

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **09S**

Lot-specific information

Olerup SSP[®] HLA-A*11

Product number:	101.416-12/04 – including <i>Taq</i> pol. 101.416-12u/04u – without <i>Taq</i> pol.
Lot number:	09S
Expiry date:	2015-October-01
Number of tests:	12 tests – Product No. 101.416-12/12u 4 tests – Product No. 101.416-04/04u
Number of wells per test:	64
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. 09S.

CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*[®] HLA-A*11 LOT (62N)

The HLA-A*11 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP*[®] HLA-A*11 lot was made (**Lot No. 62N**).

The HLA-A*11 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

Eight wells have been added to the HLA-A*11 kit, wells **57 to 64**.

The Lot-specific information for HLA-A*11 including and without *Taq* polymerase is now 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
20	Moved	Moved	Primer pair moved to well 57 for improved allelic resolution.
23	-	Removed	3'-primer removed for the A*11:03 and A*11:20 alleles.
43	Removed	Removed	Primer pair removed for decreased primer oligomer formation.
57	New	New	Primer pair from well 20.
58	New	New	New primer pair for the A*11:115N allele.
59	New	New	New primer pair for the A*11:124 allele.
60	New	New	New primer pairs for the A*11:127N and 11:137N alleles.
61	New	New	New primer pair for the A*11:03 allele.
62	New	New	New primer pair for the A*11:20 allele.
63	New	New	New primer pair for the A*11:120 allele.
64	New	New	New primer pair for the A*11:129 allele.

Change in revision R01 compared to R00:

1. Primer mix 3 may faintly amplify the A*03:66 and 11:08 alleles. A footnote has been added in the Specificity Table.

Change in revision R02 compared to R01:

1. In primer mix 24 the amplicon size is 470 bp for the A*11:21N and the A*01:04N, 03:21N, 23:07N and 24:11N alleles. This has been corrected in the Specificity and Interpretation Tables.

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PRODUCT DESCRIPTION

HLA-A*11 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the HLA-A*11:01 to A*11:139 alleles.

PLATE LAYOUT

Each test consists of 64 PCR reactions in a 64 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
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64

The 64 well cut PCR plate is marked with ‘HLA-A*11’ in silver/gray ink.

Well No. 1 is marked with Lot No ‘09S’.

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.

INTERPRETATION

The interpretation of HLA-A*11 SSP subtypings will be influenced by the A*01 alleles, several A*02 alleles, the A*03, the A*23:07N, eight A*24, the A*25, the A*26, most A*29, most A*30, three A*31, three A*32, most A*33, the A*34, the A*36, the A*43:01, the A*66, the A*68, the A*69:01, three A*74 and the A*80 alleles when present on the other haplotype. In addition, the B*07:102, B*08:18, B*35:178 and B*73:01-73:02 alleles will be amplified by primer mix 10, the B*39:75 allele will be amplified by primer mixes 19 and 20, the B*27:87 allele will be amplified by primer mix 22, the B*44:36 allele will be amplified by primer mix 36, the B*07:117 allele will be amplified by primer mix 38, the B*57:04 and B*57:32 alleles will be amplified by primer mix 43, the B*15:173, B*50:11 and C*12:74 alleles will be amplified by primer mix 61, the C*03:82 allele will be amplified by primer mix 1, the C*06:72, C*06:90 and C*07:227 alleles will be amplified by primer mix 26 and the C*07:221 allele will be amplified by primer mix 33.

UNIQUELY IDENTIFIED ALLELES

All the HLA-A*11 alleles, i.e. **A*11:01 to A*11:139**, recognized by the HLA Nomenclature Committee in January 2013¹ will be amplified by the primers in the HLA-A*11 SSP kit².

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The HLA-A*11 kit enables separation of the confirmed HLA-A*11 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA-A*11 alleles is listed below.

The HLA-A*11 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-A*11 subtyping kit cannot distinguish the silent mutations in the A*11:01:01-11:01:20, 11:01:22-11:01:43 and 11:01:45 alleles, the A*11:01:21 and 11:01:44 alleles, the A*11:02:01-11:02:03 alleles or the A*11:33:01-11:33:02 alleles.

The A*11:13 and A*11:54 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 16.

The A*11:58 and A*11:67 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 34.

The A*11:62 and A*11:68 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 35.

The A*11:63 and A*11:69N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 42.

The A*11:64 and A*11:65 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.

The A*11:66 and A*11:72 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 37.

The A*11:81 and 11:108 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 52.

The A*11:127N and 11:137N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 60.

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

²This lot of HLA-A*11 primer set cannot separate the A*11:126, A*11:01:01-11:01:20, 11:01:22-11:01:43 and 11:01:45 alleles.

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ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
A*11:01:01	Confirmed	A*11:05	Confirmed	A*11:54	Unconfirmed	A*11:104	Unconfirmed
A*11:01:02	Unconfirmed	A*11:06	Unconfirmed	A*11:55	Unconfirmed	A*11:105	Unconfirmed
A*11:01:03	Unconfirmed	A*11:07	Unconfirmed	A*11:56	Confirmed	A*11:106	Confirmed
A*11:01:04	Confirmed	A*11:08	Confirmed	A*11:57	Unconfirmed	A*11:107	Unconfirmed
A*11:01:05	Unconfirmed	A*11:09	Confirmed	A*11:58	Confirmed	A*11:108	Unconfirmed
A*11:01:06	Unconfirmed	A*11:10	Confirmed	A*11:59	Unconfirmed	A*11:109N	Unconfirmed
A*11:01:07	Unconfirmed	A*11:11	Unconfirmed	A*11:60	Confirmed	A*11:110	Unconfirmed
A*11:01:08	Unconfirmed	A*11:12	Confirmed	A*11:61	Unconfirmed	A*11:111	Unconfirmed
A*11:01:09	Unconfirmed	A*11:13	Confirmed	A*11:62	Unconfirmed	A*11:112	Unconfirmed
A*11:01:10	Unconfirmed	A*11:14	Unconfirmed	A*11:63	Confirmed	A*11:113	Unconfirmed
A*11:01:11	Confirmed	A*11:15:01	Confirmed	A*11:64	Unconfirmed	A*11:114	Unconfirmed
A*11:01:12	Unconfirmed	A*11:15:02	Unconfirmed	A*11:65	Unconfirmed	A*11:115N	Unconfirmed
A*11:01:13	Unconfirmed	A*11:16	Unconfirmed	A*11:66	Unconfirmed	A*11:116	Unconfirmed
A*11:01:14	Unconfirmed	A*11:17	Unconfirmed	A*11:67	Confirmed	A*11:117	Unconfirmed
A*11:01:15	Confirmed	A*11:18	Unconfirmed	A*11:68	Unconfirmed	A*11:118	Unconfirmed
A*11:01:16	Unconfirmed	A*11:19	Confirmed	A*11:69N	Confirmed	A*11:119	Unconfirmed
A*11:01:17	Confirmed	A*11:20	Confirmed	A*11:70	Confirmed	A*11:120	Unconfirmed
A*11:01:18	Confirmed	A*11:21N	Unconfirmed	A*11:71	Confirmed	A*11:121	Unconfirmed
A*11:01:19	Confirmed	A*11:22	Unconfirmed	A*11:72	Unconfirmed	A*11:122	Unconfirmed
A*11:01:20	Unconfirmed	A*11:23	Confirmed	A*11:73	Confirmed	A*11:123	Unconfirmed
A*11:01:21	Unconfirmed	A*11:24:01	Confirmed	A*11:74	Confirmed	A*11:124	Unconfirmed
A*11:01:22	Unconfirmed	A*11:24:02	Unconfirmed	A*11:75	Unconfirmed	A*11:125	Unconfirmed
A*11:01:23	Unconfirmed	A*11:25	Unconfirmed	A*11:76	Unconfirmed	A*11:126	Confirmed
A*11:01:24	Unconfirmed	A*11:26	Unconfirmed	A*11:77	Unconfirmed	A*11:127N	Unconfirmed
A*11:01:25	Unconfirmed	A*11:27	Unconfirmed	A*11:78N	Confirmed	A*11:128	Unconfirmed
A*11:01:26	Unconfirmed	A*11:29	Confirmed	A*11:79	Unconfirmed	A*11:129	Unconfirmed
A*11:01:27	Unconfirmed	A*11:30	Confirmed	A*11:80	Unconfirmed	A*11:130	Unconfirmed
A*11:01:28	Unconfirmed	A*11:31	Unconfirmed	A*11:81	Confirmed	A*11:131	Unconfirmed
A*11:01:29	Unconfirmed	A*11:32	Confirmed	A*11:82	Unconfirmed	A*11:132	Unconfirmed
A*11:01:30	Confirmed	A*11:33:01	Unconfirmed	A*11:83	Unconfirmed	A*11:133	Unconfirmed
A*11:01:31	Unconfirmed	A*11:33:02	Confirmed	A*11:84	Unconfirmed	A*11:135	Unconfirmed
A*11:01:32	Unconfirmed	A*11:34	Unconfirmed	A*11:85	Unconfirmed	A*11:136	Unconfirmed
A*11:01:33	Confirmed	A*11:35	Unconfirmed	A*11:86	Unconfirmed	A*11:137N	Unconfirmed
A*11:01:34	Confirmed	A*11:36	Unconfirmed	A*11:87	Unconfirmed	A*11:138	Unconfirmed
A*11:01:35	Unconfirmed	A*11:37	Confirmed	A*11:88	Unconfirmed	A*11:139	Unconfirmed
A*11:01:36	Unconfirmed	A*11:38	Unconfirmed	A*11:89	Confirmed		
A*11:01:37	Unconfirmed	A*11:39	Unconfirmed	A*11:90	Confirmed		
A*11:01:38	Unconfirmed	A*11:40	Unconfirmed	A*11:91	Unconfirmed		
A*11:01:39	Confirmed	A*11:41	Unconfirmed	A*11:92	Unconfirmed		
A*11:01:40	Confirmed	A*11:42	Unconfirmed	A*11:93	Unconfirmed		
A*11:01:41	Unconfirmed	A*11:43	Unconfirmed	A*11:94	Unconfirmed		
A*11:01:42	Unconfirmed	A*11:44	Confirmed	A*11:95	Unconfirmed		
A*11:01:43	Unconfirmed	A*11:45	Confirmed	A*11:96	Unconfirmed		
A*11:01:44	Unconfirmed	A*11:46	Confirmed	A*11:97	Unconfirmed		
A*11:01:45	Unconfirmed	A*11:47	Confirmed	A*11:98	Unconfirmed		
A*11:02:01	Confirmed	A*11:48	Confirmed	A*11:99N	Unconfirmed		
A*11:02:02	Unconfirmed	A*11:49	Unconfirmed	A*11:100	Unconfirmed		
A*11:02:03	Unconfirmed	A*11:50Q	Unconfirmed	A*11:101	Unconfirmed		
A*11:03	Confirmed	A*11:51	Unconfirmed	A*11:102	Unconfirmed		
A*11:04	Confirmed	A*11:52Q	Unconfirmed	A*11:103	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.

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RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 185 alleles generate 94 amplification patterns that can be combined in 4465 homozygous and heterozygous combinations. 1986 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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SPECIFICITY TABLE

HLA-A*11 SSP subtyping

Specificities and sizes of the PCR products of the 64 primer mixes used for
 HLA-A*11 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-A*11 alleles ³	Other amplified HLA-A alleles ⁴
1	195 bp	800 bp	*11:01:01-11:01:45, 11:03-11:13, 11:15:01-11:15:02, 11:20-11:27, 11:29- 11:37, 11:39, 11:41- 11:44, 11:46- 11:52Q, 11:54- 11:56, 11:58-11:70, 11:72-11:76, 11:79- 11:97, 11:99N- 11:100, 11:102- 11:105, 11:107- 11:109N, 11:112, 11:114-11:120, 11:122-11:133, 11:135-11:139	*01:13, 02:34-02:35:03, 02:56:01- 02:56:02, 02:62, 02:78, 02:103, 03:01:01:01-03:01:08, 03:01:10- 03:01:22, 03:01:24-03:07, 03:09- 03:31, 03:33-03:35, 03:37-03:40, 03:42-03:56, 03:58-03:88, 03:90- 03:106, 03:109-03:110, 03:112- 03:141, 03:143-03:151, 03:153- 03:160, 03:162N, 24:19, 30:18, 30:55, 34:01:01-34:10N, 66:01- 66:02, 66:04, 66:06-66:10, 66:12- 66:14, 66:16-66:19, 68:01:01:01- 68:02:05, 68:06-68:14, 68:16-68:19, 68:21:01-68:30, 68:32-68:35, 68:37- 68:45, 68:47-68:56, 68:58-68:83, 68:85-68:89, 68:91, 68:93-68:99, 69:01, 74:13, C*03:82
2	270 bp	1070 bp	*11:02:01-11:02:03, 11:14, 11:16, 11:38, 11:57, 11:77, 11:101, 11:110, 11:113	
3³⁹	190 bp	1070 bp	*11:03, 11:33:01- 11:33:02	*01:61, 03:22:01-03:22:02, 03:42, 03:135, 30:01:01-30:04:02, 30:06- 30:20, 30:22-30:27N, 30:29-30:34, 30:36-30:46, 30:48-30:51, 30:53, 30:55-30:71, 31:03-31:04, 33:49, 34:02:01 ^W -34:02:03 ^W , 34:03, 34:04 ^W , 34:07 ^W -34:10N ^W
4	235 bp	1070 bp	*11:04, 11:27, 11:35, 11:130	*01:12, 01:14, 01:19, 02:156, 02:338, 03:01:01:01-03:01:29, 03:01:31-03:17:02, 03:19-03:39, 03:41-03:74, 03:76-03:94, 03:96- 03:97, 03:99-03:104, 03:106- 03:134, 03:136-03:162N, 24:92, 30:01:01-30:04:02, 30:06-30:13, 30:15-30:20, 30:22-30:27N, 30:29- 30:42, 30:44-30:46, 30:48-30:51,

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				30:53-30:71, 31:03-31:04, 32:04, 33:49, 34:02:01-34:04, 34:07-34:10N, 36:01-36:02, 36:05
5⁹	180 bp, 210 bp	800 bp	*11:05, 11:110	*02:294, 32:54, 66:08
6¹⁰	195 bp, 550 bp	1070 bp	*11:06-11:07, 11:18, 11:22	*01:79 ^w , 01:104 ^w , 02:38, 02:101:01, 02:135, 02:154, 25:11, 26:03:01- 26:03:02, 26:06, 26:21, 26:30, 26:36
7⁷	215 bp	1070 bp	*11:08, 11:44, 11:50Q, 11:94	*01:01:01:01-01:02, 01:04N, 01:07- 01:11N, 01:13-01:18N, 01:21-01:24, 01:26-01:33, 01:35-01:40, 01:42- 01:62, 01:64, 01:67-01:72, 01:74- 01:88, 01:90-01:126, 03:18, 03:50, 03:66, 03:135, 03:153, 30:04:01- 30:04:02, 30:06, 30:17, 30:29, 30:46, 36:01-36:02, 36:04-36:05
8⁵	100 bp	800 bp	*11:09, 11:34	*26:75
9^{5,6,8}	85 bp	800 bp	*11:27, 11:38-11:39, 11:94	*01:26, 24:59
10^{5,12}	120 bp, 280 bp	1070 bp	*11:10, 11:43	*01:51, 25:01:01-25:12N, 25:14- 25:22, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-26:43:02, 26:45- 26:64, 26:66-26:71N, 26:73-26:75, 26:77-26:84, 31:03, 33:13, 34:01:01-34:08, 34:10N, 66:01, 66:04-66:11, 66:13-66:15, 66:17- 66:19, B*07:102, B*08:18, B*35:178, B*73:01-73:02
11	215 bp	800 bp	*11:01:01-11:07, 11:09-11:22, 11:27, 11:29-11:30, 11:32- 11:34, 11:36-11:43, 11:45-11:47, 11:49, 11:51-11:52Q, 11:54-11:93, 11:95- 11:100, 11:102- 11:117, 11:119- 11:133, 11:135- 11:138	*01:12, 01:19, 01:25 ^w , 03:02:01- 03:02:03, 03:10, 03:31-03:32, 03:65, 03:69N, 03:73, 03:76, 03:82, 03:90, 03:106, 03:113, 03:160, 24:92
12	235 bp	1070 bp	*11:01:01-11:01:20, 11:01:22-11:01:43, 11:01:45-11:03, 11:05-11:25, 11:29- 11:34, 11:36-11:47, 11:49, 11:51- 11:52Q, 11:54-	*01:01:01:01-01:01:22, 01:01:24- 01:01:47, 01:01:49-01:02, 01:04N, 01:06-01:07, 01:09-01:11N, 01:13, 01:16N-01:18N, 01:21-01:33, 01:35- 01:40, 01:42-01:62, 01:64-01:65, 01:67-01:72, 01:74-01:88, 01:90- 01:126, 03:18, 03:135, 36:04

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			11:89, 11:91- 11:100, 11:102- 11:117, 11:119- 11:129, 11:131- 11:133, 11:135- 11:138	
13⁸	195 bp	800 bp	*11:11	*43:01
14^{5,7}	100 bp	1070 bp	*11:01:01-11:11, 11:13-11:16, 11:20- 11:27, 11:29-11:39, 11:41-11:52Q, 11:54-11:60, 11:61 ^W , 11:62- 11:95, 11:97, 11:99N-11:105, 11:107-11:120, 11:122-11:133, 11:135-11:139	*01:13, 01:17, 03:63, 03:88, 25:02, 26:13, 26:19, 26:33, 34:01:01 ^W - 34:01:02 ^W , 34:02:01-34:04, 34:05 ^W , 34:06, 34:08, 34:10N, 66:01, 66:04, 66:06-66:11, 66:13-66:14, 66:17- 66:19
15^{5,13}	100 bp, 215 bp	800 bp	*11:12, 11:24:02- 11:25, 11:31, 11:35	*01:06, 02:34 ^W -02:35:03 ^W , 02:56:01- 02:56:02, 02:62, 02:78, 02:103, 02:156, 02:338, 03:01:01:01-03:31, 03:33-03:112, 03:113 ^W , 03:114- 03:162N, 24:24, 29:01:01:01-29:03, 29:04 ^W , 29:05-29:18, 29:21-29:29, 29:31-29:33, 29:35-29:47, 29:49- 29:50, 30:01:01-30:02:04, 30:02:06- 30:03, 30:07-30:20, 30:22-30:27N, 30:30-30:45, 30:48-30:71, 31:03- 31:04, 32:04, 32:17, 33:49, 34:02:01, 34:02:03-34:04, 34:07- 34:10N, 66:02, 66:12, 66:16, 68:01:01:01-68:01:17, 68:02:01:01- 68:02:05, 68:06-68:14, 68:16-68:19, 68:21:01-68:23, 68:25-68:30, 68:32- 68:39, 68:41-68:71, 68:73-68:84, 68:86-68:89, 68:91-68:92, 68:94N- 68:96, 68:98-68:99, 69:01, 74:13
16^{5,8,14}	95 bp, 205 bp	1070 bp	*11:07, 11:13, 11:54	
17	205 bp	1070 bp	*11:14, 11:50Q	*01:10, 30:01:01-30:01:06, 30:02:01-30:03, 30:07-30:08, 30:10- 30:16, 30:18-30:20, 30:22, 30:24- 30:26, 30:30-30:45, 30:48-30:51, 30:53-30:71, 80:01:01:01-80:02
18	235 bp	1070 bp	*11:15:01, 11:47	*30:39

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19¹⁵	175 bp, 265 bp	1070 bp	*11:42, 11:46	B*39:75
20¹⁶	175 bp, 235 bp	800 bp	*11:17, 11:40, 11:42	*01:43, 26:01:01-26:02, 26:04, 26:07:01-26:15, 26:17-26:19, 26:22- 26:29, 26:31-26:34, 26:36-26:43:02, 26:45-26:56, 26:58-26:77, 26:79- 26:84, 43:01, B*39:75
21^{5,7}	100 bp	1070 bp	*11:17, 11:19, 11:40, 11:98, 11:121	*01:01:01:01-01:01:27, 01:01:29- 01:04N, 01:06, 01:08-01:12, 01:14- 01:16N, 01:18N-01:33, 01:35-01:70, 01:72-01:99, 01:101-01:104, 01:106-01:126, 02:346, 03:41, 24:44 ^w , 24:109 ^w , 25:01:01-25:01:07, 25:03-25:12N, 25:14, 25:16, 25:18- 25:22, 26:01:01-26:01:21, 26:01:23- 26:12, 26:14-26:18, 26:20-26:29, 26:31-26:32, 26:34-26:43:02, 26:45- 26:63, 26:66-26:82, 26:84, 31:03, 33:13, 36:01-36:05, 43:01, 66:05, 66:15, 74:10, 80:01:01:01-80:02
22¹⁷	150 bp, 230 bp	1070 bp	*11:06, 11:18, 11:37	*02:05:01-02:06:04, 02:06:06- 02:06:13, 02:08, 02:10, 02:14, 02:21, 02:28, 02:41, 02:44, 02:51, 02:54, 02:57, 02:61, 02:72, 02:79:01-02:79:02, 02:84, 02:91, 02:99, 02:106, 02:108, 02:122, 02:126-02:127, 02:137, 02:142- 02:144, 02:154, 02:169-02:170, 02:172, 02:178-02:180, 02:229, 02:232, 02:244, 02:248, 02:259, 02:271, 02:278, 02:286, 02:290, 02:295, 02:300, 02:310, 02:324, 02:328, 02:330, 02:333, 02:337, 02:344, 02:355, 02:358-02:359, 02:373N, 02:376, 02:382, 02:387, 02:398, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 26:78, 68:15, B*27:87
23^{5,6}	80 bp	800 bp	*11:08, 11:25	*02:03:01 ^w -02:03:04 ^w , 02:26, 02:99, 02:117 ^w , 02:148 ^w , 02:171:02, 02:253 ^w , 02:258 ^w , 02:264 ^w , 02:281 ^w , 03:01:38, 68:42 ^w , 68:54 ^w , 68:61 ^w , 68:63
24⁴⁰	295 bp, 470 bp	1070 bp	*11:21N, 11:48	*01:04N, 01:41, 03:21N, 23:07N, 24:11N
25⁷	220 bp	1070 bp	*11:24:01, 11:47	*03:01:02, 03:05:02, 30:02:05, 34:02:02, 80:01:01:01-80:02

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26 ¹⁸	305 bp, 370 bp	1070 bp	*11:26, 11:41, 11:118	*01:03, 26:32, 26:70, 33:13, 36:03, 74:10, C*06:72, C*06:90, C*07:277
27 ¹⁹	210 bp, 260 bp	1070 bp	*11:17, 11:27, 11:38-11:39, 11:55, 11:94	*01:01:01:01-01:02, 01:04N, 01:06- 01:19, 01:21-01:33, 01:35-01:40, 01:42-01:62, 01:64-01:65, 01:67- 01:71, 01:74-01:88, 01:90-01:101, 01:103-01:126, 03:18, 03:97, 03:122, 03:135, 24:92, 26:62, 26:72, 80:01:01:01-80:02
28 ²⁰	240 bp, 280 bp	800 bp	*11:15:02, 11:49	*26:35
29 ⁵	80 bp	1070 bp	*11:10	*02:55, 03:24, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 26:78, 33:01:01-33:01:07, 33:03:01-33:07, 33:10-33:12, 33:14-33:16, 33:18:01- 33:20, 33:22-33:37, 33:39-33:47, 33:49-33:52, 33:54-33:65, 33:67, 34:01:01-34:10N, 66:01-66:10, 66:12-66:19, 68:01:01:01-68:09, 68:11N-68:12, 68:15-68:29, 68:31- 68:35, 68:37-68:45, 68:47-68:65, 68:67-68:74, 68:76-68:83, 68:85- 68:99, 69:01
30 ²¹	235 bp, 270 bp,	1070 bp	*11:29, 11:45, 11:55	*66:11
31 ^{9,22}	230 bp, 285 bp	1070 bp	*11:30, 11:43, 11:49	*01:101, 03:87, 31:03, 33:13
32 ²³	205 bp, 295 bp	1070 bp	*11:31-11:32, 11:35, 11:50Q	*01:21, 01:115, 01:126, 02:156, 02:338, 03:07, 03:42, 03:133, 03:154, 30:04:01-30:04:02, 30:06, 30:09, 30:17, 30:29, 30:46, 30:51, 31:03-31:04, 33:49
33 ^{5,24}	110 bp, 280 bp, 305 bp	1070 bp	*11:56, 11:61, 11:74	C*07:221
34 ^{5,25}	85 bp, 180 bp, 265 bp	1070 bp	*11:46, 11:58, 11:67	
35 ^{5,26}	105 bp, 290 bp	1070 bp	*11:62, 11:68	*01:125
36 ^{5,27}	65 bp, 380 bp	1070 bp	*11:64-11:65	*31:65, B*44:36
37 ^{5,28}	105 bp, 290 bp	1070 bp	*11:66, 11:72	
38 ^{5,29}	120 bp, 225 bp	1070 bp	*11:75, 11:78N	B*07:117
39	280 bp	1070 bp	*11:52Q, 11:74	

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40 ^{5,30}	90 bp, 185 bp	1070 bp	*11:57, 11:59	*02:156, 02:338
41	205 bp	1070 bp	*11:31, 11:35, 11:60	*01:12, 01:19, 01:21, 01:126, 02:156, 02:338, 03:02:01-03:02:03, 03:07, 03:10, 03:31-03:32, 03:42, 03:73, 03:76, 03:82, 03:90, 03:106, 03:113, 03:133, 03:160, 24:92, 30:04:01 ^w -30:04:02 ^w , 30:06 ^w , 30:09, 30:17 ^w , 30:29 ^w , 30:46 ^w , 31:03- 31:04, 33:49
42 ³¹	175 bp, 560 bp	1070 bp	*11:63, 11:69N	*01:56N
43 ⁸	445 bp	1070 bp	*11:70, 11:121	*01:83:01-01:83:02, 02:65, 02:80, 02:114, 02:117, 02:152, 02:246, 02:279, 02:298, 02:304, 03:23:01- 03:23:02, 03:89, 29:48, 33:08-33:09, 68:30, 68:75, 74:04, B*57:04 , B*57:32
44 ³²	145 bp, 215 bp	800 bp	*11:76, 11:106	
45	210 bp	1070 bp	*11:79	
46 ⁵	120 bp	1070 bp	*11:80	
47 ⁵	55 bp	1070 bp	*11:44	
48	200 bp	1070 bp	*11:71	
49 ³³	185 bp, 220 bp	800 bp	*11:16, 11:23, 11:35, 11:57, 11:73, 11:109N	*02:156, 02:338, 03:123
50 ^{5,34}	90 bp, 310 bp	800 bp	*11:34, 11:86	*26:75
51	265 bp	1070 bp	*11:51	
52 ³⁵	230 bp, 545 bp	1070 bp	*11:81, 11:108	*01:45, 03:78, 66:17
53	195 bp	1070 bp	*11:100	*01:109
54 ³⁶	190 bp, 265 bp	1070 bp	*11:89, 11:109N	
55 ^{5,37}	120 bp, 235 bp	1070 bp	*11:90, 11:102	*80:01:01:01-80:02
56	230 bp	1070 bp	*11:99N	
57	245 bp	800 bp	*11:36	
58 ⁵	90 bp	1070 bp	*11:115N	
59	370 bp	1070 bp	*11:124	
60 ^{5,38}	105 bp, 165 bp	1070 bp	*11:127N, 11:137N	

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61	130 bp	1070 bp	*11:03	*03:135, 24:177, 26:28, 26:52, B*15:173, B*50:11, C*12:74
62⁵	75 bp	1070 bp	*11:08, 11:20, 11:25	*02:38, 02:135, 25:01:01-25:05, 25:07, 25:09-25:17, 25:19-25:21, 26:01:01-26:01:14, 26:01:16- 26:01:20, 26:01:22-26:01:25, 26:01:27-26:03:02, 26:05-26:08, 26:10, 26:13-26:17, 26:19-26:27, 26:30-26:33, 26:35-26:43:02, 26:45- 26:46, 26:48, 26:50-26:51, 26:53- 26:72, 26:74, 26:76-26:77, 26:79- 26:84, 43:01, 66:01, 66:04-66:05, 66:08-66:09, 66:11-66:15, 66:17, 66:19, 68:61
63	275 bp	1070 bp	*11:120	
64⁸	340 bp	1070 bp	*11:129	

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-A*11 SSP typings.

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

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

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

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

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A*11 subtyping.

In addition, wells number 5, 8, 9, 11, 13, 15, 20, 23, 28, 44, 49, 50 and 57 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

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

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

⁴Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A*11 alleles will be amplified by primer mixes 1, 3 to 15, 17, 18, 20 to 32, 35, 36, 40 to 43, 49, 50, 52, 53, 55 and 61 to 62. In addition, the B*07:102, B*08:18, B*35:178 and B*73:01-73:02 alleles will be amplified by primer mix 10, the B*39:75 allele will be amplified by primer mixes 19 and 20, the B*27:87 allele will be amplified by primer mix 22, the B*44:36 allele will be amplified by primer mix 36, the B*07:117 allele will be amplified by primer mix 38, the B*57:04 and B*57:32 alleles will be amplified by primer mix 43, the B*15:173, B*50:11 and C*12:74 alleles will be amplified by primer

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mix 61, the C*03:82 allele will be amplified by primer mix 1, the C*06:72, C*06:90 and C*07:227 alleles will be amplified by primer mix 26 and the C*07:221 allele will be amplified by primer mix 33.

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

⁶Primer mixes 9 and 23 may have tendencies of unspecific amplifications.

⁷Primer mixes 7, 14, 21 and 25 may give rise to a lower yield of HLA-specific PCR product than the A*11 primer mixes.

⁸Primer mixes 9, 13, 16, 43 and 64 may have a tendency of giving rise to primer oligomer formation.

⁹Primer mix 31 may give rise to a long unspecific amplification product of about 800 bp. This band should be disregarded when interpreting the A*11 SSP typings.

¹⁰Primer mix 5: Specific PCR product of 180 bp in the A*11:05 allele. Specific PCR product of 210 bp in the A*11:110 and the A*02:294, 32:54 and 66:08 alleles.

¹¹Primer mix 6: Specific PCR product of 195 bp in the A*11:07 and 11:22 and the A*01:79^W alleles. Specific PCR product of 550 bp in the A*11:06 and 11:18 and the A*01:104^W, 02:38, 02:101:01, 02:135, 02:154, 25:11, 26:03:01-26:03:02, 26:06, 26:21, 26:30 and 26:36 alleles.

¹²Primer mix 10: Specific PCR fragment of 120 bp in the A*11:10 and the A*01:51, 25:01:01-25:12N, 25:14-25:16, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-26:34, 26:36-26:43:02, 26:45-26:64, 26:66-26:71N, 26:73-26:75, 26:77-26:84, 33:13, 34:01:01-34:08, 34:10N, 66:01, 66:04-66:11, 66:13-66:15 and 66:17-66:19 and in the B*07:102, B*08:18, B*35:178 and B*73:01-73:02 alleles. Specific PCR fragment of 280 bp in the A*11:43 and the A*31:03 alleles. Specific PCR fragment of 120 and 280 bp in the A*26:35 and 33:13 alleles.

¹³Primer mix 15: Specific PCR fragment of 100 bp in the A*11:12 and the A*02:34^W-02:35:03^W, 02:56:01-02:56:02, 02:62, 02:78, 02:103, 03:01:02, 03:01:06 03:02:01-03:02:03, 03:05:02-03:06, 03:10, 03:18, 03:31, 03:50, 03:65-03:66, 03:69, 03:73, 03:75-03:76, 03:82, 03:90, 03:95, 03:106, 03:113^W, 03:135, 03:150, 03:153, 03:160, 24:24, 29:01:01:01-29:03, 29:04^W, 29:05-29:18, 29:21-29:29, 29:31-29:33, 29:35-29:47, 29:49-29:50, 30:17, 30:52, 32:17, 66:02, 66:12, 66:16, 68:01:01:01-68:01:17, 68:02:01:01-68:02:05, 68:06-68:14, 68:16-68:19, 68:21:01-68:23, 68:25-68:30, 68:32-68:39, 68:41-68:71, 68:73-68:84, 68:86-68:89, 68:91-68:92, 68:94N-68:96, 68:98-68:99, 69:01 and 74:13 alleles. Specific PCR fragment of 215 bp in the A*11:24:02-11:25, 11:31 and 11:35 and the A*01:06, 02:156, 02:338, 03:01:10, 03:08, 03:29-03:30, 03:34, 03:36, 03:41, 03:62-03:63, 03:88-03:89, 03:107-03:108, 03:152, 30:02:01-30:02:04, 30:02:06-30:03, 30:07 30:09-30:10, 30:12-30:13, 30:22, 30:27N, 30:31-30:34, 30:44-30:45, 30:50-30:51, 30:57, 30:61, 30:64, 30:66-30:70, 31:03-31:04, 32:04, 33:49, 34:02:01, 34:02:03-34:04, 34:07-34:08 and 34:10N alleles. Specific PCR fragment of 100 and 215 bp in the A*03:01:01:01-03:01:01:03, 03:01:03-03:01:05, 03:01:07-03:01:09, 03:01:11-03:11:38, 03:03N-03:05:01, 03:07, 03:09, 03:11N-03:17:02, 03:19-03:28, 03:33, 03:35, 03:37-03:40, 03:42-03:49, 03:51-03:61, 03:64, 03:67-03:68N, 03:70-03:72, 03:74, 03:77-03:81, 03:83-03:87, 03:91N-03:94, 03:96-03:105, 03:109-03:112, 03:114-03:134, 03:136-03:149, 03:151, 03:154-03:159, 03:161N-03:162N, 30:01:01-30:01:07, 30:08, 30:11:01-30:11:02, 30:14L-30:16, 30:18-30:20, 30:23-30:26, 30:30, 30:35-30:43, 30:48-30:49, 30:53-30:56, 30:58-30:60, 30:62-30:63, 30:65, 30:71 and 34:09 alleles. Both PCR fragments may not always be obtained.

¹⁴Primer mix 16: Specific PCR fragment of 95 bp in the A*11:13 allele. Specific PCR fragment of 205 bp in the A*11:07 and 11:54 alleles.

¹⁵Primer mix 19: Specific PCR product of 175 bp in the A*11:42 and in the B*39:75 alleles. Specific PCR product of 265 bp in the A*11:46 allele.

¹⁶Primer mix 20: Specific PCR fragment of 175 bp in the A*11:42 and in the B*39:75 allele. Specific PCR fragment of 235 bp in the A*11:17 and 11:40 and the A*01:43, 26:01:01-26:02, 26:04, 26:07:01-26:15, 26:17-26:19, 26:22-26:29, 26:31-26:34, 26:36-26:43:02, 26:45-26:56, 26:58-26:77, 26:79-26:84 and 43:01 alleles.

¹⁷Primer mix 22: Specific PCR fragment of 150 bp in the A*11:37 and the B*27:87 alleles. Specific PCR fragment of 230 bp in the A*11:06 and 11:18 and the A*02:05:01-02:06:04, 02:06:06-02:06:13, 02:08, 02:10, 02:14, 02:21, 02:28, 02:41, 02:44, 02:51, 02:54, 02:57, 02:61, 02:72, 02:79:01-02:79:02, 02:84, 02:91, 02:99, 02:106, 02:108, 02:122, 02:126-02:127, 02:137, 02:142-02:144, 02:154, 02:169-02:170, 02:172, 02:178-02:180, 02:229, 02:232, 02:244, 02:248, 02:259, 02:271, 02:278, 02:286, 02:290, 02:295, 02:300, 02:310, 02:324, 02:328, 02:330, 02:333, 02:337,

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02:344, 02:355, 02:358-02:359, 02:373N, 02:376, 02:382, 02:387, 02:398, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 26:78 and 68:15 alleles.

¹⁸Primer mix 26: Specific PCR fragment of 305 bp in the A*11:26 and 11:118 and the A*01:03, 26:32, 26:70, 33:13, 36:03 and 74:10 and the C*06:72 alleles. Specific PCR fragment of 370 bp in the A*11:41 and in the C*06:90 and C*07:277 alleles.

¹⁹Primer mix 27: Specific PCR fragment of 210 bp in the A*11:17 and the A*26:62 and 26:72 alleles. Specific PCR fragment of 260 bp in the A*11:27, 11:38-11:39, 11:55 and 11:94 and the A*01:01:01:01-01:02, 01:04N, 01:06-01:19, 01:21-01:33, 01:35-01:40, 01:42, 01:44-01:62, 01:64-01:65, 01:67-01:71, 01:74-01:88, 01:90-01:101, 01:103-01:126, 03:18, 03:97, 03:122, 03:135, 24:92 and 80:01:01:01-80:02 alleles. Specific PCR fragment of 210 and 260 bp in the A*01:43 allele.

²⁰Primer mix 28: Specific PCR fragment of 240 bp in the A*11:15:02 and 11:49 alleles. Specific PCR fragment of 280 bp in the A*26:35 allele.

²¹Primer mix 30: Specific PCR fragment of 235 bp in the A*11:45 and the A*66:11 alleles. Specific PCR fragment of 270 bp in the A*11:29 and 11:55 alleles.

²²Primer mix 31: Specific PCR fragment of 230 bp in the A*11:49 allele. Specific PCR fragment of 285 bp in the A*11:30 and 11:43 and the A*01:101, 03:87, 31:03 and 33:13 alleles.

²³Primer mix 32: Specific PCR fragment of 205 bp in the A*11:31 and 11:35 and the A*01:21, 01:126, 02:156, 02:338, 03:07, 03:42, 03:133, 30:04:01-30:04:02, 30:06, 30:09, 30:17, 30:29, 30:46, 31:03-31:04 and 33:49 alleles. Specific PCR fragment of 295 bp in the A*11:32 and 11:50Q and the A*01:115, 03:154 and 30:51 alleles.

²⁴Primer mix 33: Specific PCR fragment of 110 bp in the A*11:61 allele. Specific PCR fragment of 280 bp in the A*11:74 allele. Specific PCR fragment of 305 bp in the A*11:56 and in the C*07:221 alleles.

²⁵Primer mix 34: Specific PCR fragment of 85 bp in the A*11:58 allele. Specific PCR fragment of 180 bp in the A*11:67 allele. Specific PCR fragment of 265 bp in the A*11:46 allele.

²⁶Primer mix 35: Specific PCR fragment of 105 bp in the A*11:62 and the A*01:125 allele. Specific PCR fragment of 290 bp in the A*11:68 allele.

²⁷Primer mix 36: Specific PCR fragment of 65 bp in the A*11:65 and in the B*44:36 alleles. Specific PCR fragment of 380 bp in the A*11:64 and the A*31:65 alleles.

²⁸Primer mix 37: Specific PCR fragment of 105 bp in the A*11:66 allele. Specific PCR fragment of 290 bp in the A*11:72 allele.

²⁹Primer mix 38: Specific PCR fragment of 120 bp in the A*11:75 and in the B*07:117 alleles. Specific PCR fragment of 225 bp in the A*11:78N allele.

³⁰Primer mix 40: Specific PCR fragment of 90 bp in the A*11:59 allele. Specific PCR fragment of 185 bp in the A*11:57 and the A*02:156 and 02:338 alleles.

³¹Primer mix 42: Specific PCR fragment of 175 bp in the A*11:63 allele. Specific PCR fragment of 560 bp in the A*11:69N and the A*01:56N alleles.

³²Primer mix 44: Specific PCR fragment of 145 bp in the A*11:76 allele. Specific PCR fragment of 215 bp in the A*11:106 allele.

³³Primer mix 49: Specific PCR fragment of 185 bp in the A*11:16, 11:35, 11:57, 11:73 and 11:109N and the A*02:156, 02:338 and 03:123 alleles. Specific PCR fragment of 220 bp in the A*11:23 allele.

³⁴Primer mix 50: Specific PCR fragment of 90 bp in the A*11:34 and the A*26:75 alleles. Specific PCR fragment of 310 bp in the A*11:86 allele.

³⁵Primer mix 52: Specific PCR fragment of 230 bp in the A*11:81 allele. Specific PCR fragment of 545 bp in the A*11:108 and the A*01:45, 03:78 and 66:17 alleles.

³⁶Primer mix 54: Specific PCR fragment of 190 bp in the A*11:109N allele. Specific PCR fragment of 265 bp in the A*11:89 allele.

³⁷Primer mix 55: Specific PCR fragment of 120 bp in the A*11:102 allele. Specific PCR fragment of 235 bp in the A*11:90 and the A*80:01:01:01-80:02 alleles.

³⁸Primer mix 60: Specific PCR fragment of 105 bp in the A*11:137N allele. Specific PCR fragment of 265 bp in the A*11:127N allele.

³⁹Primer mix 3 may faintly amplify the A*03:66 and 11:08 alleles.

⁴⁰Primer mix 24: Specific PCR fragment of 295 bp in the A*11:48 and the A*01:41 alleles. Specific PCR fragment of 470 bp in the A*11:21N and the A*01:04N, 03:21N, 23:07N and 24:11N alleles.

‘w’, may be weakly amplified.

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INTERPRETATION TABLE																																									
HLA-A*11 SSP subtyping																																									
Amplification patterns of the A*11:01 to A*11:139 alleles																																									
		Well ¹⁵																																							
		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								
Length of spec.		195	270	190	235	210	180	195	215	100	85	120	215	235	195	100	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205						
PCR product(s)						210	180	550			280					215	205							230		470		370	260	280		270	285	295							
Length of int. pos control ¹		800	1070	1070	1070	800	800	1070	1070	800	800	1070	800	1070	800	1070	800	1070	800	1070	1070	800	1070	1070	800	1070	1070	800	1070	1070	1070	800	1070	1070	1070						
5'-primer(s) ²		5'-ggg ³ 127	5'-TCC ³ 28	5'-ATA ³ 363	5'-ATA ³ 363	5'-ATA ³ 363	5'-ATA ³ 363	5'-CTC ³ 292	5'-ATA ³ 363	5'-TgC ³ 553	5'-TgC ³ 527	5'-TCA ³ 97	5'-ATA ³ 363	5'-ATA ³ 363	5'-ACC ³ 102	5'-CAG ³ 282	5'-CAG ³ 282	5'-ACA ³ 391	5'-ATA ³ 363	5'-TCC ³ 97	5'-TCC ³ 97	5'-CCT ³ 103	5'-CCT ³ 103	5'-gCA ³ 489	5'-ggA ³ 341	5'-TCC ³ 97	5'-ggA ³ 341	5'-CCT ³ 103	5'-CCT ³ 103	5'-CCA ³ 103	5'-AAC ³ 261	5'-CCT ³ 103	5'-TCA ³ 97	5'-ATA ³ 363							
3'-primer(s) ³		5'-gAC ³ 282	5'-CTT ³ 127	5'-CTg ³ 502	5'-CgT ³ 559	5'-CTC ³ 502	5'-CGg ³ 559	5'-TCC ³ 539	5'-CgT ³ 616	5'-CCg ³ 570	5'-CgT ³ 341	5'-TCT ³ 539	5'-CCg ³ 559	5'-gCA ³ 257	5'-CgT ³ 341	5'-CgT ³ 341	5'-CgG ³ 341	5'-CCg ³ 559	5'-CCA ³ 503	5'-gAC ³ 282	5'-gAC ³ 282	5'-CCA ³ 236	5'-CCA ³ 236	5'-CgT ³ 341	5'-gAC ³ 282	5'-gAC ³ 282	5'-TCA ³ 362	5'-CAT ³ 271	5'-CgT ³ 341	5'-CCA ³ 299	5'-CCg ³ 299	5'-CgT ³ 341	5'-CCA ³ 527	5'-gAC ³ 282							
Well No.		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								
HLA-A allele ^{4,5}																																									
		1										11 12			14																										
		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								
Well No.																																									



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	210	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
PCR product(s)					210	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
Well No.	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	
*11:01:21, 11:01:44	1										11		14																				
*11:02:01-11:02:03, 11:77, 11:113		2									11	12	14																				
*11:03	1		3								11	12	14																				
*11:04, 11:130	1			4							11		14																				
*11:05	1				5						11	12	14																				
*11:06	1					6					11	12	14									22											
*11:07	1					6					11	12	14	16																			
*11:08	1						7					12	14										23										
*11:09	1							8			11	12	14																				
*11:10	1								10	11	12		14																29				
*11:11	1									11	12		13	14																			
*11:12	1										11	12			15																		
*11:13, 11:54 ⁷	1										11	12	14	16																			
*11:14		2									11	12	14			17																	
*11:15:01	1										11	12	14			18																	
*11:15:02	1										11	12	14														28						
*11:16		2									11	12	14																				
*11:17											11	12							20	21						27							
*11:18						6					11	12										22											
*11:19, 11:98											11	12										21											
*11:20	1										11	12	14																				
*11:21N	1										11	12	14										24										
*11:22	1					6					11	12	14																				
*11:23	1											12	14																				
*11:24:01	1											12	14													25							
*11:24:02	1											12	14	15																			
*11:25	1											12	14	15									23										
*11:26, 11:118	1												14													26							
*11:27	1		4						9	11			14													27							
*11:29	1										11	12	14																30				
*11:30	1										11	12	14																		31		
*11:31	1											12	14	15																		32	
*11:32	1										11	12	14																			32	
*11:33:01-11:33:02	1		3								11	12	14																				
*11:34	1							8			11	12	14																				
*11:35	1			4									14	15																		32	
*11:36	1										11	12	14																				
*11:37	1										11	12	14									22											
*11:38		2							9	11	12		14													27							
*11:39	1								9	11	12		14													27							
Well No.	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	

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot-specific information

305 280 110		265 180 85		290 105		380 65		290 105		225 120		280		185 90		205		560 175		445		215 145		210		120		55		200		220 185		90		265		230		195		190		120		230		245		90		370		105		130		75		275		340		Length of spec.		PCR product(s)	
Well No.																																																																			
																																	*11:01:21, 11:01:44																																		
																																	*11:02:01-11:02:03, 11:77, 11:113																																		
																																	61																																		
																																	*11:03																																		
																																	*11:04, 11:130																																		
																																	*11:05																																		
																																	*11:06																																		
																																	*11:07																																		
																																	62																																		
																																	*11:08																																		
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																																	*11:12																																		
																																	*11:13, 11:54 ⁷																																		
																																	*11:14																																		
																																	*11:15:01																																		
																																	*11:15:02																																		
																																	49																																		
																																	*11:16																																		
																																	*11:17																																		
																																	*11:18																																		
																																	*11:19, 11:98																																		
																																	62																																		
																																	*11:20																																		
																																	*11:21N																																		
																																	*11:22																																		
																																	49																																		
																																	*11:23																																		
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																																	*11:24:02																																		
																																	62																																		
																																	*11:25																																		
																																	*11:26, 11:118																																		
																																	*11:27																																		
																																	*11:29																																		
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																																	*11:32																																		
																																	*11:33:01-11:33:02																																		
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																																	*11:34																																		
																																	41																																		
																																	49																																		
																																	*11:35																																		
																																	57																																		
																																	*11:36																																		
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																																	*11:38																																		
																																	*11:39																																		
Well No.																																																																			

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205			
PCR product(s)					210	550				280						215	205			265	235		230		470		370	260	280		270	285	295		
Well No.	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			
*11:40											11	12								20	21														
*11:41	1										11	12		14												26									
*11:42	1										11	12		14					19	20															
*11:43	1									10	11	12		14																		31			
*11:44	1						7					12		14																					
*11:45											11	12		14																		30			
*11:46	1										11	12		14					19																
*11:47	1										11	12		14				18								25									
*11:48	1													14										24											
*11:49	1										11	12		14														28				31			
*11:50Q	1						7							14			17																32		
*11:51	1										11	12		14																					
*11:52Q	1										11	12		14																					
*11:55	1										11	12		14													27				30				
*11:56	1										11	12		14																					
*11:57		2									11	12		14																					
*11:58, 11:67 ⁸	1										11	12		14																					
*11:59	1										11	12		14																					
*11:60	1										11	12		14																					
*11:61	1										11	12		w																					
*11:62, 11:68 ⁹	1										11	12		14																					
*11:63, 11:69N ¹⁰	1										11	12		14																					
*11:64-11:65 ¹¹	1										11	12		14																					
*11:66, 11:72 ¹²	1										11	12		14																					
*11:70	1										11	12		14																					
*11:71											11	12		14																					
*11:73	1										11	12		14																					
*11:74	1										11	12		14																					
*11:75	1										11	12		14																					
*11:76	1										11	12		14																					
*11:78N											11	12		14																					
*11:79	1										11	12		14																					
*11:80	1										11	12		14																					
*11:81, 11:108 ¹³	1										11	12		14																					
*11:86	1										11	12		14																					
*11:89	1										11	12		14																					
*11:90	1										11			14																					
*11:94	1						7		9			12		14													27								
*11:96	1										11	12																							
*11:99N	1										11	12		14																					
Well No.	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			

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	210	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
PCR product(s)					210	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
Well No.	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	
*11:100	1											11	12		14																		
*11:101		2													14																		
*11:102	1											11	12		14																		
*11:106												11	12																				
*11:109N	1											11	12		14																		
*11:110		2			5							11	12		14																		
*11:111												11	12		14																		
*11:115N	1											11	12		14																		
*11:120	1											11	12		14																		
*11:121												11	12										21										
*11:124	1											11	12		14																		
*11:127N, 11:137N ¹⁴	1											11	12		14																		
*11:129	1											11	12		14																		
*11:139	1														14																		
*01:01:01:01-01:01:22, 01:01:24-01:01:27, 01:01:29-01:01:47, 01:01:49-01:02, 01:09, 01:11N, 01:16N, 01:18N, 01:22N-01:24, 01:27N-01:33, 01:35- 01:40, 01:42, 01:44, 01:46-01:50, 01:52N- 01:55, 01:57N-01:60, 01:62, 01:64, 01:67- 01:70, 01:74-01:78, 01:80-01:82, 01:84- 01:88, 01:90-01:99, 01:103, 01:106-01:108, 01:110-01:114, 01:116- 01:124							7					12										21					27						
*01:01:23, 01:01:48, 01:08, 01:15N							7															21					27						
*01:01:28, 01:07, 01:71, 01:100, 01:105							7					12															27						
*01:03, 36:03, 74:10																							21				26						
*01:04N							7					12										21		24			27						
*01:06												12			15							21					27						
*01:10							7					12					17					21					27						
*01:12, 01:19				4								11										21					27						
*01:13	1						7					12		14													27						
*01:14				4			7															21					27						
*01:17							7					12		14													27						
*01:20, 01:63, 01:66, 01:73, 01:89, 02:346																							21										
Well No.	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	



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Lot-specific information																																	Length of spec.		
PCR product(s)																																			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.			
																																		*11:100	
																																			*11:101
																																			*11:102
																																			*11:106
																																			*11:109N
																																			*11:110
																																			*11:111
																																			*11:115N
																																			*11:120
																																			*11:121
																																			*11:124
																																			*11:127N, 11:137N ¹⁴
																																			*11:129
																																			*11:139
																																			*01:01:01:01-01:01:22, 01:01:24-01:01:27, 01:01:29-01:01:47, 01:01:49-01:02, 01:09, 01:11N, 01:16N, 01:18N, 01:22N-01:24, 01:27N-01:33, 01:35- 01:40, 01:42, 01:44, 01:46-01:50, 01:52N- 01:55, 01:57N-01:60, 01:62, 01:64, 01:67- 01:70, 01:74-01:78, 01:80-01:82, 01:84- 01:88, 01:90-01:99, 01:103, 01:106-01:108, 01:110-01:114, 01:116- 01:124
																																			*01:01:23, 01:01:48, 01:08, 01:15N
																																			*01:01:28, 01:07, 01:71, 01:100, 01:105
																																			*01:03, 36:03, 74:10
																																			*01:04N
																																			*01:06
																																			*01:10
																																			*01:12, 01:19
																																			*01:13
																																			*01:14
																																			*01:17
																																			*01:20, 01:63, 01:66, 01:73, 01:89, 02:346
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.			



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205	
PCR product(s)					210	550				280					215	205			265	235	235		230		470		370	260	280		270	285	295
Well No.	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	
*01:21, 01:126							7					12										21					27					32	
*01:25											w	12										21					27						
*01:26							7		9			12										21					27						
*01:41																						21		24									
*01:43							7					12							20			21					27						
*01:45							7					12										21					27						
*01:51							7			10		12										21					27						
*01:56N							7					12										21					27						
*01:61			3				7					12										21					27						
*01:65												12										21					27						
*01:72, 01:102, 36:04							7					12										21											
*01:79, 01:104						w	7					12										21					27						
*01:83:01-01:83:02							7					12										21					27						
*01:101							7					12										21					27				31		
*01:109							7					12										21					27						
*01:115							7					12										21					27					32	
*01:125							7					12										21					27						
*02:03:01-02:03:04, 02:148, 02:253, 02:258, 02:264, 02:281																								w									
*02:05:01-02:06:04, 02:06:06-02:06:13, 02:08, 02:10, 02:14, 02:21, 02:28, 02:41, 02:44, 02:51, 02:54, 02:57, 02:61, 02:72, 02:79:01-02:79:02, 02:84, 02:91, 02:106, 02:108, 02:122, 02:126- 02:127, 02:137, 02:142- 02:144, 02:169-02:170, 02:172, 02:178-02:180, 02:229, 02:232, 02:244, 02:248, 02:259, 02:271, 02:278, 02:286, 02:290, 02:295, 02:300, 02:310, 02:324, 02:328, 02:330, 02:333, 02:337, 02:344, 02:355, 02:358-02:359, 02:373N, 02:376, 02:382, 02:387, 02:398, B*27:87																																	
*02:26, 02:171:02																																	
Well No.	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	

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S

Lot-specific information

Lot-specific information																																	Length of spec.				
																																	PCR product(s)				
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.					
								41																												*01:21, 01:126	
																																				*01:25	
																																				*01:26	
																																				*01:41	
																																				*01:43	
																					52														*01:45		
																																				*01:51	
									42																											*01:56N	
																																				*01:61	
																																				*01:65	
																																				*01:72, 01:102, 36:04	
																																				*01:79, 01:104	
										43																										*01:83:01-01:83:02	
																																				*01:101	
																						53														*01:109	
																																					*01:115
		35																																		*01:125	
																																				*02:03:01-02:03:04, 02:148, 02:253, 02:258, 02:264, 02:281	
																																					*02:05:01-02:06:04, 02:06:06-02:06:13, 02:08, 02:10, 02:14, 02:21, 02:28, 02:41, 02:44, 02:51, 02:54, 02:57, 02:61, 02:72, 02:79:01-02:79:02, 02:84, 02:91, 02:106, 02:108, 02:122, 02:126- 02:127, 02:137, 02:142- 02:144, 02:169-02:170, 02:172, 02:178-02:180, 02:229, 02:232, 02:244, 02:248, 02:259, 02:271, 02:278, 02:286, 02:290, 02:295, 02:300, 02:310, 02:324, 02:328, 02:330, 02:333, 02:337, 02:344, 02:355, 02:358-02:359, 02:373N, 02:376, 02:382, 02:387, 02:398, B*27:87
																																				*02:26, 02:171:02	
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.					



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205			
PCR product(s)					210	550				280						215	205			265	235		230		470		370	260	280		270	285	295		
Well No.	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			
*02:34-02:35:03	1														w																				
*02:38, 02:135						6																													
*02:55, 33:01:01- 33:01:07, 33:03:01- 33:07, 33:10-33:12, 33:14-33:16, 33:18:01- 33:20, 33:22-33:37, 33:39-33:47, 33:50- 33:52, 33:54-33:65, 33:67, 66:03, 68:03:01- 68:05, 68:20, 68:31, 68:90																													29						
*02:56:01-02:56:02, 02:62, 02:78, 02:103, 03:01:30, 03:40, 03:75, 03:95, 03:98, 03:105, 68:10, 68:13:01-68:14, 68:66, 74:13	1														15																				
*02:65, 02:80, 02:114, 02:152, 02:246, 02:279, 02:298, 02:304, 29:48, 33:08-33:09, 74:04, <i>B*57:04, B*57:32</i>																																			
*02:99																							22	23											
*02:101:01						6																													
*02:117																								w											
*02:154						6																		22											
*02:156, 02:338				4											15																			32	
*02:294, 32:54						5																													
Well No.	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			

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205			
PCR product(s)					210	550				280					215	205			265	235		230		470		370	260	280		270	285	295			
Well No.	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			
*03:01:01:01- 03:01:01:03, 03:01:03- 03:01:08, 03:01:10- 03:01:22, 03:01:24- 03:01:29, 03:01:31- 03:01:37, 03:03N- 03:05:01, 03:06, 03:09, 03:11N-03:17:02, 03:19- 03:20, 03:25-03:30, 03:33-03:35, 03:37- 03:39, 03:43-03:49, 03:51-03:56, 03:58- 03:62, 03:64, 03:67- 03:68N, 03:70-03:72, 03:74, 03:77, 03:79- 03:81, 03:83-03:86, 03:91N-03:94, 03:96, 03:99-03:104, 03:109- 03:110, 03:112, 03:114- 03:121, 03:124-03:132, 03:134, 03:136-03:141, 03:143-03:151, 03:155- 03:159, 03:162N	1			4											15																				
*03:01:02, 03:05:02	1			4											15										25										
*03:01:09, 03:01:23, 03:08, 03:36N, 03:57, 03:107-03:108, 03:111, 03:142, 03:152, 03:161N, 32:04				4											15																				
*03:01:38	1			4											15								23												
*03:02:01-03:02:03, 03:10, 03:31, 03:73, 03:76, 03:82, 03:90, 03:106, 03:160	1			4							11				15																				
*03:07, 03:133	1			4											15																			32	
*03:18	1						7					12			15													27							
*03:21N	1			4											15									24											
*03:22:01-03:22:02	1		3	4											15																				
*03:23:01-03:23:02	1			4											15																				
*03:24	1			4											15																			29	
*03:32				4							11																								
*03:41				4											15								21												
*03:42	1		3	4											15																				32
*03:50, 03:66, 03:153	1			4			7								15																				
*03:63, 03:88	1			4											14	15																			
Well No.	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			

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

305 280 110		265 180 85		290 105		380 65		290 105		225 120		280		185 90		205		560 175		445		215 145		210		120		55		200		220 185		310 90		265		545 230		195		265 190		235 120		230		245		90		370		265 105		130		75		275		340		Length of spec.	
33 34 35 36		37 38 39 40		41 42 43 44		45 46 47 48		49 50 51 52		53 54 55 56		57 58 59 60		61 62 63 64		Well No.		PCR product(s)																																															
																*03:01:01:01-03:01:01:03, 03:01:03-03:01:08, 03:01:10-03:01:22, 03:01:24-03:01:29, 03:01:31-03:01:37, 03:03N-03:05:01, 03:06, 03:09, 03:11N-03:17:02, 03:19-03:20, 03:25-03:30, 03:33-03:35, 03:37-03:39, 03:43-03:49, 03:51-03:56, 03:58-03:62, 03:64, 03:67-03:68N, 03:70-03:72, 03:74, 03:77, 03:79-03:81, 03:83-03:86, 03:91N-03:94, 03:96, 03:99-03:104, 03:109-03:110, 03:112, 03:114-03:121, 03:124-03:132, 03:134, 03:136-03:141, 03:143-03:151, 03:155-03:159, 03:162N																																																	
																*03:01:02, 03:05:02																																																	
																*03:01:09, 03:01:23, 03:08, 03:36N, 03:57, 03:107-03:108, 03:111, 03:142, 03:152, 03:161N, 32:04																																																	
																*03:01:38																																																	
																*03:02:01-03:02:03, 03:10, 03:31, 03:73, 03:76, 03:82, 03:90, 03:106, 03:160																																																	
																*03:07, 03:133																																																	
																*03:18																																																	
																*03:21N																																																	
																*03:22:01-03:22:02																																																	
																*03:23:01-03:23:02																																																	
																*03:24																																																	
																*03:32																																																	
																*03:41																																																	
																*03:42																																																	
																*03:50, 03:66, 03:153																																																	
																*03:63, 03:88																																																	
33 34 35 36		37 38 39 40		41 42 43 44		45 46 47 48		49 50 51 52		53 54 55 56		57 58 59 60		61 62 63 64		Well No.																																																	



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205				
PCR product(s)					210	550				280					215	205			265	235		230		470		370	260	280		270	285	295				
Well No.	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				
*03:65, 03:69N	1			4							11				15																					
*03:78	1			4											15																					
*03:87	1			4											15																31					
*03:89				4											15																					
*03:97, 03:122	1			4											15												27									
*03:113	1			4							11				w																					
*03:123	1			4											15																					
*03:135	1		3				7					12			15												27									
*03:154	1			4											15																		32			
*23:07N, 24:11N																																				
*24:19, C*03:82	1																																			
*24:24, 29:01:01:01- 29:03, 29:05-29:18, 29:21-29:29, 29:31- 29:33, 29:35-29:47, 29:49-29:50, 30:52, 32:17, 68:36, 68:46, 68:84															15																					
*24:44, 24:109																						w														
*24:59									9																											
*24:92				4							11																	27								
*24:177, B*15:173, B*50:11, C*12:74																																				
*25:01:01-25:01:07, 25:03-25:05, 25:07, 25:09-25:10, 25:12N, 25:14, 25:16, 25:19- 25:21, 26:05, 26:16, 26:20, 26:57										10																										
*25:02										10					14																					
*25:06, 25:08, 25:18, 25:22										10																		21								
*25:11							6			10																		21								
*25:13																																				
*25:15, 25:17										10																										
Well No.	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				

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
PCR product(s)					210	550				280					215	205			265	235		230		470		370	260	280		270	285	295
Well No.	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
*26:01:01-26:01:14, 26:01:16-26:01:20, 26:01:23-26:01:25, 26:01:27-26:02, 26:08, 26:10, 26:14-26:15, 26:17, 26:22-26:27, 26:37-26:43:02, 26:45- 26:46, 26:48, 26:50- 26:51, 26:53-26:56, 26:58-26:61, 26:63, 26:66-26:69, 26:71N, 26:74, 26:77, 26:79- 26:82, 26:84										10										20	21											
*26:01:15, 26:01:21, 26:01:26, 26:04, 26:09, 26:11N-26:12, 26:18, 26:29, 26:34, 26:47, 26:49, 26:73										10										20	21											
*26:01:22, 26:64, 26:83										10										20												
*26:03:01-26:03:02, 26:06, 26:21						6				10											21	22						29				
*26:07:01-26:07:02, 26:31, 26:76																				20	21											
*26:13, 26:33										10				14						20												
*26:19														14						20												
*26:28, 26:52										10										20	21											
*26:30						6																22						29				
*26:32, 26:70										10										20	21				26							
*26:35										10											21						28					
*26:36						6				10										20	21											
*26:62										10										20	21					27						
*26:65																				20												
*26:72																				20	21					27						
*26:75							8			10										20	21											
*26:78										10											21	22						29				
*29:04														w																		
Well No.	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

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205
PCR product(s)					210	550				280					215	205			265	235		230		470		370	260	280		270	285	295
Well No.	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
*30:01:01-30:01:06, 30:02:01-30:02:04, 30:02:06-30:03, 30:07- 30:08, 30:10-30:13, 30:15-30:16, 30:19- 30:20, 30:22, 30:24- 30:26, 30:30-30:34, 30:36-30:38, 30:40- 30:42, 30:44-30:45, 30:48-30:50, 30:53, 30:56-30:71			3	4											15		17															
*30:01:07, 30:23, 30:27N			3	4											15																	
*30:02:05			3	4													17								25							
*30:04:01-30:04:02, 30:06, 30:29, 30:46			3	4			7																									32
*30:09, 31:04			3	4											15																	32
*30:14L, 30:43			3												15		17															
*30:17			3	4			7								15																	32
*30:18, 30:55	1		3	4											15		17															
*30:35, 30:54				4											15		17															
*30:39			3	4											15		17	18														
*30:51			3	4											15		17															32
*31:03			3	4					10						15						21										31	32
*31:65, B*44:36																																
*33:13									10													21				26					31	
*33:49			3	4											15														29		32	
*34:01:01-34:01:02, 34:05	1								10					w															29			
*34:02:01, 34:02:03, 34:04, 34:08, 34:10N	1		w	4					10					14	15														29			
*34:02:02	1		w	4					10					14											25			29				
*34:03	1		3	4					10					14	15														29			
*34:06, 66:06-66:07, 66:10, 66:18	1								10					14															29			
*34:07	1		w	4					10						15														29			
*34:09	1		w	4											15														29			
*36:01-36:02, 36:05				4			7															21										
*43:01													13							20	21											
*66:01, 66:04, 66:09, 66:13-66:14, 66:19	1								10					14															29			
Well No.	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

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

Lot-specific information																																	Length of spec.
																																	PCR product(s)
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.	
																																	*30:01:01-30:01:06, 30:02:01-30:02:04, 30:02:06-30:03, 30:07- 30:08, 30:10-30:13, 30:15-30:16, 30:19- 30:20, 30:22, 30:24- 30:26, 30:30-30:34, 30:36-30:38, 30:40- 30:42, 30:44-30:45, 30:48-30:50, 30:53, 30:56-30:71
																																	*30:01:07, 30:23, 30:27N
																																	*30:02:05
								w																									*30:04:01-30:04:02, 30:06, 30:29, 30:46
								41																									*30:09, 31:04
																																	*30:14L, 30:43
								w																									*30:17
																																	*30:18, 30:55
																																	*30:35, 30:54
																																	*30:39
																																	*30:51
																																	*31:03
			36																														*31:65, B*44:36
																																	*33:13
																																	*33:49
																																	*34:01:01-34:01:02, 34:05
																																	*34:02:01, 34:02:03, 34:04, 34:08, 34:10N
																																	*34:02:02
																																	*34:03
																																	*34:06, 66:06-66:07, 66:10, 66:18
																																	*34:07
																																	*34:09
																																	*36:01-36:02, 36:05
																																	*43:01
																																	*66:01, 66:04, 66:09, 66:13-66:14, 66:19
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Well No.	

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S

Lot-specific information

Length of spec.	195	270	190	235	180	195	215	100	85	120	215	235	195	100	100	95	205	235	175	175	100	150	80	295	220	305	210	240	80	235	230	205		
PCR product(s)					210	550				280						215	205			265	235		230		470		370	260	280		270	285	295	
Well No.	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		
*66:02, 66:16, 68:01:01:01-68:01:17, 68:02:01:01-68:02:05, 68:06-68:09, 68:11N- 68:12, 68:16-68:19, 68:21:01-68:23, 68:25- 68:29, 68:32-68:35, 68:37-68:39, 68:41, 68:43-68:45, 68:47- 68:53, 68:55-68:56, 68:58-68:60, 68:62, 68:64-68:65, 68:67- 68:71, 68:73-68:74, 68:76-68:83, 68:86- 68:89, 68:91, 68:94N- 68:96, 68:98-68:99, 69:01	1														15														29					
*66:05, 66:15									10												21								29					
*66:08	1				5				10					14															29					
*66:11									10					14																30				
*66:12	1														15														29					
*66:17	1								10					14															29					
*68:01:18, 68:24, 68:40, 68:72, 68:85, 68:93, 68:97	1																												29					
*68:15																						22							29					
*68:30, 68:75	1														15																			
*68:42, 68:54	1														15								w						29					
*68:57, 68:92															15														29					
*68:61	1														15									w					29					
*68:63	1														15										23				29					
*80:01:01:01-80:02																	17					21				25	27							
<i>B*07:102, B*08:18, B*35:178, B*73:01- 73:02</i>									10																									
<i>B*07:117</i>																																		
<i>B*39:75</i>																			19	20														
<i>C*06:72, C*06:90, C*07:277</i>																										26								
<i>C*07:221</i>																																		
Well No.	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		
HLA-A allele ^{4,5}																																		

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

											Length of spec.																																			
											PCR product(s)																																			
											Well No.																																			
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	*66:02, 66:16, 68:01:01:01-68:01:17, 68:02:01:01-68:02:05, 68:06-68:09, 68:11N-68:12, 68:16-68:19, 68:21:01-68:23, 68:25-68:29, 68:32-68:35, 68:37-68:39, 68:41, 68:43-68:45, 68:47-68:53, 68:55-68:56, 68:58-68:60, 68:62, 68:64-68:65, 68:67-68:71, 68:73-68:74, 68:76-68:83, 68:86-68:89, 68:91, 68:94N-68:96, 68:98-68:99, 69:01														
																																62	*66:05, 66:15													
																																62	*66:08													
																																62	*66:11													
																																62	*66:12													
																				52	*66:17																									
																																*68:01:18, 68:24, 68:40, 68:72, 68:85, 68:93, 68:97														
																																*68:15														
										43	*68:30, 68:75																																			
																																*68:42, 68:54														
																																*68:57, 68:92														
																																62	*68:61													
																																*68:63														
																				55	*80:01:01:01-80:02																									
																																<i>B</i> *07:102, <i>B</i> *08:18, <i>B</i> *35:178, <i>B</i> *73:01-73:02														
																																<i>B</i> *07:117														
																																<i>B</i> *39:75														
																																<i>C</i> *06:72, <i>C</i> *06:90, <i>C</i> *07:277														
33																																<i>C</i> *07:221														
											Well No.																																			
											HLA-A allele ^{4,5}																																			

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S**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-A*11 subtyping. In addition, wells number 5, 8, 9, 11, 13, 15, 20, 23, 28, 44, 49, 50 and 57 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.
- ²The nucleotide position, in the 1st, 2nd, 3rd or 4th exons or the 3rd intron, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.
- ³The nucleotide position, in the 2nd, 3rd, 4th or 5th exons, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.
- ⁴The A*1128 allele has been renamed to A*11:15:02. The A*11:53 allele has been shown to be identical to the corrected sequence of A*11:02:01.
- ⁵HLA-A*11 alleles in bold lettering are listed as confirmed alleles on the on the IMGT/HLA web page www.ebi.ac.uk/imgt/hla, release 3.11.0, January 2013.
- ⁶This lot of HLA-A*11 primer set cannot separate the A*11:126, A*11:01:01-11:01:20, 11:01:22-11:01:43 and 11:01:45 alleles.
- ⁷The A*11:13 and A*11:54 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 16.
- ⁸The A*11:58 and A*11:67 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 34.
- ⁹The A*11:62 and A*11:68 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 35.
- ¹⁰The A*11:63 and A*11:69N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 42.
- ¹¹The A*11:64 and A*11:65 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.
- ¹²The A*11:66 and A*11:72 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 37.
- ¹³The A*11:81 and 11:108 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 52.
- ¹⁴The A*11:127N and 11:137N alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 60.
- ¹⁵Primer mix 5: Specific PCR product of 180 bp in the A*11:05 allele. Specific PCR product of 210 bp in the A*11:110 and the A*02:294, 32:54 and 66:08 alleles.
- Primer mix 6: Specific PCR product of 195 bp in the A*11:07 and 11:22 and the A*01:79^W alleles. Specific PCR product of 550 bp in the A*11:06 and 11:18 and the A*01:104^W, 02:38, 02:101:01, 02:135, 02:154, 25:11, 26:03:01-26:03:02, 26:06, 26:21, 26:30 and 26:36 alleles.
- Primer mix 10: Specific PCR fragment of 120 bp in the A*11:10 and the A*01:51, 25:01:01-25:12N, 25:14-25:16, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-26:34, 26:36-26:43:02, 26:45-26:64, 26:66-26:71N, 26:73-26:75, 26:77-26:84, 33:13, 34:01:01-34:08, 34:10N, 66:01, 66:04-66:11, 66:13-66:15 and 66:17-66:19 and in the B*07:102, B*08:18, B*35:178 and B*73:01-73:02 alleles. Specific PCR fragment of 280 bp in the A*11:43 and the A*31:03 alleles. Specific PCR fragment of 120 and 280 bp in the A*26:35 and 33:13 alleles.
- Primer mix 15: Specific PCR fragment of 100 bp in the A*11:12 and the A*02:34^W-02:35:03^W, 02:56:01-02:56:02, 02:62, 02:78, 02:103, 03:01:02, 03:01:06 03:02:01-03:02:03, 03:05:02-03:06, 03:10, 03:18, 03:31, 03:50, 03:65-03:66, 03:69, 03:73, 03:75-03:76, 03:82, 03:90, 03:95, 03:106, 03:113^W, 03:135, 03:150, 03:153, 03:160, 24:24, 29:01:01:01-29:03, 29:04^W, 29:05-29:18, 29:21-29:29, 29:31-29:33, 29:35-29:47, 29:49-29:50, 30:17, 30:52, 32:17, 66:02, 66:12, 66:16, 68:01:01:01-68:01:17, 68:02:01:01-68:02:05, 68:06-68:14, 68:16-68:19, 68:21:01-68:23, 68:25-68:30, 68:32-68:39, 68:41-68:71, 68:73-68:84, 68:86-68:89, 68:91-68:92, 68:94N-68:96, 68:98-68:99, 69:01 and 74:13 alleles. Specific PCR fragment of 215 bp in the A*11:24:02-11:25, 11:31 and 11:35 and the A*01:06, 02:156, 02:338, 03:01:10, 03:08, 03:29-03:30, 03:34, 03:36, 03:41, 03:62-03:63, 03:88-03:89, 03:107-03:108, 03:152, 30:02:01-30:02:04, 30:02:06-30:03, 30:07

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S**Lot-specific information**

30:09-30:10, 30:12-30:13, 30:22, 30:27N, 30:31-30:34, 30:44-30:45, 30:50-30:51, 30:57, 30:61, 30:64, 30:66-30:70, 31:03-31:04, 32:04, 33:49, 34:02:01, 34:02:03-34:04, 34:07-34:08 and 34:10N alleles. Specific PCR fragment of 100 and 215 bp in the A*03:01:01:01-03:01:01:03, 03:01:03-03:01:05, 03:01:07-03:01:09, 03:01:11-03:11:38, 03:03N-03:05:01, 03:07, 03:09, 03:11N-03:17:02, 03:19-03:28, 03:33, 03:35, 03:37-03:40, 03:42-03:49, 03:51-03:61, 03:64, 03:67-03:68N, 03:70-03:72, 03:74, 03:77-03:81, 03:83-03:87, 03:91N-03:94, 03:96-03:105, 03:109-03:112, 03:114-03:134, 03:136-03:149, 03:151, 03:154-03:159, 03:161N-03:162N, 30:01:01-30:01:07, 30:08, 30:11:01-30:11:02, 30:14L-30:16, 30:18-30:20, 30:23-30:26, 30:30, 30:35-30:43, 30:48-30:49, 30:53-30:56, 30:58-30:60, 30:62-30:63, 30:65, 30:71 and 34:09 alleles. Both PCR fragments may not always be obtained.

Primer mix 16: Specific PCR fragment of 95 bp in the A*11:13 allele. Specific PCR fragment of 205 bp in the A*11:07 and 11:54 alleles.

Primer mix 19: Specific PCR product of 175 bp in the A*11:42 and in the B*39:75 alleles. Specific PCR product of 265 bp in the A*11:46 allele.

Primer mix 20: Specific PCR fragment of 175 bp in the A*11:42 and in the B*39:75 allele. Specific PCR fragment of 235 bp in the A*11:17 and 11:40 and the A*01:43, 26:01:01-26:02, 26:04, 26:07:01-26:15, 26:17-26:19, 26:22-26:29, 26:31-26:34, 26:36-26:43:02, 26:45-26:56, 26:58-26:77, 26:79-26:84 and 43:01 alleles.

Primer mix 22: Specific PCR fragment of 150 bp in the A*11:37 and the B*27:87 alleles. Specific PCR fragment of 230 bp in the A*11:06 and 11:18 and the A*02:05:01-02:06:04, 02:06:06-02:06:13, 02:08, 02:10, 02:14, 02:21, 02:28, 02:41, 02:44, 02:51, 02:54, 02:57, 02:61, 02:72, 02:79:01-02:79:02, 02:84, 02:91, 02:99, 02:106, 02:108, 02:122, 02:126-02:127, 02:137, 02:142-02:144, 02:154, 02:169-02:170, 02:172, 02:178-02:180, 02:229, 02:232, 02:244, 02:248, 02:259, 02:271, 02:278, 02:286, 02:290, 02:295, 02:300, 02:310, 02:324, 02:328, 02:330, 02:333, 02:337, 02:344, 02:355, 02:358-02:359, 02:373N, 02:376, 02:382, 02:387, 02:398, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 26:78 and 68:15 alleles.

Primer mix 24: Specific PCR fragment of 295 bp in the A*11:48 and the A*01:41 alleles. Specific PCR fragment of 470 bp in the A*11:21N and the A*01:04N, 03:21N, 23:07N and 24:11N alleles.

Primer mix 26: Specific PCR fragment of 305 bp in the A*11:26 and 11:118 and the A*01:03, 26:32, 26:70, 33:13, 36:03 and 74:10 and the C*06:72 alleles. Specific PCR fragment of 370 bp in the A*11:41 and in the C*06:90 and C*07:277 alleles.

Primer mix 27: Specific PCR fragment of 210 bp in the A*11:17 and the A*26:62 and 26:72 alleles. Specific PCR fragment of 260 bp in the A*11:27, 11:38-11:39, 11:55 and 11:94 and the A*01:01:01:01-01:02, 01:04N, 01:06-01:19, 01:21-01:33, 01:35-01:40, 01:42, 01:44-01:62, 01:64-01:65, 01:67-01:71, 01:74-01:88, 01:90-01:101, 01:103-01:126, 03:18, 03:97, 03:122, 03:135, 24:92 and 80:01:01:01-80:02 alleles. Specific PCR fragment of 210 and 260 bp in the A*01:43 allele.

Primer mix 28: Specific PCR fragment of 240 bp in the A*11:15:02 and 11:49 alleles. Specific PCR fragment of 280 bp in the A*26:35 allele.

Primer mix 30: Specific PCR fragment of 235 bp in the A*11:45 and the A*66:11 alleles. Specific PCR fragment of 270 bp in the A*11:29 and 11:55 alleles.

Primer mix 31: Specific PCR fragment of 230 bp in the A*11:49 allele. Specific PCR fragment of 285 bp in the A*11:30 and 11:43 and the A*01:101, 03:87, 31:03 and 33:13 alleles.

Primer mix 32: Specific PCR fragment of 205 bp in the A*11:31 and 11:35 and the A*01:21, 01:126, 02:156, 02:338, 03:07, 03:42, 03:133, 30:04:01-30:04:02, 30:06, 30:09, 30:17, 30:29, 30:46, 31:03-31:04 and 33:49 alleles. Specific PCR fragment of 295 bp in the A*11:32 and 11:50Q and the A*01:115, 03:154 and 30:51 alleles.

Primer mix 33: Specific PCR fragment of 110 bp in the A*11:61 allele. Specific PCR fragment of 280 bp in the A*11:74 allele. Specific PCR fragment of 305 bp in the A*11:56 and in the C*07:221 alleles.

Primer mix 34: Specific PCR fragment of 85 bp in the A*11:58 allele. Specific PCR fragment of 180 bp in the A*11:67 allele. Specific PCR fragment of 265 bp in the A*11:46 allele.

Primer mix 35: Specific PCR fragment of 105 bp in the A*11:62 and the A*01:125 allele. Specific PCR fragment of 290 bp in the A*11:68 allele.

Primer mix 36: Specific PCR fragment of 65 bp in the A*11:65 and in the B*44:36 alleles. Specific PCR fragment of 380 bp in the A*11:64 and the A*31:65 alleles.

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S**Lot-specific information**

Primer mix 37: Specific PCR fragment of 105 bp in the A*11:66 allele. Specific PCR fragment of 290 bp in the A*11:72 allele.

Primer mix 38: Specific PCR fragment of 120 bp in the A*11:75 and in the B*07:117 alleles. Specific PCR fragment of 225 bp in the A*11:78N allele.

Primer mix 40: Specific PCR fragment of 90 bp in the A*11:59 allele. Specific PCR fragment of 185 bp in the A*11:57 and the A*02:156 and 02:338 alleles.

Primer mix 42: Specific PCR fragment of 175 bp in the A*11:63 allele. Specific PCR fragment of 560 bp in the A*11:69N and the A*01:56N alleles.

Primer mix 44: Specific PCR fragment of 145 bp in the A*11:76 allele. Specific PCR fragment of 215 bp in the A*11:106 allele.

Primer mix 49: Specific PCR fragment of 185 bp in the A*11:16, 11:35, 11:57, 11:73 and 11:109N and the A*02:156, 02:338 and 03:123 alleles. Specific PCR fragment of 220 bp in the A*11:23 allele.

Primer mix 50: Specific PCR fragment of 90 bp in the A*11:34 and the A*26:75 alleles. Specific PCR fragment of 310 bp in the A*11:86 allele.

Primer mix 52: Specific PCR fragment of 230 bp in the A*11:81 allele. Specific PCR fragment of 545 bp in the A*11:108 and the A*01:45, 03:78 and 66:17 alleles.

Primer mix 54: Specific PCR fragment of 190 bp in the A*11:109N allele. Specific PCR fragment of 265 bp in the A*11:89 allele.

Primer mix 55: Specific PCR fragment of 120 bp in the A*11:102 allele. Specific PCR fragment of 235 bp in the A*11:90 and the A*80:01:01:01-80:02 alleles.

Primer mix 60: Specific PCR fragment of 105 bp in the A*11:137N allele. Specific PCR fragment of 265 bp in the A*11:127N allele.

‘w’, may be weakly amplified.

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-A*11 SSP subtyping kit																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	IHWC cell line	A*		201299901	201299902	201299903	201299904	201299905	201299906	201299907	201299908	201299909	201299910	201299911	201299912	201299913	201299914	201299915	201299916
1	9001 SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*02:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
3	9011 E4181324	*01:01		-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-
4	9275 GU373	*30:01		-	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-
5	9009 KAS011	*01:01		-	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-
6	9353 SM	*02:01	*26:03	-	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-
7	9020 QBL	*26:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
8	9025 DEU	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*26:01		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
10	9107 LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
12	9052 DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*24:02		-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-
16	9037 SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
17	9282 CTM3953540	*03:01	*80:01	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+
18	9257 32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*02:01	*34:01	+	-	-	-	-	-	-	-	-	+	-	-	-	+	-	-
24	9035 JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
28	9320 BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
29	9050 MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
30	9021 RSH	*30:01	*68:02	+	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-
31	9019 DUCAF	*30:02		-	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-
32	9297 HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*02:06	*11:01	+	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-
37	9065 HHKB	*03:01		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
38	9099 LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*01:01	*03:01	+	-	-	+	-	-	+	-	-	-	+	-	-	+	-	-
40	9134 WHONP199	*02:07	*30:01	-	-	+	+	-	-	-	-	-	-	-	-	-	-	+	-
41	9055 H0301	*03:01		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
42	9066 TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*66:01		+	-	-	-	-	-	-	-	-	+	-	-	-	+	-	-
45	9239 SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*03:01		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
47	9045 TUBO	*02:16	*03:01	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
48	9303 TER-ND	*02:01	*11:01	+	-	-	-	-	-	-	-	-	-	+	+	-	+	-	-



101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-A*11 SSP subtyping kit																			
			Prod. No.:	Well															
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	IHWC cell line	A*		201299917	201299918	201299919	201315920	201299921	201299922	201315923	201299924	201299925	201299926	201299927	201299928	201299929	201299930	201299931	201299932
1	9001 SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*01:01		-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
4	9275 GU373	*30:01		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*01:01		-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
6	9353 SM	*02:01	*26:03	-	-	-	-	+	+	-	-	-	-	-	-	+	-	-	-
7	9020 QBL	*26:01		-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*26:01		-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*03:01	*80:01	+	-	-	-	+	-	-	-	+	-	+	-	-	-	-	-
18	9257 32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*02:01	*34:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
24	9035 JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
26	9285 WT49	*02:05		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*30:01	*68:02	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
31	9019 DUCAF	*30:02		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*02:06	*11:01	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*01:01	*03:01	-	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
40	9134 WHONP199	*02:07	*30:01	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*02:06	*02:07	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*66:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
45	9239 SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-A*11 SSP subtyping kit																			
			Prod. No.:	Well															
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	IHWC cell line	A*		201299933	201299934	201299935	201299936	201299937	201299938	201299939	201299940	201299941	201299942	201315943	201299944	201299945	201299946	201299947	201299948
1	9001 SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*30:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*02:01	*26:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*03:01	*80:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*02:01	*34:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*30:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*66:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-A*11 SSP subtyping kit																			
			Prod. No.:	Well															
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
				201299949	201299950	201299951	201299952	201299953	201299954	201299955	201299956	201315957	201315958	201315959	201315960	201315961	201315962	201315963	201315964
IHWC cell line	A*																		
1	9001 SA	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	9280 LK707	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	9011 E4181324	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4	9275 GU373	*30:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	9009 KAS011	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6	9353 SM	*02:01	*26:03	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
7	9020 QBL	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
8	9025 DEU	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	9026 YAR	*26:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
10	9107 LKT3	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	9051 PITOUT	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	9052 DBB	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	9004 JESTHOM	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14	9071 OLGA	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	9075 DKB	*24:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16	9037 SWEIG007	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
17	9282 CTM3953540	*03:01	*80:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	
18	9257 32367	*33:03	*74:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	9038 BM16	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	9059 SLE005	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21	9064 AMALA	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22	9056 KOSE	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23	9124 IHL	*02:01	*34:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	9035 JBUSH	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	9049 IBW9	*33:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	9285 WT49	*02:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27	9191 CH1007	*24:10	*29:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	9320 BEL5GB	*02:01	*29:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	9050 MOU	*29:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30	9021 RSH	*30:01	*68:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	9019 DUCAF	*30:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
32	9297 HAG	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	9098 MT14B	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
34	9104 DHIF	*31:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	9302 SSTO	*32:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	9024 KT17	*02:06	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
37	9065 HHKB	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
38	9099 LZL	*02:17		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
39	9315 CML	*01:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
40	9134 WHONP199	*02:07	*30:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
41	9055 H0301	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	9066 TAB089	*02:07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
43	9076 T7526	*02:06	*02:07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
44	9057 TEM	*66:01		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	
45	9239 SHJO	*23:01	*24:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
46	9013 SCHU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
47	9045 TUBO	*02:16	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
48	9303 TER-ND	*02:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

101.416-12/04 – including *Taq* pol., IFU-01
 101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: **09S**

Lot-specific information

CERTIFICATE OF ANALYSIS

Olerup SSP® HLA-A*11 SSP

Product number: 101.416-12/04 – including *Taq* pol.
 101.416-12u/04u – without *Taq* pol.

Lot number: 09S

Expiry date: 2015-October-01

Number of tests: 12 tests – Product No. 101.416-12/12u
 4 tests – Product No. 101.416-04/04u

Number of wells per test: 64

Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2012-999-01	25	2012-999-25	49	2012-999-49
2	2012-999-02	26	2012-999-26	50	2012-999-50
3	2012-999-03	27	2012-999-27	51	2012-999-51
4	2012-999-04	28	2012-999-28	52	2012-999-52
5	2012-999-05	29	2012-999-29	53	2012-999-53
6	2012-999-06	30	2012-999-30	54	2012-999-54
7	2012-999-07	31	2012-999-31	55	2012-999-55
8	2012-999-08	32	2012-999-32	56	2012-999-56
9	2012-999-09	33	2012-999-33	57	2013-159-57
10	2012-999-10	34	2012-999-34	58	2013-159-58
11	2012-999-11	35	2012-999-35	59	2013-159-59
12	2012-999-12	36	2012-999-36	60	2013-159-60
13	2012-999-13	37	2012-999-37	61	2013-159-61
14	2012-999-14	38	2012-999-38	62	2013-159-62
15	2012-999-15	39	2012-999-39	63	2013-159-63
16	2012-999-16	40	2012-999-40	64	2013-159-64
17	2012-999-17	41	2012-999-41		
18	2012-999-18	42	2012-999-42		
19	2012-999-19	43	2013-159-43		
20	2013-159-20	44	2012-999-44		
21	2012-999-21	45	2012-999-45		
22	2012-999-22	46	2012-999-46		
23	2013-159-23	47	2012-999-47		
24	2012-999-24	48	2012-999-48		

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

No DNAs carrying the alleles to be amplified by primer solutions 5, 8, 9, 13, 16, 19, 23, 28, 30, 31, 33 to 40, 42 to 54, 56 to 61, 63 and 64 were available. The specificities of the primers in primer solutions 5, 9, 13, 23, 28, 31, 40, 43, 44, 47, 52 to 54 and 61 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 19, 30, 34, 35, 37, 38,

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 09S

Lot-specific information

42, 49, 51, 58, 60 and 63 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 8, 16, 33, 36, 39, 45, 46, 48, 50, 56, 57, 59 and 64 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 6, 10, 28, 31, 44, 52, 54 and 64 one or two of the 5'-primers were not possible to test. In primer solutions 5, 20, 22, 24, 26 to 28, 31, 32, 40, 44, 52, 54 and 55 one or two of the 3'-primers were not possible to test.

Additional primers in primer solutions 3, 10, 18, 24, 25, 27 and 55 were tested by separately adding one additional 5'-primer and/or one additional 3'-primer.

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

Date of approval: 2013-June-17

Approved by:

Production Quality Control

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: **09S**

Lot-specific information

Declaration of Conformity

Product name: *Olerup* SSP® HLA-A*11
Product number: 101.416-12/12u, -04/04u
Lot number: 09S

Intended use: HLA-A*11 high resolution histocompatibility testing

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

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

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

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

Stockholm, Sweden
2015-February-09

Daniel Malica
Head of QA and Regulatory Affairs

101.416-12/04 – including *Taq* pol., IFU-01
101.416-12u/04u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **09S**

Lot-specific information

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