Gel Documentation Form and Worksheet

DQA-DQB-DR Enhanced SSP Combi Tray Lot No: 5D8 Expiry Date: 2018-08-01

(101.713-24/06 – 24u/06u)

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

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

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

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

Tested By:

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

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

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

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |

**DQA1 resolution**



**DQB1**  **resolution**



**DRB**  **resolution**



‘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.

**DQA1 resolution primer set**

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

Primer mix 22 may have tendencies of unspecific amplifications.

Primer mixes 3 and 14 may give rise to a lower yield of HLA-specific PCR product than the other DQA1 primer mixes.

**DQB1 resolution primer set**

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

The primer pairs in well 38 will in some samples give rise to two HLA-specific PCR fragments.

Primer mixes 35, 38 and 43 may give a most pronounced lower yield of HLA-specific PCR products than the other DQB1 primer mixes.

Primer mix 44 may have tendency of unspecific amplification.

**DRB resolution primer set**

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

Individual alleles can give to rise to two differently sized specific PCR fragments in primer mixes 49, 51, 53 to 56, 58, 59, 61, 62, 66 to 68, 70, 75 and 77.

Primer mixes 49, 67 and 70 have a tendency to giving rise to primer oligomer formation.

Primer mixes 51 and 52 may have tendencies of unspecific amplifications.

Primer mixes 67 and 72 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.

Due to sharing of sequence motifs in codon 38, DRB3\*01:14 will also be amplified in primer mixes 53, 54 and 65, and DRB3\*01:23 in primer mix 53, in addition to primer mix 85.

The DRB4\*01:03:01:02N allele is amplified by primer mixes 66 and 78, whereas the DRB4\*02:01N and DRB4\*03:01N null alleles are not amplified by this primer pair.

Primer mix 54 may give a lower yield of HLA-specific PCR products than the other DRB primer mixes.

Primer mix 96 contains a negative control, which will amplify more than 95% of 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 430 base pairs.

**DQA1 resolution Interpretation Table**



**1**DQA1, DQB1 and DRB1, DRB3, DRB4 and DRB5 alleles listed on the IMGT/HLA web page 2015-October-10, release 3.22.0, [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>.

‘?’, nucleotide sequence information not available for the primer matching sequence.

‘w’, may be weakly amplified.

**DQB1 resolution Interpretation Table**





**1**DQA1, DQB1 and DRB1, DRB3, DRB4 and DRB5 alleles listed on the IMGT/HLA web page 2015-October-10, release 3.22.0, [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 the DQB1\*05:05 to 05:109, DQB1\*06:06 to 06:07, 06:10, 06:13, 06:15 to 06:24 and 06:27 to 06:197, the DQB1\*02:04 to 02:64 the DQB1\*03:02:02 to 03:02:04, 03:03:03, 03:05:02, 03:07 to 03:09 and 03:11 to 03:215 and the DQB1\*04:03:01 to 04:32 alleles is not known. The grouping of not serologically defined alleles is taken from the expert-assigned serological grouping in Tissue Antigens (2009) **73**:95-170.

**4**The DQA1, DQB1 and the DRB1, DRB3, DRB4 and DRB5 alleles will be grouped into their corresponding serological specificities, except that following alleles give rise to identical amplification patterns:

|  |
| --- |
| **Alleles** |
| DQB1\*05:98, 06:169 |

These two alleles may be separated by the respective DQB1 high resolution kits.

‘ser’, serological HLA specificity.

‘w’, may be weakly amplified.

‘?’, nucleotide sequence information not available for the primer matching sequence.

**DRB resolution Interpretation Table**









**1**DQA1, DQB1 and DRB1, DRB3, DRB4 and DRB5 alleles listed on the IMGT/HLA web page 2015-October-10, release 3.22.0, [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 DRB alleles is not known. The grouping of not serologically defined alleles is taken from Tissue Antigens 73, 95-170, 2009.

‘w’, may be weakly amplified.

‘?’, nucleotide sequence information not available for the primer matching sequence.

Change in revision R01 compared to R00:

1. Primer mix 53 does not amplify the DRB1\*03:97 and \*11:53 alleles. This has been corrected in the Specificity and Interpretation Tables.

Change in revision R02 compared to R01:

1. Primer mix 69 does not amplify the DRB1\*08:14 allele. This has been corrected in the Specificity and Interpretation Tables.

Change in revision R03 compared to R02:

1. Due to sharing of sequence motifs in codon 38 and 47, DRB3\*01:23 will be amplified in primer mix 53, in addition to primer mix 77.
2. The DRB1\*13:02:02 allele is amplified in primer mix 54.

The Specificity and Interpretation Tables have been changed.

Changes in revision R04 compared to R03:

1. Primer mix 51 does not amplify the DRB1\*16:05:01-16:05:02 and 16:07 alleles. This has been corrected in the Specificity and Interpretation Tables.

Change in revision R05 compared to R04:

1. Primer mix 54 does not amplify the DRB1\*14:137N and 14:152N alleles. Primer mix 63 does not amplify the DRB1\*14:137N allele. This has been corrected in the Specificity and Interpretation Tables.