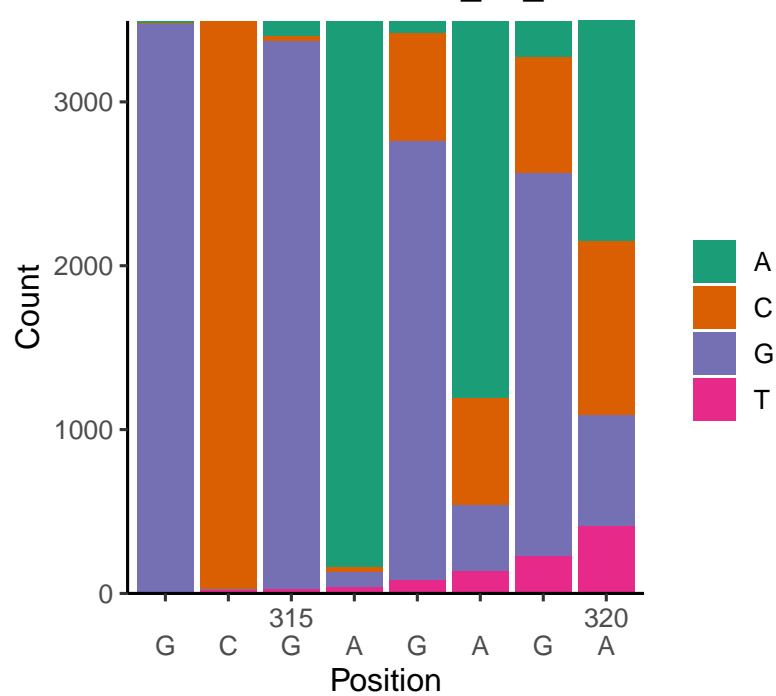
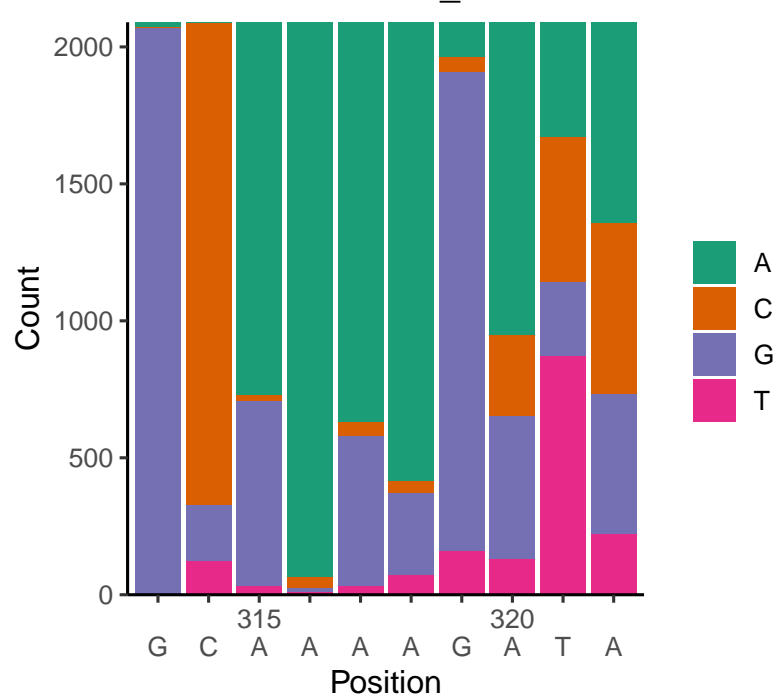


Gene IGHV1-69*04_09_A244G



Gene IGHV3-9*01_A104G



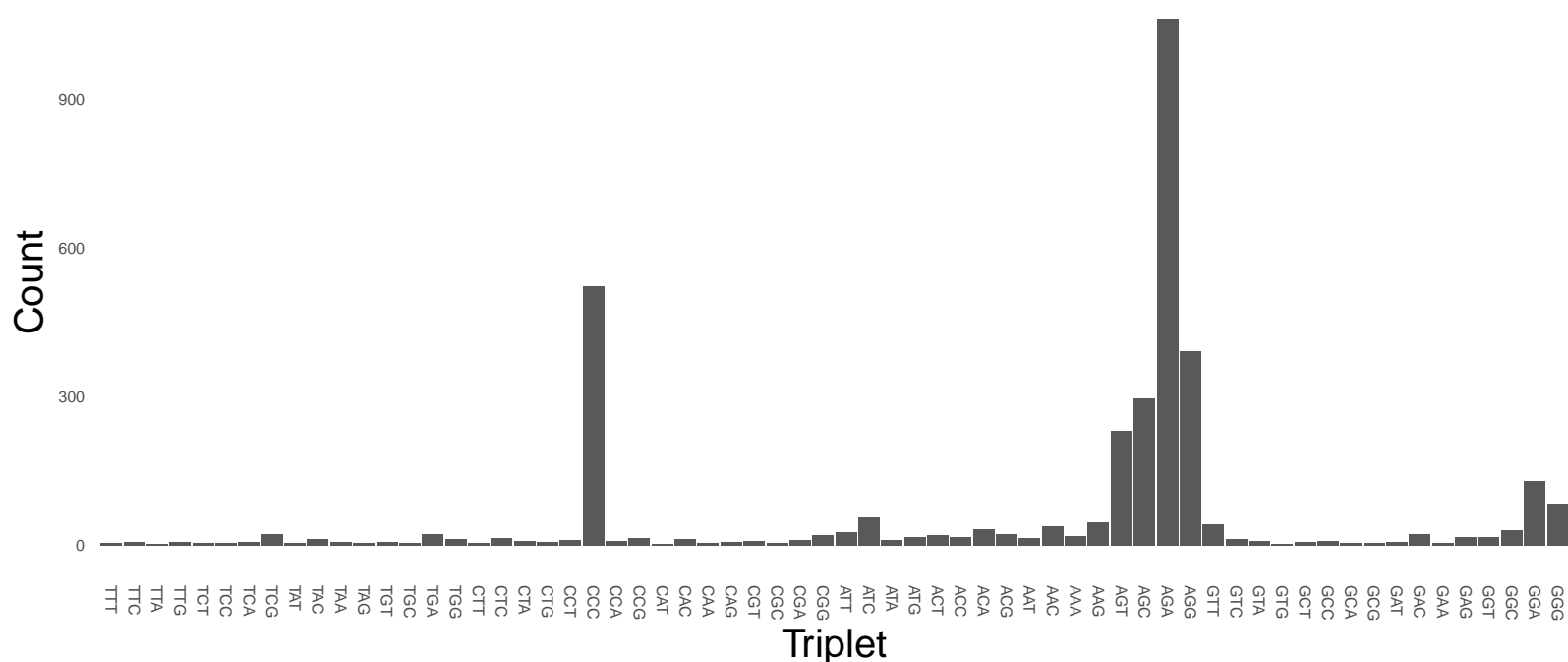
Gene IGHV1-69*04_09_A244G



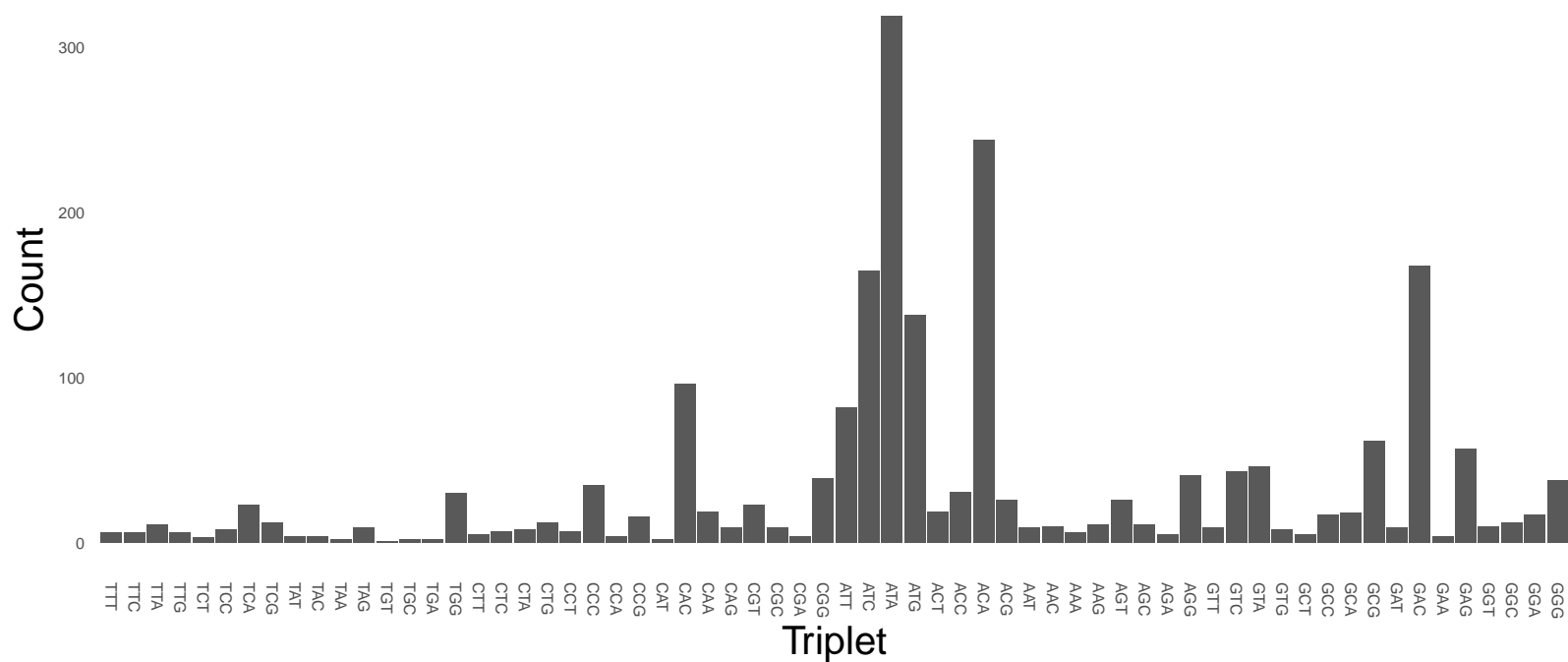
Gene IGHV3-9*01_A104G



IGHV1-69*04_09_A244G- Final 3 nucleotides as a triplet

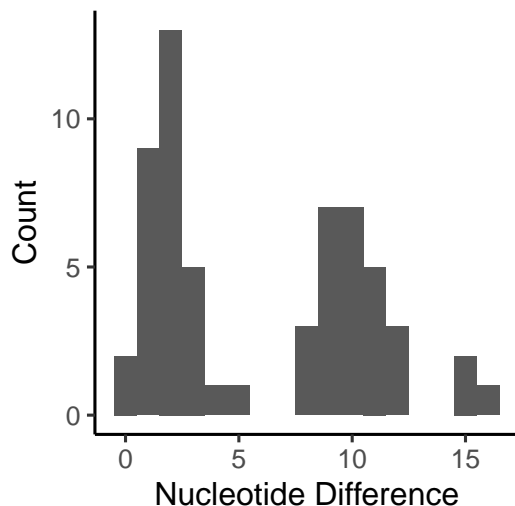


IGHV3-9*01_A104G- Final 3 nucleotides as a triplet



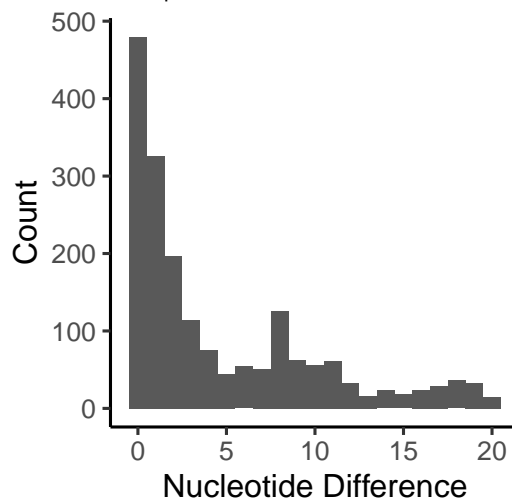
IGHV1-2*02

60 sequences assigned
2 (3.3%) exact matches, in which:
2 unique CDR3
1 unique J



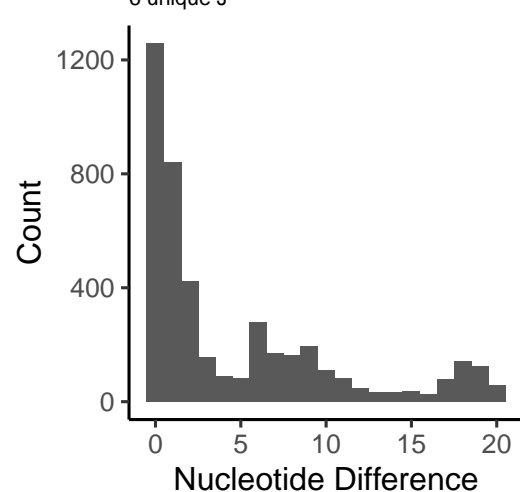
IGHV1-3*01_05

2806 sequences assigned
480 (17.1%) exact matches, in which:
435 unique CDR3
6 unique J



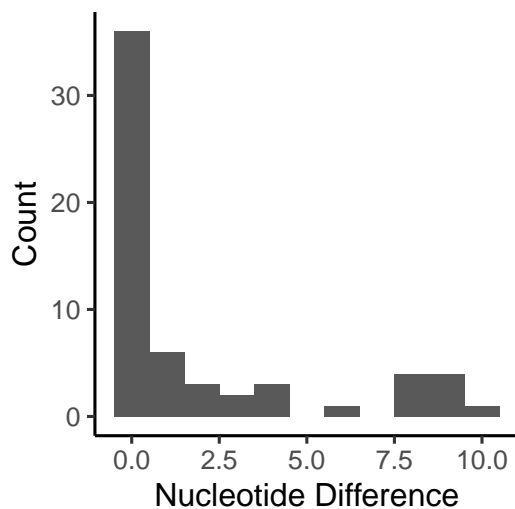
IGHV1-18*01

5343 sequences assigned
1258 (23.5%) exact matches, in which:
1174 unique CDR3
6 unique J



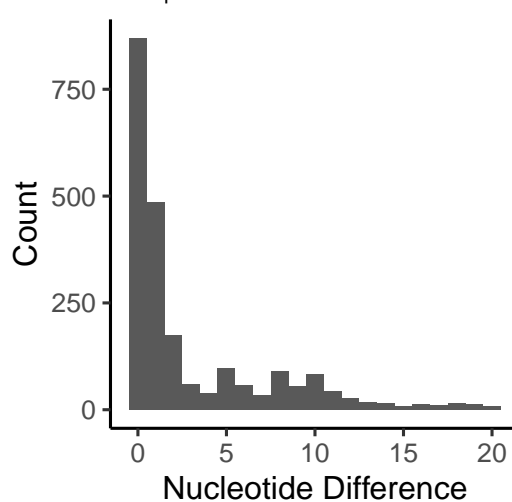
IGHV1-2*05

60 sequences assigned
36 (60%) exact matches, in which:
36 unique CDR3
4 unique J



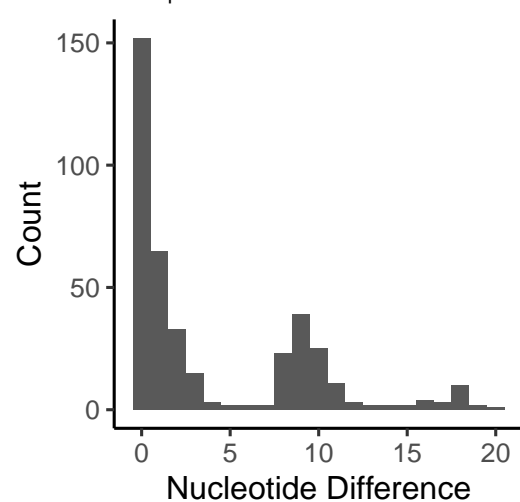
IGHV1-8*01

2848 sequences assigned
870 (30.5%) exact matches, in which:
832 unique CDR3
6 unique J



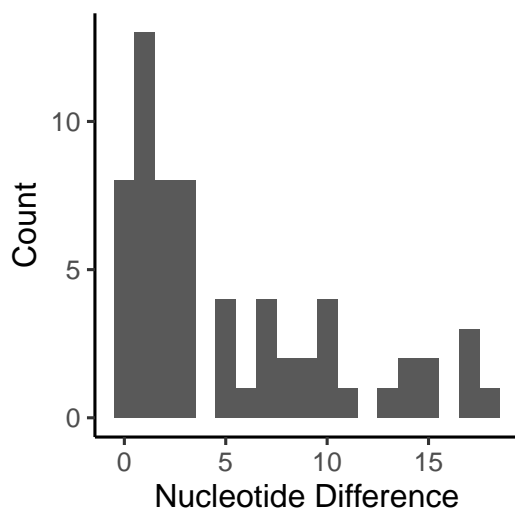
IGHV1-24*01

412 sequences assigned
152 (36.9%) exact matches, in which:
148 unique CDR3
6 unique J



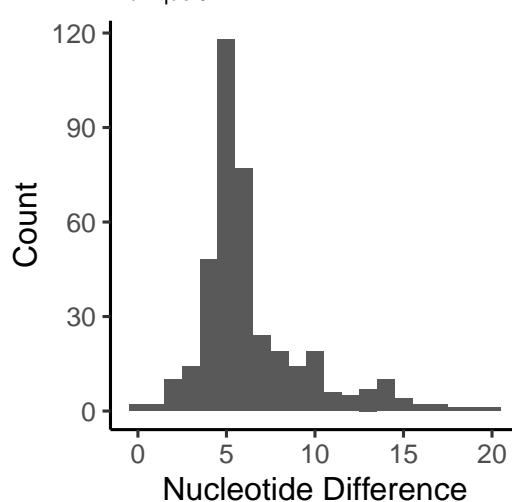
IGHV1-2*06

65 sequences assigned
8 (12.3%) exact matches, in which:
8 unique CDR3
2 unique J



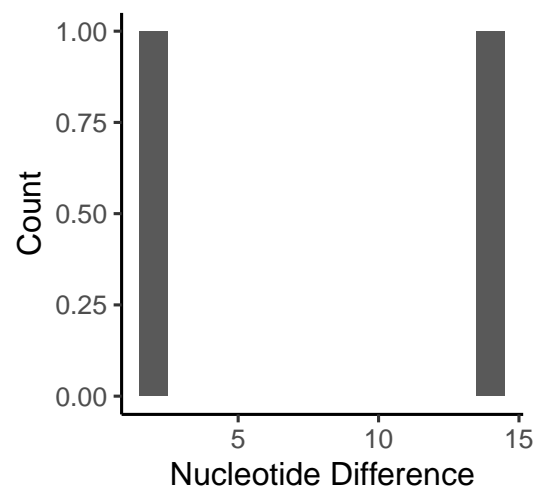
IGHV1-8*02

533 sequences assigned
2 (0.4%) exact matches, in which:
2 unique CDR3
2 unique J



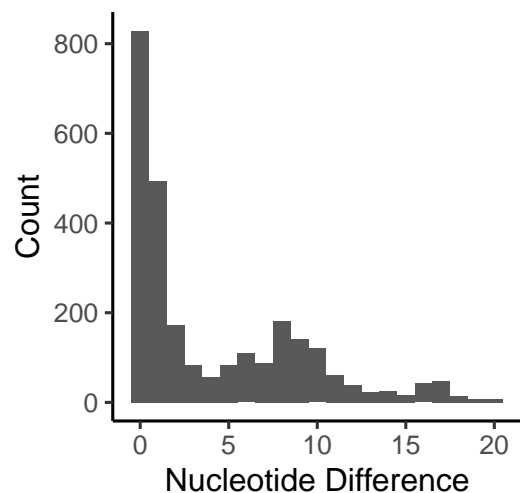
IGHV1-45*02

2 sequences assigned
No exact matches.



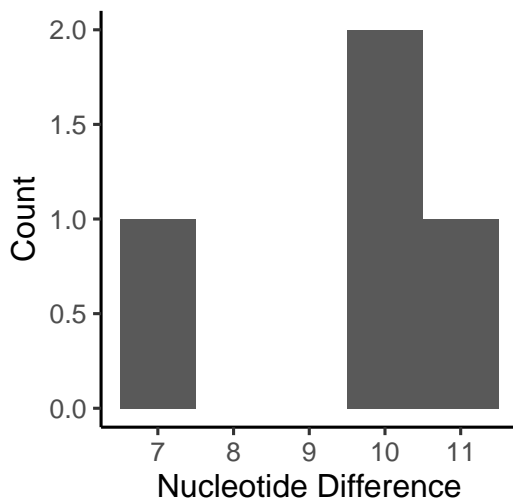
IGHV1-46*01

2894 sequences assigned
829 (28.6%) exact matches, in which:
789 unique CDR3
6 unique J



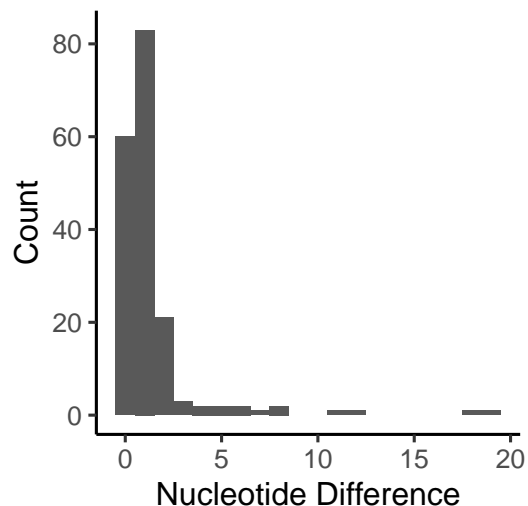
IGHV1-NL1*01

4 sequences assigned
No exact matches.



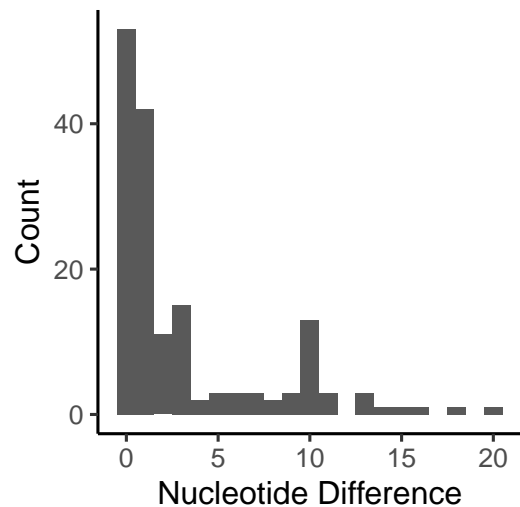
IGHV2-70*01

181 sequences assigned
60 (33.1%) exact matches, in which:
55 unique CDR3
4 unique J



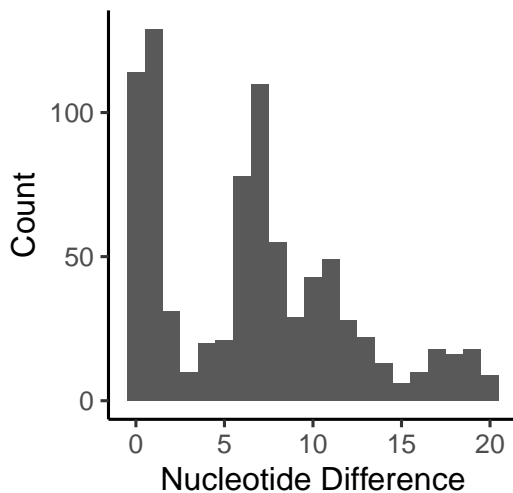
IGHV1-58*01_03

161 sequences assigned
53 (32.9%) exact matches, in which:
52 unique CDR3
6 unique J



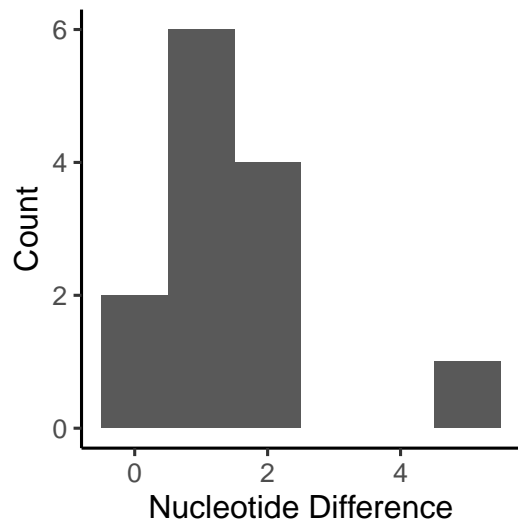
IGHV2-5*02

1014 sequences assigned
114 (11.2%) exact matches, in which:
103 unique CDR3
5 unique J



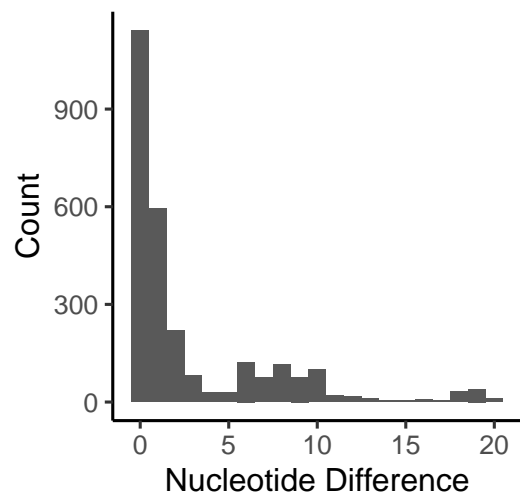
IGHV2-70*12

13 sequences assigned
2 (15.4%) exact matches, in which:
2 unique CDR3
2 unique J



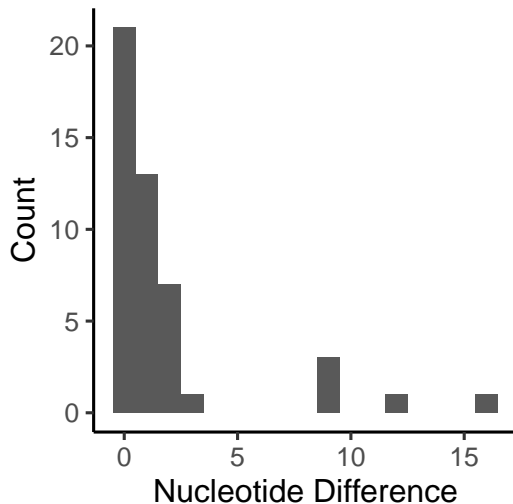
IGHV1-69*04_09_A244C

3494 sequences assigned
1142 (32.7%) exact matches, in which:
1093 unique CDR3
6 unique J



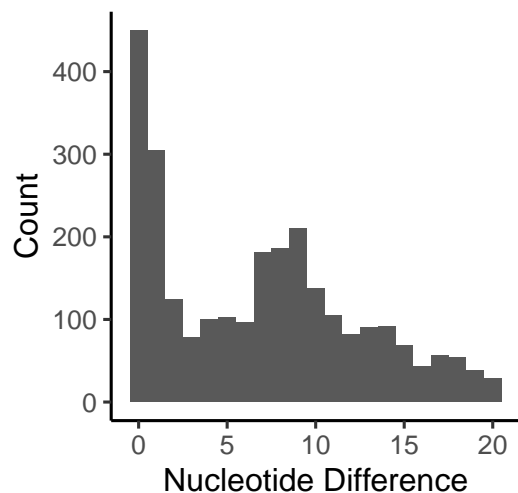
IGHV2-26*01

48 sequences assigned
21 (43.8%) exact matches, in which:
20 unique CDR3
5 unique J



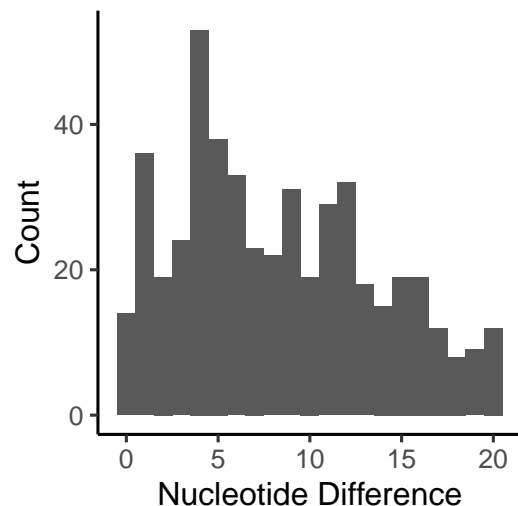
IGHV3-7*01

2773 sequences assigned
450 (16.2%) exact matches, in which:
364 unique CDR3
6 unique J



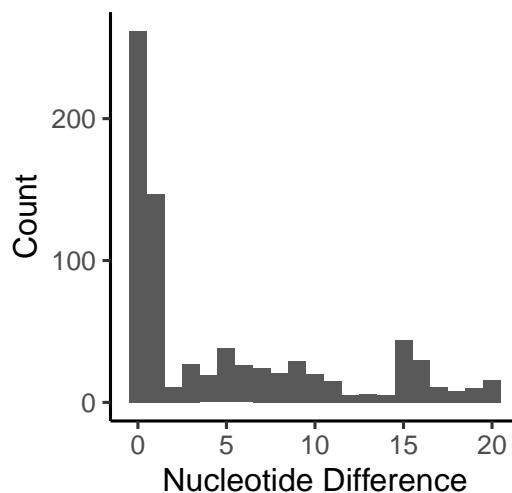
IGHV3-7*03

531 sequences assigned
14 (2.6%) exact matches, in which:
14 unique CDR3
2 unique J



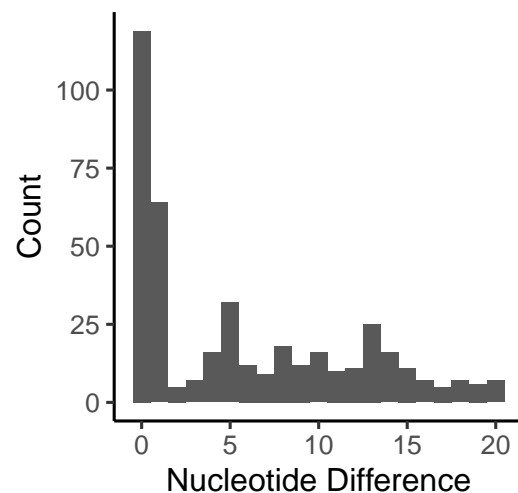
IGHV3-11*01

973 sequences assigned
262 (26.9%) exact matches, in which:
213 unique CDR3
6 unique J



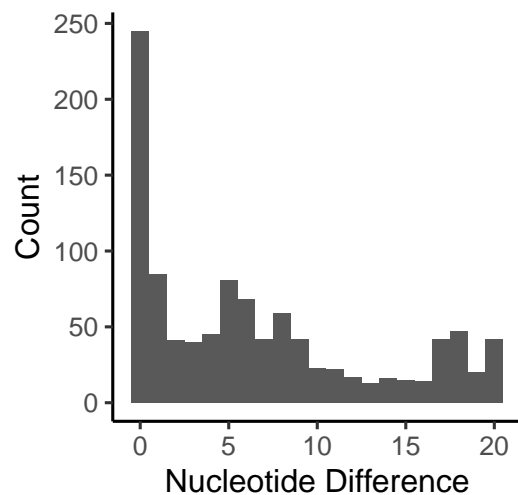
IGHV3-15*01_02

525 sequences assigned
119 (22.7%) exact matches, in which:
91 unique CDR3
5 unique J



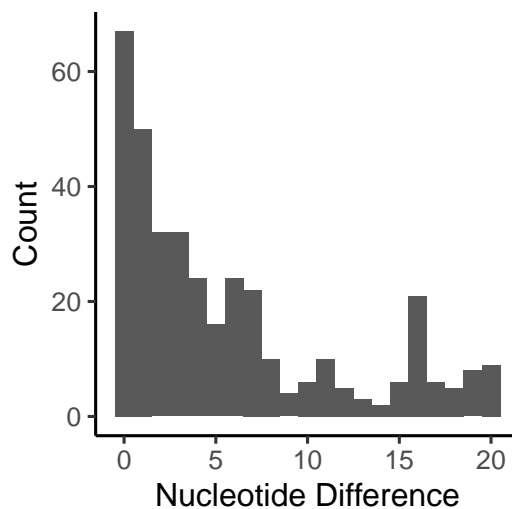
IGHV3-9*01

1430 sequences assigned
245 (17.1%) exact matches, in which:
208 unique CDR3
6 unique J



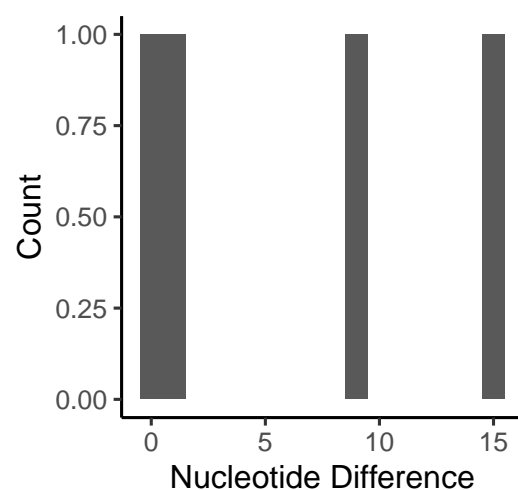
IGHV3-11*04

420 sequences assigned
67 (16%) exact matches, in which:
66 unique CDR3
5 unique J



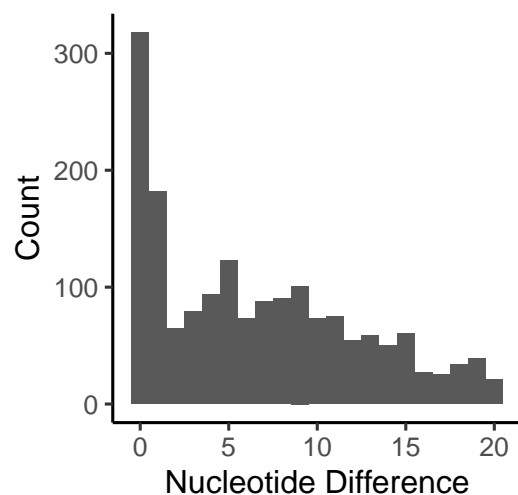
IGHV3-19*01

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



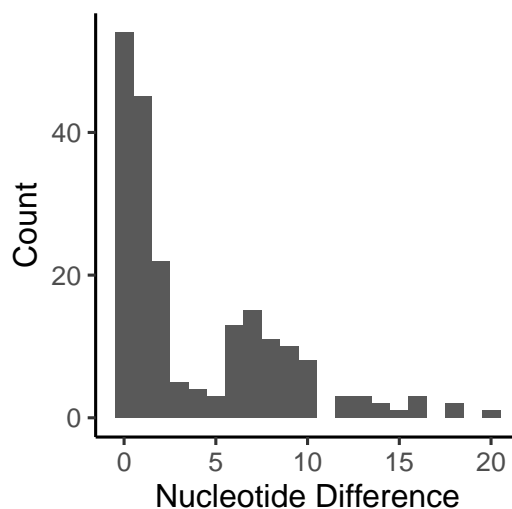
IGHV3-9*01_A104G

2090 sequences assigned
318 (15.2%) exact matches, in which:
242 unique CDR3
6 unique J



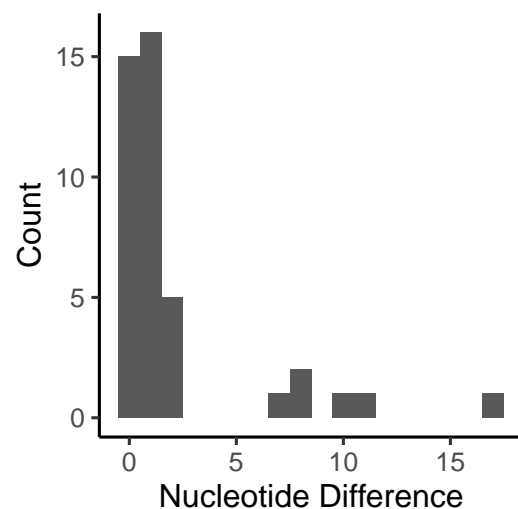
IGHV3-13*01

240 sequences assigned
54 (22.5%) exact matches, in which:
44 unique CDR3
5 unique J



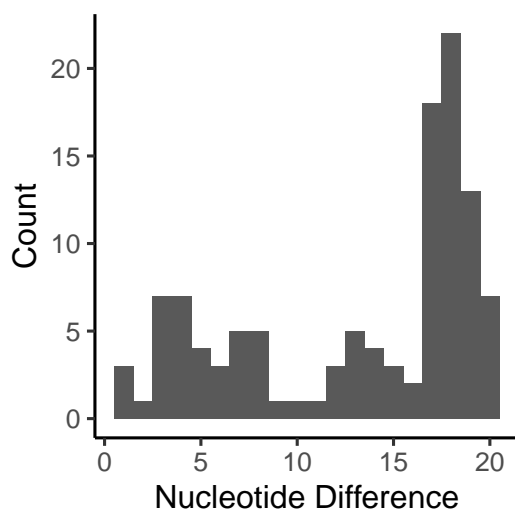
IGHV3-20*01_02

42 sequences assigned
15 (35.7%) exact matches, in which:
13 unique CDR3
3 unique J



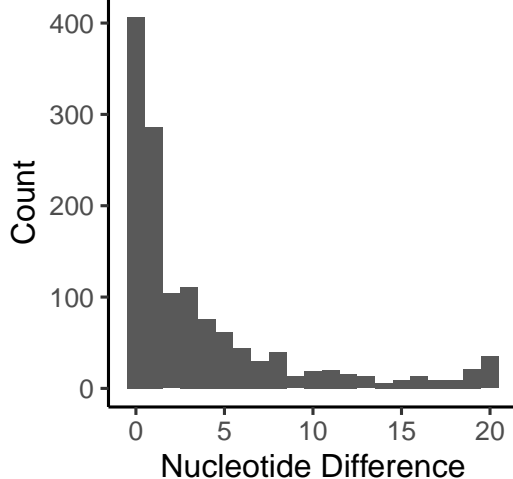
IGHV3-20*03_04

159 sequences assigned
No exact matches.



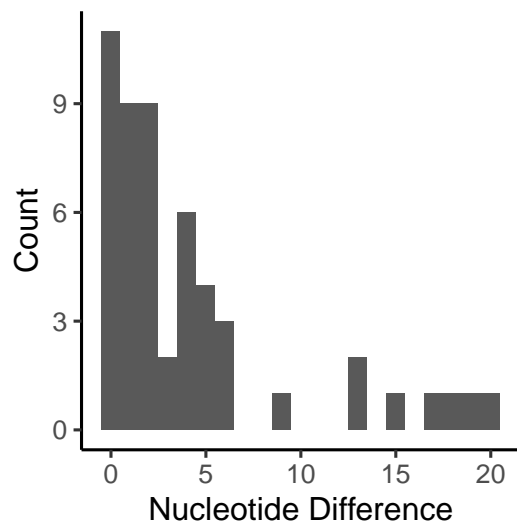
IGHV3-30-3*01

1546 sequences assigned
407 (26.3%) exact matches, in which:
343 unique CDR3
6 unique J



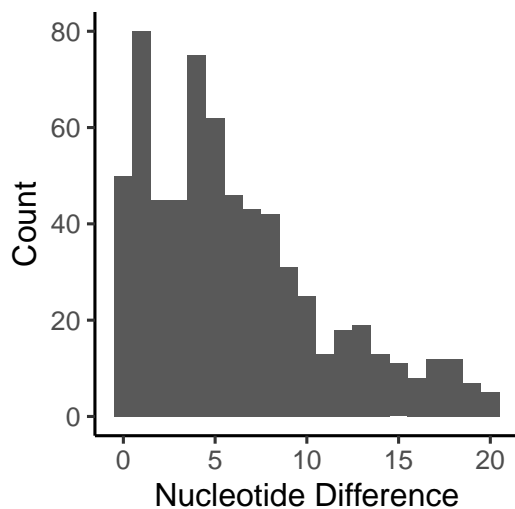
IGHV3-33*05

72 sequences assigned
11 (15.3%) exact matches, in which:
10 unique CDR3
3 unique J



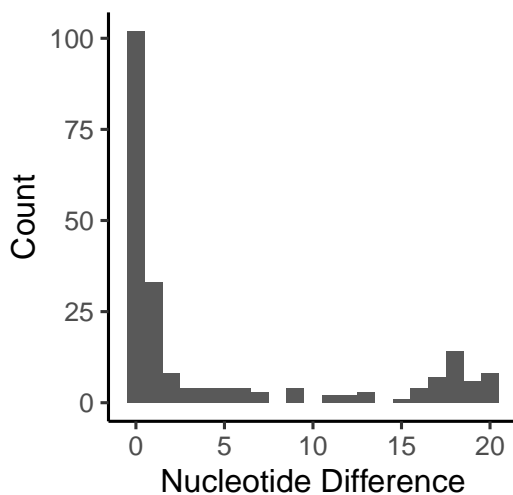
IGHV3-21*04

710 sequences assigned
50 (7%) exact matches, in which:
50 unique CDR3
5 unique J



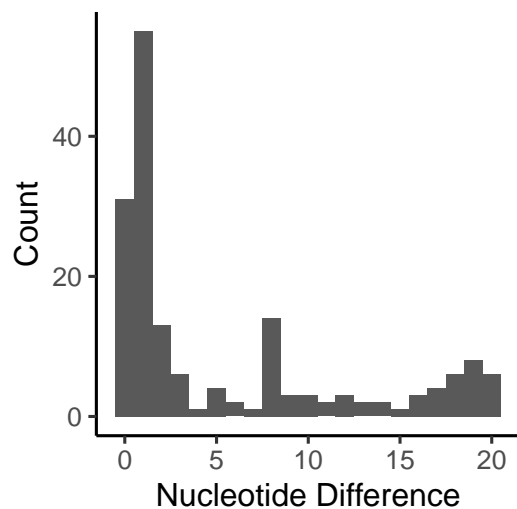
IGHV3-30*03

342 sequences assigned
102 (29.8%) exact matches, in which:
97 unique CDR3
6 unique J



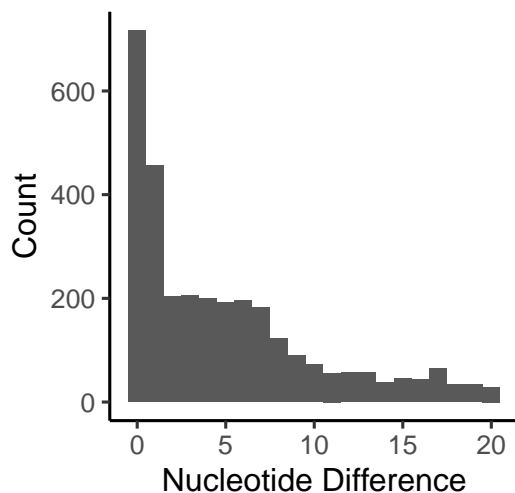
IGHV3-33*06

196 sequences assigned
31 (15.8%) exact matches, in which:
31 unique CDR3
5 unique J



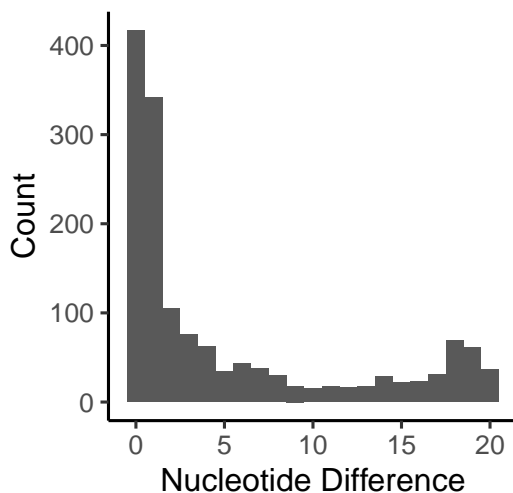
IGHV3-21*01_02

3411 sequences assigned
717 (21%) exact matches, in which:
589 unique CDR3
6 unique J



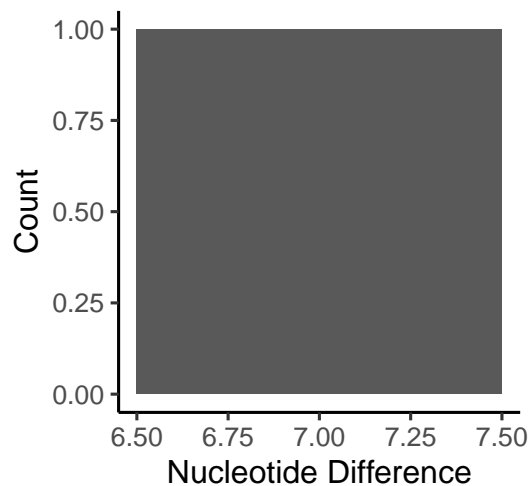
IGHV3-33*01

1843 sequences assigned
417 (22.6%) exact matches, in which:
348 unique CDR3
6 unique J



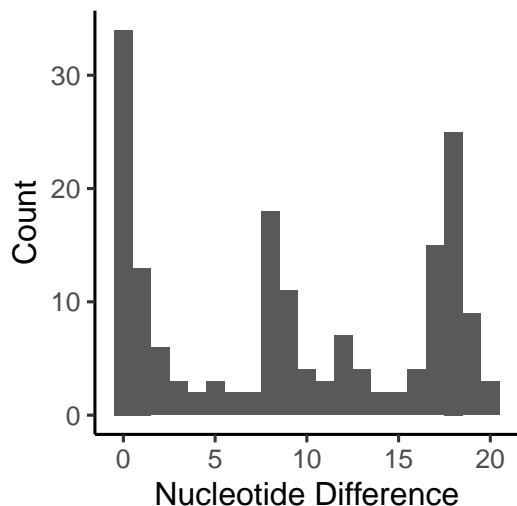
IGHV3-35*01

2 sequences assigned
No exact matches.



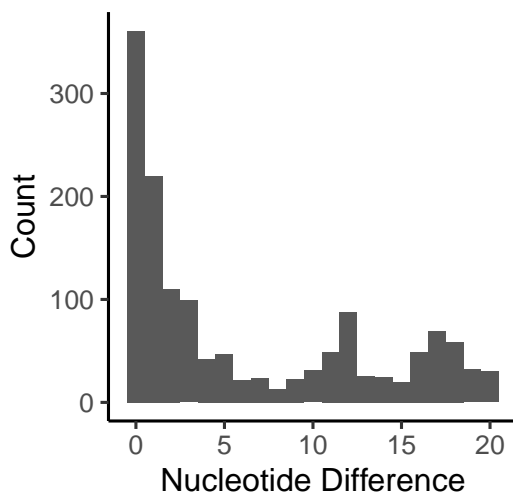
IGHV3-43*01

218 sequences assigned
34 (15.6%) exact matches, in which:
26 unique CDR3
4 unique J



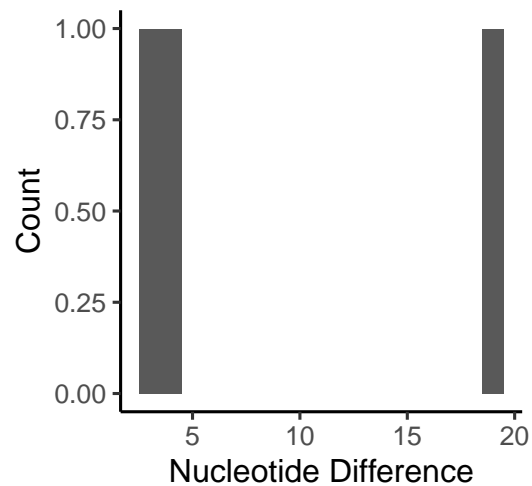
IGHV3-48*02

1597 sequences assigned
361 (22.6%) exact matches, in which:
268 unique CDR3
6 unique J



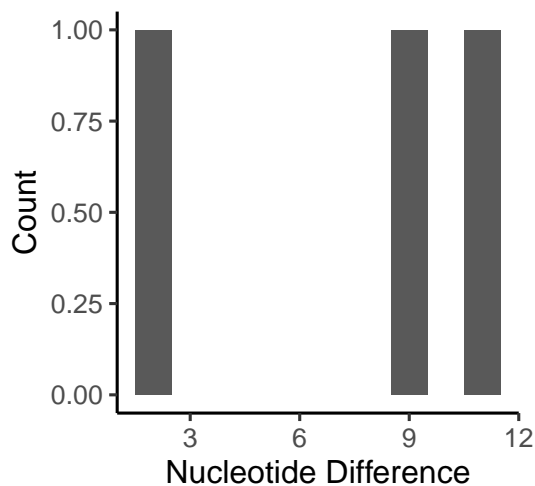
IGHV3-52*01_03

3 sequences assigned
No exact matches.



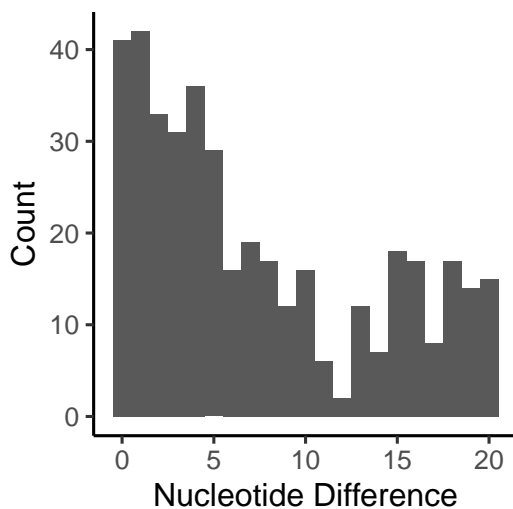
IGHV3-47*02

3 sequences assigned
No exact matches.



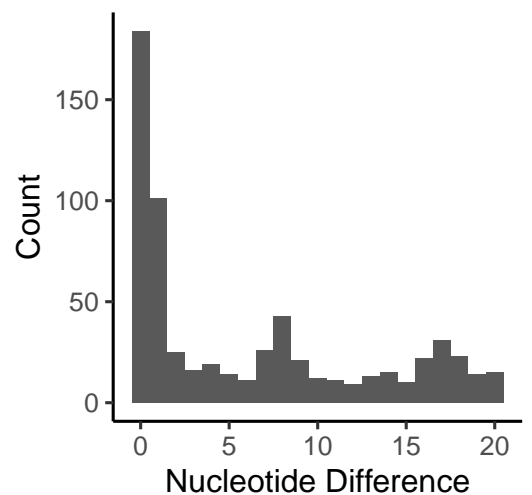
IGHV3-48*04

477 sequences assigned
41 (8.6%) exact matches, in which:
40 unique CDR3
4 unique J



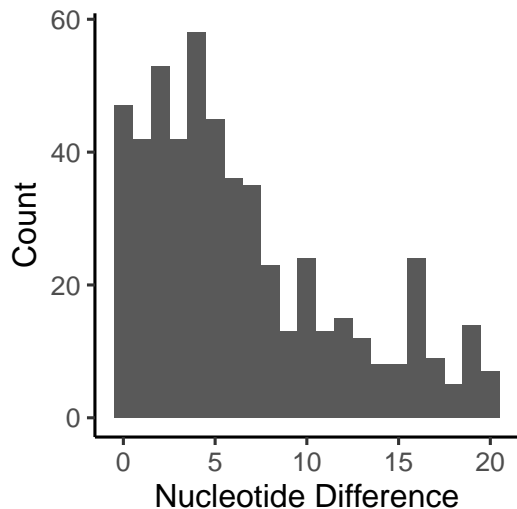
IGHV3-53*01_02

820 sequences assigned
184 (22.4%) exact matches, in which:
160 unique CDR3
6 unique J



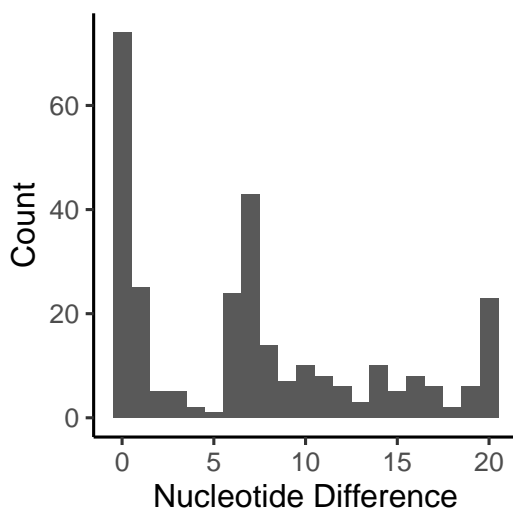
IGHV3-48*01

572 sequences assigned
47 (8.2%) exact matches, in which:
46 unique CDR3
5 unique J



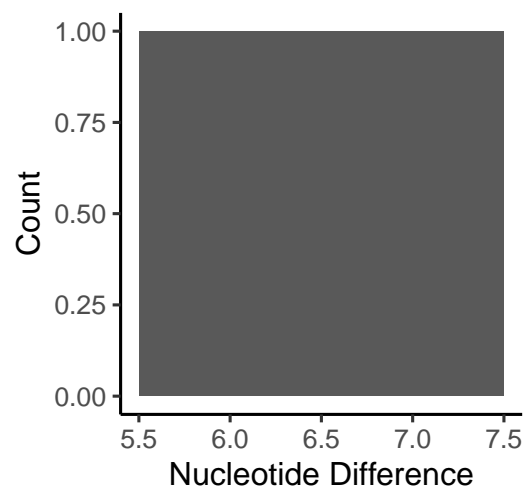
IGHV3-49*03_05

449 sequences assigned
74 (16.5%) exact matches, in which:
53 unique CDR3
6 unique J



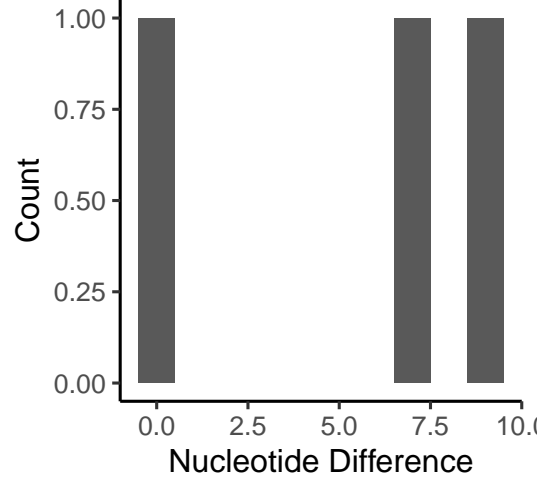
IGHV3-64*04

8 sequences assigned
No exact matches.



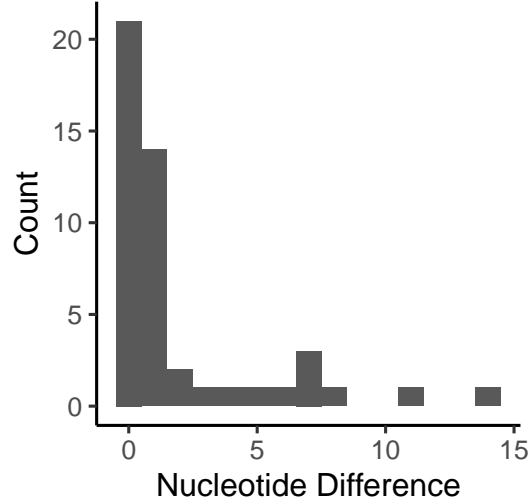
IGHV3-64*02_07

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



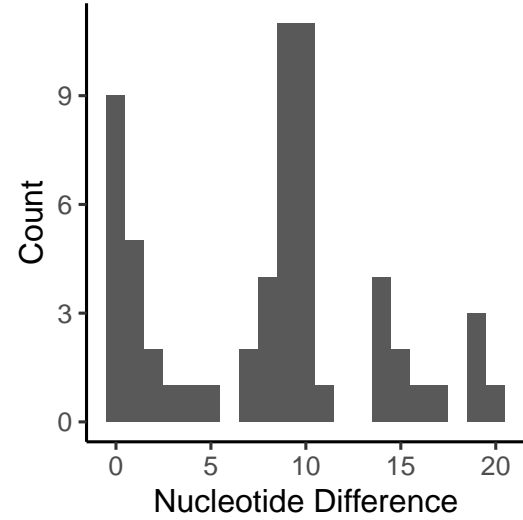
IGHV3-66*03

49 sequences assigned
21 (42.9%) exact matches, in which:
17 unique CDR3
4 unique J



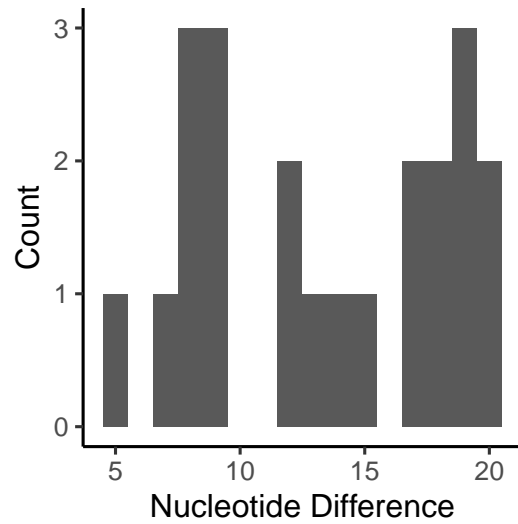
IGHV3-72*01

145 sequences assigned
9 (6.2%) exact matches, in which:
7 unique CDR3
2 unique J



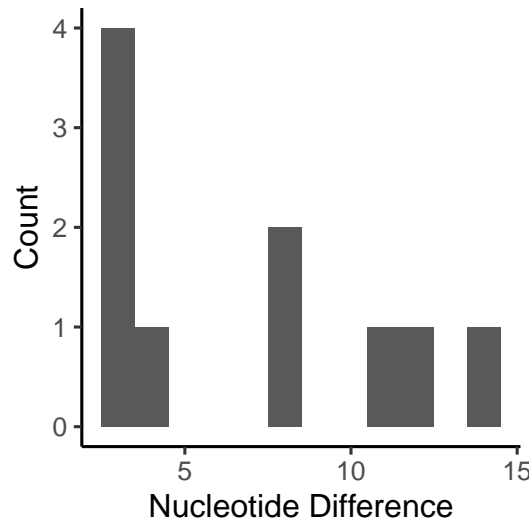
IGHV3-66*01

30 sequences assigned
No exact matches.



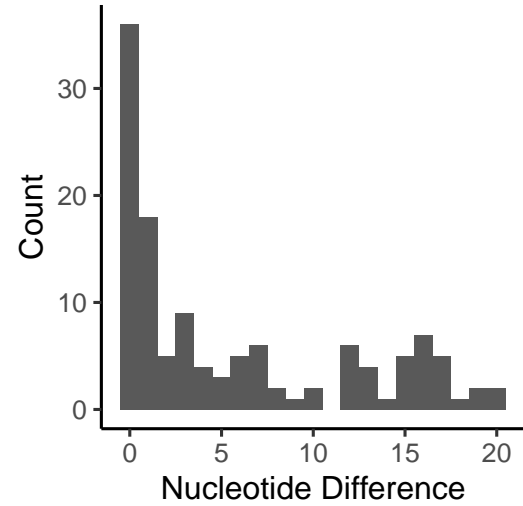
IGHV3-69-1*01

22 sequences assigned
No exact matches.



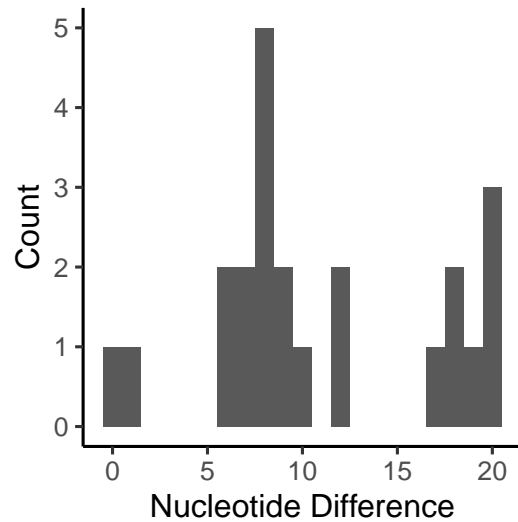
IGHV3-73*01_02

228 sequences assigned
36 (15.8%) exact matches, in which:
27 unique CDR3
3 unique J



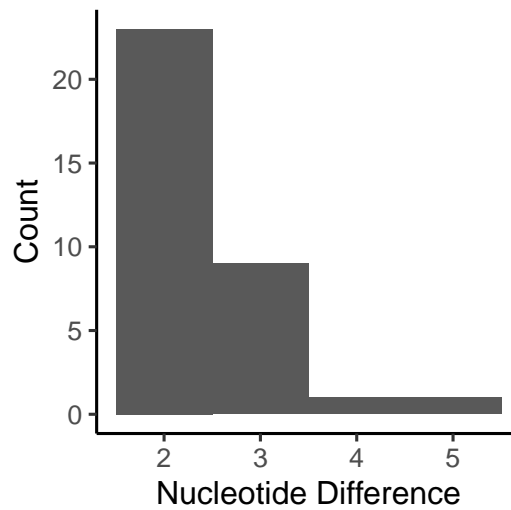
IGHV3-66*02

30 sequences assigned
1 (3.3%) exact matches, in which:
1 unique CDR3
1 unique J



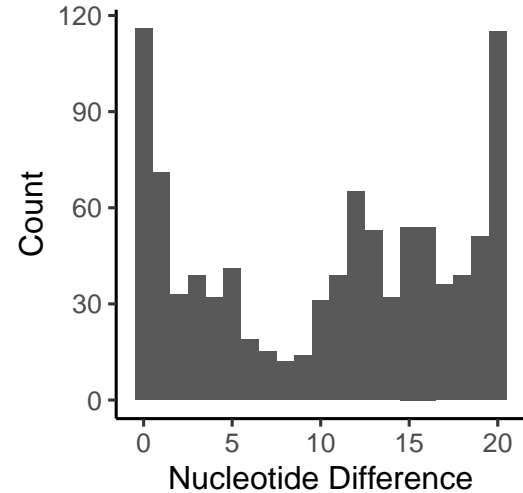
IGHV3-69-1*02

34 sequences assigned
No exact matches.



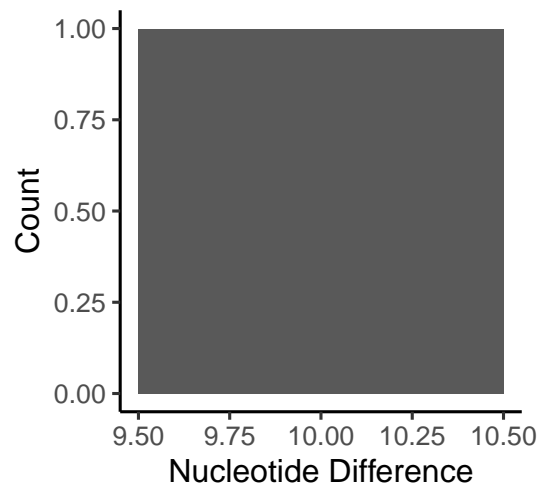
IGHV3-74*01_02

1604 sequences assigned
116 (7.2%) exact matches, in which:
96 unique CDR3
5 unique J



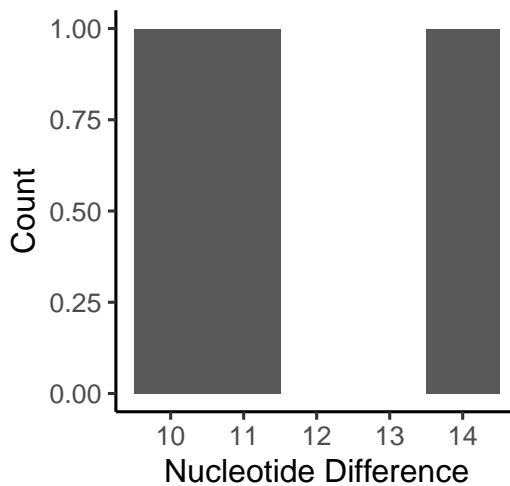
IGHV3-43D*04

1 sequences assigned
No exact matches.



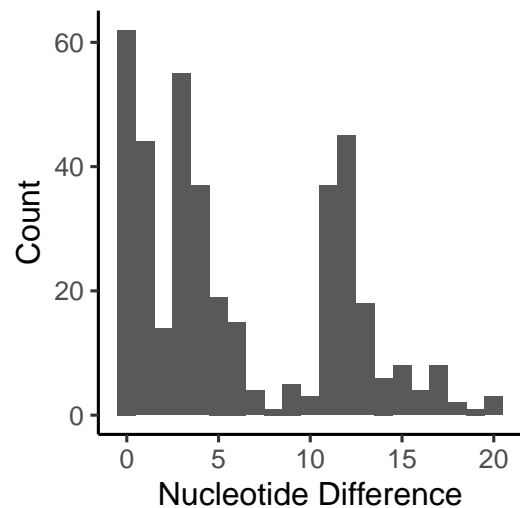
IGHV4-4*08

5 sequences assigned
No exact matches.



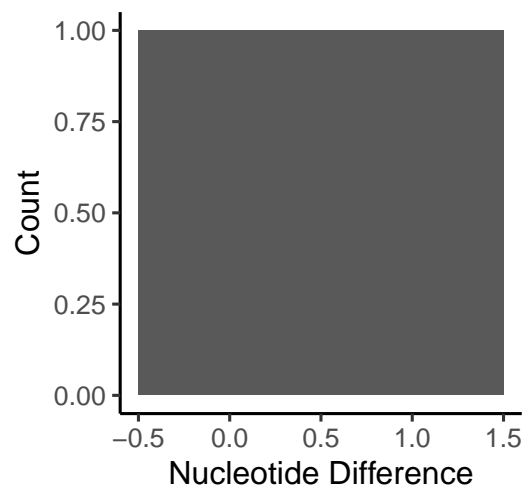
IGHV4-30-4*01

403 sequences assigned
62 (15.4%) exact matches, in which:
56 unique CDR3
4 unique J



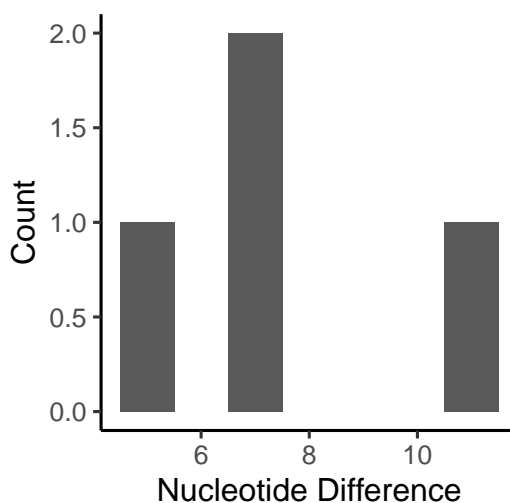
IGHV3-64D*06

17 sequences assigned
1 (5.9%) exact matches, in which:
1 unique CDR3
1 unique J



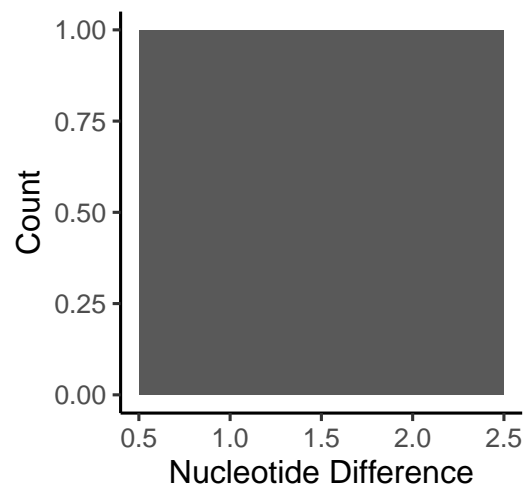
IGHV4-28*03

4 sequences assigned
No exact matches.



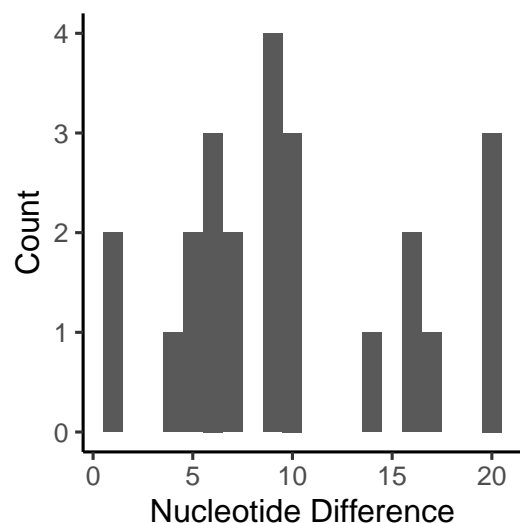
IGHV4-30-2*01

2 sequences assigned
No exact matches.



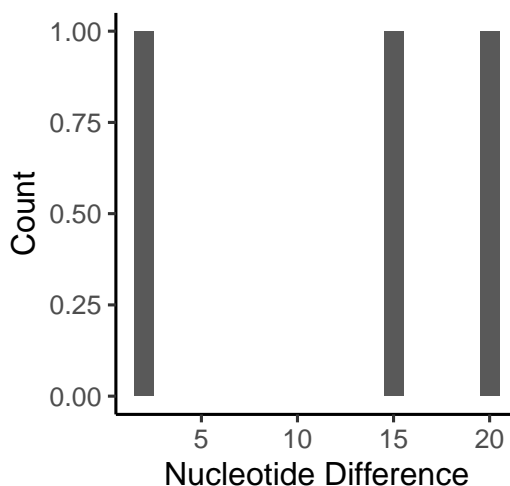
IGHV3-NL1*01

41 sequences assigned
No exact matches.



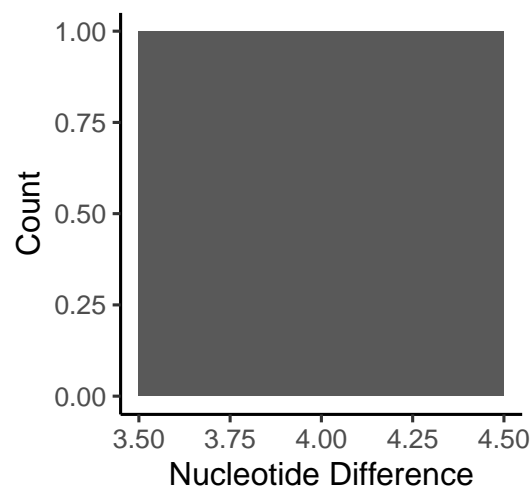
IGHV4-28*01_07

17 sequences assigned
No exact matches.



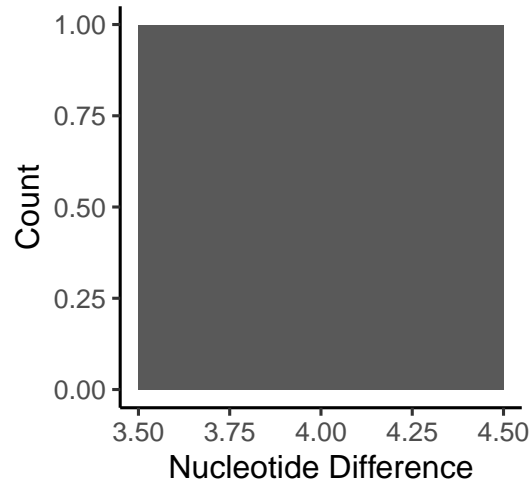
IGHV4-30-2*04

1 sequences assigned
No exact matches.



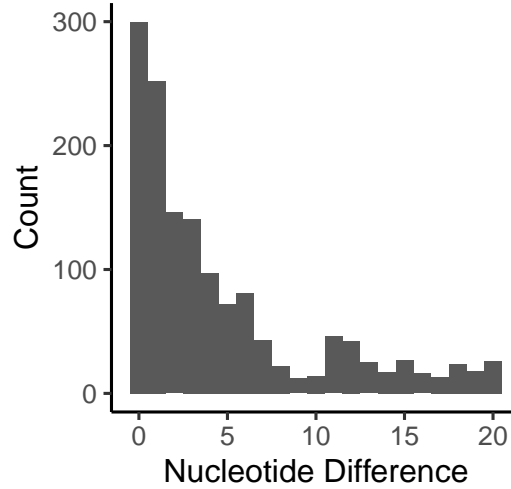
IGHV4-30-2*05

1 sequences assigned
No exact matches.



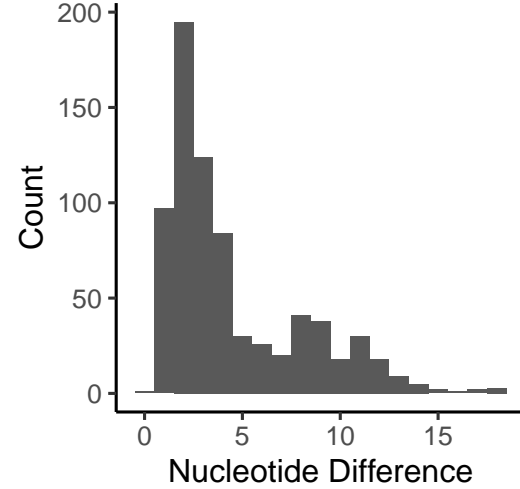
IGHV4-31*03_04

1664 sequences assigned
300 (18%) exact matches, in which:
262 unique CDR3
6 unique J



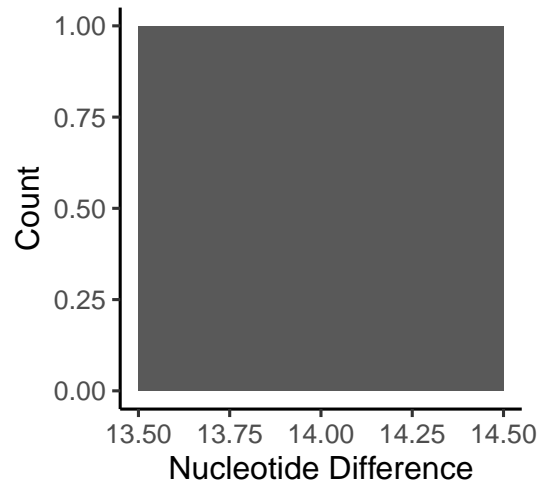
IGHV4-39*07

761 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



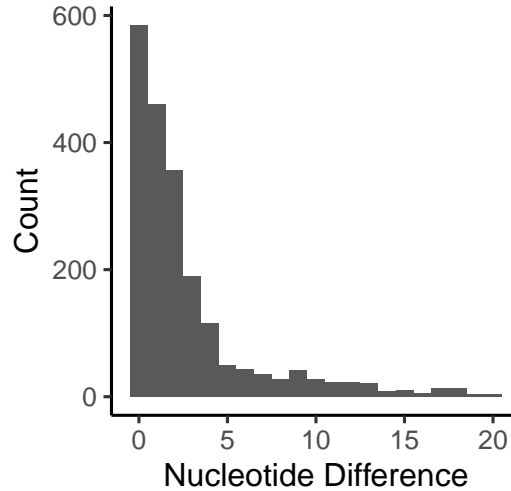
IGHV4-30-2*06

1 sequences assigned
No exact matches.



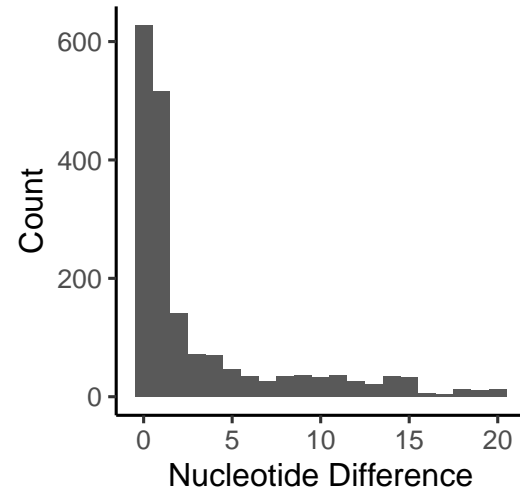
IGHV4-34*01_02

2304 sequences assigned
585 (25.4%) exact matches, in which:
524 unique CDR3
6 unique J



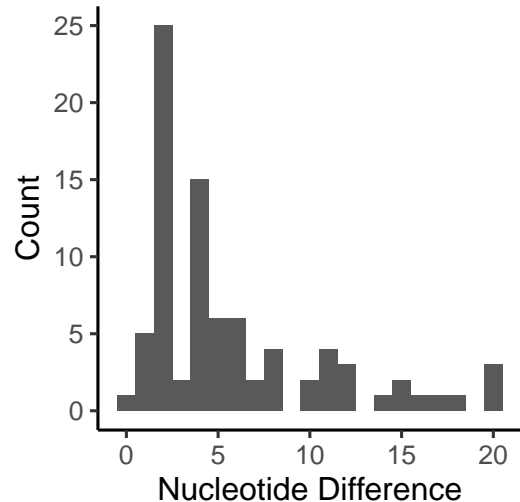
IGHV4-39*01_05

2056 sequences assigned
628 (30.5%) exact matches, in which:
559 unique CDR3
6 unique J



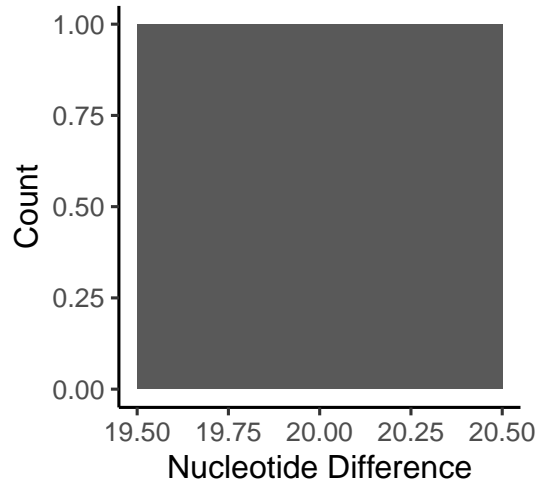
IGHV4-30-4*08

88 sequences assigned
1 (1.1%) exact matches, in which:
1 unique CDR3
1 unique J



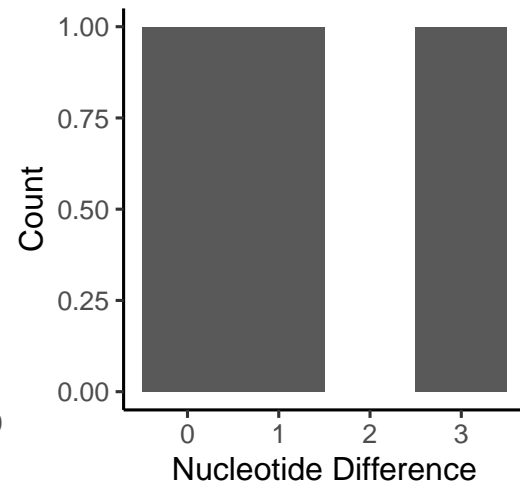
IGHV4-38-2*02

1 sequences assigned
No exact matches.



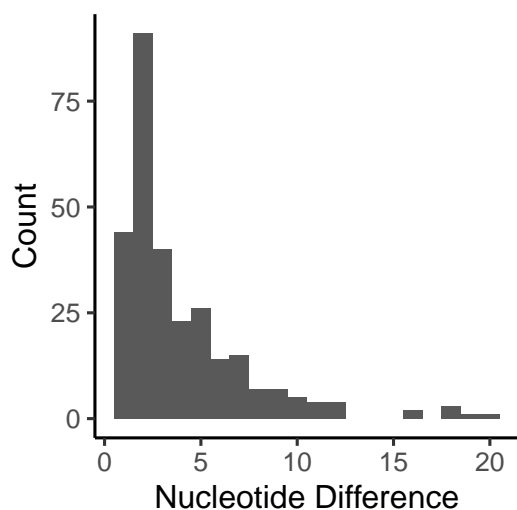
IGHV4-55*01_05

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



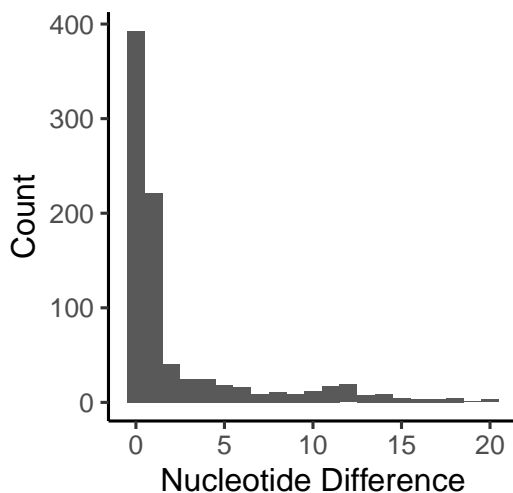
IGHV4-59*08

292 sequences assigned
No exact matches.



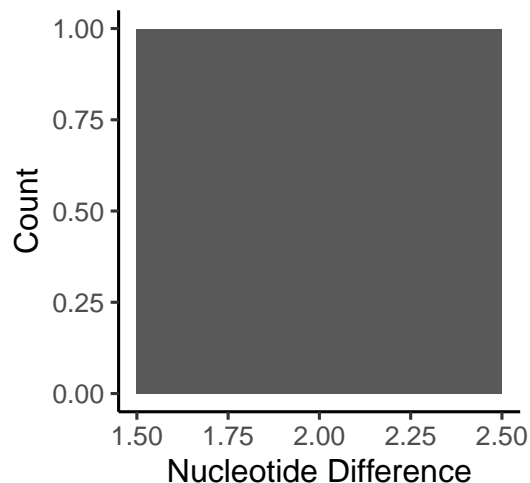
IGHV4-59*13

994 sequences assigned
393 (39.5%) exact matches, in which:
368 unique CDR3
6 unique J



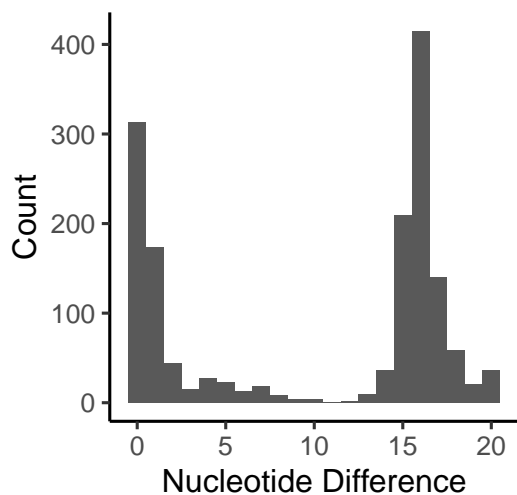
IGHV5-10-1*04

1 sequences assigned
No exact matches.



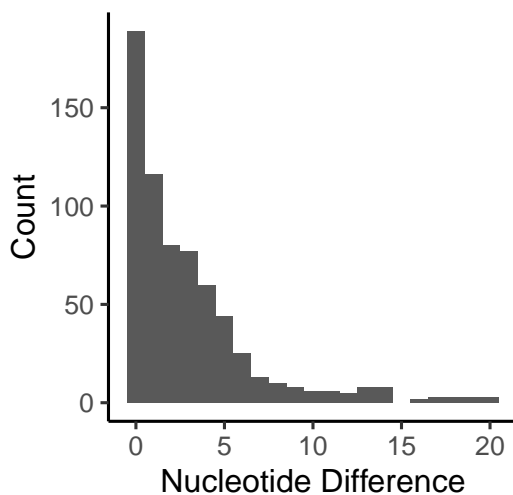
IGHV4-59*01_07

2576 sequences assigned
313 (12.2%) exact matches, in which:
298 unique CDR3
6 unique J



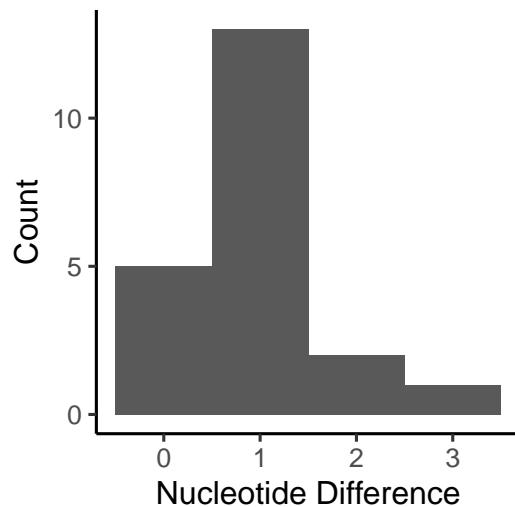
IGHV4-61*01

715 sequences assigned
189 (26.4%) exact matches, in which:
179 unique CDR3
6 unique J



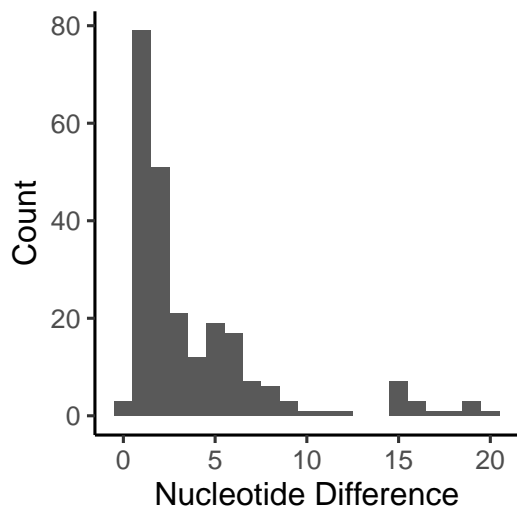
IGHV5-10-1*01_03

21 sequences assigned
5 (23.8%) exact matches, in which:
4 unique CDR3
2 unique J



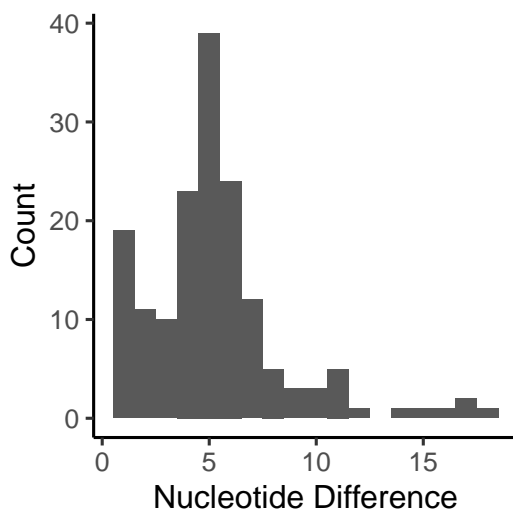
IGHV4-59*12

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



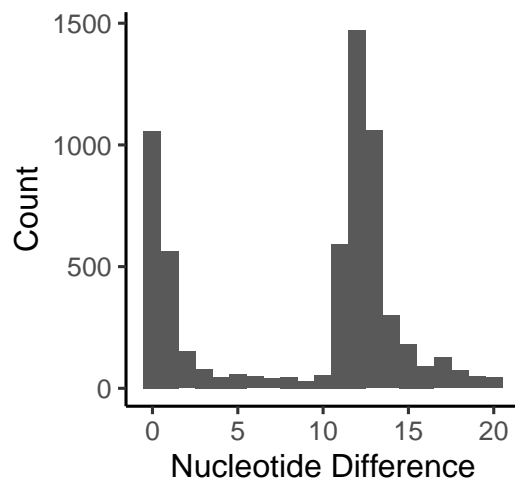
IGHV4-61*08

197 sequences assigned
No exact matches.



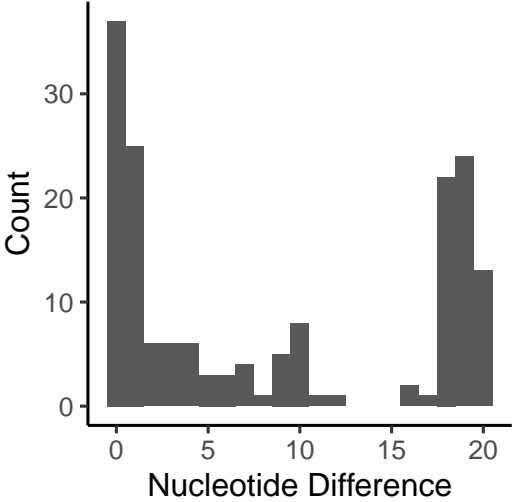
IGHV5-51*01_03

6646 sequences assigned
1057 (15.9%) exact matches, in which:
840 unique CDR3
6 unique J



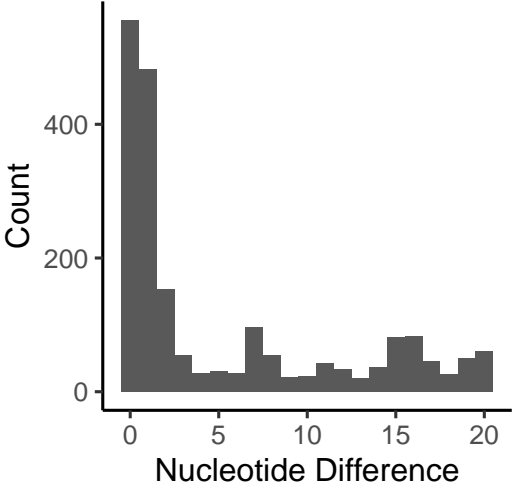
IGHV6-1*01_02

174 sequences assigned
37 (21.3%) exact matches, in which:
36 unique CDR3
4 unique J



IGHV7-4-1*02

2724 sequences assigned
556 (20.4%) exact matches, in which:
523 unique CDR3
6 unique J





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

Novel sequence(s)IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30–3*01_T288CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30*03_T288C 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.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–33*01_G75CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–33*01_G75CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30*03_T288CIGHV4–59*02_G88AIGHV5–51*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_G112AIGHV4–59*02_G88AIGHV5–10–1*01_03_T258CIGHV5–51*07_A128G are not listed in the genotype and will be ignored.