Gel Documentation Form and Worksheet

HLA-B\*46 (101.544-06/06u) Lot No: 2K1 Expiry Date: 2023-09-01

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 7, 10, 13, 14 and 16 may have tendencies of unspecific amplifications.

Primer mix 24 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-B\*46 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 3.31.0, January 19, 2018.

**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-B\*46 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| **Primer Mix** | **Size of spec. PCR product** | **Amplified HLA-B\*46 alleles** | **Other amplified HLA Class I alleles** |
| **4** | 130 bp  245 bp | \*46:04, 46:40:01-46:40:02  \*46:14 | \*18:06, 18:142w, 35:74, 35:186, 35:356  \*18:06, 18:142w, 40:73, 73:01w-73:02w, **C\*03:278, C\*07:714, C\*07:724, C\*16:86** |
| **6** | 120 bp  225 bp | \*46:20  \*46:06 | \*35:392, 35:425, 55:19  \*07:09:01-07:09:02, 07:11, 07:17, 07:162, 07:237, 07:255, 07:287, 15:138, 15:241, 15:297, 18:35, 18:110, 35:66, 40:38, 40:52, 40:59-40:60, 40:158, 40:222, 40:352, 40:422, 48:14, 48:23, **C\*07:38:01-07:38:02** |
| **7** | 105 bp  140 bp  180 bp | \*46:16  \*46:07N  \*46:56 | \*14:07N, 39:40:01N-39:40:02N, 56:19N |
| **8** | 190 bp  380 bp | \*46:39  \*46:06, 46:08, 46:11, 46:13:01-46:13:03, 46:18-46:19, 46:21:01-46:21:02, 46:25, 46:33, 46:43 | \*35:298  \*15:02:01:01-15:03:08, 15:05:01-15:06, 15:09:01-15:10:04, 15:13:01-15:13:02, 15:16:01:01-15:18:07, 15:21:01:01-15:21:01:02, 15:23, 15:25:01-15:25:04, 15:29, 15:31, 15:36-15:37, 15:39:01-15:40:02, 15:42, 15:44, 15:48, 15:52, 15:55, 15:61-15:62, 15:64:01-15:64:02, 15:67, 15:69, 15:72, 15:74, 15:80, 15:86, 15:88-15:91, 15:93, 15:95, 15:98, 15:103, 15:106-15:108, 15:112, 15:114-15:115, 15:119, 15:121, 15:123-15:124, 15:127, 15:131-15:134, 15:136, 15:138-15:139, 15:151, 15:153, 15:155-15:156, 15:158, 15:161-15:162, 15:168, 15:170, 15:173, 15:176-15:177, 15:185-15:186, 15:188, 15:194-15:198, 15:200, 15:204, 15:208, 15:210, 15:213-15:214, 15:216, 15:219-15:220:01:02, 15:222-15:224, 15:226N, 15:229-15:230, 15:235, 15:238, 15:240, 15:242:01-15:243, 15:249-15:250, 15:252-15:255, 15:263, 15:265-15:266, 15:268, 15:271, 15:273-15:275:02, 15:281-15:283, 15:288-15:294N, 15:297, 15:301-15:302N, 15:306-15:308, 15:310-15:314, 15:319, 15:323, 15:325, 15:328-15:330, 15:332, 15:335, 15:337-15:339, 15:341, 15:345, 15:348, 15:351, 15:354, 15:356-15:358, 15:360-15:361, 15:364, 15:366, 15:369, 15:376, 15:378, 15:380N, 15:382-15:384, 15:388-15:389, 15:393-15:397, 15:399, 15:402-15:404, 15:407-15:408, 15:411, 15:414, 15:418, 15:420-15:421, 15:423-15:427, 15:433-15:439, 15:444-15:449, 15:451, 15:454N-15:455, 15:458, 15:460, 15:462-15:463N, 15:468, 15:475, 15:485, 15:487N, 15:491, 15:494-15:495, 15:497, 15:500, 15:502-15:506, 15:508-15:509, 15:511, 15:516-15:517 |
| **10** | 100 bp  160 bp  315 bp | \*46:05  \*46:38  \*46:15N | \*07:204, 07:210, 13:124, 14:02:13, 15:125, 35:54, 37:85, 51:140, **C\*05:01:28, C\*07:02:30, C\*08:16:02**  \*18:135 |
| **12** | 100 bp  170 bp  305 bp  380 bp | \*46:40:01-46:40:02  \*46:10  \*46:55N  \*46:19 | \*35:186  **C\*02:167, C\*05:205**  \*15:48, 15:108, 15:136, 15:235, 15:249 |
| **13** | 105 bp  220 bp | \*46:11, 46:18  \*46:22, 46:32 | \*07:78, 13:02:01:01-13:02:14, 13:02:16-13:03, 13:08-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:34, 13:37-13:38, 13:40-13:42, 13:44-13:45, 13:48-13:49N, 13:53-13:56:02N, 13:58, 13:65-13:70, 13:74-13:75, 13:81-13:82, 13:84-13:85, 13:88-13:89, 13:91, 13:93-13:94, 13:96-13:105, 13:111-13:121, 13:123Q-13:126, 13:128, 13:130-13:131, 14:37, 15:42, 15:303, 15:485, 35:60, 44:15:01:01-44:15:01:02, 44:18, 44:339, 45:01:01:01-45:01:07, 45:03-45:08, 45:10-45:25, 49:01:01:01-49:03, 49:06-49:14, 49:16-49:17, 49:19N-49:46, 49:48-49:49, 49:51-49:60N, 49:62-49:63, 50:01:01:01-50:02, 50:04-50:08, 50:10-50:11, 50:13, 50:15, 50:18-50:19, 50:31-50:32, 50:34-50:40, 50:43-50:50, 50:52-50:63, 51:15, 51:106:02, 51:157, 51:225, 52:25:01, 54:01:01-54:03, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:16-54:30, 54:32-54:37, 54:39, 55:01:01:01-55:01:03, 55:01:05-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:09-55:12, 55:15-55:16, 55:18-55:19, 55:21-55:22, 55:24-55:26, 55:29-55:31, 55:33-55:38, 55:40-55:41, 55:43, 55:45-55:48, 55:50, 55:52, 55:54-55:57, 55:59-55:60, 55:62-55:67, 55:69-55:80, 55:82-55:85, 55:87-55:93, 55:95-55:103, 56:01:01:01-56:01:15, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:49, 56:52-56:55:01:02, 56:58-56:59, 56:61-56:62, 56:64-56:65, 59:01:01:01-59:01:01:02, 59:04-59:10N  \*13:31, 13:41, 13:131, 15:04:01:01-15:04:04, 15:137, 15:303, 15:499, 35:265, 50:47, 51:61:01-51:61:02, 52:21:01-52:21:02, 54:33, 55:21, 56:43, **C\*12:183** |
| **15** | 305 bp  330 bp | \*46:55N  \*46:01:03, 46:01:16, 46:01:24, 46:11, 46:13:01-46:13:02, 46:18, 46:21:02, 46:33 | \*15:01:44, 15:02:09, 15:03:02, 15:03:04, 15:05:02, 15:07:03, 15:13:02, 15:18:06, 15:27:03, 15:38:02, 15:39:02, 15:42, 15:48, 15:78:04, 15:86, 15:179:01, 15:188, 15:224, 15:269, 15:275:01, 15:383, 15:393, 15:407, 15:435, 15:485 |
| **18** | 95 bp  265 bp | \*46:23  \*46:57 |  |
| **19** | 160 bp  230 bp | \*46:38  \*46:24 | \*18:135  \*15:19, 15:304N |
| **20** | 225 bp  340 bp | \*46:34  \*46:28 | \*15:340 |
| **21** | 235 bp  270 bp | \*46:51Q  \*46:26 |  |
| **22** | 180 bp  215 bp  245 bp | \*46:56  \*46:27  \*46:41N | \*15:292, 15:401, 35:113, 44:98, 52:31:01-52:31:02, **A\*02:376, C\*03:125, C\*03:176** |

**4**The HLA-B\*46 primer set cannot separate the B\*46:31, 46:47 and 46:49 from the B\*15:318 allele. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B\*15 kit.

**5**The following HLA-B\*46 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |
| --- | --- |
| **Alleles** | **Primer mix** |
| B\*46:23, 46:57 | 18 |
| B\*46:28, 46:34 | 20 |

Abbreviations

‘w’, might be weakly amplified.