

101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: 1S3

Lot-specific information
Olerup SSP[®] HLA-C*08

Product number:	101.623-12 – including <i>Taq</i> polymerase 101.623-12u – without <i>Taq</i> polymerase
Lot number:	1S3
Expiry date:	2027-05-01
Number of tests:	12
Number of wells per test:	41+1
Storage - pre-aliquoted primers:	dark, between -15°C and -25°C
- PCR Master Mix:	between -15°C and -25°C
- Adhesive PCR seals	RT

This Product Description is only valid for Lot No. 1S3.

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*08 Lot (2R3)

- The product documentation has been updated for new alleles of IMGT 3.51.0.
- The kit resolution focuses on common and well documented (CWD) alleles¹.

¹As described in section Uniquely Identified Alleles

The HLA-C*08 specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup SSP[®]* HLA-C*08 lot was made (**Lot No. 2R3**).

The HLA-C*08 primer set is unchanged compared to the previous *Olerup SSP[®]* HLA-C*08 lot (**Lot No. 2R3**).

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



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

Well **42** contains Negative Control primer pairs, that will amplify the 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.



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information
PRODUCT DESCRIPTION

HLA-C*08 SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the C*08:01 to C*08:261 alleles.

PLATE LAYOUT

Each HLA-C*08 test consists of 42 PCR reactions in a 48 well cut PCR plate. Wells 43 to 48 are empty.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	NC	empty	empty	empty	empty	empty	empty

The 48 well PCR plate is marked with ‘HLA-C*08’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘1S3’.

Wells 1 to 41 – HLA-C*08 high resolution primers.

Well 42 – Negative Control (NC).

A faint row of numbers is seen between wells 1 and 2 or wells 7 and 8 of the PCR trays. These stem from the manufacture of the trays and should be disregarded. The PCR plates are heat-sealed with a PCR-compatible foil.

Please note: When removing each 48 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

Due to the sharing of sequence motifs between HLA-A alleles non-HLA-C*08 alleles will be amplified by some primer mixes. For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*08 alleles, i.e. **C*08:01 to C*08:261**, recognized by the HLA Nomenclature Committee in January 2023¹ will be amplified by the primers in the HLA-C*08 SSP kit^{2,3}.

The HLA-C*08 kit enables separation of the confirmed HLA-C*08 alleles as listed in the IMGT/HLA database 3.26.0. 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*08 alleles is listed below.



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

The HLA-C*08 kit also enables identification of many null and alternatively expressed alleles.

The following HLA-C*08 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
C*08:20, 08:99	30	C*08:36N, 08:78	23
C*08:24, 08:88N	9	C*08:69, 08:70Q	23
C*08:30, 08:32	19		

¹HLA-C alleles listed on the IMGT/HLA web page 2023-January-12, release 3.51.0, 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 following alleles cannot be separated by this lot of the HLA-C*08 kit. These alleles can be distinguished by the HLA-C low resolution kit.

Alleles

C*08:160, 16:139



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*08:01:01	Confirmed	C*08:13	Unconfirmed	C*08:59	Unconfirmed	C*08:109	Unconfirmed
C*08:01:02	Confirmed	C*08:14	Unconfirmed	C*08:60	Unconfirmed	C*08:110	Unconfirmed
C*08:01:03	Unconfirmed	C*08:15:01	Confirmed	C*08:61	Unconfirmed	C*08:111	Unconfirmed
C*08:01:04	Unconfirmed	C*08:15:02	Confirmed	C*08:62	Unconfirmed	C*08:112	Confirmed
C*08:01:05	Unconfirmed	C*08:16:01	Unconfirmed	C*08:63	Unconfirmed	C*08:113	Unconfirmed
C*08:01:06	Unconfirmed	C*08:16:02	Unconfirmed	C*08:65	Unconfirmed	C*08:114	Unconfirmed
C*08:01:07	Confirmed	C*08:17	Unconfirmed	C*08:66	Confirmed	C*08:115	Confirmed
C*08:01:08	Unconfirmed	C*08:18	Unconfirmed	C*08:67	Unconfirmed	C*08:116	Unconfirmed
C*08:01:09	Confirmed	C*08:19	Unconfirmed	C*08:68	Unconfirmed	C*08:117	Unconfirmed
C*08:01:10	Confirmed	C*08:20	Confirmed	C*08:69	Confirmed	C*08:118	Unconfirmed
C*08:01:11	Unconfirmed	C*08:21	Confirmed	C*08:70Q	Unconfirmed	C*08:119	Unconfirmed
C*08:01:12	Unconfirmed	C*08:22	Confirmed	C*08:71	Unconfirmed	C*08:120	Unconfirmed
C*08:01:13	Unconfirmed	C*08:23	Confirmed	C*08:72:01	Unconfirmed	C*08:121N	Unconfirmed
C*08:01:14	Unconfirmed	C*08:24	Unconfirmed	C*08:72:02	Confirmed	C*08:122	Unconfirmed
C*08:01:15	Unconfirmed	C*08:25	Unconfirmed	C*08:73	Confirmed	C*08:123	Unconfirmed
C*08:01:16	Unconfirmed	C*08:26N	Unconfirmed	C*08:74	Confirmed	C*08:124	Unconfirmed
C*08:01:17	Unconfirmed	C*08:27	Confirmed	C*08:75	Unconfirmed	C*08:125	Unconfirmed
C*08:01:18	Unconfirmed	C*08:28	Confirmed	C*08:76	Unconfirmed	C*08:126	Unconfirmed
C*08:01:19	Unconfirmed	C*08:29	Confirmed	C*08:77	Unconfirmed	C*08:127N	Unconfirmed
C*08:02:01:01	Confirmed	C*08:30	Confirmed	C*08:78	Unconfirmed	C*08:128	Unconfirmed
C*08:02:01:02	Confirmed	C*08:31	Unconfirmed	C*08:79	Unconfirmed	C*08:129N	Unconfirmed
C*08:02:02	Confirmed	C*08:32	Confirmed	C*08:80	Unconfirmed	C*08:130N	Unconfirmed
C*08:02:03	Unconfirmed	C*08:33:01	Unconfirmed	C*08:81	Unconfirmed	C*08:131	Unconfirmed
C*08:02:04	Confirmed	C*08:33:02	Unconfirmed	C*08:82	Unconfirmed	C*08:132	Unconfirmed
C*08:02:05	Unconfirmed	C*08:33:03	Unconfirmed	C*08:83	Unconfirmed	C*08:133	Unconfirmed
C*08:02:06	Unconfirmed	C*08:34	Confirmed	C*08:84	Unconfirmed	C*08:134	Unconfirmed
C*08:02:07	Confirmed	C*08:35	Unconfirmed	C*08:85	Unconfirmed	C*08:135	Unconfirmed
C*08:02:08	Confirmed	C*08:36N	Unconfirmed	C*08:86	Unconfirmed	C*08:136	Unconfirmed
C*08:02:09	Confirmed	C*08:37	Confirmed	C*08:87	Unconfirmed	C*08:137	Unconfirmed
C*08:02:10	Confirmed	C*08:38	Unconfirmed	C*08:88N	Unconfirmed	C*08:138	Unconfirmed
C*08:02:11	Confirmed	C*08:39	Unconfirmed	C*08:89N	Unconfirmed	C*08:139	Unconfirmed
C*08:02:12	Confirmed	C*08:40	Unconfirmed	C*08:90	Confirmed	C*08:140	Unconfirmed
C*08:02:13	Unconfirmed	C*08:41	Confirmed	C*08:91	Unconfirmed	C*08:141Q	Unconfirmed
C*08:02:14	Unconfirmed	C*08:42	Unconfirmed	C*08:92	Confirmed	C*08:142	Unconfirmed
C*08:03:01	Confirmed	C*08:43	Confirmed	C*08:93	Unconfirmed	C*08:143	Unconfirmed
C*08:03:02	Unconfirmed	C*08:44	Unconfirmed	C*08:94	Confirmed		
C*08:03:03	Unconfirmed	C*08:45	Unconfirmed	C*08:95	Confirmed		
C*08:03:04	Unconfirmed	C*08:46	Unconfirmed	C*08:96	Unconfirmed		
C*08:04:01	Confirmed	C*08:47	Confirmed	C*08:97	Unconfirmed		
C*08:04:02	Unconfirmed	C*08:48	Unconfirmed	C*08:98	Unconfirmed		
C*08:04:03	Unconfirmed	C*08:49	Unconfirmed	C*08:99	Unconfirmed		
C*08:05	Confirmed	C*08:50	Unconfirmed	C*08:100	Unconfirmed		
C*08:06	Confirmed	C*08:51	Unconfirmed	C*08:101	Unconfirmed		
C*08:07	Unconfirmed	C*08:52N	Unconfirmed	C*08:102	Unconfirmed		
C*08:08:01	Unconfirmed	C*08:53	Confirmed	C*08:103	Confirmed		
C*08:08:02	Unconfirmed	C*08:54	Unconfirmed	C*08:104	Unconfirmed		
C*08:09	Unconfirmed	C*08:55N	Unconfirmed	C*08:105	Unconfirmed		
C*08:10	Confirmed	C*08:56	Confirmed	C*08:106	Unconfirmed		
C*08:11	Confirmed	C*08:57	Unconfirmed	C*08:107	Confirmed		
C*08:12	Confirmed	C*08:58	Unconfirmed	C*08:108	Unconfirmed		

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.



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-C*08 homo- and heterozygotes is available upon request.



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information
SPECIFICITY TABLE

HLA-C*08 SSP subtyping

Specificities and sizes of the PCR products of the 41+1 primer mixes used for
HLA-C*08 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C*08 alleles ³	Other amplified HLA Class I alleles
1	250 bp	800 bp	*08:01:01:01-08:01:07, 08:01:09-08:01:35, 08:03:01:01-08:04:03, 08:06, 08:08:01-08:11, 08:13-08:14, 08:16:01- 08:16:02, 08:20-08:22:02, 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, 08:95-08:99, 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, 08:212- 08:213, 08:217, 08:219- 08:221, 08:228, 08:232, 08:234-08:236N, 08:241, 08:243-08:244, 08:249- 08:255, 08:259-08:261	*01:22, 01:35, 01:131, 01:160, 01:226, 02:03, 02:16:02:01- 02:16:02:02, 02:18, 02:137, 02:180, 04:04:01:01-04:04:02, 04:06:01- 04:06:03, 04:13:01:01-04:13:01:02, 04:34, 04:58, 04:122, 04:160:01- 04:160:02, 04:178, 04:212, 04:265, 04:291, 04:294, 04:357, 04:368, 04:381, 04:422, 05:11, 05:17, 05:27, 05:68, 05:79, 05:115, 05:134, 05:151, 05:184, 06:04:01- 06:04:02:02, 06:118, 06:153:01- 06:153:02, 06:197, 12:14:01- 12:14:02, 12:18:01-12:18:02, 12:20, 12:83, 12:169, 12:175, 14:06, 14:15, 14:53, 14:77, 14:87, 15:02:01:01- 15:05:07, 15:05:09-15:07:01:02, 15:09:01:01-15:13:02, 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, 15:215-15:255, 16:35, 16:40, 16:48, 16:110, 17:01:01:02-17:16:02, 17:18-17:64Q, 17:66-17:69, B*58:02:01:01- 58:02:01:03
2 ⁴	115 bp	1070 bp	*08:01:01:01-08:01:07, 08:01:09-08:01:35, 08:03:01:01-08:03:05, 08:06, 08:08:01-08:11, 08:14, 08:16:01-08:16:02, 08:20-08:22:02, 08:24, 08:26N, 08:36N, 08:38, 08:40-08:42, 08:44, 08:46, 08:50, 08:56, 08:58-08:61, 08:78-08:89N, 08:91, 08:95- 08:99, 08:101-08:102, 08:105-08:106, 08:109, 08:117-08:119, 08:121N- 08:122, 08:124,	*05:79



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

			08:127N-08:131, 08:133, 08:136-08:137, 08:141Q, 08:143-08:145, 08:147- 08:148, 08:153-08:155, 08:157, 08:162-08:164, 08:173N-08:176, 08:178, 08:186-08:187, 08:189- 08:190, 08:192-08:194, 08:196-08:197, 08:199, 08:203-08:205, 08:208N- 08:210, 08:212, 08:217, 08:219-08:221, 08:228, 08:232, 08:234-08:236N, 08:241, 08:244, 08:249- 08:255, 08:259-08:261	
3⁴	115 bp	800 bp	*08:02:01:01-08:02:38, 08:04:01:01-08:05, 08:07, 08:12:01:01-08:13, 08:17- 08:19:02, 08:23, 08:25, 08:27-08:35, 08:37, 08:43, 08:45, 08:48-08:49, 08:52N- 08:55N, 08:62:01-08:62:02, 08:66-08:71, 08:73-08:76, 08:90, 08:92-08:94, 08:100, 08:103:01:01-08:104, 08:107-08:108, 08:110- 08:116, 08:120, 08:123, 08:125-08:126, 08:132, 08:134, 08:138-08:140, 08:142, 08:146, 08:150- 08:152, 08:156, 08:158- 08:159, 08:161N, 08:166- 08:172, 08:179-08:185, 08:191, 08:195, 08:198, 08:200-08:202, 08:206- 08:207, 08:211, 08:214N- 08:216, 08:218, 08:222- 08:227, 08:229-08:231, 08:233, 08:237-08:240, 08:242, 08:245, 08:247- 08:248, 08:256-08:258	*03:251, 03:314, 03:607, 04:120, 05:01:01:01-05:01:72, 05:03-05:08, 05:10-05:11, 05:13-05:16, 05:18:01- 05:51Q, 05:53-05:61, 05:63-05:67, 05:69-05:75, 05:77-05:78:02, 05:80- 05:87, 05:89-05:114, 05:116, 05:118- 05:132, 05:135-05:142, 05:144- 05:150, 05:152-05:162, 05:164- 05:200, 05:202Q-05:205, 05:207- 05:244N, 05:246-05:261, 05:263N- 05:277, 06:129, 07:41, 07:447, 07:953, 15:130, 15:229, B*14:32, B*15:337, B*15:627, B*51:355
4	225 bp	1070 bp	*08:03:01:01-08:03:05, 08:06, 08:14, 08:35, 08:38, 08:40, 08:54, 08:61, 08:101, 08:117, 08:144:01- 08:144:02, 08:165, 08:174	*05:44:01, 05:79
5	160 bp	1070 bp	*08:05, 08:15:01-08:15:02, 08:21, 08:51, 08:73, 08:137, 08:243, 08:246	*01:13, 02:51, 03:87:01-03:87:02, 03:414, 04:129, 04:223:01- 04:223:02, 04:387, 05:09:01- 05:09:03, 05:17, 05:42, 05:46:01:01- 05:46:01:02, 05:52, 05:201, 05:206, 05:262, 06:67, 07:101, 07:130, 07:148, 07:161, 07:583, 07:915, 12:127, 12:144, 12:185, 12:203, 16:27, 17:05, B*15:33, B*15:248



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

6 ^{4,7}	65 bp	800 bp	*08:102	*04:347, 07:06:01:01-07:06:06, 07:18:01:01-07:19, 07:28, 07:71, 07:112, 07:173, 07:330:02, 07:517, 07:607, 07:613, 07:620-07:621, 07:687, 07:706, 07:721, 07:735, 07:739, 07:760, 07:776N, 07:781, 07:783, 07:803, 07:805, 07:815, 07:819Q, 07:827, 07:830, 07:841, 07:845, 07:847, 07:887, 07:919, 07:932, 07:952, 07:955, 07:959, 07:977, 07:979, 07:1005N, 07:1035-07:1036, 07:1044N, 17:47
	100 bp		*08:14, 08:80, 08:103:01:01-08:103:01:02	*01:02:34, 01:21, 02:42, 02:107, 02:152, 04:140, 04:166:01, 04:166:03, 04:220, 05:98, 05:197, 06:02:72, 06:05, 07:01:74, 07:02:09, 07:125:02, 12:16:01, 12:147, 12:227, 12:279, 15:63, 15:113, 16:80, B*15:436, B*67:02:01:01-67:02:01:02
	270 bp		*08:06	*01:140, 06:161, 16:33
	310 bp		*08:23	
7 ⁴	100 bp	1070 bp	*08:07, 08:47, 08:104, 08:188	*05:23, 05:62, 05:134, 05:143, 05:151, 07:01:48, 07:02:35, 07:1028, B*48:04:02
	150 bp		*08:41, 08:115, 08:138, 08:182	*03:02:20, 03:87:01, 03:267, 05:27, 05:39, 05:151, 05:184, B*15:01:03, B*44:03:62, B*52:01:41
	230 bp		*08:87	
8	240 bp	1070 bp	*08:112	
9	140 bp	1070 bp	*08:88N	*02:83, 05:224, 06:262, 06:327, 12:323, 12:336, 14:124, 16:90, 16:100, 16:180
	375 bp		*08:24, 08:75	*04:291, 05:79
	505 bp		*08:10	
10 ⁴	110 bp	800 bp	*08:09	
	140 bp		*08:17	
11 ⁵	185 bp	800 bp	*08:128	*01:159, 03:206, 03:212, 04:84, 06:288, 12:339, 16:155, 16:198
	225 bp		*08:09, 08:11, 08:59, 08:113, 08:152	*05:04:01-05:04:02, 05:103:01-05:103:02, 05:135, 05:188, 05:207, 05:215, 06:129, 07:68, 07:260:01-07:260:02, 07:302, B*15:337, B*15:627, B*18:83, B*58:76
	255 bp		*08:86	*05:16, 05:85, 05:107, 05:241, 06:129, 07:364, B*14:32
	280 bp		*08:12:01:01-08:12:01:02	
12	165 bp	800 bp	*08:01:01:01-08:01:07, 08:01:09-08:09, 08:11-08:12:01:02, 08:14-08:15:02, 08:17, 08:19:01-08:24, 08:26N-08:54, 08:56-08:63, 08:65-08:93, 08:95-08:232, 08:234-08:261	*01:43, 02:87, 03:280, 03:530, 07:101, 07:148, 07:161, 07:583, 12:127, 12:203, 16:139



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

Lot No.	Allele	Allele	Allele	Allele
13 ⁴	105 bp	800 bp	*08:02:01:01-08:02:38, 08:05, 08:07, 08:12:01:01- 08:12:01:02, 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- 08:48, 08:52N-08:53, 08:55N, 08:62:01-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92, 08:94, 08:100, 08:103:01:01-08:103:01:02, 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, 08:211, 08:214N-08:216, 08:218, 08:222-08:227, 08:229-08:231, 08:233, 08:237-08:240, 08:242, 08:245, 08:247-08:248, 08:256-08:258	*03:251, 03:607, 04:120, 05:01:01:01-05:01:63, 05:01:65- 05:01:72, 05:03-05:07N, 05:10, 05:12-05:16, 05:18:01-05:26, 05:28- 05:51Q, 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, 05:116-05:132, 05:135-05:142, 05:144-05:145, 05:147-05:150, 05:152-05:162, 05:164-05:183, 05:185-05:200, 05:202Q-05:205, 05:207-05:244N, 05:246-05:261, 05:263N-05:277, 07:41
14	130 bp 160 bp	1070 bp	*08:90 *08:18, 08:95	*07:988 *01:218, 03:155, 03:282, 07:413, 07:422, 12:149, 16:170, B*08:249, B*35:252, B*35:339, B*39:114, B*40:346
15 ⁵	280 bp 265 bp	1070 bp	*08:08:01-08:08:02 *08:13, 08:16:01-08:16:02, 08:25, 08:94	*05:29:01-05:29:02, 05:197
16 ⁶	545 bp	1070 bp	*08:22:01:01-08:22:01:02, 08:56, 08:154, 08:178, 08:202	*01:85, 02:178, 03:357, 03:376, 03:452, 04:277, 05:212, 06:266, 12:290, 12:304, 15:29, 15:87, 16:133
17	375 bp 430 bp	1070 bp	*08:05, 08:21, 08:25, 08:137 *08:28, 08:137, 08:168	*05:42 ^w , 05:46:01:01 ^w -05:46:01:02 ^w *05:25, 05:42
18 ⁴	80 bp 200 bp	1070 bp	*08:31, 08:185 *08:26N, 08:92	*05:105
19 ⁴	110 bp	800 bp	*08:27, 08:29-08:31 *08:32	*05:08, 05:89, 05:106:01-05:106:02, 06:129, 07:447
20 ⁴	250 bp 105 bp	1070 bp	*08:35, 08:43, 08:54	*02:141, 05:44:01, B*15:298
21 ⁵	195 bp	1070 bp	*08:01:01:01-08:01:07, 08:01:09-08:01:35, 08:03:01:01-08:03:05, 08:06, 08:08:01-08:11, 08:14, 08:16:01-08:16:02, 08:20-08:22:02, 08:24, 08:26N-08:27,	*01:02:06, 01:02:68, 01:04, 01:09:02, 01:21, 01:97, 01:131, 02:02:13, 02:02:37, 02:02:53, 02:05:01, 02:06:01, 02:10:01:01-02:10:08, 02:12, 02:14:01-02:14:02, 02:17, 02:27:02, 02:33, 02:36:02, 02:38:02N, 02:40:02, 02:43:02,



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

			08:33:02-08:33:04, 08:35-08:36N, 08:38-08:42, 08:44, 08:46, 08:50, 08:54, 08:56, 08:58-08:61, 08:65-08:66, 08:72:01-08:72:02, 08:78-08:89N, 08:91, 08:95-08:99, 08:101-08:102, 08:105-08:106, 08:109, 08:117-08:119, 08:121N-08:122, 08:124, 08:127N-08:131, 08:133, 08:135-08:138, 08:141Q, 08:143-08:145, 08:147-08:148, 08:153-08:155, 08:157, 08:160, 08:162-08:165, 08:173N, 08:175-08:178, 08:186-08:187, 08:189-08:190, 08:192-08:194, 08:196-08:197, 08:199, 08:203-08:205, 08:208N-08:210, 08:212, 08:217, 08:219-08:221, 08:228, 08:232, 08:234-08:236N, 08:241, 08:244, 08:249-08:255, 08:259-08:261	02:55:02, 02:58, 02:73, 02:76, 02:89, 02:94-02:95, 02:109-02:110, 02:125, 02:133, 02:137, 02:143, 02:161, 02:168-02:169N, 02:174, 02:176, 02:181-02:182, 02:197, 02:211Q, 04:01:01:01-04:01:01:29, 04:01:01:31-04:01:06, 04:01:09-04:01:149, 04:03:01:01-04:03:06, 04:03:08-04:20, 04:23-04:159, 04:160:02-04:162, 04:164:01-04:222, 04:224-04:240, 04:242-04:386, 04:388-04:494, 05:12, 05:18:01, 05:18:05-05:18:06, 05:103:02, 05:106:02, 05:272, 06:02:01:01-06:02:01:93, 06:02:03-06:02:26, 06:02:28-06:02:94, 06:02:96-06:15, 06:17-06:40, 06:42:01-06:61, 06:63-06:91, 06:93-06:111, 06:113-06:127:01:01, 06:127:02-06:203, 06:205, 06:207-06:262, 06:264-06:362N, 12:02:01-12:02:26, 12:02:28-12:02:31, 12:02:33, 12:02:35-12:03:15, 12:03:18-12:03:26, 12:03:28-12:03:29, 12:03:31-12:13:01:02, 12:14:02-12:31:02, 12:33-12:143, 12:145-12:180, 12:182-12:184, 12:186-12:275, 12:277-12:298, 12:300-12:376, 14:02:01:01-14:02:04, 14:02:06-14:16, 14:18-14:91, 14:93N-14:150, 15:02:01:01-15:02:04, 15:02:06-15:02:12, 15:02:14-15:02:39, 15:02:41-15:02:47, 15:02:49-15:05:05, 15:05:07, 15:05:09-15:06:02, 15:07:01:01-15:08:01, 15:09:01:01-15:13:02, 15:15-15:19, 15:21-15:64, 15:66-15:101, 15:103-15:194, 15:196-15:244, 15:246-15:255, 16:01:01:01-16:01:20, 16:01:22-16:01:34, 16:01:36-16:02:02, 16:02:04-16:02:20, 16:04:01:01-16:04:01:03, 16:04:03-16:04:05, 16:06-16:26, 16:28-16:104, 16:106-16:198, 16:200-16:204, 17:01:01:02-17:01:10, 17:01:12-17:05, 17:07-17:33, 17:35:01-17:69, 18:01:01:01-18:18
22^{4,6}	80 bp	1070 bp	*08:41, 08:115, 08:138, 08:182	*03:314, 05:27, 05:39, 05:151, 05:184, B*15:337, B*15:627, B*44:148, B*51:355
	155 bp		*08:33:01, 08:33:05	*05:18:02-05:18:03, 05:103:01, 05:107, 05:115, 05:134, 05:151, 07:04:01:01-07:04:10, 07:04:12-07:04:19, 07:04:21-07:04:28, 07:11-07:12, 07:63, 07:68, 07:101, 07:139,



101.623-12 – including Taq polymerase
101.623-12u – without Taq polymerase

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

Lot No.: **1S3**

Lot-specific information

				07:142, 07:181, 07:199:01-07:199:02, 07:260:01-07:260:02, 07:272, 07:302, 07:323-07:324, 07:328-07:329N, 07:336, 07:338, 07:354-07:355, 07:357-07:358, 07:361, 07:364-07:365, 07:378, 07:394-07:395, 07:403, 07:406, 07:420, 07:426, 07:428, 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, 07:664, 07:672N, 07:674, 07:693, 07:698, 07:742, 07:751N, 07:780, 07:797N, 07:831, 07:838-07:839N, 07:852, 07:858, 07:868, 07:876, 07:881N, 07:895-07:897, 07:901, 07:917, 07:926, 07:941, 07:948, 07:951, 07:974Q, 07:1010, 07:1012, 07:1033, B*14:32, B*18:83, B*44:148, B*51:355, B*58:76
23^{4,7}	90 bp	1070 bp	*08:36N, 08:69	*03:174, 03:365, 07:229, 07:387, 12:131, 14:39, 16:42, 16:56, B*07:243, B*08:98, B*35:202, B*40:451, B*56:57
	140 bp		*08:92, 08:95	*01:218, 03:155, 16:170, B*08:249, B*35:252, B*39:114
	205 bp		*08:70Q	B*35:556Q
	250 bp		*08:74, 08:78	*01:125, 03:236, 03:351, 04:106, 07:293, 07:519, 14:96, 15:200, B*08:306, B*18:64, B*35:183, B*35:502, B*39:140, B*40:138, B*41:59
24⁴	105 bp 150 bp	1070 bp	*08:56, 08:89N *08:37, 08:53, 08:74	*02:14:01-02:14:02, 02:107, 02:164, 02:190, 04:42:01-04:42:02, 04:220, 04:239, 05:43, 06:02:72, 06:05, 07:01:74, 07:02:09, 07:125:02, 12:16:01, 12:147, 12:195:02, 12:217, 15:23:01-15:23:02, 15:63, 15:138, 15:158, 16:21, 16:80
25⁴	115 bp	1070 bp	*08:39, 08:165, 08:213	*05:12, 05:151, 07:487, A*29:10:01-29:10:02, A*29:161, B*18:83, B*44:148, B*58:76
	225 bp		*08:09, 08:11, 08:59, 08:113, 08:152	*05:04:01-05:04:02, 05:103:01-05:103:02, 05:135, 05:188, 05:207, 05:215, 06:129, 07:68, 07:260:01-07:260:02, 07:302, B*15:337, B*15:627, B*18:83, B*58:76
	265 bp		*08:62:01-08:62:02, 08:82, 08:144:01-08:144:02, 08:209	*03:251, 03:314, 05:05:01-05:05:02, 05:135, 05:147-05:148, 07:1012, A*02:425, A*02:519, A*29:10:01-29:10:02, A*29:161, A*68:69,



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

			B*14:32, B*15:337, B*15:627, B*18:83, B*44:148, B*51:355	
	290 bp		*08:34	
26⁴	100 bp	1070 bp	*08:14, 08:80, 08:103:01:01-08:103:01:02	*01:02:34, 01:21, 02:42, 02:107, 02:152, 04:140, 04:166:01, 04:166:03, 04:220, 05:98, 05:197, 06:02:72, 06:05, 07:01:74, 07:02:09, 07:125:02, 12:16:01, 12:147, 12:227, 12:279, 15:63, 15:113, 16:80, B*15:436, B*67:02:01:01-67:02:01:02
27⁴	125 bp	1070 bp	*08:19:01-08:19:02, 08:101, 08:143	*04:223:01, 05:64:01-05:64:02
	265 bp		*08:55N	*05:92N
28	155 bp 185 bp	1070 bp	*08:53 *08:01:07, 08:02:07, 08:33:02	*02:190 *03:251, 03:314, 04:120, 05:01:69, 05:18:05, 05:148, 05:215, 07:953
	290 bp		*08:34	
29	185 bp	1070 bp	*08:128	*01:159, 03:206, 03:212, 04:84, 06:288, 12:339, 16:155, 16:198
	210 bp		*08:38, 08:52N	
30⁴	65 bp	1070 bp	*08:99	*02:153, 03:383, 03:483, 06:214, 14:149, 16:187
	270 bp 405 bp		*08:110 *08:28, 08:137, 08:168	*04:223:01, 04:387, 05:25, 05:42, 06:02:52, 07:01:48, 07:02:35, 07:41, 07:1028, A*01:01:06, A*66:01:04
	470 bp		*08:20, 08:40	*01:200, 02:170, 03:171, 03:211:01, 04:144, 05:93, 06:73, 12:109, 15:221
31	500 bp	1070 bp	*08:02:06, 08:19:01, 08:62:01, 08:144:01	*04:129, 05:01:20, 05:64:01, A*32:72
32	285 bp	1070 bp	*08:44, 08:61, 08:82, 08:126, 08:209	*03:251, 03:314, 05:10, 05:148, 15:130, 15:229, B*15:627, B*44:148, B*58:76
33	155 bp	1070 bp	*08:15:01-08:15:02, 08:51, 08:243, 08:246	*01:13, 02:51, 03:87:01-03:87:02, 03:414, 04:223:01-04:223:02, 04:387, 05:09:01-05:09:03, 05:17, 05:52, 05:201, 05:206, 05:262, 07:130, 07:915, 12:144, 12:185, 16:27, B*15:33, B*15:248
34	215 bp	1070 bp	*08:01:01:01-08:01:07, 08:01:09-08:01:20, 08:01:22-08:02:24, 08:02:26-08:02:29, 08:02:31-08:09, 08:11-08:63, 08:65-08:72:02, 08:74-08:162, 08:164-08:182, 08:184-08:188, 08:189 ^w , 08:190-08:220, 08:222-08:261	*01:02:01:01-01:02:40, 01:02:42-01:13, 01:15:01-01:18, 01:20-01:58, 01:60, 01:63:02-01:94, 01:96-01:117N, 01:119-01:156, 01:158-01:201, 01:203-01:239, 01:241-01:247, 02:12 ^w , 02:27:01 ^w -02:27:02 ^w , 02:87, 02:115 ^w , 02:126 ^w , 03:03:12, 03:03:15, 03:04:49, 03:11:01, 03:18:01, 03:18:03, 03:37:02, 03:39, 03:64:02, 03:94, 03:308 ^w , 03:344:01:01-03:344:01:02, 03:530, 04:473 ^w , 06:11, 06:122, 06:124, 06:217, 06:248, 06:252, 07:01:01:01-07:01:02:14, 07:01:04-07:01:22, 07:01:24-07:01:40,



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

07:01:42-07:02:10, 07:02:12-07:02:32, 07:02:34-07:02:141, 07:02:143-07:02:145, 07:04:01:01-07:04:04, 07:04:06-07:06:06, 07:08, 07:10-07:19, 07:20:02-07:33N, 07:35, 07:37:01:02-07:48, 07:50-07:58, 07:60-07:63, 07:65-07:73:01, 07:74-07:75, 07:77-07:87, 07:89-07:95, 07:96:02-07:123:02, 07:125:01-07:126, 07:128-07:154, 07:156-07:172:01, 07:173-07:209, 07:211-07:226Q, 07:228-07:237, 07:239-07:246:02, 07:248-07:262, 07:264N-07:294, 07:296-07:314:02, 07:316-07:326, 07:329N-07:354, 07:356, 07:358-07:376, 07:379-07:389, 07:391-07:401, 07:404-07:405:02, 07:407-07:437N, 07:439-07:441:01, 07:442-07:506:01, 07:507N-07:547, 07:548^w, 07:549-07:560, 07:561^w, 07:562-07:577, 07:579, 07:581-07:597, 07:599-07:755, 07:757-07:762, 07:764-07:918, 07:920-07:969, 07:971-07:973, 07:975-07:1024, 07:1026-07:1040N, 07:1042N-07:1054N, 12:02:01-12:02:17, 12:02:19-12:03:12, 12:03:14-12:03:24, 12:03:26-12:03:82, 12:06, 12:08, 12:10:01-12:11, 12:13:01:01-12:20, 12:22-12:32, 12:34-12:40, 12:42Q-12:53, 12:56-12:59, 12:61-12:137, 12:139Q-12:145, 12:147-12:187, 12:189-12:268, 12:270N-12:298, 12:300, 12:302-12:324N, 12:326-12:352, 12:354-12:361, 12:364-12:376, 15:07:01:01-15:07:01:02, 15:21, 15:25, 15:116, 15:144, 16:01:01:01-16:01:43, 16:04:01:01-16:04:01:03, 16:04:03-16:04:05, 16:06-16:08, 16:10-16:11, 16:13-16:18, 16:20-16:24, 16:26-16:33, 16:34^w, 16:35-16:38, 16:40-16:45, 16:49:01-16:56, 16:58-16:59, 16:61-16:62, 16:64-16:68, 16:71-16:73, 16:75-16:76, 16:78-16:83, 16:86-16:87, 16:92-16:98, 16:100, 16:105, 16:109-16:114, 16:116-16:119, 16:122, 16:124-16:131, 16:134-16:135, 16:137-16:139, 16:141-16:142, 16:146-16:149, 16:151-16:152, 16:154, 16:157-16:162, 16:164-16:165, 16:168-16:175, 16:177-16:178, 16:180, 16:182-16:183, 16:185-16:188,



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

				16:190-16:193, 16:196-16:198, 16:200-16:201, 16:203-16:204, 17:22, 17:62
35⁴	115 bp	1070 bp	*08:72:01-08:72:02	*03:230, 03:234, 04:291, 12:169, 14:87, B*15:88, B*15:200
36⁴	115 bp	1070 bp	*08:121N	*01:228N, 03:531N, 15:156N
37	205 bp 265 bp	1070 bp	*08:127N *08:141Q	
38	205 bp 265 bp	1070 bp	*08:129N *08:141Q	
39	350 bp	1070 bp	*08:130N	
40⁴	125 bp 200 bp	1070 bp	*08:42 *08:107	*04:229
41⁴	110 bp	1070 bp	*08:01:01:01-08:01:07, 08:01:09-08:01:35, 08:08:01-08:08:02, 08:10- 08:11, 08:16:01-08:16:02, 08:20-08:22:02, 08:24, 08:26N, 08:36N, 08:41- 08:42, 08:44, 08:46, 08:50, 08:56, 08:58-08:60, 08:78- 08:89N, 08:91, 08:95-08:99, 08:102, 08:105-08:106, 08:109, 08:118-08:119, 08:121N-08:122, 08:124, 08:127N-08:131, 08:133, 08:136-08:137, 08:141Q, 08:143, 08:145, 08:147- 08:148, 08:153-08:155, 08:157, 08:162-08:164, 08:173N, 08:175-08:176, 08:178, 08:186-08:187, 08:189-08:190, 08:192- 08:194, 08:196-08:197, 08:199, 08:203-08:204, 08:208N-08:210, 08:212, 08:217, 08:219-08:221, 08:228, 08:232, 08:234- 08:236N, 08:241, 08:244, 08:249-08:255, 08:259- 08:261	
42⁸	-	-	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*08 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 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.



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: 1S3**Lot-specific information**

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 11, 15 and 21 may have tendencies of unspecific amplifications.

⁶Primer mixes 16 and 22 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C*08 primer mixes.

⁷Primer mixes 6 and 23 have a tendency of giving rise to primer oligomer formation.

⁸Primer mix 42 contains a negative control, which will amplify the 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 pairs is 200 base pairs.

Abbreviations

w: may be weakly amplified.



101.623-12 – including Taq polymerase
101.623-12u – without Taq polymerase

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

Lot No.: 1S3

Lot-specific information
PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	250	115	115	225	160	65	100	240	140	110	185	165
						100	150		375	140	225	
						270	230		505		255	
						310					280	
Length of int. pos. control ¹	800	1070	800	1070	1070	800	1070	1070	1070	800	800	800
5'-primer(s) ²	2 nd I 5'-CCA 3'	527 5'-TAC 3'	527 5'-TgA 3'	412 5'-ATA 3'	176 5'-gCA 3'	142 5'-TCT 3'	453 5'-AAT 3'	404 5'-CCA 3'	312 5'-AAA 3'	176 5'-gCA 3'	361 5'-AgT 3'	176 5'-gCA 3'
					485 5'-CAA 3'	2 nd I 5'-CCA 3'	658 5'-CTA 3'		429 5'-Ag 3'	527 5'-TAC 3'	419 5'-gTC 3'	
						1018 5'-gTg 3'			736 5'-gCA 3'		634 5'-CAA 3'	
									757 5'-CCA 3'		704 5'-TgT 3'	
3'-primer(s) ³	539 5'-TCA 3'	601 5'-CTT 3'	601 5'-CTT 3'	595 5'-CCT 3'	289 5'-AgC 3'	201 5'-CTT 3'	512 5'-CCA 3'	601 5'-CTT 3'	526 5'-CgT 3'	277 5'-gCA 3'	601 5'-CTT 3'	302 5'-ggC 3'
					289 5'-AgC 3'	559 5'-CgC 3'	560 5'-ACA 3'		956 5'-CAg 3'	598 5'-CTC 3'	846 5'-CAC 3'	
					299 5'-TCT 3'	599 5'-TCC 3'	846 5'-CAC 3'					
					601 5'-CTC 3'	1043 5'-CAA 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	105	130	265	545	375	80	110	105	195	80	90	105
		160			430	200	250			155	140	150
		280									205	
											250	
Length of int. pos. control ¹	800	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070
5'-primer(s) ²	539 5'-gCg 3'	173 5'-CgC 3'	1 st I 5'-CgA 3'	972 5'-CTA 3'	1 st I 5'-CgA 3'	441 5'-TAg 3'	391 5'-ACT 3'	527 5'-TgA 3'	2 nd I 5'-CCA 3'	486 5'-ACC 3'	85 5'-CCg 3'	85 5'-CCg 3'
		194 5'-CgT 3'				443 5'-CAA 3'	520 5'-CgC 3'			560 5'-CCT 3'	194 5'-CgT 3'	88 5'-Tgg 3'
		215 5'-gCA 3'				560 5'-CgA 3'	539 5'-gTg 3'				246 5'-CAg 3'	97 5'-TCg 3'
		363 5'-AgC 3'									257 5'-CCA 3'	134 5'-CCg 3'
											374 5'-CTA 3'	527 5'-TAC 3'
											443 5'-CAA 3'	
											3 rd I 5'-Cgg 3'	
3'-primer(s) ³	601 5'-CTT 3'	302 5'-ggC 3'	175 5'-CCg 3'	1034 5'-AgT 3'	289 5'-AgC 3'	601 5'-CTT 3'	601 5'-CTT 3'	584 5'-ggC 3'	485 5'-CCg 3'	601 5'-CTT 3'	302 5'-ggC 3'	201 5'-CTT 3'
		601 5'-CTT 3'	175 5'-CCT 3'		341 5'-CgT 3'			595 5'-CCT 3'			538 5'-CCg 3'	587 5'-CCg 3'
											787 5'-TCT 3'	
Well No.	13	14	15	16	17	18	19	20	21	22	23	24



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec.	115	100	125	155	185	65	500	285	155	215	115	115
PCR product	225		265	185	210	270						
	265			290		405						
	290					470						
Length of int.	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	351	142	1 st I	88	368	341	176	355	485	126	527	268
	5'-CAA 3'	5'-TCT 3'	5'-CgA 3'	5'-Tgg 3'	5'-gTC 3'	5'-ggA 3'	5'-gCA 3'	5'-TCA 3'	5'-CAA 3'	5'-ggA 3'	5'-TAC 3'	5'-gA 3'
	379		368	351	679	652						
	5'-ACg 3'		5'-gTT 3'	5'-CAA 3'	5'-g.T 3'	5'-CCA 3'						
	419			459	704	851						
	5'-gTC 3'			5'-gAT 3'	5'-TgT 3'	5'-CCT 3'						
	527					934						
	5'-TgT 3'					5'-TCA 3'						
3'-primer(s) ³	601	201	175	201	526	453	387	601	601	299	601	341
	5'-CTT 3'	5'-CTT 3'	5'-CTA 3'	5'-CTT 3'	5'-CgT 3'	5'-TCA 3'	5'-TCC 3'	5'-CTT 3'	5'-CTC 3'	5'-TCA 3'	5'-CTC 3'	5'-Cgg 3'
			453	601	846	956						
			5'-TCA 3'	5'-CTT 3'	5'-CAC 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
Length of spec.	205	205	350	125	110
PCR product	265	265		200	
Length of int.	1070	1070	1070	1070	1070
pos. control ¹					
5'-primer(s) ²	375	375	28	2 nd I	527
	5'-Tgg 3'	5'-Tgg 3'	5'-TCA 3'	5'-CCA 3'	5'-TAC 3'
	437	438			
	5'-ggA 3'	5'-gAT 3'			
3'-primer(s) ³	601	601	208	412	595
	5'-CTT 3'	5'-CTT 3'	5'-CTA 3'	5'-CTT 3'	5'-gCC 3'
				487	595
				5'-Cgg 3'	5'-CCC 3'
Well No.	37	38	39	40	41

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.



101.623-12 – including Taq polymerase
101.623-12u – without Taq polymerase

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

Lot No.: 1S3

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C*08 SSP primer set ³																				
				Well ²																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	202243301	202243302	202243303	202243304	202243305	202243306	202243307	202243308	202243309	202243310	202243311	202243312	202243313	202243314	202243315	202243316
	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	9007 DEM	*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	*07:18			-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
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	*17:03			+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



101.623-12 – including Taq polymerase
101.623-12u – without Taq polymerase

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

Lot No.: **1S3**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C*08 SSP primer set ³																				
				Well ²																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	202243317	202243318	202243319	202243320	202243321	202243322	202243323	202243324	202243325	202243326	202243327	202243328	202243329	202243330	202243331	202243332
	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	9007 DEM		*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 OLG A		*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		*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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		*17:03		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	
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	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	



101.623-12 – including Taq polymerase
101.623-12u – without Taq polymerase

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

Lot No.: **1S3**

Lot-specific information

CELL LINE VALIDATION SHEET													
HLA-C*08 SSP primer set ³													
				Well ²									
				33	34	35	36	37	38	39	40	41	
				Prod. No.:	202243333	202243334	202243335	202243336	202243337	202243338	202243339	202243340	202243341
IHC 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	9007 DEM	*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	*07:18		-	+	-	-	-	-	-	-	-	-
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	*17:03		-	-	-	-	-	-	-	-	-	-
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	-	+	-	-	-	-	-	-	-	-



101.623-12 – including *Taq* polymerase
 101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

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 C*07:18 allele is amplified by primer mix 6 in the 9285 (WT49) cell line.

³The 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 5, 7 to 11, 14, 15, 17 to 19, 23 to 33 and 35 to 40 were available.

The specificity of the primers in primer solutions 5, 7, 9, 11, 14, 15, 17 to 19, 23 to 33 and 35 was tested by adding additional 5'-primers respectively 3'-primers.

In primer solutions 10, 39 and 40 it was only possible to test the 5'-primers, the 3'-primers were not possible to be tested. In primer solutions 8 and 36 to 38 it was only possible to test the 3'-primer, the 5'-primers were not possible to be tested.

In primer solutions 7, 9, 11, 14, 18, 19, 23 to 25 and 28 to 30 one or more 5'-primers were not possible to be tested. In primer solutions 6, 24, 27, and 41 one or two 3'-primers were not possible to be tested.

In addition, one or more 3'- and/or 5'-primers in primer solutions 6, 20 and 22 were tested by separately adding one 5'-primer and/or one 3'-primer respectively.



101.623-12 – including *Taq* polymerase
101.623-12u – without *Taq* polymerase

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

Lot No.: **1S3**

Lot-specific information

ADDRESSES:

Manufacturer:

CareDx AB, Franzengatan 5, SE-112 51 Stockholm, Sweden.

Tel: +46-8-508 939 00

Fax: +46-8-717 88 18

E-mail: orders-se@caredx.com

Web page: www.caredx.com

Distributed by:

CareDx Lab Solutions Inc., 901 S. Bolmar St., Suite R, West Chester, PA 19382

Tel: 1-877-653-78171

Fax: 610-344-7989

E-mail: orders-us@caredx.com

Web page: www.caredx.com

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

