

Lot No.: 5L6

Lot-specific information

Olerup SSP[®] HLA-C*06

Product number:	101.614-12 – including <i>Taq</i> polymerase 101.614-12u – without <i>Taq</i> polymerase
Lot number:	5L6
Expiry date:	2024-09-01
Number of tests:	12
Number of wells per test:	62+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. 5L6.

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-C*06 LOT (4K6)**

- The product documentation has been updated for new alleles of IMGT 3.40.0
- The kit resolution focuses on common and well documented (CWD) alleles¹.
- The kit was increased with two wells, 62 and 63.

¹As described in section Uniquely Identified Alleles.

The HLA-C*06 primer set, specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup SSP[®] HLA-C*06* lot was made (**Lot No. 4K6**).

¹S. J. Mack, P. Cano, J. A. Hollenbach et al.
Common and well-documented HLA alleles: 2012 update to
the CWD catalogue. *Tissue Antigens*, 2013, 81, 194–203



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

Well	5'-primer	3'-primer	rationale
5	Removed	-	Removed superfluous 5'-primer.
31	Moved	Moved	Primer pair moved to mix 62 for reducing tendency of primer oligomer formation.
52	Added	-	5'-primer added for the *06:91 allele.
53	Added	-	5'-primer added for the *06:91 allele.
61	Added	-	Negative control primer pair moved to mix 63. Primer pair added for the *06:115 allele.
62	Added	Added	Primer pair added from mix 31.
63	-	-	Negative control primer pair added from mix 61.

Changes in revision R01 compared to R00:

1. Primer mix 56 does not amplify the C*06:37 allele. The correction has been implemented in the Specificity and Interpretation tables.

Changes in revision R02 compared to R01:

1. Primer mix 16 does not amplify the C*06:16N allele. The correction has been implemented in the Specificity and Interpretation tables.



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Well **63** contains Negative Control primer pairs, that will amplify a majority 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 200 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-C*06 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the HLA-C*06:02 to HLA-C*06:294 alleles.

PLATE LAYOUT

Each test consists of 63 PCR reactions in a 64 well PCR plate. Well 64 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	31	32
33	34	35	36	37	38	39	40
41	42	43	47	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	NC	empty

The 64 well cut PCR plate is marked with ‘HLA-C*06’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘5L6’.

Wells 1 to 62 – HLA-C*06 high resolution primers.

Well 63 – Negative Control (NC).

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

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

INTERPRETATION

Due to the sharing of sequence motifs between HLA-C alleles, non-HLA-C*06 alleles will be amplified by some primer mixes. For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*06 alleles, i.e. **C*06:02 to C*06:294**, recognized by the HLA Nomenclature Committee in April 2020¹ will be amplified by the primers in the HLA-C*06 SSP kit^{2,3}.

The HLA-C*06 kit enables separation of the confirmed HLA-C*06 alleles as listed in the IMGT/HLA database 3.24.0. 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-C*06 alleles is listed below.



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The HLA-C*06 kit also enables identification of many null and alternatively expressed alleles.

The following HLA-C*06 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
C*06:07, 06:33	7	C*06:49N, 06:148	37
C*06:15, 06:116N	15	C*06:54, 06:133	40
C*06:20, 06:74Q	34	C*06:57, 06:58	36
C*06:25, 06:36	21	C*06:66, 06:71	32
C*06:27, 06:29	20	C*06:70:01-06:70:02, 06:73	38

¹HLA-C alleles listed on the IMGT/HLA web page 2020-April-20, release 3.40.0, 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-C*06 primer set cannot separate the following alleles. These alleles can be distinguished by the HLA-C low resolution kit and/or HLA-C*04 high resolution kit.

Alleles

C*06:76:02, C*04:360

C*06:127:01-06:127:02, 06:264, C*04:220



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ALLELE CONFIRMATION STATUS

Allele	Status¹	Allele	Status¹	Allele	Status¹	Allele	Status¹
C*06:02:01:01	Confirmed	C*06:05	Unconfirmed	C*06:52	Unconfirmed	C*06:99	Unconfirmed
C*06:02:01:02	Confirmed	C*06:06	Confirmed	C*06:53:01	Unconfirmed	C*06:100	Confirmed
C*06:02:01:03	Confirmed	C*06:07	Confirmed	C*06:53:02	Unconfirmed	C*06:101	Confirmed
C*06:02:03	Confirmed	C*06:08	Unconfirmed	C*06:54	Confirmed	C*06:102	Unconfirmed
C*06:02:04	Confirmed	C*06:09	Confirmed	C*06:55	Unconfirmed	C*06:103	Confirmed
C*06:02:05	Confirmed	C*06:10	Unconfirmed	C*06:56	Unconfirmed	C*06:104	Confirmed
C*06:02:06	Confirmed	C*06:11	Confirmed	C*06:57	Confirmed	C*06:105	Unconfirmed
C*06:02:07	Confirmed	C*06:12	Confirmed	C*06:58	Confirmed	C*06:106:01	Unconfirmed
C*06:02:08	Confirmed	C*06:13	Unconfirmed	C*06:59	Confirmed	C*06:106:02	Confirmed
C*06:02:09	Confirmed	C*06:14	Confirmed	C*06:60	Confirmed	C*06:107	Confirmed
C*06:02:10	Unconfirmed	C*06:15	Confirmed	C*06:61	Unconfirmed	C*06:108	Unconfirmed
C*06:02:11	Unconfirmed	C*06:16N	Unconfirmed	C*06:62	Unconfirmed	C*06:109	Unconfirmed
C*06:02:12	Confirmed	C*06:17	Unconfirmed	C*06:63	Unconfirmed	C*06:110	Unconfirmed
C*06:02:13	Unconfirmed	C*06:18	Confirmed	C*06:64	Unconfirmed	C*06:111	Unconfirmed
C*06:02:14	Unconfirmed	C*06:19	Unconfirmed	C*06:65	Confirmed	C*06:112	Unconfirmed
C*06:02:15	Confirmed	C*06:20	Unconfirmed	C*06:66	Confirmed	C*06:113	Unconfirmed
C*06:02:16	Confirmed	C*06:21	Unconfirmed	C*06:67	Unconfirmed	C*06:114	Unconfirmed
C*06:02:17	Unconfirmed	C*06:22	Unconfirmed	C*06:68	Unconfirmed	C*06:115	Unconfirmed
C*06:02:18	Unconfirmed	C*06:23	Confirmed	C*06:69	Confirmed	C*06:116N	Unconfirmed
C*06:02:19	Unconfirmed	C*06:24	Confirmed	C*06:70:01	Confirmed	C*06:117	Unconfirmed
C*06:02:20	Unconfirmed	C*06:25	Unconfirmed	C*06:70:02	Unconfirmed	C*06:118	Unconfirmed
C*06:02:21	Unconfirmed	C*06:26	Confirmed	C*06:71	Confirmed	C*06:119	Unconfirmed
C*06:02:22	Confirmed	C*06:27	Confirmed	C*06:72	Unconfirmed	C*06:120	Confirmed
C*06:02:23	Unconfirmed	C*06:28	Confirmed	C*06:73	Unconfirmed	C*06:121	Unconfirmed
C*06:02:24	Unconfirmed	C*06:29	Unconfirmed	C*06:74Q	Unconfirmed	C*06:122	Confirmed
C*06:02:25	Unconfirmed	C*06:30	Confirmed	C*06:75	Unconfirmed	C*06:123	Unconfirmed
C*06:02:26	Unconfirmed	C*06:31	Unconfirmed	C*06:76:01	Confirmed	C*06:124	Confirmed
C*06:02:27	Unconfirmed	C*06:32	Confirmed	C*06:76:02	Unconfirmed	C*06:125	Unconfirmed
C*06:02:28	Unconfirmed	C*06:33	Confirmed	C*06:77	Unconfirmed	C*06:126	Confirmed
C*06:02:29	Unconfirmed	C*06:34:01	Confirmed	C*06:78	Unconfirmed	C*06:127:01	Confirmed
C*06:02:30	Unconfirmed	C*06:34:02	Unconfirmed	C*06:79N	Unconfirmed	C*06:127:02	Unconfirmed
C*06:02:31	Confirmed	C*06:35	Confirmed	C*06:80	Unconfirmed	C*06:128N	Unconfirmed
C*06:02:32	Confirmed	C*06:36	Unconfirmed	C*06:81	Confirmed	C*06:129	Confirmed
C*06:02:33	Confirmed	C*06:37	Confirmed	C*06:82	Unconfirmed	C*06:130	Unconfirmed
C*06:02:34	Confirmed	C*06:38	Confirmed	C*06:83	Unconfirmed	C*06:131	Unconfirmed
C*06:02:35	Unconfirmed	C*06:39	Unconfirmed	C*06:84	Unconfirmed	C*06:132:01	Confirmed
C*06:02:36	Unconfirmed	C*06:40	Unconfirmed	C*06:85	Unconfirmed	C*06:132:02	Unconfirmed
C*06:02:37	Confirmed	C*06:41	Unconfirmed	C*06:86	Confirmed	C*06:133	Confirmed
C*06:02:38	Unconfirmed	C*06:42:01	Unconfirmed	C*06:87	Confirmed	C*06:134N	Unconfirmed
C*06:02:39	Unconfirmed	C*06:42:02	Unconfirmed	C*06:88	Unconfirmed	C*06:135	Unconfirmed
C*06:02:40	Unconfirmed	C*06:43:01	Confirmed	C*06:89	Unconfirmed	C*06:136	Confirmed
C*06:02:41	Unconfirmed	C*06:43:02	Unconfirmed	C*06:90	Unconfirmed	C*06:137	Unconfirmed
C*06:02:42	Unconfirmed	C*06:44	Unconfirmed	C*06:91	Unconfirmed	C*06:138	Confirmed
C*06:02:43	Unconfirmed	C*06:45	Unconfirmed	C*06:92	Unconfirmed	C*06:139	Confirmed
C*06:02:44	Unconfirmed	C*06:46N	Unconfirmed	C*06:93	Confirmed	C*06:140	Confirmed
C*06:02:45	Unconfirmed	C*06:47	Confirmed	C*06:94	Unconfirmed	C*06:141	Unconfirmed
C*06:03:01	Unconfirmed	C*06:48	Unconfirmed	C*06:95	Unconfirmed	C*06:142	Confirmed
C*06:03:02	Confirmed	C*06:49N	Confirmed	C*06:96	Confirmed	C*06:143	Unconfirmed
C*06:04:01	Confirmed	C*06:50	Confirmed	C*06:97	Unconfirmed	C*06:144	Unconfirmed
C*06:04:02	Confirmed	C*06:51	Unconfirmed	C*06:98	Unconfirmed	C*06:145	Unconfirmed



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Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*06:146	Unconfirmed	C*06:156	Unconfirmed	C*06:166	Unconfirmed
C*06:147	Unconfirmed	C*06:157	Unconfirmed	C*06:167	Unconfirmed
C*06:148	Confirmed	C*06:158	Confirmed	C*06:168	Unconfirmed
C*06:149	Unconfirmed	C*06:159	Unconfirmed	C*06:169	Unconfirmed
C*06:150	Unconfirmed	C*06:160	Unconfirmed	C*06:170	Unconfirmed
C*06:151	Confirmed	C*06:161	Unconfirmed	C*06:171N	Unconfirmed
C*06:152N	Unconfirmed	C*06:162	Unconfirmed	C*06:172	Unconfirmed
C*06:153	Unconfirmed	C*06:163	Unconfirmed	C*06:173	Unconfirmed
C*06:154	Unconfirmed	C*06:164	Unconfirmed	C*06:174	Unconfirmed
C*06:155	Unconfirmed	C*06:165	Unconfirmed	C*06:175N	Unconfirmed

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2016-April-15, release 3.24.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-C*06 homo- and heterozygotes is available upon request.



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SPECIFICITY TABLE

HLA-C*06 SSP subtyping

Specificities and sizes of the PCR products of the 62+1 primer mixes used for HLA-C*06 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C*06 alleles ³	Other amplified HLA Class I alleles
1	240 bp	800 bp	*06:02:01:01-06:02:01:45, 06:02:03-06:02:82, 06:04:01-06:16N, 06:18-06:75, 06:78-06:131, 06:133-06:187, 06:189-06:235, 06:237-06:243, 06:245-06:294	*03:39, 03:67, 03:344:01:01-03:344:01:02, 04:42:01-04:42:02, 04:220, 05:43, 08:37, 12:16:01-12:16:02, 12:147, 12:195:01-12:195:03, 12:217, 16:21, 16:80, 17:20 [?]
2	220 bp	800 bp	*06:02:01:01-06:02:01:45, 06:02:03-06:03:02, 06:07-06:13, 06:15-06:34:02, 06:36-06:39, 06:41-06:71, 06:73-06:78, 06:80, 06:82-06:100, 06:102:01-06:117, 06:119-06:122, 06:124-06:126, 06:128N-06:135, 06:137-06:142, 06:145-06:152N, 06:154-06:196, 06:198-06:202, 06:205-06:263N, 06:265-06:270, 06:272-06:294	*01:04, 01:09:01-01:09:02, 02:05:01-02:05:03, 02:17, 04:360, 12:03:01:01-12:07, 12:11-12:13:01:02, 12:15, 12:23, 12:25-12:26, 12:28-12:29, 12:31:01-12:35, 12:37-12:39N, 12:42Q-12:43, 12:45-12:48, 12:50-12:55, 12:57:01-12:63, 12:65-12:66, 12:70-12:71, 12:75-12:79, 12:81-12:82, 12:87-12:95, 12:97-12:102, 12:107-12:111, 12:113, 12:115-12:116, 12:119-12:122, 12:125, 12:129, 12:131, 12:133, 12:135, 12:138-12:141, 12:143-12:144, 12:147, 12:149-12:150, 12:152, 12:154, 12:156-12:160, 12:163, 12:165, 12:167, 12:170-12:174, 12:176, 12:178, 12:180, 12:182, 12:184-12:187, 12:189-12:192, 12:194-12:195:03, 12:197, 12:199, 12:201-12:203, 12:205-12:206, 12:209-12:211, 12:213, 12:215-12:216, 12:218, 12:220, 12:223, 12:225, 12:227, 12:229-12:230, 12:232N, 12:235, 12:237-12:238, 12:242, 12:244-12:246, 12:248-12:249, 12:253-12:254, 12:256-12:257, 12:259-12:260, 12:262, 12:264-12:267, 12:269, 12:271-12:274:01N, 12:276-12:278, 12:282-12:284, 12:286, 12:288-12:293, 12:295N, 12:297, 12:300-12:302, 12:305-12:306, 14:16, 16:04:01:01-16:04:01:03, 16:04:03-16:04:05, 16:29, 16:33, 16:42, 16:55, 16:61, 16:66, 16:78, 16:82, 16:91, 16:109, 16:124, 16:149-16:150, B*15:510, B*35:475
3	135 bp	1070 bp	*06:03:01, 06:18, 06:132:01-06:132:02	*01:169:02, 02:02:13, 02:02:29, 03:02:01-03:02:09, 03:02:11-03:03:20, 03:03:22-03:03:50, 03:03:52-03:04:14, 03:04:16-03:04:24, 03:04:27-03:11:02, 03:13:01:01-03:17:02, 03:18:02-03:38:02, 03:40:01-03:64:01, 03:65-03:66, 03:67 ^w , 03:68-03:98, 03:100-03:117, 03:119:01-03:136, 03:138-03:143, 03:146-03:155, 03:157-03:165:02, 03:167-03:169Q, 03:171, 03:173-03:181,



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				03:183-03:194, 03:196-03:230, 03:232-03:247, 03:249-03:263:03, 03:265N-03:277N, 03:278 ^w , 03:279-03:294, 03:295 ^w , 03:296:01-03:323N, 03:325-03:341, 03:343, 03:345-03:453, 03:455-03:458, 03:460-03:478, 03:480-03:503, 03:505-03:517, 07:96:01-07:96:02, 07:272, 07:314:02, 07:326, 07:578, 07:756, 15:02:10, 15:02:17, 15:43, B*46:77
4	250 bp	1070 bp	*06:04:01-06:04:02, 06:118, 06:153, 06:197	*01:22, 01:35, 01:131, 01:160, 05:11, 05:17, 05:27, 05:68, 05:79, 05:115, 05:134, 05:151, 05:184, 08:01:01:01-08:01:29, 08:03:01-08:04:03, 08:06, 08:08:01-08:11, 08:13-08:14, 08:16:01-08:16:02, 08:20-08:22:01:02, 08:24, 08:26N, 08:36N, 08:38-08:42, 08:44, 08:46, 08:50, 08:54, 08:56-08:61, 08:65-08:66, 08:72:01-08:72:02, 08:78-08:89N, 08:91, 08:93, 08:95-08:97, 08:99, 08:101-08:102, 08:104-08:106, 08:109, 08:113, 08:117, 08:119, 08:121N-08:122, 08:124, 08:127N-08:131, 08:133, 08:135-08:139, 08:141Q, 08:143-08:145, 08:147-08:148, 08:153-08:155, 08:157, 08:162-08:165, 08:168, 08:173N-08:178, 08:182, 08:186-08:190, 08:192-08:194, 08:196-08:197, 08:199, 08:203-08:205, 08:208N-08:210, 12:14:01-12:14:02, 12:18:01-12:18:02, 12:20, 12:83, 12:169, 12:175, 12:181, 14:06, 14:15, 14:53, 14:77, 14:87, 15:02:01:01-15:02:43, 15:02:45-15:05:07, 15:05:09-15:07:01:02, 15:09:01:01-15:13:01:02, 15:15-15:19, 15:21-15:24, 15:26-15:50, 15:52:01-15:73, 15:76-15:83, 15:85-15:101, 15:103-15:142, 15:144-15:147, 15:149-15:213N, 15:215-15:217, 16:35, 16:40, 16:48, 16:110, 17:01:01:02-17:16:02, 17:18-17:51:02
5	160 bp	800 bp	*06:05, 06:67, 06:103	*02:94, 04:129, 05:01:01:01-05:01:27, 05:01:28 ^w , 05:01:29-05:01:51, 05:03-05:28, 05:30-05:47, 05:49-05:91N, 05:93-05:128N, 05:130-05:154N, 05:156-05:189, 05:191-05:194, 05:196, 05:198-05:232, 08:10, 12:21, 12:33, 15:107, 15:178, 17:05
	220 bp		*06:18, 06:23, 06:179	*01:04, 01:09:01-01:09:02, 02:21, 12:178
6	250 bp	1070 bp	*06:05-06:06, 06:204, 06:271	*01:02:01:01-01:03, 01:05-01:07:01, 01:08, 01:10-01:20, 01:23-01:34, 01:36:01-01:130, 01:132-01:159, 01:161-01:168, 01:169:02-01:191, 04:110 [?] , 05:01:01:01-05:01:51, 05:03-05:07N, 05:09:01-05:10, 05:12-05:16, 05:18:01-05:26, 05:28-05:50, 05:53-05:61, 05:63-05:67, 05:69, 05:71-05:78:02, 05:80-05:88, 05:90-05:105, 05:107-05:111, 05:113N-05:114, 05:116-05:133, 05:135-05:145, 05:147-05:150, 05:152-05:162, 05:164-05:183, 05:185-05:232, 08:02:01:01-08:02:29, 08:05, 08:07, 08:12:01:01-08:12:01:02, 08:15:01-08:15:02, 08:17-08:19:02, 08:23, 08:25, 08:28, 08:30, 08:32-08:35, 08:37, 08:43, 08:45, 08:47-08:49, 08:51-08:53, 08:55N, 08:62:01-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92,



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				08:94, 08:100, 08:103, 08:107-08:108, 08:110-08:112, 08:114-08:116, 08:118, 08:120, 08:123, 08:125-08:126, 08:132, 08:134, 08:140, 08:146, 08:149-08:152, 08:156, 08:158-08:159, 08:161N, 08:166-08:167, 08:169-08:172, 08:179-08:181N, 08:183-08:185, 08:191, 08:195, 08:198, 08:200-08:202, 08:206-08:207, 12:09, 12:24, 12:85, 12:233, 14:02:01:01-14:02:31, 14:02:33-14:05, 14:07N-14:14, 14:17-14:52, 14:54-14:62, 14:64-14:76, 14:78-14:86, 14:88-14:89, 14:91-14:104, 14:106-14:117N, 15:08:01-15:08:02, 15:102, 15:143, 15:148, 16:53, 16:68, 16:88, 17:17, 18:01:01:01-18:02:05, 18:04-18:14
	290 bp		*06:50	*12:53
7⁴	110 bp	1070 bp	*06:07	*04:353
	185 bp		*06:19	
	235 bp		*06:33, 06:104	
8	240 bp	1070 bp	*06:08	*01:10, 02:05:01-02:05:03, 02:17, 12:119, 14:25, 16:29, 16:50, 17:21, B*07:239, B*14:46, B*40:243
9	165 bp	1070 bp	*06:09:01-06:09:02, 06:144	*02:22, 02:118, 04:94:01-04:94:02, 05:08, 05:52, 05:89, 05:106:01-05:106:02, 08:27, 08:29, 08:31, 08:160, 12:31:01-12:31:02, 12:144, 18:03, B*15:137, B*15:488, B*37:66, B*50:47
	210 bp		*06:23, 06:179	*01:04, 01:09:01-01:09:02, 12:178
	435 bp		*06:17	*04:397, 07:07, 07:09, 07:76:01-07:76:02, 07:315, 07:328, 07:406, 07:559, 07:598, 07:656, 18:01:01:01-18:14
10	190 bp	800 bp	*06:10, 06:22	*07:107, 07:224, 12:293, 16:31, B*15:193, B*35:283
11	130 bp	1070 bp	*06:11, 06:122 ^w , 06:124 ^w , 06:147, 06:217, 06:248, 06:252	*07:01:13, 07:04:01:01-07:04:11, 07:04:13-07:04:20, 07:11-07:12, 07:45, 07:63, 07:68, 07:101, 07:139, 07:142, 07:181, 07:199:01-07:199:02, 07:272, 07:302, 07:323-07:324, 07:329N, 07:338, 07:354-07:355, 07:358, 07:364-07:365, 07:378, 07:394-07:395, 07:420, 07:426, 07:428, 07:447, 07:459, 07:466-07:467, 07:480, 07:487, 07:501, 07:523, 07:534-07:535, 07:552, 07:562-07:563, 07:569, 07:585-07:586, 07:600:01N-07:600:02N, 07:622, 07:626, 07:651, 07:655, 07:656 ^w , 07:664, 07:672N, 07:674, 07:693, 07:742, 07:751N, 07:780, 07:797N, 07:831, 07:838-07:839N, 12:02:11, 12:03:09, 16:01:16, B*15:434
	185 bp		*06:22	*07:107, 07:224, 12:293, 16:31, B*15:193, B*35:283
12	205 bp	1070 bp	*06:12	
13	155 bp	1070 bp	*06:13	
	210 bp		*06:59	
14⁷	225 bp	1070 bp	*06:55	
	305 bp		*06:14, 06:143	*03:32, 03:45, 03:136, 03:297, 04:80, 04:100, 04:110 ^w , 04:178, 04:370, 07:10 ^w , 07:43:01, 07:196, 07:568, 15:25, 15:62, 15:169, B*15:357, B*35:178, B*35:282, B*35:316



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15	135 bp 360 bp	800 bp	*06:116N *06:15	*03:428, 07:709
16	340 bp	1070 bp	*06:21	*02:125, 15:91
17 ⁵	220 bp	800 bp	*06:24, 06:59	*14:91, 16:93
18	225 bp	1070 bp	*06:26, 06:104	
19 ^{4,6}	85 bp	800 bp	*06:28	*02:14:01-02:14:02, 02:164, 03:67, 04:42:01-04:42:02, 05:43, 07:20:01-07:20:02, 07:73:01-07:73:02, 07:172:01-07:172:02, 07:390, 08:37, 12:195:01-12:195:03, 12:217, 15:23:01-15:23:02, 15:138, 15:158, 16:21, 17:20, 18:04, B*08:56:01-08:56:03, B*08:180, B*15:142, B*35:218, B*35:256, B*51:68, B*57:49
	160 bp 245 bp		*06:32 *06:122, 06:124	*07:559, 07:656
20 ^{4,6}	115 bp 235 bp	1070 bp	*06:29 *06:05 ^w , 06:44 ^w , 06:124, 06:138 ^w , 06:198 ^w , 06:217, 06:248	*07:134 *02:14:01 ^w -02:14:02 ^w , 02:107 ^w , 02:164 ^w , 03:39, 03:67, 03:344:01:01-03:344:01:02, 05:43 ^w , 07:39-07:40, 07:177, 07:210 ^w , 07:238 ^w , 07:328 ^w , 07:335, 07:563, 08:37, 15:23:01 ^w -15:23:02 ^w , 15:63 ^w , 15:138 ^w , 15:158 ^w , 16:21, 16:80, B*08:15
	275 bp		*06:27	*16:47, 16:128
21 ⁶	190 bp	1070 bp	*06:36, 06:87	*02:113, 02:159, 02:161, 12:45, 12:56, 12:166, 16:61, A*02:817, A*68:76:01-68:76:02
	215 bp 380 bp		*06:72 *06:25	*04:81
22 ⁶	165 bp	1070 bp	*06:30, 06:86, 06:171:01:01N- 06:171:01:02N, 06:198, 06:204, 06:210, 06:217	*02:02:13, 02:02:29, 07:181, 07:328, 12:02:11, 12:03:09, 16:01:16, B*15:434
23	210 bp	1070 bp	*06:31, 06:79N	*12:176, 14:02:32, 16:04:01:01-16:04:01:03, 16:04:03-16:04:05, 16:29, 16:33, 16:42, 16:55, 16:61, 16:66, 16:78, 16:82, 16:91, 16:109, 16:124, 16:149-16:150, B*58:02:02
24	160 bp	1070 bp	*06:09:01-06:09:02, 06:34:01-06:34:02, 06:144, 06:168	*02:22, 02:47, 02:111, 04:94:01-04:94:02, 05:08, 05:52, 05:89, 05:106:01-05:106:02, 07:447, 08:27, 08:29, 08:31, 08:160, 12:31:01-12:31:02, 12:144, 12:298, 18:03, B*13:31, B*13:41, B*13:131, B*15:58, B*15:73:01:01-15:73:01:02, B*15:137, B*15:303, B*15:486, B*15:488, B*35:413, B*37:66, B*39:36, B*46:61, B*50:47, B*54:33, B*54:40, B*55:21, B*56:43 B*37:66
	210 bp		*06:35	
25 ⁴	85 bp 190 bp	1070 bp	*06:38 *06:118	*01:60, 07:31:01-07:31:02, 07:177, 07:364, 07:514, 12:176, 14:17, 17:21
26 ⁴	120 bp 225 bp	1070 bp	*06:39, 06:128N *06:146	*02:100, 04:205N, 04:288, 15:115N, 15:150
27	190 bp 225 bp	1070 bp	*06:42:01-06:42:02 *06:40	*14:29 *14:63, B*39:79
28 ⁴	90 bp 215 bp	1070 bp	*06:41 *06:47, 06:123	*12:32 *02:57, 07:447, 12:11, B*15:554
29 ⁴	125 bp	1070 bp	*06:152N	A*66:39N, B*15:528N



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	170 bp		*06:43:01-06:43:02, 06:107, 06:179	*01:09:01-01:09:02, 02:19, 02:119, 03:21, 03:80:01-03:80:02, 03:142, 03:287:01-03:287:02, 03:413, 03:512, 12:222, 12:235, A*26:79, A*68:114, B*15:207, B*15:349:01-15:349:02
	210 bp		*06:47	*12:11
30⁴	100 bp 160 bp	1070 bp	*06:44, 06:252 *06:126, 06:171:01:01N- 06:171:01:02N	*07:01:13
31^{4,5}	110 bp 155 bp	1070 bp	*06:128N *06:45	*04:205N, 15:115N *02:85
32⁴	85 bp 195 bp	1070 bp	*06:71 *06:19, 06:66	*02:144
33⁴	105 bp 240 bp	1070 bp	*06:60 *06:69, 06:93, 06:122, 06:124	*07:427, B*08:138 *07:559, 07:571, 07:656
34	175 bp 275 bp	1070 bp	*06:74Q *06:20	*15:32Q *01:32:01-01:32:02, 02:56, 03:102, 03:263:01- 03:263:02, 03:514, 04:180:01, 05:217, 07:81, 07:168, 07:450, 08:123, 08:139, 12:50, 14:82, 14:92, 15:126, 16:98, 16:102, 16:110
35	210 bp 235 bp 380 bp	1070 bp	*06:134N *06:65, 06:93 *06:46N	*07:571 *02:150N
36⁴	120 bp 195 bp	1070 bp	*06:57 *06:87	*02:159, 02:161, 12:45, 12:166, 16:61, A*02:817, A*68:76:01-68:76:02
37⁴	220 bp 115 bp 210 bp	1070 bp	*06:58, 06:81 *06:148, 06:151 *06:49N, 06:101	*02:37, 12:251, B*15:417 B*15:432 *02:182, 04:94:01-04:94:02, 12:10:01-12:10:02, 18:03, B*15:27:01-15:27:03, B*15:109, B*15:327, B*15:344, B*15:398
38	130 bp 225 bp 470 bp	1070 bp	*06:70:01-06:70:02, 06:120, 06:132:01 *06:211:01:01N- 06:211:01:02N *06:73	*02:02:13, 02:02:29, 07:562, 18:12 *02:170, 03:171, 03:211:01, 04:144, 05:93, 08:20, 08:40, 12:109
39⁶	270 bp	1070 bp	*06:96, 06:197	*01:31, 01:35, 01:107, 01:131, 02:58, 04:08, 04:34, 04:85, 04:147, 04:212, 05:27, 05:39, 05:151, 05:184, 08:41, 08:115, 08:138, 08:182, 12:83, 12:106, 12:122, 12:158, 14:20, 14:38, 15:15, 15:77, 15:159, 15:195, 16:149, 17:07, 18:08, B*58:02:01:01
40	140 bp 260 bp	1070 bp	*06:133 *06:54, 06:220N	*16:52
41	150 bp	1070 bp	*06:03:01-06:03:02, 06:76:01, 06:120, 06:132:01	*02:02:13, 02:02:29, 12:02:11, 12:03:09, 12:03:26, 16:01:16, 18:09, 18:12, B*13:132, B*15:434, B*51:39
42⁶	165 bp	1070 bp	*06:53:01-06:53:02, 06:86, 06:126	
43	190 bp	1070 bp	*06:28, 06:76:01- 06:76:02, 06:132:01- 06:132:02	*02:12, 02:49, 02:55:01-02:55:02, 02:115, 03:15, 03:27, 03:38:01-03:38:02, 03:69, 03:130, 03:136, 03:163, 03:246, 03:274, 03:297, 03:431, 03:461,



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				04:01:01:01-04:01:01:29, 04:01:01:31-04:01:28, 04:01:30-04:01:120, 04:03:01:01-04:03:01:02, 04:03:03-04:09N, 04:12 ^w , 04:13:01:01-04:20, 04:23-04:35:02, 04:37-04:54:02, 04:56-04:139, 04:141-04:152, 04:154-04:165, 04:167-04:168, 04:170N-04:191N, 04:193, 04:195-04:209, 04:211-04:213, 04:216-04:219, 04:221-04:226, 04:228-04:248, 04:250-04:255N, 04:257-04:277, 04:279N ^w , 04:280-04:298, 04:300N-04:346, 04:348-04:413, 05:42, 05:46:01:01-05:46:01:02, 07:20:01-07:20:02, 07:64, 07:73:01-07:73:02, 07:92, 07:96:01-07:96:02, 07:172:01-07:172:02, 07:390, 07:578, 07:583, 07:723, 08:05, 08:21, 08:25, 08:137, 12:02:01-12:04:02:02, 12:06-12:08, 12:10:01-12:15, 12:17-12:20, 12:22-12:32, 12:34-12:48, 12:50-12:70, 12:72-12:97, 12:99:01-12:146, 12:148N-12:187, 12:189-12:226, 12:228-12:278, 12:280-12:298, 12:300, 12:302-12:308, 14:04, 14:49, 14:64, 14:73, 14:77, 15:03, 15:16, 15:25, 16:15:01-16:15:02, 16:25, 16:64, 17:01:01:02-17:01:07, 17:01:09-17:03:02, 17:04-17:26, 17:27N ^w , 17:28-17:39, 17:42-17:51:02, 18:04, A*25:55
44⁴	120 bp	1070 bp	*06:77	*03:278, 03:504, 07:714, 07:724, 16:86, A*11:47, A*11:221, A*26:89, B*18:01:20, B*18:72:02, B*37:01:04, B*40:94, B*54:02
	215 bp		*06:100	
45	375 bp	1070 bp	*06:101, 06:127:01:01- 06:127:02, 06:136, 06:144, 06:264	*01:05, 01:21, 01:36:01-01:36:02, 01:55, 01:79:01-01:79:02, 01:120, 02:02:01-02:02:03, 02:02:06-02:02:08, 02:02:10-02:02:30, 02:02:32-02:02:48, 02:02:50-02:04, 02:06:01-02:16:02, 02:18-02:36:02, 02:38:01N-02:40:02, 02:42-02:56, 02:58-02:61:02, 02:63-02:73, 02:75-02:80, 02:82-02:122, 02:124-02:189, 03:05, 03:13:01:01-03:13:02, 03:25, 03:27, 03:35:01-03:35:02:02, 03:135, 03:167, 03:178, 03:198, 03:267, 03:292, 03:296:01-03:296:02, 03:335, 03:386, 03:407, 03:474, 03:482, 03:494, 04:01:01:01-04:01:01:29, 04:01:01:31-04:01:23, 04:01:25-04:01:120, 04:03:01:01-04:20, 04:23-04:36, 04:38-04:39, 04:41-04:79, 04:81-04:99, 04:101-04:109, 04:111-04:116, 04:118-04:177, 04:179-04:223:02, 04:225N-04:229, 04:231, 04:233N-04:241, 04:243-04:262, 04:264-04:341, 04:343-04:359, 04:361-04:369N, 04:371N-04:385N, 04:387-04:407, 04:409-04:413, 05:01:01:01-05:01:20, 05:01:22-05:01:51, 05:03-05:06, 05:08-05:09:03, 05:11-05:15, 05:17-05:30, 05:32-05:84, 05:86-05:95, 05:97-05:103:02, 05:105-05:106:02, 05:108-05:147, 05:149-05:151, 05:153N-05:174, 05:176-05:213N, 05:215-05:232, 07:01:01:01-07:01:02:08, 07:01:04-07:01:10, 07:01:12-07:01:27, 07:01:29-07:02:97, 07:02:99-07:03, 07:05-07:06:01:08, 07:06:03-07:09, 07:13:01:01-07:30, 07:32N-07:33N, 07:35-07:42, 07:44, 07:46-07:62, 07:64-07:100, 07:102-07:138,



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				07:140-07:141:02, 07:143-07:176, 07:178-07:180, 07:182-07:183, 07:185-07:194, 07:197-07:271, 07:273-07:294, 07:296-07:301, 07:303-07:322, 07:325-07:327, 07:330:01-07:331, 07:333-07:335, 07:337, 07:339-07:345, 07:347N-07:353, 07:356, 07:359-07:360, 07:362-07:363, 07:368:01-07:377, 07:379-07:393N, 07:396-07:402, 07:404-07:405, 07:407-07:419, 07:421-07:425, 07:427, 07:429-07:443, 07:445-07:446, 07:448-07:458, 07:460-07:462, 07:464-07:465, 07:468-07:479, 07:481-07:484N, 07:486, 07:488-07:500, 07:502-07:510, 07:512-07:513Q, 07:515-07:522, 07:524-07:533, 07:536-07:551N, 07:553-07:561, 07:564-07:567, 07:570-07:584, 07:588, 07:590-07:599, 07:601-07:608, 07:610, 07:612-07:621, 07:623-07:625, 07:627-07:650:02, 07:652-07:654, 07:657-07:663Q, 07:665-07:671, 07:673, 07:675N-07:692, 07:694-07:697Q, 07:699-07:725, 07:727, 07:729:01:01-07:730, 07:732-07:741, 07:743N, 07:745N, 07:748-07:750N, 07:752N-07:757, 07:759-07:775, 07:777-07:779, 07:781-07:796N, 07:798-07:830, 07:832-07:837, 07:840N-07:851, 08:01:01:01-08:01:10, 08:01:12-08:11, 08:13-08:33:04, 08:35-08:43, 08:45-08:60, 08:62:01-08:63, 08:65-08:81, 08:83-08:125, 08:127N-08:170, 08:172-08:179, 08:181N-08:208N, 08:210, 12:02:01-12:02:11, 12:02:13-12:02:37, 12:08, 12:10:01-12:10:02, 12:14:01-12:14:02, 12:16:01-12:18:02, 12:21-12:22, 12:27, 12:30, 12:36, 12:40-12:41, 12:49, 12:56, 12:64, 12:67-12:69, 12:72-12:74, 12:80N, 12:83-12:86, 12:96, 12:103-12:106, 12:112, 12:114, 12:117-12:118, 12:123-12:124, 12:126-12:128, 12:130, 12:132, 12:136-12:137, 12:142, 12:145-12:146, 12:148N, 12:151, 12:155Q, 12:161-12:162, 12:164, 12:166, 12:168-12:169, 12:177, 12:179, 12:181, 12:188, 12:193, 12:196, 12:198, 12:204, 12:207-12:208, 12:212, 12:214, 12:217, 12:219N, 12:221-12:222, 12:224, 12:226, 12:228, 12:231, 12:233-12:234, 12:236N, 12:239-12:241, 12:243, 12:247, 12:250, 12:252, 12:255, 12:261, 12:263, 12:268, 12:274:02N-12:275, 12:279-12:281, 12:285, 12:287, 12:294, 12:296, 12:298, 12:303-12:304, 12:307-12:308, 14:09, 14:28:02, 15:22, 15:65, 15:72, 15:190, 16:06-16:07:02, 16:117, 17:16:01-17:16:02, 18:01:01:01-18:14
46 ⁴	95 bp	1070 bp	*06:30, 06:204, 06:210	*01:17, 01:21, 01:128, 01:152, 01:157, 02:12, 02:55:01-02:55:02, 03:27, 03:38:01-03:38:02, 03:130, 03:163, 03:246, 03:431, 04:33, 04:107, 04:172, 04:231, 05:46:01:01-05:46:01:02, 07:07, 07:16, 07:51, 07:181, 07:367, 07:598, 07:723, 08:05, 08:21, 08:25, 12:02:01-12:04:02:02, 12:06-12:08, 12:10:01-12:20, 12:22-12:27, 12:29-12:32, 12:34-12:48, 12:50-12:57:02, 12:59-12:62, 12:64-12:97, 12:99:01-12:107, 12:109-12:131, 12:133-12:134, 12:136-12:145, 12:147-12:187,



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				12:189-12:251, 12:253-12:286, 12:288-12:298, 12:300, 12:302-12:308, 14:04, 14:73, 14:77, 15:03, 15:16, 16:15:01-16:15:02, 16:25, 17:01:01:02-17:01:14, 17:02-17:10, 17:12-17:14, 17:16:01-17:25, 17:27N-17:39, 17:41-17:51:02, B*07:13, B*67:02:01:01-67:02:01:02
47 ⁶	220 bp	1070 bp	*06:83, 06:146	
48 ⁶	370 bp	1070 bp	*06:106:01-06:106:02	*02:61:01, 03:07:01:01-03:07:02, 03:15, 03:45, 03:130, 03:140:01:01-03:140:01:02, 03:163, 03:243, 03:268, 03:297, 03:461, 04:80, 04:100, 05:05:01-05:05:02, 05:135, 05:147-05:148, 15:26, 15:69, 17:29
49	195 bp 250 bp 280 bp	1070 bp	*06:175N *06:220N *06:129	*05:16, 05:85, 05:107, 07:364, 08:12:01:01-08:12:01:02, B*14:32
50	160 bp 195 bp	1070 bp	*06:158 *06:175N	
51	235 bp	1070 bp	*06:05, 06:44, 06:124 ^w , 06:138, 06:198, 06:217 ^w , 06:248 ^w	*02:14:01-02:14:02, 02:107, 02:164, 03:39 ^w , 03:67 ^w , 03:344:01:01 ^w -03:344:01:02 ^w , 05:43, 07:39 ^w -07:40 ^w , 07:177 ^w , 07:210, 07:238, 07:328, 07:335 ^w , 07:563 ^w , 08:37 ^w , 15:23:01-15:23:02, 15:63, 15:138, 15:158, 16:21 ^w , 16:80 ^w , B*08:15^w, B*08:229
52 ⁴	120 bp 210 bp	1070 bp	*06:91, 06:151 *06:47, 06:136, 06:142	*02:11, B*15:432 *02:17, 02:77, 07:138, 12:11, 12:118, 12:156, 14:16, B*15:32:01-15:32:02, B*15:299
53	130 bp	1070 bp	*06:91, 06:140, 06:152N	*02:11, A*66:39N, B*15:528N
54 ⁴	85 bp	1070 bp	*06:139	
55 ⁴	80 bp	1070 bp	*06:02:01:01-06:02:01:45, 06:02:03-06:10, 06:12-06:29, 06:31-06:52, 06:54-06:60, 06:62-06:64, 06:66-06:68, 06:70:01-06:92, 06:94-06:121, 06:123, 06:125-06:146, 06:148-06:182, 06:184-06:197, 06:199-06:203, 06:205-06:209, 06:211:01:01N-06:216, 06:218-06:234, 06:236-06:246, 06:249-06:251, 06:253-06:292, 06:294	*02:49, 02:75, 03:15, 03:45, 03:297, 04:01:01:01-04:01:01:29, 04:01:01:31-04:01:51, 04:01:53-04:01:120, 04:03:01:01-04:03:01:02, 04:03:03-04:10, 04:13:01:01-04:20, 04:23-04:26, 04:28, 04:30-04:32, 04:34-04:35:02, 04:37-04:51, 04:53-04:54:02, 04:56-04:106, 04:108-04:115N, 04:117-04:168, 04:170N-04:171, 04:173N-04:213, 04:215N-04:226, 04:228-04:230, 04:232-04:277, 04:279N-04:282, 04:284-04:404, 04:406-04:413, 05:25, 05:42, 07:09, 07:49, 07:76:01-07:76:02, 07:210, 07:238, 07:247, 07:315, 07:403, 07:406, 12:146, 14:49, 14:64, 15:62, 15:169, 16:46, 17:11, 18:01:01:01-18:14
56 ⁴	100 bp	800 bp		*02:162, 07:505, B*58:23
57 ⁴	110 bp 265 bp	1070 bp	*06:90 *06:208N	*01:108, 16:28, 16:156



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58	255 bp	1070 bp	*06:200Q, 06:208N	
59	245 bp	1070 bp	*06:215N	
60⁴	90 bp	1070 bp	*06:134N	*04:225N, 15:95N
61	160 bp	1070 bp	*06:115	*04:119
62	225 bp	1070 bp	*06:211:01:01N- 06:211:01:02N	
	260 bp		*06:111	*01:183, 03:354, 05:108
63⁸	-	-	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-C*06 SSP typings.

When the primers in a primer mix can give rise to HLA-specific PCR products of more than one length this is indicated if the size difference is more than 20 base pairs. Size differences of 20 base pairs or less are not given. For high resolution SSP kits, the alleles listed are specified according to amplicon length.

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

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

PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings. Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

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

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

⁴HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

⁵Primer mixes 17 and 31 have tendencies to give rise to primer oligomer formation.

⁶Primer mixes 19, 20, 21, 22, 39, 42, 47 and 48 may have tendencies of unspecific amplification.

⁷Primer mix 14 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C*06 resolution primer mixes in the C*03 alleles.

⁸Primer mix 63 contains a negative control, which will amplify a majority 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 200 base pairs.

Abbreviations

‘w’, might be weakly amplified.

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



Lot No.: 5L6

Lot-specific information
PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	240	220	135	250	160	250	110	240	165	190	130	205
					220	290	185		210		185	
							235		435			
Length of int. pos. control ¹	800	800	1070	1070	800	1070	1070	1070	1070	800	1070	1070
5'-primer(s) ²	28	361	105	2 nd I	113	2 nd I	107	361	47	142	213	529
	5'-TCA 3'	5'-AgT 3'	5'-gCT 3'	5'-CCA 3'	5'-CCA 3'	5'-CCA 3'	5'-CgA 3'	5'-AgT 3'	5'-Agg 3'	5'-TCC 3'	5'-CCC 3'	5'-AgA 3'
		361	113		176		109		368	419	419	
		5'-AgT 3'	5'-CCA 3'		5'-gCA 3'		5'-TgA 3'		5'-gTg 3'	5'-gTC 3'	5'-gTC 3'	
		361			368		157		412			
		5'-AAT 3'			5'-gTg 3'		5'-TgA 3'		5'-ATA 3'			
					420		232					
					5'-TAT 3'		5'-AgA 3'					
3'-primer(s) ³	97	538	201	539	302	538	302	559	312	302	302	3 rd I
	5'-gTC 3'	5'-CCA 3'	5'-CTC 3'	5'-TCA 3'	5'-ggT 3'	5'-CCg 3'	5'-ggT 3'	5'-CTC 3'	5'-AgT 3'	5'-ggT 3'	5'-ggC 3'	5'-CTC 3'
					538	578			538	565	565	
					5'-CCA 3'	5'-TgT 3'			5'-CCA 3'	5'-CAT 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. PCR product	155	225	135	340	220	225	85	115	190	165	210	160
	210	305	360				160	235	215			210
							245	275	380			
Length of int. pos. control ¹	1070	1070	800	1070	800	1070	800	1070	1070	1070	1070	1070
5'-primer(s) ²	361	341	376	397	361	109	97	97	28	213	361	368
	5'-AgT 3'	5'-TgA 3'	5'-gCT 3'	5'-gCT 3'	5'-AgT 3'	5'-TgA 3'	5'-TCg 3'	5'-TCg 3'	5'-TCA 3'	5'-CCC 3'	5'-AgT 3'	5'-gTC 3'
		894	601	501		122		361	362			419
		5'-TgC 3'	5'-Agg 3'	5'-..C 3'		5'-CCT 3'		5'-AgT 3'	5'-ggT 3'			5'-gTT 3'
									385			419
									5'-ggT 3'			5'-gTA 3'
									388			420
									5'-CCA 3'			5'-TAT 3'
3'-primer(s) ³												
	475	353	3 rd I	3 rd I	532	302	142	172	239	327	527	538
	5'-ggT 3'	5'-TgA 3'	5'-CTC 3'	5'-CTC 3'	5'-CTg 3'	5'-ggT 3'	5'-TgC 3'	5'-CAT 3'	5'-gCT 3'	5'-TTT 3'	5'-CCg 3'	5'-CCA 3'
	532	353			547		214	289	538	339	540	
	5'-CTg 3'	5'-TgA 3'			5'-gTg 3'		5'-CCA 3'	5'-AgT 3'	5'-CCA 3'	5'-TCg 3'	5'-CTT 3'	
		956					302	595	341			
		5'-CAg 3'					5'-ggC 3'	5'-CCA 3'	5'-Cgg 3'			
Well No.	13	14	15	16	17	18	19	20	21	22	23	24



Lot No.: 5L6

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec. PCR product	85	120	190	90	125	100	110	85	105	175	210	120
	190	225	225	215	170	160	155	195	240	275	235	195
					210						380	220
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	361	211	361	355	368	213	187	157	97	463	97	359
	5'-AgT 3'	5'-AgT 3'	5'-AgT 3'	5'-CCT 3'	5'-gTC 3'	5'-CCC 3'	5'-gCT 3'	5'-TgA 3'	5'-TCg 3'	5'-TgA 3'	5'-TCg 3'	5'-CCg 3'
		232		368	406		232	257		562	742	366
		5'-AgT 3'		5'-gTC 3'	5'-gCC 3'		5'-AgT 3'	5'-CCC 3'		5'-Cgg 3'	5'-ACT 3'	5'-ATA 3'
		3 rd I		490	406			361				385
		5'-Cgg 3'		5'-CgT 3'	5'-gCA 3'			5'-AgT 3'				5'-ggT 3'
					419							458
					5'-gTA 3'							5'-ggg 3'
					454							
					5'-ACT 3'							
3'-primer(s) ³	404	302	511	538	538	270	302	302	160	3 rd I	265	538
	5'-CAA 3'	5'-ggT 3'	5'-CCg 3'	5'-CCA 3'	5'-CCA 3'	5'-TAG 3'	5'-ggT 3'	5'-ggT 3'	5'-gTg 3'	5'-CTC 3'	5'-CTA 3'	5'-CCA 3'
	512	776	511			327		523	295		288	
	5'-CCA 3'	5'-CTC 3'	5'-CCT 3'			5'-TTT 3'		5'-ACA 3'	5'-TCC 3'		5'-gCA 3'	
			544			337			299		295	
			5'-ggT 3'			5'-CTT 3'			5'-TCT 3'		5'-TCC 3'	
									302		956	
									5'-ggC 3'		5'-CAg 3'	
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec. PCR product	115	130	270	140	150	165	190	120	375	95	220	370
	210	225		260				215				
		470										
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	368	112	2 nd I	361	97	213	142	97	361	289	56	302
	5'-gTT 3'	5'-CCT 3'	5'-CCA 3'	5'-AgT 3'	5'-TCT 3'	5'-CCC 3'	5'-TCg 3'	5'-TCC 3'	5'-AgA 3'	5'-Agg 3'	5'-CCA 3'	5'-gAA 3'
	375	134			112			671			3 rd I	
	5'-TgA 3'	5'-CCA 3'			5'-CCT 3'			5'-CAA 3'			5'-Cgg 3'	
	464	652										
	5'-gCC 3'	5'-CCA 3'										
	466	894										
	5'-gCC 3'	5'-TgA 3'										
3'-primer(s) ³	538	213	560	461	213	337	289	175	3 rd I	341	97	379
	5'-CCA 3'	5'-Cgg 3'	5'-ACA 3'	5'-gCT 3'	5'-Cgg 3'	5'-CTT 3'	5'-AgC 3'	5'-CCg 3'	5'-CTC 3'	5'-Cgg 3'	5'-gTC 3'	5'-CAC 3'
		956		571		339	289	846			776	
		5'-CAg 3'		5'-CCA 3'		5'-TCg 3'	5'-AgC 3'	5'-CAC 3'			5'-CTC 3'	
				594		341						
				5'-CCC 3'		5'-ggT 3'						
						343						
						5'-T 3'						
Well No.	37	38	39	40	41	42	43	44	45	46	47	48



Lot No.: 5L6

Lot-specific information

Well No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62
Length of spec. PCR product	195 250 280	160 195	235	120 210	130	85	80	100	110 265	255	245	90	160	225 260
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	361 5'-AgT 3'	361 5'-AgT 3'	97 5'-TCg 3'	368 5'-gTC 3' 368 5'-gTT 3' 449 5'-CCA 3' 466 5'-gCC 3'	449 5'-CCC 3' 449 5'-CCA 3' 454 5'-ACT 3'	376 5'-gCA 3'	302 5'-gAA 3' 302 5'-AAA 3'	419 5'-gTC 3'	361 5'-AgT 3'	361 5'-AgT 3'	361 5'-AgT 3'	265 5'-CAT 3'	194 5'-Cgg 3'	862 5'-ACA 3' 894 5'-TgA 3'
3'-primer(s) ³	513 5'-TCT 3'	481 5'-gTA 3' 571 5'-CCA 3'	289 5'-AgT 3'	538 5'-CCA 3'	538 5'-CCA 3'	419 5'-Cgg 3'	341 5'-CgT 3'	479 5'-CCA 3'	430 5'-gCg 3'	563 5'-CgA 3' 585 5'-AgC 3'	566 5'-CA 3'	312 5'-AgT 3'	312 5'-AgT 3'	956 5'-CAg 3'
Well No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62

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.



Lot No.: 5L6

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-C*06 SSP subtyping kit ²																			
				Well															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.:															
				201551601	201671302	201551603	201551604	202024305	201551606	201551607	201551608	201551609	201551610	201551611	201551612	201551613	201671314	201551615	201551616
IHWC cell line ¹			C*																
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*07:01	*15:05	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*03:04	*04:01	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*06:02		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*03:04	*07:02	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*05:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
8	9025	DEU	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*12:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*01:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*06:02		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*01:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*01:02	*03:04	-	-	+	-	-	+	-	-	-	-	-	-	-	-	-
15	9075	DKB	*03:04		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:03	*07:01	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*01:02	*07:05	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
19	9038	BM16	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*03:04		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*03:03		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*12:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*01:02	*15:02	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*12:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*08:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
26	9285	WT49	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*07:04	*15:29	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
28	9320	BEL5GB	*05:01	*16:01	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
29	9050	MOU	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*17:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*05:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
32	9297	HAG	*17:01	*17:03	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*03:04		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*12:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*05:01		-	-	-	-	+	+	-	-	-	-	-	-	-	-	-
36	9024	KT17	*03:03	*04:01	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*03:03		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*01:02	*06:02	+	+	-	-	-	+	-	-	-	-	-	-	-	-	-
41	9055	H0301	*08:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*01:02		-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
43	9076	T7526	*01:02	*08:01	-	-	-	+	-	+	-	-	-	-	-	-	-	-	-
44	9057	TEM	*12:03		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*06:02	*17:01	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*07:04	*15:02	-	-	-	+	-	-	-	-	-	+	-	-	-	-	-
48	9303	TER-ND	*04:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Lot No.: 5L6

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C*06 SSP subtyping kit²																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	201671317	201551618	201551619	201905020	201551621	201905022	201551623	201889524	201551625	201551626	201671327	201889528	201671329	201671330	202024331	201551632
IHW cell line¹		C*																		
1	9001 SA	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*07:01	*15:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*03:04	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*03:03	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*07:04	*15:29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*17:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*17:01	*17:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*03:03	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*06:02	*17:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*07:04	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*04:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Lot No.: 5L6

Lot-specific information

				Well																
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
				Prod. No.:	201551633	201551634	201551635	201551636	201671337	201912038	201551639	201905040	201551641	201905042	201551643	201551644	201551645	201551646	201551647	201889548
IHWC cell line¹		C*																		
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
2	9280	LK707	*07:01	*15:05	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
3	9011	E4181324	*12:02		-	-	-	-	-	-	-	-	-	-	+	-	+	+	-	-
4	9275	GU373	*03:04	*04:01	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
5	9009	KAS011	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
7	9020	QBL	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
8	9025	DEU	*04:01		-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
9	9026	YAR	*12:03		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
10	9107	LKT3	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
17	9282	CTM3953540	*03:03	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
18	9257	32367	*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
19	9038	BM16	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
20	9059	SLE005	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*12:03		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
23	9124	IHL	*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*12:03		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
25	9049	IBW9	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
26	9285	WT49	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
27	9191	CH1007	*07:04	*15:29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
29	9050	MOU	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*17:01		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
31	9019	DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
32	9297	HAG	*17:01	*17:03	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
33	9098	MT14B	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*12:03		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
35	9302	SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
36	9024	KT17	*03:03	*04:01	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
38	9099	LZL	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
40	9134	WHONP199	*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
42	9066	TAB089	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
44	9057	TEM	*12:03		-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
45	9239	SHJO	*06:02	*17:01	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-	-
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
47	9045	TUBO	*07:04	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*04:01	*16:01	-	-	-	-	-	-	-	-	-	-	+	-	+	-	-	-



Lot No.: 5L6

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-C*06 SSP subtyping kit²																			
				Prod. No.:	Well														
					49	50	51	52	53	54	55	56	57	58	59	60	61	62	
					201905049	201671350	201671351	202024362	202024353	201671354	201905055	201671356	201905057	201905058	201905059	201905060	202024361	202024362	
	IHWC cell line¹		C*																
1	9001 SA		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*07:01	*15:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324		*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373		*03:04	*04:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
5	9009 KAS011		*06:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
6	9353 SM		*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU		*04:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
9	9026 YAR		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT		*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB		*06:02		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
13	9004 JESTHOM		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA		*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*03:03	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367		*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16		*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL		*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9		*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49		*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007		*07:04	*15:29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU		*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH		*17:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG		*17:01	*17:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17		*03:03	*04:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
37	9065 HHKB		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML		*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*01:02	*06:02	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
41	9055 H0301		*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526		*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO		*06:02	*17:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
46	9013 SCHU		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*07:04	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND		*04:01	*16:01	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-



Lot No.: 5L6

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 7, 8, 10, 12 to 22, 24 to 36, 38 to 42, 44, 47 to 54 and 56 to 62 were available.

The specificity of the primers in primer solutions 8, 10, 14, 16, 19 to 22, 24 to 30, 32, 34, 35, 38, 39, 41, 42, 44, 47 to 49, 51 and 52 were tested by separately adding one, two or three 5'-primers, respectively one, two or three 3'-primers.

In primer solutions 13, 17, 33, 40, 50 and 56 to 59 it was only possible to test the 5'-primers, the 3'-primers were not possible to test.

In primer solutions 7, 12, 15, 18, 31, 36, 53, 54, 60, 61 and 62 it was only possible to test the 3'-primers, the 5'-primers were not possible to test.

In primer solutions 2, 3, 5, 10, 14, 16, 21, 24, 26, 28, 29, 32, 34, 35, 37, 38, 41, 44, 47, 52 and 55 one or more 5'-primers were not possible to test.

In primer solutions 6, 10, 11, 19 to 23, 25 to 27, 30, 32, 35, 42, 47 and 49 one or more 3'-primers were not possible to test.

In addition, one or more 3' -and/or 5' primers in primer solutions 5, 9 and 11 were tested by separately adding one 5'-primer and/or one 3'-primer.



Lot No.: **5L6**

Lot-specific information

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Fax: +46-8-717 88 18

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Web page: <https://labproducts.caredx.com/>

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Tel: 1-877-653-78171

Fax: 610-344-7989

E-mail: orders-us@caredx.com

Web page: <https://labproducts.caredx.com/>

For information on CareDx distributors worldwide, contact **CareDx AB**.

