

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information  
**Olerup SSP<sup>®</sup> HLA-A\*01**

<b>Product number:</b>	101.411-24/06 – including <i>Taq</i> pol. 101.411-24u/06u – without <i>Taq</i> pol.
<b>Lot number:</b>	59R
<b>Expiry date:</b>	2015-August-01
<b>Number of tests:</b>	24 test – Product No. 101.411-24/24u 6 tests – Product No. 101.411-06/06u
<b>Number of wells per test:</b>	48
<b>Storage - pre-aliquoted primers:</b>	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. 59R.**

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP<sup>®</sup>  
 HLA-A\*01 Lot (06N)**

The HLA-A\*01 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

<sup>1</sup>As described in section Uniquely Identified Alleles.

The HLA-A\*01 specificity and interpretation tables have been updated for the HLA-A alleles described since the previous *Olerup SSP<sup>®</sup>* HLA-A\*01 lot was made (**Lot No. 06N**).

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

Well	5'-primer	3'-primer	rationale
7	-	-	Exchanged positive control primer pair.
9	Added	Added	Exchanged positive control primer pair, primer pair added for the A*01:103 allele.
17	-	Added	3'-primer added for the A*01:101 allele.

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22	Added	Added	3'-primer added for the A*01:107 allele.
26	Added	Added	Primer pair added for the A*01:104 allele.
27	-	Added	3'-primer added for the A*01:109 allele.
28	Exchanged	Added	3'-primer added for the A*01:109 allele, exchanged 5'-primer for improved specificity of amplification.
29	-	Added	3'-primer added for the A*01:101 allele.
30	Exchanged	Added	3'-primer added for the A*01:100 allele, exchanged 5'-primer for improved specificity of amplification.
33	Exchanged	Exchanged	Exchanged primer pair for increased allelic resolution, exchanged positive control primer pair.
35	-	Added	3'-primer added for the A*01:100 allele.
39	Added	Added	Primer pair added for the A*01:113 allele.
40	Added	Added	Primer pair added for the A*01:113 allele.
43	-	Added	3'-primer added for the A*01:107 allele.
46	-	-	Exchanged positive control primer pair, for decreased tendencies of primer oligomer formation.

Change in revision R01 compared to R00:

1. The amplification patterns in primer mixes 32 and 33 have been corrected in the Specificity and Interpretation Tables.

Change in revision R02 compared to R01:

1. The positive control band in primer mix 12 is 800 bp. This has been corrected in the Specificity and Interpretation Tables.

Changes in revision R03 compared to R02:

1. Primer mix 28 does not amplify the A\*68:01:03-68:01:05, 68:01:08-68:01:16, 68:02:03-68:02:05, 68:03:02-68:07, 68:09-68:10, 68:12, 68:14-68:16, 68:19-68:21:02, 68:23, 68:25-68:26, 68:28-68:32, 68:34, 68:37-68:42, 68:44-68:70, 68:72-68:91 and 68:93-68:94N alleles. This has been corrected in the Specificity and Interpretation Tables.

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## PRODUCT DESCRIPTION

### HLA-A\*01 SSP subtyping

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the A\*01:01 to A\*01:113 alleles.

#### PLATE LAYOUT

Each test consists of 48 PCR reactions in a 48 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

The 48 well cut PCR plate is marked with ‘HLA-A\*01’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘59R’.

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

The PCR plates are heat-sealed with a PCR-compatible foil.

**Please note:** When removing each 48 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

#### INTERPRETATION

The interpretation of HLA-A\*01 SSP subtypings will be influenced by ten A\*02 alleles, the A\*03, the A\*11, the A\*23:07N allele, nine A\*24, the A\*25:11, eight A\*26, most A\*30, four A\*31, the A\*32:04 allele, three A\*33, eight A\*34, the A\*36, the A\*66:17 allele, most A\*68, the A\*74:10 and the A\*80 alleles when present on the other haplotype. In addition, the B\*07:64 allele will be amplified by primer mixes 44 and 45, B\*15:90 and B\*45:05 will be amplified by primer mix 32, C\*06:71 will be amplified by primer mixes 6 and 34, C\*06:72 will be amplified by primer mix 4 and the C\*07:191N allele will be amplified by primer mix 33.

#### UNIQUELY IDENTIFIED ALLELES

All the HLA-A\*01 alleles, i.e. **A\*01:01 to A\*01:113**, recognized by the HLA Nomenclature Committee in July 2012<sup>1</sup> will be amplified by the primers in the HLA-A\*01 SSP kit<sup>2,3</sup>.

The HLA-A\*01 kit enables separation of the confirmed HLA-A\*01 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\*01 alleles is listed below.

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The HLA- A\*01 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 A\*01:27N and 01:103 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 9.

The A\*01:32 and 01:104 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 26.

The A\*01:47 and 01:49 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 35.

The A\*01:50 and 01:62 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 38.

The A\*01:53N and 01:54 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.

The A\*01:65 and 01:92 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 37.

The HLA-A\*01 subtyping kit cannot distinguish the silent mutations in the A\*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37 and 01:01:39-01:01:47 alleles or in the A\*01:69:01-01:69:02 alleles.

<sup>1</sup>HLA-A alleles listed on the IMGT/HLA web page 2012-July-12, release 3.9.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>The A\*01:69:01-01:69:02 and the A\*03:18, 11:01:04, 11:08, 11:23, 11:44 and 11:94 alleles give rise to identical amplification patterns with the HLA-A\*01 primer set. These alleles can be distinguished by the HLA-A low resolution and/or the HLA-A\*03 and HLA-A\*11 kits.

<sup>3</sup>This lot of the HLA-A\*01 subtyping kit cannot distinguish the A\*01:72 allele from the A\*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37, 01:01:39-01:01:47, 01:67-01:68, 01:70-01:71, 01:74-01:79, 01:82, 01:84-01:86, 01:88, 01:90-01:91, 01:93-01:94, 01:96-01:97, 01:99, 01:102, 01:105-01:106, 01:108 and 01:110-01:112 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>
<b>A*01:01:01:01</b>	<b>Confirmed</b>	A*01:01:40	Unconfirmed	A*01:36	Unconfirmed	A*01:75	Unconfirmed
A*01:01:01:02N	Unconfirmed	A*01:01:41	Unconfirmed	<b>A*01:37</b>	<b>Confirmed</b>	A*01:76	Unconfirmed
A*01:01:02	Unconfirmed	<b>A*01:01:42</b>	<b>Confirmed</b>	<b>A*01:38</b>	<b>Confirmed</b>	A*01:77	Unconfirmed
<b>A*01:01:03</b>	<b>Confirmed</b>	A*01:01:43	Unconfirmed	<b>A*01:39</b>	<b>Confirmed</b>	A*01:78	Unconfirmed
A*01:01:04	Unconfirmed	<b>A*01:01:44</b>	<b>Confirmed</b>	<b>A*01:40</b>	<b>Confirmed</b>	A*01:79	Unconfirmed
A*01:01:05	Unconfirmed	A*01:01:45	Unconfirmed	<b>A*01:41</b>	<b>Confirmed</b>	A*01:80	Unconfirmed
<b>A*01:01:06</b>	<b>Confirmed</b>	A*01:01:46	Unconfirmed	A*01:42	Unconfirmed	<b>A*01:81</b>	<b>Confirmed</b>
A*01:01:07	Unconfirmed	A*01:01:47	Unconfirmed	<b>A*01:43</b>	<b>Confirmed</b>	A*01:82	Unconfirmed
A*01:01:08	Unconfirmed	<b>A*01:02</b>	<b>Confirmed</b>	<b>A*01:44</b>	<b>Confirmed</b>	A*01:83	Unconfirmed
<b>A*01:01:09</b>	<b>Confirmed</b>	<b>A*01:03</b>	<b>Confirmed</b>	A*01:45	Unconfirmed	A*01:84	Unconfirmed
<b>A*01:01:10</b>	<b>Confirmed</b>	<b>A*01:04N</b>	<b>Confirmed</b>	A*01:46	Unconfirmed	A*01:85	Unconfirmed
<b>A*01:01:11</b>	<b>Confirmed</b>	<b>A*01:06</b>	<b>Confirmed</b>	A*01:47	Unconfirmed	A*01:86	Unconfirmed
<b>A*01:01:12</b>	<b>Confirmed</b>	A*01:07	Unconfirmed	<b>A*01:48</b>	<b>Confirmed</b>	A*01:87N	Unconfirmed
<b>A*01:01:13</b>	<b>Confirmed</b>	A*01:08	Unconfirmed	<b>A*01:49</b>	<b>Confirmed</b>	A*01:88	Unconfirmed
A*01:01:14	Unconfirmed	A*01:09	Unconfirmed	A*01:50	Unconfirmed	A*01:89	Unconfirmed
<b>A*01:01:15</b>	<b>Confirmed</b>	A*01:10	Unconfirmed	<b>A*01:51</b>	<b>Confirmed</b>	A*01:90	Unconfirmed
<b>A*01:01:16</b>	<b>Confirmed</b>	A*01:11N	Unconfirmed	A*01:52N	Unconfirmed	A*01:91	Unconfirmed
<b>A*01:01:17</b>	<b>Confirmed</b>	<b>A*01:12</b>	<b>Confirmed</b>	A*01:53N	Unconfirmed	<b>A*01:92</b>	<b>Confirmed</b>
A*01:01:18	Unconfirmed	A*01:13	Unconfirmed	A*01:54	Unconfirmed	A*01:93	Unconfirmed
<b>A*01:01:19</b>	<b>Confirmed</b>	A*01:14	Unconfirmed	A*01:55	Unconfirmed	A*01:94	Unconfirmed
A*01:01:20	Unconfirmed	<b>A*01:15N</b>	<b>Confirmed</b>	A*01:56N	Unconfirmed	<b>A*01:95</b>	<b>Confirmed</b>
A*01:01:21	Unconfirmed	A*01:16N	Unconfirmed	<b>A*01:57N</b>	<b>Confirmed</b>	A*01:96	Unconfirmed
<b>A*01:01:22</b>	<b>Confirmed</b>	<b>A*01:17</b>	<b>Confirmed</b>	A*01:58	Unconfirmed	A*01:97	Unconfirmed
A*01:01:23	Unconfirmed	A*01:18N	Unconfirmed	A*01:59	Unconfirmed	<b>A*01:98</b>	<b>Confirmed</b>
A*01:01:24	Unconfirmed	<b>A*01:19</b>	<b>Confirmed</b>	A*01:60	Unconfirmed	A*01:99	Unconfirmed
A*01:01:25	Unconfirmed	A*01:20	Unconfirmed	<b>A*01:61</b>	<b>Confirmed</b>	<b>A*01:100</b>	<b>Confirmed</b>
<b>A*01:01:26</b>	<b>Confirmed</b>	<b>A*01:21</b>	<b>Confirmed</b>	A*01:62	Unconfirmed	<b>A*01:101</b>	<b>Confirmed</b>
A*01:01:27	Unconfirmed	A*01:22N	Unconfirmed	A*01:63	Unconfirmed	A*01:102	Unconfirmed
A*01:01:28	Unconfirmed	<b>A*01:23</b>	<b>Confirmed</b>	A*01:64	Unconfirmed	A*01:103	Unconfirmed
A*01:01:29	Unconfirmed	<b>A*01:24</b>	<b>Confirmed</b>	A*01:65	Unconfirmed	<b>A*01:104</b>	<b>Confirmed</b>
A*01:01:30	Unconfirmed	<b>A*01:25</b>	<b>Confirmed</b>	<b>A*01:66</b>	<b>Confirmed</b>	A*01:105	Unconfirmed
A*01:01:31	Unconfirmed	<b>A*01:26</b>	<b>Confirmed</b>	A*01:67	Unconfirmed	A*01:106	Unconfirmed
A*01:01:32	Unconfirmed	A*01:27N	Unconfirmed	A*01:68	Unconfirmed	A*01:107	Unconfirmed
<b>A*01:01:33</b>	<b>Confirmed</b>	A*01:28	Unconfirmed	A*01:69:01	Unconfirmed	A*01:108	Unconfirmed
<b>A*01:01:34</b>	<b>Confirmed</b>	<b>A*01:29</b>	<b>Confirmed</b>	A*01:69:02	Unconfirmed	A*01:109	Unconfirmed
A*01:01:35	Unconfirmed	A*01:30	Unconfirmed	A*01:70	Unconfirmed	A*01:110	Unconfirmed
A*01:01:36	Unconfirmed	A*01:31N	Unconfirmed	A*01:71	Unconfirmed	A*01:111	Unconfirmed
A*01:01:37	Unconfirmed	A*01:32	Unconfirmed	<b>A*01:72</b>	<b>Confirmed</b>	A*01:112	Unconfirmed
<b>A*01:01:38L</b>	<b>Confirmed</b>	<b>A*01:33</b>	<b>Confirmed</b>	A*01:73	Unconfirmed	<b>A*01:113</b>	<b>Confirmed</b>
A*01:01:39	Unconfirmed	<b>A*01:35</b>	<b>Confirmed</b>	A*01:74	Unconfirmed		

<sup>1</sup> Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2012-July-12, release 3.9.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

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### RESOLUTION IN HOMO- AND HETEROZYGOTES

A total of 173 alleles generate 75 amplification patterns that can be combined in 2850 homozygous and heterozygous combinations. 1282 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.

+-----	-----	+-----	-----	-----	-----	*01:01:32, *01:01:32 = *01:01:32, *01:69:01
-+-----	-----	+-----	-----	-----	-----+	*01:01:23, *01:41 = *01:41, *01:41
-+-----	-----	+-----	-----	-----	-----	*01:01:23, *01:63 = *01:63, *01:63
+-----	-----	+-----	-----	-----	-----	*01:01:23, *01:66 = *01:66, *01:66
-+-----	-----	+-----	-----	-----	-----	*01:01:23, *01:14 = *01:14, *01:14
-+-----	+-----	+-----	-----	-----	-----	*01:01:23, *01:08 = *01:08, *01:08
-++-----	-----	+-----	-----	-----	-----	*01:01:23, *01:03 = *01:03, *01:03
+-----	-----	+-----	-----	+-----	-----	*01:01:32, *01:43 = *01:43, *01:43 = *01:43, *01:69:01
+-----	-----	+-----	-----	-----	-----	*01:01:32, *01:02 = *01:02, *01:02 = *01:02, *01:69:01
++++-----	-----	-----	-----	-----	-----	*01:69:01, *01:95 = *01:95, *01:95
++++-----	-----	+-----	-----	-----	-----	*01:01:01:01, *01:01:01:01 = *01:01:01:01, *01:01:23 = *01:01:01:01, *01:01:32 = *01:01:01:01, *01:69:01 = *01:01:23, *01:01:32 = *01:01:23, *01:69:01
++++-----	-----	+-----	-----	-----	-----	*01:28, *01:28 = *01:28, *01:69:01
-++++-----	-----	+-----	-----	-----	-----	*01:01:23, *01:20 = *01:20, *01:66
+-----	-----	+-----	-----	-----	-----	*01:01:32, *01:20 = *01:02, *01:20 = *01:20, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:55 = *01:01:23, *01:55 = *01:01:32, *01:55 = *01:55, *01:55 = *01:55, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:41 = *01:01:01:01, *01:42 = *01:01:23, *01:42 = *01:01:32, *01:41 = *01:01:32, *01:42 = *01:41, *01:42 = *01:41, *01:69:01 = *01:42, *01:42 = *01:42, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:40 = *01:01:23, *01:40 = *01:01:32, *01:40 = *01:40, *01:40 = *01:40, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:52N = *01:01:23, *01:52N = *01:01:32, *01:52N = *01:52N, *01:52N = *01:52N, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:46 = *01:01:23, *01:46 = *01:01:32, *01:46 = *01:46, *01:46 = *01:46, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:56N = *01:01:23, *01:56N = *01:01:32, *01:56N = *01:56N, *01:56N = *01:56N, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:64 = *01:01:23, *01:64 = *01:01:32, *01:64 = *01:64, *01:64 = *01:64, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:48 = *01:01:23, *01:48 = *01:01:32, *01:48 = *01:48, *01:48 = *01:48, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:36 = *01:01:23, *01:36 = *01:01:32, *01:36 = *01:36, *01:36 = *01:36, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:39 = *01:01:23, *01:39 = *01:01:32, *01:39 = *01:39, *01:39 = *01:39, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:50 = *01:01:23, *01:50 = *01:01:32, *01:50 = *01:50, *01:50 = *01:50, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:65 = *01:01:23, *01:65 = *01:01:32, *01:65 = *01:65, *01:65 = *01:65, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:53N = *01:01:23, *01:53N = *01:01:32, *01:53N = *01:53N, *01:53N = *01:53N, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:47 = *01:01:23, *01:47 = *01:01:32, *01:47 = *01:47, *01:47 = *01:47, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:58 = *01:01:23, *01:58 = *01:01:32, *01:58 = *01:58, *01:58 = *01:58, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:43 = *01:01:01:01, *01:57N = *01:01:23, *01:43 = *01:01:23, *01:57N = *01:01:32, *01:57N = *01:43, *01:57N = *01:57N, *01:57N = *01:57N, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:61 = *01:01:23, *01:61 = *01:01:32, *01:61 = *01:61, *01:61 = *01:61, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:38 = *01:01:01:01, *01:63 = *01:01:23, *01:38 = *01:01:32, *01:38 = *01:01:32, *01:63 = *01:38, *01:38 = *01:38, *01:63 = *01:38, *01:69:01 = *01:63, *01:69:01
++++-----	-----	+-----	-----	-----	-----+	*01:01:01:01, *01:37 = *01:01:01:01, *01:95 = *01:01:23, *01:37 = *01:01:23, *01:95 = *01:01:32, *01:37 = *01:01:32, *01:95 = *01:37, *01:37 = *01:37, *01:69:01 = *01:37, *01:95

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++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:35 = *01:01:23, *01:35 = *01:01:32, *01:35 =
*01:35, *01:35 = *01:35, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:01:38L = *01:01:23, *01:01:38L = *01:01:32,
*01:01:38L = *01:01:38L, *01:01:38L = *01:01:38L, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:33 = *01:01:23, *01:33 = *01:01:32, *01:33 =
*01:33, *01:33 = *01:33, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:32 = *01:01:23, *01:32 = *01:01:32, *01:32 =
*01:32, *01:32 = *01:32, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:31N = *01:01:23, *01:31N = *01:01:32, *01:31N =
*01:31N, *01:31N = *01:31N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:25 = *01:01:23, *01:25 = *01:01:32, *01:25 =
*01:25, *01:25 = *01:25, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:24 = *01:01:23, *01:24 = *01:01:32, *01:24 =
*01:24, *01:24 = *01:24, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:22N = *01:01:23, *01:22N = *01:01:32, *01:22N =
*01:22N, *01:22N = *01:22N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:44 = *01:01:01:01, *01:66 = *01:01:23, *01:44 =
*01:01:32, *01:44 = *01:01:32, *01:66 = *01:44, *01:44 = *01:44,
*01:66 = *01:44, *01:69:01 = *01:66, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:26 = *01:01:23, *01:26 = *01:01:32, *01:26 =
*01:26, *01:26 = *01:26, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:18N = *01:01:23, *01:18N = *01:01:32, *01:18N =
*01:18N, *01:18N = *01:18N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:16N = *01:01:23, *01:16N = *01:01:32, *01:16N =
*01:16N, *01:16N = *01:16N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:15N = *01:01:23, *01:15N = *01:01:32, *01:15N =
*01:15N, *01:15N = *01:15N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:14 = *01:01:32, *01:14 = *01:14, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:17 = *01:01:23, *01:17 = *01:01:32, *01:17 =
*01:17, *01:17 = *01:17, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:11N = *01:01:01:01, *01:28 = *01:01:23, *01:11N =
*01:01:23, *01:28 = *01:01:32, *01:11N = *01:01:32, *01:28 =
*01:11N, *01:11N = *01:11N, *01:28 = *01:11N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:13, *01:13 = *01:13, *01:28 = *01:13, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:29 = *01:01:23, *01:29 = *01:01:32, *01:29 =
*01:29, *01:29 = *01:29, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:08 = *01:01:01:01, *01:27N = *01:01:23, *01:27N =
*01:01:32, *01:08 = *01:01:32, *01:27N = *01:08, *01:27N = *01:08,
*01:69:01 = *01:27N, *01:27N = *01:27N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:23 = *01:01:23, *01:23 = *01:01:32, *01:23 =
*01:23, *01:23 = *01:23, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:06 = *01:01:23, *01:06 = *01:01:32, *01:06 =
*01:06, *01:06 = *01:06, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:09 = *01:01:23, *01:09 = *01:01:32, *01:09 =
*01:09, *01:09 = *01:09, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:04N = *01:01:23, *01:04N = *01:01:32, *01:04N =
*01:04N, *01:04N = *01:04N, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:03 = *01:01:32, *01:03 = *01:03, *01:69:01
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:02 = *01:01:23, *01:02
-+----- +----- +----- +----- +----- +----- *01:01:23, *01:12 = *01:12, *01:12 = *01:12, *01:14
++----- +----- +----- +----- +----- +----- *01:41, *01:55 = *01:42, *01:55
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:81 = *01:01:23, *01:81 = *01:01:32, *01:81 =
*01:40, *01:55 = *01:40, *01:81 = *01:55, *01:81 = *01:69:01, *01:81
= *01:81, *01:81
++----- +----- +----- +----- +----- +----- *01:40, *01:41 = *01:40, *01:42
++----- +----- +----- +----- +----- +----- *01:41, *01:52N = *01:42, *01:52N
++----- +----- +----- +----- +----- +----- *01:41, *01:46 = *01:42, *01:46
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:98 = *01:01:23, *01:98 = *01:01:32, *01:98 =
*01:46, *01:52N = *01:46, *01:98 = *01:52N, *01:98 = *01:69:01,
*01:98 = *01:98, *01:98
++----- +----- +----- +----- +----- +----- *01:41, *01:56N = *01:42, *01:56N
++----- +----- +----- +----- +----- +----- *01:41, *01:64 = *01:42, *01:64
++----- +----- +----- +----- +----- +----- *01:41, *01:48 = *01:42, *01:48
++----- +----- +----- +----- +----- +----- *01:36, *01:41 = *01:36, *01:42
++----- +----- +----- +----- +----- +----- *01:39, *01:41 = *01:39, *01:42
++----- +----- +----- +----- +----- +----- *01:01:01:01, *01:113 = *01:01:23, *01:113 = *01:01:32, *01:113 =
*01:36, *01:39 = *01:36, *01:113 = *01:39, *01:113 = *01:69:01,

```



101.411-24/06 – including Taq polymerase, IFU-01  
101.411-24u/06u – without Taq polymerase, IFU-02

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

Lot No.: 59R

Lot-specific information

++-----	-----	-+-----	-----	-----+--	-----+--	*01:113 = *01:113, *01:113
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:50 = *01:42, *01:50
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:65 = *01:42, *01:65
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:53N = *01:42, *01:53N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:47 = *01:42, *01:47
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:58 = *01:42, *01:58
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:55 = *01:55, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:43 = *01:41, *01:57N = *01:42, *01:43 = *01:42, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:40, *01:43 = *01:40, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:52N = *01:52N, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:46 = *01:46, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:56N = *01:56N, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:64 = *01:57N, *01:64
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:48 = *01:48, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:36, *01:43 = *01:36, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:39, *01:43 = *01:39, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:50 = *01:50, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:65 = *01:57N, *01:65
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:53N = *01:53N, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:47 = *01:47, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:58 = *01:57N, *01:58
++-----	-----	-+-----	-----	-----+--	-----+--	*01:41, *01:61 = *01:42, *01:61
++-----	-----	-+-----	-----	-----+--	-----+--	*01:43, *01:61 = *01:57N, *01:61
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:55 = *01:55, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:41 = *01:38, *01:42 = *01:42, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:40 = *01:40, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:52N = *01:52N, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:46 = *01:46, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:56N = *01:56N, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:64 = *01:63, *01:64
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:48 = *01:48, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:36, *01:38 = *01:36, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:39 = *01:39, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:50 = *01:50, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:65 = *01:63, *01:65
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:53N = *01:53N, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:47 = *01:47, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:58 = *01:58, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:43 = *01:38, *01:57N = *01:43, *01:63 = *01:57N, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:38, *01:61 = *01:61, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:55 = *01:55, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:41 = *01:37, *01:42 = *01:41, *01:95 = *01:42, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:40 = *01:40, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:52N = *01:52N, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:46 = *01:46, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:56N = *01:56N, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:64 = *01:64, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:48 = *01:48, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:36, *01:37 = *01:36, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:39 = *01:39, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:50 = *01:50, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:65 = *01:65, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:53N = *01:53N, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:01:01:01, *01:100 = *01:01:23, *01:100 = *01:01:32, *01:100 = *01:37, *01:47 = *01:37, *01:100 = *01:47, *01:95 = *01:47, *01:100 = *01:69:01, *01:100 = *01:95, *01:100 = *01:100, *01:100
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:58 = *01:58, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:43 = *01:37, *01:57N = *01:43, *01:95 = *01:57N, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:61 = *01:61, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:37, *01:38 = *01:37, *01:63 = *01:38, *01:95 = *01:63, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:35, *01:41 = *01:35, *01:42
++-----	-----	-+-----	-----	-----+--	-----+--	*01:35, *01:43 = *01:35, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:35, *01:38 = *01:35, *01:63
++-----	-----	-+-----	-----	-----+--	-----+--	*01:35, *01:37 = *01:35, *01:95
++-----	-----	-+-----	-----	-----+--	-----+--	*01:01:38L, *01:41 = *01:01:38L, *01:42
++-----	-----	-+-----	-----	-----+--	-----+--	*01:01:38L, *01:43 = *01:01:38L, *01:57N
++-----	-----	-+-----	-----	-----+--	-----+--	*01:01:38L, *01:38 = *01:01:38L, *01:63

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 59R

Lot-specific information

++-----	-----	+-----	---+---	-----	-----	*01:01:38L, *01:37 = *01:01:38L, *01:95
++-----	-----	-+-----	---+---	-----	-----+	*01:33, *01:41 = *01:33, *01:42
++-----	-----	-+-----	---+---	-----	-+-----	*01:01:01:01, *01:87N = *01:01:23, *01:87N = *01:01:32, *01:87N = *01:33, *01:64 = *01:33, *01:87N = *01:64, *01:87N = *01:69:01, *01:87N = *01:87N, *01:87N
++-----	-----	+-----	---+---	+-----	-----	*01:33, *01:43 = *01:33, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:33, *01:38 = *01:33, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:33, *01:37 = *01:33, *01:95
++-----	-----	-+-----	---+---	-----	-----	*01:01:01:01, *01:109 = *01:01:23, *01:109 = *01:01:32, *01:109 = *01:01:38L, *01:33 = *01:01:38L, *01:109 = *01:33, *01:109 = *01:69:01, *01:109 = *01:109, *01:109
++-----	-----	-+-----	---+---	-----	-----+	*01:32, *01:41 = *01:32, *01:42
++-----	-----	-+-----	---+---	-----	---+---	*01:01:01:01, *01:45 = *01:01:23, *01:45 = *01:01:32, *01:45 = *01:32, *01:45 = *01:32, *01:56N = *01:45, *01:45 = *01:45, *01:56N = *01:45, *01:69:01
++-----	-----	+-----	---+---	+-----	-----	*01:32, *01:43 = *01:32, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:32, *01:38 = *01:32, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:32, *01:37 = *01:32, *01:95
++-----	-----	-+-----	---+---	+-----	-----+	*01:31N, *01:41 = *01:31N, *01:42
++-----	-----	-+-----	---+---	+-----	+-----	*01:31N, *01:43 = *01:31N, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:31N, *01:38 = *01:31N, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:31N, *01:37 = *01:31N, *01:95
++-----	-----	-+-----	---+---	-----	-----+	*01:25, *01:41 = *01:25, *01:42
++-----	-----	-+-----	---+---	+-----	-----	*01:25, *01:43 = *01:25, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:25, *01:38 = *01:25, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:25, *01:37 = *01:25, *01:95
++-----	-----	-+-----	---+---	-----	-----+	*01:24, *01:41 = *01:24, *01:42
++-----	-----	-+-----	---+---	-----	-----	*01:24, *01:43 = *01:24, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:24, *01:38 = *01:24, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:24, *01:37 = *01:24, *01:95
++-----	-----	-+-----	---+---	-----	-----+	*01:22N, *01:41 = *01:22N, *01:42
++-----	-----	-+-----	---+---	-----	---+---	*01:01:01:01, *01:107 = *01:01:23, *01:107 = *01:01:32, *01:107 = *01:22N, *01:56N = *01:22N, *01:107 = *01:56N, *01:107 = *01:69:01, *01:107 = *01:107, *01:107
++-----	-----	-+-----	---+---	+-----	-----	*01:22N, *01:43 = *01:22N, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:22N, *01:38 = *01:22N, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:22N, *01:37 = *01:22N, *01:95
++-----	-----	-+-----	---+---	-----	-----+	*01:44, *01:55 = *01:55, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:41, *01:44 = *01:42, *01:44 = *01:42, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:40, *01:44 = *01:40, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:44, *01:52N = *01:52N, *01:66
++-----	-----	-+-----	---+---	-----	---+---	*01:44, *01:46 = *01:46, *01:66
++-----	-----	-+-----	---+---	-----	---+---	*01:44, *01:56N = *01:56N, *01:66
++-----	-----	-+-----	---+---	-----	-+-----	*01:44, *01:64 = *01:64, *01:66
++-----	-----	-+-----	---+---	-----	+-----	*01:44, *01:48 = *01:48, *01:66
++-----	-----	-+-----	---+---	-----	+-----	*01:36, *01:44 = *01:36, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:39, *01:44 = *01:39, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:44, *01:50 = *01:50, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:44, *01:65 = *01:65, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:44, *01:53N = *01:53N, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:44, *01:47 = *01:47, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:44, *01:58 = *01:58, *01:66
++-----	-----	-+-----	---+---	-----	+-----	*01:43, *01:44 = *01:43, *01:66 = *01:44, *01:57N = *01:57N, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:44, *01:61 = *01:61, *01:66
++-----	-----	-+-----	---+---	-----	+-----	*01:38, *01:44 = *01:38, *01:66 = *01:44, *01:63
++-----	-----	-+-----	---+---	-----	-----	*01:37, *01:44 = *01:37, *01:66 = *01:44, *01:95 = *01:66, *01:95
++-----	-----	-+-----	---+---	-----	-----	*01:35, *01:44 = *01:35, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:01:38L, *01:44 = *01:01:38L, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:33, *01:44 = *01:33, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:32, *01:44 = *01:32, *01:66
++-----	-----	-+-----	---+---	+-----	-----	*01:31N, *01:44 = *01:31N, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:25, *01:44 = *01:25, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:24, *01:44 = *01:24, *01:66
++-----	-----	-+-----	---+---	-----	-----	*01:22N, *01:44 = *01:22N, *01:66
++-----	-----	-+-----	---+---	-----	-----+	*01:26, *01:41 = *01:26, *01:42
++-----	-----	-+-----	---+---	+-----	-----	*01:26, *01:43 = *01:26, *01:57N
++-----	-----	-+-----	---+---	-----	-----	*01:26, *01:38 = *01:26, *01:63

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 59R

Lot-specific information

++-----	-----	++-----	-----	-----	-----	*01:26, *01:37 = *01:26, *01:95
++-----	-----	++-----	-----	-----	-----	*01:26, *01:44 = *01:26, *01:66
++-----	-----	++-----	-----	-----	-----	*01:18N, *01:41 = *01:18N, *01:42
++-----	-----	++-----	-----	-----	-----	*01:18N, *01:43 = *01:18N, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:18N, *01:38 = *01:18N, *01:63
++-----	-----	++-----	-----	-----	-----	*01:18N, *01:37 = *01:18N, *01:95
++-----	-----	++-----	-----	-----	-----	*01:01:01:01, *01:30 = *01:01:23, *01:30 = *01:01:32, *01:30 = *01:18N, *01:24 = *01:18N, *01:30 = *01:24, *01:30 = *01:30, *01:30 = *01:30, *01:69:01
++-----	-----	++-----	-----	-----	-----	*01:18N, *01:44 = *01:18N, *01:66
++-----	-----	++-----	-----	-----	-----	*01:16N, *01:41 = *01:16N, *01:42
++-----	-----	++-----	-----	-----	-----	*01:16N, *01:43 = *01:16N, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:16N, *01:38 = *01:16N, *01:63
++-----	-----	++-----	-----	-----	-----	*01:16N, *01:37 = *01:16N, *01:95
++-----	-----	++-----	-----	-----	-----	*01:01:01:01, *01:101 = *01:01:23, *01:101 = *01:01:32, *01:101 = *01:16N, *01:35 = *01:16N, *01:101 = *01:35, *01:101 = *01:69:01, *01:101 = *01:101, *01:101
++-----	-----	++-----	-----	-----	-----	*01:16N, *01:44 = *01:16N, *01:66
++-----	-----	++-----	-----	-----	-----	*01:15N, *01:41 = *01:15N, *01:42
++-----	-----	++-----	-----	-----	-----	*01:15N, *01:43 = *01:15N, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:15N, *01:38 = *01:15N, *01:63
++-----	-----	++-----	-----	-----	-----	*01:15N, *01:37 = *01:15N, *01:95
++-----	-----	++-----	-----	-----	-----	*01:15N, *01:44 = *01:15N, *01:66
++-----	-----	++-----	-----	-----	-----	*01:14, *01:43 = *01:14, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:14, *01:37 = *01:14, *01:95
++-----	-----	++-----	-----	-----	-----	*01:17, *01:41 = *01:17, *01:42
++-----	-----	++-----	-----	-----	-----	*01:17, *01:43 = *01:17, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:17, *01:38 = *01:17, *01:63
++-----	-----	++-----	-----	-----	-----	*01:17, *01:37 = *01:17, *01:95
++-----	-----	++-----	-----	-----	-----	*01:01:01:01, *01:59 = *01:01:23, *01:59 = *01:01:32, *01:59 = *01:17, *01:31N = *01:17, *01:59 = *01:31N, *01:59 = *01:59, *01:59 = *01:59, *01:69:01
++-----	-----	++-----	-----	-----	-----	*01:17, *01:44 = *01:17, *01:66
++-----	-----	++-----	-----	-----	-----	*01:01:01:01, *01:21 = *01:01:23, *01:21 = *01:01:32, *01:21 = *01:21, *01:21 = *01:21, *01:26 = *01:21, *01:69:01
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:55 = *01:28, *01:55
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:41 = *01:11N, *01:42 = *01:28, *01:41 = *01:28, *01:42
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:40 = *01:28, *01:40
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:52N = *01:28, *01:52N
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:46 = *01:28, *01:46
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:56N = *01:28, *01:56N
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:64 = *01:28, *01:64
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:48 = *01:28, *01:48
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:36 = *01:28, *01:36
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:39 = *01:28, *01:39
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:50 = *01:28, *01:50
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:65 = *01:28, *01:65
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:53N = *01:28, *01:53N
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:47 = *01:28, *01:47
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:58 = *01:28, *01:58
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:43 = *01:11N, *01:57N = *01:28, *01:43 = *01:28, *01:57N
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:61 = *01:28, *01:61
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:38 = *01:11N, *01:63 = *01:28, *01:38 = *01:28, *01:63
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:37 = *01:11N, *01:95 = *01:28, *01:37
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:35 = *01:28, *01:35
++-----	-----	++-----	-----	-----	-----	*01:01:38L, *01:11N = *01:01:38L, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:33 = *01:28, *01:33
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:32 = *01:28, *01:32
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:31N = *01:28, *01:31N
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:25 = *01:25, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:24 = *01:24, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:22N = *01:22N, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:44 = *01:11N, *01:66 = *01:28, *01:44 = *01:28, *01:66
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:26 = *01:26, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:18N = *01:18N, *01:28
++-----	-----	++-----	-----	-----	-----	*01:11N, *01:16N = *01:16N, *01:28

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: 59R

Lot-specific information

++-----	---+-----+	---+-----	-----	-----	-----	*01:11N, *01:15N = *01:15N, *01:28
++-----	---+-----+	---+-----	-----	-----	-----	*01:11N, *01:14 = *01:14, *01:28
++-----	---+-----+	---+-----	-----	-----	-----	*01:01:01:01, *01:13 = *01:01:23, *01:13 = *01:01:32, *01:13 = *01:11N, *01:13 = *01:11N, *01:17 = *01:13, *01:17 = *01:17, *01:28
++-----	---+-----+	---+-----	-----	-----	-----+	*01:29, *01:41 = *01:29, *01:42
++-----	---+-----+	---+-----	-----	-----	-----+	*01:29, *01:43 = *01:29, *01:57N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:29, *01:38 = *01:29, *01:63
++-----	---+-----+	---+-----	-----	-----	-----+	*01:29, *01:37 = *01:29, *01:95
++-----	---+-----+	---+-----	-----	-----	-----+	*01:29, *01:44 = *01:29, *01:66
++-----	---+-----+	---+-----	-----	-----	-----+	*01:01:01:01, *01:10 = *01:01:23, *01:10 = *01:01:32, *01:10 = *01:10, *01:10 = *01:10, *01:26 = *01:10, *01:29 = *01:10, *01:69:01 = *01:26, *01:29
++-----	---+-----+	---+-----	-----	-----	-----+	*01:11N, *01:29 = *01:28, *01:29
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:55 = *01:27N, *01:55
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:42 = *01:27N, *01:41 = *01:27N, *01:42
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:40 = *01:27N, *01:40
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:52N = *01:27N, *01:52N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:46 = *01:27N, *01:46
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:56N = *01:27N, *01:56N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:64 = *01:27N, *01:64
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:48 = *01:27N, *01:48
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:36 = *01:27N, *01:36
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:39 = *01:27N, *01:39
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:50 = *01:27N, *01:50
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:65 = *01:27N, *01:65
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:53N = *01:27N, *01:53N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:47 = *01:27N, *01:47
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:58 = *01:27N, *01:58
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:43 = *01:08, *01:57N = *01:27N, *01:43 = *01:27N, *01:57N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:61 = *01:27N, *01:61
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:38 = *01:27N, *01:38 = *01:27N, *01:63
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:37 = *01:08, *01:95 = *01:27N, *01:37 = *01:27N, *01:95
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:35 = *01:27N, *01:35
++-----	---+-----+	---+-----	-----	-----	-----+	*01:01:38L, *01:08 = *01:01:38L, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:33 = *01:27N, *01:33
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:32 = *01:27N, *01:32
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:31N = *01:27N, *01:31N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:25 = *01:25, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:24 = *01:24, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:22N = *01:22N, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:44 = *01:27N, *01:44 = *01:27N, *01:66
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:26 = *01:26, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:18N = *01:18N, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:16N = *01:16N, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:15N = *01:15N, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:17 = *01:17, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:11N = *01:08, *01:28 = *01:11N, *01:27N = *01:27N, *01:28
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:29 = *01:27N, *01:29
++-----	---+-----+	---+-----	-----	-----	-----+	*01:07, *01:07 = *01:07, *01:69:01 = *01:07, *01:95
++-----	---+-----+	---+-----	-----	-----	-----+	*01:23, *01:41 = *01:23, *01:42
++-----	---+-----+	---+-----	-----	-----	-----+	*01:23, *01:43 = *01:23, *01:57N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:23, *01:38 = *01:23, *01:63
++-----	---+-----+	---+-----	-----	-----	-----+	*01:23, *01:37 = *01:23, *01:95
++-----	---+-----+	---+-----	-----	-----	-----+	*01:01:01:01, *01:51 = *01:01:23, *01:51 = *01:01:32, *01:51 = *01:23, *01:31N = *01:23, *01:51 = *01:31N, *01:51 = *01:51, *01:51 = *01:51, *01:69:01
++-----	---+-----+	---+-----	-----	-----	-----+	*01:23, *01:44 = *01:23, *01:66
++-----	---+-----+	---+-----	-----	-----	-----+	*01:01:01:01, *01:01:01:02N = *01:01:01:02N, *01:01:01:02N = *01:01:01:02N, *01:01:23 = *01:01:01:02N, *01:01:32 = *01:01:01:02N, *01:15N = *01:01:01:02N, *01:23 = *01:01:01:02N, *01:69:01 = *01:15N, *01:23
++-----	---+-----+	---+-----	-----	-----	-----+	*01:11N, *01:23 = *01:23, *01:28
++-----	---+-----+	---+-----	-----	-----	-----+	*01:08, *01:23 = *01:23, *01:27N
++-----	---+-----+	---+-----	-----	-----	-----+	*01:06, *01:41 = *01:06, *01:42
++-----	---+-----+	---+-----	-----	-----	-----+	*01:06, *01:43 = *01:06, *01:57N

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: 59R

Lot-specific information

+++++--	-----	+-----	-----+	-----	-----	*01:06, *01:38 = *01:06, *01:63
+++++--	-----	+-----	-----+	-----	-----	*01:06, *01:37 = *01:06, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:06, *01:44 = *01:06, *01:66
+++++--	-----	+-----	-----+	-----	-----	*01:06, *01:11N = *01:06, *01:28
+++++--	-----	+-----	-----+	-----	-----	*01:06, *01:08 = *01:06, *01:27N
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:41 = *01:09, *01:42
+++++--	-----	+-----	-----+	-----	-----	*01:01:01:01, *01:60 = *01:01:23, *01:60 = *01:01:32, *01:60 = *01:09, *01:58 = *01:09, *01:60 = *01:58, *01:60 = *01:60, *01:60 = *01:60, *01:69:01
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:43 = *01:09, *01:57N
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:38 = *01:09, *01:63
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:37 = *01:09, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:44 = *01:09, *01:66
+++++--	-----	+-----	-----+	-----	-----	*01:09, *01:11N = *01:09, *01:28
+++++--	-----	+-----	-----+	-----	-----	*01:08, *01:09 = *01:09, *01:27N
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:41 = *01:04N, *01:42
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:43 = *01:04N, *01:57N
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:38 = *01:04N, *01:63
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:37 = *01:04N, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:44 = *01:04N, *01:66
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:11N = *01:04N, *01:28
+++++--	-----	+-----	-----+	-----	-----	*01:04N, *01:08 = *01:04N, *01:27N
+++++--	-----	+-----	-----+	-----	-----	*01:03, *01:43 = *01:03, *01:57N
+++++--	-----	+-----	-----+	-----	-----	*01:03, *01:37 = *01:03, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:03, *01:11N = *01:03, *01:28
+++++--	-----	+-----	-----+	-----	-----	*01:02, *01:41 = *01:02, *01:42
+++++--	-----	+-----	-----+	-----	-----	*01:02, *01:38 = *01:02, *01:63
+++++--	-----	+-----	-----+	-----	-----	*01:02, *01:37 = *01:02, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:01:01:01, *01:20 = *01:02, *01:44 = *01:02, *01:66 = *01:20, *01:44
+++++--	-----	+-----	-----+	-----	-----	*01:02, *01:11N = *01:02, *01:28
+++++--	-----	+-----	-----+	-----	-----	*01:02, *01:08 = *01:02, *01:27N
+++++--	-----	+-----	-----+	-----	-----	*01:01:23, *01:19 = *01:12, *01:19 = *01:14, *01:19 = *01:19, *01:19
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:81 = *01:42, *01:81
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:98 = *01:42, *01:98
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:113 = *01:42, *01:113
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:81 = *01:57N, *01:81
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:98 = *01:57N, *01:98
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:113 = *01:57N, *01:113
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:81 = *01:63, *01:81
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:98 = *01:63, *01:98
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:113 = *01:63, *01:113
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:81 = *01:81, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:98 = *01:95, *01:98
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:113 = *01:95, *01:113
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:100 = *01:42, *01:100
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:100 = *01:57N, *01:100
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:100 = *01:63, *01:100
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:87N = *01:42, *01:87N
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:87N = *01:57N, *01:87N
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:87N = *01:63, *01:87N
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:87N = *01:87N, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:109 = *01:42, *01:109
+++++--	-----	+-----	-----+	-----	-----	*01:01:38L, *01:87N = *01:64, *01:109 = *01:87N, *01:109
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:109 = *01:57N, *01:109
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:109 = *01:63, *01:109
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:109 = *01:95, *01:109
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:45 = *01:42, *01:45
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:45 = *01:45, *01:57N
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:45 = *01:45, *01:63
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:45 = *01:45, *01:95
+++++--	-----	+-----	-----+	-----	-----	*01:41, *01:107 = *01:42, *01:107
+++++--	-----	+-----	-----+	-----	-----	*01:43, *01:107 = *01:57N, *01:107
+++++--	-----	+-----	-----+	-----	-----	*01:38, *01:107 = *01:63, *01:107
+++++--	-----	+-----	-----+	-----	-----	*01:37, *01:107 = *01:95, *01:107
+++++--	-----	+-----	-----+	-----	-----	*01:22N, *01:45 = *01:32, *01:107 = *01:45, *01:107
+++++--	-----	+-----	-----+	-----	-----	*01:44, *01:81 = *01:66, *01:81

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot-specific information

++-----	-----	-+-+-	-----	-----	---++---	*01:44, *01:98 = *01:66, *01:98
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:113 = *01:66, *01:113
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:100 = *01:66, *01:100
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:87N = *01:66, *01:87N
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:109 = *01:66, *01:109
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:45 = *01:45, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:107 = *01:66, *01:107
++-----	-----	-+-+-	-----	-----	-----	*01:30, *01:41 = *01:30, *01:42
++-----	-----	-+-+-	-----	-----	-----	*01:30, *01:43 = *01:30, *01:57N
++-----	-----	-+-+-	-----	-----	-----	*01:30, *01:38 = *01:30, *01:63
++-----	-----	-+-+-	-----	-----	-----	*01:30, *01:37 = *01:30, *01:95
++-----	-----	-+-+-	-----	-----	-----	*01:30, *01:44 = *01:30, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:41, *01:101 = *01:42, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:43, *01:101 = *01:57N, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:38, *01:101 = *01:63, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:37, *01:101 = *01:95, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:101 = *01:66, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:41, *01:59 = *01:42, *01:59
++-----	-----	-+-+-	-----	-----	-----	*01:43, *01:59 = *01:57N, *01:59
++-----	-----	-+-+-	-----	-----	-----	*01:38, *01:59 = *01:59, *01:63
++-----	-----	-+-+-	-----	-----	-----	*01:37, *01:59 = *01:59, *01:95
++-----	-----	-+-+-	-----	-----	-----	*01:44, *01:59 = *01:59, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:21, *01:41 = *01:21, *01:42
++-----	-----	-+-+-	-----	-----	-----	*01:21, *01:43 = *01:21, *01:57N
++-----	-----	-+-+-	-----	-----	-----	*01:21, *01:38 = *01:21, *01:63
++-----	-----	-+-+-	-----	-----	-----	*01:21, *01:37 = *01:21, *01:95
++-----	-----	-+-+-	-----	-----	-----	*01:21, *01:44 = *01:21, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:01:01:01, *01:12 = *01:01:32, *01:12 = *01:12, *01:25 = *01:12, *01:69:01
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:81 = *01:28, *01:81
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:98 = *01:28, *01:98
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:113 = *01:28, *01:113
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:100 = *01:28, *01:100
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:87N = *01:28, *01:87N
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:109 = *01:28, *01:109
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:45 = *01:28, *01:45
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:107 = *01:28, *01:107
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:30 = *01:28, *01:30
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:101 = *01:28, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:13, *01:41 = *01:13, *01:42
++-----	-----	-+-+-	-----	-----	-----	*01:13, *01:43 = *01:13, *01:57N
++-----	-----	-+-+-	-----	-----	-----	*01:13, *01:38 = *01:13, *01:63
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:59 = *01:13, *01:31N = *01:13, *01:59 = *01:28, *01:59
++-----	-----	-+-+-	-----	-----	-----	*01:13, *01:44 = *01:13, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:11N, *01:21 = *01:21, *01:28
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:41 = *01:10, *01:42
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:43 = *01:10, *01:57N
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:38 = *01:10, *01:63
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:37 = *01:10, *01:95
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:44 = *01:10, *01:66
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:21 = *01:21, *01:29
++-----	-----	-+-+-	-----	-----	-----	*01:10, *01:11N = *01:10, *01:28
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:81 = *01:27N, *01:81
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:98 = *01:27N, *01:98
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:113 = *01:27N, *01:113
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:100 = *01:27N, *01:100
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:87N = *01:27N, *01:87N
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:109 = *01:27N, *01:109
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:45 = *01:27N, *01:45
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:107 = *01:27N, *01:107
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:30 = *01:27N, *01:30
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:101 = *01:27N, *01:101
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:59 = *01:27N, *01:59
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:21 = *01:21, *01:27N
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:13 = *01:13, *01:27N
++-----	-----	-+-+-	-----	-----	-----	*01:08, *01:10 = *01:10, *01:27N
++-----	-----	-+-+-	-----	-----	-----	*01:01:01:01, *01:07 = *01:01:23, *01:07 = *01:01:32, *01:07 =

101.411-24/06 – including Taq polymerase, IFU-01  
101.411-24u/06u – without Taq polymerase, IFU-02

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						*01:07, *01:23 = *01:07, *01:37 = *01:07, *01:47 = *01:07, *01:100 = *01:23, *01:100
++-----+	-----+	-----+	-----+	-----+	-----+	*01:41, *01:51 = *01:42, *01:51
++-----+	-----+	-----+	-----+	-----+	-----+	*01:43, *01:51 = *01:51, *01:57N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:38, *01:51 = *01:51, *01:63
++-----+	-----+	-----+	-----+	-----+	-----+	*01:37, *01:51 = *01:51, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:44, *01:51 = *01:51, *01:66
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:41 = *01:01:01:02N, *01:42
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:43 = *01:01:01:02N, *01:57N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:38 = *01:01:01:02N, *01:63
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:37 = *01:01:01:02N, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:31N = *01:01:01:02N, *01:51 = *01:15N, *01:51
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:44 = *01:01:01:02N, *01:66
++-----+	-----+	-----+	-----+	-----+	-----+	*01:17, *01:51 = *01:23, *01:59 = *01:51, *01:59
++-----+	-----+	-----+	-----+	-----+	-----+	*01:11N, *01:51 = *01:28, *01:51
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:11N = *01:01:01:02N, *01:28
++-----+	-----+	-----+	-----+	-----+	-----+	*01:08, *01:51 = *01:27N, *01:51
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:08 = *01:01:01:02N, *01:27N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:41, *01:60 = *01:42, *01:60
++-----+	-----+	-----+	-----+	-----+	-----+	*01:43, *01:60 = *01:57N, *01:60
++-----+	-----+	-----+	-----+	-----+	-----+	*01:38, *01:60 = *01:60, *01:63
++-----+	-----+	-----+	-----+	-----+	-----+	*01:37, *01:60 = *01:60, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:44, *01:60 = *01:60, *01:66
++-----+	-----+	-----+	-----+	-----+	-----+	*01:11N, *01:60 = *01:28, *01:60
++-----+	-----+	-----+	-----+	-----+	-----+	*01:08, *01:60 = *01:27N, *01:60
++-----+	-----+	-----+	-----+	-----+	-----+	*01:20, *01:37 = *01:20, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:11N, *01:20 = *01:20, *01:28
++-----+	-----+	-----+	-----+	-----+	-----+	*01:12, *01:43 = *01:12, *01:57N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:12, *01:37 = *01:12, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:01, *01:19 = *01:01:32, *01:19 = *01:12, *01:21 = *01:12, *01:26 = *01:19, *01:21 = *01:19, *01:25 = *01:19, *01:26 = *01:19, *01:69:01
++-----+	-----+	-----+	-----+	-----+	-----+	*01:11N, *01:12 = *01:12, *01:28
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:41 = *01:07, *01:42
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:43 = *01:07, *01:57N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:38 = *01:07, *01:63
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:31N = *01:07, *01:51 = *01:51, *01:100
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:44 = *01:07, *01:66
++-----+	-----+	-----+	-----+	-----+	-----+	*01:01:01:02N, *01:07 = *01:01:01:02N, *01:100 = *01:07, *01:15N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:07, *01:08 = *01:07, *01:27N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:19, *01:43 = *01:19, *01:57N
++-----+	-----+	-----+	-----+	-----+	-----+	*01:19, *01:37 = *01:19, *01:95
++-----+	-----+	-----+	-----+	-----+	-----+	*01:11N, *01:19 = *01:19, *01:28
++-----+	-----+	-----+	-----+	-----+	-----+	*01:10, *01:12 = *01:10, *01:19 = *01:19, *01:29

\*01:01:01:01 = \*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37, 01:01:39-01:01:47 and 01:67-01:68, 01:70-01:72, 01:74-01:79, 01:82, 01:84-01:86, 01:88, 01:90-01:91, 01:93-01:94, 01:96-01:97, 01:99, 01:102, 01:105-01:106, 01:108 and 01:110-01:112  
 \*01:01:23 = \*01:01:23, 01:73 and 01:89  
 \*01:01:32 = \*01:01:32 and 01:80  
 \*01:23 = \*01:23 and 01:83  
 \*01:27N = \*01:27N and 01:103  
 \*01:32 = \*01:32 and 01:104  
 \*01:47 = \*01:47 and 01:49  
 \*01:50 = \*01:50 and 01:62  
 \*01:53N = \*01:53N and 01:54  
 \*01:65 = \*01:65, 01:92  
 \*01:69:01 = \*01:69:01-01:69:02



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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## SPECIFICITY TABLE

### HLA-A\*01 SSP subtyping

Specificities and sizes of the PCR products of the 48 primer mixes used for HLA-A\*01 SSP subtyping

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified HLA-A*01 alleles <sup>3</sup>	Other amplified HLA-A alleles <sup>4</sup>
<b>1</b>	235 bp	<b>800 bp</b>	*01:01:01:01-01:01:22, 01:01:24-01:02, 01:04N, 01:06-01:07, 01:09-01:11N, 01:13, 01:15N-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, 01:90-01:113	*03:18, 03:135, 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, 11:54-11:89, 11:91-11:100, 11:102-11:117, 11:119-11:129, 36:04
<b>2<sup>10</sup></b>	145 bp	1070 bp	*01:01:01:01-01:01:31, 01:01:33-01:01:47, 01:03-01:04N, 01:06-01:17, 01:18N <sup>w</sup> , 01:19, 01:21-01:23, 01:24 <sup>w</sup> , 01:25-01:33, 01:35-01:42, 01:44-01:68, 01:70-01:79, 01:81-01:113	*36:01-36:05
<b>3<sup>5</sup></b>	120 bp	<b>800 bp</b>	*01:02, 01:20	
<b>4</b>	305 bp	1070 bp	*01:03	*11:26, 11:118, 26:32, 26:70, 33:13, 36:03, 74:10, <b>C*06:72</b>
<b>5</b>	470 bp	1070 bp	*01:04N	*03:21N, 11:21N, 23:07N, 24:11N
<b>6<sup>5,11</sup></b>	125 bp, 210 bp	1070 bp	*01:09, 01:60	*26:31, <b>C*06:71</b>
<b>7<sup>6</sup></b>	215 bp	<b>800 bp</b>	*01:06	*02:156, 02:338, 03:01:30, 03:05:01-03:05:02, 03:42, 03:98, 03:105, 03:122, 11:24:01-11:25, 11:31, 11:35, 30:01:01-30:03, 30:07-30:16, 30:18-30:20, 30:22-30:27N, 30:30-30:45, 30:48-30:51, 30:53-30:62, 30:64-30:66, 31:03-31:04, 33:49, 34:02:01-34:04, 34:07-34:09, 80:01:01:01-80:02



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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<b>8<sup>5,7,12</sup></b>	110 bp, 180 bp	1070 bp	*01:01:01:02N, 01:07, 01:23, 01:51, 01:83	*31:35
<b>9<sup>5,7,13</sup></b>	70 bp, 235 bp	<b>800 bp</b>	*01:08, 01:27N, 01:103	
<b>10<sup>14</sup></b>	155 bp, 270 bp	<b>800 bp</b>	*01:10, 01:29	*11:14 <sup>W</sup> , 11:50Q, 30:26, 80:01:01:01 <sup>W</sup> -80:02 <sup>W</sup>
<b>11<sup>15</sup></b>	135 bp, 275 bp	<b>800 bp</b>	*01:11N, 01:13, 01:28	*31:35
<b>12<sup>5,8</sup></b>	85 bp	<b>800 bp</b>		*31:62, 36:01-36:05
<b>13</b>	205 bp	1070 bp	*01:12, 01:19, 01:21	*02:156 <sup>W</sup> , 02:338 <sup>W</sup> , 03:02:01- 03:02:03, 03:07 <sup>W</sup> , 03:10, 03:31-03:32, 03:42 <sup>W</sup> , 03:73, 03:76, 03:82, 03:90, 03:106, 03:113, 03:133 <sup>W</sup> , 11:31 <sup>W</sup> , 11:35 <sup>W</sup> , 11:60, 24:92, 30:04:01 <sup>W</sup> -30:04:02 <sup>W</sup> , 30:06 <sup>W</sup> , 30:09 <sup>W</sup> , 30:17 <sup>W</sup> , 30:29 <sup>W</sup> , 30:46 <sup>W</sup> , 31:03 <sup>W</sup> -31:04 <sup>W</sup> , 33:49 <sup>W</sup>
<b>14<sup>5,16</sup></b>	75 bp, 120 bp	1070 bp	*01:13, 01:17, 01:59	
<b>15</b>	235 bp	1070 bp	*01:12, 01:14, 01:19	*02:156, 02:338, 03:01:01:01- 03:01:05, 03:01:07-03:01:29, 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, 03:136-03:151, 11:04, 11:27, 11:35, 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, 30:53-30:66, 31:03- 31:04, 32:04, 33:49, 34:02:01- 34:04, 34:07-34:09, 36:01- 36:02, 36:05
<b>16<sup>9,17</sup></b>	180 bp, 235 bp	1070 bp	*01:01:01:02N, 01:15N	
<b>17<sup>18</sup></b>	210 bp, 285 bp	1070 bp	*01:16N, 01:101	*03:87, 11:30

101.411-24/06 – including *Taq* polymerase, IFU-01  
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<b>18</b>	135 bp	1070 bp	*01:01:01:01-01:04N, 01:06, 01:08-01:12, 01:14-01:27N, 01:29- 01:33, 01:35-01:68, 01:70-01:94, 01:96- 01:113	*36:01-36:05
<b>19<sup>7</sup></b>	170 bp	1070 bp	*01:18N, 01:30	*02:262, 24:22, 24:160
<b>20<sup>5,19</sup></b>	65 bp, 425 bp	<b>800 bp</b>	*01:10, 01:19, 01:21, 01:26	*03:135, 11:112
<b>21<sup>5,20</sup></b>	125 bp, 255 bp	1070 bp	*01:20, 01:44, 01:66	*02:19, 02:36-02:37, 02:54, 02:255, 24:14, 24:93
<b>22<sup>7</sup></b>	590 bp	1070 bp	*01:22N, 01:107	
<b>23<sup>7,21</sup></b>	155 bp, 175 bp	1070 bp	*01:24, 01:30	*02:262, 24:22, 24:160
<b>24</b>	215 bp	1070 bp	*01:12, 01:19, 01:25	*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, 11:01:01- 11:01:03, 11:01:05-11:07, 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, 11:119-11:129, 24:92
<b>25<sup>5</sup></b>	85 bp	1070 bp	*01:31N, 01:51, 01:59	
<b>26<sup>5,22</sup></b>	90 bp, 545 bp	1070 bp	*01:32, 01:45, 01:104	*02:346, 03:78, 11:06, 11:108, 25:11, 26:03:01-26:03:02, 26:06, 26:21, 26:36, 66:17, 80:01:01:01 <sup>w</sup>
<b>27<sup>5,23</sup></b>	110 bp, 160 bp, 195 bp	1070 bp	*01:33, 01:87N, 01:109	*11:100
<b>28<sup>5,7,24</sup></b>	120 bp, 220 bp	1070 bp	*01:01:38L, 01:109	*11:100, 24:02:03Q, 33:03:03Q
<b>29<sup>25</sup></b>	155 bp, 285 bp	<b>800 bp</b>	*01:35, 01:101	*03:77, 03:87, 11:30
<b>30<sup>7,26</sup></b>	135 bp, 175 bp	1070 bp	*01:07, 01:37, 01:95, 01:100	*31:35
<b>31</b>	240 bp	1070 bp	*01:38, 01:63	
<b>32<sup>5,27</sup></b>	110 bp, 140 bp	1070 bp	*01:43, 01:57N	<b>C*07:191N</b>
<b>33<sup>5</sup></b>	85 bp	1070 bp	*01:61	<b>B*15:90, B*45:05</b>

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

<b>34</b> <sup>5,28</sup>	125 bp, 215 bp	<b>800 bp</b>	*01:58, 01:60	*26:31, <b>C*06:71</b>
<b>35</b> <sup>5,29</sup>	105 bp, 180 bp	<b>800 bp</b>	*01:07, 01:47, 01:49, 01:100	*31:35
<b>36</b> <sup>5,30</sup>	90 bp, 175 bp	1070 bp	*01:53N-01:54	
<b>37</b> <sup>5,31</sup>	65 bp, 150 bp	1070 bp	*01:65, 01:92	
<b>38</b> <sup>5,9,32</sup>	100 bp, 180 bp	1070 bp	*01:50, 01:62	*02:315, 03:85
<b>39</b> <sup>33</sup>	160 bp, 205 bp	<b>800 bp</b>	*01:39, 01:113	*24:26
<b>40</b>	160 bp	1070 bp	*01:36, 01:113	
<b>41</b>	140 bp	1070 bp	*01:48	
<b>42</b> <sup>5,34</sup>	110 bp, 190 bp	1070 bp	*01:64, 01:87N	
<b>43</b> <sup>35</sup>	550 bp, 590 bp	1070 bp	*01:45, 01:56N, 01:107	*03:78, 11:69N, 11:108, 66:17
<b>44</b> <sup>5,36</sup>	65 bp, 245 bp	1070 bp	*01:46, 01:98	*24:87, <b>B*07:64</b>
<b>45</b> <sup>5,7,37</sup>	65 bp, 140 bp	1070 bp	*01:52N, 01:98	*24:87, <b>B*07:64</b>
<b>46</b> <sup>5,38</sup>	85 bp, 155 bp	1070 bp	*01:40, 01:81	*03:26, 11:77, 11:126
<b>47</b> <sup>7,39</sup>	295 bp, 325 bp	1070 bp	*01:41-01:42	*11:48
<b>48</b> <sup>5,7</sup>	95 bp	1070 bp	*01:55, 01:81	*03:26, 11:77, 11:126

<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\*01 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.

<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.

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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**Lot No.: 59R****Lot-specific information**

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\*01 subtyping.

In addition, wells number 3, 7, 9 to 12, 20, 29, 34, 35 and 39 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 Class I alleles 1<sup>st</sup> and/or 4<sup>th</sup> 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.

<sup>4</sup>Due to the sharing of sequence motifs between HLA-A alleles non-HLA-A\*01 alleles will be amplified by primer mixes 1, 2, 4 to 8, 10 to 13, 15, 17 to 21, 23, 24, 26 to 30, 34, 35, 38, 39 and 43 to 48. In addition, the B\*07:64 allele will be amplified by primer mixes 44 and 45, B\*15:90 and B\*45:05 will be amplified by primer mix 32, C\*06:71 will be amplified by primer mixes 6 and 34, C\*06:72 will be amplified by primer mix 4 and the C\*07:191N allele will be amplified by primer mix 33.

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

<sup>6</sup>Primer mix 7 has a tendency of giving rise to primer oligomer formation.

<sup>7</sup>Primer mixes 8, 9, 19, 22, 23, 28, 30, 45, 47 and 48 may have tendencies of unspecific amplifications.

<sup>8</sup>Primer mix 12 might faintly amplify most A\*11, the A\*02:27, 02:267, 31:24, C\*07:25 and C\*16:24 alleles.

<sup>9</sup>In primer mixes 16 and 38, the band generated by the positive control primer pair may be weaker than for the other HLA-A\*01 primer mixes.

<sup>10</sup>Primer mix 2 may give rise to a lower yield of HLA-specific PCR product than the other A\*01 primer mixes.

<sup>11</sup>Primer mix 6: Specific PCR fragment of 125 bp in the A\*01:60 and in the A\*26:31 and the C\*06:71 alleles. Specific PCR fragment of 210 bp in the A\*01:09 allele.

<sup>12</sup>Primer mix 8: Specific PCR fragment of 110 bp in the A\*01:07, 01:23, 01:51 and 01:83 and the A\*31:35 alleles. Specific PCR fragment of 180 bp in the A\*01:01:01:02N allele.

<sup>13</sup>Primer mix 9: Specific PCR fragment of 70 bp in the A\*01:103 allele. Specific PCR fragment of 235 bp in the A\*01:08 and 01:27N alleles.

<sup>14</sup>Primer mix 10: Specific PCR fragment of 155 bp in the A\*01:10, 11:14<sup>W</sup>, 11:50Q, 30:26, 80:01:01:01<sup>W</sup>-80:02<sup>W</sup> alleles. Specific PCR fragment of 270 bp in the A\*01:29 allele.

<sup>15</sup>Primer mix 11: Specific PCR fragment of 135 bp in the A\*01:13 and 01:28 and in the A\*31:35 alleles. Specific PCR fragment of 275 bp in the A\*01:11N allele.

<sup>16</sup>Primer mix 14: Specific PCR fragment of 75 bp in the A\*01:59 allele. Specific PCR fragment of 120 bp in the A\*01:13 and 01:17 alleles.

<sup>17</sup>Primer mix 16: Specific PCR fragment of 180 bp in the A\*01:01:01:02N allele. Specific PCR fragment of 235 bp in the A\*01:15N allele.

<sup>18</sup>Primer mix 17: Specific PCR fragment of 210 bp in the A\*01:16N allele. Specific PCR fragment of 285 bp in the A\*01:101 and the A\*03:87 and 11:30 alleles.

<sup>19</sup>Primer mix 20: Specific PCR fragment of 65 bp in the A\*01:10, 01:21 and 01:26 and the A\*03:135 and 11:112 alleles. Specific PCR fragment of 425 bp in the A\*01:19 allele.

<sup>20</sup>Primer mix 21: Specific PCR fragment of 125 bp in the A\*01:44 allele. Specific PCR fragment of 255 bp in the A\*01:20 and 01:66 and in the A\*02:19, 02:36-02:37, 02:54, 02:255, 24:14 and 24:93 alleles.

<sup>21</sup>Primer mix 23: Specific PCR fragment of 155 bp in the A\*01:24 allele. Specific PCR fragment of 175 bp in the A\*01:30 and the A\*02:262, 24:22 and 24:160 alleles.

<sup>22</sup>Primer mix 26: Specific PCR fragment of 90 bp in the A\*01:104 and the A\*02:346, 11:06, 25:11, 26:03:01-26:03:02, 26:06, 26:21, 26:36 and 80:01:01:01<sup>W</sup> alleles. Specific PCR fragment of 545 bp in the A\*01:45 and the A\*03:78, 11:108 and 66:17 alleles.

<sup>23</sup>Primer mix 27: Specific PCR fragment of 110 bp in the A\*01:87N allele. Specific PCR fragment of 160 bp in the A\*01:33 allele. Specific PCR fragment of 195 bp in the A\*01:109 and the A\*11:100 alleles.

<sup>24</sup>Primer mix 28: Specific PCR fragment of 120 bp in the A\*01:01:38L and the A\*24:02:03Q and 33:03:03Q alleles. Specific PCR fragment of 220 bp in the A\*01:109 and A\*11:100 alleles.

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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**Lot No.: 59R****Lot-specific information**

- <sup>25</sup>Primer mix 29: Specific PCR fragment of 155 bp in the A\*01:35 and the A\*03:77 alleles. Specific PCR fragment of 285 bp in the A\*01:101 and the A\*03:87 and 11:30 alleles.
- <sup>26</sup>Primer mix 30: Specific PCR fragment of 135 bp in the A\*01:95 allele. Specific PCR fragment of 175 bp in the A\*01:07, 01:37 and 01:100 and the A\*31:35 alleles.
- <sup>27</sup>Primer mix 32: Specific PCR fragment of 110 bp in the A\*01:57N and the C\*07:191N alleles. Specific PCR fragment of 140 bp in the A\*01:43 allele.
- <sup>28</sup>Primer mix 34: Specific PCR fragment of 125 bp in the A\*01:60 and in the A\*26:31 and the C\*06:71 alleles. Specific PCR fragment of 215 bp in the A\*01:58 allele.
- <sup>29</sup>Primer mix 35: Specific PCR fragment of 105 bp in the A\*01:47 allele. Specific PCR fragment of 180 bp in the A\*01:07, 01:49 and 01:100 and the A\*31:35 alleles.
- <sup>30</sup>Primer mix 36: Specific PCR fragment of 90 bp in the A\*01:54 allele. Specific PCR fragment of 175 bp in the A\*01:53N allele.
- <sup>31</sup>Primer mix 37: Specific PCR fragment of 65 bp in the A\*01:65 allele. Specific PCR fragment of 150 bp in the A\*01:92 allele.
- <sup>32</sup>Primer mix 38: Specific PCR fragment of 100 bp in the A\*01:50 allele. Specific PCR fragment of 180 bp in the A\*01:62 and the A\*02:315 and 03:85 alleles.
- <sup>33</sup>Primer mix 39: Specific PCR fragment of 160 bp in the A\*01:113 allele. Specific PCR fragment of 205 bp in the A\*01:39 and the A\*24:26 alleles.
- <sup>34</sup>Primer mix 42: Specific PCR fragment of 110 bp in the A\*01:87N allele. Specific PCR fragment of 190 bp in the A\*01:64 allele.
- <sup>35</sup>Primer mix 43: Specific PCR fragment of 550 bp in the A\*01:45 and 01:56N and the A\*03:78, 11:69N, 11:108 and 66:17 alleles. Specific PCR fragment of 590 bp in the A\*01:107 allele.
- <sup>36</sup>Primer mix 44: Specific PCR fragment of 65 bp in the A\*01:98 and the A\*24:87 and B\*07:64 alleles. Specific PCR fragment of 245 bp in the A\*01:46 allele.
- <sup>37</sup>Primer mix 45: Specific PCR fragment of 65 bp in the A\*01:98 and the A\*24:87 and B\*07:64 alleles. Specific PCR fragment of 140 bp in the A\*01:52N allele.
- <sup>38</sup>Primer mix 46: Specific PCR fragment of 85 bp in the A\*01:81 and the A\*03:26, 11:77 and 11:126 alleles. Specific PCR fragment of 155 bp in the A\*01:40 allele.
- <sup>39</sup>Primer mix 47: Specific PCR fragment of 295 bp in the A\*01:41 and A\*11:48 alleles. Specific PCR fragment of 325 bp in the A\*01:42 allele.  
'w', might be weakly amplified.

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: 59R

Lot-specific information

INTERPRETATION TABLE																								
HLA-A*01 SSP subtyping																								
Amplification patterns of the A*01:01 to 01:113 alleles																								
	Well <sup>14</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
Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175	
Length of int. pos. control <sup>1</sup>	800	1070	800	1070	1070	1070	800	1070	800	800	800	800	1070	1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070
5'-primer(s) <sup>2</sup>	5'-ATA <sup>3'</sup> 363	5'-CTT <sup>3'</sup> 98	5'-Agt <sup>3'</sup> 123	5'-gga <sup>3'</sup> 341	5'-ATA <sup>3'</sup> 3 <sup>rd</sup> 1	5'-TTA <sup>3'</sup> 171	5'-ATA <sup>3'</sup> 363	5'-gaa <sup>3'</sup> 203	5'-ATA <sup>3'</sup> 363	5'-CCC <sup>3'</sup> 113	5'-gaa <sup>3'</sup> 203	5'-Tgc <sup>3'</sup> 527	5'-ATA <sup>3'</sup> 363	5'-gaa <sup>3'</sup> 203	5'-ATA <sup>3'</sup> 363	5'-gaa <sup>3'</sup> 203	5'-ATA <sup>3'</sup> 363	5'-gaa <sup>3'</sup> 203	5'-gCC <sup>3'</sup> 215	5'-gaa <sup>3'</sup> 203	5'-CCg <sup>3'</sup> 355	5'-ATA <sup>3'</sup> 3 <sup>rd</sup> 1	5'-gaa <sup>3'</sup> 89	5'-ATA <sup>3'</sup> 363
3'-primer(s) <sup>3</sup>	5'-CCg <sup>3'</sup> 559	5'-TCT <sup>3'</sup> 203	5'-TCT <sup>3'</sup> 203	5'-TCA <sup>3'</sup> 362	5'-ggg <sup>3'</sup> 621	5'-Cgt <sup>3'</sup> 341	5'-TCA <sup>3'</sup> 539	5'-CAC <sup>3'</sup> 271	5'-CTA <sup>3'</sup> 553	5'-Cgt <sup>3'</sup> 341	5'-CCA <sup>3'</sup> 299	5'-CAC <sup>3'</sup> 570	5'-CCA <sup>3'</sup> 527	5'-CCg <sup>3'</sup> 237	5'-Cgt <sup>3'</sup> 559	5'-Cgt <sup>3'</sup> 341	5'-TCC <sup>3'</sup> 531	5'-TCg <sup>3'</sup> 299	5'-Cgt <sup>3'</sup> 341	5'-AgC <sup>3'</sup> 346	5'-CCg <sup>3'</sup> 570	5'-T-g <sup>3'</sup> 750	5'-TCT <sup>3'</sup> 203	5'-TCT <sup>3'</sup> 539
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

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

INTERPRETATION TABLE																																																
HLA-A*01 SSP subtyping																																																
Amplification patterns of the A*01:01 to 01:113 alleles																																																
Well <sup>14</sup>																																																
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48																									
85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)																								
1070	1070	1070	1070	800	1070	1070	1070	1070	800	800	1070	1070	1070	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	Length of int. pos. control <sup>1</sup>																								
5'-gAA <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-CTT <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-CAC <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-CAT <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-CCG <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-ACA <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-ACA <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-Tag <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-gga <sup>3'</sup>	5'-CTg <sup>3'</sup>	5'-primer(s) <sup>2</sup>																								
203	292	98	627	363	203	360	102	502	168	203	413	230	102	82	82	413	102	3 <sup>rd</sup> I	364	470	363	341	349																									
5'-ATA <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-CTT <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-CAC <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-CAT <sup>3'</sup>	5'-gAA <sup>3'</sup>	5'-CCG <sup>3'</sup>	5'-CTg <sup>3'</sup>	5'-ACA <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-ACC <sup>3'</sup>	5'-Cgg <sup>3'</sup>	5'-CCC <sup>3'</sup>	5'-ATA <sup>3'</sup>	5'-AgC <sup>3'</sup>	5'-AgC <sup>3'</sup>	5'-gAg <sup>3'</sup>	5'-gga <sup>3'</sup>	5'-CTg <sup>3'</sup>	3'-primer(s) <sup>3</sup>																								
237	341	218	705	476	299	570	203	545	341	265	461	341	241	203	203	510	250	704	570	570	479	353	413																									
5'-CCg <sup>3'</sup>	5'-CgT <sup>3'</sup>	5'-gCT <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-Aga <sup>3'</sup>	5'-CgT <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-gCC <sup>3'</sup>	5'-CgT <sup>3'</sup>	5'-Cga <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-TCT <sup>3'</sup>	5'-Cag <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-Tga <sup>3'</sup>	5'-GCC <sup>3'</sup>	Well No.																								
259	704	806	806	605	755		454			556	549	570	420	570	545	721	723	750			874	382	874																									
5'-CCT <sup>3'</sup>	5'-ggT <sup>3'</sup>	5'-CA <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-gCA <sup>3'</sup>	5'-Cgg <sup>3'</sup>		5'-CTA <sup>3'</sup>			5'-gCT <sup>3'</sup>	5'-AgT <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-gCT <sup>3'</sup>	5'-CCg <sup>3'</sup>	5'-AgA <sup>3'</sup>	5'-CA <sup>3'</sup>	5'-TgT <sup>3'</sup>	5'-TCg <sup>3'</sup>			5'-CTC <sup>3'</sup>	5'-CCA <sup>3'</sup>	5'-CTC <sup>3'</sup>																									



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175	
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
HLA-A allele <sup>4,5</sup>																								
*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37, 01:01:39-01:01:47, 01:67-01:68, 01:70-01:71, 01:72, 01:74-01:79, 01:82, 01:84-01:86, 01:88, 01:90-01:91, 01:93-01:94, 01:96-01:97, 01:99, 01:102, 01:105-01:106, 01:108, 01:110-01:112 <sup>6</sup>	1	2																18						
*01:01:01:02N	1	2						8								16		18						
*01:01:23, 01:73, 01:89		2																18						
*01:01:32, 01:80	1																	18						
*01:01:38L	1	2																18						
*01:02	1		3															18						
*01:03		2		4														18						
*01:04N	1	2			5													18						
*01:06	1	2					7											18						
*01:07	1	2						8																
*01:08		2							9									18						
*01:09	1	2			6													18						
*01:10	1	2								10								18	20					
*01:11N	1	2									11							18						
*01:12		2											13	15				18						24
*01:13	1	2									11			14										
*01:14		2													15			18						
*01:15N	1	2														16		18						
*01:16N	1	2															17	18						
*01:17	1	2												14				18						
*01:18N	1	w																18	19					
*01:19		2											13	15				18	20					24
*01:20			3															18			21			
*01:21	1	2											13					18	20					
*01:22N	1	2																18				22		
*01:23, 01:83	1	2						8										18						
*01:24	1	w																18					23	
*01:25	1	2																18						24
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



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)
	545	160	220	285	175		140		215	180	175	150	180	205			190	590	245	140	155	325		Well No. HLA-A allele <sup>4,5</sup>
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
		195																						*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37, 01:01:39-01:01:47, 01:67-01:68, 01:70-01:71, 01:72, 01:74-01:79, 01:82, 01:84-01:86, 01:88, 01:90-01:91, 01:93-01:94, 01:96-01:97, 01:99, 01:102, 01:105-01:106, 01:108, 01:110-01:112 <sup>6</sup>
																								*01:01:01:02N
																								*01:01:23, 01:73, 01:89
																								*01:01:32, 01:80
			28																					*01:01:38L
																								*01:02
																								*01:03
																								*01:04N
																								*01:06
					30					35														*01:07
																								*01:08
																								*01:09
																								*01:10
																								*01:11N
																								*01:12
																								*01:13
																								*01:14
																								*01:15N
																								*01:16N
																								*01:17
																								*01:18N
																								*01:19
																								*01:20
																								*01:21
																								*01:22N
																								*01:23, 01:83
																								*01:24
																								*01:25
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175	
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
*01:26	1	2																18		20				
*01:27N, 01:103 <sup>8</sup>	1	2							9									18						
*01:28	1	2									11													
*01:29	1	2								10								18						
*01:30	1	2																18	19				23	
*01:31N	1	2																18						
*01:32, 01:104 <sup>9</sup>	1	2																18						
*01:33	1	2																18						
*01:35	1	2																18						
*01:36	1	2																18						
*01:37	1	2																18						
*01:38	1	2																18						
*01:39	1	2																18						
*01:40	1	2																18						
*01:41		2																18						
*01:42	1	2																18						
*01:43	1																	18						
*01:44	1	2																18			21			
*01:45	1	2																18						
*01:46	1	2																18						
*01:47, 01:49 <sup>10</sup>	1	2																18						
*01:48	1	2																18						
*01:50, 01:62 <sup>11</sup>	1	2																18						
*01:51	1	2						8										18						
*01:52N	1	2																18						
*01:53N, 01:54 <sup>12</sup>	1	2																18						
*01:55	1	2																18						
*01:56N	1	2																18						
*01:57N	1	2																18						
*01:58	1	2																18						
*01:59	1	2												14				18						
*01:60	1	2				6												18						
*01:61	1	2																18						
*01:63		2																18						
*01:64	1	2																18						
*01:65, 01:92 <sup>13</sup>	1	2																18						
*01:66		2																18			21			
*01:69:01-01:69:02, 03:18, 11:01:04, 11:08, 11:23, 11:44, 11:94 <sup>7</sup>	1																							
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



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175	
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
*01:81	1	2																18						
*01:87N	1	2																18						
*01:95	1	2																						
*01:98	1	2																18						
*01:100	1	2																18						
*01:101	1	2															17	18						
*01:107	1	2																18				22		
*01:109	1	2																18						
*01:113	1	2																18						
*02:19, 02:36-02:37, 02:54, 02:255, 24:14, 24:93																						21		
*02:156, 02:338, 03:42, 11:35, 30:09, 31:03- 31:04, 33:49							7						w		15									
*02:262, 24:22, 24:160																			19				23	
*02:315																								
*02:346, 25:11, 26:03:01- 26:03:02, 26:06, 26:21, 26:36																								
*03:01:01:01-03:01:05, 03:01:07-03:01:29, 03:01:31-03:01:33, 03:03N-03:04:02, 03:06, 03:08-03:09, 03:11N- 03:17:02, 03:19-03:20, 03:22:01-03:25, 03:27- 03:30, 03:33-03:39, 03:41, 03:43-03:64, 03:66-03:68N, 03:70- 03:72, 03:74, 03:79- 03:81, 03:83-03:84, 03:86, 03:88-03:89, 03:91N-03:94, 03:96- 03:97, 03:99-03:104, 03:107-03:112, 03:114- 03:121, 03:123-03:132, 03:134, 03:136-03:151, 30:63, 32:04																								
*03:01:30, 03:98, 03:105, 30:14L, 30:43							7																	
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

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)	
	545	160	220	285	175		140		215	180	175	150	180	205			190	590	245	140	155	325		Well No.	
		195																							
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
		27															42				46		48	*01:81	
					30															44	45			*01:87N	
																								*01:95	
					30																			*01:98	
										35														*01:100	
				29																				*01:101	
		27	28														43							*01:107	
																								*01:109	
													39	40										*01:113	
																								*02:19, 02:36-02:37, 02:54, 02:255, 24:14, 24:93	
																								*02:156, 02:338, 03:42, 11:35, 30:09, 31:03- 31:04, 33:49	
																								*02:262, 24:22, 24:160	
												38												*02:315	
	26																							*02:346, 25:11, 26:03:01- 26:03:02, 26:06, 26:21, 26:36	
																								*03:01:01:01-03:01:05, 03:01:07-03:01:29, 03:01:31-03:01:33, 03:03N-03:04:02, 03:06, 03:08-03:09, 03:11N- 03:17:02, 03:19-03:20, 03:22:01-03:25, 03:27- 03:30, 03:33-03:39, 03:41, 03:43-03:64, 03:66-03:68N, 03:70- 03:72, 03:74, 03:79- 03:81, 03:83-03:84, 03:86, 03:88-03:89, 03:91N-03:94, 03:96- 03:97, 03:99-03:104, 03:107-03:112, 03:114- 03:121, 03:123-03:132, 03:134, 03:136-03:151, 30:63, 32:04	
																								*03:01:30, 03:98, 03:105, 30:14L, 30:43	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.	

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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

Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215	
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175		
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	
*03:02:01-03:02:03, 03:10, 03:31-03:32, 03:73, 03:76, 03:82, 03:90, 03:106, 03:113, 24:92													13		15										24
*03:05:01-03:05:02, 03:122, 30:01:01-30:03, 30:07-30:08, 30:10- 30:13, 30:15-30:16, 30:18-30:20, 30:22- 30:25, 30:27N, 30:30- 30:42, 30:44-30:45, 30:48-30:51, 30:53- 30:62, 30:64-30:66, 34:02:01-34:04, 34:07- 34:09							7								15										
*03:07, 03:133, 30:04:01- 30:04:02, 30:06, 30:17, 30:29, 30:46													w		15										
*03:21N					5										15										
*03:26															15										
*03:65, 03:69N, 11:04, 11:27															15										24
*03:77															15										
*03:78															15										
*03:85															15										
*03:87															15		17								
*03:135	1																			20					
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	

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)	
	545	160	220	285	175		140		215	180	175	150	180	205			190	590	245	140	155	325		Well No.	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
		195																							*03:02:01-03:02:03, 03:10, 03:31-03:32, 03:73, 03:76, 03:82, 03:90, 03:106, 03:113, 24:92
																									*03:05:01-03:05:02, 03:122, 30:01:01-30:03, 30:07-30:08, 30:10- 30:13, 30:15-30:16, 30:18-30:20, 30:22- 30:25, 30:27N, 30:30- 30:42, 30:44-30:45, 30:48-30:51, 30:53- 30:62, 30:64-30:66, 34:02:01-34:04, 34:07- 34:09
																									*03:07, 03:133, 30:04:01- 30:04:02, 30:06, 30:17, 30:29, 30:46
																									*03:21N
																					46		48		*03:26
																									*03:65, 03:69N, 11:04, 11:27
				29																					*03:77
	26																43								*03:78
												38													*03:85
				29																					*03:87
																									*03:135
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.	

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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

Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215	
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175		
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	
*11:01:01-11:01:03, 11:01:05-11:01:20, 11:01:22-11:01:43, 11:01:45-11:03, 11:05, 11:07, 11:09-11:13, 11:15:01-11:20, 11:22, 11:29, 11:32-11:34, 11:36-11:43, 11:45- 11:47, 11:49, 11:51- 11:52Q, 11:54-11:59, 11:61-11:68, 11:70- 11:76, 11:78N-11:89, 11:91-11:93, 11:95- 11:99N, 11:102-11:107, 11:109N-11:111, 11:113- 11:117, 11:119-11:125, 11:127N-11:129 *11:01:21, 11:01:44, 11:90	1																								24
*11:06	1																								24
*11:14	1								w																24
*11:21N	1				5																				24
*11:24:01-11:25	1						7																		
*11:26, 11:118, 26:32, 26:70, 33:13, 74:10, <i>C*06:72</i>				4																					
*11:30	1																17								24
*11:31	1						7						w												
*11:48																									
*11:50Q										10															
*11:60	1												13												24
*11:69N	1																								24
*11:77, 11:126	1																								24
*11:100	1																								24
*11:108	1																								24
*11:112	1																			20					24
*23:07N, 24:11N					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	



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.
																								*11:01:01-11:01:03, 11:01:05-11:01:20, 11:01:22-11:01:43, 11:01:45-11:03, 11:05, 11:07, 11:09-11:13, 11:15:01-11:20, 11:22, 11:29, 11:32-11:34, 11:36-11:43, 11:45- 11:47, 11:49, 11:51- 11:52Q, 11:54-11:59, 11:61-11:68, 11:70- 11:76, 11:78N-11:89, 11:91-11:93, 11:95- 11:99N, 11:102-11:107, 11:109N-11:111, 11:113- 11:117, 11:119-11:125, 11:127N-11:129
																								*11:01:21, 11:01:44, 11:90
	26																							*11:06
																								*11:14
																								*11:21N
																								*11:24:01-11:25
																								*11:26, 11:118, 26:32, 26:70, 33:13, 74:10, C*06:72
				29																				*11:30
																								*11:31
																						47		*11:48
																								*11:50Q
																								*11:60
																		43						*11:69N
			27 28																		46	48		*11:77, 11:126
	26																	43						*11:100
																								*11:108
																								*11:112
																								*23:07N, 24:11N
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

Length of spec.	235	145	120	305	470	125	215	110	70	155	135	85	205	75	235	180	210	135	170	65	125	590	155	215
PCR product(s)						210		180	235	270	275			120		235	285			425	255		175	
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
*24:02:03Q, 33:03:03Q																								
*24:26																								
*24:87, <i>B*07:64</i>																								
*26:31, <i>C*06:71</i>						<b>6</b>																		
*30:26							<b>7</b>			<b>10</b>					<b>15</b>									
*31:35								<b>8</b>			<b>11</b>													
*31:62												<b>12</b>												
*36:01-36:02, 36:05		<b>2</b>													<b>15</b>					<b>18</b>				
*36:03		<b>2</b>		<b>4</b>								<b>12</b>								<b>18</b>				
*36:04	<b>1</b>	<b>2</b>										<b>12</b>								<b>18</b>				
*66:17																								
*80:01:01:01							<b>7</b>			<b>w</b>														
*80:02							<b>7</b>			<b>w</b>														
<i>B*15:90, B*45:05</i>																								
<i>C*07:191N</i>																								
<b>HLA-A allele<sup>4,5</sup></b>																								
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

<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\*01 subtyping.

In addition, wells number 3, 7, 9 to 12, 20, 29, 34, 35 and 39 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>2</sup>The nucleotide position, in the 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> exon 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> or 4<sup>th</sup> exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>4</sup>The nucleotide sequence of the A\*0105N allele has been shown to be identical to A\*01:04N.

The A\*01:34N allele has been shown to be expressed at low levels and renamed A\*01:01:38L.

<sup>5</sup>HLA-A\*01 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 3.9.0, July 2012.

<sup>6</sup>This lot of the HLA-A\*01 subtyping kit cannot distinguish the A\*01:72 allele from the A\*01:01:01:01, 01:01:02-01:01:22, 01:01:24-01:01:31, 01:01:33-01:01:37, 01:01:39-01:01:47, 01:67-01:68, 01:70-01:71, 01:74-01:79, 01:82, 01:84-01:86, 01:88, 01:90-01:91, 01:93-01:94, 01:96-01:97, 01:99, 01:102, 01:105-01:106, 01:108 and 01:110-01:112 alleles.

<sup>7</sup>The A\*01:69:01-01:69:02 and the A\*03:18, 11:01:04, 11:08, 11:23, 11:44 and 11:94 alleles give rise to identical amplification patterns with the HLA-A\*01 primer set. These alleles can be distinguished by the HLA-A low resolution and/or the HLA-A\*03 and HLA-A\*11 kits.

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

85	90	110	120	155	135	240	110	85	125	105	90	65	100	160	160	140	110	550	65	65	85	295	95	Length of spec. PCR product(s)	
	545	160	220	285	175		140		215	180	175	150	180	205			190	590	245	140	155	325		Well No.	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		
			28											39					44	45					*24:02:03Q, 33:03:03Q
																									*24:26
																									*24:87, B*07:64
									34																*26:31, C*06:71
																									*30:26
				30						35															*31:35
																									*31:62
																									*36:01-36:02, 36:05
																									*36:03
																									*36:04
	26																	43							*66:17
	w																								*80:01:01:01
																									*80:02
								33																	B*15:90, B*45:05
							32																		C*07:191N
																									HLA-A allele <sup>4,5</sup>
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Well No.	

<sup>8</sup>The A\*01:27N and 01:103 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 9.

<sup>9</sup>The A\*01:32 and 01:104 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 26.

<sup>10</sup>The A\*01:47 and 01:49 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 35.

<sup>11</sup>The A\*01:50 and 01:62 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 38.

<sup>12</sup>The A\*01:53N and 01:54 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 36.

<sup>13</sup>The A\*01:65 and 01:92 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 37.

<sup>14</sup>Primer mix 6: Specific PCR fragment of 125 bp in the A\*01:60 and in the A\*26:31 and the C\*06:71 alleles. Specific PCR fragment of 210 bp in the A\*01:09 allele.

Primer mix 8: Specific PCR fragment of 110 bp in the A\*01:07, 01:23, 01:51 and 01:83 and the A\*31:35 alleles. Specific PCR fragment of 180 bp in the A\*01:01:01:02N allele.

Primer mix 9: Specific PCR fragment of 70 bp in the A\*01:103 allele. Specific PCR fragment of 235 bp in the A\*01:08 and 01:27N alleles.

Primer mix 10: Specific PCR fragment of 155 bp in the A\*01:10, 11:14<sup>w</sup>, 11:50Q, 30:26, 80:01:01:01<sup>w</sup>-80:02<sup>w</sup> alleles. Specific PCR fragment of 270 bp in the A\*01:29 allele.

Primer mix 11: Specific PCR fragment of 135 bp in the A\*01:13 and 01:28 and in the A\*31:35 alleles. Specific PCR fragment of 275 bp in the A\*01:11N allele.

Primer mix 14: Specific PCR fragment of 75 bp in the A\*01:59 allele. Specific PCR fragment of 120 bp in the A\*01:13 and 01:17 alleles.

Primer mix 16: Specific PCR fragment of 180 bp in the A\*01:01:01:02N allele. Specific PCR fragment of 235 bp in the A\*01:15N allele.

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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**Lot No.: 59R****Lot-specific information**

Primer mix 17: Specific PCR fragment of 210 bp in the A\*01:16N allele. Specific PCR fragment of 285 bp in the A\*01:101 and the A\*03:87 and 11:30 alleles.

Primer mix 20: Specific PCR fragment of 65 bp in the A\*01:10, 01:21 and 01:26 and the A\*03:135 and 11:112 alleles. Specific PCR fragment of 425 bp in the A\*01:19 allele.

Primer mix 21: Specific PCR fragment of 125 bp in the A\*01:44 allele. Specific PCR fragment of 255 bp in the A\*01:20 and 01:66 and in the A\*02:19, 02:36-02:37, 02:54, 02:255, 24:14 and 24:93 alleles.

Primer mix 23: Specific PCR fragment of 155 bp in the A\*01:24 allele. Specific PCR fragment of 175 bp in the A\*01:30 and the A\*02:262, 24:22 and 24:160 alleles.

Primer mix 26: Specific PCR fragment of 90 bp in the A\*01:104 and the A\*02:346, 11:06, 25:11, 26:03:01-26:03:02, 26:06, 26:21, 26:36 and 80:01:01:01<sup>w</sup> alleles. Specific PCR fragment of 545 bp in the A\*01:45 and the A\*03:78, 11:108 and 66:17 alleles.

Primer mix 27: Specific PCR fragment of 110 bp in the A\*01:87N allele. Specific PCR fragment of 160 bp in the A\*01:33 allele. Specific PCR fragment of 195 bp in the A\*01:109 and the A\*11:100 alleles.

Primer mix 28: Specific PCR fragment of 120 bp in the A\*01:01:38L and the A\*24:02:03Q and 33:03:03Q alleles. Specific PCR fragment of 220 bp in the A\*01:109 and A\*11:100 alleles.

Primer mix 29: Specific PCR fragment of 155 bp in the A\*01:35 and the A\*03:77 alleles. Specific PCR fragment of 285 bp in the A\*01:101 and the A\*03:87 and 11:30 alleles.

Primer mix 30: Specific PCR fragment of 135 bp in the A\*01:95 allele. Specific PCR fragment of 175 bp in the A\*01:07, 01:37 and 01:100 and the A\*31:35 alleles.

Primer mix 32: Specific PCR fragment of 110 bp in the A\*01:57N and the C\*07:191N alleles. Specific PCR fragment of 140 bp in the A\*01:43 allele.

Primer mix 34: Specific PCR fragment of 125 bp in the A\*01:60 and in the A\*26:31 and the C\*06:71 alleles. Specific PCR fragment of 215 bp in the A\*01:58 allele.

Primer mix 35: Specific PCR fragment of 105 bp in the A\*01:47 allele. Specific PCR fragment of 180 bp in the A\*01:07, 01:49 and 01:100 and the A\*31:35 alleles.

Primer mix 36: Specific PCR fragment of 90 bp in the A\*01:54 allele. Specific PCR fragment of 175 bp in the A\*01:53N allele.

Primer mix 37: Specific PCR fragment of 65 bp in the A\*01:65 allele. Specific PCR fragment of 150 bp in the A\*01:92 allele.

Primer mix 38: Specific PCR fragment of 100 bp in the A\*01:50 allele. Specific PCR fragment of 180 bp in the A\*01:62 and the A\*02:315 and 03:85 alleles.

Primer mix 39: Specific PCR fragment of 160 bp in the A\*01:113 allele. Specific PCR fragment of 205 bp in the A\*01:39 and the A\*24:26 alleles.

Primer mix 42: Specific PCR fragment of 110 bp in the A\*01:87N allele. Specific PCR fragment of 190 bp in the A\*01:64 allele.

Primer mix 43: Specific PCR fragment of 550 bp in the A\*01:45 and 01:56N and the A\*03:78, 11:69N, 11:108 and 66:17 alleles. Specific PCR fragment of 590 bp in the A\*01:107 allele.

Primer mix 44: Specific PCR fragment of 65 bp in the A\*01:98 and the A\*24:87 and B\*07:64 alleles. Specific PCR fragment of 245 bp in the A\*01:46 allele.

Primer mix 45: Specific PCR fragment of 65 bp in the A\*01:98 and the A\*24:87 and B\*07:64 alleles. Specific PCR fragment of 140 bp in the A\*01:52N allele.

Primer mix 46: Specific PCR fragment of 85 bp in the A\*01:81 and the A\*03:26, 11:77 and 11:126 alleles. Specific PCR fragment of 155 bp in the A\*01:40 allele.

Primer mix 47: Specific PCR fragment of 295 bp in the A\*01:41 and A\*11:48 alleles. Specific PCR fragment of 325 bp in the A\*01:42 allele.

‘w’, might be weakly amplified.

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-A*01 SSP subtyping kit																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	200962901	201210502	200962903	200962904	200962905	201079206	201210507	201210508	201210509	200962910	200962911	201293812	200962913	201079214	200962915	201079216
IHC 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	-	-	-	-	-	-	+	-	-	W	-	-	-	-	+	-
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	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																					
<b>HLA-A*01 SSP subtyping kit</b>																					
				Prod. No.:	Well																
					17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
					201210517	200962918	200962919	200962920	201079221	201210522	200962923	200962924	201079225	201210526	201210527	201210528	201210529	201210530	201079231	201079232	
	<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 PTTOUT	*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		-	-	-	-	-	-	-	-	-	W	-	-	-	-	-	-	-
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		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-

101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

<b>CELL LINE VALIDATION SHEET</b>																				
<b>HLA-A*01 SSP subtyping kit</b>																				
				Prod. No.:	Well															
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
					201210533	201079234	201210535	201079236	201293837	201079238	201210539	201210540	201079241	201210542	201210543	201293844	201293845	201210546	201079247	201293848
	<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 PTTOUT	*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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



101.411-24/06 – including *Taq* polymerase, IFU-01  
 101.411-24u/06u – without *Taq* polymerase, IFU-02

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 “Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

## CERTIFICATE OF ANALYSIS

### Olerup SSP® HLA-A\*01 SSP

**Product number:** 101.411-24/06 – including *Taq* pol.  
 101.411-24u/06u – without *Taq* pol.

**Lot number:** 59R

**Expiry date:** 2015-August-01

**Number of tests:** 24 test – Product No. 101.411-24/24u  
 6 tests – Product No. 101.411-06/06u

**Number of wells per test:** 48

### Well specifications:

Well No.	Production No.	Well No.	Production No.	Well No.	Production No.
1	2009-629-01	17	2012-105-17	33	2012-105-33
2	2012-105-02	18	2009-629-18	34	2010-792-34
3	2009-629-03	19	2009-629-19	35	2012-105-35
4	2009-629-04	20	2009-629-20	36	2010-792-36
5	2009-629-05	21	2010-792-21	37	2012-938-37
6	2010-792-06	22	2012-105-22	38	2010-792-38
7	2012-105-07	23	2009-629-23	39	2012-105-39
8	2012-105-08	24	2009-629-24	40	2012-105-40
9	2012-105-09	25	2010-792-25	41	2010-792-41
10	2009-629-10	26	2012-105-26	42	2012-105-42
11	2009-629-11	27	2012-105-27	43	2012-105-43
12	2012-938-12	28	2012-105-28	44	2012-938-44
13	2009-629-13	29	2012-105-29	45	2012-938-45
14	2010-792-14	30	2012-105-30	46	2012-105-46
15	2009-629-15	31	2010-792-31	47	2010-792-47
16	2010-792-16	32	2010-792-32	48	2012-938-48

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

No DNAs carrying the alleles to be amplified by primer solutions 6, 8 to 11, 14, 16, 19 to 23, 25 and 27 to 48 were available. The specificities of primers in primer solutions 8, 10, 11, 14, 19 to 21, 23, 25, 27, 28, 30, 32, 33, 35, 38, 44 to 46 and 48 were tested by separately adding additional 5'-primers, respectively additional 3'-primers. In primer solution 6, 31, 34, 37, 39 and 40 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solutions 9, 16, 22, 29, 36, 41 to 43 and 47 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 8, 10, 11, 14, 17, 20, 25, 26, 27, 28, 30, 32, 35, 38 and 46 one or two of the 3'-primers was not possible to test, and in primer solutions 10, 19, 21, 44, 45 and 48 one of the 5'-primers was not possible to test. Additional primers in primer solutions 15 and 26 were tested by separately adding one 5'-primer or one 3'-primer.



101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

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

**Date of approval:** 2013-February-21

**Approved by:**

**Production Quality Control**

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **59R**

Lot-specific information

## Declaration of Conformity

**Product name:** *Olerup* SSP® HLA-A\*01

**Product number:** 101.411-24/06  
101.411-24u/06u

**Lot number:** 59R

**Intended use:** HLA-A\*01 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, 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

Daniel Malica  
Head of QA and Regulatory Affairs

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

101.411-24/06 – including *Taq* polymerase, IFU-01  
101.411-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **59R**

Lot-specific information

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