

Olerup SSP[®] DRB1*1401/1454

Product number:	101.813-12u– without <i>Taq</i> pol.
Lot number:	72G
Expiry date:	2012-January-01
Number of tests:	12
Number of wells per test:	2
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. 72G.

PRODUCT DESCRIPTION

DRB1*1401/1454 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for separating the DRB1*1401 and DRB1*1454 alleles.

PLATE LAYOUT

Each test consists of 2 PCR reactions in an 8 well cut PCR plate. Wells 3 to 8 are empty.

1	2	empty	empty	empty	empty	empty	empty
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The 8 well cut PCR plate is marked with ‘DRB1*14’ in silver/gray ink.

Well No. 1 is marked with the Lot No. ‘72G’.

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 8 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

The interpretation of DRB1*1401/1454 PCR-SSP subtypings will be influenced by four DRB1*11 alleles as well as by many other DRB1*14 alleles.

UNIQUELY IDENTIFIED ALLELES

The DRB1*1401 and DRB1*1454 alleles give different patterns in the DRB1*1401/1454 subtyping kit. The DRB1*1401/1454 subtyping kit cannot distinguish the DRB1*140101 to DRB1*140103 alleles.

¹DRB alleles listed on the IMGT/HLA web page 2009-October-19, release 2.27.0, www.ebi.ac.uk/imgt/hla.

SPECIFICITY TABLE

DRB1*1401/1454 SSP subtyping

Specificities and sizes of the PCR products of the 2 primer mixes used for DRB1*1401/1454 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DRB1*1401/1454 alleles	Other amplified DRB alleles ³
1	250 bp	515 bp	*140101-140103	
2	210 bp	430 bp	*140101-140103, 1454	*111301, 111302, 11117, 11152, 140501-140503, 140701-1408, 1414, 1418, 142301-142303, 1426, 143201, 143202, 1434- 1436, 1438, 1439, 1442-1445, 1455 ^w , 1456, 1458-1460, 1462, 1464, 1465, 1470, 1472, 1475, 1481, 1482, 1486-1488, 1490- 1492N

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 DRB1*14 SSP typings.

When the primers in a primer mix can give rise to specific PCR products of more than one length this is indicated if the size difference is 20 base pairs or more. Size differences shorter than 20 base pairs are not given. For high resolution SSP kits the respective lengths of the specific PCR product(s) of the alleles amplified by these primer mixes are given.

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 two different control primer pairs give rise to an internal positive control band of either 430 or 515 base pairs.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1*1401/1454 subtyping.

In the presence of a specific amplification the intensity of the control band often decreases.

³Due to the sharing of sequence motifs four DRB1*11 alleles as well as many DRB1*14 alleles are amplified by the DRB1*1401/1454 primer mixes.

'w', might be weakly amplified.

INTERPRETATION TABLE		
DRB1*1401/1454 SSP typing		
	Well	
	1	2
Length of spec.	250	210
PCR product		
Length of int.	515	430
pos. control¹		
5'-primer(s)²	112(421)	13(125)
	5' -ACT 3'	5' -gTC 3'
3'-primer(s)³	181(630)	70(296)
	5' -CTT 3'	5' -TCC 3'
Well No.	1	2
DRB1 allele		
*140101-140103	1	2
*1454		2
*140501-140503, 140701-1408, 1414, 1418, 142301-142303, 1426, 143201, 143202, 1434-1436, 1438, 1439, 1442-1445, 1456, 1458-1460, 1462, 1464, 1465, 1470, 1472, 1475, 1481, 1482, 1486-1488, 1490-1492N, 111301, 111302, 1117, 1152		2
*1455		w
DRB1 allele		
Well No.	1	2

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to an internal positive control band of either 430 or 515 base pairs.

Well number 1 contains the primer pair giving rise to the longer, 515 bp, internal positive control band in order to help in the correct orientation of the DRB1*1401/1454 subtyping.

²The codon, and in parenthesis the nucleotide, in the 2nd and 3rd exon, matching the specificity-determining 3'-end of the primer is given. Codon and 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 codon, and in parenthesis the nucleotide, in the 2nd and 3rd exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Codon and 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.

'w', might be weakly amplified.

CELL LINE VALIDATION SHEET					
DRB1*1401/1454 SSP subtyping kit					
				Well	
				1	2
				Prod. No.:	
				200968101	200968102
	IHWC cell line	DRB1			
1	9001 SA	*0101		-	-
2	9280 LK707	*1502	*0405	-	-
3	9011 E4181324	*1502		-	-
4	9275 GU373	*0301		-	-
5	9009 KAS011	*1601		-	-
6	9353 SM	*0407	*0803	-	-
7	9020 QBL	*0301		-	-
8	9025 DEU	*0401		-	-
9	9026 YAR	*0402		-	-
10	9107 LKT3	*0405		-	-
11	9051 PITOUT	*0701		-	-
12	9052 DBB	*0701		-	-
13	9004 JESTHOM	*0101		-	-
14	9071 OLGA	*0802		-	-
15	9075 DKB	*0901		-	-
16	9037 SWEIG007	*1101		-	-
17	9282 CTM3953540	*0301	*1301	-	-
18	9257 32367	*0901	*1101	-	-
19	9038 BM16	*1201		-	-
20	9059 SLE005	*1302		-	-
21	9064 AMALA	*1402		-	-
22	9056 KOSE	*1302	*1454	-	+
23	9124 IHL	*0803	*1414	-	+
24	9035 JBUSH	*1101		-	-
25	9049 IBW9	*0701		-	-
26	9285 WT49	*0301		-	-
27	9191 CH1007	*0405	*1001	-	-
28	9320 BEL5GB	*0416	*0701	-	-
29	9050 MOU	*0701		-	-
30	9021 RSH	*0302		-	-
31	9019 DUCAF	*0301		-	-
32	9297 HAG	*1303		-	-
33	9098 MT14B	*0404		-	-
34	9104 DHIF	*1101		-	-
35	9302 SSTO	*0403		-	-
36	9024 KT17	*0403	*0406	-	-
37	9065 HHKB	*1301		-	-
38	9099 LZL	*1402		-	-
39	9315 CML	*0301	*0401	-	-
40	9134 WHONP199	*0701	*0901	-	-
41	9055 H0301	*1302		-	-
42	9066 TAB089	*0803		-	-
43	9076 T7526	*0901		-	-
44	9057 TEM	*1401		+	+
45	9239 SHJO	*0701		-	-
46	9013 SCHU	*1501		-	-
47	9045 TUBO	*1104	*1201	-	-
48	9303 TER-ND	*0103		-	-

CERTIFICATE OF ANALYSIS

Olerup SSP® DRB1*1401/1454 SSP

Product number: 101.813-12u– without *Taq* pol.
Lot number: 72G
Expiry date: 2012-January-01
Number of tests: 12
Number of wells per test: 2

Well specifications:

Well No.	Production No.
1	2009-681-01
2	2009-681-02

The specificity of each primer solution of the kit has been tested against 48 well characterized IHWC cell line DNAs.

Results: No false positive or false negative amplifications were obtained.

Date of approval: 2010-January-18

Approved by:

Quality Control, Supervisor

Lot No.: **72G**

Lot-specific information

www.olerup-ssp.com

Declaration of Conformity

Product name: *Olerup* SSP® DRB1*1401/1454
Product number: 101.813-12u
Lot number: 72G

Intended use: DRB1*1401/1454 high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Hasselstigen 1
SE-133 33 Saltsjöbaden, Sweden
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We, *Olerup* SSP AB, hereby declare that this product, to which this Declaration of Conformity relates is in conformity with the following Standard(s) and other normative document(s) ISO 9001:2008 and ISO 13485:2003, following the provisions of the 98/79/EC Directive on *in vitro* diagnostic medical devices, Annex II List B, conformity assessed using Annex IV, as transposed into the national laws of the Member States of the European Union.

The Technical Documentation File is maintained at *Olerup* SSP AB, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

The Authorized Representative located within the Community is: *Olerup* SSP AB.

Notified Body: Lloyd's Register Quality Assurance Limited, Hiramford, Middlemarch Office Village, Siskin Drive, Coventry CV3 4FJ, United Kingdom. (Notified Body number: 0088.)

Saltsjöbaden, Sweden
2010-January-18

Olle Olerup
Managing Director

Lot No.: **72G**

Lot-specific information

www.olerup-ssp.com

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