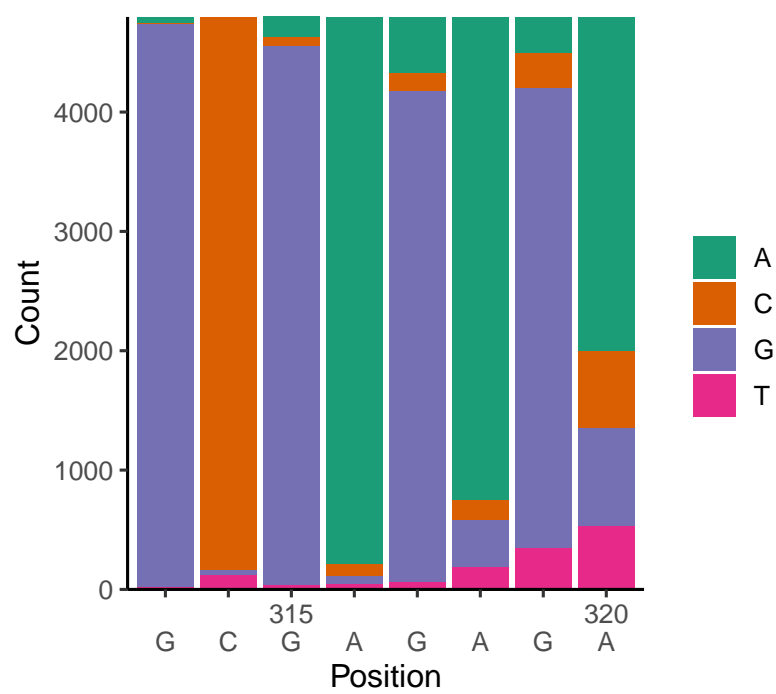


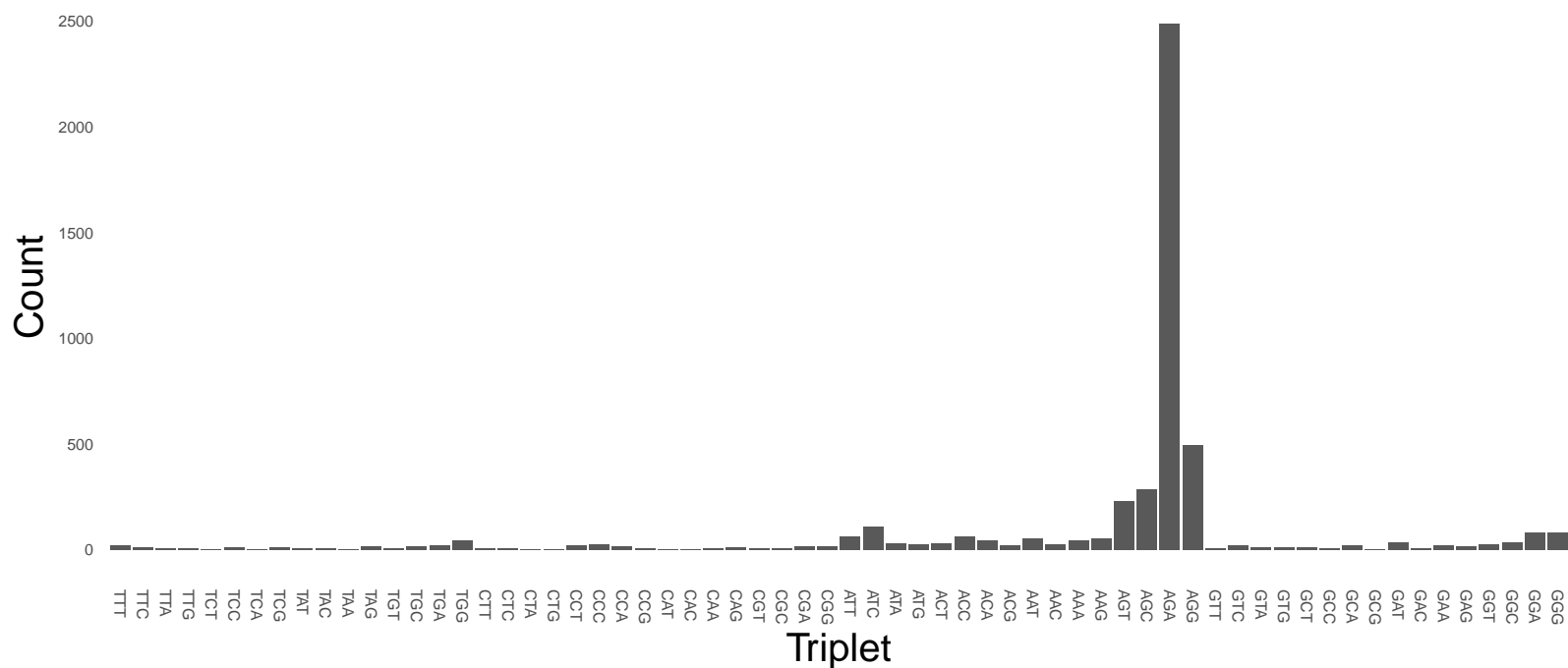
Gene IGHV3-33*01_G75C



Gene IGHV3-33*01_G75C

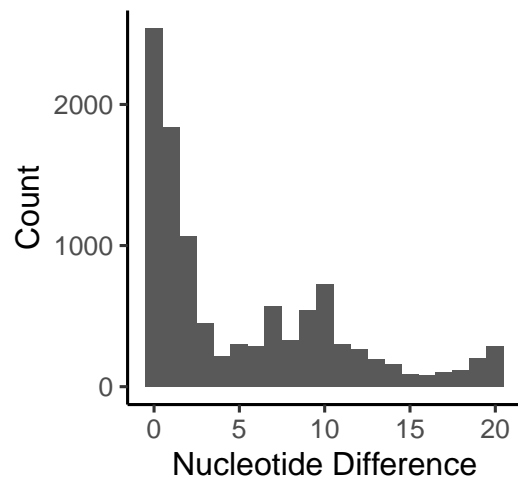


IGHV3-33*01_G75C- Final 3 nucleotides as a triplet



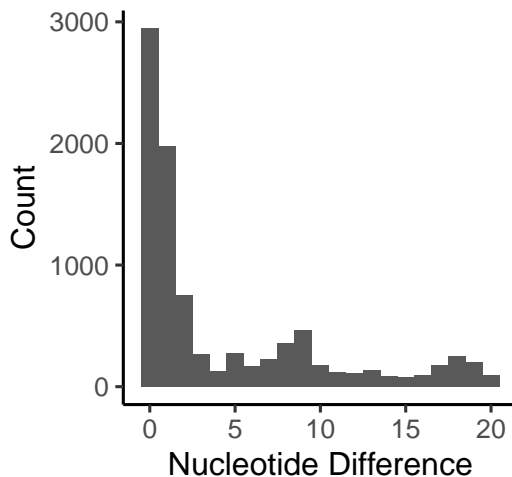
IGHV1-2*02

12139 sequences assigned
2539 (20.9%) exact matches, in which:
2291 unique CDR3
6 unique J



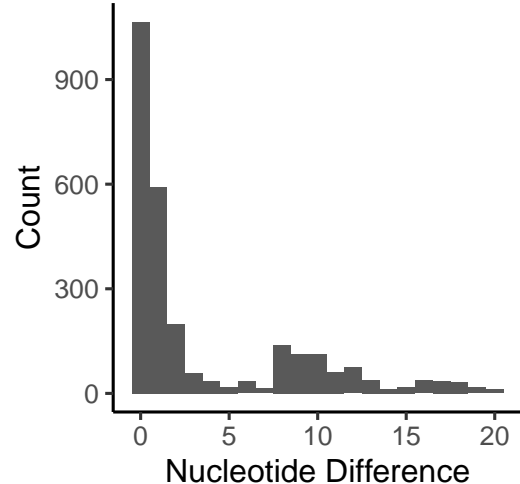
IGHV1-8*01

9726 sequences assigned
2946 (30.3%) exact matches, in which:
2643 unique CDR3
6 unique J



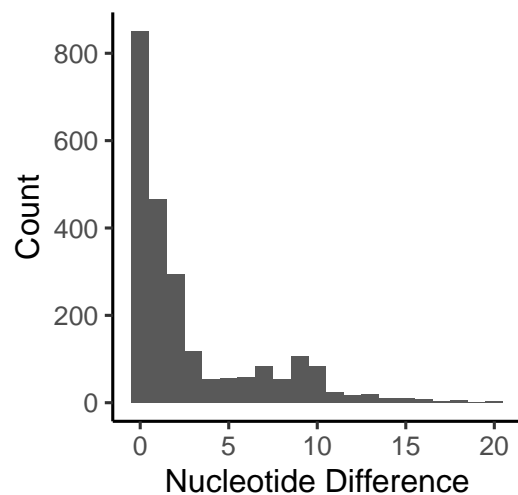
IGHV1-24*01

3079 sequences assigned
1066 (34.6%) exact matches, in which:
967 unique CDR3
6 unique J



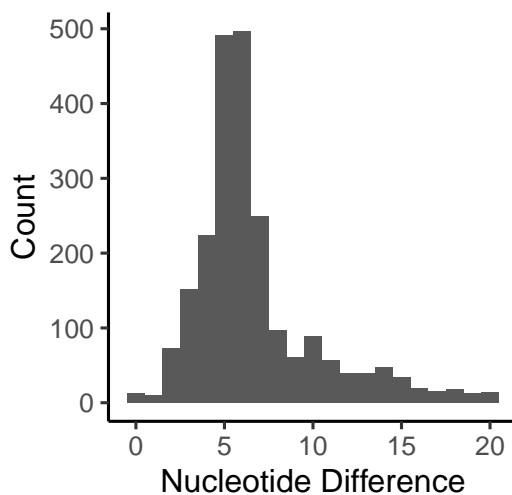
IGHV1-2*04

2340 sequences assigned
851 (36.4%) exact matches, in which:
793 unique CDR3
6 unique J



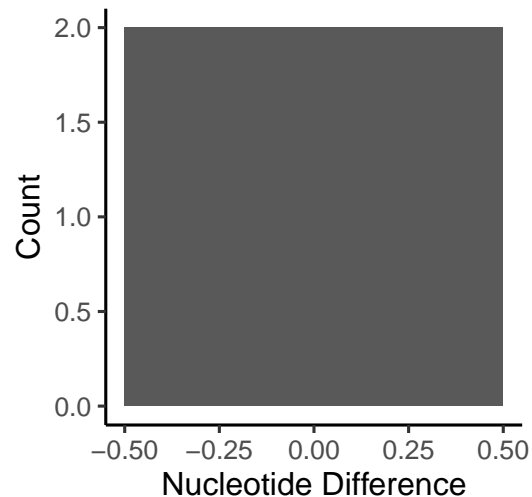
IGHV1-8*02

2449 sequences assigned
13 (0.5%) exact matches, in which:
13 unique CDR3
4 unique J



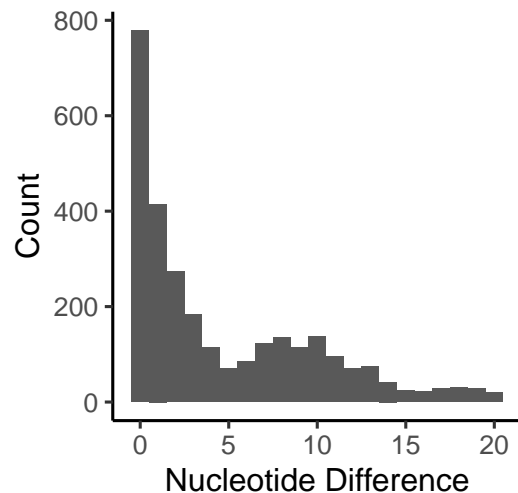
IGHV1-38-4*01

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



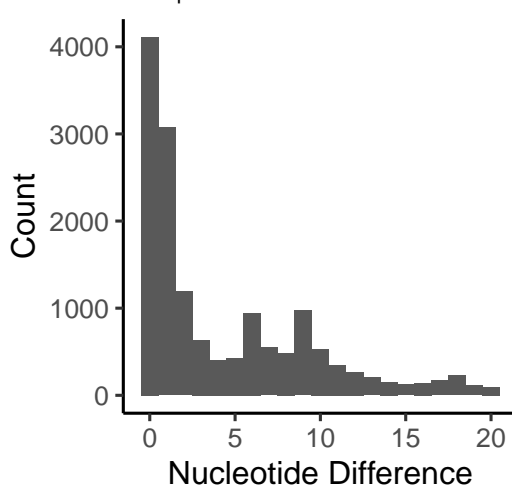
IGHV1-3*01_05

3472 sequences assigned
779 (22.4%) exact matches, in which:
707 unique CDR3
6 unique J



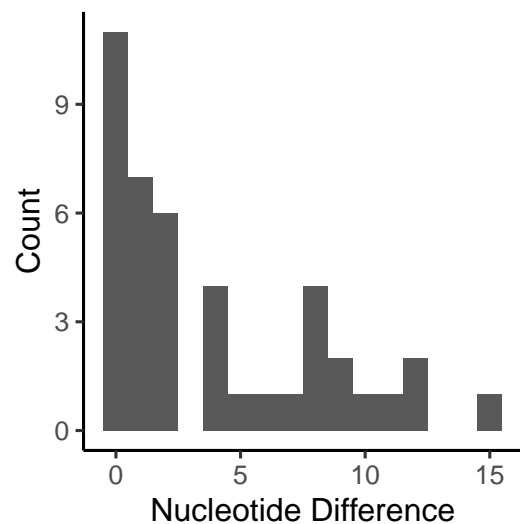
IGHV1-18*01

17034 sequences assigned
4112 (24.1%) exact matches, in which:
3620 unique CDR3
6 unique J



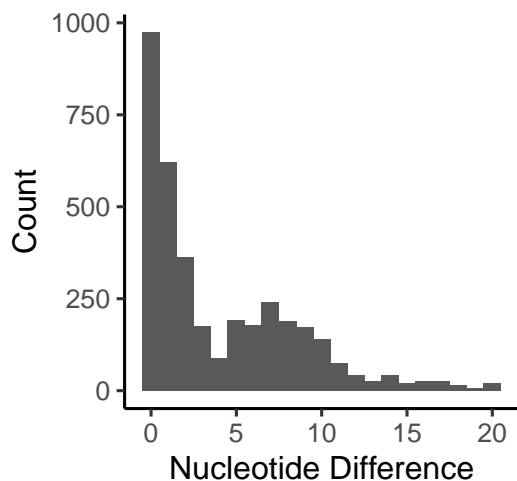
IGHV1-45*02

44 sequences assigned
11 (25%) exact matches, in which:
11 unique CDR3
4 unique J



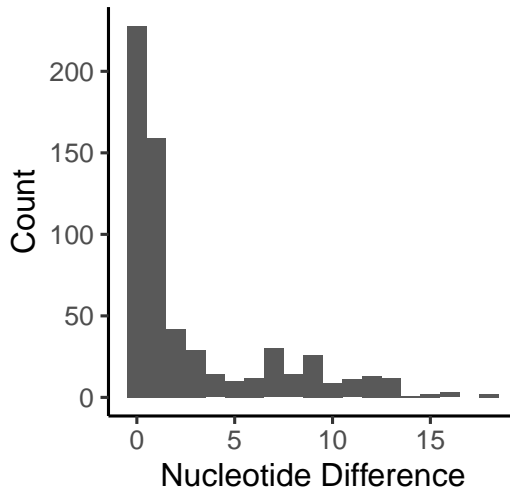
IGHV1-46*01

3919 sequences assigned
974 (24.9%) exact matches, in which:
904 unique CDR3
6 unique J



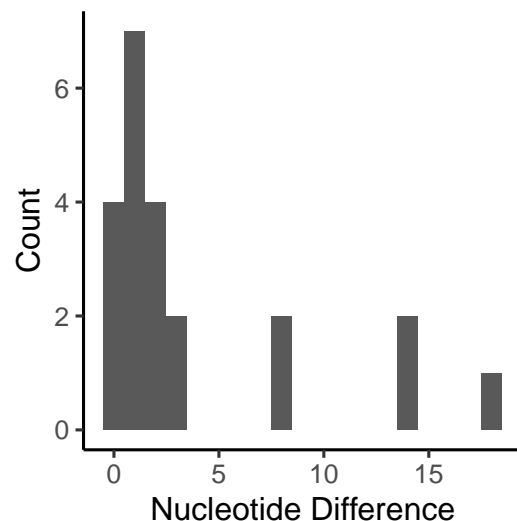
IGHV1-58*01_03

667 sequences assigned
228 (34.2%) exact matches, in which:
209 unique CDR3
6 unique J



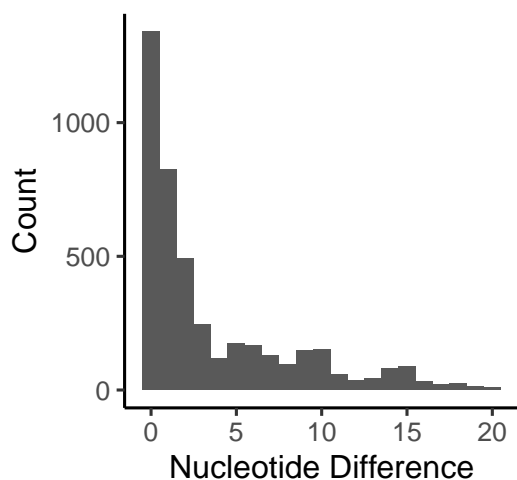
IGHV1-69D*01

22 sequences assigned
4 (18.2%) exact matches, in which:
4 unique CDR3
3 unique J



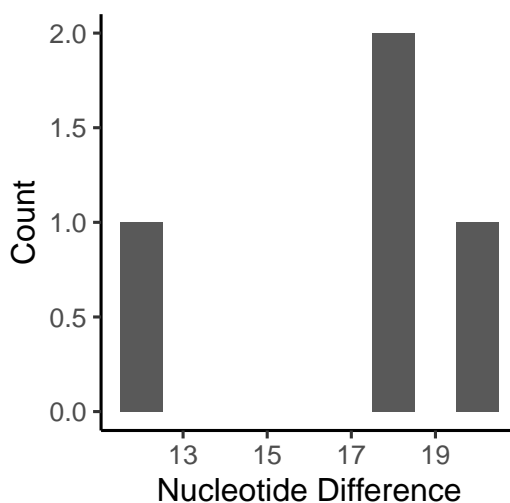
IGHV1-46*04

4523 sequences assigned
1340 (29.6%) exact matches, in which:
1233 unique CDR3
6 unique J



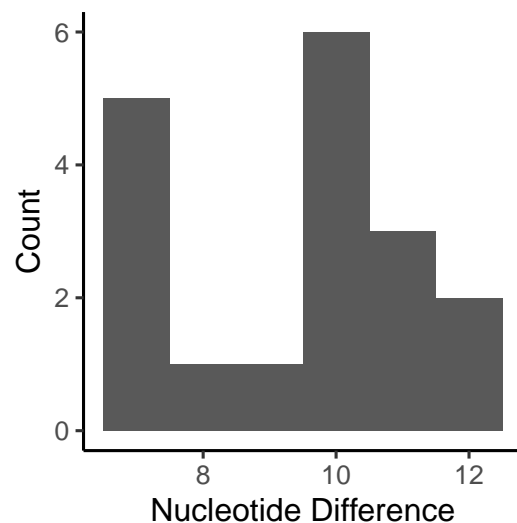
IGHV1-69-2*01

4 sequences assigned
No exact matches.



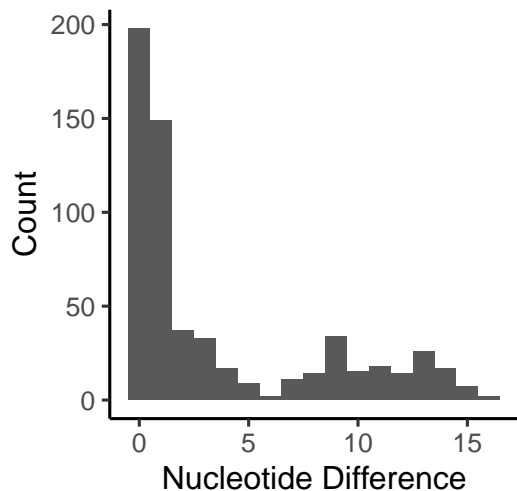
IGHV1-NL1*01

18 sequences assigned
No exact matches.



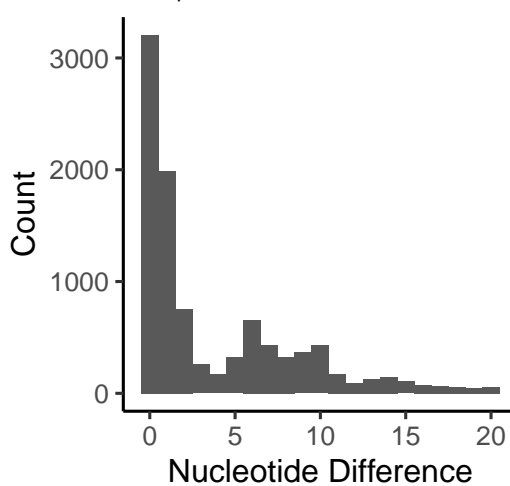
IGHV1-58*02

607 sequences assigned
198 (32.6%) exact matches, in which:
178 unique CDR3
6 unique J



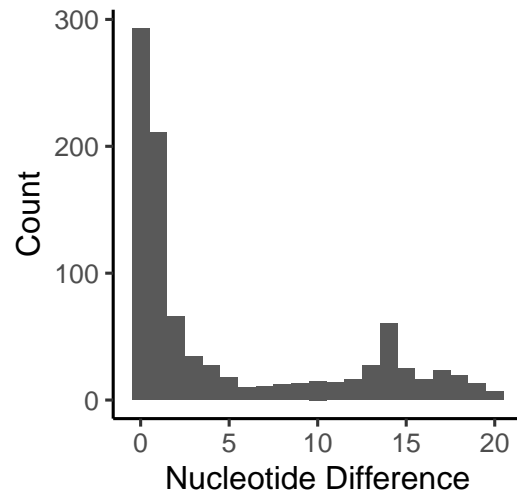
IGHV1-69*04_09

10702 sequences assigned
3205 (29.9%) exact matches, in which:
2916 unique CDR3
6 unique J



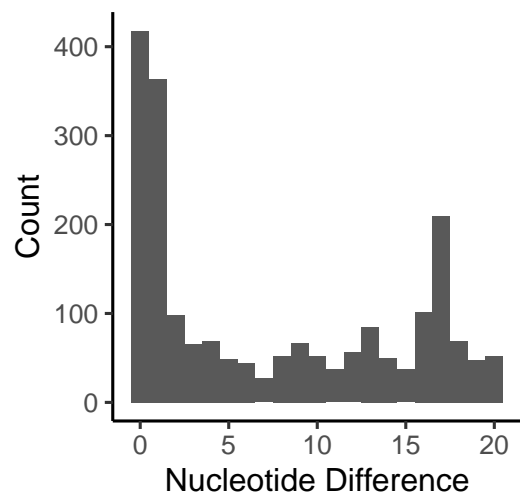
IGHV2-5*01

1267 sequences assigned
293 (23.1%) exact matches, in which:
265 unique CDR3
6 unique J



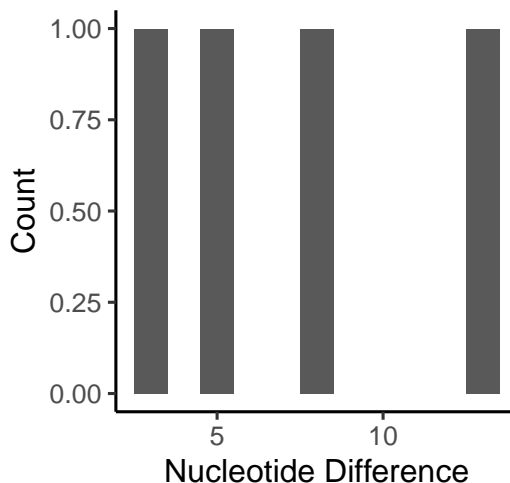
IGHV2-5*02

2400 sequences assigned
418 (17.4%) exact matches, in which:
380 unique CDR3
6 unique J



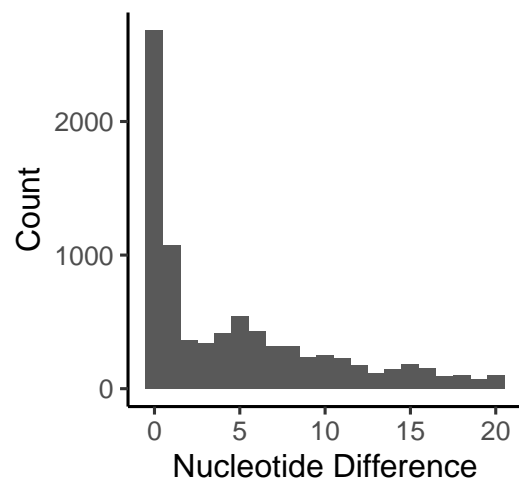
IGHV2-70D*04

5 sequences assigned
No exact matches.



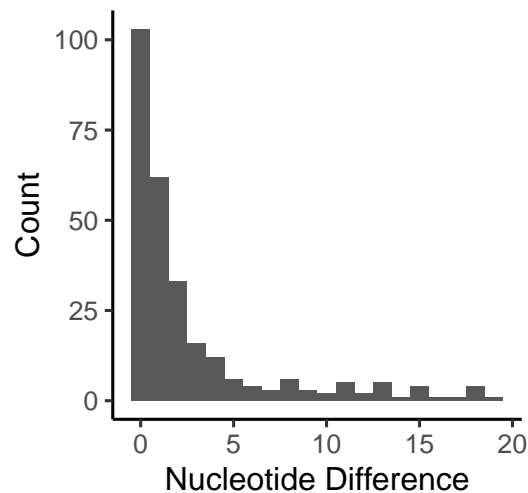
IGHV3-9*01

9359 sequences assigned
2682 (28.7%) exact matches, in which:
1781 unique CDR3
6 unique J



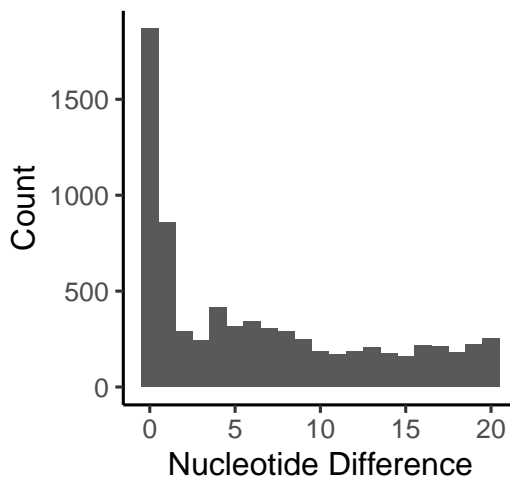
IGHV2-26*01

290 sequences assigned
103 (35.5%) exact matches, in which:
92 unique CDR3
6 unique J



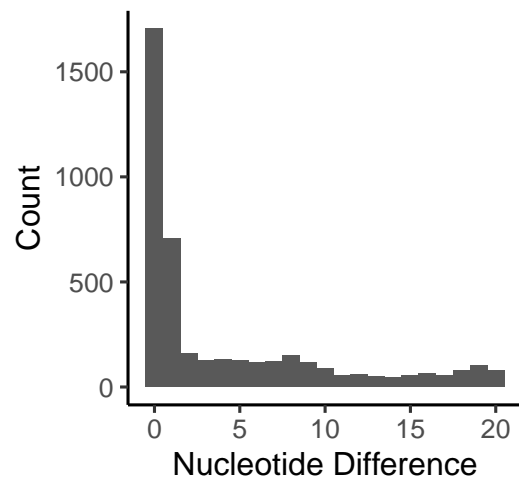
IGHV3-7*01

10726 sequences assigned
1868 (17.4%) exact matches, in which:
1385 unique CDR3
6 unique J



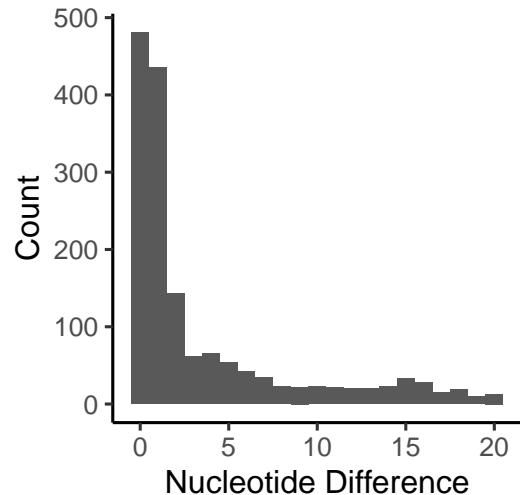
IGHV3-11*01

5128 sequences assigned
1705 (33.2%) exact matches, in which:
1242 unique CDR3
6 unique J



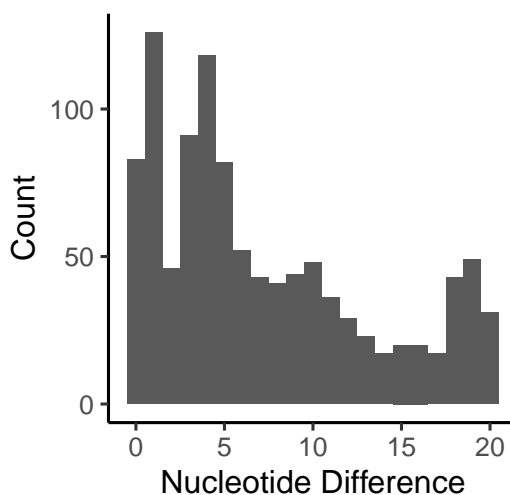
IGHV2-70*11_15

5083 sequences assigned
481 (9.5%) exact matches, in which:
414 unique CDR3
6 unique J



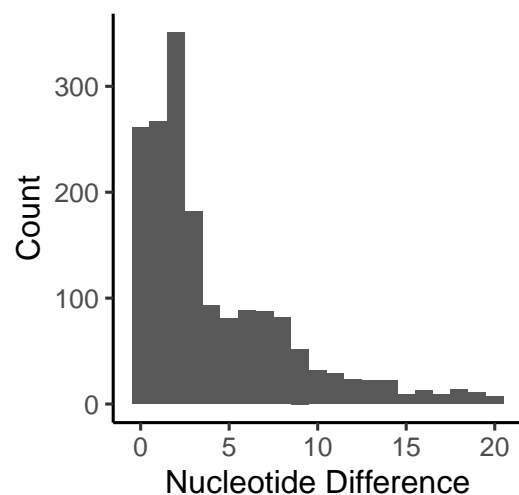
IGHV3-7*03

1313 sequences assigned
83 (6.3%) exact matches, in which:
80 unique CDR3
6 unique J



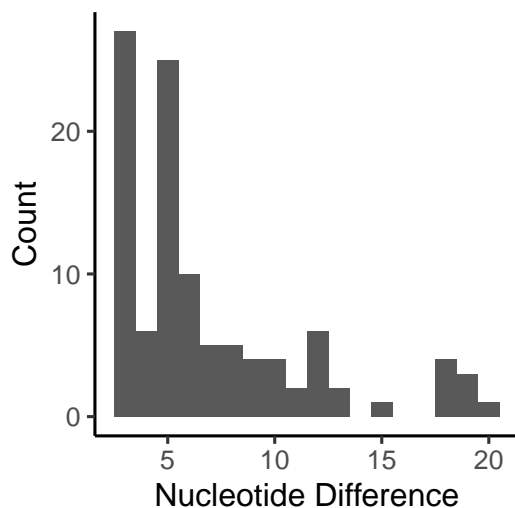
IGHV3-11*04

1826 sequences assigned
261 (14.3%) exact matches, in which:
256 unique CDR3
6 unique J



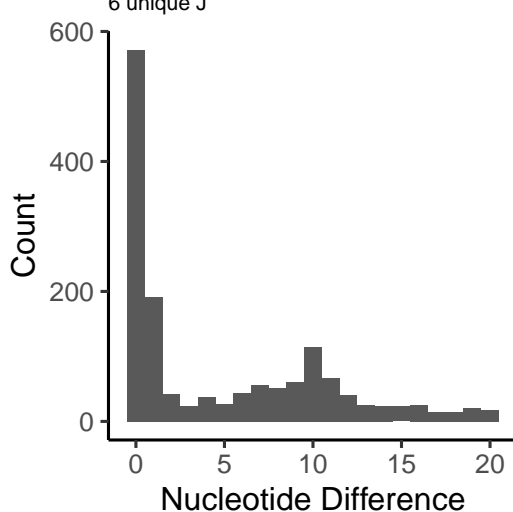
IGHV3-11*06

127 sequences assigned
No exact matches.



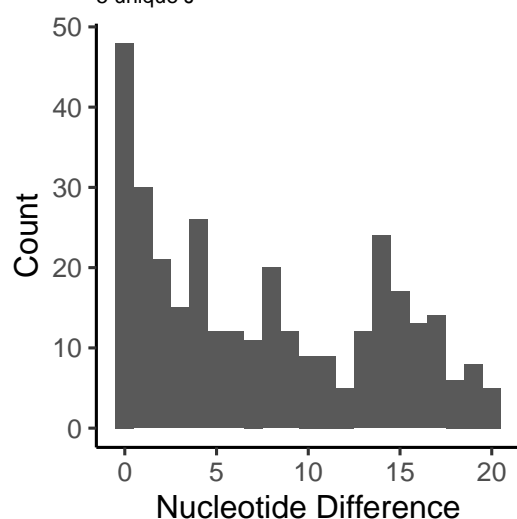
IGHV3-15*01_02

1897 sequences assigned
572 (30.2%) exact matches, in which:
429 unique CDR3
6 unique J



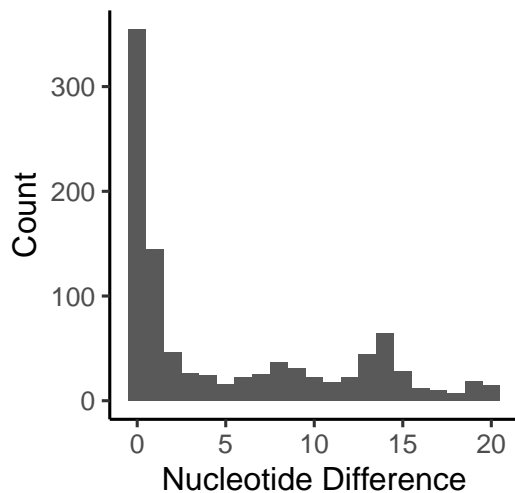
IGHV3-20*03_04

455 sequences assigned
48 (10.5%) exact matches, in which:
35 unique CDR3
5 unique J



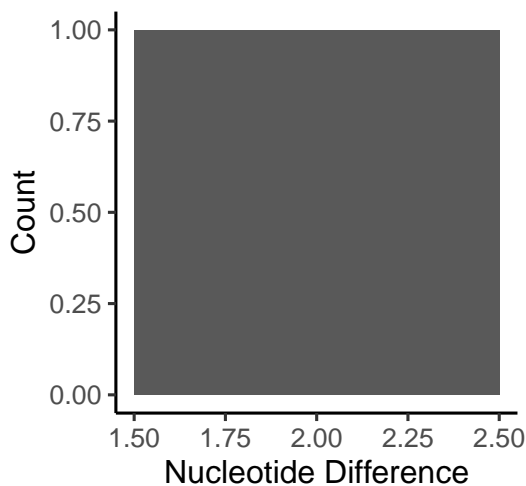
IGHV3-13*01

1099 sequences assigned
355 (32.3%) exact matches, in which:
249 unique CDR3
6 unique J



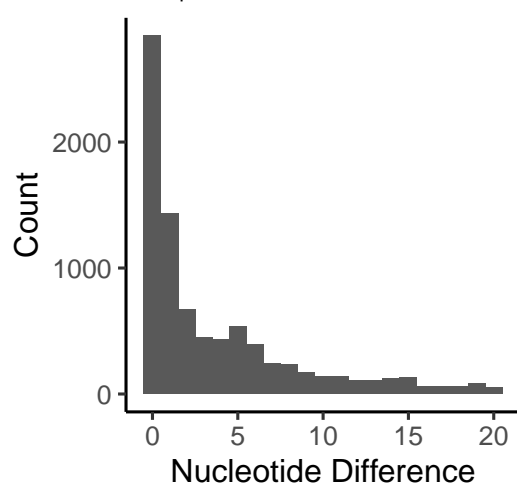
IGHV3-19*01

1 sequences assigned
No exact matches.



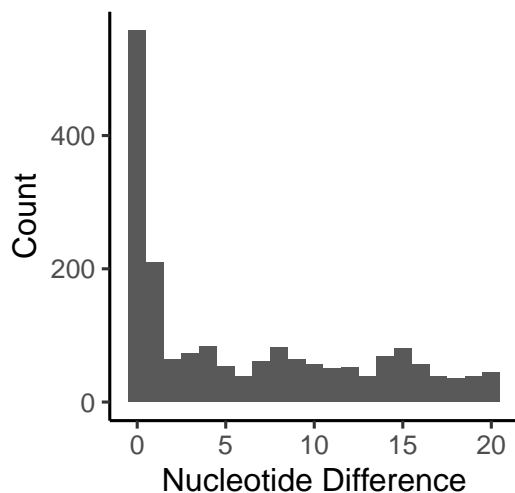
IGHV3-21*01_02

9917 sequences assigned
2844 (28.7%) exact matches, in which:
2034 unique CDR3
6 unique J



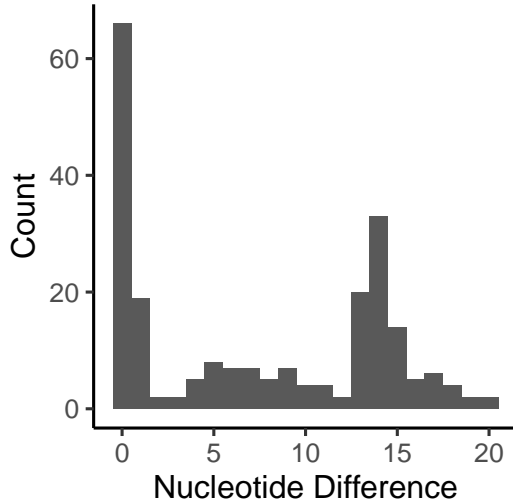
IGHV3-15*07

2717 sequences assigned
558 (20.5%) exact matches, in which:
441 unique CDR3
5 unique J



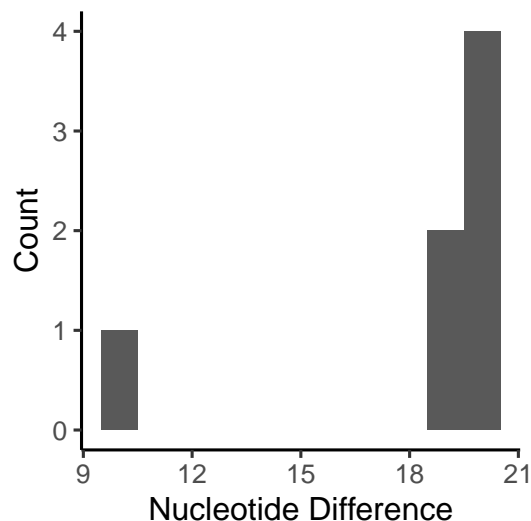
IGHV3-20*01_02

241 sequences assigned
66 (27.4%) exact matches, in which:
41 unique CDR3
5 unique J



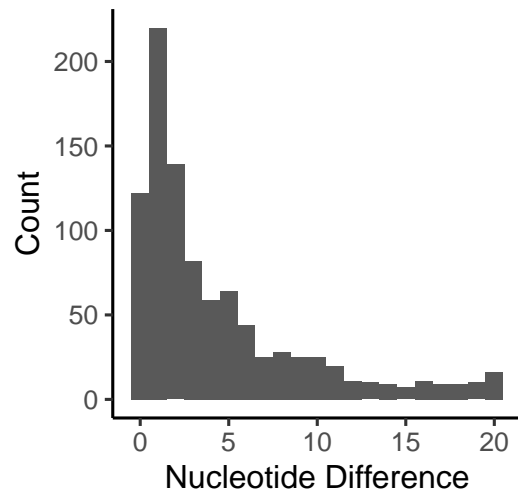
IGHV3-22*01_02

8 sequences assigned
No exact matches.



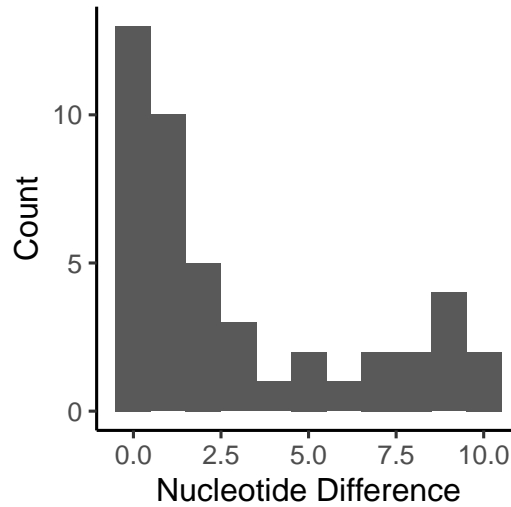
IGHV3–30*03

1198 sequences assigned
122 (10.2%) exact matches, in which:
119 unique CDR3
5 unique J



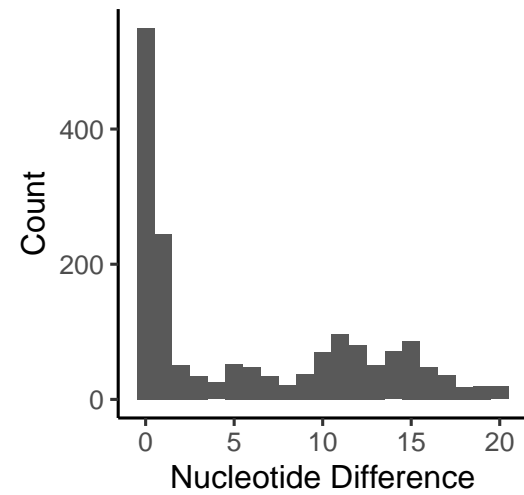
IGHV3–38–3*01

45 sequences assigned
13 (28.9%) exact matches, in which:
10 unique CDR3
3 unique J



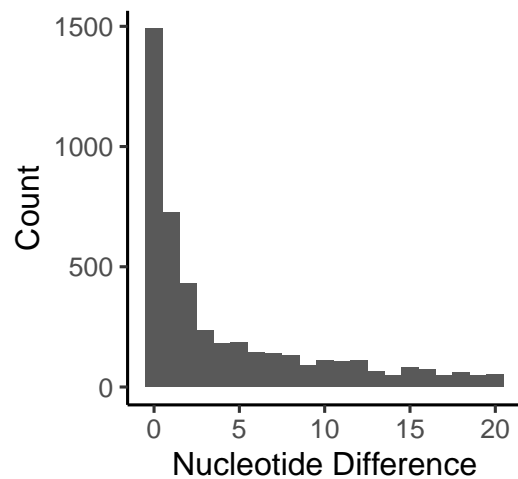
IGHV3–43*02

2131 sequences assigned
550 (25.8%) exact matches, in which:
377 unique CDR3
6 unique J



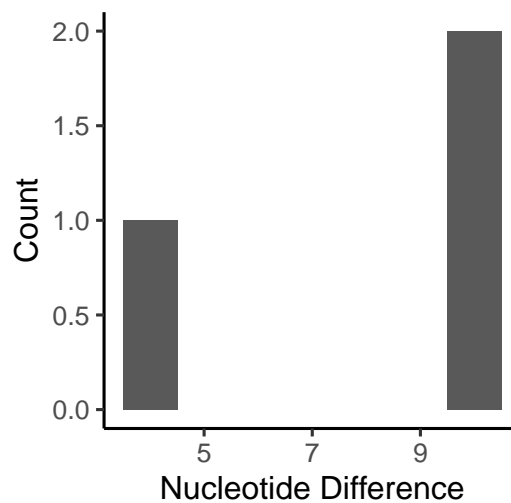
IGHV3–33*01_G75C

4797 sequences assigned
1490 (31.1%) exact matches, in which:
1149 unique CDR3
6 unique J



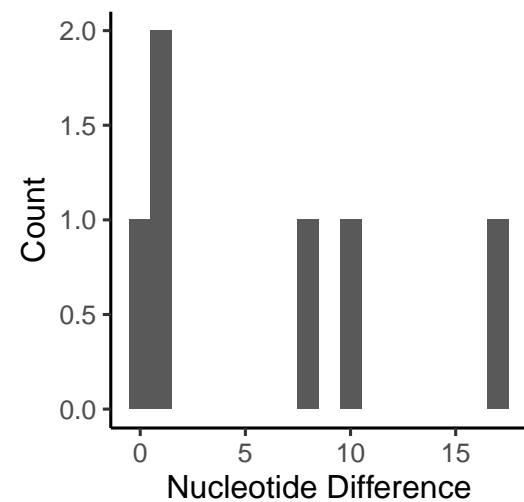
IGHV3–38*03

3 sequences assigned
No exact matches.



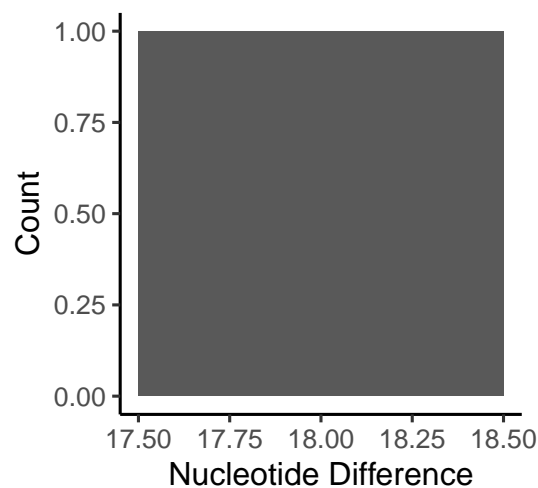
IGHV3–47*02

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



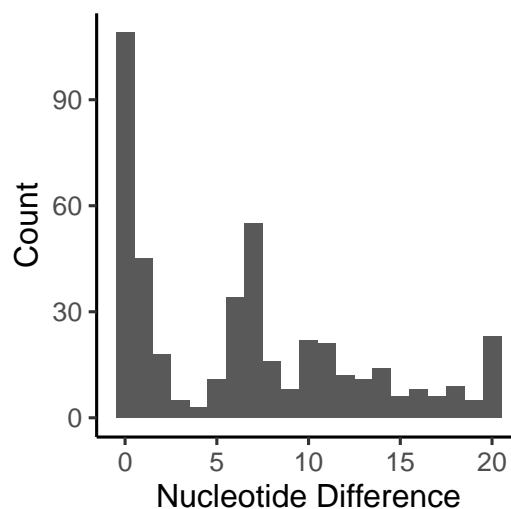
IGHV3–35*01

1 sequences assigned
No exact matches.



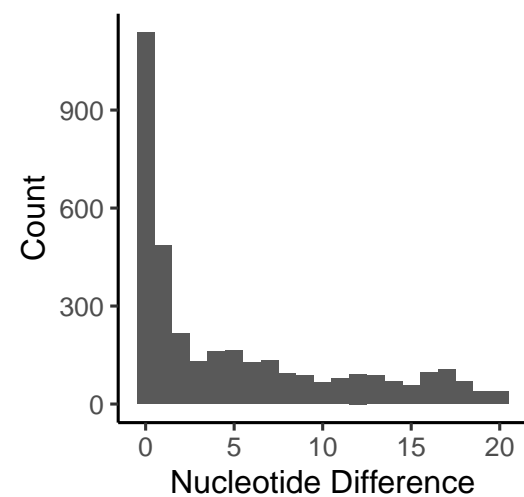
IGHV3–43*01

551 sequences assigned
109 (19.8%) exact matches, in which:
79 unique CDR3
6 unique J



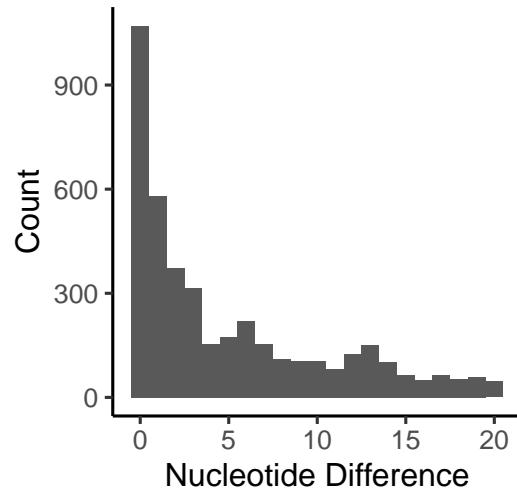
IGHV3–48*01

4152 sequences assigned
1138 (27.4%) exact matches, in which:
825 unique CDR3
6 unique J



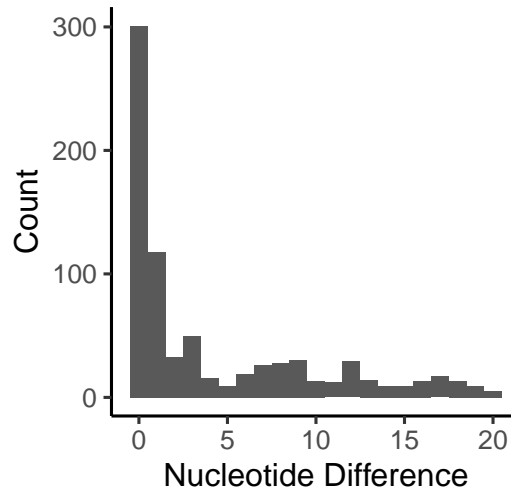
IGHV3-48*03

4891 sequences assigned
1071 (21.9%) exact matches, in which:
767 unique CDR3
6 unique J



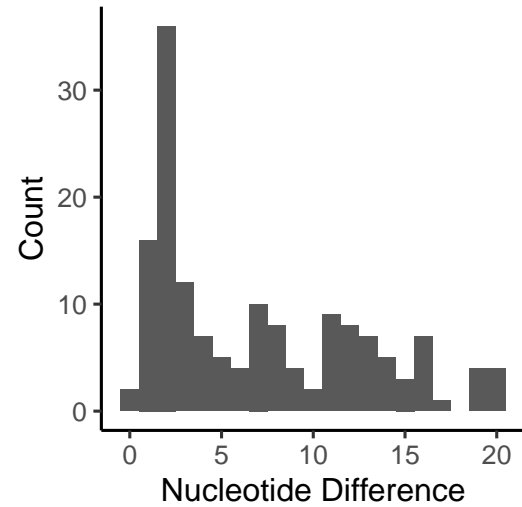
IGHV3-49*03_05

933 sequences assigned
301 (32.3%) exact matches, in which:
232 unique CDR3
6 unique J



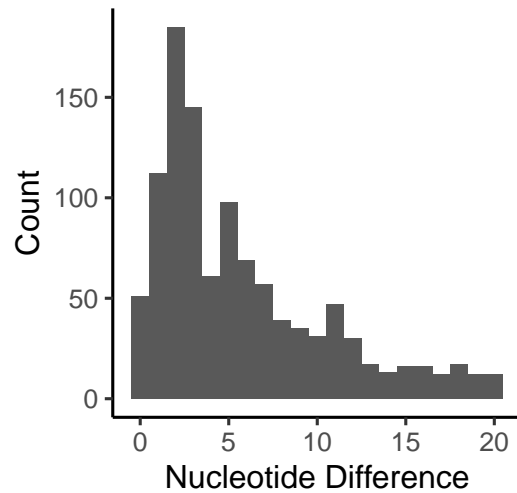
IGHV3-53*05

179 sequences assigned
2 (1.1%) exact matches, in which:
2 unique CDR3
2 unique J



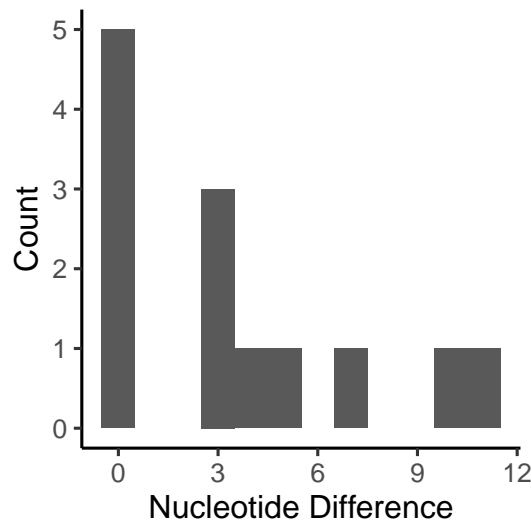
IGHV3-48*04

1185 sequences assigned
51 (4.3%) exact matches, in which:
50 unique CDR3
6 unique J



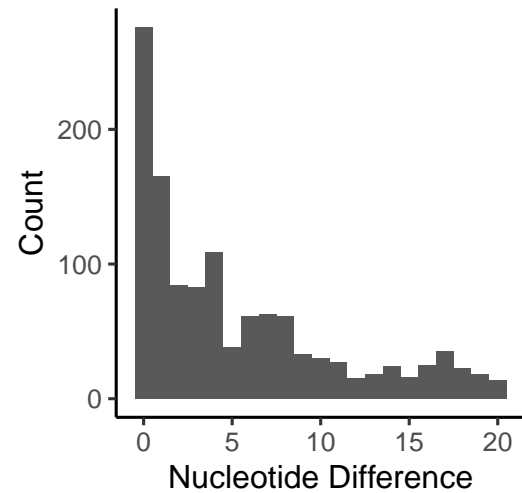
IGHV3-52*01_03

13 sequences assigned
5 (38.5%) exact matches, in which:
5 unique CDR3
2 unique J



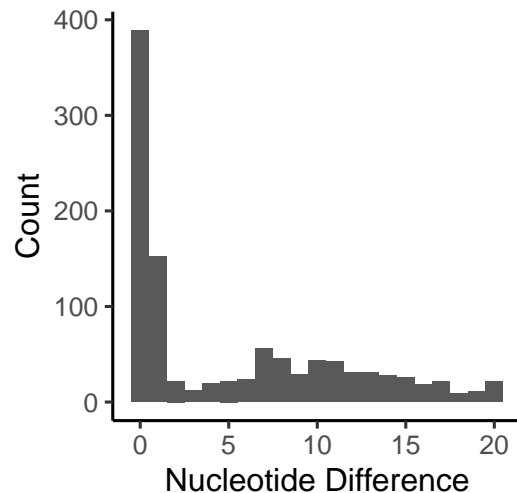
IGHV3-53*01_02

1481 sequences assigned
276 (18.6%) exact matches, in which:
200 unique CDR3
6 unique J



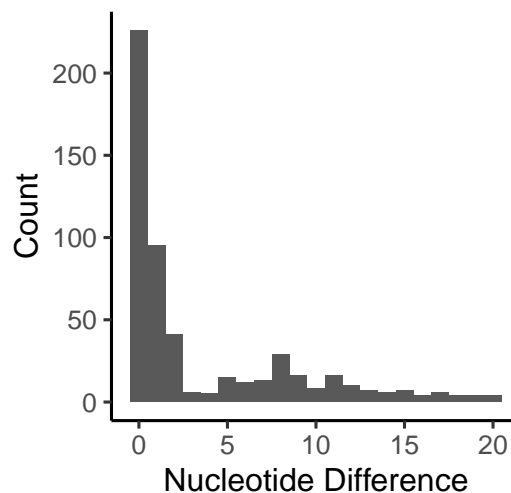
IGHV3-49*04

1291 sequences assigned
389 (30.1%) exact matches, in which:
284 unique CDR3
6 unique J



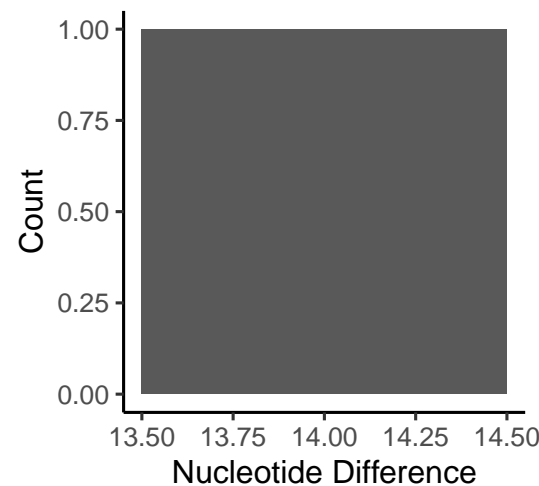
IGHV3-53*04

555 sequences assigned
226 (40.7%) exact matches, in which:
163 unique CDR3
6 unique J



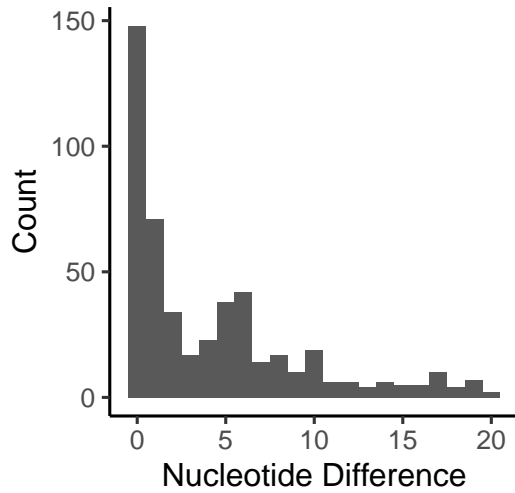
IGHV3-62*04

1 sequences assigned
No exact matches.



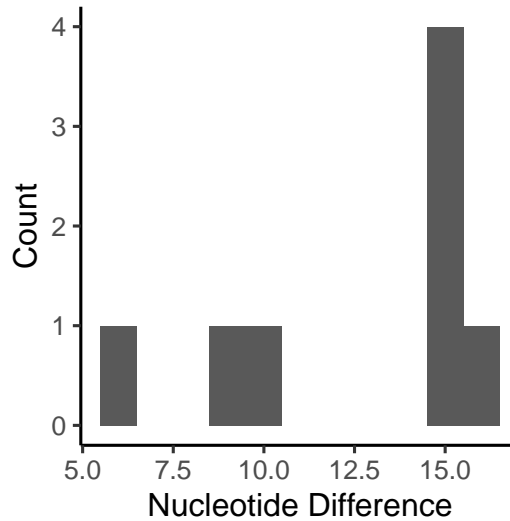
IGHV3-64*01

542 sequences assigned
148 (27.3%) exact matches, in which:
106 unique CDR3
6 unique J



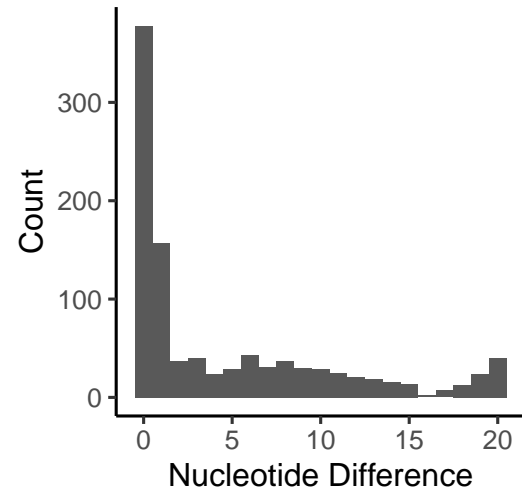
IGHV3-69-1*02

22 sequences assigned
No exact matches.



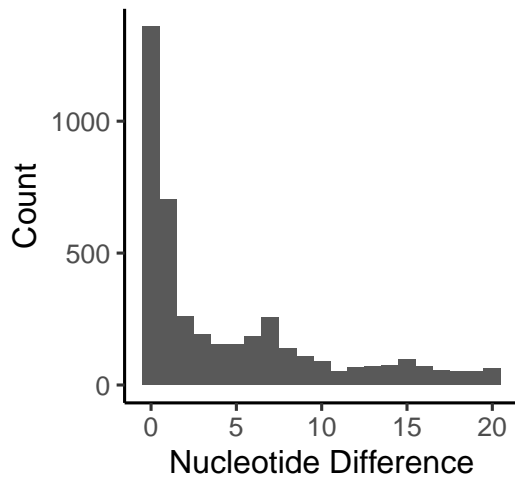
IGHV3-73*01_02

1149 sequences assigned
378 (32.9%) exact matches, in which:
274 unique CDR3
6 unique J



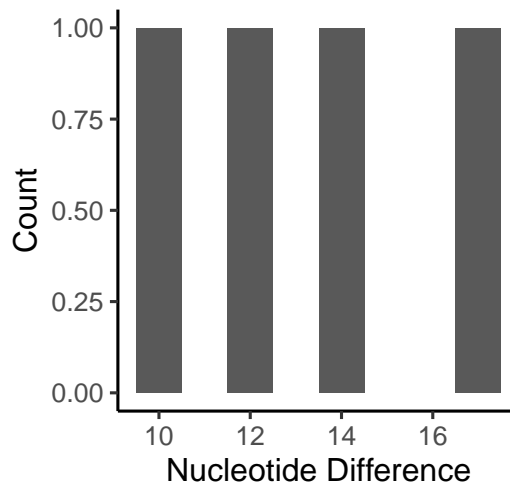
IGHV3-66*01

4911 sequences assigned
1358 (27.7%) exact matches, in which:
982 unique CDR3
6 unique J



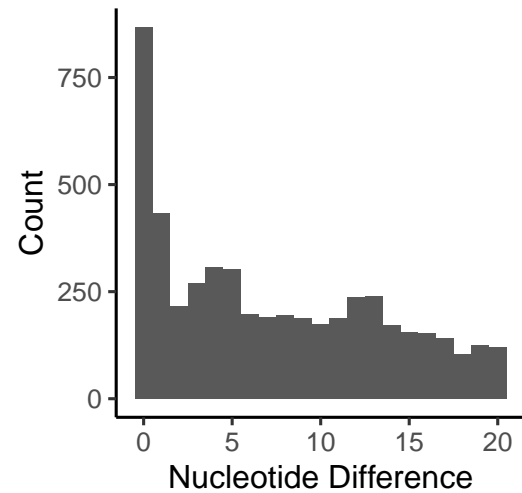
IGHV3-71*01_04

4 sequences assigned
No exact matches.



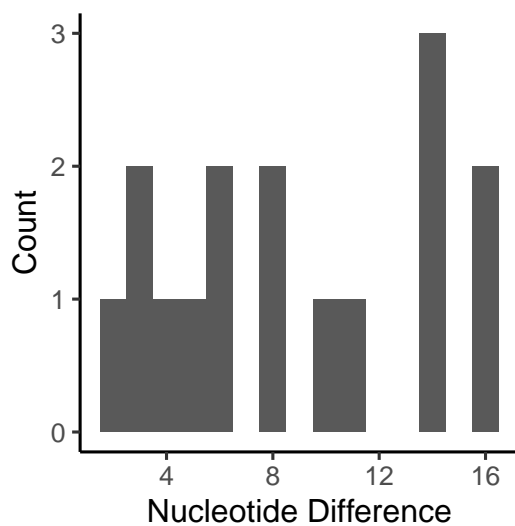
IGHV3-74*01_02

6477 sequences assigned
868 (13.4%) exact matches, in which:
623 unique CDR3
6 unique J



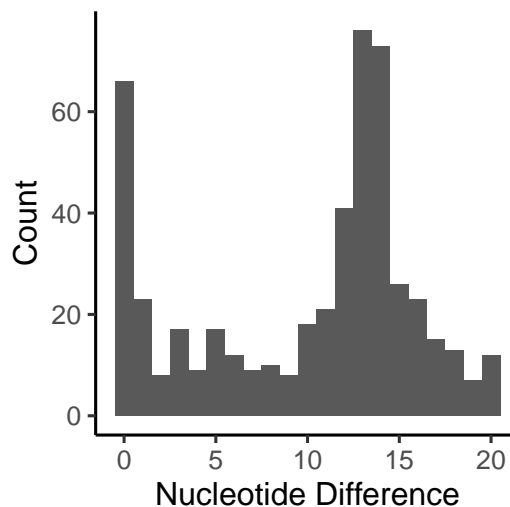
IGHV3-69-1*01

36 sequences assigned
No exact matches.



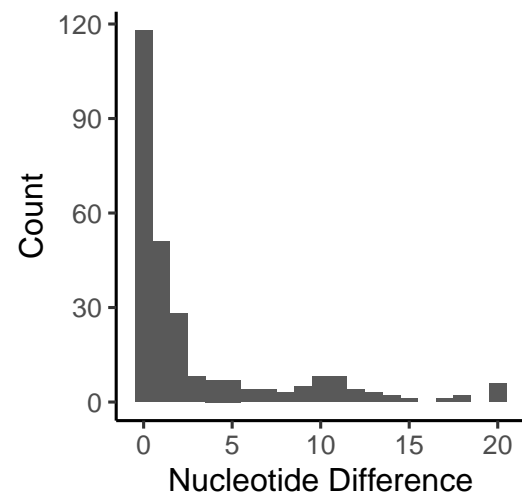
IGHV3-72*01

645 sequences assigned
66 (10.2%) exact matches, in which:
49 unique CDR3
6 unique J



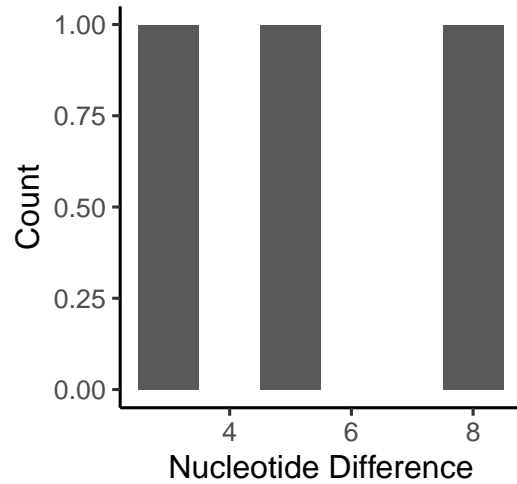
IGHV3-43D*03

295 sequences assigned
118 (40%) exact matches, in which:
84 unique CDR3
6 unique J



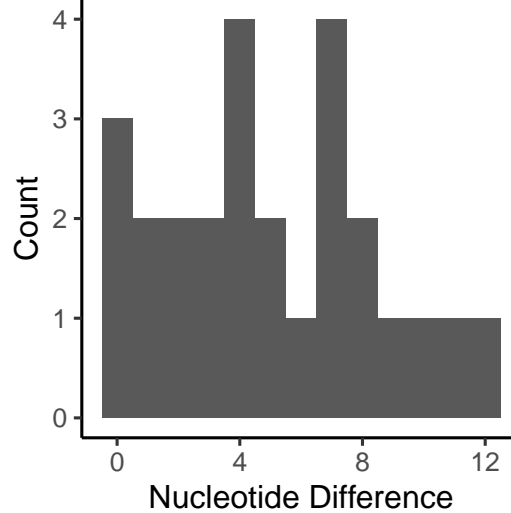
IGHV3-64D*06

4 sequences assigned
No exact matches.



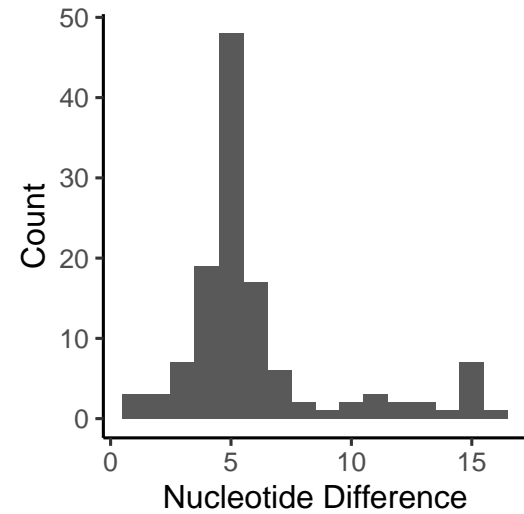
IGHV4-28*03

26 sequences assigned
3 (11.5%) exact matches, in which:
3 unique CDR3
3 unique J



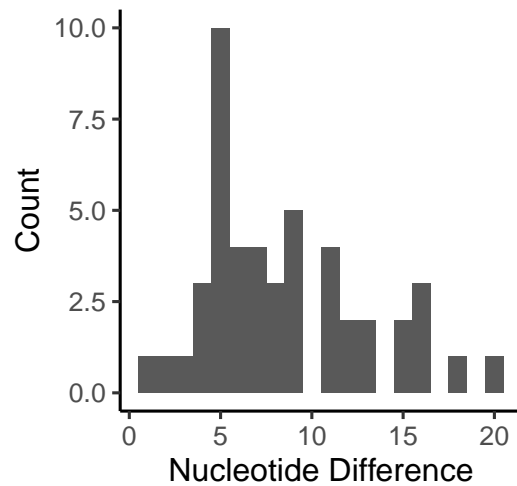
IGHV4-30-2*03

135 sequences assigned
No exact matches.



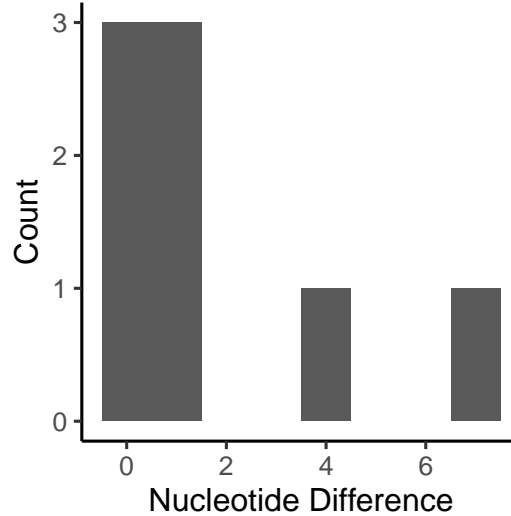
IGHV3-NL1*01

60 sequences assigned
No exact matches.



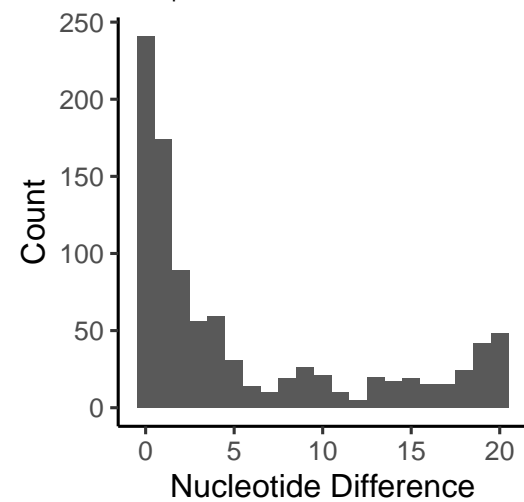
IGHV4-28*01_07

8 sequences assigned
3 (37.5%) exact matches, in which:
2 unique CDR3
2 unique J



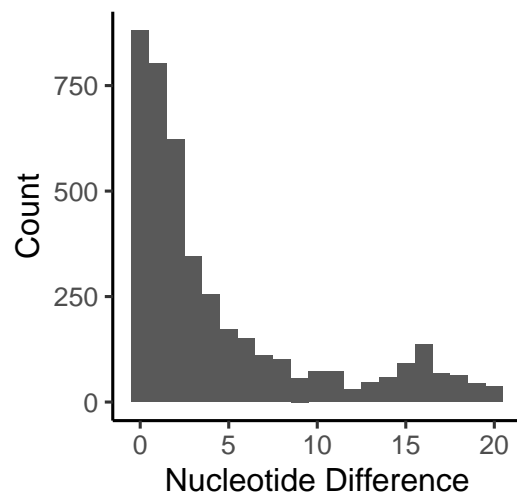
IGHV4-30-4*07

1167 sequences assigned
241 (20.7%) exact matches, in which:
216 unique CDR3
6 unique J



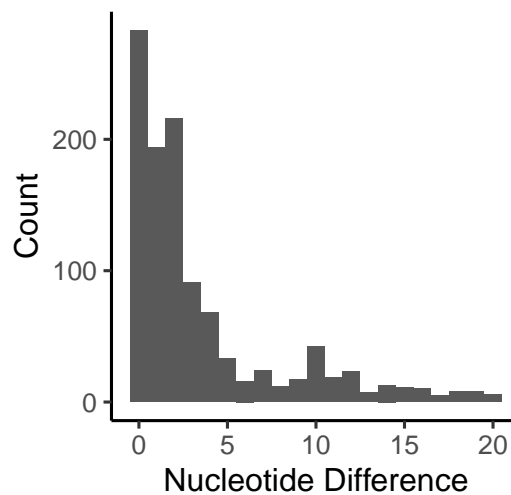
IGHV4-4*07

4760 sequences assigned
881 (18.5%) exact matches, in which:
758 unique CDR3
6 unique J



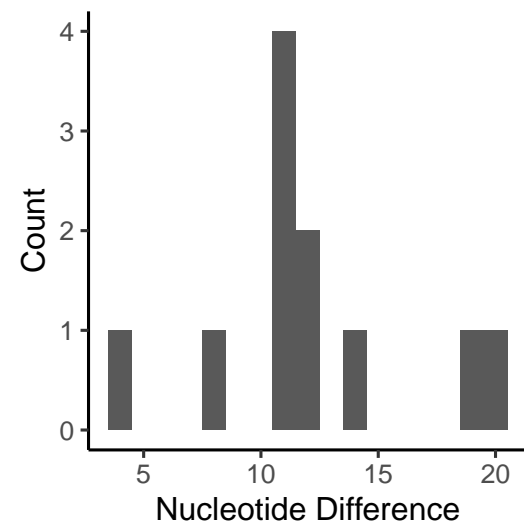
IGHV4-30-2*01

1190 sequences assigned
283 (23.8%) exact matches, in which:
229 unique CDR3
5 unique J



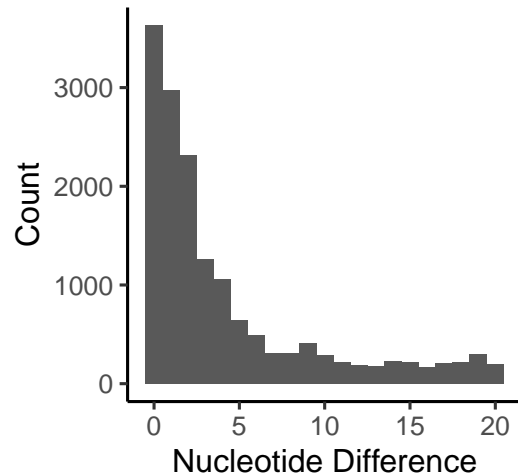
IGHV4-31*03_04

13 sequences assigned
No exact matches.



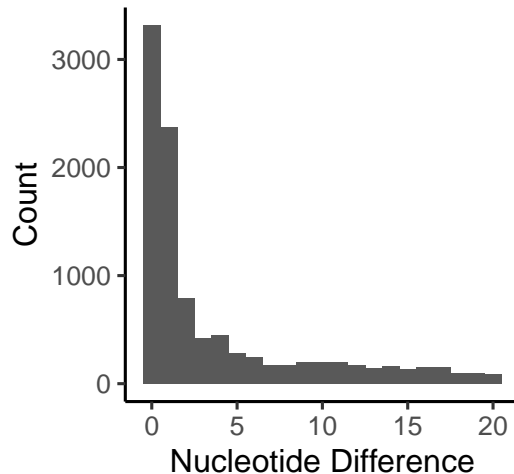
IGHV4-34*01_02

18882 sequences assigned
3630 (19.2%) exact matches, in which:
3044 unique CDR3
6 unique J



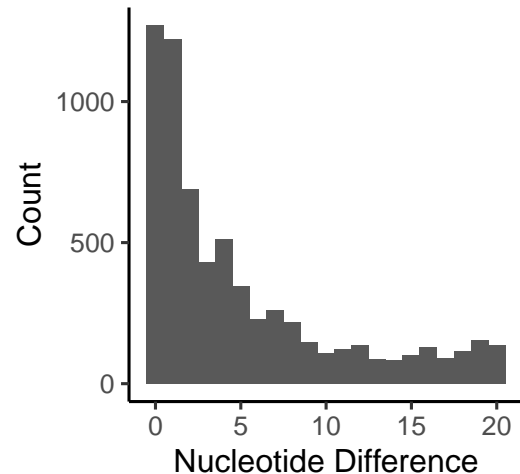
IGHV4-39*01_05

11585 sequences assigned
3315 (28.6%) exact matches, in which:
2767 unique CDR3
6 unique J



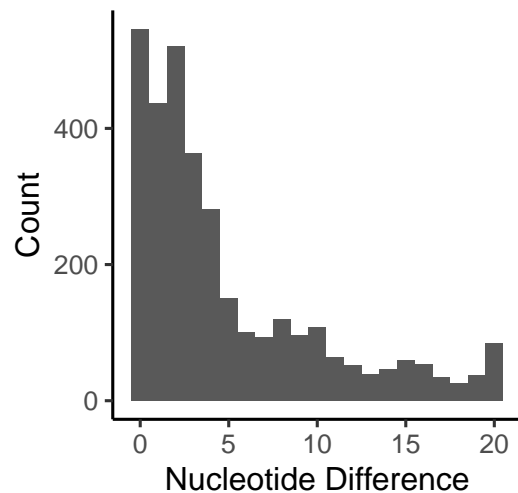
IGHV4-59*08

8425 sequences assigned
1270 (15.1%) exact matches, in which:
1101 unique CDR3
6 unique J



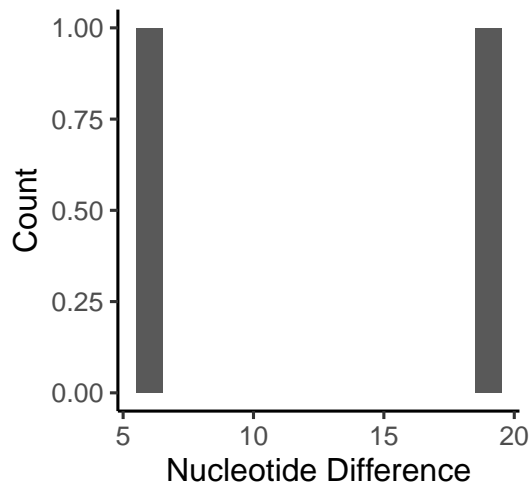
IGHV4-38-2*02

3983 sequences assigned
546 (13.7%) exact matches, in which:
504 unique CDR3
6 unique J



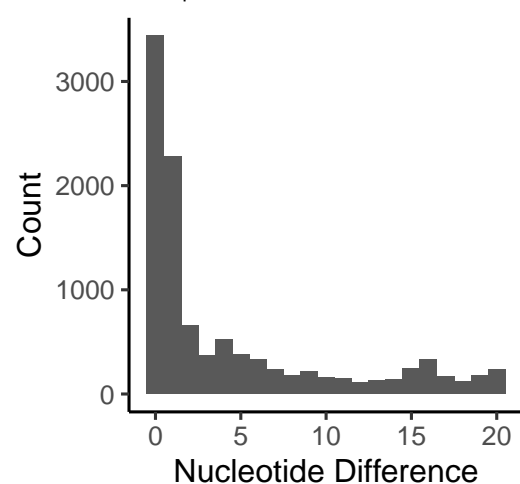
IGHV4-55*09

5 sequences assigned
No exact matches.



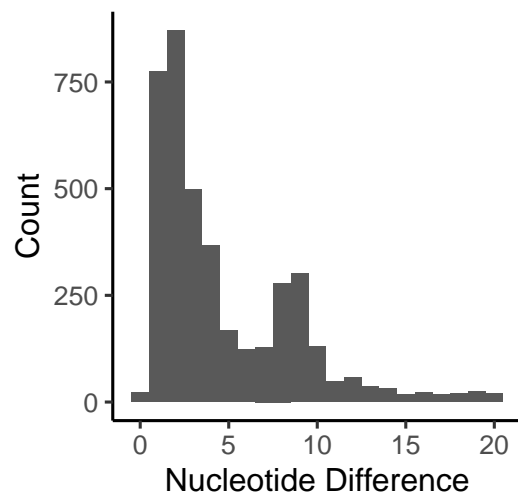
IGHV4-59*01_07

20798 sequences assigned
3439 (16.5%) exact matches, in which:
3047 unique CDR3
6 unique J



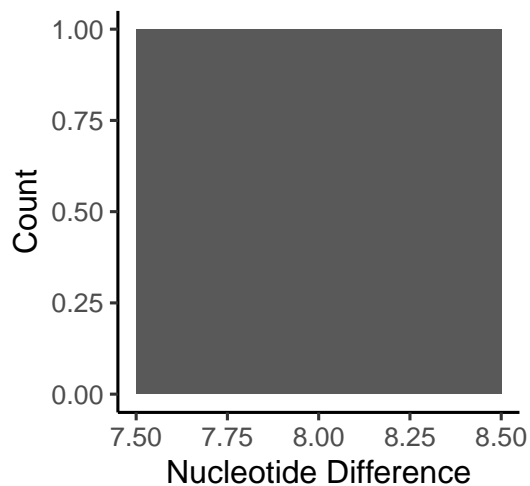
IGHV4-39*07

4141 sequences assigned
22 (0.5%) exact matches, in which:
22 unique CDR3
4 unique J



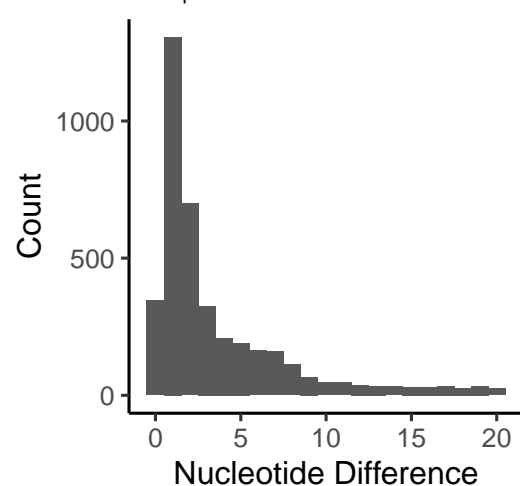
IGHV4-55*02_04_08

1 sequences assigned
No exact matches.



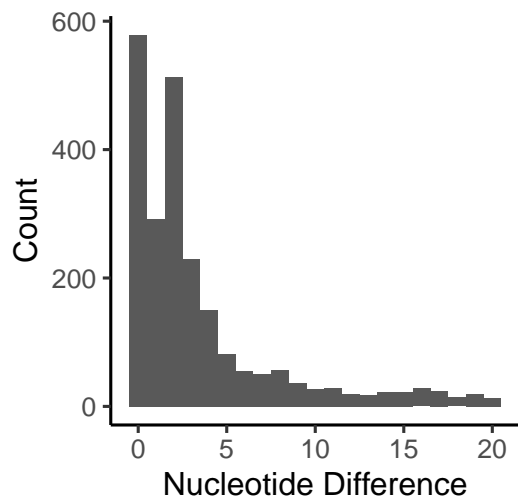
IGHV4-59*12

4675 sequences assigned
345 (7.4%) exact matches, in which:
338 unique CDR3
6 unique J



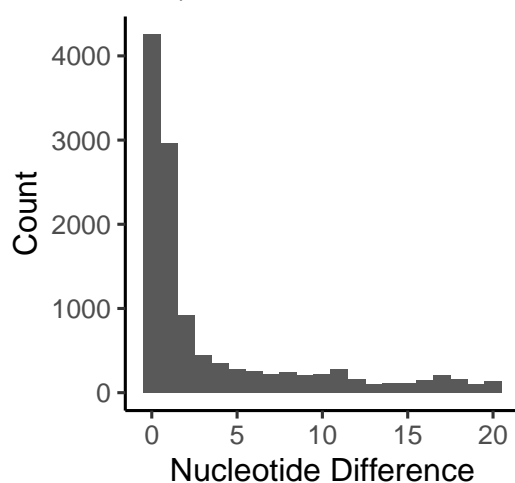
IGHV4-61*01

2666 sequences assigned
579 (21.7%) exact matches, in which:
547 unique CDR3
6 unique J



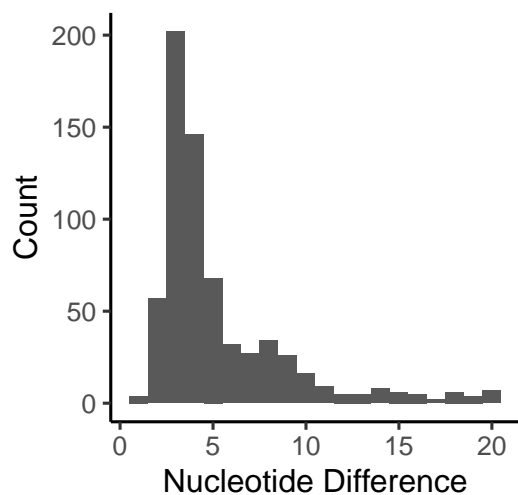
IGHV5-51*01_03

12790 sequences assigned
4255 (33.3%) exact matches, in which:
2434 unique CDR3
6 unique J



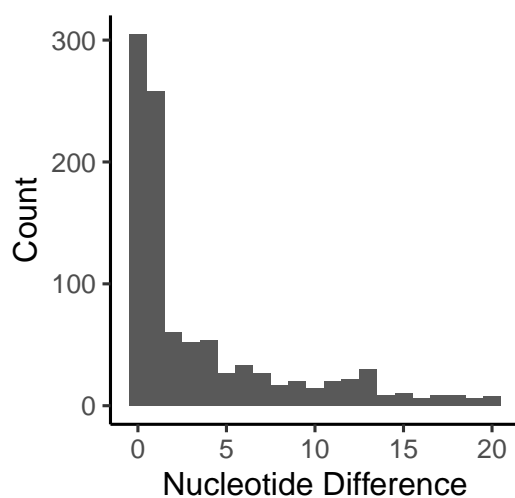
IGHV4-61*05

898 sequences assigned
No exact matches.



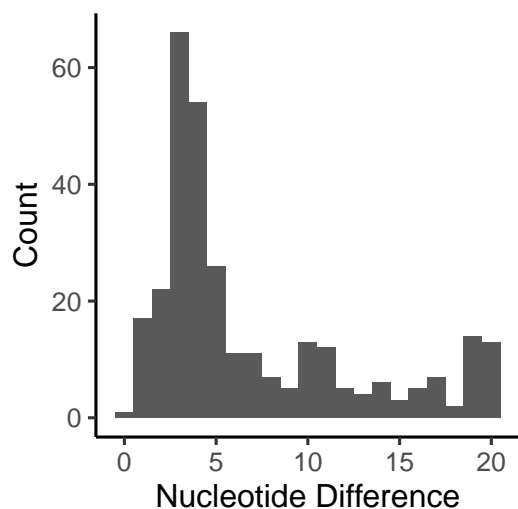
IGHV6-1*01_02

1206 sequences assigned
305 (25.3%) exact matches, in which:
272 unique CDR3
6 unique J



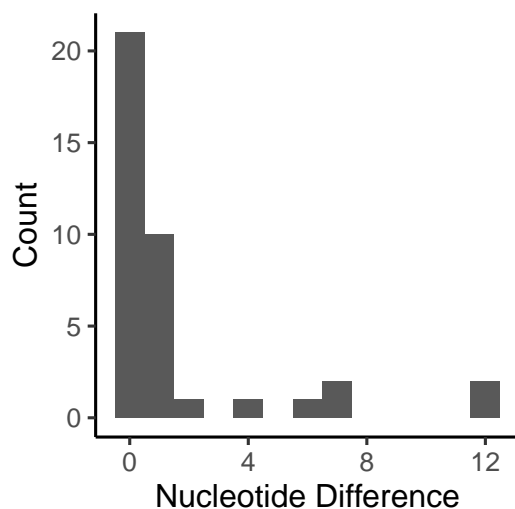
IGHV4-61*08

651 sequences assigned
1 (0.2%) exact matches, in which:
1 unique CDR3
1 unique J



IGHV7-4-1*01

38 sequences assigned
21 (55.3%) exact matches, in which:
18 unique CDR3
4 unique J





Novel sequence(s) IGHV3-33*01_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-33*01_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-30*03_T288C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69*04_09_G112A IGHV4-59*02_G88A IGHV5-10-1*01_03_T258C IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69*08_C191T IGHV3-48*03_T303G IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-30*03_T288C IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning: IGHV4-31*02, IGHV4-31*03_04 have identical germline sequences.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV1-69*04_09_G112A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69*08_C191T IGHV3-30*03_T288C IGHV3-30-3*02_G75C IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59*02_G88A IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV5-51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-4*02_03_C300T IGHV5-51*07_A128G are not listed in the genotype and will be ignored.