Gel Documentation Form and Worksheet

HLA-C\*08 Lot No: 1F2 Expiry Date: 2019-10-01

(101.623-12/12u)

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 mixes 11, 15 and 21 may have tendencies of unspecific amplifications.

Primer mixes 4 and 16 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C\*08 primer mixes.

Primer mix 41 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\*08 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 3.26.0, 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**Primer mix 6: Specific PCR fragment of 65 bp in the C\*08:102 and the C\*07:06, 07:18-07:19, 07:330:02 and 07:517 alleles.

Specific PCR fragment of 100 bp in the C\*08:14, 08:80 and 08:103 and the C\*01:02:34, 01:21, 02:42, 02:107, 04:140, 04:166, 04:220, 05:98, 06:05, 07:02:09, 12:16, 12:147, 15:63, 15:113 and 16:80 and in the B\*67:02 alleles. Specific PCR fragment of 270 bp in the C\*08:06 and the C\*06:161 and 16:33 alleles. Specific PCR fragment of 310 bp in the C\*08:23 allele.

Primer mix 7: Specific PCR fragment of 100 bp in the C\*08:07, 08:47 and 08:104 and the C\*05:23, 05:62, 05:134, 05:143, 07:01:48 and 07:02:35 and in the B\*48:04:02 alleles. Specific PCR fragment of 150 bp in the C\*08:41, 08:115 and 08:138 and the C\*03:87:01, 03:267, 05:27 and 05:39 and in the B\*15:01:03 alleles. Specific PCR fragment of 230 bp in the C\*08:87 allele.

Primer mix 9: Specific PCR fragment of 140 bp in the C\*08:88N allele. Specific PCR fragment of 375 bp in the C\*08:24 and 08:75 and the C\*02:83 and 16:90 alleles. Specific PCR fragment of 505 bp in the C\*08:10 and the C\*05:79 alleles.

Primer mix 10: Specific PCR fragment of 110 bp in the C\*08:09 allele. Specific PCR fragment of 140 bp in the C\*08:17 allele.

Primer mix 11: Specific PCR fragment of 185 bp in the C\*08:128 and the C\*03:206, 03:212 and 04:84 alleles. Specific PCR fragment of 225 bp in the C\*08:09, 08:11, 08:59 and 08:113 and the C\*05:04:01-05:04:02, 05:103:01-05:103:02, 05:135, 07:68, 07:260:01-07:260:02 and 07:302 and in the B\*15:337, B\*18:83 and B\*58:76 alleles. Specific PCR fragment of 255 bp in the C\*08:86 allele. Specific PCR fragment of 280 bp in the C\*08:12 and the C\*05:16, 05:85, 05:107 and 07:364 and in the B\*14:32 alleles. Specific PCR fragment of 225 bp and 280 bp in the C\*06:129 allele.

Primer mix 14: Specific PCR fragment of 130 bp in the C\*08:90 allele. Specific PCR fragment of 160 bp in the C\*08:18 and 08:95 and the C\*03:155, 03:282, 07:413 and 12:149 and in the B\*35:252 and B\*39:114 alleles. Specific PCR fragment of 280 bp in the C\*08:08:01-08:08:02 alleles.

Primer mix 17: Specific PCR fragment of 375 bp in the C\*08:05, 08:21 and 08:25 and the C\*05:42w and 05:46 alleles. Specific PCR fragment of 430 bp in the C\*08:28 and the C\*05:42 and 05:25 alleles. Specific PCR fragment of 375 bp and 430 bp in the C\*08:137 allele.

Primer mix 18: Specific PCR fragment of 80 bp in the C\*08:31 and the C\*05:105 alleles. Specific PCR fragment of 200 bp in the C\*08:26N and 08:92 alleles.

Primer mix 19: Specific PCR fragment of 110 bp in the C\*08:27, 08:29, 08:30 and 08:31 and the C\*05:08, 05:89, 05:106:01-05:106:02, 06:129 and 07:447 alleles. Specific PCR fragment of 250 bp in the C\*08:32 allele.

Primer mix 22: Specific PCR fragment of 80 bp in the C\*08:41, 08:115 and 08:138 and the C\*03:314, 05:27 and 05:39 and in the B\*15:337 allele. Specific PCR fragment of 155 bp in the C\*08:33:01 and the C\*05:18:02-05:18:03, 05:103:01, 05:107, 05:115, 05:134, 07:04:01-07:04:10, 07:11-07:12, 07:63, 07:68, 07:101, 07:139, 07:142, 07:181, 07:199:01-07:199:02, 07:260:01-07:260:02, 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, 07:364-07:365, 07:378, 07:394-07:395, 07:403, 07:406, 07:420, 07:426, 07:428, 07:459, 07:466-07:467, 07:480, 07:487, 07:501, 07:523, 07:534-07:535, 07:552, 07:562-07:563 and in the B\*14:32, B\*18:83 and B\*58:76 alleles. Specific PCR fragments of 80 bp and 155 bp in the B\*44:148 allele.

Primer mix 23: Specific PCR fragment of 90 bp in the C\*08:36N and 08:69 and the C\*03:174, 07:229, 07:387, 12:131, 14:39, 16:42 and 16:56 and in the B\*07:243, B\*08:98 and B\*35:202 alleles. Specific PCR fragment of 140 bp in the C\*08:92 and 08:95 and the C\*03:155 and in the B\*35:252 and B\*39:114 alleles. Specific PCR fragment of 205 bp in the C\*08:70Q allele. Specific PCR fragment of 250 bp in the C\*08:74 and 08:78 and the C\*01:125, 03:236, 04:106, 07:293 and 07:519 and in the B\*18:64, B\*35:183 and B\*40:138 alleles.

Primer mix 24: Specific PCR fragment of 105 bp in the C\*08:56 and 08:89N and the C\*04:179 alleles. Specific PCR fragment of 150 bp in the C\*08:37, 08:53 and 08:74 and the C\*02:14:01-02:14:02, 02:107, 04:42:01-04:42:02, 04:220, 04:239, 05:43, 06:05, 07:02:09, 12:16, 12:147, 15:23, 15:63, 16:21 and 16:80 alleles.

Primer mix 25: Specific PCR fragment of 115 bp in the C\*08:39 and the 05:12 and 07:487 alleles. Specific PCR fragment of 225 bp in the C\*08:09, 08:11, 08:59 and 08:113 and the C\*05:04:01-05:04:02, 05:103:01-05:103:02, 06:129, 07:68, 07:260:01-07:260:02 and 07:302 alleles. Specific PCR fragment of 265 bp in the C\*08:62 and 08:82 and the C\*03:251, 03:314, 05:05:01-05:05:02 and in the A\*02:425, 02:519, A\*68:69 and B\*14:32 alleles. Specific PCR fragment of 290 bp in the C\*08:34 allele. Specific PCR fragment of 115 bp and 265 bp in the A\*29:10:01-29:10:02 and in the B\*44:148 alleles. Specific PCR fragment of 225 bp and 265 bp in the C\*05:135 and in the A\*15:337 alleles. Specific PCR fragment of 115 bp, 225 bp and 265 bp in the A\*18:83 and B\*58:76 alleles.

Primer mix 27: Specific PCR fragment of 125 bp in the C\*08:19, 08:101 and 08:143 and the C\*04:223:01 and 05:64:01-05:64:02 alleles. Specific PCR fragment of 265 bp in the C\*08:55N and the C\*05:92N alleles.

Primer mix 28: Specific PCR fragment of 155 bp in the C\*08:53 allele. Specific PCR fragment of 185 bp in the C\*08:01:07, 08:02:07 and 08:33:02 and the C\*03:251, 03:314 and 04:120 alleles. Specific PCR fragment of 290 bp in the C\*08:34 allele.

Primer mix 29: Specific PCR fragment of 185 bp in the C\*08:128 and the C\*03:206, 03:212 and 04:84 alleles. Specific PCR fragment of 210 bp in the C\*08:38 and 08:52N alleles.

Primer mix 30: Specific PCR fragment of 65 bp in the C\*08:99 allele. Specific PCR fragment of 270 bp in the C\*08:110 allele. Specific PCR fragment of 405 bp in the C\*08:28 and 08:137 and the C\*04:223:01, 05:25, 05:42, 07:01:48, 07:02:35 and 07:41 and in the A\*01:01:06 alleles. Specific PCR fragment of 470 bp in the C\*08:20 and 08:40 and the C\*03:171, 03:211:01, 04:144, 05:93, 06:73 and 12:109 alleles.

Primer mix 37: Specific PCR fragment of 205 bp in the C\*08:127N allele. Specific PCR fragment of 265 bp in the C\*08:141Q allele.

Primer mix 38: Specific PCR fragment of 205 bp in the C\*08:129N allele. Specific PCR fragment of 265 bp in the C\*08:141Q allele.

Primer mix 40: Specific PCR fragment of 125 bp in the C\*08:42 and the C\*04:229 alleles. Specific PCR fragment of 200 bp in the C\*08:107 allele.

**4**The following HLA-C\*08 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| **Alleles** | **Primer mix** | **Alleles** | **Primer mix** |
| C\*08:20, 08:99 | 30 | C\*08:36N, 08:78 | 23 |
| C\*08:24, 08:88N | 9 | C\*08:69, 08:70Q | 23 |
| C\*08:30, 08:32 | 19 |

The HLA-C\*08 primer set cannot distinguish the following silent mutations: the C\*08:01:01-08:01:06 and C\*08:01:08-08:01:19 alleles, the C\*08:02:01:01-08:02:05 and C\*08:02:08-08:02:14 alleles, the 08:03:01-08:03:04 alleles, the C\*08:04:01-08:04:03 alleles, the C\*08:08:01-08:08:02 alleles, the 08:15:01-08:15:02 alleles, the C\*08:16:01-08:16:02 alleles or the C\*08:72:01-08:72:02 alleles.