DQB1 high resolution for frequent alleles

101.221-12 – including *Tag* pol. Release Note

101.221-12u – without *Taq* pol.

Lot No.: **5L5** 

# Olerup SSP® DQB1 high resolution for frequent alleles

Product number: 101.221-12 – including *Taq* polymerase

**101.221-12u – without** *Taq* **polymerase** 

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Lot number: 5L5

Expiry date: 2024-10-01 Number of tests: 12 tests Number of wells per test: 95+ 1

### Changes compared to the previous DQB1 high resolution Lot (9H7):

Well	5'-primer	3'-primer	rationale	
1	-	Added	3'-primer added for the DQB1*02:01:34 allele.	
29	Added	-	5'-primer added for the DQB1*06:14:02 allele.	
31	Added	-	5'-primer added for the DQB1*06:14:02 allele.	
32	Added	-	5'-primer added for the DQB1*06:69:02 allele.	
46	Added	-	5'-primer added for the DQB1*06:14:02 allele.	
50	Added	-	5'-primer added for the DQB1*03:38 alleles.	
51	-	Moved	3'-primer moved to mix 83 for increased HLA-specific amplification.	
57	-	-	Optimized positive control primer pair for improved HLA- specific amplification.	
80	=.	<b>=</b> .	Modified 3'-primer for increased HLA-specific amplification.	
82	-	Added	3'-primer added for the DQB1*03:132 allele.	
83	=.	Added	3'-primer added from mix 83.	
95	Added	Added	Primer pair added for improved resolution of DQB1*05:04 allele.	

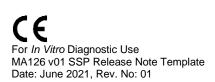
THE NUMBER OF WELLS is unchanged.

#### **ALLELE COVERAGE:**

DQB1\*02:01:01 to 02:171Q, DQB1\* 03:01:01:01 to 03:428, DQB1\*04:01:01 to 04:77, DQB1\*05:01:01:01 to 05:248 and DQB1\* 06:01:01 to 06:370, i.e. all the currently recognized DQB1 alleles, will be amplified by the primers in the DQB1 high resolution subtyping kit<sup>1,2</sup>; www.ebi.ac.uk/imgt/hla, 2020-April-20, release 3.40.0.

The DQB1 high resolution kit enables separation of the confirmed DQB1 alleles as listed in the IMGT/HLA database 3.27.0. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources.

The DQB1 high resolution kit also enables identification of many null and alternatively expressed alleles.



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

Alleles	Primer mix	Alleles	Primer mix
DQB1*02:15, 02:30	67	DQB1*04:36N, 04:43	54
DQB1*02:16, 02:20N	64	DQB1*05:10, 05:23	54
DQB1*02:23, 02:28	68	DQB1*05:12, 05:159, 05:242, 05:246	54
DQB1*02:29, 02:31	69	DQB1*05:13, 05:24	59
DQB1*03:03:06, 03:40	12	DQB1*05:17, 05:47	54
DQB1*03:31, 03:87	35	DQB1*05:25, 05:112	34
DQB1*03:35, 03:246, 03:328	49	DQB1*06:02:19, 06:48:01- 06:48:02	62
DQB1*03:36, 03:51	51	DQB1*06:31, 06:145	35
DQB1*03:46, 03:252, 03:271	50	DQB1*06:35, 06:45	35
DQB1*03:57, 03:353	12	DQB1*06:70, 06:76	80
DQB1*03:59, 03:71	43	DQB1*06:75N, 06:80	84
DQB1*03:66N, 03:224	42	DQB1*06:102N, 06:104	90
DQB1*03:116, 03:243, 03:317:01-03:317:02	66	DQB1*06:109, 06:225	54
DQB1*03:143, 03:257	50	DQB1*06:110, 06:185	54
DQB1*04:03:01, 04:12	42	DQB1*06:151, 06:208	35
DQB1*04:05, 04:15	30	DQB1*06:188, 06:273	38
DQB1*04:32, 04:66	17		

<sup>&</sup>lt;sup>1</sup>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 <a href="http://hla.alleles.org/alleles/deleted.html">http://hla.alleles.org/alleles/deleted.html</a>.

#### **Alleles**

DQB1\*05:03:14, 05:43:01

# RESOLUTION IN DQB1 HOMOZYGOTES AND HETEROZYGOTES:

Very good.

## MODIFICATIONS MADE DUE TO COMMENTS FROM CUSTOMERS:

In primer mixes, 29, 31 and 46 a 5'-primer was added for the DQB1\*06:14:02 allele. In primer mix 32, one 5'-primer was added for the DQB1\*06:69:02 allele. In primer mix 50, one 5'-primer was added for the DQB1\*03:38 alleles.

Changes in revision R01 compared to R00:

**1.** Primer mixes 49 and 57 do not amplify the DQB1\*03:420 and DQB1\*05:27 alleles. This correction has been implemented in the Specificity and Interpretation tables.



<sup>&</sup>lt;sup>2</sup>The DQB1 high primer set cannot separate the following alleles. These alleles can be distinguished by the DQB1\*05 kit.