

Olerup SSP[®] DQB1 high resolution for frequent alleles

Product number:	101.221-12 – including <i>Taq</i> polymerase 101.221-12u – without <i>Taq</i> polymerase
Lot number:	4H0
Expiry date:	2021-09-01
Number of tests:	12 tests
Number of wells per test:	95+ 1

CHANGES COMPARED TO THE PREVIOUS DQB1 HIGH RESOLUTION LOT (2F4):

Well	5'-primer	3'-primer	rationale
7	-	-	Control primer amount decreased for improved HLA-specific amplification.
17	-	Modified	3'-primer modified for increased yield of the DQB1*02:10 allele.
18	Added	-	5'-primer added for the DQB1*03:282N allele.
26	Modified	Moved	5'-primer modified for increased yield. 3'-primers moved to primer mixes 65, 66 and 92.
38	Exchanged	-	5'-primer exchanged for improved specificity.
47	-	Moved	3'-primers moved to primer mixes 80 and 83 for decreased primer oligomer formation.
50	Added	-	5'-primer added for the DQB1*03:282N allele.
51	-	Added, modified	3'-primer added for the DQB1*04:46N allele. 3'-primer modified for increased yield of the DQB1*02:10 allele.
53	Added	-	5'-primer added for the DQB1*06:252N allele.
64	Added	Added	Primer pair added for the DQB1*03:276N allele.
65	-	Added	3'-primer added from primer mix 26.
66	-	Added	3'-primer added from primer mix 26.
71	-	-	Control primer pair exchanged for decreased primer oligomer formation.
72	Added	-	5'-primer added for the DQB1*03:269N allele.
73	Added	-	5'-primer added for the DQB1*03:269N allele.
80	-	Added	3'-primer added from primer mix 47.
83	-	Added	3'-primer added from primer mix 47.
86	Added	-	5'-primer added for the DQB1*06:252N allele.
90	-	Added	3'-primer added for the DQB1*04:41N allele.
92	-	Added	3'-primer added from primer mix 26.

THE NUMBER OF WELLS is unchanged.

ALLELE COVERAGE:

DQB1*02:01:01 to 02:112, DQB1* 03:01:01:01 to 03:298, DQB1*04:01:01 to 04:52, DQB1*05:01:01:01 to 05:166 and DQB1* 06:01:01 to 06:286, i.e. all the currently recognized DQB1 alleles, will be amplified by the primers in the DQB1 high resolution subtyping kit^{1,2}; www.ebi.ac.uk/imgt/hla, 2018-October-18, release 3.34.0.

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.

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

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*05:10, 05:23	54
DQB1*02:16, 02:20N	64	DQB1*05:13, 05:24	59
DQB1*02:23, 02:28	68	DQB1*05:17, 05:47	54
DQB1*02:29, 02:31	69	DQB1*05:25, 05:112	34
DQB1*03:31, 03:87	35	DQB1*06:02:19, 06:48:01- 06:48:02	62
DQB1*03:35, 03:246	49	DQB1*06:31, 06:145	35
DQB1*03:36, 03:51	51	DQB1*06:35, 06:45	35
DQB1*03:59, 03:71	43	DQB1*06:70, 06:76	80
DQB1*03:66N, 03:224	42	DQB1*06:75N, 06:80	84
DQB1*03:116, 03:243	66	DQB1*06:102N, 06:104	90
DQB1*03:143, 03:257, 03:271	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		

¹Alleles 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>.

²The DQB1 high primer set cannot separate the DQB1*05:03:14 from the DQB1*05:43:01 alleles. These alleles can be distinguished by the DQB1*05 kit.

RESOLUTION IN DQB1 HOMOZYGOTES AND HETEROZYGOTES:

Very good.

MODIFICATIONS MADE DUE TO COMMENTS FROM CUSTOMERS:

In primer mix 17, a 3'-primer was modified for increased yield of the DQB1*02:10 allele.

In primer mix 51, a 3'-primer was modified for increased yield of the DQB1*02:10 allele.