Gel Documentation Form and Worksheet

HLA-A\*68 (101.418-12/04 -12u/04u) Lot No: 2K9 Expiry Date: 2023-10-01

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

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

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

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

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

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

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

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

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |





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 1, 17, 29 and 31 may give rise to a lower yield of HLA-specific PCR product than the other HLA-A\*68 primer mixes.

Primer mixes 11, 20, 35, 38 and 47 may have tendencies of unspecific amplifications.

Primer mixes 29, 32, 35 and 38 have a tendency to giving rise to primer oligomer formation.

Primer mix 48 contains a negative control, which will amplify a 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 are 200 and 430 base pairs.



 









**1**HLA-A\*68 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 3.25.0, July 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-A\*68 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-A\*68 alleles | Other amplified  HLA-A alleles |
| **4** | 180 bp  225 bp | \*68:01:41, 68:30  \*68:03:01-68:03:02, 68:05, 68:20, 68:180, 68:206 | \*02:06:05  \*02:06:05 |
| **5** | 140 bp  235 bp | \*68:25  \*68:04:01-68:04:02 | \*02:339, 02:407, 02:449, 02:594, 02:743, 32:109  \*11:98, 11:250, 33:51, 66:15 |
| **8** | 160 bp  240 bp | \*68:07  \*68:46 |  |
| **9** | 195 bp  250 bp | \*68:47  \*68:08:01-68:08:02, 68:63, 68:157, 68:168 | \*25:19:01-25:19:02, 25:30, 26:43:01-26:43:02, 26:112, 34:02:01:02, 34:03?-34:04?, 34:06?-34:07?, 34:09?-34:10N?, 34:13?, 34:15?, 34:22, 66:06, 66:33 |
| **10** | 165 bp  190 bp | \*68:09, 68:26, 68:129, 68:134, 68:204  \*68:148Q | \*01:12, 01:19, 01:127, 01:136, 02:662, 03:10, 03:167, 11:01:01:01-11:01:34, 11:01:36-11:01:56, 11:01:58-11:07, 11:10-11:21N, 11:26-11:27, 11:29-11:30, 11:32:01-11:34, 11:36-11:43, 11:45-11:49, 11:51-11:52Q, 11:54:01-11:58, 11:60-11:93, 11:95-11:111, 11:114-11:115N, 11:117-11:129, 11:131-11:139, 11:141-11:157, 11:159-11:161, 11:163-11:175, 11:177-11:182Q, 11:184-11:190, 11:192-11:203, 11:205-11:210N, 11:212-11:215N, 11:217-11:225, 11:227-11:228, 11:230-11:255, 11:257, 11:259-11:268, 11:270, 11:272Q-11:289, 11:291-11:309, 11:311-11:325, 11:327-11:332, 24:17, 24:41, 24:208:01-24:208:02, 24:296, 29:05, 29:33, 29:77, 29:87, 29:104, **C\*16:67** |
| **11** | 160 bp  200 bp | \*68:17  \*68:10, 68:14, 68:120N | \*02:358 |
| **12** | 200 bp  405 bp | \*68:38, 68:110, 68:120N  \*68:11N | **C\*06:139** |
| **13** | 210 bp  240 bp  260 bp | \*68:12:01-68:12:02, 68:50, 68:117, 68:129, 68:131  \*68:51  \*68:113, 68:115 | \*25:59, 26:122  \*26:18 |
| **15** | 145 bp  200 bp | \*68:19  \*68:14, 68:80-68:81, 68:158 | \*02:237, 02:809, 03:17:01, 03:171, 24:18, 24:204, 24:213  \*02:121, 02:425, 02:517, 02:802, 23:47, 24:141, 24:234, 24:339, 24:347:02, **C\*12:37w** |
| **18** | 200 bp  225 bp | \*68:26, 68:65, 68:115, 68:131  \*68:21:01-68:21:02 | \*01:01:01:01-01:01:65, 01:01:67-01:04:01:02N, 01:06-01:29, 01:31N-01:33, 01:35-01:71, 01:73-01:78, 01:80-01:101, 01:103-01:144, 01:146-01:166, 01:168-01:199, 01:201-01:227, 01:229-01:235, 01:237-01:243, 01:245-01:266:02, 01:268-01:270, 01:272-01:283, 01:285N-01:305, 03:18, 03:97, 03:122, 03:135, 03:167, 11:27, 11:38-11:39, 11:94, 11:209, 11:271, 11:326, 23:53, 23:70, 24:17, 24:41, 24:208:01-24:208:02, 24:296, 25:59, 29:03, 29:33, 80:01:01:01-80:05  \*01:86, 03:04:01-03:04:03, 03:345, 11:153:01-11:153:02 |
| **21** | 170 bp  215 bp | \*68:28  \*68:24, 68:123 | \*02:49, 02:682-02:683, 24:87, 24:285, 24:289, 31:97, 66:19, **B\*07:197, B\*27:45, B\*27:108** |
| **24** | 85 bp  375 bp | \*68:112:01-68:112:02  \*68:105 | \*33:147, 34:15, **B\*08:131, B\*08:136, B\*08:139**  \*02:55, 02:644, 02:741, 02:815, 26:22, 33:22, 66:09, 69:01:01:01-69:05 |
| **25** | 240 bp  365 bp | \*68:29  \*68:94N | \*02:243:01-02:243:03, 24:82, 26:177  \*26:71N |
| **26** | 100 bp  190 bp | \*68:49N  \*68:33, 68:80 | \*02:802, 24:141, 33:03:17 |
| **27** | 105 bp  185 bp  235 bp | \*68:18N  \*68:34  \*68:43:01-68:43:02 | \*02:385, 02:529, 33:120  \*11:219 |
| **28** | 200 bp  230 bp | \*68:35, 68:38, 68:110  \*68:44 | **C\*06:139**  \*26:173 |
| **29** | 80 bp  250 bp | \*68:42, 68:54, 68:61, 68:63, 68:183  \*68:36-68:37 | \*02:03:01-02:03:08, 02:26, 02:99, 02:117, 02:148, 02:171:02, 02:253, 02:258, 02:264, 02:281, 02:315, 02:323, 02:345, 02:355, 02:370, 02:393, 02:402, 02:412, 02:427, 02:431, 02:447, 02:463, 02:466, 02:480, 02:489, 02:505, 02:529, 02:541, 02:544, 02:557, 02:568, 02:589, 02:592, 02:595, 02:612, 02:633-02:634, 02:641, 02:666, 02:684, 02:711, 02:774-02:775N, 02:782, 02:809, 02:833N, 03:01:38, 03:123:02, 11:25:01, 11:191, 26:01:17  **B\*44:02:57, B\*44:03:19-44:03:20** |
| **30** | 145 bp  245 bp | \*68:37 | \*02:117, 02:135, 25:01:01:01, 25:01:02-25:01:08, 25:02-25:07, 25:10-25:19:01, 25:20-25:27:02, 25:29-25:30, 26:01:01:01, 26:01:02-26:01:14, 26:01:16-26:01:25, 26:01:27-26:01:37, 26:02:01, 26:03:01-26:08:01, 26:09-26:10, 26:12-26:13, 26:15-26:17, 26:19-26:27, 26:29-26:39, 26:41-26:43:02, 26:45-26:46, 26:48-26:72, 26:74-26:109, 26:111, 26:113, 34:01:01:01, 34:01:02, 34:05, 34:11-34:12, 43:01, 66:01:01:01, 66:01:02, 66:01:05-66:03:01:01, 66:04-66:15, 66:17, 66:19-66:21, 66:32, 66:35 |
| **34** | 105 bp  165 bp | \*68:18N  \*68:55:01-68:55:02, 68:124 | \*03:163, 03:244 |
| **35** | 140 bp  295 bp | \*68:59N  \*68:93, 68:97 | \*26:132, 32:73, **B\*44:129** |
| **37** | 145 bp  170 bp  285 bp | \*68:67, 68:192  \*68:123  \*68:26, 68:65, 68:115, 68:131 | \*26:125, 34:12?, 66:30  \*25:36, 25:59, 26:29, 26:49, 66:10 |
| **39** | 95 bp  180 bp | \*68:106  \*68:68 |  |
| **41** | 135 bp  200 bp | \*68:144  \*68:45, 68:117 | \*32:68  \*24:24, 24:67, 24:290, 24:392, 26:16, 33:119 |
| **42** | 130 bp  245 bp | \*68:60, 68:99  \*68:101:01 | \*11:164, 24:394  \*03:180 |
| **44** | 190 bp  270 bp | \*68:75:01-68:75:02, 68:96, 68:130:01-68:130:02  \*68:159Q | \*11:11, 43:01 |
| **45** | 150 bp  220 bp  265 bp | \*68:41  \*68:72  \*68:86, 68:159Q | \*01:126  \*11:301  \*26:57, **B\*39:104** |
| **46** | 110 bp  495 bp | \*68:52  \*68:142N | \*02:396 |

**4**The following HLA-A\*68 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| Alleles | Primer mix | Alleles | Primer mix |
| A\*68:19, 68:158 | 15 | A\*68:68, 68:106 | 39 |
| A\*68:52, 68:142N | 46 | A\*68:99, 68:101 | 42 |

Abbreviations

‘w’, may be weakly amplified.

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