:70, C*06:40, C*07:175 and C*15:51 alleles, primer mix 31 will amplify the C*02:68 and C*15:24 alleles and primer mix 32 will amplify the C*15:51 allele.

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UNIQUELY IDENTIFIED ALLELES

All the HLA-B*39 alleles, i.e. **B*39:01 to B*39:83**, recognized by the HLA Nomenclature Committee in July 2013¹ will be amplified by the primers in the HLA-B*39 subtyping kit².

The HLA-B*39 kit enables separation of the confirmed HLA-B*39 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA-B*39 alleles is listed below.

The HLA-B*39 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-B*39 subtyping kit cannot distinguish the silent mutations in the B*39:01:01:01, 39:01:01:03, 39:01:03, 39:01:06-39:01:08 and 39:01:10-39:01:16, alleles, the B*39:05:01-39:05:02 alleles, the B*39:06:01-39:06:02 alleles, the B*39:13:01-39:13:02 alleles, the B*39:24:01-39:24:02 alleles or the B*39:40:01N-39:40:02N alleles.

The B*39:01:01:02L and B*39:60 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 25.

The B*39:25 and B*39:44 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 17.

The B*39:35 and B*39:75 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 30.

The B*39:41 and B*39:77 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 32.

The B*39:62 and B*39:64 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 30.

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

²The B*39:10:01 and 67:01:02-67:01:03 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

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ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*39:01:01:01	Confirmed	B*39:10:02	Unconfirmed	B*39:38Q	Confirmed	B*39:66	Unconfirmed
B*39:01:01:02L	Unconfirmed	B*39:11	Confirmed	B*39:39:01	Confirmed	B*39:67	Unconfirmed
B*39:01:01:03	Unconfirmed	B*39:12	Confirmed	B*39:39:02	Unconfirmed	B*39:68	Confirmed
B*39:01:03	Confirmed	B*39:13:01	Confirmed	B*39:40:01N	Unconfirmed	B*39:69	Unconfirmed
B*39:01:04	Confirmed	B*39:13:02	Unconfirmed	B*39:40:02N	Unconfirmed	B*39:70	Unconfirmed
B*39:01:05	Confirmed	B*39:14	Confirmed	B*39:41	Unconfirmed	B*39:71	Unconfirmed
B*39:01:06	Unconfirmed	B*39:15	Confirmed	B*39:42	Unconfirmed	B*39:72	Unconfirmed
B*39:01:07	Unconfirmed	B*39:16	Unconfirmed	B*39:43	Unconfirmed	B*39:73	Confirmed
B*39:01:08	Confirmed	B*39:17	Unconfirmed	B*39:44	Unconfirmed	B*39:74	Unconfirmed
B*39:01:09	Confirmed	B*39:18	Unconfirmed	B*39:45	Unconfirmed	B*39:75	Confirmed
B*39:01:10	Confirmed	B*39:19:01	Unconfirmed	B*39:46	Unconfirmed	B*39:76	Unconfirmed
B*39:01:11	Unconfirmed	B*39:19:02	Confirmed	B*39:47	Unconfirmed	B*39:77	Unconfirmed
B*39:01:12	Unconfirmed	B*39:20	Confirmed	B*39:48	Unconfirmed	B*39:78	Unconfirmed
B*39:01:13	Unconfirmed	B*39:22	Confirmed	B*39:49	Unconfirmed	B*39:79	Unconfirmed
B*39:01:14	Confirmed	B*39:23	Confirmed	B*39:50	Unconfirmed	B*39:80	Unconfirmed
B*39:01:15	Unconfirmed	B*39:24:01	Confirmed	B*39:51	Unconfirmed	B*39:81	Unconfirmed
B*39:01:16	Unconfirmed	B*39:24:02	Confirmed	B*39:52	Unconfirmed	B*39:82	Unconfirmed
B*39:02:01	Unconfirmed	B*39:25N	Unconfirmed	B*39:53	Confirmed	B*39:83	Unconfirmed
B*39:02:02	Confirmed	B*39:26	Confirmed	B*39:54	Unconfirmed		
B*39:03	Confirmed	B*39:27	Confirmed	B*39:55	Unconfirmed		
B*39:04	Confirmed	B*39:28	Unconfirmed	B*39:56	Unconfirmed		
B*39:05:01	Confirmed	B*39:29	Confirmed	B*39:57	Confirmed		
B*39:05:02	Unconfirmed	B*39:30	Unconfirmed	B*39:58	Unconfirmed		
B*39:06:01	Confirmed	B*39:31	Confirmed	B*39:59	Unconfirmed		
B*39:06:02	Confirmed	B*39:32	Unconfirmed	B*39:60	Unconfirmed		
B*39:06:03	Unconfirmed	B*39:33	Confirmed	B*39:61	Unconfirmed		
B*39:07	Confirmed	B*39:34	Confirmed	B*39:62	Confirmed		
B*39:08	Confirmed	B*39:35	Unconfirmed	B*39:63	Confirmed		
B*39:09	Confirmed	B*39:36	Unconfirmed	B*39:64	Confirmed		
B*39:10:01	Confirmed	B*39:37	Confirmed	B*39:65	Unconfirmed		

¹ Allele 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.

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RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 108 alleles generate 79 amplification patterns that can be combined in 3160 homozygous and heterozygous combinations. 2133 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.

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Lot-specific information
SPECIFICITY TABLE

HLA-B*39 SSP subtyping

Specificities and sizes of the PCR products of the 32 primer mixes used for
 HLA-B*39 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*39 alleles ³	Other amplified HLA-Class I alleles ⁴
1	230 bp	800 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:05:02, 39:07-39:20, 39:22-39:29, 39:31, 39:35, 39:37-39:41, 39:44-39:46, 39:48-39:49, 39:51-39:56, 39:58-39:61, 39:63, 39:65-39:72, 39:75-39:81	*08:55, 15:69, 15:186, 38:01:01-38:07, 38:09, 38:11-38:14, 38:16-38:19, 38:21-38:22, 38:24-38:29, 38:31-38:35, 38:38-38:43, 40:184, 58:20, 67:01:01-67:03, C*05:70, C*06:40, C*07:137:01-07:137:02
2	170 bp	1070 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:01:16, 39:03-39:07, 39:09, 39:11-39:12, 39:14-39:15, 39:18-39:19:02, 39:22, 39:24:01-39:38Q, 39:40:01N-39:48, 39:50-39:51, 39:53, 39:55-39:57, 39:59-39:62, 39:64-39:82	*07:69, 07:85, 07:180, 08:65, 14:01:01-14:20, 14:22-14:35, 14:37, 15:09-15:10:02, 15:18:01-15:18:05, 15:23, 15:37, 15:51-15:52, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:133-15:134, 15:153, 15:161, 15:176, 15:186, 15:197-15:198, 15:200, 15:221, 15:226N, 15:229, 15:238, 15:243, 15:252, 15:263, 15:275, 18:33, 38:01:01-38:02:05, 38:04-38:05, 38:08-38:15, 38:17-38:25, 38:27, 38:29-38:43
3^{6,7}	200 bp	800 bp	*39:05:01-39:05:02, 39:07-39:08, 39:11, 39:13:01-39:13:02, 39:20, 39:37, 39:43, 39:49, 39:55-39:56	*07:16, 07:27, 07:37-07:38, 07:50, 07:75, 07:91, 07:180, 08:03, 08:23, 08:54, 08:110, 14:14, 14:18, 15:03:01-15:03:04, 15:09-15:10:02, 15:18:01-15:18:05, 15:23, 15:29, 15:37-15:38:02, 15:47:01-15:47:02, 15:49, 15:51-15:52, 15:54, 15:62, 15:64:01-15:64:02, 15:68-15:69, 15:72, 15:74, 15:80, 15:90-15:91, 15:93, 15:98-15:99, 15:103, 15:108, 15:114-15:115, 15:119, 15:123-15:124, 15:127,

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				15:131-15:134, 15:151, 15:153, 15:156, 15:158, 15:161, 15:173, 15:176, 15:185-15:186, 15:197-15:198, 15:200, 15:210, 15:220-15:221, 15:226N, 15:229, 15:235, 15:238, 15:242-15:243, 15:251-15:253, 15:263, 15:266, 15:274-15:275, 15:281-15:282, 18:01:01:01-18:15, 18:17N-18:91, 35:21, 35:24:01-35:25, 35:124-35:125, 35:142, 35:162, 35:188, 35:190, 37:01:01-37:21, 37:23-37:36, 38:01:01-38:02:05, 38:04-38:12, 38:15, 38:17-38:25, 38:27, 38:29-38:40, 38:42-38:43, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:31, 49:25, 51:37, 51:45, 51:63, 51:97, 51:116, 52:16, 52:27, 53:02, 53:06, 53:28, 56:31, 57:14, 57:58, 58:09, 58:12, C*12:87
4^{5,6,9}	65 bp, 145 bp, 385 bp	1070 bp	*39:26, 39:51, 39:58	
5⁵	105 bp	800 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:01:08, 39:01:10-39:02:01, 39:03-39:06:02, 39:07-39:09, 39:11-39:12, 39:14-39:15, 39:18, 39:19:02, 39:22, 39:24:01-39:39:01, 39:40:01N-39:48, 39:50-39:62, 39:64-39:82	*07:02:32, 14:01:01-14:02:02, 14:02:04, 14:02:07-14:20, 14:22-14:37, 15:189, 35:26, 67:01:01, 67:03
6	170 bp	800 bp	*39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49	*07:27, 07:50, 08:04, 08:17, 08:54, 08:110, 15:03:01-15:03:04, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 15:266, 15:274,

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				15:281-15:282, 18:01:01:01-18:03, 18:05-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:78, 18:81-18:91, 37:01:01-37:20, 37:23-37:25, 37:27-37:37, 38:03, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:30, 49:25, 52:16, 52:27
7^{5,7,10}	120 bp, 165 bp, 220 bp	1070 bp	*39:03, 39:14, 39:17, 39:24:01-39:24:02, 39:29, 39:37, 39:68, 39:76	*08:55, 38:19, 67:03, A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02, C*15:51
8^{7,11}	180 bp, 405 bp	1070 bp	*39:04, 39:46-39:47, 39:50	*14:28, 15:189, 35:26, 38:33, 40:36, 40:77, 40:86, 48:07, 49:26
9¹²	230 bp, 310 bp	800 bp	*39:06:01-39:06:03, 39:57, 39:59, 39:62, 39:64, 39:83	*51:101
10^{5,13}	105 bp, 165 bp, 205 bp	800 bp	*39:07, 39:19:01- 39:19:02, 39:43	*15:38:01-15:38:02, 15:69, 15:185- 15:186, 15:265, 18:01:01:01-18:09, 18:12-18:15, 18:17N-18:20, 18:22- 18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:91, 35:21, 35:24:01- 35:24:02, 35:35, 35:82, 35:85, 35:135, 35:188, 35:190, 51:22, 51:37, 51:45, 51:63, 51:97, 53:02, 53:06, 53:28, 56:31, 57:14, 58:09, 78:03, C*12:87
11^{7,14}	170 bp, 185 bp	1070 bp	*39:08, 39:11, 39:18, 39:33, 39:36, 39:40:01N- 39:40:02N, 39:53, 39:57	*07:78, 13:18, 13:31, 13:41, 15:58, 15:73, 54:10, 54:20, 55:09, 55:21, 55:37, 55:52, 56:19N
12^{7,15}	175 bp, 205 bp	800 bp	*39:07, 39:15, 39:29, 39:49, 39:55, 39:61	*15:69, 15:186, 35:35, 38:29, C*15:51
13^{5,16}	95 bp, 385 bp	800 bp	*39:27, 39:51	
14⁵	85 bp	1070 bp	*39:10:01-39:10:02, 39:16-39:17, 39:20, 39:63	*07:02:01-07:07, 07:09, 07:11- 07:12, 07:14-07:26, 07:28-07:31, 07:33:01-07:35, 07:37, 07:39- 07:49N, 07:51-07:68:03, 07:70- 07:80, 07:82, 07:84, 07:86-07:131, 07:133-07:148, 07:150-07:179,

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15^{7,17}	145 bp, 190 bp	800 bp	*39:12, 39:31, 39:38Q, 39:54	*14:28, 49:26
16^{7,18}	165 bp, 220 bp	800 bp	*39:09, 39:14, 39:16, 39:29, 39:70	*08:55, 51:101, C*07:137:01-07:137:02
17^{5,19}	80 bp, 180 bp, 205 bp	800 bp	*39:23, 39:25N, 39:44, 39:61	
18	155 bp	800 bp	*39:02:01-39:02:02, 39:08, 39:13:01- 39:13:02, 39:22- 39:23, 39:45, 39:49	*08:17, 08:38, 08:54, 08:101, 15:03:01-15:03:04, 15:47:01- 15:47:02, 15:49, 15:54, 15:61- 15:62, 15:68-15:69, 15:74, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242-15:243, 15:251, 15:253, 15:266, 15:274, 15:281- 15:282, 18:12, 37:01:01-37:07, 37:09-37:21, 37:23-37:37, 38:03- 38:04, 38:25, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01- 48:02:01, 48:02:03-48:05, 48:07- 48:15, 48:17-48:31, 49:25, 52:16, 52:27
19	385 bp	1070 bp	*39:01:01:01- 39:01:01:03, 39:01:03-39:01:16, 39:03-39:07, 39:09- 39:10:01, 39:11- 39:12, 39:14-39:20,	*07:02:01-07:12, 07:14-07:53, 07:55-07:64, 07:66-07:122, 07:124- 07:131, 07:133-07:180, 07:182N, 07:183 ^w , 07:184-07:198, 08:01:01- 08:05, 08:07-08:09, 08:11-08:16, 08:18-08:37, 08:39-08:53:02,

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			39:24:01-39:48, 39:50-39:77, 39:79- 39:83	08:55-08:100, 08:102-08:111, 14:01:01-14:03, 14:05-14:37, 38:01:01-38:02:05, 38:05-38:24, 38:26-38:43, 40:25 [?] , 40:68 [?] , 40:106 [?] , 40:166 [?] , 40:232 [?] , 42:01:01-42:02, 42:04-42:10, 42:12-42:20, 48:06, 49:26, 50:15, 67:01:01-67:01:03, 67:03, 73:01- 73:02, 81:02
20^{5,7,8,20}	100 bp, 215 bp	800 bp	*39:01:05, 39:09, 39:18, 39:27	*15:69, 15:186, 15:265, 38:01:03, C*07:137:01-07:137:02, C*15:51
21	220 bp	800 bp	*39:01:01:01- 39:01:01:03, 39:01:03-39:02:02, 39:04-39:05:02, 39:07-39:13:02, 39:15, 39:17-39:20, 39:22-39:23, 39:25N-39:27, 39:31, 39:35, 39:38Q-39:41, 39:42 ^w , 39:44-39:46, 39:48-39:49, 39:51- 39:56, 39:58-39:61, 39:63, 39:65-39:72, 39:75, 39:77-39:78, 39:80-39:81	*15:69, 15:186, 38:01:01-38:07, 38:08 ^w , 38:09, 38:11-38:18, 38:21, 38:24-38:29, 38:31-38:35, 38:38- 38:43, 40:184, 58:20, 67:01:01- 67:03, C*05:70, C*07:137:01- 07:137:02
22⁶	230 bp,	800 bp	*39:73	*38:23
23^{5,6}	85 bp	800 bp	*39:01:01:01- 39:01:01:03, 39:01:03, 39:01:05- 39:01:08, 39:01:10- 39:02:01, 39:03- 39:04, 39:06:01- 39:06:02, 39:09, 39:12, 39:14-39:15, 39:18, 39:19:02, 39:22, 39:24:01- 39:36, 39:38Q- 39:39:01, 39:40:01N-39:48, 39:50-39:54, 39:57- 39:62, 39:64-39:82	*07:02:32, 14:01:01-14:02:02, 14:02:04-14:02:05, 14:02:07-14:13, 14:15-14:17, 14:19-14:20, 14:22- 14:37, 15:189, 38:14 ^w , 38:26 ^w , 38:41, 67:01:01, 67:03
24⁷	185 bp	1070 bp	*39:01:01:01- 39:01:01:03, 39:01:03-39:01:08,	*07:02:32, 14:01:01-14:01:03, 14:07N-14:08, 14:10, 14:12, 14:14, 14:19, 14:26, 14:32,

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			39:01:10-39:02:01, 39:03, 39:05:01- 39:06:02, 39:07- 39:09, 39:11, 39:14- 39:15, 39:18, 39:19:02, 39:22, 39:24:01-39:39:01, 39:40:01N-39:44, 39:46-39:48, 39:50- 39:62, 39:64-39:71, 39:73-39:75, 39:77, 39:79-39:82	38:01:01-38:02:02, 38:02:04-38:03, 38:07-38:24, 38:26-38:32, 38:34N- 38:43, 67:01:01, 67:03
25^{8,21}	150 bp, 235 bp	1070 bp	*39:01:01:02L, 39:60, 39:82	C*15:31
26	265 bp	800 bp		*14:01:01-14:02:08, 14:03-14:04, 14:07N, 14:09, 14:11-14:12, 14:14- 14:36, 18:44:01-18:44:02, C*01:30 , C*12:87
27²²	180 bp, 205 bp	800 bp	*39:32, 39:38Q, 39:48, 39:63	*13:15, 35:96, 35:109, 51:13:01- 51:13:02, 51:62, 51:92, 51:106, 52:14, 52:25, 56:34, C*15:39
28^{8,23}	140 bp, 180 bp	1070 bp	*39:32-39:33, 39:40:01N- 39:40:02N, 39:56, 39:74	*13:03, 13:48, 15:58, 15:73, 15:133, 15:229, 15:253, 35:03:01- 35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55- 35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 38:30, 40:71, 44:10, 45:14, 46:11, 51:13:01- 51:13:02, 51:15, 51:62, 51:92, 51:106, 52:14, 52:25, 53:04, 53:31, 54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07- 56:08, 56:11, 56:13-56:14, 56:16- 56:17, 56:19N-56:20:02, 56:22, 56:24-56:30, 56:33-56:39, 56:41- 56:42, 58:34, 59:04, 82:01-82:03, C*15:15

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29	245 bp	800 bp	*39:06:01-39:06:03, 39:34, 39:50, 39:57, 39:62, 39:64, 39:83	*07:78, 07:84, 08:09, 08:84, 13:02:01-13:02:15, 13:08-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40- 13:42, 13:44-13:47, 13:49N, 13:53- 13:56N, 13:58-13:59, 13:65-13:68, 13:70, 14:37, 15:42, 15:83, 27:14, 27:81, 35:60, 40:06:01:01- 40:06:07, 40:44, 40:53, 40:70, 40:75, 40:83, 40:86, 40:93, 40:95- 40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 41:01, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20-41:22, 41:25- 41:26, 41:28, 42:04, 45:08, 45:10, 46:18, 49:07, 50:31, 51:10, 51:16, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:101, 51:143, 51:153, 52:08, 54:01:01-54:02, 54:04- 54:05N, 54:07-54:08N, 54:10- 54:30, 55:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:48, 55:50, 55:52-55:59, 56:23, 59:01:01:01- 59:03, 59:05-59:06, 73:01-73:02, 78:07
30^{5,7,24}	65 bp, 135 bp, 190 bp	800 bp	*39:18, 39:35, 39:52, 39:62, 39:64, 39:75	*15:69, 15:265, 38:32, 51:101, A*02:403, A*30:63, C*05:70, C*06:40, C*07:175, C*15:51
31	175 bp	800 bp	*39:30, 39:33-39:34, 39:36, 39:82	*07:05:01-07:06, 07:32, 07:34, 07:40, 07:53, 07:69, 07:78, 07:80, 07:90, 07:97, 07:105, 07:112, 07:123, 07:137-07:138, 07:140, 07:176, 07:182N, 08:01:01-08:05, 08:08N-08:13, 08:15-08:27, 08:29- 08:36, 08:38-08:48, 08:50-08:54, 08:56:01-08:73, 08:75-08:86N, 08:88, 08:90-08:106, 08:108 ^w , 08:109-08:110, 13:01:01-13:01:02, 13:01:04-13:03, 13:06-13:07N, 13:09, 13:11-13:23, 13:25, 13:27- 13:33, 13:36-13:45, 13:47-13:50, 13:52-13:68, 13:70, 14:13, 15:09, 15:30, 15:42, 15:58, 15:73, 15:83, 15:86, 15:150, 15:188, 15:224,

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15:229, 15:243, 15:252, 18:26,
18:61, 27:07:01-27:07:03, 27:11,
27:20, 27:24, 27:27, 27:33, 27:43,
35:02:01^w-35:02:05^w, 35:04:01-
35:04:03, 35:06, 35:09:01-
35:09:03, 35:12:01-35:12:03,
35:18, 35:22, 35:31, 35:44, 35:59-
35:60, 35:81^w, 35:83^w, 35:87-35:88,
35:95^w, 35:129N^w, 35:149, 35:154^w,
35:157^w, 35:162^w, 35:172^w,
35:182^w-35:184^w, 35:201, 35:211^w,
35:220^w, 35:233, 37:12, 38:10,
38:30, 38:36, 40:01:01-40:01:07,
40:01:09-40:01:25, 40:01:27,
40:01:28^w, 40:01:29-40:02:09,
40:02:11-40:02:17, 40:04-40:08,
40:10:01-40:16, 40:19, 40:21-
40:23, 40:25-40:30, 40:34-40:40,
40:43, 40:45-40:51, 40:53-40:58,
40:61-40:88, 40:91-40:97, 40:99-
40:119, 40:121-40:123, 40:125-
40:130, 40:132-40:158, 40:160:01-
40:171, 40:173-40:179, 40:181-
40:183, 40:185-40:186, 40:188-
40:240, 40:244-40:246, 41:01-
41:03:02, 41:05-41:09, 41:11-
41:17, 41:19-41:20, 41:22-41:28,
42:01:01-42:02, 42:04-42:08,
42:10-42:15, 42:17-42:19, 44:10,
44:14, 44:31, 44:62, 44:77, 44:82,
44:166, 45:14, 46:11, 46:18,
48:01:01-48:01:04, 48:03:01-48:07,
48:09-48:16, 48:18-48:22, 48:24,
48:27-48:31, 51:01:01-51:01:18,
51:01:19^w, 51:01:20-51:01:30,
51:01:32-51:01:38, 51:01:40-
51:02:02, 51:02:04-51:16, 51:20-
51:24:04, 51:26-51:36, 51:38-
51:41N, 51:43-51:44N, 51:46,
51:48-51:84, 51:86-51:89, 51:91,
51:93, 51:95-51:100, 51:102-
51:134, 51:136-51:145, 51:147-
51:154, 52:01:01:01-52:01:10,
52:01:12-52:11, 52:13-52:25,
52:27-52:31, 53:19^w, 54:01:01-
54:05N, 54:07-54:08N, 54:10-
54:13, 54:17-54:30,

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				55:01:01-55:05, 55:07-55:13, 55:15-55:22, 55:24-55:26, 55:28- 55:40, 55:42-55:45, 55:47-55:54, 55:56-55:57, 55:59, 56:01:01- 56:02, 56:04-56:08, 56:10, 56:12- 56:17, 56:19N-56:30, 56:33-56:39, 56:41-56:42, 57:02:01-57:03:02, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 57:63, 58:08:01-58:08:02, 58:27-58:28, 59:01:01:01-59:06, 78:01:01-78:07, 81:01-81:06, 82:01-82:03, C*02:68 , C*15:24
32^{5,25}	80 bp, 230 bp	800 bp	*39:24:01-39:24:02, 39:28, 39:41-39:42, 39:76-39:77	*15:265, 35:35, 38:20, C*15:51

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B*39 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 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.

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

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*39 subtyping.

In addition, wells number 3, 5, 6, 9, 10, 12, 13, 15 to 18, 20 to 23, 26, 27 and 29 to 32 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

In the presence of a specific amplification the intensity of the control band often decreases.

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

⁴Due to the sharing of sequence motifs between HLA-B alleles, non-HLA-B*39 alleles will be amplified by primer mixes 1 to 3, 5 to 12, 14 to 16, 18 to 24 and 26 to 32. In addition,

primer mix 1 will amplify the C*05:70 and C*06:40, C*07:137:01-07:137:02 alleles, primer mix 3 will amplify the C*12:87 allele, primer mix 7 will amplify the A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02 and C*15:51 alleles, primer mix 10 will amplify the C*12:87 allele, primer mix 12 will amplify the C*15:51 allele, primer mix 16 will amplify the C*07:137:01-07:137:02 alleles, primer mix 20 will amplify the C*07:137:01-07:137:02 and C*15:51 alleles, primer mix 21 will amplify the C*05:70 and C*07:137:01-07:137:02 alleles, primer mix 25 will amplify the C*15:31 allele, primer mix 26 will amplify the C*01:30 and C*12:87 alleles, primer mix 27 will amplify the C*15:39 allele, primer mix 28 will amplify the C*15:15 allele, primer mix 30 will amplify the A*02:403, A*30:63, C*05:70, C*06:40, C*07:175 and C*15:51 alleles, primer mix 31 will amplify the C*02:68 and C*15:24 alleles and primer mix 32 will amplify the C*15:51 allele.

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

⁶Primer mixes 3, 4, 22 and 23 have a tendency to giving rise to primer oligomer formation.

⁷Primer mixes 3, 7, 8, 11, 12, 15, 16, 20, 24 and 30 may have tendencies of unspecific amplifications.

⁸Primer mixes 20, 25 and 28 may give rise to a long unspecific amplification product of approximately 600 bp. This should be disregarded when interpreting the B*39 typings.

⁹Primer mix 4: Specific PCR fragment of 65 bp in the B*39:58 allele. Specific PCR fragment of 145 bp in the B*39:26 allele. Specific PCR fragment of 385 bp in the B*39:51 allele.

¹⁰Primer solution 7: Specific PCR fragment of 120 bp in the B*39:68 and the B*67:03 and in the A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02 and C*15:51 alleles. Specific PCR fragment of 165 bp in the B*39:17 allele. Specific PCR fragment of 220 bp in the B*39:03, 39:14, 39:24:01-39:24:02, 39:29, 39:37 and 39:76 and the B*38:19 alleles. PCR fragment of 120 and 220 bp in the B*08:55 allele.

¹¹Primer solution 8: Specific PCR fragment of 180 bp in the B*39:04, 39:47 and 39:50 and the B*14:28, 15:189, 35:26, 38:33, 40:36, 40:77, 40:86, 48:07 and 49:26 alleles. Specific PCR fragment of 405 bp in the B*39:46 allele.

¹²Primer solution 9: Specific PCR fragment of 230 bp in the B*39:06:01-39:06:03, 39:57, 39:62, 39:64 and 39:83 and the B*51:101 alleles. Specific PCR fragment of 310 bp in the B*39:59 allele.

¹³Primer solution 10: Specific PCR fragment of 105 bp in the B*39:19:01-39:19:02 and the B*18:33, 35:82, 35:85, 35:135, 51:22 and 78:03 alleles. Specific PCR fragment of 165 bp in the B*39:07 and in the B*15:69, 15:186 and 35:35 alleles. Specific PCR fragment of 205 bp in the B*39:43 and the B*15:38:01-15:38:02, 15:185, 18:01:01-18:09, 18:12-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:91, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 51:37, 51:45, 51:63, 51:97, 53:02, 53:06, 53:28, 56:31, 57:14 and 58:09 and in the C*12:87 alleles.

¹⁴Primer mix 11: Specific PCR fragment of 160 bp in the B*39:08, 39:11, 39:18 39:33 and 39:36 and the B*07:78, 13:18, 13:31, 13:41, 15:58, 15:73, 54:10, 54:20, 55:09, 55:21, 55:37 and 55:52 alleles. Specific PCR fragment of 185 bp in the B*39:40:01N-39:40:02N, *39:53 and 39:57 and the B*56:19N alleles.

¹⁵Primer mix 12: Specific PCR fragment of 175 bp in the B*39:07, 39:15, 39:29, 39:49 and 39:55 and the B*15:69, 15:186, 35:35 and 38:29 and the C*15:51 alleles. Specific PCR fragment of 205 bp in the B*39:61 allele.

¹⁶Primer mix 13: Specific PCR fragment of 95 bp in the B*39:27 alleles. Specific PCR fragment of 385 bp in the B*39:51 allele.

¹⁷Primer mix 15: Specific PCR fragment of 145 bp in the B*39:54 allele. Specific PCR fragments of 190 bp in the B*39:12, 39:31 and 39:38Q and the B*14:28 and 49:26 alleles.

¹⁸Primer solution 16: Specific PCR fragment of 165 bp in the B*39:14, 39:29 and 39:70 and the B*08:55 and 51:101 alleles. Specific PCR fragment of 220 bp in the B*39:09 and 39:16 and in the C*07:137:01-07:137:02 alleles.

¹⁹Primer mix 17: Specific PCR fragment of 80 bp in the B*39:23 and 39:44 alleles. Specific PCR fragment of 180 bp in the B*39:25N allele. Specific PCR fragment of 205 bp in the B*39:61 allele.

²⁰Primer solution 20: Specific PCR fragment of 100 bp in the B*39:01:05, 39:18 and 39:27 and the B*15:69, 15:186, 15:265 and 38:01:03 and the C*15:51 alleles. Specific PCR fragment of 215 bp in the B*39:09 and in the C*07:137:01-07:137:02 alleles.

²¹Primer solution 25: Specific PCR fragment of 150 bp in the B*39:60 and 39:82 and the C*15:31 alleles. Specific PCR fragment of 235 bp in the B*39:01:01:02L allele.

²²Primer mix 27: Specific PCR fragment of 180 bp in the B*39:38Q and 39:63 alleles. Specific PCR fragment of 205 bp in the B*39:32 and 39:48 and the B*13:15, 35:96, 35:109, 51:13:01-51:13:02, 51:62, 51:92, 51:106, 52:14, 52:25 and 56:34 and in the C*15:39 alleles.

²³Primer mix 28: Specific PCR fragment of 140 bp in the B*39:56 allele. Specific PCR fragment of 180 bp in the B*39:32-39:33, 39:40:01N-39:40:02N and 39:74 and the B*13:03, 13:48, 15:58, 15:73, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 38:30, 40:71, 44:10, 45:14, 46:11, 51:13:01-51:13:02, 51:15, 51:62, 51:92, 51:106, 52:14, 52:25, 53:04, 53:31, 54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07-56:08, 56:11, 56:13-56:14, 56:16-56:17, 56:19N 56:20:01-56:20:02, 56:22, 56:24-56:30, 56:33-56:39, 56:41-56:42, 58:34, 59:04, 82:01-82:03 and in the C*15:15 alleles.

²⁴Primer mix 30: Specific PCR fragment of 65 bp in the B*39:18, 39:35 and 39:64 and the B*15:69, 15:265, 38:32 and 51:101 and in the C*05:70, C*06:40 and C*15:51 alleles. Specific PCR fragment of 135 bp in the

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B*39:75 and in the C*07:175 alleles. Specific PCR fragment of 190 bp in the B*39:52 and 39:62 and in the A*02:403 and A*30:63 alleles.

²⁵Primer mix 32: Specific PCR fragment of 80 bp in the B*39:77 allele. Specific PCR fragment of 230 bp in the B*39:24:01-39:24:02, 39:28, 39:41, 39:42, 39:76 and the B*15:265, 35:35 and 38:20 and in the C*15:51 alleles.

'w', might be weakly amplified.

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

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Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
HLA-B allele ^{4,5}																
*39:01:01:01, 39:01:01:03, 39:01:03, 39:01:06-39:01:08, 39:01:10-39:01:16, 39:65-39:67, 39:69, 39:71, 39:80-39:81	1	2			5											
*39:01:01:02L, 39:60 ⁷	1	2			5											
*39:01:04	1	2			5											
*39:01:05	1	2			5											
*39:01:09	1	2														
*39:02:01	1				5	6										
*39:02:02	1					6										
*39:03	1	2			5		7									
*39:04	1	2			5			8								
*39:05:01-39:05:02	1	2	3		5											
*39:06:01-39:06:02		2			5				9							
*39:06:03		2							9							
*39:07	1	2	3		5					10		12				
*39:08	1		3		5	6					11					
*39:09	1	2			5											16
*39:10:01, 67:01:02-67:01:03 ⁶	1													14		
*39:10:02	1													14		
*39:11	1	2	3		5						11					
*39:12	1	2			5										15	
*39:13:01-39:13:02	1		3			6										
*39:14	1	2			5		7									16
*39:15	1	2			5							12				
*39:16	1													14		16
*39:17	1						7							14		
*39:18	1	2			5						11					
*39:19:01	1	2								10						
*39:19:02	1	2			5					10						
*39:20	1		3											14		
*39:22	1	2			5											
*39:23	1					6										
*39:24:01-39:24:02	1	2			5		7									
*39:25N, 39:44 ⁸	1	2			5											
*39:26	1	2		4	5											
*39:27	1	2			5								13			
*39:28	1	2			5											
*39:29	1	2			5		7					12				16
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)
180			215					235		205	180		135		230	
205													190			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No. HLA-B allele ^{4,5}
		19		21		23	24									*39:01:01:01 , 39:01:01:03, 39:01:03 , 39:01:06- 39:01:08 , 39:01:10 -39:01:16, 39:65-39:67, 39:69, 39:71, 39:80-39:81
		19		21		23	24	25								*39:01:01:02L, 39:60 ⁷
		19		21			24									*39:01:04
		19	20	21		23	24									*39:01:05
		19		21												*39:01:09
	18			21		23	24									*39:02:01
	18			21												*39:02:02
		19				23	24									*39:03
		19		21		23										*39:04
		19		21			24									*39:05:01 -39:05:02
		19				23	24					29				*39:06:01 - 39:06:02
		19										29				*39:06:03
		19		21			24									*39:07
	18			21			24									*39:08
		19	20	21		23	24									*39:09
		19		21												*39:10:01 , 67:01:02-67:01:03 ⁶
				21												*39:10:02
		19		21			24									*39:11
		19		21		23										*39:12
	18			21												*39:13:01 -39:13:02
		19				23	24									*39:14
		19		21		23	24									*39:15
		19														*39:16
		19		21												*39:17
		19	20	21		23	24						30			*39:18
		19		21												*39:19:01
		19		21		23	24									*39:19:02
		19		21												*39:20
	18			21		23	24									*39:22
17	18			21												*39:23
		19				23	24								32	*39:24:01 - 39:24:02
17		19		21		23	24									*39:25N, 39:44 ⁸
		19		21		23	24									*39:26
		19	20	21		23	24									*39:27
		19				23	24								32	*39:28
		19				23	24									*39:29
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*39:30		2			5											
*39:31	1	2			5										15	
*39:32		2			5											
*39:33		2			5						11					
*39:34		2			5											
*39:35, 39:75 ⁹	1	2			5											
*39:36		2			5						11					
*39:37	1	2	3		5		7									
*39:38Q	1	2			5										15	
*39:39:01	1				5	6										
*39:39:02	1					6										
*39:40:01N-39:40:02N	1	2			5						11					
*39:41, 39:77 ¹⁰	1	2			5											
*39:42		2			5											
*39:43		2	3		5						10					
*39:45	1	2			5											
*39:46	1	2			5			8								
*39:47		2			5			8								
*39:48	1	2			5											
*39:49	1		3			6						12				
*39:50		2			5			8								
*39:51	1	2		4	5								13			
*39:52	1				5											
*39:53	1	2			5						11					
*39:54	1				5										15	
*39:55	1	2	3		5							12				
*39:56	1	2	3		5											
*39:57		2			5				9		11					
*39:58	1			4	5											
*39:59	1	2			5				9							
*39:61	1	2			5							12				
*39:62, 39:64 ¹¹		2			5				9							
*39:63	1													14		
*39:68	1	2			5		7									
*39:70	1	2			5											16
*39:72	1	2			5											
*39:73		2			5											
*39:74		2			5											
*39:76	1	2			5		7									
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **87S**

Lot-specific information

														Length of spec. PCR product(s)			
80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80		
180			215					235		205	180		135		230		
205													190				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	
		19				23	24							31		*39:30	
		19		21		23	24									*39:31	
		19				23	24			27	28					*39:32	
		19				23	24				28			31		*39:33	
		19				23	24					29		31		*39:34	
		19		21		23	24						30			*39:35, 39:75 ⁹	
		19				23	24							31		*39:36	
		19					24									*39:37	
		19		21		23	24			27						*39:38Q	
		19		21		23	24									*39:39:01	
		19		21												*39:39:02	
		19		21		23	24				28					*39:40:01N-39:40:02N	
		19		21		23	24								32	*39:41, 39:77 ¹⁰	
		19		w		23	24							32		*39:42	
		19				23	24									*39:43	
	18	19		21		23										*39:45	
		19		21		23	24									*39:46	
		19				23	24									*39:47	
		19		21		23	24			27						*39:48	
	18			21												*39:49	
		19				23	24					29				*39:50	
		19		21		23	24									*39:51	
		19		21		23	24						30			*39:52	
		19		21		23	24									*39:53	
		19		21		23	24									*39:54	
		19		21			24									*39:55	
		19		21			24				28					*39:56	
		19				23	24					29				*39:57	
		19		21		23	24									*39:58	
		19		21		23	24									*39:59	
	17	19		21		23	24									*39:61	
		19				23	24					29	30			*39:62, 39:64 ¹¹	
		19		21						27						*39:63	
		19		21		23	24									*39:68	
		19		21		23	24									*39:70	
		19		21		23										*39:72	
		19			22	23	24									*39:73	
		19				23	24				28					*39:74	
		19				23									32	*39:76	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*39:78	1	2			5											
*39:79	1	2			5											
*39:82		2			5											
*39:83									9							
*07:02:01-07:02:31, 07:02:33-07:04, 07:07, 07:09, 07:11-07:12, 07:14-07:15, 07:17-07:26, 07:28-07:31, 07:33:01-07:33:02, 07:35, 07:39, 07:41-07:49N, 07:51-07:52, 07:55-07:64, 07:66-07:68:03, 07:70-07:74, 07:76-07:77, 07:79, 07:82, 07:86-07:89, 07:92-07:96:02, 07:98-07:104, 07:106-07:111N, 07:113-07:122, 07:124-07:131, 07:133-07:136, 07:139, 07:141-07:148, 07:150-07:175, 07:177-07:179, 07:184-07:191, 07:193-07:198, 42:09, 42:16, 42:20														14		
*07:02:32					5									14		
*07:05:01-07:06, 07:34, 07:40, 07:53, 07:80, 07:90, 07:97, 07:105, 07:112, 07:137-07:138, 07:140, 07:176, 07:182N, 42:01:01-42:02, 42:05:01-42:08, 42:10, 42:12-42:15, 42:17-42:19, 81:02														14		
*07:08, 07:10, 07:36, 07:81, 07:83, 07:149, 07:192, 08:07, 08:14, 08:28, 08:37, 08:49, 08:74, 08:87, 08:89, 08:107, 08:111, 50:15																
*07:16, 07:37, 07:75, 07:91			3											14		
*07:27, 07:50			3		6											
*07:32, 08:01:01-08:02, 08:05, 08:08N, 08:11-08:13, 08:15-08:16, 08:18-08:22, 08:24-08:27, 08:29-08:36, 08:39-08:48, 08:50-08:53:02, 08:56:01-08:64, 08:66-08:73, 08:75-08:83, 08:85-08:86N, 08:88, 08:90-08:100, 08:102-08:106, 08:109																
*07:38			3													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)	
180			215					235		205	180		135		230		
205													190				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	
				21		23											*39:78
		19				23	24										*39:79
		19				23	24	25						31			*39:82
		19										29					*39:83
		19															*07:02:01-07:02:31, 07:02:33-07:04, 07:07, 07:09, 07:11-07:12, 07:14-07:15, 07:17-07:26, 07:28-07:31, 07:33:01-07:33:02, 07:35, 07:39, 07:41-07:49N, 07:51-07:52, 07:55-07:64, 07:66-07:68:03, 07:70-07:74, 07:76-07:77, 07:79, 07:82, 07:86-07:89, 07:92-07:96:02, 07:98-07:104, 07:106-07:111N, 07:113-07:122, 07:124-07:131, 07:133-07:136, 07:139, 07:141-07:148, 07:150-07:175, 07:177-07:179, 07:184-07:191, 07:193-07:198, 42:09, 42:16, 42:20
		19				23	24										*07:02:32
		19												31			*07:05:01-07:06, 07:34, 07:40, 07:53, 07:80, 07:90, 07:97, 07:105, 07:112, 07:137-07:138, 07:140, 07:176, 07:182N, 42:01:01-42:02, 42:05:01-42:08, 42:10, 42:12-42:15, 42:17-42:19, 81:02
		19															*07:08, 07:10, 07:36, 07:81, 07:83, 07:149, 07:192, 08:07, 08:14, 08:28, 08:37, 08:49, 08:74, 08:87, 08:89, 08:107, 08:111, 50:15
		19															*07:16, 07:37, 07:75, 07:91
		19															*07:27, 07:50
		19												31			*07:32, 08:01:01-08:02, 08:05, 08:08N, 08:11-08:13, 08:15-08:16, 08:18-08:22, 08:24-08:27, 08:29-08:36, 08:39-08:48, 08:50-08:53:02, 08:56:01-08:64, 08:66-08:73, 08:75-08:83, 08:85-08:86N, 08:88, 08:90-08:100, 08:102-08:106, 08:109
		19															*07:38
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
			385			220				205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*07:54, 07:65, 07:181N, 15:11:01-15:11:05, 15:76, 15:101, 15:143, 15:148, 15:152, 15:209N, 15:215, 15:255, 35:76, 44:90, 45:06, 54:06, 54:09, 55:14, 56:03, 56:09, 56:18, 56:32, 83:01														14		
*07:69, 08:65		2														
*07:78											11			14		
*07:84														14		
*07:85		2														
*07:123, 40:61, 55:01:07, 55:04, 55:08, 55:49, 55:51, 56:01:05, 56:05:01-56:06, 56:10, 56:12, 56:15, 81:01, 81:03-81:04N, 81:06														14		
*07:180		2	3													
*07:183																
*08:03, 08:23, 48:06			3													
*08:04						6										
*08:09, 08:84																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)
180			215					235		205	180		135		230	
205													190			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
																*07:54, 07:65, 07:181N, 15:11:01-15:11:05, 15:76, 15:101, 15:143, 15:148, 15:152, 15:209N, 15:215, 15:255, 35:76, 44:90, 45:06, 54:06, 54:09, 55:14, 56:03, 56:09, 56:18, 56:32, 83:01
		19												31		*07:69, 08:65
		19										29		31		*07:78
		19										29				*07:84
		19														*07:85
														31		*07:123, 40:61, 55:01:07, 55:04, 55:08, 55:49, 55:51, 56:01:05, 56:05:01-56:06, 56:10, 56:12, 56:15, 81:01, 81:03-81:04N, 81:06
		19														*07:180
		w														*07:183
		19												31		*08:03, 08:23, 48:06
		19												31		*08:04
		19										29		31		*08:09, 08:84
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
			385			220				205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*08:10, 13:01:01-13:01:02, 13:01:04-13:01:06, 13:06-13:07N, 13:11-13:13, 13:17, 13:20-13:23, 13:25, 13:28-13:29, 13:36, 13:39, 13:43, 13:50, 13:52, 13:57, 13:60-13:64, 15:30, 15:86, 15:150, 15:188, 15:224, 27:07:01-27:07:03, 27:11, 27:20, 27:24, 27:27, 27:33, 27:43, 35:04:01-35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:31, 35:44, 35:87-35:88, 35:149, 35:201, 35:233, 40:01:01-40:01:07, 40:01:09-40:01:25, 40:01:27, 40:01:29-40:02:09, 40:02:11-40:02:17, 40:04-40:05, 40:07-40:08, 40:10:01-40:11:02, 40:13-40:16, 40:19, 40:21-40:23, 40:26-40:30, 40:34-40:35, 40:37-40:40, 40:43, 40:45-40:51, 40:54-40:58, 40:62-40:67, 40:69, 40:72:01-40:74, 40:76, 40:78-40:82, 40:84-40:85, 40:87:01-40:88, 40:91-40:92, 40:94, 40:97, 40:99-40:102, 40:104-40:105, 40:107-40:108, 40:111-40:119, 40:121-40:123, 40:125-40:126, 40:128-40:130, 40:132-40:147, 40:150-40:158, 40:160:01-40:160:02, 40:163-40:164, 40:168-40:171, 40:173-40:176, 40:178-40:179, 40:181-40:183, 40:185-40:186, 40:188-40:189, 40:191-40:229, 40:231, 40:233-40:240, 40:245-40:246, 41:02:01-41:03:02, 41:08, 41:11, 41:13, 41:15, 41:17, 41:19, 41:23-41:24, 41:27, 44:14, 44:31, 44:62, 44:77, 44:82, 44:166, 51:01:01-51:01:18, 51:01:20-51:01:30, 51:01:32-51:01:38, 51:01:40-51:02:02, 51:02:04-51:09:02, 51:11N-51:12, 51:14, 51:20, 51:23-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64-51:81, 51:83-51:84, 51:86-51:89, 51:91, 51:95-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:115, 51:117-51:134, 51:136-51:142, 51:144-51:145, 51:147-51:152, 51:154, 52:01:01:01-52:01:10, 52:01:12-52:07, 52:09-52:11, 52:13, 52:15, 52:17-52:24, 52:28-52:31, 56:21, 57:02:01-57:03:02, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 57:63, 58:08:01-58:08:02, 58:27-58:28, 78:01:01-78:02:02, 78:04-78:06, 81:05, C*02:68, C*15:24																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)	
180			215					235		205	180		135		230		
205													190				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	
														31		*08:10, 13:01:01-13:01:02, 13:01:04-13:01:06, 13:06-13:07N, 13:11-13:13, 13:17, 13:20-13:23, 13:25, 13:28-13:29, 13:36, 13:39, 13:43, 13:50, 13:52, 13:57, 13:60-13:64, 15:30, 15:86, 15:150, 15:188, 15:224, 27:07:01-27:07:03, 27:11, 27:20, 27:24, 27:27, 27:33, 27:43, 35:04:01-35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:31, 35:44, 35:87-35:88, 35:149, 35:201, 35:233, 40:01:01-40:01:07, 40:01:09-40:01:25, 40:01:27, 40:01:29-40:02:09, 40:02:11-40:02:17, 40:04-40:05, 40:07-40:08, 40:10:01-40:11:02, 40:13-40:16, 40:19, 40:21-40:23, 40:26-40:30, 40:34-40:35, 40:37-40:40, 40:43, 40:45-40:51, 40:54-40:58, 40:62-40:67, 40:69, 40:72:01-40:74, 40:76, 40:78-40:82, 40:84-40:85, 40:87:01-40:88, 40:91-40:92, 40:94, 40:97, 40:99-40:102, 40:104-40:105, 40:107-40:108, 40:111-40:119, 40:121-40:123, 40:125-40:126, 40:128-40:130, 40:132-40:147, 40:150-40:158, 40:160:01-40:160:02, 40:163-40:164, 40:168-40:171, 40:173-40:176, 40:178-40:179, 40:181-40:183, 40:185-40:186, 40:188-40:189, 40:191-40:229, 40:231, 40:233-40:240, 40:245-40:246, 41:02:01-41:03:02, 41:08, 41:11, 41:13, 41:15, 41:17, 41:19, 41:23-41:24, 41:27, 44:14, 44:31, 44:62, 44:77, 44:82, 44:166, 51:01:01-51:01:18, 51:01:20-51:01:30, 51:01:32-51:01:38, 51:01:40-51:02:02, 51:02:04-51:09:02, 51:11N-51:12, 51:14, 51:20, 51:23-51:24:04, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64-51:81, 51:83-51:84, 51:86-51:89, 51:91, 51:95-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:115, 51:117-51:134, 51:136-51:142, 51:144-51:145, 51:147-51:152, 51:154, 52:01:01:01-52:01:10, 52:01:12-52:07, 52:09-52:11, 52:13, 52:15, 52:17-52:24, 52:28-52:31, 56:21, 57:02:01-57:03:02, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 57:63, 58:08:01-58:08:02, 58:27-58:28, 78:01:01-78:02:02, 78:04-78:06, 81:05, C*02:68, C*15:24	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*08:17						6										
*08:38, 08:101																
*08:54, 37:12, 40:12, 40:149, 42:11, 48:01:01-48:01:04, 48:03:01-48:05, 48:09-48:15, 48:18-48:22, 48:24, 48:27- 48:30, 52:16, 52:27			3			6										
*08:55	1						7									16
*08:108																
*08:110			3			6										
*13:02:01-13:02:15, 13:09, 13:14, 13:16, 13:19, 13:27, 13:30, 13:32- 13:33, 13:37-13:38, 13:40, 13:42, 13:44- 13:45, 13:47, 13:49N, 13:53-13:56N, 13:58-13:59, 13:65-13:68, 13:70, 15:42, 15:83, 35:60, 40:06:01:01-40:06:07, 40:53, 40:70, 40:75, 40:83, 40:93, 40:95- 40:96, 40:103, 40:109-40:110, 40:127, 40:148, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 41:01, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20, 41:25-41:26, 41:28, 46:18, 51:10, 51:16, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:143, 51:153, 52:08, 54:12, 54:24, 55:18, 55:34, 55:47, 59:01:01:01-59:03, 59:05- 59:06, 78:07																
*13:03, 13:48, 35:06, 35:59, 40:71, 44:10, 45:14, 46:11, 51:15, 56:07- 56:08, 56:14, 56:33, 59:04																
*13:08, 13:34-13:35, 13:46, 27:14, 27:81, 40:44, 40:131, 40:159, 41:21, 45:08, 45:10, 49:07, 50:31																
*13:15																
*13:18, 13:31, 13:41											11					
*14:01:01-14:01:03, 14:07N, 14:12, 14:19, 14:26, 14:32		2			5											
*14:02:01-14:02:02, 14:02:04, 14:02:07- 14:02:08, 14:03, 14:09, 14:11, 14:15- 14:17, 14:20, 14:22-14:25, 14:27, 14:29- 14:31, 14:33-14:35		2			5											
*14:02:03, 14:02:06		2														
*14:02:05		2														
*14:02:09, 14:05-14:06:02		2			5											
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)	
180			215					235		205	180		135		230		
205													190				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	
	18													31		*08:17	
	18													31		*08:38, 08:101	
	18													31		*08:54, 37:12, 40:12, 40:149, 42:11, 48:01:01-48:01:04, 48:03:01-48:05, 48:09-48:15, 48:18-48:22, 48:24, 48:27-48:30, 52:16, 52:27	
		19														*08:55	
		19												w		*08:108	
		19												31		*08:110	
												29		31		*13:02:01-13:02:15, 13:09, 13:14, 13:16, 13:19, 13:27, 13:30, 13:32-13:33, 13:37-13:38, 13:40, 13:42, 13:44-13:45, 13:47, 13:49N, 13:53-13:56N, 13:58-13:59, 13:65-13:68, 13:70, 15:42, 15:83, 35:60, 40:06:01:01-40:06:07, 40:53, 40:70, 40:75, 40:83, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:148, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 41:01, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20, 41:25-41:26, 41:28, 46:18, 51:10, 51:16, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:143, 51:153, 52:08, 54:12, 54:24, 55:18, 55:34, 55:47, 59:01:01:01-59:03, 59:05-59:06, 78:07	
										28				31		*13:03, 13:48, 35:06, 35:59, 40:71, 44:10, 45:14, 46:11, 51:15, 56:07-56:08, 56:14, 56:33, 59:04	
												29				*13:08, 13:34-13:35, 13:46, 27:14, 27:81, 40:44, 40:131, 40:159, 41:21, 45:08, 45:10, 49:07, 50:31	
									27			29		31		*13:15	
												29		31		*13:18, 13:31, 13:41	
		19				23	24		26							*14:01:01-14:01:03, 14:07N, 14:12, 14:19, 14:26, 14:32	
		19				23			26							*14:02:01-14:02:02, 14:02:04, 14:02:07-14:02:08, 14:03, 14:09, 14:11, 14:15-14:17, 14:20, 14:22-14:25, 14:27, 14:29-14:31, 14:33-14:35	
		19							26							*14:02:03, 14:02:06	
		19				23			26							*14:02:05	
		19				23										*14:02:09, 14:05-14:06:02	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **87S**

Lot-specific information

Length of spec. PCR product(s)	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				145			165	405	310	165	185	205	385		190	220
			385				220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*14:04		2			5											
*14:08, 14:10		2			5											
*14:13		2			5											
*14:14		2	3		5											
*14:18		2	3		5											
*14:21														14		
*14:28		2			5		8								15	
*14:36					5											
*14:37		2			5											
*15:03:01-15:03:04, 15:47:01-15:47:02, 15:54, 15:62, 15:68, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:266, 15:274, 15:281-15:282, 37:01:01-37:07, 37:09-37:11, 37:13-37:20, 37:23-37:25, 37:27-37:36, 44:130, 44:156, 48:02:01, 48:02:03, 48:08, 48:17, 48:23, 48:25- 48:26, 49:25			3			6										
*15:09, 15:252		2	3													
*15:10:01-15:10:02, 15:18:01-15:18:05, 15:23, 15:37, 15:51-15:52, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:134, 15:153, 15:161, 15:176, 15:197-15:198, 15:200, 15:221, 15:226N, 15:238, 15:263, 15:275		2	3													
*15:29, 35:25, 35:124-35:125, 35:142, 57:58, 58:12			3													
*15:38:01-15:38:02, 15:185, 18:04, 18:07:01-18:07:02, 18:29, 18:79-18:80, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 51:37, 51:45, 53:02, 53:06, 53:28, 57:14, 58:09			3							10						
*15:49, 15:74, 37:21, 37:26			3													
*15:58, 15:73											11					
*15:61, 37:37						6										
*15:64:01-15:64:02, 18:10-18:11, 18:21, 18:35, 18:41, 18:56, 18:58, 37:08			3			6										
*15:69	1		3			6				10		12				
*15:133		2	3													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)
180			215					235		205	180		135		230	
205													190			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
						23			26							*14:04
		19				23	24									*14:08, 14:10
		19				23								31		*14:13
		19					24		26							*14:14
		19							26							*14:18
		19							26							*14:21
		19				23			26							*14:28
		19				23			26							*14:36
		19				23						29				*14:37
	18															*15:03:01-15:03:04, 15:47:01-15:47:02, 15:54, 15:62, 15:68, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:266, 15:274, 15:281-15:282, 37:01:01-37:07, 37:09-37:11, 37:13-37:20, 37:23-37:25, 37:27-37:36, 44:130, 44:156, 48:02:01, 48:02:03, 48:08, 48:17, 48:23, 48:25- 48:26, 49:25
														31		*15:09, 15:252
																*15:10:01-15:10:02, 15:18:01-15:18:05, 15:23, 15:37, 15:51-15:52, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:134, 15:153, 15:161, 15:176, 15:197-15:198, 15:200, 15:221, 15:226N, 15:238, 15:263, 15:275
																*15:29, 35:25, 35:124-35:125, 35:142, 57:58, 58:12
																*15:38:01-15:38:02, 15:185, 18:04, 18:07:01-18:07:02, 18:29, 18:79-18:80, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 51:37, 51:45, 53:02, 53:06, 53:28, 57:14, 58:09
	18															*15:49, 15:74, 37:21, 37:26
										28				31		*15:58, 15:73
	18															*15:61, 37:37
																*15:64:01-15:64:02, 18:10-18:11, 18:21, 18:35, 18:41, 18:56, 18:58, 37:08
	18		20	21										30		*15:69
										28						*15:133
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*15:186	1	2	3							10		12				
*15:189					5			8								
*15:229		2	3													
*15:243		2	3													
*15:253			3			6										
*15:265										10						
*18:01:01:01-18:03, 18:05-18:06, 18:08-18:09, 18:13-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:28, 18:30-18:32, 18:34, 18:36-18:40, 18:42-18:43, 18:45-18:55, 18:57, 18:59-18:60, 18:62-18:78, 18:81-18:91			3			6				10						
*18:12			3			6				10						
*18:26, 18:61, 48:16			3			6										
*18:33		2	3							10						
*18:44:01-18:44:02			3			6				10						
*35:02:01-35:02:05, 35:81, 35:83, 35:95, 35:129N, 35:154, 35:157, 35:172, 35:182-35:184, 35:211, 35:220, 40:01:28, 51:01:19, 53:19																
*35:03:01-35:03:05, 35:03:07-35:03:12, 35:13, 35:36, 35:38, 35:55-35:56, 35:70, 35:74-35:75, 35:84, 35:98, 35:106, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 53:04, 53:31, 58:34, C*15:15																
*35:26					5			8								
*35:35										10		12				
*35:82, 35:135										10						
*35:85										10						
*35:96, C*15:39																
*35:109, 51:92																
*35:162			3													
*38:01:01-38:01:02, 38:01:04-38:02:02, 38:02:04-38:02:05, 38:09, 38:11-38:12, 38:17-38:18, 38:21, 38:24, 38:27, 38:31, 38:34N-38:35, 38:38-38:40, 38:42-38:43	1	2	3													
*38:01:03	1	2	3													
*38:02:03, 38:05	1	2	3													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

																Length of spec. PCR product(s)
80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	
180			215					235		205	180		135		230	
205													190			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
			20	21												*15:186
						23										*15:189
											28			31		*15:229
	18													31		*15:243
	18										28					*15:253
			20										30		32	*15:265
																*18:01:01-18:03, 18:05-18:06, 18:08-18:09, 18:13-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:28, 18:30-18:32, 18:34, 18:36-18:40, 18:42-18:43, 18:45-18:55, 18:57, 18:59-18:60, 18:62-18:78, 18:81-18:91
	18															*18:12
														31		*18:26, 18:61, 48:16
																*18:33
									26							*18:44:01-18:44:02
														w		*35:02:01-35:02:05, 35:81, 35:83, 35:95, 35:129N, 35:154, 35:157, 35:172, 35:182-35:184, 35:211, 35:220, 40:01:28, 51:01:19, 53:19
											28					*35:03:01-35:03:05, 35:03:07-35:03:12, 35:13, 35:36, 35:38, 35:55-35:56, 35:70, 35:74-35:75, 35:84, 35:98, 35:106, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 53:04, 53:31, 58:34, C*15:15
																*35:26
															32	*35:35
																*35:82, 35:135
											28					*35:85
										27						*35:96, C*15:39
										27	28					*35:109, 51:92
														w		*35:162
		19		21			24									*38:01:01-38:01:02, 38:01:04-38:02:02, 38:02:04-38:02:05, 38:09, 38:11-38:12, 38:17-38:18, 38:21, 38:24, 38:27, 38:31, 38:34N-38:35, 38:38-38:40, 38:42-38:43
		19	20	21			24									*38:01:03
		19		21												*38:02:03, 38:05
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.



101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **87S**

Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*38:03	1					6										
*38:04, 38:25	1	2	3													
*38:06	1		3													
*38:07	1		3													
*38:08		2	3													
*38:10, 38:36		2	3													
*38:13	1	2														
*38:14	1	2														
*38:15		2	3													
*38:16, 38:28	1															
*38:19	1	2	3				7									
*38:20		2	3													
*38:22	1	2	3													
*38:23		2	3													
*38:26	1															
*38:29	1	2	3									12				
*38:30		2	3													
*38:32	1	2	3													
*38:33	1	2	3					8								
*38:37		2	3													
*38:41	1	2														
*40:25, 40:68, 40:106, 40:232																
*40:36, 40:77								8								
*40:86								8								
*40:166														14		
*40:184, 58:20, 67:02	1															
*41:22			3			6										
*42:04														14		
*48:07			3			6		8								
*48:31			3													
*49:26								8							15	
*51:13:01-51:13:02, 51:62, 51:106, 52:14, 52:25																
*51:22, 78:03										10						
*51:63, 51:97			3							10						
*51:101									9							16
*51:116			3													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **87S**

Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)
180			215					235		205	180		135		230	
205													190			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.
	18			21			24									*38:03
	18			21												*38:04, 38:25
		19		21												*38:06
		19		21			24									*38:07
		19		w			24									*38:08
		19					24							31		*38:10, 38:36
		19		21			24									*38:13
		19		21		w	24									*38:14
		19		21			24									*38:15
		19		21			24									*38:16, 38:28
		19					24									*38:19
		19					24								32	*38:20
		19					24									*38:22
		19			22		24									*38:23
		19		21		w	24									*38:26
		19		21			24									*38:29
		19					24				28			31		*38:30
		19		21			24						30			*38:32
		19		21												*38:33
		19					24									*38:37
		19		21		23	24									*38:41
		?												31		*40:25, 40:68, 40:106, 40:232
														31		*40:36, 40:77
												29		31		*40:86
		?												31		*40:166
				21												*40:184, 58:20, 67:02
	18											29		31		*41:22
		19										29		31		*42:04
	18													31		*48:07
	18													31		*48:31
		19														*49:26
											27	28		31		*51:13:01-51:13:02, 51:62, 51:106, 52:14, 52:25
														31		*51:22, 78:03
														31		*51:63, 51:97
												29	30			*51:101
														31		*51:116
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot-specific information

Length of spec.	230	170	200	65	105	170	120	180	230	105	160	175	95	85	145	165
PCR product(s)				145			165	405	310	165	185	205	385		190	220
				385			220			205						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
*54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:11, 54:13, 54:17-54:19, 54:21-54:23, 54:25-54:30, 55:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:10-55:13, 55:15-55:17, 55:19-55:20, 55:22, 55:24-55:26, 55:28-55:33, 55:35-55:36, 55:38-55:40, 55:42-55:45, 55:48, 55:50, 55:53-55:54, 55:56-55:57, 55:59, 56:23														14		
*54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:13, 56:16-56:17, 56:20:01-56:20:02, 56:22, 56:24-56:30, 56:35-56:39, 56:41-56:42, 82:01-82:03														14		
*54:10, 54:20, 55:09, 55:21, 55:37, 55:52											11			14		
*54:14-54:16, 55:23, 55:27, 55:41, 55:46, 55:55N, 55:58														14		
*56:11														14		
*56:19N											11			14		
*56:31			3							10				14		
*56:34														14		
*67:01:01	1				5									14		
*67:03	1				5		7							14		
*73:01-73:02																
A*02:403, A*30:63							7									
C*01:30																
C*05:70	1						7									
C*06:40	1						7									
C*07:137:01-07:137:02	1						7									16
C*07:175																
C*12:87			3							10						
C*15:31																
C*15:51							7					12				
HLA-B allele⁴																
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

101.566-12/04 – including *Taq* polymerase, IFU-01
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Lot-specific information

80	155	385	100	220	230	85	185	150	265	180	140	245	65	175	80	Length of spec. PCR product(s)	
180			215					235		205	180		135		230		
205													190				
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	
												29		31		*54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:11, 54:13, 54:17-54:19, 54:21-54:23, 54:25-54:30, 55:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:10-55:13, 55:15-55:17, 55:19-55:20, 55:22, 55:24-55:26, 55:28-55:33, 55:35-55:36, 55:38-55:40, 55:42-55:45, 55:48, 55:50, 55:53-55:54, 55:56-55:57, 55:59, 56:23	
											28			31		*54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:13, 56:16-56:17, 56:20:01-56:20:02, 56:22, 56:24-56:30, 56:35-56:39, 56:41-56:42, 82:01-82:03	
												29		31		*54:10, 54:20, 55:09, 55:21, 55:37, 55:52	
												29				*54:14-54:16, 55:23, 55:27, 55:41, 55:46, 55:55N, 55:58	
											28					*56:11	
											28			31		*56:19N	
																*56:31	
										27	28			31		*56:34	
		19		21		23	24									*67:01:01	
		19		21		23	24									*67:03	
		19										29				*73:01-73:02	
													30			A*02:403, A*30:63	
								26								C*01:30	
				21									30			C*05:70	
													30			C*06:40	
			20	21												C*07:137:01-07:137:02	
													30			C*07:175	
									26							C*12:87	
								25								C*15:31	
			20										30	32		C*15:51	
																HLA-B allele ⁴	
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	Well No.	

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-B*39 subtyping.

In addition, wells number 3, 5, 6, 9, 10, 12, 13, 15 to 18, 20 to 23, 26, 27 and 29 to 32 contain the primer

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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.

²The nucleotide position, in the 1st, 2nd, 3rd, 4th exon, in the 5' untranslated region 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 1st, 2nd, 3rd, 4th or 5th exon matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

⁴HLA-B*39 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 nucleotide sequence of the B*39012 allele has been shown to be identical B*39:01:01:01.

The nucleotide sequence of the B*3921 allele has been shown to be identical to B*39:24.

⁶The B*39:10:01 and 67:01:02-67:01:03 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

⁷The B*39:01:01:02L and B*39:60 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 25.

⁸The B*39:25 and B*39:44 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 17.

⁹The B*39:35 and B*39:75 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 30.

¹⁰The B*39:41 and B*39:77 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 32.

¹¹The B*39:62 and B*39:64 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 30.

¹²Primer mix 4: Specific PCR fragment of 65 bp in the B*39:58 allele. Specific PCR fragment of 145 bp in the B*39:26 allele. Specific PCR fragment of 385 bp in the B*39:51 allele.

Primer solution 7: Specific PCR fragment of 120 bp in the B*39:68 and the B*67:03 and in the A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02 and C*15:51 alleles. Specific PCR fragment of 165 bp in the B*39:17 allele. Specific PCR fragment of 220 bp in the B*39:03, 39:14, 39:24:01-39:24:02, 39:29, 39:37 and 39:76 and the B*38:19 alleles. PCR fragment of 120 and 220 bp in the B*08:55 allele.

Primer solution 8: Specific PCR fragment of 180 bp in the B*39:04, 39:47 and 39:50 and the B*14:28, 15:189, 35:26, 38:33, 40:36, 40:77, 40:86, 48:07 and 49:26 alleles. Specific PCR fragment of 405 bp in the B*39:46 allele.

Primer solution 9: Specific PCR fragment of 230 bp in the B*39:06:01-39:06:03, 39:57, 39:62, 39:64 and 39:83 and the B*51:101 alleles. Specific PCR fragment of 310 bp in the B*39:59 allele.

Primer solution 10: Specific PCR fragment of 105 bp in the B*39:19:01-39:19:02 and the B*18:33, 35:82, 35:85, 35:135, 51:22 and 78:03 alleles. Specific PCR fragment of 165 bp in the B*39:07 and in the B*15:69, 15:186 and 35:35 alleles. Specific PCR fragment of 205 bp in the B*39:43 and the B*15:38:01-15:38:02, 15:185, 18:01:01:01-18:09, 18:12-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:91, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 51:37, 51:45, 51:63, 51:97, 53:02, 53:06, 53:28, 56:31, 57:14 and 58:09 and in the C*12:87 alleles.

Primer mix 11: Specific PCR fragment of 160 bp in the B*39:08, 39:11, 39:18 39:33 and 39:36 and the B*07:78, 13:18, 13:31, 13:41, 15:58, 15:73, 54:10, 54:20, 55:09, 55:21, 55:37 and 55:52 alleles. Specific PCR fragment of 185 bp in the B*39:40:01N-39:40:02N, *39:53 and 39:57 and the B*56:19N alleles.

Primer mix 12: Specific PCR fragment of 175 bp in the B*39:07, 39:15, 39:29, 39:49 and 39:55 and the B*15:69, 15:186, 35:35 and 38:29 and the C*15:51 alleles. Specific PCR fragment of 205 bp in the B*39:61 allele.

Primer mix 13: Specific PCR fragment of 95 bp in the B*39:27 alleles. Specific PCR fragment of 385 bp in the B*39:51 allele.

Primer mix 15: Specific PCR fragment of 145 bp in the B*39:54 allele. Specific PCR fragments of 190 bp in the B*39:12, 39:31 and 39:38Q and the B*14:28 and 49:26 alleles.

Primer solution 16: Specific PCR fragment of 165 bp in the B*39:14, 39:29 and 39:70 and the B*08:55 and 51:101 alleles. Specific PCR fragment of 220 bp in the B*39:09 and 39:16 and in the C*07:137:01-07:137:02 alleles.

Primer mix 17: Specific PCR fragment of 80 bp in the B*39:23 and 39:44 alleles. Specific PCR fragment of 180 bp in the B*39:25N allele. Specific PCR fragment of 205 bp in the B*39:61 allele.

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Primer solution 20: Specific PCR fragment of 100 bp in the B*39:01:05, 39:18 and 39:27 and the B*15:69, 15:186, 15:265 and 38:01:03 and the C*15:51 alleles. Specific PCR fragment of 215 bp in the B*39:09 and in the C*07:137:01-07:137:02 alleles.

Primer solution 25: Specific PCR fragment of 150 bp in the B*39:60 and 39:82 and the C*15:31 alleles. Specific PCR fragment of 235 bp in the B*39:01:01:02L allele.

Primer mix 27: Specific PCR fragment of 180 bp in the B*39:38Q and 39:63 alleles. Specific PCR fragment of 205 bp in the B*39:32 and 39:48 and the B*13:15, 35:96, 35:109, 51:13:01-51:13:02, 51:62, 51:92, 51:106, 52:14, 52:25 and 56:34 and in the C*15:39 alleles.

Primer mix 28: Specific PCR fragment of 140 bp in the B*39:56 allele. Specific PCR fragment of 180 bp in the B*39:32-39:33, 39:40:01N-39:40:02N and 39:74 and the B*13:03, 13:48, 15:58, 15:73, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75, 35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 38:30, 40:71, 44:10, 45:14, 46:11, 51:13:01-51:13:02, 51:15, 51:62, 51:92, 51:106, 52:14, 52:25, 53:04, 53:31, 54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07-56:08, 56:11, 56:13-56:14, 56:16-56:17, 56:19N 56:20:01-56:20:02, 56:22, 56:24-56:30, 56:33-56:39, 56:41-56:42, 58:34, 59:04, 82:01-82:03 and in the C*15:15 alleles.

Primer mix 30: Specific PCR fragment of 65 bp in the B*39:18, 39:35 and 39:64 and the B*15:69, 15:265, 38:32 and 51:101 and in the C*05:70, C*06:40 and C*15:51 alleles. Specific PCR fragment of 135 bp in the B*39:75 and in the C*07:175 alleles. Specific PCR fragment of 190 bp in the B*39:52 and 39:62 and in the A*02:403 and A*30:63 alleles.

Primer mix 32: Specific PCR fragment of 80 bp in the B*39:77 allele. Specific PCR fragment of 230 bp in the B*39:24:01-39:24:02, 39:28, 39:41, 39:42, 39:76 and the B*15:265, 35:35 and 38:20 and in the C*15:51 alleles.

'w', might be weakly amplified.

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

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Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-B*39 SSP subtyping kit																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				201324801	201324802	201324803	201324804	201324805	201324806	201324807	201324808	201324809	201324810	201324811	201324812	201324813	201324814	201324815	201324816
	IHWC cell line	B*																	
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*15:10	*53:01	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	+	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*18:01		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
11	9051 PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9025 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
18	9257 32367	*14:01	*56:01	-	+	-	-	+	-	-	-	-	-	-	-	-	-	+	-
19	9038 BM16	*18:01		-	-	+	-	-	+	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
24	9035 JBUSH	*38:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
31	9019 DUCAF	*18:01		-	-	+	-	-	+	-	-	-	-	+	-	-	-	-	-
32	9297 HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*38:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*14:02		-	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		+	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-B*39 SSP subtyping kit																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	201324817	201324818	201324819	201324820	201324821	201324822	201324823	201324824	201324825	201324826	201324827	201324828	201324829	201324830	201324831	201324832
	IHWC cell line		B*																	
1	9001 SA	*07:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-	+	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	-	-	+	-	+	-	+	+	+	-	-	-	-	-	-	+	-
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		-	-	+	-	+	-	-	+	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-
11	9051 PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9025 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
17	9282 CTM3953540	*08:01	*55:01	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-	+	-
18	9257 32367	*14:01	*56:01	-	-	+	-	-	-	+	+	-	+	-	+	-	-	+	-	-
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
24	9035 JBUSH	*38:01		-	-	+	-	+	-	-	+	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	-	+	-	-	-	+	-	-	+	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*42:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
34	9104 DHIF	*38:01		-	-	+	-	+	-	-	+	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	+	-
41	9055 H0301	*14:02		-	-	+	-	-	-	+	-	-	+	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		-	-	+	-	+	-	-	+	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	-
46	9013 SCHU	*07:02		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.566-12/04 – including *Taq* polymerase, IFU-01
 101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **87S**

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-B*39 SSP

Product number: 101.566-12/04 – including *Taq* pol.
 101.566-12u/04u – without *Taq* pol.

Lot number: 87S

Expiry date: 2016-May-01

Number of tests: 12 tests – Product No. 101.566-12/12u
 4 tests – Product No. 101.566-04/04u

Number of wells per test: 32

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2013-248-01	13	2013-248-13	25	2013-248-25
2	2013-248-02	14	2013-248-14	26	2013-248-26
3	2013-248-03	15	2013-248-15	27	2013-248-27
4	2013-248-04	16	2013-248-16	28	2013-248-28
5	2013-248-05	17	2013-248-17	29	2013-248-29
6	2013-248-06	18	2013-248-18	30	2013-248-30
7	2013-248-07	19	2013-248-19	31	2013-248-31
8	2013-248-08	20	2013-248-20	32	2013-248-32
9	2013-248-09	21	2013-248-21		
10	2013-248-10	22	2013-248-22		
11	2013-248-11	23	2013-248-23		
12	2013-248-12	24	2013-248-24		

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 4, 7, 13, 15, 22, 25, 27, 30 and 32 were available. The specificities of the primers in primer solutions 4, 7, 13, 15, 22, 25, 27, 30 and 32 were tested by separately adding one, two or three additional 5'-primers, respectively one or two additional 3'-primers. One or four 5'-primers in primer solutions 1, 5, 8, 14 to 17, 25 and 32 were not possible to test. One, two or three 3'-primers in primer solutions 4, 9, 11 to 13, 15, 17, 18, 23, 27, 28 and 30 were not possible to test.

Additional primers in primer solutions 8, 9, 10, 12, 16, 17 and 20 were tested by separately adding either 5'- or 3'-primers.

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

Date of approval: 2013-November-22

Approved by:

Production Quality Control

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **87S**

Lot-specific information

Declaration of Conformity

Product name: *Olerup* SSP® HLA-B*39
Product number: 101.566-12/04
Lot number: 87S

Intended use: HLA-B*39 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-November-22

Ann-Cathrin Jareman
Head of QA and Regulatory Affairs

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **87S**

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Lot No.: **87S**

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Lot No.: **87S**

Lot-specific information

ADDRESSES:

Manufacturer:

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

Tel: +46-8-717 88 27

Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

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

Distributed by:

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

Tel: +43-1-710 15 00

Fax: +43-1-710 15 00 10

E-mail: support-at@olerup.com

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

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

Tel: 1-877-OLERUP1

Fax: 610-344-7989

E-mail: info.us@olerup.com

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

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