

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02Visit www.olerup.com for
“Instructions for Use” (IFU)**Lot No.: 1F9**

Lot-specific information

Olerup SSP® HLA-C high resolution for frequent alleles

Product number:	101.707-12 – including <i>Taq</i> polymerase 101.707-12u – without <i>Taq</i> polymerase
Lot number:	1F9
Expiry date:	2019-12-01
Number of tests:	12
Number of wells per test:	95 + 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. 1F9.

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 HIGH RESOLUTION LOT (9D5)

The HLA-C High kit has been redesigned and improved with regards to allelic detection and discrimination. The kit resolution focuses on common and well documented (CWD) alleles¹.

The format of the Worksheet has been changed.

The HLA-C high resolution specificity and interpretation tables have been updated with the HLA-C alleles described since the previous *Olerup SSP®* HLA-C high resolution for frequent alleles lot was made (**Lot No. 9D5**). The kit design is based on IMGT/HLA database 3.26.0

¹S. J. Mack¹, P. Cano², J. A. Hollenbach¹ 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
1	Modified	Modified	5'-and 3'-primers modified for increased yield.
10	Modified	Removed, modified	3'-primer for the C*08:06 allele removed, 5'-and 3'-primers modified for improved HLA-specific amplification.
11	-	-	Positive control primer pairs exchanged for improved HLA-specific amplification.
13	Added	-	5'-primer added for the C*03:02:15 allele.
18	Added	-	5'-primer added for increased yield.
19	-	Added, modified	3'-primer added for the C*07:43:02 allele, modified 3'-primer added for increased yield.
22	Added	-	5'-primer added for C*03:02:15 allele.
35	Added	Modified	5'-primer added for the C*08:01:14, 3'-primer modified for improved HLA-specific amplification.
51	-	-	Positive control primer pairs exchanged for decreased tendency of primer oligomer formation.
55	-	Added	3'-primer added for improved resolution of C*07:03.
64	-	Added	3'-primer added for the C*15:05:12 allele.
71	-	Added	Modified 3'-primer added from well 86 for increased yield.
73	Added	-	5'-primer added for the C*08:06 allele.
76	Added	-	5'-primer added for the C*03:02:15 allele.
84	-	Modified	3'-primer modified for improved HLA-specific amplification.
85	-	Added	3'-primer added for the C*15:05:12 allele.
86	Exchanged, removed	Moved, modified	Modified 3'-primer moved to well 71, 3'-primer modified for increased yield, 5'-primers exchanged and removed for improved HLA-specific amplification.
91	Modified	-	5'-primer modified for increased yield.
93	-	Removed	3'-primer removed for improved HLA-specific amplification.

Change in revision R01 compared to R00:

1. In primer mix 8 the positive control band may be weaker than for the other HLA-C*high resolution primer mixes. A footnote has been added in the Specificity Table.

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Well **96** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP*[®] HLA Class I, DRB, DQB1, DPB1 and DQA1 amplicons as well as all the amplicons generated by the control primer pairs matching the human growth hormone gene.

HLA-specific PCR product sizes range from 75 to 200 base pairs.

The PCR product generated by the positive control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80	85
5'-primer¹	164	340	440	45	45	43	36
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-TAC ^{3'}
							36
							5'-TAT ^{3'}
3'-primer²	231	2nd I	507	59	58	57	47
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}	5'-ACA ^{3'}
							48
							5'-gCA ^{3'}
							48
							5'-gCC ^{3'}
							52
							5'-TgT ^{3'}
A*	+	+	+				
B*	+	+	+				
C*	+	+	+				
DRB1				+	+		
DRB3				+	+		
DRB5				+			
DQB1					+		
DPB1						+	
DQA1							+

¹The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon, matching the specificity-determining 3'-end of the primer is given. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon or the 2nd intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

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PRODUCT DESCRIPTION

HLA-C high resolution for frequent alleles SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the C*01:02:01 to C*18:10 alleles and will generate unique amplification patterns and have good resolution for all frequently encountered HLA-C genotypes currently recognized. All HLA-C alleles in the CWD 2.0.0 catalogue give rise to unique amplification patterns¹.

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.

PLATE LAYOUT

Each HLA-C high resolution for frequent alleles test consists of 96 PCR reactions in a 96 well PCR plate.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64
65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88
89	90	91	92	93	94	95	NC

The 96 well PCR plate is marked with ‘HLA-C “HIGH”’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘1F9’.

Wells 1 to 95 – HLA-C high resolution primers.

Well 96 – Negative Control.

The PCR plates are heat-sealed with a PCR-compatible foil.

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.

INTERPRETATION

A few HLA-A and HLA-B alleles will be amplified by some primer mixes due to the sharing of sequence motifs between HLA Class I loci. For further details see Specificity Table.

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UNIQUELY IDENTIFIED ALLELES

All the HLA-C alleles, i.e. **C*01:02 to C*18:10**, recognized by the HLA Nomenclature Committee in October 2016^{1,2} will be amplified by the primers in the HLA-C high resolution for frequent alleles subtyping kit. All HLA-C alleles in the CWD2.0.0 catalogue give rise to unique amplification patterns³.

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

Alleles	Primer mix	Alleles	Primer mix
C*01:06, 01:11	3	C*05:10, 05:55	21
C*01:15, 01:20, 01:60	6	C*05:14, 05:16, 05:19	37
C*02:51, 02:57	31	C*06:08, 06:13	43
C*03:09, 03:23, 03:80:02, 03:287	18	C*06:15-06:16N	78, 83
C*03:21-03:22Q, 03:116:01	18	C*07:22, 07:35, 07:404	56
C*03:34, 03:44	80	C*07:25, 07:137:01, 07:138, 07:352	56
C*03:37:01-03:37:02, 03:46	11	C*07:33N, 07:51	55
C*04:08, 04:09N	27	C*07:37, 07:54	2
C*04:16, 04:256	11	C*07:47-07:48	91
C*04:23, 04:31	88	C*07:140-07:141:02, 07:304, 07:512, 07:514	5
C*04:40, 04:223:02	31	C*12:06,12:81	65
C*05:06, 05:15	36	C*12:07 ,12:46N	16

¹HLA-C alleles listed on the IMGT/HLA web page 2016-October-14, release 3.26.0, www.ebi.ac.uk/imgt/hla.

²Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page <http://hla.alleles.org/alleles/deleted.html>.

³S. 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.

RESOLUTION IN HOMO- AND HETEROZYGOTES

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

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SPECIFICITY TABLE

HLA-C high resolution for frequent alleles SSP typing

Specificities and sizes of the PCR products of the 95+1 primer mixes used for HLA-C high resolution for frequent alleles SSP typing

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C alleles ³	Other amplified HLA Class I alleles
1⁴	90 bp	800 bp	*01:02:01:01-01:02:31, 01:02:33-01:02:41, 01:06-01:11, 01:13-01:20, 01:22-01:23, 01:25-01:33, 01:35, 01:38-01:48, 01:51-01:53, 01:56N-01:76, 01:80-01:85, 01:87-01:89N, 01:92-01:96, 01:98N-01:100, 01:103-01:113, 01:115-01:119, 01:121Q-01:126, 01:128-01:130, 03:86, 03:94, 03:99, 03:302, 05:107, 06:179, 07:177, 15:102	B*40:243
2⁴	100 bp 215 bp	1070 bp	*04:05, 07:54 *01:05, 01:77, 04:240, 05:111, 07:37, 07:216, 07:307, 14:08, 16:06	B*07:77, B*07:193
3^{4,5}	65 bp 100 bp 200 bp 225 bp 290 bp 365 bp	1070 bp	*08:99 *01:27 *01:06 *07:06, 07:18-07:19, 07:330:02, 07:517 *01:11 *15:13:01:01, 15:103	
4⁴	100 bp 200 bp	1070 bp	*02:34, 16:09 *01:07:01-01:07:02, 06:10, 06:43:01, 14:24:02	
5⁵	130 bp	1070 bp	*02:02:28, 03:03:29, 03:04:19, 03:113:01, 04:01:43, 05:01:17, 05:09:02, 05:17, 06:02:23, 06:27, 07:03, 07:17:01-07:17:03, 07:140-07:141:02, 07:304, 07:307, 07:512, 08:15:02, 08:72:02, 12:03:10, 16:02:11, 16:47	A*26:55, A*29:27, B*07:02:43, B*07:33:03, B*08:01:25, B*15:17:04, B*18:90, B*35:01:38, B*35:03:15, B*35:08:04, B*35:15:02, B*37:04:02, B*39:09:03, B*57:01:18, B*58:01:17
	155 bp 215 bp 275 bp 300 bp		*07:23, 12:13 *01:08, 12:19 *06:27, 16:47 *06:02:23, 07:31:01-07:31:02, 07:177, 07:514, 12:03:10, 16:02:11	
6^{4,6}	105 bp 150 bp 190 bp 210 bp	800 bp	*03:24, 15:90 *01:20 *01:60, 07:05, 07:177, 07:364, 07:538 *01:04, 01:09, 06:23, 06:179, 12:178	B*27:36, B*48:21, B*48:26 B*15:129, B*15:342, B*27:25, B*27:115

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	265 bp		*01:15, 02:114, 03:33	
7	200 bp	1070 bp	*02:02:01-02:02:03, 02:02:05-02:09, 02:11-02:13, 02:15-02:28, 02:30-02:40:02, 02:42-02:57, 02:59-02:88, 02:90-02:126	
8^{4,11}	100 bp	800 bp	*02:03, 02:16:02, 02:18, 03:03:22, 03:04:34, 06:07, 07:02:75	B*27:34, B*35:01:30^w, B*40:02:07, B*40:06:02, B*51:01:52^w, B*57:01:16^w, B*57:03:02^w
	135 bp 595 bp		*02:20 *07:179	
9	140 bp	1070 bp	*02:04, 02:14:01-02:14:02, 02:21, 02:107, 04:01:75, 04:42:01-04:42:02, 04:198, 04:220, 05:43, 06:05, 07:02:09, 08:37, 08:119, 12:10:01-12:10:02, 12:16, 12:115, 12:147, 14:41, 15:23, 15:63, 16:11, 16:21, 16:80	
10^{4,7,8}	105 bp 130 bp	800 bp	*03:342, 07:46, 07:356 *01:115, 02:07, 02:97, 14:79, 16:10, 16:67	B*56:08, 56:14
11⁴	75 bp	1070 bp	*02:08, 02:42, 03:11:01-03:11:02, 03:18:02, 03:37:01-03:37:02, 03:64:01, 03:301, 04:256, 06:03:01, 07:314:02, 12:03:23, 15:10:02-15:10:03, 15:113 *02:104, 03:46, 03:248, 04:16, 15:100 *07:06, 07:330:02, 07:343	B*58:74
12^{4,7}	160 bp 505 bp 70 bp 280 bp	800 bp	*07:53, 07:216 *02:02:01-02:02:03, 02:02:05-02:02:29, 02:02:31-02:13, 02:15-02:25Q, 02:26:02-02:32, 02:34-02:40:02, 02:42-02:86, 02:88-02:106, 02:108-02:126, 03:02:01-03:02:09, 03:02:11-03:02:15, 03:04:01-03:04:25, 03:04:27-03:10, 03:14-03:17:01, 03:19, 03:23-03:29, 03:32-03:38:02, 03:40:01-03:42, 03:44-03:48, 03:51, 03:54, 03:57:01-03:57:02, 03:60, 03:63-03:64:01, 03:65, 03:70-03:74, 03:77-03:78, 03:80:01-03:80:02, 03:82, 03:84, 03:87:01-03:87:02, 03:89-03:95, 03:98, 03:100-03:101, 03:104-03:111, 03:113:01-03:115, 03:117-03:118, 03:121N, 03:123, 03:125, 03:128-03:131, 03:134-03:136, 03:138-03:140, 03:143, 03:145-03:149, 03:153-03:155, 03:157, 03:159, 03:162-03:164, 03:169Q, 03:172-03:174, 03:178-03:181, 03:183-03:184:02, 03:186:01-03:186:02, 03:190-03:191, 03:193-03:194, 03:197-03:201N, 03:208N-03:213, 03:215-03:216, 03:218-03:219, 03:221-03:222, 03:224N-03:226, 03:232-03:236, 03:238-03:240, 03:244Q-03:250, 03:252, 03:255-03:261, 03:263:01-03:263:02, 03:265N-03:266, 03:269-03:270, 03:277N-03:283, 03:286-03:287, 03:292-03:294, 03:296-03:303, 03:305-03:306, 03:309-03:311, 03:313-03:315, 03:317-03:318N,	B*40:164, B*51:01:28, B*58:74

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			03:322-03:323N, 03:326, 03:328-03:334, 03:337-03:338, 03:340, 03:342-03:343, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 04:256, 05:58:01, 05:58:03, 06:03:01, 06:132:01-06:132:02, 07:96:01-07:96:02, 07:314:02, 12:03:23, 15:02:01:01-15:02:20, 15:02:22-15:02:24, 15:02:26-15:05:08, 15:05:10-15:09, 15:10:02- 15:11, 15:13:01:01, 15:15-15:19, 15:21-15:22, 15:24-15:35, 15:37-15:60, 15:62, 15:64-15:106, 15:108-15:133, 16:34, 16:70
13	215 bp	1070 bp	*03:02:01-03:02:15, 03:14-03:15, 03:33, 03:36, B*15:96 03:40:01-03:40:04, 03:42-03:43:02, 03:60, 03:71, 03:84, 03:89, 03:95, 03:108, 03:110, 03:119:01-03:119:02, 03:121N, 03:132, 03:139, 03:146, 03:169Q, 03:175, 03:190, 03:194, 03:197-03:201N, 03:216, 03:221-03:222, 03:224N-03:226, 03:238, 03:240, 03:245, 03:248, 03:258, 03:264, 03:271, 03:279, 03:298- 03:301, 03:315, 03:329-03:330, 03:332, 03:338, 04:12, 07:133, 07:242, 07:330:01
14	280 bp	800 bp	*03:03:01:01-03:03:20, 03:03:22-03:03:34, 03:11:01-03:11:02, 03:13:01-03:13:02, 03:18:02, 03:20N-03:22Q, 03:30-03:31, 03:43:01- 03:43:02, 03:49-03:50, 03:52-03:53, 03:55- 03:56, 03:58-03:59, 03:61-03:62, 03:66, 03:67 ^w , 03:68-03:69, 03:75-03:76, 03:79, 03:81, 03:83, 03:85-03:86, 03:88, 03:96-03:97, 03:102-03:103, 03:112, 03:116:01-03:116:02, 03:119:01-03:120, 03:122, 03:124, 03:126-03:127, 03:132-03:133, 03:141-03:142, 03:150-03:152, 03:158, 03:160- 03:161, 03:165, 03:167-03:168, 03:171, 03:175- 03:177, 03:185, 03:187-03:189N, 03:192, 03:196, 03:202-03:207, 03:214, 03:217, 03:220, 03:223, 03:227-03:230, 03:237, 03:241-03:243, 03:251, 03:253-03:254, 03:262, 03:267-03:268, 03:271-03:276, 03:284-03:285, 03:288-03:291, 03:295 ^w , 03:304, 03:307-03:308, 03:312, 03:316N, 03:319-03:321, 03:324-03:325, 03:327, 03:336, 03:339, 03:341, 15:12
15	275 bp	1070 bp	*03:03:01:01-03:04:54, 03:06:01-03:11:02, 03:14, 03:18:01-03:24, 03:26, 03:28-03:32, 03:34, 03:37:01-03:40:04, 03:42-03:57:02, 03:59, 03:61-03:70, 03:72-03:83, 03:85, 03:87:01-03:88, 03:90-03:93, 03:96, 03:98, 03:100-03:107, 03:109, 03:111-03:112, 03:114- 03:120, 03:122-03:131, 03:133-03:134, 03:136- 03:138, 03:140-03:145, 03:147-03:150, 03:152- 03:153, 03:155-03:164, 03:166, 03:168, 03:170- 03:176, 03:179-03:189N, 03:191-03:193, 03:195-03:196, 03:202-03:215, 03:217-03:220, 03:223, 03:227-03:237, 03:239-03:244Q, 03:246-03:247, 03:250, 03:252-03:257, 03:259, 03:261, 03:262 [?] , 03:263:01-03:263:02, 03:265N- 03:266, 03:268-03:270, 03:272-03:285,

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	565 bp		*01:02:18, 06:02:38, 07:447, 12:03:04, 12:03:09, 12:195:01, 14:02:08	B*27:05:27
18^{4.5}	90 bp	1070 bp	*01:65, 03:21, 03:28, 03:49, 03:80:02, 03:117, 03:142, 03:287, 05:86	B*15:96
	120 bp		*03:14, 03:162, 03:220, 03:261, 07:133, 07:330:01	
	185 bp		*07:21	
	225 bp		*03:23	
	255 bp		*03:09, 03:22Q, 03:42, 03:71, 03:89, 03:116:01, 03:119:01-03:119:02, 03:139, 03:169Q, 03:199, 03:240, 03:249, 03:267, 03:292, 03:300, 04:212, 05:86, 07:36, 07:133, 07:242, 07:330:01, 07:355	B*56:37
19^{4.10}	110 bp	1070 bp	*03:14, 03:36, 03:77, 03:162, 03:187, 03:220, 03:261, 03:296, 04:212, 07:133, 07:330:01	B*15:96
	265 bp		*03:13:01-03:13:02, 03:35:01-03:35:02, 03:178, 03:198, 03:267, 03:292, 04:212, 05:86, 07:133, 07:242, 07:330:01	
	305 bp		*03:32, 03:45, 03:136, 03:297, 04:80, 04:100, 04:178, 06:14, 06:143, 07:10, 07:43:01-07:43:02, 07:184, 07:196, 15:25, 15:62	B*15:357, B*35:178, B*35:282, B*35:316
	540 bp		*03:15, 03:32, 03:45, 03:60, 03:136, 03:297, 04:212, 07:133, 07:242, 07:330:01	
20⁶	240 bp	800 bp	*02:02:01-02:02:03, 02:02:05-02:02:29, 02:02:31-02:13, 02:15-02:25Q, 02:26:02-02:26:03, 02:28-02:40:02, 02:42-02:64, 02:66-02:86, 02:88-02:106, 02:108-02:114, 02:116-02:126, 03:07:01, 03:10, 03:15, 03:29, 03:45, 03:163, 03:268, 03:297, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 04:256, 05:13, 05:58:01, 05:58:03, 06:03:01, 06:132:01-06:132:02, 15:02:01:01-15:02:20, 15:02:22-15:02:24, 15:02:26-15:05:08, 15:05:10-15:06:03, 15:08-15:09, 15:10:02-15:13:01:01, 15:15-15:19, 15:21-15:22, 15:24, 15:26-15:35, 15:37-15:42, 15:44:01-15:60, 15:62, 15:64-15:84Q, 15:86-15:106, 15:108-15:133, 16:70	
	265 bp		*01:14, 15:104	

101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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Lot-specific information

21⁵	195 bp 225 bp 250 bp 280 bp	800 bp	*03:30, 03:65, 04:18, 04:52, 04:55, 05:55, 12:58, 14:10, 15:12 *04:19 *03:50 *03:251, 03:314, 04:120, 05:10, 05:64:01- 05:64:02, 08:19, 08:44, 08:61, 08:82, 08:101, 08:126, 08:143, 15:130	B*44:148, B*58:76
22⁴	80 bp 140 bp	1070 bp	*01:97, 03:02:01-03:02:15, 03:15-03:16, 03:33, 03:36, 03:40:01, 03:40:03-03:40:04, 03:42- 03:43:01, 03:60, 03:71, 03:84, 03:89, 03:95, 03:108, 03:110, 03:119:02, 03:121N, 03:132, 03:139, 03:146, 03:169Q, 03:175, 03:194, 03:197-03:201N, 03:216, 03:221-03:222, 03:224N-03:226, 03:238, 03:240, 03:245, 03:248, 03:258, 03:264, 03:271, 03:279, 03:298- 03:301, 03:315, 03:329-03:330, 03:332, 03:338, 04:54, 06:02:08, 07:02:32, 07:17:03, 07:242, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03- 14:16, 14:18-14:24:01, 14:25, 14:27-14:53, 14:56-14:78, 14:80-14:81, 15:77, 16:01:06 *01:97, 03:17:01, 03:71, 03:249, 03:271, 03:302, 04:37, 04:230, 06:02:08, 06:34:02, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:07N, 14:10-14:16, 14:18-14:27, 14:29-14:53, 14:55- 14:81, 16:01:06	B*15:78:03
23	150 bp 240 bp	800 bp	*01:14, 02:02:13, 02:02:29, 03:07:01, 03:10, 03:15, 03:29, 03:45, 03:163, 03:268, 03:297, 04:01:23, 05:01:12, 05:29:02, 06:02:01:01- 06:02:01:03, 06:02:03-06:04:02, 06:06-06:10, 06:12-06:76:01, 06:77-06:81, 06:83-06:146, 06:148-06:196, 07:07, 07:09, 07:76:01-07:76:02, 07:315, 07:328, 07:406, 07:559, 12:04:01, 14:12, 14:49, 15:02:10, 15:02:17, 15:99, 17:01:01:02-17:01:03, 17:01:05-17:21, 17:23- 17:34, 18:01-18:10 *05:13	B*15:277, B*35:222, B*42:22
24	250 bp	1070 bp	*01:02:01:01-01:07:01, 01:08-01:21, 01:23- 01:34, 01:36-01:126, 01:128-01:130, 02:02:01- 02:02:03, 02:02:05-02:02:32, 02:04-02:15, 02:17, 02:19-02:40:02, 02:42-02:71, 02:73- 02:126, 04:01:01:01-04:01:76, 04:01:79- 04:01:81, 04:03:01-04:03:03, 04:05, 04:07- 04:12, 04:15:01-04:20, 04:23-04:33, 04:35- 04:57, 04:59Q-04:67, 04:69-04:110, 04:112- 04:121, 04:123N-04:159, 04:161-04:177, 04:179-04:187, 04:189-04:211, 04:213-04:257, 05:01:01:01-05:01:34, 05:03-05:10, 05:12-05:16, 05:18:01-05:26, 05:28-05:50, 05:52-05:61, 05:63-05:67, 05:69, 05:71-05:78:02, 05:80- 05:111, 05:113N-05:114, 05:116-05:133, 05:135-05:144, 06:02:01:01-06:02:01:03, 06:02:03-06:03:02, 06:05-06:39, 06:41-06:78, 06:80-06:117, 06:119-06:152N, 06:154-06:196, 08:02:01:01-08:02:14, 08:05, 08:07, 08:12, 08:15:01-08:15:02, 08:17-08:19, 08:23, 08:25,	

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot-specific information

			08:27-08:35, 08:37, 08:43, 08:45, 08:47-08:49, 08:51-08:53, 08:55N, 08:62-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92, 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, 12:02:01-12:13, 12:15-12:17, 12:21-12:82, 12:84N-12:136, 12:138-12:152, 12:154-12:168, 12:170-12:174, 12:176-12:180, 12:182-12:200, 14:02:01:01-14:05, 14:07N-14:14, 14:16-14:52, 14:54-14:62, 14:64-14:76, 14:78-14:81, 15:08, 15:74, 15:102, 16:04:01:01, 16:04:03-16:04:04, 16:29, 16:33, 16:42, 16:53, 16:55, 16:61, 16:66, 16:68, 16:78, 16:82, 16:88, 16:91, 17:17, 18:01-18:10	
25	170 bp	1070 bp	*01:97, 03:16, 03:41:01, 03:113:01-03:113:02, 03:151, 03:293, 04:01:01:01-04:01:04, 04:01:06, 04:01:08, 04:01:10-04:01:17, 04:01:19-04:01:21, 04:01:23-04:01:25, 04:01:27-04:01:67, 04:01:69-04:01:76, 04:01:79-04:01:81, 04:03:01-04:04:01:01, 04:05-04:20, 04:23-04:49, 04:51-04:63, 04:65-04:76, 04:78-04:94:01, 04:95N-04:98:02, 04:100-04:119, 04:121-04:155, 04:157-04:159, 04:161-04:174, 04:176-04:177, 04:179, 04:180:02-04:200, 04:202-04:211, 04:213-04:222, 04:223:02-04:233N, 04:235-04:250, 04:252-04:257, 06:02:08, 06:34:02, 07:02:32, 07:17:03, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:02:10, 14:02:12-14:16, 14:18-14:31, 14:33-14:43, 14:45-14:67, 14:69-14:81, 15:77, 16:01:06, 18:01-18:10	B*13:13:02, B*15:01:17, B*15:78:03
26	145 bp	800 bp	*04:07, 04:27, 04:89, 04:153, 05:78:01-05:78:02, 07:64, 07:402, 15:36	
	170 bp		*02:09	
27^r	135 bp	1070 bp	*01:35, 01:107, 04:08, 04:34, 04:147, 04:212, 14:20, 18:08	
	175 bp		*04:30, 15:15, 15:77	
	220 bp		*04:09N	
28	200 bp	800 bp	*04:13, 04:58, 04:160, 07:08, 07:108:01-07:108:02, 08:101, 08:143	B*47:09
29	130 bp	800 bp	*03:05, 03:13:02, 03:25, 03:27, 03:35:02, 03:135, 03:167, 03:296, 04:15:01, 04:15:03, 14:09	B*15:78:03
	190 bp		*02:15	B*07:221
	290 bp		*07:14	
30	155 bp	1070 bp	*05:01:01:01-05:01:15, 05:01:17, 05:01:19-05:01:34, 05:03-05:08, 05:10-05:11, 05:13-05:16, 05:19-05:51Q, 05:53-05:86, 05:88-05:96, 05:98-05:102, 05:104-05:105, 05:108-05:113N, 05:116-05:127, 05:129-05:132, 05:135-05:142, 05:144, 07:41, 08:02:01:01-08:02:14, 08:04:01-08:05, 08:07, 08:12-08:13, 08:17-08:19, 08:23, 08:25, 08:28-08:32, 08:34, 08:37, 08:43, 08:45, 08:47-08:49, 08:52N-08:53, 08:55N, 08:57,	

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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			08:62-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92-08:94, 08:100, 08:103-08:104, 08:107-08:108, 08:110-08:116, 08:120, 08:123, 08:125-08:126, 08:132, 08:134, 08:139-08:140, 08:142	
31	150 bp 285 bp	800 bp	*01:13, 02:51, 03:87:01-03:87:02, 04:223:01-04:223:02, 05:09:01-05:09:03, 05:17, 05:52, 07:130, 08:15:01-08:15:02, 08:51, 08:73, 12:12, 12:144, 12:185, 16:27 *02:57, 04:40, 04:242, 06:123, 07:45	B*15:33, B*15:248, B*35:08:02, B*35:08:05 B*38:23, B*39:73
32⁴	120 bp 180 bp 210 bp	1070 bp	*05:03, 07:52 *03:48 *16:07:01	
33	190 bp 225 bp	1070 bp	*04:28 *05:04:01-05:04:02, 05:103:01-05:103:02, 05:135, 06:129, 07:68, 07:260:01-07:260:02, 07:302, 08:09, 08:11, 08:59, 08:113	B*15:337, B*18:83, B*58:76
34	220 bp 275 bp	1070 bp	*03:231 ^w , 04:10, 04:11 ^w , 04:36 ^w , 04:55 ^w , 04:153, 04:169, 04:210, 04:214 ^w , 04:215N, 05:78:01-05:78:02, 15:36 *03:251, 03:314, 04:27, 05:05:01-05:05:02, 05:07N, 05:135, 08:08:01-08:08:02, 08:62, 08:82	A*02:425, A*02:519, A*29:10:01-29:10:02, A*68:69, B*14:32, B*15:337, B*18:83, B*44:148
35	265 bp	1070 bp	*04:120, 05:01:01:01-05:01:34, 05:03-05:04:02, 05:06-05:08, 05:10-05:16, 05:18:01-05:51Q, 05:53-05:60, 05:62-05:81, 05:83-05:84, 05:86-05:106:02, 05:108-05:132, 05:134, 05:136-05:142, 05:144, 06:129, 07:04:01:01-07:04:11, 07:11-07:12, 07:41, 07:63, 07:68, 07:101, 07:139, 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, 07:365, 07:378, 07:394-07:395, 07:403, 07:406, 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, 08:01:01-08:08:01, 08:09-08:14, 08:16:01-08:50, 08:52N-08:61, 08:63, 08:65-08:69, 08:71, 08:73-08:81, 08:83-08:140, 08:142-08:143, 15:130	B*58:76
36^{4,6}	85 bp 120 bp 160 bp 210 bp 235 bp	1070 bp	*01:65, 03:28, 03:49, 03:117, 05:06, 05:86 *05:15 *03:25, 04:129, 05:42, 05:46, 06:67, 07:101, 07:148, 07:161, 08:05, 08:21, 08:137, 12:127, 17:05 *03:06:01-03:06:02, 03:26 *03:88	

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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37⁴	80 bp 130 bp 195 bp 235 bp 280 bp	800 bp	*07:50 *05:23, 05:62, 05:134, 07:04:01:01-07:04:11, 07:11, 07:63, 07:68, 07:101, 07:139, 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, 08:07, 08:47, 08:104 *05:14 *05:19 *05:16, 05:85, 05:107, 06:129, 07:364, 08:12	B*14:32
38	250 bp	800 bp	*02:49, 02:75, 02:115, 03:15, 03:32, 03:45, 03:60, 03:136, 03:297, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:147, 04:160, 04:171, 04:190, 04:256, 06:70:01-06:70:02, 06:132:01- 06:132:02, 07:20, 07:96:01-07:96:02, 07:127, 07:263, 07:390, 07:562, 15:25, 15:62	A*01:110, A*11:135
39	240 bp	1070 bp	*03:39, 03:67, 04:42:01-04:42:02, 04:220, 05:43, 06:02:01:01-06:02:01:03, 06:02:03-06:02:46, 06:04:01-06:16N, 06:18-06:75, 06:78-06:131, 06:133-06:187, 06:189-06:196, 08:37, 12:16, 12:147, 12:195:01, 16:21, 16:80, 17:20 [?]	
40⁵	245 bp	1070 bp	*01:22, 01:35, 02:03, 02:13, 02:16:01-02:16:02, 02:18, 04:04:01:01-04:04:02, 04:06, 04:13, 04:34, 04:58, 04:122, 04:160, 04:178, 04:212, 05:11, 05:17, 05:27, 05:68, 05:79, 05:115, 05:134, 06:04:01-06:04:02, 06:31, 06:118, 06:153, 08:01:01-08:01:19, 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, 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, 12:14:01-12:14:02, 12:18:01-12:18:02, 12:20, 12:83, 12:169, 12:175-12:176, 12:181, 14:06, 14:15, 14:53, 14:77, 15:02:01:01-15:07, 15:09- 15:13:01:01, 15:15-15:19, 15:21-15:24, 15:26- 15:50, 15:52-15:73, 15:76-15:83, 15:85-15:101, 15:103-15:133, 16:04:01:01, 16:04:03-16:04:04, 16:29, 16:33, 16:35, 16:40, 16:42, 16:48, 16:55, 16:61, 16:66, 16:78, 16:82, 16:91, 17:01:01:02- 17:16, 17:18-17:34	B*58:02:01
41	165 bp	1070 bp	*02:94, 04:129, 05:01:01:01-05:01:27, 05:01:28 ^w , 05:01:29-05:01:34, 05:03-05:28, 05:30-05:47, 05:49-05:91N, 05:93-05:128N, 05:130-05:144, 06:05, 06:67, 08:10, 12:21, 12:33, 15:107, 17:05	

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101.707-12u – without *Taq* polymerase, IFU-02

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42	245 bp	1070 bp	*01:02:01:01-01:03, 01:05-01:07:01, 01:08, 01:10-01:20, 01:23-01:34, 01:36-01:126, 01:128-01:130, 02:13, 02:32, 04:01:01:01-04:01:33, 04:01:35-04:01:76, 04:01:79-04:01:81, 04:03:01-04:03:03, 04:05, 04:07-04:12, 04:15:01-04:20, 04:23-04:33, 04:35-04:47, 04:49-04:57, 04:59Q-04:67, 04:69-04:93N, 04:95N-04:110, 04:112-04:121, 04:123N-04:159, 04:161-04:177, 04:179-04:187, 04:189-04:211, 04:213-04:257, 05:01:01:01-05:01:34, 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, 05:135-05:144, 06:05-06:06, 06:31, 08:02:01:01-08:02:14, 08:05, 08:07, 08:12, 08:15:01-08:15:02, 08:17-08:19, 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, 08:62-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92, 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, 12:09, 12:24, 12:85, 12:176, 14:02:01:01-14:05, 14:07N-14:14, 14:17-14:52, 14:54-14:62, 14:64-14:76, 14:78-14:81, 15:08, 15:102, 16:04:01:01, 16:04:03-16:04:04, 16:29, 16:33, 16:42, 16:53, 16:55, 16:61, 16:66, 16:68, 16:78, 16:82, 16:88, 16:91, 17:17, 18:01-18:02, 18:04-18:10	
43 ⁴	100 bp 155 bp 240 bp 275 bp	1070 bp	*01:02:34, 01:21, 02:42, 02:107, 04:140, 04:166, 04:220, 05:98, 06:05, 07:02:09, 08:14, 08:80, 08:103, 12:16, 12:147, 15:63, 15:113, 16:80 *06:13 *01:10, 01:51, 02:05:01-02:05:03, 02:17, 03:11:01-03:11:02, 03:39, 06:08, 06:53:01-06:53:02, 07:56:01-07:56:02, 07:60, 07:79, 07:109, 12:119, 14:25, 16:29, 16:50, 17:21 *06:27, 16:47	B*67:02 B*07:93, B*07:239, B*08:39, B*14:46, B*38:27, B*40:243
44 ^{4,5,8}	90 bp 135 bp 165 bp	1070 bp	*03:20N *16:08 *02:22, 02:118, 04:14, 04:68, 04:94:01-04:94:02, 05:08, 05:52, 05:89, 05:106:01-05:106:02, 05:112, 06:09, 06:144, 08:27, 08:29, 08:31, 12:31, 12:144, 16:45, 17:04, 18:03	A*24:96, 24:146, B*15:137, B*50:47
45 ⁵	140 bp 255 bp	1070 bp	*06:11, 06:122 ^w , 06:124 ^w , 06:147, 07:01:13, 07:04:01:01-07:04:11, 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, 12:02:11, 12:03:09, 12:11, 12:118, 16:01:16 *03:47, 12:126	

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	550 bp		*06:02:38, 07:447, 12:03:09	
46	290 bp	800 bp	*02:02:28, 03:03:29, 03:04:19, 03:113:01, 05:01:17, 05:09:02, 05:17, 06:02:23, 07:01:01:01-07:01:04, 07:01:06-07:01:35, 07:01:37-07:01:58, 07:05-07:07, 07:09, 07:14, 07:16, 07:18, 07:20-07:22, 07:24, 07:26:01-07:28, 07:30-07:31:02, 07:35-07:36, 07:40, 07:43:01-07:44, 07:52-07:53, 07:55N, 07:58-07:60, 07:65, 07:69-07:71, 07:73, 07:77-07:78:02, 07:81-07:83, 07:85-07:86, 07:89, 07:91-07:96:02, 07:98N, 07:103-07:104N, 07:106, 07:109, 07:111, 07:113, 07:115-07:116, 07:118-07:120, 07:122, 07:124, 07:128-07:129, 07:131:01-07:132, 07:134, 07:140-07:141:02, 07:148, 07:150Q-07:151, 07:153, 07:156, 07:162-07:166, 07:170, 07:173, 07:176, 07:179-07:180, 07:182, 07:184, 07:188-07:191N, 07:196-07:197, 07:200-07:201, 07:203-07:207, 07:210, 07:212, 07:214-07:215, 07:219, 07:222-07:225, 07:227N-07:228, 07:231, 07:235Q-07:237, 07:246:01-07:249, 07:253-07:257:04, 07:263, 07:266-07:269, 07:276-07:282, 07:292-07:293, 07:296-07:301, 07:303-07:304, 07:310-07:311, 07:313, 07:315, 07:330:01-07:332, 07:337, 07:343, 07:362, 07:366, 07:369-07:371, 07:377, 07:380, 07:385-07:387, 07:404, 07:407-07:408, 07:410-07:412, 07:417-07:419, 07:421-07:422, 07:424, 07:427, 07:430-07:431, 07:435, 07:437N, 07:440-07:445, 07:448, 07:450, 07:453-07:455, 07:458, 07:460-07:462, 07:468-07:471, 07:475-07:476N, 07:479, 07:481, 07:488, 07:490-07:493, 07:498-07:499, 07:502, 07:506, 07:508, 07:512, 07:514-07:515, 07:517, 07:521-07:522, 07:527-07:528, 07:531, 07:536-07:537, 07:540, 07:545-07:547, 07:549-07:550, 07:554-07:557, 07:559, 07:561, 08:15:02, 08:72:02, 12:03:10, 12:181, 15:65, 16:02:11	A*02:01:126, A*25:27:02, B*15:17:04, B*35:01:38, B*35:03:15, B*35:08:04, B*35:15:02, B*58:01:17
47⁴	110 bp	800 bp	*04:112, 06:44, 07:01:01:01-07:01:24, 07:01:26-07:01:45, 07:01:47-07:01:58, 07:06, 07:09, 07:18-07:22, 07:24, 07:26:01-07:26:02, 07:28, 07:30, 07:35-07:36, 07:40, 07:44, 07:52-07:53, 07:55N, 07:57-07:59, 07:65, 07:69-07:71, 07:73, 07:77-07:78:02, 07:81-07:83, 07:85-07:86, 07:89, 07:91-07:96:02, 07:98N, 07:103-07:104N, 07:106, 07:108:01-07:108:02, 07:110-07:113, 07:115-07:116, 07:118-07:120, 07:122, 07:124, 07:128-07:129, 07:131:01-07:132, 07:134, 07:140-07:141:02, 07:148, 07:150Q-07:151, 07:153, 07:156, 07:162-07:166, 07:170, 07:173, 07:176, 07:179-07:180, 07:182, 07:188-07:191N, 07:196-07:197, 07:200-07:201, 07:203-07:207, 07:210, 07:212, 07:214-07:215, 07:219, 07:222-07:225, 07:227N-07:228, 07:230-07:231, 07:235Q-07:237, 07:246:01-07:250, 07:253-07:257:04, 07:263,	

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49 ^a	80 bp	1070 bp	*02:49, 02:75, 03:15, 03:45, 03:297, 04:01:01:01-04:01:51, 04:01:53-04:01:76, 04:01:79-04:01:81, 04:03:01, 04:03:03-04:10, 04:13-04:20, 04:23-04:26, 04:28, 04:30-04:32, 04:34-04:35, 04:37-04:51, 04:53-04:54,	

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50	240 bp 305 bp 415 bp	1070 bp	*03:03:29, 03:04:19, 03:113:01, 07:29:01-07:29:02, 07:177, 07:184, 07:248 *03:03:29, 03:04:19, 03:113:01, 07:10, 07:43:01-07:43:02, 07:184, 07:196, 07:367 *06:17, 07:07, 07:09, 07:49, 07:61N, 07:76:01-07:76:02, 07:210, 07:238, 07:247, 07:315, 07:328, 07:403, 07:406, 18:01-18:10	B*35:01:38, B*35:03:15, B*35:08:04, B*35:15:02, B*37:04:02, B*57:01:18, B*58:01:17
51⁴	100 bp 235 bp 265 bp	800 bp	*07:32N, 07:67 * 01:16- 01:18, 01:21, 01:23, 01:128, 07:316, 07:338 * 01:19, 07:24, 07:218	
52	130 bp	1070 bp	*03:251, 03:314, 04:120, 05:01:01:01-05:01:26, 05:01:28-05:01:34, 05:03-05:08, 05:10-05:16, 05:18:01-05:22:02, 05:24-05:48N, 05:50-05:51Q, 05:53-05:61, 05:63-05:94, 05:96-05:109, 05:111-05:124, 05:126-05:132, 05:135, 05:137-05:142, 05:144, 06:129, 07:12, 07:41, 07:447, 08:01:01-08:06, 08:08:01-08:14, 08:16:01-08:46, 08:48-08:50, 08:52N-08:63, 08:65-08:71, 08:73-08:75, 08:77-08:83, 08:85-08:103, 08:105-08:123, 08:125-08:143, 15:130	A*29:10:01-29:10:02, B*14:32, B*15:337, B*18:83, B*44:148, B*58:76
53^{4,7}	80 bp 115 bp 265 bp	1070 bp	*07:11 *05:12 *05:29:01-05:29:02, 08:13, 08:16:01, 08:25, 08:94	
54	395 bp	1070 bp	*06:17, 07:02:01:01-07:02:41, 07:02:42 ^w , 07:02:43-07:05, 07:08, 07:10-07:15, 07:17:01-07:17:03, 07:23, 07:25, 07:27:01-07:27:02, 07:29:01-07:29:02, 07:31:01-07:33N, 07:37-07:39, 07:41-07:43:02, 07:45-07:51, 07:54, 07:56:01-07:56:02, 07:61N ^w , 07:62-07:64, 07:66-07:68, 07:72, 07:74-07:76:02, 07:79-07:80, 07:84, 07:87-07:88, 07:90, 07:97, 07:99-07:102, 07:105, 07:107, 07:114, 07:117, 07:121Q, 07:123, 07:125-07:127, 07:130, 07:133, 07:135-07:139, 07:142-07:147, 07:149, 07:152N, 07:154-07:155, 07:157-07:161, 07:167-07:169, 07:171-07:172:02, 07:174-07:175, 07:177-07:178, 07:181, 07:183-07:187,	

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55	165 bp 215 bp 245 bp 320 bp 345 bp 405 bp 465 bp	800 bp	*02:104, 03:248, 04:11, 04:33, 04:169, 04:172, 05:141, 12:194, 15:100, 16:62 *07:26:01-07:26:02, 07:33N, 07:92, 07:96:01-07:96:02, 07:314:01-07:314:03, 07:317, 07:351, 18:09 *07:03 *07:72 *01:12:01-01:12:02, 01:21, 01:34, 01:49:01-01:50, 01:79:01-01:79:02, 01:101-01:102 *07:61N *07:07, 07:16, 07:51, 07:177, 07:181, 07:328, 07:367	B*07:267
56⁴	100 bp 130 bp 250 bp 305 bp	800 bp	*07:32N *02:02:28, 06:02:23, 07:22, 07:25, 07:137:01, 07:138, 07:404, 12:03:10 *07:35, 07:352 *03:03:29, 03:04:19, 03:113:01, 07:10, 07:43:01-07:43:02, 07:184, 07:196, 07:367	A*02:01:126, A*03:01:46, A*03:154:02, A*11:32:02, A*24:02:62, A*24:347:01, A*25:27:02, A*33:03:09, A*68:01:12 B*35:01:38, B*35:03:15, B*35:08:04, B*35:15:02, B*37:04:02, B*57:01:18, B*58:01:17

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57⁵	155 bp	1070 bp	*03:251, 03:314, 04:120, 05:12, 05:18:01, 05:103:02, 06:129, 07:04:11, 08:01:01-08:01:18, 08:03:01-08:03:04, 08:06, 08:08:01-08:11, 08:14, 08:16:01-08:16:02, 08:20-08:22, 08:24, 08:26N-08:27, 08:33:02-08:33:03, 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, 08:78-08:89N, 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, 15:130	B*15:337
58⁴	110 bp	1070 bp	*04:82, 04:159, 05:79, 08:03:01-08:03:04, 08:06, 08:14, 08:38, 08:40, 08:61, 08:101, 08:117	
59	505 bp	1070 bp	*01:14, 02:32, 02:72, 04:01:01:01-04:01:24, 04:01:26-04:01:76, 04:01:79-04:01:81, 04:03:01-04:03:03, 04:05, 04:07-04:10, 04:12, 04:15:01-04:20, 04:23-04:28, 04:30-04:33, 04:35, 04:37-04:47, 04:49-04:54, 04:56-04:57, 04:59Q-04:60, 04:62-04:67, 04:69-04:93N, 04:95N-04:112, 04:115N-04:121, 04:123N-04:159, 04:161-04:171, 04:173N, 04:175-04:177, 04:179-04:211, 04:213-04:248, 04:250-04:252, 04:254-04:257, 05:01:01:01-05:01:34, 05:03-05:07N, 05:09:01-05:10, 05:13-05:16, 05:18:01-05:19, 05:21-05:26, 05:28-05:31, 05:33-05:51Q, 05:53-05:61, 05:63-05:67, 05:69, 05:71-05:75, 05:77-05:78:02, 05:80-05:88, 05:90-05:105, 05:106:02-05:111, 05:113N-05:114, 05:116-05:128N, 05:130-05:133, 05:135-05:142, 05:144, 06:05-06:06, 06:79N, 12:09, 14:12, 14:49, 15:08, 15:102, 17:17, 18:01-18:02, 18:04-18:10	
60⁴	105 bp	1070 bp	*03:251, 04:120, 05:01:01:01-05:01:34, 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, 07:41, 08:02:01:01-08:02:14, 08:05, 08:07, 08:12, 08:17-08:19, 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, 08:62-08:63, 08:67-08:71, 08:73-08:77, 08:90, 08:92, 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	
61⁵	235 bp	800 bp	*02:12, 02:49, 02:55:01-02:55:02, 02:115, 03:15, 03:27, 03:38:01-03:38:02, 03:53, 03:69, 03:130, 03:136, 03:163, 03:246, 03:274, 03:297, 04:03:01, 04:03:03, 04:06, 04:16, 04:80, 04:103, 04:107, 04:147, 04:160, 04:171, 04:190, 04:256, 05:42, 05:46, 06:03:01-06:03:02, 06:76:01-06:76:02, 06:132:01-06:132:02, 07:26:01-07:26:02, 07:92, 07:96:01-07:96:02, 07:314:01-07:314:03, 07:317, 07:351, 08:05, 08:21, 08:25,	B*07:13, B*07:15, B*07:160, B*67:02

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62^{4,5}	100 bp	800 bp	*01:04, 01:21, 12:02:01-12:02:05, 12:02:07, 12:02:09-12:02:11, 12:02:13, 12:03:19, 12:03:32, 12:08, 12:10:01-12:10:02, 12:14:02, 12:16-12:18:01, 12:22, 12:27, 12:30, 12:36, 12:40-12:41, 12:44, 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, 12:123-12:124, 12:126-12:128, 12:130, 12:132, 12:134, 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, 12:183, 12:188, 12:193, 12:196, 12:198, 12:200, 16:02:13
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73	175 bp 205 bp 325 bp	1070 bp	*06:161, 08:06, 16:33 *06:12 *01:90, 01:101-01:102, 01:113, 01:116, 02:06:01-02:06:02, 02:23, 02:36, 02:68, 03:81, 03:175, 03:199, 03:245, 03:317, 04:108, 04:178, 05:132, 06:89, 07:123, 07:173, 07:294, 08:113, 12:15, 12:113, 15:02:01:01-15:02:17, 15:02:19-15:02:21, 15:02:23-15:03, 15:05:01-15:13:01:01, 15:15-15:19, 15:21-15:24, 15:26-15:29, 15:31-15:39, 15:41-15:63, 15:67-15:75, 15:78:01-15:101, 15:103-15:104, 15:106-15:109, 15:111-15:128, 15:130-15:133, 16:20
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	210 bp 235 bp		*03:19, 03:44, 03:102, 03:307 *03:88	
81⁴	65 bp 180 bp 440 bp	1070 bp	*07:06, 07:18-07:19, 07:330:02, 07:517, 08:102 *04:30 *01:90, 02:06:01-02:06:02, 02:47, 03:19, 03:102, 03:307, 03:318N, 04:178, 05:132, 06:168, 07:289, 12:15, 15:11, 15:16-15:17, 15:43,	B*46:11, B*46:18, B*56:08, B*56:14
82⁷	180 bp	1070 bp	*01:64, 02:08, 02:87, 03:18:01-03:18:02, 03:64:01-03:64:02, 03:231, 03:301, 04:01:01:01- 04:01:02, 04:01:04-04:01:76, 04:01:79-04:01:81, 04:04:01:01-04:05, 04:07-04:15:03, 04:17-04:20, 04:23-04:79, 04:81-04:106, 04:108-04:132, 04:134-04:139, 04:141-04:146, 04:148-04:159, 04:161-04:165, 04:167-04:170N, 04:172-04:189, 04:191N-04:219, 04:221-04:255N, 04:257, 05:01:01:01-05:01:21, 05:01:23-05:01:34, 05:03- 05:57, 05:59-05:97, 05:99N-05:126, 05:128N- 05:144, 06:28, 06:76:01-06:76:02, 07:64, 07:73,	

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

			07:92, 07:172:01-07:172:02, 07:349, 08:01:01-08:13, 08:15:01-08:57, 08:59-08:63, 08:65-08:79, 08:81-08:102, 08:104, 08:106-08:133, 08:135-08:143, 12:02:01-12:15, 12:17-12:70, 12:72-12:139, 12:141-12:146, 12:148N-12:200, 14:02:01:01-14:02:09, 14:02:11-14:02:20, 14:04-14:09, 14:11-14:17, 14:19-14:21N, 14:23-14:34, 14:36-14:37, 14:39-14:40, 14:42-14:52, 14:55-14:60, 14:62-14:69, 14:71-14:78, 14:80-14:81, 15:10:01-15:10:03, 15:107, 16:01:01:01-16:02:13, 16:04:01:01, 16:04:03-16:04:04, 16:06-16:33, 16:35-16:69, 16:71-16:79, 16:81-16:84, 16:86-16:99, 16:101, 17:01:01:02-17:01:07, 17:01:09-17:34, 18:04
83	235 bp 315 bp	800 bp	*06:16N *02:06:01-02:06:02, 02:47, 03:19, 03:102, 03:307, 04:178, 05:132, 06:168, 07:289, 12:15, 15:02:01:01-15:02:08, 15:02:10-15:03, 15:07-15:08, 15:10:01-15:13:01:01, 15:15-15:18, 15:21, 15:26, 15:28, 15:31-15:35, 15:37-15:39, 15:41-15:45, 15:47-15:53, 15:56-15:58, 15:60, 15:62-15:63, 15:67-15:68, 15:71-15:75, 15:78:01-15:89, 15:91-15:101, 15:103, 15:106, 15:109, 15:112-15:114, 15:118-15:124, 15:127, 15:129-15:133 *06:15
84	360 bp 205 bp	800 bp	*06:31, 12:176, 16:01:01:01-16:01:04, 16:01:06-16:02:13, 16:04:01:01, 16:04:03-16:04:04, 16:08-16:21, 16:23-16:34, 16:36-16:39:02, 16:41-16:42, 16:44-16:47, 16:49-16:52, 16:54-16:67, 16:69-16:87, 16:89N-16:99, 16:101
85	340 bp	1070 bp	*01:14, 01:59, 01:118, 02:02:01-02:02:03, 02:02:05-02:02:11, 02:02:13-02:11, 02:13-02:26:03, 02:28-02:40:02, 02:42-02:86, 02:88-02:114, 02:116-02:125, 03:07:01, 03:15, 03:45, 03:130, 03:140, 03:163, 03:243, 03:268, 03:297, 04:01:01:01-04:01:28, 04:01:30-04:01:76, 04:01:79-04:01:81, 04:03:01-04:10, 04:12-04:20, 04:23-04:28, 04:30-04:35, 04:37-04:54, 04:56-04:171, 04:173N-04:213, 04:215N-04:248, 04:250-04:257, 05:01:01:01-05:01:34, 05:03-05:128N, 05:130-05:144, 06:02:01:01-06:02:01:03, 06:02:03-06:02:11, 06:02:13-06:10, 06:12-06:51, 06:53:01-06:121, 06:123, 06:125-06:146, 06:148-06:196, 07:07, 07:09, 07:49, 07:76:01-07:76:02, 07:210, 07:238, 07:247, 07:315, 07:328, 07:403, 07:406, 08:10, 12:04:01-12:05, 12:09, 12:21, 12:33, 12:41, 12:54, 12:60, 12:146, 12:188, 14:04, 14:12, 14:49, 14:64, 14:77, 15:02:01:01-15:05:10, 15:05:12-15:06:03, 15:08-15:13:01:01, 15:15-15:19, 15:22-15:24, 15:26-15:42, 15:44:01-15:70, 15:72-15:115N, 15:117-15:133, 16:02:01-16:02:13, 16:09, 16:12, 16:19, 16:25, 16:46-16:48, 16:57, 16:60, 16:63, 16:69-16:70, 16:74,

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot-specific information

			16:77N, 16:84, 16:88-16:91, 16:99, 16:101, 17:01:01:02-17:21, 17:23-17:34, 18:01-18:10	
86⁵	140 bp 235 bp	1070 bp	*07:72 *02:14:01-02:14:02, 02:107, 03:39, 03:67, 05:43, 06:05, 06:44, 06:124, 06:138, 07:39-07:40, 07:177, 07:210, 07:238, 07:328, 07:335, 07:563, 08:37, 15:23, 15:63, 16:21, 16:80	B*08:15
87⁷	160 bp	1070 bp	*07:53, 07:216, 16:01:01:01-16:02:13, 16:06- 16:09, 16:11-16:28, 16:30N-16:32, 16:34, 16:36- 16:39:02, 16:41, 16:43-16:44, 16:46-16:47, 16:49-16:52, 16:54, 16:56-16:60, 16:62-16:65, 16:69-16:77N, 16:79-16:81, 16:83-16:87, 16:89N-16:90, 16:92-16:99, 16:101	A*24:174
88⁴	85 bp 195 bp 545 bp	1070 bp	*04:23, 04:108 *04:31 *01:85, 08:22, 08:56, 08:102, 15:29, 15:87	
89	345 bp	800 bp	*01:02:01:01-01:02:33, 01:02:35-01:20, 01:22- 01:72, 01:74-01:79:02, 01:81-01:122, 01:124- 01:126, 01:128-01:130, 03:02:01-03:04:14, 03:04:16-03:04:24, 03:04:26-03:11:02, 03:13:01- 03:117, 03:119:01-03:144, 03:146-03:171, 03:173-03:230, 03:232-03:247, 03:249-03:323N, 03:325-03:334, 03:336-03:341, 03:343, 05:01:12, 05:29:02, 06:02:01:01-06:02:01:03, 06:02:03-06:04:02, 06:06-06:16N, 06:18- 06:76:01, 06:77-06:179, 06:181-06:196, 08:02:11, 12:02:11, 12:03:04, 12:03:09, 12:03:34:01-12:03:34:02, 12:04:01, 12:195:01, 14:02:01:01-14:02:02, 14:02:04-14:02:20, 14:04- 14:07N, 14:09, 14:11-14:21N, 14:23-14:26, 14:28:01-14:34, 14:36-14:37, 14:39-14:40, 14:42-14:52, 14:55-14:60, 14:62-14:69, 14:71- 14:73, 14:75-14:78, 14:80-14:81, 15:43, 16:01:02, 16:01:16, 17:02, 17:04 [?] , 17:06 [?] - 17:16 [?] , 17:18 [?] -17:29 [?] , 17:31 [?] -17:34 [?]	
90	205 bp 350 bp	800 bp	*07:66 *17:01:01:02-17:01:03, 17:01:05-17:01:13, 17:03:01:01-17:03:02, 17:04 [?] , 17:05, 17:06 [?] - 17:16 [?] , 17:17, 17:18 [?] -17:29 [?] , 17:30, 17:31 [?] - 17:34 [?]	
91⁴	70 bp 105 bp 170 bp 245 bp	800 bp	*17:02, 17:04 [?] , 17:06 [?] -17:16 [?] , 17:18 [?] -17:29 [?] , 17:31 [?] -17:34 [?] *07:67 *07:48 *04:01:43, 05:01:17, 05:09:02, 05:17, 07:13, 07:28, 07:55N, 07:289, 07:536, 08:15:02, 08:72:02 *07:47, 07:461	B*35:03:15, B*37:04:02
92⁸	155 bp 300 bp 485 bp	1070 bp	*03:135, 04:20 *17:03:01:01-17:03:02, 17:04 [?] , 17:06 [?] -17:16 [?] , 17:17, 17:18 [?] -17:29 [?] , 17:31 [?] -17:34 [?] *07:419	

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot-specific information

93⁴	90 bp 210 bp 290 bp	1070 bp	*17:01:01:02-17:01:13, 17:04 [?] , 17:05, 17:06 [?] - 17:16 [?] , 17:18 [?] -17:29 [?] , 17:30, 17:31 [?] -17:34 [?] *03:271, 14:06, 14:15, 14:53, 14:77 *14:11
94	560 bp	1070 bp	*07:01:01:01-07:33N, 07:35-07:294, 07:296- 07:347N, 07:349-07:542, 07:544-07:563, 12:181, 18:01, 18:03 [?] -18:09 [?]
95	225 bp	1070 bp	*04:01:01:01-04:01:76, 04:01:79-04:01:81, 04:03:01-04:20, 04:23-04:257, 18:02, 18:03 [?] - 18:09 [?] , 18:10
96¹²	-	-	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 high resolution for frequent alleles 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 3, 5, 18, 21, 40, 44, 45, 57, 61, 62 and 86 may have tendencies of unspecific amplifications.

⁶Primer mixes 6, 20, 36, 78 and 80 have a tendency to giving rise to primer oligomer formation.

⁷Primer mixes 10, 12, 17, 27, 53, 64, 82 and 87 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C high resolution primer mixes.

⁸Primer mixes 10, 44 and 92 may give rise to a long unspecific amplification product. This band should be disregarded when interpreting the typing results.

⁹Primer mix 64 may give rise to unspecific amplification in C*12 alleles.

¹⁰Primer mix 19 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C high resolution primer mixes for the C*03 alleles.

¹¹In primer mix 8 the positive control band may be weaker than for other HLA-C high resolution primer mixes.

¹²Primer mix 96 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs.

'w', might be weakly amplified.

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

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	90	100	65	100	130	105	200	100	140	105	75	70
PCR product		215	100	200	155	150		135		130	160	280
			200		215	190		595			505	
			225		275	210						
			290		300	265						
			365									
Length of int.	800	1070	1070	1070	1070	800	1070	800	1070	800	1070	800
pos. control ¹												
5'-primer(s) ²	368 5'-gTg 3'	98 5'-CTC 3'	368 5'-gTg 3'	142 5'-TCC 3'	361 5'-AgT 3'	105 5'-gCT 3'	703 5'-CTA 3'	232 5'-AgA 3'	92 5'-gTg 3'	206 5'-AgA 3'	105 5'-gCT 3'	105 5'-gCT 3'
		356 5'-CCC 3'	757 5'-CCC 3'	244 5'-CgC 3'	504 5'-CAC 3'	363 5'-AAT 3'		486 5'-ACA 3'	97 5'-TCg 3'	2 nd I 5'-CCA 3'	992 5'-TAA 3'	512 5'-gTT 3'
		368 5'-gTC 3'	934 5'-TCA 3'	406 5'-gCA 3'	512 5'-gTg 3'	368 5'-gTg 3'			113 5'-CCA 3'			
			5 th I 5'-gTC 3'						368 5'-gTT 3'			
3'-primer(s) ³	419 5'-CgT 3'	154 5'-CAg 3'	427 5'-gTA 3'	302 5'-ggT 3'	473 5'-CAA 3'	167 5'-ACC 3'	861 5'-TCg 3'	302 5'-ggT 3'	201 5'-CTT 3'	270 5'-TAC 3'	134 5'-AgC 3'	343 5'-C 3'
		427 5'-gTg 3'	527 5'-CCA 3'	559 5'-CgT 3'	523 5'-ACA 3'	323 5'-AgC 3'		538 5'-CAg 3'	477 5'-gCA 3'	418 5'-gTC 3'	142 5'-TgA 3'	539 5'-TCT 3'
		538 5'-CCg 3'	619 5'-TTT 3'		538 5'-gCA 3'	479 5'-CCA 3'		578 5'-TgT 3'			218 5'-gCT 3'	
		539 5'-TCT 3'	956 5'-CAg 3'		595 5'-CCA 3'	512 5'-CCA 3'					231 5'-...C 3'	
			1043 5'-CAA 3'		618 5'-CT 3'	538 5'-CCA 3'					1016 5'-CAC 3'	
						595 5'-CCT 3'						
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec. PCR product	215	280	275	110	110	90	110	240	195	80	150	250
				240	180	120	265	265	225	140	240	
				275	565	185	305		250			
				370		225	540		280			
						255						
Length of int. pos. control ¹	1070	800	1070	1070	1070	1070	1070	800	800	1070	800	1070
5'-primer(s) ²	112	105	355	98	201	122	341	89	133	361	115	2 nd I
	5'-CCT 3'	5'-gCT 3'	5'-TCA 3'	5'-CTA 3'	5'-CCg 3'	5'-CCA 3'	5'-ggA 3'	5'-gAA 3'	5'-CCT 3'	5'-AgT 3'	5'-ggA 3'	5'-CCA 3'
	417			355		199	363	105	201	417	201	
	5'-CAA 3'			5'-CCC 3'		5'-gTT 3'	5'-Agg 3'	5'-gCT 3'	5'-CCA 3'	5'-CAA 3'	5'-CCg 3'	
	419					374	512	115	355	419		
	5'-gTC 3'					5'-CTA 3'	5'-gTT 3'	5'-ggA 3'	5'-TCA 3'	5'-gTC 3'		
						379	527		368			
						5'-ACC 3'	5'-TgT 3'		5'-gTT 3'			
						406						
						5'-gCA 3'						
						512						
						5'-gTT 3'						
						539						
						5'-gTg 3'						
						539						
						5'-gCg 3'						
3'-primer(s) ³	295	343	589	295	270	341	353	312	343	459	312	539
	5'-TCC 3'	5'-T 3'	5'-CTT 3'	5'-TCC 3'	5'-TAg 3'	5'-CgT 3'	5'-TgA 3'	5'-AgT 3'	5'-T 3'	5'-AgA 3'	5'-AgT 3'	5'-TCC 3'
	589		589	301	341	589	353	312	514			
	5'-CTT 3'		5'-CTT 3'	5'-gCC 3'	5'-ggT 3'	5'-CTT 3'	5'-TgA 3'	5'-AgT 3'	5'-CTT 3'			
				426	343		589		550			
				5'-TCC 3'	5'-T 3'		5'-CTT 3'		5'-CAT 3'			
				589	474				601			
				5'-CTT 3'	5'-gCA 3'				5'-CTT 3'			
				3 rd I								
				5'-ggA 3'								
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec. PCR product	170	145	135	200	130	155	150	120	190	220	265	85
		170	175		190		285	180	225	275		120
			220		290			210				160
												210
												235
Length of int. pos. control ¹	1070	800	1070	800	800	1070	800	1070	1070	1070	1070	1070
5'-primer(s) ²	459	112	560	368	369	485	201	105	419	112	379	176
	5'-gAT 3'	5'-CCT 3'	5'-CCT 3'	5'-gTT 3'	5'-TAC 3'	5'-CAA 3'	5'-CCA 3'	5'-gCT 3'	5'-gTC 3'	5'-CCT 3'	5'-ACC 3'	5'-gCA 3'
		486	1018				355	369	697	355	379	395
		5'-ACA 3'	5'-gTg 3'				5'-CCT 3'	5'-TAC 3'	5'-TCC 3'	5'-CC 3'	5'-ACT 3'	5'-gCA 3'
							485	3 rd I		363		413
							5'-CAA 3'	5'-Cgg 3'		5'-AgC 3'		5'-TgT 3'
										379		420
										5'-ACg 3'		5'-TTC 3'
												467
												5'-CTT 3'
												539
												5'-gCg 3'
3'-primer(s) ³	589	218	3 rd I	527	459	601	299	242	601	289	601	221
	5'-CTC 3'	5'-gCg 3'	5'-ggA 3'	5'-CCg 3'	5'-AgA 3'	5'-CTT 3'	5'-TCT 3'	5'-CCA 3'	5'-CTT 3'	5'-AgT 3'	5'-CTT 3'	5'-ACC 3'
		613	3 rd I		518		601	539	846	341		256
		5'-gCA 3'	5'-ACg 3'		5'-CCA 3'		5'-CTC 3'	5'-TCT 3'	5'-CAC 3'	5'-ggT 3'		5'-CCA 3'
			1052		616			668		601		289
			5'-Tgg 3'		5'-TgT 3'			5'-TgA 3'		5'-CTT 3'		5'-AgC 3'
			1092									289
			5'-TTA 3'									5'-AgC 3'
												589
												5'-CTT 3'
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec.	80	250	240	245	165	245	100	90	140	290	110	185
PCR product	130						155	135	255			
	195						240	165	550			
	235						275					
	280											
Length of int. pos. control ¹	800	800	1070	1070	1070	1070	1070	1070	1070	800	800	1070
5'-primer(s) ²	361 5'-AgT 3'	134 5'-CCA 3'	28 5'-TCA 3'	2 nd I 5'-CCA 3'	176 5'-gCA 3'	2 nd I 5'-CCA 3'	142 5'-TCT 3'	19 5'-CCT 3'	86 5'-CAA 3'	368 5'-gTA 3'	270 5'-AAC 3'	368 5'-gTC 3'
	406 5'-gCC 3'						361 5'-AgT 3'	126 5'-ggA 3'	213 5'-CCC 3'			368 5'-gTC 3'
	446 5'-CgT 3'							412 5'-ATA 3'	368 5'-gTC 3'			
	512 5'-gTT 3'											
	1049 5'-C 3'											
3'-primer(s) ³	601 5'-CTT 3'	341 5'-CgT 3'	97 5'-gTC 3'	527 5'-CCg 3'	302 5'-ggT 3'	527 5'-CCg 3'	201 5'-CTT 3'	70 5'-ggC 3'	302 5'-ggC 3'	618 5'-CT 3'	341 5'-CgT 3'	512 5'-CCA 3'
	1087 5'-AgT 3'			539 5'-TCA 3'		538 5'-CCg 3'	341 5'-ggT 3'	220 5'-CgA 3'	474 5'-gCA 3'			
							343 5'-T 3'	239 5'-gCg 3'				
							475 5'-ggT 3'	538 5'-CCA 3'				
							559 5'-CTC 3'	539 5'-TCT 3'				
							595 5'-CCA 3'					
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

Well No.	49	50	51	52	53	54	55	56	57	58	59	60
Length of spec. PCR product	80	240	100	130	80	395	165	100	155	110	505	105
		305	235		115		215	130				
		415	265		265		245	250				
							320	305				
							345					
							405					
							465					
Length of int. pos. control ¹	1070	1070	800	1070	1070	1070	800	800	1070	1070	1070	1070
5'-primer(s) ²	302	47	89	512	1 st I	47	47	355	486	527	312	539
	5'-gAA 3'	5'-Agg 3'	5'-gAA 3'	5'-gTg 3'	5'-CgA 3'	5'-Agg 3'	5'-Agg 3'	5'-TCA 3'	5'-ACg 3'	5'-TAC 3'	5'-AAA 3'	5'-gCg 3'
		355	385		176		218	410		900		
		5'-TCA 3'	5'-ggT 3'		5'-gCA 3'		5'-ggA 3'	5'-gTg 3'		5'-CCg 3'		
		419	554		453		368	524				
		5'-gTA 3'	5'-ggT 3'		5'-AAT 3'		5'-gTA 3'	5'-CCA 3'				
			560		1049			538				
			5'-CAC 3'		5'-g 3'			5'-AgT 3'				
								560				
								5'-CAC 3'				
3'-primer(s) ³	341	280	278	601	175	270	90	618	601	595	527	601
	5'-CgT 3'	5'-CTA 3'	5'-ggT 3'	5'-CTT 3'	5'-CCg 3'	5'-TAC 3'	5'-Ag 3'	5'-CT 3'	5'-CTT 3'	5'-CCT 3'	5'-CCT 3'	5'-CTT 3'
		302	287		527		97			963		
		5'-ggT 3'	5'-TCg 3'		5'-CCA 3'		5'-gTA 3'			5'-gCT 3'		
		618	289		1087		121					
		5'-CT 3'	5'-AgC 3'		5'-AgC 3'		5'-ggC 3'					
			301				197					
			5'-gCA 3'				5'-gAT 3'					
			618				280					
			5'-CT 3'				5'-CTA 3'					
							341					
							5'-Cgg 3'					
							3 rd I					
							5'-ATg 3'					
Well No.	49	50	51	52	53	54	55	56	57	58	59	60

Well No.	61	62	63	64	65	66	67	68	69	70	71	72
Length of spec. PCR product	235	100	220	135	150	155	145	145	245	210	130	110
					415						200	
Length of int. pos. control ¹	800	800	800	1070	1070	1070	800	800	800	800	1070	1070
5'-primer(s) ²	98	419	361	201	28	361	98	98	98	368	368	134
	5'-CTA 3'	5'-gTC 3'	5'-AgT 3'	5'-CCA 3'	5'-TCA 3'	5'-AgT 3'	5'-CTC 3'	5'-CTC 3'	5'-CTC 3'	5'-gTT 3'	5'-gTA 3'	5'-CCA 3'
					431							
					5'-CgT 3'							
3'-primer(s) ³	289	477	538	289	270	474	201	201	302	538	459	201
	5'-AgC 3'	5'-gCA 3'	5'-CCA 3'	5'-AgT 3'	5'-TAg 3'	5'-gCA 3'	5'-CTC 3'	5'-CTT 3'	5'-ggT 3'	5'-CCg 3'	5'-AgA 3'	5'-CTT 3'
	289			289	538						527	
	5'-AgC 3'			5'-AgT 3'	5'-CCA 3'						5'-CCC 3'	
	295			306								
	5'-TCC 3'			5'-Cgg 3'								
Well No.	61	62	63	64	65	66	67	68	69	70	71	72

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **1F9**

Lot-specific information

Well No.	73	74	75	76	77	78	79	80	81	82	83	84
Length of spec. PCR product	175 205	95 175	145 195	315	100	195 235	140 310 360	70 170 210 235	65 180 440	180	235 315 360	205
Length of int. pos. control ¹	1070	1070	1070	800	800	1070	1070	800	1070	1070	800	800
5'-primer(s) ²	409 5'-ggC 3'	134 5'-CCA 3'	134 5'-CCA 3'	417 5'-CAA 3'	420 5'-TTC 3'	376 5'-gCT 3'	201 5'-CCA 3'	395 5'-gCA 3'	270 5'-AAG 3'	1 st I 5'-CgA 3'	376 5'-gCT 3'	361 5'-AgT 3'
	529 5'-AgA 3'	368 5'-gTg 3'	512 5'-gTT 3'	419 5'-gTC 3'		419 5'-gTA 3'		420 5'-TTA 3'	1018 5'-gTg 3'	1018 5'-gTg 3'	420 5'-TTA 3'	
	560 5'-CgC 3'		430 5'-ACC 3'			430 5'-ACC 3'		421 5'-ACC 3'			501 5'-.C 3'	
						501 5'-.C 3'		560 5'-CgA 3'				
						529 5'-AgA 3'						
						1018 5'-gTg 3'						
3'-primer(s) ³	3 rd I 5'-CTC 3'	270 5'-TAg 3'	289 5'-AgC 3'	3 rd I 5'-CTC 3'	477 5'-gCg 3'	3 rd I 5'-CTC 3'	302 5'-ggC 3'	539 5'-TCC 3'	420 5'-gCT 3'	134 5'-AgC 3'	3 rd I 5'-CTC 3'	527 5'-CCg 3'
		419 5'-CgA 3'	616 5'-CgT 3'			1055 5'-TgC 3'	302 5'-ggC 3'	589 5'-CTT 3'	1043 5'-CAA 3'	1055 5'-TgC 3'		527 5'-CCg 3'
		427 5'-gTA 3'							1052 5'-Tgg 3'			
Well No.	73	74	75	76	77	78	79	80	81	82	83	84

Well No.	85	86	87	88	89	90	91	92	93	94	95
Length of spec. PCR product	340	140 235	160	85 195 545	345	205 350	70 105 170 245 270	155 300 485	90 210 290	560	225
Length of int. pos. control ¹	1070	1070	1070	1070	800	800	800	1070	1070	1070	1070
5'-primer(s) ²	1 st I 5'-CgA 3'	97 5'-TCg 3'	419 5'-gTC 3'	368 5'-gTT 3'	28 5'-TCA 3'	20 5'-CCA 3'	28 5'-TCA 3'	70 5'-ggA 3'	20 5'-CCA 3'	956 5'-ggT 3'	895 5'-ggA 3'
				972 5'-CTA 3'		688 5'-CCA 3'	390 5'-gAA 3'	347 5'-gTA 3'	368 5'-gTT 3'		
							411 5'-TAg 3'	648 5'-CAC 3'			
							419 5'-gTT 3'				
							490 5'-CgA 3'				
							554 5'-ggT 3'				
3'-primer(s) ³	302 5'-ggT 3'	197 5'-gAT 3'	539 5'-TCT 3'	412 5'-gTC 3'	201 5'-CTC 3'	201 5'-CTC 3'	59 5'-CgA 3'	201 5'-CTC 3'	70 5'-ggC 3'	1034 5'-AgC 3'	956 5'-CAg 3'
	306 5'-Cgg 3'	289 5'-AgT 3'		521 5'-ggA 3'		853 5'-CAT 3'	618 5'-CT 3'	459 5'-AgA 3'	539 5'-TCA 3'		
				1034 5'-AgT 3'				967 5'-gAT 3'	619 5'-TTT 3'		
Well No.	85	86	87	88	89	90	91	92	93	94	95

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: 1F9

Lot-specific information

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.

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C high resolution SSP primer set ²																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	201779701	201437302	201667903	201437304	201667905	201437306	201437307	201437308	201437309	201779710	201779711	201437312	201779713	201437314	201437315	201667916
	IHWCell 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	*07:18		-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 1F9

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C high resolution SSP primer set ²																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	201667917	201779718	201779719	201667920	201437321	201779722	201437323	201437324	201437325	201437326	201437327	201437328	201437329	201437330	201437331	201437332
	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		*07:18		+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-



101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

CELL LINE VALIDATION SHEET				Well															
HLA-C high resolution SSP primer set ²				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
			Prod. No.:	201437333	201667934	201779735	201667936	201437337	201437338	201437339	201437340	201437341	201437342	201667943	201437344	201437345	201437346	201437347	201437348
	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	*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	-
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-NID	*04:01	*16:01	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-



101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 1F9

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C high resolution SSP primer set ²																				
				Well																
				49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	
				Prod. No.:	201667949	201779750	201779751	201437352	201437353	201437354	201779755	201667956	201437357	201667958	201667959	201437360	201437361	201437362	201437363	201779764
IHW 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	*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+	

101.707-12 – including Taq polymerase, IFU-01
101.707-12u – without Taq polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 1F9

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C high resolution SSP primer set ²																				
				Well																
				65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
				Prod. No.:	201437365	201437366	201437367	201437368	201437369	201437370	201779771	201437372	201779773	201667974	201437375	201779776	201437377	201667978	201437379	201667980
	IHWCell 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	*07:18		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-
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	-	-	-	+	+	+	-	-	-	-	-	-	+	-	-	+	-



101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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Lot No.: **1F9**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-C high resolution SSP primer set ²																			
				Well															
				81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	
				Prod. No.:	201667981	201667982	201437383	201779784	201779785	201779786	201437387	201667988	201437389	201667990	201779791	201667992	201779793	201437394	201437395
	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		*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
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	-	+	-	+	+	-	+	-	-	-	-	-	-	-	+



101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **1F9**

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 pairs in solutions 2, 4, 5, 8 to 10, 18, 19, 21, 32 to 34, 43, 44, 51, 53, 55, 56, 58, 65, 80 and 86. The specificities of the primers in primer solutions 2, 5, 8 to 10, 18, 19, 21, 32 to 34, 43, 44, 51, 53, 55, 56, 65, 80 and 86 were tested by separately adding one or more 5'-primers, respectively one or more 3'-primers. In primer solution 58 was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solution 4 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 2, 3, 5, 8, 9, 13, 18, 20, 21 to 23, 31, 33 to 37, 44, 45, 51, 56, 65, 73, 76, 78, 80, 83, 91 and 92 one or more of the 5'-primers were not possible to test. In primer solutions 2, 3, 5, 6, 8, 13, 15 to 17, 20, 21, 26, 27, 29, 32, 34, 36, 43, 44, 50, 51, 55, 61, 64, 74, 75, 78, 79, 81, 82, 85, 86, 88, 92 and 93 one or more of the 3'-primers were not possible to test. Additional 5'-primers or 3'-primers in primer solutions 3, 6, 11, 12, 13, 16, 17, 20, 26, 27, 31, 36, 37, 45, 46, 50, 71, 74, 75, 78, 81, 82, 88 and 91 to 93 were tested by separately adding additional 3'-primers and/or additional 5'-primers.

101.707-12 – including *Taq* polymerase, IFU-01
101.707-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 1F9

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