Gel Documentation Form and Worksheet

HLA-C\*15 (101.626-12/12u) Lot No: 1F1 Expiry Date: 2019-10-01

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 5 and 23 may give rise to a lower yield of HLA-specific PCR product than the other C\*15 primer mixes.

Primer mixes 17, 18 and 27 may have tendencies of unspecific amplifications.

Primer mix 40 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-C\*15 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 3.26.0, October 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\*15 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-C\*15 alleles | Other amplified HLA Class I alleles |
| **3** | 85 bp  210 bp | \*15:28  \*15:03, 15:16, 15:25w | \*03:15, 03:27w, 03:38:01w-03:38:02w, 03:69w, 03:130, 03:136w, 03:163, 03:246w, 03:297, 04:16, 06:03:01, 06:70:02, 06:132:01-06:132:02, 07:02:10w, 07:96:01w-07:96:02w, 07:127w, 07:246:01w, 07:263w, 07:314:02w, 12:03:23w |
| **5** | 100 bp  160 bp | \*15:05:01-15:05:12, 15:22-15:23, 15:29, 15:36, 15:46, 15:54, 15:59, 15:69-15:70, 15:90, 15:104, 15:108, 15:110-15:111, 15:115N-15:117, 15:125  \*15:92N | \*04:108, **B\*07:246, B\*35:03:11, B\*35:205** |
| **6** | 305 bp  345 bp  370 bp | \*15:06:01-15:06:03, 15:40, 15:55, 15:102  \*15:26, 15:69  \*15:22, 15:37, 15:55, 15:58, 15:65, 15:72, 15:102, 15:125 |  |
| **8** | 160 bp  185 bp | \*15:08, 15:74  \*15:19 | \*01:90w, 02:06:01-02:06:02, 02:47, 05:132, 06:168, 12:15, **B\*07:78w, B\*13:18w, B\*13:31w, B\*13:41w, B\*13:73w, B\*15:73w, B\*15:303w, B\*54:10w, B\*54:20w, B\*54:33w, B\*55:09w, B\*55:21w, B\*55:37w, B\*55:52w, B\*56:43w, B\*56:51w** |
| **9** | 135 bp  305 bp | \*15:11, 15:23, 15:63, 15:118  \*15:18 | \*02:02:01-02:02:03, 02:02:05-02:02:12, 02:02:14-02:02:25, 02:02:27-02:02:28, 02:02:30-02:20, 02:22-02:25Q, 02:27:01-02:38N, 02:40:01-02:40:02, 02:42-02:44, 02:46-02:86, 02:88-02:100, 02:101w, 02:102-02:126, 04:03:01-04:03:03, 04:06, 04:42:01-04:42:02, 04:80, 04:107, 04:147, 04:160, 04:171, 04:190, 04:220, 04:256, 05:26, 05:43, 06:05, 07:02:09, 08:37, 12:16, 12:147, 16:21, 16:34, 16:80  \*04:210, 04:237 |
| **12** | 100 bp  200 bp  240 bp | \*15:28  \*15:95N  \*15:07, 15:21w, 15:25, 15:43, 15:116w | \*02:12w, 02:27:01-02:27:02, 02:115, 02:126w, 03:02:01-03:02:09, 03:02:11-03:03:14, 03:03:15w, 03:03:16-03:03:20, 03:03:22-03:04:16, 03:04:18-03:04:25, 03:04:27-03:06:02, 03:08-03:09, 03:10w, 03:11:01-03:11:02, 03:13:01-03:14, 03:16-03:17, 03:18:02-03:28, 03:29w, 03:30-03:38:02, 03:40:01-03:44, 03:46-03:64:01, 03:65-03:66, 03:68-03:98, 03:100-03:114, 03:116:01-03:129, 03:131-03:133, 03:135-03:136, 03:138-03:139, 03:141-03:143, 03:145-03:155, 03:157-03:162, 03:164-03:165, 03:167-03:169Q, 03:171-03:181, 03:183-03:194, 03:196-03:230, 03:232-03:242, 03:244Q-03:263:02, 03:265N-03:267, 03:269-03:277N, 03:278w, 03:279-03:294, 03:295w, 03:296, 03:298-03:334, 03:336-03:343, 07:96:01-07:96:02, 07:314:02, 12:03:23, 16:34, **B\*40:164** |
| **13** | 125 bp  185 bp | \*15:24  \*15:12 | \*01:116, 04:89, 04:135, 05:47  \*04:52, 04:55, 05:55, 12:58, 14:10 |
| **14** | 130 bp  440 bp | \*15:13, 15:103  \*15:11, 15:16-15:17, 15:43 | **\***01:90, 02:06:01-02:06:02, 02:47, 03:19, 03:102, 03:307, 03:318N, 04:178, 05:132, 06:168, 07:289, 12:15, **B\*46:11, B\*46:18, B\*56:08, B\*56:14** |
| **16** | 90 bp  165 bp  345 bp | \*15:27  \*15:15, 15:77  \*15:26, 15:69 | **B\*35:222, B\*42:22** |
| **17** | 140 bp  215 bp  295 bp | \*15:34  \*15:36  \*15:39, 15:130 | \*14:81  \*04:112, 04:169, 14:73  \*01:30, 08:51, 08:114, 12:87, 14:76 |
| **19** | 165 bp  355 bp | \*15:42, 15:111  \*15:46 |  |
| **20** | 120 bp  200 bp  235 bp  295 bp | \*15:44:01-15:44:02  \*15:95N  \*15:45  \*15:97 | \*03:148  \*04:146 |
| **21** | 165 bp  445 bp | \*15:47, 15:92N  \*15:35 | \*02:35, 02:120, 04:238, 05:21 |
| **22** | 225 bp  295 bp | \*15:38  \*15:97 | \*04:146 |
| **23** | 175 bp  545 bp | \*15:48  \*15:29, 15:87 | \*01:85, 08:22, 08:56 |
| **24** | 175 bp  330 bp  380 bp | \*15:32Q  \*15:105Q  \*15:41 | \*06:74Q |
| **25** | 125 bp  225 bp | \*15:122N  \*15:52 | **B\*39:95N**  **B\*15:363:02, B\*18:91, B\*35:247, B\*58:45:02** |
| **26** | 200 bp | \*15:56, 15:103, 15:127 | **B\*15:193, B\*35:132, B\*35:246, B\*35:283, B\*39:53, B\*39:57, B\*40:171, B\*51:95** |
| **27** | 330 bp  375 bp | \*15:30, 15:105Q  \*15:123 | \*07:174, 07:298, 08:112, 12:165 |
| **28** | 85 bp  180 bp | \*15:33,  \*15:84Q |  |
| **29** | 120 bp  255 bp | \*15:96Q  \*15:81 | \*04:59Q, 16:16Q, **B\*15:218Q** |
| **34** | 110 bp  140 bp | \*15:108  \*15:114 |  |
| **37** | 125 bp  220 bp | \*15:122N  \*15:101 | **B\*39:95N**  **B\*40:270** |
| **39** | 110 bp  155 bp | \*15:108  \*15:132 |  |

**4**The HLA-C\*15 primer set cannot separate the C\*15:04:01-15:04:02 and the C\*16:70 alleles. These alleles can be distinguished by the HLA-C low resolution kit and/or HLA-C\*16 high resolution kit.

**5**The following HLA-C\*15 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| C\*15:18, 15:118 | 9 | C\*15:35, 15:47 | 21 |
| C\*15:32Q, 15:41 | 24 | C\*15:44:01-14:44:02, 15:45 | 20 |
| C\*15:33, 15:84Q | 28 | C\*15:46, 15:111 | 19 |
| C\*15:34, 15:39 | 17 | C\*15:81, 15:96Q | 29 |

‘w’, might be weakly amplified.