101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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Lot No.: 34X **Lot-specific information** **www.olerup-ssp.com**

Olerup SSP® DRB3

Product number:	**101.121-24/04 – including *Taq* pol.** **101.121-24u/04u – without *Taq* pol.**
Lot number:	**34X**
Expiry date:	**2017-April-01**
Number of tests:	**24 tests – Product No. 101.121-24/24u** **4 tests – Product No. 101.121-04/04u**
Number of wells per test:	**31+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. 34X.

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

CHANGES COMPARED TO THE PREVIOUS *OLERUP* SSP® DRB3 LOT (94S)

A well containing Negative Control primer pairs has been added.

The format of the Product Insert and Worksheet have been changed.

The DRB3 primer set as well as the specificity and interpretation tables have been updated for the DRB alleles described since the previous *Olerup* SSP® DRB3 lot **(Lot No. 94S)** was made. The kit design is based on IMGT/HLA database 3.17.0.

As of lot series V, the Specificity Table is included in the lot-specific Product Insert, and the Interpretation Table is included in the Worksheet.

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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
4	Moved	Removed	5'-primer moved to wells 14, 22 and 23. 3'-primer removed.
14	Added	-	5'-primer added from well 4.
22	Added	-	5'-primer added from well 4.
23	Added	-	5'-primer added from well 4.
32	Moved	Moved	Primer pair moved to well 4, negative control.

Well **32** 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'-primer[1]	**164**	**340**	**440**	**45**	**45**	**43**	**36**
	5'-CAC3'	**5'-Agg3'**	**5'-TTA3'**	**5'-Tgg3'**	**5'-Tgg3'**	**5'-Tgg3'**	**5'-TAC3'**
							36
							5'-TAT3'
3'-primer[2]	**231**	**2nd I**	**507**	**59**	**58**	**57**	**47**
	5'-TgC3'	**5'-AAA3'**	**5'-TTg3'**	**5'-CTC3'**	**5'-ggC3'**	**5'-CTC3'**	**5'-ACA3'**
							48
							5'-gCA3'
							48
							5'-gCC3'
							52
							5'-TgT3'
A*	**+**	**+**	**+**				
B*	**+**	**+**	**+**				
C*	**+**	**+**	**+**				
DRB1				**+**	**+**		
DRB3				**+**	**+**		
DRB5				**+**			
DQB1					**+**		
DPB1						**+**	
DQA1							**+**

[1]The 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]The 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.

PRODUCT DESCRIPTION

DRB3 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB3*01:01 to DRB3*03:03 alleles.

PLATE LAYOUT

Each test consists of 32 PCR reactions in a 32 well cut 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**	**NC**

The 32 well cut PCR plate is marked with 'DRB3' in silver/gray ink.
Well No. 1 is marked with the Lot No. '34X'.
Wells 1 to 31 – DRB3 high resolution primers.
Well 32 – 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 32 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 DRB3 and DRB1 alleles, primer mixes 1 to 5, 7 to 14, 16, 17, 19, 20, 24, 26, 28, 29 and 31 will amplify DRB1 alleles.
For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the DRB3 alleles, i.e. **DRB3*01:01 to DRB3*01:15, DRB3*02:01 to DRB3*02:29N and DRB3*03:01 to DRB3*03:03**, recognized by the HLA Nomenclature Committee in July 2014[1,2] will give rise to unique amplification patterns by the primers in the DRB3 subtyping kit.

The DRB3 subtyping kit cannot distinguish the silent mutations in the DRB3*01:01:02:01 to 01:01:05 alleles, the DRB3*02:02:01:01 to 02:02:05 alleles or the DRB3*03:01:01 to 03:01:03 alleles.

[1]DRB alleles listed on the IMGT/HLA web page 2014-July-25, release 3.17.0, www.ebi.ac.uk/imgt/hla.

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Lot No.: 34X **Lot-specific information** **www.olerup-ssp.com**

[2]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.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in DRB3 homo- and heterozygotes is available upon request.

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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Lot No.: 34X **Lot-specific information** **www.olerup-ssp.com**

SPECIFICITY TABLE

DRB3 SSP subtyping

Specificities and sizes of the PCR products of the 31+1 primer mixes used for DRB3 SSP subtyping

Primer Mix	Size of spec. PCR product[1]	Size of control band[2]	Amplified DRB3 alleles[3]	Other amplified DRB alleles[4]
1[5]	100 bp	**515 bp**	*01:01:02:01-01:08, 01:10-01:13, 01:15, 02:05, 03:01:01-03:01:03, 03:03	**DRB1*03:42, DRB1*03:87, DRB1*11:30[W], DRB1*13:67, DRB1*14:46**
2[5]	125 bp	430 bp	*01:01:02:01-01:06, 01:08, 01:10-01:14, 03:01:01-03:01:03, 03:03	**DRB1*03:38, DRB1*03:79, DRB1*03:85, DRB1*03:96, DRB1*04:82[W], DRB1*04:99[W], DRB1*08:07[W], DRB1*08:19[W], DRB1*08:25[W], DRB1*08:34[W], DRB1*08:52[W], DRB1*12:27[W], DRB1*13:31[W], DRB1*13:46[W], DRB1*13:54[W], DRB1*13:77[W], DRB1*13:100[W], DRB1*13:162[W], DRB1*13:180[W], DRB1*14:48[W]**
3[5]	95 bp	430 bp	*01:01:02:01-01:02, 01:04-01:08, 01:10-01:13, 01:15	**DRB1*03:42**
4[8]	240 bp	430 bp		**DRB1*11:13:01-11:13:02, DRB1*11:149, DRB1*13:08, DRB1*14:01:01, DRB1*14:01:02[?]-14:01:04[?], DRB1*14:02:02[?], DRB1*14:04-DRB1*14:05:01, DRB1*14:05:02[?]-14:05:04[?], DRB1*14:06:02[?]-14:06:03[?], DRB1*14:07:01, DRB1*14:07:02[?], DRB1*14:08, DRB1*14:09[?]-14:10[?], DRB1*14:11, DRB1*14:12:01[?]- DRB1*14:12:02[?], DRB1*14:14, DRB1*14:15[?]-14:20[?], DRB1*14:22[?]- DRB1*14:45[?], DRB1*14:47[?]-14:53[?], DRB1*14:54:01-14:54:04, DRB1*14:55[?]-14:56[?], DRB1*14:57, DRB1*14:58[?]-14:65[?], DRB1*14:67[?]-DRB1*14:81[?], DRB1*14:82, DRB1*14:83[?]-DRB1*14:136[?], DRB1*14:137N, DRB1*14:138[?]-14:140[?], DRB1*14:141, DRB1*14:142[?]-14:143[?], DRB1*14:145[?]-DRB1*14:151[?], DRB1*14:152N, DRB1*14:153[?]-14:157[?]**
5[5]	95 bp 125 bp	430 bp	*01:03 *01:10	**DRB1*14:46**
6	190 bp	430 bp	*01:04	
7[5,7]	90 bp 180 bp	**515 bp**	*01:05 *01:07, 01:15	**DRB1*03:42, DRB1*14:46**
8[5]	120 bp	430 bp	*01:06, 01:08	**DRB1*03:42, DRB1*14:46**

9[6]	165 bp	430 bp	*01:07, 02:01-02:08, 02:11-02:29N	**DRB1*14:141**
10[6]	185 bp	**515 bp**	*01:09, 02:01-02:04, 02:06-02:14, 02:15[W], 02:16-02:26, 02:27[W], 02:28-02:29N, 03:02	**DRB1*03:101, DRB1*08:32[W], DRB1*12:01:02[W]-12:01:03[W], DRB1*12:02:02[W], DRB1*12:03:02[W], DRB1*12:16:01[W], DRB1*12:16:03[W], DRB1*12:22[W], DRB1*14:121[W], DRB1*14:141, DRB1*15:03:01:01[W]-15:03:02[W], DRB1*15:23[W], DRB1*15:54[W], DRB1*15:57[W], DRB1*15:78[W], DRB1*15:94[W]**
11[7]	270 bp	**515 bp**	*02:01, 02:04, 02:24, 03:01:01-03:02	**DRB1*03:42, DRB1*03:87**
12[5]	90 bp 145 bp	**515 bp**	*02:01, 02:04, 02:17, 02:24	**DRB1*03:37, DRB1*03:80, DRB1*11:43, DRB1*11:50, DRB1*11:115, DRB1*11:151, DRB1*12:34, DRB1*13:131, DRB1*13:150, DRB1*14:59, DRB1*14:86, DRB1*14:96, DRB1*14:145, DRB1*14:153-14:154, DRB1*15:65**
13[6]	270 bp	**515 bp**	*01:01:02:01-01:13, 01:15, 02:02:01:01-02:03, 02:05-02:13, 02:15-02:23, 02:25-02:29N, 03:03	**DRB1*11:30, DRB1*13:67, DRB1*14:46, DRB1*14:141**
14	185 bp 265 bp	**515 bp**	*01:07, 01:09, 02:02:01:01-02:02:05, 02:05-02:13, 02:15-02:19, 02:21-02:23, 02:25-02:29N *01:02	**DRB1*10:01:01[W]-10:01:04[W], DRB1*10:03[W]-10:07[W], DRB1*14:141**
15[5]	120 bp 180 bp 210 bp	430 bp	*02:03, 03:01:01-03:03 *02:16 *02:17	
16	150 bp	430 bp	*01:09, 02:04, 02:19, 02:22	**DRB1*03:44**
17[5]	120 bp 180 bp	430 bp	*01:08, 02:06, 02:20 *02:16, 02:23	**DRB1*03:42, DRB1*03:87, DRB1*13:67, DRB1*14:46**
18[5]	100 bp	430 bp	*01:09, 02:07, 02:09, 02:21	
19[7]	180 bp 270 bp	**515 bp**	*02:08, 02:18, 02:23 *02:14	**DRB1*11:30**
20[7]	170 bp	430 bp	*01:01:02:01-01:06, 01:08-01:13, 01:15, 02:09-02:10, 02:16, 03:01:01-03:03	**DRB1*03:42, DRB1*03:87, DRB1*11:30, DRB1*13:67, DRB1*14:46**
21[5]	120 bp 210 bp	430 bp	*01:13 *02:11	
22[7]	185 bp	430 bp	*01:11	

	245 bp		*01:02, 02:12	
23	195 bp 240 bp	430 bp	*02:13 *01:02	
24	185 bp	430 bp	*02:09, 02:18-02:19, 02:21, 02:25, 03:01:01-03:03	**DRB1*11:30**
25	225 bp 260 bp	430 bp	*02:26 *01:12	
26	235 bp	430 bp	*01:14	**DRB1*03:01:02, DRB1*03:02:02, DRB1*03:05:03, DRB1*03:13:02, DRB1*03:17, DRB1*03:24, DRB1*03:27, DRB1*03:35, DRB1*03:81, DRB1*11:27:01, DRB1*11:84:01, DRB1*11:124, DRB1*11:136, DRB1*11:138, DRB1*12:22, DRB1*13:33:02-13:33:03, DRB1*13:61:01, DRB1*13:94:02, DRB1*13:96:02, DRB1*14:38, DRB1*14:47, DRB1*14:50, DRB1*14:98, DRB1*14:127:01**
27[5]	90 bp	430 bp	*02:01	
28	235 bp	430 bp	*02:27	**DRB1*11:30, DRB1*13:67, DRB1*14:46**
29[8]	160 bp	430 bp	*02:15, 02:27	**DRB1*10:01:01^{w}-10:06^{w}, DRB1*13:106**
30	210 bp	430 bp	*02:28	
31[5]	80 bp	430 bp	*02:19, 02:21, 02:25, 02:29N	**DRB1*12:34**
32[9]	-	-	**Negative Control**	

[1]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 DRB3 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 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.
[2]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.

[3]For 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.

[4]Due to the sharing of sequence motifs between DRB3 and DRB1 alleles, primer mixes 1 to 5, 7 to 14, 16, 17, 19, 20, 24, 26, 28, 29 and 31 will amplify DRB1 alleles.

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

[6]Primer mixes 9, 10 and 13 may have tendencies of unspecific amplifications.

[7]Primer mix 7, 11, 19, 20 and 22 have a tendency to giving rise to primer oligomer formation.

[8]Primer mixes 4 and 29 may give rise to a lower yield of HLA-specific PCR product than the other DRB3 primer mixes.

[9]Primer mix 32 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.

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec.	100	125	95	240	95	190	90	120	165	185	270	90
PCR product					125		180					145
Length of int. pos. control[1]	515	430	430	430	430	430	515	430	430	515	515	515
5'-primer(s)[2]	10(116)	29(175)	11(119)	114(429)	11(119)	8(110)	11(119)	11(119)	10(116)	29(175)	10(116)	51(239)
	5' -gCT 3'	5' -gAT 3'	5' -gCg 3'	5' -CTg 3'	5' -gCg 3'	5' -CTC 3'	5' -gCg 3'	5' -gCg 3'	5' -gCT 3'	5' -gAC 3'	5' -gCT 3'	5' -gAg 3'
			11(119)						10(116)			
			5' -gTg 3'						5' -gCT 3'			
3'-primer(s)[3]	29(175)	57(257)	28(171)	181(630)	28(171)	57(257)	27(169)	37(199)	51(239)	77(317)	86(344)	66(286)
	5' -gTA 3'	5' -CgA 3'	5' -CTg 3'	5' -CTT 3'	5' -CTC 3'	5' -CgA 3'	5' -gTT 3'	5' -CAC 3'	5' -CCC 3'	5' -AgT 3'	5' -CCA 3'	5' -gAA 3'
	29(175)	57(257)	28(171)		38(202)		57(257)			77(318)		86(344)
	5' -gTA 3'	5' -CAA 3'	5' -ATg 3'		5' -gCT 3'		5' -CAT 3'			5' -TAA 3'		5' -CCA 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec.	270	185	120	150	120	100	180	170	120	185	195	185
PCR product		265	180		180		270		210	245	240	
			210									
Length of int. pos. control[1]	515	515	430	430	430	430	515	430	430	430	430	430
5'-primer(s)[2]	10(116)	10(118)	11(119)	38(200)	10(116)	38(200)	10(116)	10(116)	10(116)	8(112)	10(118)	11(119)
	5' -gCT 3'	5' -TgT 3'	5' -gCT 3'	5' -CgC 3'	5' -gCT 3'	5' -CgC 3'	5' -gCT 3'	5' -gCT 3'	5' -gCT 3'	5' -TgC 3'	5' -TgT 3'	5' -gCT 3'
	10(116)	38(200)								10(118)	25(163)	
	5' -gCT 3'	5' -CgC 3'								5' -TgT 3'	5' -ggC 3'	
		38(200)								29(173)		
		5' -CgC 3'								5' -CAT 3'		
3'-primer(s)[3]	86(344)	86(344)	37(197)	74(308)	36(196)	57(257)	55(251)	51(239)	36(196)	77(318)	77(318)	58(260)
	5' -CAC 3'	5' -CAC 3'	5' -Cgg 3'	5' -CCC 3'	5' -gTT 3'	5' -CgA 3'	5' -gCA 3'	5' -CCg 3'	5' -gAg 3'	5' -TAA 3'	5' -TAA 3'	5' -CCT 3'
			37(197)		36(196)		56(256)	57(257)	66(286)			60(266)
			5' -CgA 3'		5' -gTT 3'		5' -gCT 3'	5' -CAg 3'	5' -gAT 3'			5' -Agg 3'
			57(257)		55(251)		58(260)					
			5' -CAg 3'		5' -gCA 3'		5' -CCT 3'					
			66(286)		57(257)		86(344)					
			5' -gAA 3'		5' -CAg 3'		5' -CAg 3'					
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

Well No.	25	26	27	28	29	30	31
Length of spec.	225	235	90	235	160	210	80
PCR product	260						
Length of int. pos. control[1]	430	430	430	430	430	430	430
5'-primer(s)[2]	10(116)	12(122)	163(577)	10(116)	38(200)	123(455)	51(239)
	5' -gCT 3'	5' -TAC 3'	5' -CAT 3'	5' -gCT 3'	5' -CgC 3'	5' -CTg 3'	5' -gAg 3'
							149(534)
							5' -CAg 3'
3'-primer(s)[3]	71(299)	77(317)	179(624)	74(308)	77(317)	179(624)	60(266)
	5' -gCC 3'	5' -AAT 3'	5' -ACg 3'	5' -CCg 3'	5' -Agg 3'	5' -ACg 3'	5' -Agg 3'
	83(337)						165(583)
	5' -CCg 3'						5' -CCg 3'
Well No.	25	26	27	28	29	30	31

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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Lot No.: 34X **Lot-specific information** **www.olerup-ssp.com**

[1]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.

[2]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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

[3]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 web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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CELL LINE VALIDATION SHEET

DRB3 SSP subtyping kit[2]

					Well[3]													
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
				Prod. No.	201190801	201080502	201080503	201325532	201080505	201080506	201190807	201080508	201080509	201080510	201080511	201080512	201080513	201441914	201080515	201190816
	IHWC cell line[1]		DRB3																	
1	9001	SA			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
5	9009	KAS011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
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	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
17	9282	CTM3953540	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
18	9257	32367	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
19	9038	BM16	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
20	9059	SLE005	*03:01		+	+	-	-	-	-	-	-	-	-	+	-	-	-	+	-
21	9064	AMALA	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
22	9056	KOSE	*02:02	*03:01	+	+	-	+	-	-	-	-	+	+	+	-	+	+	+	-
23	9124	IHL	*02:02		-	-	-	+	-	-	-	-	+	+	-	-	+	+	-	-
24	9035	JBUSH	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
25	9049	IBW9			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
27	9191	CH1007			-	-	-	-	-	-	-	-	-	-	-	-	-	w	-	-
28	9320	BEL5GB			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
31	9019	DUCAF	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
32	9297	HAG	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
33	9098	MT14B			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
35	9302	SSTO			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
38	9099	LZL	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
39	9315	CML	*01:01		+	+	+	-	-	-	-	-	-	-	-	-	+	-	-	-
40	9134	WHONP199			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		+	+	-	-	-	-	-	-	-	-	+	-	-	-	+	-
42	9066	TAB089			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*02:24		-	-	-	+	-	-	-	-	+	+	+	+	-	-	-	-
45	9239	SHJO			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:02		-	-	-	-	-	-	-	-	+	+	-	-	+	+	-	-
48	9303	TER-ND			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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CELL LINE VALIDATION SHEET

DRB3 SSP subtyping kit[2]

					Well[3]													
					17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				Prod. No.	201080517	201080518	201080519	201080520	201080521	201441922	201441923	201080524	201190825	201080526	201080527	201190828	201190829	201190830	201325531
	IHWC cell line[1]		DRB3																
1	9001	SA			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*03:01		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-
21	9064	AMALA	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*02:02	*03:01	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-
23	9124	IHL	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*01:01		-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*03:01		-	-	-	+	-	-	-	+	-	-	-	-	-	-	-
42	9066	TAB089			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*02:24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

[1]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.

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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[2]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.

[3]Cell line TEM, IHW 9057, is profiled as DRB3*02:01 by ECACC ((European Collection of Cell Cultures)). However, Olerup SSP AB has shown that this cell line includes the exon 3 polymorphism corresponding to DRB3*02:24.

Primer mix 4 amplifies DRB1*14 alleles in the KOSE, IHL and TEM cell lines.

The DRB1*10:01 allele is weakly amplified by primer mix 14 in the CH1007 cell line.

No DNAs carrying the alleles to be amplified by primer solutions 5 to 8, 16 to 19, 21 to 23 and 25 to 31 were available. The specificities of the primers in primer solutions 5, 7, 8, 16 to 19, 21, 22, 25, 26, 28, 29 and 31 were tested by separately adding one additional 5'-primer, respectively one additional 3'-primer. In primer solutions 6, 23, 27 and 30 it was only possible to test the 3'-primer, the 5'-primer was not possible to test. One or two of the 3'-primers in primer solutions 1 to 3, 5, 7, 12, 15, 17, 19, 21, 25 and 31 were not possible to test. In primer solutions 2, 3, 14 and 22 one of the 5'-primers was not possible to test. Additional 3'-primers in primer solutions 15, 20 and 24 were tested by separately adding one 5'-primer.

101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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101.121-24/04 – including *Taq* pol., IFU-01
101.121-24u/04u – without *Taq* pol., IFU-02

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