Gel Documentation Form and Worksheet

HLA-C\*07 (101.615-24/04, -24u/04u) Lot No: 2H6 Expiry Date: 2023-11-01

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 19, 20, 34, 36, 43, 44, 46, 47, 59 and 82 have a tendency to giving rise to primer oligomer formation.

Primer mixes 13, 14, 17, 20, 23, 24, 30, 37, 40, 45, 65, 66, 70, 74, 77, 85 and 91 may have tendencies of unspecific amplifications.

Primer mixes 14, 15 and 16 may give rise to a lower yield of HLA-specific PCR product than the other C\*07 primer mixes.

Primer mix 96 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-C\*07 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** The following HLA-C\*07 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-C\*07 alleles | Other amplified HLA-Class I alleles |
| **1** | 245 bp  425 bp | \*07:01:01:01-07:02:20, 07:02:22-07:33N, 07:35-07:40, 07:42-07:165, 07:167-07:294, 07:296-07:347N, 07:349-07:622, 07:624-07:634  \*07:01:01:01-07:01:40, 07:01:42-07:02:40, 07:02:42-07:06:02, 07:08, 07:10-07:33N, 07:35-07:48, 07:50-07:75, 07:77-07:78:01, 07:79-07:114, 07:116-07:209, 07:211-07:222, 07:224-07:237, 07:239-07:246:02, 07:248-07:294, 07:296-07:314:03, 07:316-07:327, 07:329N-07:356, 07:358-07:360, 07:362-07:376, 07:378-07:402, 07:404-07:405, 07:407-07:414, 07:416-07:477, 07:478w, 07:479-07:558, 07:559w, 07:560-07:597, 07:599-07:634 | \*12:181 |
| **5** | 70 bp  145 bp  245 bp | \*07:53, 07:216  \*07:57  \*07:03 |  |
| **8** | 285 bp  505 bp | \*07:45, 07:589, 07:611  \*07:06:01:01-07:06:02, 07:330:02, 07:343, 07:613, 07:620 | \*02:57, 04:40, 04:242, 06:123, **A\*02:84, B\*38:23, B\*39:73** |
| **9** | 215 bp  425 bp | \*07:33N  \*07:07, 07:09, 07:49, 07:76:01-07:76:02, 07:210, 07:238, 07:247, 07:315, 07:328, 07:403, 07:406, 07:598 | \*06:17, 18:01-18:10 |
| **11** | 285 bp  305 bp | \*07:24, 07:112, 07:218, 07:396  \*07:10, 07:43:01-07:43:02, 07:184, 07:196, 07:367, 07:568 | \*03:03:29, 03:04:19, 03:113:01, **B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*37:04:02, B\*57:01:18, B\*58:01:17** |
| **15** | 80 bp  290 bp  460 bp | \*07:50, 07:615  \*07:14  \*07:89 | \*16:111, 17:38 |
| **18** | 120 bp  230 bp  265 bp | \*07:52, 07:243  \*07:15, 07:337, 07:500  \*07:486 | **\***05:03  \*02:77, **B\*07:77, B\*07:193, B\*40:60, B\*40:245** |
| **19** | 220 bp  465 bp | \*07:26:01-07:26:03, 07:92, 07:96:01-07:96:02, 07:314:01-07:314:03, 07:317, 07:351, 07:578, 07:583  \*07:07, 07:16, 07:51, 07:177, 07:181, 07:328, 07:367, 07:598 | \*18:09 |
| **20** | 145 bp  170 bp  190 bp | \*07:03, 07:17:01-07:17:04, 07:140-07:141:02, 07:304, 07:307, 07:512, 07:599  \*07:44, 07:48  \*07:81, 07:168, 07:450 | \*02:02:28, 03:03:29, 03:04:19, 03:113:01, 04:01:43, 05:01:17, 05:09:02, 05:17, 06:02:23, 08:15:02, 08:72:02, 12:03:10, 16:02:11, **A\*25:27:02, A\*30:01:03, A\*33:03:09, B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*08:01:25, B\*15:17:04, B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*37:04:02, B\*39:09:03, B\*51:01:63, B\*57:01:18, B\*58:01:17**  **B\*15:17:04, B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*37:04:02, B\*39:09:03, B\*51:01:63, B\*57:01:18, B\*58:01:17** |
| **21** | 100 bp  225 bp | \*07:54  \*07:01:03, 07:06:01:01-07:06:02, 07:18-07:19, 07:28, 07:112, 07:330:02, 07:517, 07:607, 07:613, 07:620-07:621 |  |
| **22** | 205 bp  250 bp | \*07:84  \*07:20, 07:96:01-07:96:02, 07:127, 07:263, 07:390, 07:562, 07:578 | **\***02:49, 02:75, 02:115, 03:15, 03:32, 03:45, 03:60, 03:136, 03:297, 04:03:01-04:03:04, 04:06:01-04:06:02, 04:16, 04:80, 04:147, 04:160, 04:171, 04:190, 04:256, 04:286, 06:70:01-06:70:02, 06:132:01-06:132:02, 15:25, 15:62, **A\*01:110, A\*11:135** |
| **23** | 155 bp  185 bp | \*07:23  \*07:21 |  |
| **25** | 105 bp  150 bp  235 bp | \*07:46, 07:356  \*07:30  \*07:02:01:17N, 07:311 | **\***03:342, **B\*56:08w, B\*56:14** |
| **26** | 100 bp  250 bp  300 bp | \*07:32N  \*07:55N  \*07:31:01-07:31:02, 07:177, 07:514 | \*06:02:23, 12:03:10, 16:02:11 |
| **27** | 130 bp  240 bp | \*07:37, 07:69, 07:176, 07:307, 07:512  \*07:267, 07:322 | \*04:01:43, 05:01:17, 05:09:02, 08:15:02, **B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*35:08:04**  **\***04:198w, 12:115 |
| **28** | 175 bp  260 bp  290 bp | \*07:44  \*07:35, 07:47, 07:352, 07:461  \*07:396 |  |
| **30** | 60 bp  260 bp | \*07:75, 07:254  \*07:227N | \*04:66 |
| **32** | 115 bp  155 bp  245 bp  285 bp | \*07:134  \*07:189  \*07:07, 07:09, 07:49, 07:76:01-07:76:02, 07:210, 07:238, 07:247, 07:315, 07:328, 07:403, 07:406, 07:598  \*07:60, 07:79 | \*06:29  \*02:14:01-02:14:02, 02:107, 04:42:01-04:42:02, 04:220, 05:43, 06:02:01:01-06:02:01:14, 06:02:03-06:02:05, 06:02:07-06:02:11, 06:02:13-06:02:31, 06:02:33-06:02:54, 06:04:01-06:10, 06:12-06:51, 06:53:01-06:75, 06:78-06:121, 06:123, 06:125-06:131, 06:133-06:146, 06:148-06:216, 06:218-06:219, 15:23:01-15:23:02, 15:63, 15:138, 17:20, 18:01-18:08, 18:10, **B\*08:17, B\*08:47**  **\***03:39, 03:67, **B\*08:39** |
| **33** | 205 bp  230 bp | \*07:66  \*07:82 |  |
| **35** | 320 bp  360 bp | \*07:72  \*07:71 |  |
| **37** | 235 bp  265 bp | \*07:121Q  \*07:38:01-07:38:02, 07:63, 07:68, 07:260:01-07:260:02, 07:302 | **\***05:111, 08:38, **B\*07:77, B\*07:193, B\*40:60, B\*40:245** |
| **39** | 100 bp  195 bp  255 bp | \*07:74  \*07:308  \*07:59 |  |
| **40** | 120 bp  205 bp  440 bp | \*07:235Q  \*07:62  \*07:07, 07:09, 07:76:01-07:76:02, 07:78:01-07:78:02, 07:315, 07:328, 07:406, 07:559, 07:598 | \*06:17, 18:01-18:10 |
| **41** | 140 bp  170 bp  255 bp | \*07:91, 07:474  \*07:234  \*07:88 | **A\*25:32** |
| **42** | 100 bp  205 bp  250 bp | \*07:15, 07:207  \*07:77, 07:93  \*07:35, 07:123, 07:173, 07:294, 07:352 | **\***02:02:28, **B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*35:15:02**  **B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*08:01:25, B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*39:09:03, B\*39:136, B\*51:01:63, B\*57:01:18, B\*58:01:17** |
| **43** | 105 bp  150 bp  175 bp  220 bp | \*07:94, 07:183  \*07:99, 07:189  \*07:80, 07:339, 07:410  \*07:445 |  |
| **44** | 165 bp  195 bp  290 bp | \*07:98N  \*07:65, 07:77  \*07:396 |  |
| **45** | 240 bp  475 bp | \*07:245  \*07:95, 07:342, 07:599 | \*04:34, 04:122, 04:212, 04:265, 06:153, **A\*26:112, B\*18:115, B\*35:178, B\*35:282, B\*35:316, B\*73:01-73:02** |
| **46** | 315 bp  350 bp  420 bp | \*07:202  \*07:90  \*07:152N |  |
| **47** | 200 bp  255 bp  420 bp  455 bp | \*07:86  \*07:222, 07:375  \*07:152N  \*07:97 |  |
| **48** | 155 bp  220 bp  255 bp  410 bp | \*07:122, 07:373  \*07:87  \*07:222, 07:375  \*07:85, 07:244, 07:276, 07:480 |  |
| **49** | 70 bp  155 bp  230 bp | \*07:133, 07:330:01-07:330:02  \*07:101, 07:148, 07:161, 07:583  \*07:100, 07:259, 07:316, 07:338, 07:579 | \*03:03:29, 03:04:19  \*04:129, 05:42, 05:46, 06:67, 08:05, 08:21, 08:137, 12:127, 12:203, 17:05  \*01:17, 01:21, 01:23, 01:128, 01:152, 12:215 |
| **50** | 345 bp  425 bp | \*07:310  \*07:124, 07:155 |  |
| **51** | 65 bp  235 bp  285 bp | \*07:126  \*07:121Q, 07:409, 07:483N  \*07:117 |  |
| **52** | 65 bp  205 bp  280 bp | \*07:203, 07:426  \*07:118  \*07:106 | \*06:194 |
| **53** | 70 bp  110 bp  155 bp | \*07:133, 07:330:01-07:330:02  \*07:140, 07:151, 07:154  \*07:122, 07:373 | **\***03:03:29, 03:04:19  **B\*08:01:25, B\*37:04:02** |
| **54** | 120 bp  200 bp  235 bp  285 bp  340 bp  370 bp  430 bp | \*07:153, 07:324  \*07:446  \*07:64, 07:374, 07:402  \*07:593N  \*07:125, 07:356, 07:531  \*07:129  \*07:01:02, 07:01:27, 07:01:52, 07:73:02, 07:89, 07:93, 07:453, 07:547, 07:627 | **B\*35:364, B\*51:142 B\*08:109** |
| **55** | 160 bp  210 bp  290 bp  530 bp | \*07:179, 07:234  \*07:252  \*07:132  \*07:343 | \*06:07  **A\*11:179** |
| **56** | 210 bp  260 bp | \*07:150Q  \*07:123, 07:143, 07:173, 07:294, 07:421, 07:524 | **B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*08:01:25, B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*39:09:03, B\*39:136, B\*51:01:63, B\*57:01:18, B\*58:01:17** |
| **57** | 70 bp  175 bp  230 bp  270 bp | \*07:01:25  \*07:130  \*07:259  \*07:421, 07:524 | \*05:01:17, 05:09:02, 05:17, 08:15:02 |
| **58** | 80 bp  450 bp | \*07:137:01-07:137:02, 07:186, 07:212, 07:265  \*07:164N, 07:451N | \*03:162, 03:220, 05:151, **B\*38:43, B\*44:247, B\*49:29, B\*51:181, B\*52:74** |
| **59** | 200 bp  300 bp | \*07:81, 07:145, 07:168, 07:191N, 07:450  \*07:485 | **B\*15:17:04, B\*35:01:38, B\*35:03:15, B\*35:08:04, B\*35:15:02, B\*37:04:02, B\*39:09:03, B\*51:01:63, B\*57:01:18, B\*58:01:17** |
| **60** | 130 bp  300 bp  370 bp | \*07:165, 07:241, 07:265, 07:304, 07:307, 07:512  \*07:147, 07:485  \*07:180 | \*02:02:28, 03:03:29, 03:04:19, 03:113:01, 04:01:43, 05:01:17, 05:09:02, 06:02:23, 08:15:02, 12:03:10, **B\*07:02:43, B\*07:06:03, B\*07:33:03, B\*15:17:04, B\*51:01:63** |
| **61** | 130 bp  245 bp | \*07:81, 07:243, 07:462  \*07:120 | \*05:149, 16:76, **B\*40:304** |
| **62** | 200 bp  285 bp | \*07:84, 07:205  \*07:106, 07:267, 07:322 | **A\*26:101**  \*04:198, **A\*26:94** |
| **63** | 275 bp  320 bp | \*07:24, 07:218, 07:301, 07:425  \*07:198N, 07:202 |  |
| **64** | 135 bp  230 bp | \*07:69  \*07:192, 07:272, 07:316, 07:326, 07:338, 07:409, 07:579 | \*01:17, 01:21, 01:23, 01:128, 01:152, 06:18w, 12:215 |
| **65** | 150 bp  185 bp  215 bp | \*07:136, 07:264N  \*07:371, 07:494Q  \*07:551N, 07:632Q | \*16:16Q, **B\*15:218Q, B\*35:333Q** |
| **66** | 150 bp  185 bp  225 bp | \*07:136  \*07:128, 07:232, 07:513Q, 07:633N  \*07:279 | \*12:42Q, **B\*46:07N, B\*46:51Q** |
| **67** | 180 bp  215 bp  290 bp | \*07:285  \*07:393N  \*07:456 |  |
| **68** | 75 bp  230 bp  260 bp  290 bp | \*07:381  \*07:149  \*07:133, 07:242  \*07:456 | \*03:178, 03:300 |
| **69** | 135 bp  185 bp  240 bp | \*07:170-07:171, 07:397, 07:412  \*07:494Q  \*07:02:01:17N | \*16:16Q, **B\*15:218Q, B\*35:333Q** |
| **70** | 215 bp  345 bp  405 bp | \*07:131:01-07:131:02, 07:194, 07:368:01-07:368:02  \*07:310  \*07:61N |  |
| **71** | 105 bp  120 bp  240 bp  280 bp | \*07:67  \*07:347N  \*07:29:01-07:29:02, 07:177, 07:184, 07:248  \*07:425 | \*03:03:29, 03:04:19, 03:113:01, **B\*07:02:43, B\*07:33:03** |
| **72** | 110 bp  245 bp  290 bp | \*07:22, 07:67, 07:137:01-07:137:02, 07:138    \*07:484N  \*07:250, 07:558 | \*02:02:28, 06:02:23, 12:03:10, **A\*02:01:126, A\*33:03:09, A\*68:01:12, B\*39:09:03** |
| **74** | 210 bp  355 bp | \*07:33N, 07:293, 07:519  \*07:80 |  |
| **75** | 140 bp  220 bp | \*07:116, 07:329N  \*07:544 | \*12:211 |
| **76** | 115 bp  280 bp | \*07:437N  \*07:102 |  |
| **77** | 200 bp  240 bp  430 bp  485 bp | \*07:446  \*07:166, 07:220, 07:348, 07:533  \*07:01:02, 07:01:27, 07:01:52, 07:73:02, 07:89, 07:93, 07:453, 07:547, 07:627  \*07:419 | **B\*08:109**  **\***03:211:02, **B\*73:01-73:02** |
| **80** | 155 bp  265 bp  345 bp  375 bp | \*07:350N  \*07:486  \*07:593N  \*07:256, 07:497 | \*06:189, **A\*11:232, A\*36:06** |
| **82** | 170 bp  220 bp | \*07:288  \*07:393N, 07:483N |  |
| **83** | 170 bp  215 bp  250 bp | \*07:214, 07:429  \*07:445, 07:476N  \*07:361 |  |
| **84** | 130 bp  185 bp  225 bp | \*07:386, 07:439  \*07:107, 07:224, 07:633N  \*07:311, 07:551N | \*06:22, 16:31, **B\*15:193, B\*35:283, B\*46:07N** |
| **85** | 200 bp  275 bp | \*07:83, 07:458  \*07:360, 07:582Q |  |
| **86** | 135 bp  285 bp | \*07:58, 07:573  \*07:226, 07:582Q |  |
| **87** | 175 bp  210 bp  275 bp | \*07:339, 07:410  \*07:411, 07:507N  \*07:340 |  |
| **88** | 150 bp  205 bp  285 bp | \*07:452N, 07:491:01N-07:491:02N  \*07:507N  \*07:407 | \*01:111N, 14:47N, **B\*15:209N, B\*46:55N** |
| **89** | 75 bp  220 bp | \*07:229, 07:387  \*07:272, 07:326, 07:374 | \*04:273w, 12:131  \*06:18w, 06:120w |
| **92** | 100 bp  170 bp | \*07:104N, 07:457  \*07:119 | **\***04:127, 05:84, **B\*15:272N, B\*39:111, B\*40:286N**  **\***02:99, 05:157, **B\*07:87, B\*27:55, B\*27:149** |
| **93** | 155 bp  200 bp | \*07:491:01N-07:491:02N  \*07:453 | \*01:111N, 14:47N, **B\*15:209N, B\*46:55N** |

**4**The C\*07:27:01-07:27:02 and 07:556 and the C\*12:181 alleles will give rise to identical amplification patterns. These alleles can e.g. be distinguished by the HLA-C low resolution kit.

**5**The following HLA-C\*07 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| Alleles | Primer mix | Alleles | Primer mix |
| C\*07:29:01-07:29:02, 07:347N | 71 | C\*07:120, 07:462 | 61 |
| C\*07:41, 07:447 | 1 | C\*07:125, 07:402 | 54 |
| C\*07:51, 07:314:01-07:314:03 | 19 | C\*07:132, 07:179 | 55 |
| C\*07:52, 07:337 | 18 | C\*07:138, 07:484N | 72 |
| C\*07:61N, 07:194, 07:368:01-07:368:02 | 70 | C\*07:149, 07:381 | 68 |
| C\*07:74, 07:308 | 39 | C\*07:164N, 07:212 | 58 |
| C\*07:78:01-07:78:02, 07:235Q, 07:559 | 40 | C\*07:165, 07:180 | 60 |
| C\*07:88, 07:474 | 41 | C\*07:166, 07:419 | 77 |
| C\*07:99, 07:183 | 43 | C\*07:186, 07:451N | 58 |
| C\*07:100, 07:161 | 49 | C\*07:226, 07:573 | 86 |
| C\*07:104N, 07:119 | 92 | C\*07:227N, 07:254 | 30 |
| C\*07:117, 07:126 | 51 | C\*07:350N, 07:497 | 80 |
| C\*07:118, 07:203 | 52 |  |  |
|  |  |

Abbreviations

w: may be weakly amplified.