Gel Documentation Form and Worksheet

HLA-A\*01 (101.411-24/06, -24u/06u) Lot No: 5K8 Expiry Date: 2024-05-01

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 10, 28, 31 and 51 have a tendency of giving rise to primer oligomer formation.

Primer mixes 5, 8, 9, 16, 22, 28, 45, 47 and 49 may have tendencies of unspecific amplifications.

Primer mix 5, 12 and 13 may give rise to a lower yield of HLA-specific PCR product than the other A\*01 primer mixes.

Primer mix 62 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-A\*01 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 3.24.0, May 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\*01 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product1 | Amplified HLA-A\*01 alleles3 | Other amplified HLA-A alleles |
| **6** | 125 bp  210 bp | \*01:60  \*01:09:01:01-01:09:02 | **\***26:31, **C\*06:71, C\*07:581**  **C\*07:274** |
| **7** | 60 bp  115 bp | \*01:06  \*01:86 | \*02:576, 31:62, 34:22 |
| **8** | 110 bp  180 bp | \*01:07, 01:23:01-01:23:02, 01:51, 01:83:01-01:83:02, 01:191, 01:299  \*01:01:01:02N | \*24:243, 26:120, 31:35 |
| **10** | 120 bp  155 bp  240 bp  270 bp | \*01:150  \*01:10  \*01:137  \*01:29 | \*03:231:01w, 03:231:02, 11:14w, 11:50Q, 11:290, 30:26, 80:01:01:01w-80:06w |
| **11** | 135 bp  180 bp  275 bp | \*01:13, 01:28, 01:176, 01:194, 01:229, 01:299  \*01:106  \*01:11N | \*11:282, 31:35 |
| **12** | 90 bp  125 bp | \*01:86, 01:115 | \*02:576, 02:682, 03:187, 11:155, 11:226, 31:62, 34:22, 36:01-36:09, 68:41, **B\*40:359, B\*55:96, B\*57:65, C\*04:31, C\*06:137, C\*07:569**  **B\*40:359, B\*44:289, B\*55:96, C\*07:569w** |
| **14** | 75 bp  120 bp | \*01:59  \*01:13, 01:17, 01:176, 01:194, 01:302 | \*11:282 |
| **16** | 180 bp  235 bp | \*01:01:01:02N  \*01:15N |  |
| **17** | 180 bp  210 bp  285 bp | \*01:106  \*01:16N  \*01:101 | \*03:87, 11:30, 30:92 |
| **19** | 150 bp  170 bp | \*01:269N  \*01:18N, 01:30, 01:145, 01:236 | \*26:145N  \*02:262, 02:547, 02:700, 02:848, 24:22, 24:160, 24:299, 26:149 |
| **21** | 125 bp  220 bp  255 bp | \*01:44  \*01:155  \*01:20, 01:66, 01:130 | \*02:19, 02:36-02:37, 02:54, 02:255, 02:417, 02:723, 02:848, 02:883, 24:14:01:01-24:14:01:04, 24:93, 24:324 |
| **25** | 80 bp  425 bp | \*01:31N, 01:51, 01:59  \*01:19, 01:173 | \*26:120 |
| **26** | 90 bp  460 bp  545 bp | \*01:104, 01:134, 01:229  \*01:32  \*01:45 | \*02:346, 02:427, 11:06, 11:312, 25:11, 26:03:01:01-26:03:01:02, 26:06, 26:21, 26:36, 26:78, 26:92, 26:111, 26:146, 26:177, 26:193, 33:184, 80:01:01:01w  \*02:453, 02:557, 02:690, 03:78, 11:108, 23:92, 23:96, 24:271, 33:151, 66:17 |
| **27** | 110 bp  170 bp  195 bp | \*01:87N  \*01:33, 01:141  \*01:109 | \*02:679, 03:193  \*03:182, 11:100, 11:175 |
| **28** | 95 bp  135 bp  195 bp | \*01:01:38L  \*01:132  \*01:109 | \*11:01:98, 24:02:03Q  \*30:142  \*03:182, 11:100, 11:175 |
| **29** | 110 bp  155 bp  230 bp  285 bp | \*01:69:01-01:69:03  \*01:35  \*01:68  \*01:101 | \*02:609, 03:107, 11:17, 23:09, 24:129, 25:59, 26:62, 26:72, 32:24, 33:185  \*03:77, 11:144  \*03:87, 11:30, 30:92 |
| **30** | 135 bp  180 bp  220 bp  280 bp | \*01:95, 01:289  \*01:07, 01:100, 01:190, 01:194, 01:289, 01:298  \*01:155  \*01:142 | \*24:243  \*24:243, 31:35  \*24:150 |
| **32** | 110 bp  140 bp | \*01:57N  \*01:43 | **\***66:39N, **B\*40:118N, B\*40:291N, C\*06:152N, C\*07:191N, C\*07:733N**  **\***11:282, 26:120 |
| **34** | 130 bp  150 bp  215 bp | \*01:60, 01:71, 01:115  \*01:269N  \*01:58 | \*26:31**, B\*40:359, B\*44:289, B\*55:96, C\*06:71, C\*07:569w C\*07:581**  \*26:145N |
| **35** | 110 bp  180 bp  240 bp | \*01:47, 01:150  \*01:07, 01:49, 01:100, 01:190, 01:194, 01:289, 01:298  \*01:137 | \*11:229, 24:243, 31:35 |
| **36** | 90 bp  140 bp  175 bp  235 bp | \*01:54  \*01:48  \*01:53N  \*01:123N | \*03:250 |
| **37** | 65 bp  115 bp  150 bp | \*01:65  \*01:71, 01:247N  \*01:77, 01:92 |  |
| **38** | 100 bp  180 bp  240 bp | \*01:50  \*01:62  \*01:68, 01:72 | \*02:315, 03:85  \*11:236, 30:45 |
| **39** | 125 bp  170 bp | \*01:77  \*01:39, 01:113 | **B\*07:241, C\*04:251** |
| **42** | 110 bp  185 bp  255 bp | \*01:87N  \*01:64, 01:141  \*01:142 | \*03:232  \*24:150 |
| **43** | 550 bp  590 bp | \*01:45, 01:56N  \*01:107 | \*02:453, 02:557, 02:690, 03:78, 11:69N, 11:108, 23:92, 23:96, 24:271, 33:151, 66:17 |
| **44** | 65 bp  245 bp | \*01:98  \*01:46 | \*24:87, 24:285, **B\*07:64** |
| **46** | 85 bp  155 bp  245 bp | \*01:81  \*01:40  \*01:72, 01:147Q | \*03:26, 03:318, 03:370, 11:77, 11:126, 11:348, 30:151  \*11:160  \*11:236, 30:45 |
| **47** | 295 bp  325 bp  450 bp  550 bp | \*01:41  \*01:42  \*01:48  \*01:123N | \*11:48 |
| **48** | 180 bp | \*01:144 |  |
| **50** | 200 bp  230 bp | \*01:250N  \*01:162N |  |
| **53** | 110 bp  215 bp | \*01:247N  \*01:186N |  |
| **544** | 70 bp  155 bp | \*01:103  \*01:132 | \*30:142 |
| **55** | 150 bp  190 bp | \*01:52:02N  \*01:258N |  |
| **57** | 190 bp  240 bp | \*01:258N  \*01:208Q |  |
| **59** | 180 bp  200 bp | \*01:240N  \*01:250N |  |

**4**The following HLA-A\*01 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| A\*01:31N, 01:173 | 25 | A\*01:53N-01:54 | 36 |
| A\*01:32, 01:104 | 26 | A\*01:65, 01:92 | 37 |
| A\*01:47, 01:49 | 35 | A\*01:87N, 01:141 | 27, 42 |
| A\*01:48, 01:123N | 36 | A\*01:137, 01:150 | 10, 35 |
| A\*01:50, 01:62 | 38 |

**5**The A\*01 primer set cannot separate the following alleles. These alleles can be distinguished by the HLA-A low resolution and/or HLA-A\*25 kits.

|  |
| --- |
| Alleles |
| A\*01:69:01-01:69:03, 25:59 |

Abbreviations

‘w’, might be weakly amplified.

Changes in revision R01 compared to R00:

1. In primer mix 7, the size of the positive control band has been corrected to 1070 bp in the Product Insert and the Worksheet.