Gel Documentation Form and Worksheet

HLA-B\*18 (101.519-12/12u) Lot No: 5H2 Expiry Date: 2021-11-01

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 15, 17, 18, 20, 30 and 36 may have tendencies of unspecific amplifications.

Primer mixes 10, 18, 26 and 38 have a tendency giving rise to primer oligomer formation.

Primer mixes 29 and 37 may give rise to a lower yield of HLA-specific PCR product than the other B\*18 primer mixes.

Primer mix 40 contains a negative control, which will amplify more than 95% 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 430 base pairs.













**1**HLA-B\*18 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 3.29.0, August 2017.

**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\*18 primer mixes have two or more product sizes:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Size of control band | Amplified HLA-B\*18 alleles | Other amplified HLA Class I alleles |
| **5** | 115 bp  145 bp | 1070 bp | \*18:72:01-18:72:03  \*18:04:01, 18:24, 18:125 | \*08:04:02, 15:01:38w, 15:64:02, 35:02:02w, 35:20:02w, 35:323w, 39:39:02 |
| **6** | 130 bp  245 bp | 1070 bp | \*18:05:01:01-18:05:01:02 \*18:60 |  |
| **7** | 90 bp  150 bp  230 bp | 1070 bp | \*18:41  \*18:07:01-18:07:02, 18:79, 18:136  \*18:74N | \*15:416  \*08:176, 35:289  **C\*07:483N** |
| **9** | 125 bp  255 bp | 1070 bp | \*18:75  \*18:08, 18:27 | **A\*24:220, C\*14:76** |
| **10** | 85 bp  175 bp | **800 bp** | \*18:23N  \*18:28 | \*44:108N  \*15:250, 27:132, 40:226 |
| **11** | 125 bp  610 bp | 1070 bp | \*18:09, 18:54, 18:67, 18:136  \*18:36, 18:56-18:57:01, 18:58, 18:101 | \*44:03:12, **A\*24:02:37**  **\***15:01:38, 15:64:02, 35:02:02, 35:20:02, 35:323, **A\*26:01:16** |
| **12** | 80 bp  140 bp | 1070 bp | \*18:41, 18:73  \*18:12:01-18:12:02, 18:77 | \*15:416  \*48:28 |
| **13** | 85 bp  265 bp | 1070 bp | \*18:13, 18:19, 18:30  \*18:44:01-18:44:02 | \*07:218, 07:220, 14:03, 15:38:01-15:38:02, 15:368, 44:275, 51:29, 51:61:01-51:61:02, 51:82, 51:217, 52:21:01-52:21:02, 52:24, **A\*66:04w, C\*01:30, C\*02:142, C\*06:207, C\*08:51, C\*08:114, C\*12:87, C\*14:76**  \*14:01:01:01-14:02:08, 14:02:10-14:04, 14:07N, 14:09, 14:11-14:12, 14:14-14:36, 14:38-14:45, 14:47-14:52, 14:54, 14:57-14:61, 14:63-14:66, **C\*01:30, C\*06:207, C\*12:87, C\*14:76** |
| **14** | 110 bp  170 bp  260 bp | 1070 bp | \*18:102, 18:107  \*18:04:01-18:04:02, 18:25, 18:68, 18:107, 18:125  \*18:14 | \*44:03:12  \*08:04:02, 15:01:38, 15:64:02, 35:02:02, 35:20:02, 35:323, 44:03:12  \*07:218, 07:220, 08:118, 14:05, 14:13, 14:53, 40:174, 51:64 |
| **16** | 95 bp  360 bp | 1070 bp | \*18:19  \*18:17N | \*08:70, 13:31, 13:41, 15:01:44, 15:07:03, 15:27:03, 15:38:02, 15:78:04, 15:269, 35:14:01, 35:14:03, 35:62, 35:163, 35:343, 35:390N, 37:66, 39:36, 44:146, 44:275, 46:01:03, 46:01:16, 50:47, 51:61:02, 52:21:01-52:21:02, 54:33, 55:21, 56:43, 58:78, **A\*26:68, C\*01:09, C\*02:02:14, C\*06:02:27, C\*07:22, C\*07:138, C\*12:03:16, C\*12:03:30** |
| **18** | 125 bp  150 bp | 1070 bp | \*18:32  \*18:15, 18:21w, 18:30w, 18:57:01-18:57:02, 18:101, 18:152 | \*15:192, 15:281, 35:91, **C\*06:242**  \*07:09:01w-07:09:02w, 07:11w, 07:17w, 07:162w, 07:237w, 07:255w, 07:287w, 15:02:01:01-15:02:11, 15:03:01:01-15:03:08, 15:06, 15:13:01-15:13:02, 15:16:01:01-15:16:03, 15:18:01:01-15:18:07, 15:21:01:01-15:21:01:02, 15:23, 15:25:01-15:25:03, 15:29, 15:36, 15:39:01-15:40:02, 15:44, 15:47:01w-15:47:02w, 15:49w, 15:61-15:62, 15:64:01-15:64:02, 15:65w, 15:67, 15:69, 15:72, 15:74, 15:80, 15:89, 15:93, 15:95, 15:98, 15:103, 15:106, 15:108, 15:112, 15:115, 15:119, 15:121, 15:127, 15:131-15:132, 15:134, 15:138-15:139, 15:153, 15:156, 15:158, 15:161, 15:170, 15:173, 15:176, 15:194-15:195, 15:197:01-15:198, 15:204, 15:210, 15:213-15:214, 15:219-15:220, 15:221w, 15:223, 15:226N, 15:238, 15:240, 15:242:01-15:242:02, 15:250, 15:254-15:255, 15:263, 15:265-15:266, 15:268, 15:271, 15:274, 15:281-15:282, 15:288-15:294N, 15:297, 15:301-15:302N, 15:306-15:308, 15:310-15:311, 15:314, 15:319, 15:325, 15:328, 15:330, 15:335, 15:337, 15:341, 15:345, 15:351, 15:354, 15:357-15:358, 15:360, 15:362, 15:364, 15:366, 15:369, 15:374, 15:376, 15:378, 15:379w, 15:380N, 15:382, 15:384, 15:388-15:389, 15:394-15:395, 15:397, 15:399, 15:402, 15:404, 15:408, 15:414, 15:418, 15:425-15:426, 15:433-15:434, 15:436-15:438, 15:444, 15:447-15:448, 15:451, 15:454N, 15:458, 15:463N, 15:468, 15:475, 27:107, 35:11:01-35:11:02, 35:11:03w, 35:21, 35:58, 35:99w, 35:188, 35:232w, 35:277, 35:337:01w-35:337:02w, 40:158, 46:03w, 46:08, 46:62w, 48:25, 49:04:01-49:05, 50:33, 51:37, 51:45, 51:63:01-51:63:02, 51:216, 51:251, 52:39, 53:06, 53:08:01-53:08:02, 53:28, 55:14, 55:68, 56:32, 57:13w, 57:22, 58:06, 58:19, 58:46, 58:91, **C\*01:54w, C\*01:97w, C\*01:102w, C\*01:152w, C\*02:16:02, C\*02:32w, C\*02:137, C\*03:02:01-03:02:14, C\*03:02:16-03:02:19, C\*03:15-03:16, C\*03:33, C\*03:40:01-03:40:04, C\*03:42-03:43:02, C\*03:60, C\*03:71, C\*03:84, C\*03:89, C\*03:95, C\*03:108, C\*03:110, C\*03:119:01-03:119:02, C\*03:121N, C\*03:132, C\*03:139, C\*03:146, C\*03:169Q, C\*03:175, C\*03:190, C\*03:194, C\*03:197-03:201N, C\*03:216w, C\*03:221-03:222, C\*03:224N-03:226, C\*03:240, C\*03:245, C\*03:248, C\*03:258, C\*03:264, C\*03:271, C\*03:279, C\*03:298-03:301, C\*03:315, C\*03:329-03:330, C\*03:332, C\*03:338, C\*03:349-03:350, C\*03:365, C\*03:371, C\*03:373, C\*03:391N, C\*03:402-03:403, C\*03:406, C\*03:411, C\*03:425, C\*04:54:01w-04:54:02w, C\*05:04:01w-05:04:02w, C\*05:103:01w-05:103:02w, C\*05:135w, C\*06:04:01, C\*06:04:02w-06:06w, C\*06:197, C\*07:165, C\*07:241-07:242, C\*07:265, C\*07:304, C\*07:307w, C\*07:512w, C\*07:671, C\*08:113, C\*08:152w, C\*12:09w, C\*12:18:01-12:18:02, C\*12:20, C\*12:24w, C\*12:83, C\*12:85w, C\*14:02:01:01w-14:05w, C\*14:06, C\*14:07Nw-14:14w, C\*14:18w-14:24:01w, C\*14:25w, C\*14:27w-14:52w, C\*14:56w-14:62w, C\*14:64w-14:70w, C\*14:72w-14:76w, C\*14:77, C\*14:78w, C\*14:80w-14:86w, C\*14:88w-14:90w, C\*14:91, C\*14:93Nw-14:100w, C\*15:04:01-15:04:03, C\*15:09, C\*15:19, C\*15:27, C\*15:61, C\*15:77, C\*15:107, C\*15:126, C\*15:143w, C\*16:40, C\*16:53w, C\*16:110, C\*16:113w** |
| **19** | 105 bp  160 bp  405 bp | 1070 bp | \*18:06, 18:142w  \*18:53  \*18:39 |  |
| **22** | 130 bp  150 bp  270 bp | **800 bp** | \*18:75, 18:77  \*18:33  \*18:22, 18:69w, 18:105, 18:149-18:150 | \*14:10, 35:21, 35:24:01-35:24:02, 35:81, 35:96, 35:109, 35:157, 35:188, 35:190, 35:233, 35:287, 37:04:01w-37:04:02w, 40:28, 44:190, 44:203, 44:275, 44:290, 51:04:01-51:04:02, 51:46, 51:56:01-51:56:03, 51:139, 51:227, 53:02, 53:06, 53:28, 57:14:01-57:14:02, 58:09, 58:76, **C\*03:384, C\*15:39, C\*15:130** |
| **23** | 145 bp  160 bp  515 bp | 1070 bp | \*18:51  \*18:53  \*18:21, 18:40, 18:61 | \*08:04:02 |
| **25** | 75 bp  190 bp | 1070 bp | \*18:48  \*18:35, 18:54, 18:95, 18:110 | \*07:68:01-07:68:03, 07:214, 07:237, 07:262, 15:138, 15:230, 15:241, 15:297, 35:66, 40:77, 40:87:01-40:87:02, 40:121, 40:158, 40:222, 40:237, 40:368, 44:150, 48:12, 48:14, 48:26, 48:29 |
| **26** | 90 bp  115 bp  180 bp | 1070 bp | \*18:42  \*18:92  \*18:04:01-18:04:02, 18:25, 18:43, 18:107, 18:125 | \*15:01:38, 15:64:02, 35:02:02, 35:20:02, 39:39:02, 44:03:12, **A\*24:02:37, A\*26:01:16** |
| **27** | 80 bp  135 bp  175 bp | **800 bp** | \*18:37:01-18:37:02, 18:73, 18:125  \*18:46, 18:74N, 18:78  \*18:94N | \*07:109, 08:176, 48:28  \*13:10, 13:26:01-13:26:02, 13:72, **C\*12:120** |
| **28** | 100 bp  175 bp  200 bp | **800 bp** | \*18:45  \*18:38, 18:74N, 18:78  \*18:95 | \*08:83, 13:10-13:11, 13:71, 13:108, 38:38, 40:91, 40:197 |
| **29** | 65 bp  120 bp  255 bp | 1070 bp | \*18:50  \*18:47  \*18:18:01:01-18:18:01:02 | \*07:218, 13:15, 40:113, 51:16, 51:31, 51:82, 52:08, 73:01, 78:08, **C\*02:142, C\*03:384**  **C\*07:516** |
| **30** | 100 bp  145 bp  420 bp | **800 bp** | \*18:31  \*18:34  \*18:52, 18:105 | \*51:228, 52:28  **\***35:02:02, 35:20:02, 35:323 |

**4**The following HLA-B\*18 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| B\*18:05:01:01-18:05:01:02, 18:60 | 6 | B\*18:37:01-18:37:02, 18:46 | 27 |
| B\*18:18:01:01-18:18:01:02, 18:47 | 29 | B\*18:38, 18:45 | 28 |
| B\*18:23N, 18:28 | 10 | B\*18:40, 18:51 | 23 |
| B\*18:34, 18:52 | 30 | B\*18:42, 18:43 | 26 |
| B\*18:36, 18:67 | 11 |

Abbreviations

‘w’, might be weakly amplified.