OLERUP SSP°

DRB1*07 Product Insert Page 1 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

Olerup SSP® DRB1*07

Product numbers: 101.118-24 – including *Taq* pol.

101.118-24u - without *Taq* pol.

Lot number: 3G7

Expiry date: 2022-05-01

Number of tests: 24 Number of wells per test: 21+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. 3G7.

Complete product documentation consists of generic Instructions for Use (IFU), lot specific Product Insert, Worksheet and Certificate.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP® DRB1*07 Lot (3E8)

The DRB1*07 kit is updated to enable separation of:

- Null and Alternatively expressed alleles
- The product documentation has been updated for new alleles of IMGT 3.31

The format of the Worksheet has been changed.

The DRB1*07 primer set, specificity and interpretation tables have been updated for the DRB1 alleles described since the previous *Olerup* SSP® DRB1*07 lot was made **(Lot No. 3E8)**.



DRB1*07 Product Insert Page 2 of 16
101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for 101.118-24u – without *Taq* polymerase, IFU-02 "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

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

Well	5'-primer	3'-primer	rationale
16	-	Modified	3'-primer modified for decreased tendency of primer oligomer formation. Exchanged positive control primers.

Changes in revision R01 compared to R00:

1. The expiration date has been altered due to extension of shelf-life.





DRB1*07 Product Insert Page 3 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

Well **22** contains <u>Negative Control primer pairs</u>, 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	105	200	105	80	75	80	85
product							
5'-primer ¹	164	340	440	45	45	43	36
•	5'-CAC3'	^{5'} -Agg ^{3'}	⁵ '-TTA3'	⁵ '-Tgg ³ '	^{5'} -Tgg ^{3'}	⁵ '-Tgg ³ '	5'-TAC3'
							36
							^{5'} -TAT ^{3'}
3'-primer ²	231	2 nd I	507	59	58	57	47
•	^{5'} -TgC ^{3'}	^{5'} -AAA ^{3'}	^{5'} -TTg ^{3'}	5'-CTC3'	^{5'} -ggC ^{3'}	^{5'} -CTC ^{3'}	5'-ACA3'
							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 codonnumbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

 $^{^2\}text{The}$ nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2^{nd} or 3^{rd} exon or the 2^{nd} 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.



DRB1*07 Product Insert Page 4 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

PRODUCT DESCRIPTION

DRB1*07 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB1*07:01 to DRB1*07:84 alleles.

PLATE LAYOUT

Each test consists of 22 PCR reactions in a 24 well cut PCR plate. Wells 23 and 24 are empty.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	NC	empty	empty

The 24 well cut PCR plate is marked with 'DRB1*07' in silver/gray ink.

Well No. 1 is marked with the Lot No. '3G7'.

Wells 1 to 21 – DRB1*07 primers.

Well 22 - Negative Control (NC).

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

Please note: When removing each 24 well PCR plate, make sure that the remaining plates stay covered. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

INTERPRETATION

Due to the sharing of sequence motifs between DRB1*07 alleles non-DRB1*07 alleles will be amplified by primer mix 9. For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the DRB1*07 alleles, i.e. **DRB1*07:01 to DRB1*07:84**, recognized by the HLA Nomenclature Committee in January 2018^{1,2} will be amplified by the primers in the DRB1*07 subtyping kit.

The DRB1*07 kit enables separation of the confirmed DRB1*07 alleles as listed in the IMGT/HLA database 3.25.0. 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 DRB1*07 alleles is listed below.

The DRB1*07 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.



DRB1*07 Product Insert Page 5 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

The following DRB1*07 alleles can be distinguished by the different sizes of the specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
DRB1*07:06, 07:32	6	DRB1*07:39, 07:68N	20
DRB1*07:14, 07:24	11	DRB1*07:40, 07:56	17
DRB1*07:17, 07:27	14	DRB1*07:44, 07:48	21
DRB1*07:30, 07:42	19		

¹DRB1 alleles listed on the IMGT/HLA web page 2018-January-19, release 3.31.0.

ALLELE CONFIRMATION STATUS

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
DRB1*07:01:01:01	Confirmed	DRB1*07:12	Confirmed	DRB1*07:42	Confirmed
DRB1*07:01:01:02	Unconfirmed	DRB1*07:13	Unconfirmed	DRB1*07:43	Unconfirmed
DRB1*07:01:01:03	Unconfirmed	DRB1*07:14	Confirmed	DRB1*07:44	Confirmed
DRB1*07:01:02	Unconfirmed	DRB1*07:15	Unconfirmed	DRB1*07:45	Unconfirmed
DRB1*07:01:03	Unconfirmed	DRB1*07:16	Unconfirmed	DRB1*07:46	Confirmed
DRB1*07:01:04	Unconfirmed	DRB1*07:17	Unconfirmed	DRB1*07:47	Unconfirmed
DRB1*07:01:05	Unconfirmed	DRB1*07:18	Unconfirmed	DRB1*07:48	Confirmed
DRB1*07:01:06	Unconfirmed	DRB1*07:19	Unconfirmed	DRB1*07:49	Unconfirmed
DRB1*07:01:07	Unconfirmed	DRB1*07:20	Confirmed	DRB1*07:50	Unconfirmed
DRB1*07:01:08	Confirmed	DRB1*07:21	Unconfirmed	DRB1*07:51	Confirmed
DRB1*07:01:09	Unconfirmed	DRB1*07:22	Unconfirmed	DRB1*07:52	Unconfirmed
DRB1*07:01:10	Unconfirmed	DRB1*07:23	Unconfirmed	DRB1*07:53	Unconfirmed
DRB1*07:01:11	Unconfirmed	DRB1*07:24	Unconfirmed	DRB1*07:54	Unconfirmed
DRB1*07:01:12	Unconfirmed	DRB1*07:25	Unconfirmed	DRB1*07:55	Unconfirmed
DRB1*07:01:13	Unconfirmed	DRB1*07:26N	Confirmed	DRB1*07:56	Confirmed
DRB1*07:01:14	Unconfirmed	DRB1*07:27	Unconfirmed	DRB1*07:57	Unconfirmed
DRB1*07:01:15	Confirmed	DRB1*07:28	Unconfirmed	DRB1*07:58N	Unconfirmed
DRB1*07:01:16	Unconfirmed	DRB1*07:29	Confirmed	DRB1*07:59	Unconfirmed
DRB1*07:01:17	Unconfirmed	DRB1*07:30	Confirmed	DRB1*07:60	Unconfirmed
DRB1*07:01:18	Confirmed	DRB1*07:31	Unconfirmed	DRB1*07:61	Confirmed
DRB1*07:01:19	Unconfirmed	DRB1*07:32	Confirmed	DRB1*07:62	Unconfirmed
DRB1*07:03	Confirmed	DRB1*07:33	Unconfirmed	DRB1*07:63	Unconfirmed
DRB1*07:04	Confirmed	DRB1*07:34	Unconfirmed	DRB1*07:64	Unconfirmed
DRB1*07:05	Confirmed	DRB1*07:35	Unconfirmed	DRB1*07:65	Unconfirmed
DRB1*07:06	Unconfirmed	DRB1*07:36	Unconfirmed	DRB1*07:66	Unconfirmed
DRB1*07:07	Confirmed	DRB1*07:37	Unconfirmed	DRB1*07:67	Unconfirmed
DRB1*07:08	Unconfirmed	DRB1*07:38	Unconfirmed	DRB1*07:68N	Unconfirmed
DRB1*07:09	Unconfirmed	DRB1*07:39	Confirmed	DRB1*07:69	Unconfirmed
DRB1*07:10N	Unconfirmed	DRB1*07:40	Confirmed	DRB1*07:70	Unconfirmed
DRB1*07:11	Confirmed	DRB1*07:41	Unconfirmed		

¹Allele status "confirmed" or "unconfirmed" as listed on the IMGT/HLA web page 2016-July-14, release 3.25.0, 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.



DRB1*07 Product Insert Page 6 of 16
101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for 101.118-24u – without *Taq* polymerase, IFU-02 "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in DRB1*07 homo- and heterozygotes is available upon request.



DRB1*07 Product Insert Page 7 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

SPECIFICITY TABLE

DRB1*07 SSP subtyping

Specificities and sizes of the PCR products of the 21+1 primer mixes used for DRB1*07 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DRB1*07 alleles ³	Amplified non- DRB1*07 alleles
1 ⁵	235 bp	515 bp	*07:01:01:01-07:01:22, 07:03- 07:21, 07:23-07:24, 07:26N-07:60, 07:62-07:63, 07:65-07:84	
2	185 bp	430 bp	*07:01:01:01-07:01:22, 07:05- 07:10N, 07:12-07:24, 07:26N- 07:49, 07:51-07:60, 07:62-07:84	
3	185 bp	430 bp	*07:03, 07:09, 07:26N	
4 ⁴	90 bp 235 bp	515 bp	*07:10N *07:04, 07:25	
5	190 bp 235 bp	430 bp	*07:05 *07:11, 07:25	
6	160 bp 250 bp	430 bp	*07:06, 07:29 *07:32	
7	160 bp	430 bp	*07:07, 07:28-07:29	
8	175 bp 210 bp	430 bp	*07:08, 07:26N *07:51	
9 ^{4,5}	105 bp 240 bp	430 bp	*07:12 *07:22-07:23	*04:90, 09:08
10 ⁴	120 bp 165 bp 220 bp	515 bp	*07:34 *07:13 *07:18	
114	110 bp 260 bp	515 bp	*07:14, 07:34 *07:24	
12	210 bp 245 bp	430 bp	*07:15, 07:21 *07:23	
13	210 bp	430 bp	*07:16, 07:21, 07:51	
14 ⁴	125 bp 215 bp 260 bp	430 bp	*07:27 *07:17 *07:20	
15	155 bp 220 bp 260 bp	430 bp	*07:19, 07:28 *07:18 *07:20	
16	200 bp	515 bp	*07:58N	
17	155 bp 265 bp	430 bp	*07:40 *07:56	
18	140 bp 235 bp	430 bp	*07:46 *07:61	
19	135 bp 220 bp	430 bp	*07:30 *07:42	



DRB1*07 Product Insert Page 8 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

204	110 bp 190 bp	430 bp	*07:39 *07:68N
214	125 bp 180 bp	430 bp	*07:48 *07:44
22 ⁶	-	-	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 DRB*07 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.

Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherit 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 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 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. In the presence of a specific amplification the intensity of the control band often decreases.

³For several DRB1 alleles 1st and/or 3rd 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 fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

⁵Primer mixes 1 and 9 have a tendency to giving rise to primer oligomer formation.

⁶Primer mix 22 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.



DRB1*07 Product Insert Page 9 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	235	185	185	90	190	160	160	175	105	120	110	210
PCR product				235	235	250		210	240	165	260	245
										220		
Length of int.	515	430	430	515	430	430	430	430	430	515	515	430
pos. control ¹												
5'-primer(s) ²	14(127)	29(174)	29(173)	14(127)	14(127)	14(127)	14(127)	21(149)	10(116)	14(127)	14(127)	10(116)
. ,	^{5'} -ATA ^{3'}	^{5'} -AgA ^{3'}					^{5'} -ATA ^{3'}					
	14(127)		29(174)					29(173)	14(127)	106(405)	106(405)	20(145)
	^{5'} -ATA ^{3'}		^{5'} -AgT ^{3'}					^{5'} -AAg ^{3'}	^{5'} -gTA ^{3'}	5' -ACT 3'	5' -ACT 3'	5' -ACC 3
			30(175)						57(256)			21(149)
			^{5'} -gAT ^{3'}					^{5'} -Agg ^{3'}	5' -CTA 3'			^{5'} -gAA ³
3'-primer(s) ³	78(319)	78(319)	78(319)	29(174)	64(278)	51(239)	51(239)	78(319)	78(319)	55(251)	35(191)	78(319)
- p(-)							5' -CCA 3'					
	78(319)			77(317)	77(317)	57(257)	54(248)			73(304)	86(344)	
	^{5'} -gTA ^{3'}				^{5'} -Àgg ^{3'}						5' -CAA 3'	
				78(319)	78(319)	84(337)	55(250)			133(485)	133(485)	
							5' -CCA 3'				5' -TCT 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
Length of spec.	210	125	155	200	155	140	135	110	125
PCR product		215	220		265	235	220	190	180
		260	260						
Length of int.	430	430	430	515	430	430	430	430	430
pos. control ¹									
5'-primer(s) ²	20(145)	14(127)	14(127)	25(160)	14(127)	14(127)	14(127)	14(127)	14(127)
. ()	5' -ACC 3'	^{5'} -ATA ^{3'}	^{5'} -ATA ^{3'}	^{5'} -TgT ^{3'}	^{5'} -ATA ^{3'}				
	21(149)								
	^{5'} -gAg ^{3'}								
	23(154)								
	^{5'} -Agg ^{3'}								
3'-primer(s) ³	78(319)	42(213)	50(235)	78(319)	52(241)	46(224)	45(221)	37(198)	42(212)
. ()	5' -CAC 3'	5' -TCC 3'	5' -CAA 3'	5' -CAC 3'	^{5'} -CTg ^{3'}	5' -ACA 3'	5' -CCT 3'	5' -ACT 3'	^{5'} -CgA ³
		72(301)	54(248)		88(350)	78(319)	74(308)	64(277)	59(264)
		5' -CCA 3'	^{5'} -gCT ^{3'}		^{5'} -AgT ^{3'}	^{5'} -CgC ^{3'}	5' -CCC 3'	^{5'} -C.g ^{3'}	^{5'} -gAA ^{3'}
			73(304)						
		5' -CAT 3'	^{5'} -gCT ^{3'}						
			86(344)						
			5 -CAT 3						
Well No.	13	14	15	16	17	18	19	20	21

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 430 or 515 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the longer, 515 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.

OLERUP SSP

DRB1*07 Product Insert Page 10 of 16
101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for

101.118-24u – without *Taq* polymerase, IFU-02

"Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

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.



DRB1*07 Product Insert Page 11 of 16

101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

	Lot No.: 3G/ Lot-specific information CELL LINE VALIDATION SHEET																			
	DRB1*07 SSP subtyping kit ²																			
												W	ell							
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
					_	2	3	4	5	9	7	8	6	0	_	2	3	4	2	6
				Production No.	110	110	110	110	110	220	220	220	110	7	7	7	22	7	17	7
) pp	44	4	44	4	4	229	229	229	44	4	4	4	229	4	44	83
				Pro No.	201444101	201444102	201444103	201444104	201444105	201672206	201672207	201672208	201444109	201444110	201444111	201444112	201672213	201444114	201444115	201891716
	IHW	C cell line ¹	DE	RB1		.,	.,	.,	.,	.,	- 1	- 1	- ,	.,		.,		.,		
1	9001		*01:01	\D1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2		LK707	*15:02	*04:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3		E4181324	*15:02	000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4		GU373	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5		KAS011	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*04:07	*08:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026		*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*04:05		-	-	-	-	-	-	-	-	٠	-	-	-	-	-	-	-
11	9051	PITOUT	*07:01		+	+	-	-	-	-	-	-	•	-	-	-	-	-	-	-
12	9052		*07:01		+	+	-	-	-	-	<u> </u>	<u> </u>	-	-	-	-	-	-	_	-
13		JESTHOM	*01:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14		OLGA	*08:02		-	-	-	-	-	-	Ŀ	Ŀ	-	-	-	-	-	-	-	-
15	9075		*09:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16		SWEIG007	*11:01		-	-	-	-	-	-	-	·	-	-	-	-	-	-	-	-
17		CTM3953540	*03:01	*13:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18		32367	*09:01	*11:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19		BM16	*12:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20		SLE005	*13:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		AMALA	*14:02	*4.4.5.4	-	-	-	-	-	-	-	Ŀ	-	-	-	-	-	-	-	-
22	9056	KOSE	*13:02	*14:54 *14:14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		JBUSH	*08:03 *11:01	14.14		-	-		-	-	÷	÷	-	-		-	-	-		
25		IBW9	*07:01		+	+	-	-	-	-	-	÷	-	Ë	-	-	-	-	-	-
26		WT49	*03:01		Τ.	-	-	-	-	-	÷	÷	-	H	-	H	-	-		-
27		CH1007	*04:05	*10:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28		BEL5GB	*04:05	*07:01	+	+	-	-	-	-			-	-	-	-	-	-	-	-
29	9050		*07:01	07.01	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021		*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_
31		DUCAF	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32		HAG	*13:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33		MT14B	*04:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104		*11:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35		SSTO	*04:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36		KT17	*04:03	*04:06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37		HHKB	*13:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099		*14:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*03:01	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*07:01	*09:01	+	+	-	-	-	-	-	-	·	-	-	-	-	-	-	-
41		H0301	*13:02		-	-	-	-	-	-	-	-	·	-	-	-	-	-	-	-
42		TAB089	*08:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43		T7526	*09:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057		*14:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45		SHJO	*07:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46		SCHU	*15:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47		TUBO	*11:04	*12:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*01:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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101.118-24 – including *Taq* **polymerase**, IFU-01 **101.118-24u – without** *Taq* **polymerase**, IFU-02

Visit https://labproducts.caredx.com for "Instructions for Use" (IFU)

	CELI	L LINE VA	ALIDA	TION					
		DRB1*07 S				_			
							Vel	ı	
					17		19		21
				Production No.	201672217	201672218	201672219	201672220	22
				lict	72,	72	72.	72	201672221
				0 G	116	16	16	16	16
				Pro No.	20	8	2	2	8
	IHW	C cell line ¹	DI	RB1					
1	9001	SA	*01:01		-	-	-	-	-
2	9280	LK707	*15:02	*04:05	-	-	-	-	-
3	9011	E4181324	*15:02		-	-	-	-	-
4	9275	GU373	*03:01		-	-	-	-	-
5	9009	KAS011	*16:01		-	-	-	-	-
6	9353	SM	*04:07	*08:03	-	-	-	-	-
7	9020	QBL	*03:01		-	-	-	-	-
8	9025	DEU	*04:01		-	-	-	-	-
9	9026	YAR	*04:02		-	-	-	-	-
10	9107	LKT3	*04:05		L-	-	-	-	-
11	9051	PITOUT	*07:01		-	-	-	-	-
12	9052		*07:01		-	-	-	-	-
13	9004	JESTHOM	*01:01		-	-	-	-	-
14	9071	OLGA	*08:02		-	-	-	-	-
15	9075	DKB	*09:01		-	-	-	-	-
16	9037	SWEIG007	*11:01		-	-	-	-	-
17	9282	CTM3953540	*03:01	*13:01	-	-	-	-	-
18	9257	32367	*09:01	*11:01	-	-	-	-	-
19	9038	BM16	*12:01		-	-	-	-	-
20	9059	SLE005	*13:02		-	-	-	-	-
21	9064	AMALA	*14:02		-	-	-	-	-
22	9056	KOSE	*13:02	*14:54	-	-	-	-	-
23	9124	IHL	*08:03	*14:14	-	-	-	-	-
24	9035	JBUSH	*11:01		-	-	-	-	-
25	9049	IBW9	*07:01		-	-	-	-	-
26	9285	WT49	*03:01		-	-	-	-	-
27	9191	CH1007	*04:05	*10:01	-	-	-	-	-
28	9320	BEL5GB	*04:16	*07:01	-	-	-	-	-
29	9050		*07:01		-	-	-	-	-
30	9021	RSH	*03:02		-	-	-	-	-
31	9019	DUCAF	*03:01		-	-	-	-	-
32		HAG	*13:03		-	-	-	-	-
33		MT14B	*04:04		-	-	-	-	-
34		DHIF	*11:01		-	-	-	-	-
35		SSTO	*04:03		-	-	-	-	-
36		KT17	*04:03	*04:06	-	-	-	-	-
37		HHKB	*13:01		-	-	-	-	-
38	9099		*14:02		-	-	-	-	-
39	9315		*03:01	*04:01	-	-	-	-	-
40		WHONP199	*07:01	*09:01	-	-	-	-	-
41		H0301	*13:02		-	-	-	-	-
42		TAB089	*08:03		-	-	-	-	-
43		T7526	*09:01		-	-	-	-	-
44	9057		*14:01		-	-	-	-	-
45		SHJO	*07:01		-	-	-	-	-
46		SCHU	*15:01		-	-	-	-	-
47		TUBO	*11:04	*12:01	-	-	-	-	-
48		TER-ND	*01:03	12.01	-	-	-	-	-



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101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for 101.118-24u – without *Taq* polymerase, IFU-02 "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

¹The provided cell line HLA specificities are retrieved from the http://www.ihwg.org/hla web site. The specificity of an individual cell line may thus be subject to change.

²The specificity of each primer solution in the kit has been tested against 48 well characterized cell line DNAs and where applicable, additional cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 3 to 21 were available. The specificities of the primers in primer solutions 4, 5, 6 and 9 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 3, 8, 12, 13 and 16 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 7, 10, 11, 14, 15 and 17 to 21 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 4 to 6, two 3'-primers were not possible to test, and in primer solution 9, two 5'-primers were not possible to test.

In addition, one 3'-primer in primer solution 1 was tested by separately adding one additional 5'-primer.



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101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for 101.118-24u – without *Taq* polymerase, IFU-02 "Instructions for Use" (IFU)



OLERUP SSP°

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101.118-24 – including *Taq* polymerase, IFU-01 Visit https://labproducts.caredx.com for 101.118-24u – without *Taq* polymerase, IFU-02 "Instructions for Use" (IFU)

Lot No.: **3G7** Lot-specific information

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