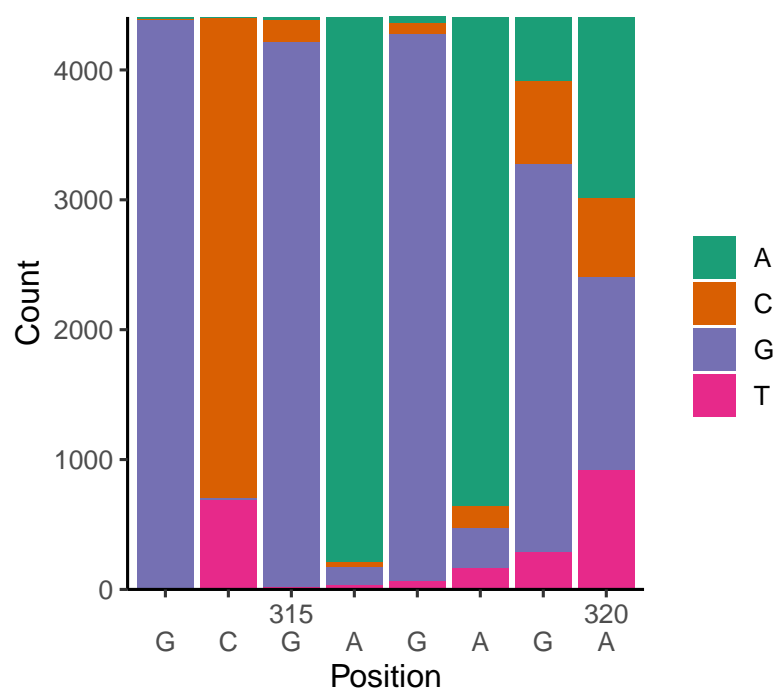


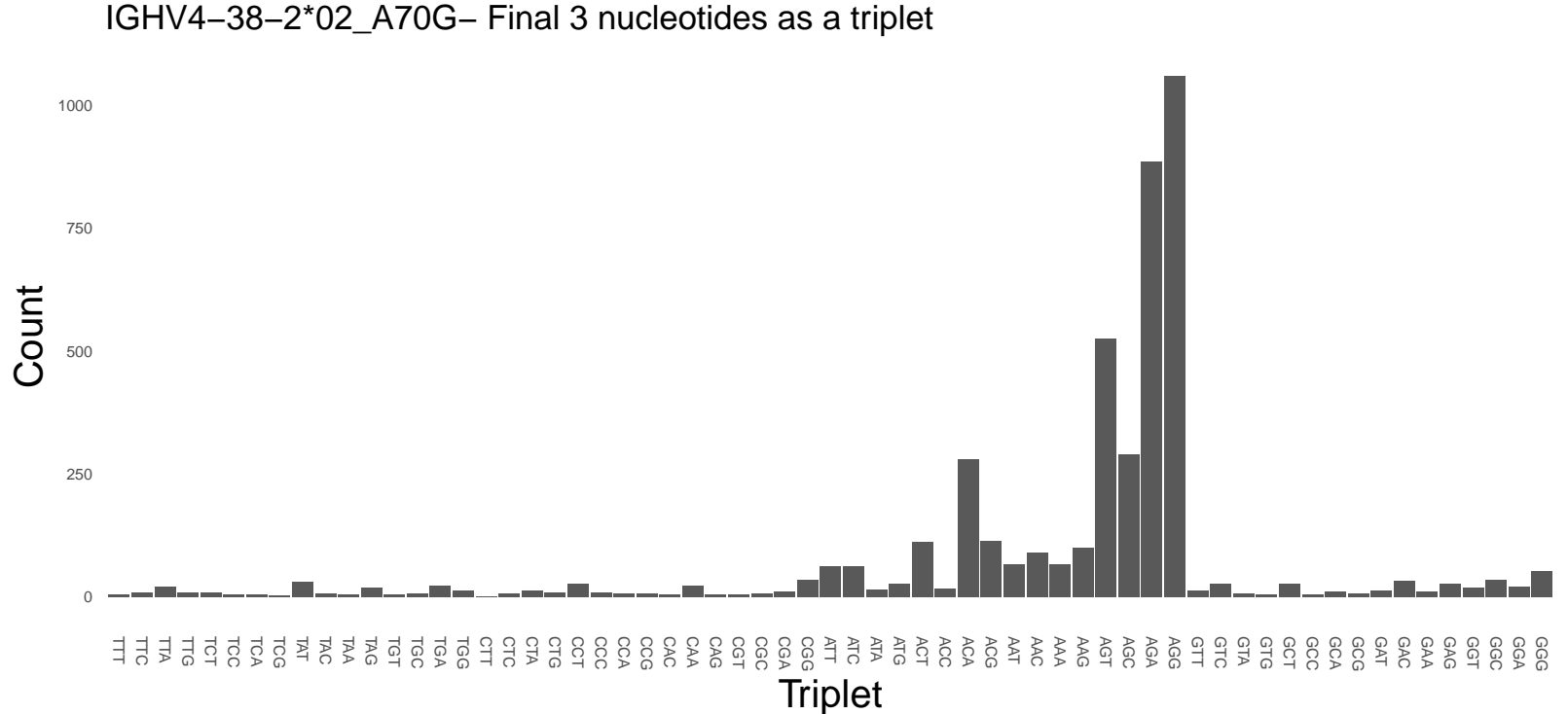
Gene IGHV4-38-2*02_A70G



Gene IGHV4-38-2*02_A70G

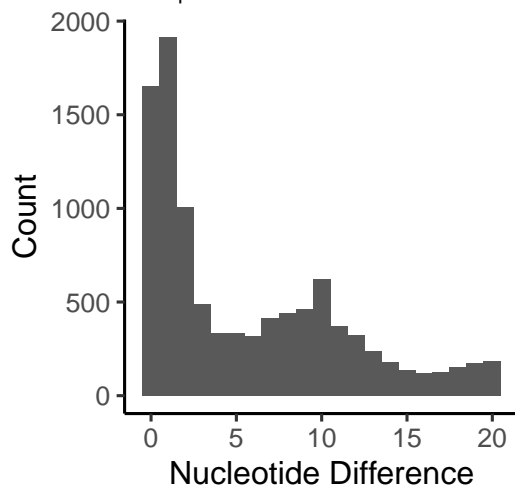


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



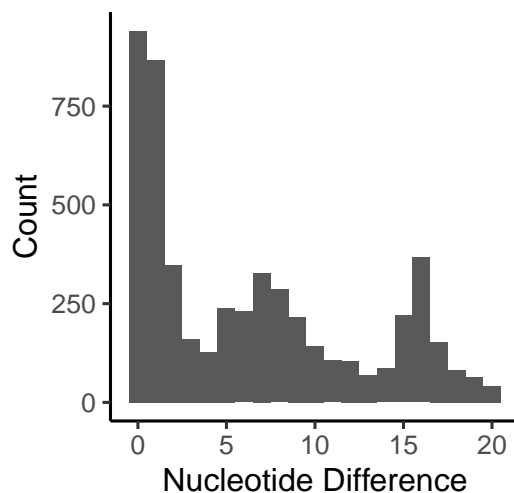
IGHV1-2*02

12517 sequences assigned
1651 (13.2%) exact matches, in which:
1382 unique CDR3
6 unique J



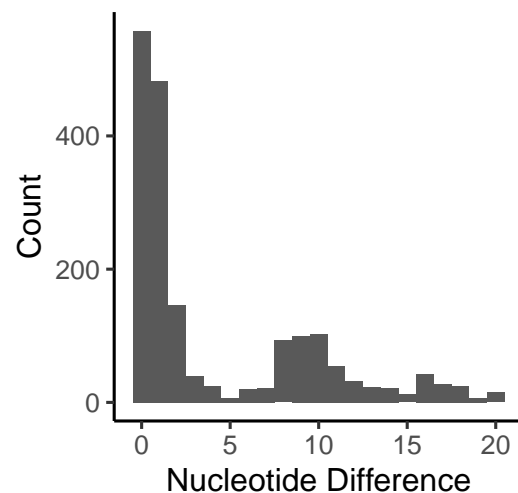
IGHV1-8*01

5818 sequences assigned
941 (16.2%) exact matches, in which:
843 unique CDR3
6 unique J



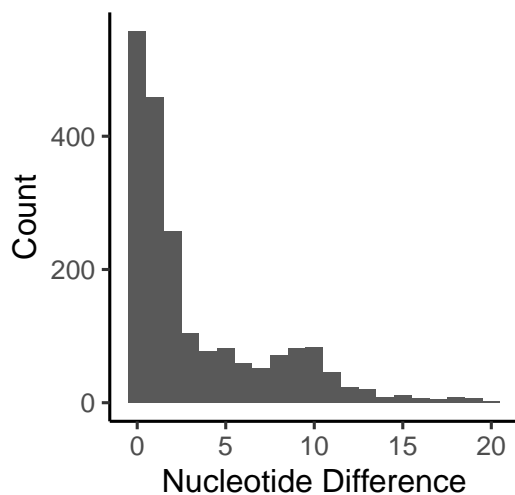
IGHV1-24*01

2025 sequences assigned
558 (27.6%) exact matches, in which:
476 unique CDR3
6 unique J



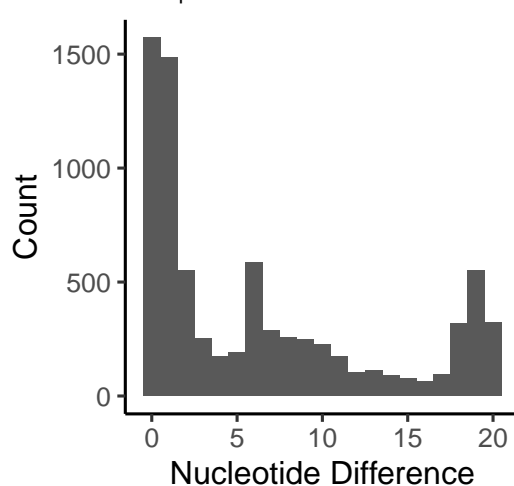
IGHV1-2*04

2034 sequences assigned
558 (27.4%) exact matches, in which:
488 unique CDR3
6 unique J



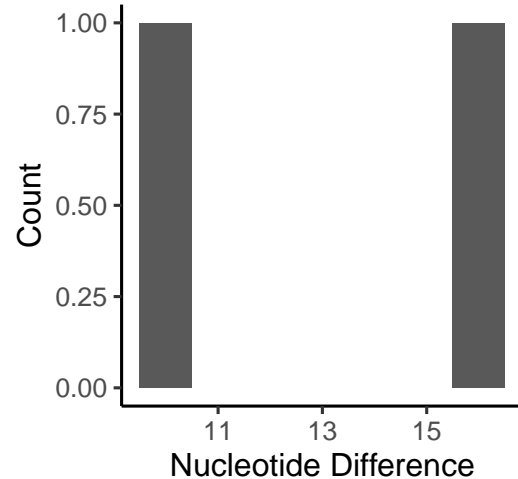
IGHV1-18*01

9302 sequences assigned
1572 (16.9%) exact matches, in which:
1337 unique CDR3
6 unique J



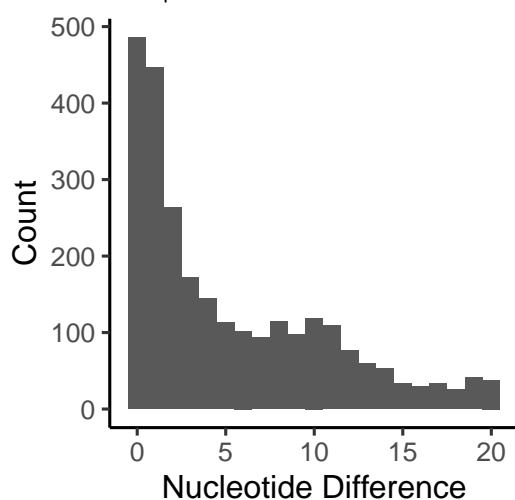
IGHV1-45*02

2 sequences assigned
No exact matches.



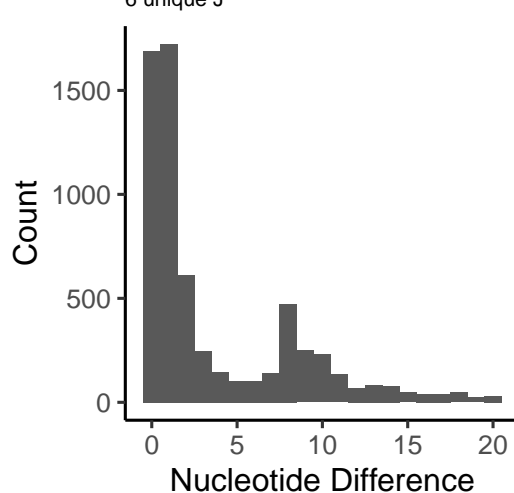
IGHV1-3*01_05

3088 sequences assigned
486 (15.7%) exact matches, in which:
404 unique CDR3
6 unique J



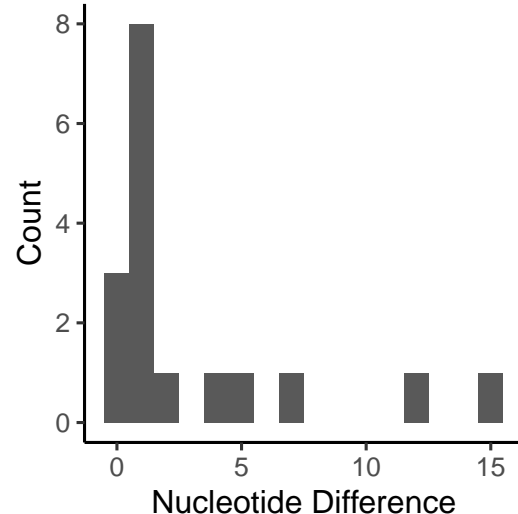
IGHV1-18*04

6541 sequences assigned
1691 (25.9%) exact matches, in which:
1410 unique CDR3
6 unique J



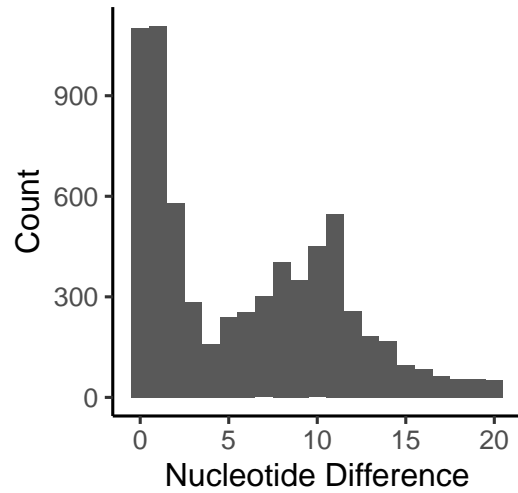
IGHV1-45*03

17 sequences assigned
3 (17.6%) exact matches, in which:
3 unique CDR3
2 unique J



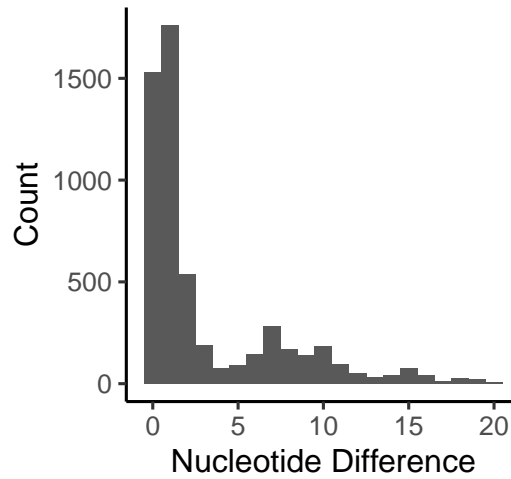
IGHV1-46*01

7201 sequences assigned
1102 (15.3%) exact matches, in which:
983 unique CDR3
6 unique J



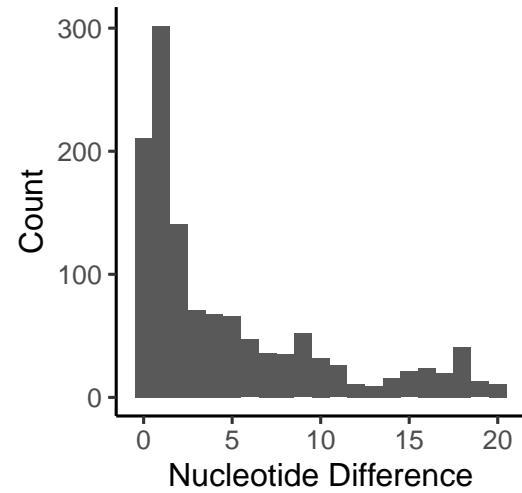
IGHV1-69*04_09

5664 sequences assigned
1530 (27%) exact matches, in which:
1309 unique CDR3
6 unique J



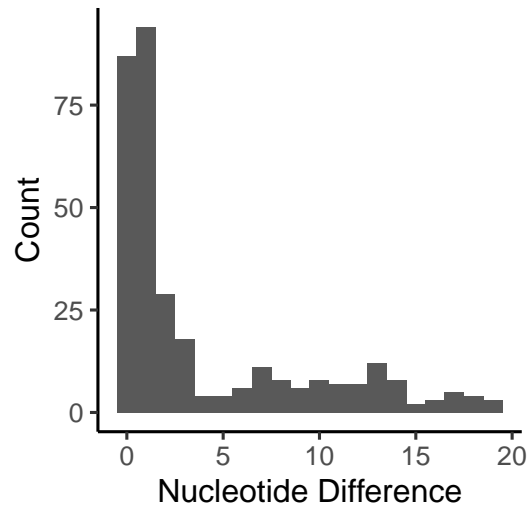
IGHV2-5*02

1394 sequences assigned
211 (15.1%) exact matches, in which:
170 unique CDR3
6 unique J



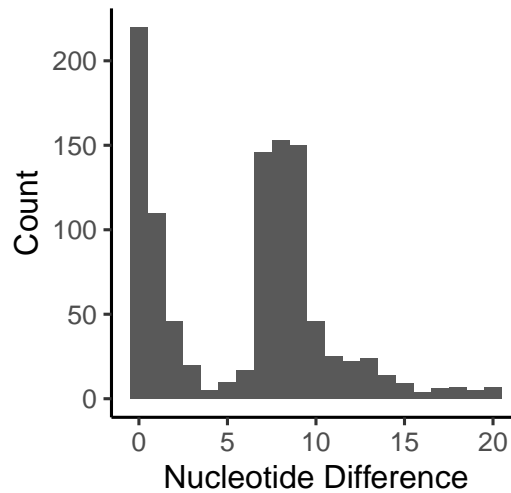
IGHV1-58*02

328 sequences assigned
87 (26.5%) exact matches, in which:
79 unique CDR3
6 unique J



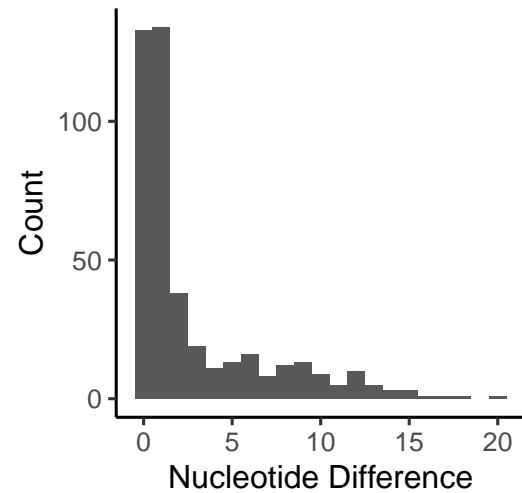
IGHV1-69*06_14

1144 sequences assigned
220 (19.2%) exact matches, in which:
212 unique CDR3
6 unique J



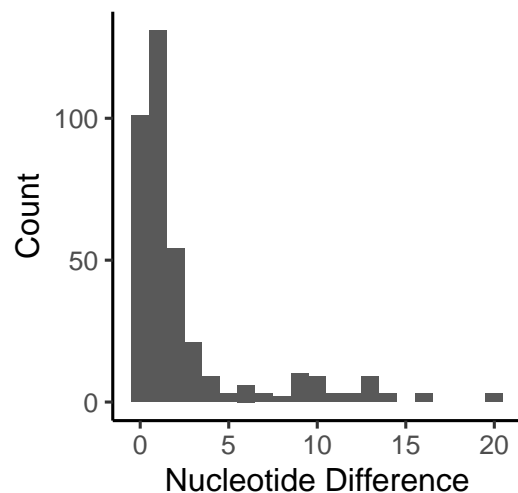
IGHV2-26*01

445 sequences assigned
133 (29.9%) exact matches, in which:
110 unique CDR3
6 unique J



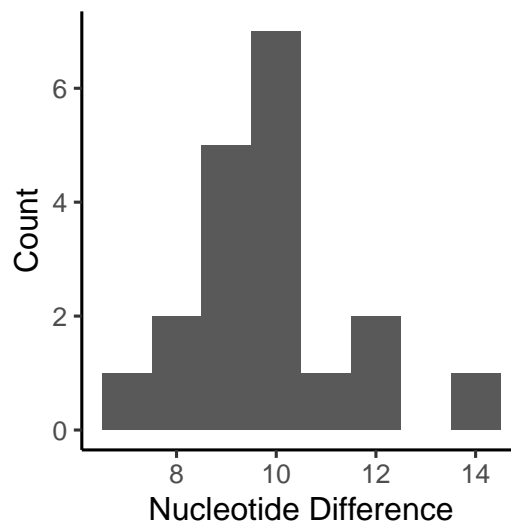
IGHV1-58*01_03

384 sequences assigned
101 (26.3%) exact matches, in which:
86 unique CDR3
5 unique J



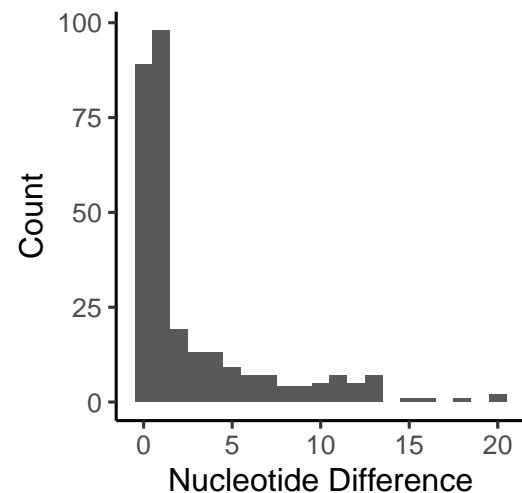
IGHV1-NL1*01

19 sequences assigned
No exact matches.



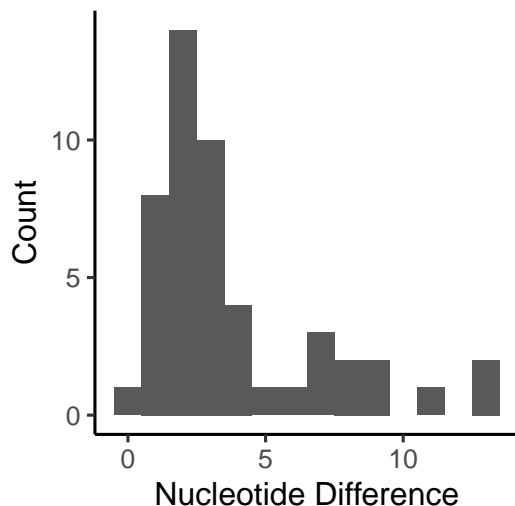
IGHV2-70*01

294 sequences assigned
89 (30.3%) exact matches, in which:
69 unique CDR3
5 unique J



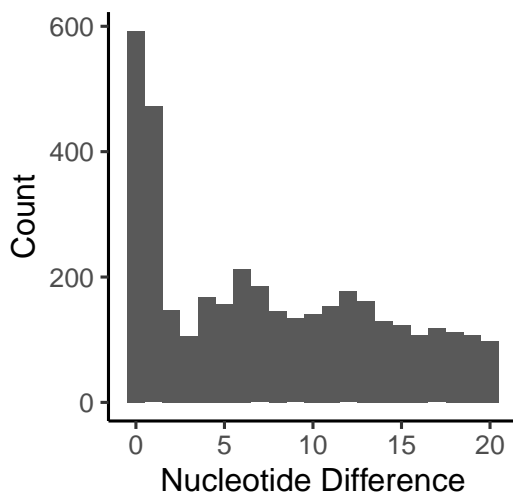
IGHV2-70*12

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



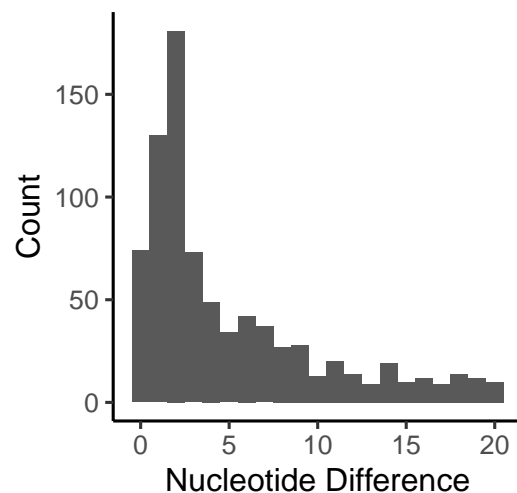
IGHV3-7*03

4860 sequences assigned
593 (12.2%) exact matches, in which:
417 unique CDR3
6 unique J



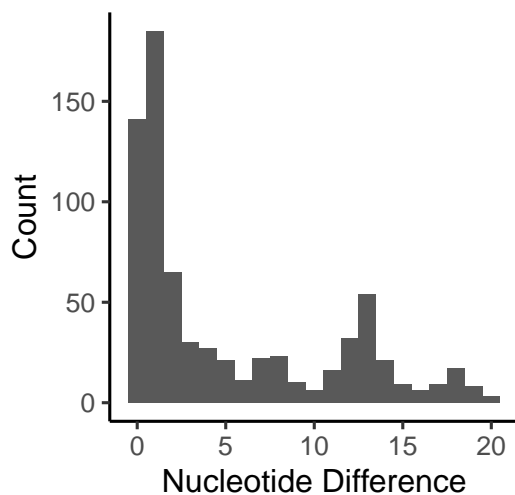
IGHV3-11*04

864 sequences assigned
74 (8.6%) exact matches, in which:
71 unique CDR3
6 unique J



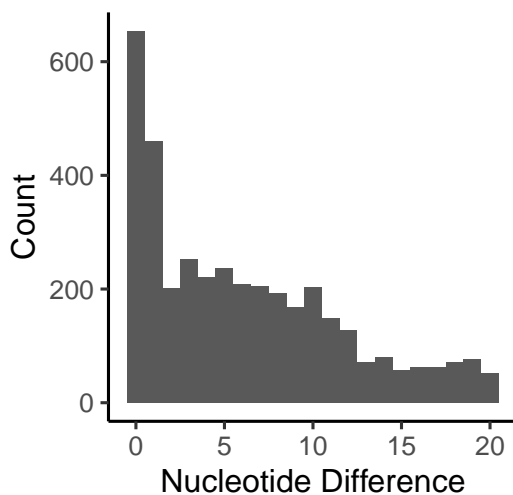
IGHV2-70*11_15

732 sequences assigned
141 (19.3%) exact matches, in which:
109 unique CDR3
4 unique J



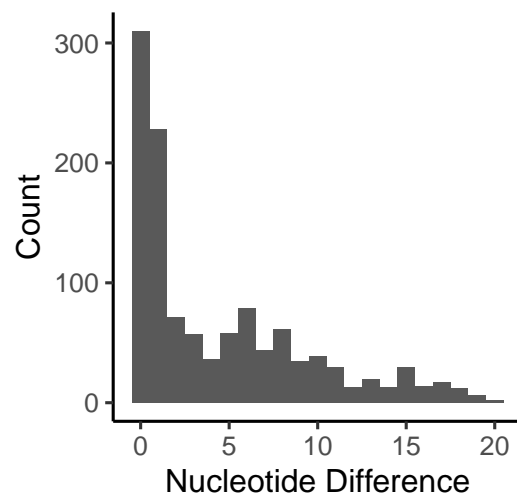
IGHV3-9*01

4178 sequences assigned
654 (15.7%) exact matches, in which:
395 unique CDR3
6 unique J



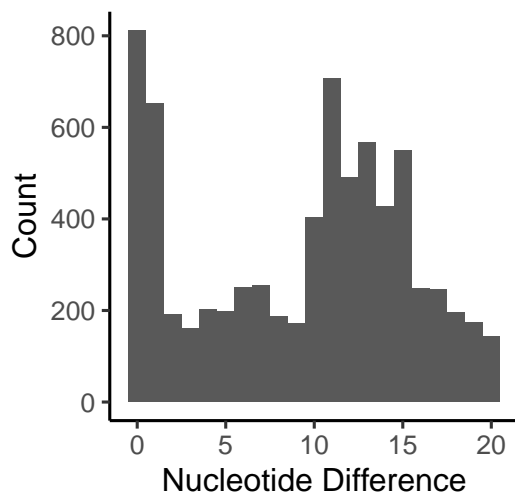
IGHV3-11*06

1215 sequences assigned
310 (25.5%) exact matches, in which:
213 unique CDR3
6 unique J



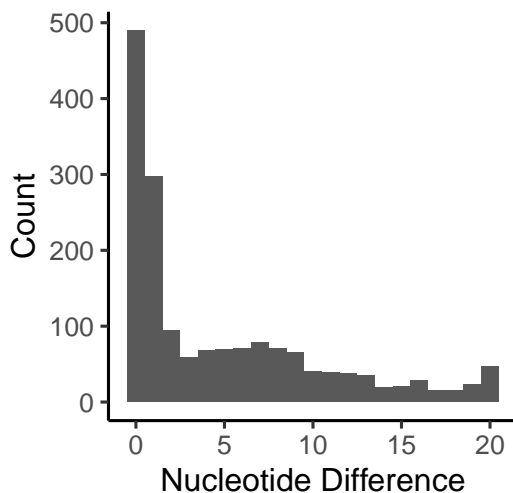
IGHV3-7*01

7977 sequences assigned
812 (10.2%) exact matches, in which:
577 unique CDR3
6 unique J



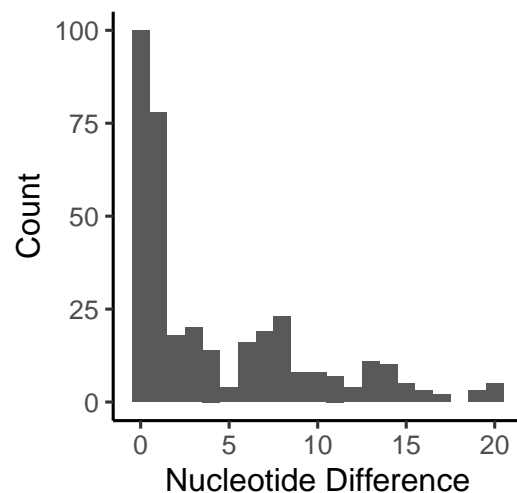
IGHV3-11*01

2327 sequences assigned
490 (21.1%) exact matches, in which:
337 unique CDR3
6 unique J



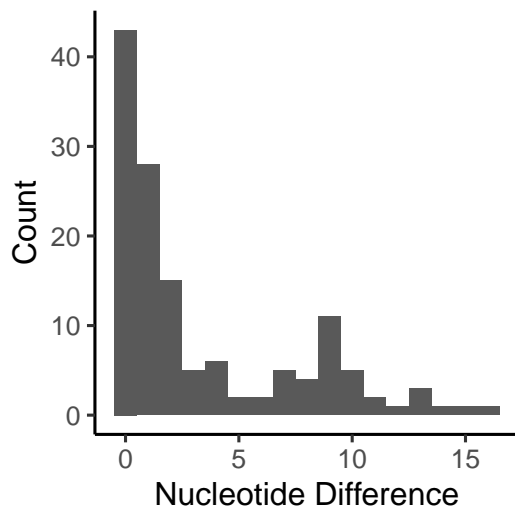
IGHV3-13*01

363 sequences assigned
100 (27.5%) exact matches, in which:
68 unique CDR3
5 unique J



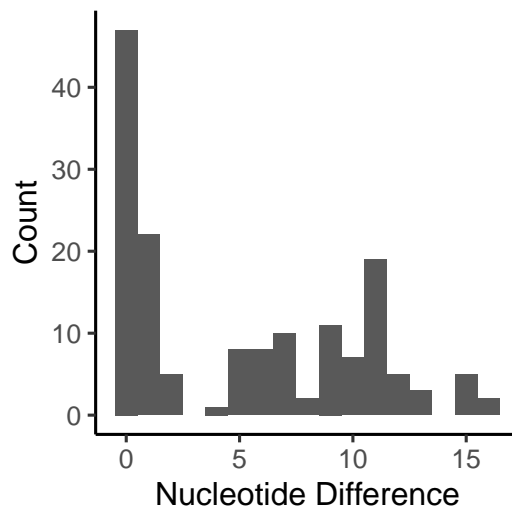
IGHV3-13*05

135 sequences assigned
43 (31.9%) exact matches, in which:
25 unique CDR3
5 unique J



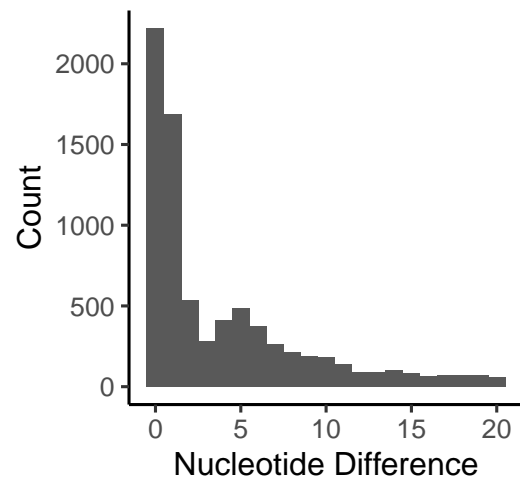
IGHV3-20*01_02

156 sequences assigned
47 (30.1%) exact matches, in which:
29 unique CDR3
4 unique J



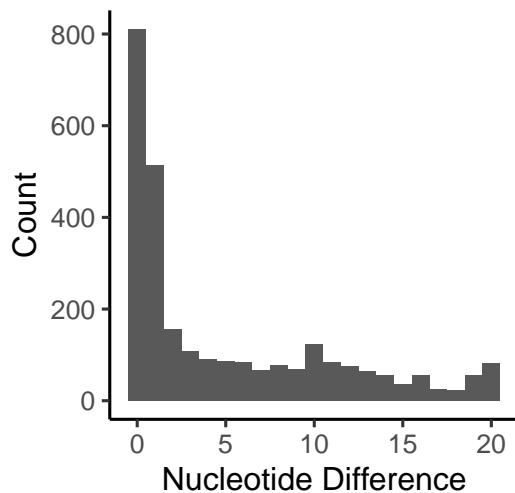
IGHV3-21*01_02

8180 sequences assigned
2219 (27.1%) exact matches, in which:
1402 unique CDR3
6 unique J



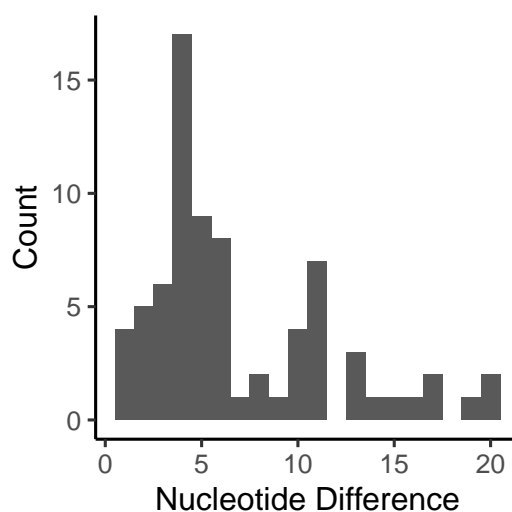
IGHV3-15*01_02

4507 sequences assigned
811 (18%) exact matches, in which:
477 unique CDR3
6 unique J



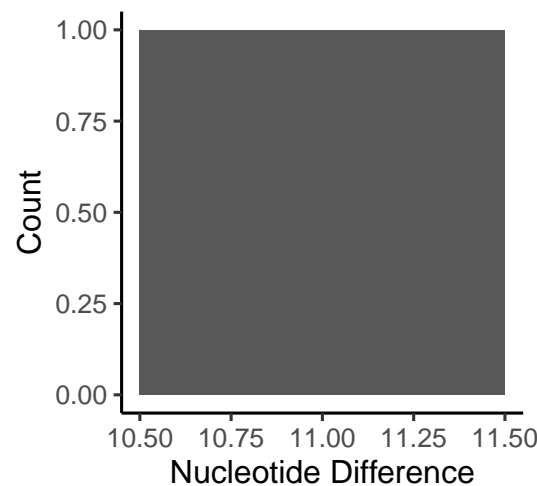
IGHV3-20*03_04

81 sequences assigned
No exact matches.



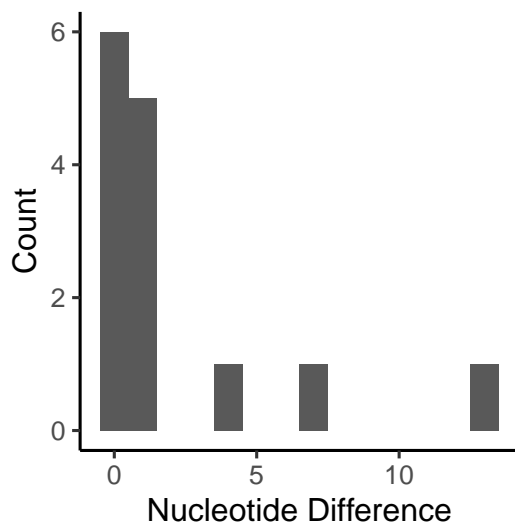
IGHV3-22*01_02

2 sequences assigned
No exact matches.



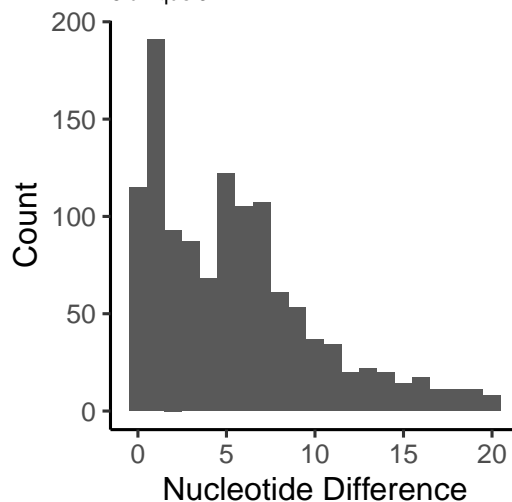
IGHV3-19*01

14 sequences assigned
6 (42.9%) exact matches, in which:
4 unique CDR3
3 unique J



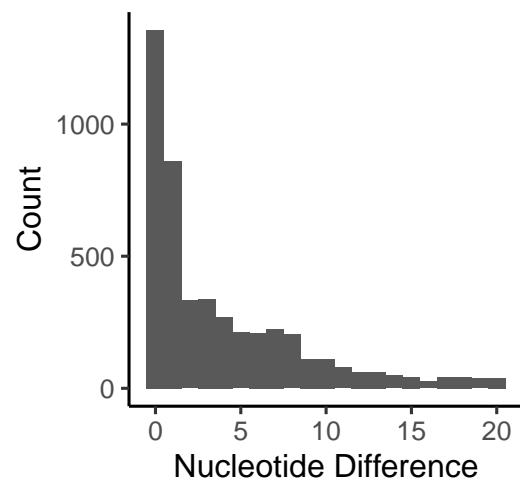
IGHV3-21*04

1342 sequences assigned
115 (8.6%) exact matches, in which:
107 unique CDR3
6 unique J



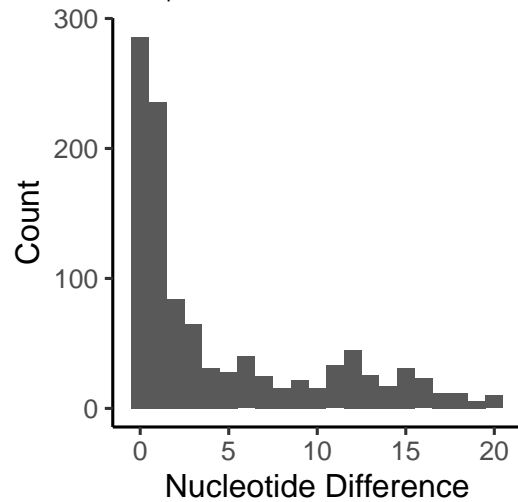
IGHV3-30-3*01

4894 sequences assigned
1356 (27.7%) exact matches, in which:
927 unique CDR3
6 unique J



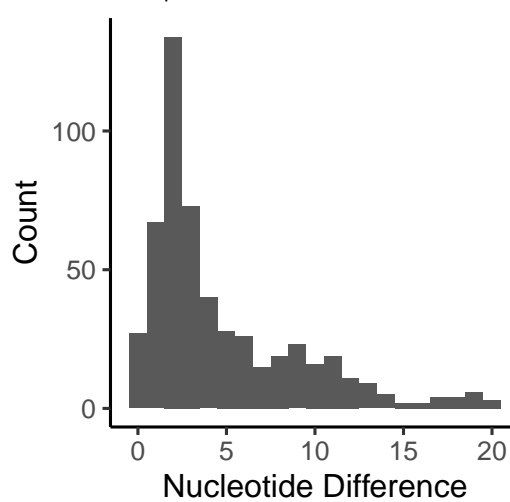
IGHV3–30*03

1498 sequences assigned
286 (19.1%) exact matches, in which:
263 unique CDR3
6 unique J



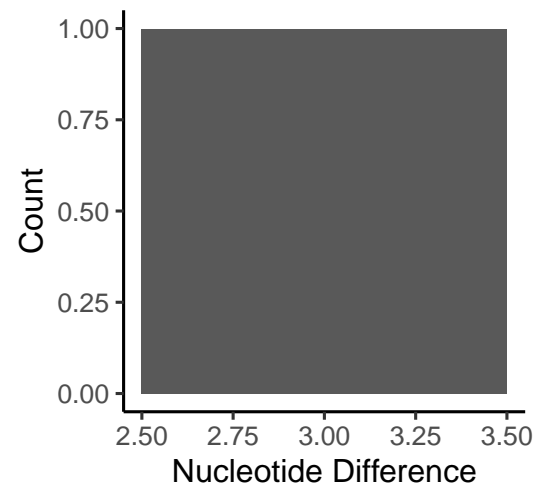
IGHV3–33*06

545 sequences assigned
27 (5%) exact matches, in which:
27 unique CDR3
5 unique J



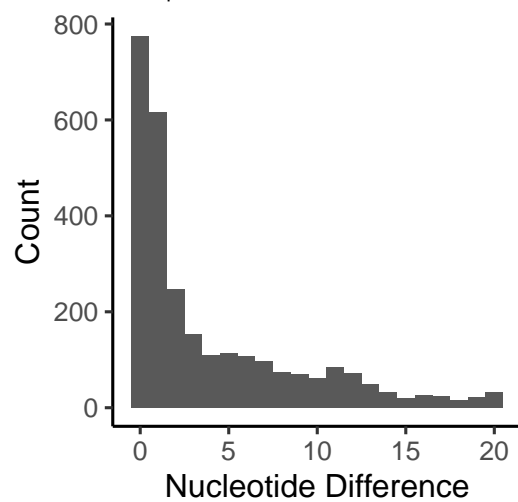
IGHV3–47*01

1 sequences assigned
No exact matches.



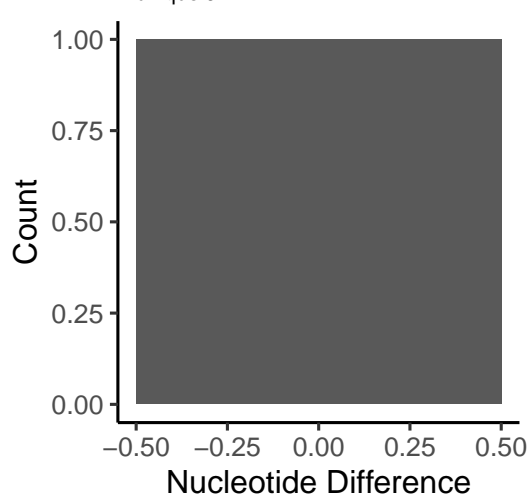
IGHV3–33*01

2950 sequences assigned
775 (26.3%) exact matches, in which:
524 unique CDR3
5 unique J



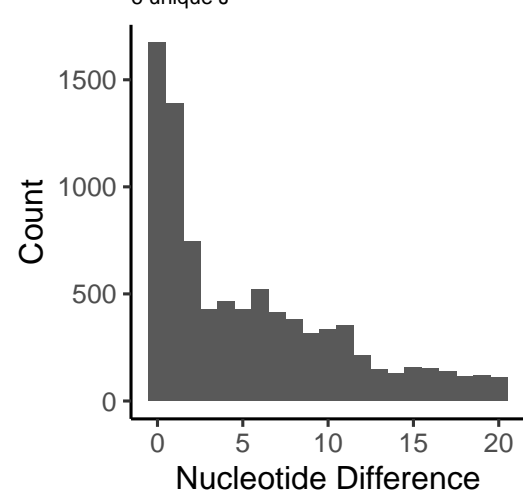
IGHV3–35*01

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



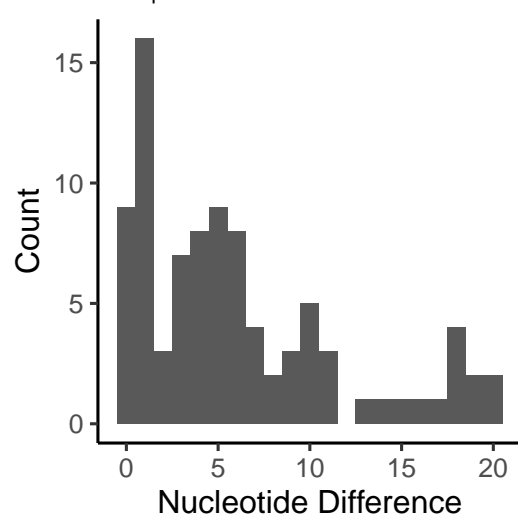
IGHV3–48*03

12543 sequences assigned
1673 (13.3%) exact matches, in which:
1026 unique CDR3
6 unique J



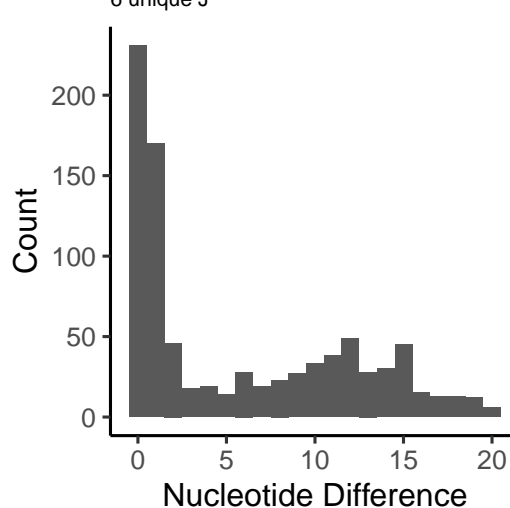
IGHV3–33*05

99 sequences assigned
9 (9.1%) exact matches, in which:
9 unique CDR3
4 unique J



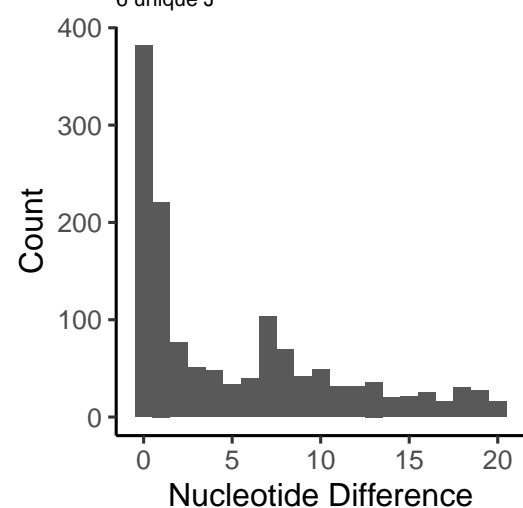
IGHV3–43*02

975 sequences assigned
231 (23.7%) exact matches, in which:
137 unique CDR3
6 unique J



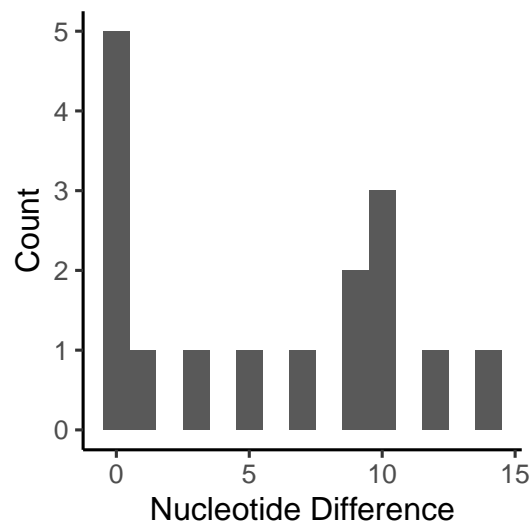
IGHV3–49*04

1490 sequences assigned
382 (25.6%) exact matches, in which:
232 unique CDR3
6 unique J



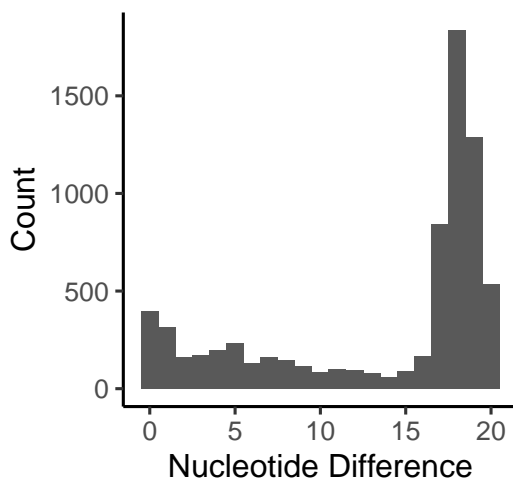
IGHV3-52*01_03

16 sequences assigned
5 (31.2%) exact matches, in which:
5 unique CDR3
2 unique J



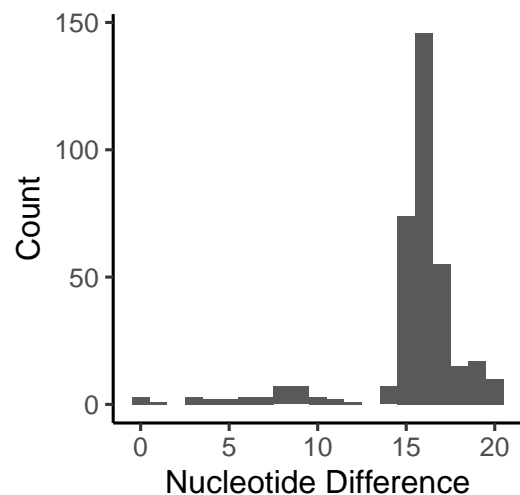
IGHV3-53*01_02

8580 sequences assigned
398 (4.6%) exact matches, in which:
260 unique CDR3
6 unique J



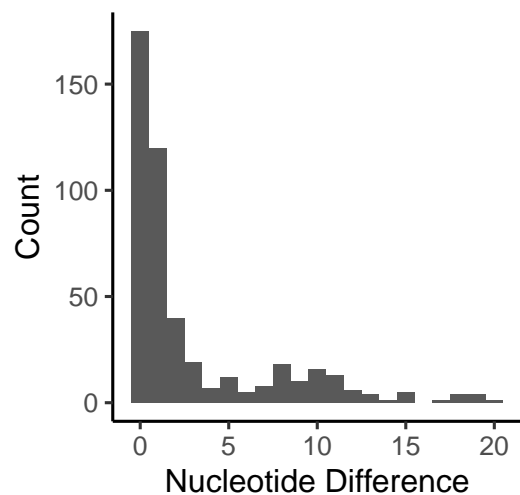
IGHV3-64*02_07

400 sequences assigned
3 (0.8%) exact matches, in which:
3 unique CDR3
2 unique J



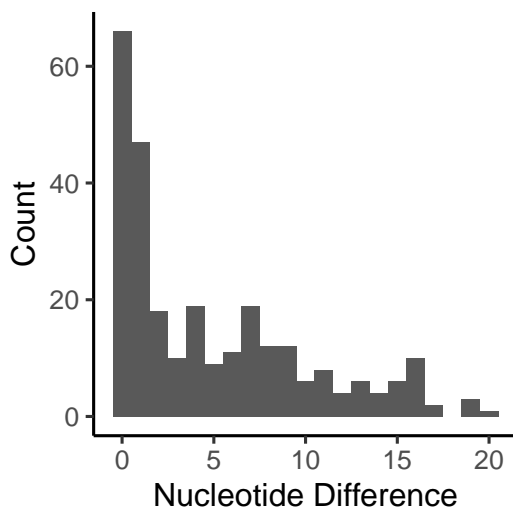
IGHV3-53*04

499 sequences assigned
175 (35.1%) exact matches, in which:
122 unique CDR3
6 unique J



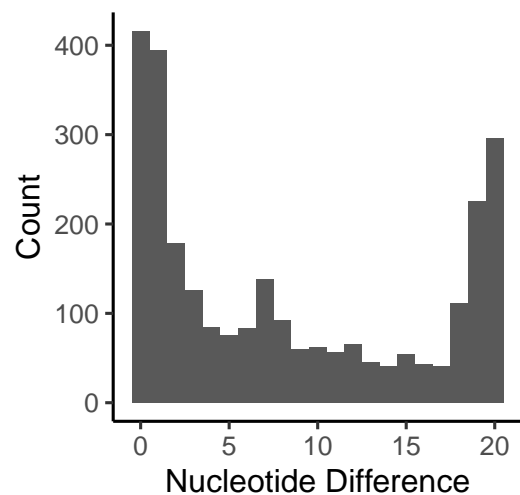
IGHV3-64*01

311 sequences assigned
66 (21.2%) exact matches, in which:
45 unique CDR3
5 unique J



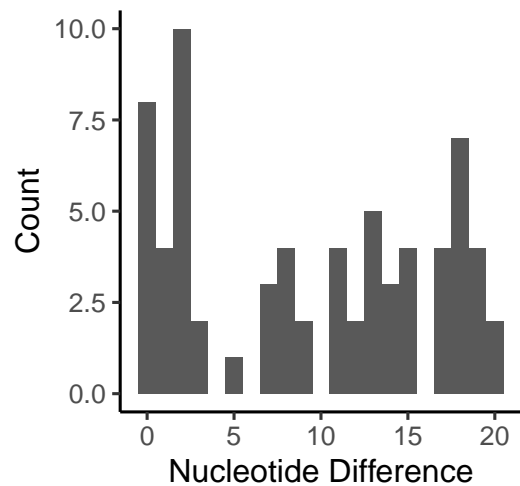
IGHV3-66*01

3756 sequences assigned
416 (11.1%) exact matches, in which:
270 unique CDR3
6 unique J



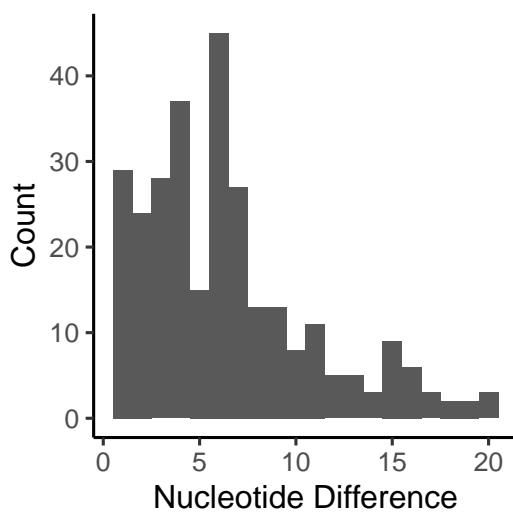
IGHV3-53*05

79 sequences assigned
8 (10.1%) exact matches, in which:
7 unique CDR3
3 unique J



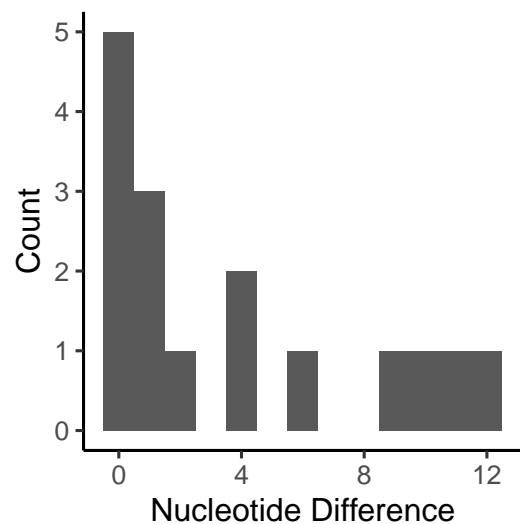
IGHV3-64*04

323 sequences assigned
No exact matches.



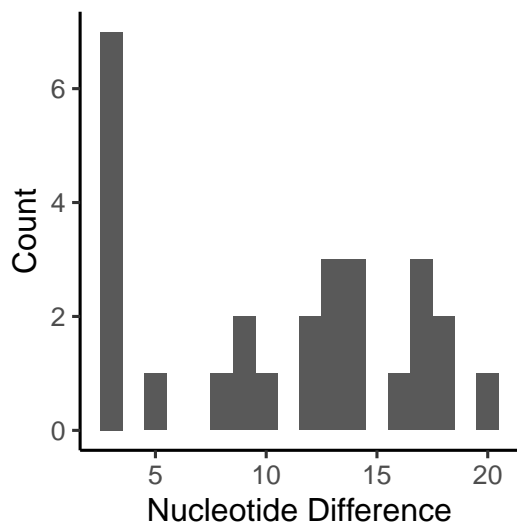
IGHV3-66*03

27 sequences assigned
5 (18.5%) exact matches, in which:
5 unique CDR3
2 unique J



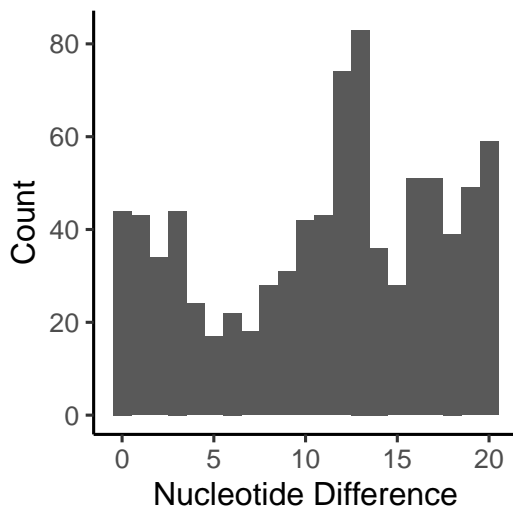
IGHV3-69-1*01

75 sequences assigned
No exact matches.



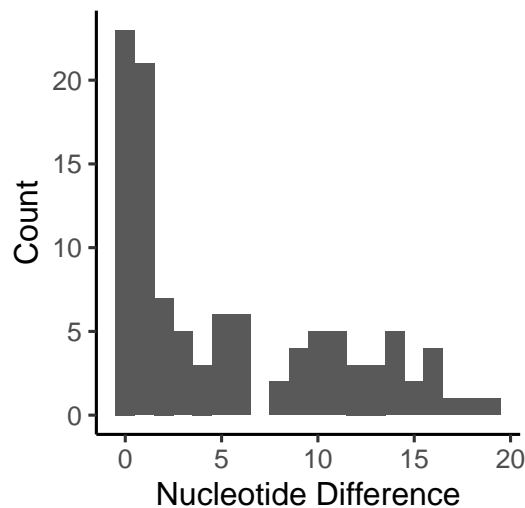
IGHV3-72*01

2813 sequences assigned
44 (1.6%) exact matches, in which:
29 unique CDR3
4 unique J



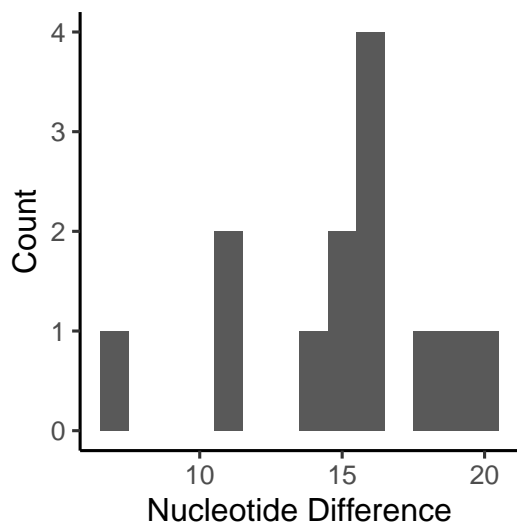
IGHV3-43D*04

115 sequences assigned
23 (20%) exact matches, in which:
15 unique CDR3
4 unique J



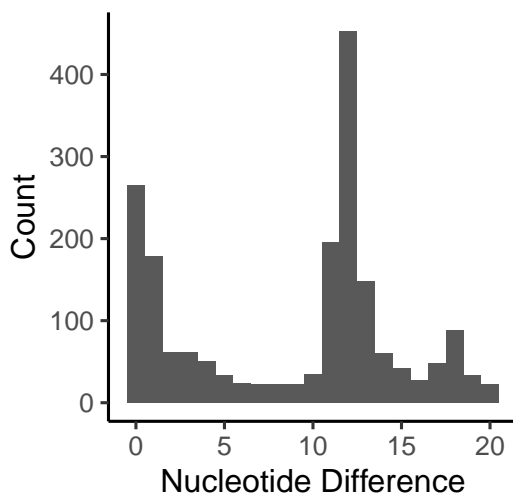
IGHV3-69-1*02

42 sequences assigned
No exact matches.



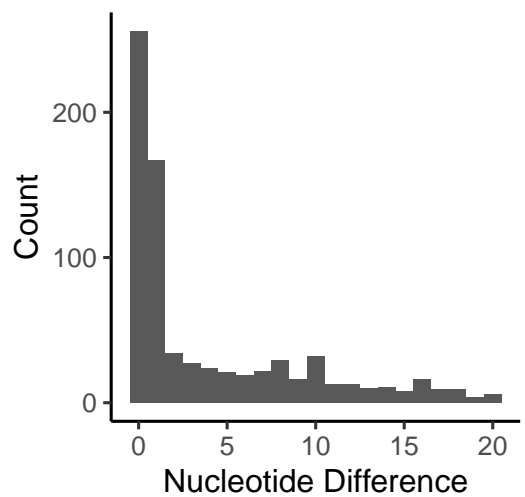
IGHV3-73*01_02

2531 sequences assigned
265 (10.5%) exact matches, in which:
166 unique CDR3
6 unique J



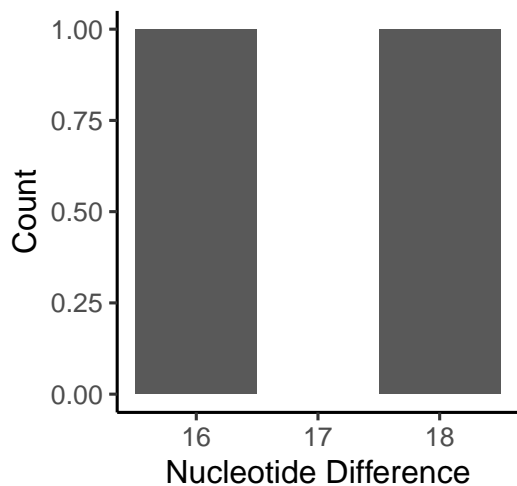
IGHV3-64D*06

1121 sequences assigned
256 (22.8%) exact matches, in which:
138 unique CDR3
6 unique J



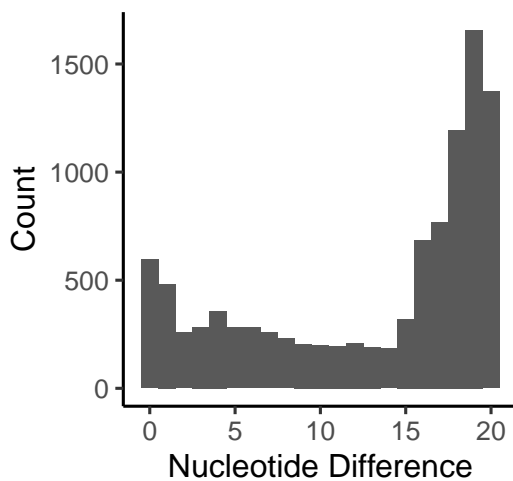
IGHV3-71*03

2 sequences assigned
No exact matches.



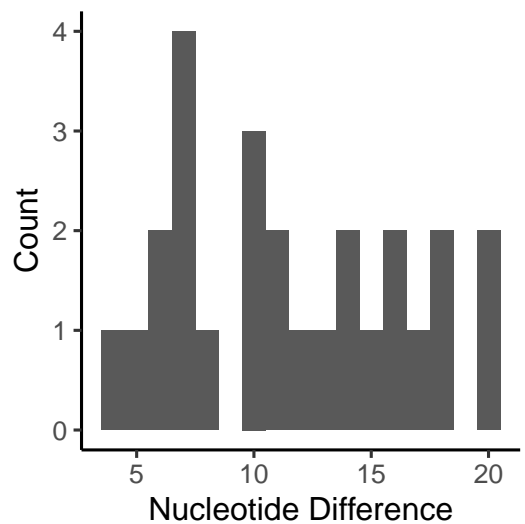
IGHV3-74*01_02

14146 sequences assigned
595 (4.2%) exact matches, in which:
399 unique CDR3
6 unique J



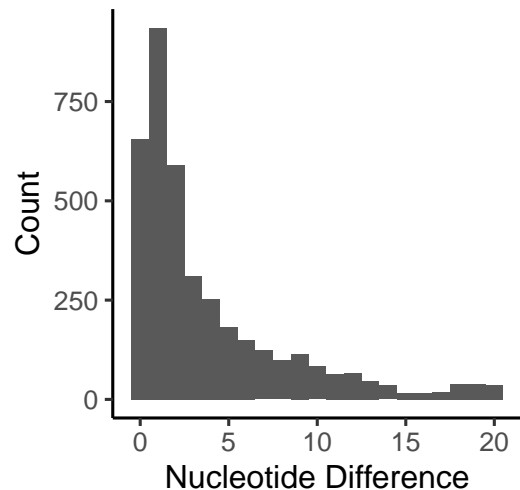
IGHV3-NL1*01

46 sequences assigned
No exact matches.



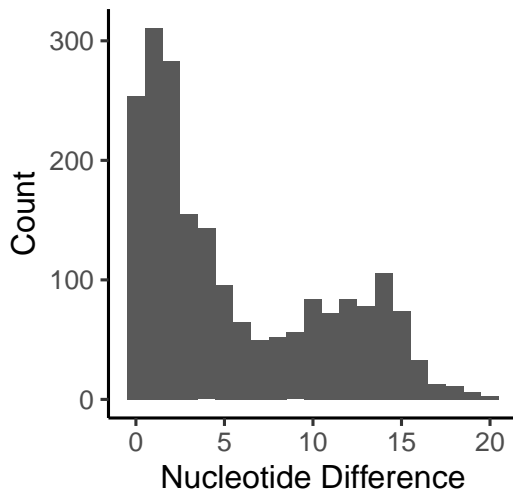
IGHV4-4*07

4455 sequences assigned
656 (14.7%) exact matches, in which:
537 unique CDR3
6 unique J



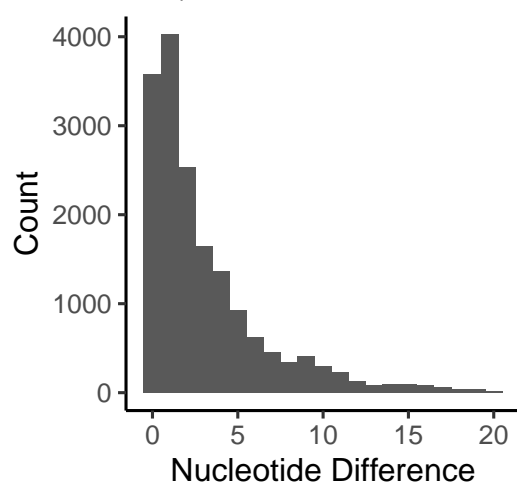
IGHV4-30-2*01

2058 sequences assigned
254 (12.3%) exact matches, in which:
182 unique CDR3
6 unique J



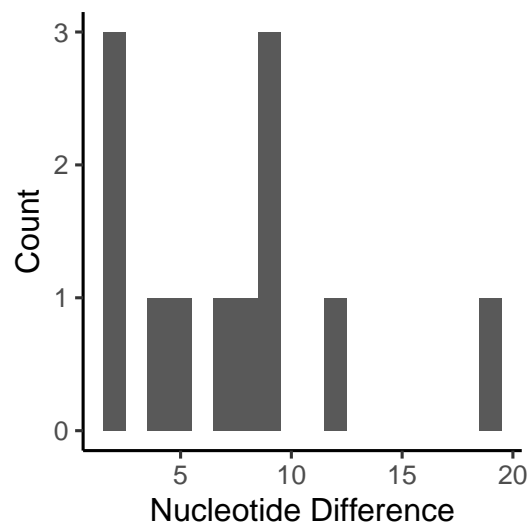
IGHV4-34*01_02

18410 sequences assigned
3574 (19.4%) exact matches, in which:
2535 unique CDR3
6 unique J



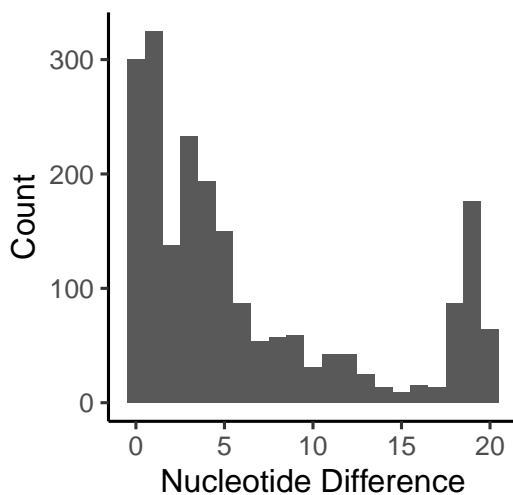
IGHV4-28*03

13 sequences assigned
No exact matches.



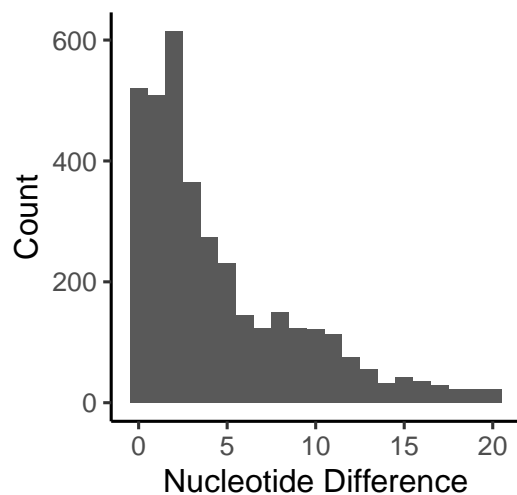
IGHV4-30-4*01

2245 sequences assigned
300 (13.4%) exact matches, in which:
255 unique CDR3
6 unique J



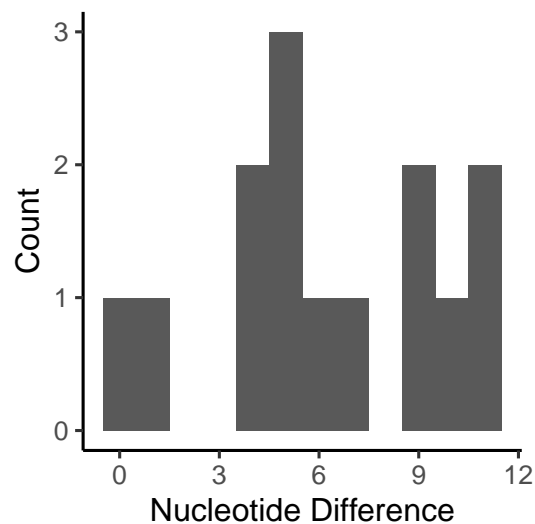
IGHV4-38-2*02_A70G

4408 sequences assigned
521 (11.8%) exact matches, in which:
402 unique CDR3
6 unique J



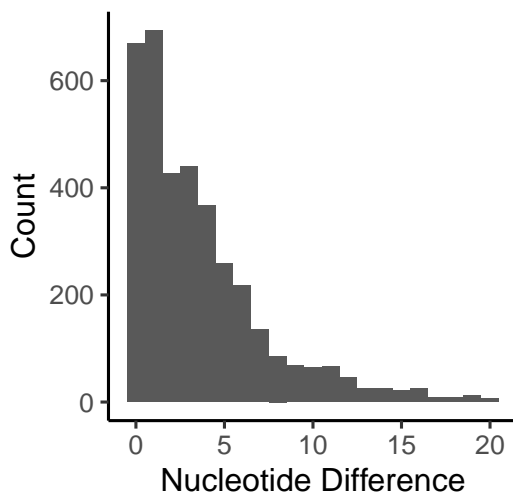
IGHV4-28*01_07

19 sequences assigned
1 (5.3%) exact matches, in which:
1 unique CDR3
1 unique J



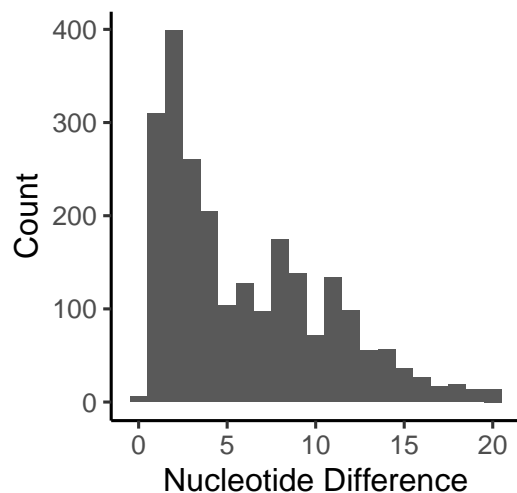
IGHV4-31*03_04

3846 sequences assigned
669 (17.4%) exact matches, in which:
559 unique CDR3
6 unique J



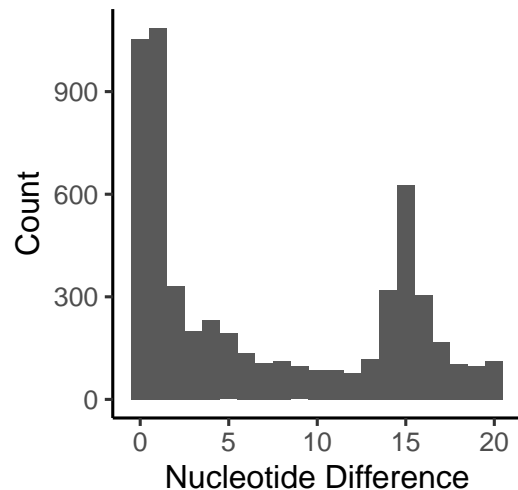
IGHV4-39*07

2573 sequences assigned
6 (0.2%) exact matches, in which:
6 unique CDR3
3 unique J



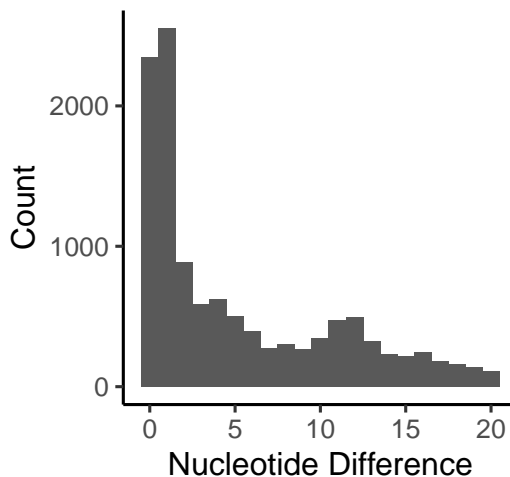
IGHV4-39*01_05

7326 sequences assigned
1054 (14.4%) exact matches, in which:
783 unique CDR3
6 unique J



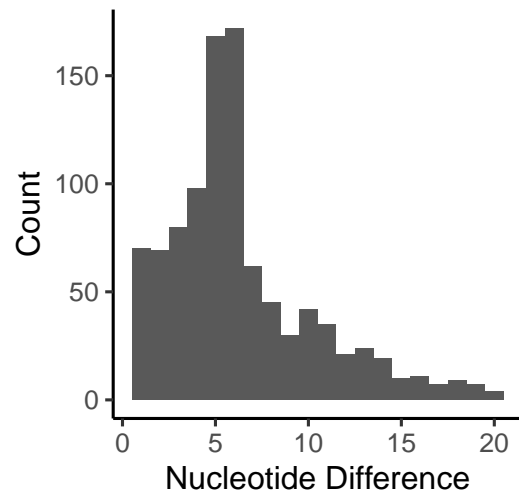
IGHV4-59*01_07

18947 sequences assigned
2344 (12.4%) exact matches, in which:
1882 unique CDR3
6 unique J



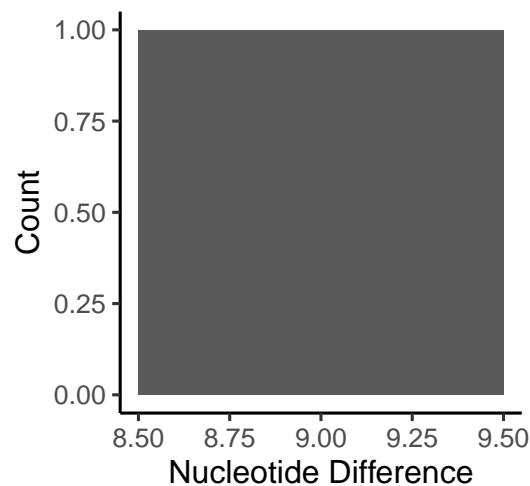
IGHV4-61*08

1841 sequences assigned
No exact matches.



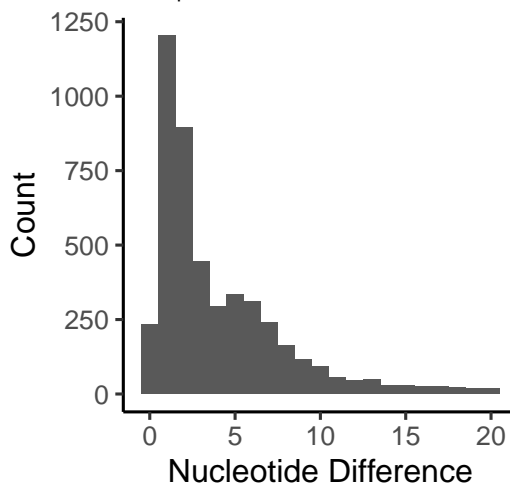
IGHV4-55*02_04_08

2 sequences assigned
No exact matches.



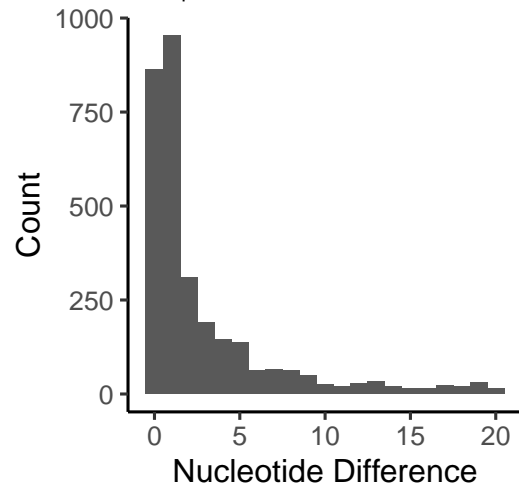
IGHV4-59*12

6043 sequences assigned
233 (3.9%) exact matches, in which:
220 unique CDR3
6 unique J



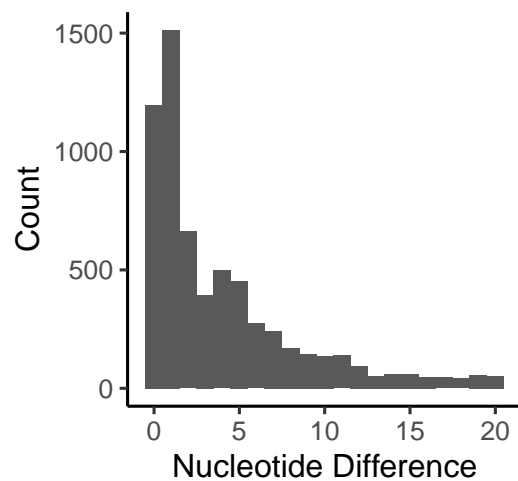
IGHV5-10-1*01_03

3099 sequences assigned
863 (27.8%) exact matches, in which:
542 unique CDR3
6 unique J



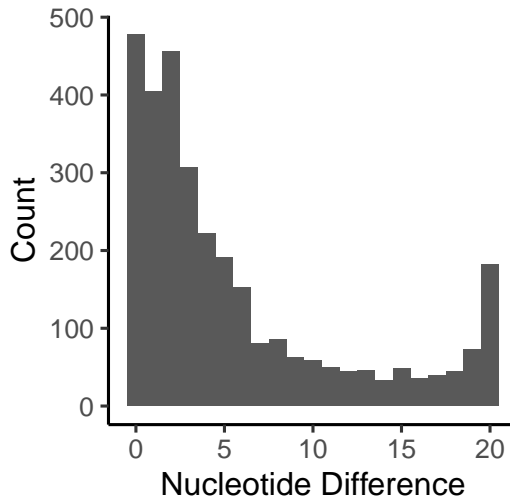
IGHV4-59*08

11546 sequences assigned
1196 (10.4%) exact matches, in which:
946 unique CDR3
6 unique J



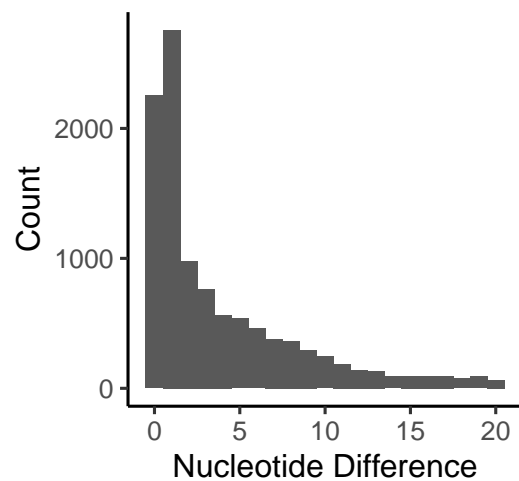
IGHV4-61*01

4712 sequences assigned
478 (10.1%) exact matches, in which:
436 unique CDR3
6 unique J



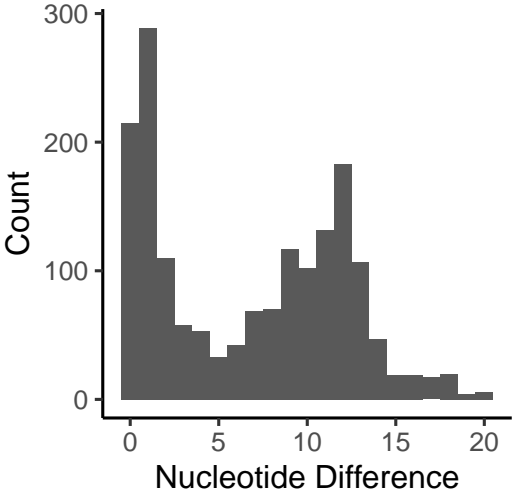
IGHV5-51*01_03

12183 sequences assigned
2253 (18.5%) exact matches, in which:
1256 unique CDR3
6 unique J



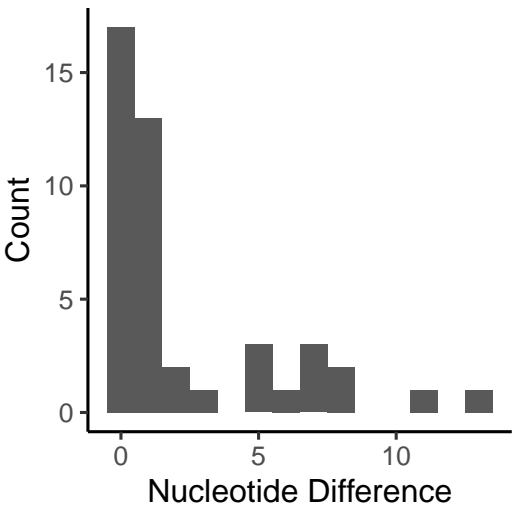
IGHV6-1*01_02

1881 sequences assigned
215 (11.4%) exact matches, in which:
174 unique CDR3
6 unique J



IGHV7-4-1*01

44 sequences assigned
17 (38.6%) exact matches, in which:
14 unique CDR3
4 unique J





Warning – no inferred sequences found.

Warning – no inferred sequences found.

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.