Gel Documentation Form and Worksheet

HLA-C\*02 (101.622-12/12u) Lot No: 5K6 Expiry Date: 2024-04-01

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

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

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

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

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

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

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

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

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |





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

Primer mixes 13, 16 and 18 may give a lower yield of HLA-specific PCR product than the other C\*02 primer mixes.

Primer mixes 10, 16, 29 and 30 may have tendencies of unspecific amplifications.

Primer mixes 10 and 28 have a tendency to giving rise to primer oligomer formation.

Primer mix 44 contains a negative control, which will amplify the majority 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 200 base pairs.



















**1**HLA-C\*02 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla), release 3.24.0, April 2016.

**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-C\*02 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-C\*02 alleles | Other amplified HLA Class I alleles |
|  **3** | 105 bp 135 bp | \*02:03, 02:16:02, 02:18, 02:31\*02:20 | \*03:03:22, 03:04:34, 07:02:75, **B\*27:34, B\*35:01:30w, B\*40:02:07, B\*40:06:02, B\*51:01:52w, B\*57:01:16w, B\*57:03:02w** |
|  **4** | 65 bp150 bp | \*02:56\*02:04  | **B\*35:01:30, B\*51:01:52, B\*57:01:16, B\*57:03:02**\*04:198, 08:119, 12:115, 14:41 |
|  **5** | 145 bp 245 bp | \*02:22\*02:05:01-02:05:03, 02:17, 02:81  | \*05:105, 05:206, 08:31, 08:185, **B\*07:02:07, B\*27:05:15, B\*48:04:02**\*01:10, 06:08, 12:119, 14:25, 16:29, 16:50, 17:21, **B\*07:239, B\*14:46, B\*40:243** |
|  **6** | 160 bp 215 bp | \*02:06:01-02:06:02, 02:47\*02:46, 02:64  | \*06:168, 06:224, 12:15, 12:208, 15:74\*12:162  |
|  **8** | 70 bp 280 bp | \*02:08 \*02:33 | \*03:18:02-03:18:03, 03:64:01, 03:301, 12:02:17, 12:03:23, 15:10:02-15:10:03, **B\*15:125:02, B\*56:01:09, B\*58:74** |
| **11** | 90 bp 170 bp | \*02:18, 02:32\*02:09 | \*05:18:04, 07:02:75 |
| **12** | 150 bp 230 bp | \*02:11, 02:14:01-02:14:02, 02:107, 02:164\*02:17  | \*04:42:01-04:42:02, 04:220, 05:43, 06:02:72, 06:05w, 07:01:74, 07:02:09, 08:37, 12:16:01, 12:147, 12:195:02, 12:217, 15:23:01-15:23:02, 15:63, 15:138, 15:158, 16:21, 16:80, **B\*13:130, B\*27:84****\***14:25 |
| **13** | 225 bp265 bp | \*02:12, 02:27:01-02:27:02, 02:115, 02:126, 02:131\*02:49, 02:75, 02:115 | \*03:308, 07:756, 16:34\*04:03:01:01-04:03:07, 04:06:01-04:06:03, 04:80, 04:147, 04:160, 04:171, 04:190, 04:256, 04:286, 04:294, 04:299, 04:335, 04:337, 04:357, 04:363, 04:381, 04:383, 04:393, 04:400, 04:402, 07:756 |
| **14** | 80 bp 115 bp | \*02:13\*02:43:01  | \*05:18:04, 05:106:01, 07:02:75, 12:02:32, 12:02:34, 12:03:17 |
| **15** | 130 bp 190 bp | \*02:21\*02:15, 02:71 | **B\*07:221** |
| **17** | 110 bp 160 bp | \*02:31, 02:43:01 \*02:23 | \*05:18:04, 05:106:01, 07:02:75, 12:02:32, 12:02:34, 12:03:17 |
| **20** | 130 bp165 bp | \*02:24, 02:71\*02:72 | \*03:258, 06:98, 07:397, 07:412, 12:51, **B\*15:385, B\*35:404, B\*57:108** |
| **21** | 115 bp 210 bp | \*02:30\*02:25Q, 02:64, 02:67Q  | \*15:19\*12:162 |
| **22** | 65 bp110 bp | \*02:56\*02:34  | **B\*35:01:30, B\*51:01:52, B\*57:01:16, B\*57:03:02**\*16:09 |
| **23** | 85 bp210 bp 390 bp  | \*02:70\*02:29, 02:69\*02:35, 02:120 | \*06:223 |
| **25** | 160 bp215 bp | \*02:19, 02:23\*02:60  | \*01:09:01-01:09:02, 03:21, 03:80:01-03:80:02, 03:142, 03:287:01-03:287:02, 03:413, 06:107, 06:179, 12:222, 12:235, **B\*07:55, B\*07:100, B\*15:45, B\*15:63, B\*15:248, B\*15:287, B\*46:81**\*06:264**, B\*07:55, B\*07:100, B\*08:70, B\*15:07:01:01-15:07:03, B\*15:45, B\*15:68, B\*15:126, B\*15:207, B\*15:324, B\*15:331, B\*15:405, B\*15:431, B\*15:450, B\*15:524, B\*46:12, B\*48:19** |
| **26** | 140 bp260 bp | \*02:39\*02:40:01-02:40:02, 02:53:01-02:53:02 | \*12:124, **B\*15:363:01-15:363:02, B\*18:91, B\*39:122, B\*39:159, B\*40:367** |
| **28** | 90 bp 170 bp | \*02:52N \*02:37, 02:46, 02:60, 02:67Q | **B\*27:34, B\*40:02:07** |
| **29** | 210 bp385 bp | \*02:83 \*02:12, 02:49, 02:55:01-02:55:02, 02:115 | \*05:224, 08:24, 16:90\*04:03:01:01-04:03:01:02, 04:03:03-04:03:07, 04:06:01-04:06:03, 04:80, 04:107, 04:147, 04:160, 04:171, 04:190, 04:256, 04:286, 04:294, 04:335, 04:337, 04:357, 04:363, 04:381, 04:383, 04:393, 04:400, 04:402, 07:756 |
| **30** | 350 bp 535 bp | \*02:38:01N\*02:58  | \*03:07:01:01-03:07:02, 03:10, 03:15, 03:29, 03:45, 03:163, 03:268, 03:297, 03:450, 03:461, 04:08, 04:34, 04:147, 04:212, 05:27, 05:39, 05:151, 06:96, 06:197, 15:15, 15:77, 15:195, 17:07, 18:08 |
| **31** | 100 bp165 bp | \*02:42, 02:107, 02:152 \*02:83  | \*01:02:34, 01:21, 04:140, 04:166:01, 04:220, 05:98, 05:197, 06:02:72, 06:05, 07:01:74, 07:02:09, 08:14, 08:80, 08:103, 12:16:01, 12:147, 12:227, 12:279, 15:63, 15:113, 16:80, **B\*15:436, B\*67:02:01:01-67:02:01:02**\*05:224, 08:24, 16:90 |
| **32** | 215 bp245 bp | \*02:92N\*02:81 |  |
| **37** | 125 bp245 bp | \*02:91\*02:135N |  |
| **41** | 140 bp250 bp | \*02:104\*02:121N |  |

**4**The following HLA-C\*02 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| Alleles | Primer mix | Alleles | Primer mix |
| C\*02:05:02-02:05:03, 02:22 | 5 | C\*02:35, 02:69, 02:70, 02:120 | 23 |
| C\*02:15, 02:21 | 15 | C\*02:37, 02:52N | 28 |
| C\*02:25Q, 02:30 | 21 |  |  |
|  |  |  |  |

**5**The HLA-C\*02 primer set cannot separate the following alleles. These alleles can be distinguished by the HLA-C low resolution kit and/or the HLA-C\*06 high resolution kit.

|  |
| --- |
| Alleles |
| \*02:10:01:01-02:10:05, 02:10:07, 02:38:02N, 02:89, 02:133, 02:143, 02:161, 02:168-02:169N, 02:174, 02:176, 02:181-02:182, 06:18 |
|  |

Abbreviations

w: might be weakly amplified.

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