

## **Olerup SSP® DRB4\*01:03:01:02N**

Product number:	101.811-12 – including <i>Taq</i> polymerase
Lot number:	93K
Expiry date:	2013-July-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. 93K.**

The DRB4\*01:03:01:02N specificity and interpretation tables have been updated compared the previous *Olerup SSP®* DRB4\*01:03:01:02N lot (**Lot No. 41G**).

The DRB4\*01:03:01:02N primer set is unchanged compared to the previous lot.

## PRODUCT DESCRIPTION

### DRB4\*01:03:01:02N SSP subtyping

#### CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRB4\*01:03:01:02N allele.

#### 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 the Lot No. '93K' in silver/gray ink.

Well No. 1 is marked with the Lot No. '93K'.

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 heat-sealed with a PCR-compatible foil.

**Please note:** When removing each 8 well PCR plate, make sure that the remaining plates stay sealed. Use a scalpel or a similar instrument to carefully cut the foil between the plates.

#### INTERPRETATION

The interpretation of DRB4\*01:03:01:02N SSP subtypings will be influenced by most other DRB4 alleles.

#### UNIQUELY IDENTIFIED ALLELES

The DRB4\*01:03:01:02N allele will give rise to a unique amplification pattern by the primers in the DRB4\*01:03:01:02N kit<sup>1</sup>.

<sup>1</sup>DRB4 alleles listed on the IMGT/HLA web page 2010-October-15, release 3.2.0, [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla).

## SPECIFICITY TABLE

### DRB4\*01:03:01:02N SSP subtyping

Specificities and sizes of the PCR products of the 2 primer mixes used for DRB4\*01:03:01:02N SSP subtyping

Primer Mix	Size of spec. PCR product <sup>1</sup>	Size of control band <sup>2</sup>	Amplified DRB4 alleles
1	155 bp	515 bp	*01:03:01:02N
2	245 bp	430 bp	*01:01:01:01-01:03:01:01, 01:03:02-01:04, 01:05 <sup>?</sup> , 01:06-01:08, 02:01N

<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 DRB4\*01:03:01:02N SSP typings. 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 two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

Well number 1 contains the primer pair giving rise to the shorter, 515 bp, internal positive control band in order to help in the correct orientation of the DRB4\*01:03:01:02N subtyping.

‘?’, the nucleotide sequence of the primer matching region is not known.

<b>INTERPRETATION TABLE</b>		
<b>DRB4*01:03:01:02N SSP typing</b>		
	<b>Well</b>	
	<b>1</b>	<b>2</b>
<b>Length of spec.</b>	<b>155</b>	<b>245</b>
<b>PCR product</b>		
<b>Length of int.</b>	<b>515</b>	<b>430</b>
<b>pos. control<sup>1</sup></b>		
<b>5'-primer(s)<sup>2</sup></b>	<b>1st I<sup>4</sup></b>	<b>1st I<sup>5</sup></b>
	5' -CAA 3'	5' -ggg 3'
<b>3'-primer(s)<sup>3</sup></b>	<b>42(213)</b>	<b>5<sup>6</sup></b>
	5' -TCA 3'	5' -TgC 3'
<b>Well No.</b>	<b>1</b>	<b>2</b>
<b>DRB4 allele</b>		
<b>*01:03:01:02N</b>	<b>1</b>	
<b>*01:01:01:01-01:03:01:01, 01:03:02-01:04, 01:06-01:08, 02:01N</b>		<b>2</b>
<b>*01:05</b>		<b>?</b>
<b>DRB4 allele</b>		
<b>Well No.</b>	<b>1</b>	<b>2</b>

<sup>1</sup>The internal positive control primer pairs amplify segments of the human growth hormone gene. The two different control primer pairs give rise to either an internal positive control band of 430 base pairs, for most wells, or a band of 515 base pairs, for some wells.

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 DRB4 subtyping.

<sup>2</sup>The codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> exon unless otherwise noted, matching the specificity-determining 3'-end of the primer is given. Codon and 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 codon, and in parenthesis the nucleotide, in the 2<sup>nd</sup> exon unless otherwise noted, matching the specificity-determining 3'-end of the primer is given. Codon and 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>4</sup>Matching the sequence of the 3'-end of the 1<sup>st</sup> intron.

<sup>5</sup>Matching sequences within the 1<sup>st</sup> intron.

<sup>6</sup>Matching sequences from the 3'-end of the 1<sup>st</sup> intron into the 5'-end of the 2<sup>nd</sup> exon.

‘?’, the nucleotide sequence of the primer matching region is not known.

CELL LINE VALIDATION SHEET					
DRB4*01:03:01:02N SSP kit					
					Well
					1 2
					200847701 200847702
					Lot No.:
IHCW cell line			DRB4		
1	9001	SA			- -
2	9280	LK707	*01:03		- +
3	9011	E4181324			- -
4	9275	GU373			- -
5	9009	KAS011			- -
6	9353	SM	*01:03		- +
7	9020	QBL			- -
8	9025	DEU	*01:01		- +
9	9026	YAR	*01:03		- +
10	9107	LKT3	*01:03		- +
11	9051	PITOUT	*01:01		- +
12	9052	DBB	*01:03N		+ -
13	9004	JESTHOM			- -
14	9071	OLGA			- -
15	9075	DKB	*01:03		- +
16	9037	SWEIG007			- -
17	9282	CTM3953540			- -
18	9257	32367	*01:01		- +
19	9038	BM16			- -
20	9059	SLE005			- -
21	9064	AMALA			- -
22	9056	KOSE			- -
23	9124	IHL			- -
24	9035	JBUSH			- -
25	9049	IBW9	*01:01		- +
26	9285	WT49			- -
27	9191	CH1007	*01:03		- +
28	9320	BEL5GB	*01:01		- +
29	9050	MOU	*01:01		- +
30	9021	RSH			- -
31	9019	DUCAF			- -
32	9297	HAG			- -
33	9098	MT14B	*01:03		- +
34	9104	DHIF			- -
35	9302	SSTO	*01:03		- +
36	9024	KT17	*01:03		- +
37	9065	HHKB			- -
38	9099	LZL			- -
39	9315	CML	*01:02		- +
40	9134	WHONP199	*01:03		- +
41	9055	H0301			- -
42	9066	TAB089			- -
43	9076	T7526	*01:03		- +
44	9057	TEM			- -
45	9239	SHJO	*01:01	*01:03	- +
46	9013	SCHU			- -
47	9045	TUBO			- -
48	9303	TER-ND			- -

## CERTIFICATE OF ANALYSIS

### **Olerup SSP® DRB4\*01:03:01:02N SSP**

Product number: 101.811-12 – including *Taq* polymerase  
Lot number: 93K  
Expiry date: 2013-July-01  
Number of tests: 12  
Number of wells per test: 2

#### **Well specifications:**

Well No.	Production No.
1	2008-477-01
2	2008-477-02

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:** 2011-January-31

**Approved by:**

**Quality Control, Supervisor**

## Declaration of Conformity

**Product name:** *Olerup* SSP® DRB4\*01:03:01:02N  
**Product number:** 101.811-12  
**Lot number:** 93K

**Intended use:** DRB4\*01:03:01:02N histocompatibility testing

**Manufacturer:** *Olerup* SSP AB  
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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, 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  
2011-January-31

Olle Olerup  
Managing Director

Lot No.: **93K**

Lot-specific information

[www.olerup-ssp.com](http://www.olerup-ssp.com)

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