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 bp305 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 bp265 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 bp250 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 bp235 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 bp240 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 bp155 bp245 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 bp255 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 bp255 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 bp220 bp | \*07:94, 07:183\*07:99, 07:189\*07:80, 07:339, 07:410\*07:445 |  |
| **44** | 165 bp 195 bp290 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 bp420 bp 455 bp | \*07:86\*07:222, 07:375\*07:152N\*07:97 |  |
| **48** | 155 bp 220 bp 255 bp410 bp | \*07:122, 07:373\*07:87\*07:222, 07:375\*07:85, 07:244, 07:276, 07:480 |  |
| **49**  | 70 bp155 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 bp425 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 bp110 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 bp200 bp 235 bp 285 bp340 bp 370 bp430 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 bp530 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 bp230 bp270 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 bp300 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 bp185 bp215 bp | \*07:136, 07:264N\*07:371, 07:494Q\*07:551N, 07:632Q | \*16:16Q, **B\*15:218Q, B\*35:333Q** |
| **66** | 150 bp185 bp225 bp | \*07:136\*07:128, 07:232, 07:513Q, 07:633N\*07:279 | \*12:42Q, **B\*46:07N, B\*46:51Q** |
| **67** | 180 bp215 bp290 bp | \*07:285\*07:393N\*07:456 |  |
| **68** | 75 bp230 bp260 bp290 bp | \*07:381\*07:149\*07:133, 07:242\*07:456 | \*03:178, 03:300 |
| **69** | 135 bp185 bp240 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 bp345 bp405 bp | \*07:131:01-07:131:02, 07:194, 07:368:01-07:368:02\*07:310\*07:61N |  |
| **71** | 105 bp120 bp240 bp280 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 bp245 bp290 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 bp220 bp | \*07:116, 07:329N\*07:544 | \*12:211 |
| **76** | 115 bp280 bp | \*07:437N\*07:102 |  |
| **77** | 200 bp240 bp430 bp485 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 bp265 bp345 bp375 bp | \*07:350N\*07:486\*07:593N\*07:256, 07:497 | \*06:189, **A\*11:232, A\*36:06** |
| **82** | 170 bp220 bp | \*07:288\*07:393N, 07:483N |  |
| **83** | 170 bp215 bp250 bp | \*07:214, 07:429\*07:445, 07:476N\*07:361 |  |
| **84** | 130 bp185 bp225 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 bp275 bp | \*07:83, 07:458\*07:360, 07:582Q |  |
| **86** | 135 bp285 bp | \*07:58, 07:573 \*07:226, 07:582Q |  |
| **87** | 175 bp210 bp275 bp | \*07:339, 07:410\*07:411, 07:507N\*07:340 |  |
| **88** | 150 bp205 bp285 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 bp220 bp | \*07:229, 07:387\*07:272, 07:326, 07:374 | \*04:273w, 12:131\*06:18w, 06:120w |
| **92** | 100 bp170 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 bp200 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.