Gel Documentation Form and Worksheet

HLA-B\*49 (101.547-06/06u) Lot No: 8K1 Expiry Date: 2024-02-01

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 6, 13 and 15 may have tendencies of unspecific amplifications.

Primer mix 22 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-B\*49 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 3.25.0, 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-B\*49 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-B\*49 alleles | Other amplified HLA-B alleles |
| **2** | 145 bp190 bp255 bp | \*49:06\*49:26 \*49:02  | \*35:419, 51:283, 58:13\*18:01:37, 39:31:01:01-39:31:01:02, 39:128\*13:23, 13:55, 18:09, 27:01, 27:142, 37:10, 40:47, 40:96, 40:157, 40:201, 44:15:01:01-44:15:01:02, 44:55, 44:103, 44:188, 44:212 |
| **34** | 115 bp 145 bp | \*49:22\*49:02  | \*15:33, 15:248, 51:126, 57:54, 57:96, **C\*03:87:01-03:87:02, C\*03:414, C\*05:27, C\*05:39, C\*05:184, C\*08:115, C\*08:182**\*40:47, 40:96, 40:110, 40:157, 40:201, 44:02:01:01-44:02:12, 44:02:14-44:02:18, 44:02:20-44:02:44, 44:02:46-44:03:36, 44:03:38-44:03:50, 44:03:52-44:05:02, 44:05:04, 44:07, 44:10, 44:12-44:17, 44:19N-44:24, 44:26-44:39, 44:41:01-44:43:02, 44:45, 44:47-44:49, 44:51-44:56N, 44:58N-44:59:02, 44:61N-44:74, 44:76-44:82, 44:84:01-44:89, 44:91-44:94, 44:96-44:128:02, 44:132-44:133, 44:135-44:151, 44:153-44:155, 44:157-44:169, 44:171N-44:195N, 44:197-44:200, 44:202-44:209, 44:211-44:245, 44:247-44:253, 44:255-44:256, 44:258-44:276, 44:278-44:344, 44:346, 44:437, 44:439-44:444, 44:446-44:453, 44:456-44:480Q, 47:04, **C\*16:85** |
| **4** | 170 bp 205 bp | \*49:03 \*49:09  | \*15:32:02, 18:04:01, 18:98:02, 18:125, 40:01:11, 40:58, 44:02:10, 44:34:01, 51:07:01, 51:214, 51:222, 51:251, 52:01:02:01-52:01:02:04, 52:01:04, 52:01:09, 52:01:40, 52:01:43, 52:01:47-52:02:01, 52:03, 52:09:01, 52:10:03, 52:21:01, 52:31:02, 52:85\*13:15, 14:37, 50:58, 51:62, 51:106:01-51:106:02, 51:223, 51:225, 52:25:01-52:25:02, 56:34 |
| **7** | 105 bp 255 bp | \*49:04:01-49:05, 49:50 \*49:20 | \*13:04, 13:46, 13:72, 13:127, 15:04:01:01-15:04:04, 15:16:01:01-15:16:04, 15:67, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:310, 15:362, 15:408, 15:499, 15:517, 15:531, 15:550, 35:37, 35:235, 35:265, 35:276, 39:06:01-39:06:06, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 39:127, 39:129, 39:132, 39:140-39:141, 39:154, 40:86, 40:159, 40:330, 41:30, 41:50, 45:02, 45:09, 46:32, 50:09, 50:33, 51:13:01-51:13:02, 51:37, 51:63:01-51:63:02, 51:92:01-51:92:02, 51:97, 51:172, 51:216, 51:251, 52:14:01-52:14:02, 52:39, 52:75, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 56:50, 59:03, 73:01:01:01-73:02, **C\*05:152, C\*07:463, C\*07:758, C\*12:183**\*44:15:01:01-44:15:01:02, 44:18, 44:20, 44:47, 44:100, 44:197, 44:339, 45:01:01:01-45:03, 45:05-45:07, 45:09, 45:11-45:23, 45:25, 50:02:01:01-50:02:01:02, 50:56, 51:23, 51:108, 52:15 |
| **8** | 70 bp 155 bp | \*49:04:02-49:05\*49:19N  | \*07:78, 07:84, 08:09, 08:84, 13:02:01:01-13:02:05, 13:02:07-13:02:26, 13:02:28-13:02:29, 13:02:31-13:04, 13:08-13:09, 13:14-13:16, 13:18-13:19, 13:27, 13:30-13:35, 13:37-13:38, 13:40-13:42, 13:44-13:49N, 13:53-13:56:02N, 13:58-13:59, 13:62, 13:65-13:70, 13:75, 13:81-13:82, 13:84-13:85, 13:88-13:89, 13:91, 13:93-13:94, 13:96-13:105, 13:111-13:117, 13:119-13:120, 13:123Q-13:126, 13:128, 13:130-13:134, 13:136-13:137N, 13:139N, 15:04:01:01-15:04:04, 15:16:01:01-15:16:02, 15:16:04, 15:42, 15:67, 15:83:01:01-15:83:01:02, 15:95, 15:137, 15:155, 15:222, 15:254, 15:293, 15:303, 15:310, 15:362, 15:408, 15:485, 15:499, 15:517, 15:531, 15:550, 15:552, 27:14, 27:81, 27:130, 27:153, 35:60, 35:265, 35:276, 39:06:01-39:06:06, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83, 39:90, 39:102, 39:109, 39:127, 39:129, 39:132, 39:140-39:141, 39:154, 40:06:01:01-40:06:22, 40:44, 40:53, 40:70:01-40:70:02, 40:75, 40:83, 40:86, 40:93, 40:95-40:96, 40:103, 40:109-40:110, 40:127, 40:131, 40:148, 40:159, 40:161-40:162, 40:165, 40:177, 40:190, 40:230, 40:244, 40:256N, 40:268-40:270, 40:275, 40:294-40:295, 40:298:01-40:298:02, 40:306-40:307, 40:311, 40:313, 40:317-40:318, 40:330, 40:340-40:342, 40:348-40:350, 40:354, 40:361N-40:364, 40:366, 40:373-40:374, 40:376, 40:387-40:389, 40:408, 40:411, 40:423, 40:425, 40:427, 40:434, 40:445, 40:449, 41:01:01:01-41:01:07, 41:05-41:07, 41:09, 41:12, 41:14, 41:16-41:17, 41:20-41:22, 41:25-41:26, 41:28-41:30, 41:32-41:33, 41:35, 41:37, 41:44, 41:50, 41:53-41:54, 41:56-41:57, 41:59-41:61, 42:04, 44:20, 44:47, 44:100, 44:197, 44:339, 44:459, 45:14, 46:11, 46:18, 46:32, 50:20, 51:01:01:01-51:01:18, 51:01:20-51:03, 51:05, 51:07:01-51:16, 51:18-51:24:05, 51:26-51:41N, 51:43-51:44N, 51:48-51:55, 51:57-51:58, 51:60-51:61:02, 51:63:01-51:63:02, 51:65-51:80, 51:82-51:93, 51:95-51:134, 51:136-51:138, 51:140-51:147, 51:149N-51:161, 51:163-51:193, 51:195-51:209, 51:211-51:212, 51:214-51:219, 51:221-51:226, 51:228-51:280, 51:282-51:292, 51:294-51:305, 51:307, 52:01:01:01-52:01:38, 52:01:40-52:40, 52:42-52:77, 52:79-52:87, 52:89N-52:94N, 54:01:01:01-54:05N, 54:07-54:08N, 54:10-54:14, 54:16-54:37, 54:39-54:41, 55:01:01:01-55:01:06, 55:01:08-55:03, 55:05, 55:07, 55:09-55:13, 55:15-55:26, 55:28-55:48, 55:50, 55:52-55:85, 55:87-55:106, 56:01:01:01-56:01:15, 56:05:01-56:08, 56:13-56:17, 56:19N-56:30, 56:33-56:50, 56:52-56:55:01:02, 56:58-56:59, 56:61-56:62, 56:64-56:65, 56:67-56:71, 58:08:01-58:08:02, 59:01:01:01-59:10N, 73:01:01:01-73:02, 78:01:01:01-78:10, **C\*14:92** |
| **9** | 155 bp 240 bp | \*49:21\*49:07  | \*40:366, 45:10, 50:31 |
| **10** | 80 bp 250 bp | \*49:16 \*49:08 | \*51:210\*51:204:02, 52:33 |
| **14** | 155 bp 190 bp | \*49:19N\*49:12, 49:17  | \*39:141, 51:130, 51:177, 55:87, 56:61 |
| **15** | 160 bp 190 bp 290 bp | \*49:13\*49:17\*49:14  | \*51:177, 56:61 |

**4**The following HLA-B\*49 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |
| --- | --- |
| **Alleles** | **Primer mix** |
| B\*49:07, 49:21 | 9 |
| B\*49:08, 49:16 | 10 |
| B\*49:13-49:14 | 15 |

Abbreviations

‘w’, may be weakly amplified.