

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

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Lot No.: **62N**

Lot-specific information

## **Olerup SSP<sup>®</sup> 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:	62N
Expiry date:	2014-November-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:	56
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. 62N.**

### **CHANGES COMPARED TO THE PREVIOUS *OLERUP SSP*<sup>®</sup> HLA-A\*11 LOT (16M)**

The HLA-A\*11 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP*<sup>®</sup> HLA-A\*11 lot was made (**Lot No. 16M**).

The HLA-A\*11 kit is updated for new alleles to enable separation of:

- Confirmed<sup>1</sup> 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 **49 to 56**.

The Lot-specific information for HLA-A\*11 including and without *Taq* polymerase is now described in one common Product Insert.

<sup>1</sup>As 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
13	Moved	Moved	Primer pair moved to well 50, for decreased primer oligomer formation.
19	Moved	Moved	Primer pairs moved to well 49, for decreased primer oligomer formation.
31	-	-	Exchanged positive control primer pair.
32	Moved	Moved	Primer pair moved to well 51, for improved allelic resolution.
44	Added	Added	Primer pair added for the A*11:106 allele.
49	New	New, added	Primer pair from well 19, 3'-primer added for the A*11:109N allele.
50	New	New	Primer pair from well 13, primer pair added for the A*11:86 allele.
51	New	New	Primer pair from well 32.
52	New	New	New primer pairs for the A*11:81 and 11:108 alleles.
53	New	New	New primer pair for the A*11:100 allele.
54	New	New	New primer pairs for the A*11:89 and 11:109N alleles.
55	New	New	New primer pairs for the A*11:90 and 11:102 alleles.
56	New	New	New primer pair for the A*11:99N allele.

Change in revision R01 compared to R00:

- Primer mix 43 does not amplify the A\*11:77 and the A\*03:26 alleles. Thus, this lot of the HLA-A\*03 subtyping kit cannot distinguish the A\*11:77 and the A\*11:02:01-11:02:03 alleles.

Change in revision R02 compared to R01:

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

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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\*11:112 alleles.

#### PLATE LAYOUT

Each test consists of 56 PCR reactions in a 64 well cut PCR plate. Wells 57 to 64 are empty.

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
empty	empty	empty	empty	empty	empty	empty	empty

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

Well No. 1 is marked with Lot No '62N'.

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 most A\*01 alleles, several A\*02 alleles, the A\*03, the A\*23:07N, seven A\*24, the A\*25, the A\*26, most A\*29, the A\*30, two A\*31, two 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\*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 and the C\*03:82 allele will be amplified by primer mix 1.

#### UNIQUELY IDENTIFIED ALLELES

All the HLA-A\*11 alleles, i.e. **A\*11:01 to A\*11:112**, recognized by the HLA Nomenclature Committee in January 2012<sup>2</sup> will be amplified by the primers in the HLA-A\*11 SSP kit<sup>3</sup>.

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

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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 and 11:01:22-11:01:35 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.

<sup>2</sup>HLA-A alleles listed on the IMGT/HLA web page 2012-January-12, release 3.7.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>3</sup>This lot of the HLA-A\*03 subtyping kit cannot distinguish the A\*11:77 and the A\*11:02:01-11:02:03 alleles.

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### ALLELE CONFIRMATION STATUS

Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>
A*11:01:01	Confirmed	A*11:05	Confirmed	A*11:43	Unconfirmed	A*11:84	Unconfirmed
A*11:01:02	Unconfirmed	A*11:06	Unconfirmed	A*11:44	Confirmed	A*11:85	Unconfirmed
A*11:01:03	Unconfirmed	A*11:07	Unconfirmed	A*11:45	Confirmed	A*11:86	Unconfirmed
A*11:01:04	Confirmed	A*11:08	Confirmed	A*11:46	Confirmed	A*11:87	Unconfirmed
A*11:01:05	Unconfirmed	A*11:09	Confirmed	A*11:47	Confirmed	A*11:88	Unconfirmed
A*11:01:06	Unconfirmed	A*11:10	Confirmed	A*11:48	Confirmed	A*11:89	Confirmed
A*11:01:07	Unconfirmed	A*11:11	Unconfirmed	A*11:49	Unconfirmed	A*11:90	Confirmed
A*11:01:08	Unconfirmed	A*11:12	Confirmed	A*11:50Q	Unconfirmed	A*11:91	Unconfirmed
A*11:01:09	Unconfirmed	A*11:13	Confirmed	A*11:51	Unconfirmed	A*11:92	Unconfirmed
A*11:01:10	Unconfirmed	A*11:14	Unconfirmed	A*11:52Q	Unconfirmed	A*11:93	Unconfirmed
A*11:01:11	Confirmed	A*11:15:01	Confirmed	A*11:54	Unconfirmed	A*11:94	Unconfirmed
A*11:01:12	Unconfirmed	A*11:15:02	Unconfirmed	A*11:55	Unconfirmed	A*11:95	Unconfirmed
A*11:01:13	Unconfirmed	A*11:16	Unconfirmed	A*11:56	Confirmed	A*11:96	Unconfirmed
A*11:01:14	Unconfirmed	A*11:17	Confirmed	A*11:57	Unconfirmed	A*11:97	Unconfirmed
A*11:01:15	Confirmed	A*11:18	Unconfirmed	A*11:58	Confirmed	A*11:98	Unconfirmed
A*11:01:16	Unconfirmed	A*11:19	Confirmed	A*11:59	Unconfirmed	A*11:99N	Unconfirmed
A*11:01:17	Confirmed	A*11:20	Confirmed	A*11:60	Confirmed	A*11:100	Unconfirmed
A*11:01:18	Confirmed	A*11:21N	Unconfirmed	A*11:61	Unconfirmed	A*11:101	Unconfirmed
A*11:01:19	Unconfirmed	A*11:22	Unconfirmed	A*11:62	Unconfirmed	A*11:102	Unconfirmed
A*11:01:20	Unconfirmed	A*11:23	Confirmed	A*11:63	Confirmed	A*11:103	Unconfirmed
A*11:01:21	Unconfirmed	A*11:24:01	Confirmed	A*11:64	Unconfirmed	A*11:104	Unconfirmed
A*11:01:22	Unconfirmed	A*11:24:02	Unconfirmed	A*11:65	Unconfirmed	A*11:105	Unconfirmed
A*11:01:23	Unconfirmed	A*11:25	Unconfirmed	A*11:66	Unconfirmed	A*11:106	Confirmed
A*11:01:24	Unconfirmed	A*11:26	Unconfirmed	A*11:67	Confirmed	A*11:107	Unconfirmed
A*11:01:25	Unconfirmed	A*11:27	Unconfirmed	A*11:68	Unconfirmed	A*11:108	Unconfirmed
A*11:01:26	Unconfirmed	A*11:29	Confirmed	A*11:69N	Confirmed	A*11:109N	Unconfirmed
A*11:01:27	Unconfirmed	A*11:30	Confirmed	A*11:70	Unconfirmed	A*11:110	Unconfirmed
A*11:01:28	Unconfirmed	A*11:31	Unconfirmed	A*11:71	Confirmed	A*11:111	Unconfirmed
A*11:01:29	Unconfirmed	A*11:32	Confirmed	A*11:72	Unconfirmed	A*11:112	Unconfirmed
A*11:01:30	Confirmed	A*11:33:01	Unconfirmed	A*11:73	Confirmed		
A*11:01:31	Unconfirmed	A*11:33:02	Confirmed	A*11:74	Confirmed		
A*11:01:32	Unconfirmed	A*11:34	Unconfirmed	A*11:75	Unconfirmed		
A*11:01:33	Confirmed	A*11:35	Unconfirmed	A*11:76	Unconfirmed		
A*11:01:34	Confirmed	A*11:36	Unconfirmed	A*11:77	Unconfirmed		
A*11:01:35	Unconfirmed	A*11:37	Confirmed	A*11:78N	Confirmed		
A*11:02:01	Confirmed	A*11:38	Unconfirmed	A*11:79	Unconfirmed		
A*11:02:02	Unconfirmed	A*11:39	Unconfirmed	A*11:80	Unconfirmed		
A*11:02:03	Unconfirmed	A*11:40	Unconfirmed	A*11:81	Confirmed		
A*11:03	Confirmed	A*11:41	Unconfirmed	A*11:82	Unconfirmed		
A*11:04	Confirmed	A*11:42	Unconfirmed	A*11:83	Unconfirmed		

<sup>1</sup>Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2012-January-12, release 3.7.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

### RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 164 alleles generate 88 amplification patterns that can be combined in 3916 homozygous and heterozygous combinations. 1778 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 56 primer mixes used for  
 HLA-A\*11 SSP subtyping

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified HLA-A*11 alleles <sup>3</sup>	Other amplified HLA-A alleles <sup>4</sup>
<b>1</b>	195 bp	<b>800 bp</b>	*11:01:01-11:01:35, 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	*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- 03:133, 03:135, 24:19, 30:18, 30:55, 34:01:01-34:09, 66:01-66:02, 66:04, 66:06-66:10, 66:12-66:14, 66:16, 68:01:01:01-68:02:04, 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, 69:01, 74:13, <b>C*03:82</b>
<b>2</b>	270 bp	1070 bp	*11:02:01-11:02:03, 11:14, 11:16, 11:38, 11:57, 11:77, 11:101, 11:110	
<b>3<sup>37</sup></b>	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, 30:55-30:58, 31:03-31:04, 33:49, 34:02:01 <sup>W</sup> -34:02:02 <sup>W</sup> , 34:03, 34:04 <sup>W</sup> , 34:07 <sup>W</sup> -34:09 <sup>W</sup>
<b>4</b>	235 bp	1070 bp	*11:04, 11:27, 11:35	*01:12, 01:14, 01:19, 02:156, 03:01:01:01-03:01:29, 03:01:31- 03:17, 03:19-03:39, 03:41-03:74, 03:76-03:94, 03:96-03:97, 03:99- 03:104, 03:106-03:133, 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, 30:53-30:58, 31:03-31:04, 32:04, 33:49, 34:02:01-34:04, 34:07-34:09, 36:01-36:02, 36:05

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<b>5<sup>9</sup></b>	180 bp, 210 bp	<b>800 bp</b>	*11:05, 11:110	*02:294, 66:08
<b>6<sup>10</sup></b>	195 bp, 550 bp	1070 bp	*11:06-11:07, 11:18, 11:22	*01:79 <sup>W</sup> , 01:104 <sup>W</sup> , 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
<b>7<sup>7</sup></b>	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, 01:90-01:104, 03:18, 03:50, 03:66, 03:135, 30:04:01-30:04:02, 30:06, 30:17, 30:29, 30:46, 36:01- 36:02, 36:04-36:05
<b>8<sup>5</sup></b>	100 bp	<b>800 bp</b>	*11:09, 11:34	
<b>9<sup>5,6,8</sup></b>	85 bp	<b>800 bp</b>	*11:27, 11:38-11:39, 11:94	*01:26, 24:59
<b>10<sup>5,11</sup></b>	120 bp, 280 bp	1070 bp	*11:10, 11:43	*01:51, 25:01:01-25:12N, 25:14- 25:16, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-26:43:02, 26:45- 26:64, 26:66-26:71N, 31:03, 33:13, 34:01:01-34:08, 66:01, 66:04-66:11, 66:13-66:15, <b>B*07:102, B*08:18,</b> <b>B*35:178, B*73:01-73:02</b>
<b>11</b>	215 bp	<b>800 bp</b>	*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- 11:112	*01:12, 01:19, 01:25 <sup>W</sup> , 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, 24:92
<b>12</b>	235 bp	1070 bp	*11:01:01-11:01:20, 11:01:22-11:03, 11:05-11:25, 11:29- 11:34, 11:36-11:47, 11:49, 11:51- 11:52Q, 11:54- 11:89, 11:91-11:100, 11:102-11:112	*01:01:01:01-01:01:22, 01:01:24- 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, 01:90-01:104, 03:18, 03:135, 36:04
<b>13<sup>8</sup></b>	195 bp	<b>800 bp</b>	*11:11	*43:01
<b>14<sup>5,7</sup></b>	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,	*01:13, 01:17, 03:63, 03:88, 25:02, 26:13, 26:19, 26:33, 34:01:01 <sup>W</sup> - 34:01:02 <sup>W</sup> , 34:02:01-34:04, 34:05 <sup>W</sup> , 34:06, 34:08, 66:01, 66:04,

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			11:54-11:60, 11:61 <sup>W</sup> , 66:06-66:11, 66:13-66:14 11:62-11:95, 11:97, 11:99N-11:105, 11:107-11:112
<b>15</b> <sup>5,12</sup>	100 bp, 215 bp	<b>800 bp</b>	*11:12, 11:24:02- 11:25, 11:31, 11:35  *01:06, 02:34 <sup>W</sup> -02:35:03 <sup>W</sup> , 02:56:01- 02:56:02, 02:62, 02:78, 02:103, 02:156, 03:01:01:01-03:31, 03:33- 03:112, 03:113 <sup>W</sup> , 03:114-03:133, 03:135, 24:24, 29:01:01:01-29:03, 29:04 <sup>W</sup> , 29:05-29:18, 29:21-29:29, 29:31-29:32, 30:01:01-30:02:04, 30:03, 30:07-30:20, 30:22-30:27N, 30:30-30:45, 30:48-30:58, 31:03- 31:04, 32:04, 32:17, 33:49, 34:02:01, 34:03-34:04, 34:07-34:09, 66:02, 66:12, 66:16, 68:01:01:01-68:02:04, 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, 69:01, 74:13
<b>16</b> <sup>5,8,13</sup>	95 bp, 205 bp	1070 bp	*11:07, 11:13, 11:54
<b>17</b>	205 bp	1070 bp	*11:14, 11:50Q  *01:10, 30:01:01-30:03, 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, 30:53-30:58, 80:01-80:02
<b>18</b>	235 bp	1070 bp	*11:15:01, 11:47  *30:39
<b>19</b> <sup>14</sup>	175 bp, 265 bp	1070 bp	*11:42, 11:46
<b>20</b> <sup>15</sup>	175 bp, 240 bp	<b>800 bp</b>	*11:17, 11:36, 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, 26:58-26:72, 43:01
<b>21</b> <sup>5,7</sup>	100 bp	1070 bp	*11:17, 11:19, 11:40, 11:98  *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, 03:41, 24:44 <sup>W</sup> , 24:109 <sup>W</sup> , 25:01:01-25:01:05, 25:03-25:12N, 25:14, 25:16, 26:01:01-26:01:21, 26:02-26:12, 26:14-26:18, 26:20-26:29, 26:31- 26:32, 26:34-26:43:02, 26:45-26:63, 26:66-26:72, 31:03, 33:13, 36:01- 36:05, 43:01, 66:05, 66:15, 74:10, 80:01-80:02



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<b>22</b> <sup>16</sup>	150 bp, 230 bp	1070 bp	*11:06, 11:18, 11:37	*02:05:01-02:06:04, 02:06:06-02:06:10, 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, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 68:15
<b>23</b> <sup>5,6</sup>	80 bp	<b>800 bp</b>	*11:03, 11:08, 11:20, 11:25	*02:03:01 <sup>w</sup> -02:03:04 <sup>w</sup> , 02:13, 02:26, 02:38, 02:99, 02:117 <sup>w</sup> , 02:148 <sup>w</sup> , 02:171:01-02:171:02, 02:253 <sup>w</sup> , 02:258 <sup>w</sup> , 02:264 <sup>w</sup> , 02:281 <sup>w</sup> , 68:42 <sup>w</sup> , 68:54 <sup>w</sup> , 68:61 <sup>w</sup> , 68:63
<b>24</b>	295 bp	1070 bp	*11:21N, 11:48	*01:04N, 01:41, 03:21N, 23:07N, 24:11N
<b>25</b> <sup>7</sup>	220 bp	1070 bp	*11:24:01, 11:47	*03:01:02, 30:02:05, 34:02:02, 80:01-80:02
<b>26</b> <sup>17</sup>	305 bp, 370 bp	1070 bp	*11:26, 11:41	*01:03, 26:32, 26:70, 33:13, 36:03, 74:10
<b>27</b> <sup>18</sup>	210 bp, 260 bp	1070 bp	*11:17, 11:27, 11:38-11:39, 11:55, 11:94	*01:01:01:01-01:01:02, 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, 01:103-01:104, 03:18, 03:97, 03:122, 03:135, 24:92, 26:62, 26:72, 80:01-80:02
<b>28</b> <sup>19</sup>	240 bp, 280 bp	<b>800 bp</b>	*11:15:02, 11:49	*26:35
<b>29</b> <sup>5</sup>	80 bp	1070 bp	*11:10	*02:55, 03:24, 26:03:01-26:03:02, 26:06, 26:21, 26:30, 33:01:01-33:01:06, 33:03:01-33:07, 33:10-33:12, 33:14-33:16, 33:18-33:20, 33:22-33:47, 33:49-33:52, 33:54, 34:01:01-34:09, 66:01-66:10, 66:12-66:16, 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, 69:01

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<b>30</b> <sup>20</sup>	235 bp, 270 bp,	1070 bp	*11:29, 11:45, 11:55	*66:11
<b>31</b> <sup>9,21</sup>	230 bp, 285 bp	<b>800 bp</b>	*11:30, 11:43, 11:49	*01:101, 03:87, 31:03, 33:13
<b>32</b> <sup>22</sup>	205 bp, 295 bp	1070 bp	*11:31-11:32, 11:35, 11:50Q	*01:21, 02:156, 03:07, 03:42, 03:133, 30:04:01-30:04:02, 30:06, 30:09, 30:17, 30:29, 30:46, 30:51, 31:03-31:04, 33:49
<b>33</b> <sup>5,23</sup>	110 bp, 280 bp, 305 bp	1070 bp	*11:56, 11:61, 11:74	
<b>34</b> <sup>5,24</sup>	85 bp, 180 bp, 265 bp	1070 bp	*11:46, 11:58, 11:67	
<b>35</b> <sup>5,25</sup>	105 bp, 290 bp	1070 bp	*11:62, 11:68	
<b>36</b> <sup>5,26</sup>	65 bp, 380 bp	1070 bp	*11:64-11:65	<b>B*44:36</b>
<b>37</b> <sup>5,27</sup>	105 bp, 290 bp	1070 bp	*11:66, 11:72	
<b>38</b> <sup>5,28</sup>	120 bp, 225 bp	1070 bp	*11:75, 11:78N	<b>B*07:117</b>
<b>39</b>	280 bp	1070 bp	*11:52Q, 11:74	
<b>40</b> <sup>5,29</sup>	90 bp, 185 bp	1070 bp	*11:57, 11:59	*02:156
<b>41</b>	205 bp	1070 bp	*11:31, 11:35, 11:60	*01:12, 01:19, 01:21, 02:156, 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, 24:92, 30:04:01 <sup>w</sup> -30:04:02 <sup>w</sup> , 30:06 <sup>w</sup> , 30:09, 30:17 <sup>w</sup> , 30:29 <sup>w</sup> , 30:46 <sup>w</sup> , 31:03-31:04, 33:49
<b>42</b> <sup>30</sup>	175 bp, 560 bp	1070 bp	*11:63, 11:69N	*01:56N
<b>43</b> <sup>8</sup>	445 bp	1070 bp	*11:70	*01:83, 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, 33:08-33:09, 68:30, 68:75, 74:04, <b>B*57:04, B*57:32</b>
<b>44</b> <sup>31</sup>	145 bp, 215 bp	<b>800 bp</b>	*11:76, 11:106	
<b>45</b>	210 bp	1070 bp	*11:79	
<b>46</b> <sup>5</sup>	120 bp	1070 bp	*11:80	
<b>47</b> <sup>5</sup>	55 bp	1070 bp	*11:44	

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<b>48</b>	200 bp	1070 bp	*11:71	
<b>49<sup>32</sup></b>	185 bp, 220 bp	<b>800 bp</b>	*11:16, 11:23, 11:35, 11:57, 11:73, 11:109N	*02:156, 03:123
<b>50<sup>5,33</sup></b>	90 bp, 310 bp	<b>800 bp</b>	*11:34, 11:86	
<b>51</b>	265 bp	1070 bp	*11:51	
<b>52<sup>34</sup></b>	230 bp, 545 bp	1070 bp	*11:81, 11:108	*01:45, 03:78
<b>53</b>	195 bp	1070 bp	*11:100	
<b>54<sup>35</sup></b>	190 bp, 265 bp	1070 bp	*11:89, 11:109N	
<b>55<sup>5,36</sup></b>	120 bp, 235 bp	1070 bp	*11:90, 11:102	*80:01-80:02
<b>56</b>	230 bp	1070 bp	*11:99N	

<sup>1</sup> Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-A\*11 SSP typings.

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

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

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

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

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

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

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

In addition, wells number 5, 8, 9, 11, 13, 15, 20, 23, 28, 31, 44, 49 and 50 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.

<sup>3</sup> For several HLA-A alleles 1<sup>st</sup>, 4<sup>th</sup> or 5<sup>th</sup> exon or 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 the 1<sup>st</sup>, 4<sup>th</sup> or 5<sup>th</sup> exon or in the introns are conserved within allelic groups.

<sup>4</sup> Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A\*11 alleles will be amplified by primer mixes 1, 3 to 7, 9 to 15, 17, 18, 20 to 32, 40 to 43, 49, 52 and 55. In addition, the B\*07:102, B\*08:18, B\*73:01 and B\*73:02 alleles will be amplified by primer mix 10, the B\*44:36 allele will be amplified by primer mix 36, the B\*07:117 allele will be amplified by primer

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mix 38, the B\*57:04 and B\*57:32 alleles will be amplified by primer mix 43 and the C\*03:82 allele will be amplified by primer mix 1.

<sup>5</sup>Short specific PCR fragments are less intense and not as sharp as longer specific bands.

<sup>6</sup>Primer mixes 9 and 23 may give rise to nonspecific amplifications.

<sup>7</sup>Primer mixes 7, 14, 21 and 25 may give a lower yield of HLA-specific PCR product than the other A\*11 primer mixes.

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

<sup>9</sup>Primer 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 and 66:08 alleles.

<sup>10</sup>Primer mix 6: Specific PCR product of 195 bp in the A\*11:07 and 11:22 and the A\*01:79<sup>w</sup> alleles. Specific PCR product of 550 bp in the A\*11:06 and 11:18 and the A\*01:104<sup>w</sup>, 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.

<sup>11</sup>Primer mix 10: Specific PCR fragment of 120 bp in the A\*11:10, 01:51, 25:01:01-25:12N, 25:14-25:16, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-34, 26:36-26:43:02, 26:45-26:64, 26:66-26:71N, 34:01:01-34:08, 66:01, 66:04-66:11, 66:13-66:15, B\*07:102, B\*08:18, B\*35:178, 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.

<sup>12</sup>Primer mix 15: Specific PCR fragment of 100 bp in the A\*11:12 and the A\*02:34<sup>w</sup>-02:35:03<sup>w</sup>, 02:56:01-02:56:02, 02:62, 02:78, 02:103, 03:01:02, 03:02, 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<sup>w</sup>, 03:135, 24:24, 29:01:01:01-29:03, 29:04<sup>w</sup>, 29:05-29:18, 29:21-29:29, 29:31-29:32, 30:17, 30:52, 32:17, 66:02, 66:12, 66:16, 68:01:01:01-68:02:04, 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, 69:01, 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, 03:01:10, 03:08, 03:29-03:30, 03:34, 03:36, 03:41, 03:62-03:63, 03:88-03:89, 30:02:01-30:02:04, 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, 31:03-31:04, 32:04, 34:02:01, 34:03-34:04 and 34:07-34:08 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, 03:01:11-03:11:31, 03:03N-03:05, 03:07, 03:09, 03:11N-03:17, 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, 03:114-03:133, 30:01:01-30:01:04, 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, 33:49, and 34:09 alleles. Both PCR fragments may not always be obtained.

<sup>13</sup>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.

<sup>14</sup>Primer mix 19: Specific PCR product of 175 bp in the A\*11:42 allele. Specific PCR product of 265 bp in the A\*11:46 allele.

<sup>15</sup>Primer mix 20: Specific PCR fragment of 175 bp in the A\*11:42 allele. Specific PCR fragment of 240 bp in the A\*11:17, 11:36 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 and 43:01 alleles.

<sup>16</sup>Primer mix 22: Specific PCR fragment of 150 bp in the A\*11:37 allele. Specific PCR fragment of 230 bp in the A\*11:17, 11:36 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, 26:58-26:72 and 43:01 alleles.

<sup>17</sup>Primer mix 26: Specific PCR fragment of 305 bp in the A\*11:26 and the A\*01:03, 26:32, 33:13, 36:03 and 74:10 alleles. Specific PCR fragment of 370 bp in the A\*11:41 allele.

<sup>18</sup>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, 11:94, 01:01:01:01-01:02, 01:04N, 01:06-01:19, 01:21-01:33, 01:35-01:40, 01:42, 01:44-01:62, 01:64-01:65, 01:67-01:71, 01:74-01:88, 01:90-01:101, 01:103-01:104, 03:18, 03:97, 03:122, 03:135, 24:92, 80:01-80:02 alleles. Specific PCR fragment of 210 and 260 bp in the A\*01:43 allele.

<sup>19</sup>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.

<sup>20</sup>Primer mix 30: Specific PCR fragment of 235 bp in the A\*11:45 and the A\*66:11 alleles. Specific PCR fragment of 265 bp in the A\*11:29 and 11:55 alleles.

<sup>21</sup>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.

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<sup>22</sup>Primer mix 32: Specific PCR fragment of 205 bp in the A\*11:31 and 11:35 and the A\*01:21, 02:156, 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\*30:51 alleles.

<sup>23</sup>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 allele.

<sup>24</sup>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.

<sup>25</sup>Primer mix 35: Specific PCR fragment of 105 bp in the A\*11:62 allele. Specific PCR fragment of 290 bp in the A\*11:68 allele.

<sup>26</sup>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 allele.

<sup>27</sup>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.

<sup>28</sup>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.

<sup>29</sup>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 alleles.

<sup>30</sup>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.

<sup>31</sup>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.

<sup>32</sup>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 and 03:123 alleles. Specific PCR fragment of 220 bp in the A\*11:23 allele.

<sup>33</sup>Primer mix 50: Specific PCR fragment of 90 bp in the A\*11:34 alleles. Specific PCR fragment of 310 bp in the A\*11:86 allele.

<sup>34</sup>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 and 03:78 alleles.

<sup>35</sup>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.

<sup>36</sup>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\*80:01-80:02 alleles.

<sup>37</sup>Primer mix 3 may faintly amplify the A\*03:66 and 11:08 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*11:112 alleles																																	
	Well <sup>13</sup>																																
	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	215	205	205	205	205	100	150	80	295	220	305	210	240	80	235	230	205
PCR product(s)					210	180	550	215	100	85	120	215	235	195	100	100	215	205	205	205	205	100	150	80	295	220	305	210	240	80	235	230	205
Length of int. pos control <sup>1</sup>	800	1070	1070	1070	800	1070	1070	1070	800	800	1070	800	1070	800	1070	800	1070	1070	1070	1070	800	1070	1070	800	1070	1070	1070	1070	800	1070	1070	800	1070
5'-primer(s) <sup>2</sup>	5'-999 <sup>3</sup> 127	5'-TCC <sup>3</sup> 28	5'-ATA <sup>3</sup> 363	5'-ATA <sup>3</sup> 363	5'-ATA <sup>3</sup> 363	5'-CTC <sup>3</sup> 292	5'-ATA <sup>3</sup> 363	5'-TgC <sup>3</sup> 553	5'-TgC <sup>3</sup> 527	5'-TCA <sup>3</sup> 97	5'-ATA <sup>3</sup> 363	5'-ATA <sup>3</sup> 363	5'-ACC <sup>3</sup> 102	5'-Cag <sup>3</sup> 282	5'-Cag <sup>3</sup> 282	5'-ACA <sup>3</sup> 391	5'-ATA <sup>3</sup> 363	5'-TCC <sup>3</sup> 97	5'-CCT <sup>3</sup> 103	5'-CCT <sup>3</sup> 103	5'-CAC <sup>3</sup> 282	5'-CCT <sup>3</sup> 103	5'-gCA <sup>3</sup> 489	5'-gGA <sup>3</sup> 341	5'-TCC <sup>3</sup> 97	5'-gGA <sup>3</sup> 341	5'-CCT <sup>3</sup> 103	5'-CCA <sup>3</sup> 103	5'-AAC <sup>3</sup> 261	5'-CCT <sup>3</sup> 103	5'-TCA <sup>3</sup> 97	5'-ATA <sup>3</sup> 363	
3'-primer(s) <sup>3</sup>	5'-gAC <sup>3</sup> 282	5'-CTT <sup>3</sup> 127	5'-CTg <sup>3</sup> 502	5'-CgT <sup>3</sup> 559	5'-CTC <sup>3</sup> 502	5'-CCg <sup>3</sup> 559	5'-TCC <sup>3</sup> 539	5'-CgT <sup>3</sup> 616	5'-CCg <sup>3</sup> 570	5'-CgT <sup>3</sup> 341	5'-TCT <sup>3</sup> 539	5'-CCg <sup>3</sup> 559	5'-gCA <sup>3</sup> 257	5'-CgT <sup>3</sup> 341	5'-Cgg <sup>3</sup> 341	5'-CCg <sup>3</sup> 559	5'-CCg <sup>3</sup> 559	5'-CCg <sup>3</sup> 559	5'-CCg <sup>3</sup> 559	5'-CCg <sup>3</sup> 559	5'-CgT <sup>3</sup> 341	5'-CCA <sup>3</sup> 214	5'-CCT <sup>3</sup> 527	5'-TgA <sup>3</sup> 353	5'-gAC <sup>3</sup> 282	5'-TCA <sup>3</sup> 362	5'-CAT <sup>3</sup> 271	5'-CgT <sup>3</sup> 341	5'-CCA <sup>3</sup> 299	5'-CCg <sup>3</sup> 299	5'-CgT <sup>3</sup> 341	5'-CCA <sup>3</sup> 527	
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 <sup>4,5</sup>	*11:01:01-11:01:20, 11:01:22-11:01:35, 11:82-11:85, 11:87-11:88, 11:91-11:93, 11:95, 11:97, 11:103-11:105, 11:107, 11:112 *11:01:21 *11:02:01-11:02:03, 11:77 <sup>14</sup>																																
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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 “Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

																Length of spec.													
																PCR product(s)													
305	280	110	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	Well No.		
																												*11:45	
																													*11:46
																													*11:47
																													*11:48
																													*11:49
																													*11:50Q
																													*11:51
																													*11:52Q
																													*11:55
																													*11:56
																													*11:57
																													*11:58, 11:67 <sup>7</sup>
																													*11:59
																													*11:60
																													*11:61
																													*11:62, 11:68 <sup>8</sup>
																													*11:63, 11:69N <sup>9</sup>
																													*11:64, 11:65 <sup>10</sup>
																													*11:66, 11:72 <sup>11</sup>
																													*11:70
																													*11:71
																													*11:73
																													*11:74
																													*11:75
																													*11:76
																													*11:78N
																													*11:79
																													*11:80
																													*11:81, 11:108 <sup>12</sup>
																													*11:86
																													*11:89
																													*11:90
																													*11:94
																													*11:96
																													*11:99N
																													*11:100
																													*11:101
																													*11:102
																													*11:106
																													*11:109N
																													*11:110
																													*11:111
																													Well No.

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

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **62N**

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	240		230				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	
*01:01:01:01:01:01:22, 01:01:24-01:01:27, 01:01:29-01:02, 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							7					12									21						27						
*01:01:23, 01:08, 01:15N							7														21						27						
*01:01:28, 01:07, 01:71, 01:100							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								21					27						
*01:20, 01:63, 01:66, 01:73, 01:89																					21												
*01:21							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							7					12									21					27							
*01:101							7					12									21					27						31	
*02:03:01-02:03:04, 02:148, 02:253, 02:258, 02:264, 02:281																							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

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

Length of spec.		PCR product(s)		Well No.																																			
305	280	110	85	265	180	290	105	380	65	290	105	225	120	280	185	90	205	175	445	145	210	120	55	200	220	185	310	265	545	230	195	190	235	120	230				
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56																
																*01:01:01:01:01:01:22, 01:01:24-01:01:27, 01:01:29-01:02, 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																							
																*01:01:23, 01:08, 01:15N																							
																*01:01:28, 01:07, 01:71, 01:100																							
																*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																							
																*01:21																							
																*01:25																							
																*01:26																							
																*01:41																							
																*01:43																							
																*01:45																							
																*01:51																							
																*01:56N																							
																*01:61																							
																*01:65																							
																*01:72, 01:102, 36:04																							
																*01:79, 01:104																							
																*01:83																							
																*01:101																							
																*02:03:01-02:03:04, 02:148, 02:253, 02:258, 02:264, 02:281																							
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56																
																Well No.																							



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

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
 “Instructions for Use” (IFU)

Lot No.: **62N**

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	240		230				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		
*02:05:01-02:06:04, 02:06:06-02:06:10, 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																						22												
*02:13, 02:26, 02:171:01-02:171:02																							23											
*02:34-02:35:03	1													w																				
*02:38						6																	23											
*02:55, 33:01:01- 33:01:06, 33:03:01- 33:07, 33:10-33:12, 33:14-33:16, 33:18- 33:20, 33:22-33:47, 33:50-33:52, 33:54, 66:03, 68:03:01-68:05, 68:20, 68:31																													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, 68:13-68:14, 68:66, 74:13	1														15																			
*02:65, 02:80, 02:114, 02:152, 02:246, 02:279, 02:298, 02:304, 33:08- 33:09, 74:04, <i>B*57:04</i> , <i>B*57:32</i>																																		
*02:99																						22	23											
*02:101:01, 02:135						6																												
*02:117																								w										
*02:154						6																	22											
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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 “Instructions for Use” (IFU)

Lot No.: **62N**

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	20	305	210	240	80	235	230	205	
PCR product(s)					210	550				280						215	205			265	240		230				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	
*02:156				4											15																		32
*02:294					5																												
*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, 03:03N-03:06, 03:09, 03:11N-03:17, 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	1			4											15																		
*03:01:02	1			4											15										25								
*03:01:09, 03:01:23, 03:08, 03:36N, 03:57, 03:107-03:108, 03:111, 32:04				4											15																		
*03:02:01-03:02:03, 03:10, 03:31, 03:73, 03:76, 03:82, 03:90, 03:106	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	1			4			7								15																		
*03:63, 03:88	1			4										14	15																		
*03:65, 03:69N	1			4							11				15																		
*03:78	1			4											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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"Instructions for Use" (IFU)

Lot No.: **62N**

Lot-specific information

Length of spec.		PCR product(s)		Well No.																							
110	180	280	280																								
85	180	180	180																								
105	290	290	290																								
65	380	380	380																								
105	290	290	290																								
120	225	225	225																								
280																											
90	185	185	185																								
205																											
175	560	560	560																								
445																											
145	215	215	215																								
210																											
120																											
55																											
200																											
185	220	220	220																								
90	310	310	310																								
265																											
230	545	545	545																								
195																											
190	265	265	265																								
120	235	235	235																								
230																											
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56				
							40	41								49											*02:156
																											*02:294
																											*03:01:01-03:01:01:03, 03:01:03-03:01:08, 03:01:10-03:01:22, 03:01:24-03:01:29, 03:01:31, 03:03N-03:06, 03:09, 03:11N-03:17, 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
																											*03:01:02
																											*03:01:09, 03:01:23, 03:08, 03:36N, 03:57, 03:107-03:108, 03:111, 32:04
								41																			*03:02:01-03:02:03, 03:10, 03:31, 03:73, 03:76, 03:82, 03:90, 03:106
								41																			*03:07, 03:133
																											*03:18
																											*03:21N
																											*03:22:01-03:22:02
											43																*03:23:01-03:23:02
																											*03:24
								41																			*03:32
																											*03:41
								41																			*03:42
																											*03:50, 03:66
																											*03:63, 03:88
																											*03:65, 03:69N
																									52		*03:78
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56			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.: **62N**

## 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	20	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	20	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					
*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										
*23:07N, 24:11N																								24													
*24:19, C*03:82	1																																				
*24:24, 29:01:01:01- 29:03, 29:05-29:18, 29:21-29:29, 29:31- 29:32, 30:52, 32:17, 68:36, 68:46, 68:84																15																					
*24:44, 24:109																							w														
*24:59									9																												
*24:92				4								11																27									
*25:01:01-25:01:05, 25:03-25:10, 25:12N, 25:14, 25:16, 26:05, 26:16, 26:20, 26:57											10												21														
*25:02											10			14																							
*25:11						6					10											21															
*25:15, B*07:102, B*08:18, B*35:178, B*73:01-73:02											10																										
*26:01:01-26:01:21, 26:02, 26:04, 26:08- 26:12, 26:14-26:15, 26:17-26:18, 26:22- 26:29, 26:34, 26:37- 26:43:02, 26:45-26:56, 26:58-26:61, 26:63, 26:66-26:69, 26:71N											10												20	21													
*26:01:22, 26:64											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																							20	21													
*26:13, 26:33											10				14							20															
*26:19															14							20															
*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														
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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 “Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

Length of spec.		PCR product(s)		Well No.	
110	180	280	380	33	34
85	180	265	380	35	36
105	290	290	380	37	38
65	380	225	280	39	40
205	560	185	90	41	42
175	445	215	145	43	44
210	210			45	46
120	120			47	48
55	200			49	50
185	220	310	265	51	52
90	545	230	195	53	54
265	265	235	120	55	56
230					
*03:87					
*03:89					
*03:97, 03:122					
*03:113					
*03:123					
*03:135					
*23:07N, 24:11N					
*24:19, C*03:82					
*24:24, 29:01:01:01-29:03, 29:05-29:18, 29:21-29:29, 29:31-29:32, 30:52, 32:17, 68:36, 68:46, 68:84					
*24:44, 24:109					
*24:59					
*24:92					
*25:01:01-25:01:05, 25:03-25:10, 25:12N, 25:14, 25:16, 26:05, 26:16, 26:20, 26:57					
*25:02					
*25:11					
*25:15, B*07:102, B*08:18, B*35:178, B*73:01-73:02					
*26:01:01-26:01:21, 26:02, 26:04, 26:08-26:12, 26:14-26:15, 26:17-26:18, 26:22-26:29, 26:34, 26:37-26:43:02, 26:45-26:56, 26:58-26:61, 26:63, 26:66-26:69, 26:71N					
*26:01:22, 26:64					
*26:03:01-26:03:02, 26:06, 26:21					
*26:07:01-26:07:02, 26:31					
*26:13, 26:33					
*26:19					
*26:30					
*26:32, 26:70					
*26:35					
*26:36					
*26:62					
33	34	35	36	37	38
39	40	41	42	43	44
45	46	47	48	49	50
51	52	53	54	55	56
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.: **62N**

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	240		230				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		
*26:65																					20													
*26:72																					20	21				27								
*29:04															w																			
*30:01:01-30:02:04, 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- 30:58			3	4											15	17																		
*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																		
*30:23, 30:27N			3	4											15																			
*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	
*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, 34:04, 34:08	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, 66:01, 66:04, 66:06-66:07, 66:09- 66:10, 66:13-66:14	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												
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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 "Instructions for Use" (IFU)

Lot No.: **62N**

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			Well No.	
																											*26:65
																											*26:72
																											*29:04
																											*30:01:01-30:02:04, 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- 30:58
																											*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
																											*30:23, 30:27N
																											*30:35, 30:54
																											*30:39
																											*30:51
								41																			*31:03
																											*33:13
								41																			*33:49
																											*34:01:01-34:01:02, 34:05
																											*34:02:01, 34:04, 34:08
																											*34:02:02
																											*34:03
																											*34:06, 66:01, 66:04, 66:06-66:07, 66:09- 66:10, 66:13-66:14
																											*34:07
																											*34:09
																											*36:01-36:02, 36:05
																											*43:01
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56			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.: **62N**

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	240		230				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, 66:12, 66:16, 68:01:01:01-68:02:04, 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, 69:01	1														15														29			
*66:05, 66:15										10											21								29			
*66:08	1				5					10				14															29			
*66:11										10				14																30		
*68:15																						22							29			
*68:24, 68:40, 68:72, 68:85	1																												29			
*68:30, 68:75	1													15																		
*68:42, 68:54, 68:61	1													15									w						29			
*68:57														15															29			
*68:63	1													15										23					29			
*80:01-80:02																	17				21				25	27						
B*07:117																																
B*44:36																																
HLA-A allele <sup>4,5</sup>																																
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

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

Well number 1 contains the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to help in the correct orientation of the HLA-A\*11 subtyping. In addition, wells number 5, 8, 9, 11, 13, 15, 20, 23, 28, 31, 44, 49 and 50 contain the primer pair giving rise to the shorter, 800 bp, internal positive control band in order to allow kit identification.

<sup>2</sup>The nucleotide position, in the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> exons or the 3<sup>rd</sup> intron, matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The nucleotide position, in the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> or 5<sup>th</sup> 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](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

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.: **62N**

Lot-specific information

Length of spec.		PCR product(s)																									
		Well No.																									
110	110	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	*66:02, 66:12, 66:16, 68:01:01:01-68:02:04, 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, 69:01 *66:05, 66:15 *66:08 *66:11 *68:15 *68:24, 68:40, 68:72, 68:85 *68:30, 68:75 *68:42, 68:54, 68:61 *68:57 *68:63 55 *80:01-80:02 B*07:117 B*44:36 HLA-A allele <sup>4,5</sup>	
280	280																										
85	85																										
105	105																										
65	65																										
290	290																										
120	120																										
280	280																										
90	90																										
205	205																										
175	175																										
445	445																										
145	145																										
210	210																										
120	120																										
55	55																										
200	200																										
185	185																										
90	90																										
265	265																										
230	230																										
195	195																										
190	190																										
120	120																										
230	230																										

<sup>4</sup>The 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.

<sup>5</sup>HLA-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](http://www.ebi.ac.uk/imgt/hla), release 3.7.0, January 2012.

<sup>6</sup>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.

<sup>7</sup>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.

<sup>8</sup>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.

<sup>9</sup>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.

<sup>10</sup>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.

<sup>11</sup>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.

<sup>12</sup>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.

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

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**Lot No.: 62N****Lot-specific information**

<sup>13</sup>Primer 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 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<sup>w</sup> alleles. Specific PCR product of 550 bp in the A\*11:06 and 11:18 and the A\*01:104<sup>w</sup>, 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, 01:51, 25:01:01-25:12N, 25:14-25:16, 26:01:01-26:06, 26:08-26:18, 26:20-26:29, 26:32-34, 26:36-26:43:02, 26:45-26:64, 26:66-26:71N, 34:01:01-34:08, 66:01, 66:04-66:11, 66:13-66:15, B\*07:102, B\*08:18, B\*35:178, 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<sup>w</sup>-02:35:03<sup>w</sup>, 02:56:01-02:56:02, 02:62, 02:78, 02:103, 03:01:02, 03:02, 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<sup>w</sup>, 03:135, 24:24, 29:01:01:01-29:03, 29:04<sup>w</sup>, 29:05-29:18, 29:21-29:29, 29:31-29:32, 30:17, 30:52, 32:17, 66:02, 66:12, 66:16, 68:01:01:01-68:02:04, 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, 69:01, 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, 03:01:10, 03:08, 03:29-03:30, 03:34, 03:36, 03:41, 03:62-03:63, 03:88-03:89, 30:02:01-30:02:04, 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, 31:03-31:04, 32:04, 34:02:01, 34:03-34:04 and 34:07-34:08 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, 03:01:11-03:11:31, 03:03N-03:05, 03:07, 03:09, 03:11N-03:17, 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, 03:114-03:133, 30:01:01-30:01:04, 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, 33:49, 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 allele. 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 allele. Specific PCR fragment of 240 bp in the A\*11:17, 11:36 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 and 43:01 alleles.

Primer mix 22: Specific PCR fragment of 150 bp in the A\*11:37 allele. Specific PCR fragment of 230 bp in the A\*11:17, 11:36 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, 26:58-26:72 and 43:01 alleles.

Primer mix 26: Specific PCR fragment of 305 bp in the A\*11:26 and the A\*01:03, 26:32, 33:13, 36:03 and 74:10 alleles. Specific PCR fragment of 370 bp in the A\*11:41 allele.

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, 11:94, 01:01:01:01-01:02, 01:04N, 01:06-01:19, 01:21-01:33, 01:35-01:40, 01:42, 01:44-01:62, 01:64-01:65, 01:67-01:71, 01:74-01:88, 01:90-01:101, 01:103-01:104, 03:18, 03:97, 03:122, 03:135, 24:92, 80:01-80:02 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 265 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, 02:156, 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\*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 allele.



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

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**Lot No.: 62N****Lot-specific information**

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 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 allele.

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 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 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 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 and 03:78 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\*80:01-80:02 alleles.

<sup>14</sup>This lot of the HLA-A\*03 subtyping kit cannot distinguish the A\*11:77 and the A\*11:02:01-11:02:03 alleles.  
'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.: **62N**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-A*11 SSP subtyping kit																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	201299901	201299902	201299903	201299904	201299905	201299906	201299907	201299908	201299909	201299910	201299911	201299912	201299913	201299914	201299915	201299916
IHCW 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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 “Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																			
<b>HLA-A*11 SSP subtyping kit</b>																			
			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	201299943	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 OLG A	*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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 “Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>												
<b>HLA-A*11 SSP subtyping kit</b>				<b>Well</b>								
				<b>49</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>	
				Prod. No.:	201299949	201299950	201299951	201299952	201299953	201299954	201299955	201299956
<b>IHWC cell line</b>			<b>A*</b>									
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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 “Instructions for Use” (IFU)

Lot No.: **62N**

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:** 62N

**Expiry date:** 2014-November-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:** 56

### Well specifications:

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

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 and 56 were available. The specificities of the primers in primer solutions 5, 9, 13, 23, 28, 31, 40, 43, 44, 47 and 52 to 54 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 19, 30, 34, 35, 37, 38, 42, 49 and 51 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 and 56 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 6, 10, 20, 28, 31, 44, 52 and 54 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.

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

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**Lot No.: 62N**

**Lot-specific information**

Additional primers in primer solutions 3, 10, 18, 20, 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:** 2012-June-04

**Approved by:**

**Production Quality Control**

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

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Lot No.: **62N**

Lot-specific information

## Declaration of Conformity

**Product name:** *Olerup* SSP® HLA-A\*11  
**Product number:** 101.416-12/12u, -04/04u  
**Lot number:** 62N

**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 13485:2003, 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  
2014-October-07

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

Visit [www.olerup-ssp.com](http://www.olerup-ssp.com) for  
“Instructions for Use” (IFU)

Lot No.: **62N**

Lot-specific information

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