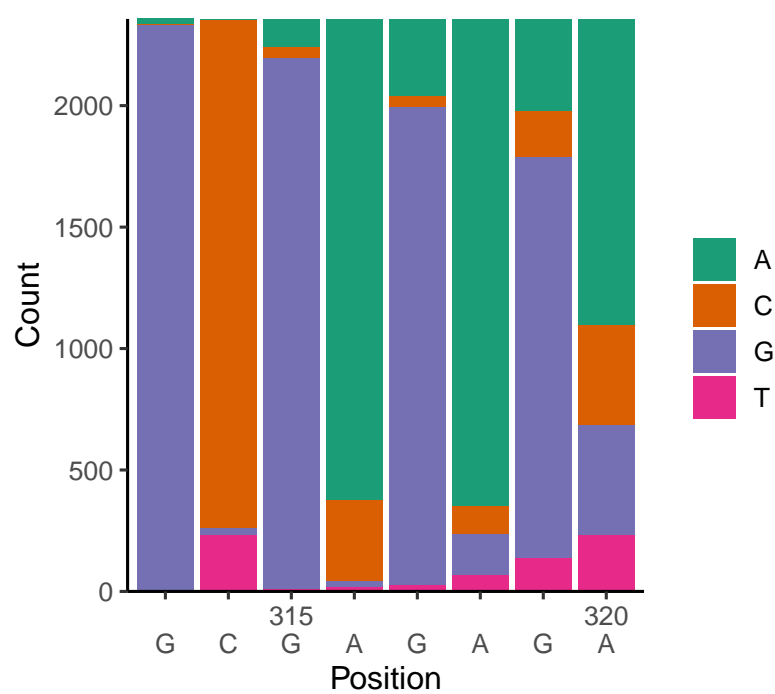
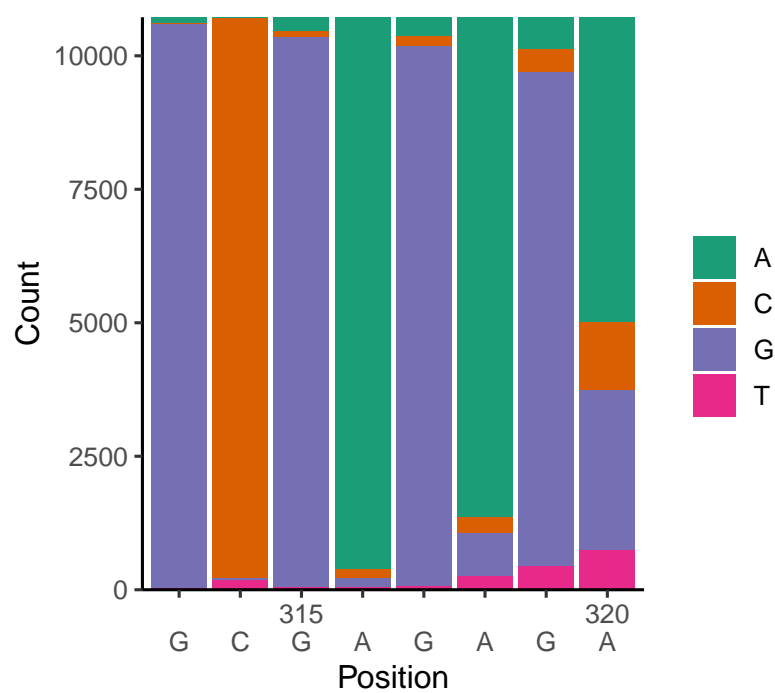


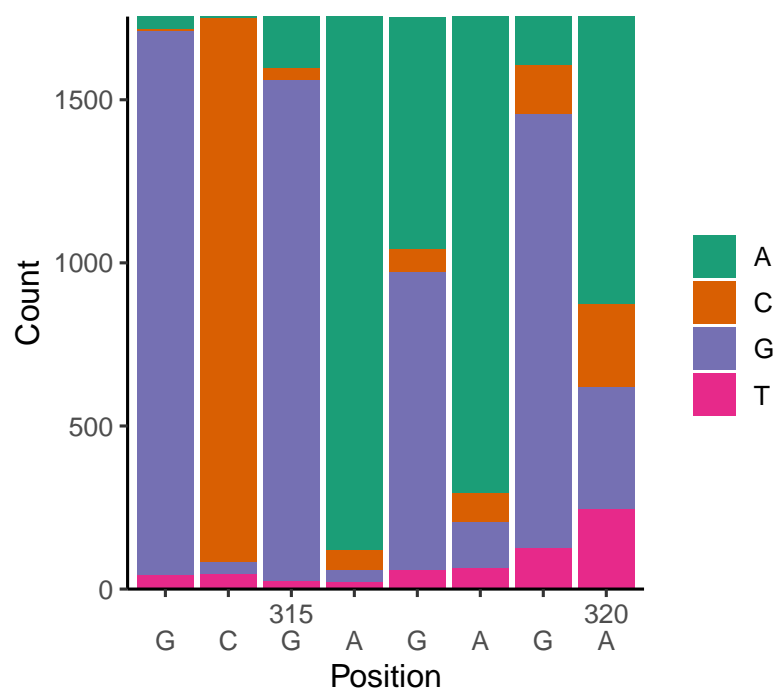
Gene IGHV3-20*03_04_A104G



Gene IGHV3-30*04_C203T



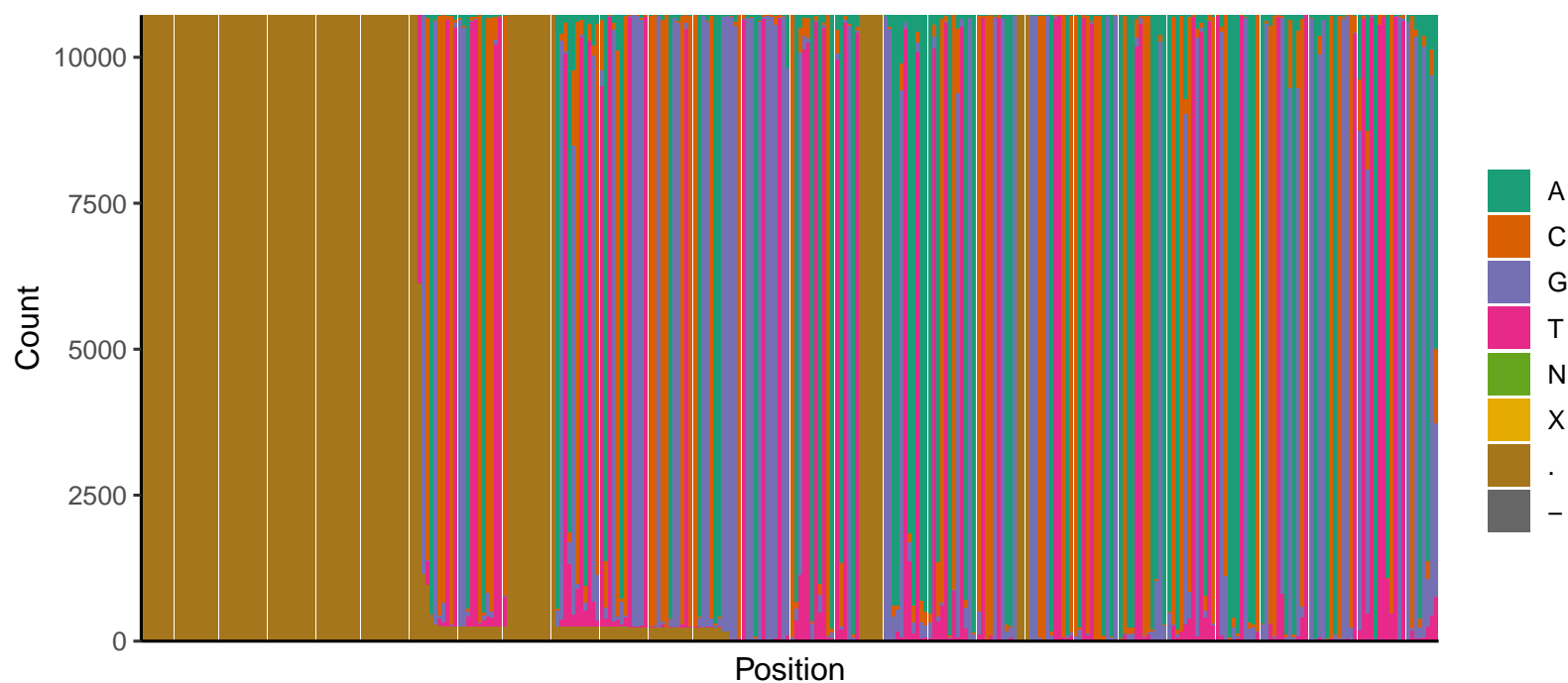
Gene IGHV3-30*07_A150G_C203T



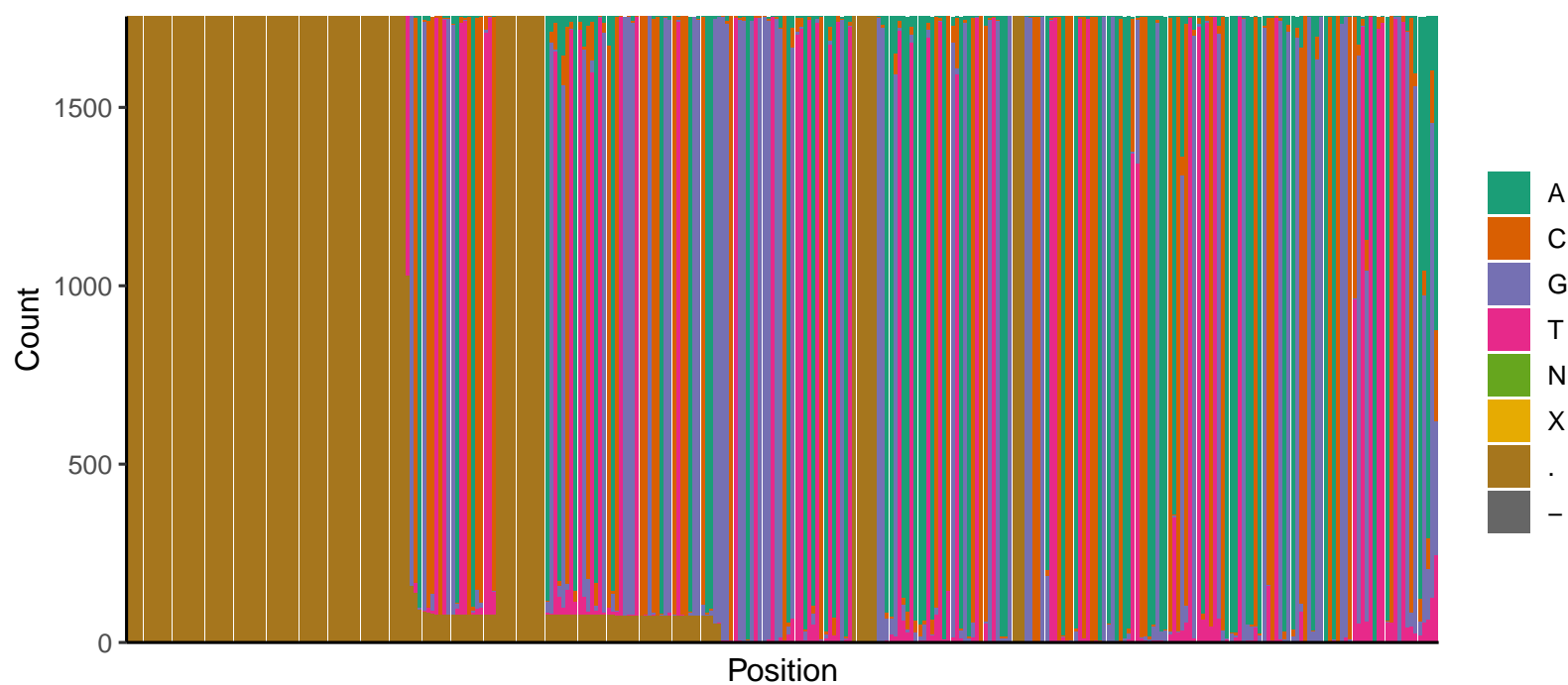
Gene IGHV3-20*03_04_A104G



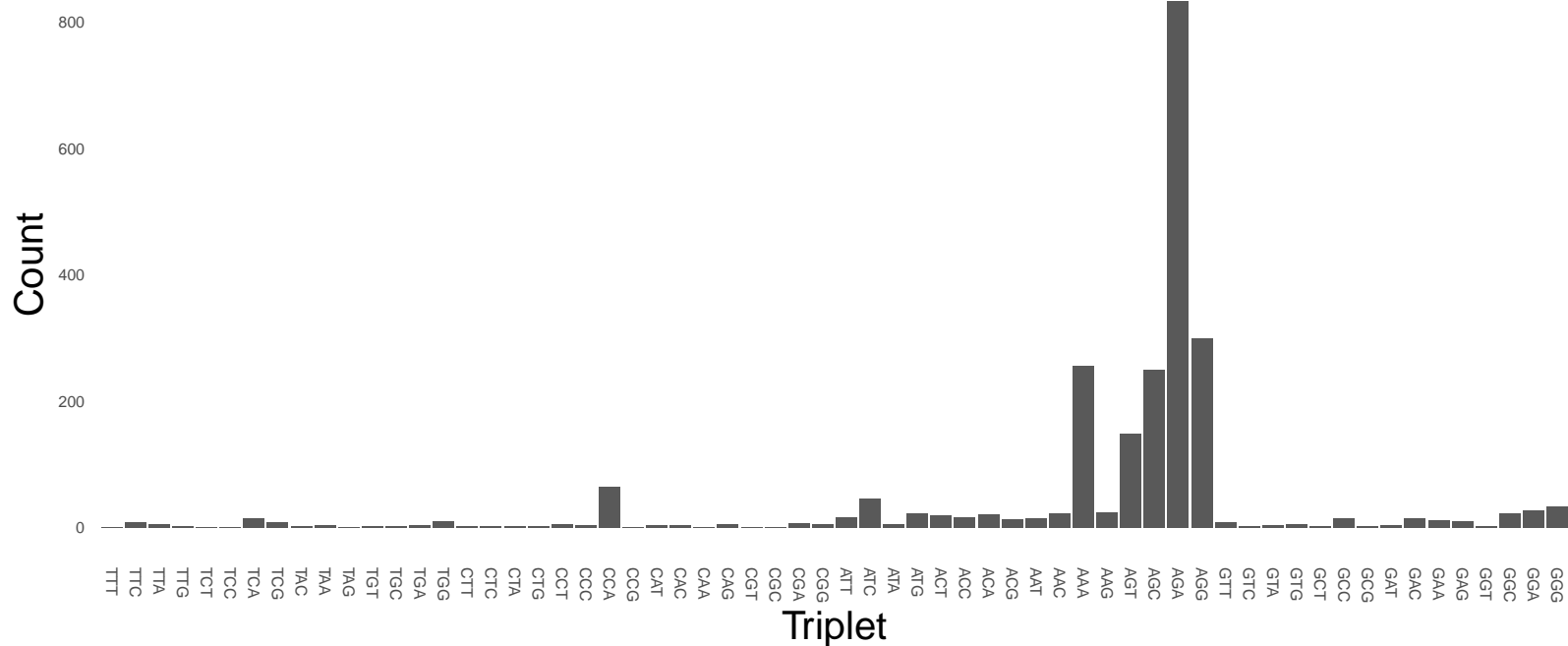
Gene IGHV3-30*04_C203T



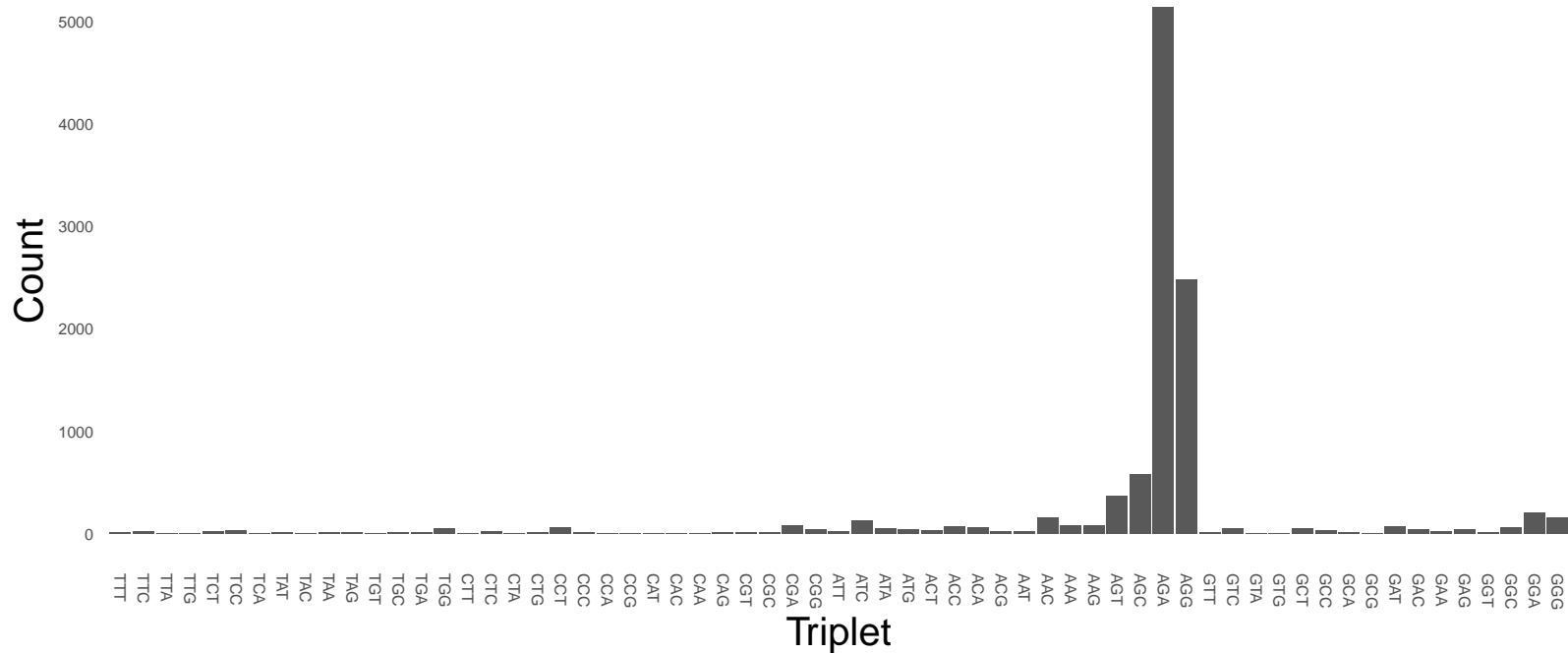
Gene IGHV3-30*07_A150G_C203T



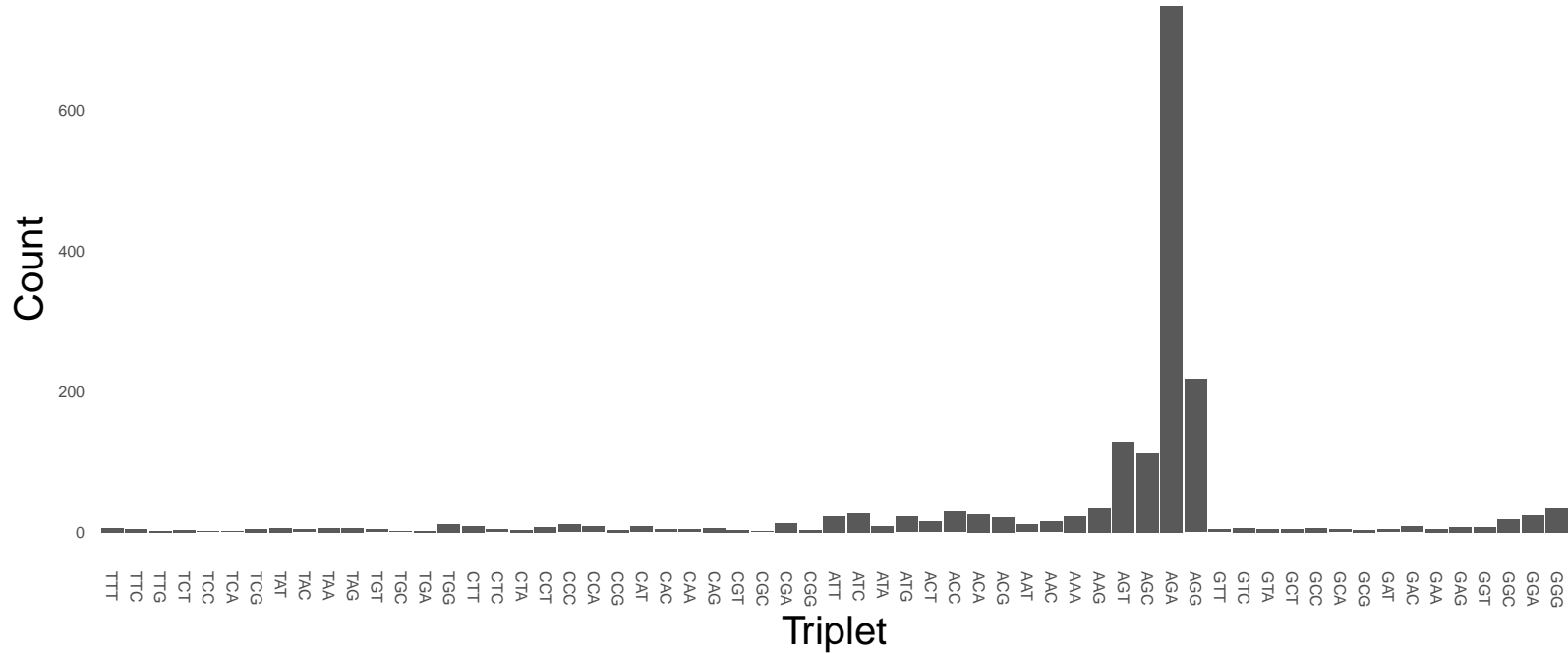
IGHV3-20*03_04_A104G- Final 3 nucleotides as a triplet



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

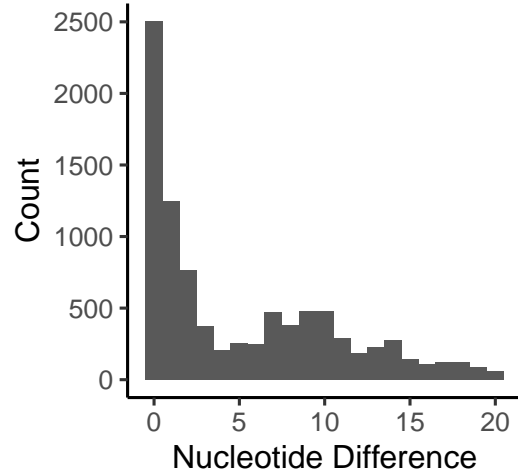


IGHV3-30*07_A150G_C203T- Final 3 nucleotides as a triplet



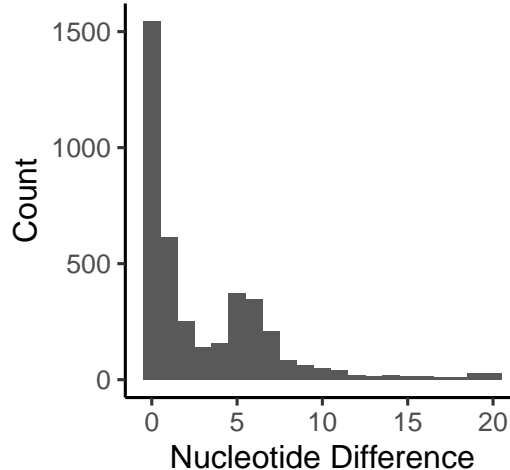
IGHV1-2*02

10402 sequences assigned
2503 (24.1%) exact matches, in which:
2367 unique CDR3
6 unique J



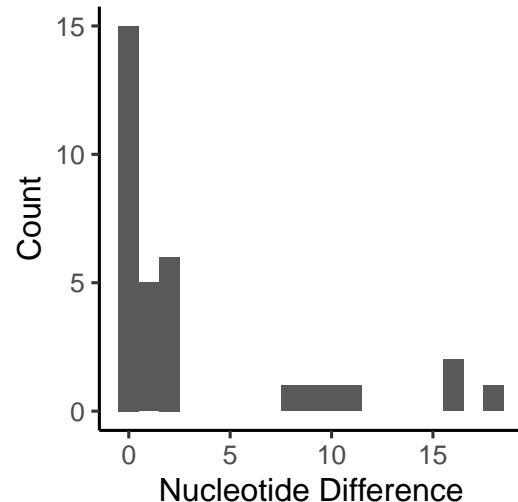
IGHV1-8*02

4140 sequences assigned
1544 (37.3%) exact matches, in which:
1483 unique CDR3
6 unique J



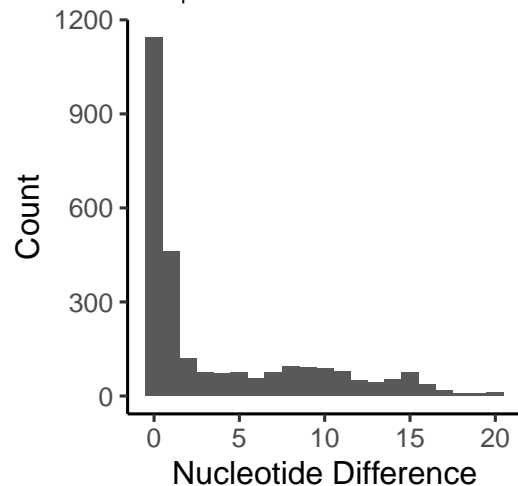
IGHV1-45*02

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



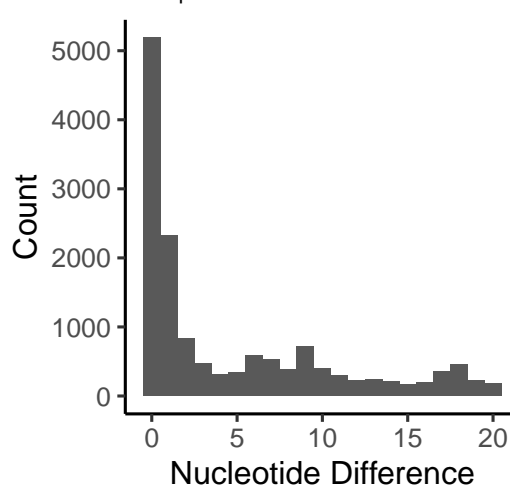
IGHV1-3*01_05

3015 sequences assigned
1143 (37.9%) exact matches, in which:
1075 unique CDR3
6 unique J



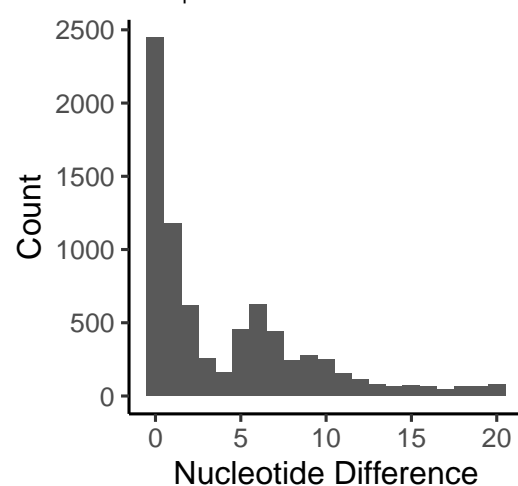
IGHV1-18*01

15927 sequences assigned
5188 (32.6%) exact matches, in which:
4845 unique CDR3
6 unique J



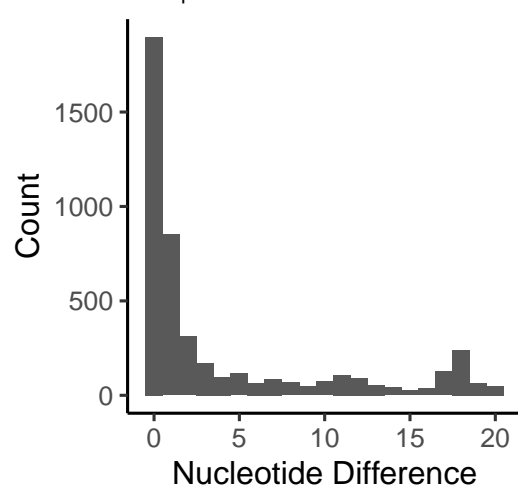
IGHV1-46*01

8312 sequences assigned
2446 (29.4%) exact matches, in which:
2328 unique CDR3
6 unique J



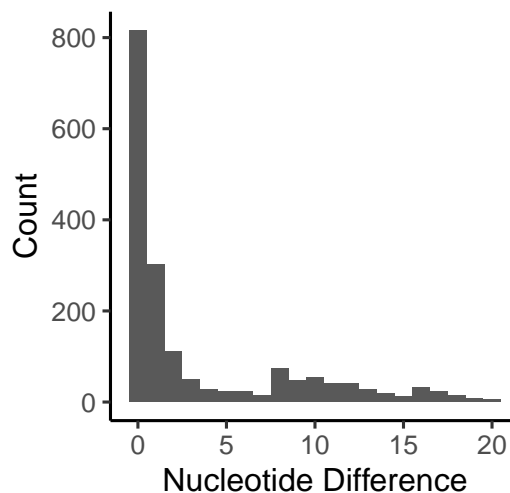
IGHV1-8*01

4902 sequences assigned
1897 (38.7%) exact matches, in which:
1815 unique CDR3
6 unique J



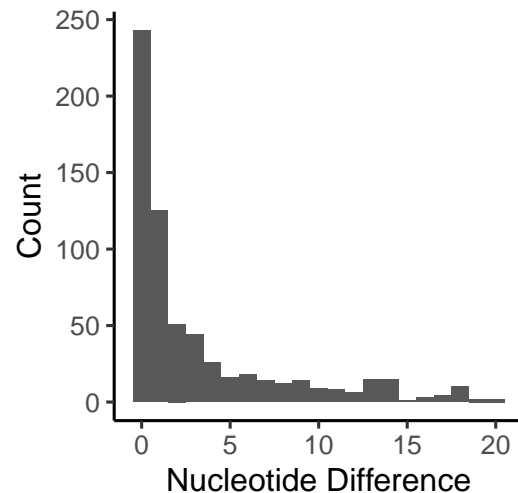
IGHV1-24*01

2190 sequences assigned
816 (37.3%) exact matches, in which:
783 unique CDR3
6 unique J



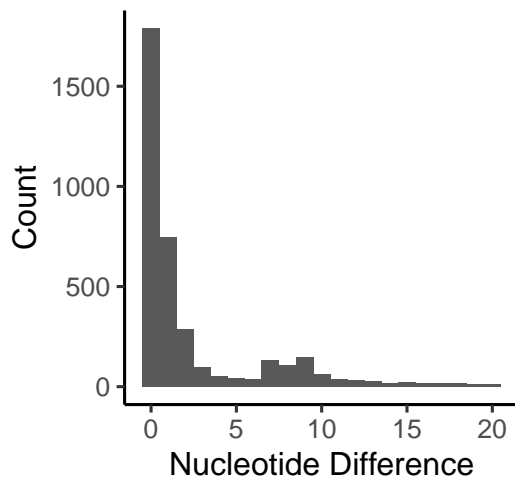
IGHV1-58*02

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



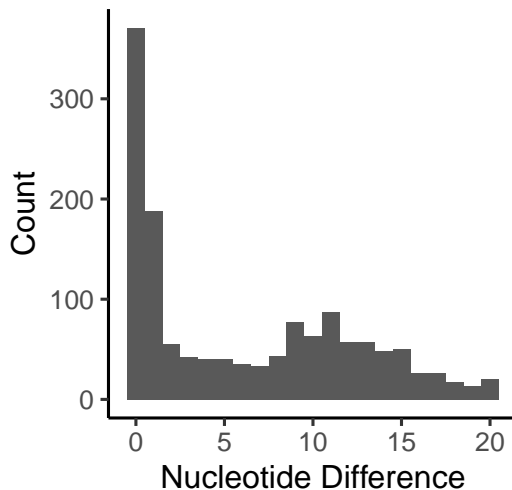
IGHV1-69*10

4291 sequences assigned
1789 (41.7%) exact matches, in which:
1730 unique CDR3
6 unique J



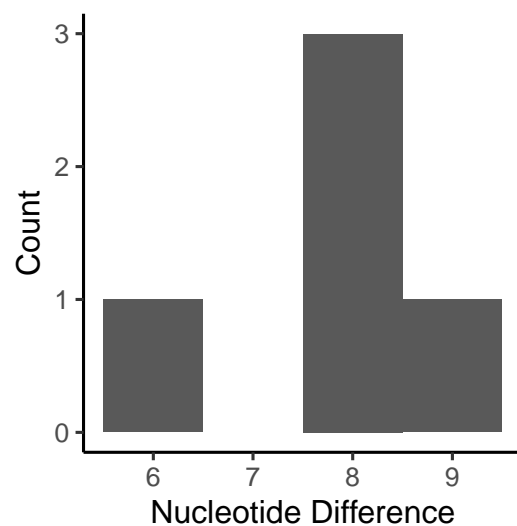
IGHV2-5*02

1540 sequences assigned
371 (24.1%) exact matches, in which:
344 unique CDR3
6 unique J



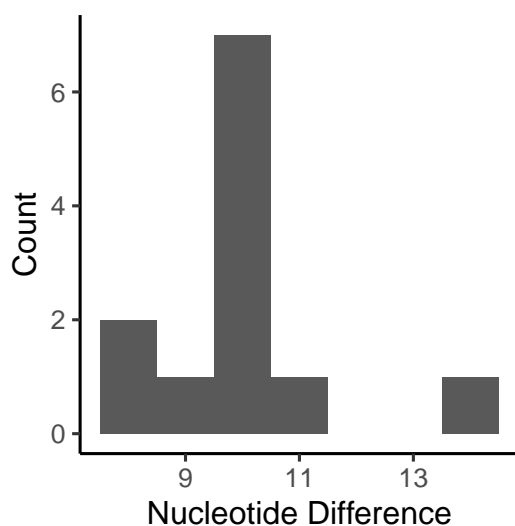
IGHV2-70*12

6 sequences assigned
No exact matches.



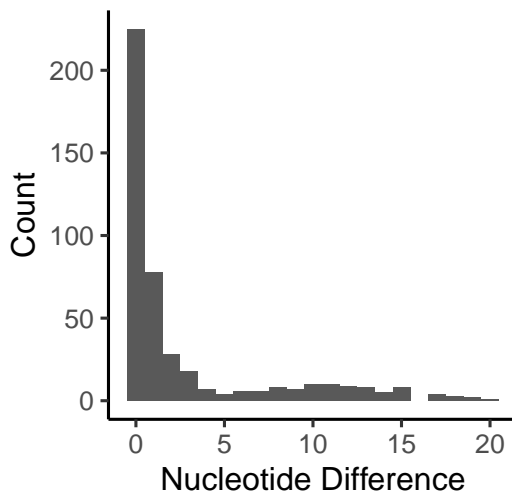
IGHV1-NL1*01

12 sequences assigned
No exact matches.



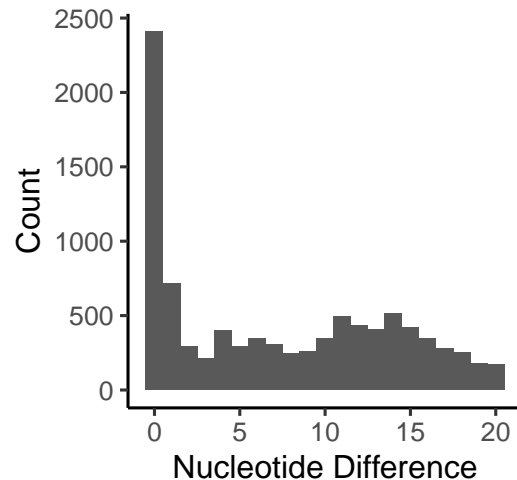
IGHV2-26*01

508 sequences assigned
225 (44.3%) exact matches, in which:
214 unique CDR3
6 unique J



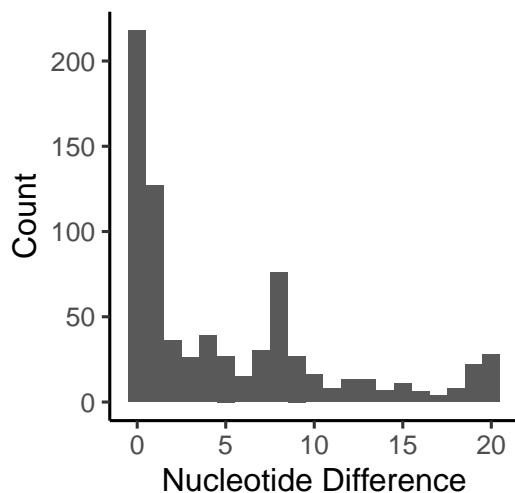
IGHV3-7*01

10352 sequences assigned
2408 (23.3%) exact matches, in which:
1948 unique CDR3
6 unique J



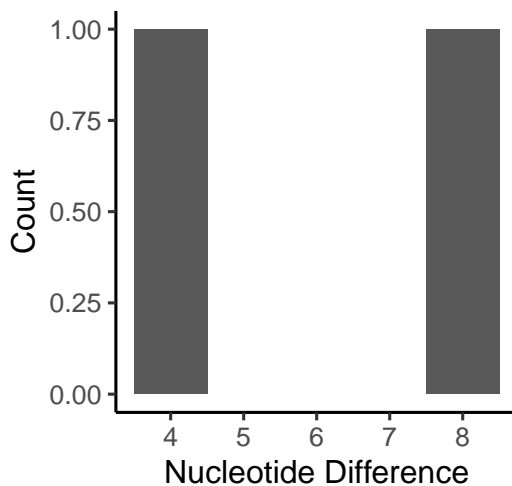
IGHV2-5*01

848 sequences assigned
218 (25.7%) exact matches, in which:
206 unique CDR3
6 unique J



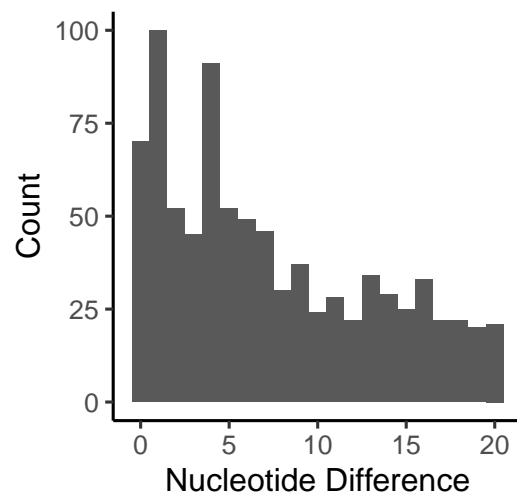
IGHV2-70*04

2 sequences assigned
No exact matches.



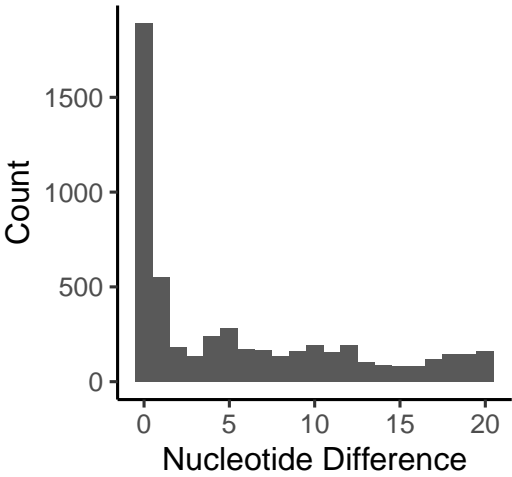
IGHV3-7*03

1036 sequences assigned
70 (6.8%) exact matches, in which:
66 unique CDR3
5 unique J



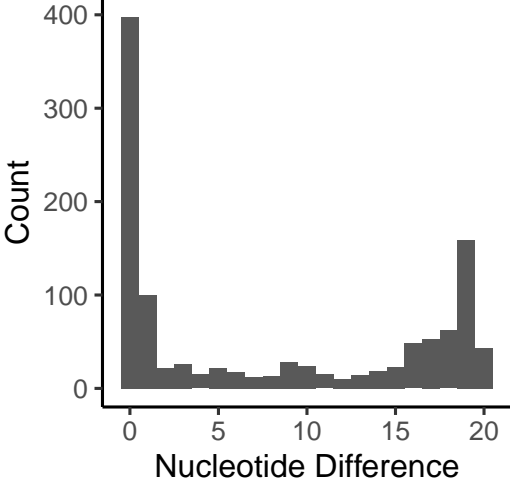
IGHV3-9*01

6428 sequences assigned
1890 (29.4%) exact matches, in which:
1514 unique CDR3
6 unique J



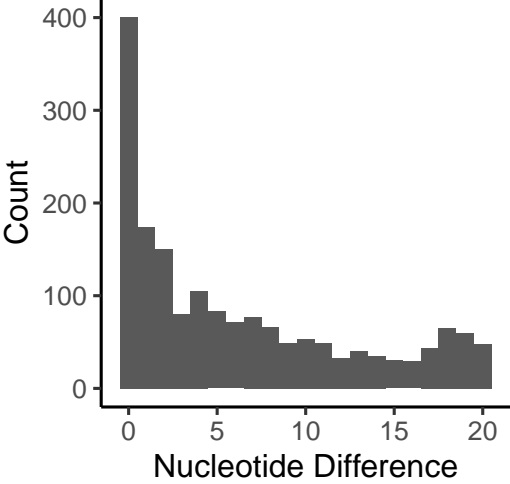
IGHV3-13*01

1429 sequences assigned
398 (27.9%) exact matches, in which:
312 unique CDR3
6 unique J



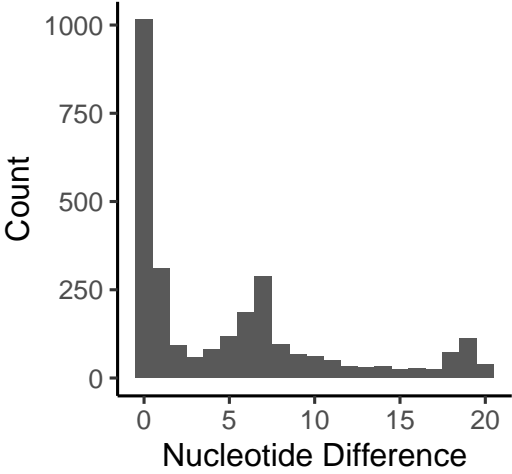
IGHV3-20*03_04_A104G

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



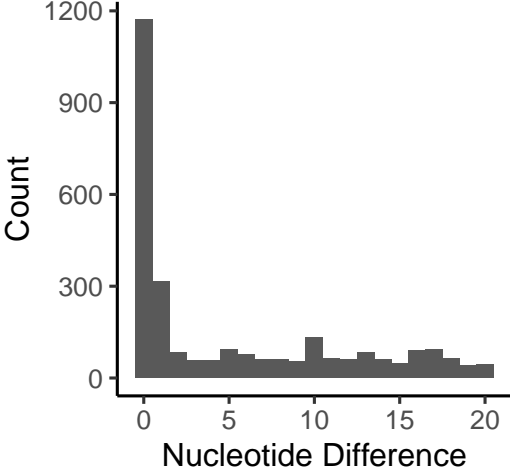
IGHV3-11*01

3561 sequences assigned
1015 (28.5%) exact matches, in which:
839 unique CDR3
6 unique J



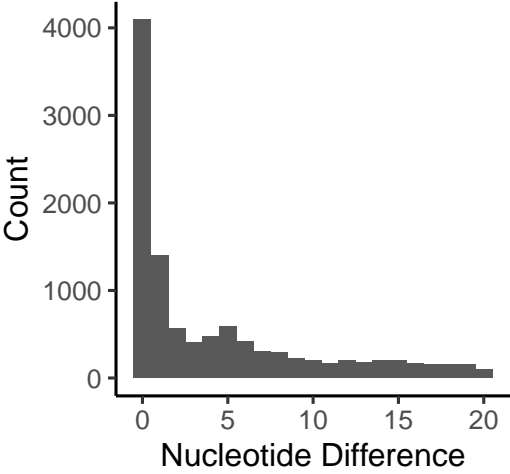
IGHV3-15*01_02

3806 sequences assigned
1171 (30.8%) exact matches, in which:
985 unique CDR3
6 unique J



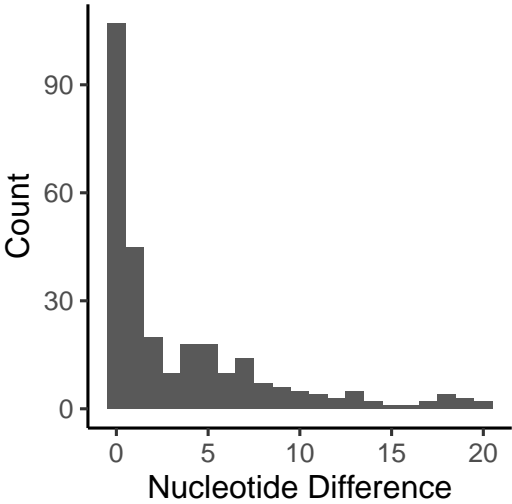
IGHV3-21*01_02

12289 sequences assigned
4093 (33.3%) exact matches, in which:
3251 unique CDR3
6 unique J



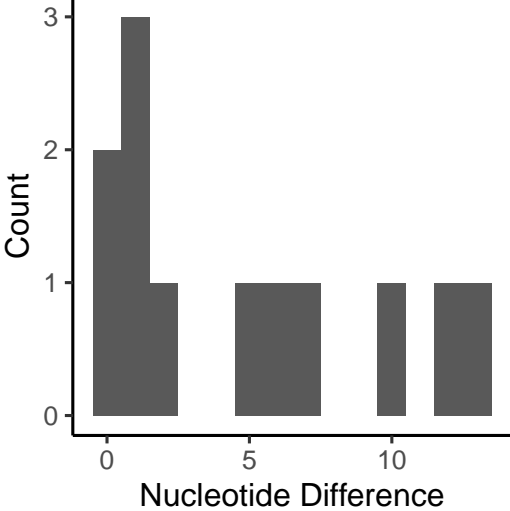
IGHV3-11*04

324 sequences assigned
107 (33%) exact matches, in which:
106 unique CDR3
6 unique J



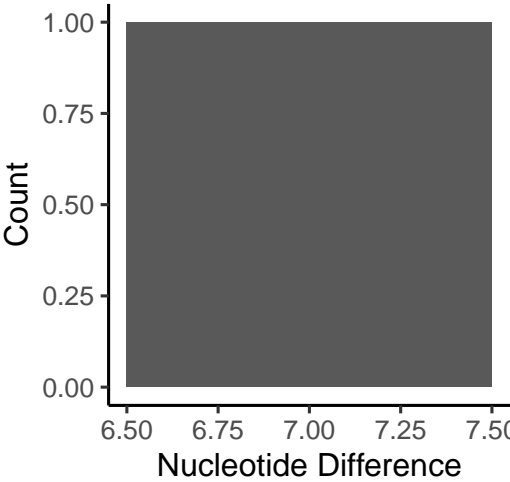
IGHV3-19*01

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



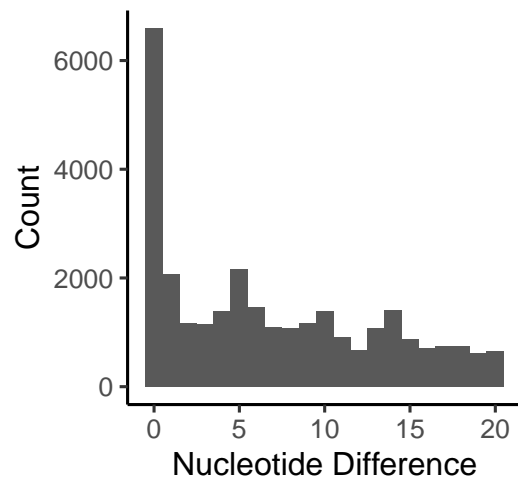
IGHV3-22*01_02

1 sequences assigned
No exact matches.



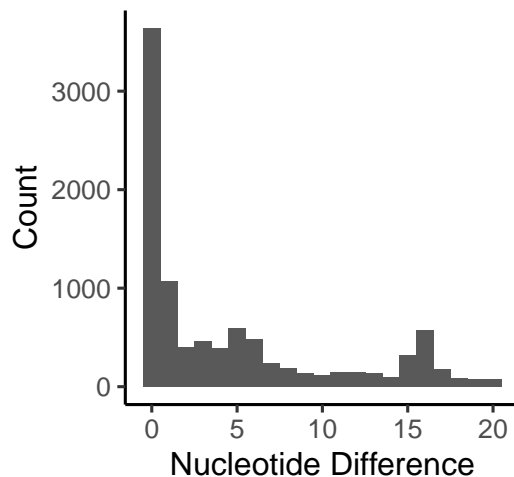
IGHV3-23*01_04

37265 sequences assigned
6591 (17.7%) exact matches, in which:
5164 unique CDR3
6 unique J



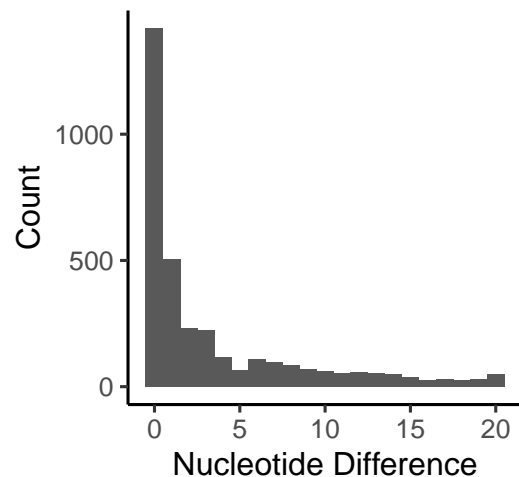
IGHV3-30*04_C203T

10722 sequences assigned
3637 (33.9%) exact matches, in which:
2991 unique CDR3
6 unique J



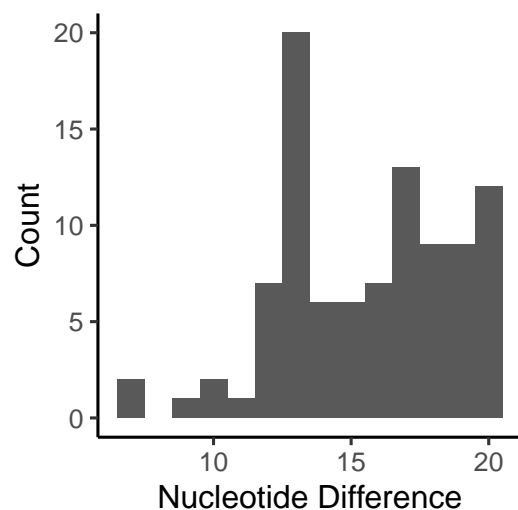
IGHV3-33*06

4027 sequences assigned
1419 (35.2%) exact matches, in which:
1179 unique CDR3
6 unique J



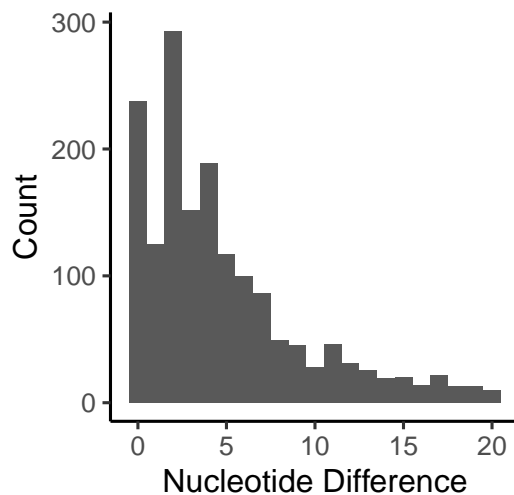
IGHV3-30-3*01

140 sequences assigned
No exact matches.



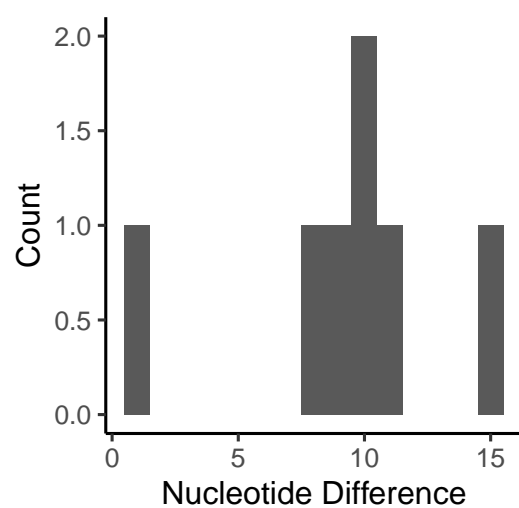
IGHV3-30*07_A150G_C203T

1755 sequences assigned
238 (13.6%) exact matches, in which:
231 unique CDR3
6 unique J



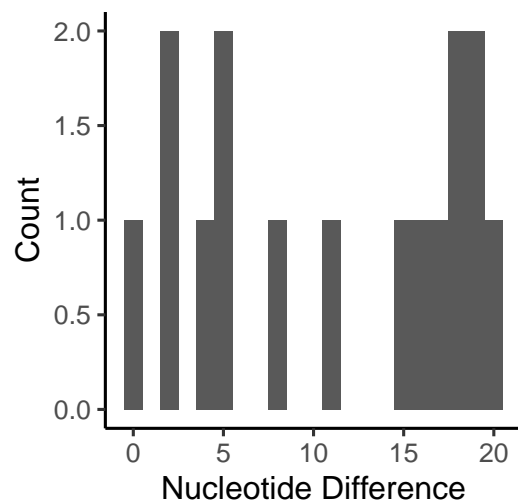
IGHV3-35*01

7 sequences assigned
No exact matches.



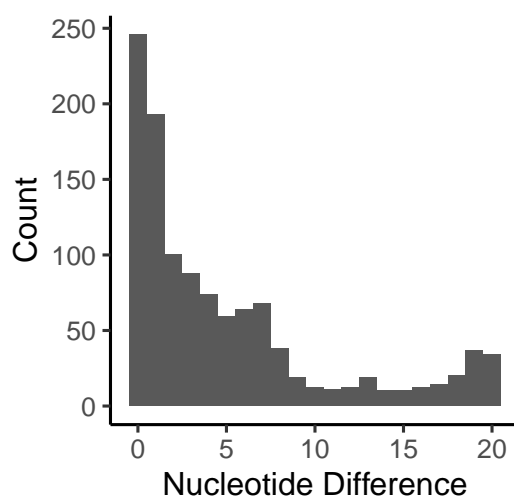
IGHV3-30-3*02

22 sequences assigned
1 (4.5%) exact matches, in which:
1 unique CDR3
1 unique J



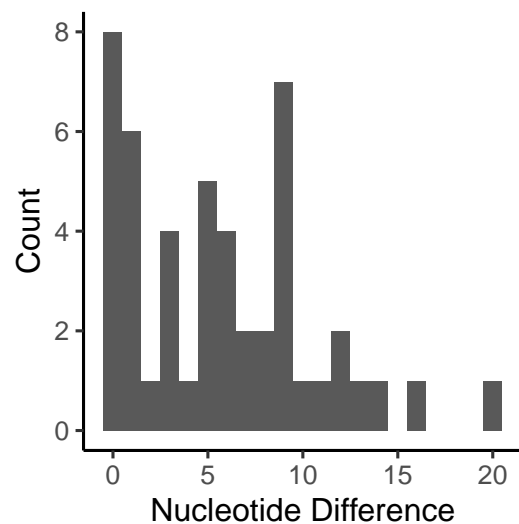
IGHV3-33*01

1365 sequences assigned
246 (18%) exact matches, in which:
238 unique CDR3
5 unique J



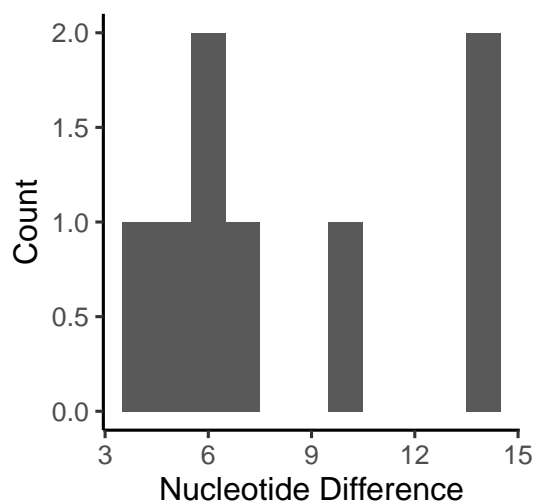
IGHV3-38-3*01

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



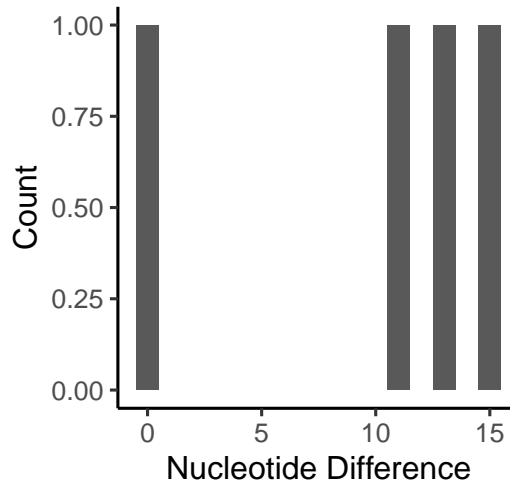
IGHV3-38*03

8 sequences assigned
No exact matches.



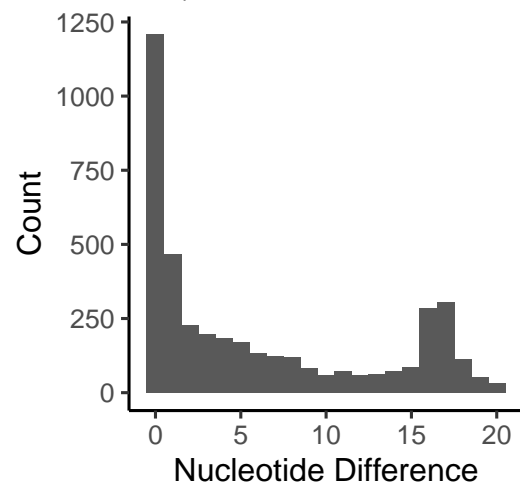
IGHV3-47*02

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



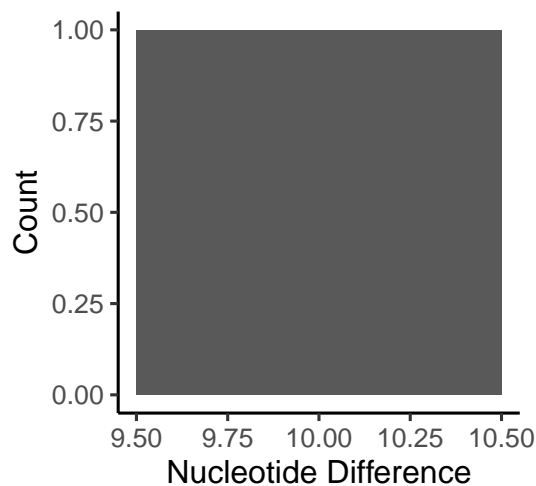
IGHV3-48*04

4342 sequences assigned
1208 (27.8%) exact matches, in which:
997 unique CDR3
6 unique J



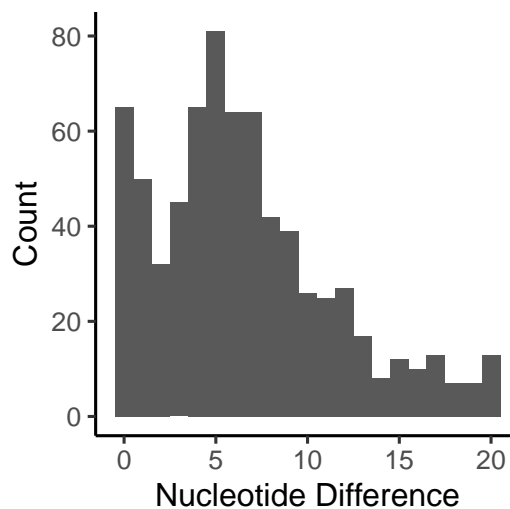
IGHV3-41*02

1 sequences assigned
No exact matches.



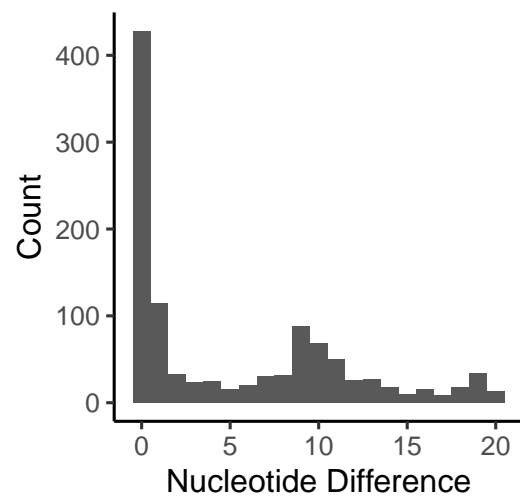
IGHV3-48*01

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



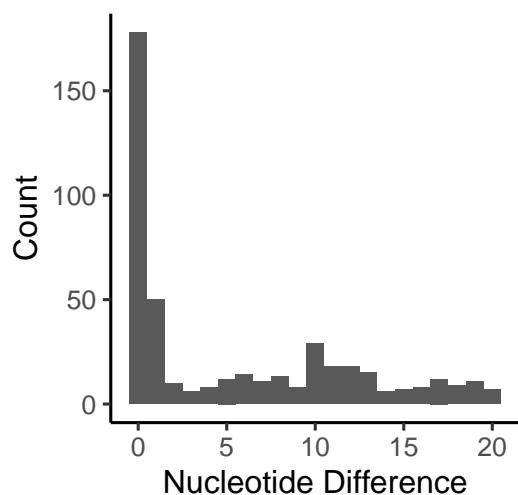
IGHV3-49*03_05

1293 sequences assigned
428 (33.1%) exact matches, in which:
368 unique CDR3
6 unique J



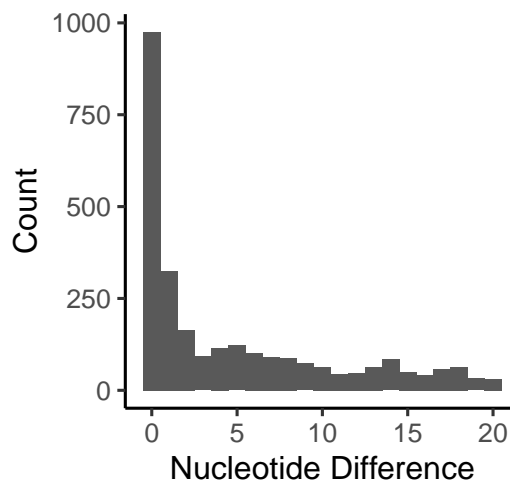
IGHV3-43*01

737 sequences assigned
178 (24.2%) exact matches, in which:
141 unique CDR3
6 unique J



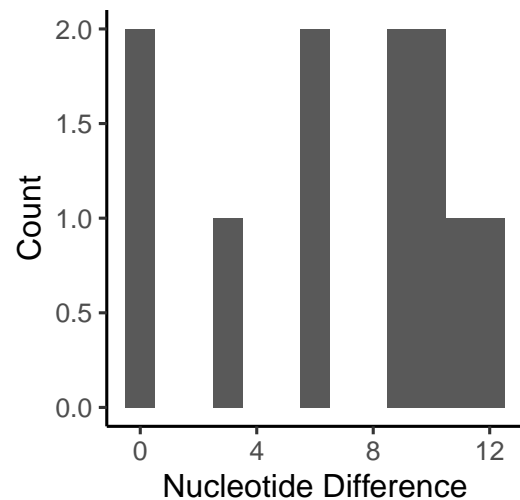
IGHV3-48*02

3173 sequences assigned
975 (30.7%) exact matches, in which:
800 unique CDR3
6 unique J



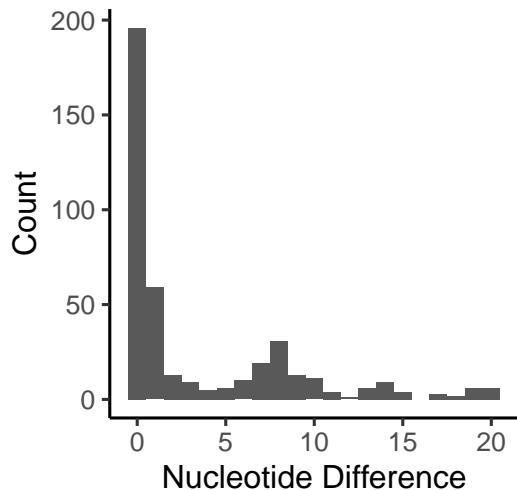
IGHV3-52*01_03

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



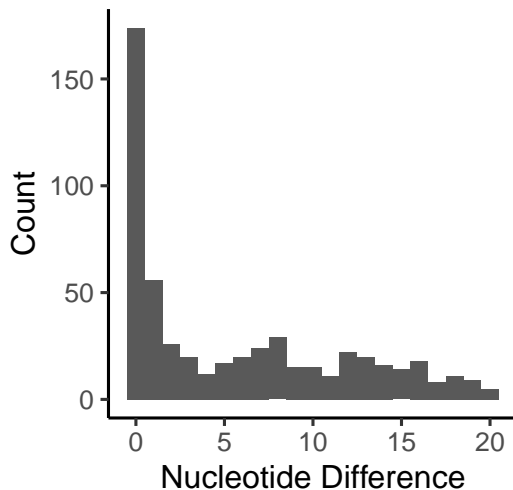
IGHV3-53*04

492 sequences assigned
196 (39.8%) exact matches, in which:
168 unique CDR3
6 unique J



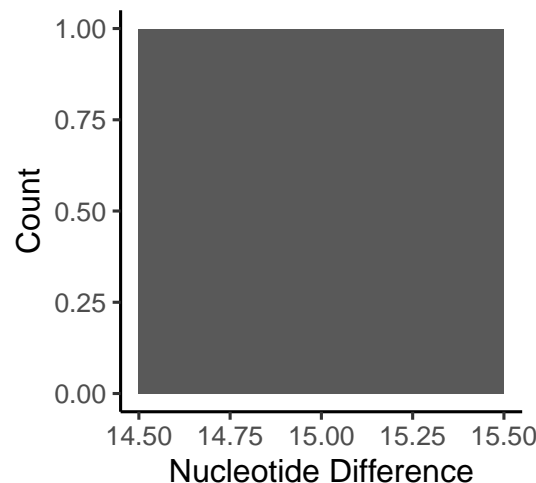
IGHV3-66*02

703 sequences assigned
174 (24.8%) exact matches, in which:
148 unique CDR3
6 unique J



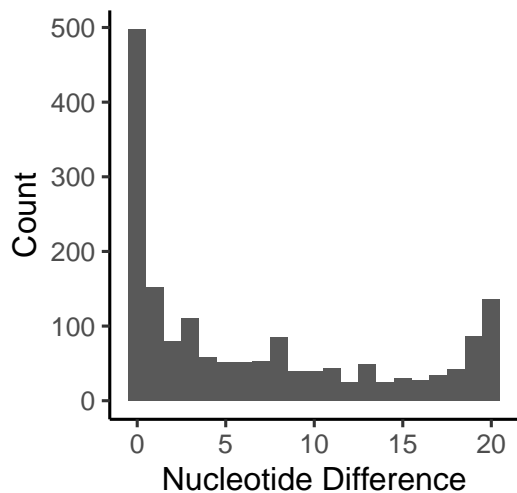
IGHV3-71*03

1 sequences assigned
No exact matches.



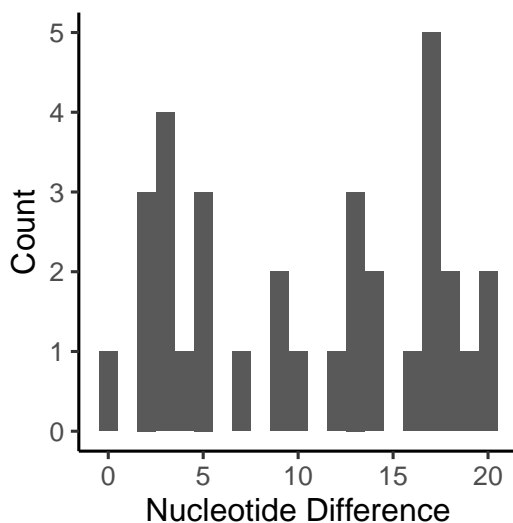
IGHV3-53*01_02

2285 sequences assigned
498 (21.8%) exact matches, in which:
419 unique CDR3
6 unique J



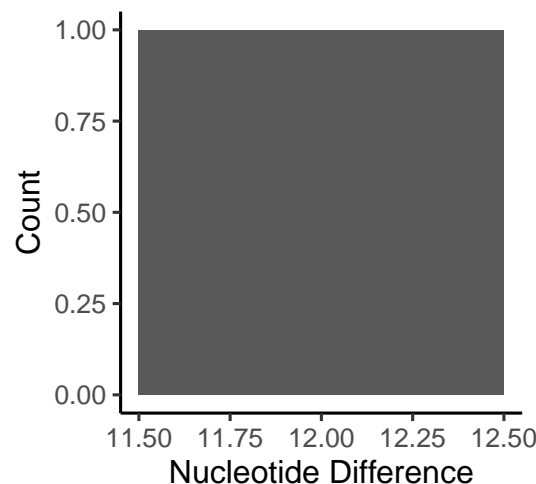
IGHV3-69-1*01

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



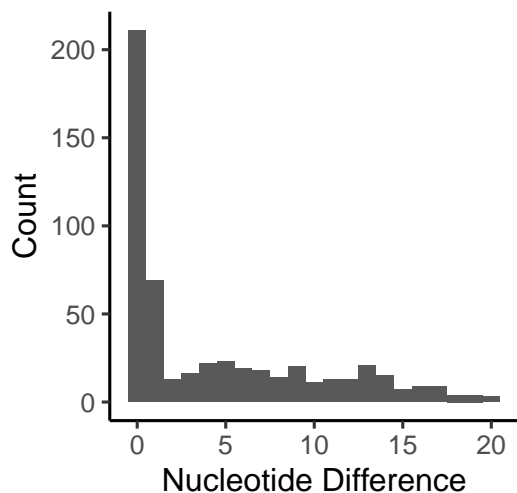
IGHV3-71*01_04

1 sequences assigned
No exact matches.



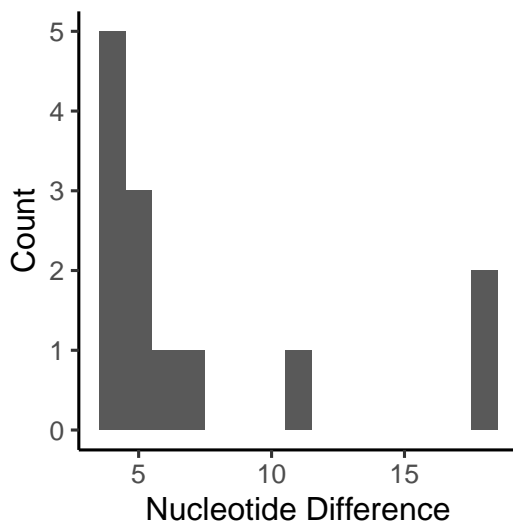
IGHV3-64*01

710 sequences assigned
211 (29.7%) exact matches, in which:
168 unique CDR3
5 unique J



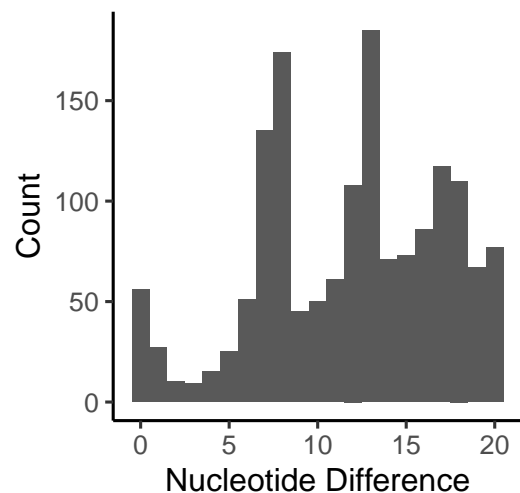
IGHV3-69-1*02

24 sequences assigned
No exact matches.



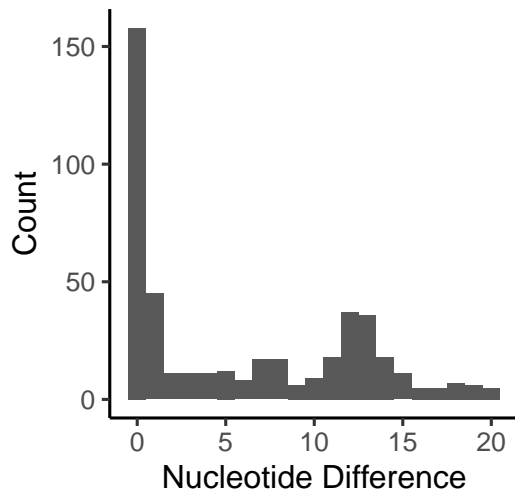
IGHV3-72*01

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



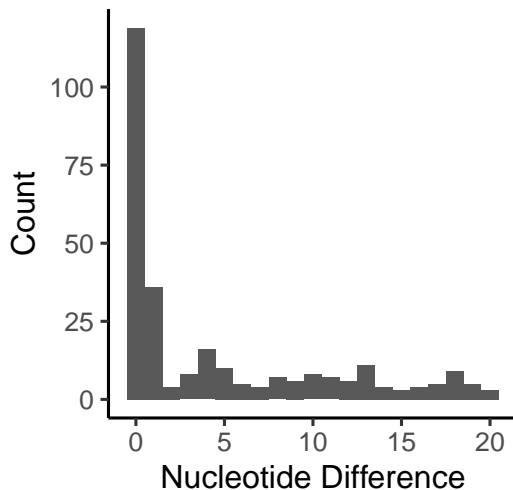
IGHV3-73*01_02

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



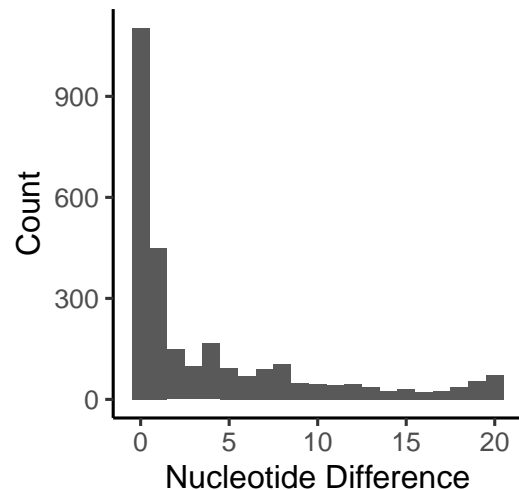
IGHV3-43D*03

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



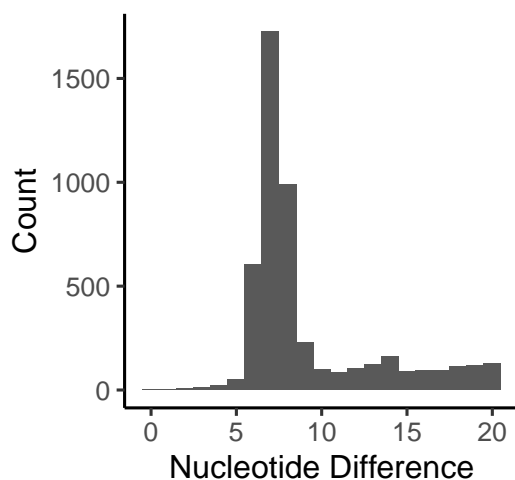
IGHV4-4*07

3600 sequences assigned
1104 (30.7%) exact matches, in which:
1054 unique CDR3
6 unique J



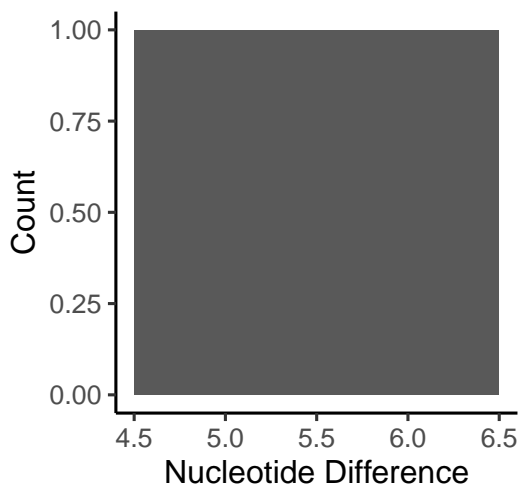
IGHV3-74*03

5729 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
1 unique J



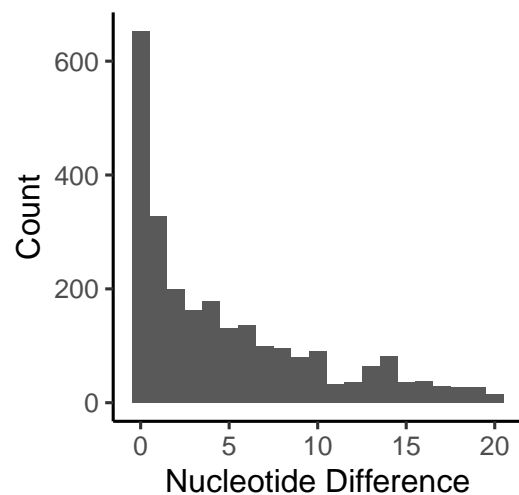
IGHV3-64D*06

12 sequences assigned
No exact matches.



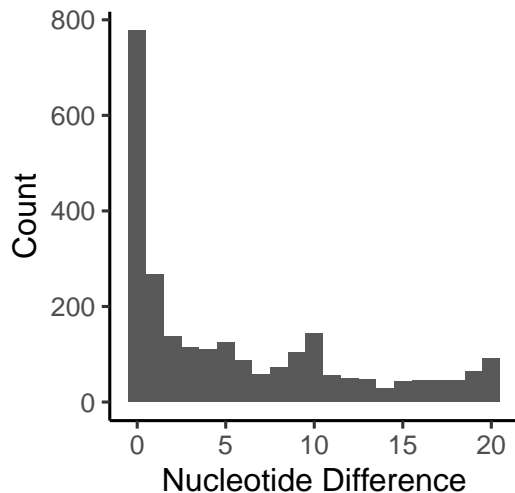
IGHV4-4*02_03

3037 sequences assigned
653 (21.5%) exact matches, in which:
604 unique CDR3
6 unique J



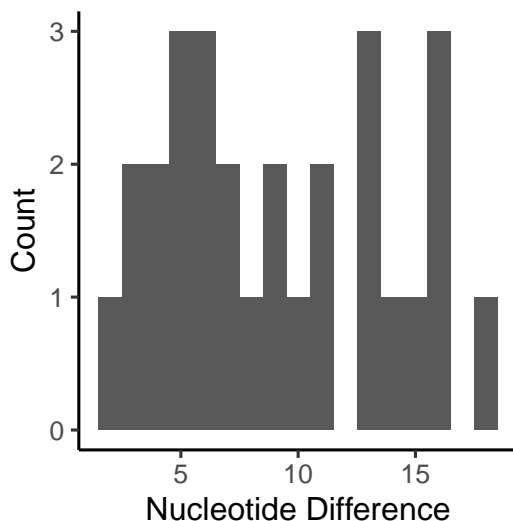
IGHV3-74*01_02

2675 sequences assigned
778 (29.1%) exact matches, in which:
608 unique CDR3
6 unique J



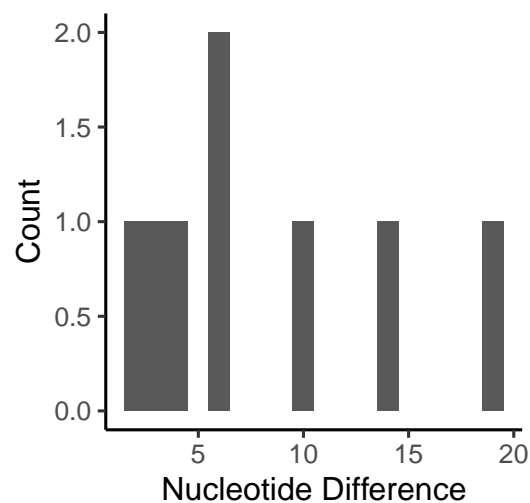
IGHV3-NL1*01

40 sequences assigned
No exact matches.



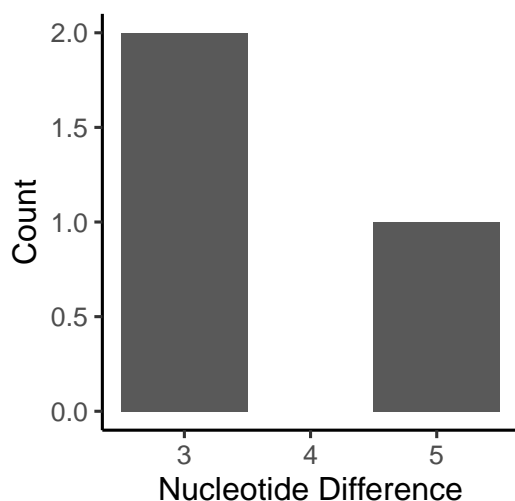
IGHV4-28*03

12 sequences assigned
No exact matches.



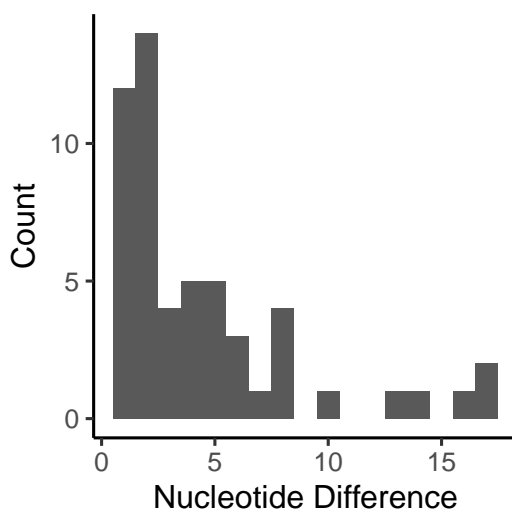
IGHV4-28*01_07

3 sequences assigned
No exact matches.



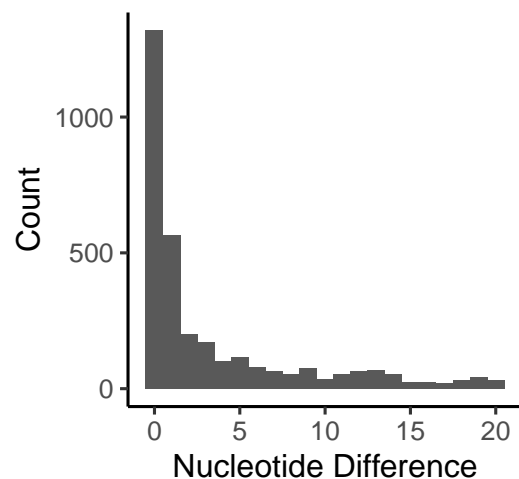
IGHV4-30-2*03

62 sequences assigned
No exact matches.



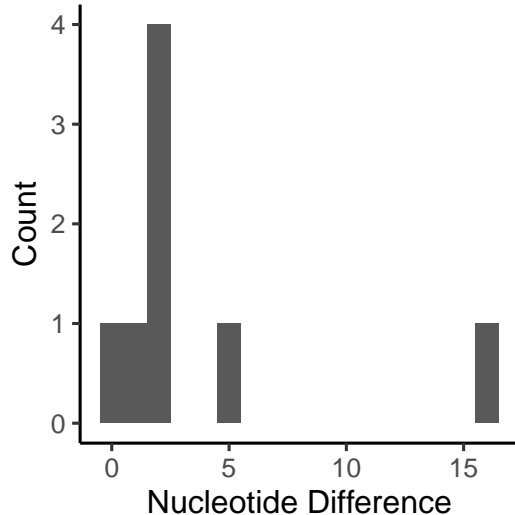
IGHV4-31*02

3818 sequences assigned
1319 (34.5%) exact matches, in which:
1243 unique CDR3
6 unique J



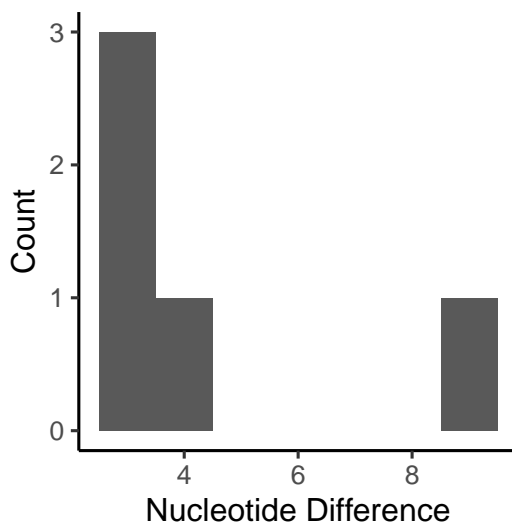
IGHV4-28*02_05

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



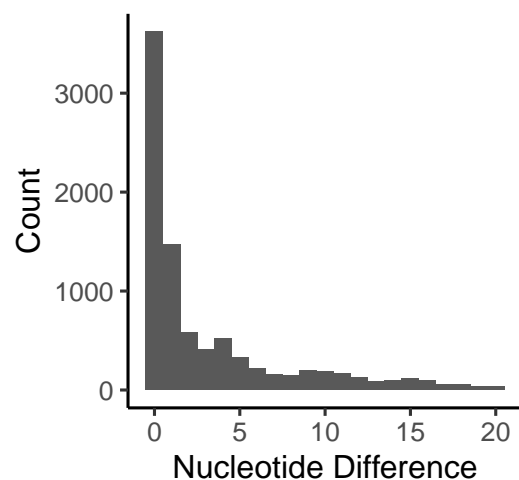
IGHV4-30-2*04

5 sequences assigned
No exact matches.



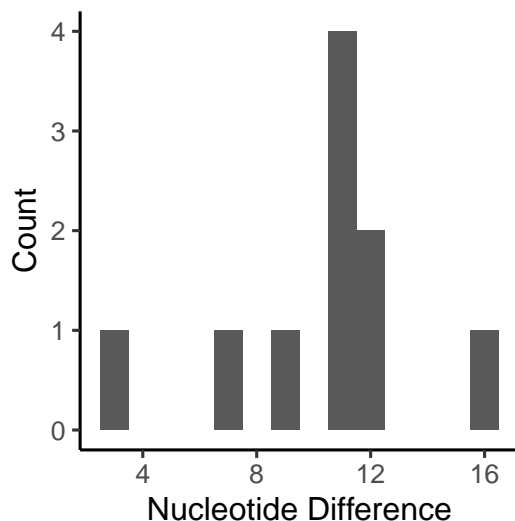
IGHV4-34*01_02

9991 sequences assigned
3621 (36.2%) exact matches, in which:
3372 unique CDR3
6 unique J



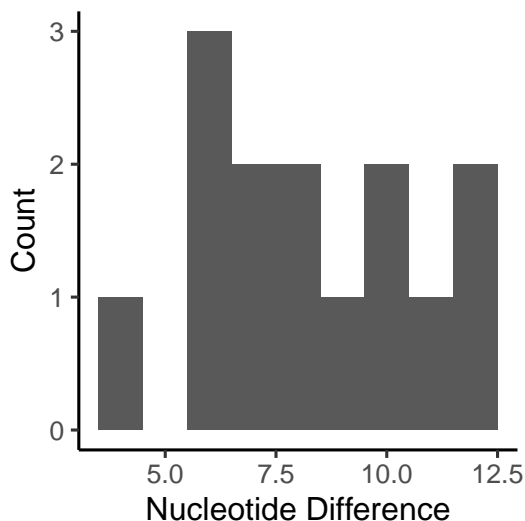
IGHV4-30-4*01

65 sequences assigned
No exact matches.



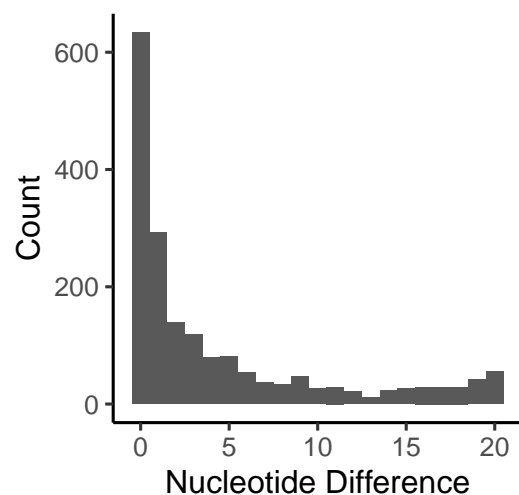
IGHV4-30-4*08

33 sequences assigned
No exact matches.



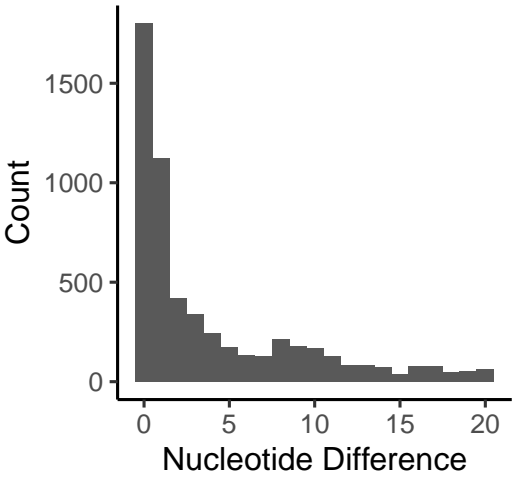
IGHV4-38-2*02

2157 sequences assigned
634 (29.4%) exact matches, in which:
615 unique CDR3
6 unique J



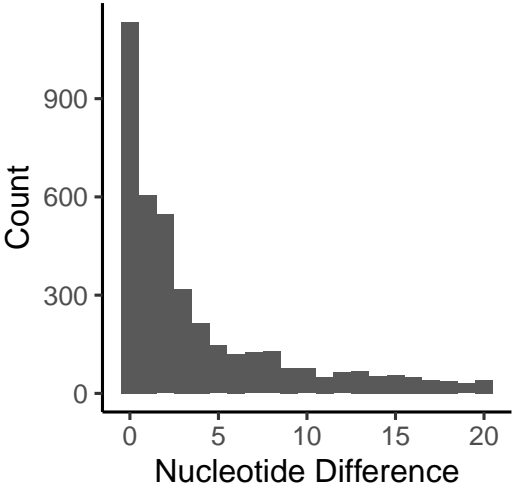
IGHV4-39*07

6388 sequences assigned
1801 (28.2%) exact matches, in which:
1686 unique CDR3
6 unique J



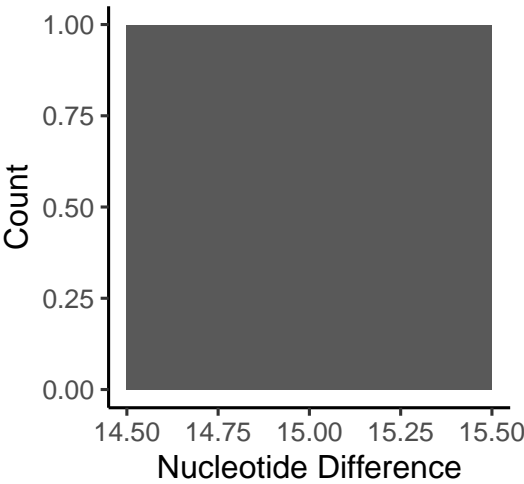
IGHV4-61*02

4695 sequences assigned
1135 (24.2%) exact matches, in which:
1090 unique CDR3
6 unique J



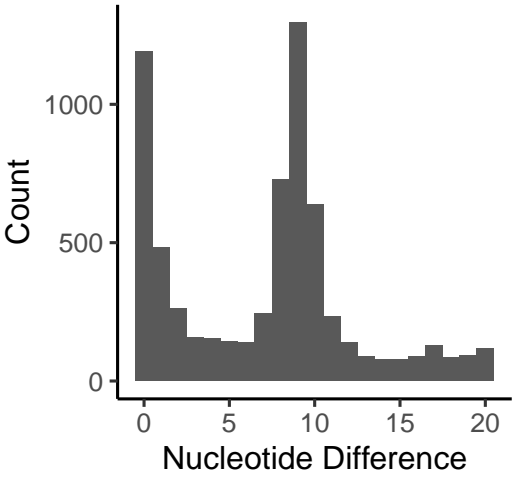
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



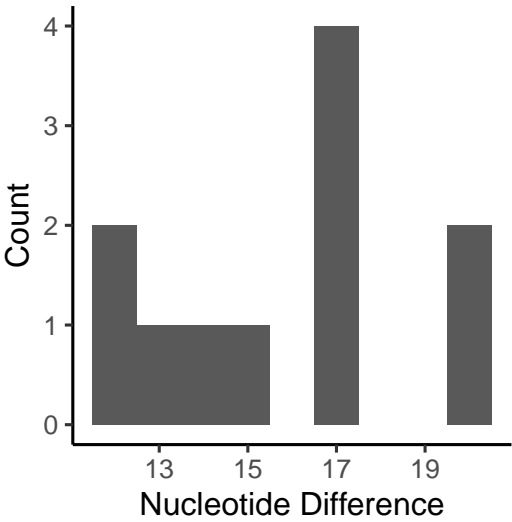
IGHV4-59*08

7624 sequences assigned
1192 (15.6%) exact matches, in which:
1138 unique CDR3
6 unique J



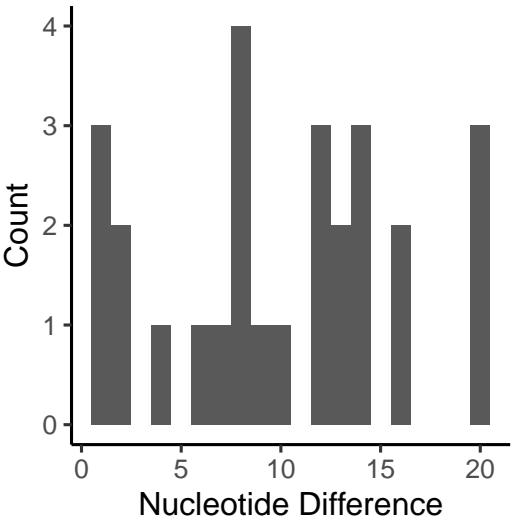
IGHV1/OR15-2*02_03

13 sequences assigned
No exact matches.



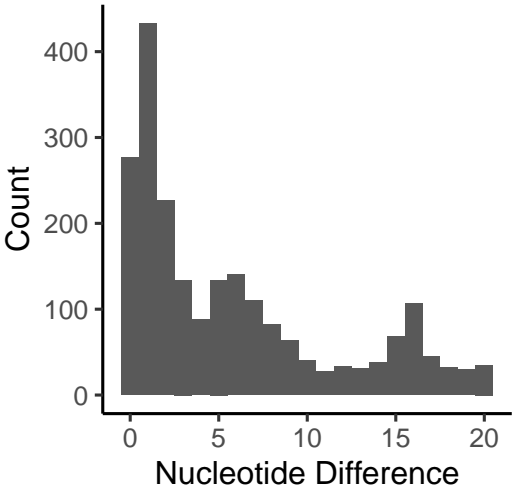
IGHV4/OR15-8*01

65 sequences assigned
No exact matches.



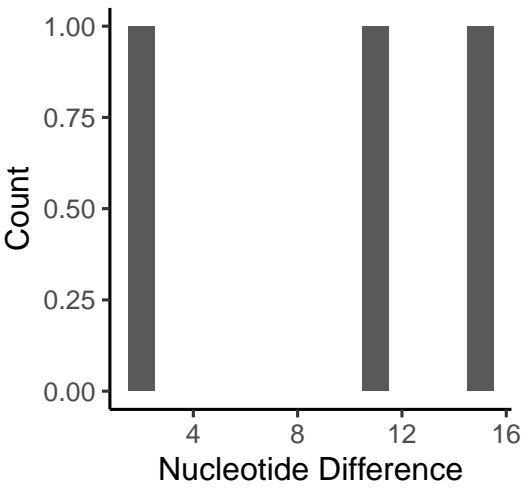
IGHV4-59*12

2658 sequences assigned
277 (10.4%) exact matches, in which:
275 unique CDR3
6 unique J



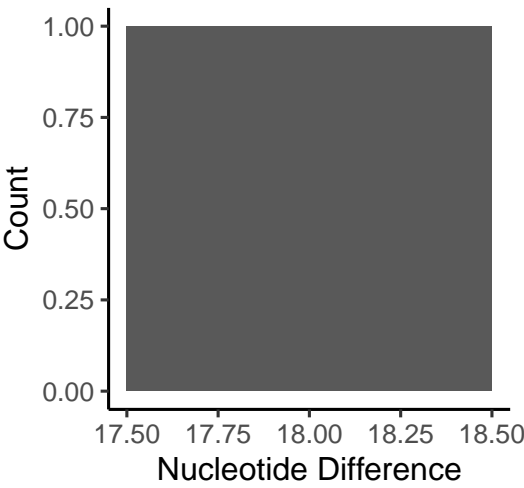
IGHV1/OR15-3*02

3 sequences assigned
No exact matches.



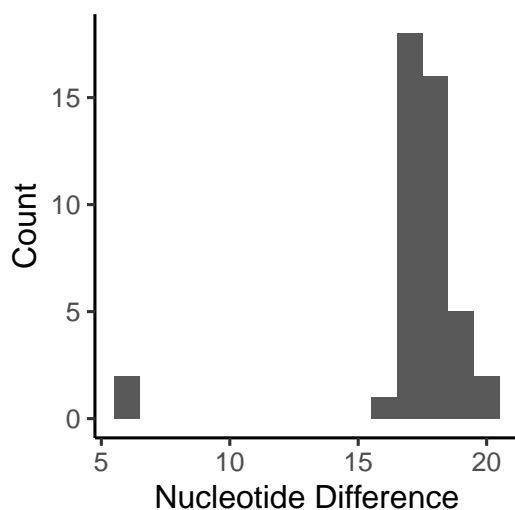
IGHV4/OR15-8*02

10 sequences assigned
No exact matches.



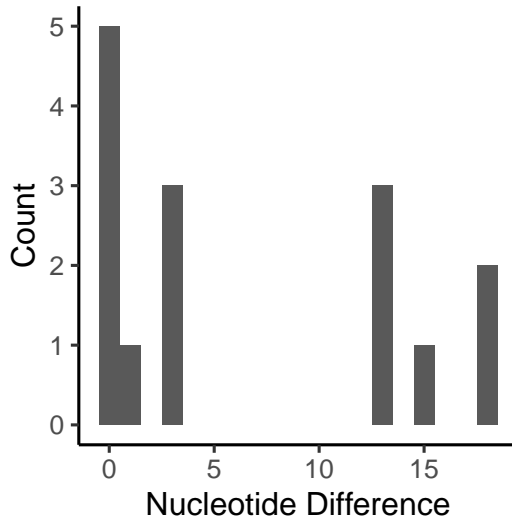
IGHV5-10-1*01_03

47 sequences assigned
No exact matches.



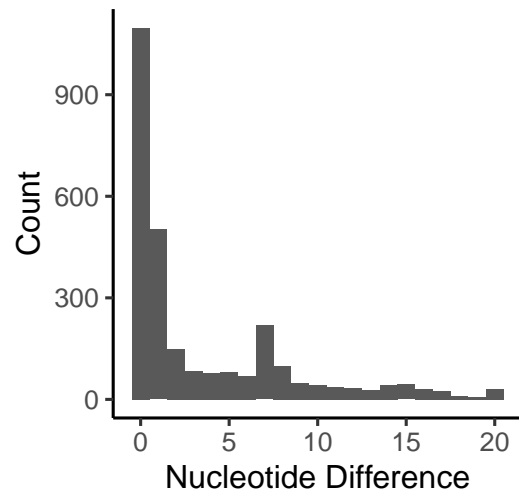
IGHV5-51*07

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



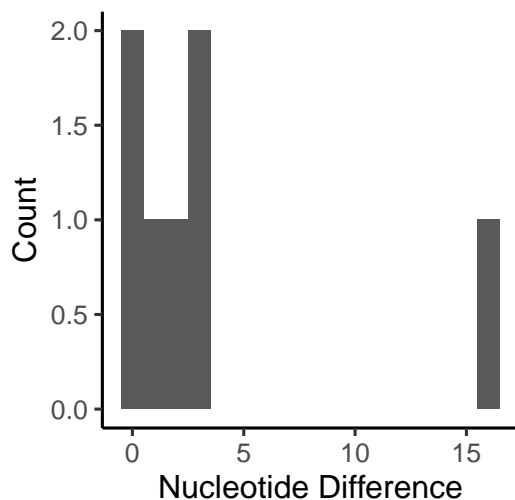
IGHV7-4-1*02

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



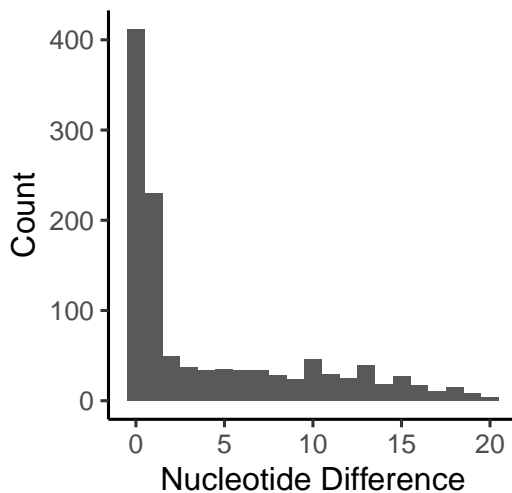
IGHV5-51*04

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



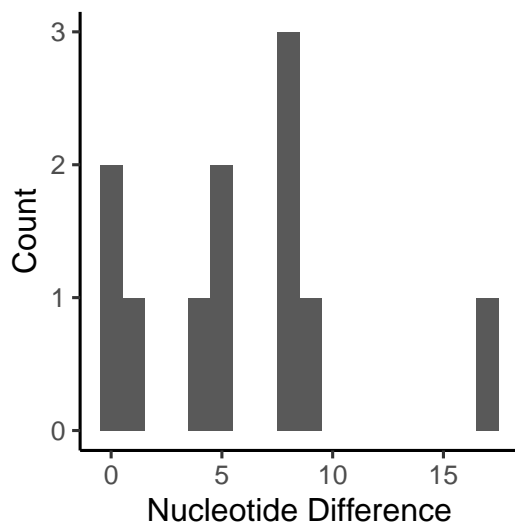
IGHV6-1*01_02

1239 sequences assigned
412 (33.3%) exact matches, in which:
402 unique CDR3
6 unique J



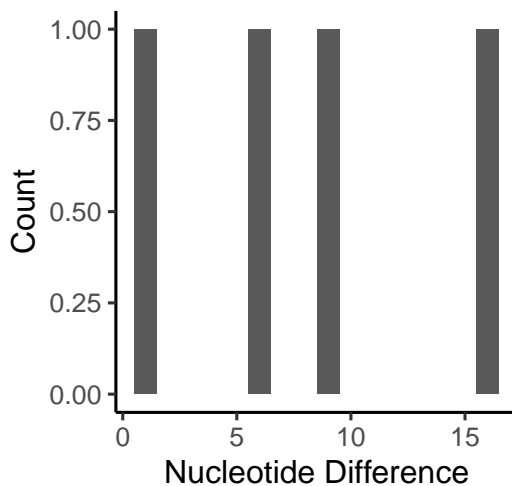
IGHV5-51*06

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

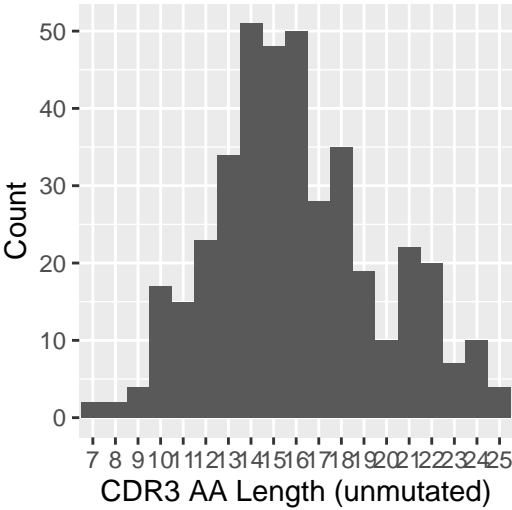


IGHV3/OR16-10*01_03

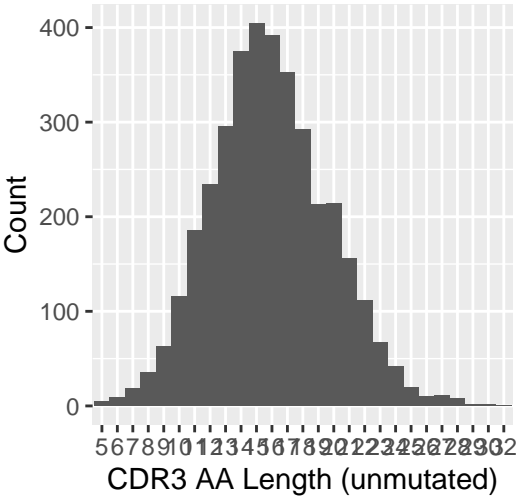
7 sequences assigned
No exact matches.



IGHV3-20*03_04_A104G



IGHV3-30*04_C203T



IGHV3-30*07_A150G_C203T

