Gel Documentation Form and Worksheet

HLA-B\*53 (101.549-06/06u) Lot No: 5E5 Expiry Date: 2019-05-01

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 |



‘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, 7 and 22 may have tendencies of unspecific amplifications.

Primer mixes 11, 14 and 18 may give rise to a lower yield of HLA-specific PCR product than the other HLA-B\*53 primer mixes.

Primer mix 3 has 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 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\*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**Primer mix 3: Specific PCR fragment of 135 bp in the B\*53:03, 53:05, 53:16 and 53:33 and the B\*18:54, 18:67, 18:108, 27:52, 35:203, 37:01:01-37:01:05, 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, 37:38-37:59, 51:185 and 52:09 alleles. Specific PCR fragment of 290 bp in the B\*53:15 and the B\*08:49, 08:60, 08:76, 08:129 and 42:13 alleles.

Primer mix 6: Specific PCR fragment of 205 bp in the B\*53:02, 53:06 and 53:28 and the B\*15:38:01-15:38:02, 15:185, 15:335, 15:364, 15:368, 18:01:01:01-18:09, 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, 18:59-18:60, 18:62-18:100, 18:102-18:109, 18:111-18:121, 18:123, 18:125-18:127, 35:21, 35:24:01-35:24:02, 35:188, 35:190, 35:287, 39:43, 51:37, 51:45, 51:63, 51:97, 52:39, 56:31, 57:14:01-57:14:02, 58:09 and 58:76 and in the C\*07:516, C\*07:521 and C\*12:87 alleles. Specific PCR fragment of 240 bp in the the B\*53:03, 53:05, 53:12, 53:16 and 53:33 and the B\*08:52, 08:117, 08:126, 13:25, 15:43, 15:87, 15:115, 27:106, 37:55, 40:188, 44:15, 44:109, 44:176, 47:01:01:01-47:01:02, 47:05-47:10, 51:185, 52:09, 56:46 and 57:60 alleles.

Primer mix 14: Specific PCR fragment of 95 bp in the B\*53:14 and the B\*07:09, 07:11, 07:17, 07:115, 07:237, 07:246, 08:28, 08:35, 08:37, 08:69, 14:05, 15:07:01-15:07:03, 15:55, 15:68, 15:126, 15:197:02, 15:207, 15:331, 15:360, 15:383, 18:14, 35:05:01-35:05:03, 35:51, 35:58, 35:66, 35:72, 35:89, 35:97, 35:114, 35:232, 38:19, 39:03, 39:24:01-39:24:02, 39:37, 39:76, 40:03, 40:105, 40:267, 40:284, 40:314, 41:18, 41:24, 42:06, 42:09, 42:20, 46:12, 48:07 and 48:14 and in the C\*02:60, C\*07:294, 07:526, 07:530 and C\*08:08:01-08:08:02 alleles. Specific PCR fragment of 130 bp in the B\*53:10 allele. Specific PCR fragment of 190 bp in the B\*57:01:01-57:04:01, 57:05-57:09, 57:11-57:19, 57:21-57:35, 57:37-57:61, 57:63-57:83, 58:01:01:01-58:02:02, 58:05-58:17N, 58:19-58:29, 58:31N-58:66, 58:68-58:73 and 58:75-58:81 alleles. Specific PCR fragment of 95 bp and 190 bp in the B\*58:18 allele.

Primer mix 17: Specific PCR fragment of 145 bp in the B\*53:30 and 53:39 and the B\*40:13, 40:19, 40:109, 40:117, 40:292, 41:46, 44:18, 44:25, 44:50:01, 44:95, 49:01:01-49:01:08, 49:04:01-49:14, 49:16-49:25, 49:27-49:43, 51:112, 57:45, 57:51 and 57:69 alleles. Specific PCR fragment of 275 bp in the B\*53:20 and 51:187 alleles.

Primer mix 22: Specific PCR fragment of 115 bp in the B\*53:37 allele. Specific PCR fragment of 205 bp in the B\*53:19 and 53:36 and the B\*13:86, 35:02:01-35:02:07, 35:02:08w, 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, 35:309, 35:311, 45:12, 50:36 and 58:65 alleles.

**4**The B\*53:03 and the B\*51:19, 51:42 and 51:148 alleles give rise to identical amplification patterns with the HLA-B\*53 subtyping kit. These alleles can be distinguished by the HLA-B low resolution kit and/or the HLA-B\*51 subtyping kit.

The HLA-B\*53 subtyping cannot distinguish the following silent mutations: the B\*53:01:01-53:01:11 alleles, the B\*53:08:01-53:08:02 or the B\*53:17:01-53:17:02 alleles.

‘w’, may be weakly amplified.

Change in revision R01 compared to R00:

1. Primer mix 6 amplifies the B\*08:52, 15:87, 51:185, 52:09 and 57:60 alleles. This has been corrected in the Specificity and Interpretation Tables.