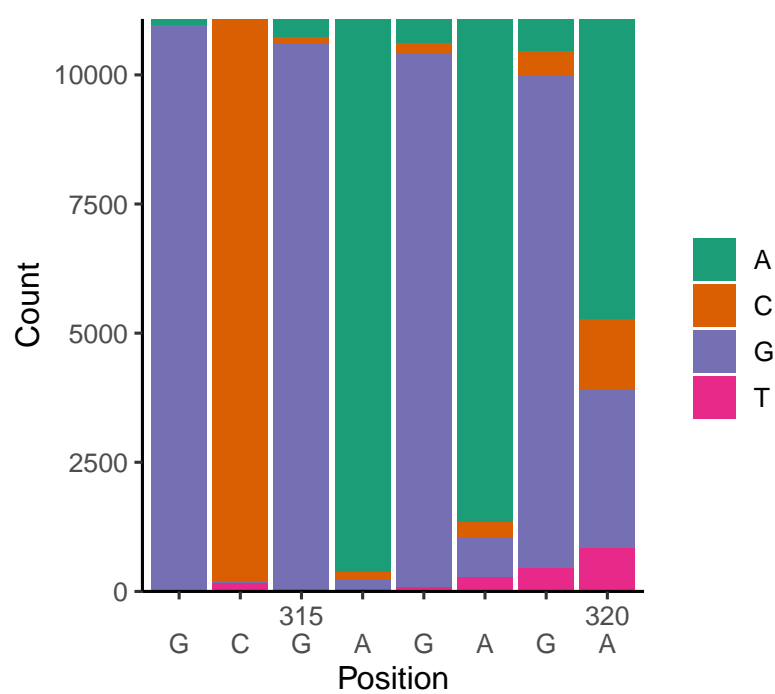
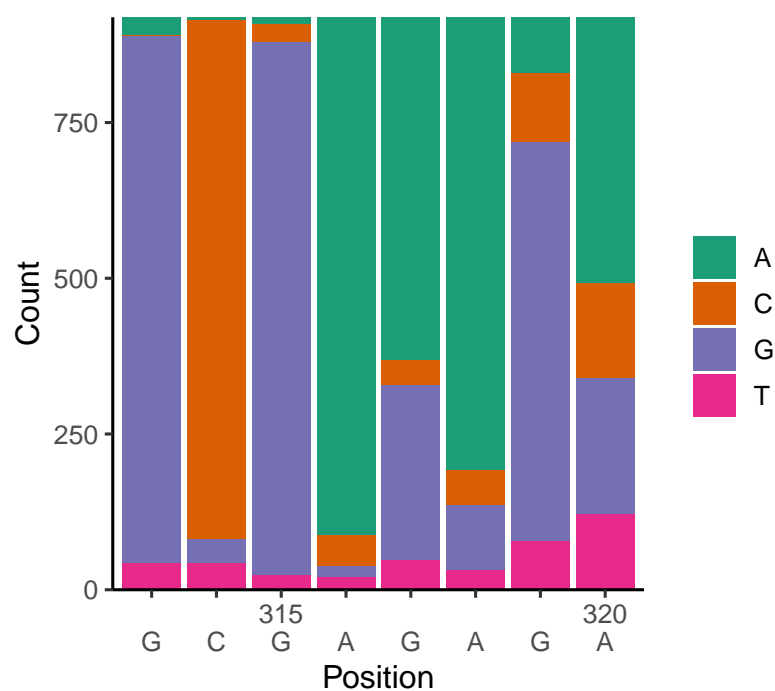


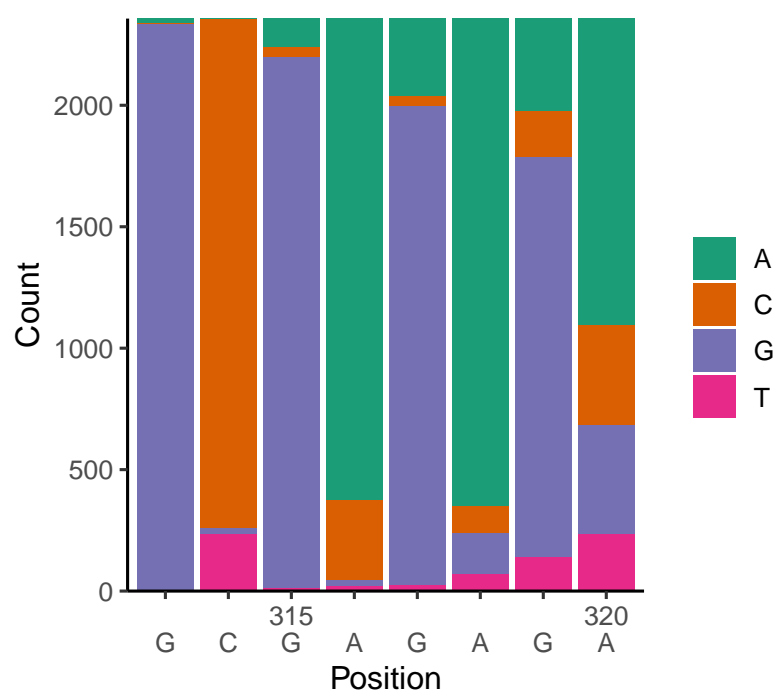
Gene IGHV3-30*04_C203T



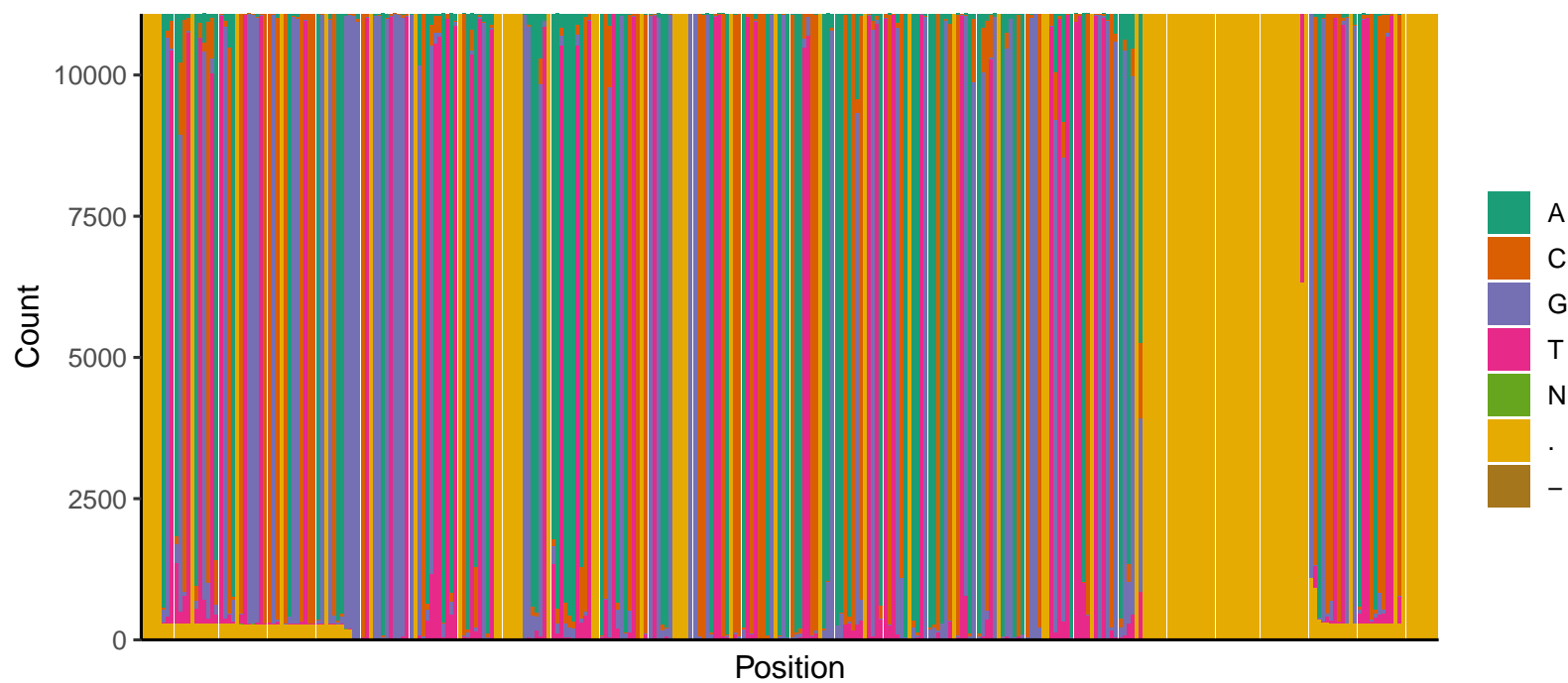
Gene IGHV3-30*07_A150G_C203T_T300C_G303A



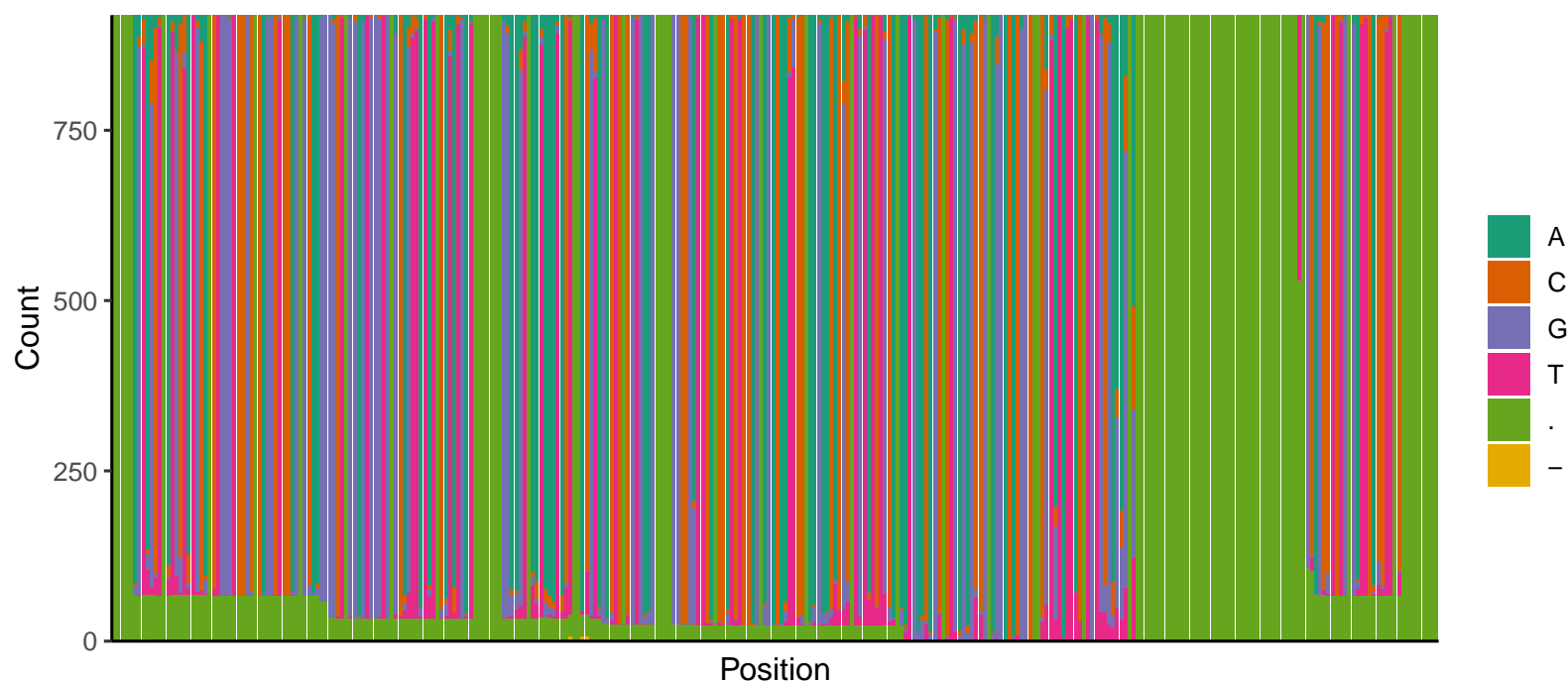
Gene IGHV3-20*03_04_A104G



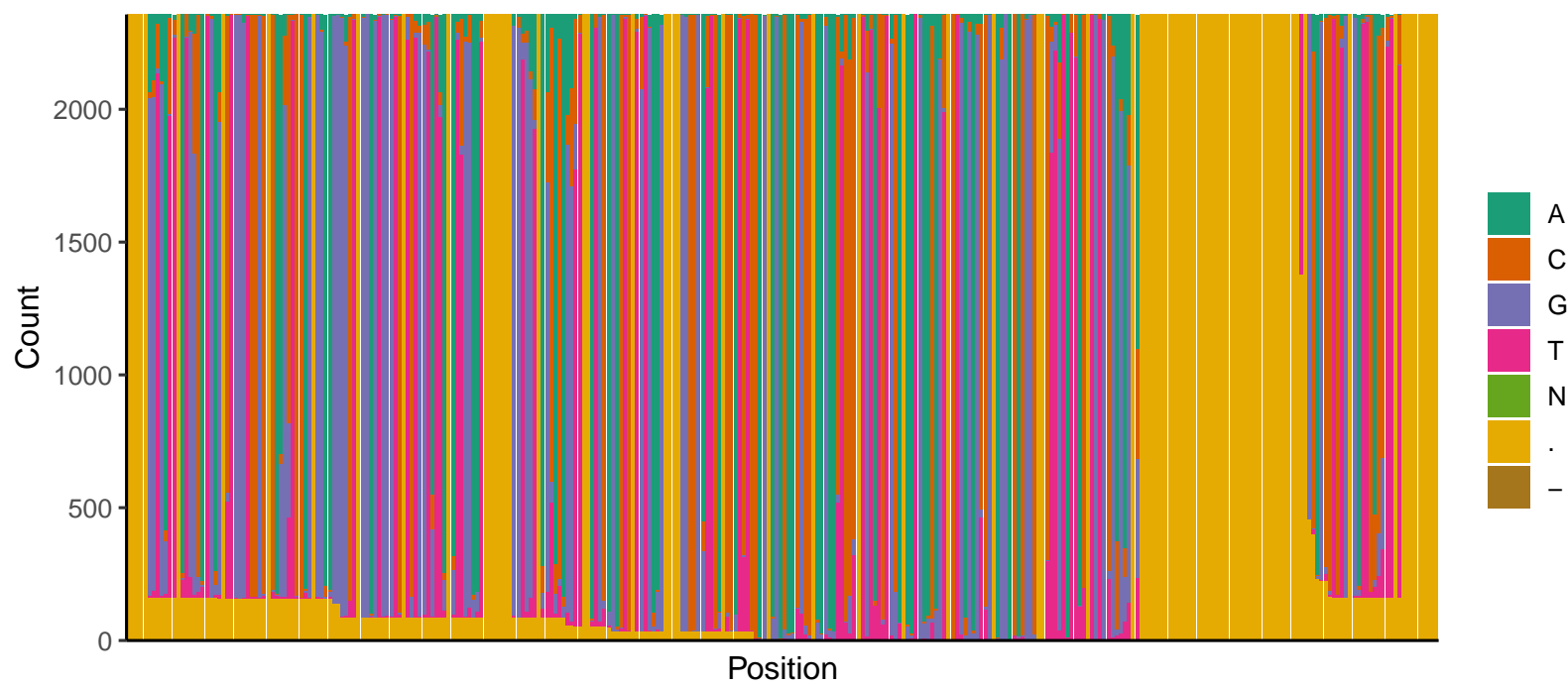
Gene IGHV3-30*04_C203T



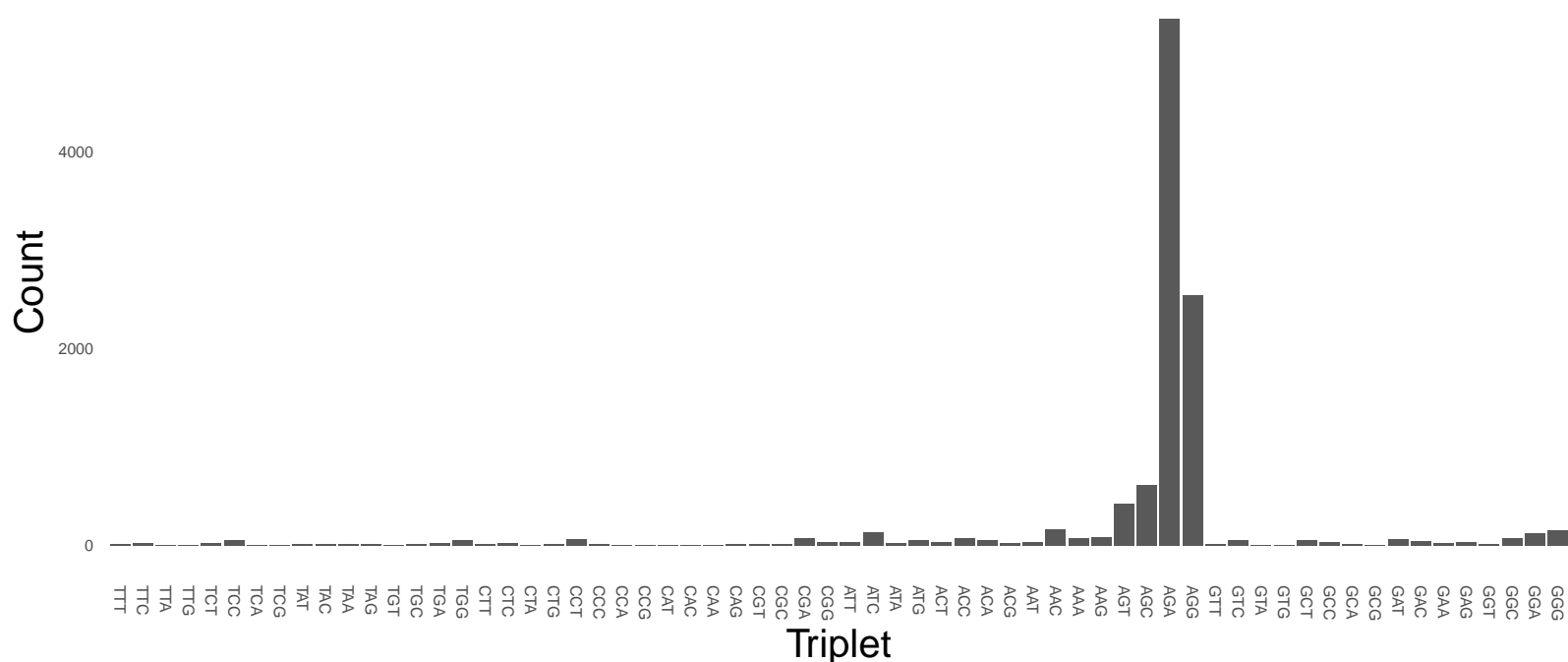
Gene IGHV3-30*07_A150G_C203T_T300C_G303A



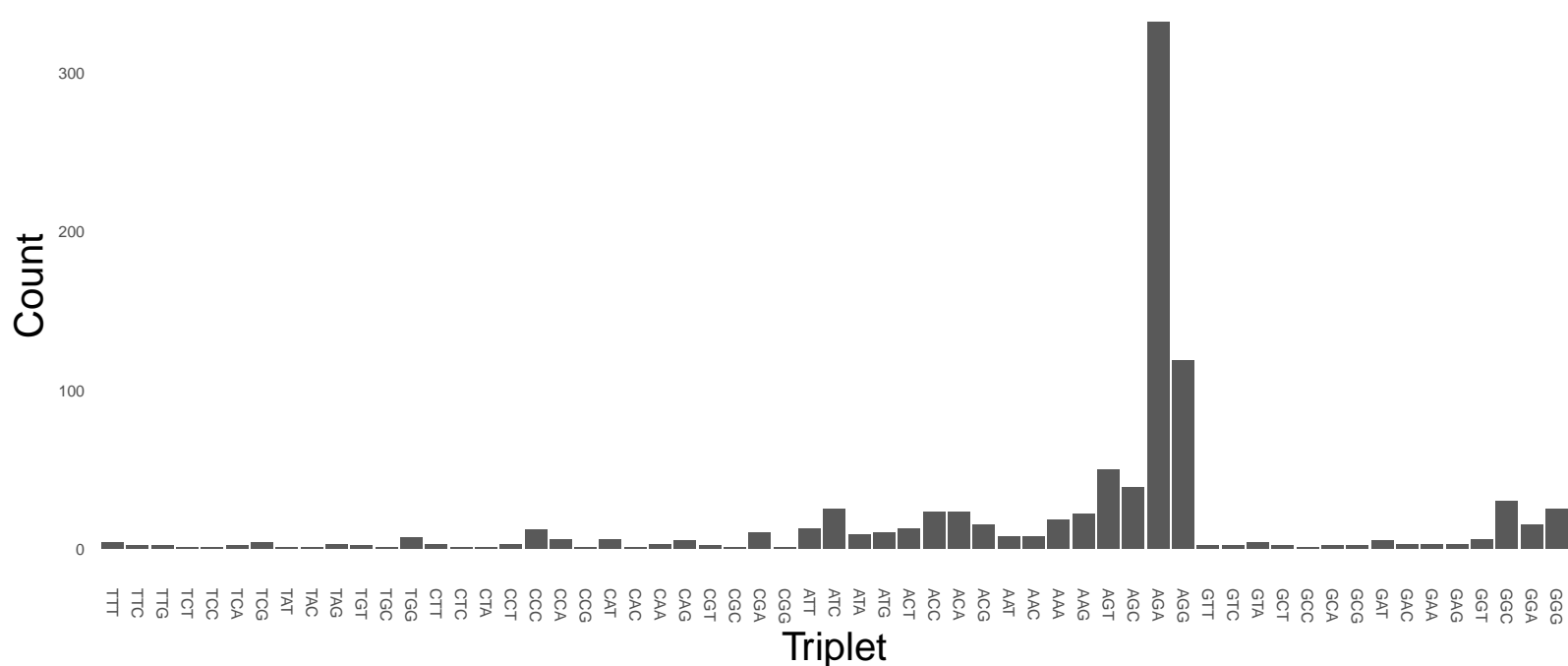
Gene IGHV3-20*03_04_A104G



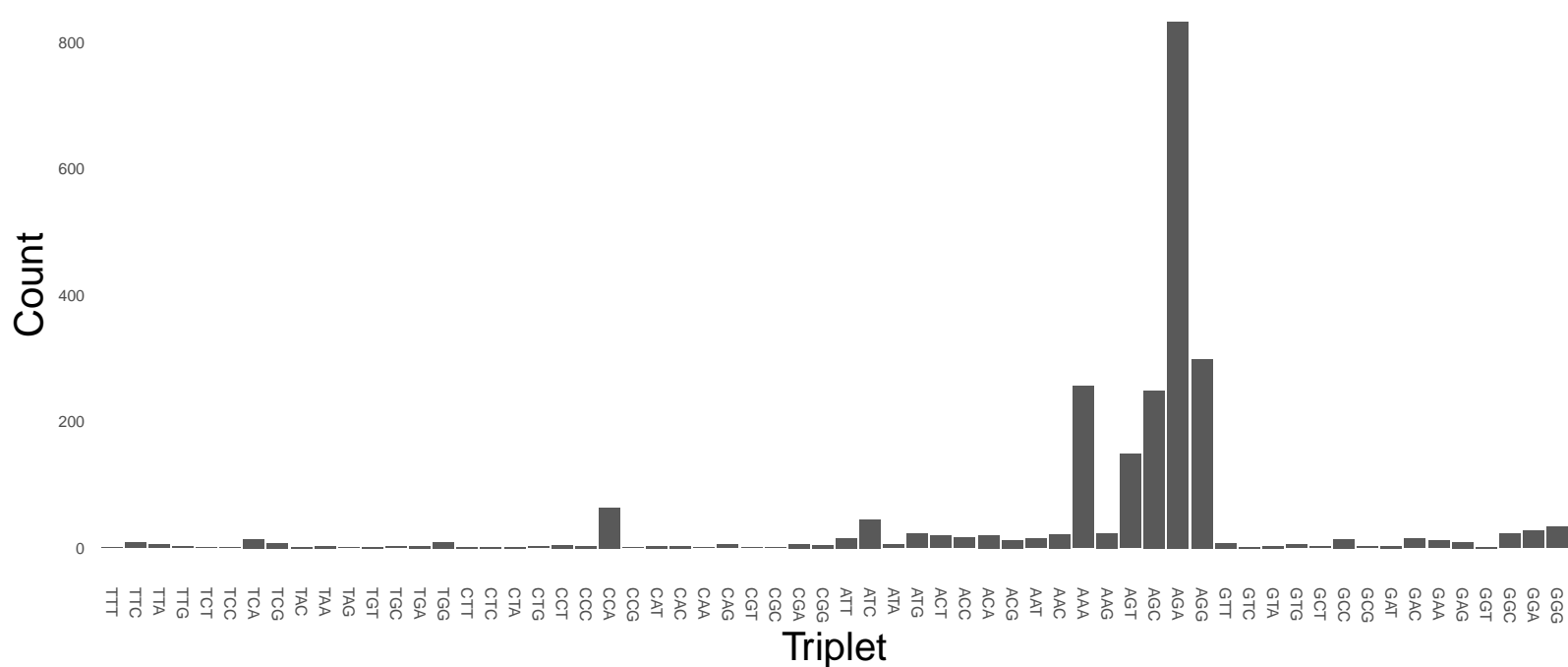
IGHV3-30*04_C203T- Final 3 nucleotides as a triplet



IGHV3-30*07_A150G_C203T_T300C_G303A- Final 3 nucleotides as a triplet

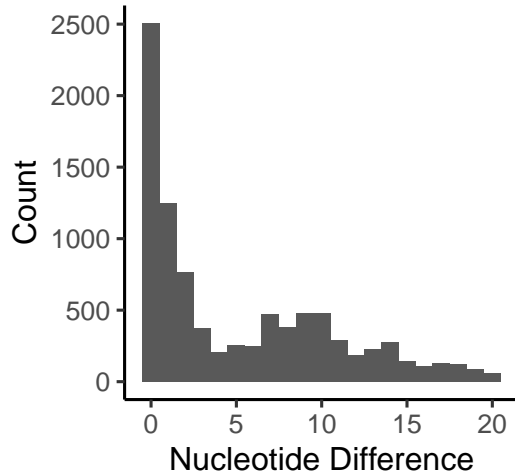


IGHV3-20*03_04_A104G- Final 3 nucleotides as a triplet



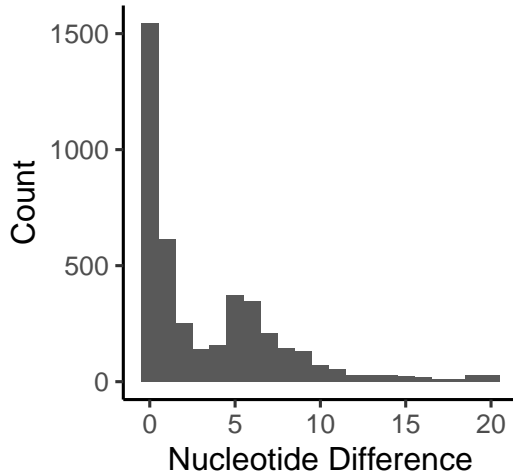
IGHV1-2*02

10419 sequences assigned
2505 (24%) exact matches, in which:
2367 unique CDR3
6 unique J



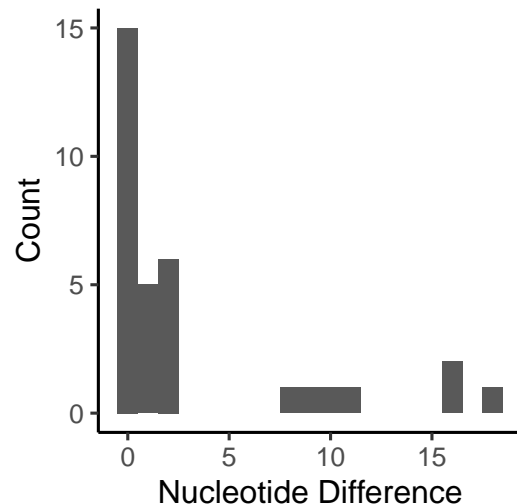
IGHV1-8*02

4345 sequences assigned
1544 (35.5%) exact matches, in which:
1483 unique CDR3
6 unique J



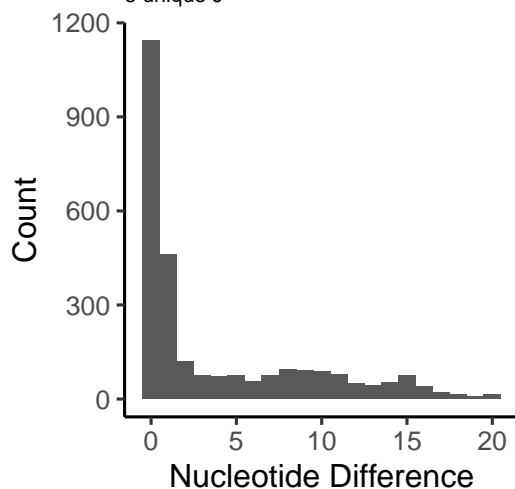
IGHV1-45*02

51 sequences assigned
15 (29.4%) exact matches, in which:
12 unique CDR3
5 unique J



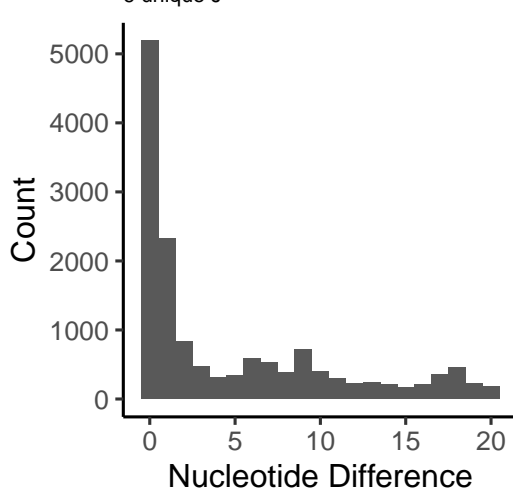
IGHV1-3*01_05

3031 sequences assigned
1143 (37.7%) exact matches, in which:
1075 unique CDR3
6 unique J



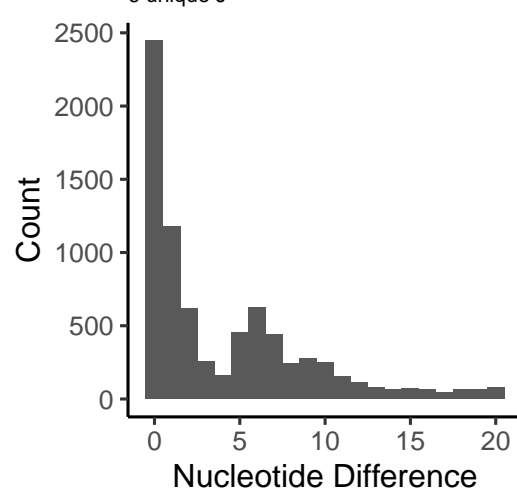
IGHV1-18*01

15935 sequences assigned
5190 (32.6%) exact matches, in which:
4845 unique CDR3
6 unique J



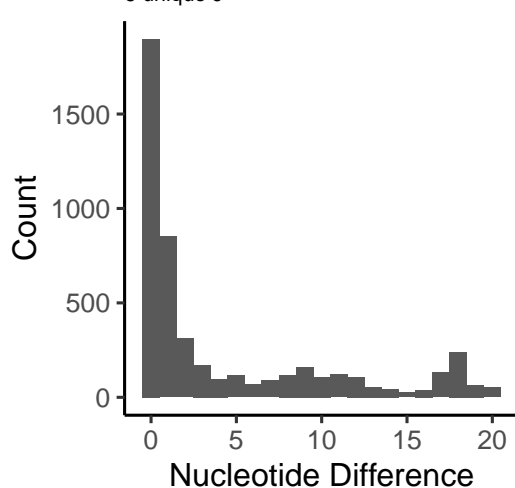
IGHV1-46*01

8315 sequences assigned
2446 (29.4%) exact matches, in which:
2328 unique CDR3
6 unique J



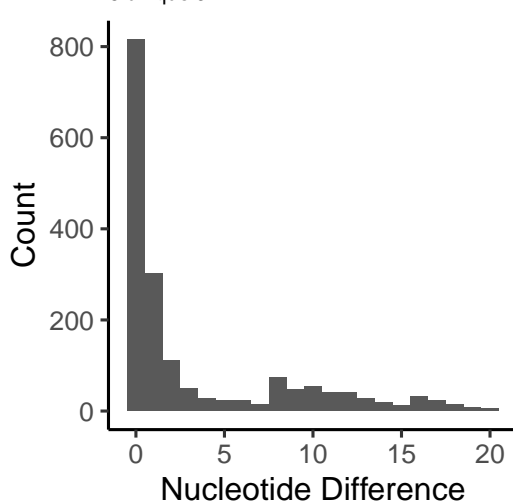
IGHV1-8*01

5155 sequences assigned
1897 (36.8%) exact matches, in which:
1815 unique CDR3
6 unique J



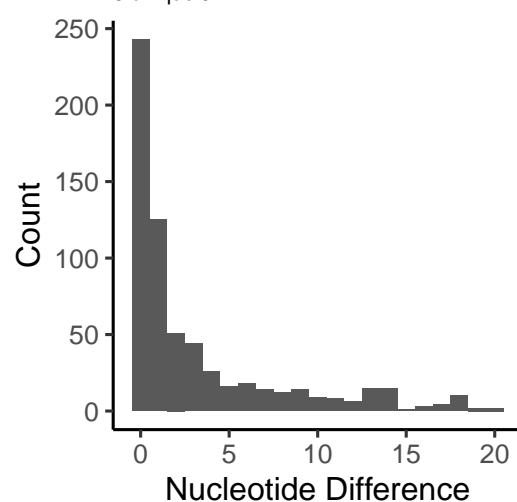
IGHV1-24*01

2191 sequences assigned
816 (37.2%) exact matches, in which:
783 unique CDR3
6 unique J



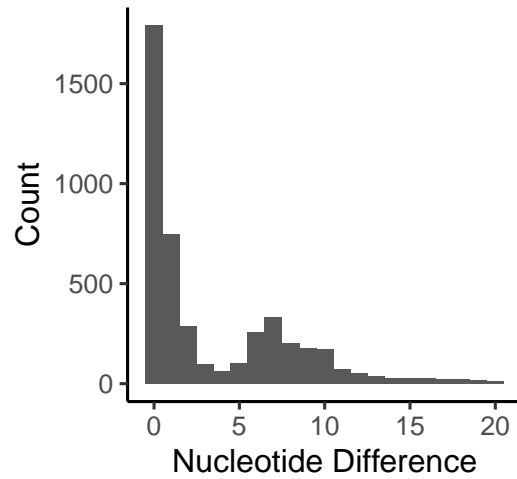
IGHV1-58*02

641 sequences assigned
243 (37.9%) exact matches, in which:
228 unique CDR3
5 unique J



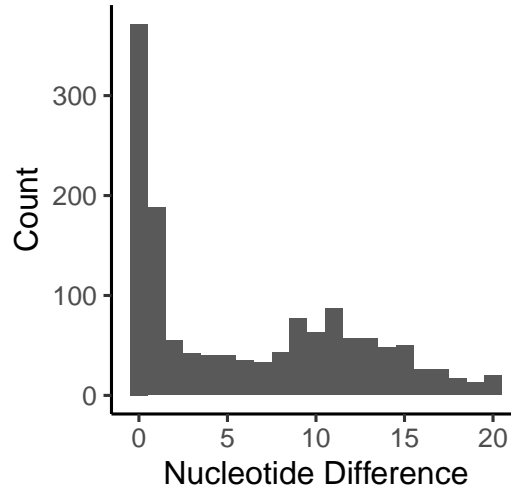
IGHV1-69*10

5151 sequences assigned
1791 (34.8%) exact matches, in which:
1731 unique CDR3
6 unique J



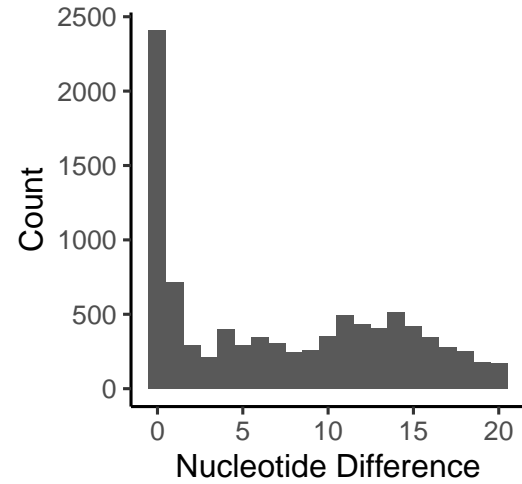
IGHV2-5*02

1541 sequences assigned
372 (24.1%) exact matches, in which:
345 unique CDR3
6 unique J



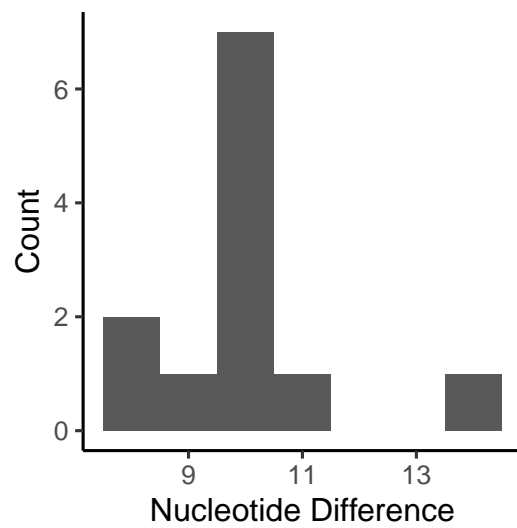
IGHV3-7*01

10355 sequences assigned
2408 (23.3%) exact matches, in which:
1948 unique CDR3
6 unique J



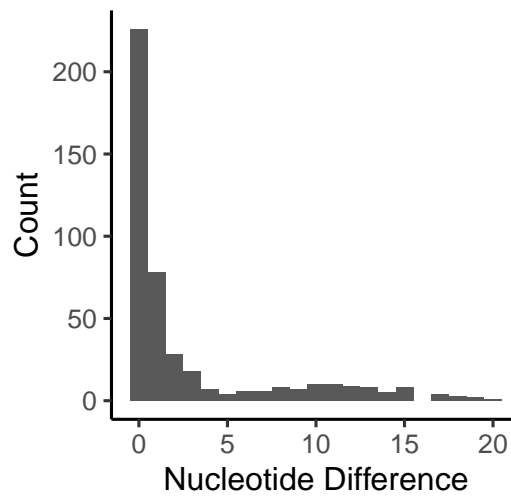
IGHV1-NL1*01

12 sequences assigned
No exact matches.



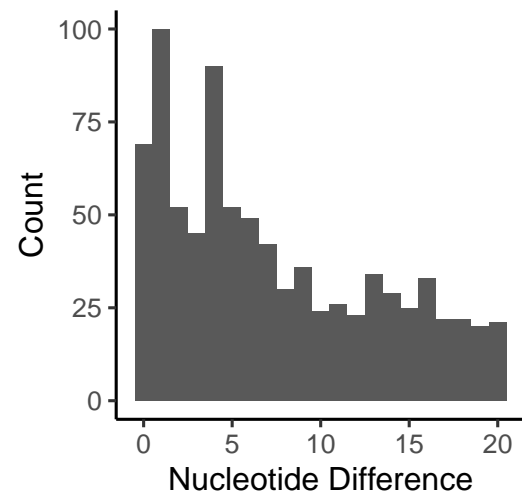
IGHV2-26*01

509 sequences assigned
226 (44.4%) exact matches, in which:
215 unique CDR3
6 unique J



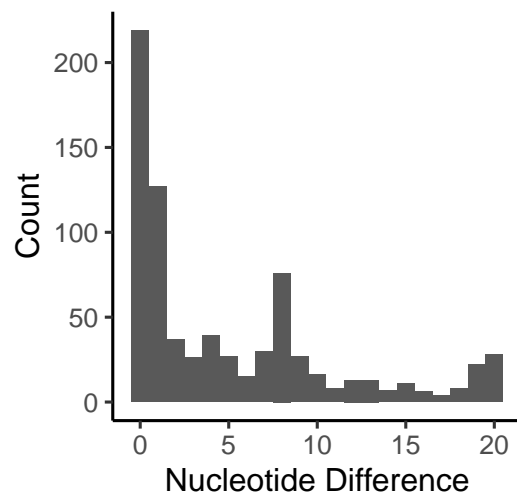
IGHV3-7*03

1028 sequences assigned
69 (6.7%) exact matches, in which:
65 unique CDR3
5 unique J



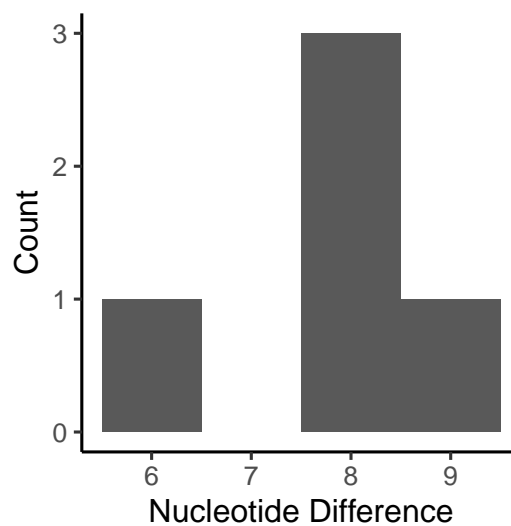
IGHV2-5*01

850 sequences assigned
219 (25.8%) exact matches, in which:
207 unique CDR3
6 unique J



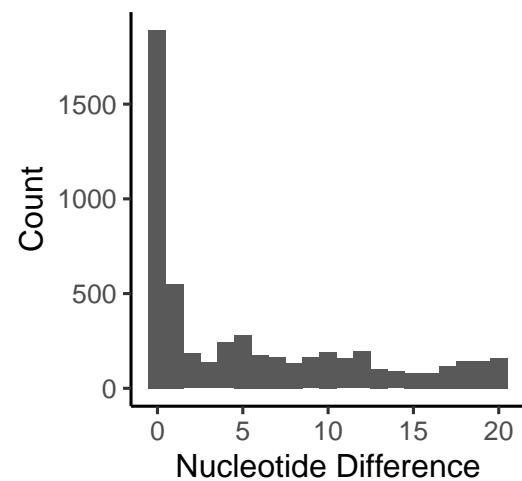
IGHV2-70*12

6 sequences assigned
No exact matches.



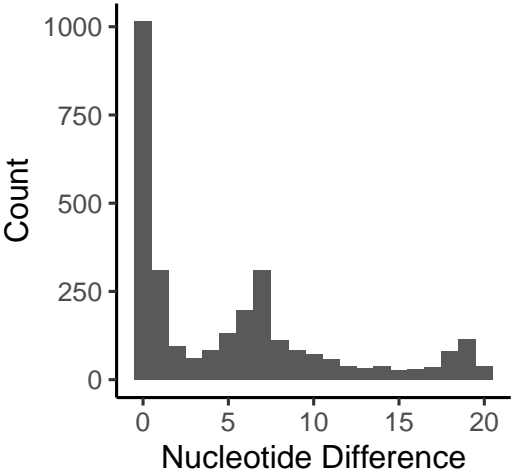
IGHV3-9*01

6432 sequences assigned
1891 (29.4%) exact matches, in which:
1514 unique CDR3
6 unique J



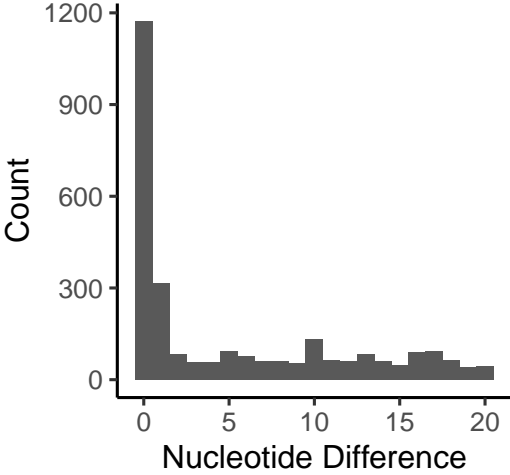
IGHV3-11*01

3753 sequences assigned
1015 (27%) exact matches, in which:
839 unique CDR3
6 unique J



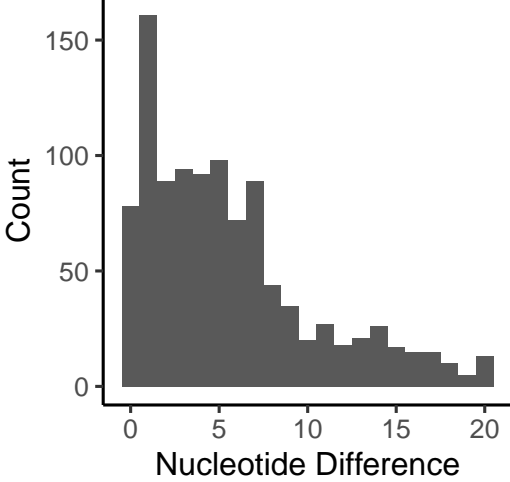
IGHV3-15*01_02

3809 sequences assigned
1172 (30.8%) exact matches, in which:
985 unique CDR3
6 unique J



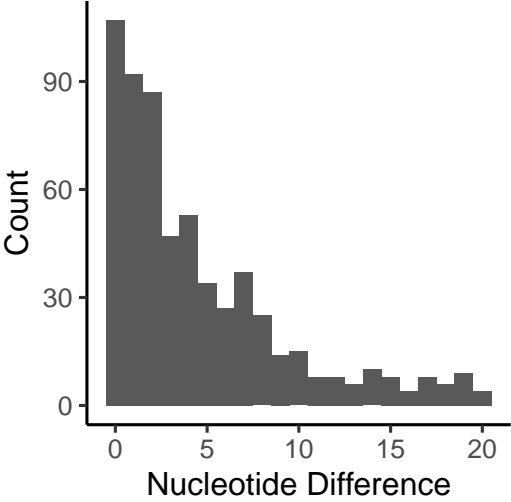
IGHV3-21*04

1191 sequences assigned
78 (6.5%) exact matches, in which:
77 unique CDR3
5 unique J



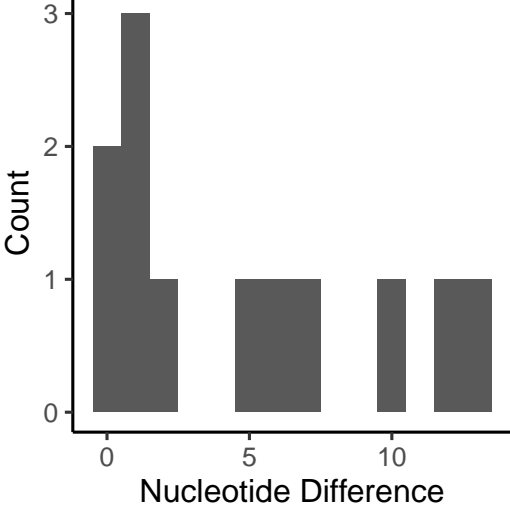
IGHV3-11*04

692 sequences assigned
107 (15.5%) exact matches, in which:
106 unique CDR3
6 unique J



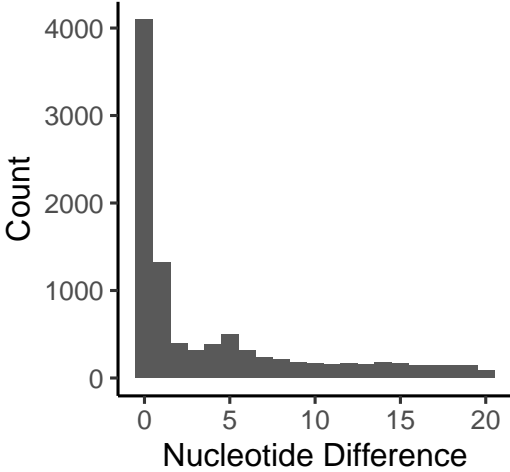
IGHV3-19*01

12 sequences assigned
2 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



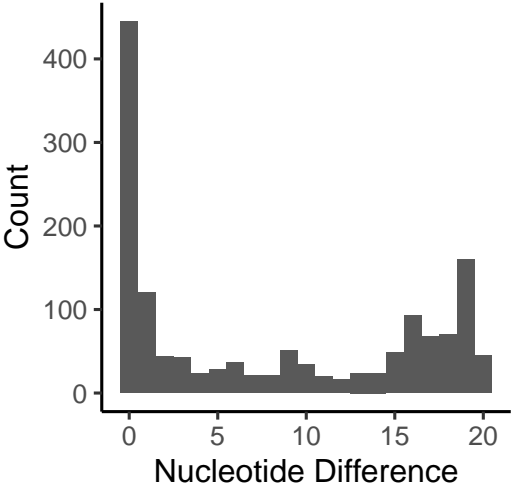
IGHV3-21*01_02

11031 sequences assigned
4095 (37.1%) exact matches, in which:
3253 unique CDR3
6 unique J



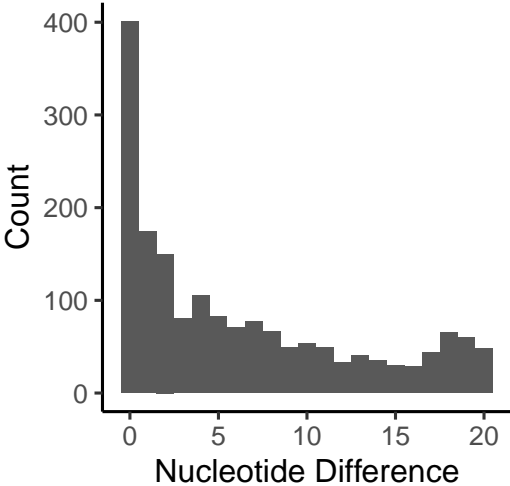
IGHV3-13*01

1843 sequences assigned
445 (24.1%) exact matches, in which:
358 unique CDR3
6 unique J



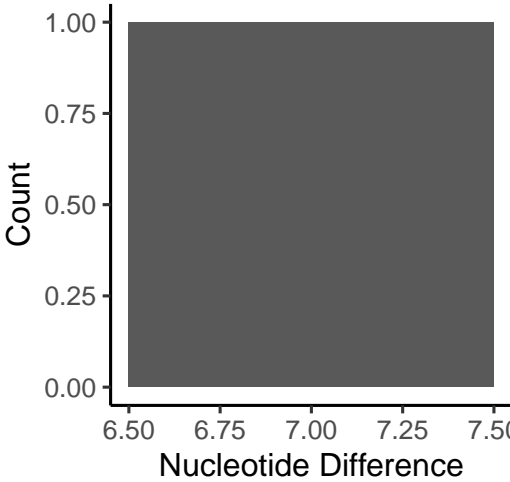
IGHV3-20*03_04_A104G

2357 sequences assigned
401 (17%) exact matches, in which:
338 unique CDR3
5 unique J



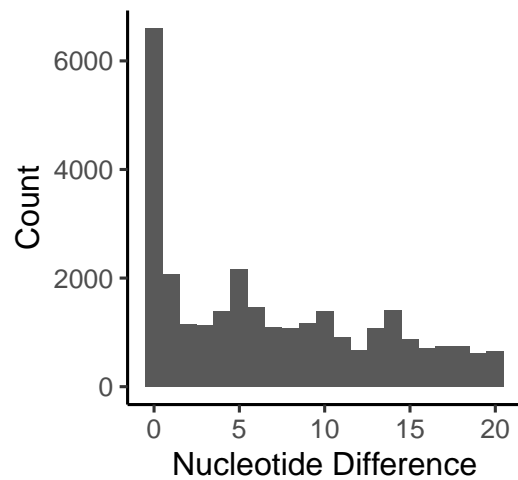
IGHV3-22*01_02

1 sequences assigned
No exact matches.



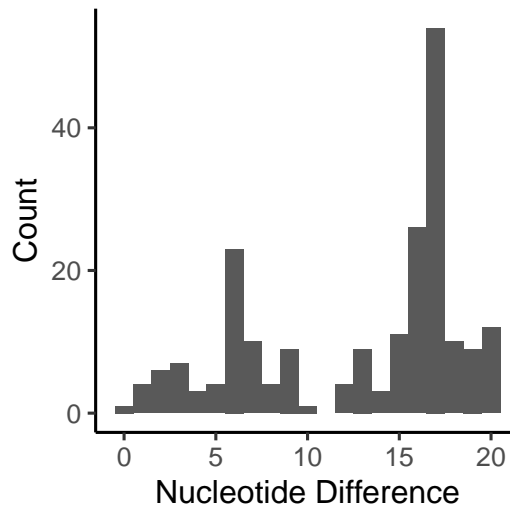
IGHV3-23*01_04

37248 sequences assigned
6598 (17.7%) exact matches, in which:
5169 unique CDR3
6 unique J



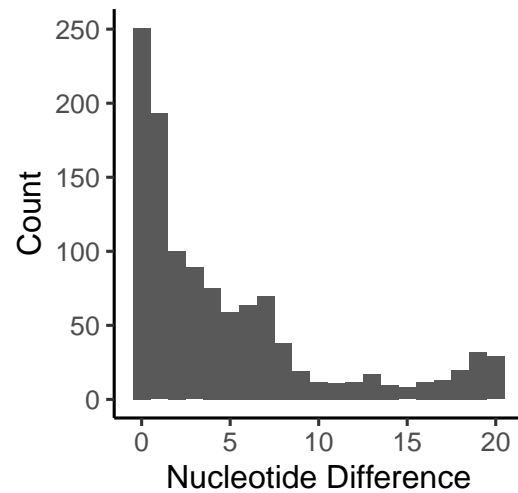
IGHV3-30-3*03

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



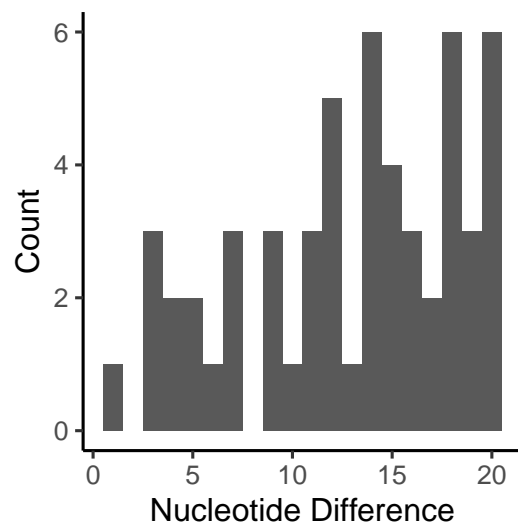
IGHV3-33*01

1311 sequences assigned
251 (19.1%) exact matches, in which:
242 unique CDR3
5 unique J



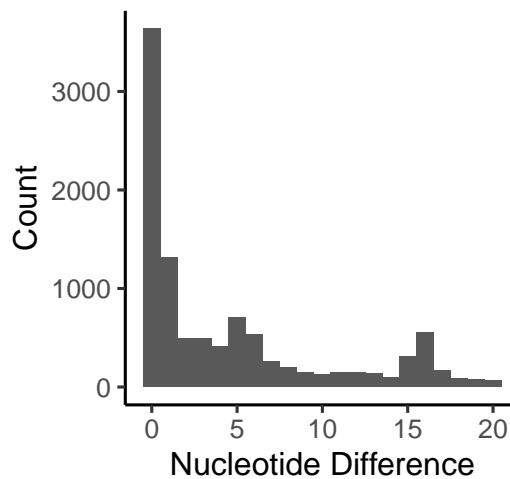
IGHV3-30-5*01

205 sequences assigned
No exact matches.



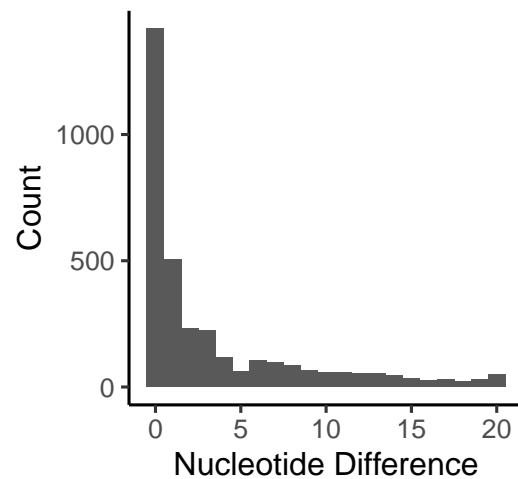
IGHV3-30*04_C203T

11083 sequences assigned
3637 (32.8%) exact matches, in which:
2991 unique CDR3
6 unique J



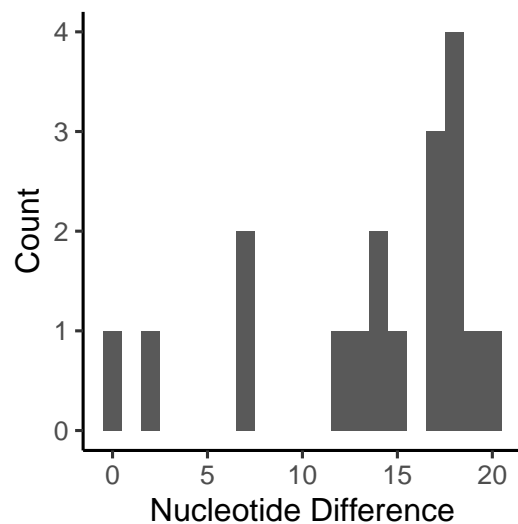
IGHV3-33*06

3979 sequences assigned
1419 (35.7%) exact matches, in which:
1179 unique CDR3
6 unique J



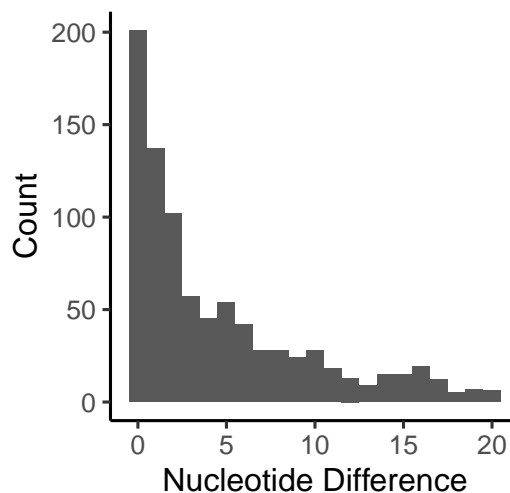
IGHV3-30-3*01

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



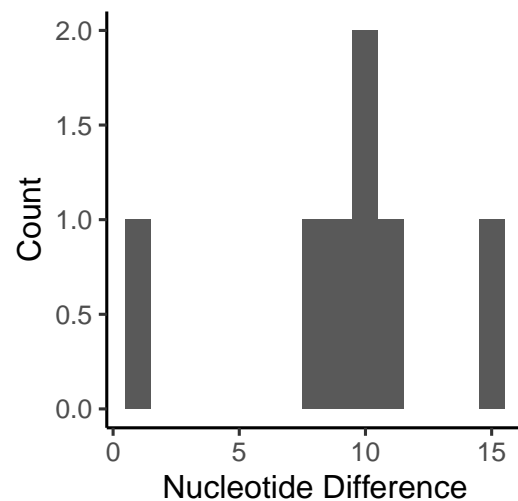
IGHV3-30*07_A150G_C203T

919 sequences assigned
201 (21.9%) exact matches, in which:
199 unique CDR3
6 unique J



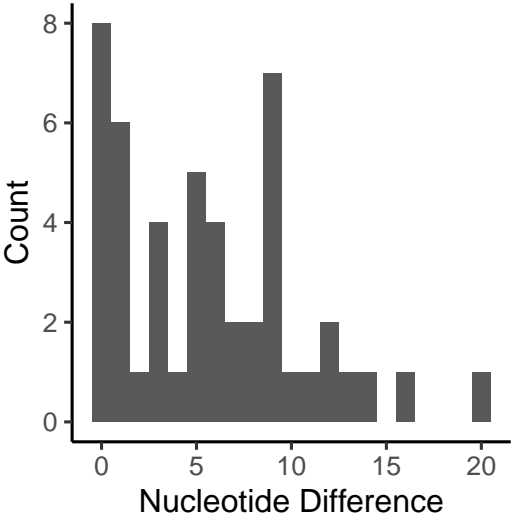
IGHV3-35*01

7 sequences assigned
No exact matches.



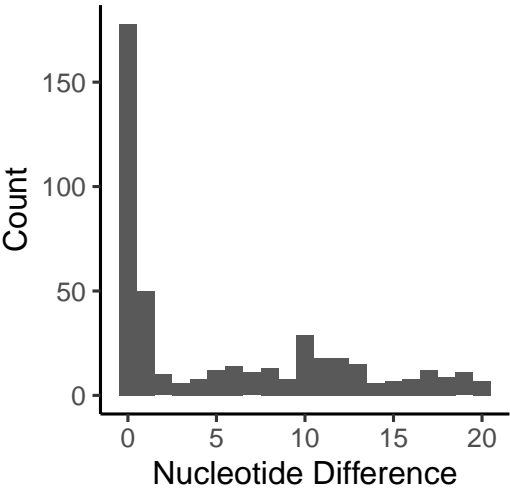
IGHV3-38-3*01

48 sequences assigned
8 (16.7%) exact matches, in which:
8 unique CDR3
3 unique J



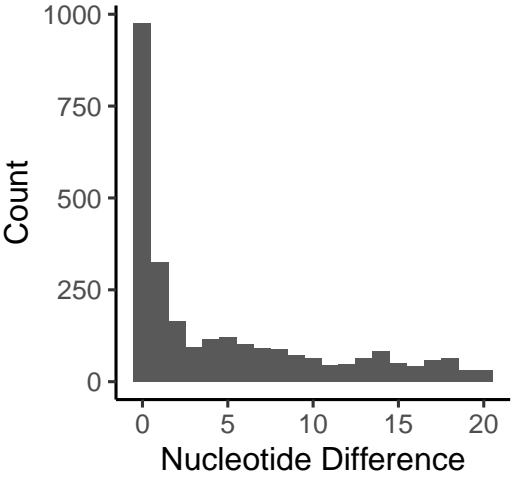
IGHV3-43*01

738 sequences assigned
178 (24.1%) exact matches, in which:
141 unique CDR3
6 unique J



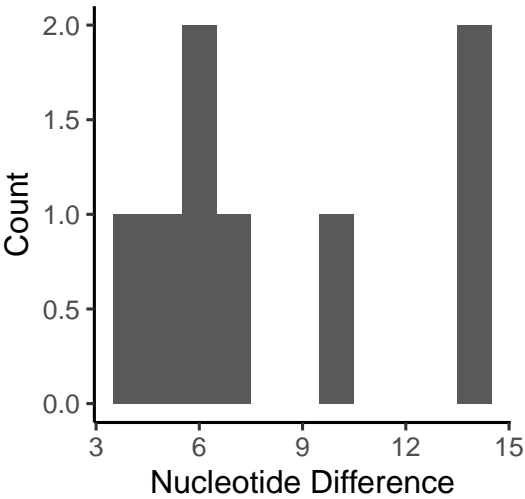
IGHV3-48*02

3178 sequences assigned
975 (30.7%) exact matches, in which:
800 unique CDR3
6 unique J



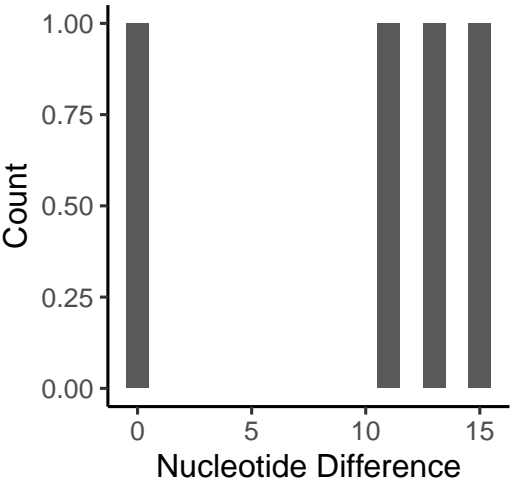
IGHV3-38*03

8 sequences assigned
No exact matches.



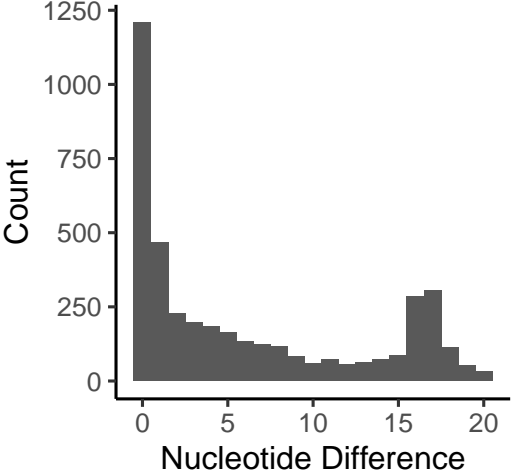
IGHV3-47*02

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



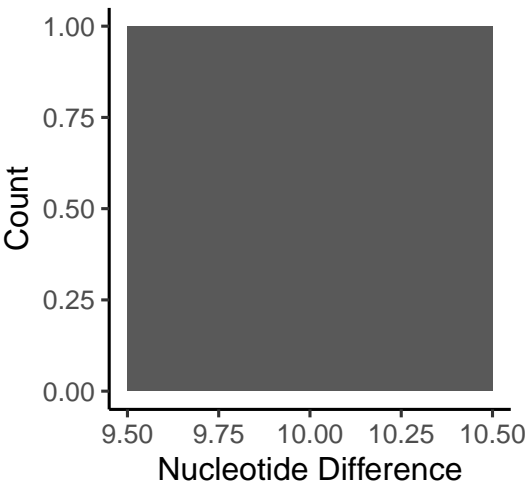
IGHV3-48*04

4329 sequences assigned
1208 (27.9%) exact matches, in which:
997 unique CDR3
6 unique J



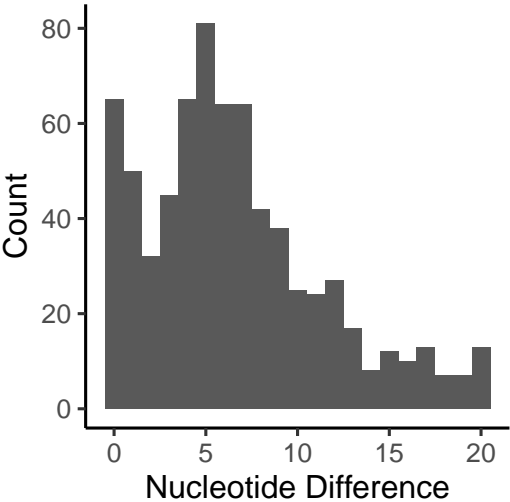
IGHV3-41*02

1 sequences assigned
No exact matches.



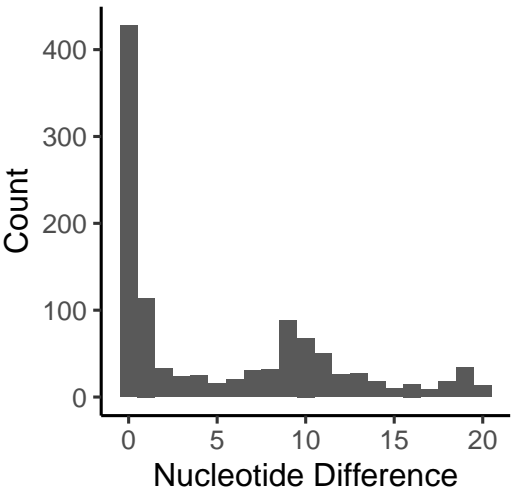
IGHV3-48*01

763 sequences assigned
65 (8.5%) exact matches, in which:
64 unique CDR3
6 unique J



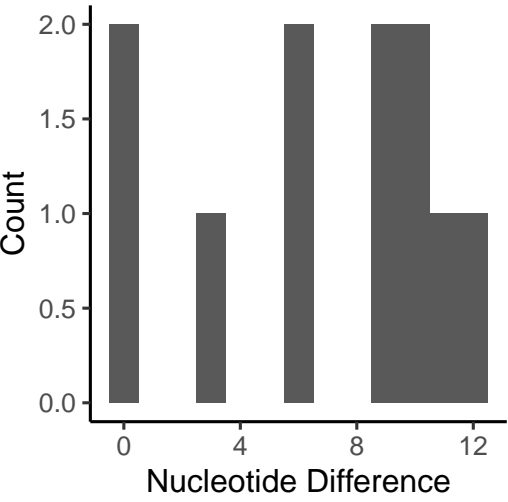
IGHV3-49*03_05

1294 sequences assigned
428 (33.1%) exact matches, in which:
368 unique CDR3
6 unique J



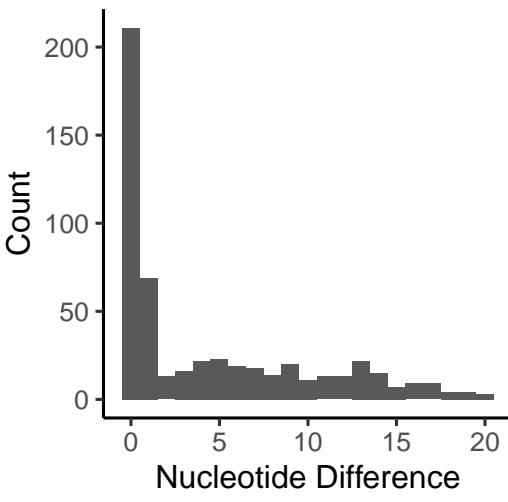
IGHV3-52*01_03

11 sequences assigned
2 (18.2%) exact matches, in which:
1 unique CDR3
1 unique J



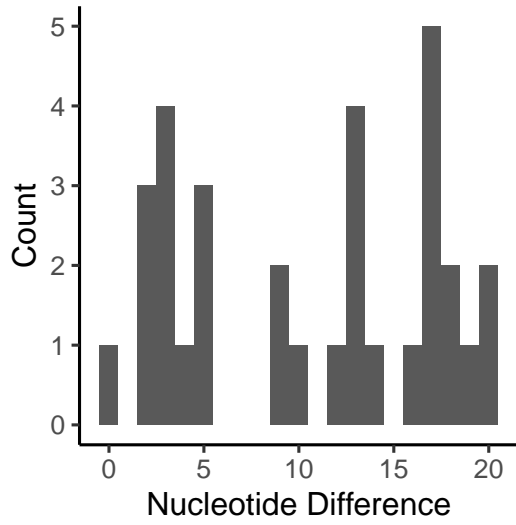
IGHV3-64*01

712 sequences assigned
211 (29.6%) exact matches, in which:
168 unique CDR3
5 unique J



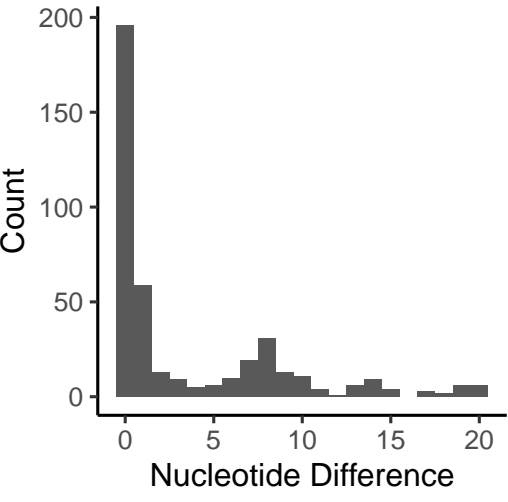
IGHV3-69-1*01

38 sequences assigned
1 (2.6%) exact matches, in which:
1 unique CDR3
1 unique J



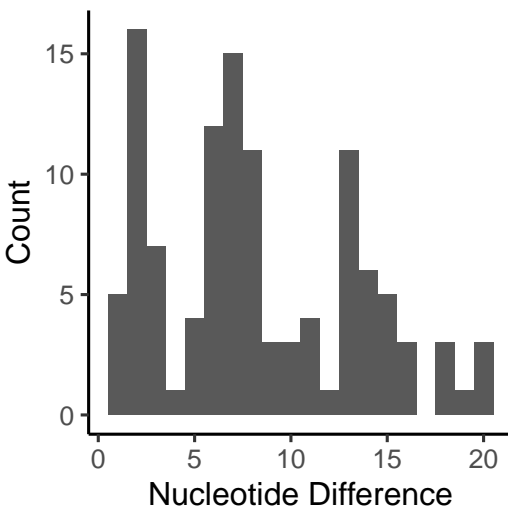
IGHV3-53*04

498 sequences assigned
196 (39.4%) exact matches, in which:
168 unique CDR3
6 unique J



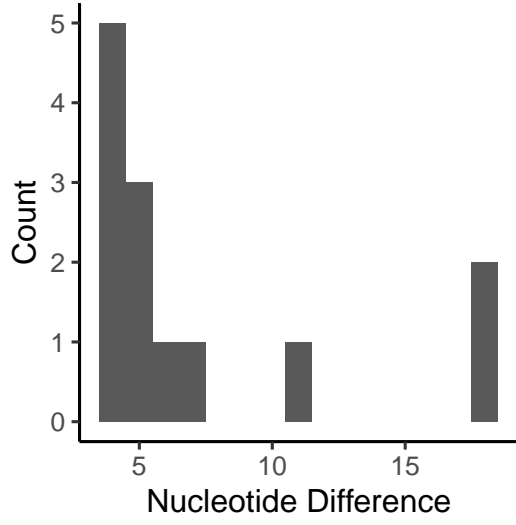
IGHV3-66*01

129 sequences assigned
No exact matches.



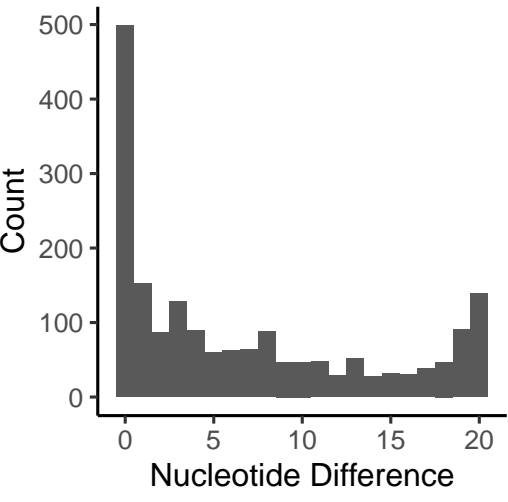
IGHV3-69-1*02

24 sequences assigned
No exact matches.



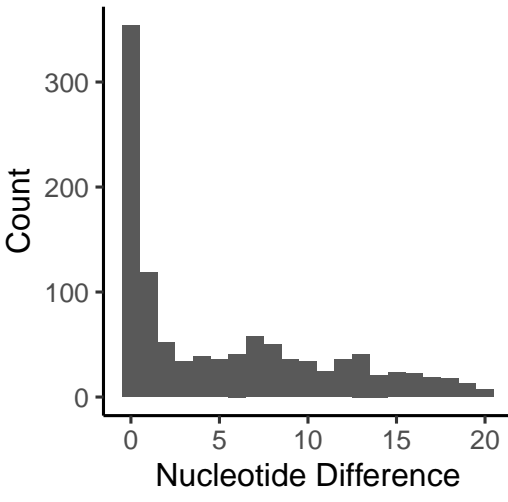
IGHV3-53*01_02

2464 sequences assigned
499 (20.3%) exact matches, in which:
420 unique CDR3
6 unique J



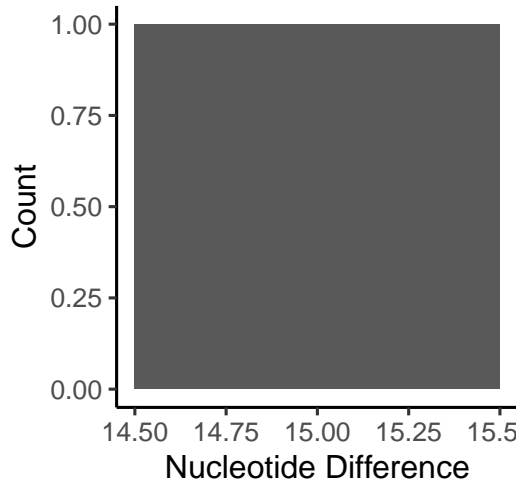
IGHV3-66*02

1268 sequences assigned
354 (27.9%) exact matches, in which:
292 unique CDR3
6 unique J



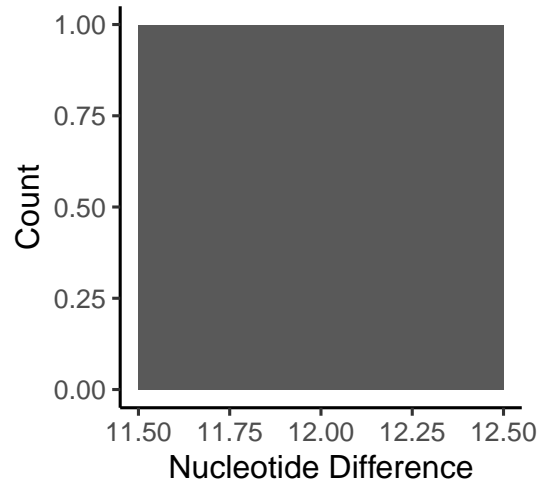
IGHV3-71*03

1 sequences assigned
No exact matches.



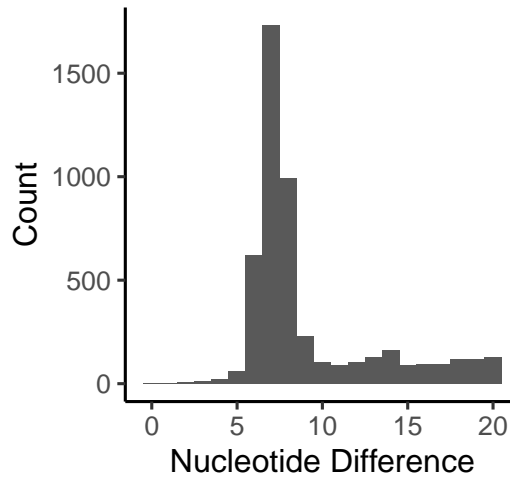
IGHV3-71*01_04

1 sequences assigned
No exact matches.



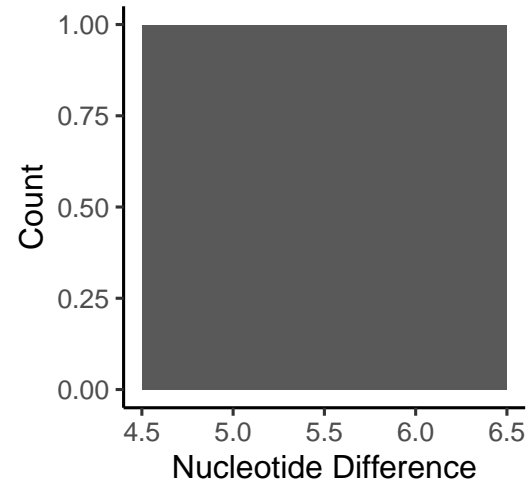
IGHV3-74*03

5813 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
1 unique J



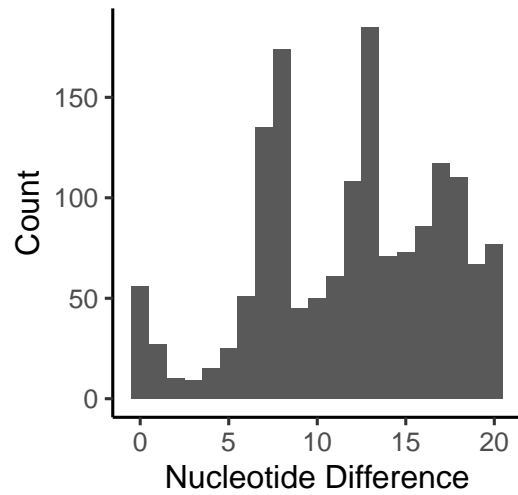
IGHV3-64D*06

12 sequences assigned
No exact matches.



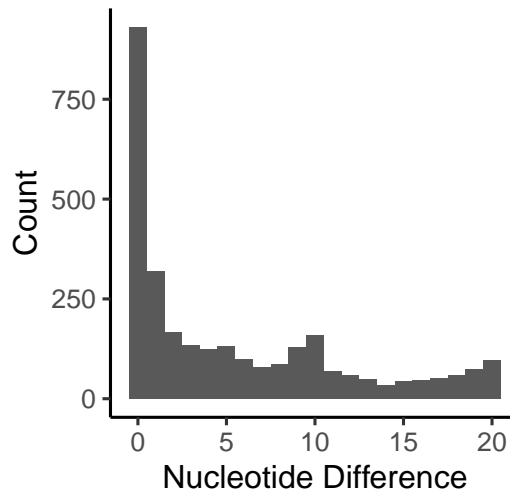
IGHV3-72*01

1856 sequences assigned
56 (3%) exact matches, in which:
49 unique CDR3
4 unique J



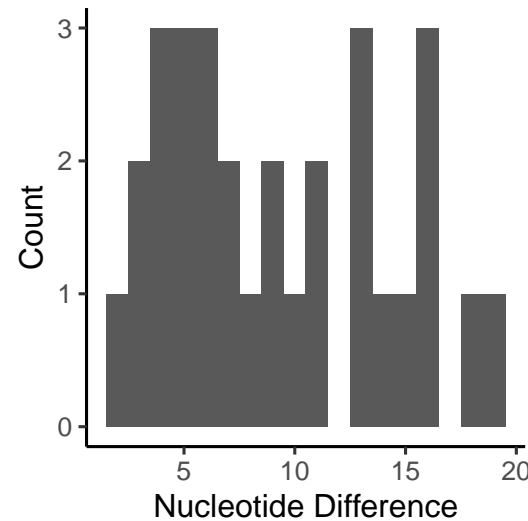
IGHV3-74*01_02

3360 sequences assigned
931 (27.7%) exact matches, in which:
748 unique CDR3
6 unique J



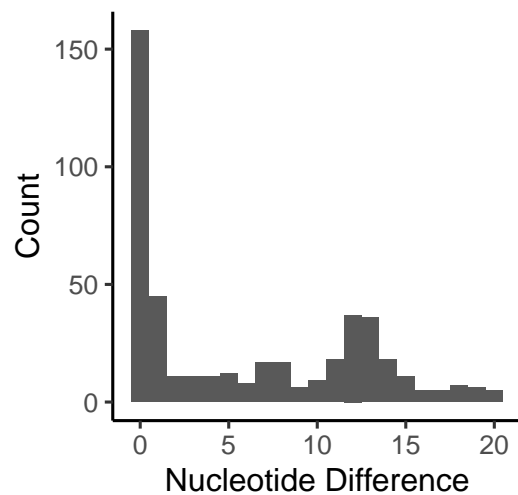
IGHV3-NL1*01

42 sequences assigned
No exact matches.



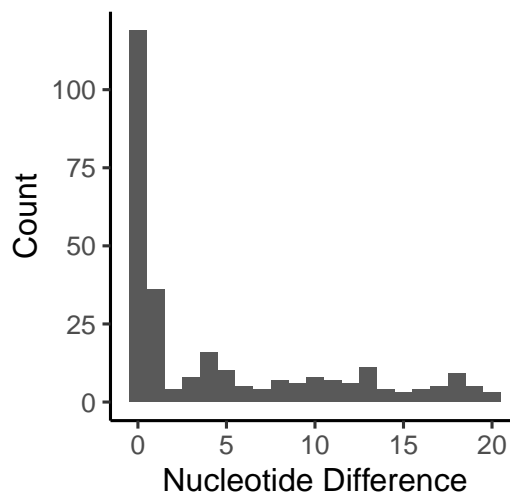
IGHV3-73*01_02

474 sequences assigned
158 (33.3%) exact matches, in which:
134 unique CDR3
6 unique J



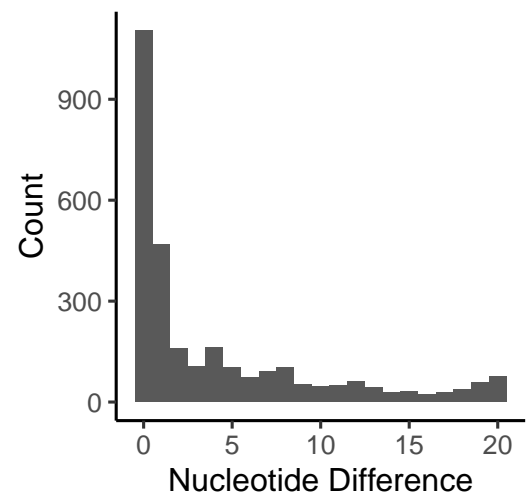
IGHV3-43D*03

315 sequences assigned
119 (37.8%) exact matches, in which:
95 unique CDR3
5 unique J



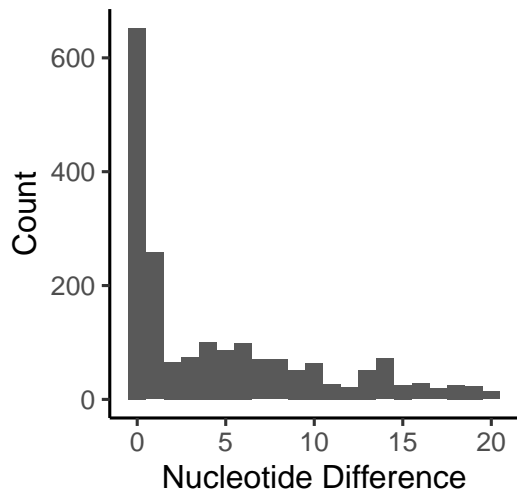
IGHV4-4*07

3701 sequences assigned
1105 (29.9%) exact matches, in which:
1055 unique CDR3
6 unique J



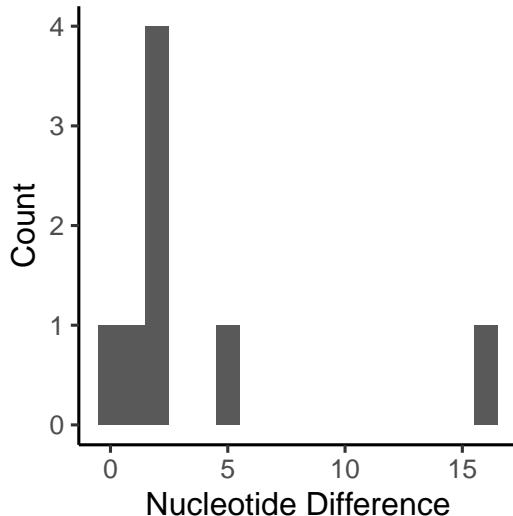
IGHV4-4*02_03

2365 sequences assigned
653 (27.6%) exact matches, in which:
604 unique CDR3
6 unique J



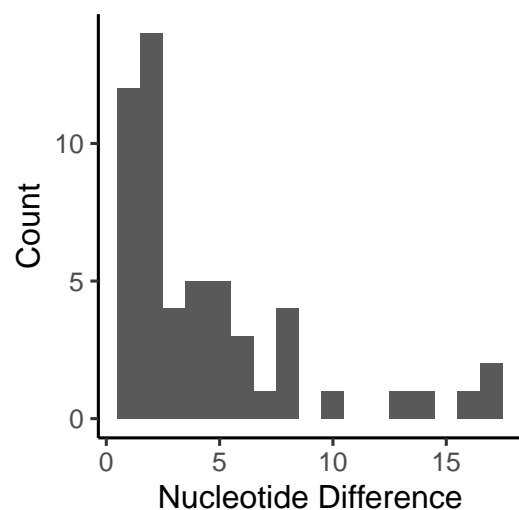
IGHV4-28*02_05

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



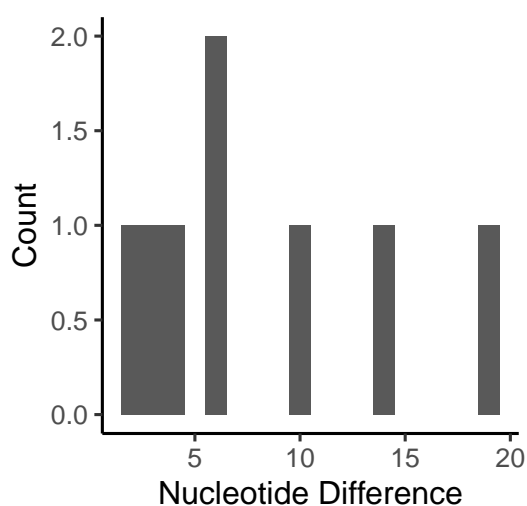
IGHV4-30-2*03

62 sequences assigned
No exact matches.



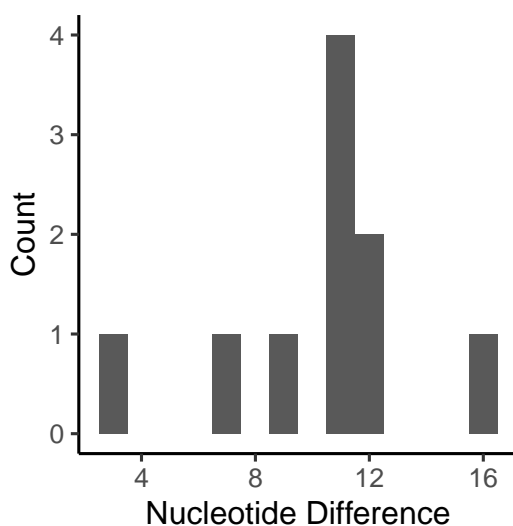
IGHV4-28*03

12 sequences assigned
No exact matches.



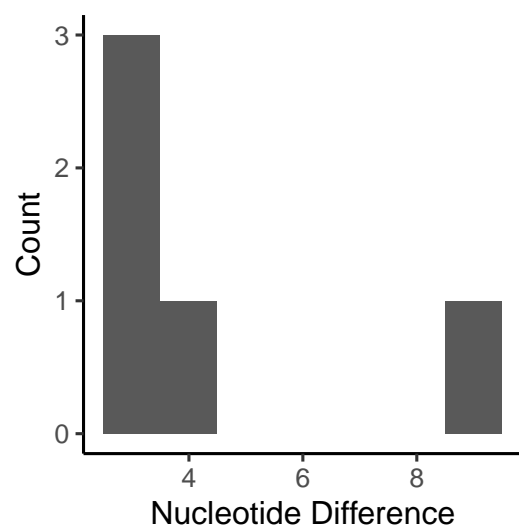
IGHV4-30-4*01

65 sequences assigned
No exact matches.



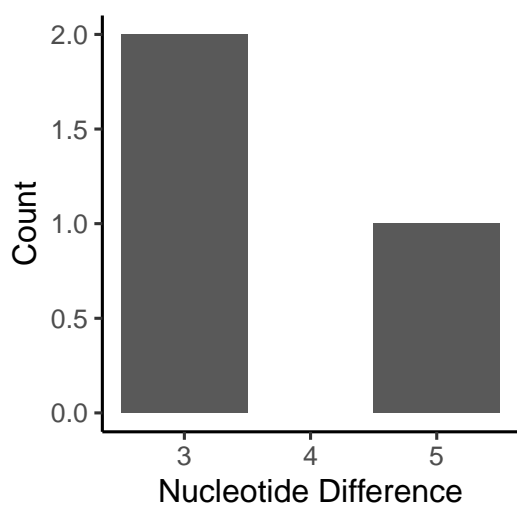
IGHV4-30-2*04

5 sequences assigned
No exact matches.



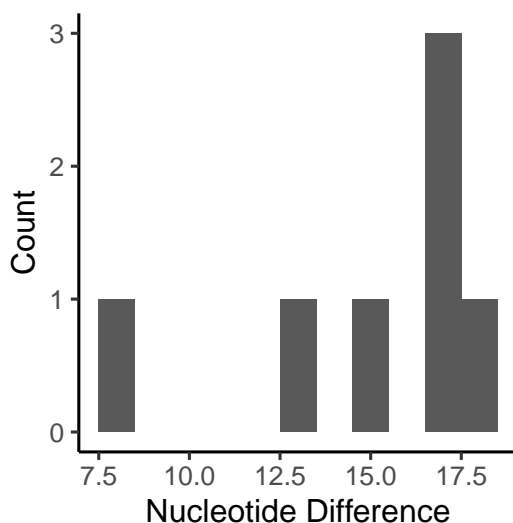
IGHV4-28*01_07

3 sequences assigned
No exact matches.



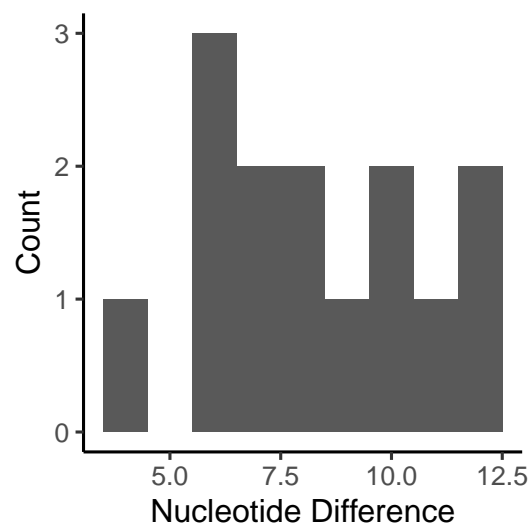
IGHV4-30-2*01

9 sequences assigned
No exact matches.



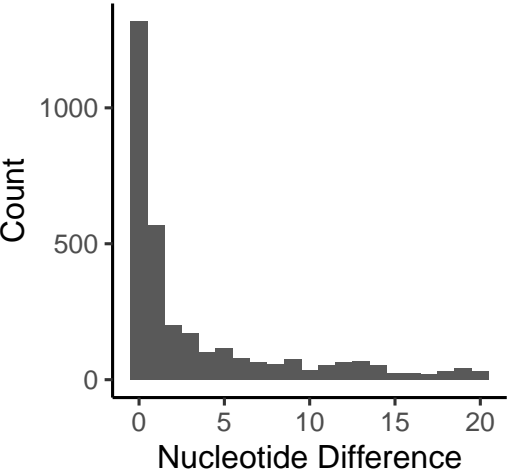
IGHV4-30-4*08

33 sequences assigned
No exact matches.



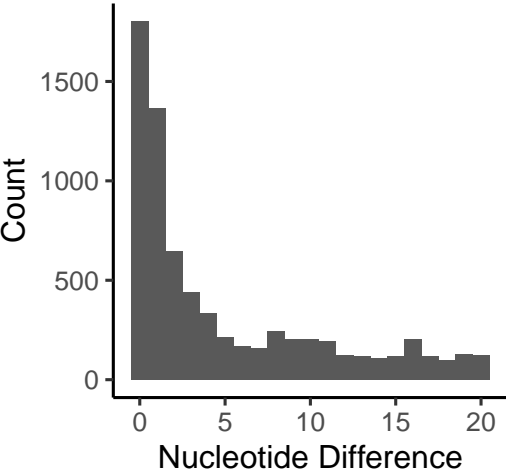
IGHV4-31*02

3824 sequences assigned
1318 (34.5%) exact matches, in which:
1243 unique CDR3
6 unique J



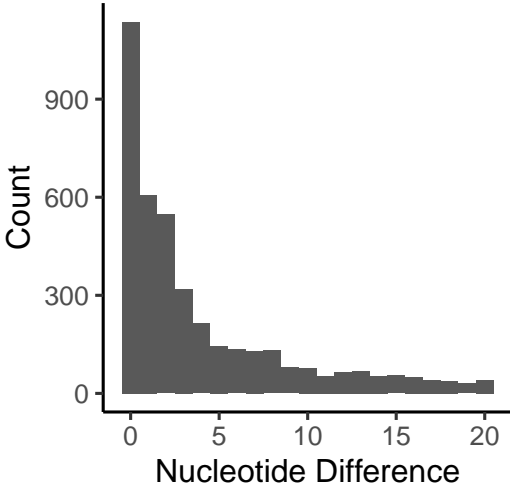
IGHV4-39*07

8260 sequences assigned
1802 (21.8%) exact matches, in which:
1687 unique CDR3
6 unique J



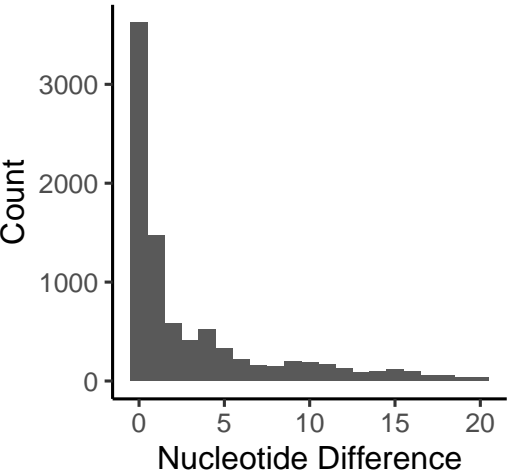
IGHV4-61*02

4730 sequences assigned
1137 (24%) exact matches, in which:
1092 unique CDR3
6 unique J



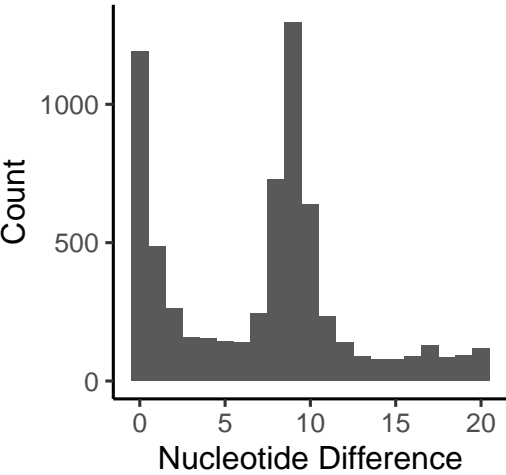
IGHV4-34*01_02

9986 sequences assigned
3623 (36.3%) exact matches, in which:
3373 unique CDR3
6 unique J



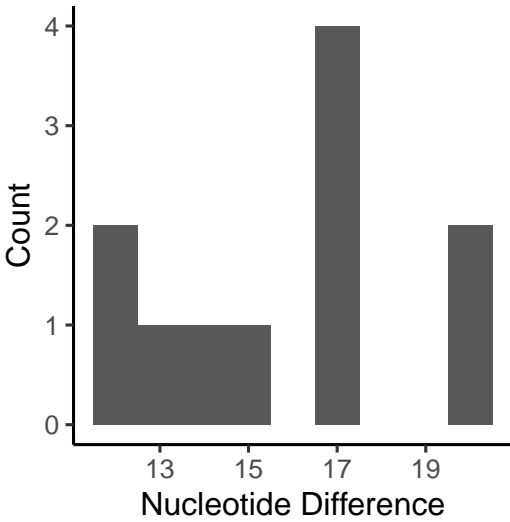
IGHV4-59*08

7631 sequences assigned
1192 (15.6%) exact matches, in which:
1138 unique CDR3
6 unique J



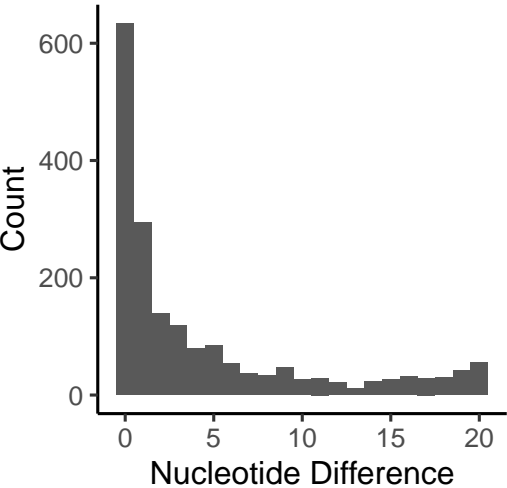
IGHV1/OR15-2*02_03

13 sequences assigned
No exact matches.



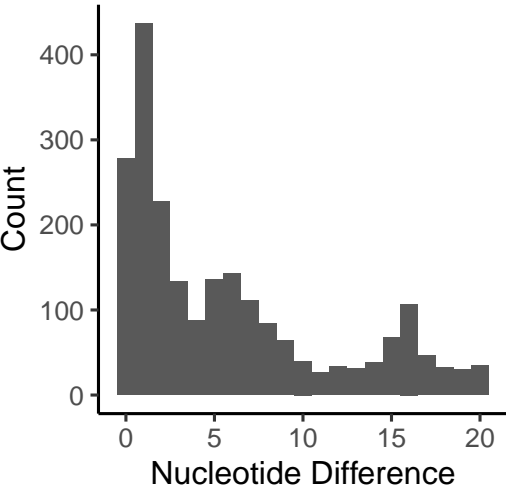
IGHV4-38-2*02

2170 sequences assigned
634 (29.2%) exact matches, in which:
615 unique CDR3
6 unique J



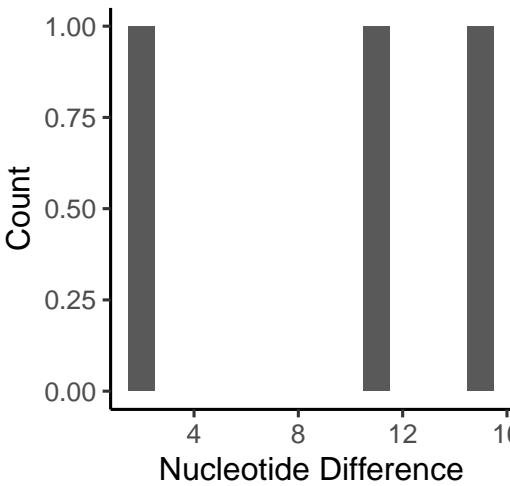
IGHV4-59*12

2676 sequences assigned
278 (10.4%) exact matches, in which:
275 unique CDR3
6 unique J



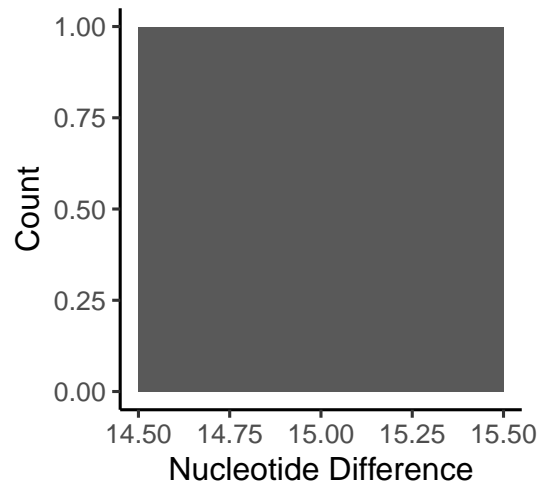
IGHV1/OR15-3*02

3 sequences assigned
No exact matches.



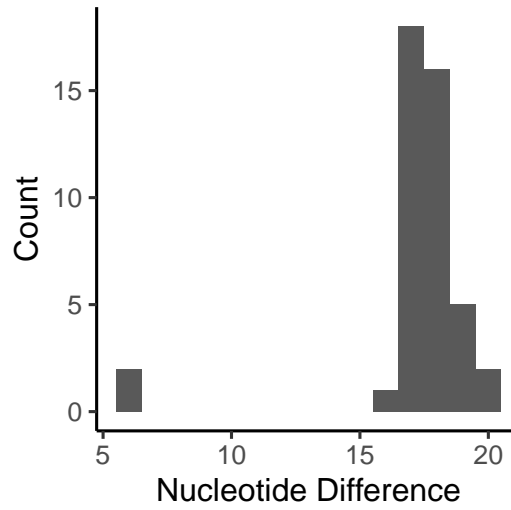
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



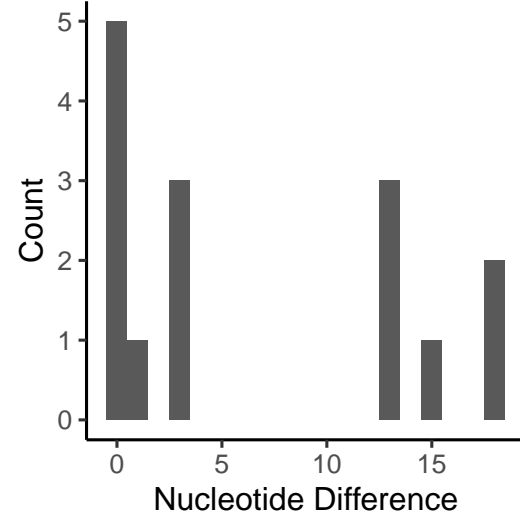
IGHV5-10-1*01_03

47 sequences assigned
No exact matches.



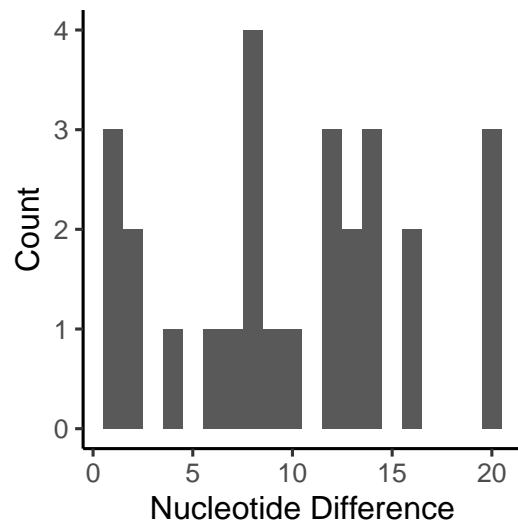
IGHV5-51*07

20 sequences assigned
5 (25%) exact matches, in which:
5 unique CDR3
2 unique J



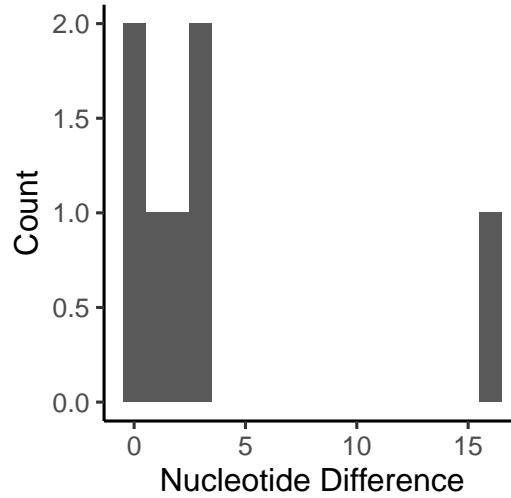
IGHV4/OR15-8*01

65 sequences assigned
No exact matches.



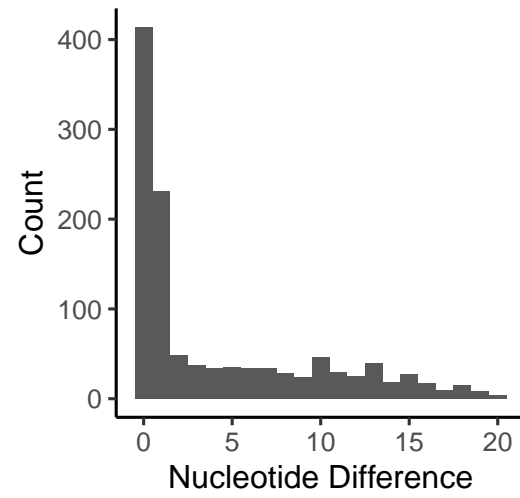
IGHV5-51*04

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



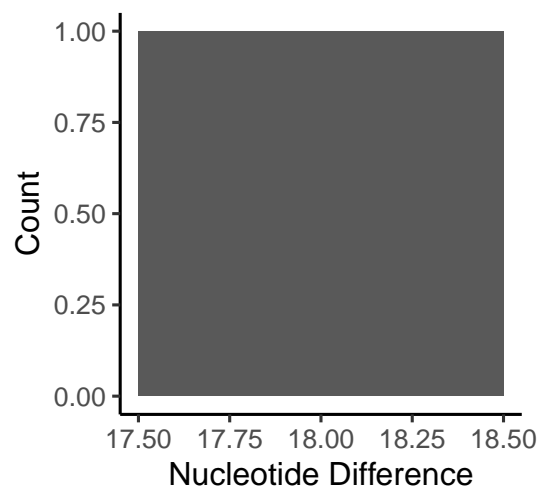
IGHV6-1*01_02

1242 sequences assigned
414 (33.3%) exact matches, in which:
403 unique CDR3
6 unique J



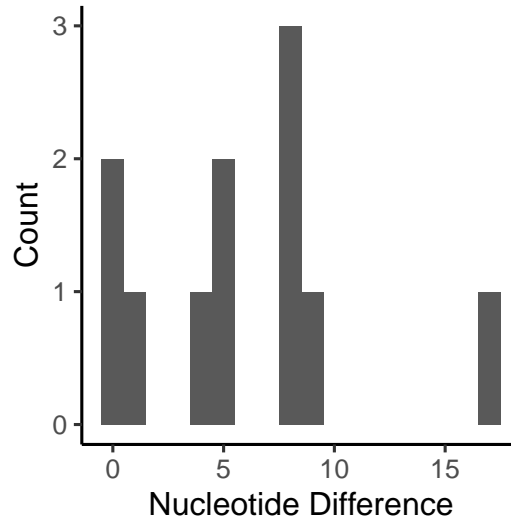
IGHV4/OR15-8*02

10 sequences assigned
No exact matches.



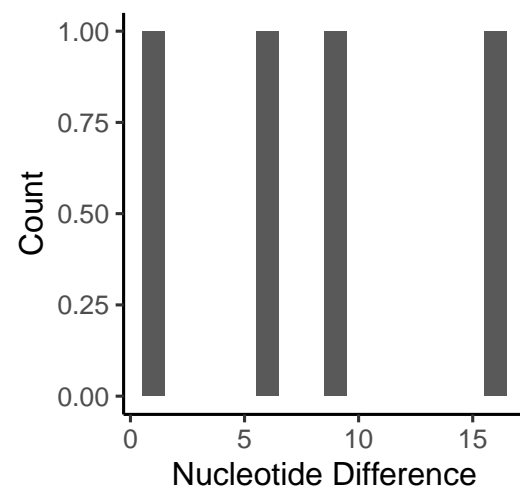
IGHV5-51*06

58 sequences assigned
2 (3.4%) exact matches, in which:
2 unique CDR3
2 unique J



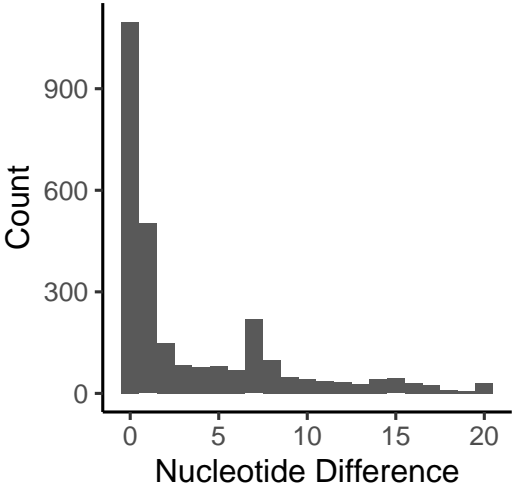
IGHV3/OR16-10*01_03

7 sequences assigned
No exact matches.

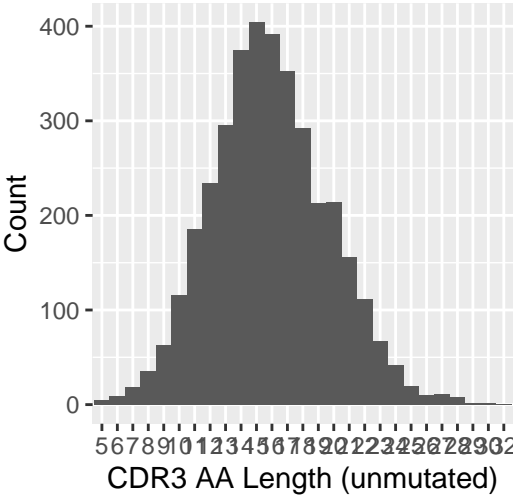


IGHV7-4-1*02

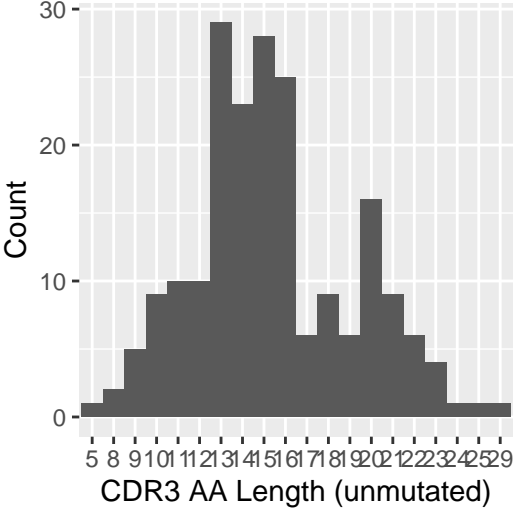
3398 sequences assigned
1098 (32.3%) exact matches, in which:
1053 unique CDR3
6 unique J



IGHV3-30*04_C203T



IGHV3-30*07_A150G_C203T_T300C_G303A



IGHV3-20*03_04_A104G

