101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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

Lot No.: 54Y

Lot-specific information

Olerup SSP® HLA-B*13

Product number:	**101.515-12– including *Taq* pol.** **101.515-12u – without *Taq* pol.**
Lot number:	**54Y**
Expiry date:	**2017-December-01**
Number of tests:	**12**
Number of wells per test:	**30+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. 54Y.

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*13 LOT (56V)

The HLA-B*13 kit is updated for new alleles to enable separation of:

- Confirmed[1] 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.

Two wells have been added to HLA-B*13, wells **30 to 31**.

[1]As described in section Uniquely Identified Alleles.

The HLA-B*13 primer set, specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup* SSP® HLA-B*13 lot was made **(Lot No. 56V)**. The kit design is based on IMGT/HLA database 3.20.0

Lot No.: 54Y **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
6	-	Added	3'-primer added for the B*13:56:02N allele.
8	Moved	Moved	Primer pair moved to well 30 for decreased tendency of primer oligomer formation.
12	Modified	-	5'-primer modified for increased HLA-specific amplification.
13	Modified	Added	5'-primer modified for increased HLA-specific amplification, 3'-primer added for the B*13:57 allele.
15	Moved	Moved	Primer pair for B*13:55 moved to well 29.
16	-	Added	3'-primer added for the B*13:57 allele.
19	Added	-	5'-primer added for the B*13:76N
29	Added	Added	Updated negative control moved to well 31, primer pair added from well 15 for the B*13:55 allele.
30	Added	Added	Primer pair added from well 8.
31	-	-	Updated negative control added from well 29.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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

Lot No.: 54Y **Lot-specific information**

Well **31** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup* SSP® HLA Class I, DRB, DQB1, DPB1 and DQA1 amplicons as well as all the amplicons generated by the control primer pairs matching the human growth hormone gene.

HLA-specific PCR product sizes range from 75 to 200 base pairs.
The PCR product generated by the positive control primer pair is 430 base pairs.

Length of PCR product	**105**	**200**	**105**	**80**	**75**	**80**	**85**
5'-primer[1]	**164**	**340**	**440**	**45**	**45**	**43**	**36**
	5'-CAC3'	**5'-Agg3'**	**5'-TTA3'**	**5'-Tgg3'**	**5'-Tgg3'**	**5'-Tgg3'**	**5'-TAC3'**
							36
							5'-TAT3'
3'-primer[2]	**231**	**2nd I**	**507**	**59**	**58**	**57**	**47**
	5'-TgC3'	**5'-AAA3'**	**5'-TTg3'**	**5'-CTC3'**	**5'-ggC3'**	**5'-CTC3'**	**5'-ACA3'**
							48
							5'-gCA3'
							48
							5'-gCC3'
							52
							5'-TgT3'
A*	+	+	+				
B*	+	+	+				
C*	+	+	+				
DRB1				+	+		
DRB3				+	+		
DRB5				+			
DQB1					+		
DPB1						+	
DQA1							+

[1]The 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 codonnumbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

[2]The 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.

Lot No.: 54Y **Lot-specific information**

PRODUCT DESCRIPTION

HLA-B*13 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*13:01 to B*13:83 alleles.

PLATE LAYOUT

Each test consists of 31 PCR reactions in a 32 well PCR plate.
Well 32 is 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**	**NC**	**empty**

The 32 well cut PCR plate is marked with 'HLA-B*13' in silver/gray ink.
Well No. 1 is marked with the Lot No. '54Y'.
Wells 1 to 30 – HLA-B*13 high resolution primers.
Well 31 – 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 heat-sealed with a PCR-compatible foil.
Please note: When removing each 32 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

Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B*13 alleles will be amplified by primer mixes 1 to 16, 20, 23, 24, 26 and 29. In addition, a few HLA-C alleles will be amplified by primer mixes 3, 5, 7, 10, 12, 15 and 19.
For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*13 alleles, i.e. **B*13:01 to B*13:83**, recognized by the HLA Nomenclature Committee in April 2015[1,2] will be amplified by the primers in the HLA-B*13 subtyping kit.

The HLA-B*13 kit enables separation of the confirmed HLA-B*13 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*13 alleles is listed below.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

The HLA-B*13 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles

The HLA-B*13 kit cannot distinguish the silent mutations in the B*13:01:01-13:01:10 alleles, the 13:02:01-13:02:18 alleles, the B*13:13:01-13:13:02 alleles, the B*13:26:01-13:26:02 alleles or the B*13:56:01N-13:56:02N alleles.

The following HLA-B*13 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix
B*13:12:01, 13:52	13
B*13:15, 13:33	16
B*13:27, 13:49N	17
B*13:34, 13:38	19

[1]HLA-B alleles listed on the IMGT/HLA web page 2015-April-17, release 3.20.0, www.ebi.ac.uk/imgt/hl
[2]Alleles 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.

ALLELE CONFIRMATION STATUS

Allele	Status[1]	Allele	Status[1]	Allele	Status[1]	Allele	Status[1]
B*13:01:01	**Confirmed**	**B*13:06**	**Confirmed**	B*13:33	Unconfirmed	B*13:62	Unconfirmed
B*13:01:02	Unconfirmed	B*13:07N	Unconfirmed	B*13:34	Unconfirmed	B*13:63N	Unconfirmed
B*13:01:03	Unconfirmed	**B*13:08**	**Confirmed**	B*13:35	Unconfirmed	**B*13:64**	**Confirmed**
B*13:01:04	Unconfirmed	B*13:09	Unconfirmed	B*13:36	Unconfirmed	B*13:65	Unconfirmed
B*13:01:05	Unconfirmed	**B*13:10**	**Confirmed**	B*13:37	Unconfirmed	B*13:66	Unconfirmed
B*13:01:06	Unconfirmed	**B*13:11**	**Confirmed**	B*13:38	Unconfirmed	B*13:67	Unconfirmed
B*13:01:07	Unconfirmed	**B*13:12:01**	**Confirmed**	B*13:39	Unconfirmed	B*13:68	Unconfirmed
B*13:01:08	Unconfirmed	B*13:12:02	Unconfirmed	B*13:40	Unconfirmed	B*13:69	Unconfirmed
B*13:01:09	Unconfirmed	**B*13:13:01**	**Confirmed**	B*13:41	Unconfirmed	**B*13:70**	**Confirmed**
B*13:01:10	Unconfirmed	B*13:13:02	Unconfirmed	B*13:42	Unconfirmed	B*13:71	Unconfirmed
B*13:02:01	**Confirmed**	B*13:14	Unconfirmed	B*13:43	Unconfirmed	B*13:72	Unconfirmed
B*13:02:02	**Confirmed**	B*13:15	Unconfirmed	B*13:44	Unconfirmed	B*13:73	Unconfirmed
B*13:02:03	Unconfirmed	B*13:16	Unconfirmed	**B*13:45**	**Confirmed**	B*13:74	Unconfirmed
B*13:02:04	**Confirmed**	B*13:17	Unconfirmed	B*13:46	Unconfirmed	B*13:75	Unconfirmed
B*13:02:05	Unconfirmed	B*13:18	Unconfirmed	**B*13:47**	**Confirmed**	B*13:76N	Unconfirmed
B*13:02:06	Unconfirmed	B*13:19	Unconfirmed	**B*13:48**	**Confirmed**	B*13:77	Unconfirmed
B*13:02:07	Unconfirmed	B*13:20	Unconfirmed	B*13:49N	Unconfirmed	B*13:78	Unconfirmed
B*13:02:08	Unconfirmed	B*13:21	Unconfirmed	**B*13:50**	**Confirmed**	B*13:79	Unconfirmed
B*13:02:09	Unconfirmed	**B*13:22:01**	**Confirmed**	B*13:51	Unconfirmed	B*13:80	Unconfirmed
B*13:02:10	Unconfirmed	B*13:22:02	Unconfirmed	B*13:52	Unconfirmed	B*13:81	Unconfirmed
B*13:02:11	**Confirmed**	B*13:23	Unconfirmed	B*13:53	Unconfirmed	B*13:82	Unconfirmed
B*13:02:12	Unconfirmed	B*13:25	Unconfirmed	B*13:54	Unconfirmed	B*13:83	Unconfirmed
B*13:02:13	Unconfirmed	B*13:26:01	Unconfirmed	**B*13:55**	**Confirmed**		
B*13:02:14	**Confirmed**	B*13:26:02	Unconfirmed	B*13:56:01N	Unconfirmed		
B*13:02:15	Unconfirmed	B*13:27	Unconfirmed	B*13:56:02N	Unconfirmed		
B*13:02:16	Unconfirmed	B*13:28	Unconfirmed	**B*13:57**	**Confirmed**		
B*13:02:17	Unconfirmed	B*13:29	Unconfirmed	B*13:58	Unconfirmed		
B*13:02:18	Unconfirmed	B*13:30	Unconfirmed	B*13:59	Unconfirmed		
B*13:03	**Confirmed**	B*13:31	Unconfirmed	B*13:60	Unconfirmed		
B*13:04	**Confirmed**	**B*13:32**	**Confirmed**	B*13:61	Unconfirmed		

[1]Allele status "confirmed" or "unconfirmed" as listed on the IMGT/HLA web page 2015-April-17, release 3.20.0, www.ebi.ac.uk/imgt/hla.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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"Instructions for Use" (IFU)

Lot No.: 54Y **Lot-specific information**

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-B*13 homo- and heterozygotes is available upon request.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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

Lot No.: 54Y **Lot-specific information**

SPECIFICITY TABLE

HLA-B*13 SSP subtyping

Specificities and sizes of the PCR products of the 30+1 primer mixes used for HLA-B*13 SSP subtyping

Primer Mix	Size of spec. PCR product[1]	Size of control band[2]	Amplified HLA-B*13 alleles[3]	Other amplified HLA Class I alleles[4]
1[7]	140 bp	**800 bp**	*13:01:01-13:04, 13:06-13:08, 13:10-13:12:01, 13:13:01-13:23, 13:25-13:38, 13:40-13:57, 13:59-13:66, 13:68-13:83	*44:60
2[5,6]	95 bp	**800 bp**	*13:01:01-13:02:18, 13:07N-13:21, 13:23, 13:25-13:44, 13:47, 13:49N-13:52, 13:54-13:61, 13:63N-13:83	*27:98, 40:91, 51:93
3	245 bp	**800 bp**	*13:01:01-13:01:10, 13:07N, 13:12:01-13:13:02, 13:17, 13:20-13:23, 13:25-13:26:02, 13:28-13:29, 13:36, 13:39, 13:43, 13:50-13:52, 13:57, 13:60-13:61, 13:63N, 13:73, 13:76N-13:80, 13:83	*07:12, 07:14, 07:18:01-07:18:02, 07:137, 07:162-07:163, 07:199, 07:225, 07:227, 27:19, 27:30, 35:15:01-35:15:02, 35:33, 35:88, 35:230, 40:04, 40:30, 40:34, 40:59, 40:64, 40:68, 40:120, 40:129, 40:137, 40:160:01-40:160:02, 44:16, 44:21, 44:64:01-44:64:02, 44:124, 44:150, 48:17, 57:13, 57:25, 58:37, **C*02:62, C*03:34, C*03:142, C*03:261, C*03:272, C*15:42, C*15:111**
4	245 bp	1070 bp	*13:02:01-13:02:18, 13:08-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:47, 13:49N, 13:54-13:56:02N, 13:58-13:59, 13:65-13:70, 13:72, 13:74-13:75, 13:81-13:82	*07:78, 07:84, 27:14, 27:81, 27:130, 39:50, 40:06:01:01-40:06:11, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:167, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294-40:295, 40:298, 45:10, 49:07, 50:31, 51:10, 51:16, 51:31, 51:34, 51:82, 51:93, 52:08, 54:26, 55:09, 55:22, 55:24, 59:09, 73:01-73:02, 78:08
5[5,7]	125 bp	**800 bp**	*13:03, 13:22:01-13:22:02, 13:45, 13:48	*07:78, 15:42, 15:73, 15:86, 15:224, 15:303, 35:60, 40:71, 44:10, 46:11, 46:18, 51:62, 51:106, 51:157, 52:25, 54:01:01-54:03, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:17-54:34, 55:01:01-55:03, 55:05, 55:07, 55:09-55:12, 55:15-55:16, 55:18-55:19, 55:21-55:22, 55:24-55:26, 55:29-55:31, 55:33-55:40, 55:42-55:45, 55:47-55:48, 55:52-55:57, 55:59-55:67, 55:69-55:71, 55:73, 56:01:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07-56:08, 56:10, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:47, 59:01:01:01-59:01:01:02, 59:04-59:09, 82:01-82:03, **C*01:90, C*15:91**

Lot No.: 54Y **Lot-specific information**

	155 bp		*13:16, 13:20, 13:31, 13:41, 13:48	*07:78, 15:42, 15:73, 15:303, 51:62, 51:106, 52:25, 54:20, 54:33, 55:01:01-55:01:14, 55:03, 55:05, 55:09, 55:11, 55:15, 55:21, 55:24-55:25, 55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 55:52-55:55N, 55:59-55:60, 55:64, 55:66, 55:73, 56:25, 56:37, 56:43, **C*01:90, C*15:91**
	180 bp		*13:03, 13:48	*****15:73, 15:303, 40:71, 44:10, 46:11, 51:62, 51:106, 52:25, 54:03, 54:33, 56:01:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:20:01-56:20:02, 56:24-56:30, 56:33-56:47, 59:04, 82:01-82:03
6[5,9]	105 bp	1070 bp	*13:04, 13:46, 13:56:01N-13:56:02N, 13:72	*15:04:01-15:04:02, 15:16:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 35:37, 35:235, 35:265, 35:276, 39:06:01-39:06:05, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 40:86, 40:159, 41:30, 45:02, 45:09, 46:32, 49:04:01-49:05, 50:09, 50:33, 51:13:01-51:13:02, 51:37, 51:63, 51:92:01-51:92:02, 51:97, 51:172, 52:14, 52:39, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 59:03, 73:01-73:02
7[8]	190 bp	1070 bp	*13:06, 13:53	*07:34, 08:01:01-08:01:22, 08:01:24-08:05, 08:08N-08:10, 08:12:01-08:13, 08:15-08:20, 08:22-08:24, 08:26:01-08:27, 08:29-08:36, 08:38-08:39, 08:41-08:48, 08:50-08:73, 08:75-08:78, 08:80-08:86N, 08:88, 08:90-08:106, 08:108[w], 08:109-08:110, 08:112-08:124, 08:126-08:147, 14:13, 15:42, 15:83, 15:86, 15:188, 15:224, 15:252, 18:26, 18:61, 18:97, 35:60, 35:87, 35:157[w], 35:276, 37:12, 38:01:01, 38:01:03-38:02:05, 38:02:07-38:07, 38:09-38:21, 38:23-38:28, 38:31-38:51, 38:53-38:56, 39:01:01:01-39:01:01:03, 39:01:03-39:01:18, 39:01:20-39:06:05, 39:08-39:14, 39:16, 39:18-39:20, 39:22-39:24:02, 39:26-39:28, 39:30-39:31, 39:34-39:37, 39:39:01-39:39:02, 39:41-39:42, 39:44-39:46, 39:48, 39:51-39:54, 39:56-39:73, 39:75-39:90, 39:92-39:95N, 39:97N, 39:98[w], 39:99-39:101, 40:39, 40:51, 40:163, 40:184, 40:199, 41:01:01-41:03:02, 41:05-41:09, 41:11-41:16, 41:20, 41:22-41:36, 42:01:01-42:02, 42:04-42:08, 42:10-42:15, 42:17-42:19, 44:166, 46:18, 48:37, 51:21, 51:36, 51:101, 51:143, 51:153, 51:157, 52:37, 54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:10-54:13, 54:17-54:25, 54:27-54:32, 54:34, 55:01:01-55:05, 55:07, 55:10-55:13, 55:15-55:21, 55:25-55:26, 55:28-55:40, 55:42-55:45, 55:47-55:50, 55:52-55:57, 55:59-55:67, 55:69-55:71, 55:73, 56:10, 56:12, 56:23, 58:20, 59:01:01:01-59:03, 59:05-59:08,

Lot No.: 54Y **Lot-specific information**

				67:01:01-67:05, 78:07, **C*01:90, C*15:24**
8[8]	225 bp	1070 bp	*13:18, 13:31, 13:41	*07:78, 07:84, 15:04:01-15:04:02, 15:137, 15:303, 35:265, 39:33, 40:161, 46:32, 51:05, 51:29, 51:54, 51:61:01-51:61:02, 51:82, 52:21, 52:24, 54:10, 54:20, 54:33, 55:09, 55:21, 55:37, 55:52, 56:43
9	130 bp 230 bp	1070 bp	*13:42 *13:08	*51:38
10[5]	105 bp	**800 bp**	*13:21, 13:71	*07:05:01-07:05:07, 07:06, 07:32, 07:34, 07:40, 07:53, 07:69, 07:78, 07:80, 07:90, 07:97, 07:105, 07:112, 07:123, 07:137-07:138, 07:140, 07:176, 07:182N, 07:201N, 07:206-07:207, 07:209-07:210, 07:213, 07:222, 07:249, 08:01:02, 08:01:13, 08:20, 08:53:02, 08:79, 15:150, 15:188, 27:07:01-27:07:04, 27:11, 27:20, 27:24, 27:27, 27:33, 27:43, 27:125, 27:130, 35:09:02-35:09:03, 35:18, 35:31, 35:88, 35:230, 40:01:01-40:01:13, 40:01:15-40:01:20, 40:01:22-40:01:25, 40:01:27, 40:01:29, 40:01:31, 40:01:33-40:02:09, 40:02:11-40:02:12, 40:02:14-40:02:17, 40:02:19, 40:02:21-40:02:23, 40:04-40:06:04, 40:06:06-40:06:09, 40:06:11-40:08, 40:10:01-40:13, 40:14:03-40:16, 40:19, 40:21-40:23, 40:25, 40:27:01-40:27:02, 40:29-40:30, 40:34-40:35:01, 40:36-40:40, 40:43, 40:45-40:51, 40:53-40:58, 40:61-40:70:02, 40:72:02-40:76, 40:79-40:86, 40:87:02-40:88, 40:90-40:94, 40:96-40:97, 40:99-40:114:01, 40:115-40:119, 40:122-40:123, 40:125-40:130:02, 40:132-40:135, 40:137-40:157, 40:160:01-40:171, 40:173-40:179, 40:182-40:183, 40:185-40:186, 40:188-40:236, 40:239-40:266, 40:268-40:279, 40:281-40:283, 40:285-40:299, 40:301-40:304, 41:08, 44:31, 48:01:01-48:01:06, 48:03:01-48:07, 48:09-48:11, 48:13, 48:15-48:16, 48:18-48:22, 48:24, 48:28-48:37, 51:01:09, 51:01:21, 51:01:25, 51:10, 51:24:02-51:24:04, 51:81, 54:11, 55:04, 55:08, 55:49, 56:20:02, 58:27, 67:03, 81:01-81:07, **C*01:90, C*02:68, C*15:24**
	210 bp		*13:09, 13:39, 13:67	***07:177, 08:102, 08:122, 15:53, 15:183, 15:212, 15:336, 15:345, 18:80, 18:102, 18:107, 27:08, 27:12, 27:18, 27:26, 27:33, 27:40, 27:42, 27:44, 27:89, 35:63, 35:84, 35:90, 35:150:01-35:150:02, 35:184, 35:201, 35:217, 40:01:01-40:01:10, 40:01:12-40:09, 40:11:01-40:11:02, 40:14:01-40:16, 40:18, 40:20, 40:22N-40:40, 40:42-40:46, 40:48-40:57, 40:59-40:75, 40:77-40:95, 40:97-40:108, 40:111-40:116, 40:118N-40:136, 40:138-40:148, 40:150-40:156, 40:158-40:187, 40:189-40:200, 40:202-40:214,

				40:216N-40:247, 40:249-40:281, 40:283-40:291N, 40:293-40:299, 40:301-40:304, 41:01:01-41:04, 41:06-41:11, 41:13-41:21, 41:23-41:25, 41:27-41:35, 44:09, 44:46, 44:75, 44:90, 44:129, 44:131, 45:01:01-45:15, 46:10, 47:02, 47:03^{W}, 50:01:01-50:02, 50:04-50:20, 50:31-50:42, 56:36, 73:01-73:02
11	280 bp	**800 bp**	*13:04, 13:10, 13:26:01-13:26:02, 13:72	*07:09, 07:11, 07:17, 07:162, 07:235, 07:237, 07:255, 08:28, 08:35, 08:37, 08:89, 08:107, 15:01:01:01-15:01:04, 15:01:06-15:08:02, 15:11:01-15:16:03, 15:18:01-15:21, 15:23-15:29, 15:31-15:36, 15:38:01-15:40, 15:43-15:44, 15:46-15:47:02, 15:49-15:57, 15:60-15:62, 15:64:01-15:72, 15:74-15:76, 15:78:01-15:82, 15:84-15:85, 15:87-15:89, 15:91-15:98, 15:101-15:129, 15:131-15:132, 15:134-15:136, 15:138-15:149N, 15:151-15:161, 15:163-15:167, 15:169-15:176, 15:178-15:187, 15:189-15:195, 15:197-15:207, 15:209N-15:215, 15:217-15:223, 15:225-15:228, 15:231-15:232, 15:234-15:242, 15:244-15:247, 15:249-15:251, 15:254-15:268, 15:270-15:272N, 15:274-15:286, 15:288-15:302N, 15:304N-15:311, 15:314-15:322, 15:325-15:328, 15:330-15:333, 15:335-15:337, 15:340-15:341, 15:343-15:347, 15:353-15:355, 18:01:01:01-18:15, 18:17N-18:25, 18:27-18:40, 18:42-18:60, 18:62-18:108, 27:41, 27:107, 35:01:01:01-35:01:45, 35:05:01-35:05:03, 35:07-35:08:08, 35:10-35:11:03, 35:14:01-35:17:02, 35:19-35:21, 35:23-35:30, 35:32:01-35:32:02, 35:35, 35:37, 35:40N-35:43:01, 35:45-35:54, 35:57-35:58, 35:61:01-35:64:02, 35:66-35:69, 35:71-35:72, 35:76-35:80, 35:82, 35:86, 35:89-35:94, 35:97, 35:99-35:105, 35:107-35:108:02, 35:110-35:126, 35:130N-35:135, 35:137-35:148, 35:158-35:159, 35:161, 35:165N-35:166, 35:168, 35:170-35:171, 35:173N-35:178, 35:180, 35:185-35:192, 35:194, 35:196-35:197, 35:200, 35:202-35:203, 35:206-35:210, 35:212, 35:215-35:219, 35:222, 35:224-35:229, 35:232, 35:238-35:241, 35:244-35:245, 35:247-35:250, 35:252-35:255, 35:259-35:260, 35:262-35:265, 35:268-35:269, 35:271-35:272, 35:275, 35:277, 35:280, 35:286, 37:35, 38:52, 39:07, 39:43, 39:91, 40:03, 40:20, 40:38, 40:52, 40:59-40:60, 40:105, 40:158-40:159, 40:222, 40:267, 40:284, 41:24, 41:30, 42:09, 44:17, 44:43:01-44:43:02, 44:144, 45:09, 46:01:01-46:10, 46:12-46:17, 46:19-46:60, 46:62-46:63, 48:02:01-48:02:03, 48:14, 48:23, 48:25, 49:04:01-49:05, 50:33, 51:37, 51:45, 51:63, 51:97, 52:39,

				53:01:01-53:03, 53:05-53:06, 53:08:01-53:18, 53:20-53:30, 53:32, 53:34-53:35, 53:37-53:39, 54:06, 54:09, 54:14, 55:14, 55:23, 55:32, 55:68, 56:03, 56:09, 56:18, 56:31-56:32, 57:01:01-57:01:22, 57:06, 57:08, 57:10-57:11, 57:13-57:16, 57:18-57:27, 57:29-57:31, 57:33-57:38, 57:40-57:41, 57:43-57:45, 57:47-57:56, 57:58-57:62, 57:64-57:65, 57:67-57:69, 57:71-57:75, 58:01:01-58:02, 58:04-58:07, 58:09-58:19, 58:21-58:26, 58:29, 58:31N-58:33, 58:35-58:64, 58:66-58:69
12[5,8]	90 bp	1070 bp	*13:11	*07:182N, 15:18:03, 15:73, 15:224, 39:17, 40:48, 40:71, 51:62, 56:02, 56:04, 56:10, **C*02:06, C*02:47**
13[5,6]	100 bp 180 bp	**800 bp**	*13:19, 13:52, 13:57 *13:12:01-13:12:02	*27:04:01-27:04:03, 27:06, 27:20, 27:24-27:25, 27:66N, 27:68-27:69, 27:100, 27:103, 27:105, 49:34
14	130 bp	1070 bp	*13:13:01-13:13:02, 13:21, 13:35, 13:59, 13:71	*08:83, 40:91, 51:93, 51:122
15[5]	105 bp 245 bp	**800 bp**	*13:22:01 *13:14, 13:83	*07:78, 15:73, 15:303, 40:48, 54:22, 56:01:03, 56:20:02, **C*15:91** *07:149, 18:09[w], 27:01[w], 37:10[w], 38:02:01-38:02:06, 38:03-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 38:43-38:50, 40:96[w], 40:157[w], 40:201[w], 44:103[w], 44:130, 44:212[w]
16[5,8]	90 bp 205 bp	**800 bp**	*13:17, 13:33, 13:57 *13:15	*35:46, 35:207 *14:37, 49:09, 51:62, 51:106, 52:25, 56:34
17	160 bp 220 bp	1070 bp	*13:49N *13:27, 13:43	
18	155 bp 205 bp 275 bp	1070 bp	*13:28 *13:32 *13:44	
19	195 bp 240 bp 340 bp	1070 bp	*13:34 *13:76N *13:38	***C*17:08**
20[5]	90 bp	1070 bp	*13:36	*35:46
21[5]	120 bp 180 bp	1070 bp	*13:29 *13:30, 13:40	
22[9]	135 bp 175 bp	**800 bp**	*13:25 *13:40	
23	130 bp 200 bp 275 bp	1070 bp	*13:42 *13:37 *13:44	*51:38
24[7]	170 bp	1070 bp	*13:16, 13:20, 13:31, 13:48, 13:62	*07:02:01-07:24, 07:26-07:47, 07:49N-07:50, 07:52-07:154, 07:156-07:163, 07:165-07:201N, 07:203-07:208, 07:210-07:219, 07:221-07:222, 07:224-07:225, 07:227-07:234, 07:236-07:247, 07:249, 07:251N-07:255, 08:20, 08:53:01-08:53:02, 08:79, 14:01:01-14:40, 14:42, 14:44-14:46, 15:01:01:01-15:01:04, 15:01:06-15:04:02, 15:06-15:19, 15:21, 15:23-15:30,

Lot No.: 54Y **Lot-specific information**

	15:32:01-15:40, 15:42-15:47:02, 15:49-15:50, 15:53-15:54, 15:56-15:58, 15:60-15:74, 15:76-15:82, 15:85, 15:87, 15:89-15:90, 15:92-15:99, 15:101-15:104, 15:106, 15:108-15:110, 15:112-15:113, 15:115-15:122, 15:125-15:129, 15:131-15:135, 15:137-15:144, 15:146-15:150, 15:152-15:154, 15:156-15:161, 15:163-15:175, 15:177-15:178, 15:180-15:184, 15:187, 15:189-15:199, 15:201-15:217, 15:219-15:221, 15:223, 15:225-15:234, 15:236, 15:238-15:249, 15:251-15:274, 15:276-15:282, 15:284-15:311, 15:313-15:331, 15:333-15:347, 15:353-15:355, 18:15, 18:19, 18:21, 18:30, 18:57, 18:101, 27:04:01-27:04:04, 27:06, 27:10, 27:15, 27:18, 27:20-27:21, 27:24-27:25, 27:40, 27:54, 27:63, 27:66N, 27:68-27:69, 27:79, 27:86, 27:91-27:92, 27:100, 27:103, 27:105-27:109, 27:112-27:115, 27:120, 27:138, 35:11:01-35:11:03, 35:14:01-35:14:02, 35:21, 35:43:01-35:44, 35:58, 35:67, 35:79, 35:86, 35:96, 35:99, 35:102, 35:117-35:118, 35:135, 35:167, 35:185, 35:188, 35:213, 35:232, 35:265, 35:277, 37:07, 37:13, 38:10, 38:32, 39:18, 39:35-39:36, 40:05, 40:15-40:16, 40:23, 40:26, 40:28, 40:32, 40:51, 40:95, 40:98, 40:148, 40:158, 40:161, 40:174, 40:183, 40:198, 42:19, 44:76, 44:79:01-44:79:02, 44:146, 44:150, 46:01:01-46:05, 46:07N-46:08, 46:10, 46:12, 46:14-46:17, 46:20, 46:22-46:24, 46:26-46:32, 46:34-46:42, 46:44-46:63, 47:10, 48:05, 48:08, 48:15, 48:25, 49:01:01-49:10, 49:12-49:14, 49:16-49:37, 50:01:01-50:02, 50:04-50:20, 50:31-50:42, 51:01:01:01-51:04, 51:06:01-51:07:02, 51:11N-51:14, 51:16-51:18, 51:21-51:24:05, 51:26-51:30, 51:32-51:39, 51:41N, 51:43, 51:45-51:46, 51:48-51:52, 51:55-51:72, 51:74-51:80, 51:82-51:92:02, 51:94-51:96, 51:98N-51:107, 51:109-51:114, 51:116-51:119, 51:121, 51:123-51:138, 51:140, 51:142-51:147, 51:149N-51:152, 51:154-51:156, 51:158:01-51:180, 51:182-51:189, 52:01:01:01-52:01:24, 52:01:27-52:02:02, 52:04-52:09, 52:11-52:18, 52:20-52:27, 52:30-52:45, 53:06, 53:08:01-53:08:02, 53:28, 54:06, 54:20, 54:33, 55:01:01-55:01:14, 55:03, 55:05, 55:09, 55:11, 55:14-55:15, 55:17, 55:21, 55:24-55:25, 55:28-55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 55:52-55:53, 55:55N-55:56, 55:58-55:60, 55:64, 55:66, 55:68, 55:73, 56:03, 56:05:01-56:06, 56:21, 56:25, 56:32, 56:37, 57:09, 57:13, 57:22, 57:57, 57:63, 58:06, 58:08:01-58:08:02, 58:19, 58:46,

Lot No.: 54Y **Lot-specific information**

				78:01:01-78:03, 78:05-78:07
25	160 bp 430 bp	**800 bp**	*13:70 *13:64	
26[5]	120 bp 175 bp	1070 bp	*13:50 *13:47	*27:82
27	175 bp	1070 bp	*13:61, 13:69	
28[5]	120 bp	1070 bp	*13:63N	
29	255 bp	1070 bp	*13:23, 13:55	*18:09, 27:01, 37:10, 40:47, 40:96, 40:157, 40:201, 44:15, 44:55, 44:103, 44:188, 44:212, 49:02
30	185 bp	1070 bp	*13:07N	
31[10]			**Negative Control**	

[1]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-B*13 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 inherit 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.

[2]The 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.

[3]For 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.

[4]Due to the sharing of sequence motifs between HLA-B alleles non-HLA-B*13 alleles will be amplified by primer mixes 1 to 16, 20, 23, 24, 26 and 29. In addition, a few HLA-C alleles will be amplified by primer mixes 3, 5, 7, 10, 12, 15 and 19.

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

[6]Primer mixes 2 and 13 may give rise to a weak band of about 500 bp. This band should be disregarded when interpreting HLA-B*13 SSP subtypings.

[7]Primer mixes 1, 5 and 24 may give rise to a lower yield of HLA-specific PCR product than the other B*13 primer mixes.

[8]Primer mixes 7, 8, 12 and 16 may have tendencies of unspecific amplifications.

[9]Primer mixes 6 and 22 have a tendency to giving rise to primer oligomer formation.

[10]Primer mix 31 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs.

'w', may be weakly amplified.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	140	95	245	245	125	105	190	225	130	105	280	90
PCR product					155				230	210		
					180							
Length of int.	800	800	800	1070	800	1070	1070	1070	1070	800	800	1070
pos. control[1]												
5'-primer(s)[2]	209	506	355	357	420	357	412	357	357	142	419	369
	5' -ggC 3'	5' -gCT 3'	5' -TCA 3'	5' -Tgg 3'	5' -TTA 3'	5' -Tgg 3'	5' -ATA 3'	5' -Tgg 3'	5' -Tgg 3'	5' -TCA 3'	5' -gTC 3'	5' -TAC 3'
										412		
										5' -ATA 3'		
3'-primer(s)[3]	309	559	559	559	506	419	559	539	445	311	3rd I	420
	5' -gTg 3'	5' -CTC 3'	5' -CTC 3'	5' -CTC 3'	5' -TgC 3'	5' -Cgg 3'	5' -CgT 3'	5' -TCC 3'	5' -ggA 3'	5' -ggT 3'	5' -TAT 3'	5' -gCT 3'
					527	419			548	477		
					5' -CCT 3'	5' -CgA 3'			5' -ggC 3'	5' -gCg 3'		
					538	426						
					5' -CCA 3'	5' -TCT 3'						
					559	426						
					5' -CAg 3'	5' -TCC 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.	100	130	105	90	160	155	195	90	120	135	130	170
PCR product	180		245	205	220	205	240		180	175	200	
						275	340				275	
Length of int.	800	1070	800	800	1070	1070	1070	1070	1070	800	1070	1070
pos. control[1]												
5'-primer(s)[2]	268	419	103	144	368	209	358	209	160	209	357	527
	5' -Agg 3'	5' -gTA 3'	5' -CCT 3'	5' -gCA 3'	5' -gTT 3'	5' -ggC 3'	5' -TCT 3'	5' -ggC 3'	5' -ACT 3'	5' -ggC 3'	5' -Tgg 3'	5' -TgA 3'
	420		420	420	385	357	406		229	520		
	5' -TTA 3'		5' -TTA 3'	5' -TTA 3'	5' -ggT 3'	5' -Tgg 3'	5' -gCA 3'		5' -TAA 3'	5' -AgA 3'		
	636				441		712		520			
	5' -CAC 3'				5' -TAA 3'		5' -TCT 3'		5' -AgA 3'			
3'-primer(s)[3]	317	506	309	193	559	323	559	259	309	302	445	3rd I
	5' -ggA 3'	5' -TgA 3'	5' -gTg 3'	5' -CgT 3'	5' -CTC 3'	5' -AgC 3'	5' -CTC 3'	5' -gTT 3'	5' -gTg 3'	5' -ggC 3'	5' -ggA 3'	5' -TAT 3'
	476		486	476		523	916		3rd I	3rd I	515	
	5' -CCA 3'		5' -gCC 3'	5' -CCA 3'		5' -ACC 3'	5' -gAC 3'		5' -TAT 3'	5' -TAT 3'	5' -CCC 3'	
	559			583		593					593	
	5' -CCC 3'			5' -gTg 3'		5' -CgC 3'					5' -CgC 3'	
	700											
	5' -AgA 3'											
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

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101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

Well No.	25	26	27	28	29	30
Length of spec.	160	120	175	120	255	185
PCR product	430	175				
Length of int.	800	1070	1070	1070	1070	1070
pos. control[1]						
5'-primer(s)[2]	209	427	628	506	97	106
	5' -ggC 3'	5' -ACT 3'	5' -CAC 3'	5' -gCT 3'	5' -TCC 3'	5' -CCA 3'
		482	649			
		5' -ggT 3'	5' -ACT 3'			
3'-primer(s)[3]	329	559	774	583	309	251
	5' -ggC 3'	5' -CTC 3'	5' -ggT 3'	5' -gTA 3'	5' -gTg 3'	5' -CCC 3'
	353					
	5' -AAA 3'					
Well No.	25	26	27	28	29	30

[1]The 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.

[2]The 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.

[3]The 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.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-B*13 SSP subtyping kit[2]

					Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	201553801	201553802	201553803	201553804	201553805	201553806	201553807	201553808	201553809	201553810	201553811	201553812	201553813	201553814	201553815	201553816
	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	9004	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	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-B*13 SSP subtyping kit[2]

					Well													
					17	18	19	20	21	22	23	24	25	26	27	28	29	30
				Prod. No.:	201553817	201553818	201553819	201553820	201553821	201553822	201553823	201553824	201553825	201553826	201553827	201553828	201553829	201553830
	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	9004	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[1]The 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.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

[2]The 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 9, 13, 14, 16 to 23, 25 to 28 and 30 were available. The specificities of the primers in primer mixes 13, 14, 16, 20 and 22 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 9, 18, 23, 25, 28 and 30 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 17, 19, 21, 26 and 27 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 13 and 22, one 5'-primer was not possible to test and in primer solutions 6, 13, 16 and 22 one or two 3'-primers were not possible to test.
Additional primers in primer solutions 5 and 15 were tested by separately adding one 5'-primer and/or one 3'-primer.

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

101.515-12– including *Taq* pol., IFU-01
101.515-12u – without *Taq* pol., IFU-02

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Lot No.: 54Y **Lot-specific information**

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