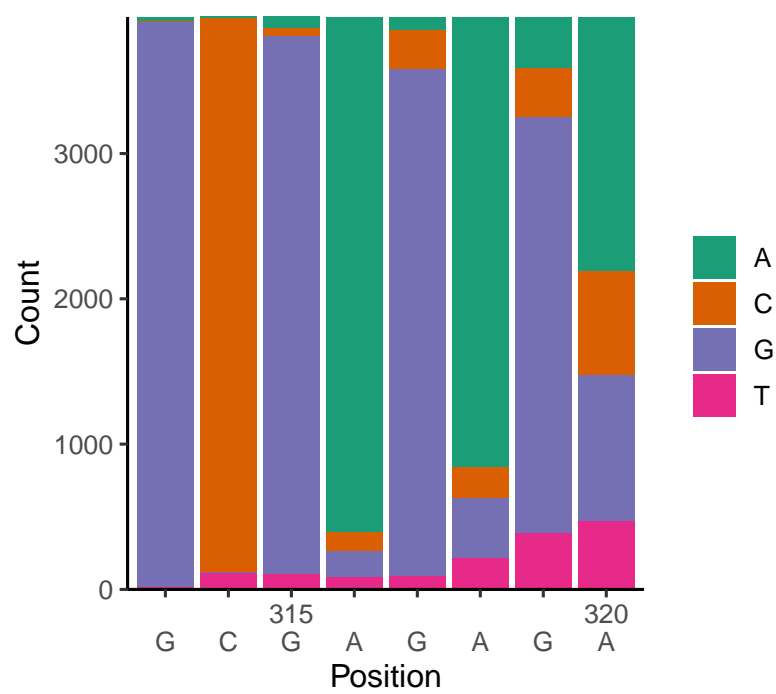
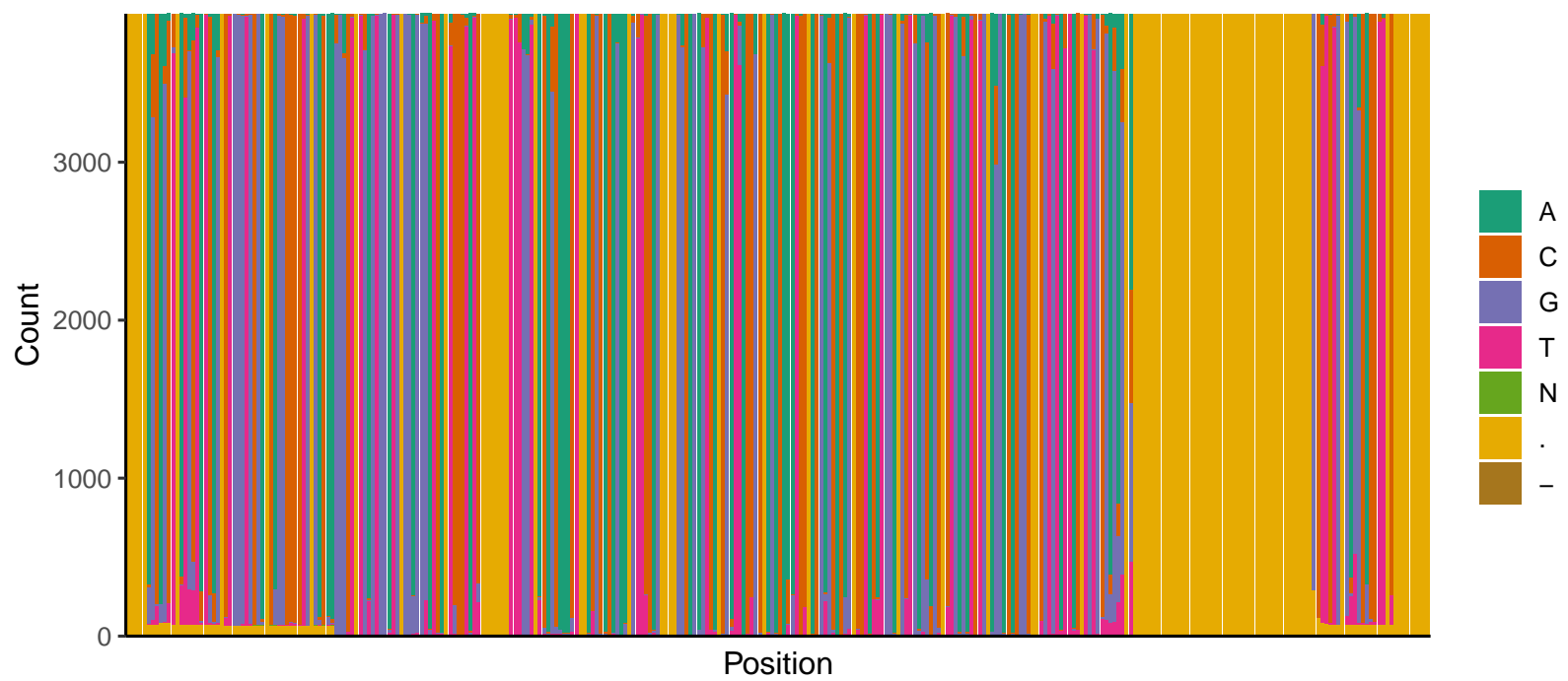


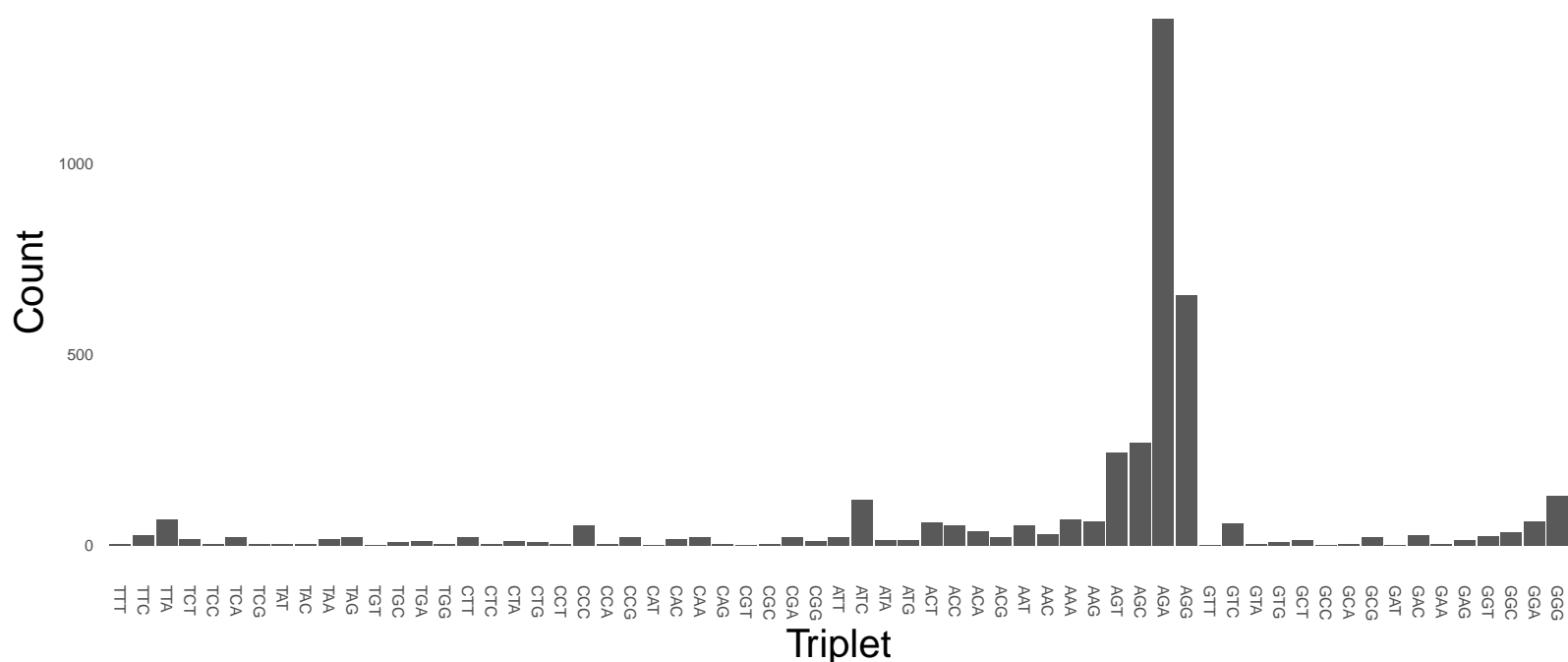
Gene IGHV1-69*06_14_G240A



Gene IGHV1-69*06_14_G240A

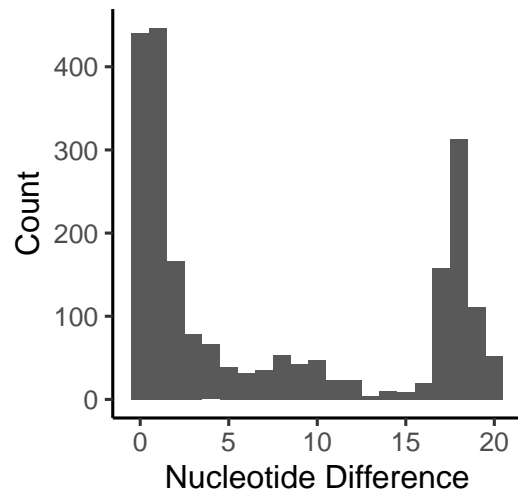


IGHV1-69*06_14_G240A- Final 3 nucleotides as a triplet



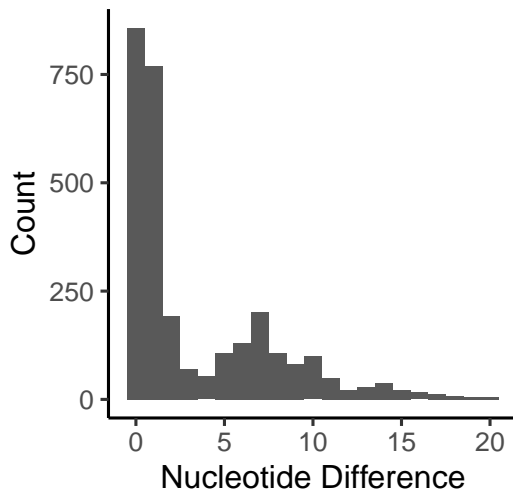
IGHV1-2*04

3046 sequences assigned
441 (14.5%) exact matches, in which:
375 unique CDR3
6 unique J



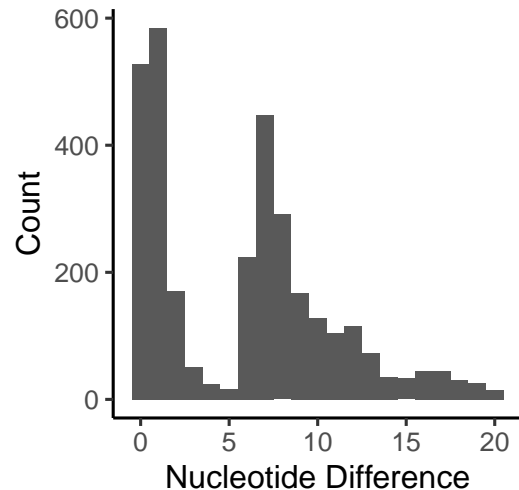
IGHV1-8*01

2924 sequences assigned
858 (29.3%) exact matches, in which:
704 unique CDR3
6 unique J



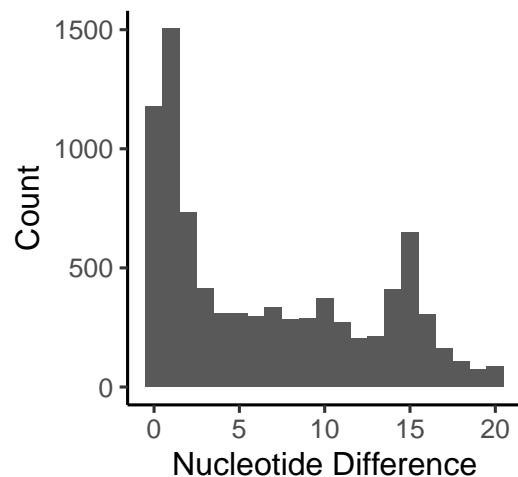
IGHV1-24*01

3221 sequences assigned
528 (16.4%) exact matches, in which:
434 unique CDR3
6 unique J



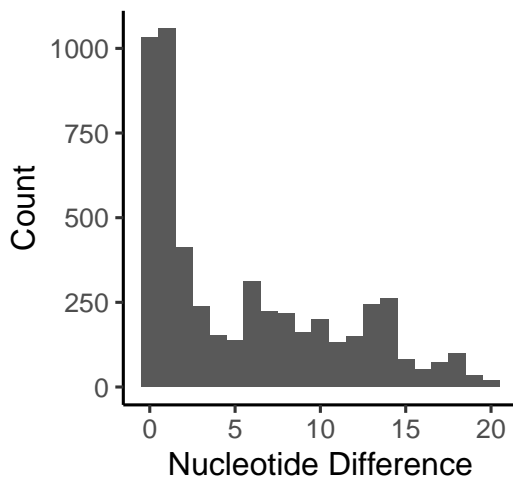
IGHV1-2*06

10686 sequences assigned
1176 (11%) exact matches, in which:
917 unique CDR3
6 unique J



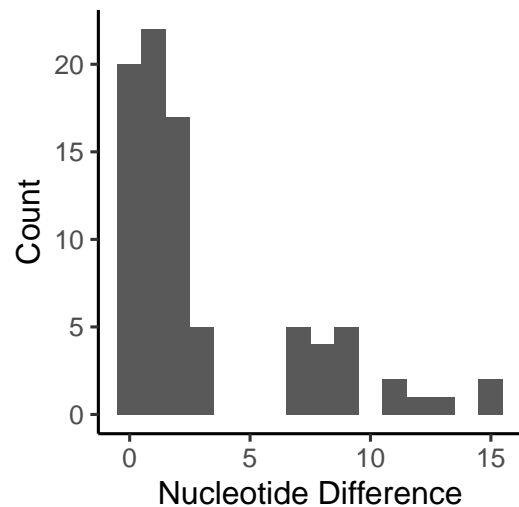
IGHV1-18*01

7131 sequences assigned
1031 (14.5%) exact matches, in which:
872 unique CDR3
6 unique J



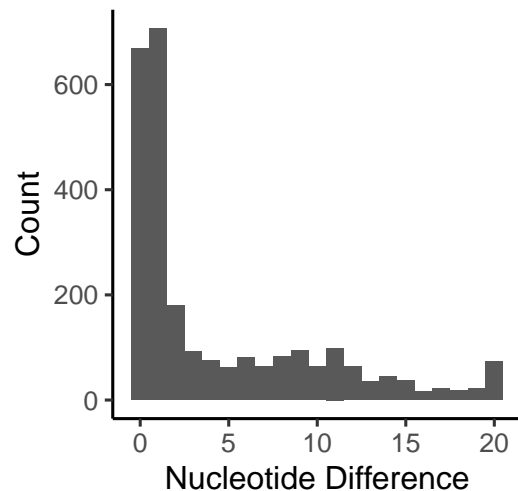
IGHV1-45*02

84 sequences assigned
20 (23.8%) exact matches, in which:
12 unique CDR3
4 unique J



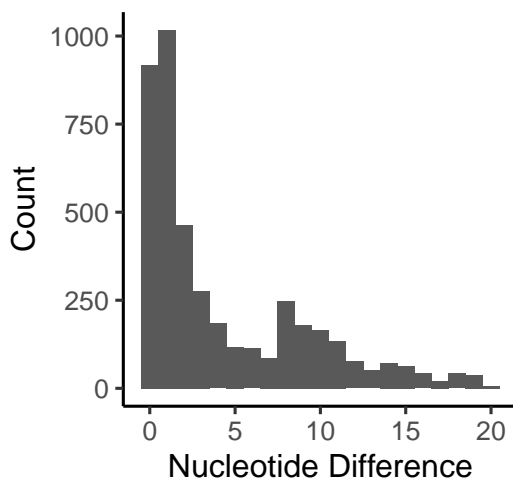
IGHV1-3*01_05

2931 sequences assigned
668 (22.8%) exact matches, in which:
535 unique CDR3
6 unique J



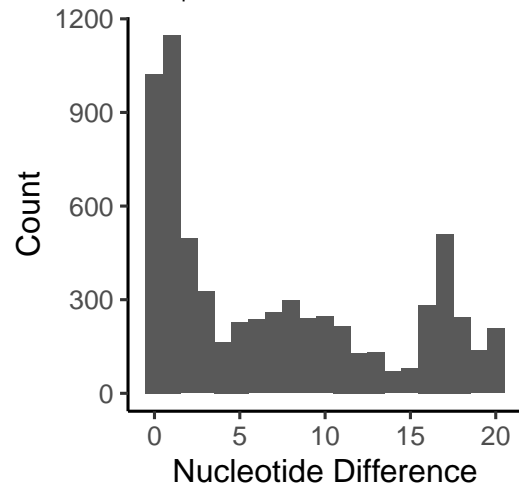
IGHV1-18*04

4730 sequences assigned
917 (19.4%) exact matches, in which:
760 unique CDR3
6 unique J



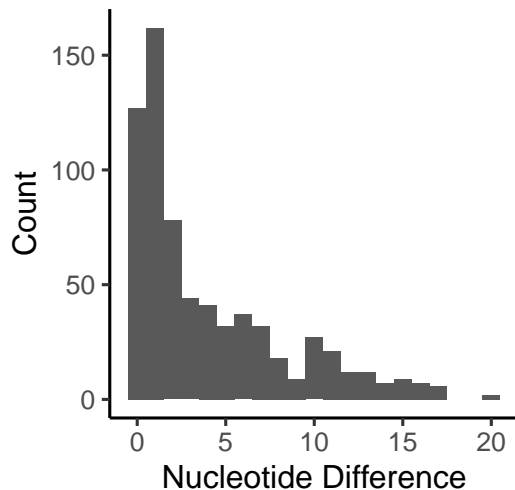
IGHV1-46*01

8130 sequences assigned
1024 (12.6%) exact matches, in which:
853 unique CDR3
6 unique J



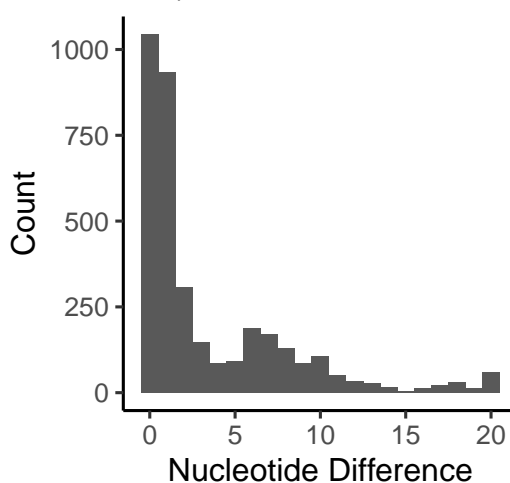
IGHV1-58*01_03

880 sequences assigned
127 (14.4%) exact matches, in which:
117 unique CDR3
5 unique J



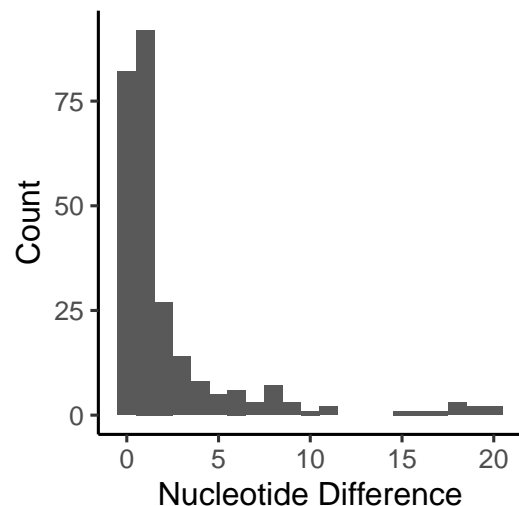
IGHV1-69*06_14_G240.

3940 sequences assigned
1044 (26.5%) exact matches, in which:
907 unique CDR3
6 unique J



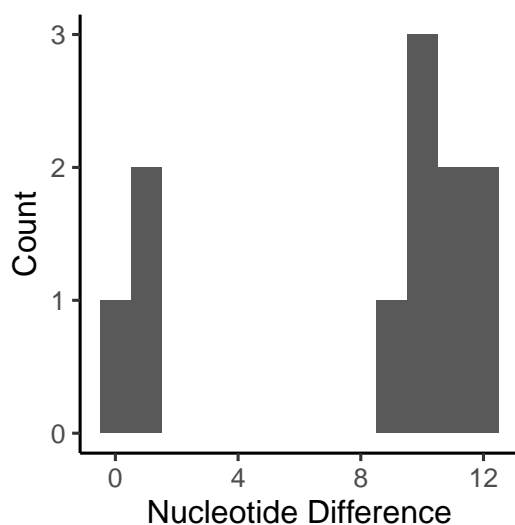
IGHV2-26*01

263 sequences assigned
82 (31.2%) exact matches, in which:
60 unique CDR3
5 unique J



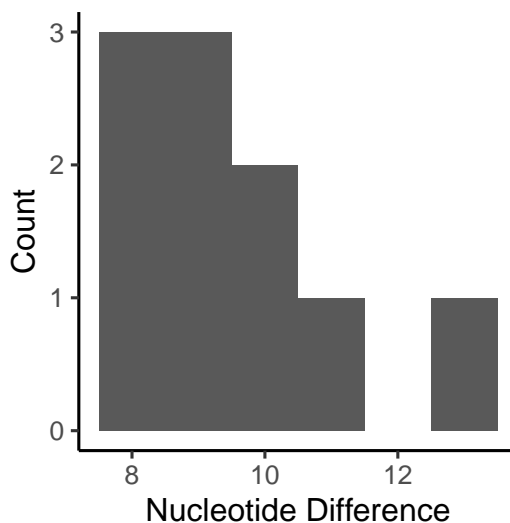
IGHV1-69-2*01

135 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



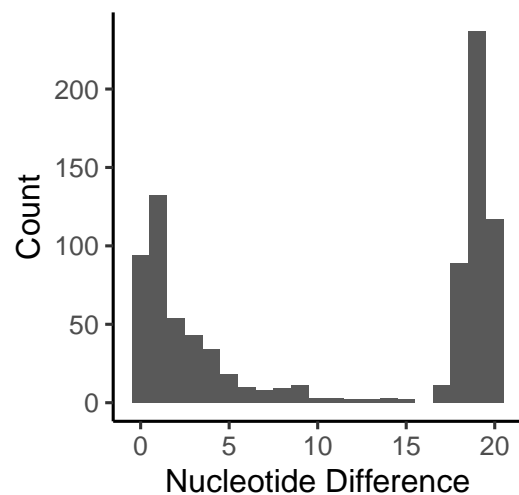
IGHV1-NL1*01

10 sequences assigned
No exact matches.



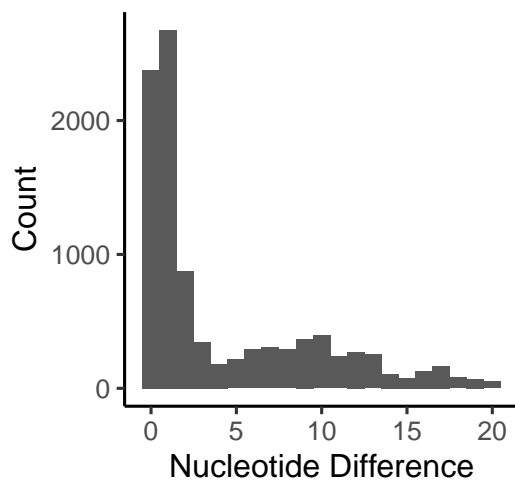
IGHV2-70*01

974 sequences assigned
94 (9.7%) exact matches, in which:
64 unique CDR3
4 unique J



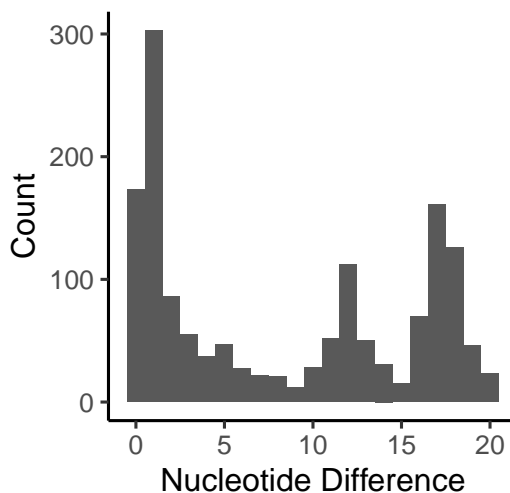
IGHV1-69*01_12_13

10231 sequences assigned
2377 (23.2%) exact matches, in which:
1967 unique CDR3
6 unique J



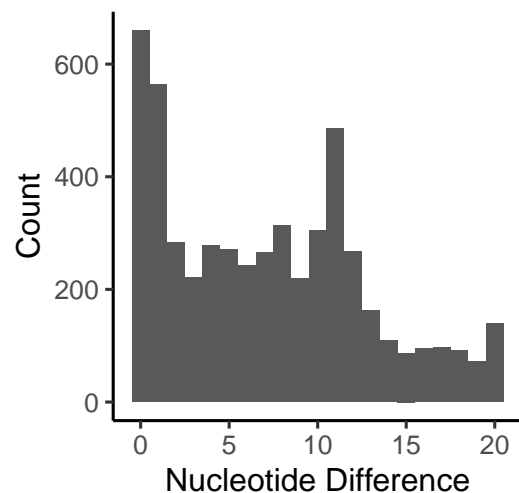
IGHV2-5*02

1603 sequences assigned
173 (10.8%) exact matches, in which:
133 unique CDR3
6 unique J



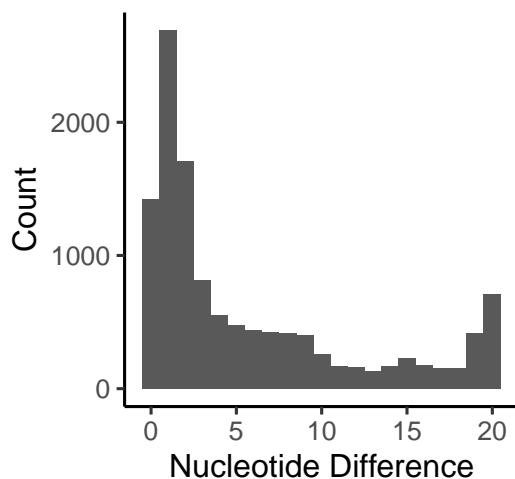
IGHV3-7*01

6899 sequences assigned
660 (9.6%) exact matches, in which:
472 unique CDR3
6 unique J



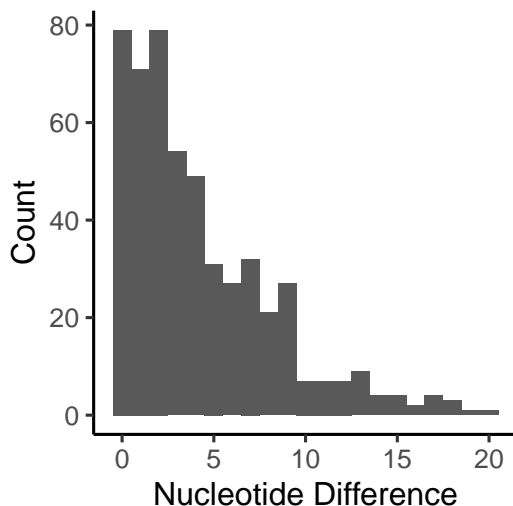
IGHV3-7*03

15578 sequences assigned
1426 (9.2%) exact matches, in which:
785 unique CDR3
6 unique J



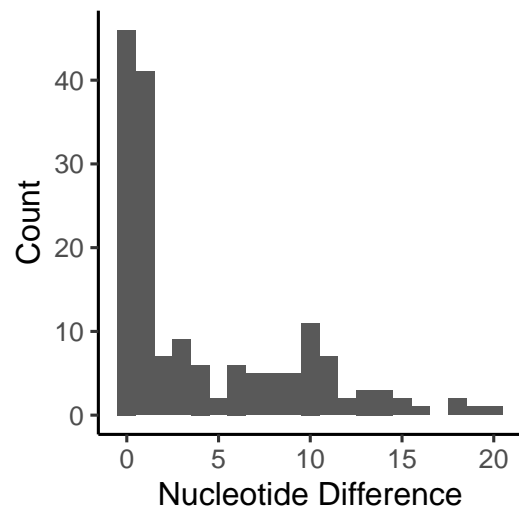
IGHV3-11*04

537 sequences assigned
79 (14.7%) exact matches, in which:
77 unique CDR3
6 unique J



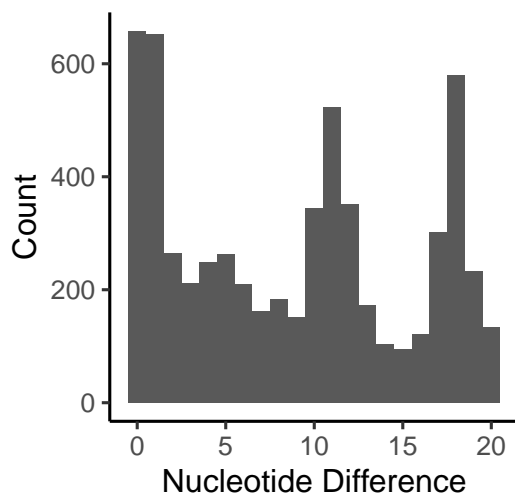
IGHV3-13*05

166 sequences assigned
46 (27.7%) exact matches, in which:
37 unique CDR3
5 unique J



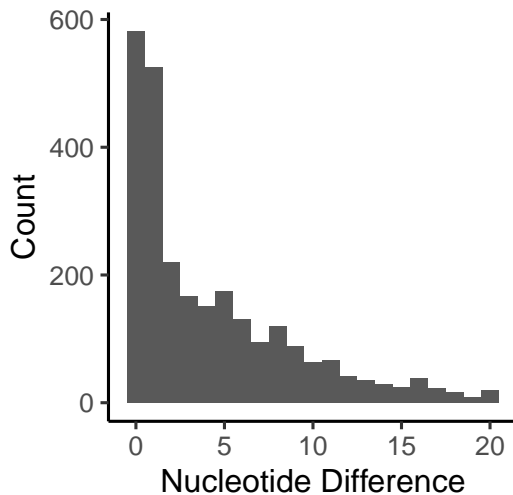
IGHV3-9*01

6413 sequences assigned
658 (10.3%) exact matches, in which:
395 unique CDR3
6 unique J



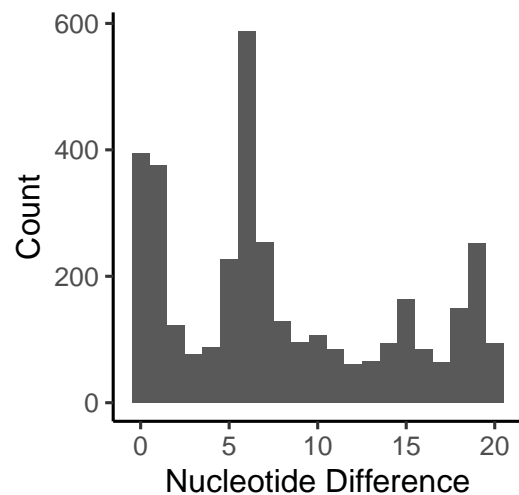
IGHV3-11*06

3500 sequences assigned
582 (16.6%) exact matches, in which:
389 unique CDR3
6 unique J



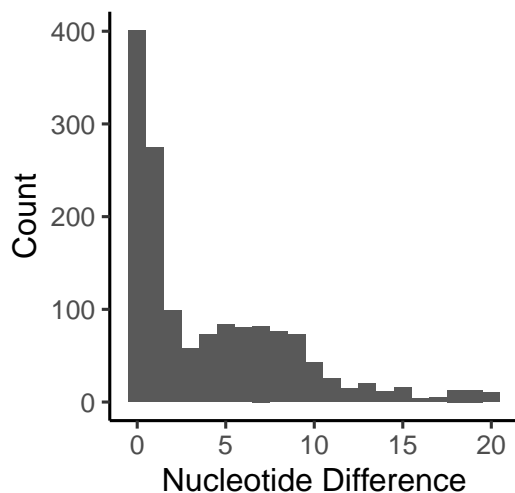
IGHV3-15*01_02

3987 sequences assigned
395 (9.9%) exact matches, in which:
228 unique CDR3
6 unique J



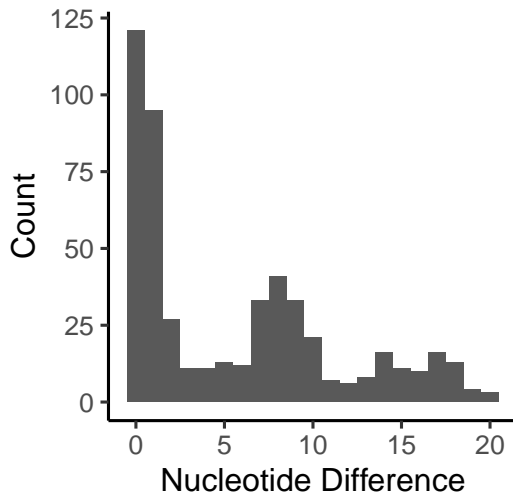
IGHV3-11*01

1625 sequences assigned
401 (24.7%) exact matches, in which:
274 unique CDR3
6 unique J



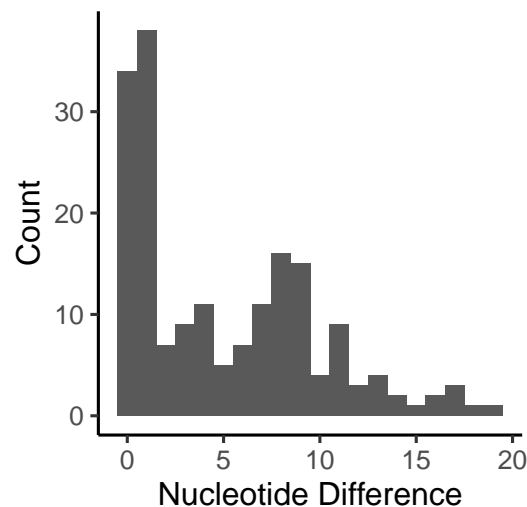
IGHV3-13*01

553 sequences assigned
121 (21.9%) exact matches, in which:
89 unique CDR3
5 unique J



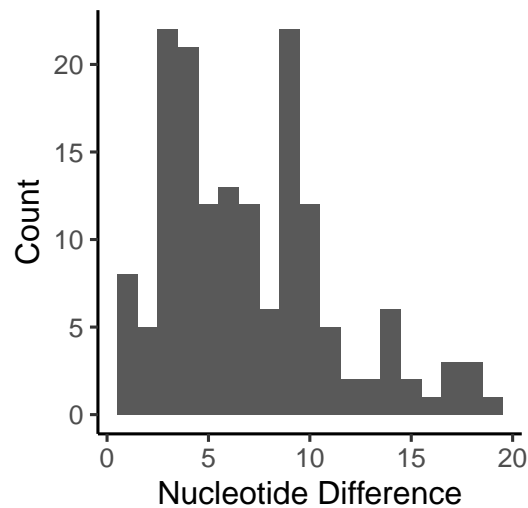
IGHV3-20*01_02

204 sequences assigned
34 (16.7%) exact matches, in which:
16 unique CDR3
4 unique J



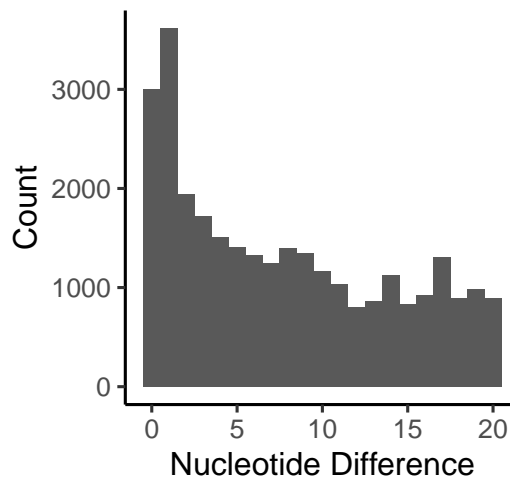
IGHV3-20*03_04

160 sequences assigned
No exact matches.



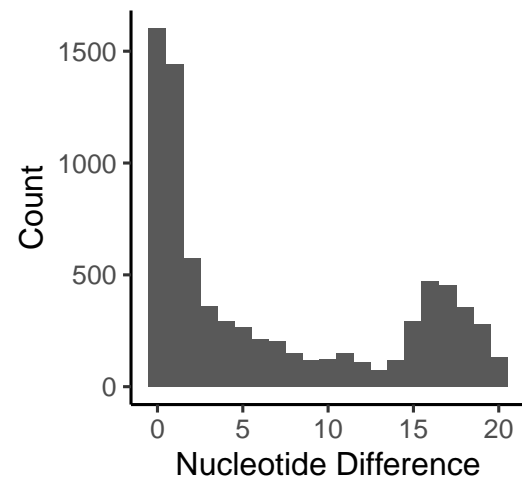
IGHV3-23*01_04

39215 sequences assigned
3000 (7.7%) exact matches, in which:
1762 unique CDR3
6 unique J



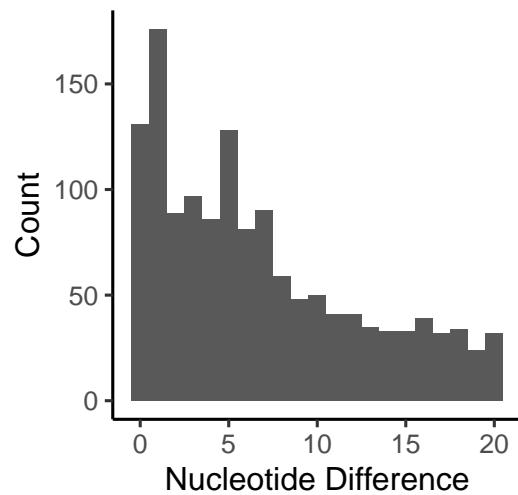
IGHV3-33*01

8592 sequences assigned
1602 (18.6%) exact matches, in which:
1019 unique CDR3
6 unique J



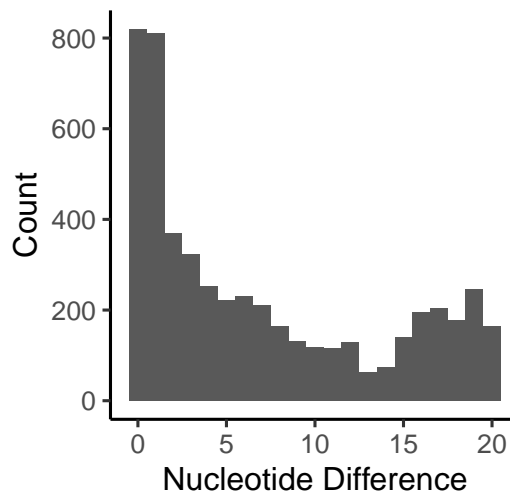
IGHV3-21*04

1907 sequences assigned
131 (6.9%) exact matches, in which:
114 unique CDR3
6 unique J



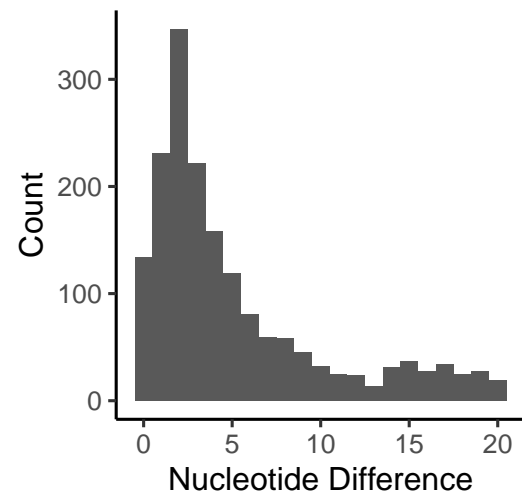
IGHV3-30-3*01

5843 sequences assigned
820 (14%) exact matches, in which:
550 unique CDR3
6 unique J



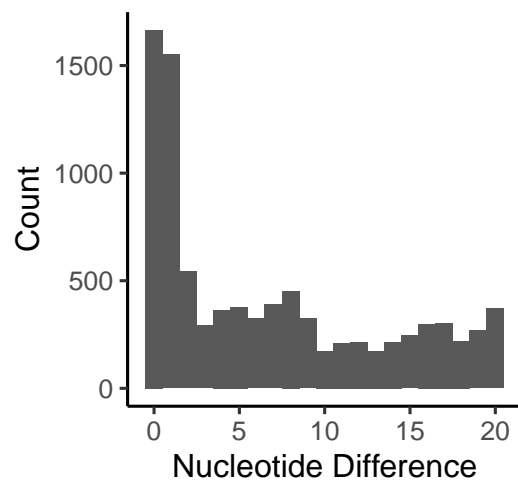
IGHV3-33*06

1862 sequences assigned
134 (7.2%) exact matches, in which:
124 unique CDR3
6 unique J



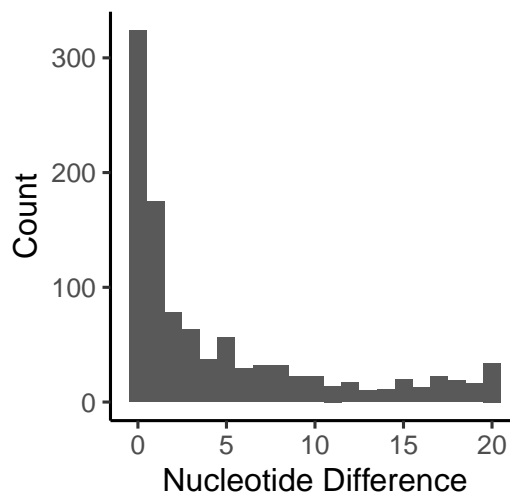
IGHV3-21*01_02

11469 sequences assigned
1665 (14.5%) exact matches, in which:
1068 unique CDR3
6 unique J



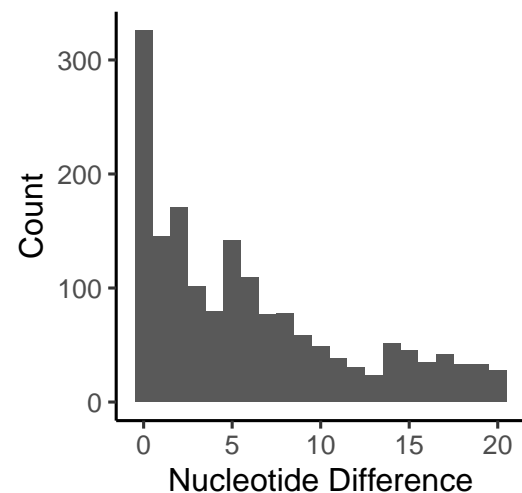
IGHV3-30*03

2703 sequences assigned
324 (12%) exact matches, in which:
285 unique CDR3
6 unique J



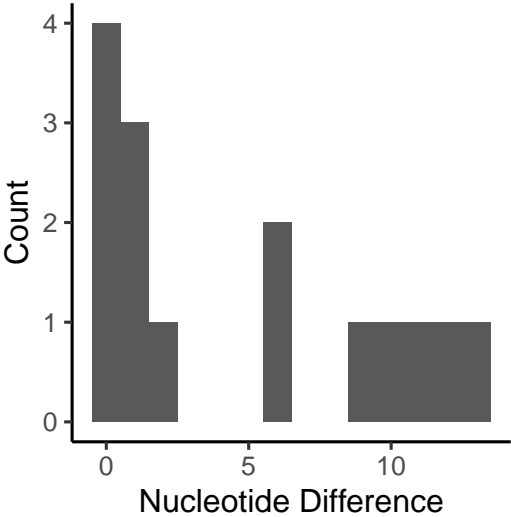
IGHV3-33*08

1848 sequences assigned
326 (17.6%) exact matches, in which:
260 unique CDR3
6 unique J



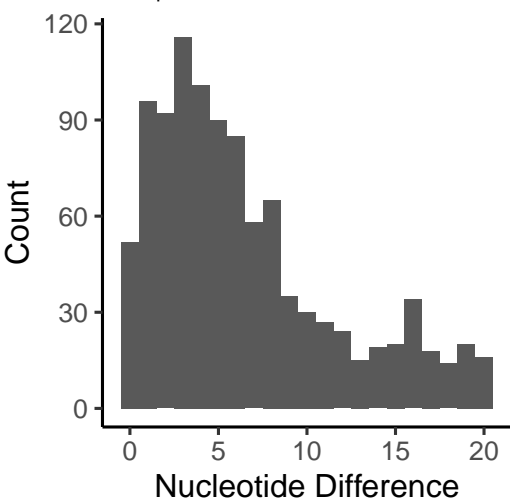
IGHV3-35*01

15 sequences assigned
4 (26.7%) exact matches, in which:
3 unique CDR3
1 unique J



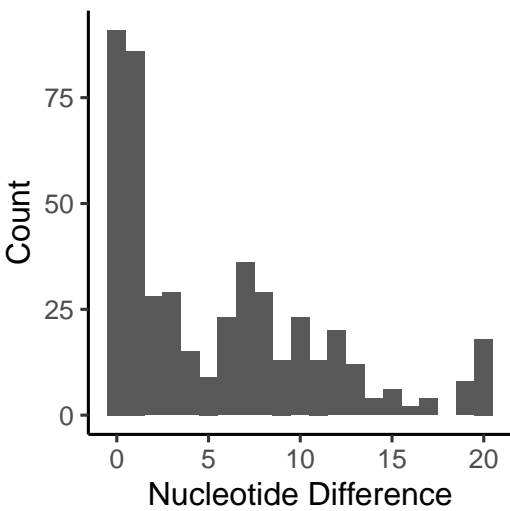
IGHV3-48*01

1070 sequences assigned
52 (4.9%) exact matches, in which:
49 unique CDR3
5 unique J



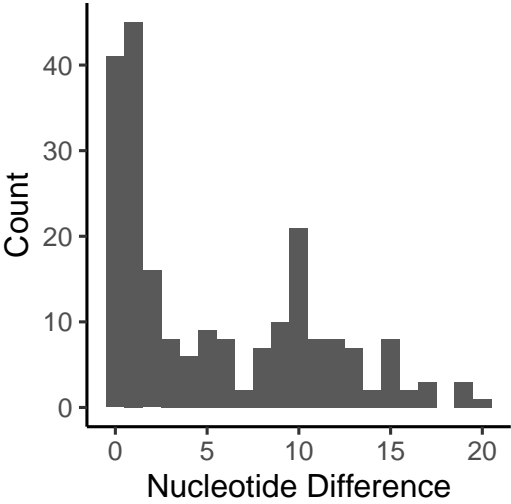
IGHV3-49*04

796 sequences assigned
91 (11.4%) exact matches, in which:
50 unique CDR3
5 unique J



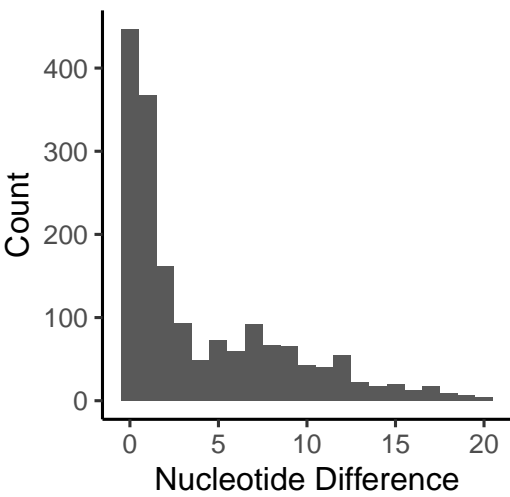
IGHV3-43*01

1301 sequences assigned
41 (3.2%) exact matches, in which:
25 unique CDR3
3 unique J



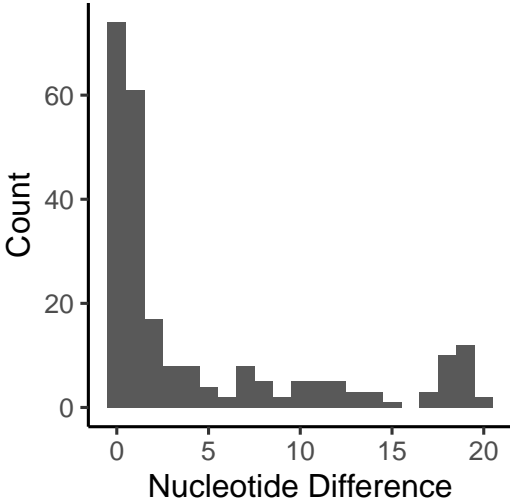
IGHV3-48*02

3000 sequences assigned
447 (14.9%) exact matches, in which:
287 unique CDR3
6 unique J



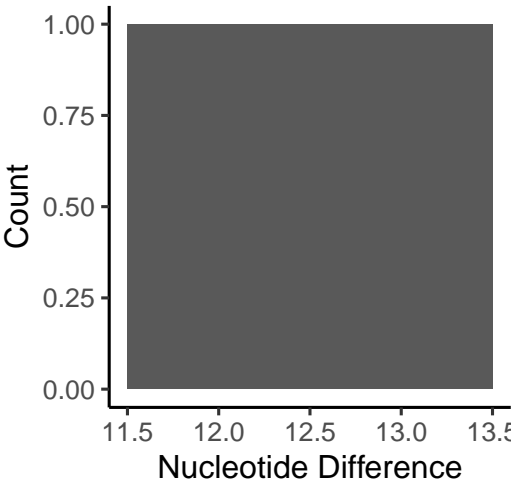
IGHV3-49*03_05

247 sequences assigned
74 (30%) exact matches, in which:
46 unique CDR3
5 unique J



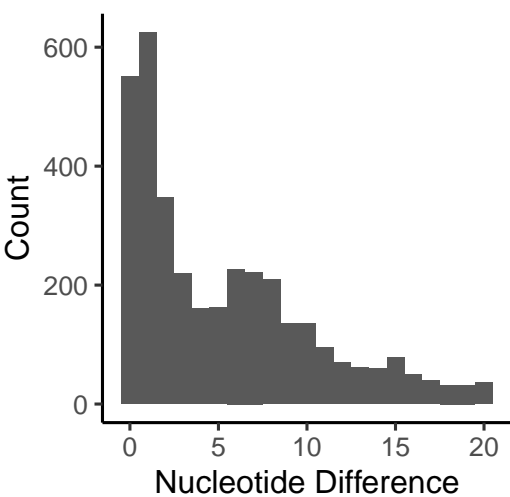
IGHV3-47*02

2 sequences assigned
No exact matches.



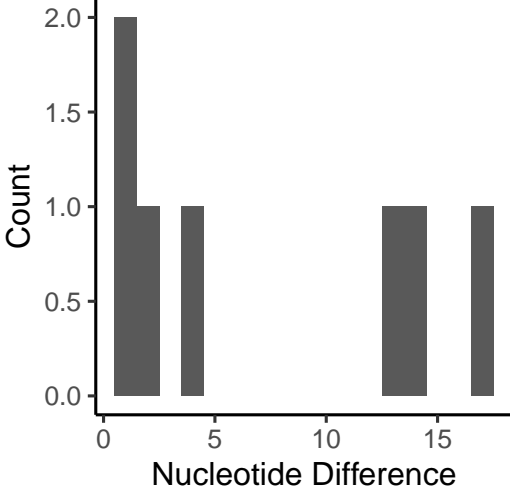
IGHV3-48*03

3846 sequences assigned
550 (14.3%) exact matches, in which:
341 unique CDR3
6 unique J



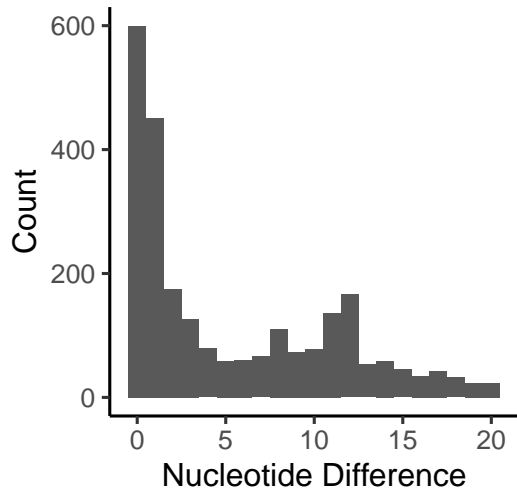
IGHV3-52*01_03

7 sequences assigned
No exact matches.



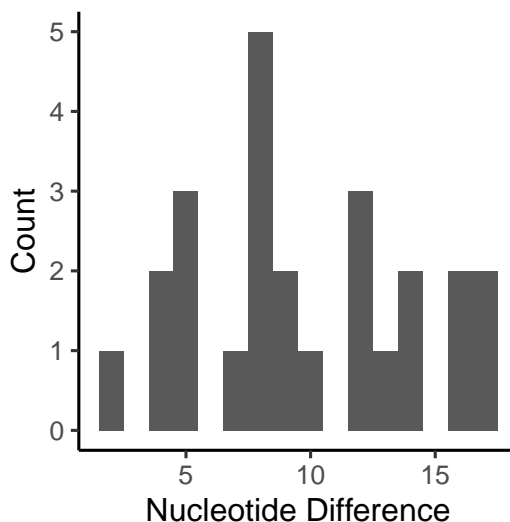
IGHV3-53*01_02

2589 sequences assigned
600 (23.2%) exact matches, in which:
412 unique CDR3
6 unique J



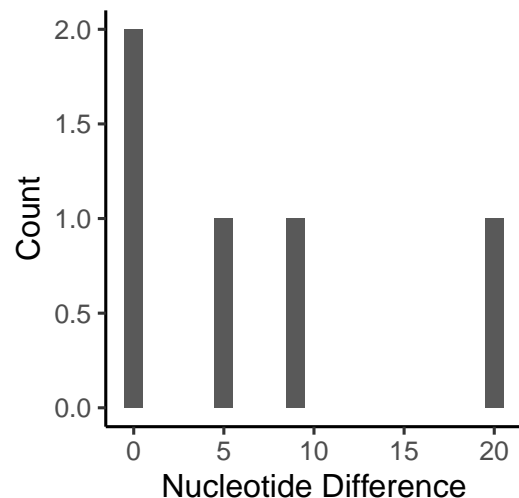
IGHV3-66*02

30 sequences assigned
No exact matches.



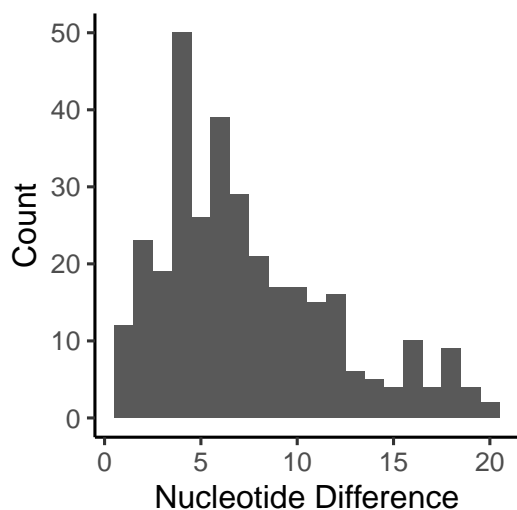
IGHV3-69-1*02

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
1 unique J



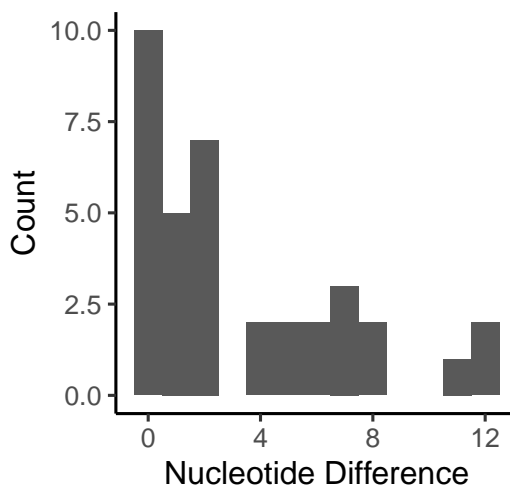
IGHV3-64*04

339 sequences assigned
No exact matches.



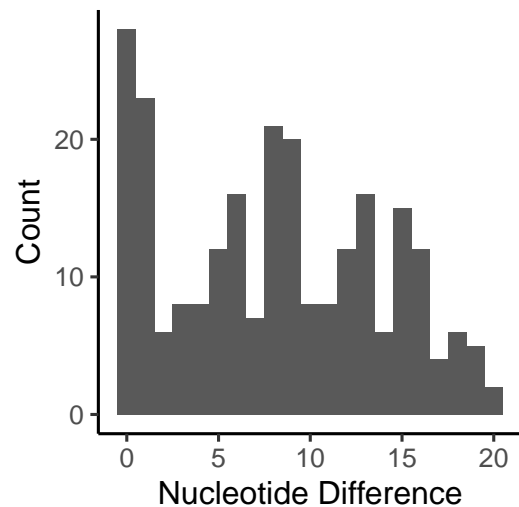
IGHV3-66*03

36 sequences assigned
10 (27.8%) exact matches, in which:
10 unique CDR3
5 unique J



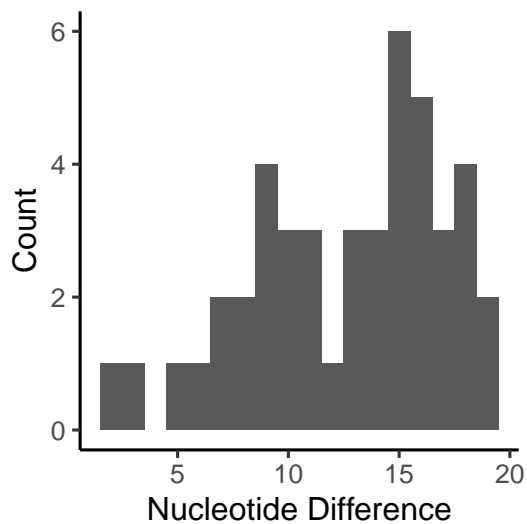
IGHV3-72*01

253 sequences assigned
28 (11.1%) exact matches, in which:
18 unique CDR3
5 unique J



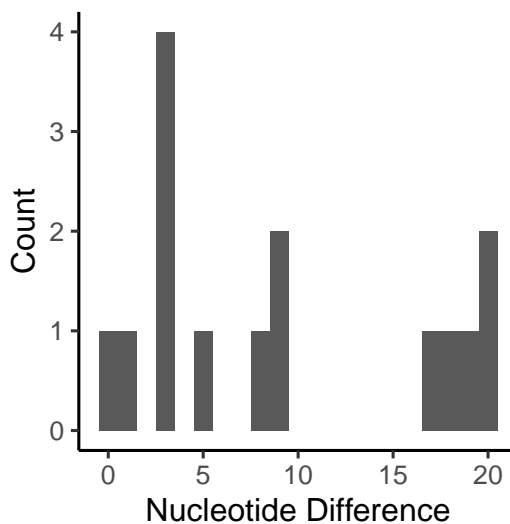
IGHV3-66*01

47 sequences assigned
No exact matches.



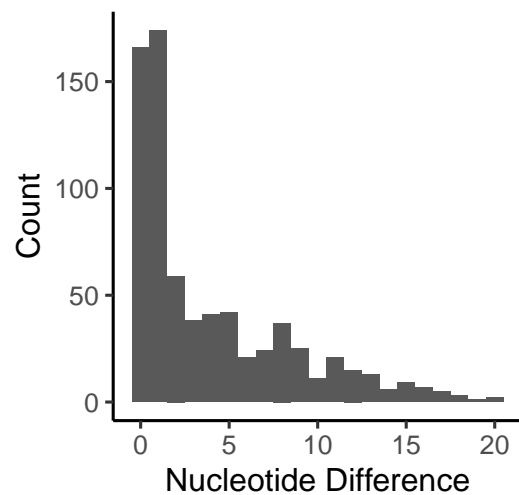
IGHV3-69-1*01

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



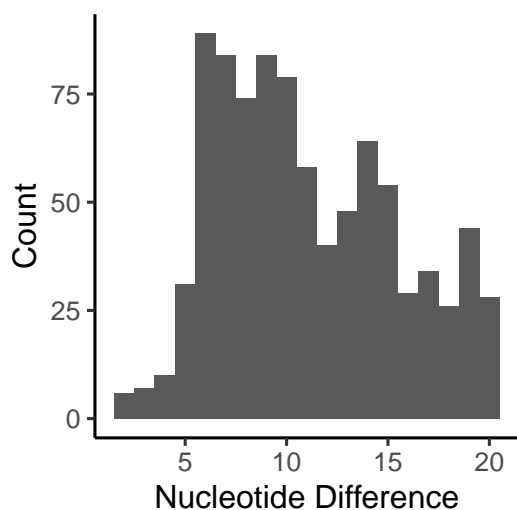
IGHV3-73*01_02

754 sequences assigned
166 (22%) exact matches, in which:
116 unique CDR3
6 unique J



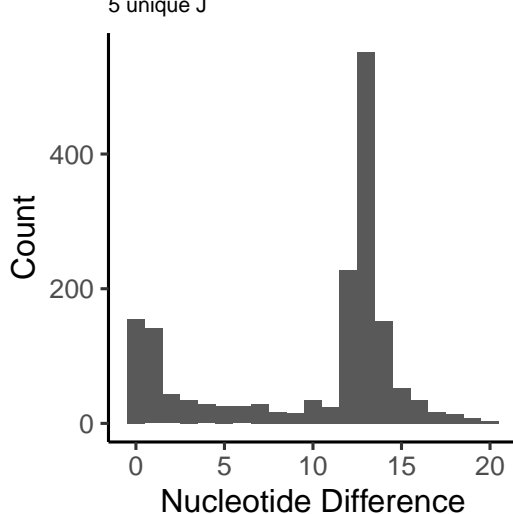
IGHV3-74*03

953 sequences assigned
No exact matches.



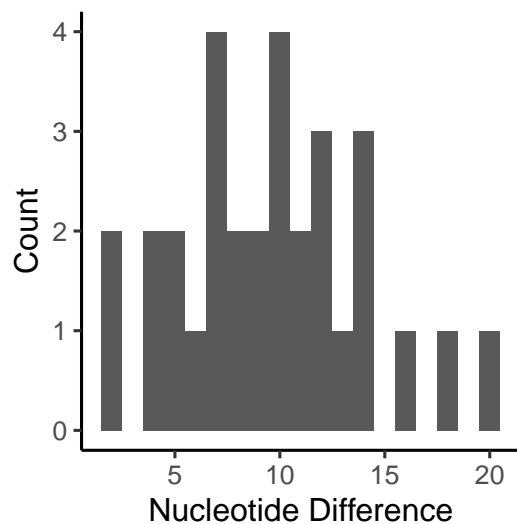
IGHV3-64D*06

1937 sequences assigned
155 (8%) exact matches, in which:
76 unique CDR3
5 unique J



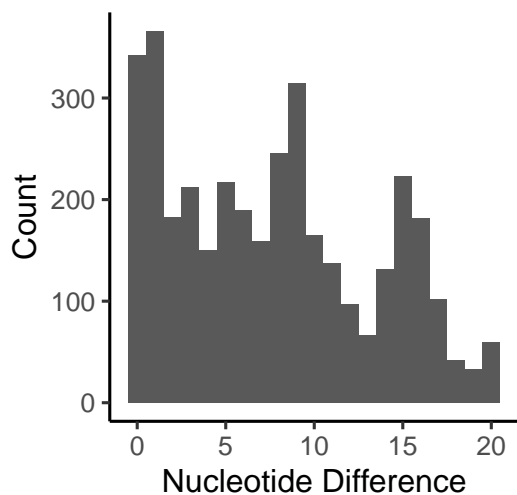
IGHV3-NL1*01

46 sequences assigned
No exact matches.



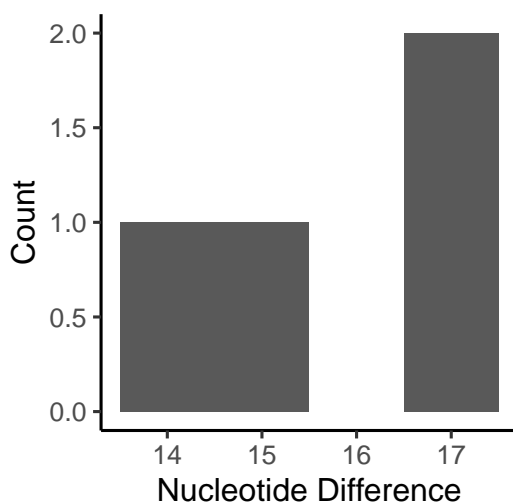
IGHV3-74*01_02

3815 sequences assigned
342 (9%) exact matches, in which:
237 unique CDR3
5 unique J



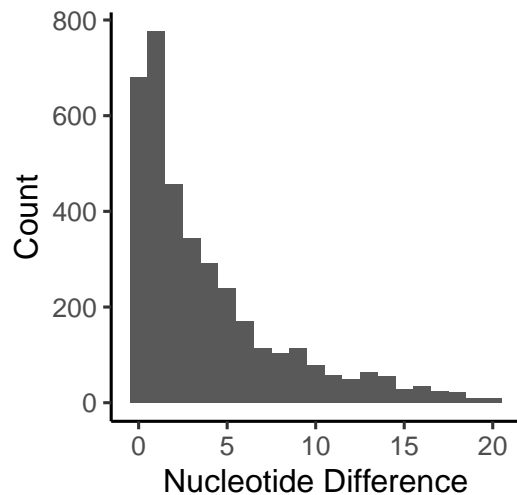
IGHV3-64D*08

19 sequences assigned
No exact matches.



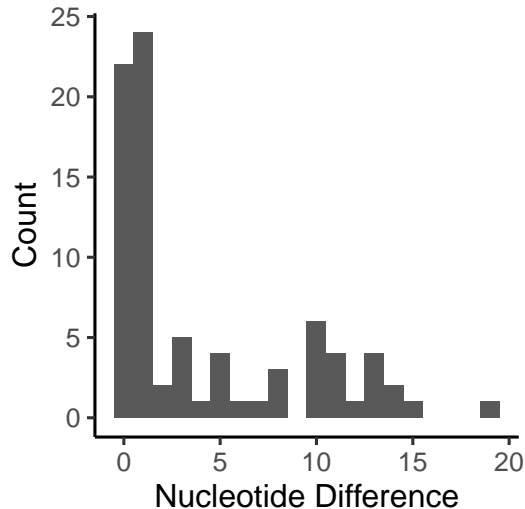
IGHV4-4*02_03

3834 sequences assigned
680 (17.7%) exact matches, in which:
519 unique CDR3
6 unique J



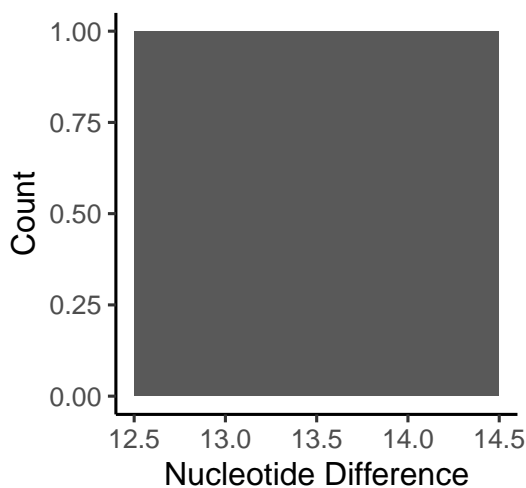
IGHV3-43D*04

82 sequences assigned
22 (26.8%) exact matches, in which:
13 unique CDR3
3 unique J



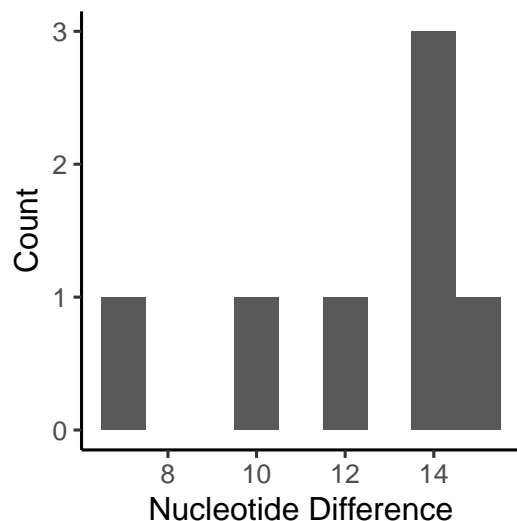
IGHV3-64D*09

3 sequences assigned
No exact matches.



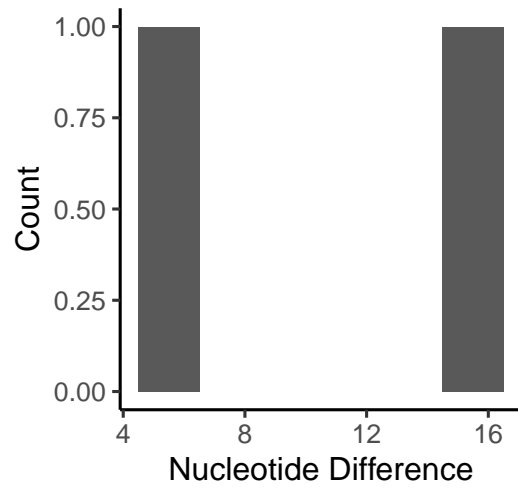
IGHV4-28*03

7 sequences assigned
No exact matches.



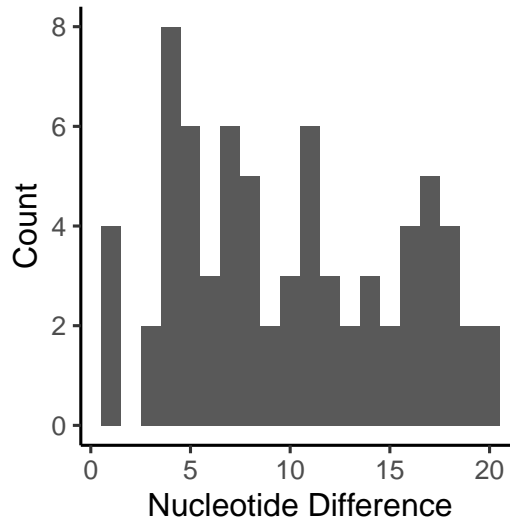
IGHV4-28*01_07

4 sequences assigned
No exact matches.



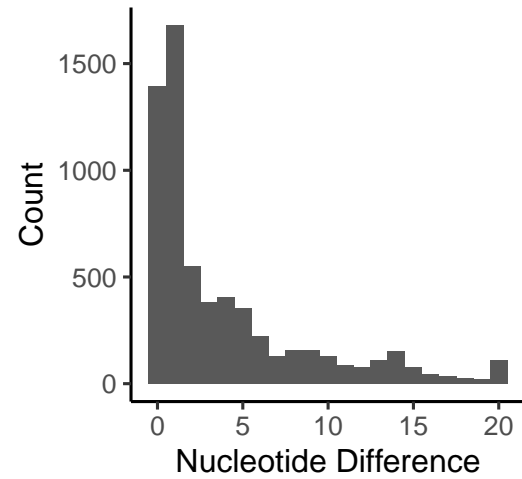
IGHV4-30-2*03

83 sequences assigned
No exact matches.



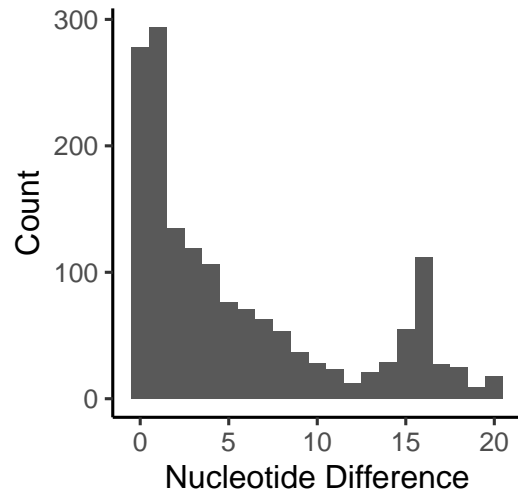
IGHV4-34*01_02

7729 sequences assigned
1396 (18.1%) exact matches, in which:
961 unique CDR3
6 unique J



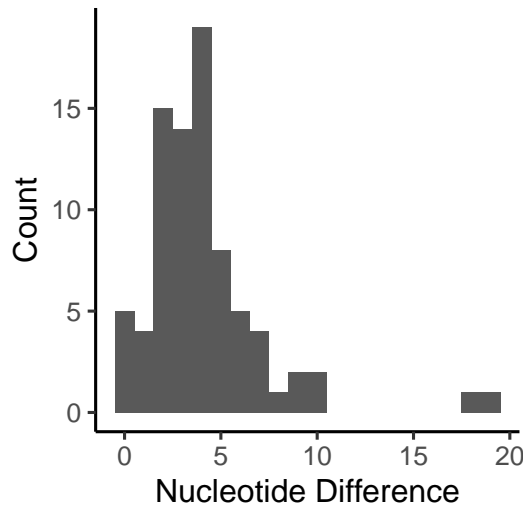
IGHV4-30-4*01

2995 sequences assigned
278 (9.3%) exact matches, in which:
210 unique CDR3
6 unique J



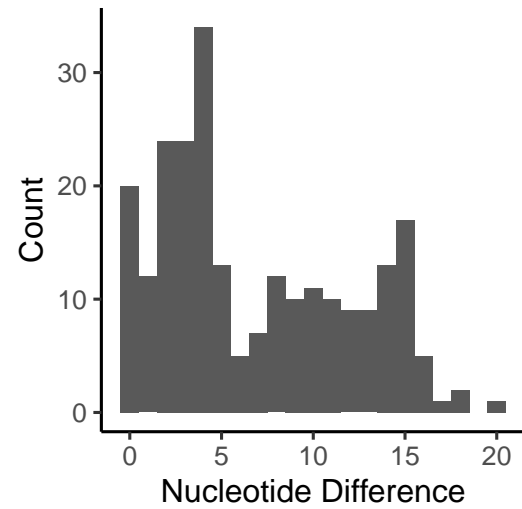
IGHV4-30-2*05

88 sequences assigned
5 (5.7%) exact matches, in which:
5 unique CDR3
2 unique J



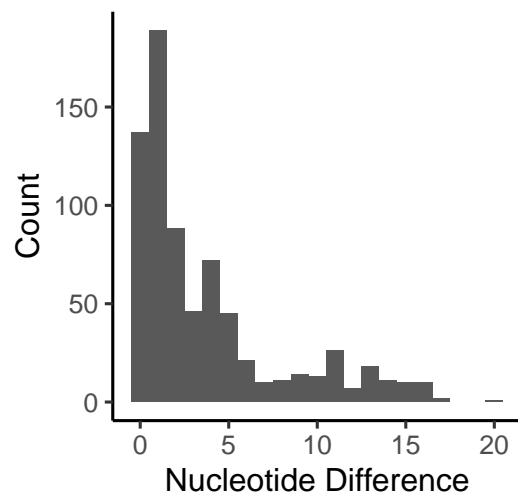
IGHV4-38-2*02

241 sequences assigned
20 (8.3%) exact matches, in which:
20 unique CDR3
5 unique J



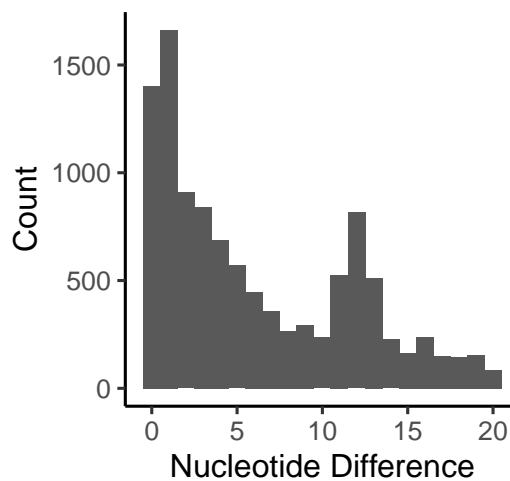
IGHV4-30-2*01

763 sequences assigned
137 (18%) exact matches, in which:
78 unique CDR3
5 unique J



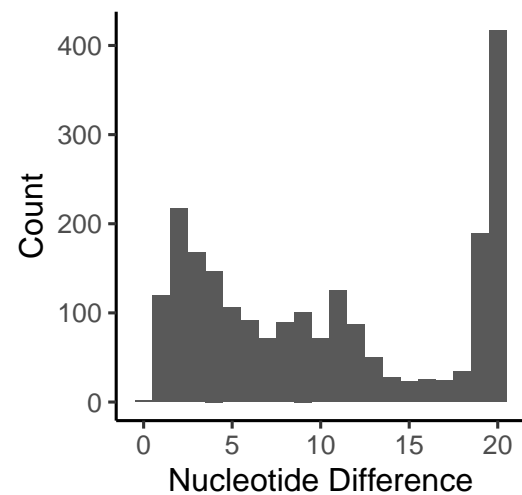
IGHV4-31*02

14565 sequences assigned
1402 (9.6%) exact matches, in which:
1092 unique CDR3
6 unique J



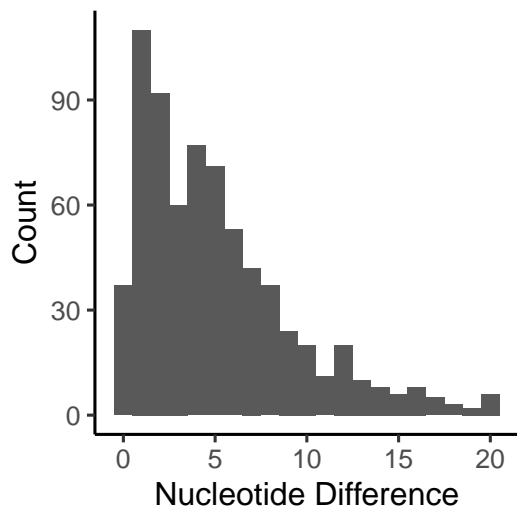
IGHV4-39*07

2883 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
2 unique J



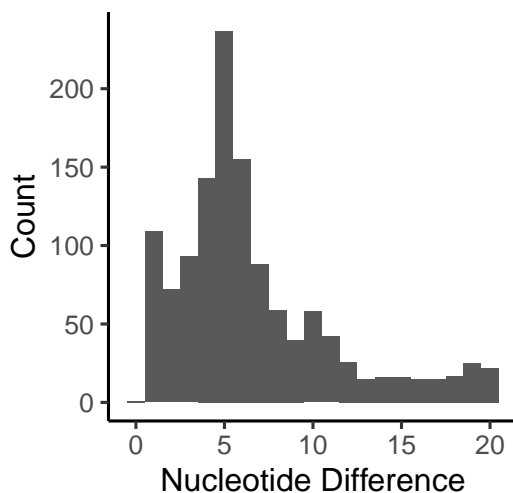
IGHV4-59*08

736 sequences assigned
37 (5%) exact matches, in which:
36 unique CDR3
4 unique J



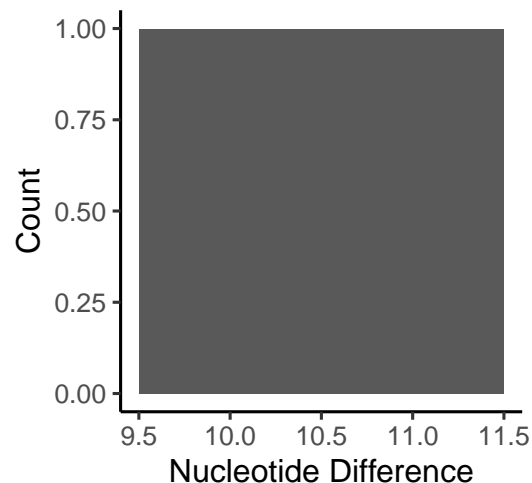
IGHV4-61*08

1332 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



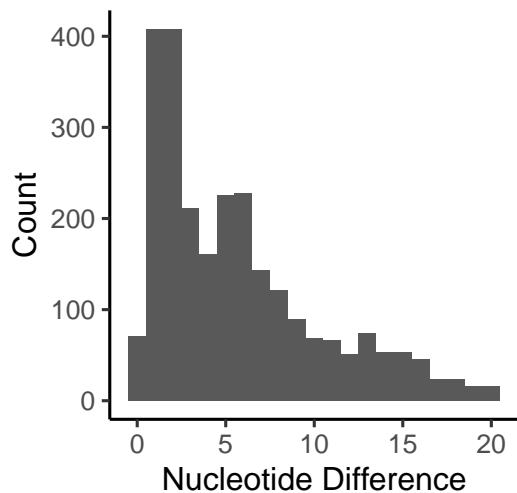
IGHV1/OR15-9*01

2 sequences assigned
No exact matches.



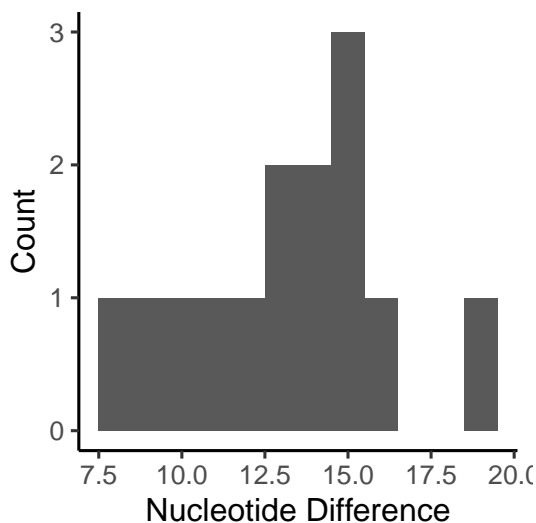
IGHV4-59*12

3340 sequences assigned
71 (2.1%) exact matches, in which:
70 unique CDR3
6 unique J



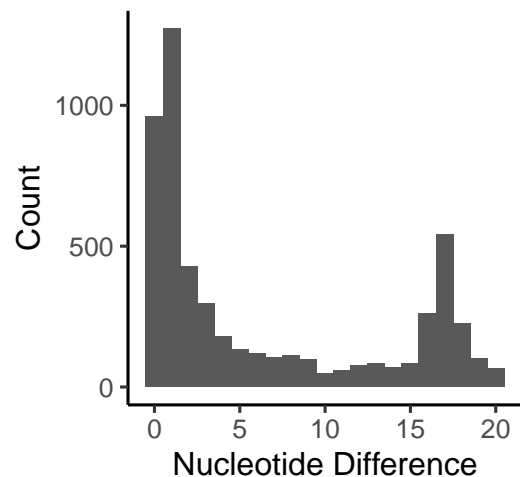
IGHV1/OR15-3*02

14 sequences assigned
No exact matches.



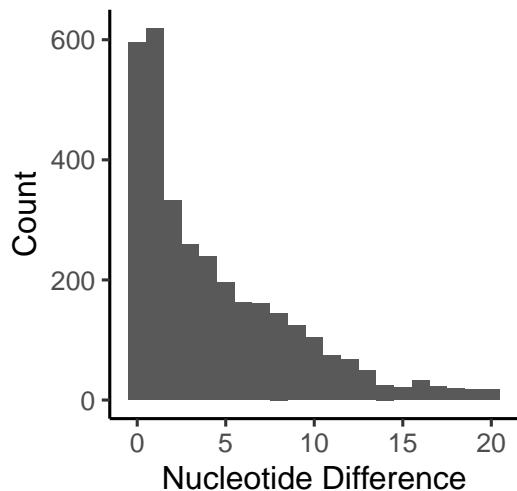
IGHV5-10-1*01_03

6743 sequences assigned
961 (14.3%) exact matches, in which:
591 unique CDR3
6 unique J



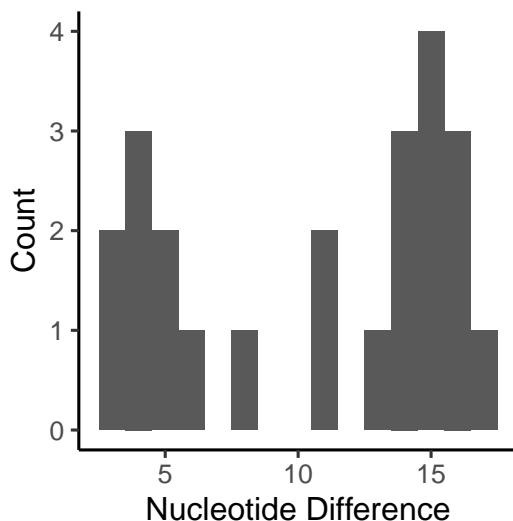
IGHV4-61*01

3845 sequences assigned
596 (15.5%) exact matches, in which:
501 unique CDR3
6 unique J



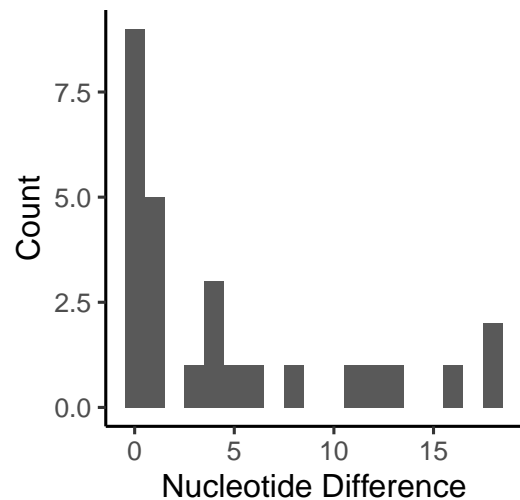
IGHV4/OR15-8*01

23 sequences assigned
No exact matches.



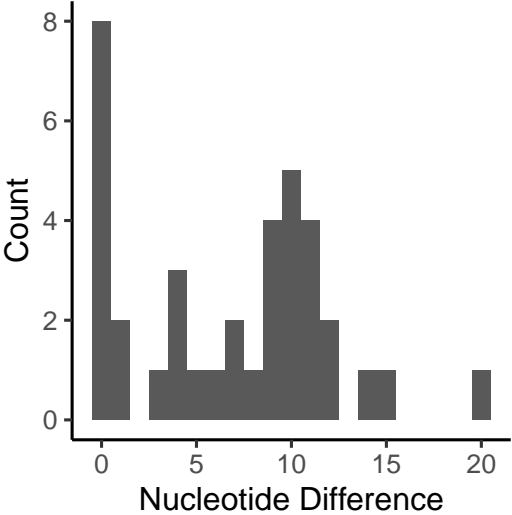
IGHV5-51*04

29 sequences assigned
9 (31%) exact matches, in which:
9 unique CDR3
4 unique J



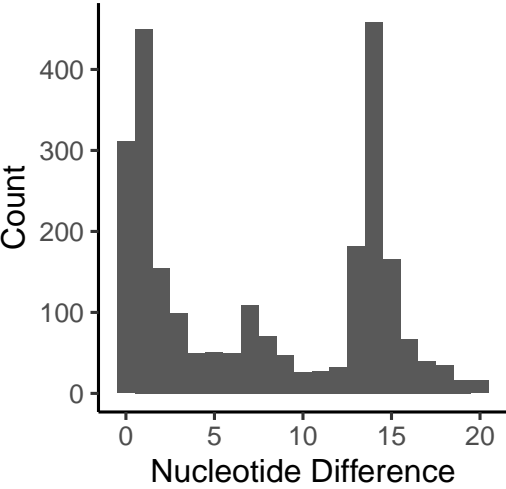
IGHV5-51*06

39 sequences assigned
8 (20.5%) exact matches, in which:
8 unique CDR3
5 unique J



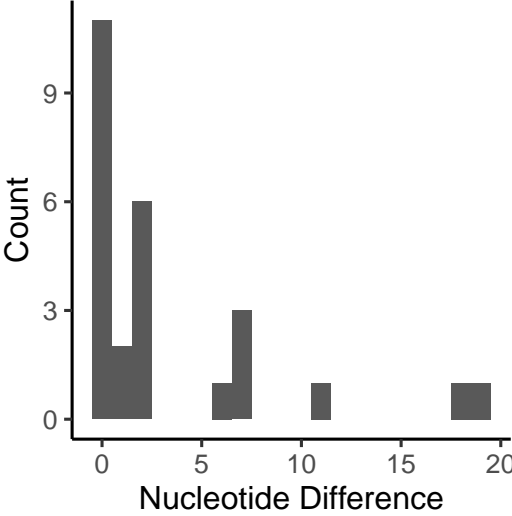
IGHV7-4-1*02

2481 sequences assigned
311 (12.5%) exact matches, in which:
234 unique CDR3
6 unique J



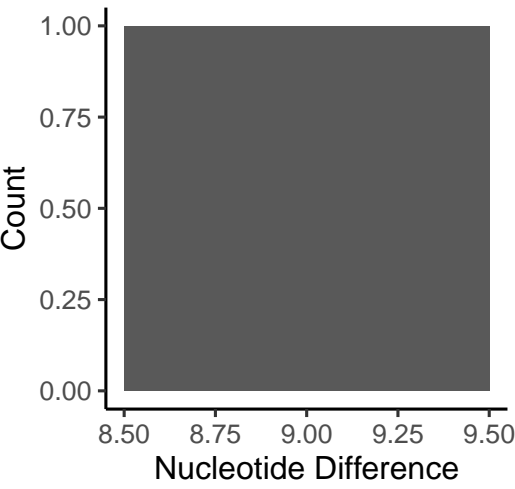
IGHV5-51*07

27 sequences assigned
11 (40.7%) exact matches, in which:
11 unique CDR3
4 unique J



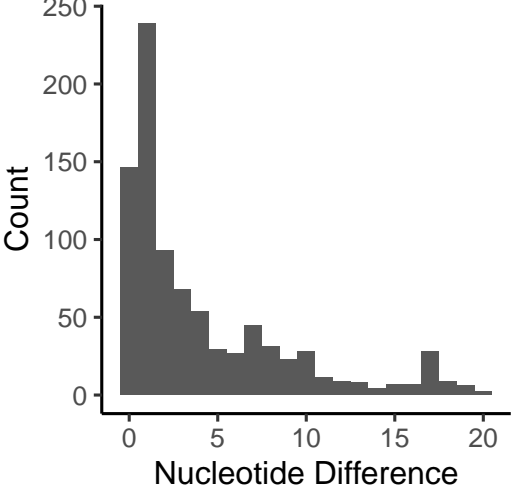
IGHV7-81*01

1 sequences assigned
No exact matches.

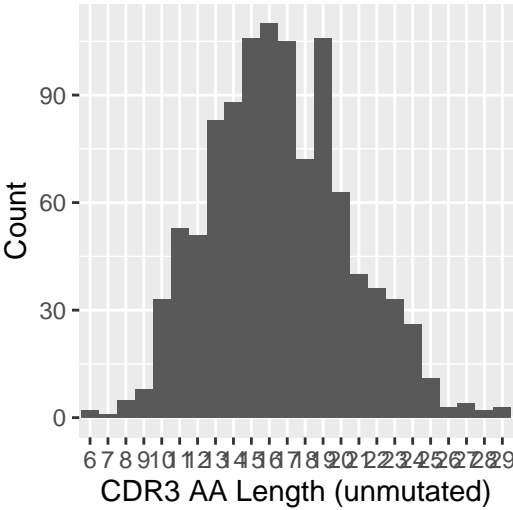


IGHV6-1*01_02

935 sequences assigned
146 (15.6%) exact matches, in which:
125 unique CDR3
4 unique J



IGHV1-69*06_14_G240A





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