DQ-DR Combi Tray Lot No: 2V4 Expiry Date: 2029-03-01

(101.704-48/12, -48u/12u)

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sample ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DNA Conc.(ng/ul):\_\_\_\_\_\_\_\_

Test Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tested By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reviewed By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Interpretation:\_\_\_\_\_\_\_\_\_\_\_ Failed lanes: \_\_\_\_\_\_\_\_\_\_\_ Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |

**DQ low resolution**



**DR low resolution**



Abbreviations

ICB: Internal Control Band

AmpS: Amplicon Size

**Notes:**

Product sizes are approximate. For detailed information, see the lot-specific Specificity Table and Interpretation Table.

This table is intended as a guide. For interpretation always use the Interpretation Table and/or Specificity Table.

**HLA-DQ low resolution primer set**

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

Primer mixes 5, 6, 7, 8 and 12 may give a lower yield of HLA-specific PCR products than the other DQ low resolution primer mixes.

Primer mix 2 has a tendency of giving rise to primer oligomer formation.

**HLA-DR low resolution primer set**

HLA-Specific PCR fragments shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR bands.

DRB5\*01:08:01N-01:08:02N is amplified by the primer pairs in well 39 in addition to primer mix 46.

The DRB4\*01:03:01:02N allele is amplified by the primer pairs in primer mixes 33 and 45, whereas the DRB4\*02:01N and DRB4\*03:01N null alleles are only amplified by the primer pairs in primer mix 45.

Due to sharing of sequence motifs in codon 38 and 47, DRB3\*01:14 will also be amplified in primer mixes 20, 21 and 32 and DRB3\*01:23 and DRB3\*02:32 in mix 20, in addition to primer mix 44.

Due to sharing of sequence motifs, DRB3\*01:42 is amplified by the primer pairs in primer mix 26, DRB3\*02:27 is amplified by the primer pairs in primer mix 30 and the DRB3\*02:27 and DRB3\*02:58 alleles are amplified in primer mix 43, in addition to primer mix 44.

Due to sharing of sequence motifs, DRB4\*01:31 is amplified by the primer pairs in primer mix 35 in addition to primer mix 45.

Primer mixes 16, 18, 27, 31, 34, 37, 43 and 47 may have a tendency of giving rise to primer oligomer formation.

Primer mix 34 has a tendency of primer oligomer formation and also has an intense primer cloud due to the high number of primers present in the primer mix.

Primer mixes 16, 18, 19, 24, 27, 37, 41, 42 and 44 may have a tendency of unspecific amplification.

Primer mix 26 may give a lower yield of HLA-specific PCR products than the other DR low resolution primer mixes.

In primer mix 44 the specific PCR product of 240 base pairs may be difficult to distinguish from the internal control band.

The primers in this kit do not amplify the DRB1\*04:382 and DRB5\*01:131N alleles.

Primer mix 47 contains a negative control, which will amplify the majority of the HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 200 base pairs.

**DQ low resolution Interpretation Table**





**1**DQB1 alleles listed on the IMGT/HLA web page 2025-January-15, release 3.59.0, [www.ebi.ac.uk/imgt/hla](http://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>.

**3**The serological reactivity of all DQ alleles is not known. In this table we use the expert-assigned serological grouping in Tissue Antigens (2009) **73**:95-170 and the serological grouping of the sequence-defined allele. The DQB1\*03:10 allele has been assigned type DQ7 by NMDP.

**4**The DQB1 alleles will be grouped into their corresponding serological specificities, except that the following alleles give rise to identical amplification patterns. These alleles can be separated by the respective high resolution SSP primer sets.

|  |
| --- |
| Alleles |
| DQB1\*05:01:01:01-05:01:15, 05:01:17-05:02:26, 05:02:28-05:03:23, 05:03:26-05:03:38, 05:05:01-05:43:02, 05:45-05:51, 05:53, 05:55-05:59, 05:61-05:71, 05:73-05:76, 05:78-05:81, 05:84-05:97, 05:99-05:104, 05:106-05:113, 05:115, 05:117-05:127, 05:129-05:131, 05:133-05:145, 05:147-05:174, 05:177-05:206N, 05:208N-05:217, 05:219-05:243, 05:245-05:257, 05:259-05:261, 05:263-05:299, 05:301-05:303, 05:305-05:343, 05:345-05:349, 05:351-05:357, DQB1\*06:325 |
| DQB1\*05:344, DQB1\*06:01:07, 06:01:32, 06:01:35, 06:03:11, 06:04:01:01-06:05:01, 06:07:01-06:07:02, 06:09:01:01-06:09:13, 06:12, 06:17, 06:21-06:22:03, 06:25, 06:28, 06:34-06:36, 06:38-06:39, 06:42, 06:45, 06:52-06:53:02, 06:69:01-06:69:02, 06:85-06:86, 06:88:01:01-06:89, 06:92:02-06:94, 06:118:01-06:118:03, 06:119, 06:121, 06:129, 06:135, 06:142, 06:144N, 06:149, 06:155, 06:158N, 06:160, 06:164, 06:171, 06:180, 06:186, 06:189, 06:193N, 06:199, 06:202-06:204, 06:207, 06:210, 06:212, 06:217, 06:231, 06:241, 06:252N, 06:254, 06:261, 06:265-06:267, 06:275, 06:280-06:283, 06:287-06:288, 06:291-06:292, 06:299, 06:301, 06:303N, 06:313, 06:318, 06:320, 06:332, 06:339-06:340, 06:343, 06:348-06:349, 06:351, 06:353, 06:358, 06:361, 06:369, 06:375, 06:381, 06:385, 06:387, 06:398, 06:407, 06:414N, 06:420, 06:426, 06:429, 06:432, 06:434, 06:439Q, 06:441, 06:444, 06:449, 06:452N, 06:458N, 06:465, 06:467, 06:473, 06:479, 06:484, 06:489-06:490, 06:496, 06:498, 06:505-06:506, 06:508, 06:511, 06:519-06:520 |

Abbreviations

w: might be weakly amplified.

?: nucleotide sequence information not available for the primer matching sequence.

**DR low resolution Interpretation Table**















**1**DRB alleles listed on the IMGT/HLA web page 2025-January-15, release 3.59.0, [www.ebi.ac.uk/imgt/hla](http://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>.

**3**The serological split of all DRB1 alleles is not known. In this table we use the expert-assigned serological grouping in Tissue Antigens (2009) **73**:95-170 and the serological grouping of the sequence-defined allele.

**4**The DRB1 alleles will be grouped into their corresponding serological specificities, except that the following alleles give rise to identical amplification patterns. These alleles can be separated by the respective high resolution SSP primer sets.

|  |
| --- |
| Alleles |
| DRB1\*03:126, DRB1\*13:193 |
| DRB1\*03:218N, DRB1\*13:176 |
| DRB1\*08:31, DRB1\*11:05, 11:309 |
| DRB1\*08:129, DRB1\*13:55 |
| DRB1\*11:293, DRB1\*13:45 |
| DRB1\*12:57, DRB3\*02:111 |

**5**The primers in this kit do not amplify the DRB1\*04:382 and DRB5\*01:131N alleles.

Abbreviations

w: might be weakly amplified.

?: nucleotide sequence information not available for the primer matching sequence.