HLA-B\*49 (101.547-06/06u) Lot No: 7R7 Expiry Date: 2027-02-01

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sample ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DNA Conc.(ng/ul):\_\_\_\_\_\_\_\_\_

Test Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tested By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reviewed By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Interpretation:\_\_\_\_\_\_\_\_\_\_\_ Failed lanes: \_\_\_\_\_\_\_\_\_\_\_ Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

**Gel Picture**

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| --- |
| 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 9 may give rise to a long fragment of approx. 600 bp in some HLA-B alleles. This band should not be considered in the interpretation of HLA-B\*49 typings.

Primer mix 23 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 geneated 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, 49:70 | \*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 |
| **3** | 115 bp 145 bp | \*49:22\*49:02, 49:70 | \*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, 44:05:04-44:05:06, 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, 44:211-44:245:02, 44:247-44:253, 44:255-44:256, 44:258-44:276, 44:278-44:344, 44:346-44:354N, 44:357-44:359, 44:361-44:365, 44:437, 44:439-44:444, 44:446-44:453, 44:456-44:524, 44:526-44:544N, 44:546, 47:04, 47:11, **C\*16:85** |
| **4** | 170 bp 205 bp | \*49:03 \*49:09  | \*15:01:76, 15:32:02, 18:04:01, 18:98:02, 18:125, 37:22:02, 40:01:11, 40:58, 44:02:10, 44:34:01, 51:07:01, 51:214, 51:222, 51:251, 51:310, 51:340, 52:01:02:01-52:01:02:09, 52:01:04, 52:01:09, 52:01:40, 52:01:43, 52:01:47, 52:01:49, 52:02:01, 52:03, 52:09:01, 52:10:03, 52:11:02, 52:21:01, 52:31:02, 52:85, 52:97, 52:102, 52:104\*13:15, 14:37, 18:191, 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 | \*49:04:01-49:05:02, 49:50 \*49:20 | \*13:04, 13:46, 13:72, 13:127, 13:140, 13:160, 15:04:01:01-15:04:04, 15:16:01:01-15:16:05, 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, 15:602, 15:609, 15:613, 35:37, 35:235, 35:265, 35:276, 39:06:01:01-39:06:08, 39:33-39:34, 39:50, 39:57, 39:62, 39:64, 39:83:01-39:83:03, 39:90, 39:102, 39:109, 39:127, 39:129, 39:132, 39:140-39:141, 39:154, 39:178, 39:186-39:187, 40:86, 40:159, 40:330, 41:30, 41:50, 45:02, 45:09, 46:32:01-46:32:02, 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, 52:97, 54:14, 55:13, 55:23, 55:32, 55:58, 55:68, 56:22, 56:50, 58:122, 59:03, 73:01:01:01-73:03, **C\*05:152, C\*07:463, C\*07:758, C\*12:183**\*44:15:01:01-44:15:01:02, 44:18:01:01-44:18:01:02, 44:20, 44:47, 44:100, 44:197, 44:339, 44:355, 45:01:01:01-45:03, 45:05-45:07, 45:09, 45:11-45:23, 45:25, 45:27-45:30, 50:02:01:01-50:02:01:02, 50:21, 50:56, 51:23, 51:108, 52:15, 55:122, 56:74 |
| **8** | 95 bp 155 bp | \*49:05:01-49:05:02\*49:19N  | \*13:127, 15:613, 44:20, 44:47, 44:100, 44:197, 50:33, 50:39, 51:197, 51:216, 51:261, 51:274, 51:298, 52:26, 52:63, 54:15, **C\*03:464, C\*07:463, C\*07:758, C\*12:183** |
| **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 |

**5**The following alleles will give rise to identical amplification patterns. These alleles can be distinguished by the HLA-B low resolution kit and/or the respective high-resolution kits.

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| **Alleles** |
| B\*49:73, B\*59:12 |

Abbreviations

w: may be weakly amplified.