

101.123-24/06 – including *Taq* polymerase, IFU-01  
101.123-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **8H3**

Lot-specific information  
**Olerup SSP<sup>®</sup> DRB5**

Product number:	101.123-24/06 – including <i>Taq</i> pol. 101.123-24u/06u – without <i>Taq</i> pol.
Lot number:	8H3
Expiry date:	2021-12-01
Number of tests:	24 tests – Product No. 101.123-24/24u 6 tests – Product No. 101.123-06/06u
Number of wells per test:	20+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. 8H3.**

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

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP<sup>®</sup> DRB5 LOT (5F2)**

The DRB5 kit is updated for new alleles to enable separation of:

- Null and Alternatively expressed alleles.

The product documentation has been updated for new alleles of IMGT 3.35.0.

Two wells have been added to DRB5, wells **20 and 21**.

The DRB5 primer set, specificity and interpretation tables have been updated for the HLA-DRB alleles described since the previous *Olerup SSP<sup>®</sup> DRB5* lot was made (**Lot No. 5F2**).

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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
10	-	Added	3'-primer added for the DRB5*01:48N allele.
17	-	Added	3'-primer added for the DRB5*02:19N allele.
18	-	Added	3'-primer added for the DRB5*02:19N allele.
19	New	New	New primer pair added for the DRB5*01:49N allele. Negative control moved to well 21.
20	New	New	New primer pair added for the DRB5*01:48N allele.
21	-	-	Negative control added from well 19.

Changes in revision R01 compared to R00:

1. The section “Changes compared to the previous lot” was corrected in the Product Insert and the Release Note.

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Well **21** contains Negative Control primer pairs, that will amplify a majority of the *Olerup* SSP<sup>®</sup> 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
<b>5'-primer<sup>1</sup></b>	<b>164</b>	<b>340</b>	<b>440</b>	<b>45</b>	<b>45</b>	<b>43</b>	<b>36</b>
	5'-CAC <sup>3'</sup>	5'-Agg <sup>3'</sup>	5'-TTA <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-Tgg <sup>3'</sup>	5'-TAC <sup>3'</sup>
							<b>36</b>
							5'-TAT <sup>3'</sup>
<b>3'-primer<sup>2</sup></b>	<b>231</b>	<b>2<sup>nd</sup> I</b>	<b>507</b>	<b>59</b>	<b>58</b>	<b>57</b>	<b>47</b>
	5'-TgC <sup>3'</sup>	5'-AAA <sup>3'</sup>	5'-TTg <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-ggC <sup>3'</sup>	5'-CTC <sup>3'</sup>	5'-ACA <sup>3'</sup>
							<b>48</b>
							5'-gCA <sup>3'</sup>
							<b>48</b>
							5'-gCC <sup>3'</sup>
							<b>52</b>
							5'-TgT <sup>3'</sup>
<b>A*</b>	+	+	+				
<b>B*</b>	+	+	+				
<b>C*</b>	+	+	+				
<b>DRB1</b>				+	+		
<b>DRB3</b>				+	+		
<b>DRB5</b>				+			
<b>DQB1</b>					+		
<b>DPB1</b>						+	
<b>DQA1</b>							+

<sup>1</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> 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](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>2</sup>The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2<sup>nd</sup> or 3<sup>rd</sup> exon or the 2<sup>nd</sup> 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](http://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

### DRB5 SSP subtyping

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB5\*01:01:01 to DRB5\*01:51 and the DRB5\*02:02 to DRB5\*02:24 alleles.

#### PLATE LAYOUT

Each test consists of 21 PCR reactions in a 24 well cut PCR plate. Wells 22 to 24 are empty.

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

The 24 well cut PCR plate is marked with ‘DRB5’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘8H3’.

Wells 1 to 20 – DRB5 primers.

Well 21 – 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 DRB5 alleles, non-DRB5 alleles will be amplified by some primer mixes. For further details see Specificity Table.

#### UNIQUELY IDENTIFIED ALLELES

All the DRB5 alleles, i.e. **DRB5\*01:01:01 to DRB5\*01:51 and DRB5\*02:02 to DRB5\*02:24**, recognized by the HLA Nomenclature Committee in January 2019<sup>1,2</sup> will be amplified by the primers in the DRB5 subtyping kit.

The DRB5 kit enables separation of the confirmed DRB5 alleles as listed in the IMGT/HLA database 3.28.0. 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 DRB5 alleles is listed below.

The DRB5 kit also enables identification of null and alternatively expressed alleles.

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<sup>1</sup>DRB5 alleles listed on the IMGT/HLA web page 2019-January-23, release 3.35.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

<sup>2</sup>Alleles 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>.

## ALLELE CONFIRMATION STATUS

Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>	Allele	Status <sup>1</sup>
DRB5*01:01:01	Confirmed	DRB5*01:19	Unconfirmed	DRB5*02:09	Unconfirmed
DRB5*01:01:02	Unconfirmed	DRB5*01:20	Confirmed	DRB5*02:10	Confirmed
DRB5*01:01:03	Unconfirmed	DRB5*01:21	Confirmed	DRB5*02:11	Unconfirmed
DRB5*01:02	Confirmed	DRB5*01:22	Unconfirmed	DRB5*02:12	Confirmed
DRB5*01:03	Confirmed	DRB5*01:23	Unconfirmed	DRB5*02:13	Confirmed
DRB5*01:04	Unconfirmed	DRB5*01:24	Unconfirmed	DRB5*02:14	Unconfirmed
DRB5*01:05	Unconfirmed	DRB5*01:25	Unconfirmed	DRB5*02:15	Unconfirmed
DRB5*01:06	Unconfirmed	DRB5*01:26	Unconfirmed	DRB5*02:16	Unconfirmed
DRB5*01:07	Unconfirmed	DRB5*01:27N	Unconfirmed		
DRB5*01:08N	Confirmed	DRB5*01:28	Unconfirmed		
DRB5*01:09	Unconfirmed	DRB5*01:29	Unconfirmed		
DRB5*01:10N	Confirmed	DRB5*01:30	Unconfirmed		
DRB5*01:11	Unconfirmed	DRB5*01:31	Unconfirmed		
DRB5*01:12	Unconfirmed	DRB5*02:02	Confirmed		
DRB5*01:13	Confirmed	DRB5*02:03	Confirmed		
DRB5*01:14	Unconfirmed	DRB5*02:04	Unconfirmed		
DRB5*01:15	Unconfirmed	DRB5*02:05	Unconfirmed		
DRB5*01:16	Unconfirmed	DRB5*02:06	Unconfirmed		
DRB5*01:17	Confirmed	DRB5*02:07	Confirmed		
DRB5*01:18	Confirmed	DRB5*02:08	Unconfirmed		

<sup>1</sup>Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2017-April-13, release 3.28.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

## RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in DRB5 homo- and heterozygotes is available upon request.

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**SPECIFICITY TABLE**

**DRB5 SSP subtyping**

Specificities and sizes of the PCR products of the 20+1 primer mixes used for DRB5 SSP subtyping

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified DRB5 alleles <sup>3</sup>	Other amplified DRB alleles
<b>1</b>	255 bp	<b>515 bp</b>	*01:01:01:01-01:05, 01:07-01:20, 01:22-01:30, 01:32-01:38, 01:40-01:42, 01:45-01:51, 02:03	<b>DRB1*09:07</b>
<b>2</b>	210 bp	<b>515 bp</b>	*01:01:01:01-01:05, 01:07-01:10N, 01:12-01:20, 01:22-01:38, 01:40-01:51, 02:04, 02:08, 02:12	<b>DRB1*09:07</b>
<b>3</b>	225 bp	430 bp	*01:01:01:01-01:02, 01:04-01:05, 01:07-01:10N, 01:12-01:20, 01:22-01:38, 01:40-01:42, 01:44-01:51, 02:05, 02:08, 02:12	<b>DRB1*09:07</b>
<b>4<sup>4</sup></b>	100 bp	<b>515 bp</b>	*01:01:01:01-01:01:03, 01:04, 01:06-01:07, 01:09, 01:11, 01:15-01:19, 01:21-01:24, 01:26, 01:29-01:31, 01:33-01:34, 01:36-01:38, 01:40, 01:42-01:45, 01:47-01:50	
	150 bp		*02:06	
<b>5</b>	150 bp	<b>515 bp</b>	*01:01:01:01-01:01:01:02, 01:05, 01:07, 01:09, 01:13, 01:16-01:19, 01:22-01:24, 01:26, 01:29-01:31, 01:33-01:34, 01:36-01:38, 01:40-01:42, 01:44-01:45, 01:47-01:51	
<b>6</b>	145 bp	430 bp	*01:02-01:03, 01:05, 01:08N, 01:10N, 01:20, 01:25, 01:27N-01:28, 01:32, 01:35, 01:39, 01:46, 02:08, 02:12	
<b>7</b>	145 bp	430 bp	*01:02-01:03, 01:08N, 01:10N, 01:17, 01:20, 01:25, 01:27N-01:28, 01:32, 01:35, 01:39, 01:46, 02:05, 02:08, 02:12	
<b>8</b>	215 bp	430 bp	*01:03, 01:06, 01:09, 01:11, 01:21, 01:43, 02:02-01-02:04, 02:06-02:07, 02:09-02:11, 02:13-02:24	
<b>9<sup>4</sup></b>	85 bp 175 bp 225 bp	430 bp	*01:16 *01:13, 01:41 *01:04	

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<b>10<sup>4</sup></b>	110 bp 130 bp 160 bp	430 bp	*01:48N *01:07 *01:12, 01:15	
<b>11<sup>4</sup></b>	110 bp 200 bp	430 bp	*01:14 *01:06, 01:11, 01:21, 02:02:01-02:03, 02:06-02:07, 02:09-02:11, 02:13-02:23	
<b>12</b>	185 bp	<b>515 bp</b>	*02:02:01-02:02:03, 02:04- 02:12, 02:14-02:16, 02:18- 02:24	
<b>13</b>	150 bp	430 bp	*01:01:02 <sup>?</sup> , 01:03 <sup>?</sup> , 01:07 <sup>?</sup> , 01:09 <sup>?</sup> , 01:18, 02:04 <sup>?</sup>	<b>DRB1*15:02:03<sup>?</sup>, DRB1*15:86, DRB1*16:01:02<sup>?</sup>, DRB1*16:02:02<sup>?</sup>, DRB1*16:05:01<sup>?</sup>, DRB4*01:05<sup>?</sup>, DRB4*01:07:01<sup>?</sup></b>
	195 bp		*01:08N	
<b>14</b>	145 bp	430 bp	*02:07	
<b>15</b>	235 bp	430 bp	*01:10N, 01:12, 01:15	<b>DRB1*09:07</b>
<b>16<sup>4</sup></b>	125 bp 225 bp	430 bp	*01:21, 01:43, 01:47, 02:10 *01:20, 01:47, 02:08	<b>DRB1*08:59, DRB1*11:210</b>
<b>17</b>	130 bp 180 bp	430 bp	*01:46, 02:12 *01:27N, 02:19N	
<b>18</b>	185 bp	430 bp	*02:13, 02:19N	<b>DRB1*03:112, DRB1*09:06</b>
<b>19</b>	195 bp	430 bp	*01:49N	
<b>20</b>	185 bp	430 bp	*01:48N	
<b>21<sup>5</sup></b>	-	-	<b>Negative Control</b>	

<sup>1</sup>Alleles 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 DRB5 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 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.

<sup>2</sup>The 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.

<sup>3</sup>For several DRB alleles 1<sup>st</sup> and/or 3<sup>rd</sup> exon(s) and above, as well as intron nucleotide sequences, are not available. In these instances it is not known whether some of the primers of

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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 and that unknown sequences of codons 87 to 92 are identical with the DRB1\*01:01 consensus sequence.

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

<sup>5</sup>Primer mix 21 contains a negative control, which will amplify the majority of the 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.

Abbreviations

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



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## PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product(s)	255	210	225	100	150	145	145	215	85	110	110	185
				150					175	130	200	
									225	160		
Length of int. pos. control <sup>1</sup>	515	515	430	515	515	430	430	430	430	430	430	515
5'-primer(s) <sup>2</sup>	13(125) 5'-gTA 3'	13(125) 5'-gTA 3'	13(125) 5'-gTA 3'	38(199) 5'-ACT 3'	37(196) 5'-Agg 3'	38(199) 5'-ACg 3'	37(196) 5'-AgA 3'	13(125) 5'-gTA 3'	13(125) 5'-gTA 3'	38(199) 5'-ACT 3'	13(125) 5'-gTA 3'	37(196) 5'-AgA 3'
				98(379) 5'-CTg 3'		38(199) 5'-ACg 3'	41(209) 5'-Cgg 3'		120(446) 5'-gAC 3'			
3'-primer(s) <sup>3</sup>	85(341) 5'-CAA 3'	67(286) 5'-gAA 3'	71(299) 5'-gCC 3'	57(258) 5'-gCg 3'	72(303) 5'-gCg 3'	72(303) 5'-gCg 3'	70(295) 5'-CTg 3'	70(295) 5'-gTT 3'	58(260) 5'-CCT 3'	60(267) 5'-CAC 3'	37(196) 5'-gTA 3'	85(341) 5'-CAg 3'
		67(286) 5'-gAA 3'	74(307) 5'-CAg 3'	135(490) 5'-gCC 3'			72(303) 5'-gCg 3'	71(299) 5'-gCg 3'	74(307) 5'-CAg 3'	67(286) 5'-gAT 3'	67(286) 5'-gAT 3'	
		70(296) 5'-TCC 3'	78(319) 5'-CAC 3'					71(299) 5'-gCg 3'	135(490) 5'-gCT 3'	78(319) 5'-CAC 3'		
		72(303) 5'-gCg 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
Length of spec. PCR product(s)	150	145	235	125	130	185	195	185
	195			225	180			
Length of int. pos. control <sup>1</sup>	430	430	430	430	430	430	430	430
5'-primer(s) <sup>2</sup>	57(258) 5'-gAC 3'	24(157) 5'-ggT 3'	13(125) 5'-gTA 3'	6(103) 5'-CAT 3'	37(196) 5'-AgA 3'	37(196) 5'-AgA 3'	104(397) 5'-CTg 3'	13(125) 5'-gTA 3'
3'-primer(s) <sup>3</sup>	108(409) 5'-AgA 3'							
	93(365) 5'-gCg 3'	58(261) 5'-TCA 3'	78(319) 5'-CAC 3'	30(176) 5'-TgT 3'	67(286) 5'-gAT 3'	78(321) 5'-CAT 3'	156(553) 5'-CTA 3'	60(267) 5'-CAC 3'
	160(565) 5'-CAT 3'		79(323) 5'-TgC 3'	38(199) 5'-CAA 3'	78(321) 5'-CAT 3'	85(341) 5'-CAA 3'		
			67(286) 5'-gAA 3'	83(336) 5'-CCC 3'				
Well No.	13	14	15	16	17	18	19	20

<sup>1</sup>The 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.

<sup>2</sup>The nucleotide position matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

<sup>3</sup>The 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](http://www.ebi.ac.uk/imgt/hla) web site. The sequence of the 3 terminal nucleotides of the primer is given.

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CELL LINE VALIDATION SHEET																
DRB5 SSP subtyping kit																
				Prod. No.:	Well <sup>2</sup>											
					1	2	3	4	5	6	7	8	9	10	11	12
				201556401												
				201556402												
				201669803												
				201906204												
				201556405												
				201556406												
				201669807												
				201669808												
				201906209												
				201906210												
				201669811												
				201556412												
				201669813												
				201669814												
				201556415												
				201783316												
IHWC cell line <sup>1</sup>				DRB5												
1	9001	SA			-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*01:02		+	+	+	-	-	+	+	-	-	-	-	-
3	9011	E4181324	*01:02		+	+	+	-	-	+	+	-	-	-	-	-
4	9275	GU373			-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*02:02		-	-	-	-	-	-	-	+	-	+	+	-
6	9353	SM			-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL			-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU			-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR			-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3			-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT			-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB			-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM			-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA			-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB			-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007			-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540			-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367			-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16			-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005			-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA			-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE			-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL			-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH			-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9			-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49			-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007			-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB			-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU			-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH			-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF			-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG			-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B			-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF			-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO			-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17			-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB			-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL			-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML			-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199			-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301			-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089			-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526			-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM			-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO			-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*01:01		+	+	+	+	+	-	-	-	-	-	-	-
47	9045	TUBO			-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND			-	-	-	-	-	-	-	-	-	-	-	-

101.123-24/06 – including *Taq* polymerase, IFU-01  
101.123-24u/06u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **8H3**

Lot-specific information

CELL LINE VALIDATION SHEET				
DRB5 SSP subtyping kit				
				Well <sup>2</sup>
				17 18 19 20
			Prod. No.:	201906217 201906218 201906219 201906220
	IHWC cell line <sup>1</sup>	DRB5		
1	9001 SA		-	-
2	9280 LK707	*01:02	-	-
3	9011 E4181324	*01:02	-	-
4	9275 GU373		-	-
5	9009 KAS011	*02:02	-	-
6	9353 SM		-	-
7	9020 QBL		-	-
8	9025 DEU		-	-
9	9026 YAR		-	-
10	9107 LKT3		-	-
11	9051 PITOUT		-	-
12	9052 DBB		-	-
13	9004 JESTHOM		-	-
14	9071 OLGA		-	-
15	9075 DKB		-	-
16	9037 SWEIG007		-	-
17	9282 CTM3953540		-	-
18	9257 32367		-	-
19	9038 BM16		-	-
20	9059 SLE005		-	-
21	9064 AMALA		-	-
22	9056 KOSE		-	-
23	9124 IHL		-	-
24	9035 JBUSH		-	-
25	9049 IBW9		-	-
26	9285 WT49		-	-
27	9191 CH1007		-	-
28	9320 BEL5GB		-	-
29	9050 MOU		-	-
30	9021 RSH		-	-
31	9019 DUCAF		-	-
32	9297 HAG		-	-
33	9098 MT14B		-	-
34	9104 DHIF		-	-
35	9302 SSTS		-	-
36	9024 KT17		-	-
37	9065 HHKB		-	-
38	9099 LZL		-	-
39	9315 CML		-	-
40	9134 WHONP199		-	-
41	9055 H0301		-	-
42	9066 TAB089		-	-
43	9076 T7526		-	-
44	9057 TEM		-	-
45	9239 SHJO		-	-
46	9013 SCHU	*01:01	-	-
47	9045 TUBO		-	-
48	9303 TER-ND		-	-

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Lot No.: **8H3**

Lot-specific information

<sup>1</sup>The 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.

<sup>2</sup>The 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 9, 10 and 14 to 20 were available. The specificities of the primers in primer solutions 9, 10, 15, 17 and 18 were tested by separately adding one, two or three additional 5'-primers, respectively one or two additional 3'-primers. In primer solutions 14 and 16 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. In primer solutions 19 and 20 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 4, 7 and 9 one 5'-primer was not possible to test, and in primer solutions 2, 8, 10, 13 and 15 to 18 one or two 3'-primers were not possible to test. Additional primers in primer solutions 1 to 4, 7, 8, 11 and 13 were tested by separately adding additional 5'-primers and/or 3'-primers.

101.123-24/06 – including *Taq* polymerase, IFU-01

101.123-24u/06u – without *Taq* polymerase, IFU-02

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Lot No.: **8H3**

Lot-specific information

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Lot No.: **8H3**

Lot-specific information

## ADDRESSES:

### Manufacturer:

**Caredx AB**, Franzengatan 5, SE-112 51 Stockholm, Sweden.

**Tel:** +46-8-508 939 00

**Fax:** +46-8-717 88 18

**E-mail:** [orders-se@caredx.com](mailto:orders-se@caredx.com)

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

### Distributed by:

**CareDx GmbH**, Löwengasse 47 / 6, AT-1030 Vienna, Austria.

**Tel:** +43-1-710 15 00

**Fax:** +43-1-710 15 00 10

**E-mail:** [orders-at@caredx.com](mailto:orders-at@caredx.com)

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

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

**Tel:** 1-877-653-78171

**Fax:** 610-344-7989

**E-mail:** [orders-us@caredx.com](mailto:orders-us@caredx.com)

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

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