Gel Documentation Form and Worksheet

HLA-C\*05 (101.613-12/12u) Lot No: 0E3 Expiry Date: 2019-03-01

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

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

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

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

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

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

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

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

**Gel Picture**

|  |
| --- |
| 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 mix 28 may have a tendency to giving rise to primer oligomer formation.

Primer mix 36 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-C\*05 alleles in bold lettering are listed as confirmed alleles on the IMGT/HLA web page [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla), release 3.24.0, April 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 4: Specific PCR fragment of 120 bp in the C\*05:03 and the C\*07:52 alleles. Specific PCR fragment of 285 bp in the C\*05:07N allele.

Primer mix 5: Specific PCR fragment of 225 bp in the C\*05:04:01-05:04:02 and 05:103 and the C\*06:129, 07:68, 07:260, 07:302, 08:09, 08:11, 08:59 and 08:113 and in the B\*15:337, B\*18:83 and B\*58:76 alleles. Specific PCR fragment of 285 bp in the C\*05:31 allele.

Primer mix 6: Specific PCR fragment of 255 bp in the C\*05:05 and 05:99N and the C\*03:251, 03:314, 08:62 and 08:82 and in the A\*02:425, 02:519, A\*29:10, A\*68:69, B\*14:32, B\*15:337, B\*18:83 and B\*44:148 alleles. Specific PCR fragment of 280 bp in the C\*05:16, 05:85 and 05:107 and the C\*06:129, 07:364 and 08:12 and in the B\*14:32 alleles.

Primer mix 8: Specific PCR fragment of 85 bp in the C\*05:06 allele. Specific PCR fragment of 210 bp in the C\*05:55 allele.

Primer mix 9: Specific PCR fragment of 105 bp in the C\*05:51Q allele. Specific PCR fragment of 175 bp in the C\*05:48N allele. Specific PCR fragment of 245 bp in the C\*05:113N allele.

Primer mix 10: Specific PCR fragment of 95 bp in the C\*05:08, 05:52 and 05:89 and the C\*02:51, 08:29, 08:31 and 12:144 and in the B\*15:33 and B\*15:248 alleles. Specific PCR fragment of 250 bp in the C\*05:30 and the C\*03:247, 06:125, 14:70 and 16:85-16:86 alleles. Specific PCR fragment of 320 bp in the C\*05:92N and the C\*08:55N alleles.

Primer mix 11: Specific PCR fragment of 115 bp in the C\*05:33 allele. Specific PCR fragment of 205 bp in the C\*05:25 and 05:42 and the C\*04:129, 06:05, 06:67, 07:101, 07:148, 07:161 and 08:28 and in the A\*11:166 and A\*80:01:01:01w-80:03w alleles.

Primer mix 12: Specific PCR fragment of 155 bp in the C\*05:97 allele. Specific PCR fragment of 225 bp in the C\*05:38 and the C\*08:97 alleles. Specific PCR fragment of 285 bp in the C\*05:10 and the C\*03:251, 03:314, 08:44, 08:61, 08:82 and 08:126 and the B\*44:148 and B\*58:76 alleles.

Primer mix 14: Specific PCR fragment of 120 bp in the C\*05:12 and 05:15 alleles. Specific PCR fragment of 200 bp in the C\*05:80 and 05:91N alleles.

Primer mix 15: Specific PCR fragment of 115 bp in the C\*05:65 and the C\*04:96 alleles. Specific PCR fragment of 185 bp in the C\*05:34 and the C\*02:93 and 06:13 alleles. Specific PCR fragment of 240 bp in the C\*05:13 allele.

Primer mix 16: Specific PCR fragment of 195 bp in the C\*05:14 allele. Specific PCR fragment of 470 bp in the C\*05:93 and the C\*03:171, 03:211:01, 04:144, 06:73, 08:20, 08:40 and 12:109 alleles.

Primer mix 18: Specific PCR fragment of 160 bp in the C\*05:87 allele. Specific PCR fragment of 245 bp in the C\*05:19 and 05:99N alleles.

Primer mix 20: Specific PCR fragment of 260 bp in the C\*05:26 allele. Specific PCR fragment of 390 bp in the C\*05:21 allele.

Primer mix 23: Specific PCR fragment of 85 bp in the C\*05:24 allele. Specific PCR fragment of 135 bp in the C\*05:36 and the C\*07:148 and 15:107 alleles.

Primer mix 24: Specific PCR fragment of 185 bp in the C\*05:43 and the C\*08:37 alleles. Specific PCR fragment of 265 bp in the C\*05:29:01-05:29:02 and the C\*08:13, 08:16:01, 08:25 and 08:94 alleles.

Primer mix 25: Specific PCR fragment of 105 bp in the C\*05:40 allele. Specific PCR fragment of 205 bp in the C\*05:35 and 05:80 alleles.

Primer mix 26: Specific PCR fragment of 115 bp in the C\*05:27 and 05:39 and the C\*03:87:01-03:87:02 and 08:115 and in the B\*15:33 and B\*15:248 alleles. Specific PCR fragment of 185 bp in the C\*05:28 and the C\*06:64 alleles. Specific PCR fragment of 245 bp in the C\*05:113N allele.

Primer mix 28: Specific PCR fragment of 115 bp in the C\*05:65 and the C\*04:96 alleles. Specific PCR fragment of 200 bp in the C\*05:45 allele.

Primer mix 29: Specific PCR fragment of 140 bp in the C\*05:41 and the C\*04:78 alleles. Specific PCR fragment of 185 bp in the C\*05:34 and the C\*02:93 and 06:13 alleles. Specific PCR fragment of 260 bp in the C\*05:37 allele.

Primer mix 30: Specific PCR fragment of 70 bp in the C\*05:53 allele. Specific PCR fragment of 175 bp in the C\*05:32 allele.

Primer mix 31: Specific PCR fragment of 155 bp in the C\*05:18:02-05:18:03, 05:103, 05:107 and 05:115 and the C\*07:04:07, 07:68, 07:199:01-07:199:02, 07:260, 07:364 and 08:33:01 and in the B\*14:32, B\*18:83, B\*44:148 and B\*58:76 alleles. Specific PCR fragment of 285 bp in the C\*05:104 and the C\*07:447 alleles. Specific PCR fragment of 155 bp and 285 bp in the C\*07:04:01-07:04:06, 07:04:08-07:04:10, 07:11-07:12, 07:63, 07:101, 07:139, 07:142, 07:181, 07:272, 07:302, 07:323-07:324, 07:328-07:329N, 07:336, 07:338, 07:354-07:355, 07:357-07:358, 07:361, 07:365, 07:378, 07:394-07:395, 07:403, 07:406, 07:420, 07:426, 07:428, 07:459, 07:466-07:467, 07:480 and 07:487 alleles.

Primer mix 34: Specific PCR fragment of 165 bp in the C\*05:128N allele. Specific PCR fragment of 275 bp in the C\*05:111 and the C\*07:68, 07:260, 07:302 and 08:38 alleles.

**4**The following HLA-C\*05 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| C\*05:03, 05:07N | 4 | C\*05:24, 05:36 | 23 |
| C\*05:06, 05:55 | 8 | C\*05:25, 05:33 | 11 |
| C\*05:08, 05:30 | 10 | C\*05:28, 05:39 | 26 |
| C\*05:14, 05:93 | 16 | C\*05:32, 05:53 | 30 |
| C\*05:15, 05:91N | 14 | C\*05:35, 05:40 | 25 |
| C\*05:21, 05:26 | 20 | C\*05:37, 05:41 | 29 |

The HLA-C\*05 subtyping kit cannot distinguish the following silent mutations: the C\*05:01:01:01-05:01:22 and 05:01:24-05:01:31, the C\*05:01:23 and 05:58:01, the C\*05:04:01-05:04:02, the C\*05:09:01-05:09:03, the C\*05:18:02-05:18:03, the C\*05:22:01-05:22:02, the C\*05:29:01-05:29:02 or the C\*05:44:01-05:44:02 alleles.

‘w’, might be weakly amplified.

Changes in revision R01 compared to R00:

1. Primer mixes 4 and 30 do not amplify the C\*05:108 and the C\*06:111, C\*07:316 and C\*07:359 alleles. This has been corrected in the Specificity and Interpretation Tables.

Changes in revision R02 compared to R01:

1. Primer mix 13 does not amplify the C\*05:70 allele. This has been corrected in the Specificity and Interpretation Tables.