Gel Documentation Form and Worksheet

HLA-B\*27 (101.521-24/04, -24u/04u) Lot No: 5F4 Expiry Date: 2020-04-01

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

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

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

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

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

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

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

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

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |





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

Primer mixes 28, 30, 31, 32 and 39 may have tendencies of unspecific amplifications.

Primer mix 43 has a tendency to giving rise to primer oligomer formation.

Primer mix 24 may give rise to a lower yield of HLA-specific PCR product than the other B\*27 primer mixes.

Primer mix 30 may give rise to a long unspecific amplification product. This band should be disregarded when interpreting the typing results.

Primer mix 47 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.





 









**1**HLA-B\*27 alleles in bold lettering are listed as confirmed alleles on the on the IMGT/HLA web page [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla), release 3.28.0, April 2017.

**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 following HLA-B\*27 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-B\*27 alleles | Other amplified HLA Class I alleles |
| **10** | 90 bp  185 bp | \*27:06, 27:35, 27:41, 27:78, 27:91, 27:106-27:107, 27:154  \*27:60 | \*15:129, 15:395, 18:02, 38:22, **C\*07:05, C\*07:538** |
| **12** | 210 bp  310 bp  425 bp | \*27:74  \*27:13 | \*08:100, 15:292, 15:401, 27:43, 35:113, 39:62, 40:202, 44:98, 46:27, 52:31:01-52:31:02 |
| **13** | 215 bp  370 bp  400 bp | \*27:47  \*27:12, 27:16, 27:92, 27:119, 27:153  \*27:53 | \*37:57, 40:75?, 40:322? |
| **14** | 120 bp  345 bp | \*27:34  \*27:17 | \*35:01:30, 40:02:07, 40:06:02, 51:01:52, 57:01:16, 57:03:02, **C\*02:06:02, C\*02:23, C\*02:36, C\*02:68** |
| **17** | 100 bp  310 bp | \*27:14, 27:81  \*27:51 | \*44:20, 44:47, 44:100, 44:197, 50:20, 51:85, 51:192, 51:214, 52:26 |
| **18** | 175 bp  415 bp | \*27:24  \*27:49 | \*07:174, 07:202, 07:222, 07:279, 40:31, 40:45, 40:80, 48:01:01-48:01:06, 48:04:01-48:04:02, 48:06-48:07, 48:09, 48:11, 48:15-48:16, 48:18-48:20, 48:22, 48:24, 48:27-48:39, 48:41, 81:01-81:08 |
| **19** | 95 bp  240 bp | \*27:35  \*27:25, 27:38, 27:47, 27:50:01-27:50:02, 27:63, 27:76, 27:139 | \*38:22  \*15:129, 15:342, 15:395 |
| **20** | 95 bp  175 bp  215 bp  345 bp | \*27:09  \*27:36  \*27:25, 27:45, 27:108, 27:115, 27:161  \*27:69 | \*48:21, 48:26  \*07:197, 15:129, 15:342  \*15:227, 37:23, 40:213, 51:32, 58:52 |
| **21** | 110 bp  160 bp | \*27:04:01-27:04:06, 27:06, 27:24-27:25, 27:66N, 27:68-27:69, 27:100, 27:103, 27:105, 27:109, 27:112-27:115, 27:138, 27:147, 27:149  \*27:39, 27:137 | \*37:47 |
| **22** | 165 bp  195 bp  235 bp  375 bp | \*27:55, 27:149  \*27:37  \*27:15, 27:28, 27:62, 27:71  \*27:26, 27:31, 27:101, 27:157 | \*18:43, 40:210?, 40:229  \*18:02, **A\*32:89, C\*07:05, C\*07:538**  \*40:166?, 82:01-82:03 |
| **26** | 105 bp  145 bp  235 bp | \*27:52  \*27:64N  \*27:72 | \*37:60  \*40:291N |
| **27** | 215 bp  320 bp | \*27:104  \*27:57 | \*37:27 |
| **28** | 145 bp  325 bp | \*27:64N  \*27:48 | \*40:118N, 40:291N |
| **29** | 70 bp  105 bp  210 bp | \*27:54, 27:123  \*27:67  \*27:74 |  |
| **30** | 160 bp  240 bp | \*27:59N, 27:137  \*27:72-27:73 |  |
| **31** | 125 bp  160 bp  265 bp | \*27:65N  \*27:56  \*27:118 | **A\*24:185N** |
| **32** | 90 bp  370 bp | \*27:32, 27:70  \*27:85 | \*07:28, 07:118, 08:14, 08:87, 15:17:01:01-15:17:06, 15:162, 15:168, 15:177, 15:196, 15:208, 15:216, 15:230, 15:233, 15:269, 15:273, 15:339, 15:356, 15:396, 15:403, 15:411, 15:423-15:424, 35:234, 40:124:02, 40:180, 40:240, 44:02:33, 44:41:01, 44:54, 44:65, 44:106, 44:135, **C\*02:07, C\*02:97** |
| **34** | 160 bp  265 bp | \*27:82  \*27:118 |  |
| **35** | 120 bp  280 bp | \*27:134  \*27:83 |  |
| **36** | 190 bp  350 bp | \*27:146  \*27:94N | \*37:33N |
| **41** | 105 bp  155 bp | \*27:67  \*27:91 |  |
| **43** | 155 bp  290 bp | \*27:68  \*27:05:02:04Q |  |
| **44** | 225 bp  255 bp  290 bp | \*27:66N  \*27:01, 27:142  \*27:58 | \*13:23, 13:55, 18:09, 37:10, 40:47, 40:96, 40:157, 40:201, 44:15, 44:55, 44:103, 44:188, 44:212, 49:02 |

**4**The following HLA-B\*27 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |
| --- | --- |
| **Alleles** | **Primer mix** |
| B\*27:37, 27:55, 27:101 | 22 |
| B\*27:83, 27:134 | 35 |

‘w’, might be weakly amplified.

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

Change in revision R01 compared to R00:

1. Primer mix 43 amplifies the B\*27:05:02:04Q allele. This has been corrected in the Specificity and Interpretation Tables.