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 *Taq* pol.** **101.212-24u/04u – without *Taq* 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.

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

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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.

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'-primer[1]	**164**	**340**	**440**	**45**	**45**	**43**
	5'-CAC3'	**5'-Agg3'**	**5'-TTA3'**	**5'-Tgg3'**	**5'-Tgg3'**	**5'-Tgg3'**
3'-primer[2]	**231**	**2nd I**	**507**	**59**	**58**	**57**
	5'-TgC3'	**5'-AAA3'**	**5'-TTg3'**	**5'-CTC3'**	**5'-ggC3'**	**5'-CTC3'**
A*	+	+	+			
B*	+	+	+			
C*	+	+	+			
DRB1				+	+	
DRB3				+	+	
DRB5				+		
DQB1					+	
DPB1						+

[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 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.

[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.

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.

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.

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

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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?-06:06?, 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	

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	
11[8]	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	
12[5]	100 bp	430 bp	*06:64	
	180 bp		*06:06	
	215 bp		*06:06[?], 06:129	
13	185 bp	430 bp	*06:10	
	225 bp		*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	430 bp	*06:14:01-06:14:02, 06:69,	*05:38
	185 bp		*06:29, 06:123	
16[7]	205 bp	**515 bp**	*06:16, 06:51:01-06:51:02	04:01:01[W]-04:03:02[W], 04:06[W]-04:18[W]
	300 bp		*06:52	
17[5]	110 bp	430 bp	*06:23, 06:82, 06:99	
18[7]	175 bp	430 bp	*06:17, 06:24, 06:30, 06:42	
19[7]	135 bp	430 bp	*06:10, 06:25, 06:36	
20[5,7,8]	110 bp	**515 bp**	*06:37, 06:125	
	210 bp		*06:26N, 06:81	
	260 bp		*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	**515 bp**	*06:07:01-06:07:02, 06:15:01-06:15:02, 06:46, 06:66, 06:92, 06:118	
	195 bp		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	
24[6]	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-

				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	
	260 bp		*06:49	
26	165 bp	430 bp	*06:35, 06:53	
	190 bp		*06:28, , 06:56, 06:79	
27	155 bp	430 bp	*06:114	
	210 bp		*06:40, 06:57, 06:81	
	265 bp		*06:33	
28[8]	130 bp	**515 bp**	*06:102N	
	180 bp		*06:50	
	300 bp		*06:34	
29[5]	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	430 bp	*06:44, 06:47	
	220 bp		*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[?]
34[8]	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	430 bp	*06:54N	
	260 bp		*06:06[?], 06:58	
36	165 bp	430 bp	*06:71, 06:77N-06:78, 06:95	
37[5]	120 bp	430 bp	*06:80	
	175 bp		*06:29, 06:76-06:77N, 06:96	*03:30, 03:72, 03:100, 04:09

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38[8]	170 bp	430 bp	*06:78, 06:123	
	285 bp		*06:72-06:73	
39[5]	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	
42[5]	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	
46[7]	245 bp	430 bp	*06:86, 06:104, 06:107	*03:97
47[5]	85 bp	430 bp	*06:29, 06:63, 06:87, 06:96	*03:08
	180 bp		*06:90	
48[5]	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	
51[8]	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	
60[10]			**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

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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 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.

[3]For 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.

[4]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.

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

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

[8]Primer 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.

[9]The 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.

[10]Primer 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

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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.	220	210	185	130	160	170	210	90	130	260	210	100
PCR product								175				180
												215
Length of int.	515	430	430	430	430	515	515	430	430	515	430	430
pos. control[1]												
5'-primer(s)[2]	26(173)	29(184)	9(122)	27(177)	9(122)	27(177)	29(184)	27(177)	27(177)	13(134)	29(184)	27(177)
	5' -TTA 3'	5' -gAT 3'	5' -gTT 3'	5' -gTA 3'	5' -gTA 3'	5' -gTA 3'	5' -gAC 3'	5' -gTA 3'	5' -gTA 3'	5' -ggA 3'	5' -gAT 3'	5' -gTA 3'
		29(184)								13(136)		
		5' -gAT 3'								5' -gCC 3'		
3'-primer(s)[3]	86(353)	86(353)	57(266)	57(266)	48(240)	69(304)	86(353)	43(224)	57(266)	86(353)	86(353)	47(238)
	5' -ACg 3'	5' -ACg 3'	5' -CAT 3'	5' -CAT 3'	5' -gCg 3'	5' -CCC 3'	5' -ACC 3'	5' -Cgg 3'	5' -CAA 3'	5' -ACC 3'	5' -ACC 3'	5' -gCA 3'
		86(354)	58(270)	57(267)			86(354)	69(304)		87(356)		74(317)
		5' -AAA 3'	5' -TCC 3'	5' -gCg 3'			5' -TAT 3'	5' -CCT 3'		5' -ggA 3'		5' -CCg 3'
								74(317)				86(353)
								5' -CCg 3'				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.	185	130	100	205	110	175	135	110	160	130	160	155
PCR product	225		185	300				210		195		
								260				
Length of int.	430	430	430	515	430	430	430	515	430	515	515	430
pos. control[1]												
5'-primer(s)[2]	9(122)	27(177)	9(122)	9(122)	26(173)	26(173)	26(173)	13(136)	9(122)	57(266)	29(184)	9(122)
	5' -gTT 3'	5' -gTg 3'	5' -gTT 3'	5' -gTT 3'	5' -ggg 3'	5' -TCT 3'	5' -TCT 3'	5' -gCg 3'	5' -gTT 3'	5' -TgA 3'	5' -gAC 3'	5' -gTT 3'
				98(389)	26(173)		154(558)	28(181)		133(494)		
				5' -CAT 3'	5' -TTA 3'		5' -ACT 3'	5' -CCT 3'		5' -TCA 3'		
								30(187)				
								5' -ACT 3'				
								62(282)				
								5' -AAg 3'				
								63(285)				
								5' -Agg 3'				
3'-primer(s)[3]	56(265)	57(266)	27(177)	59(274)	48(240)	70(307)	56(265)	86(353)	48(240)	86(353)	69(304)	47(237)
	5' -gCT 3'	5' -CAA 3'	5' -gTT 3'	5' -gTT 3'	5' -gCg 3'	5' -ggC 3'	5' -gCT 3'	5' -ACg 3'	5' -gCg 3'	5' -ACC 3'	5' -CCC 3'	5' -CgA 3'
	69(304)		29(184)	66(294)			186(653)			185(650)		
	5' -CCT 3'		5' -gTg 3'	5' -ATg 3'			5' -CCg 3'			5' -Cgg 3'		
			57(266)	185(650)								
			5' -Cgg 3'	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

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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.	430	430	430	515	430	430	430	430	430	430	430	430
pos. control[1]												
5'-primer(s)[2]	13(134)	38(209)	11(129)	29(184)	69(304)	130(485)	13(134)	130(485)	38(209)	13(134)	13(134)	9(122)
	5' -ggT 3'	5' -CgT 3'	5' -TTA 3'	5' -gAT 3'	5' -AgA 3'	5' -CCg 3'	5' -ggC 3'	5' -CCA 3'	5' -CgT 3'	5' -ggC 3'	5' -ggC 3'	5' -gTT 3'
	29(184)	45(230)	26(174)	101(400)			154(558)					
	5' -gAC 3'	5' -ggA 3'	5' -TAC 3'	5' -TCT 3'			5' -ACT 3'					
	30(185)		30(187)									
	5' -ATg 3'		5' -ACg 3'									
			30(187)									
			5' -ACT 3'									
			48(239)									
			5' -CCA 3'									
3'-primer(s)[3]	86(353)	87(356)	86(353)	75(322)	86(353)	154(558)	73(314)	154(558)	87(356)	47(237)	61(279)	49(244)
	5' -ACg 3'	5' -ggA 3'	5' -ACg 3'	5' -gTg 3'	5' -ACC 3'	5' -AAA 3'	5' -CCA 3'	5' -AAA 3'	5' -ggA 3'	5' -CgA 3'	5' -TTT 3'	5' -CAT 3'
	86(354)			131(488)	86(354)		174(618)				86(353)	50(247)
	5' -AAg 3'			5' -ACT 3'	5' -TAT 3'		5' -ACT 3'				5' -ACC 3'	5' -CgA 3'
				188(661)								52(253)
				5' -CCA 3'								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.	430	430	430	430	430	430	430	430	430	430	430	430
pos. control[1]												
5'-primer(s)[2]	9(122)	9(122)	9(122)	9(122)	13(134)	27(177)	14(137)	24(169)	9(122)	9(122)	23(166)	14(138)
	5' -gTT 3'	5' -gTT 3'	5' -gTT 3'	5' -gTT 3'	5' -ggC 3'	5' -gTA 3'	5' -CAC 3'	5' -TgT 3'	5' -gTT 3'	5' -gTT 3'	5' -gCA 3'	5' -ATC 3'
					47(238)			40(217)		101(400)	55(260)	45(230)
					5' -ACA 3'			5' -TCC 3'		5' -TCT 3'	5' -gCC 3'	5' -ggC 3'
3'-primer(s)[3]	36(203)	50(247)	36(203)	31(188)	69(304)	55(260)	57(266)	69(304)	45(232)	74(317)	69(304)	69(304)
	5' -ACC 3'	5' -CgA 3'	5' -ACC 3'	5' -Agg 3'	5' -CCC 3'	5' -gCA 3'	5' -CAT 3'	5' -CCC 3'	5' -CAA 3'	5' -ACC 3'	5' -CCC 3'	5' -CCC 3'
	52(253)	55(260)	82(341)	58(271)		72(311)			73(316)	172(611)		
	5' -CTA 3'	5' -gCA 3'	5' -AgC 3'	5' -CTT 3'		5' -CCg 3'			5' -CTC 3'	5' -AgA 3'		
	55(260)	88(359)	88(359)	60(276)		75(322)						
	5' -gCg 3'	5' -CgA 3'	5' -CgA 3'	5' -CAC 3'		5' -gTg 3'						
	55(262)	91(369)				77(326)						
	5' -AgA 3'	5' -TTT 3'				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

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Lot No.: 62V **Lot-specific information**

Well No.	49	50	51	52	53	54	55	56	57	58	59
Length of spec. PCR product	185 230	150 275	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

[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.

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

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Lot No.: 62V **Lot-specific information**

CELL LINE VALIDATION SHEET

DQB1*06 SSP subtyping kit[2]

					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 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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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Lot No.: 62V **Lot-specific information**

CELL LINE VALIDATION SHEET

DQB1*06 SSP subtyping kit[2]

					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 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		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-

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 kit[2]

					Well													
					33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
				Prod. No.	201320533	201320534	201433535	201433536	201433537	201433538	201320539	201433540	201433541	201433542	201320543	201433544	201433545	201433546	201433547	201433548
	IHWC 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		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 kit[2]

					Well										
					49	50	51	52	53	54	55	56	57	58	59
				Prod. No.	201433549	201433550	201433551	201433552	201433553	201433554	201433555	201433556	201433557	201433558	201433559
	IHWC 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		-	-	-	-	-	-	-	-	-	-	-

[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.

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

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"Instructions for Use" (IFU)

Lot No.: 62V **Lot-specific information**

[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

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

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Lot No.: 62V **Lot-specific information**

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

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Lot No.: 62V **Lot-specific information**

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