101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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

Lot No.: 82X **Lot-specific information**

Olerup SSP® HLA-B*39

Product number:	**101.566-12/04 – including *Taq* pol.** **101.566-12u/04u – without *Taq* pol.**
Lot number:	**82X**
Expiry date:	**2017-July-01**
Number of tests:	**12 tests – Product No. 101.566-12/12u** **4 tests – Product No. 101.566-04/04u**
Number of wells per test:	**31+1**
Storage - pre-aliquoted primers:	**dark at -20ºC**
- PCR Master Mix:	**-20ºC**
- Adhesive PCR seals	**RT**
- Product Insert	**RT**

This Product Description is only valid for Lot No. 82X.

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*39 LOT (87S)

The HLA-B*39 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

A well containing Negative Control primer pairs has been added.

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

[1]As described in section Uniquely Identified Alleles.

The HLA-B*39 primer set, specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup* SSP® HLA-B*39 lot was made **(Lot No. 87S)**. The kit design is based on IMGT/HLA database 3.13.1.

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.

Lot No.: 82X **Lot-specific information**

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

Well	5'-primer	3'-primer	rationale
4	-	Added	3'-primer added from well 13.
9	Added	-	5'-primer added from well 20.
10	Added	-	5'-primer added from well 20.
13	Removed, added	Moved, added	5'-primer removed, 3'-primer moved to well 4, primer pair added from well 32.
20	Moved	-	5'-primers moved to wells 9 and 10 for improved HLA-specific amplification.
32	Moved	Moved	Primer pair moved to well 13, negative control.

Change in revision R01 compared to R00:
1. In primer mix 7 the C*15:51 alleles gives rise to PCR products of 120 and 165 bp. This has been corrected in the Specificity Table and in the footnotes to the Interpretation Tables.

Well **32** 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.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

PRODUCT DESCRIPTION

HLA-B*39 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*39:01 to B*39:83 alleles.

PLATE LAYOUT

Each test consists of 32 PCR reactions in a 32 well cut PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

The 32 well cut PCR plate is marked with 'HLA-B*39' in silver/gray ink.
Well No. 1 is marked with the Lot Number '82X'.
Wells 1 to 31 – HLA-B*39 high resolution primers.
Well 32 – 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.
Please note: When removing each 32 well PCR plate, make sure that the remaining plates stay covered. 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*39 alleles will be amplified by primer mixes 1 to 3, 5 to 16, 18, 19, 21 to 24 and 26 to 31.
In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 1, 3, 7, 9, 10, 12, 13, 16, 21, 25 to 28, 30 and 31.
For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*39 alleles, i.e. **B*39:01 to B*39:83**, recognized by the HLA Nomenclature Committee in July 2013[1,2] will be amplified by the primers in the HLA-B*39 subtyping kit[3].

The HLA-B*39 kit enables separation of the confirmed HLA-B*39 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*39 alleles is listed below.

The HLA-B*39 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.

Lot No.: 82X **Lot-specific information**

The following HLA-B*39 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
B*39:01:01:02L, 39:60	25	B*39:35, 39:75	30
B*39:01:05, 39:59	9	B*39:41, 39:77	13
B*39:25N, 39:44	17	B*39:62, 39:64	30
B*39:26, 39:51	4		

The HLA-B*39 subtyping kit cannot distinguish the silent mutations in the B*39:01:01:01, 39:01:01:03, 39:01:03, 39:01:06-39:01:08 and 39:01:10-39:01:16, alleles, the B*39:05:01-39:05:02 alleles, the B*39:06:01-39:06:02 alleles, the B*39:13:01-39:13:02 alleles, the B*39:24:01-39:24:02 alleles or the B*39:40:01N-39:40:02N alleles.

[1]HLA-B alleles listed on the IMGT/HLA web page 2013-July-25, release 3.13.1, www.ebi.ac.uk/imgt/hla.
[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.
[3]The B*39:10:01 and 67:01:02-67:01:03 alleles will give rise to identical amplification patterns with the HLA-B*39 subtyping kit. These two alleles can be distinguished by the HLA-B low resolution and/or HLA-B*67 kits.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

ALLELE CONFIRMATION STATUS

Allele	Status[1]	Allele	Status[1]	Allele	Status[1]	Allele	Status[1]
B*39:01:01:01	**Confirmed**	B*39:10:02	Unconfirmed	**B*39:38Q**	**Confirmed**	B*39:66	Unconfirmed
B*39:01:01:02L	Unconfirmed	**B*39:11**	**Confirmed**	**B*39:39:01**	**Confirmed**	B*39:67	Unconfirmed
B*39:01:01:03	Unconfirmed	**B*39:12**	**Confirmed**	B*39:39:02	Unconfirmed	**B*39:68**	**Confirmed**
B*39:01:03	**Confirmed**	**B*39:13:01**	**Confirmed**	B*39:40:01N	Unconfirmed	B*39:69	Unconfirmed
B*39:01:04	**Confirmed**	B*39:13:02	Unconfirmed	B*39:40:02N	Unconfirmed	B*39:70	Unconfirmed
B*39:01:05	**Confirmed**	**B*39:14**	**Confirmed**	B*39:41	Unconfirmed	B*39:71	Unconfirmed
B*39:01:06	Unconfirmed	**B*39:15**	**Confirmed**	B*39:42	Unconfirmed	B*39:72	Unconfirmed
B*39:01:07	Unconfirmed	B*39:16	Unconfirmed	B*39:43	Unconfirmed	**B*39:73**	**Confirmed**
B*39:01:08	**Confirmed**	B*39:17	Unconfirmed	B*39:44	Unconfirmed	B*39:74	Unconfirmed
B*39:01:09	**Confirmed**	B*39:18	Unconfirmed	B*39:45	Unconfirmed	**B*39:75**	**Confirmed**
B*39:01:10	**Confirmed**	B*39:19:01	Unconfirmed	B*39:46	Unconfirmed	B*39:76	Unconfirmed
B*39:01:11	Unconfirmed	**B*39:19:02**	**Confirmed**	B*39:47	Unconfirmed	B*39:77	Unconfirmed
B*39:01:12	Unconfirmed	**B*39:20**	**Confirmed**	B*39:48	Unconfirmed	B*39:78	Unconfirmed
B*39:01:13	Unconfirmed	**B*39:22**	**Confirmed**	B*39:49	Unconfirmed	B*39:79	Unconfirmed
B*39:01:14	**Confirmed**	**B*39:23**	**Confirmed**	B*39:50	Unconfirmed	B*39:80	Unconfirmed
B*39:01:15	Unconfirmed	**B*39:24:01**	**Confirmed**	B*39:51	Unconfirmed	B*39:81	Unconfirmed
B*39:01:16	Unconfirmed	**B*39:24:02**	**Confirmed**	B*39:52	Unconfirmed	B*39:82	Unconfirmed
B*39:02:01	Unconfirmed	B*39:25N	Unconfirmed	**B*39:53**	**Confirmed**	B*39:83	Unconfirmed
B*39:02:02	**Confirmed**	**B*39:26**	**Confirmed**	B*39:54	Unconfirmed		
B*39:03	**Confirmed**	**B*39:27**	**Confirmed**	B*39:55	Unconfirmed		
B*39:04	**Confirmed**	B*39:28	Unconfirmed	B*39:56	Unconfirmed		
B*39:05:01	**Confirmed**	**B*39:29**	**Confirmed**	**B*39:57**	**Confirmed**		
B*39:05:02	Unconfirmed	B*39:30	Unconfirmed	B*39:58	Unconfirmed		
B*39:06:01	**Confirmed**	**B*39:31**	**Confirmed**	B*39:59	Unconfirmed		
B*39:06:02	**Confirmed**	B*39:32	Unconfirmed	B*39:60	Unconfirmed		
B*39:06:03	Unconfirmed	**B*39:33**	**Confirmed**	B*39:61	Unconfirmed		
B*39:07	**Confirmed**	**B*39:34**	**Confirmed**	**B*39:62**	**Confirmed**		
B*39:08	**Confirmed**	B*39:35	Unconfirmed	**B*39:63**	**Confirmed**		
B*39:09	**Confirmed**	B*39:36	Unconfirmed	**B*39:64**	**Confirmed**		
B*39:10:01	**Confirmed**	**B*39:37**	**Confirmed**	B*39:65	Unconfirmed		

[1]Allele 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*39 homo- and heterozygotes is available upon request.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

SPECIFICITY TABLE

HLA-B*39 SSP subtyping

Specificities and sizes of the PCR products of the 31+1 primer mixes used for HLA-B*39 SSP subtyping

Primer Mix	Size of spec. PCR product[1]	Size of control band[2]	Amplified HLA-B*39 alleles[3]	Other amplified HLA-Class I alleles[4]
1	230 bp	**800 bp**	*39:01:01:01-39:01:01:03, 39:01:03-39:05:02, 39:07-39:20, 39:22-39:29, 39:31, 39:35, 39:37-39:41, 39:44-39:46, 39:48-39:49, 39:51-39:56, 39:58-39:61, 39:63, 39:65-39:72, 39:75-39:81	*08:55, 15:69, 15:186, 38:01:01-38:07, 38:09, 38:11-38:14, 38:16-38:19, 38:21-38:22, 38:24-38:29, 38:31-38:35, 38:38-38:43, 40:184, 58:20, 67:01:01-67:03, **C*05:70, C*06:40, C*07:137:01-07:137:02**
2	170 bp	1070 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:01:16, 39:03-39:07, 39:09:01, 39:11-39:12, 39:14-39:15, 39:18-39:19:02, 39:22, 39:24:01-39:38Q, 39:40:01N-39:48, 39:50-39:51, 39:53, 39:55-39:57, 39:59-39:62, 39:64-39:82	*07:69, 07:85, 07:180, 08:65, 14:01:01-14:20, 14:22-14:35, 14:37, 15:09-15:10:02, 15:18:01-15:18:05, 15:23, 15:37, 15:51-15:52, 15:72, 15:80, 15:90, 15:93, 15:99, 15:108, 15:114-15:115, 15:119, 15:124, 15:133-15:134, 15:153, 15:161, 15:176, 15:186, 15:197-15:198, 15:200, 15:221, 15:226N, 15:229, 15:238, 15:243, 15:252, 15:263, 15:275, 18:33, 38:01:01-38:02:05, 38:04-38:05, 38:08-38:15, 38:17-38:25, 38:27, 38:29-38:43
3[6,7]	200 bp	**800 bp**	*39:05:01-39:05:02, 39:07-39:08, 39:11, 39:13:01-39:13:02, 39:20, 39:37, 39:43, 39:49, 39:55-39:56	*07:16, 07:27, 07:37-07:38, 07:50, 07:75, 07:91, 07:180, 08:03, 08:23, 08:54, 08:110, 14:14, 14:18, 15:03:01-15:03:04, 15:09-15:10:02, 15:18:01-15:18:05, 15:23, 15:29, 15:37-15:38:02, 15:47:01-15:47:02, 15:49, 15:51-15:52, 15:54, 15:62, 15:64:01-15:64:02, 15:68-15:69, 15:72, 15:74, 15:80, 15:90-15:91, 15:93, 15:98-15:99, 15:103, 15:108, 15:114-15:115, 15:119, 15:123-15:124, 15:127, 15:131-15:134, 15:151, 15:153, 15:156, 15:158, 15:161, 15:173, 15:176, 15:185-15:186, 15:197-15:198, 15:200, 15:210, 15:220-15:221, 15:226N, 15:229, 15:235, 15:238, 15:242-15:243, 15:251-15:253, 15:263, 15:266, 15:274-15:275, 15:281-15:282, 18:01:01:01-18:15, 18:17N-18:91, 35:21, 35:24:01-35:25, 35:124-35:125, 35:142, 35:162, 35:188, 35:190, 37:01:01-37:21, 37:23-37:36, 38:01:01-38:02:05, 38:04-38:12, 38:15, 38:17-38:25, 38:27, 38:29-38:40, 38:42-38:43, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:31, 49:25, 51:37, 51:45, 51:63, 51:97, 51:116, 52:16, 52:27, 53:02, 53:06, 53:28, 56:31, 57:14:01, 57:58, 58:09, 58:12, **C*12:87**

4[5,6]	65 bp 95 bp 145 bp 385 bp	1070 bp	*39:58 *39:27 *39:26 *39:51	
5[5]	105 bp	**800 bp**	*39:01:01:01-39:01:01:03, 39:01:03-39:01:08, 39:01:10-39:02:01, 39:03-39:06:02, 39:07-39:09:01, 39:11-39:12, 39:14-39:15, 39:18, 39:19:02, 39:22, 39:24:01-39:39:01, 39:40:01N-39:48, 39:50-39:62, 39:64-39:82	*07:02:32, 14:01:01-14:02:02, 14:02:04, 14:02:07-14:20, 14:22-14:37, 15:189, 35:26, 67:01:01, 67:03
6	170 bp	**800 bp**	*39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:23, 39:39:01-39:39:02, 39:49	*07:27, 07:50, 08:04, 08:17, 08:54, 08:110, 15:03:01-15:03:04, 15:47:01-15:47:02, 15:54, 15:61-15:62, 15:64:01-15:64:02, 15:68-15:69, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242, 15:251, 15:253, 15:266, 15:274, 15:281-15:282, 18:01:01:01-18:03, 18:05-18:06, 18:08-18:15, 18:17N-18:28, 18:30-18:32, 18:34-18:78, 18:81-18:91, 37:01:01-37:20, 37:23-37:25, 37:27-37:37, 38:03, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:30, 49:25, 52:16, 52:27
7[5,7]	120 bp 165 bp 220 bp	1070 bp	*39:68 *39:17 *39:03, 39:14, 39:24:01-39:24:02, 39:29, 39:37, 39:76	*08:55, 67:03, **A*02:403, A*30:63, C*05:70, C*06:40, C*07:137:01-07:137:02, C*15:51 C*15:51** ***08:55, 38:19**
8[7]	180 bp 405 bp	1070 bp	*39:04, 39:47, 39:50 *39:46	*14:28, 15:189, 35:26, 38:33, 40:36, 40:77, 40:86, 48:07, 49:26
9[5]	100 bp 230 bp 310 bp	**800 bp**	*39:01:05, 39:18 *39:06:01-39:06:03, 39:57, 39:62, 39:64, 39:83 *39:59	*15:69, 15:186, 15:265, 38:01:03, **C*06:40, C*15:51** ***51:101**
10[5]	105 bp 165 bp 210 bp 255 bp	**800 bp**	*39:19:01-39:19:02 *39:07 *39:09:01, 39:43 *18:18	*18:33, 35:82, 35:85, 35:135, 51:22, 78:03 *15:69, 15:186, 15:265, 35:35 *15:38:01-15:38:02, 15:185, 18:01:01:01-18:09, 18:12-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57, 18:59-18:60, 18:62-18:91, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 51:37, 51:45, 51:63, 51:97, 53:02, 53:06, 53:28, 56:31, 57:14:01, 58:09, **C*12:87**
11[7]	160 bp	1070 bp	*39:08, 39:11, 39:18, *39:33, 39:36	*07:78, 13:18, 13:31, 13:41, 15:58, 15:73, 54:10, 54:20, 55:09, 55:21, 55:37, 55:52

	185 bp		*39:40:01N-39:40:02N, 39:53, 39:57	*56:19N
12[7]	175 bp 205 bp	**800 bp**	*39:07, 39:15, 39:29, 39:49, 39:55 *39:61	*15:69, 15:186, 35:35, 38:29, **C*15:51**
13[5]	80 bp 230 bp	**800 bp**	*39:77 *39:24:01-39:24:02, 39:28, 39:41-39:42, 39:76	*15:265, 35:35, 38:20, **C*15:51**
14[5]	85 bp	1070 bp	*39:10:01-39:10:02, 39:16-39:17, 39:20, 39:63	*07:02:01-07:07, 07:09, 07:11-07:12, 07:14-07:26, 07:28-07:31, 07:33:01-07:35, 07:37, 07:39-07:49N, 07:51-07:68:03, 07:70-07:80, 07:82, 07:84, 07:86-07:131, 07:133-07:148, 07:150-07:179, 07:181N-07:182N, 07:184-07:191, 07:193-07:198, 14:21, 15:11:01-15:11:05, 15:76, 15:101, 15:143, 15:148, 15:152, 15:209N, 15:215, 15:255, 35:76, 40:61, 40:166, 42:01:01-42:02, 42:04-42:10, 42:12-42:20, 44:90, 45:06, 54:01:01-54:11, 54:13-54:23, 54:25-54:30, 55:01:01-55:05, 55:07-55:17, 55:19-55:33, 55:35-55:46, 55:48-55:59, 56:01:01-56:06, 56:09-56:13, 56:15-56:20:02, 56:22-56:32, 56:34-56:39, 56:41-56:42, 67:01:01-67:01:03, 67:03, 81:01-81:04N, 81:06, 82:01-82:03, 83:01
15[7]	145 bp 190 bp	**800 bp**	*39:54 *39:12, 39:31, 39:38Q,	 *14:28, 49:26
16[7]	165 bp 220 bp	**800 bp**	*39:14, 39:29, 39:70 *39:09:01, 39:16	*08:55, 51:101 **C*07:137:01-07:137:02**
17[5]	80 bp 180 bp 205 bp	**800 bp**	*39:23, 39:44 *39:25N *39:61	
18	155 bp	**800 bp**	*39:02:01-39:02:02, 39:08, 39:13:01-39:13:02, 39:22-39:23, 39:45, 39:49	*08:17, 08:38, 08:54, 08:101, 15:03:01-15:03:04, 15:47:01-15:47:02, 15:49, 15:54, 15:61-15:62, 15:68-15:69, 15:74, 15:91, 15:98, 15:103, 15:123, 15:127, 15:131-15:132, 15:151, 15:156, 15:158, 15:173, 15:210, 15:220, 15:235, 15:242-15:243, 15:251, 15:253, 15:266, 15:274, 15:281-15:282, 18:12, 37:01:01-37:07, 37:09-37:21, 37:23-37:37, 38:03-38:04, 38:25, 40:12, 40:149, 41:22, 42:11, 44:130, 44:156, 48:01:01-48:02:01, 48:02:03-48:05, 48:07-48:15, 48:17-48:31, 49:25, 52:16, 52:27
19	385 bp	1070 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:01:16, 39:03-39:07, 39:09:01-39:10:01, 39:11-39:12, 39:14-39:20, 39:24:01-39:48, 39:50-39:77, 39:79-39:83	*07:02:01-07:12, 07:14-07:53, 07:55-07:64, 07:66-07:122, 07:124-07:131, 07:133-07:180, 07:182N, 07:183[w], 07:184-07:198, 08:01:01-08:05, 08:07-08:09, 08:11-08:16, 08:18-08:37, 08:39-08:53:02, 08:55-08:100, 08:102-08:111, 14:01:01-14:03, 14:05-14:37, 38:01:01-38:02:05, 38:05-38:24, 38:26-38:43, 40:25[?], 40:68[?], 40:106[?], 40:166[?], 40:232[?], 42:01:01-42:02, 42:04-42:10, 42:12-42:20, 48:06, 49:26, 50:15,

				67:01:01-67:01:03, 67:03, 73:01-73:02, 81:02
20[5,7]	95 bp	**800 bp**	*39:27	
21	220 bp	**800 bp**	*39:01:01:01-39:01:01:03, 39:01:03-39:02:02, 39:04-39:05:02, 39:07-39:13:02, 39:15, 39:17-39:20, 39:22-39:23, 39:25N-39:27, 39:31, 39:35, 39:38Q-39:41, 39:42[w], 39:44-39:46, 39:48-39:49, 39:51-39:56, 39:58-39:61, 39:63, 39:65-39:72, 39:75, 39:77-39:78, 39:80-39:81	*15:69, 15:186, 38:01:01-38:07, 38:08[w], 38:09, 38:11-38:18, 38:21, 38:24-38:29, 38:31-38:35, 38:38-38:43, 40:184, 58:20, 67:01:01-67:03, **C*05:70, C*07:137:01-07:137:02**
22[6]	230 bp	**800 bp**	*39:73	*38:23
23[5,6]	85 bp	**800 bp**	*39:01:01:01-39:01:01:03, 39:01:03, 39:01:05-39:01:08, 39:01:10-39:02:01, 39:03-39:04, 39:06:01-39:06:02, 39:09:01, 39:12, 39:14-39:15, 39:18, 39:19:02, 39:22, 39:24:01-39:36, 39:38Q-39:39:01, 39:40:01N-39:48, 39:50-39:54, 39:57-39:62, 39:64-39:82	*07:02:32, 14:01:01-14:02:02, 14:02:04-14:02:05, 14:02:07-14:13, 14:15-14:17, 14:19-14:20, 14:22-14:37, 15:189, 38:14[w], 38:26[w], 38:41, 67:01:01, 67:03
24[7,9]	185 bp	1070 bp	*39:01:01:01-39:01:01:03, 39:01:03-39:01:08, 39:01:10-39:02:01, 39:03, 39:05:01-39:06:02, 39:07-39:09:01, 39:11, 39:14-39:15, 39:18, 39:19:02, 39:22, 39:24:01-39:39:01, 39:40:01N-39:44, 39:46-39:48, 39:50-39:62, 39:64-39:71, 39:73-39:75, 39:77, 39:79-39:82	*07:02:32, 14:01:01-14:01:03, 14:07N-14:08:01, 14:10, 14:12, 14:14, 14:19, 14:26, 14:32, 38:01:01-38:02:02, 38:02:04-38:03, 38:07-38:24, 38:26-38:32, 38:34N-38:43, 67:01:01, 67:03
25[8]	150 bp 235 bp	1070 bp	*39:60, 39:82 *39:01:01:02L	**C*15:31**
26	265 bp	**800 bp**		*14:01:01-14:02:08, 14:03-14:04, 14:07N, 14:09, 14:11-14:12, 14:14-14:36, 18:44:01-18:44:02, **C*01:30, C*12:87**
27	180 bp 205 bp	**800 bp**	*39:38Q, 39:63 *39:32, 39:48	*13:15, 35:96, 35:109, 51:13:01-51:13:02, 51:62, 51:92:01, 51:106, 52:14, 52:25, 56:34, **C*15:39**
28[8]	140 bp 180 bp	1070 bp	*39:56 *39:32-39:33, 39:40:01N-39:40:02N, 39:74	*13:03, 13:48, 15:58, 15:73, 15:133, 15:229, 15:253, 35:03:01-35:03:05, 35:03:07-35:03:12, 35:06, 35:13, 35:36, 35:38, 35:55-35:56, 35:59, 35:70, 35:74-35:75,

				35:84-35:85, 35:98, 35:106, 35:109, 35:127-35:128, 35:136, 35:150:01-35:153, 35:155-35:156, 35:160, 35:163, 35:167, 35:169, 35:179, 35:181, 35:193, 35:195, 35:198, 35:204-35:205, 35:221, 35:223, 35:231, 38:30, 40:71, 44:10, 45:14, 46:11, 51:13:01-51:13:02, 51:15, 51:62, 51:92:01, 51:106, 52:14, 52:25, 53:04, 53:31, 54:03, 56:01:01-56:01:04, 56:01:06-56:02, 56:04, 56:07-56:08, 56:11, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:22, 56:24-56:30, 56:33-56:39, 56:41-56:42, 58:34, 59:04, 82:01-82:03, **C*15:15**
29	245 bp	**800 bp**	*39:06:01-39:06:03, 39:34, 39:50, 39:57, 39:62, 39:64, 39:83	*07:78, 07:84, 08:09, 08:84, 13:02:01-13:02:15, 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, 13:44-13:47, 13:49N, 13:53-13:56:01N, 13:58-13:59, 13:65-13:68, 13:70, 14:37, 15:42, 15:83, 27:14, 27:81, 35:60, 40:06:01:01-40:06:07, 40:44, 40:53, 40:70:01, 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, 41:01:01, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20-41:22, 41:25-41:26, 41:28, 42:04, 45:08, 45:10, 46:18, 49:07, 50:31, 51:10, 51:16, 51:21, 51:31, 51:34, 51:36, 51:82, 51:93, 51:101, 51:143, 51:153, 52:08, 54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:10-54:30, 55:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:48, 55:50, 55:52-55:59, 56:23, 59:01:01:01-59:03, 59:05-59:06, 73:01-73:02, 78:07
30[5,7]	65 bp 135 bp 190 bp	**800 bp**	*39:18, 39:35, 39:64 *39:75 *39:52, 39:62	*15:69, 15:265, 38:32, 51:101, **C*05:70, C*06:40, C*15:51** **C*07:175** **A*02:403, A*30:63**
31	175 bp	**800 bp**	*39:30, 39:33-39:34, 39:36, 39:82	*07:05:01-07:06, 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, 08:01:01-08:05, 08:08N-08:13, 08:15-08:27, 08:29-08:36, 08:38-08:48, 08:50-08:54, 08:56:01-08:73, 08:75-08:86N, 08:88, 08:90-08:106, 08:108[w], 08:109-08:110, 13:01:01-13:01:02, 13:01:04-13:03, 13:06-13:07N, 13:09, 13:11-13:23, 13:25, 13:27-13:33, 13:36-13:45, 13:47-13:50, 13:52-13:68, 13:70, 14:13, 15:09, 15:30, 15:42, 15:58, 15:73, 15:83, 15:86, 15:150, 15:188, 15:224, 15:229, 15:243, 15:252, 18:26, 18:61, 27:07:01-27:07:03, 27:11, 27:20, 27:24, 27:27, 27:33, 27:43, 35:02:01[w]-35:02:05[w], 35:04:01-35:04:03, 35:06,

				35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:31, 35:44, 35:59-35:60, 35:81[w], 35:83[w], 35:87-35:88, 35:95[w], 35:129N[w], 35:149, 35:154[w], 35:157[w], 35:162[w], 35:172[w], 35:182[w]-35:184[w], 35:201, 35:211[w], 35:220[w], 35:233, 37:12, 38:10, 38:30, 38:36, 40:01:01-40:01:07, 40:01:09-40:01:25, 40:01:27, 40:01:28[w], 40:01:29-40:02:09, 40:02:11-40:02:17, 40:04-40:08, 40:10:01-40:16, 40:19, 40:21-40:23, 40:25-40:30, 40:34-40:40, 40:43, 40:45-40:51, 40:53-40:58, 40:61-40:88, 40:91-40:97, 40:99-40:119, 40:121-40:123, 40:125-40:130:01, 40:132-40:158, 40:160:01-40:171, 40:173-40:179, 40:181-40:183, 40:185-40:186, 40:188-40:240, 40:244-40:246, 41:01:01-41:03:02, 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, 42:17-42:19, 44:10, 44:14, 44:31, 44:62, 44:77, 44:82, 44:166, 45:14, 46:11, 46:18, 48:01:01-48:01:04, 48:03:01-48:07, 48:09-48:16, 48:18-48:22, 48:24, 48:27-48:31, 51:01:01-51:01:18, 51:01:19[w], 51:01:20-51:01:30, 51:01:32-51:01:38, 51:01:40-51:02:02, 51:02:04-51:16, 51:20-51:24:04, 51:26-51:36, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:84, 51:86-51:89, 51:91, 51:93, 51:95-51:100, 51:102-51:134, 51:136-51:145, 51:147-51:154, 52:01:01:01-52:01:10, 52:01:12-52:11, 52:13-52:25, 52:27-52:31:01, 53:19[w], 54:01:01-54:05N, 54:07-54:08N, 54:10-54:13, 54:17-54:30, 55:01:01-55:05, 55:07-55:13, 55:15-55:22, 55:24-55:26, 55:28-55:40, 55:42-55:45, 55:47-55:54, 55:56-55:57, 55:59, 56:01:01-56:02, 56:04-56:08, 56:10, 56:12-56:17, 56:19N-56:30, 56:33-56:39, 56:41-56:42, 57:02:01-57:03:02, 57:07, 57:09, 57:12, 57:17, 57:28N, 57:39, 57:42, 57:46, 57:57, 57:63, 58:08:01-58:08:02, 58:27-58:28, 59:01:01:01-59:06, 78:01:01-78:07, 81:01-81:06, 82:01-82:03, **C*02:68, C*15:24**
32[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*39 SSP subtypings.
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 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.

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

[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*39 alleles will be amplified by primer mixes 1 to 3, 5 to 16, 18, 19, 21 to 24 and 26 to 31.
In addition, a few HLA-A and HLA-C alleles will be amplified by primer mixes 1, 3, 7, 9, 10, 12, 13, 16, 21, 25 to 28, 30 and 31.

[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 3, 4, 22 and 23 have a tendency to giving rise to primer oligomer formation.

[7]Primer mixes 3, 7, 8, 11, 12, 15, 16, 20, 24 and 30 may have tendencies of unspecific amplifications.

[8]Primer mixes 25 and 28 may give rise to a long unspecific amplification product of approximately 600 bp. This should be disregarded when interpreting the B*39 typings.

[9]Primer mix 24 may give rise to a lower yield of HLA-specific PCR product than the other B*39 primer mixes.

[10]Primer mix 32 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', might be weakly amplified.

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

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	230	170	200	65	105	170	120	180	100	105	160	175
PCR product				95			165	405	230	165	185	205
				145			220		310	210		
				385						255		
Length of int.	800	1070	800	1070	800	800	1070	1070	800	800	1070	800
pos. control[1]												
5'-primer(s)[2]	355	142	142	246	246	142	363	106	357	206	419	44
	5' -CCC 3'	5' -TCT 3'	5' -TCT 3'	5' -gAA 3'	5' -gAA 3'	5' -TCT 3'	5' -AgC 3'	5' -CCA 3'	5' -Tgg 3'	5' -gAC 3'	5' -gTT 3'	5' -ggC 3'
	355		419	419	246		420	420	486	368		412
	5' -CTC 3'		5' -gTC 3'	5' -gTT 3'	5' -gAA 3'		5' -TTA 3'	5' -TTC 3'	5' -ACg 3'	5' -gTC 3'		5' -ATg 3'
							463	646	3rd I	419		
							5' -TgC 3'	5' -ACg 3'	5' -Agg 3'	5' -gTC 3'		
3'-primer(s)[3]	544	272	292	272	311	272	544	246	544	272	539	79
	5' -ggT 3'	5' -TgC 3'	5' -gTA 3'	5' -TgA 3'	5' -ggT 3'	5' -Tgg 3'	5' -ggT 3'	5' -TAT 3'	5' -ggT 3'	5' -TgC 3'	5' -TCC 3'	5' -gTA 3'
			292	299	311			559	839	544	539	544
			5' -gTA 3'	5' -TCA 3'	5' -ggT 3'			5' -CTC 3'	5' -ATA 3'	5' -ggT 3'	5' -TCC 3'	5' -ggT 3'
			292	344				916		583	564	
			5' -gTA 3'	5' -ACg 3'				5' -gAC 3'		5' -gTg 3'	5' -ACT 3'	
			583	524							565	
			5' -gTg 3'	5' -CAA 3'							5' -CAT 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.	80	85	145	165	80	155	385	95	220	230	85	185
PCR product	230		190	220	180							
					205							
Length of int.	800	1070	800	800	800	800	1070	800	800	800	800	1070
pos. control[1]												
5'-primer(s)[2]	112	264	97	360	44	142	44	246	363	355	246	103
	5' -CCT 3'	5' -ACg 3'	5' -TCg 3'	5' -CAC 3'	5' -ggC 3'	5' -TCT 3'	5' -ggC 3'	5' -gAA 3'	5' -Agg 3'	5' -CCT 3'	5' -gAA 3'	5' -CCT 3'
	355	272	97	368	407							103
	5' -TCA 3'	5' -CTA 3'	5' -TCC 3'	5' -gTC 3'	5' -.gg 3'							5' -CCT 3'
	362		141	419	503							
	5' -gAC 3'		5' -ATg 3'	5' -gTA 3'	5' -CCg 3'							
	365		419									
	5' -CAC 3'		5' -gTT 3'									
	733											
	5' -ATA 3'											
3'-primer(s)[3]	311	311	246	544	79	250	259	299	544	544	292	246
	5' -ggT 3'	5' -ggT 3'	5' -TAT 3'	5' -ggT 3'	5' -gTA 3'	5' -CCg 3'	5' -gTT 3'	5' -TCA 3'	5' -ggT 3'	5' -ggT 3'	5' -gTC 3'	5' -TAT 3'
	544		563		544	259	259				292	246
	5' -ggT 3'		5' -CgA 3'		5' -ggT 3'	5' -CTC 3'	5' -gTT 3'				5' -gTC 3'	5' -TAT 3'
	774											
	5' -ggT 3'											
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

Well No.	25	26	27	28	29	30	31
Length of spec.	150	265	180	140	245	65	175
PCR product	235		205	180		135	
						190	
Length of int.	1070	800	800	1070	800	800	800
pos. control[1]							
5'-primer(s)[2]	-149	361	141	419	357	142	412
	5' -ggg 3'	5' -AgT 3'	5' -ATT 3'	5' -gTT 3'	5' -Tgg 3'	5' -TCT 3'	5' -ATA 3'
	419		419			385	
	5' -gTT 3'		5' -gTT 3'			5' -ggT 3'	
						527	
						5' -TgA 3'	
3'-primer(s)[3]	44	583	272	518	559	172	544
	5' -CCg 3'	5' -gTg 3'	5' -TgT 3'	5' -CCC 3'	5' -CgT 3'	5' -CAT 3'	5' -ggC 3'
	527		563	559	559	236	
	5' -CCg 3'		5' -CgA 3'	5' -CAg 3'	5' -CTC 3'	5' -CCA 3'	
			583	564		280	
			5' -gTg 3'	5' -ACT 3'		5' -gTC 3'	
						544	
						5' -ggT 3'	
Well No.	25	26	27	28	29	30	31

[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.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

CE
0088

For *In Vitro* Diagnostic Use.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-B*39 SSP subtyping kit[2]

					Well															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:	201324801	201324802	201324803	201446704	201324805	201324806	201324807	201324808	201446709	201446710	201324811	201324812	201324832	201446714	201324815	201324816
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

CELL LINE VALIDATION SHEET

HLA-B*39 SSP subtyping kit[2]

					Well													
					17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				Prod. No.:	201324817	201324818	201324819	201446720	201324821	201324822	201324823	201324824	201324825	201324826	201324827	201324828	201324829	201324830	201324831
	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[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.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **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 4, 7, 13, 15, 20, 22, 25, 27 and 30 were available. The specificities of the primers in primer solutions 4, 7, 13, 15, 20, 22, 25, 27 and 30 were tested by separately adding one, two or three additional 5'-primers, respectively one or two additional 3'-primers. One or three 5'-primers in primer solutions 1, 5, 8, 13 to 17 and 25 were not possible to test.
One, two or three 3'-primers in primer solutions 4, 9, 11, 12, 15, 17, 18, 23, 27, 28 and 30 were not possible to test.
Additional primers in primer solutions 8, 9, 10, 12, 16 and 17 were tested by separately adding either 5'- or 3'-primers.

101.566-12/04 – including *Taq* polymerase, IFU-01
101.566-12u/04u – without *Taq* polymerase, IFU-02

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Lot No.: 82X **Lot-specific information**

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