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 bp115 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 bp155 bp240 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 bp275 bp | \*01:13, 01:28, 01:176, 01:194, 01:229, 01:299 \*01:106\*01:11N | \*11:282, 31:35 |
| **12** | 90 bp125 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 bp210 bp 285 bp | \*01:106\*01:16N\*01:101  | \*03:87, 11:30, 30:92 |
| **19** | 150 bp170 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 bp425 bp | \*01:31N, 01:51, 01:59\*01:19, 01:173  | \*26:120 |
| **26** | 90 bp460 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 bp135 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 bp155 bp230 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 bp220 bp280 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 bp215 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 bp240 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 bp140 bp 175 bp235 bp | \*01:54\*01:48\*01:53N\*01:123N  | \*03:250 |
| **37** | 65 bp115 bp150 bp | \*01:65\*01:71, 01:247N\*01:77, 01:92 |  |
| **38** | 100 bp 180 bp240 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 bp185 bp255 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 bp245 bp | \*01:98\*01:46  | \*24:87, 24:285, **B\*07:64** |
| **46** | 85 bp 155 bp245 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 bp450 bp550 bp | \*01:41 \*01:42\*01:48\*01:123N | \*11:48 |
| **48** | 180 bp | \*01:144 |  |
| **50** | 200 bp230 bp | \*01:250N\*01:162N |  |
| **53** | 110 bp215 bp | \*01:247N\*01:186N |  |
| **544** | 70 bp155 bp | \*01:103\*01:132  | \*30:142 |
| **55** | 150 bp190 bp | \*01:52:02N\*01:258N |  |
| **57** | 190 bp240 bp | \*01:258N\*01:208Q |  |
| **59** | 180 bp200 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.