HLA-B\*53 (101.549-06/06u) Lot No: 3R1 Expiry Date: 2026-09-01

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 2, 4, 7 and 22 may have tendencies of unspecific amplifications.

Primer mixes 11 and 14 may give rise to a lower yield of HLA-specific PCR product than the other HLA-B\*53 primer mixes.

Primer mixes 3 and 19 have a tendency to giving rise to primer oligomer formation.

Primer mix 21 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-A\*53 typings.

Primer mix 24 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\*53 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\*53 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-B\*53 alleles | Other amplified HLA Class I alleles |
| **3** | 95bp  135 bp  290 bp  490 bp | \*53:42  \*53:03, 53:05:01-53:05:02, 53:16, 53:33, 53:55  \*53:15  \*53:42 | \*07:12, 07:18:01-07:18:02, 07:163, 07:199, 07:227, 07:248, 07:350, 35:34, 35:39, 35:407, 40:120, 44:107, 44:123, **C\*03:81, C\*03:388, C\*04:422, C\*15:06:01:01-15:06:03, C\*15:158, C\*15:177N, C\*15:180, C\*15:214**  \*18:54, 18:67, 18:108, 18:132, 18:195, 27:52, 35:203, 35:355, 37:01:01:01-37:01:05, 37:01:07-37:05, 37:07-37:09, 37:12-37:13, 37:15-37:27, 37:30N-37:33N, 37:35-37:36, 37:38-37:60, 37:62-37:66, 37:68-37:81, 37:83-37:99, 37:101-37:105, 51:185, 52:09:01-52:09:02  \*08:49, 08:60, 08:76, 08:129, 08:181, 35:530, 41:48, 42:13, 44:342  \*07:65, 07:134, 07:400, 18:205, 18:217, 35:34, 35:39, 35:199, 35:407, 37:07, 37:09, 51:90, 51:135, 52:12 |
| **6** | 205 bp  240 bp | \*53:02, 53:06, 53:28  \*53:03, 53:05:01-53:05:02, 53:12, 53:16, 53:33, 53:55 53:67 | \*14:56, 15:38:01-15:38:02, 15:185, 15:335, 15:364, 15:368, 15:610, 18:01:01:01-18:01:49, 18:01:51-18:09, 18:12:01-18:15, 18:17N-18:20, 18:22-18:25, 18:27-18:34, 18:36-18:40, 18:42-18:55, 18:57:01-18:57:02, 18:59-18:60, 18:62-18:100, 18:102-18:109, 18:111-18:121, 18:123-18:147, 18:149-18:163, 18:167, 18:169-18:188, 18:190, 18:192-18:204, 18:206-18:216, 18:218-18:224, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 35:287, 35:519, 39:43, 51:37, 51:45, 51:63:01-51:63:02, 51:97, 51:216, 51:251, 52:39, 52:97, 56:31, 57:14:01-57:14:02, 58:09, 58:76, **C\*02:142, C\*06:207, C\*07:516, C\*07:521:01-07:521:02, C\*12:87, C\*14:76**  **\***08:52, 08:117, 08:126, 13:25, 13:156, 15:43, 15:87, 15:115, 15:594, 27:106, 27:224, 35:329, 37:55, 40:188, 40:394, 44:15:01:01-44:15:01:02, 44:109, 44:176, 44:257, 44:355, 44:537, 47:01:01:02-47:01:05, 47:05-47:10, 47:12, 49:67, 49:70, 49:75, 51:185, 52:09:01-52:09:02, 55:90, 55:121, 56:46, 57:60 |
| **14** | 95 bp  130 bp  190 bp | \*53:14, 53:67  \*53:10 | \*07:09:01-07:09:02, 07:11, 07:17, 07:115, 07:237, 07:246, 07:287, 07:327, 08:28, 08:35, 08:37, 08:69, 08:200, 14:05, 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, 35:440, 35:459N, 35:472, 35:481, 35:498-35:499, 35:509, 35:519, 35:541, 38:19, 39:03:01:01-39:03:01:03, 39:24:01-39:24:03, 39:37:01:01-39:37:01:02, 39:76, 39:120, 39:144, 39:152, 39:182, 39:184-39:185, 40:03:01:01-40:03:02, 40:105, 40:267, 40:284, 40:314, 41:18, 41:24, 41:51, 42:06, 42:09, 42:20, 42:32, 46:12, 48:07, 48:14, 58:18, **C\*02:60, C\*04:443, C\*06:264, C\*07:294, C\*07:526:01, C\*07:530:01, C\*07:681, C\*08:08:01-08:08:02**  **\***35:349  \*15:462, 57:01:01:01-57:01:22, 57:01:24-57:01:44, 57:02:01:01-57:04:01, 57:04:03-57:09, 57:11-57:19, 57:21-57:35, 57:37-57:61, 57:63-57:88, 57:90-57:108, 57:110-57:114, 57:116-57:127, 57:129-57:162N, 58:01:01:01-58:01:20, 58:01:21w, 58:01:22-58:02:02, 58:05-58:29, 58:31N-58:66, 58:68-58:73, 58:75-58:99, 58:101-58:131, 58:133N-58:135, 58:137, **A\*02:984** |
| **17** | 145 bp  275 bp | \*53:30, 53:39  \*53:20 | \*40:13, 40:19, 40:109, 40:117, 40:292, 40:340, 40:394, 41:46, 41:60, 44:18:01:01-44:18:01:02, 44:25, 44:50:01, 44:50:03, 44:95, 44:355, 49:01:01:01-49:01:23, 49:04:01-49:14, 49:16-49:25, 49:27-49:69, 49:71-49:72, 49:74-49:78, 51:112, 57:45, 57:51, 57:69, 58:111  \*51:187, **A\*25:37, A\*32:138** |
| **18** | 110bp  140 bp | \*53:48N  \*53:21 | \*35:381N, **C\*15:177N**  \*07:134, 07:400, 18:01:01:01-18:01:50, 18:01:52-18:03:02, 18:05:01:01-18:15, 18:17N-18:24, 18:26-18:36, 18:38-18:47, 18:49-18:65, 18:67, 18:69-18:106Q, 18:108-18:124, 18:126-18:142, 18:144-18:177, 18:179-18:224, 27:52, 27:236, 35:50, 35:84, 35:162, 35:197, 35:231, 35:267, 35:423, 35:494, 37:01:01:01-37:01:14, 37:01:16-37:05, 37:07-37:27, 37:29-37:30N, 37:32-37:41, 37:43-37:54, 37:56-37:60, 37:62-37:73, 37:75-37:84, 37:86N-37:98, 37:100-37:105, 38:06-38:07, 39:19:01-39:19:02, 39:186, 40:209, 40:350, 51:57, 51:103, 51:116, 51:218, 51:354 |
| **22** | 115 bp  205 bp | \*53:37  \*53:19, 53:36 | \*35:512, 51:336  \*13:86, 35:02:01:01-35:02:07, 35:02:08w, 35:02:09-35:02:19, 35:81, 35:83, 35:95, 35:129N, 35:146, 35:154, 35:162, 35:172, 35:182-35:184, 35:211, 35:220, 35:258, 35:270, 35:273, 35:285, 35:311, 35:323:01-35:323:02, 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, 35:483, 35:487, 35:492, 35:501, 35:505, 35:508N, 35:522, 35:546, 35:550, 35:553, 35:557, 35:562, 50:36, 58:65 |

**4**The HLA-B\*53 primer set cannot separate the following alleles. These alleles can be distinguished by the HLA-B low resolution kit.

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| Alleles |
| B\*53:01:01:01-53:01:29, 53:25, 53:27, 53:32, 53:34-53:35, 53:41, 53:43:01-53:47, 53:49-53:54, 53:57-53:61, 53:63-53:64, 53:66, B\*58:100 |
| B\*53:62, B\*35:471, B\*51:10, 51:42, 51:81, 51:115, 51:181, 51:337, 51:359 |

Abbreviations

w: may be weakly amplified.