

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

Olerup SSP® HLA-B*44

Product number:	101.563-24/03 – including <i>Taq</i> pol. 101.563-24u/03u – without <i>Taq</i> pol.
Lot number:	14V
Expiry date:	2016-July-01
Number of tests:	24 tests – Product No. 101.563-24/24u 3 tests – Product No. 101.563-03/03u
Number of wells per test:	59+1
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 14V.

Complete product documentation consists of generic Instructions for Use (IFU), lot specific Product Insert, Worksheet and Certificate.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP® HLA-B*44 LOT (69R).

The HLA-B*44 kit is updated for new alleles to enable separation of:

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

A well containing Negative Control primer pairs has been added.

The format of the Product Insert and Worksheet have been changed.

Four wells have been added to HLA-B*44, wells **57 to 60**.

¹As described in section Uniquely Identified Alleles.

The HLA-B*44 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP®* HLA-B*44 lot was made (Lot No. 69R).

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

As of lot series V, the Specificity Table is included in the lot-specific Product Insert, and the Interpretation Table is included in the Worksheet.

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

Well	5'-primer	3'-primer	rationale
34	Moved	Moved	Primer pair moved to well 57 to decrease tendency of oligomer formation.
37	Moved	Moved	Primer pair moved to well 58, for improved specificity.
44	-	Added	3'-primer added for the B*44:146 allele.
48	Modified	Added	5'-primer modified for improved specificity, 3'-primer added for the B*44:59:02 allele.
50	-	Added	3'-primer added for the B*44:171N allele
55	Added	-	5'-primer added for the B*44:149N allele
56	-	Added	3'-primer added for the B*44:160Q allele.
57	Added	Added	Primer pair added from well 34.
58	Added	Added	Primer pairs added from well 37
59	New	New	Primer pair added for the B*44:84:02 allele.
60			Negative Control

Change in revision R01 compared to R00:

1. Primer mix 2 amplifies the B*44:07 and the 40:83, 40:170 and 50:07 alleles. This has been corrected in the Specificity and Interpretation Tables.

Change in revision R02 compared to R01:

1. Primer mix 57 amplifies the B*18:09 allele. This has been corrected in the Specificity and Interpretation Tables.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

Well **60** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup* SSP® HLA Class I, DRB, DQB1 and DPB1 amplicons as well as amplicons generated by a control primer pair.

PCR product sizes range from 75 to 430 base pairs.
The PCR product generated by the control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80
5'-primer¹	164	340	440	45	45	43
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}
3'-primer²	231	2nd I	507	59	58	57
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}
A*	+	+	+			
B*	+	+	+			
C*	+	+	+			
DRB1				+	+	
DRB3				+	+	
DRB5				+		
DQB1					+	
DPB1						+

¹The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon, matching the specificity-determining 3'-end of the primer is given. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon or the 2nd intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

PRODUCT DESCRIPTION

HLA-B*44 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*44:02 to B*44:181 alleles.

PLATE LAYOUT

Each test consists of 60 PCR reactions in a 64 well cut PCR plate. Wells 61 to 64 are empty.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	NC	empty	empty	empty	empty

The 64 well cut PCR plate is marked with ‘HLA-B*44’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘14V’.

Wells 1 to 59 – HLA-B*44 high resolution primers.

Well 60 – Negative Control (NC).

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

The PCR plates are covered with a PCR-compatible foil.

INTERPRETATION

Due to the sharing of sequence motifs between HLA-C alleles, non-HLA-B*44 alleles will be amplified by primer mixes 1 to 9, 11, 12, 14 to 18, 20 to 23, 25, 27, 29 to 42, 44, 45, 48, 49, 52, 54, 57 and 59. In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 1, 3, 4, 6, 26, 29, 31, 33, 35, 38, 39, 40, 42, 44, 48, 50, 54 and 56.

For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*44 alleles, i.e. **B*44:02 to B*44:181**, recognized by the HLA Nomenclature Committee in July 2013^{1,2} will be amplified by the primers in the HLA-B*44 subtyping kit².

The HLA-B*44 kit enables separation of the confirmed HLA-B*44 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA-B*44 alleles is listed below.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

The HLA-B*44 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 following HLA-B*44 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
B*44:32, 44:124	21	B*44:72, 44:93	47
B*44:58N, 44:139	47	B*44:94, 44:98	31
B*44:69, 44:85	26	B*44:78, 44:136	48

The HLA-B*44 subtyping cannot distinguish the following silent mutations: the B*44:02:01:01, 44:02:01:03-44:02:09 and 44:02:11-44:02:29 alleles, the B*44:03:01-44:03:19 alleles, the B* 44:05:01-44:05:04 alleles, the B*44:27:01-44:27:02 allele, the B*44:28:01-B*44:28:02 alleles, the B*44:37:01-44:37:02 allele, the B*44:41:01-44:41:02 allele or the B*44:43:01-44:43:02 alleles.

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

²Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page <http://hla.alleles.org/alleles/deleted.html>.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*44:02:01:01	Confirmed	B*44:04	Confirmed	B*44:45	Unconfirmed	B*44:93	Unconfirmed
B*44:02:01:02S	Unconfirmed	B*44:05:01	Confirmed	B*44:46	Confirmed	B*44:94	Unconfirmed
B*44:02:01:03	Unconfirmed	B*44:05:02	Unconfirmed	B*44:47	Unconfirmed	B*44:95	Unconfirmed
B*44:02:02	Confirmed	B*44:05:03	Confirmed	B*44:48	Unconfirmed	B*44:96	Confirmed
B*44:02:03	Unconfirmed	B*44:05:04	Unconfirmed	B*44:49	Unconfirmed	B*44:97	Confirmed
B*44:02:04	Unconfirmed	B*44:06	Confirmed	B*44:50	Confirmed	B*44:98	Confirmed
B*44:02:05	Confirmed	B*44:07	Confirmed	B*44:51	Unconfirmed	B*44:99	Unconfirmed
B*44:02:06	Confirmed	B*44:08	Confirmed	B*44:52N	Unconfirmed	B*44:100	Unconfirmed
B*44:02:07	Confirmed	B*44:09	Confirmed	B*44:53	Confirmed	B*44:101	Unconfirmed
B*44:02:08	Unconfirmed	B*44:10	Confirmed	B*44:54	Unconfirmed	B*44:102	Unconfirmed
B*44:02:09	Confirmed	B*44:11	Unconfirmed	B*44:55	Confirmed	B*44:103	Unconfirmed
B*44:02:10	Confirmed	B*44:12	Unconfirmed	B*44:56N	Unconfirmed	B*44:104	Confirmed
B*44:02:11	Unconfirmed	B*44:13	Confirmed	B*44:57	Confirmed	B*44:105	Unconfirmed
B*44:02:12	Confirmed	B*44:14	Unconfirmed	B*44:58N	Unconfirmed	B*44:106	Unconfirmed
B*44:02:13	Unconfirmed	B*44:15	Confirmed	B*44:59:01	Unconfirmed	B*44:107	Confirmed
B*44:02:14	Unconfirmed	B*44:16	Confirmed	B*44:59:02	Unconfirmed	B*44:108N	Unconfirmed
B*44:02:15	Unconfirmed	B*44:17	Unconfirmed	B*44:60	Confirmed	B*44:109	Unconfirmed
B*44:02:16	Unconfirmed	B*44:18	Confirmed	B*44:61N	Unconfirmed	B*44:110	Confirmed
B*44:02:17	Unconfirmed	B*44:19N	Unconfirmed	B*44:62	Confirmed	B*44:111	Confirmed
B*44:02:18	Unconfirmed	B*44:20	Confirmed	B*44:63	Unconfirmed	B*44:112	Unconfirmed
B*44:02:19	Unconfirmed	B*44:21	Confirmed	B*44:64:01	Confirmed	B*44:113	Unconfirmed
B*44:02:20	Unconfirmed	B*44:22	Confirmed	B*44:64:02	Confirmed	B*44:114	Unconfirmed
B*44:02:21	Unconfirmed	B*44:23N	Confirmed	B*44:65	Confirmed	B*44:115	Confirmed
B*44:02:22	Unconfirmed	B*44:24	Confirmed	B*44:66	Unconfirmed	B*44:116	Unconfirmed
B*44:02:23	Unconfirmed	B*44:25	Unconfirmed	B*44:67	Unconfirmed	B*44:117	Confirmed
B*44:02:24	Unconfirmed	B*44:26	Unconfirmed	B*44:68	Confirmed	B*44:118	Unconfirmed
B*44:02:25	Unconfirmed	B*44:27:01	Confirmed	B*44:69	Confirmed	B*44:119	Unconfirmed
B*44:02:26	Unconfirmed	B*44:27:02	Unconfirmed	B*44:70	Unconfirmed	B*44:120	Confirmed
B*44:02:27	Unconfirmed	B*44:28:01	Confirmed	B*44:71	Unconfirmed	B*44:121	Unconfirmed
B*44:02:28	Unconfirmed	B*44:28:02	Confirmed	B*44:72	Unconfirmed	B*44:122	Confirmed
B*44:02:29	Unconfirmed	B*44:29	Confirmed	B*44:73	Confirmed	B*44:123	Unconfirmed
B*44:03:01	Confirmed	B*44:30	Confirmed	B*44:74	Confirmed	B*44:124	Unconfirmed
B*44:03:02	Confirmed	B*44:31	Unconfirmed	B*44:75	Unconfirmed	B*44:125	Unconfirmed
B*44:03:03	Unconfirmed	B*44:32	Unconfirmed	B*44:76	Confirmed	B*44:126:01	Confirmed
B*44:03:04	Unconfirmed	B*44:33	Unconfirmed	B*44:77	Confirmed	B*44:126:02	Unconfirmed
B*44:03:05	Unconfirmed	B*44:34:01	Unconfirmed	B*44:78	Unconfirmed	B*44:127	Unconfirmed
B*44:03:06	Unconfirmed	B*44:34:02	Unconfirmed	B*44:79	Confirmed	B*44:128	Unconfirmed
B*44:03:07	Unconfirmed	B*44:35	Unconfirmed	B*44:80	Confirmed	B*44:129	Unconfirmed
B*44:03:08	Confirmed	B*44:36	Unconfirmed	B*44:81	Unconfirmed	B*44:130	Unconfirmed
B*44:03:09	Unconfirmed	B*44:37:01	Confirmed	B*44:82	Unconfirmed	B*44:131	Unconfirmed
B*44:03:10	Unconfirmed	B*44:37:02	Unconfirmed	B*44:83	Confirmed	B*44:132	Confirmed
B*44:03:11	Confirmed	B*44:38	Unconfirmed	B*44:84	Unconfirmed	B*44:133	Unconfirmed
B*44:03:12	Unconfirmed	B*44:39	Unconfirmed	B*44:85	Unconfirmed	B*44:134	Unconfirmed
B*44:03:13	Confirmed	B*44:40	Unconfirmed	B*44:86	Confirmed	B*44:135	Confirmed
B*44:03:14	Unconfirmed	B*44:41:01	Confirmed	B*44:87	Confirmed	B*44:136	Unconfirmed
B*44:03:15	Unconfirmed	B*44:41:02	Unconfirmed	B*44:88	Confirmed	B*44:137	Unconfirmed
B*44:03:16	Unconfirmed	B*44:42	Confirmed	B*44:89	Unconfirmed	B*44:138Q	Unconfirmed
B*44:03:17	Unconfirmed	B*44:43:01	Confirmed	B*44:90	Unconfirmed	B*44:139	Confirmed
B*44:03:18	Confirmed	B*44:43:02	Unconfirmed	B*44:91	Confirmed	B*44:140	Unconfirmed
B*44:03:19	Unconfirmed	B*44:44	Unconfirmed	B*44:92	Confirmed	B*44:141	Unconfirmed

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

Allele	Status ¹	Allele	Status ¹
B*44:142	Unconfirmed	B*44:162	Unconfirmed
B*44:143	Confirmed	B*44:163	Unconfirmed
B*44:144	Unconfirmed	B*44:164	Unconfirmed
B*44:145	Unconfirmed	B*44:165	Unconfirmed
B*44:146	Confirmed	B*44:166	Unconfirmed
B*44:147	Unconfirmed	B*44:167	Unconfirmed
B*44:148	Confirmed	B*44:168	Unconfirmed
B*44:149N	Unconfirmed	B*44:169	Unconfirmed
B*44:150	Unconfirmed	B*44:170	Unconfirmed
B*44:151	Unconfirmed	B*44:171N	Unconfirmed
B*44:152	Unconfirmed	B*44:172	Unconfirmed
B*44:153	Unconfirmed	B*44:173	Unconfirmed
B*44:154	Unconfirmed	B*44:174	Unconfirmed
B*44:155	Unconfirmed	B*44:175	Unconfirmed
B*44:156	Unconfirmed	B*44:176	Unconfirmed
B*44:157	Unconfirmed	B*44:177	Unconfirmed
B*44:158	Unconfirmed	B*44:178	Unconfirmed
B*44:159	Confirmed	B*44:179	Unconfirmed
B*44:160Q	Unconfirmed	B*44:180	Unconfirmed
B*44:161	Unconfirmed	B*44:181	Unconfirmed

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2013-July-25, release 3.13.1, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-B*44 homo- and heterozygotes is available upon request.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information
SPECIFICITY TABLE

HLA-B*44 SSP subtyping

Specificities and sizes of the PCR products of the 59+1 primer mixes used for HLA-B*44 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*44 alleles ³	Other amplified HLA Class I alleles ⁴
1	260 bp	800 bp	*44:02:01:01-44:14, 44:17, 44:19N, 44:21-44:30, 44:32-44:36, 44:38-44:40, 44:43:01-44:46, 44:48-44:53, 44:55-44:63, 44:66-44:90, 44:92-44:98, 44:102-44:105, 44:107-44:131, 44:133-44:134, 44:136-44:137, 44:139-44:149N, 44:151-44:157, 44:159-44:165, 44:167-44:181	*35:45, 35:71, 35:169, 51:42, 53:22, 57:07, 83:01, C*15:25
2 ⁵	90 bp	800 bp	*44:02:01:01-44:02:09, 44:02:11-44:05:04, 44:07, 44:09-44:33, 44:35-44:38, 44:41:01-44:43:02, 44:45-44:56N, 44:58N-44:59:02, 44:61N-44:80, 44:82, 44:84:01-44:110, 44:112-44:129, 44:131-44:133, 44:135-44:144, 44:146-44:155, 44:157-44:167, 44:169-44:181	*15:53, 15:212, 35:63, 35:217, 40:01:01-40:01:10, 40:01:12-40:09, 40:11:01-40:11:02, 40:13-40:16, 40:18-40:20, 40:22N-40:40, 40:42-40:45, 40:47-40:57, 40:59-40:92, 40:94-40:136, 40:138-40:148, 40:150-40:176, 40:178-40:184, 40:186-40:208, 40:210-40:214, 40:216N-40:240, 40:244-40:246, 41:01-41:11, 41:13-41:21, 41:23-41:28, 45:01-45:14, 47:01:01:01-47:08, 49:01:01-49:02, 49:04-49:24, 50:01:01-50:02, 50:04-50:20, 50:31-50:33, 57:51
3	225 bp	800 bp	*44:02:01:01-44:02:29, 44:05:01-44:06, 44:08-44:09, 44:11-44:12, 44:14, 44:16-44:17, 44:19N, 44:21-44:25, 44:27:01-44:27:02, 44:33-44:34:02, 44:42, 44:44, 44:48-44:49, 44:51-44:53, 44:55, 44:58N-44:59:02, 44:62-44:63, 44:66-44:68, 44:70-44:75, 44:78, 44:80, 44:83-44:84:01, 44:86-44:91, 44:93, 44:95, 44:97, 44:101-44:102, 44:104, 44:112-44:113, 44:116-44:119, 44:121, 44:123, 44:126:01-44:127, 44:131-44:134, 44:136-44:137, 44:139-44:140, 44:142, 44:145, 44:148-44:149N, 44:151-44:152, 44:162, 44:168-44:173, 44:176-44:177, 44:179	*08:49, 08:60, 08:76, 35:38, 35:115, 35:169, 37:01:01-37:01:07, 37:01:09, 37:03N-37:06, 37:08, 37:10-37:37, 42:13, 53:22, 57:09, 57:24, 83:01, C*15:25
4	160 bp	1070 bp	*44:03:01-44:03:19, 44:07, 44:13, 44:26, 44:30, 44:32, 44:36-44:40, 44:46-44:47, 44:50, 44:54, 44:57, 44:60-	*51:42, 52:26, A*23:31, C*07:231

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

			44:61N, 44:64:01-44:65, 44:69, 44:79, 44:81, 44:85, 44:92, 44:94, 44:96, 44:98, 44:103, 44:105, 44:108N-44:111, 44:114-44:115, 44:120, 44:122, 44:124-44:125, 44:128-44:130, 44:141, 44:143, 44:153-44:157, 44:159-44:161, 44:163-44:165, 44:167, 44:174, 44:178, 44:180-44:181	
5⁵	75 bp 255 bp	1070 bp	*44:04, 44:28:01-44:28:02, 44:56N, 44:76 *44:70	*07:20, 07:140, 07:153, 35:45
6⁶	170 bp 195 bp	1070 bp	*44:39 *44:05:01-44:05:04, 44:10, 44:15, 44:17-44:18, 44:25, 44:31, 44:43:01-44:43:02, 44:58N, 44:62, 44:70, 44:75, 44:77-44:78, 44:82, 44:107, 44:117, 44:123, 44:134, 44:136, 44:139-44:140, 44:144, 44:158	*07:20, 07:140, 07:153, 15:14, 15:91, 15:131, 15:161, 18:56, 35:45, 35:71, 35:169, 40:132, 40:178, 45:01-45:02, 45:05-45:07, 45:09, 45:11-45:14, 46:17, 49:20, 50:02, 51:23, 51:108, 52:15, 53:22, 57:07, 58:07, 82:01-82:03, C*15:25
7	155 bp	1070 bp	*44:06, 44:29, 44:89	*18:67, 37:34, 38:06-38:07, 49:03, 51:01:01-51:01:39, 51:01:41-51:24:04, 51:26-51:46, 51:48-51:53, 51:55-51:77, 51:79-51:103, 51:105-51:111, 51:113-51:146, 51:148-51:154, 52:01:01:01-52:01:17, 52:03-52:15, 52:17-52:19, 52:21-52:31, 53:01:01-53:02, 53:04-53:08:02, 53:10, 53:14-53:29, 58:01:01-58:02, 58:04-58:16:02, 58:18-58:29, 58:31N-58:35, 58:37-58:43, 58:45-58:46
8^{5,6}	90 bp 115 bp 300 bp	1070 bp	*44:07-44:08, 44:57 *44:38 *44:71	*13:58, 15:183, 18:80, 27:52, 27:67, 35:84, 35:90, 35:150, 35:184, 35:201, 40:83, 40:170, 40:185, 40:209, 46:10, 50:07, 51:103, 51:119
9⁵	120 bp 195 bp	1070 bp	*44:23N *44:10, 44:15, 44:18, 44:140	*45:01, 45:05-45:07, 45:11-45:14, 49:20, 50:02, 82:01-82:03
10⁵	125 bp 150 bp	800 bp	*44:24, 44:181 *44:92	
11	150 bp	800 bp	*44:02:01:01-44:05:04, 44:07, 44:10-44:39, 44:41:01-44:43:02, 44:45, 44:47-44:56N, 44:58N-44:59:02, 44:61N-44:74, 44:76-44:82, 44:84:01-44:89, 44:91-44:126:02, 44:128, 44:132-44:133, 44:135-44:155, 44:157-44:181	*37:06, 40:13, 40:19, 40:47, 40:96, 40:109-40:110, 40:117, 40:157, 40:188, 40:201, 47:01:01:01-47:01:02, 47:03-47:08, 49:01:01-49:02, 49:04-49:20, 49:22-49:25, 51:112, 53:30, 57:45, 57:51
12	145 bp	1070 bp	*44:09, 44:46, 44:75, 44:90, 44:129, 44:131	*07:133, 15:46, 15:53, 15:106, 15:143, 15:212, 18:48, 35:19, 35:47, 35:63, 35:154, 35:217, 39:69,

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

				40:01:01-40:11:02, 40:14:01-40:16, 40:18, 40:20, 40:22N-40:40, 40:42-40:45, 40:48-40:75, 40:77-40:92, 40:94-40:95, 40:97-40:108, 40:111-40:116, 40:118N-40:136, 40:138-40:156, 40:158-40:184, 40:186-40:187, 40:189-40:200, 40:202-40:207, 40:210-40:240, 40:244-40:246, 41:01-41:04, 41:06-41:25, 41:27-41:28, 45:01-45:14, 47:02, 47:03 ^w , 50:01:01-50:02, 50:04-50:05, 50:07-50:20, 50:31-50:33
13⁵	90 bp	1070 bp	*44:13, 44:67	
14⁵	95 bp	800 bp	*44:12	*07:133 ^w , 15:143, 18:48, 35:19, 35:47, 35:154, 35:217, 39:69, 40:08, 40:25, 40:68, 40:106, 40:166 ^w , 40:232, 50:15, 51:112, 53:30
15	170 bp	1070 bp	*44:14, 44:17, 44:51, 44:62, 44:123, 44:166	*07:04, 07:19, 07:25, 07:146, 08:01:01-08:05, 08:07-08:12:03, 08:15-08:19N, 08:21-08:24, 08:26-08:27, 08:29-08:39, 08:41-08:48, 08:50-08:54, 08:56:01-08:69, 08:71-08:73, 08:75-08:78, 08:80-08:86N, 08:88-08:110, 15:51, 15:83, 15:179, 15:199, 15:218Q, 18:56, 35:38, 35:87, 35:115, 35:169, 37:09, 37:12, 37:35, 38:30, 40:136, 40:231, 41:01-41:09, 41:11-41:28, 42:01:01-42:02, 42:04-42:18, 45:09, 45:14, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153, 52:19, 53:22, 55:20, 55:56, 56:13, 57:09, 57:24, 82:01-82:03
16	145 bp	800 bp	*44:18, 44:25, 44:50, 44:95	*40:13, 40:19, 40:109, 40:117, 49:01:01-49:01:04, 49:04-49:25, 51:112, 53:30, 57:45, 57:51
17	195 bp	1070 bp	*44:02:01:01-44:04, 44:06-44:09, 44:11-44:13, 44:19N-44:24, 44:26-44:30, 44:32-44:36, 44:38-44:41:02, 44:44, 44:46-44:50, 44:52N-44:57, 44:59:01-44:61N, 44:63, 44:65-44:69, 44:71-44:74, 44:76, 44:79-44:81, 44:83-44:87, 44:89-44:90, 44:92-44:100, 44:102-44:106, 44:108N-44:116, 44:118-44:122, 44:124-44:131, 44:137-44:138Q, 44:141-44:143, 44:145-44:149N, 44:151-44:157, 44:159-44:165, 44:167-44:181	*51:42, 83:01
18⁵	115 bp 155 bp 260 bp	1070 bp	*44:31, 44:169 *44:74 *44:19N, 44:82 44:96, 44:153	*40:132, 40:178 *57:07
19	150 bp 190 bp	1070 bp	*44:11 *44:30	
20	130 bp	1070 bp	*44:22, 44:105	*49:24

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

21⁵	100 bp 180 bp	800 bp	*44:32 *44:16, 44:21, 44:64:01- 44:64:02, 44:124, 44:150	*07:28
22	290 bp	800 bp	*44:26	*35:138, 47:07
23	145 bp	800 bp	*44:02:01:01-44:05:04, 44:06 [?] , 44:07-44:09, 44:10 [?] -44:12 [?] , 44:13, 44:14 [?] , 44:16, 44:17 [?] - 44:18 [?] , 44:19N, 44:20 [?] , 44:21, 44:22 [?] , 44:23N, 44:24 [?] -44:26 [?] , 44:28:01 [?] -44:30 [?] , 44:32 [?] -44:38 [?] , 44:39, 44:40 [?] -44:45 [?] , 44:46, 44:47 [?] -44:48 [?] , 44:49, 44:50 [?] , 44:51-44:53, 44:54 [?] -44:55 [?] , 44:56N-44:57, 44:58N [?] , 44:59:01, 44:59:02 [?] -44:60 [?] , 44:61N, 44:62 [?] -44:63 [?] , 44:64:01-44:66, 44:67 [?] -44:76 [?] , 44:77, 44:78 [?] -44:80 [?] , 44:81, 44:82 [?] , 44:83, 44:84:01 [?] - 44:100 [?] , 44:101, 44:102 [?] - 44:108N [?] , 44:109-44:110, 44:111 [?] -44:112 [?] , 44:113, 44:114 [?] , 44:115, 44:116 [?] , 44:117-44:118, 44:119 [?] - 44:126:01 [?] , 44:126:02, 44:127 [?] - 44:128 [?] , 44:129-44:130, 44:131 [?] -44:137 [?] , 44:139 [?] - 44:149N [?] , 44:150-44:152, 44:153 [?] -44:172 [?] , 44:173, 44:174 [?] -44:181 [?]	*15:247, 27:47, 51:42
24	225 bp	1070 bp	*44:02:01:02S	
25⁹	145 bp	1070 bp	*44:06 [?] , 44:10 [?] -44:12 [?] , 44:14 [?] , 44:15, 44:17 [?] -44:18 [?] , 44:20 [?] , 44:22 [?] , 44:24 [?] -44:26 [?] , 44:27:01- 44:27:02, 44:28:01 [?] -44:30 [?] , 44:31, 44:32 [?] -44:34:01 [?] , 44:35 [?] - 44:38 [?] , 44:40 [?] -44:45 [?] , 44:47 [?] - 44:48 [?] , 44:50 [?] , 44:54 [?] -44:55 [?] , 44:58N [?] , 44:60 [?] , 44:62 [?] - 44:64:01 [?] , 44:67 [?] -44:76 [?] , 44:78 [?] -44:80 [?] , 44:82 [?] , 44:84:01 [?] -44:100 [?] , 44:102 [?] - 44:108N [?] , 44:111 [?] -44:112 [?] , 44:114 [?] , 44:116 [?] , 44:119 [?] - 44:126:01 [?] , 44:127 [?] -44:128 [?] , 44:131 [?] -44:137 [?] , 44:138Q, 44:139 [?] -44:149N [?] , 44:153 [?] - 44:172 [?] , 44:174 [?] -44:181 [?]	*07:02:01-07:57, 07:59-07:198, 08:01:01-08:05, 08:07-08:111, 13:01:01- 13:04, 13:06-13:23, 13:25-13:68, 13:70, 14:01:01 ^w -14:37 ^w , 15:01:01:01-15:01:04, 15:01:06-15:19, 15:20 ^w , 15:21, 15:23- 15:40, 15:42-15:58, 15:60-15:99, 15:101, 15:103-15:129, 15:131-15:200, 15:202-15:227, 15:229-15:246N, 15:248-15:270, 15:272N-15:282, 18:01:01:01-18:15, 18:17N-18:91, 27:01-27:21, 27:23-27:46, 27:48-27:67, 27:69-27:106, 35:01:01:01 ^w -35:01:37 ^w , 35:02:01 ^w -35:30 ^w , 35:31, 35:32:01 ^w - 35:42:02 ^w , 35:43:01, 35:44 ^w -35:45 ^w , 35:46, 35:47 ^w -35:56 ^w , 35:57, 35:58 ^w - 35:59 ^w , 35:60, 35:61:01 ^w -35:72 ^w , 35:74 ^w -35:78 ^w , 35:79, 35:80 ^w -35:86 ^w , 35:87, 35:88 ^w -35:167 ^w , 35:169 ^w - 35:184 ^w , 35:185, 35:186 ^w -35:229 ^w , 35:231 ^w -35:233 ^w , 37:01:01-37:37, 38:01:01 ^w -38:17 ^w , 38:19 ^w -38:43 ^w , 39:01:01:01 ^w -39:01:01:03 ^w , 39:01:03 ^w - 39:20 ^w , 39:22 ^w -39:83 ^w , 40:01:01-40:16,

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

				40:18-40:40, 40:42-40:240, 40:244-40:246, 41:01-41:28, 42:01:01-42:02, 42:04-42:20, 45:01-45:06, 45:07 ^w , 45:08-45:14, 46:01:01-46:40, 46:42, 47:01:01:01-47:08, 48:01:01-48:01:04, 48:02:01 ^w -48:02:02 ^w , 48:03:01-48:31, 49:01:01-49:26, 50:01:01-50:02, 50:04-50:20, 50:31-50:33, 51:01:01 ^w -51:24:04 ^w , 51:26 ^w -51:41N ^w , 51:43 ^w -51:46 ^w , 51:48 ^w -51:50 ^w , 51:52 ^w -51:154 ^w , 52:01:01:01 ^w -52:06:02 ^w , 52:07, 52:08 ^w -52:31 ^w , 53:01:01 ^w -53:31 ^w , 54:01:01-54:30, 55:01:01-55:01:02, 55:01:04-55:05, 55:07-55:59, 56:01:01-56:04, 56:05:01 ^w -56:05:02 ^w , 56:06-56:20:02, 56:21 ^w , 56:22-56:39, 56:41-56:42, 57:01:01-57:65, 58:01:01 ^w -58:02 ^w , 58:04 ^w -58:10N ^w , 58:11, 58:12 ^w -58:19 ^w , 58:20, 58:21 ^w -58:29 ^w , 58:31N ^w -58:46 ^w , 59:01:01:01-59:06, 67:01:01 ^w -67:02 ^w , 67:03, 78:01:01 ^w -78:07 ^w , 81:01-81:02, 81:03 ^w , 81:04N-81:06, 82:01-82:02, 82:03 [?] , 83:01
26⁵	100 bp 135 bp 225 bp	800 bp	*44:69, *44:33 *44:85	*A*24:137
27	160 bp 255 bp	800 bp	*44:02:10, 44:34:01 *44:15, 44:18, 44:20, 44:47, 44:100	* 40:01:11, 40:58, 49:03, 52:01:02, 52:01:04, 52:01:09, 52:02:01-52:03, 52:06:01-52:06:02, 52:09, 52:21 *45:01-45:03, 45:05-45:07, 45:09, 45:11-45:14, 49:20, 50:02, 51:23, 51:108, 52:15
28	130 bp 165 bp	1070 bp	*44:68 *44:35	
29^{5,7}	90 bp 255 bp	800 bp	*44:117 *44:15, 44:55, 44:103	*14:10, 35:59, 37:19, 38:20, 39:42, C*15:05:08 *13:23, 13:55, 18:09, 27:01, 37:10, 40:47, 40:96, 40:157, 40:201, 49:02
30	195 bp	800 bp	*44:10, 44:15, 44:18, 44:140	*45:01, 45:05-45:07, 45:11-45:14, 49:20, 50:02, 82:01-82:03
31⁵	110 bp 195 bp 230 bp 260 bp	1070 bp	*44:94 *44:17, 44:43:01-44:43:02, 44:144 *44:98 *44:99	*15:14, 15:91, 15:131, 15:161, 18:56, 35:45, 35:71, 45:09, 46:17, 53:22, 58:07 *A*02:432, A*30:29, A*31:61
32	155 bp	1070 bp	*44:02:01:01-44:02:29, 44:05:01-44:06, 44:08-44:09, 44:11-44:12, 44:14-44:25, 44:27:01-44:27:02, 44:33- 44:34:02, 44:41:01-44:42, 44:44, 44:48-44:49, 44:51-44:53, 44:55, 44:58N-44:59:02, 44:62- 44:63, 44:66-44:68, 44:70- 44:75, 44:78, 44:80, 44:83- 44:84:01, 44:86-44:91, 44:93,	*07:04, 07:19, 07:25, 07:146, 08:01:01- 08:05, 08:07-08:12:03, 08:14-08:19N, 08:21-08:24, 08:26-08:39, 08:41-08:42, 08:44-08:54, 08:56:01-08:69, 08:71- 08:78, 08:80-08:111, 13:46, 15:51, 15:83, 15:179, 15:199, 15:218Q, 18:56, 27:47, 35:38, 35:87, 35:115, 35:169, 37:01:01-37:01:09, 37:03N-37:06, 37:08-37:37, 38:30, 40:136, 40:231, 41:01-41:28, 42:01:01-42:02, 42:04-

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

			44:95, 44:97, 44:99-44:102, 44:104, 44:106, 44:112-44:113, 44:116-44:119, 44:121, 44:123, 44:126:01-44:127, 44:131- 44:134, 44:136-44:140, 44:142, 44:145, 44:148-44:149N, 44:151-44:152, 44:158, 44:162, 44:166, 44:168-44:173, 44:176- 44:177, 44:179	42:18, 42:20, 45:01-45:14, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153, 52:19, 53:22, 55:20, 55:56, 56:13, 57:09, 57:24, 82:01-82:03, 83:01
33	150 bp 185 bp	1070 bp	*44:81 *44:16, 44:37:01-44:37:02, 44:64:01-44:64:02, 44:80, 44:91, 44:132, 44:150,	*07:28, 08:87, 15:77, 15:233, 52:26, 57:04, A*23:31, A*24:106, C*07:231, C*16:10
34	160 bp	800 bp	*44:15, 44:18, 44:140	*45:01, 45:04-45:08, 45:10-45:14, 55:56, 56:13, 82:01-82:03
35⁵	85 bp 180 bp	800 bp	*44:63 *44:04, 44:56N, 44:132, 44:163,	*08:87, C*07:231, C*16:10
36	145 bp	800 bp	*44:40, 44:44, 44:130, 44:156	*07:149, 08:02, 15:115, 27:01, 38:02:01- 38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 38:43, 56:07
	235 bp		*44:142	
37	205 bp	1070 bp	*44:10, 44:14, 44:17, 44:31, 44:43:01-44:43:02, 44:45, 44:51, 44:62, 44:77, 44:82, 44:107, 44:123, 44:135	*07:20, 07:140, 07:153, 15:14, 15:91, 15:131, 15:161, 18:56, 35:45, 35:71, 35:169, 40:132, 40:178, 45:09, 45:14, 46:17, 51:23, 51:108, 52:15, 53:22, 57:07, 58:07, 82:01-82:03
38	225 bp	800 bp	*44:41:01-44:41:02, 44:106, 44:158, 44:166	*07:04, 07:19, 07:25, 07:146, 08:01:01- 08:05, 08:07-08:08N, 08:10-08:12:03, 08:14-08:19N, 08:21-08:24, 08:26, 08:28-08:39, 08:41-08:48, 08:50-08:54, 08:56:01-08:59:02, 08:61-08:69, 08:71- 08:75, 08:77-08:78, 08:80-08:83, 08:85- 08:103, 08:105-08:111, 15:51, 15:179, 15:199, 15:218Q, 18:56, 27:47, 35:87, 37:09, 38:30, 40:136, 40:231, 41:02:01- 41:04, 41:08, 41:10-41:11, 41:13, 41:15, 41:18-41:19, 41:23-41:24, 41:27, 42:01:01-42:02, 42:05:01-42:12, 42:14- 42:18, 42:20, 82:01-82:03, C*05:62, C*07:68, C*07:140, C*07:151, C*07:199:01-07:199:02
39^{5,7,8}	75 bp	800 bp	*44:16, 44:42, 44:91, 44:132, 44:166	*07:04, 07:19, 07:25, 07:146, 08:01:01- 08:05, 08:07-08:12:03, 08:14-08:19N, 08:21-08:24, 08:26-08:39, 08:41-08:42, 08:44-08:54, 08:56:01-08:69, 08:71- 08:78, 08:80-08:85, 08:87-08:111, 13:46, 15:51, 15:83, 15:179, 15:199, 15:218Q, 35:38, 35:87, 35:115, 37:01:01-37:01:09, 37:03N-37:06, 37:08-37:31, 37:33N-37:37, 38:30, 40:136, 40:231, 41:01-41:28, 42:01:01- 42:02, 42:04-42:18, 42:20, 45:04, 45:08, 45:10, 51:08, 51:20, 51:36, 51:44N,

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

				51:97, 51:141, 51:153, 52:19, 55:20, 55:56, 56:13, 57:09, 57:24, C*05:62, C*07:04:01-07:04:08, C*07:11-07:12, C*07:45, C*07:63, C*07:68, C*07:101, C*07:139-07:140, C*07:142, C*07:151, C*07:181, C*07:199:01-07:199:02, C*07:272, C*07:302
40	235 bp	1070 bp	*44:10, 44:15, 44:18, 44:48	*35:45, 35:71, 35:169, 45:01-45:03, 45:05-45:07, 45:09, 45:11-45:14, 49:20, 50:02, 53:22, 58:07, 82:01-82:03, C*15:25
	260 bp		*44:31, 44:41:01-44:41:02, 44:54, 44:65, 44:106, 44:135, 44:158	*07:20, 07:140, 07:153, 15:14, 15:91, 15:131, 15:161, 18:56, 27:47, 27:50, 40:132, 40:178, 46:17, 58:07, 82:01-82:03
41	255 bp	1070 bp	*44:49, 44:156	*08:02
42	130 bp	800 bp	*44:90, 44:97	*40:166, 45:06, C*07:69, C*08:68
	165 bp		*44:14, 44:62, 44:166	*08:01:01-08:05, 08:08N-08:12:03, 08:15-08:19N, 08:21-08:24, 08:26-08:27, 08:29-08:36, 08:38-08:39, 08:41-08:48, 08:50-08:54, 08:56:01-08:69, 08:71-08:73, 08:75-08:76, 08:78, 08:80-08:86N, 08:88, 08:90-08:106, 08:109-08:110, 15:83, 35:87, 37:12, 38:30, 40:136, 40:231, 41:01-41:03:02, 41:05-41:09, 41:11-41:17, 41:19-41:20, 41:22-41:28, 42:01:01-42:02, 42:04-42:08, 42:10-42:15, 42:17-42:18, 45:14, 51:08, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153, 52:19, 55:20, 55:56, 56:13, 57:09, 82:01-82:03
43⁵	110 bp	800 bp	*44:52N	
	165 bp		*44:29, 44:89	
44⁵	85 bp	800 bp	*44:53	*07:28, 08:87, C*07:231, C*16:10
	160 bp		*44:73, 44:76, 44:79, 44:146, 44:150	*07:28, 15:77, 15:233, 52:26
45	220 bp	800 bp	*44:36	
	250 bp		*44:54, 44:86, 44:106, 44:135, 44:158	*07:20, 07:140, 07:153, 53:27
46	165 bp	1070 bp	*44:66	
	450 bp		*44:56N	
47⁵	65 bp	1070 bp	*44:93, 44:139	
	115 bp		*44:72	
	195 bp		*44:58N	
48⁵	105 bp	1070 bp	*44:61N	
	140 bp		*44:59:01-44:59:02, 44:136	*35:223
	265 bp		*44:78, 44:120	*35:204, C*03:147
49⁵	85 bp	800 bp	*44:108N	*18:23N

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

50⁵	95 bp	1070 bp	*44:111	
	160 bp		*44:171N	
	285 bp		*44:148	*C*05:10, C*08:44, C*08:61
51⁵	110 bp	1070 bp	*44:115	
52	130 bp	1070 bp	*44:143	
	405 bp		*44:118	*39:46
53	210 bp	1070 bp	*44:122	
54	280 bp	1070 bp	*44:126:01-44:126:02, 44:159	*58:45, C*03:96, C*15:52
55⁷	255 bp	1070 bp	*44:110, 44:138Q, 44:149N	
56	250 bp	1070 bp	*44:160Q	
	280 bp		*44:104, 44:148	*C*05:10, C*08:44, C*08:61
57	185 bp	1070 bp	*44:60, 44:83-44:84:01	*07:149, 13:01:01-13:04, 13:06-13:08, 13:10-13:12:01, 13:13-13:23, 13:25-13:29, 13:31-13:38, 13:40-13:66, 13:68, 13:70, 15:36, 15:89, 15:256, 18:09, 37:10, 51:54, 51:78:01-51:78:02, 52:20, 53:09, 53:11-53:13, 53:31
58	210 bp	1070 bp	*44:87-44:88	
59	185 bp	1070 bp	*44:156	*08:02, 15:115, 38:02:01-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 38:43, 56:07
60¹⁰	Negative Control			

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-B*44 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 alleles listed are specified according to amplicon length.

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

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

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

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

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

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

⁴Due to the sharing of sequence motifs between HLA-C alleles, non-HLA-B*44 alleles will be amplified by primer mixes 1 to 9, 11, 12, 14 to 18, 20 to 23, 25, 27, 29 to 42, 44, 45, 48, 49, 52,

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

54, 57 and 59 . In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 1, 3, 4, 6, 26, 29, 31, 33, 35, 38, 39, 40, 42, 44, 48, 50, 54 and 56.

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

⁶Primer mixes 6 and 8 have a tendency to giving rise to primer oligomer formation.

⁷Primer mixes 29, 39 and 55 may have tendencies of unspecific amplifications.

⁸Primer mix 39 may give rise to a lower yield of HLA-specific PCR product than the other B*44 primer mixes.

⁹We assume that the fourth exon nucleotide sequences are conserved within allelic groups. Primer mix 25 amplifies the B*44:27 and B*44:31 alleles. The purpose of primer mixes 23 and 25 is to distinguish e.g. the B*44:02,44:02 and B*44:02,44:27 genotypes.

¹⁰Primer mix 60 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by control primer pairs. PCR product sizes range from 75 to 200 base pairs. The PCR product generated by the control primer pair is 430 base pairs.

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

‘w’ , might be weakly amplified.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	260	90	225	160	75	170	155	90	120	125	150	145
					255	195		115	195	150		
								300				
Length of int. pos. control ¹	800	800	800	1070	1070	1070	1070	1070	1070	800	800	1070
5'-primer(s) ²	355	142	355	418	359	142	206	142	420	142	206	206
	5'-TCA 3'	5'-TCA 3'	5'-TCA 3'	5'-Agg 3'	5'-CCg 3'	5'-TCC 3'	5'-gAC 3'	5'-TCA 3'	5'-TTA 3'	5'-TCA 3'	5'-gAA 3'	5'-gAA 3'
					539	418	418	355	493	418	206	
					5'-gCg 3'	5'-AgT 3'	5'-Agg 3'	5'-TCA 3'	5'-CTT 3'	5'-Agg 3'	5'-gAA 3'	
						418						
						5'-AgT 3'						
3'-primer(s) ³	572	193	538	539	572	272	309	193	572	226	317	311
	5'-gCg 3'	5'-CgT 3'	5'-gTC 3'	5'-TCA 3'	5'-gCg 3'	5'-Tgg 3'	5'-ATC 3'	5'-CgC 3'	5'-gCg 3'	5'-CAC 3'	5'-ggA 3'	5'-ggT 3'
	572	193				572	544	193		526		
	5'-gTg 3'	5'-TgT 3'				5'-gCg 3'	5'-ggT 3'	5'-CgC 3'		5'-CAT 3'		
								430				
								5'-gCT 3'				
								613				
								5'-gCA 3'				
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec. PCR product	90	95	170	145	195	115	150	130	100	290	145	225
						155	190		180			
						260						
Length of int. pos. control ¹	1070	800	1070	800	1070	1070	1070	1070	800	800	800	1070
5'-primer(s) ²	206	206	409	206	418	6	206	106	257	49	668	4 th I
	5'-gAA 3'	5'-gAA 3'	5'-ggC 3'	5'-gAA 3'	5'-Agg 3'	5'-C.g 3'	5'-gAA 3'	5'-CCg 3'	5'-CCC 3'	5'-CAg 3'	5'-ggT 3'	5'-CCg 3'
						355	418		418			
						5'-CCA 3'	5'-Agg 3'		5'-Agg 3'			
						361						
						5'-Agg 3'						
						460						
						5'-ACg 3'						
						499						
						5'-TCT 3'						
3'-primer(s) ³	255	259	538	309	572	106	313	193	317	171	774	896
	5'-CgC 3'	5'-gTT 3'	5'-gTC 3'	5'-ATC 3'	5'-gCg 3'	5'-CAT 3'	5'-Cgg 3'	5'-CgT 3'	5'-ggA 3'	5'-ACC 3'	5'-ggT 3'	5'-TCA 3'
					572	572	566		559			
					5'-gTg 3'	5'-gCg 3'	5'-CCg 3'		5'-CTC 3'			
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec.	145	100	160	130	90	195	110	155	150	160	85	145
PCR product		135	255	165	255		195		185		180	235
		225					230					
							260					
Length of int. pos. control ¹	1070	800	800	1070	800	800	1070	1070	1070	800	800	800
5'-primer(s) ²	668	134	141	418	97	420	353	540	185	420	142	206
	5'-ggC ^{3'}	5'-CCA ^{3'}	5'-ATT ^{3'}	5'-Agg ^{3'}	5'-TCC ^{3'}	5'-TTA ^{3'}	5'-gTA ^{3'}	5'-gAC ^{3'}	5'-CAA ^{3'}	5'-TTA ^{3'}	5'-TCA ^{3'}	5'-AgA ^{3'}
		256	357		369		385		207		418	355
		5'-ACT ^{3'}	5'-Tgg ^{3'}		5'-TAC ^{3'}		5'-ggT ^{3'}		5'-AAT ^{3'}		5'-Agg ^{3'}	5'-TCA ^{3'}
		445					419		418			
		5'-TCA ^{3'}					5'-gTC ^{3'}		5'-Agg ^{3'}			
							504					
							5'-CAC ^{3'}					
3'-primer(s) ³	774	317	259	506	309	572	572	3 rd I	317	538	186	309
	5'-ggT ^{3'}	5'-ggA ^{3'}	5'-CTC ^{3'}	5'-Tgg ^{3'}	5'-gTg ^{3'}	5'-gCg ^{3'}	5'-gCg ^{3'}	5'-TAT ^{3'}	5'-ggA ^{3'}	5'-gTC ^{3'}	5'-TCC ^{3'}	5'-gTg ^{3'}
		538	572	540	419				572		559	548
		5'-gTC ^{3'}	5'-gCg ^{3'}	5'-CTT ^{3'}	5'-CgA ^{3'}				5'-gCC ^{3'}		5'-CgT ^{3'}	5'-ggC ^{3'}
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec.	205	225	75	235	255	130	110	85	220	165	65	105
PCR product				260		165	165	160	250	450	115	140
											195	265
Length of int. pos. control ¹	1070	800	800	1070	1070	800	800	800	800	1070	1070	1070
5'-primer(s) ²	409	355	540	355	97	193	418	418	107	206	142	142
	5'-ggC ^{3'}	5'-CCC ^{3'}	5'-gAC ^{3'}	5'-CCC ^{3'}	5'-TCg ^{3'}	5'-CCA ^{3'}	5'-Agg ^{3'}	5'-Agg ^{3'}	5'-CAC ^{3'}	5'-gAA ^{3'}	5'-TCA ^{3'}	5'-TCA ^{3'}
				379		412			363	649		355
				5'-ACC ^{3'}		5'-ATA ^{3'}			5'-AgC ^{3'}	5'-ACA ^{3'}		5'-TCA ^{3'}
									395			
									5'-gCT ^{3'}			
3'-primer(s) ³	572	538	572	572	309	282	489	463	317	369	164	208
	5'-gCg ^{3'}	5'-gTC ^{3'}	5'-gCC ^{3'}	5'-gCg ^{3'}	5'-gTg ^{3'}	5'-gCC ^{3'}	5'-gCg ^{3'}	5'-gCg ^{3'}	5'-ggA ^{3'}	5'-CCT ^{3'}	5'-gCT ^{3'}	5'-CTA ^{3'}
						538	544	527	572	774	218	453
						5'-gTC ^{3'}	5'-ggT ^{3'}	5'-CCT ^{3'}	5'-gCg ^{3'}	5'-ggT ^{3'}	5'-gCT ^{3'}	5'-TCC ^{3'}
								538			295	453
								5'-CCA ^{3'}			5'-TCA ^{3'}	5'-TCT ^{3'}
								545				578
								5'-AgC ^{3'}				5'-TgA ^{3'}
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

Well No.	49	50	51	52	53	54	55	56	57	58	59
Length of spec.	85	95	110	130	210	280	255	250	185	210	185
PCR product		160		405				280			
		285									
Length of int. pos. control ¹	800	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	610	142	503	228	404	355	355	355	165	400	167
	5'-TgT 3'	5'-TCA 3'	5'-CCC 3'	5'-ATg 3'	5'-CCA 3'	5'-TCA 3'	5'-TCC 3'	5'-TCA 3'	5'-ACC 3'	5'-TCA 3'	5'-gCA 3'
		355		646			358			410	
		5'-TCA 3'		5'-ACg 3'			5'-TCT 3'			5'-gTg 3'	
							363				
							5'-AgC 3'				
3'-primer(s) ³	3 rd I	197	572	317	572	595	572	563	311	572	311
	5'-TAT 3'	5'-gAT 3'	5'-gCg 3'	5'-ggA 3'	5'-gCg 3'	5'-CCg 3'	5'-gCg 3'	5'-CgT 3'	5'-Cgg 3'	5'-gCg 3'	5'-Cgg 3'
		259		916		595		592			
		5'-CTA 3'		5'-gAC 3'		5'-CCT 3'		5'-gTC 3'			
		601						601			
		5'-CTT 3'						5'-CTT 3'			
Well No.	49	50	51	52	53	54	55	56	57	58	59

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

²The nucleotide position matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-B*44 SSP subtyping kit ²																			
			Prod. No.:	Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				201185601	201311502	201185603	201185604	201311505	201185606	201185607	201185608	201311509	201185610	201311511	201185612	201185613	201185614	201185615	201185616
	IHWC cell line ¹	B*																	
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*44:03		+	+	-	+	-	-	-	-	-	-	+	-	-	-	-	-
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9025 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-
16	9037 SWEIG007	*40:02		-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
18	9257 32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-
24	9035 JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*44:02	*44:03	+	+	+	+	-	-	-	-	-	-	+	-	-	-	-	-
29	9050 MOU	*44:03		+	+	-	+	-	-	-	-	-	-	+	-	-	-	-	-
30	9021 RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*41:02		-	+	-	-	-	-	-	-	-	-	-	+	-	-	+	-
33	9098 MT14B	*40:01		-	+	-	-	-	-	-	-	-	-	-	+	-	-	-	-
34	9104 DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		+	+	+	-	-	-	-	-	-	-	+	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	+	-	-	-	-	-	-	-	-	-	+	-	-	+	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*35:01	*44:03	+	+	-	+	-	-	-	-	-	-	+	-	-	-	-	-

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-B*44 SSP subtyping kit ²																			
				Well															
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
		Prod. No.:		201185633	201328134	201185635	201311536	201328137	201185638	201185639	201185640	201185641	201185642	201185643	201328144	201185645	201185646	201185647	201328148
IHWC cell line ¹		B*																	
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*37:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
6	9353 SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9025 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLG A	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-
18	9257 32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*42:01		-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*41:02		-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*08:01	*27:05	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*42:01	*50:01	-	-	-	-	-	+	+	-	-	+	-	-	-	-	-	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

CELL LINE VALIDATION SHEET															
HLA-B*44 SSP subtyping kit ²															
				Well											
				49	50	51	52	53	54	55	56	57	58	59	
				Prod. No.:	201311549	201328150	201298951	201311552	201298953	201311554	201328155	201328156	201328157	201328158	201328159
	IHWC cell line ¹	B*													
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*52:01	*73:01	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*52:01		-	-	-	-	-	-	-	-	-	-	-	
4	9275 GU373	*15:10	*53:01	-	-	-	-	-	-	-	-	-	-	-	
5	9009 KAS011	*37:01		-	-	-	-	-	-	-	-	-	-	-	
6	9353 SM	*39:01	*51:01	-	-	-	-	-	-	-	-	-	-	-	
7	9020 QBL	*18:01		-	-	-	-	-	-	-	-	-	-	-	
8	9025 DEU	*35:01		-	-	-	-	-	-	-	-	-	-	-	
9	9026 YAR	*38:01		-	-	-	-	-	-	-	-	-	-	-	
10	9107 LKT3	*54:01		-	-	-	-	-	-	-	-	-	-	-	
11	9051 PTOUT	*44:03		-	-	-	-	-	-	-	-	-	-	-	
12	9052 DBB	*57:01		-	-	-	-	-	-	-	-	-	-	-	
13	9025 JESTHOM	*27:05		-	-	-	-	-	-	-	-	-	-	-	
14	9071 OLGA	*15:01	*15:20	-	-	-	-	-	-	-	-	-	-	-	
15	9075 DKB	*40:01		-	-	-	-	-	-	-	-	-	-	-	
16	9037 SWEIG007	*40:02		-	-	-	-	-	-	-	-	-	-	-	
17	9282 CTM3953540	*08:01	*55:01	-	-	-	-	-	-	-	-	-	-	-	
18	9257 32367	*14:01	*56:01	-	-	-	-	-	-	-	-	-	-	-	
19	9038 BM16	*18:01		-	-	-	-	-	-	-	-	-	-	-	
20	9059 SLE005	*40:01		-	-	-	-	-	-	-	-	-	-	-	
21	9064 AMALA	*15:01		-	-	-	-	-	-	-	-	-	-	-	
22	9056 KOSE	*35:03		-	-	-	-	-	-	-	-	-	-	-	
23	9124 IHL	*40:02	*56:02	-	-	-	-	-	-	-	-	-	-	-	
24	9035 JBUSH	*38:01		-	-	-	-	-	-	-	-	-	-	-	
25	9049 IBW9	*14:02		-	-	-	-	-	-	-	-	-	-	-	
26	9285 WT49	*58:01		-	-	-	-	-	-	-	-	-	-	-	
27	9191 CH1007	*07:05	*51:01	-	-	-	-	-	-	-	-	-	-	-	
28	9320 BEL5GB	*44:02	*44:03	-	-	-	-	-	-	-	-	-	-	-	
29	9050 MOU	*44:03		-	-	-	-	-	-	-	-	-	-	-	
30	9021 RSH	*42:01		-	-	-	-	-	-	-	-	-	-	-	
31	9019 DUCAF	*18:01		-	-	-	-	-	-	-	-	-	-	-	
32	9297 HAG	*41:02		-	-	-	-	-	-	-	-	-	-	-	
33	9098 MT14B	*40:01		-	-	-	-	-	-	-	-	-	-	-	
34	9104 DHIF	*38:01		-	-	-	-	-	-	-	-	-	-	-	
35	9302 SSTO	*44:02		-	-	-	-	-	-	-	-	-	-	-	
36	9024 KT17	*15:01	*35:01	-	-	-	-	-	-	-	-	-	-	-	
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	
38	9099 LZL	*15:01		-	-	-	-	-	-	-	-	-	-	-	
39	9315 CML	*08:01	*27:05	-	-	-	-	-	-	-	-	-	-	-	
40	9134 WHONP199	*13:02	*46:01	-	-	-	-	-	-	-	-	+	-	-	
41	9055 H0301	*14:02		-	-	-	-	-	-	-	-	-	-	-	
42	9066 TAB089	*46:01		-	-	-	-	-	-	-	-	-	-	-	
43	9076 T7526	*46:01		-	-	-	-	-	-	-	-	-	-	-	
44	9057 TEM	*38:01		-	-	-	-	-	-	-	-	-	-	-	
45	9239 SHJO	*42:01	*50:01	-	-	-	-	-	-	-	-	-	-	-	
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	
47	9045 TUBO	*51:01		-	-	-	-	-	-	-	-	-	-	-	
48	9303 TER-ND	*35:01	*44:03	-	-	-	-	-	-	-	-	-	-	-	

¹The provided cell line HLA specificities are retrieved from the <http://www.ihwg.org/hla> web site. The specificity of an individual cell line may thus be subject to change.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: 14V

Lot-specific information

²The specificity of each primer solution in the kit has been tested against 48 well characterized cell line DNAs and where applicable, additional cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 10, 18, 19, 21, 22, 24, 26, 28, 33, 43 to 56 and 58 were available. The specificities of the primers in primer solutions 10, 18, 21, 26, 33, 44 to 46, 50, 55 and 56 were tested by separately adding one or two additional 5'-primers, respectively one or two additional 3'-primers. In primer solutions 19, 22, 28, 43, 47, 48 and 54 it was only possible to test the 5'-primer, the 3'-primer was not possible to test. In primer solutions 49, 51 to 53 and 58 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solution 24 neither the 5'-primer nor the 3'-primer was possible to test.

In primer solutions 5, 6, 18, 21, 26, 31, 33, 45, 46 and 55 one or two of the 5'-primers were not possible to test. In primer solutions 1, 2, 7, 8, 10, 17, 35, 36, 44, 46, 50 and 56 one or more of the 3'-primers were not possible to test.

Additional primers in primer solutions 6 to 8, 27, 29, 31, 35, 36 and 42 were tested by separately adding one 5'-primer or one 3'-primer.

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

101.563-24/03 – including *Taq* pol., IFU-01
101.563-24u/03u – without *Taq* pol., IFU-02

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

Lot No.: **14V**

Lot-specific information

ADDRESSES:

Manufacturer:

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

Tel: +46-8-717 88 27

Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

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

Distributed by:

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

Tel: +43-1-710 15 00

Fax: +43-1-710 15 00 10

E-mail: support-at@olerup.com

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

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

Tel: 1-877-OLERUP1

Fax: 610-344-7989

E-mail: info.us@olerup.com

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

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