

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information
Olerup SSP® DQB1*06

Product number:	101.212-24/04 – including <i>Taq</i> pol. 101.212-24u/04u – without <i>Taq</i> pol.
Lot number:	62V
Expiry date:	2016-October-01
Number of tests:	24 test – Product No. 101.212-24/24u 4 tests – Product No. 101.212-04/04u
Number of wells per test:	59+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. 62V.

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

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP®
DQB1*06 Lot (53S)**

A well containing Negative Control primer pairs has been added.

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

Sixteen wells have been added to DQB1*06, wells **45 to 60**.

The DQB1*06 specificity and interpretation tables have been updated for the DQB1 alleles described since the previous *Olerup SSP®* DQB1*06 lot (**Lot No. 53S**).

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.

Changes in revision R01 compared to R00:

1. Primer mix 25 does not amplify the DQB1*06:49 allele. This has been corrected in the Specificity and Interpretation tables.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

The primers of the wells detailed below have been exchanged, added or modified compared to the previous lot.

Well	5'-primer	3'-primer	rationale
2	-	Added	3'-primer added for the DQB1*06:02:13 allele.
3	-	Added	3'-primer added for the DQB1*06:02:11 allele.
4	-	Added	3'-primer added for the DQB1*06:03:10 allele.
7	-	Added	3'-primer added for the DQB1*06:04:06 allele.
10	Added	-	5'-primer added for the DQB1*06:85 allele.
12	-	Added	3'-primer added for the DQB1*06:129 allele.
16	-	Added	3'-primer added for the DQB1*06:51:02 allele, exchanged positive control primer pair.
17	Added	-	5'-primer added for the DQB1*06:99 allele.
20	Added	-	5'-primer added for the DQB1*06:125 allele.
25	Added	Added	3'-primer added for the DQB1*06:03:11 allele, 5'-primer added for the DQB1*06:98 allele.
27	Added	-	5'-primer added for the DQB1*06:114 allele.
28	-	Added	3'-primer added for the DQB1*06:102N allele.
29	-	Added	3'-primer added for the DQB1*06:04:06 allele.
35	-	Added	3'-primer added for the DQB1*06:58 allele.
36	-	Added	3'-primer added for the DQB1*06:95 allele.
37	-	Added	3'-primer added for the DQB1*06:96 allele.
38	-	Added	3'-primer added for the DQB1*06:123 allele.
40	-	Added	3'-primer added for the DQB1*06:106 allele.
41	-	Added	5'-primer added for the DQB1*06:122 allele.
42	-	Added, modified	3'-primers added for the DQB1*06:93 and DQB1*06:121 allele, 3'-primer modified for improved HLA-specific amplification.
44	Added, modified	-	5'-primer added for the DQB1*06:113 allele, 5'-primer modified for improved HLA-specific amplification.
45	New	New	New primer pairs for the DQB1*06:97 and DQB1*06:124 alleles.
46	New	New	New primer pairs for the DQB1*06:86 and DQB1*06:107 alleles.
47	New	New	New primer pairs for the DQB1*06:87 and DQB1*06:90 alleles.
48	New	New	New primer pairs for the DQB1*06:91 and DQB1*06:128 alleles.
49	New	New	New primer pairs for the DQB1*06:100 and DQB1*06:126 alleles.
50	New	New	New primer pairs for the DQB1*06:101 and DQB1*06:120 alleles.
51	New	New	New primer pairs for the DQB1*06:103 and DQB1*06:111 alleles.
52	New	New	New primer pair for the DQB1*06:105 allele.
53	New	New	New primer pairs for the DQB1*06:109 and DQB1*06:110 alleles.
54	New	New	New primer pair for the DQB1*06:112N alleles.
55	New	New	New primer pair for the DQB1*06:115 allele.
56	New	New	New primer pair for the DQB1*06:116 allele.
57	New	New	New primer pair for the DQB1*06:89 allele.
58	New	New	New primer pair for the DQB1*06:127 allele.
59	New	New	New primer pair for the DQB1*06:117 allele.
60	New	New	Negative Control.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

Well **60** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP®* HLA Class I, DRB, DQB1 and DPB1 amplicons as well as amplicons generated by a control primer pair.

PCR product sizes range from 75 to 430 base pairs.
The PCR product generated by the control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80
5'-primer¹	164	340	440	45	45	43
	^{5'} -CAC ^{3'}	^{5'} -Agg ^{3'}	^{5'} -TTA ^{3'}	^{5'} -Tgg ^{3'}	^{5'} -Tgg ^{3'}	^{5'} -Tgg ^{3'}
3'-primer²	231	2nd I	507	59	58	57
	^{5'} -TgC ^{3'}	^{5'} -AAA ^{3'}	^{5'} -TTg ^{3'}	^{5'} -CTC ^{3'}	^{5'} -ggC ^{3'}	^{5'} -CTC ^{3'}
A*	+	+	+			
B*	+	+	+			
C*	+	+	+			
DRB1				+	+	
DRB3				+	+	
DRB5				+		
DQB1					+	
DPB1						+

¹The 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 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.

²The 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.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

PRODUCT DESCRIPTION

DQB1*06 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the DQB1*06:01 to DQB1*06:129 alleles.

Please note that DQB1 amplifications usually are somewhat less pronounced than e.g. DRB and DQA1 amplifications even when using the same DNA preparation and exactly the same experimental procedures.

PLATE LAYOUT

Each test consists of 60 PCR reactions in a 64 well cut PCR plate. Wells 61 to 64 are empty

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	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	NC	empty	empty	empty	empty

The 64 well cut PCR plate is marked with 'DQB1*06' in silver/gray ink.

Well No. 1 is marked with the Lot No. '62V'.

Wells 1 to 59 – DQB1*06 high resolution primers.

Well 60 – 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 64 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 DQB1 alleles non-DQB1*06 alleles will be amplified by primer mixes 3, 5, 13, 15, 24, 33, 34, 37, 46, 47, 51 and 52. Thus, the interpretation of DQB1*06 subtypings is only influenced by a few non-DQB1*06 alleles and not by other groups of DQB1 alleles or the DQB2 and DQB3 genes.

For further details see Specificity Table.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

UNIQUELY IDENTIFIED ALLELES

All the DQB1*06 alleles, i.e. **DQB1*06:01 to DQB1*06:129**, recognized by the HLA Nomenclature Committee in January 2014^{1,2} will give rise to unique amplification patterns by the primers in the DQB1*06 subtyping kit.

The following DQB1*06 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix
DQB1*06:70, 06:75	40

The DQB1*06 subtyping kit cannot distinguish the silent mutations in the DQB1*06:01:01, 06:01:03-06:01:06 and 06:01:08-06:01:10 alleles, the DQB1*06:01:02 and 06:01:07 alleles, the DQB1*06:02:01-06:02:04, 06:02:06 and 06:02:08-06:02:15 alleles, the DQB1*06:03:01-06:03:03, 06:03:05-06:03:06 and 06:03:11 alleles, the DQB1*06:03:04 and 06:03:08-06:03:10, the DQB1*06:04:01 and 06:04:03-06:04:08 alleles, the DQB1*06:15:01-06:15:02 or the DQB1*06:27:01-06:27:02 alleles.

¹HLA-DQB1 alleles listed on the IMGT/HLA web page 2014-January-17, release 3.15.0, www.ebi.ac.uk/imgt/hla.

²Alleles 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 DQB1*06 homo- and heterozygotes is available upon request.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information
SPECIFICITY TABLE

DQB1*06 SSP subtyping

Specificities and sizes of the PCR products of the 59+1 primer mixes used for DQB1*06 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified DQB1*06 alleles ³	Amplified non-DQB1*06 alleles ⁴
1	220 bp	515 bp	*06:01:01-06:01:10, 06:35, 06:43, 06:45, 06:53-06:57, 06:82, 06:98-06:105, 06:108, 06:120	
2	210 bp	430 bp	*06:01:01-06:02:15, 06:05:02 ² -06:06 ² , 06:10-06:11:02, 06:13:01-06:13:02, 06:16, 06:18-06:20, 06:24, 06:29, 06:33, 06:35, 06:37, 06:43, 06:45, 06:47-06:51:02, 06:53-06:57, 06:68, 06:70-06:84, 06:95-06:109, 06:111-06:117, 06:120, 06:122-06:127	
3	185 bp	430 bp	*06:02:01-06:02:15, 06:14:01-06:16, 06:19-06:20, 06:23-06:24, 06:33, 06:37, 06:46-06:50, 06:51:02, 06:68, 06:70-06:84, 06:95, 06:97, 06:107, 06:109, 06:111-06:117, 06:122, 06:124-06:127	*04:10
4	130 bp	430 bp	*06:02:07, 06:03:01-06:03:06, 06:03:08-06:03:11, 06:05:02, 06:07:01-06:07:02, 06:11:02, 06:14:01, 06:25-06:26N, 06:28, 06:30-06:32, 06:40-06:41, 06:44, 06:59-06:67, 06:87, 06:90-06:92, 06:110, 06:118, 06:128	
5	160 bp	430 bp	*06:03:01-06:03:03, 06:03:05-06:03:07, 06:03:11, 06:04:02, 06:07:01, 06:08:01, 06:09:02, 06:11:01-06:11:02, 06:26N, 06:28, 06:30-06:32, 06:40-06:41, 06:44, 06:59-06:62, 06:64-06:65, 06:67, 06:90-06:92, 06:94, 06:110, 06:118, 06:128	*03:23
6	170 bp	515 bp	*06:02:07, 06:03:01-06:03:06, 06:03:08-06:03:11, 06:08:01-06:08:02, 06:11:02-06:12, 06:14:01, 06:21, 06:26N, 06:28, 06:31, 06:40-06:41, 06:44, 06:59, 06:61, 06:63-06:65, 06:67, 06:87, 06:90-06:92, 06:110, 06:128	
7	210 bp	515 bp	*06:04:01-06:04:08, 06:07:01-06:07:02, 06:17, 06:21, 06:25, 06:34, 06:36, 06:38-06:39, 06:52, 06:58, 06:69, 06:85-06:86, 06:89, 06:92-06:93	
8 ^{5,8}	90 bp 175 bp	430 bp	*06:65 *06:04:01-06:07:02, 06:09:01-06:09:03, 06:18, 06:22:02, 06:25, 06:27:01-06:27:02, 06:32, 06:34, 06:36, 06:38-06:39, 06:52, 06:58, 06:66, 06:69, 06:85-06:86, 06:88-06:89, 06:93-06:94, 06:118, 06:121, 06:129	

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

9^{6,8}	130 bp	430 bp	*06:04:01-06:05:01, 06:06, 06:08:01-06:09:03, 06:12, 06:17-06:18, 06:21, 06:22:02, 06:27:01-06:27:02, 06:34, 06:36, 06:38-06:39, 06:42, 06:52, 06:58, 06:69, 06:85-06:86, 06:88-06:89, 06:93, 06:121, 06:129	
10^{8,9}	260 bp	515 bp	*06:05:01, 06:05:02 [?] -06:06 [?] , 06:20, 06:31, 06:45, 06:85	
11⁸	210 bp	430 bp	*06:05:01, 06:05:02 [?] -06:06 [?] , 06:09:01-06:09:04, 06:12, 06:15:01-06:15:02, 06:22:01-06:22:02, 06:42, 06:46, 06:66, 06:88, 06:94, 06:118-06:119, 06:121	
12⁵	100 bp 180 bp 215 bp	430 bp	*06:64 *06:06 *06:06 [?] , 06:129	
13	185 bp 225 bp	430 bp	*06:10 *06:05:02, 06:15:01-06:15:02, 06:22:01-06:22:02, 06:37, 06:48, 06:51:01-06:51:02, 06:69	*03:30, 03:72, 03:100
14	130 bp	430 bp	*06:09:04, 06:13:01-06:13:02, 06:22:01, 06:55, 06:119	
15^{5,8}	100 bp 185 bp	430 bp	*06:14:01-06:14:02, 06:69, *06:29, 06:123	*05:38
16⁷	205 bp 300 bp	515 bp	*06:16, 06:51:01-06:51:02 *06:52	04:01:01 ^w - 04:03:02 ^w , 04:06 ^w - 04:18 ^w
17⁵	110 bp	430 bp	*06:23, 06:82, 06:99	
18⁷	175 bp	430 bp	*06:17, 06:24, 06:30, 06:42	
19⁷	135 bp	430 bp	*06:10, 06:25, 06:36	
20^{5,7,8}	110 bp 210 bp 260 bp	515 bp	*06:37, 06:125 *06:26N, 06:81 *06:83	
21	160 bp	430 bp	*06:02:01-06:02:04, 06:02:06-06:02:15, 06:10, 06:13:01, 06:14:01-06:16, 06:20, 06:23-06:24, 06:29, 06:33, 06:37, 06:46-06:51:02, 06:68, 06:70-06:84, 06:96-06:97, 06:106-06:107, 06:109, 06:111-06:117, 06:122, 06:124-06:127	
22	130 bp 195 bp	515 bp	*06:07:01-06:07:02, 06:15:01-06:15:02, 06:46, 06:66, 06:92, 06:118 06:38	
23	160 bp	515 bp	*06:03:01-06:03:11, 06:08:01-06:08:02, 06:14:01-06:14:02, 06:21, 06:28, 06:31, 06:40-06:41, 06:44, 06:59, 06:61, 06:63-06:65, 06:67, 06:87, 06:90-06:92, 06:110, 06:128	
24⁶	155 bp	430 bp	*06:02:05, 06:19	*03:30, 03:72, 03:100, 04:01:01-04:02:04, 04:03:01-04:03:02, 04:06-

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

			04:08, 04:10, 04:12-04:14, 04:16-04:18, 05:38	
25	210 bp	430 bp	*06:03:01-06:03:11, 06:08:01-06:08:02, 06:14:01-06:14:02, 06:27:01-06:28, 06:30-06:32, 06:40-06:41, 06:44, 06:59-06:65, 06:67, 06:87, 06:90-06:91, 06:98, 06:110, 06:128	
26	165 bp 190 bp	430 bp	*06:35, 06:53 *06:28, , 06:56, 06:79	
27	155 bp 210 bp 265 bp	430 bp	*06:114 *06:40, 06:57, 06:81 *06:33	
28⁸	130 bp 180 bp 300 bp	515 bp	*06:102N *06:50 *06:34	
29⁵	90 bp	430 bp	*06:04:01-06:05:01, 06:05:02 [?] -06:06 [?] , 06:07:01-06:07:02, 06:09:01-06:09:04, 06:15:01-06:15:02, 06:22:01-06:22:02, 06:25, 06:34, 06:36, 06:38-06:39, 06:52, 06:58, 06:66, 06:69, 06:85-06:86, 06:88-06:89, 06:93-06:94, 06:118, 06:121	
30^{5,8}	115 bp	430 bp	*06:02:01-06:03:11, 06:05:01 [?] -06:07:01 [?] , 06:08:01 [?] -06:08:02 [?] , 06:09:02 [?] -06:09:03 [?] , 06:10 [?] -06:11:02 [?] , 06:13:01 [?] -06:33 [?] , 06:35 [?] , 06:37 [?] , 06:39, 06:40 [?] , 06:44, 06:45 [?] -06:46 [?] , 06:47, 06:48 [?] -06:50 [?] , 06:51:02 [?] , 06:53 [?] -06:83 [?] , 06:85 [?] , 06:87-06:88, 06:89 [?] -06:97 [?] , 06:106-06:117, 06:119-06:128	
31^{5,7,8}	100 bp 220 bp	430 bp	*06:44, 06:47 *06:43	
32^{5,6,7}	115 bp	430 bp	*06:04:01-06:04:08, 06:05:01 [?] -06:07:01 [?] , 06:07:02, 06:08:01 [?] -06:08:02 [?] , 06:09:01-06:09:04, 06:10 [?] -06:11:02 [?] , 06:12, 06:13:01 [?] -06:33 [?] , 06:34, 06:35 [?] , 06:36, 06:37 [?] , 06:38, 06:40 [?] , 06:41-06:42, 06:45 [?] -06:46 [?] , 06:48 [?] -06:50 [?] , 06:51:02 [?] , 06:52, 06:53 [?] -06:83 [?] , 06:84, 06:85 [?] , 06:86, 06:89 [?] -06:97 [?] , 06:118, 06:119 [?] -06:126 [?] , 06:128 [?] , 06:129	
33	190 bp	430 bp	*06:28, 06:56, 06:79	*05:04 [?]
34⁸	145 bp	430 bp	*06:01:01, 06:01:03-06:01:06, 06:01:08-06:01:10, 06:43, 06:53-06:57, 06:98, 06:100, 06:102N-06:105, 06:108, 06:120	*03:10:01, 03:12, 03:14:02, 03:70
35	185 bp 260 bp	430 bp	*06:54N *06:06 [?] , 06:58	
36	165 bp	430 bp	*06:71, 06:77N-06:78, 06:95	
37⁵	120 bp 175 bp	430 bp	*06:80 *06:29, 06:76-06:77N, 06:96	*03:30, 03:72, 03:100, 04:09
38⁸	170 bp	430 bp	*06:78, 06:123	

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

	285 bp		*06:72-06:73	
39⁵	120 bp	430 bp	*06:80	
	270 bp		*06:73-06:74	
40^{5,7,8}	105 bp	430 bp	*06:70	
	190 bp		*06:75N, 06:106	
41^{5,8}	105 bp	430 bp	*06:59	
	210 bp		*06:122	
42⁵	125 bp	430 bp	*06:93	
	185 bp		*06:60-06:61, 06:121	
43	170 bp	430 bp	*06:68	
44	130 bp	430 bp	*06:113	
	175 bp		*06:67	
45	150 bp	430 bp	*06:97	
	235 bp		*06:124	
46⁷	245 bp	430 bp	*06:86, 06:104, 06:107	*03:97
47⁵	85 bp	430 bp	*06:29, 06:63, 06:87, 06:96	*03:08
	180 bp		*06:90	
48⁵	115 bp	430 bp	*06:91	
	205 bp		*06:128	
49	185 bp	430 bp	*06:100	
	230 bp		*06:126	
50	150 bp	430 bp	*06:101	
	275 bp		*06:120	
51⁸	140 bp	430 bp	*06:103, 06:111	*05:14, 05:31, 05:46
52	195 bp	430 bp	*06:105	*05:47
53	150 bp	430 bp	*06:109-06:110	
54	185 bp	430 bp	*06:112N	
55	145 bp	430 bp	*06:115	
56	190 bp	515 bp	*06:116	
57	185 bp	430 bp	*06:89	
58	265 bp	430 bp	*06:127	
59	235 bp	430 bp	*06:117	
60¹⁰	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 DQB1*06 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.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: 62V

Lot-specific information

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 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.

³For several DQB1 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.

⁴Due to the sharing of sequence motifs between DQB1 alleles non-DQB1*06 alleles will be amplified by primer mixes 3, 5, 13, 15, 24, 33, 34, 37, 46, 47, 51 and 52. Thus, the interpretation of DQB1*06 subtypings is only influenced by a few non-DQB1*06 alleles and not by other groups of DQB1 alleles or the DQB2 and DQB3 genes.

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

⁶Primer mixes 9, 24 and 32 may give rise to a lower yield of HLA-specific PCR product than the other DQB1*06 primer mixes.

⁷Primer mixes 16, 18, 19, 20, 31, 32, 40 and 46 have a tendency to giving rise to primer oligomer formation.

⁸Primer mixes 8, 9, 10, 11, 15, 20, 28, 30, 31, 34, 38, 40, 41 and 51 may have tendencies of unspecific amplifications, most pronounced in primer mix 15.

⁹The nucleotide sequence of codon 14 of the DQB1*06:05:02 allele is not yet known. If codon 14 is CTg, then the DQB1*06:05:02 allele will retain its name and will be amplified by the primer pair in well No. 10. If the sequence of codon 14 is ATg, then DQB1*06:05:02 will be renamed to DQB1*06:09:02 (Steven Marsh personal communication), and will not be amplified by the primer pair in well No. 10.

¹⁰Primer mix 60 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by control primer pairs. PCR product sizes range from 75 to 200 base pairs. The PCR product generated by the control primer pair is 430 base pairs.

“?”, nucleotide sequence information is not available for the primer matching sequence.

‘w’, might be weakly amplified.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information
PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	220	210	185	130	160	170	210	90	130	260	210	100
								175				180
												215
Length of int. pos. control ¹	515	430	430	430	430	515	515	430	430	515	430	430
5'-primer(s) ²	26(173) 5'-TTA 3'	29(184) 5'-gAT 3'	9(122) 5'-gTT 3'	27(177) 5'-gTA 3'	9(122) 5'-gTA 3'	27(177) 5'-gTA 3'	29(184) 5'-gAC 3'	27(177) 5'-gTA 3'	27(177) 5'-gTA 3'	13(134) 5'-ggA 3'	29(184) 5'-gAT 3'	27(177) 5'-gTA 3'
		29(184) 5'-gAT 3'								13(136) 5'-gCC 3'		
3'-primer(s) ³	86(353) 5'-ACg 3'	86(353) 5'-ACg 3'	57(266) 5'-CAT 3'	57(266) 5'-CAT 3'	48(240) 5'-gCg 3'	69(304) 5'-CCC 3'	86(353) 5'-ACC 3'	43(224) 5'-Cgg 3'	57(266) 5'-CAA 3'	86(353) 5'-ACC 3'	86(353) 5'-ACC 3'	47(238) 5'-gCA 3'
		86(354) 5'-AAA 3'	58(270) 5'-TCC 3'	57(267) 5'-gCg 3'			86(354) 5'-TAT 3'	69(304) 5'-CCT 3'		87(356) 5'-ggA 3'		74(317) 5'-CCg 3'
								74(317) 5'-CCg 3'				86(353) 5'-ACg 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. PCR product	185	130	100	205	110	175	135	110	160	130	160	155
	225		185	300				210		195		
								260				
Length of int. pos. control ¹	430	430	430	515	430	430	430	515	430	515	515	430
5'-primer(s) ²	9(122) 5'-gTT 3'	27(177) 5'-gTg 3'	9(122) 5'-gTT 3'	9(122) 5'-gTT 3'	26(173) 5'-ggg 3'	26(173) 5'-TCT 3'	26(173) 5'-TCT 3'	13(136) 5'-gCg 3'	9(122) 5'-gTT 3'	57(266) 5'-TgA 3'	29(184) 5'-gAC 3'	9(122) 5'-gTT 3'
				98(389) 5'-CAT 3'	26(173) 5'-TTA 3'		154(558) 5'-ACT 3'	28(181) 5'-CCT 3'		133(494) 5'-TCA 3'		
								30(187) 5'-ACT 3'				
								62(282) 5'-AAg 3'				
								63(285) 5'-Agg 3'				
3'-primer(s) ³	56(265) 5'-gCT 3'	57(266) 5'-CAA 3'	27(177) 5'-gTT 3'	59(274) 5'-gTT 3'	48(240) 5'-gCg 3'	70(307) 5'-ggC 3'	56(265) 5'-gCT 3'	86(353) 5'-ACg 3'	48(240) 5'-gCg 3'	86(353) 5'-ACC 3'	69(304) 5'-CCC 3'	47(237) 5'-CgA 3'
	69(304) 5'-CCT 3'		29(184) 5'-gTg 3'	66(294) 5'-ATg 3'			186(653) 5'-CCg 3'			185(650) 5'-Cgg 3'		
			57(266) 5'-Cgg 3'	185(650) 5'-Cgg 3'								
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec.	210	165	155	130	90	115	100	115	190	145	185	165
PCR product	260	190	210	180			220				260	
			265	300								
Length of int. pos. control ¹	430	430	430	515	430	430	430	430	430	430	430	430
5'-primer(s) ²	13(134) 5'-ggT 3'	38(209) 5'-CgT 3'	11(129) 5'-TTA 3'	29(184) 5'-gAT 3'	69(304) 5'-AgA 3'	130(485) 5'-CCg 3'	13(134) 5'-ggC 3'	130(485) 5'-CCA 3'	38(209) 5'-CgT 3'	13(134) 5'-ggC 3'	13(134) 5'-ggC 3'	9(122) 5'-gTT 3'
		29(184) 5'-gAC 3'	45(230) 5'-ggA 3'	26(174) 5'-TAC 3'	101(400) 5'-TCT 3'		154(558) 5'-ACT 3'					
	30(185) 5'-ATg 3'		30(187) 5'-ACg 3'									
			30(187) 5'-ACT 3'									
			48(239) 5'-CCA 3'									
3'-primer(s) ³	86(353) 5'-ACg 3'	87(356) 5'-ggA 3'	86(353) 5'-ACg 3'	75(322) 5'-gTg 3'	86(353) 5'-ACC 3'	154(558) 5'-AAA 3'	73(314) 5'-CCA 3'	154(558) 5'-AAA 3'	87(356) 5'-ggA 3'	47(237) 5'-CgA 3'	61(279) 5'-TTT 3'	49(244) 5'-CAT 3'
	86(354) 5'-AAg 3'			131(488) 5'-ACT 3'	86(354) 5'-TAT 3'		174(618) 5'-ACT 3'				86(353) 5'-ACC 3'	50(247) 5'-CgA 3'
				188(661) 5'-CCA 3'								52(253) 5'-CTT 3'
												52(253) 5'-CTA 3'
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec.	120	170	120	105	105	125	170	130	150	245	85	115
PCR product	175	285	270	190	210	185		175	235		180	205
Length of int. pos. control ¹	430	430	430	430	430	430	430	430	430	430	430	430
5'-primer(s) ²	9(122) 5'-gTT 3'	9(122) 5'-gTT 3'	9(122) 5'-gTT 3'	9(122) 5'-gTT 3'	13(134) 5'-ggC 3'	27(177) 5'-gTA 3'	14(137) 5'-CAC 3'	24(169) 5'-TgT 3'	9(122) 5'-gTT 3'	9(122) 5'-gTT 3'	23(166) 5'-gCA 3'	14(138) 5'-ATC 3'
					47(238) 5'-ACA 3'			40(217) 5'-TCC 3'		101(400) 5'-TCT 3'	55(260) 5'-gCC 3'	45(230) 5'-ggC 3'
3'-primer(s) ³	36(203) 5'-ACC 3'	50(247) 5'-CgA 3'	36(203) 5'-ACC 3'	31(188) 5'-Agg 3'	69(304) 5'-CCC 3'	55(260) 5'-gCA 3'	57(266) 5'-CAT 3'	69(304) 5'-CCC 3'	45(232) 5'-CAA 3'	74(317) 5'-ACC 3'	69(304) 5'-CCC 3'	69(304) 5'-CCC 3'
	52(253) 5'-CTA 3'	55(260) 5'-gCA 3'	82(341) 5'-AgC 3'	58(271) 5'-CTT 3'		72(311) 5'-CCg 3'			73(316) 5'-CTC 3'	172(611) 5'-AgA 3'		
	55(260) 5'-gCg 3'	88(359) 5'-CgA 3'	88(359) 5'-CgA 3'	60(276) 5'-CAC 3'		75(322) 5'-gTg 3'						
	55(262) 5'-AgA 3'	91(369) 5'-TTT 3'				77(326) 5'-CCA 3'						
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

Well No.	49	50	51	52	53	54	55	56	57	58	59
Length of spec. PCR product	185	150	140	195	150	185	145	190	185	265	235
Length of int. pos. control ¹	430	430	430	430	430	430	430	515	430	430	430
5'-primer(s) ²	22(163) 5'-AgT 3'	8(121) 5'-TgA 3'	133(494) 5'-TCA 3'	135(500) 5'-TgA 3'	135(500) 5'-TgA 3'	9(124) 5'-TCT 3'	57(266) 5'-TgA 3'	105(411) 5'-AgC 3'	38(209) 5'-CgT 3'	110(426) 5'-AAA 3'	101(400) 5'-TCT 3'
	38(211) 5'-TgA 3'	49(242) 5'-ggA 3'	140(517) 5'-CCA 3'								
3'-primer(s) ³	86(353) 5'-ACg 3'	86(353) 5'-ACg 3'	169(604) 5'-gAC 3'	185(652) 5'-CAT 3'	168(599) 5'-CTT 3'	57(266) 5'-CAT 3'	92(372) 5'-CTA 3'	154(558) 5'-AAA 3'	86(353) 5'-ACC 3'	185(650) 5'-Cgg 3'	167(596) 5'-CAA 3'
					174(619) 5'-CAT 3'						
Well No.	49	50	51	52	53	54	55	56	57	58	59

¹The 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.

²The 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.

³The 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.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DQB1*06 SSP subtyping kit²																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.	201075701	201433502	201433503	201433504	201075705	201075706	201433507	201320508	201075709	201433510	201075711	201433512	201206713	201075714	201075715	201433516
IHWC cell line¹		DQB1																		
1	9001 SA	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*06:01	*02:02	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*06:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*05:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*03:02	*06:01	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLG A	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*02:01	*06:03	-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*06:02	*02:02	-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*06:04		-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-
21	9064 AMALA	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*05:03	*06:04	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-	-
23	9124 IHL	*05:03	*06:01	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*04:01	*05:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:02	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*03:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*06:03		-	-	-	+	+	+	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*02:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*02:02	*03:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*06:09		-	-	-	-	-	-	-	+	+	+	-	-	-	-	-	-	-
42	9066 TAB089	*06:01		+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*05:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*06:02		-	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

CELL LINE VALIDATION SHEET																				
DQB1*06 SSP subtyping kit²																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.	201433517	201075718	201075719	201433520	201075721	201075722	201075723	201320524	201433525	201294226	201433527	201433528	201433529	201320530	201294231	201320532
	IHWC cell line¹	DQB1																		
1	9001 SA	*05:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*06:01	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*06:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*05:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*03:02	*06:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEJ	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*03:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*04:01			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
11	9051 PITOUT	*02:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*03:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*05:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*04:02			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
15	9075 DKB	*03:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*02:01	*06:03		-	-	-	-	-	+	-	+	-	-	-	-	+	-	-	-
18	9257 32367	*06:02	*02:02		-	-	-	-	+	-	-	-	-	-	-	-	+	-	-	-
19	9038 BM16	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*06:04			-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+
21	9064 AMALA	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*05:03	*06:04		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+
23	9124 IHL	*05:03	*06:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*02:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*04:01	*05:01		-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:02	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*02:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*04:02			-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-
31	9019 DUCAF	*02:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*03:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*03:05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*03:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*06:03			-	-	-	-	-	-	+	-	+	-	-	-	-	+	-	-
38	9099 LZL	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*02:01	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*02:02	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*06:09			-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	+
42	9066 TAB089	*06:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*03:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*05:03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*02:02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*06:02			-	-	-	-	+	-	-	-	-	-	-	-	-	+	-	-
47	9045 TUBO	*03:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*05:01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

CELL LINE VALIDATION SHEET																			
DQB1*06 SSP subtyping kit²																			
			Prod. No.	Well															
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	IHWC cell line ¹	DQB1		201320533	201320534	201433535	201433536	201433537	201433538	201320539	201433540	201433541	201433542	201320543	201433544	201433545	201433546	201433547	201433548
1	9001 SA	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707	*06:01	*02:02	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324	*06:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011	*05:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM	*03:02	*06:01	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PTOUT	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540	*02:01	*06:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367	*06:02	*02:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005	*06:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE	*05:03	*06:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL	*05:03	*06:01	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007	*04:01	*05:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB	*02:02	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH	*04:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF	*02:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO	*03:05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17	*03:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB	*06:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML	*02:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199	*02:02	*03:03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301	*06:09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089	*06:01		-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM	*05:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO	*03:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

CELL LINE VALIDATION SHEET					Well											
DQB1*06 SSP subtyping kit ²					49	50	51	52	53	54	55	56	57	58	59	
					Prod. No.	201433549	201433550	201433551	201433552	201433553	201433554	201433555	201433556	201433557	201433558	201433559
	IHCW cell line ¹		DQB1													
1	9001	SA	*05:01		-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*06:01	*02:02	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*06:01		-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*02:01		-	-	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*05:02		-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*03:02	*06:01	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*02:01		-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*03:02		-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*04:01		-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*02:02		-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*05:01		-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*04:02		-	-	-	-	-	-	-	-	-	-	-	-
15	9075	DKB	*03:03		-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*02:01	*06:03	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*06:02	*02:02	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*06:04		-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*05:03	*06:04	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*05:03	*06:01	-	-	-	-	-	-	-	-	-	-	-	-
24	9035	JBUSH	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*02:02		-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*02:01		-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*04:01	*05:01	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*02:02	*03:01	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*02:02		-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*04:02		-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*02:01		-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*03:02		-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*03:05		-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*03:02		-	-	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*06:03		-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*02:01	*03:01	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*02:02	*03:03	-	-	-	-	-	-	-	-	-	-	-	-
41	9055	H0301	*06:09		-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*06:01		-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*03:03		-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*05:03		-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*02:02		-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*06:02		-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*03:01		-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*05:01		-	-	-	-	-	-	-	-	-	-	-	-

¹The 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.



101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: 62V

Lot-specific information

²The 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 10, 12 to 20, 22, 26 to 28, 31, 33 and 35 to 59 were available. The specificities of the primers in primer solutions 10, 12 to 17, 19, 22, 26, 33, 35, 37, 38, 41, 42, 47, and 57 were tested by separately adding additional 5'-primers, respectively additional 3'-primers. In primer solutions 18, 28, 31, 36, 39, 40, 45, 46, 52, 53, 55 and 59 it was only possible to test the 5'-primers, the 3'-primers were not possible to test. In primer solutions 20, 27, 43, 44, 48, 49, 50, 51, 54, 56 and 58 it was only possible to test the 3'-primer, the 5'-primer was not possible to test.

In primer solution 2, 3, 7, 8, 12, 16, 19, 25, 29, 35, 36, 37, 38 and 42, one or three 3'-primer was not possible to test, and in primer solutions 10, 16, 22, 25, 41 and 47 one or two 5'-primer was not possible to test. Additional primer in primer solution 4 was tested by separately adding one 5'-primer.

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

101.212.24/04 – including *Taq* pol., IFU-01
101.212.24u/04u – without *Taq* pol., IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **62V**

Lot-specific information

ADDRESSES:

Manufacturer:

Olerup SSP AB, Franzengatan 5, SE-112 51 Stockholm, Sweden.

Tel: +46-8-717 88 27

Fax: +46-8-717 88 18

E-mail: info-ssp@olerup.com

Web page: <http://www.olerup-ssp.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**.