Gel Documentation Form and Worksheet

HLA-B\*13 Lot No: 7K5 Expiry Date: 2024-02-01

(101.515-12/12u)

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 mix 2 may give rise to a weak band of about 500 bp. This band should be disregarded when interpreting HLA-B\*13 SSP subtypings.

Primer mixes 1, 5 and 24 may give rise to a lower yield of HLA-specific PCR product than the other B\*13 primer mixes.

Primer mixes 7, 8, 12, 13 and 16 may have tendencies of unspecific amplifications.

In primer mix 26 the positive control band may be weaker than for other HLA-B\*13 primer mixes.

Primer mix 31 contains a negative control, which will amplify the majority of the 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.

The PCR product generated by the positive control primer pair is 200 base pairs.

















**1**HLA-B\*13 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 3.26.0, October 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\*13 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-B\*13 alleles | Other amplified HLA Class I alleles |
| **5** | 125 bp 155 bp180 bp | \*13:03, 13:22:01-13:22:02, 13:45, 13:48, 13:128 \*13:16, 13:20, 13:31, 13:41, 13:48, 13:128, 13:131 \*13:03, 13:48, 13:120 | \*07:78, 15:42, 15:73:01:01-15:73:01:02, 15:86, 15:224, 15:303, 15:485-15:486, 15:552, 35:60, 35:432, 35:446, 40:71, 44:10, 46:11, 46:18, 51:62, 51:106:01-51:106:02, 51:157, 51:223, 51:225, 51:300, 52:25:01-52:25:02, 54:01:01:01-54:03, 54:05N, 54:07-54:08N, 54:10, 54:12-54:13, 54:17-54:41, 55:01:01:01-55:03, 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, 55:33-55:40, 55:42-55:45, 55:47-55:48, 55:52-55:57, 55:59-55:67, 55:69-55:80, 55:82-55:85, 55:87-55:106, 56:01:01:01-56:01:04, 56:01:06-56:02:01:02, 56:02:03, 56:04:01:01-56:04:04, 56:07-56:08, 56:10, 56:13-56:14, 56:16-56:17, 56:19N-56:20:02, 56:23-56:30, 56:33-56:49, 56:51-56:59, 56:62-56:71, 58:73, 59:01:01:01-59:01:01:02, 59:04-59:09, 82:01:01:01-82:03, **C\*01:90, C\*15:91, C\*15:128**\*07:78, 15:42, 15:73:01:01-15:73:01:02, 15:303, 15:486, 51:62, 51:106:01-51:106:02, 51:223, 51:225, 51:300, 52:25:01-52:25:02, 54:20, 54:33, 54:40, 55:01:01:01-55:01:23, 55:03, 55:05, 55:09, 55:11, 55:15, 55:21, 55:24-55:25, 55:29, 55:31, 55:33, 55:36, 55:38, 55:40, 55:44-55:45, 55:52-55:55N, 55:59-55:60, 55:64, 55:66, 55:73-55:76, 55:78-55:79, 55:84-55:85, 55:87, 55:90-55:95, 55:97N-55:106, 56:25, 56:37, 56:43 56:66, **C\*01:90, C\*15:91, C\*15:128**\*15:73:01:01-15:73:01:02, 15:303, 15:486, 15:552, 35:432, 35:446, 40:71, 44:10, 46:11, 51:62, 51:106:01-51:106:02, 51:223, 51:225, 52:25:01-52:25:02, 54:03, 54:33, 54:40, 56:01:01:01-56:01:04, 56:01:06-56:01:12, 56:01:14-56:02:03, 56:04:01:01-56:04:04, 56:07-56:08, 56:13-56:14, 56:16-56:17, 56:20:01-56:20:02, 56:24-56:30, 56:33-56:49, 56:51-56:53, 56:55:01:02-56:59, 56:61-56:65, 56:67-56:71, 58:73, 59:04, 82:01:01:01-82:03 |
| **9** | 130 bp 230 bp | \*13:42\*13:08  | \*51:38 |
| **10** | 105 bp 210 bp | \*13:01:11, 13:21, 13:71\*13:09, 13:39, 13:67 | \*07:05:01:01-07:06:01:02, 07:06:03, 07:32, 07:34, 07:40, 07:53, 07:69, 07:78, 07:80, 07:90, 07:97, 07:105, 07:112, 07:123, 07:137-07:138, 07:140, 07:176, 07:182N, 07:201N, 07:206-07:207, 07:209-07:210, 07:213, 07:222, 07:249, 07:258, 07:264, 07:269-07:270, 07:278, 07:283, 07:287, 07:293, 07:304, 07:317, 07:324, 07:327, 07:332-07:333, 07:340, 07:349, 07:352-07:353, 07:356-07:358, 07:368, 07:378, 07:387, 07:389, 07:395, 08:01:02, 08:01:13, 08:20:01, 08:53:02, 08:79, 08:213, 15:150, 15:188, 18:189, 27:07:01-27:07:06, 27:11, 27:20, 27:24, 27:27, 27:33, 27:43, 27:125, 27:130, 27:164, 27:168, 27:180, 27:187, 27:218-27:219, 35:09:02-35:09:03, 35:18, 35:31, 35:88, 35:230, 38:63, 39:136, 40:01:01-40:01:13, 40:01:15-40:01:20, 40:01:22-40:01:25, 40:01:27, 40:01:29, 40:01:31, 40:01:33-40:01:45, 40:01:47-40:01:49, 40:01:51-40:02:09, 40:02:11-40:02:12, 40:02:14-40:02:17, 40:02:19, 40:02:21-40:02:25, 40:02:27-40:02:30, 40:04:01-40:06:04:02, 40:06:06-40:06:09, 40:06:11-40:08, 40:10:01:01-40:13, 40:14:03-40:16:01:02, 40:19, 40:21-40:23, 40:25, 40:27:01-40:27:02, 40:29-40:30, 40:34-40:35:01, 40:36-40:40, 40:43, 40:45-40:51, 40:53-40:58, 40:61-40:70:02, 40:72:02-40:76, 40:79-40:86, 40:87:02-40:88, 40:90-40:94, 40:96-40:97, 40:99-40:114:01:02, 40:115-40:119, 40:122-40:123, 40:125:01-40:130:02, 40:132-40:135, 40:137-40:157, 40:160:01-40:171, 40:173-40:179, 40:182-40:183, 40:185-40:186:02, 40:188-40:236, 40:239-40:266, 40:268-40:279, 40:281-40:283, 40:285-40:304, 40:306, 40:308-40:311, 40:313-40:329, 40:331-40:340, 40:342-40:351, 40:353:01-40:367, 40:369-40:380, 40:382-40:389, 40:392-40:413, 40:415-40:421Q, 40:423-40:428N, 40:430-40:449, 41:08, 44:31, 48:01:01:01-48:01:10, 48:03:01:01-48:07, 48:09-48:11, 48:13, 48:15-48:16, 48:18-48:22, 48:24, 48:28-48:45, 48:47-48:50, 51:01:09, 51:01:21, 51:01:25, 51:10, 51:24:02-51:24:04, 51:81, 51:217, 51:279, 52:54, 54:11, 55:04, 55:08, 55:49, 55:86, 56:20:02, 58:27, 67:03, 81:01:01:01-81:09, **C\*01:90, C\*01:116, C\*02:68, C\*03:317, C\*07:775, C\*12:282, C\*15:24, C\*15:128****\***07:177, 08:102, 08:122, 14:48, 15:53, 15:183, 15:212, 15:336, 15:345, 15:511, 18:80, 18:102, 18:107, 27:08, 27:12:01:01-27:12:01:03, 27:18, 27:26, 27:33, 27:40, 27:42, 27:44, 27:89, 27:153, 27:165w, 27:204, 35:63, 35:84, 35:90, 35:150:01-35:150:02, 35:184, 35:201, 35:217, 35:317, 35:441, 40:01:01-40:01:10, 40:01:12-40:09, 40:11:01:01-40:11:02, 40:14:01-40:16:01:02, 40:18, 40:20:01:01-40:20:01:02, 40:22N-40:40, 40:42-40:46, 40:48-40:57, 40:59-40:75, 40:77-40:95, 40:97-40:108, 40:111-40:116, 40:118N-40:136, 40:138-40:148, 40:150-40:156, 40:158-40:187, 40:189-40:200, 40:202-40:214, 40:216N-40:247, 40:249-40:281, 40:283-40:291N, 40:293-40:324, 40:326-40:339, 40:341-40:350, 40:352-40:363, 40:366-40:393, 40:395-40:399N, 40:402-40:449, 41:01:01:01-41:04, 41:06-41:11, 41:13-41:21, 41:23-41:25, 41:27-41:35, 41:37-41:45N, 41:47-41:59, 41:61-41:63, 44:09, 44:46, 44:75, 44:90, 44:129, 44:131, 44:254, 44:277, 44:438N, 45:01:01:01-45:15, 45:17-45:25, 46:10, 47:02, 47:03w, 50:01:01:01-50:02:01:02, 50:04-50:20, 50:31-50:69, 56:36, 73:01:01:01-73:02, **C\*03:504, C\*07:828** |
| **13** | 90 bp 160 bp245 bp | \*13:19 \*13:57\*13:12:01-13:12:02  | \*49:34\*35:287 |
| **15** | 105 bp 245 bp | \*13:02:26, 13:22:01, 13:128 \*13:14, 13:83  | \*07:78, 15:73:01:01-15:73:01:02, 15:303, 15:486, 40:48, 40:377, 49:01:14, 54:22, 56:01:03, 56:20:02, **C\*15:91, C\*15:128**\*07:149, 18:09w, 27:01w, 27:142w, 37:10w, 38:02:01:01-38:02:06, 38:02:08-38:04, 38:08, 38:15, 38:18, 38:23, 38:29, 38:35, 38:43-38:50, 38:62, 38:64, 38:72, 38:74-38:76, 38:79, 38:82, 38:84w, 38:85, 38:160, 38:162, 40:96w, 40:157w, 40:201w, 44:103w, 44:130, 44:212w, 44:224 |
| **16** | 90 bp 205 bp | \*13:17, 13:33, 13:57\*13:15  | \*15:399, 35:46, 35:207, 57:88\*14:37, 49:09, 50:58, 51:62, 51:106:01-51:106:02, 51:223, 51:225, 52:25:01-52:25:02, 56:34 |
| **17** | 160 bp 220 bp | \*13:49N\*13:27, 13:43  | **C\*02:159, C\*02:161** |
| **18** | 155 bp 205 bp 275 bp | \*13:28\*13:32\*13:44 |  |
| **19** | 195 bp240 bp315 bp 345 bp | \*13:34\*13:76N\*13:96 \*13:38, 13:52 | **C\*17:08**\*39:77 |
| **21** | 120 bp180 bp 245 bp | \*13:29\*13:30, 13:40\*13:103N  | \*44:219\*15:528N, 27:64N, 40:118N, 40:291N, 44:448N |
| **22** | 135 bp 175 bp300 bp | \*13:25\*13:40\*13:86  | \*07:225, 35:02:01:01-35:02:07, 35:02:08w, 35:02:09-35:02:15, 35:81, 35:83, 35:95, 35:129N, 35:146, 35:154, 35:157, 35:162, 35:172, 35:182-35:184, 35:211, 35:220, 35:258, 35:270, 35:273, 35:285, 35:309, 35:311, 35:323, 35:335, 35:339, 35:357, 35:361, 35:366-35:367, 35:372, 35:374, 35:377-35:379, 35:387, 35:391, 35:394, 35:396, 35:403, 35:407, 35:410, 35:419, 35:443, 45:12, 50:36, 53:19, 53:36, 58:65 |
| **23** | 130 bp 200 bp 275 bp | \*13:42\*13:37\*13:44  | \*51:38 |
| **25** | 160 bp430 bp | \*13:70\*13:64 |  |
| **26** | 120 bp145 bp175 bp | \*13:50\*13:103N \*13:47 | \*07:345, 27:82\*27:64N, 40:118N, 40:291N, **A\*66:39N** |
| **27** | 80 bp115 bp165 bp185 bp | \*13:96\*13:52\*13:61\*13:69  | \*39:77\*42:25 |

**4**The following HLA-B\*13 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |
| --- | --- |
| **Alleles** | **Primer mix** |
| B\*13:02:06, 13:14 | 15 |
| B\*13:15, 13:33 | 16 |
| B\*13:27, 13:49N | 17 |
| B\*13:34, 13:38 | 19 |

Abbreviations

‘w’, may be weakly amplified.