HLA-B\*48 (101.546-06/06u) Lot No: 6R0 Expiry Date: 2027-01-01

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 8, 10 and 15 may have tendencies of unspecific amplifications.

Primer mixes 9 and 11 have a tendency to giving rise to primer oligomer formation.

Primer mix 13 might faintly amplify the B\*13 alleles.

Primer mix 20 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 is 200 base pairs.















**1**HLA-B\*48 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\*48 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-B\*48 alleles | Other amplified HLA-B alleles |
| **5** | 230 bp  285 bp | \*48:26  \*48:03:01-48:03:02, 48:17, 48:23, 48:40 | \*07:197, 15:230, 27:36, 40:124:01-40:124:02  \*07:07:01:01-07:07:03, 07:12, 07:14:01-07:14:02, 07:18:01-07:18:02, 07:77, 07:137, 07:162-07:163, 07:193, 07:214, 07:248, 07:255, 15:138, 15:230, 15:241, 15:297, 18:35, 18:110, 27:125, 38:63, 40:01:01-40:01:17, 40:01:19-40:01:73, 40:01:75-40:01:76, 40:01:78-40:01:79, 40:07, 40:10:01:01-40:10:02, 40:12:01-40:12:02, 40:14:01-40:14:03, 40:21-40:23, 40:25, 40:33, 40:36, 40:38, 40:42-40:43, 40:46-40:49, 40:52, 40:54-40:55, 40:59-40:63, 40:65-40:67, 40:69, 40:72:01-40:74, 40:76-40:77, 40:79, 40:81, 40:84, 40:87:01-40:88, 40:100-40:102, 40:106, 40:108, 40:112-40:114:02, 40:116-40:118N, 40:121, 40:123-40:126, 40:128, 40:132, 40:134-40:141, 40:146-40:147, 40:149-40:156, 40:158, 40:160:01-40:160:02, 40:166, 40:168, 40:170-40:172, 40:175, 40:179, 40:182-40:183, 40:185-40:188, 40:191-40:199, 40:204, 40:207-40:208, 40:210, 40:212-40:213, 40:215-40:218, 40:221-40:223, 40:227-40:228, 40:231, 40:234-40:242, 40:245:01-40:245:02, 40:247, 40:249-40:253, 40:257-40:265N, 40:272-40:273, 40:277-40:282, 40:285-40:286N, 40:288, 40:299-40:301, 40:308, 40:310, 40:312, 40:315, 40:319, 40:321, 40:323:01-40:329, 40:332-40:333, 40:338N-40:339, 40:344, 40:346, 40:352-40:353:02, 40:355, 40:357-40:358, 40:360, 40:365, 40:367-40:368, 40:370, 40:372N, 40:377, 40:379:01:01-40:383, 40:385-40:386, 40:391-40:397, 40:400-40:402, 40:404, 40:406-40:407, 40:416-40:419, 40:421Q-40:422, 40:424, 40:426N, 40:428N, 40:430-40:431, 40:433, 40:436, 40:439, 40:443, 40:446-40:448, 40:450, 40:452, 40:456, 40:461-40:463, 40:466, 40:474-40:475:02, 40:477, 40:479-40:480, 40:483N, 40:485-40:486, 40:490-40:491, 40:495, 40:497-40:499, 40:501, 40:503, 40:506N-40:510N, 40:512-40:513, 40:516-40:517, 40:524-40:525, 41:08, 44:31, 44:150, 46:06, 46:87, **C\*02:23, C\*03:260, C\*04:77, C\*07:38:01-07:38:02** |
| **6** | 90 bp  170 bp  285 bp | \*48:20  \*48:05  \*48:21, 48:26 | \*07:197, 27:36, 40:469 |
| **8** | 85 bp  225 bp | \*48:16  \*48:07, 48:17 | \*07:78, 07:115, 07:214, 07:327, 38:63, 40:36, 40:48, 40:77, 40:280, 40:368, 40:377, **C\*04:77** |
| **9** | 75 bp  215 bp | \*48:27  \*48:05, 48:08, 48:19, 48:24 | \*07:74, 08:77  \*07:02:01:01-07:02:05, 07:02:07-07:02:25, 07:02:27-07:02:38, 07:02:40-07:03, 07:05:01:01-07:06:05, 07:08:01-07:11, 07:13, 07:15-07:17, 07:20-07:24, 07:27-07:33:03, 07:35-07:42, 07:44N, 07:46-07:47, 07:49N-07:51, 07:53-07:65, 07:67N-07:76, 07:79, 07:81-07:83, 07:85:01-07:130, 07:132-07:134, 07:136:01-07:136:02, 07:138-07:145, 07:148-07:161N, 07:165-07:177, 07:179-07:192, 07:194-07:195, 07:199-07:208, 07:210-07:213, 07:215-07:222, 07:224, 07:228:01-07:234, 07:236-07:238, 07:240-07:247, 07:249-07:254, 07:256-07:348, 07:351N-07:358, 07:360Q-07:385, 07:387-07:406, 07:408-07:410, 07:412-07:419, 07:421-07:428, 07:430-07:469N, 08:20:01-08:20:02, 08:40, 08:70, 08:79:01-08:79:02, 08:156, 08:281, 13:174, 15:07:01:01-15:07:03, 15:45, 15:68, 15:126, 15:207, 15:324, 15:331, 15:405, 15:431, 15:450, 15:524, 35:66, 35:232, 35:481, 37:07, 40:15-40:16:01:02, 40:32, 40:98, 40:496, 41:62, 46:12, **C\*02:60, C\*04:443, C\*06:264, C\*07:850** |
| **12** | 110 bp  135 bp | \*48:22, 48:30  \*48:23 | \*07:143, 13:23, 13:55, 15:71, 15:175, 15:204, 15:225, 15:344, 15:381, 18:01:01:01-18:01:12, 18:01:14-18:03:02, 18:05:01:01-18:15, 18:17N-18:24, 18:26-18:42, 18:44:01-18:72:01, 18:73-18:101, 18:103-18:106Q, 18:108-18:124, 18:126-18:127, 18:129-18:226, 27:75, 35:50, 35:84, 35:162, 35:231, 35:280, 35:323:01-35:323:02, 35:441, 37:01:01:01-37:01:06, 37:01:08-37:54, 37:56-37:61, 37:63-37:84, 37:86N-37:107, 40:83, 40:185, 40:209, 40:248, 40:362, 40:364, 40:430, 42:02:01:01-42:02:02, 42:09, 42:17-42:18, 42:26-42:27, 46:14, 49:03, 49:69, 51:116, 51:151, 51:354, 52:51, 57:39, 57:73, 58:41, 73:01:01:01-73:03  \*15:116, 15:124, 15:507, 15:519, 18:88, 35:509, 40:52, 40:59, 40:352, 46:06, 46:43, 57:59, 58:05, **C\*07:123:01-07:123:02, C\*07:173, C\*07:294** |
| **14** | 100 bp  250 bp | \*48:09, 48:14  \*48:11 | \*07:09:01-07:09:02, 07:11, 07:17, 07:237, 07:287, 08:28, 08:35, 08:37, 15:07:01:01-15:07:03, 15:55, 15:68, 15:126, 15:197:02, 15:207, 15:331, 15:360, 15:383, 15:405, 15:421, 15:431, 15:450, 15:524, 18:14, 35:05:01:01-35:05:06, 35:51:01-35:51:02, 35:58, 35:66, 35:72, 35:89, 35:97, 35:114, 35:232, 35:368, 35:389, 35:416, 35:427N, 35:459N, 35:472, 35:481, 35:498-35:499, 35:509, 35:519, 35:541, 40:03:01:01-40:03:02, 40:105, 40:267, 40:284, 41:24, 41:51, 42:09, 42:32, 46:12, 53:14, 53:67, 58:18, **C\*02:60, C\*06:264, C\*07:294, C\*07:526:01, C\*07:530:01, C\*07:681** |
| **15** | 140 bp  435 bp | \*48:12, 48:14, 48:29  \*48:18 | \*07:68:01-07:68:03, 07:100, 07:237, 07:262:01-07:262:02, 07:424, 08:71, 08:274, 08:296, 13:108, 14:05, 14:13, 14:53, 15:07:01:01-15:07:03, 15:45, 15:55, 15:68, 15:126, 15:197:02, 15:207, 15:324, 15:329, 15:331, 15:360, 15:383, 15:405, 15:431, 15:450, 18:14, 27:32, 27:138, 27:180, 35:05:01:01-35:05:06, 35:22:01:01-35:22:01:02, 35:51:01-35:51:02, 35:58, 35:66, 35:72, 35:89, 35:97, 35:199, 35:232, 35:368, 35:389, 35:416, 35:427N, 35:440, 35:459N, 35:472, 35:481, 35:498-35:499, 35:509, 35:519, 35:541, 38:19, 39:03:01:01-39:03:02, 39:14:01:01-39:14:01:03, 39:24:01-39:24:03, 39:29, 39:37:01:01-39:37:01:02, 39:76, 39:120, 39:144, 39:152, 39:182, 39:184-39:185, 40:35:01-40:35:03, 40:71, 41:24, 42:10, 42:17, 44:54, 44:106, 44:135, 44:158, 44:184, 44:213, 46:12, 51:64, 53:14, 53:67, 55:110, 58:18  \*07:36, 07:38, 07:81, 07:180, 07:219, 08:03, 08:52, 08:78, 14:93, 38:01:01:01-38:01:22, 38:05-38:07, 38:09-38:14, 38:16, 38:19-38:22, 38:24-38:28, 38:30-38:34N, 38:36-38:42, 38:51-38:61, 38:63, 38:65-38:71, 38:73, 38:77-38:78, 38:80N-38:81, 38:83N, 38:86-38:88, 38:90-38:91, 38:93-38:96, 38:99-38:102, 38:161, 38:166, 38:168-38:171, 40:109?, 40:117, 40:292?, 40:340?, 40:394, 41:46, 41:60, 44:18:01:01-44:18:01:02, 44:355, 49:01:01:01-49:01:24, 49:03-49:14, 49:16-49:61, 49:63-49:69, 49:71-49:78, 52:90, 58:108 |

**4**The following HLA-B\*48 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |
| --- | --- |
| **Alleles** | **Primer mix** |
| B\*48:09, 48:11 | 14 |
| B\*48:18, 48:29 | 15 |
| B\*48:19, 48:27 | 9 |

**5**The following alleles will give rise to identical amplification patterns with the HLA-B\*48 subtyping kit. These alleles can be distinguished by the HLA-B low resolution and/or the respective HLA-B kits.

|  |
| --- |
| Alleles |
| B\*48:08, B\*07:400, B\*07:453 |
| B\*48:10, B\*39:13:02, B\*42:11 |
| B\*48:12, B\*52:90 |
| B\*48:23, B\*40:430 |

Abbreviations

‘w’, may be weakly amplified.

‘?’, nucleotide sequence information not available for the primer matching sequence.