Gel Documentation Form and Worksheet

HLA-A\*33 (101.432-12/12u) Lot No: 7F1 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 6, 11, 13, 25 and 27 may have tendencies of unspecific amplifications.

Primer mixes 10 and 15 have a tendency to giving rise to primer oligomer formation.

Primer mixes 9 and 10 may give rise to a long unspecific amplification product of approximately 640 bp. This should be disregarded when interpreting the HLA-A\*33 typings.

Primer mix 3 may give rise to a lower yield of HLA-specific PCR product than the other A\*33 primer mixes.

Primer mix 32 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-A\*33 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 3.29.0, August 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-A\*33 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-A\*33 alleles | Other amplified HLA-A alleles |
| **6** | 105 bp  170 bp | \*33:20  \*33:05, 33:58 | \*31:94  \*29:12, 29:92 |
| **7** | 75 bp  105 bp  230 bp | \*33:21, 33:53  \*33:06  \*33:51, 33:119 | \*11:98, 11:250, 66:15, 68:04:01 |
| **8** | 160 bp  235 bp | \*33:07  \*33:24 | \*02:444, 31:54  \*02:243:01-02:243:02, 29:19, 29:48 |
| **9** | 150 bp  185 bp | \*33:14, 33:22, 33:58  \*33:08-33:09 | \*01:20, 01:66, 01:130, 02:24:01-02:24:02, 02:137, 02:309, 02:503, 03:95, 26:22, 29:12, 29:22, 29:92, 30:47, 31:99, 66:09, **C\*02:74**  **\***02:243:01-02:243:02, 29:48 |
| **10** | 135 bp  215 bp  285 bp | \*33:22  \*33:08, 33:53  \*33:13 | \*02:24:02, 29:22, 31:99  \*02:243:01-02:243:02, 24:82, 29:48, 31:02, 31:07-31:08, 31:91, 31:109  \*01:143, 11:43, 29:66, 31:03, **C\*07:449** |
| **12** | 105 bp  235 bp | \*33:36, 33:80N  \*33:11, 33:125 | \*11:137:01N, 26:60N  \*03:205, 11:43, 31:66, 31:89, 31:115, 68:29 |
| **13** | 95 bp  165 bp | \*33:12  \*33:25 |  |
| **14** | 120 bp  335 bp | \*33:15, 33:84  \*33:19 | \*02:140, 26:99, 31:48  \*02:10, 02:17:01-02:17:04, 02:39, 02:108, 02:110, 02:148, 02:242, 02:244, 02:268, 02:300, 02:303, 02:398, 02:453, 02:604, 02:617, 02:628, 02:630, 02:657, 02:680, 03:15, 03:19, 11:139, 24:04, 24:19, 24:28, 24:44, 24:89, 24:109, 24:129, 24:290, 29:07, 29:49, 31:29 |
| **15** | 140 bp  215 bp  255 bp | \*33:16, 33:23  \*33:65  \*33:64 |  |
| **16** | 95 bp  210 bp  245 bp | \*33:36  \*33:21  \*33:17 |  |
| **17** | 145 bp  215 bp | \*33:18:01-33:18:02, 33:26  \*33:65 | \*03:42, 03:133, 23:53, 23:70, 29:01:01:01-29:04, 29:06-29:31, 29:34, 29:36-29:50, 29:52-29:70, 29:72-29:76, 29:78N, 29:81, 29:84-29:86, 29:88-29:103, 31:03-31:04, 31:06, 32:30:01-32:30:02, 32:32 |
| **18** | 100 bp  145 bp  240 bp | \*33:27  \*33:57  \*33:82 |  |
| **20** | 90 bp  225 bp | \*33:29  \*33:39 | \*02:480, 32:53 |
| **21** | 115 bp  245 bp | \*33:30  \*33:73N, 33:82, 33:129N | \*02:342 |
| **22** | 120 bp  255 bp  545 bp | \*33:31, 33:84  \*33:44  \*33:123N | \*02:241, 02:684, 26:24  \*01:166 |
| **24** | 95 bp  205 bp | \*33:34  \*33:54 | \*03:01:18, 11:01:28, 11:01:77, 24:21:03, 24:208, 29:09, 29:33, 31:24, 32:33:01  \*29:59 |
| **25** | 215 bp  245 bp | \*33:69, 33:83, 33:109  \*33:129N |  |
| **26** | 150 bp  190 bp | \*33:77  \*33:74N, 33:111 |  |
| **28** | 230 bp  545 bp | \*33:70, 33:90  \*33:123N | \*01:84, 02:214, 03:145:02, 11:54  \*01:166 |
| **30** | 120 bp  260 bp | \*33:03:03Q  \*33:86 | \*01:01:38L, 24:02:03Q  \*03:265, 32:51 |
| **31** | 155 bp  220 bp  260 bp | \*33:96N  \*33:90  \*33:68 | \*01:52:01N, 26:107N  \*01:84, 02:214  \*24:114, 29:61, 32:98 |

**4**The A\*33:09 and the A\*02:309, 26:22 and 66:09 alleles, the A\*33:51, 33:119 and A\*66:15 alleles give rise to identical amplification patterns with the HLA-A\*33 subtyping kit. These alleles can be distinguished by e.g. the HLA-A low resolution kit and/or the HLA-A\*02, HLA-A\*26 and HLA-A\*66 subtyping kits.

**5**The following HLA-A\*33 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| A\*33:03:03Q, 33:86 | 30 | A\*33:29, 33:39 | 20 |
| A\*33:08, 31:99 | 10 | A\*33:30, 33:73N | 21 |
| A\*33:11, 33:80N | 12 | A\*33:31, 33:44 | 22 |
| A\*33:16, 33:64 | 15 |  |  |