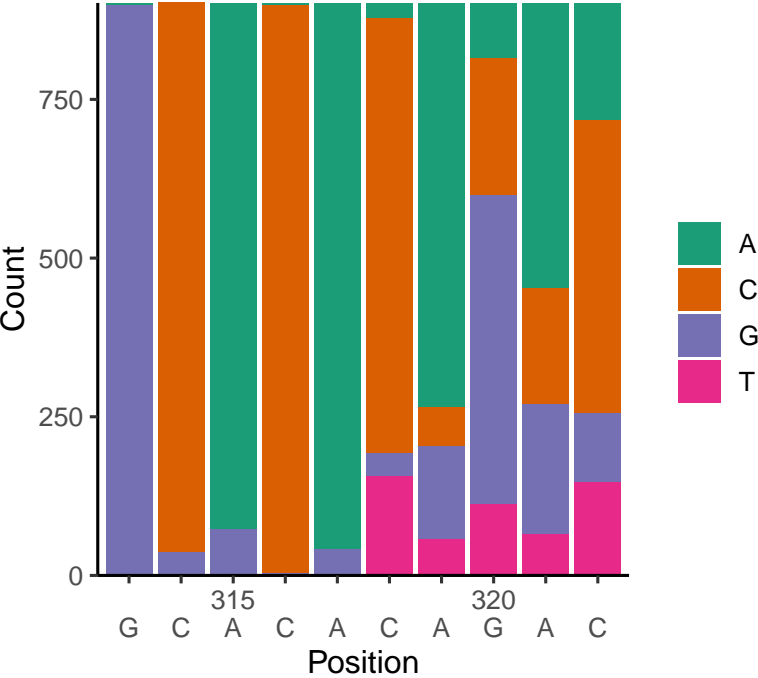
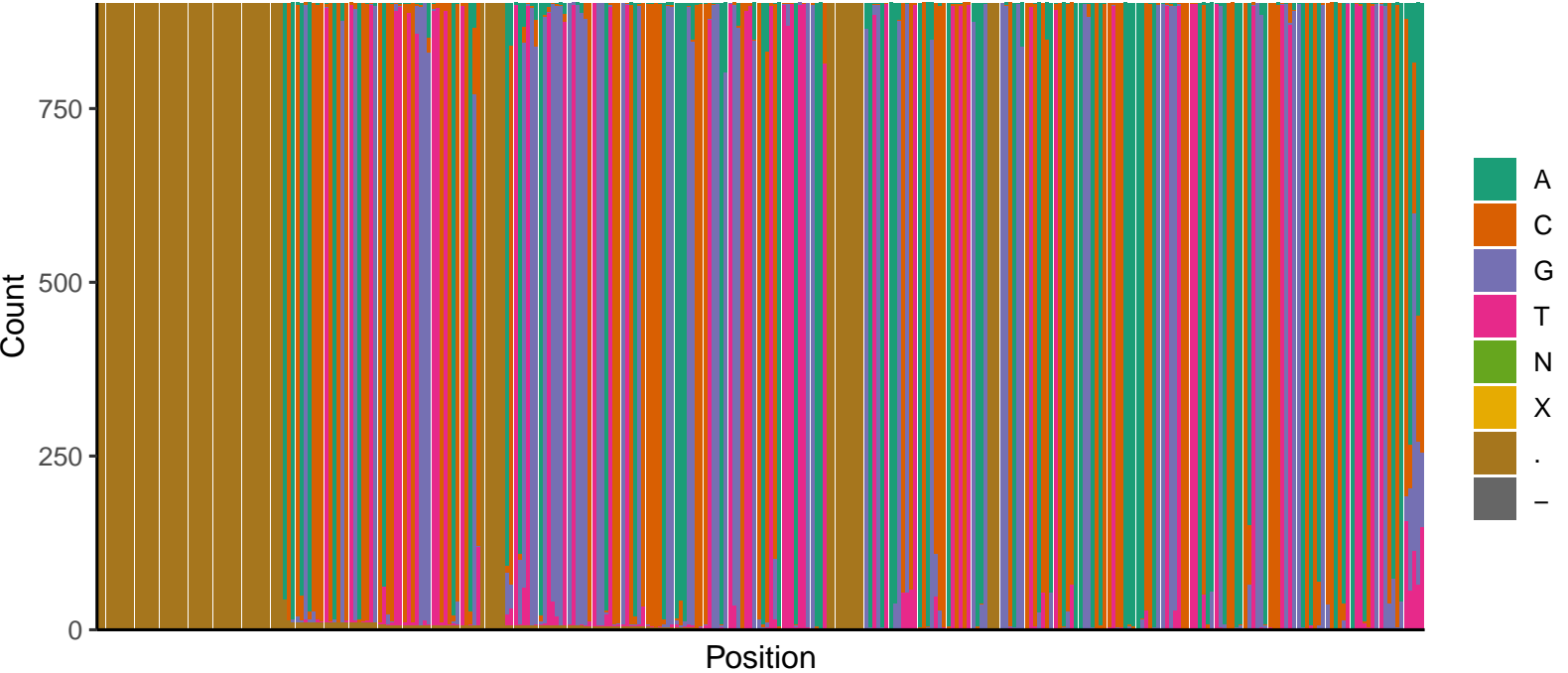


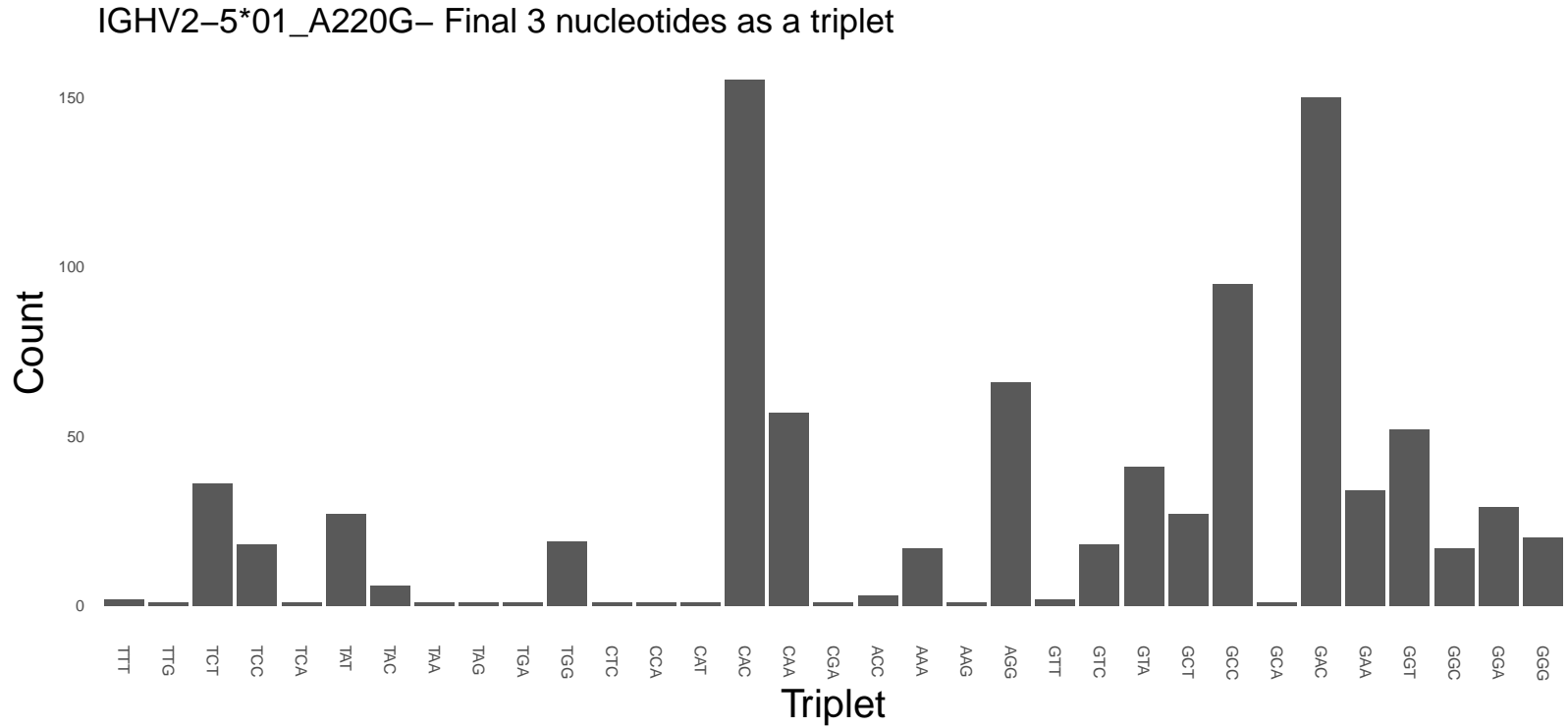
Gene IGHV2-5*01_A220G



Gene IGHV2-5*01_A220G

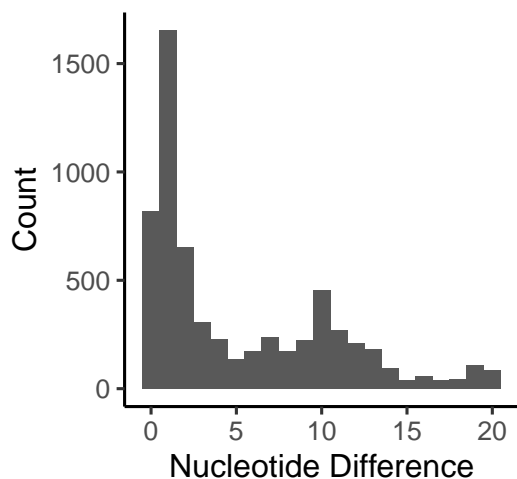


IGHV2-5*01_A220G- Final 3 nucleotides as a triplet



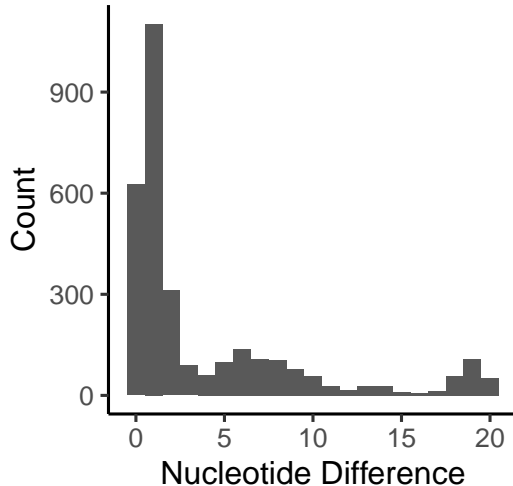
IGHV1-2*02

8143 sequences assigned
820 (10.1%) exact matches, in which:
598 unique CDR3
5 unique J



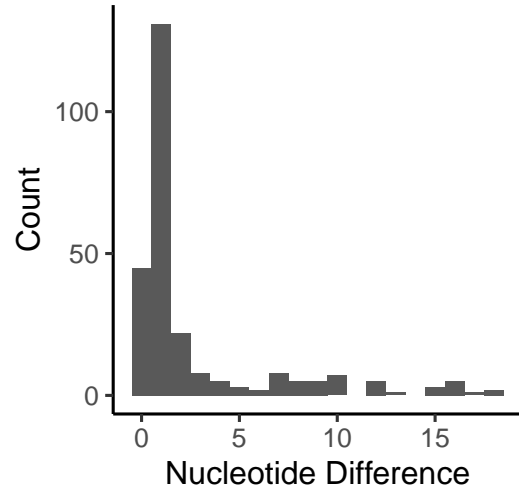
IGHV1-8*01

3407 sequences assigned
626 (18.4%) exact matches, in which:
455 unique CDR3
6 unique J



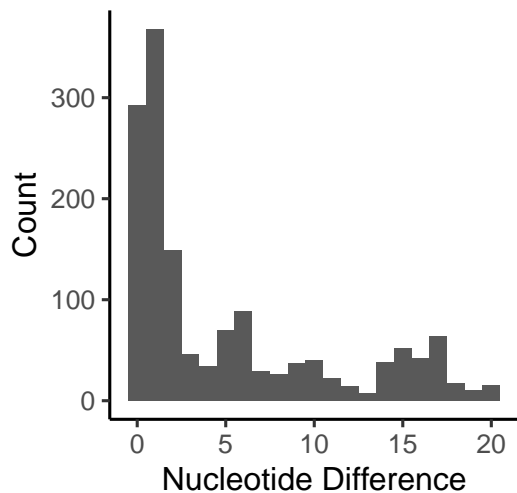
IGHV1-45*02

258 sequences assigned
45 (17.4%) exact matches, in which:
23 unique CDR3
3 unique J



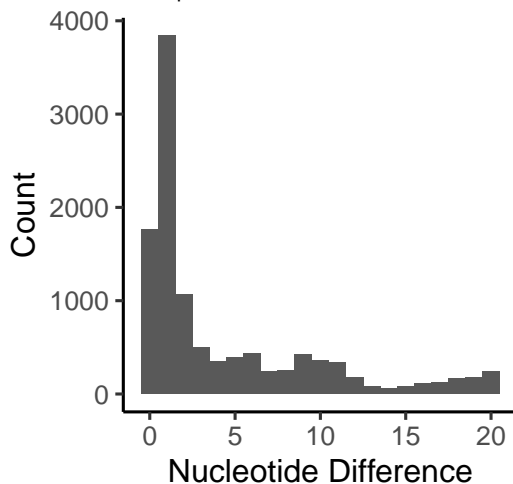
IGHV1-2*04

1478 sequences assigned
293 (19.8%) exact matches, in which:
235 unique CDR3
6 unique J



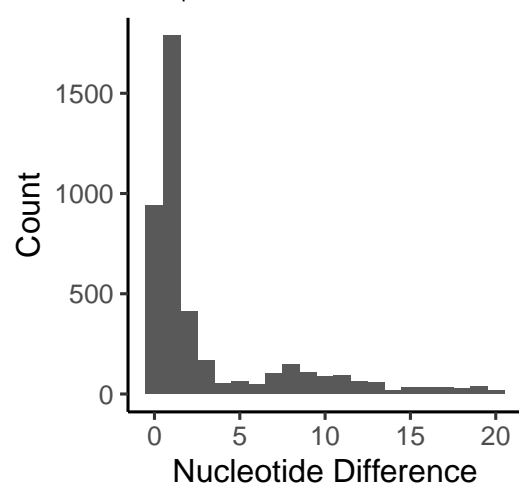
IGHV1-18*01

12902 sequences assigned
1768 (13.7%) exact matches, in which:
1167 unique CDR3
6 unique J



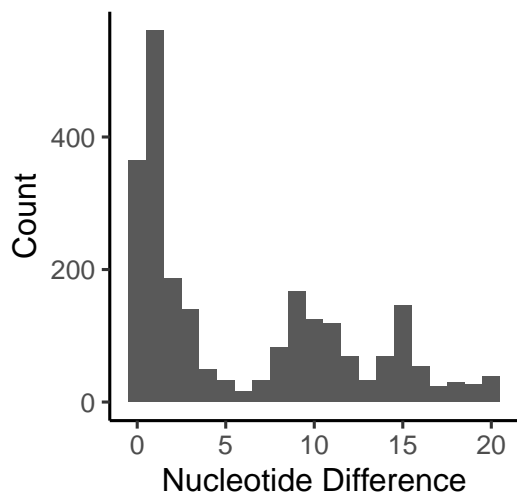
IGHV1-46*01

5149 sequences assigned
942 (18.3%) exact matches, in which:
631 unique CDR3
6 unique J



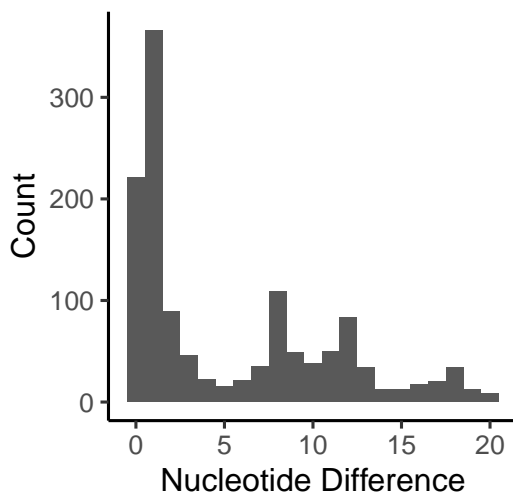
IGHV1-3*01_05

2743 sequences assigned
365 (13.3%) exact matches, in which:
267 unique CDR3
6 unique J



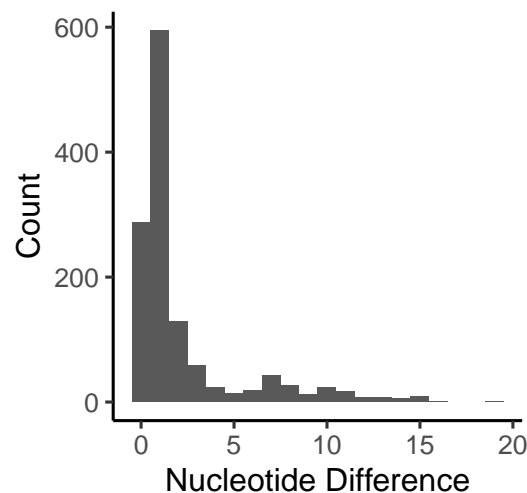
IGHV1-24*01

1327 sequences assigned
221 (16.7%) exact matches, in which:
150 unique CDR3
4 unique J



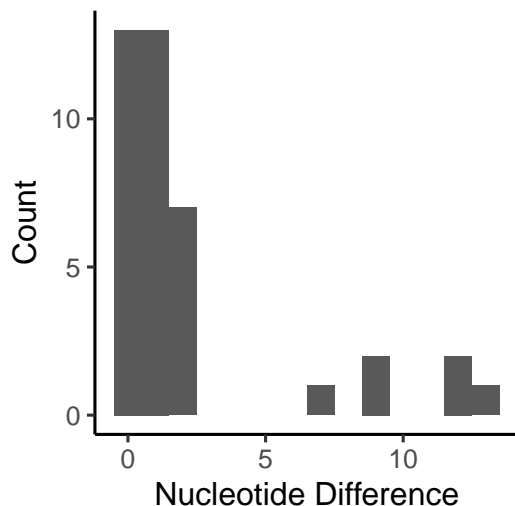
IGHV1-58*01_03

1277 sequences assigned
288 (22.6%) exact matches, in which:
194 unique CDR3
6 unique J



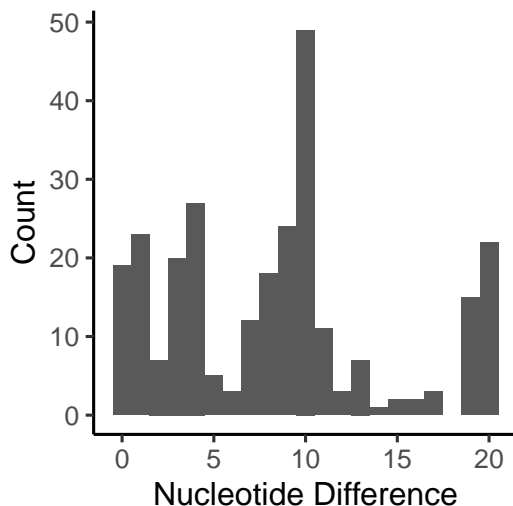
IGHV1-69-2*01

39 sequences assigned
13 (33.3%) exact matches, in which:
8 unique CDR3
3 unique J



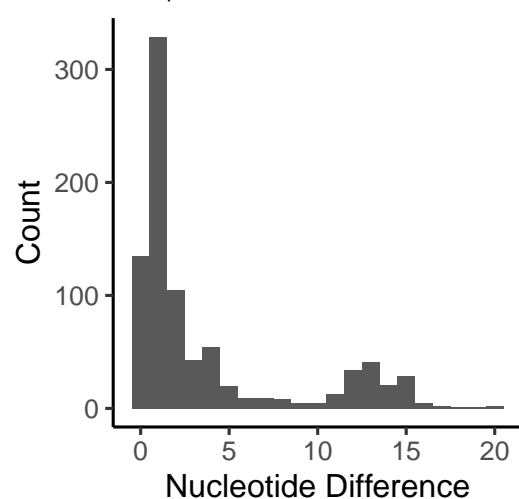
IGHV2-5*02

315 sequences assigned
19 (6%) exact matches, in which:
16 unique CDR3
2 unique J



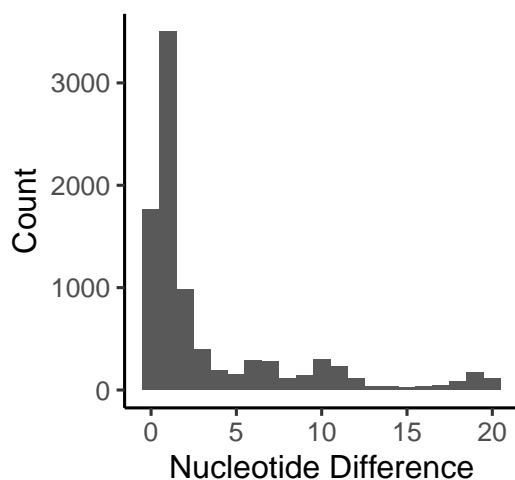
IGHV2-70*01

898 sequences assigned
135 (15%) exact matches, in which:
78 unique CDR3
4 unique J



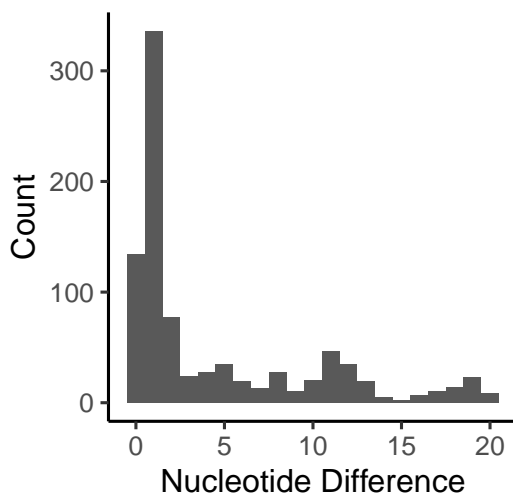
IGHV1-69*01_12_13

9843 sequences assigned
1762 (17.9%) exact matches, in which:
1244 unique CDR3
6 unique J



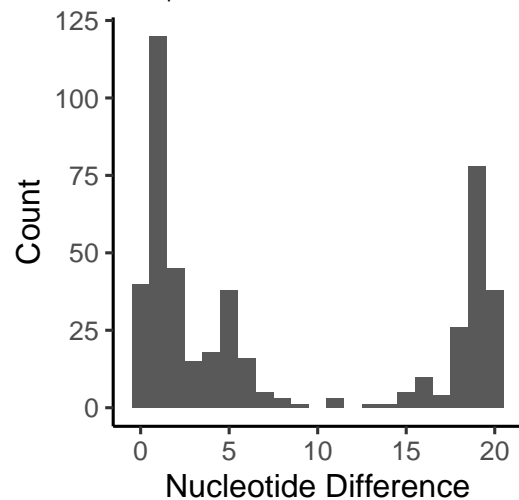
IGHV2-5*01_A220G

902 sequences assigned
134 (14.9%) exact matches, in which:
71 unique CDR3
5 unique J



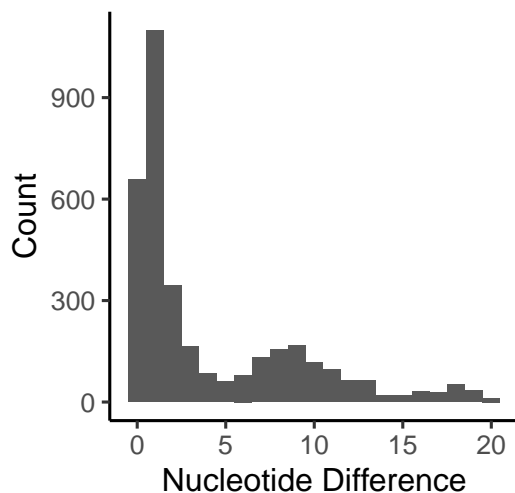
IGHV2-70*04

512 sequences assigned
40 (7.8%) exact matches, in which:
22 unique CDR3
3 unique J



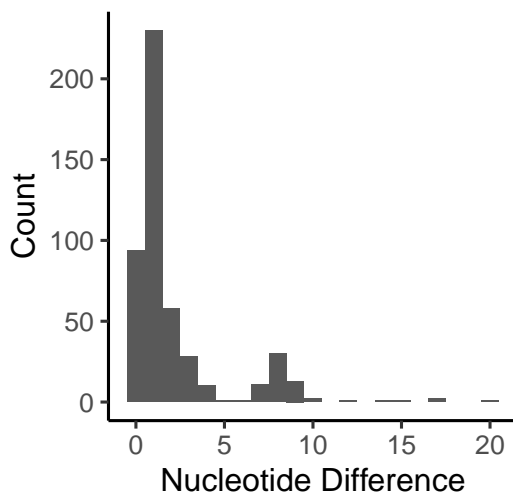
IGHV1-69*06_14

3799 sequences assigned
659 (17.3%) exact matches, in which:
506 unique CDR3
6 unique J



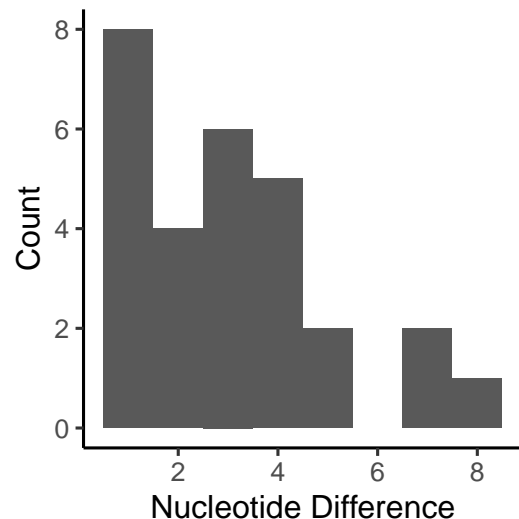
IGHV2-26*01

484 sequences assigned
94 (19.4%) exact matches, in which:
59 unique CDR3
5 unique J



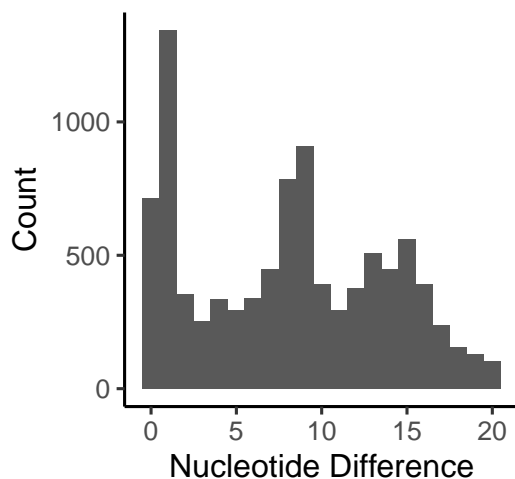
IGHV2-70*12

28 sequences assigned
No exact matches.



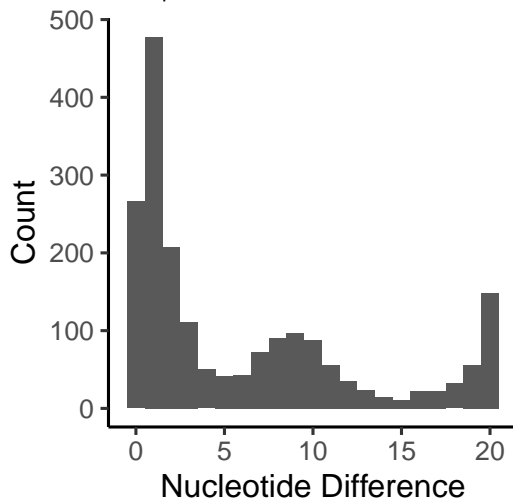
IGHV3-7*01

10149 sequences assigned
716 (7.1%) exact matches, in which:
450 unique CDR3
6 unique J



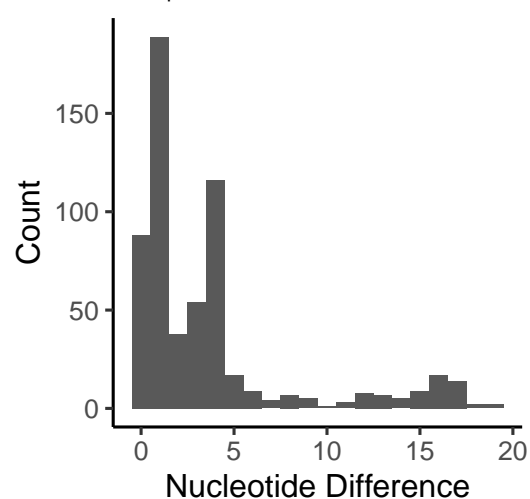
IGHV3-11*01

2972 sequences assigned
266 (9%) exact matches, in which:
180 unique CDR3
6 unique J



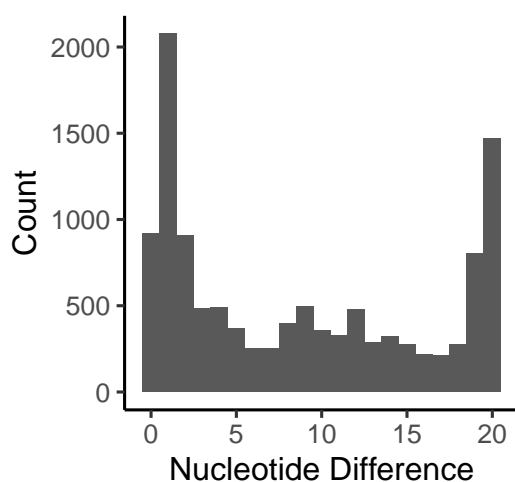
IGHV3-13*01

597 sequences assigned
88 (14.7%) exact matches, in which:
56 unique CDR3
4 unique J



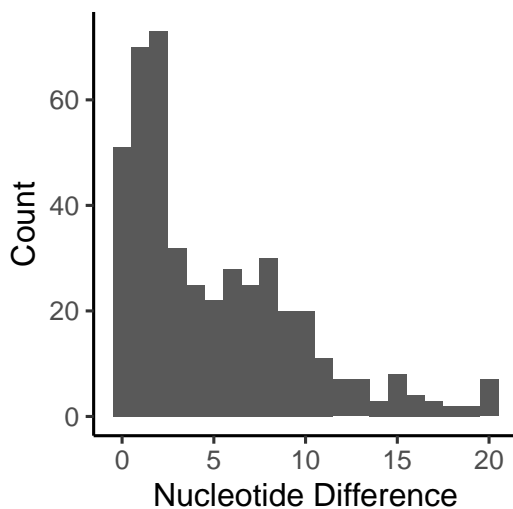
IGHV3-7*03

18148 sequences assigned
920 (5.1%) exact matches, in which:
482 unique CDR3
6 unique J



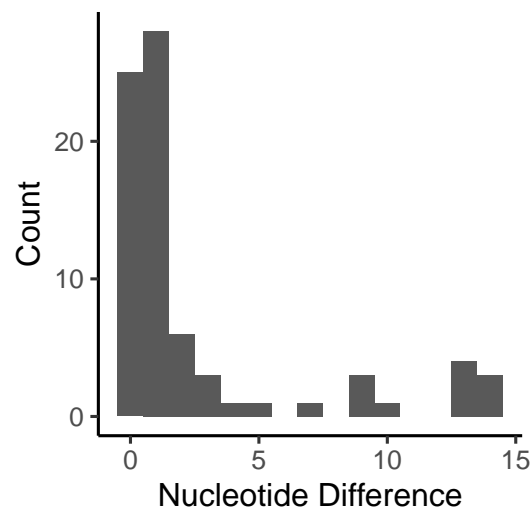
IGHV3-11*04

471 sequences assigned
51 (10.8%) exact matches, in which:
46 unique CDR3
4 unique J



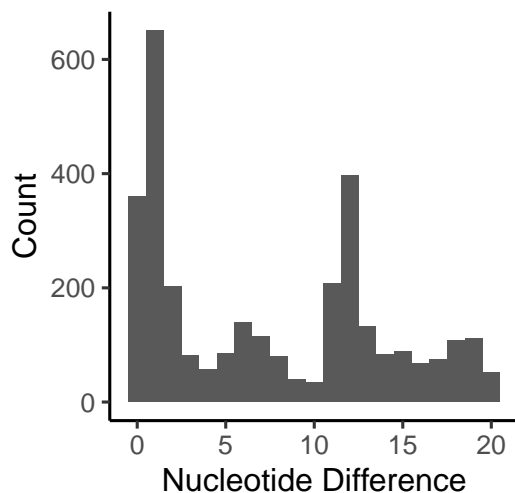
IGHV3-13*05

77 sequences assigned
25 (32.5%) exact matches, in which:
16 unique CDR3
4 unique J



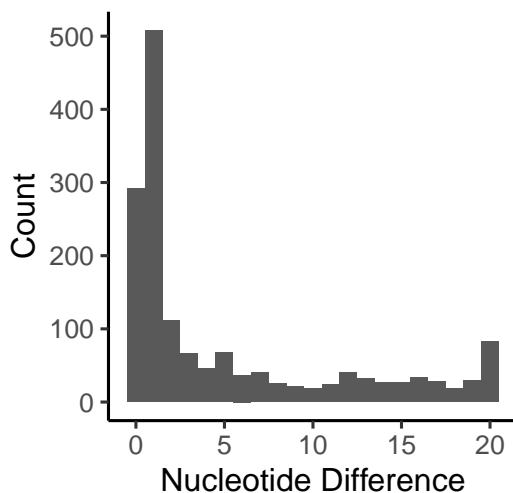
IGHV3-9*01

3936 sequences assigned
360 (9.1%) exact matches, in which:
198 unique CDR3
6 unique J



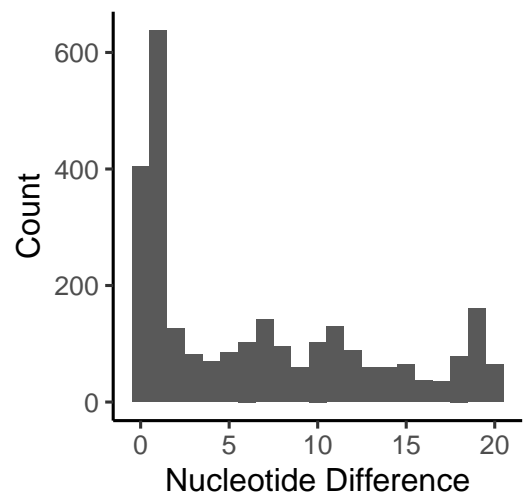
IGHV3-11*06

2022 sequences assigned
292 (14.4%) exact matches, in which:
176 unique CDR3
6 unique J



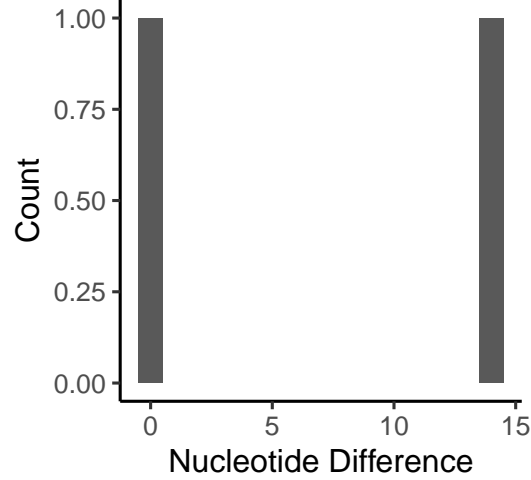
IGHV3-15*01_02

3236 sequences assigned
404 (12.5%) exact matches, in which:
239 unique CDR3
6 unique J



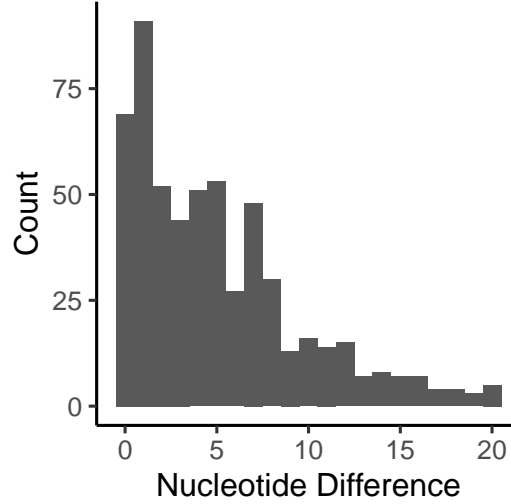
IGHV3-19*01

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J



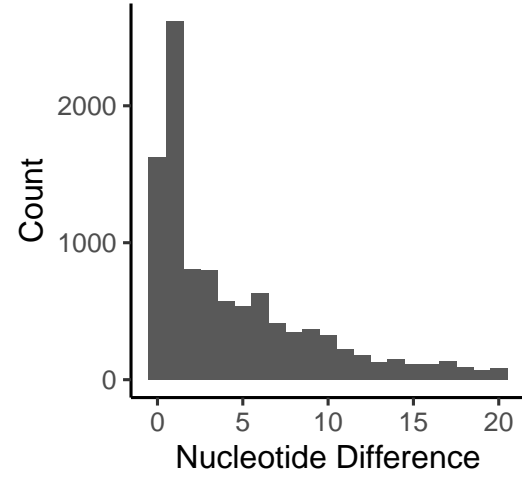
IGHV3-21*04

615 sequences assigned
69 (11.2%) exact matches, in which:
56 unique CDR3
6 unique J



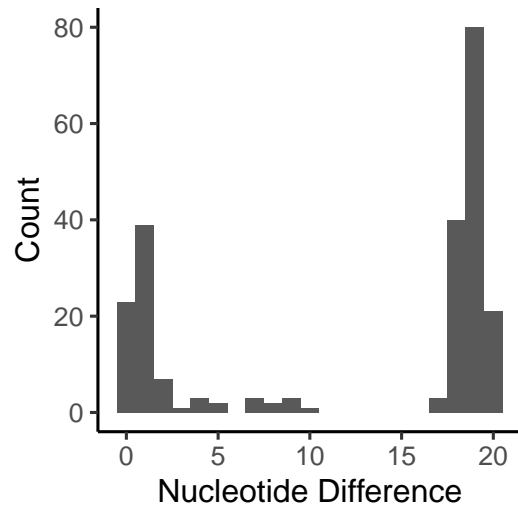
IGHV3-30-3*01

12365 sequences assigned
1623 (13.1%) exact matches, in which:
987 unique CDR3
6 unique J



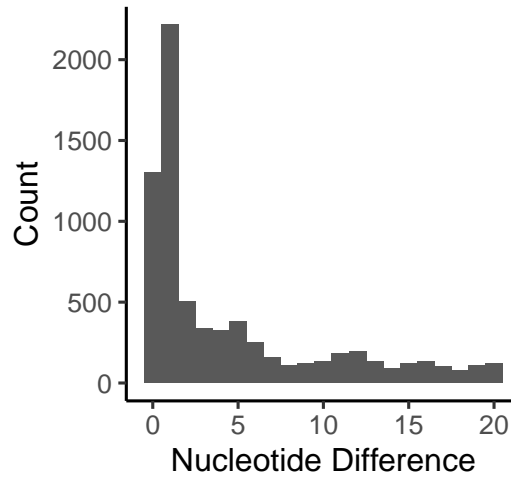
IGHV3-20*01_02

267 sequences assigned
23 (8.6%) exact matches, in which:
13 unique CDR3
3 unique J



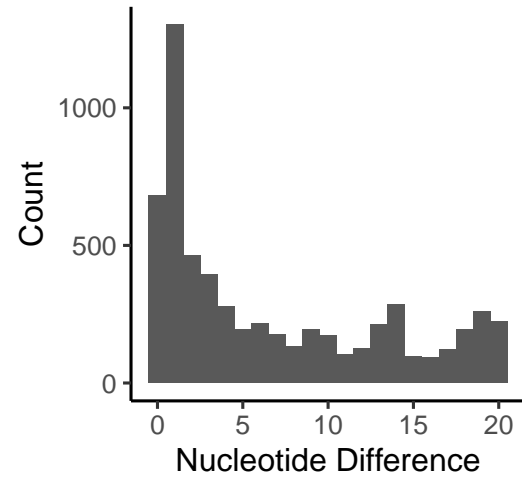
IGHV3-21*01_02

8224 sequences assigned
1301 (15.8%) exact matches, in which:
776 unique CDR3
6 unique J



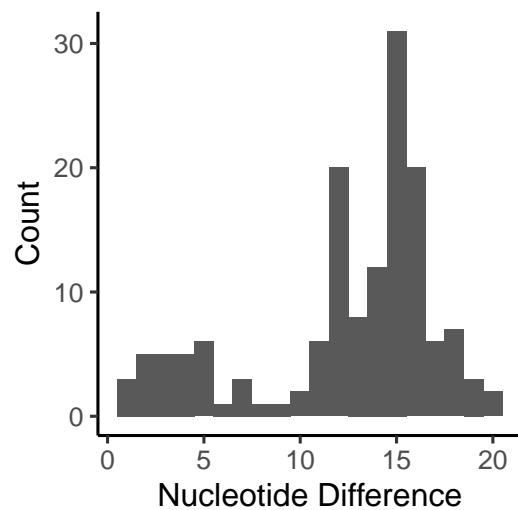
IGHV3-30*02

7268 sequences assigned
682 (9.4%) exact matches, in which:
422 unique CDR3
6 unique J



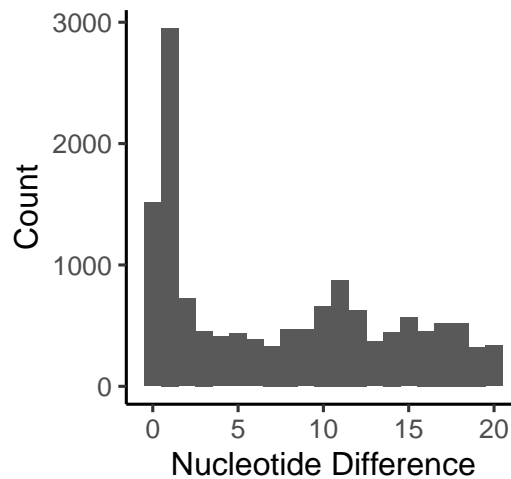
IGHV3-20*03_04

160 sequences assigned
No exact matches.



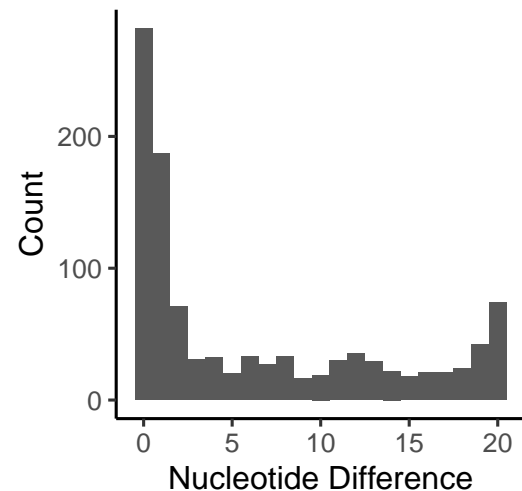
IGHV3-23*01_04

17838 sequences assigned
1514 (8.5%) exact matches, in which:
884 unique CDR3
6 unique J



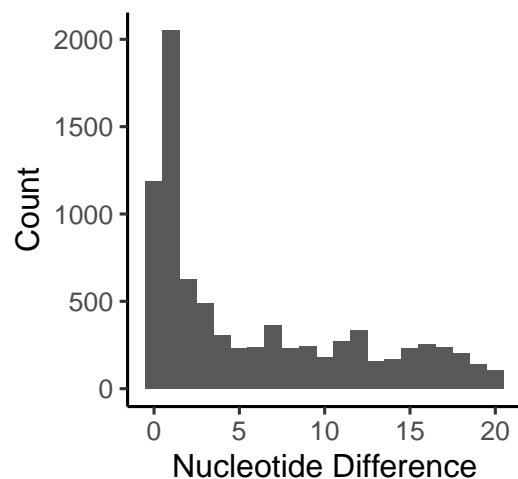
IGHV3-30*03

1326 sequences assigned
282 (21.3%) exact matches, in which:
221 unique CDR3
6 unique J



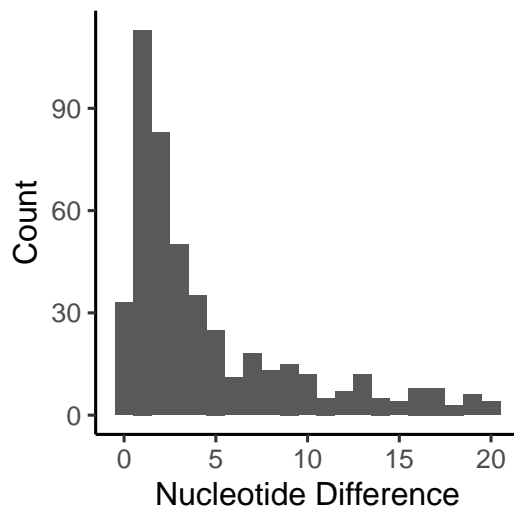
IGHV3-30*18

9869 sequences assigned
1187 (12%) exact matches, in which:
677 unique CDR3
6 unique J



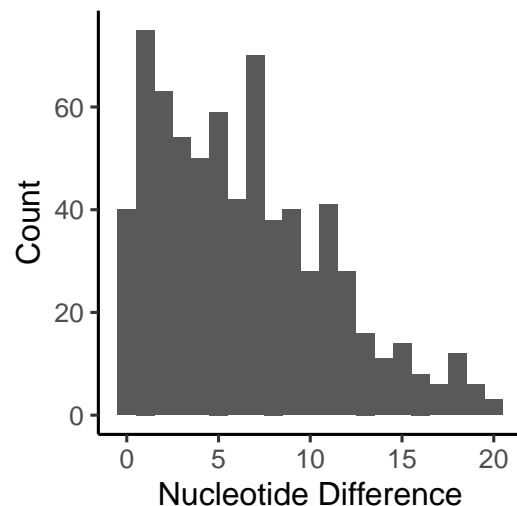
IGHV3-33*06

495 sequences assigned
33 (6.7%) exact matches, in which:
33 unique CDR3
3 unique J



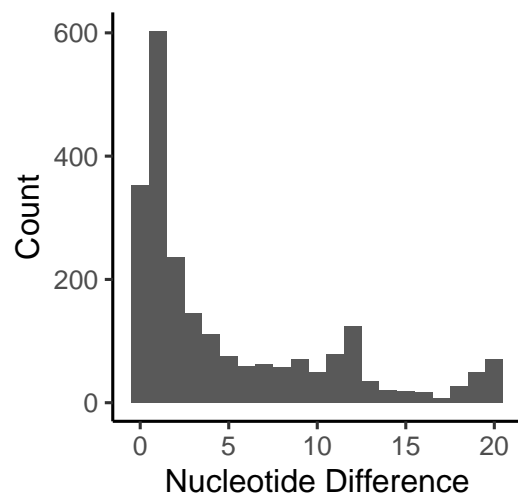
IGHV3-48*01

724 sequences assigned
40 (5.5%) exact matches, in which:
37 unique CDR3
5 unique J



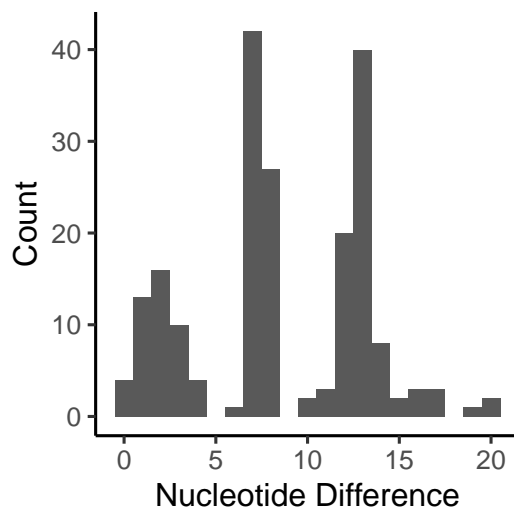
IGHV3-33*01

2993 sequences assigned
353 (11.8%) exact matches, in which:
224 unique CDR3
6 unique J



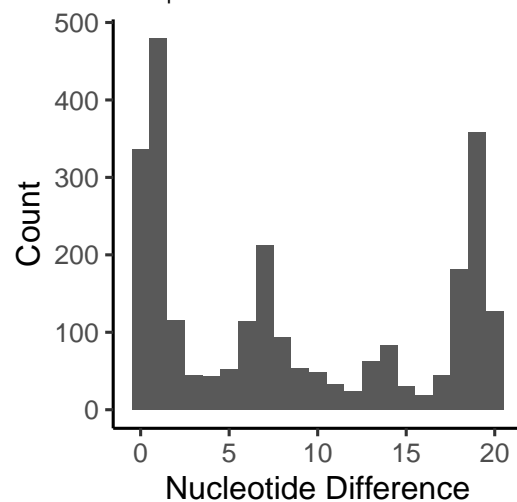
IGHV3-43*01

240 sequences assigned
4 (1.7%) exact matches, in which:
2 unique CDR3
1 unique J



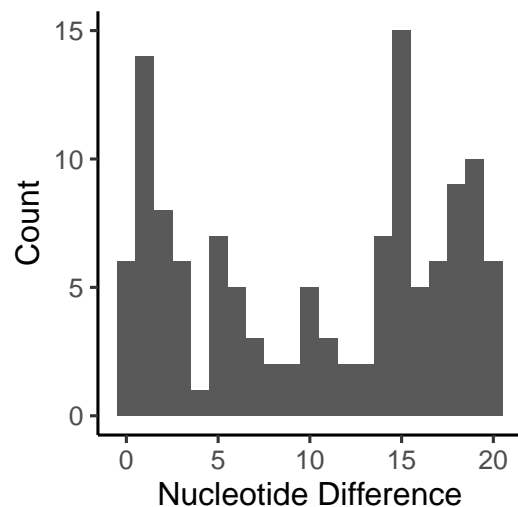
IGHV3-48*02

2687 sequences assigned
336 (12.5%) exact matches, in which:
212 unique CDR3
6 unique J



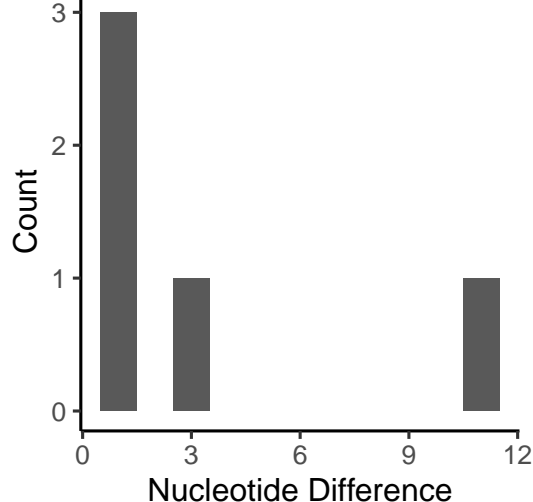
IGHV3-33*05

159 sequences assigned
6 (3.8%) exact matches, in which:
6 unique CDR3
4 unique J



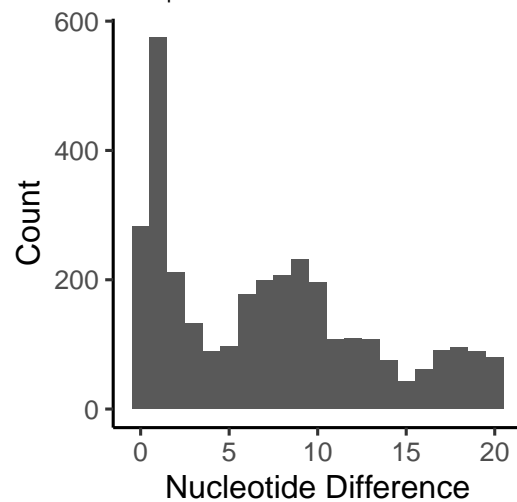
IGHV3-47*02

5 sequences assigned
No exact matches.



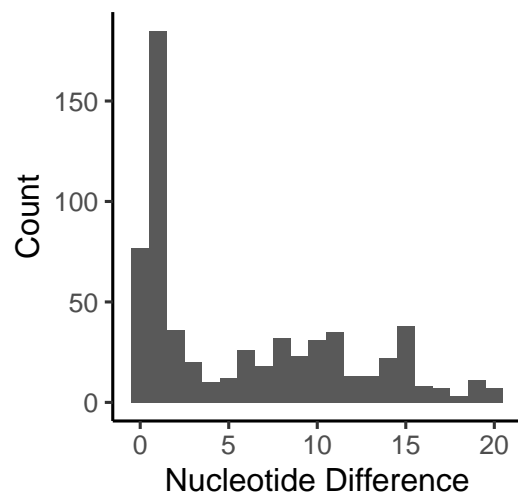
IGHV3-48*03

3683 sequences assigned
283 (7.7%) exact matches, in which:
164 unique CDR3
6 unique J



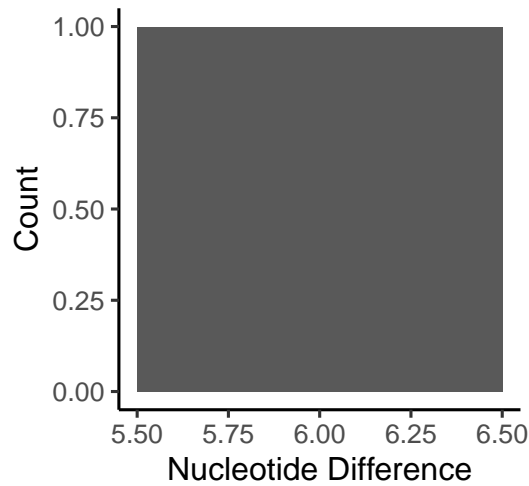
IGHV3-49*04

1029 sequences assigned
77 (7.5%) exact matches, in which:
39 unique CDR3
4 unique J



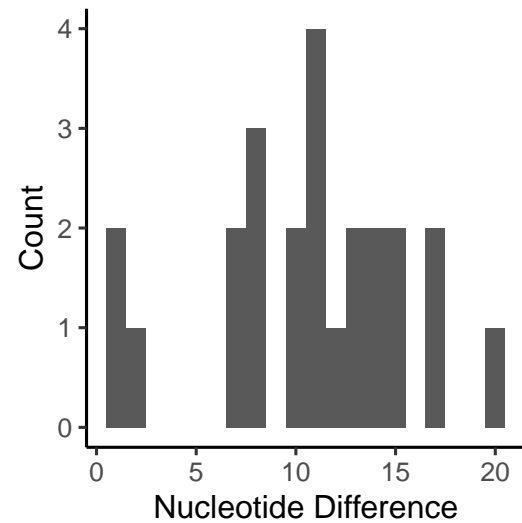
IGHV3-62*03

1 sequences assigned
No exact matches.



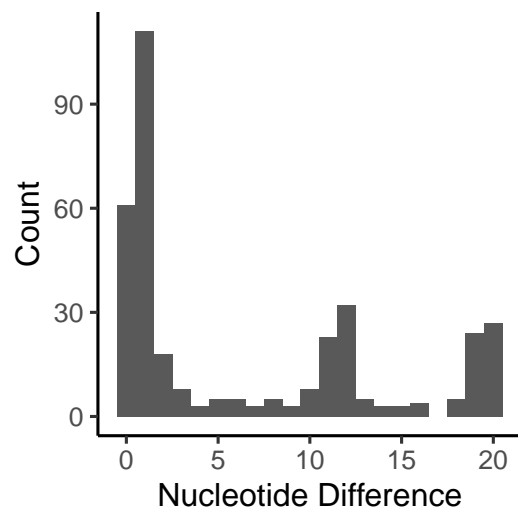
IGHV3-66*02

25 sequences assigned
No exact matches.



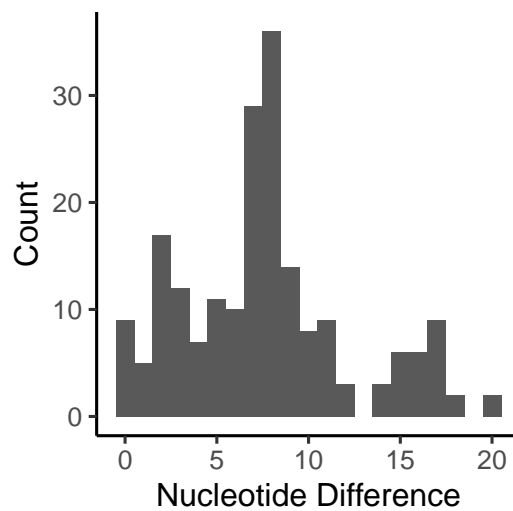
IGHV3-49*03_05

375 sequences assigned
61 (16.3%) exact matches, in which:
35 unique CDR3
4 unique J



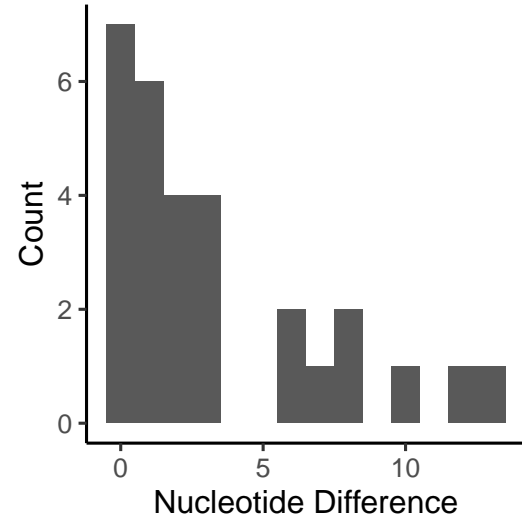
IGHV3-64*04

209 sequences assigned
9 (4.3%) exact matches, in which:
9 unique CDR3
4 unique J



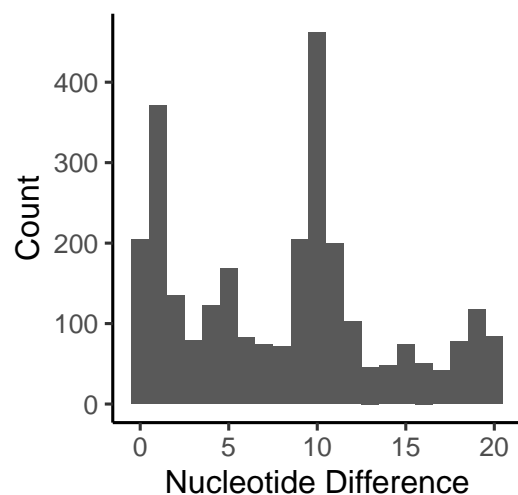
IGHV3-66*03

29 sequences assigned
7 (24.1%) exact matches, in which:
6 unique CDR3
4 unique J



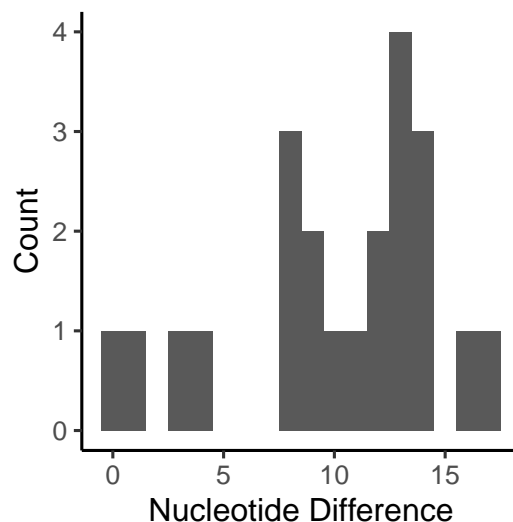
IGHV3-53*01_02

3034 sequences assigned
204 (6.7%) exact matches, in which:
124 unique CDR3
5 unique J



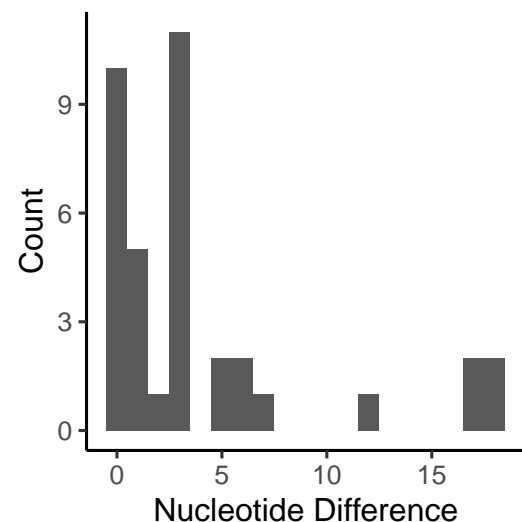
IGHV3-66*01

27 sequences assigned
1 (3.7%) exact matches, in which:
1 unique CDR3
1 unique J



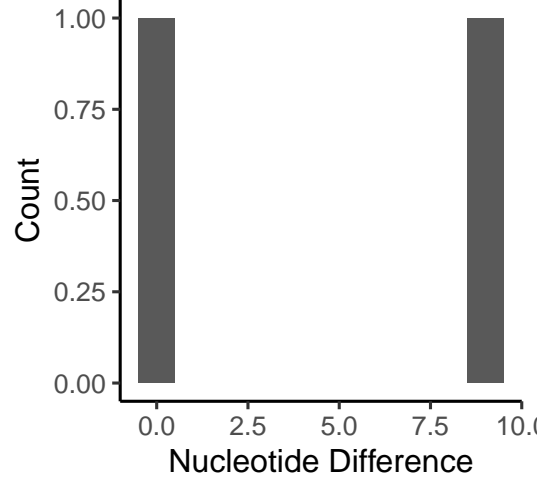
IGHV3-69-1*01

43 sequences assigned
10 (23.3%) exact matches, in which:
10 unique CDR3
5 unique J



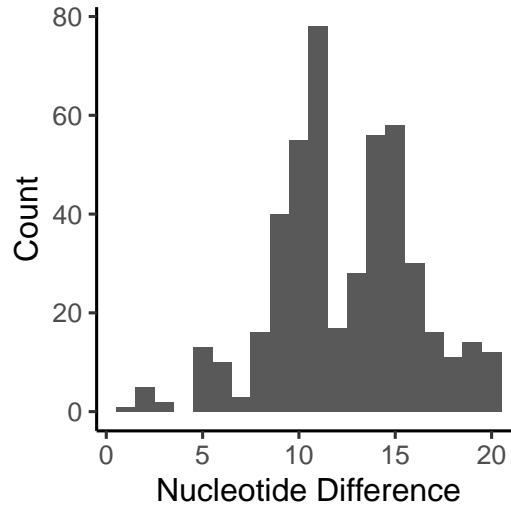
IGHV3-69-1*02

57 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



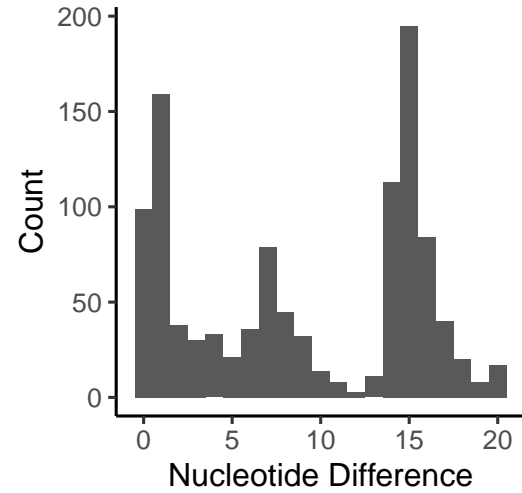
IGHV3-74*03

1062 sequences assigned
No exact matches.



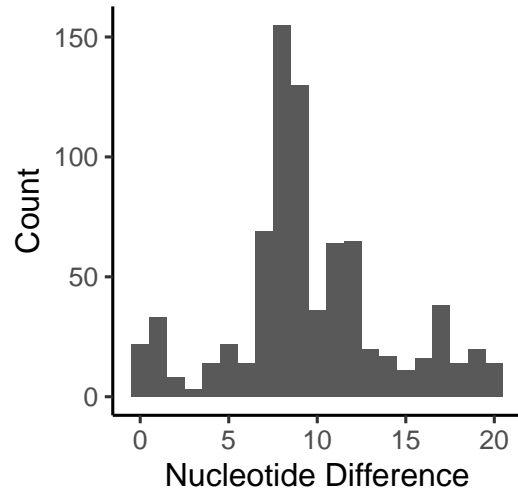
IGHV3-64D*09

1457 sequences assigned
99 (6.8%) exact matches, in which:
59 unique CDR3
5 unique J



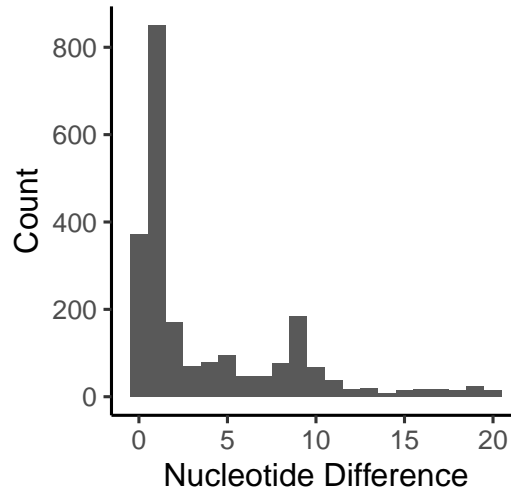
IGHV3-72*01

900 sequences assigned
22 (2.4%) exact matches, in which:
12 unique CDR3
4 unique J



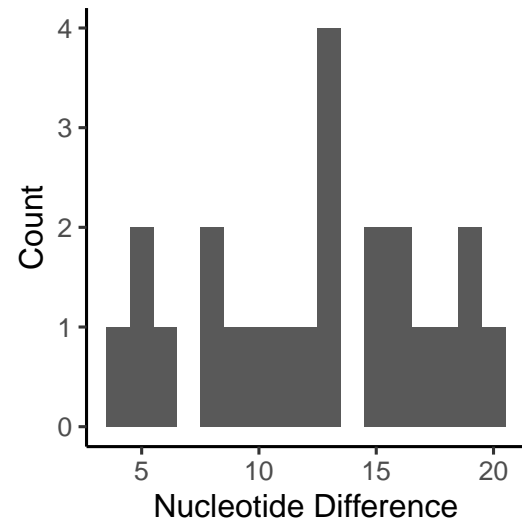
IGHV3-74*01_02

2367 sequences assigned
371 (15.7%) exact matches, in which:
209 unique CDR3
5 unique J



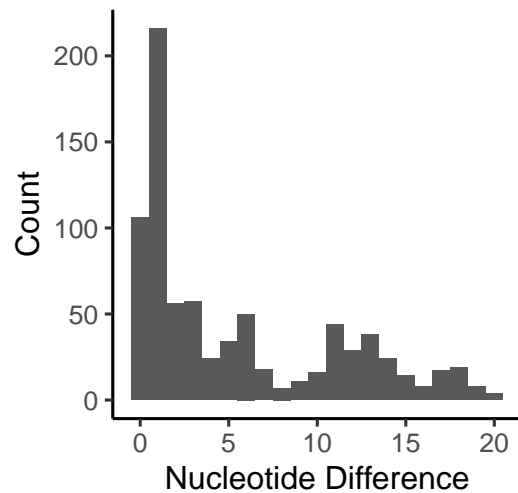
IGHV3-NL1*01

39 sequences assigned
No exact matches.



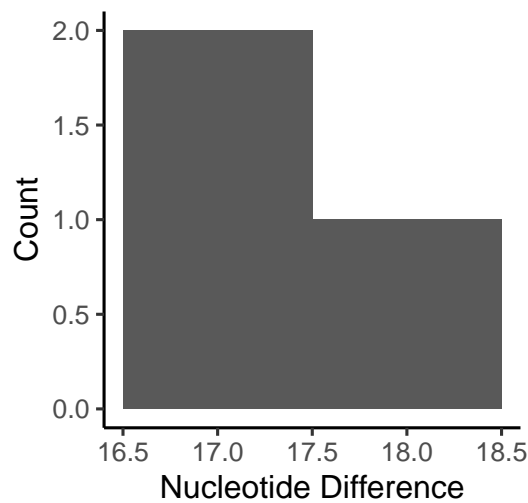
IGHV3-73*01_02

815 sequences assigned
106 (13%) exact matches, in which:
64 unique CDR3
5 unique J



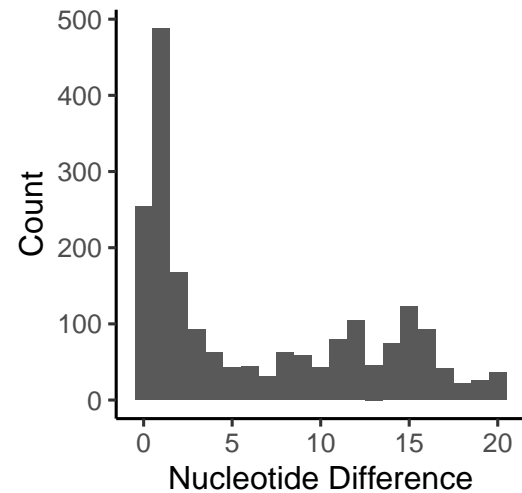
IGHV3-43D*03

3 sequences assigned
No exact matches.



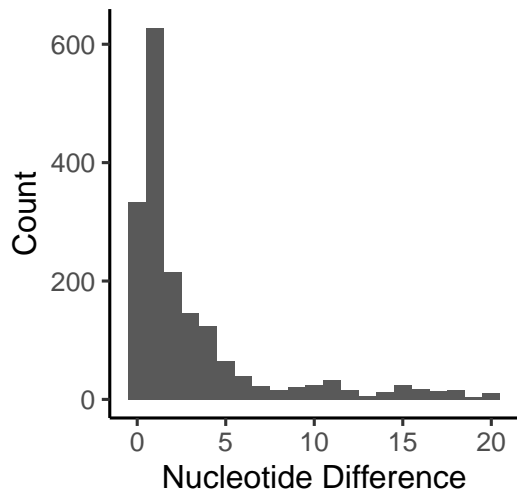
IGHV4-4*07

2205 sequences assigned
254 (11.5%) exact matches, in which:
171 unique CDR3
6 unique J



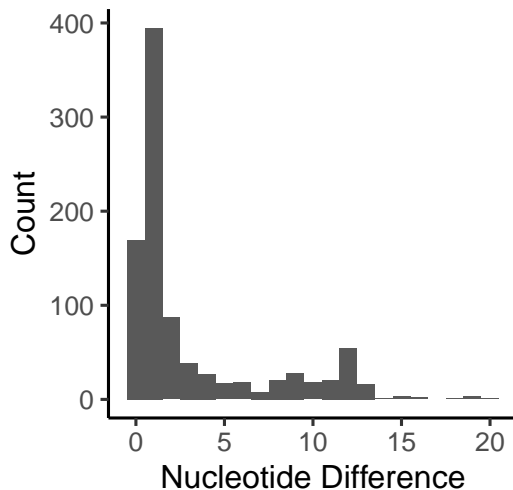
IGHV4-4*02_03

1877 sequences assigned
333 (17.7%) exact matches, in which:
211 unique CDR3
5 unique J



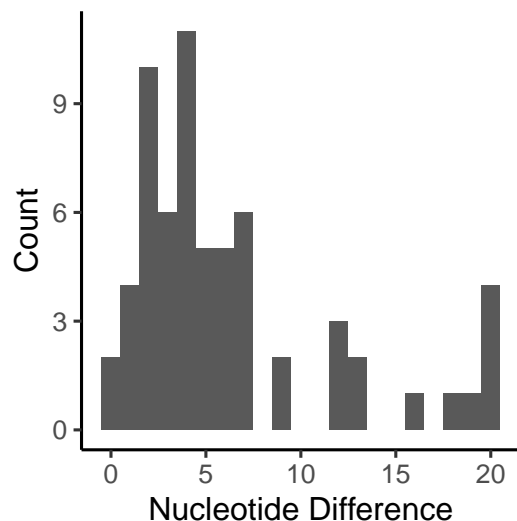
IGHV4-30-2*01

979 sequences assigned
169 (17.3%) exact matches, in which:
96 unique CDR3
5 unique J



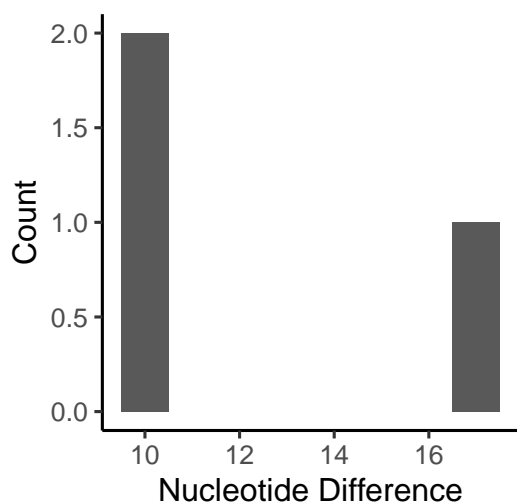
IGHV4-30-4*08

267 sequences assigned
2 (0.7%) exact matches, in which:
2 unique CDR3
2 unique J



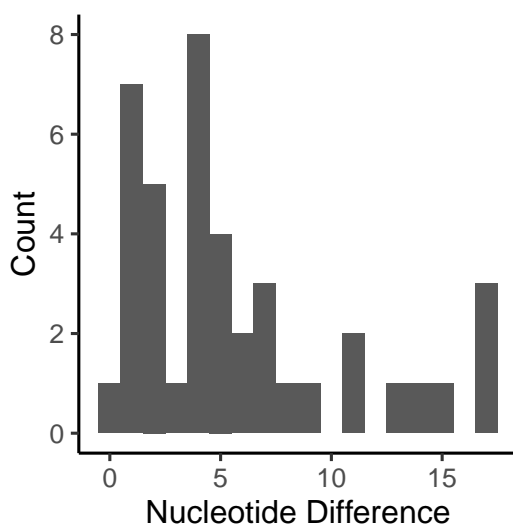
IGHV4-28*03

4 sequences assigned
No exact matches.



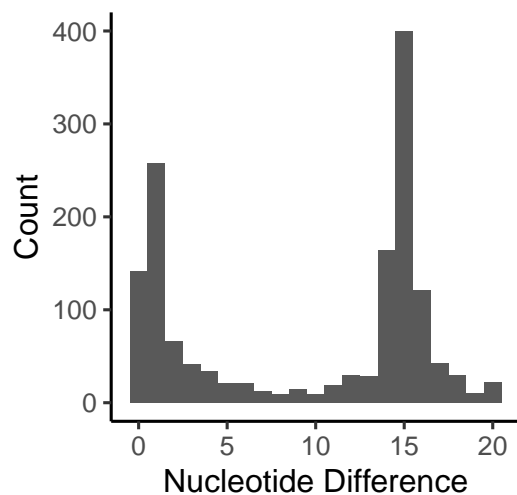
IGHV4-30-2*03

41 sequences assigned
1 (2.4%) exact matches, in which:
1 unique CDR3
1 unique J



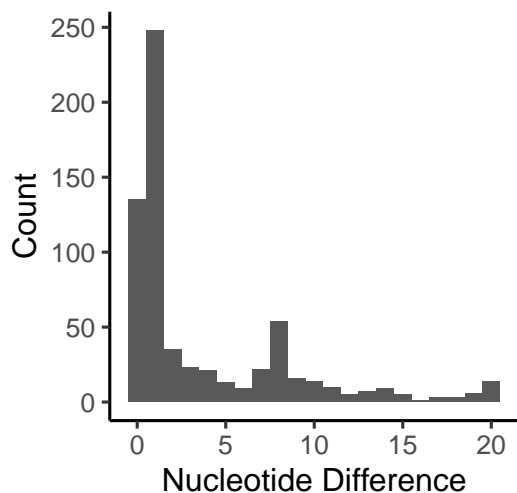
IGHV4-31*02

2276 sequences assigned
142 (6.2%) exact matches, in which:
104 unique CDR3
5 unique J



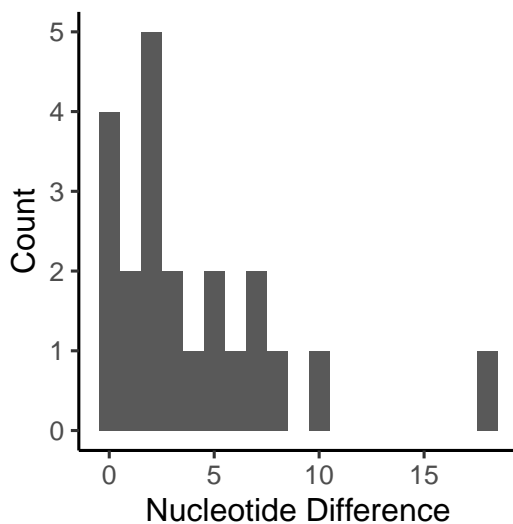
IGHV4-30-4*01

1146 sequences assigned
135 (11.8%) exact matches, in which:
91 unique CDR3
6 unique J



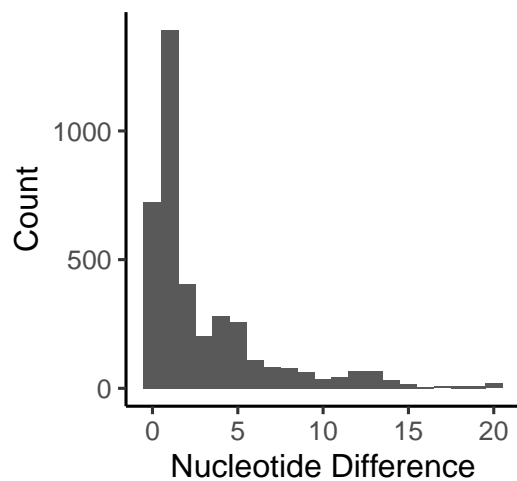
IGHV4-30-2*05

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



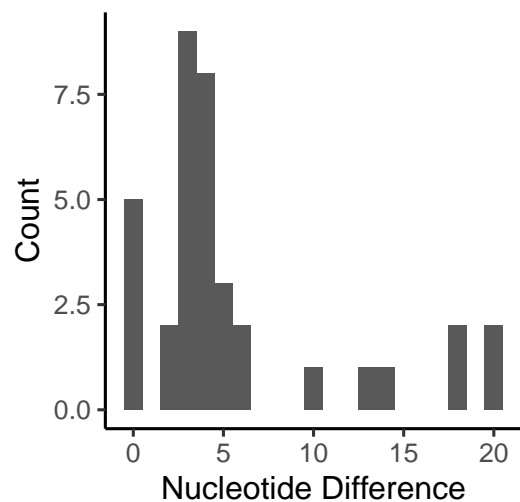
IGHV4-34*01_02

4718 sequences assigned
724 (15.3%) exact matches, in which:
468 unique CDR3
6 unique J



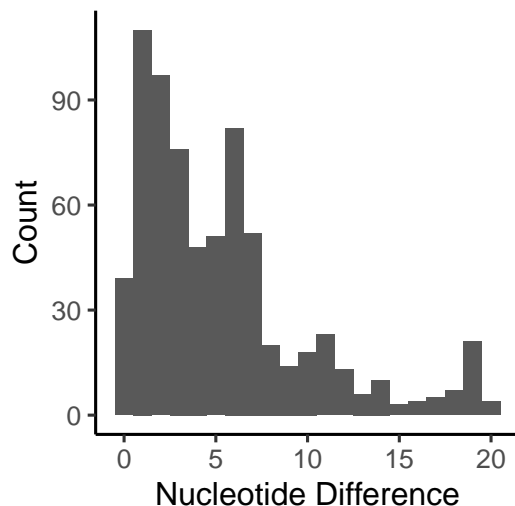
IGHV4-38-2*02

37 sequences assigned
5 (13.5%) exact matches, in which:
5 unique CDR3
2 unique J



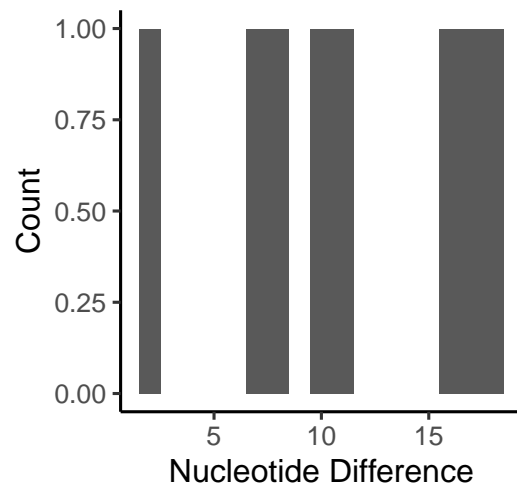
IGHV4-59*12

746 sequences assigned
39 (5.2%) exact matches, in which:
36 unique CDR3
6 unique J



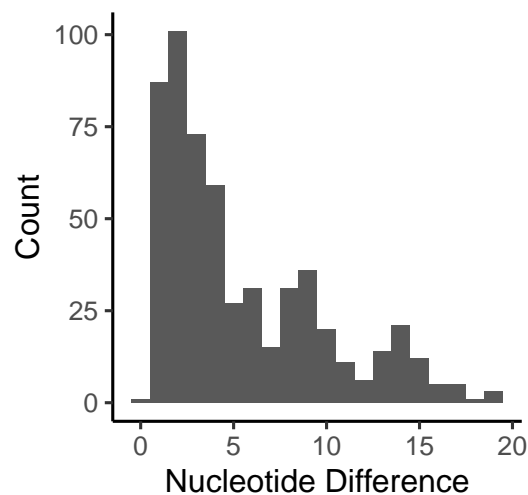
IGHV4/OR15-8*01

8 sequences assigned
No exact matches.



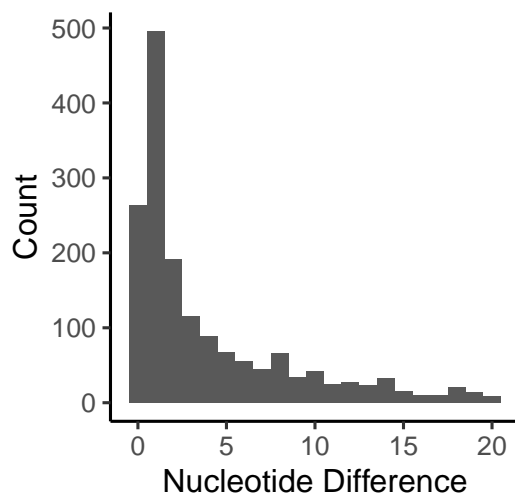
IGHV4-39*07

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



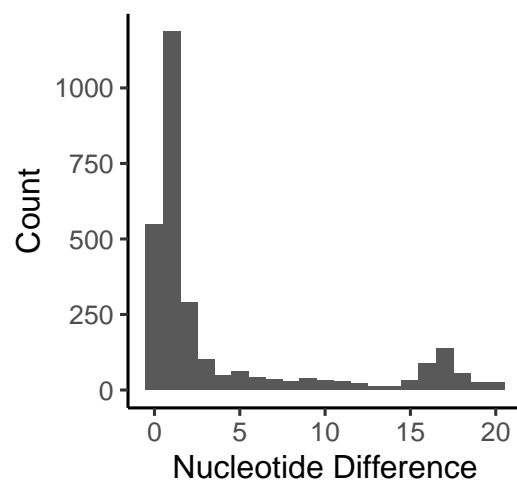
IGHV4-61*01

1968 sequences assigned
264 (13.4%) exact matches, in which:
192 unique CDR3
6 unique J



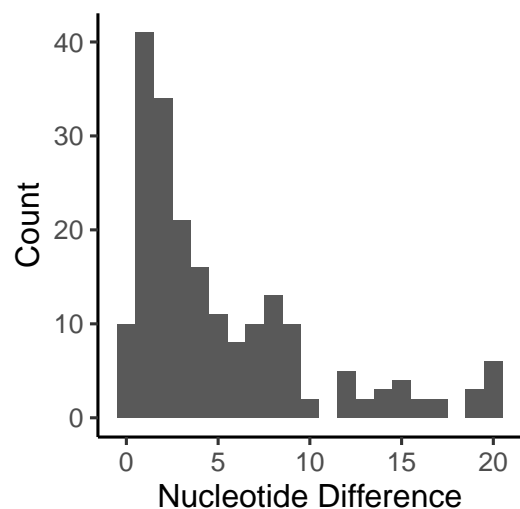
IGHV5-10-1*01_03

2958 sequences assigned
547 (18.5%) exact matches, in which:
322 unique CDR3
6 unique J



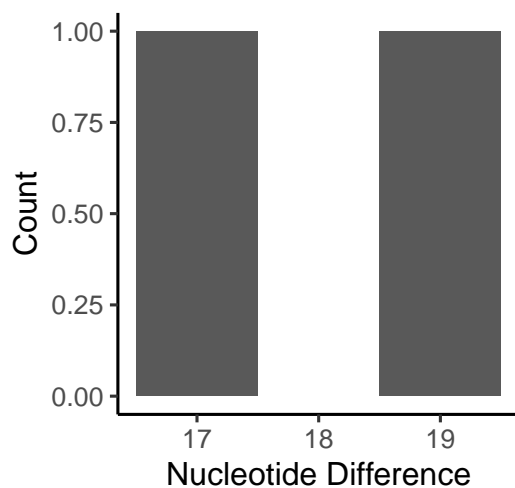
IGHV4-59*08

294 sequences assigned
10 (3.4%) exact matches, in which:
9 unique CDR3
4 unique J



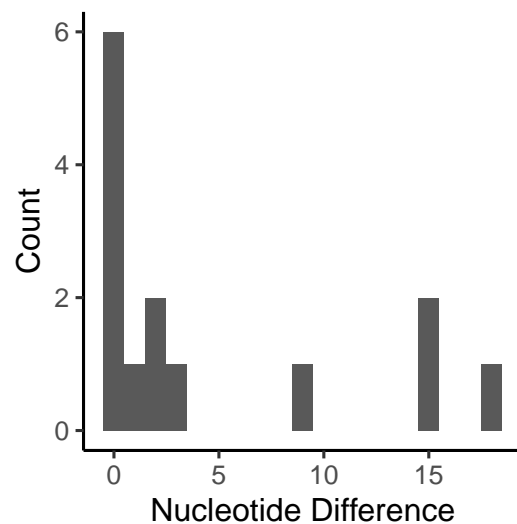
IGHV1/OR15-3*02

2 sequences assigned
No exact matches.



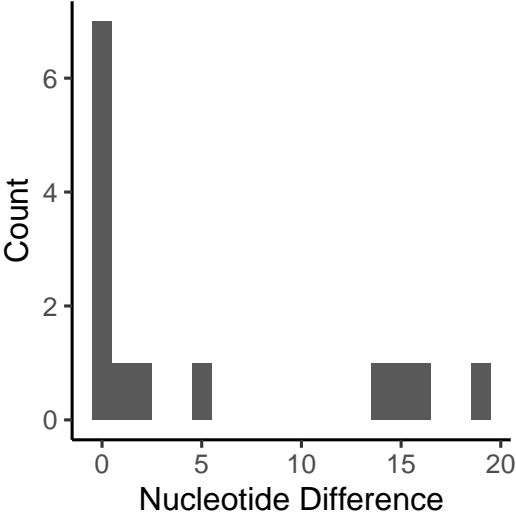
IGHV5-51*04

16 sequences assigned
6 (37.5%) exact matches, in which:
6 unique CDR3
1 unique J



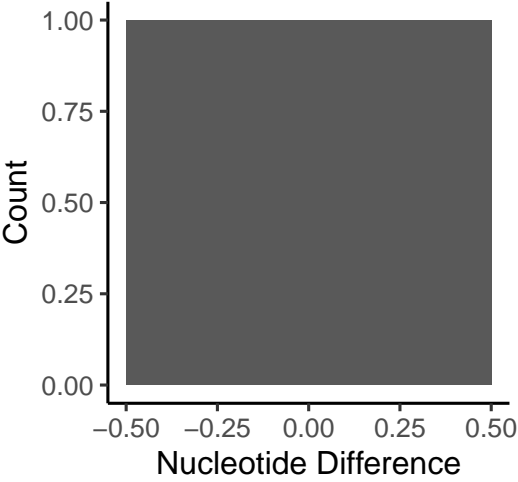
IGHV5-51*06

15 sequences assigned
7 (46.7%) exact matches, in which:
7 unique CDR3
2 unique J



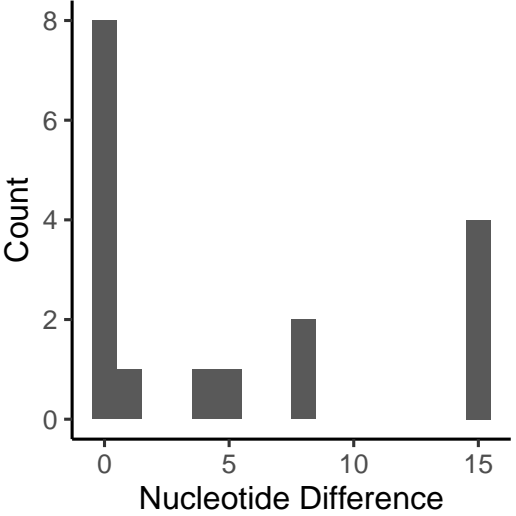
IGHV7-4-1*01

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



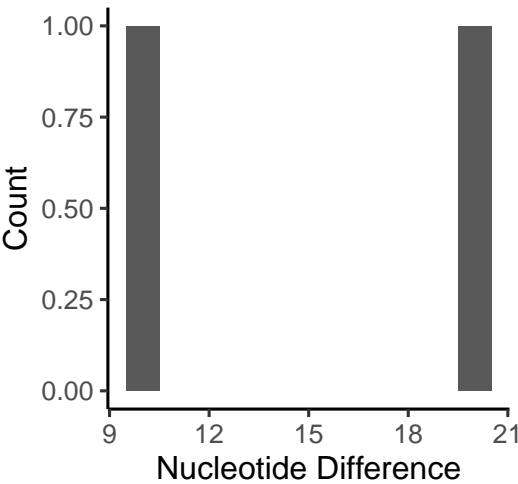
IGHV5-51*07

17 sequences assigned
8 (47.1%) exact matches, in which:
8 unique CDR3
4 unique J



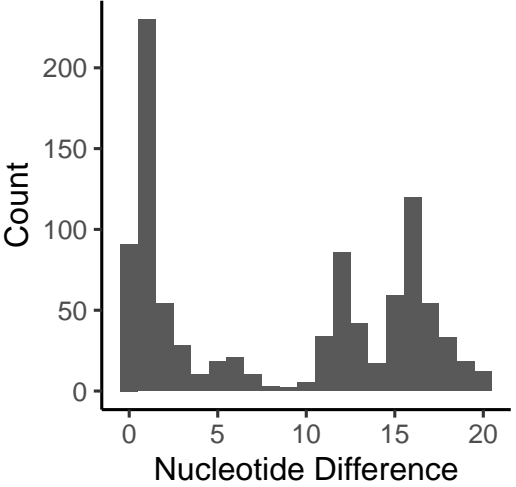
IGHV7-4-1*02

2 sequences assigned
No exact matches.



IGHV6-1*01_02

1351 sequences assigned
91 (6.7%) exact matches, in which:
61 unique CDR3
4 unique J



IGHV2-5*01_A220G

