

101.570-06 – including *Taq* polymerase, IFU-01
101.570-06u – without *Taq* polymerase, IFU-02

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

Lot No.: **9E2**

Lot-specific information

Olerup SSP® HLA-B*55

Product number:	101.570-06 – including <i>Taq</i> polymerase 101.570-06u – without <i>Taq</i> polymerase
Lot number:	9E2
Expiry date:	2019-10-01
Number of tests:	6
Number of wells per test:	31+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. 9E2.

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*55 Lot (81Y)

The HLA-B*55 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

¹As described in section Uniquely Identified Alleles.

The HLA-B*55 specificity and interpretation tables have been updated for the HLA-B alleles described since the previous *Olerup SSP®* HLA-B*55 lot was made (**Lot No. 81Y**). The kit design is based on IMGT/HLA database 3.26.0.

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.

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The primers of the wells detailed below has been added, exchanged or modified.

Well	5'-primer	3'-primer	rationale
5	Added	-	5'-primer added from well 29.
9	-	Modified	3'-primer modified for increased yield.
11	Modified	-	5'-primer modified for improved HLA-specific amplification.
13	Modified	-	5'-primer modified for improved HLA-specific amplification.
18	-	Modified	3'-primer modified for increased yield.
25	-	Modified	3'-primer modified for improved HLA-specific amplification.
28	-	Modified	3'-primer modified for improved HLA-specific amplification.
29	Moved, Added	Added	5'-primer moved to well 5 and well 30, primer pair added for improved allelic resolution.
30	Added	-	5'-primer added from well 29.

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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'-primer¹	164	340	440	45	45	43	36
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-TAC ^{3'}
							36
							5'-TAT ^{3'}
3'-primer²	231	2nd I	507	59	58	57	47
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}	5'-ACA ^{3'}
							48
							5'-gCA ^{3'}
							48
							5'-gCC ^{3'}
							52
							5'-TgT ^{3'}
A*	+	+	+				
B*	+	+	+				
C*	+	+	+				
DRB1				+	+		
DRB3				+	+		
DRB5				+			
DQB1					+		
DPB1						+	
DQA1							+

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.

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PRODUCT DESCRIPTION

HLA-B*55 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the B*55:01 to B*55:80 alleles.

PLATE LAYOUT

Each test consists of 32 PCR reactions in a 32 well 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	NC

The 32 well PCR plate is marked with 'HLA-B*55' in silver/gray ink.

Well No. 1 is marked with the Lot No. '9E2'.

Wells 1 to 31 – HLA-B*55 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*55 alleles will be amplified by all primer mixes. In addition, a few HLA-C alleles will be amplified by primer mixes 2, 3, 5, 7, 10, 15, 19, 22 to 24, 29 and 30.

For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-B*55 alleles, i.e. **B*55:01 to B*55:80**, recognized by the HLA Nomenclature Committee in October 2016¹ will be amplified by the primers in the HLA-B*55 subtyping kit^{2,3}.

The HLA-B*55 kit enables separation of the confirmed HLA-B*55 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*55 alleles is listed below.

The HLA-B*55 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.

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The HLA-B*55 subtyping kit cannot separate the silent mutations in the B*55:01:01-55:01:06 and 55:01:08-55:01:16 alleles or the B*55:02:01:01-55:02:10 alleles.

The following HLA-B*55 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix
B*55:26, 55:62	25

¹HLA-B alleles listed on the IMGT/HLA web page 2016-October-14, release 3.26.0, 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>.

³The HLA-B*55 primer set cannot separate the B*55:78 and the B*15:42 alleles. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B*15 high resolution kit.

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ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
B*55:01:01	Confirmed	B*55:07	Confirmed	B*55:37	Confirmed	B*55:67	Unconfirmed
B*55:01:02	Unconfirmed	B*55:08	Confirmed	B*55:38	Unconfirmed	B*55:68	Unconfirmed
B*55:01:03	Confirmed	B*55:09	Unconfirmed	B*55:39	Unconfirmed	B*55:69	Unconfirmed
B*55:01:04	Confirmed	B*55:10	Confirmed	B*55:40	Unconfirmed	B*55:70	Unconfirmed
B*55:01:05	Confirmed	B*55:11	Confirmed	B*55:41	Unconfirmed	B*55:71	Unconfirmed
B*55:01:06	Confirmed	B*55:12	Confirmed	B*55:42	Unconfirmed	B*55:72	Confirmed
B*55:01:07	Unconfirmed	B*55:13	Unconfirmed	B*55:43	Unconfirmed	B*55:73	Unconfirmed
B*55:01:08	Unconfirmed	B*55:14	Unconfirmed	B*55:44	Unconfirmed	B*55:74	Unconfirmed
B*55:01:09	Unconfirmed	B*55:15	Unconfirmed	B*55:45	Confirmed	B*55:75	Unconfirmed
B*55:01:10	Unconfirmed	B*55:16	Confirmed	B*55:46	Unconfirmed	B*55:76	Unconfirmed
B*55:01:11	Unconfirmed	B*55:17	Confirmed	B*55:47	Unconfirmed	B*55:77	Unconfirmed
B*55:01:12	Unconfirmed	B*55:18	Confirmed	B*55:48	Unconfirmed	B*55:78	Unconfirmed
B*55:01:13	Unconfirmed	B*55:19	Unconfirmed	B*55:49	Unconfirmed	B*55:80	Unconfirmed
B*55:01:14	Unconfirmed	B*55:20	Confirmed	B*55:50	Confirmed		
B*55:01:15	Unconfirmed	B*55:21	Unconfirmed	B*55:51	Unconfirmed		
B*55:01:16	Unconfirmed	B*55:22	Unconfirmed	B*55:52	Unconfirmed		
B*55:02:01:01	Confirmed	B*55:23	Confirmed	B*55:53	Unconfirmed		
B*55:02:01:02	Unconfirmed	B*55:24	Unconfirmed	B*55:54	Confirmed		
B*55:02:02	Unconfirmed	B*55:25	Confirmed	B*55:55N	Unconfirmed		
B*55:02:03	Confirmed	B*55:26	Unconfirmed	B*55:56	Confirmed		
B*55:02:04	Unconfirmed	B*55:27	Unconfirmed	B*55:57	Confirmed		
B*55:02:05	Unconfirmed	B*55:28	Unconfirmed	B*55:58	Unconfirmed		
B*55:02:06	Unconfirmed	B*55:29	Confirmed	B*55:59	Unconfirmed		
B*55:02:07	Confirmed	B*55:30	Unconfirmed	B*55:60	Unconfirmed		
B*55:02:08	Unconfirmed	B*55:31	Confirmed	B*55:61	Unconfirmed		
B*55:02:09	Unconfirmed	B*55:32	Unconfirmed	B*55:62	Unconfirmed		
B*55:02:10	Unconfirmed	B*55:33	Confirmed	B*55:63	Unconfirmed		
B*55:03	Unconfirmed	B*55:34	Confirmed	B*55:64	Unconfirmed		
B*55:04	Confirmed	B*55:35	Unconfirmed	B*55:65	Unconfirmed		
B*55:05	Unconfirmed	B*55:36	Confirmed	B*55:66	Confirmed		

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2016-October-14, release 3.26.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-B*55 homo- and heterozygotes is available upon request.

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SPECIFICITY TABLE

HLA-B*55 SSP subtyping

Specificities and sizes of the PCR products of the 31+1 primer mixes used for HLA-B*55 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-B*55 alleles ³	Other amplified HLA Class I alleles ⁴
1	400 bp	800 bp	*55:01:01-55:05, 55:07-55:17, 55:19-55:33, 55:35-55:46, 55:48-55:77, 55:80	*07:65, 35:76, 40:166 [?] , 44:90, 54:01:01-54:23, 54:25-54:29, 54:31-54:37, 56:01:01:01-56:13, 56:15-56:16, 56:18-56:22, 56:24-56:32, 56:34-56:41, 56:43, 56:45-56:51, 81:01, 81:03 [?] -81:04N [?] , 81:06 [?] -81:08 [?] , 82:01-82:03, 83:01
2⁵	125 bp	1070 bp	*55:01:01-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:16, 55:18-55:19, 55:21-55:37, 55:39-55:48, 55:50, 55:52-55:71, 55:73-55:78, 55:80	*07:235, 13:01:01-13:04, 13:06-13:09, 13:11-13:20, 13:22:01-13:23, 13:25-13:34, 13:36-13:61, 13:63N-13:64, 13:66-13:70, 13:72-13:78, 13:80-13:96, 14:22, 14:37, 14:55, 15:16:01:01-15:16:03, 15:20, 15:34, 15:42, 15:62, 15:67, 15:85-15:86, 15:95, 15:137, 15:194, 15:222, 15:242:02, 15:254, 15:303, 15:362, 15:393, 18:22, 18:52, 18:105, 27:14, 35:01:01:01-35:01:42, 35:01:44-35:05:02, 35:06-35:08:09, 35:10-35:11:03, 35:13-35:15:02, 35:19-35:21, 35:23-35:30, 35:33-35:38, 35:40N-35:42:02, 35:45-35:50, 35:52, 35:54-35:58, 35:60, 35:62-35:63, 35:65Q-35:66, 35:68:01-35:72, 35:74-35:78, 35:80-35:85, 35:89-35:98, 35:100-35:101:02, 35:103-35:112, 35:115-35:116, 35:119-35:124, 35:126-35:134N, 35:136-35:148, 35:150:01-35:163, 35:166-35:173N, 35:175-35:178, 35:180-35:184, 35:186-35:195, 35:197-35:198, 35:200, 35:202-35:204, 35:206-35:207, 35:209-35:214, 35:216N-35:229, 35:231-35:232, 35:235-35:241, 35:243-35:250, 35:252-35:259, 35:261-35:264, 35:267-35:275, 35:277-35:316, 35:318-35:320, 35:322-35:329, 40:28, 44:10, 44:15, 44:18, 44:48, 44:256, 45:01:01-45:19, 46:11, 46:18, 46:33, 46:53, 46:67, 48:02:01-48:02:03, 48:25, 49:01:01-49:14, 49:16-49:39, 49:41-49:46, 50:01:01, 50:01:03-50:02, 50:05-50:19, 50:31-50:49, 51:15, 51:56:01-51:56:03, 51:157, 51:158:02, 53:01:01-53:06, 53:08:01-53:43, 53:45, 54:01:01-54:05N, 54:07-54:08N, 54:10, 54:12-54:14, 54:16-54:36, 56:01:01:01-56:01:03, 56:01:05-56:02:02, 56:07-56:11, 56:13-56:17, 56:19N, 56:22-56:26, 56:28N-56:30, 56:33-56:47, 56:50-56:51, 57:05, 58:01:01:01-58:01:02, 58:01:04-58:02:02, 58:04-58:07, 58:09, 58:11-58:13, 58:15-58:19, 58:21-58:26, 58:28:01-58:29, 58:31N-58:45:02, 58:47-58:58, 58:60, 58:62-58:83, 59:01:01:01-59:01:01:02, 59:03-59:09, 82:01-82:03, C*02:56, C*04:180:01-04:180:02,

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				C*06:20, C*07:81, C*07:168, C*07:450, C*08:123, C*08:139, C*15:126, C*16:98
3	150 bp	1070 bp	*55:01:01-55:01:16, 55:03, 55:05, 55:09 ^w , 55:11, 55:15, 55:24- 55:25, 55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 55:52 ^w , 55:53-55:55N, 55:59-55:60, 55:64, 55:66, 55:73-55:76, 55:78	*07:78 ^w , 13:16, 13:20, 13:48, 15:42, 51:62, 51:106, 52:25:01-52:25:02, 54:20 ^w , 56:25, 56:37, C*01:90^w, C*15:91, C*15:128
4	235 bp	1070 bp	*55:03, 55:49	*08:15, 15:289, 35:74, 35:186, 40:73, 46:01:01- 46:01:09, 46:02-46:04, 46:06-46:40:01, 46:41N- 46:43, 46:52, 46:66
5⁵	95 bp	800 bp	*55:50	*08:83, 13:06, 13:53, 14:43, 14:50, 18:74N, 18:78, 38:38, 41:37, C*05:110, C*12:120
	235 bp		*55:04, 55:49	*07:19, 07:31, 07:34, 07:43, 08:01:01:01-08:05, 08:07-08:08N, 08:10, 08:13-08:15, 08:17-08:20, 08:22-08:24, 08:26:01-08:39, 08:41-08:48, 08:50- 08:59:02, 08:61-08:78, 08:80-08:83, 08:85-08:88, 08:90-08:106, 08:108-08:124, 08:126-08:128, 08:130-08:155, 08:157-08:164, 08:166, 14:05, 14:13, 14:53, 18:14, 18:22 ^w , 35:87, 37:09, 38:19, 39:03, 39:14, 39:24:01-39:24:02, 39:29, 39:37, 39:76, 39:120, 40:39, 41:02:01-41:02:06, 41:04, 41:10-41:11, 41:13, 41:15, 41:18, 41:23-41:24, 41:27, 41:31, 41:36, 41:38-41:43, 41:45N-41:47, 41:49, 42:01:01-42:02:01:02, 42:05:01-42:12, 42:14-42:24, 44:166, 48:37, C*07:294, C*07:526, C*07:530, C*08:08:01-08:08:02
6^{5,6}	100 bp	1070 bp	*55:05	*15:390
7	180 bp	1070 bp	*55:08, 55:51	*07:20, 07:24, 07:60, 07:100, 07:131, 07:220, 07:223, 08:21, 08:25, 13:62, 13:86, 15:09- 15:10:04, 15:30, 15:37, 15:45, 15:48, 15:63, 15:90, 15:99, 15:150, 15:243, 15:248, 15:287, 15:312-15:313, 15:324, 15:329, 15:338, 15:361, 27:76, 27:153, 35:02:01-35:02:08, 35:04:01- 35:04:03, 35:09:01-35:09:03, 35:12:01-35:12:03, 35:18, 35:22, 35:34, 35:39, 35:44, 35:81, 35:83, 35:95, 35:129N, 35:149, 35:154, 35:162, 35:172, 35:182-35:184, 35:199, 35:201, 35:211, 35:220, 35:233, 35:251, 35:258, 35:266, 35:270, 35:273, 35:285, 35:292, 35:309, 35:311, 35:316, 35:321, 35:323, 40:05, 40:26, 40:28, 40:63, 40:92, 40:174, 40:324, 40:343, 41:17, 44:62, 44:77, 44:82, 44:107, 44:123, 44:184, 44:213, 49:18:01- 49:18:02, 50:14, 51:01:01:01-51:01:14, 51:01:16- 51:01:31, 51:01:33-51:01:38, 51:01:40-51:09:03, 51:11N-51:12, 51:18-51:20, 51:22-51:24:05, 51:26-51:30, 51:32-51:33, 51:35, 51:38-51:41N, 51:43-51:44N, 51:46, 51:48-51:61:02, 51:64- 51:80, 51:83-51:84, 51:86-51:91, 51:94-51:96, 51:98N-51:100, 51:102-51:105, 51:107-51:142,

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8	230 bp 425 bp	800 bp	*55:66 *55:12	*56:41
9	215 bp 375 bp	1070 bp	*55:25 *55:11, 55:14	*07:225, 07:227
10⁵	70 bp	1070 bp	*55:07	*07:13, 07:247, 07:270, 39:121, 54:01:02, 59:06, 67:02, C*03:04:50, C*07:01:22, C*07:02:31, C*08:16:02, C*15:02:06
11⁵	90 bp 125 bp 180 bp	1070 bp	*55:48 *55:15 *55:09, 55:22, 55:24	*07:78, 13:01:01-13:02:18, 13:07N-13:09, 13:11, 13:14-13:20, 13:22:01-13:23, 13:25, 13:27-13:34, 13:36-13:45, 13:47, 13:49N-13:50, 13:52, 13:54-13:58, 13:60-13:61, 13:63N-13:70, 13:73-13:78, 13:80-13:85, 13:87-13:96, 40:48, 45:10, 49:07, 50:31, 54:26, 59:09
12	210 bp	1070 bp	*55:10	*07:02:01-07:02:27, 07:02:29-07:02:49, 07:04-07:07, 07:09, 07:11-07:12, 07:14-07:15, 07:17-07:26, 07:28, 07:30-07:31, 07:33:01-07:36, 07:39-07:49N, 07:51-07:64, 07:66-07:68:03, 07:73-07:82, 07:84, 07:87-07:124, 07:126-07:142, 07:144-07:179, 07:181N-07:182N, 07:185, 07:187-07:203, 07:205-07:206, 07:208-07:209, 07:211-07:218, 07:220-07:227, 07:229-07:258, 07:260-07:270, 07:272N-07:281, 07:283, 38:26, 42:01:01-42:01:03, 42:04-42:06, 42:08, 42:10, 42:12-42:16, 42:19-42:24, 67:01:01-67:01:03, 67:03-67:07, 81:01-81:04N, 81:06-81:08
13	150 bp	1070 bp	*55:02:01:01-55:02:10, 55:07, 55:10, 55:12, 55:16, 55:18-55:19, 55:22, 55:26, 55:30, 55:34-55:35, 55:37 ^w , 55:39, 55:41-55:43, 55:47-55:48, 55:50, 55:54, 55:61-55:63, 55:65, 55:67, 55:69-55:72, 55:77, 55:80	*13:01:01-13:03, 13:06-13:09, 13:11-13:12:02, 13:14-13:15, 13:17, 13:18 ^w , 13:19, 13:22:01-13:23, 13:25, 13:27-13:30, 13:32-13:34, 13:36-13:40, 13:42-13:45, 13:47, 13:49N-13:50, 13:52-13:58, 13:60-13:61, 13:63N-13:70, 13:73 ^w , 13:74-13:78, 13:80-13:85, 13:87-13:88, 13:90-13:96, 15:86, 15:224, 35:60, 40:48, 40:71, 44:10, 46:11, 46:18, 49:11, 51:15, 51:157, 54:01:01-54:03, 54:05N, 54:07-54:08N, 54:10 ^w , 54:12-54:13, 54:17-54:19, 54:21-54:32, 54:34-54:37, 56:01:01:01-56:01:04, 56:01:06-56:02:02, 56:04, 56:07-56:08, 56:10, 56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:24, 56:26-56:29, 56:33-56:36, 56:38N-56:42, 56:44-56:49, 56:51 ^w , 58:73, 59:01:01:01-59:01:01:02, 59:04-59:09

101.570-06 – including *Taq* polymerase, IFU-01
101.570-06u – without *Taq* polymerase, IFU-02

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Lot-specific information

14⁵	95 bp	1070 bp	*55:07	*07:247, 07:270, 54:01:01-54:01:06, 54:02-54:23, 54:25 ^w , 54:26-54:34, 54:36-54:37
15	245 bp	1070 bp	*55:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:10-55:13, 55:15-55:21, 55:23, 55:25-55:48, 55:50, 55:52-55:78, 55:80	*08:09, 08:84, 13:46, 13:53, 14:37, 15:42, 15:83, 35:60, 35:276, 39:06:01-39:06:05, 39:34, 39:57, 39:62, 39:64, 39:83, 39:90, 39:109, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 45:08, 46:18, 50:45, 50:49, 51:21, 51:36, 51:101, 51:143, 51:153, 51:157, 51:197, 52:37, 54:01:01-54:02, 54:04-54:05N, 54:07-54:08N, 54:10-54:25, 54:27-54:32, 54:34-54:37, 56:23, 59:01:01:01-59:03, 59:05-59:08, 78:07, C*07:463, C*12:183
16	245 bp	1070 bp		*13:03-13:04, 13:48, 13:62, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:303, 15:310, 15:362, 27:153, 35:37, 35:235, 35:265, 35:273, 39:33, 41:17, 44:15, 44:18, 44:20, 44:47, 44:100, 44:197, 45:01:01-45:07, 45:09, 45:11-45:19, 46:11, 46:32, 49:01:01-49:01:07, 49:02-49:06, 49:08-49:14, 49:16-49:46, 50:01:01-50:02, 50:04-50:11, 50:13-50:16, 50:18-50:20, 50:32-50:44, 50:46-50:48, 51:01:01:01-51:01:31, 51:01:33-51:01:38, 51:01:40-51:03, 51:05, 51:07:01-51:09:03, 51:11N-51:15, 51:17-51:20, 51:22-51:24:05, 51:26-51:30, 51:32-51:33, 51:35, 51:37-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63:01-51:63:02, 51:65-51:80, 51:83-51:92:02, 51:94-51:100, 51:102-51:134, 51:136-51:138, 51:140-51:142, 51:145-51:147, 51:149N-51:152, 51:154-51:156, 51:158:01-51:193, 51:195-51:196, 51:198-51:212, 52:01:01:01-52:01:20, 52:01:22-52:07, 52:09-52:36, 52:38-52:63, 54:03, 54:33, 56:01:01:01-56:01:08, 56:05:01-56:08, 56:13-56:17, 56:20:01-56:22, 56:24-56:30, 56:33-56:50, 58:08:01-58:08:02, 59:04, 78:01:01-78:06, 78:09
17⁵	105 bp	1070 bp	*55:17, 55:20, 55:27-55:28, 55:39	*07:84, 08:09, 08:84, 13:35, 13:59, 13:62, 15:83, 27:14, 27:81, 27:130, 27:153, 35:273, 40:06:01:01-40:06:08, 40:06:10-40:06:15, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 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, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:340-40:342, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:29, 41:32-41:35, 41:37, 42:04, 44:20, 44:47, 44:100, 44:197, 49:18:01-49:18:02, 50:14, 50:20, 50:42, 51:01:01:01-51:01:47, 51:01:49-51:03, 51:05, 51:07:01-51:12, 51:14, 51:16-51:24:05, 51:26-51:34, 51:36,

101.570-06 – including *Taq* polymerase, IFU-01
101.570-06u – without *Taq* polymerase, IFU-02

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				51:38-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:65-51:80, 51:82-51:91, 51:93-51:96, 51:98N, 51:100-51:105, 51:107-51:130, 51:132-51:134, 51:136-51:138, 51:140-51:147, 51:149N-51:156, 51:158:01-51:171, 51:173Q-51:193, 51:195-51:212, 52:01:01-01-52:13, 52:15-52:24, 52:26-52:38, 52:40-52:63, 54:04, 54:11, 54:15, 56:05:01-56:06, 56:15, 56:21, 58:08:01-58:08:02, 59:02, 78:01:01-78:09
18	215 bp 310 bp 415 bp	800 bp	*55:25 *55:19 *55:18, 55:31	*40:10:01:01-40:10:02, 54:30, 56:23, 56:42, 56:44, 59:01:01:01-59:09
19	205 bp	1070 bp	*55:30, 55:36	*07:234, 15:244, 15:315, 18:126, 39:54, C*03:70, C*03:127, C*03:179, C*03:274
20	220 bp	1070 bp	*55:20, 55:56	*08:09, 08:84, 13:46, 15:83, 41:01:01-41:01:04, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:35, 41:37, 41:44, 42:04, 44:15, 44:18, 44:20, 44:100, 45:01:01-45:19, 51:08:01-51:08:02, 51:20, 51:36, 51:44N, 51:97, 51:141, 51:153, 52:19, 56:13
21	270 bp	800 bp	*55:10	*18:01:01:01-18:03, 18:05-18:15, 18:18-18:28, 18:30-18:79, 18:81-18:97, 18:99-18:101, 18:103-18:106, 18:108-18:111, 18:113-18:119, 18:121-18:123, 18:126-18:130, 27:75, 35:25, 35:124-35:125, 35:142, 35:162, 35:267, 35:320, 37:01:01-37:21, 37:23-37:40, 37:42N-37:61, 40:149?, 44:130, 44:156, 44:221, 44:224, 44:258, 51:116, 51:176, 51:179, 52:16, 52:27, 53:43, 54:21, 56:16, 57:58, 57:80, 58:12, 81:01, 81:03?-81:08?, 82:01-82:03, 83:01
22⁵	95 bp 225 bp	800 bp	*55:23, 55:27, 55:68 *55:09, 55:21, 55:37, 55:52	*07:84, 13:04, 13:35, 13:72, 15:04:01:01-15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 35:37, 35:235, 35:265, 40:44, 40:159, 41:21, 44:20, 44:47, 44:100, 44:197, 45:09, 46:32, 49:04:01-49:05, 50:33, 51:37, 51:90, 51:92:01-51:92:02, 51:197, 52:12, 52:26, 52:63, 54:14-54:15, 56:50, C*07:463, C*12:183 *07:78, 07:84, 13:18, 13:31, 13:41, 15:04:01:01-15:04:04, 15:137, 15:303, 35:265, 39:33, 40:161, 46:32, 49:41, 50:47, 51:05, 51:29, 51:54, 51:61:01-51:61:02, 51:82, 51:197, 52:21, 52:24, 54:10, 54:20, 54:33, 56:43, C*12:183
23	165 bp 220 bp	1070 bp	*55:29 *55:16, 55:21	*51:174:02 *07:143, 13:31, 13:41, 15:04:01:01-15:04:04, 15:137, 15:303, 35:265, 40:166, 42:02:01:01-42:02:01:02, 42:09, 42:17-42:18, 45:06, 46:32, 50:47, 51:61:01-51:61:02, 52:21, 54:02, 54:33, 56:35, 56:43, C*12:183

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Lot-specific information

24⁵	100 bp	1070 bp	*55:13, 55:23, 55:27, 55:32, 55:58, 55:68	*07:84, 13:04, 13:35, 13:46, 13:72, 15:04:01:01- 15:04:04, 15:16:01:01-15:16:03, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 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, 39:109, 40:44, 40:86, 40:159, 40:330, 41:21, 41:30, 44:20, 44:47, 44:100, 44:197, 45:02, 45:09, 46:32, 49:04:01- 49:05, 50:09, 50:33, 51:13:01-51:13:02, 51:37, 51:63:01-51:63:02, 51:90, 51:92:01-51:92:02, 51:97, 51:172, 51:197, 52:12, 52:14, 52:26, 52:39, 52:63, 54:14-54:15, 56:22, 56:50, 59:03, 73:01- 73:02, C*07:463, C*12:183
	235 bp		*55:33	
25⁶	155 bp 280 bp 380 bp	1070 bp	*55:62 *55:26 *55:18, 55:34, 55:40	*40:10:01:01-40:10:02, 54:35
26^{5,6}	75 bp 310 bp 400 bp	1070 bp	*55:42 *55:45 *55:34, 55:47	*13:88
27⁵	95 bp 170 bp	1070 bp	*55:46 *55:43	*50:39, 54:16 *51:127
28^{5,6}	95 bp 215 bp	800 bp	*55:41, 55:44, 55:58 *55:57	*13:46, 15:137, 51:172, 73:01-73:02
29	160 bp	1070 bp		*08:101, 44:24, 44:181, 51:39, 54:01:01-54:01:07, 54:03-54:04, 54:06-54:37, C*05:30, C*06:125, C*07:441, C*16:86
30^{5,6}	95 bp 105 bp 220 bp	1070 bp	*55:50 *55:35 *55:17, 55:38, 55:72	*08:83, 13:06, 13:53, 14:43, 14:50, 18:74N, 18:78, 38:38, 41:37, C*05:110, C*12:120 *15:76, 15:101, 56:39 *08:09, 08:84, 15:83, 39:06:02-39:06:05, 39:34, 39:57, 39:62, 39:64, 39:90, 39:109, 42:04, 51:21, 51:36, 51:101, 51:143, 51:153, 51:197, 52:37, 78:07
31⁵	105 bp 170 bp 235 bp	800 bp	*55:13, 55:58 *55:43 *55:55N	*13:46, 15:137, 35:235, 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, 39:109, 40:86, 40:330, 45:02, 50:09, 51:13:01-51:13:02, 51:92:01- 51:92:02, 51:172, 52:14, 56:22, 59:03, 73:01- 73:02 *51:127
32⁷			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*55 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.

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Lot-specific information

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-B alleles non-HLA-B*55 alleles will be amplified by all primer mixes. In addition, a few HLA-C alleles will be amplified by primer mixes 2, 3, 5, 7, 10, 15, 19, 22 to 24, 29 and 30.

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

⁶Primer mixes 6, 25, 26, 28 and 30 may have tendencies of unspecific amplifications.

⁷Primer 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.

‘?’; nucleotide sequence of the primer matching region is not known.

‘w’, may be weakly amplified.

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Lot-specific information

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	400	125	150	235	95	100	180	230	215	70	90	210
PCR product					235			425	375		125	
											180	
Length of int.	800	1070	1070	1070	800	1070	1070	800	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	41	379	420	106	363	245	419	48	48	175	186	103
	5'-CTg 3'	5'-ACC 3'	5'-TTA 3'	5'-CCA 3'	5'-AgC 3'	5'-ggC 3'	5'-gTA 3'	5'-gCC 3'	5'-gCC 3'	5'-TgA 3'	5'-AgA 3'	5'-CCT 3'
		379			506						420	
		5'-ACC 3'			5'-gCT 3'				5'-CTA 3'		5'-TTA 3'	
3'-primer(s) ³	272	463	527	299	559	302	559	107	94	206	272	272
	5'-TgT 3'	5'-gCT 3'	5'-CCT 3'	5'-TCA 3'	5'-CgT 3'	5'-ggC 3'	5'-CAg 3'	5'-ACT 3'	5'-gAC 3'	5'-CCC 3'	5'-TgT 3'	5'-TgT 3'
	275							302	362		469	
	5'-CCA 3'							5'-ggT 3'	5'-TCA 3'		5'-CCg 3'	
											559	
											5'-CTC 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.	150	95	245	245	105	215	205	220	270	95	165	100
PCR product						310				225	220	235
						415						
Length of int.	1070	1070	1070	1070	1070	800	1070	1070	800	800	1070	1070
pos. control ¹												
5'-primer(s) ²	420	206	357	357	357	48	134	357	41	357	97	357
	5'-TTA 3'	5'-Agg 3'	5'-Tgg 3'	5'-Tgg 3'	5'-Tgg 3'	5'-gCC 3'	5'-CCA 3'	5'-Tgg 3'	5'-CTg 3'	5'-Tgg 3'	5'-TCC 3'	5'-Tgg 3'
							141				357	
							5'-ATg 3'				5'-Tgg 3'	
3'-primer(s) ³	523	259	559	559	419	94	299	538	142	412	272	412
	5'-ACA 3'	5'-gTT 3'	5'-CgT 3'	5'-CAg 3'	5'-CgT 3'	5'-gAC 3'	5'-TCT 3'	5'-gTC 3'	5'-TgA 3'	5'-gTC 3'	5'-TgT 3'	5'-gTC 3'
	527				424	187				539	479	419
	5'-CCA 3'				5'-gTg 3'	5'-gTT 3'				5'-TCC 3'	5'-CCA 3'	5'-Cgg 3'
						292					538	419
						5'-gTA 3'					5'-CCA 3'	5'-CgA 3'
						292						550
						5'-gTA 3'						5'-CAT 3'
						292						
						5'-gTA 3'						
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.570-06 – including *Taq* polymerase, IFU-01
101.570-06u – without *Taq* polymerase, IFU-02

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Lot No.: **9E2**

Lot-specific information

Well No.	25	26	27	28	29	30	31
Length of spec.	155	75	95	95	160	95	105
PCR product	280	310	170	215		105	170
	380	400				220	235
Length of int.	1070	1070	1070	800	1070	1070	800
pos. control ¹							
5'-primer(s) ²	48	41	357	362	106	209	357
	5'-gCC 3'	5'-CTg 3'	5'-Tgg 3'	5'-gAC 3'	5'-CCA 3'	5'-ggC 3'	5'-Tgg 3'
	3' rd I	431				379	
	5'-Agg 3'	5'-CgA 3'				5'-ACg 3'	
						506	
						5'-gCT 3'	
3'-primer(s) ³	160	181	412	409	226	272	419
	5'-gTT 3'	5'-gTT 3'	5'-gTC 3'	5'-ATA 3'	5'-CAC 3'	5'-TgT 3'	5'-CgA 3'
	259	272	487	427		559	487
	5'-CTC 3'	5'-Tgg 3'	5'-CgT 3'	5'-gTg 3'		5'-CgT 3'	5'-CgT 3'
	259	463		535			549
	5'-CTC 3'	5'-gCT 3'		5'-CTC 3'			5'-AgT 3'
	682						
	5'-CCT 3'						
Well No.	25	26	27	28	29	30	31

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.

101.570-06 – including *Taq* polymerase, IFU-01

101.570-06u – without *Taq* polymerase, IFU-02

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Lot No.: **9E2**

Lot-specific information

CELL LINE VALIDATION SHEET																																	
HLA-B*55 SSP subtyping kit ²																																	
					Prod. No.:	Well																											
						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31													
						201777517	201777518	201777519	201777520	201777521	201777522	201777523	201777524	201777525	201777526	201777527	201777528	201777529	201777530	201777531													
	IHC 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			-	-	-	-	-	-	-	-	-	-	-	-																

101.570-06 – including *Taq* polymerase, IFU-01

101.570-06u – without *Taq* polymerase, IFU-02

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Lot No.: 9E2

Lot-specific information

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.

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 6, 8, 9, 10, 19, 26, 27 and 30 were available. The specificities of the primers in primer solutions 8, 10, 19, 26, 27 and 30 were tested by separately adding one or two additional 5'-primers, respectively one or three additional 3'-primers. In primer solution 6 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solution 9 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 2, 11, 19 and 26 one 5'-primer was not possible to test, and in primer solutions 1, 8, 11, 13, 17, 18, 23 to 28 and 31 one or more 3'-primers were not possible to test. Additional primers in primer solutions 5, 11, 18 and 25 were tested by separately adding additional 3'-primers and/or additional 5'-primers.

101.570-06 – including *Taq* polymerase, IFU-01
101.570-06u – without *Taq* polymerase, IFU-02

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Lot No.: **9E2**

Lot-specific information

101.570-06 – including *Taq* polymerase, IFU-01**101.570-06u – without *Taq* polymerase, IFU-02**Visit www.olerup.com for
“Instructions for Use” (IFU)**Lot No.: 9E2****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:** olerup-se@caredx.com**Web page:** <http://www.olerup.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:** olerup-at@caredx.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:** olerup-us@caredx.com**Web page:** <http://www.olerup.com>For information on *Olerup* distributors worldwide, contact **Olerup GmbH**.