

Olerup SSP[®] DRA

Product number:	101.131-24 – including <i>Taq</i> polymerase
Lot number:	52F
Expiry date:	2011-February-01
Number of tests:	24
Number of wells per test:	2
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C

This Product Description is only valid for Lot No. 52F.

CHANGES COMPARED TO THE PREVIOUS OLERUP SSP[®] DRA LOT

The DRA primer set as well as the specificity and interpretation tables are unchanged compared to the previous *Olerup SSP[®]* DRA lot (**Lot No. Y51**).

PRODUCT DESCRIPTION

DRA SSP typing

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DRA*0101 to DRA*0102 alleles.

STRIP LAYOUT

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

1	2	empty	empty	empty	empty	empty	empty
---	---	-------	-------	-------	-------	-------	-------

The 8 well PCR plate is marked with 'DRA' in silver/gray ink.

Well No. 1 is marked with the Lot No. '52F'.

The PCR plates are covered with a PCR-compatible foil.

Please note: When removing each two-well typing, make sure that the remaining plates/wells stay covered. Use a scalpel or a similar instrument to carefully cut the foil between the plates/wells.

INTERPRETATION

Only the DRA alleles will be amplified by the DRA typing kit. Thus, the interpretation of DRA typings is not influenced by the other HLA class II genes.

UNIQUELY IDENTIFIED ALLELES

All the DRA alleles, i.e. **DRA*0101 to DRA*0102**, recognized by the HLA Nomenclature Committee in February 2009¹ will give rise to unique amplification patterns by the primers in the DRA typing kit.

The DRA kit cannot distinguish the DRA*010201 and DRA*010202 alleles.

¹DRA alleles listed on the IMGT/HLA web page 2009-January-16, release 2.24.0, www.ebi.ac.uk/imgt/hla.

RESOLUTION IN HOMO- AND HETEROZYGOTES

The 2 DRA alleles can be combined in 3 homozygous and heterozygous combinations. These 3 genotypes give rise to unique amplification patterns.

SPECIFICITY TABLE

DRA SSP typing

Specificities and sizes of the PCR products of the 2 primer mixes used for DRA SSP typing

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DRA alleles
1 ³	65	515 bp	0101
2 ³	100	430 bp	010201-010202

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 DRA SSP subtypings.

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 length 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.

² 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 DRA typing.

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

³ Specific PCR fragments shorter than 125 base pairs are less intense and not as sharp as longer specific bands.

INTERPRETATION TABLE			
DRA SSP typing			
Amplification patterns of the DRA alleles			
	well		
	1	2	
Length of spec.	65	100	Length of spec.
PCR product			PCR product
Length of int.	515	430	Length of int.
pos. control			pos. control
5'-primer ²	217	197	5'-primer ²
	5'-gA g ^{3'}	5'-CC C ^{3'}	
3'-primer ³	224	217	3'-primer ³
	5'-g TT ^{3'}	5'-CAA ^{3'}	
Well No.	1	2	Well No.
DRA allele			DRA allele
*0101	1		*0101
*010201-010202		2	*010201-010202
DRA allele			DRA allele
Well No.	1	2	Well No.

¹The 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 DRA typing.

²The codon, in the 4th exon, matching the specificity-determining 3'-end of the primer is given. 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. Empty spaces indicate codon boundaries.

³The codon, in the 4th exon, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. 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. Empty spaces indicate codon boundaries.

CELL LINE VALIDATION SHEET					
DRA SSP typing kit					
					Well
					1 2
				Production No.	200855701 200855702
	IHWC cell line	DRA			
1	9001 SA	*0101			+ -
2	9280 LK707	*0101			+ -
3	9011 E4181324	*0101			+ -
4	9275 GU373	*0101			+ -
5	9009 KAS011	*0101			+ -
6	9359 SM	*0102			- +
7	9020 QBL	*0101			+ -
8	9007 DEM	*0102			- +
9	9026 YAR	*0101			+ -
10	9107 LKT3	*0101			+ -
11	9051 PITOUT	*0101			+ -
12	9052 DBB	*0101			+ -
13	9067 BTB	*0102			- +
14	9071 OLGA	*0102			- +
15	9075 DKB	*0101	*0102		+ +
16	9037 SWEIG007	*0101			+ -
17	9008 WILJON	*0102			- +
18	9257 32367	*0102			- +
19	9038 BM16	*0101			+ -
20	9059 SLE005	*0101			+ -
21	9064 AMALA	*0101			+ -
22	9056 KOSE	*0102			- +
23	9124 IHL	*0101	*0102		+ +
24	9035 JBUSH	*0101			+ -
25	9049 IBW9	*0101			+ -
26	9285 WT49	*0101	*0102		+ +
27	9191 CH1007	*0102			- +
28	9320 BEL5GB	*0101			+ -
29	9050 MOU	*0101			+ -
30	9021 RSH	*0101	*0102		+ +
31	9019 DUCAF	*0101			+ -
32	9297 HAG	*0101			+ -
33	9098 MT14B	*0101			+ -
34	9104 DHIF	*0101			+ -
35	9302 SСТО	*0101			+ -
36	9024 KT17	*0101			+ -
37	9065 HHKB	*0102			- +
38	9099 LZL	*0102			- +
39	9315 CML	*0101			+ -
40	9062 WDV	*0101			+ -
41	9055 H0301	*0102			- +
42	9066 TAB089	*0101	*0102		+ +
43	9076 T7526	*0102			- +
44	9057 TEM	*0102			- +
45	9239 SHJO	*0102			- +
46	9013 SCHU	*0101	*0102		+ +
47	9045 TUBO	*0102			- +
48	9303 TER-ND	*0101			+ -

CERTIFICATE OF ANALYSIS

Olerup SSP[®] DRA SSP

Product number: 101.131-24 – including *Taq* polymerase
Lot number: 52F
Expiry date: 2011-February-01
Number of tests: 24
Number of wells per test: 2

Well specifications:

Well No.	Production No.
1	2008-557-01
2	2008-557-02

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: 2009-May-25

Approved by:

Quality Control, Supervisor

Declaration of Conformity

Product name: *Olerup* SSP[®] DRA
Product number: 101.131-24
Lot number: 52F

Intended use: DRA high resolution histocompatibility testing

Manufacturer: *Olerup* SSP AB
Hasselstigen 1
SE-133 33 Saltsjöbaden, Sweden
Phone: +46-8-717 88 27
Fax: +46-8-717 88 18

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 9001:2000 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
2009-May-25

Olle Olerup
Managing Director

Lot No.: **52F**

Lot-specific information

www.olerup.com

ADDRESSES:

Manufacturer:

Olerup SSP AB, Hasselstigen 1, SE-133 33 Saltsjöbaden, Sweden.

Tel: +46-8-717 88 27

Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

Web page: <http://www.olerup.com>

Distributed by:

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

Tel: +43-1-710 15 00

Fax: +43-1-710 15 00 10

E-mail: support-at@olerup.com

Web page: <http://www.olerup.com>

Olerup Inc., 901 S. Bolmar St., Suite R, West Chester, PA 19382

Tel: 1-877-OLERUP1

Fax: 610-344-7989

E-mail: info.us@olerup.com

Web page: <http://www.olerup.com>

For information on *Olerup* SSP distributors worldwide, contact **Olerup GmbH**.