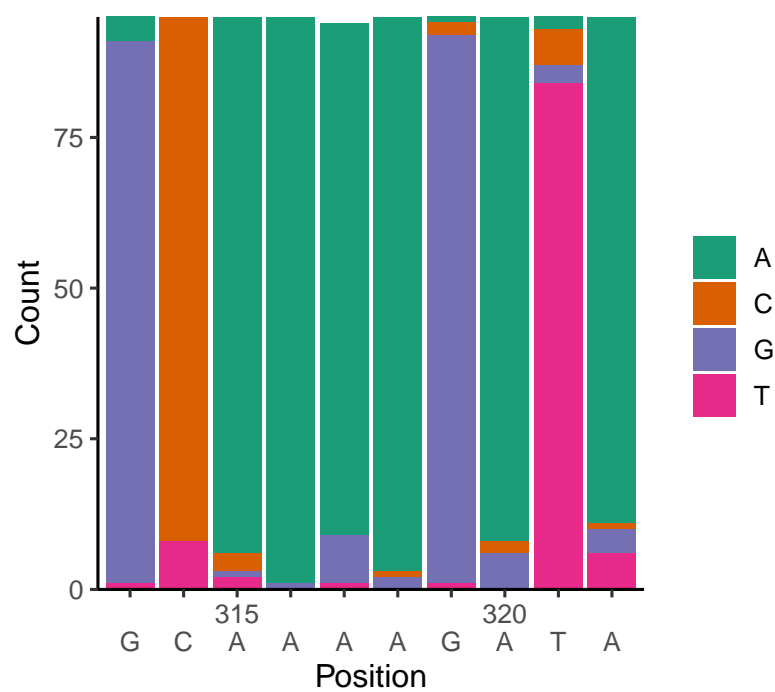
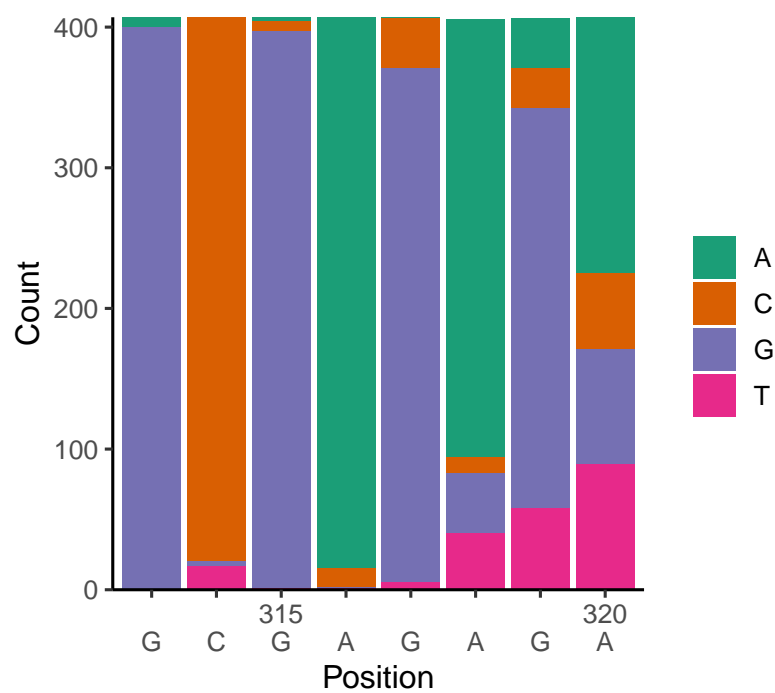


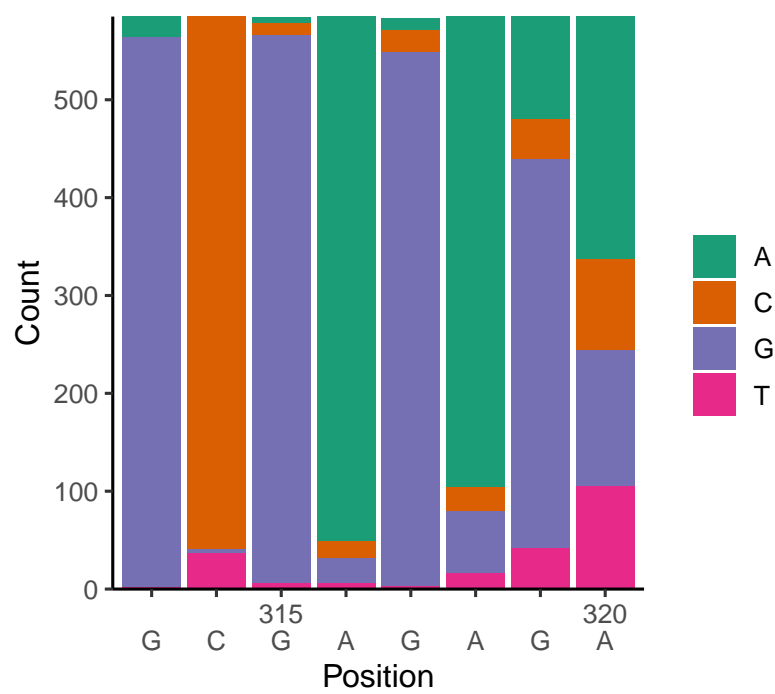
Gene IGHV3-43*01_T177A



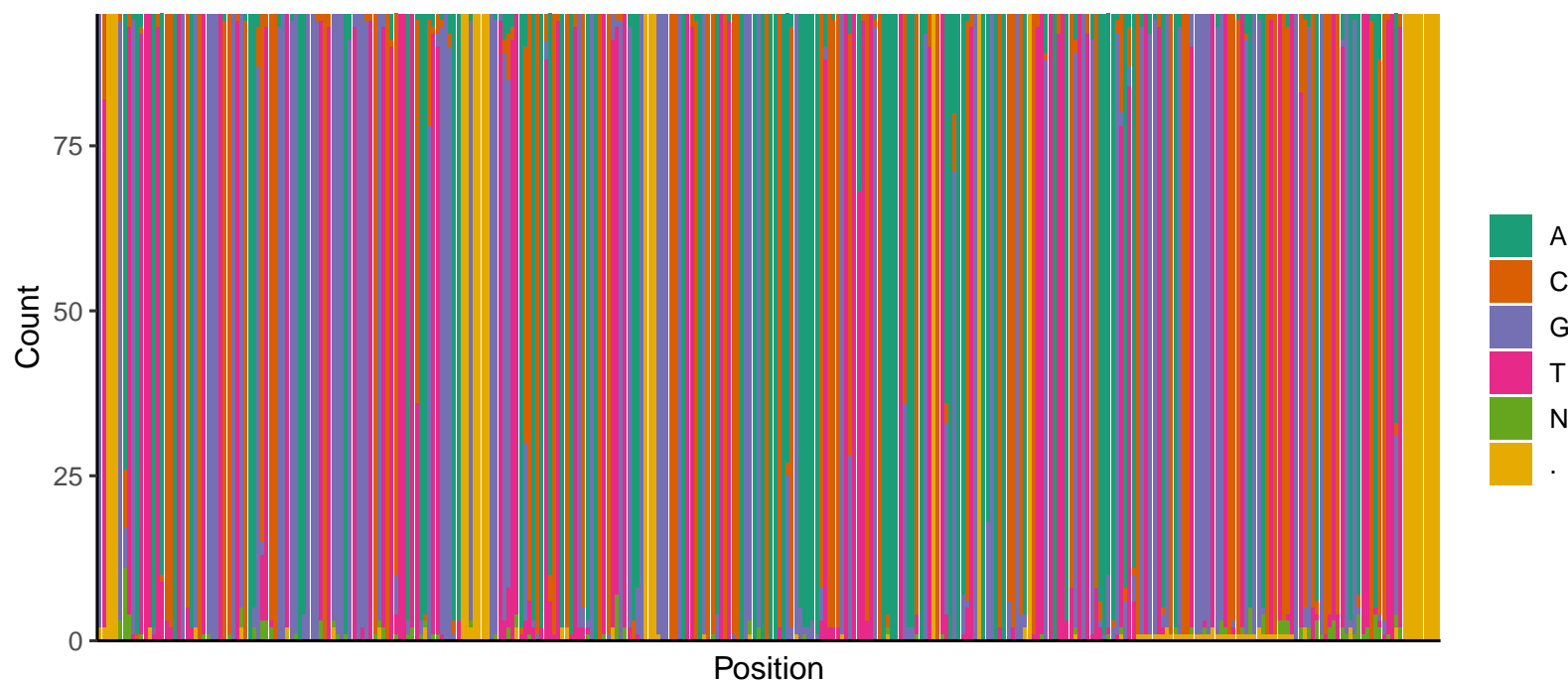
Gene IGHV1-18*01_A196G



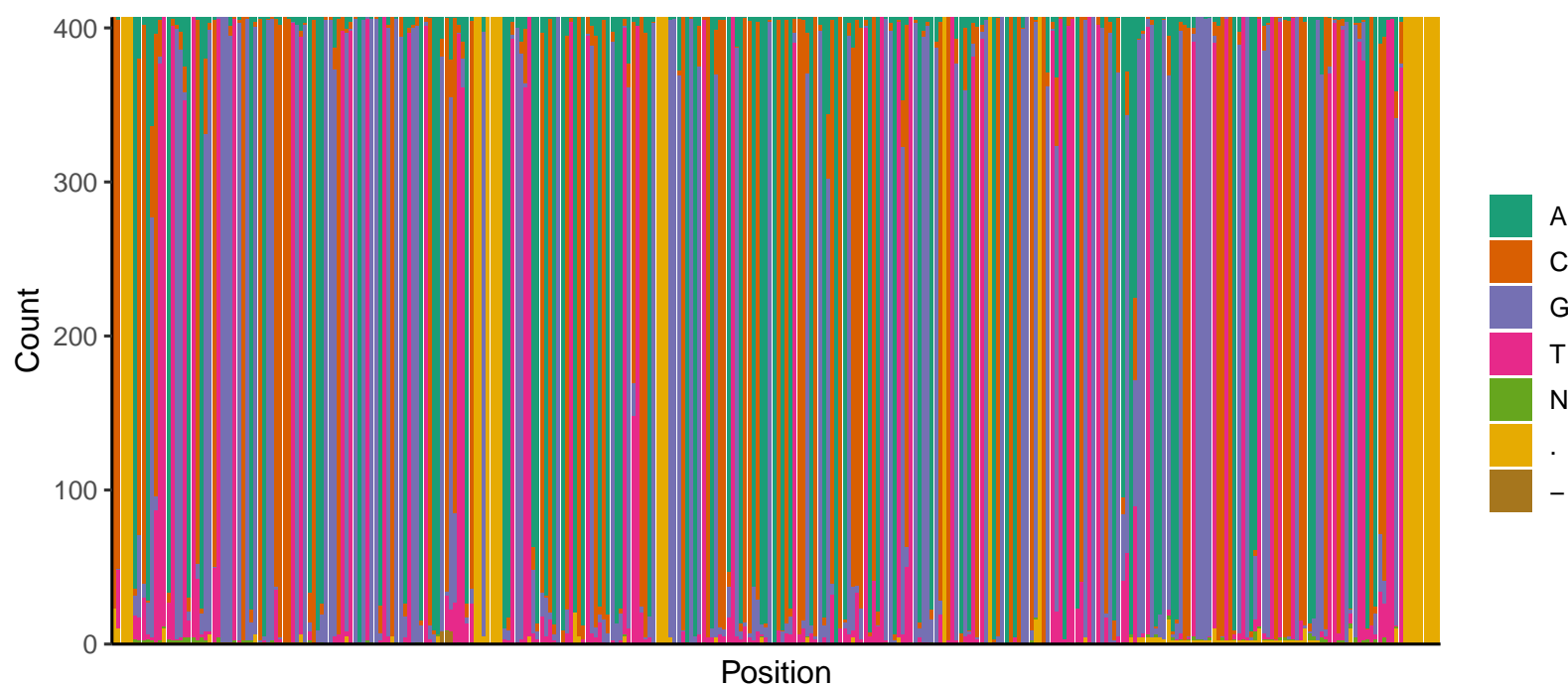
Gene IGHV4-38-2*02_A70G



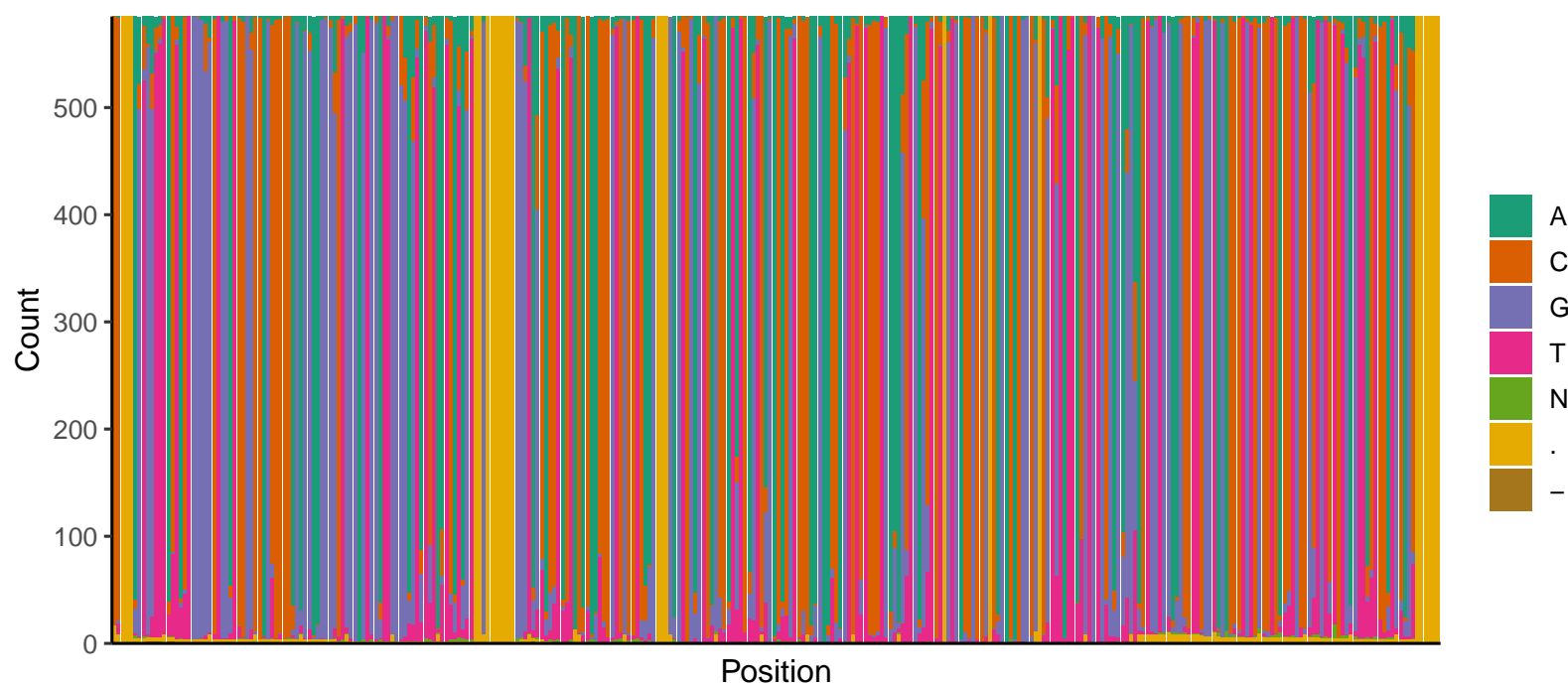
Gene IGHV3-43*01_T177A



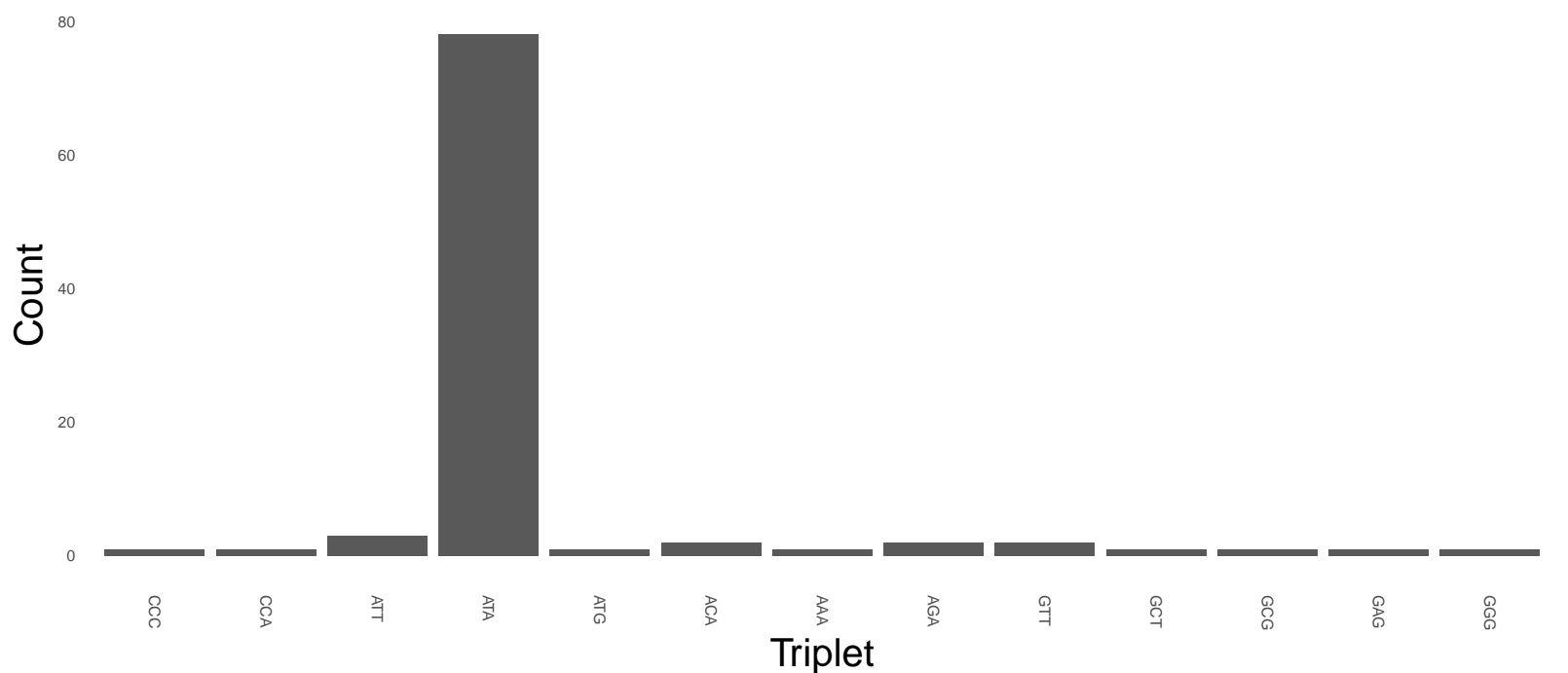
Gene IGHV1-18*01_A196G



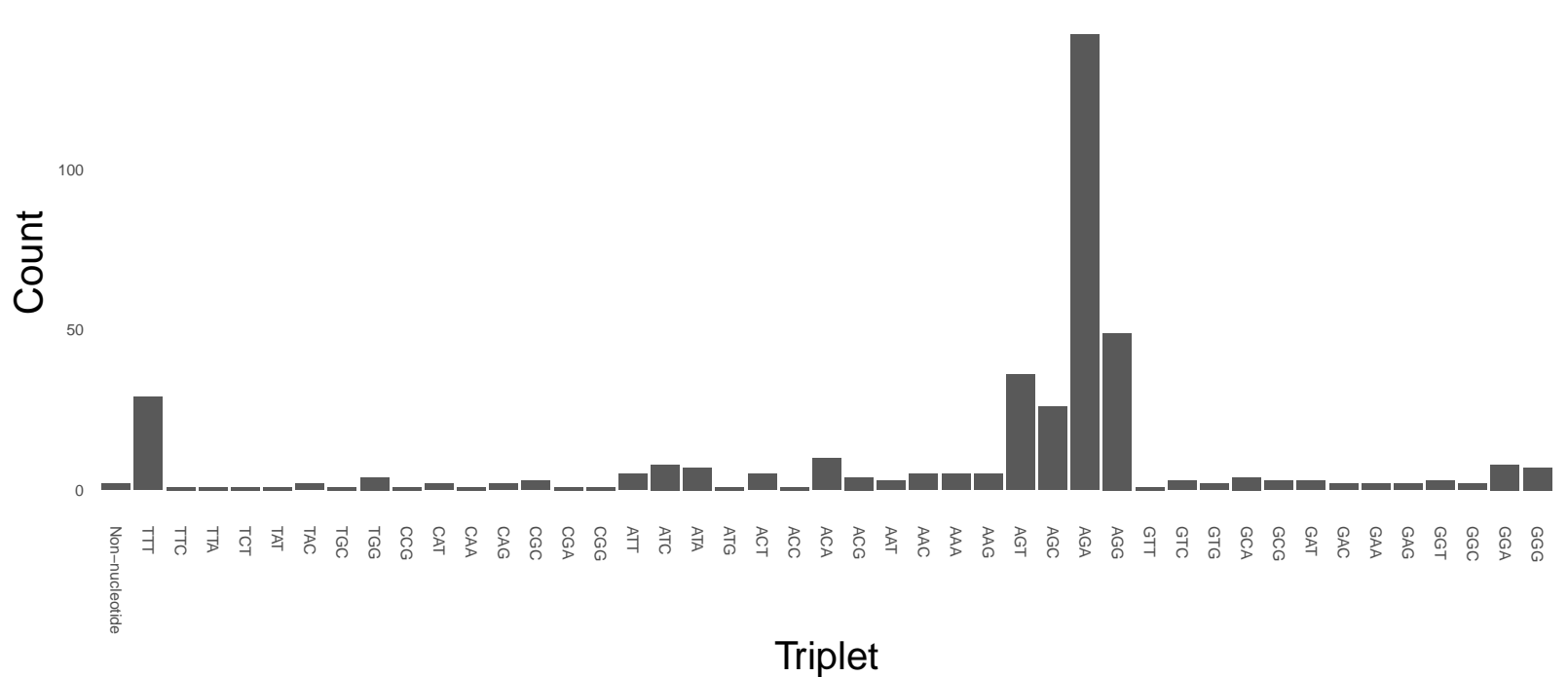
Gene IGHV4-38-2*02_A70G



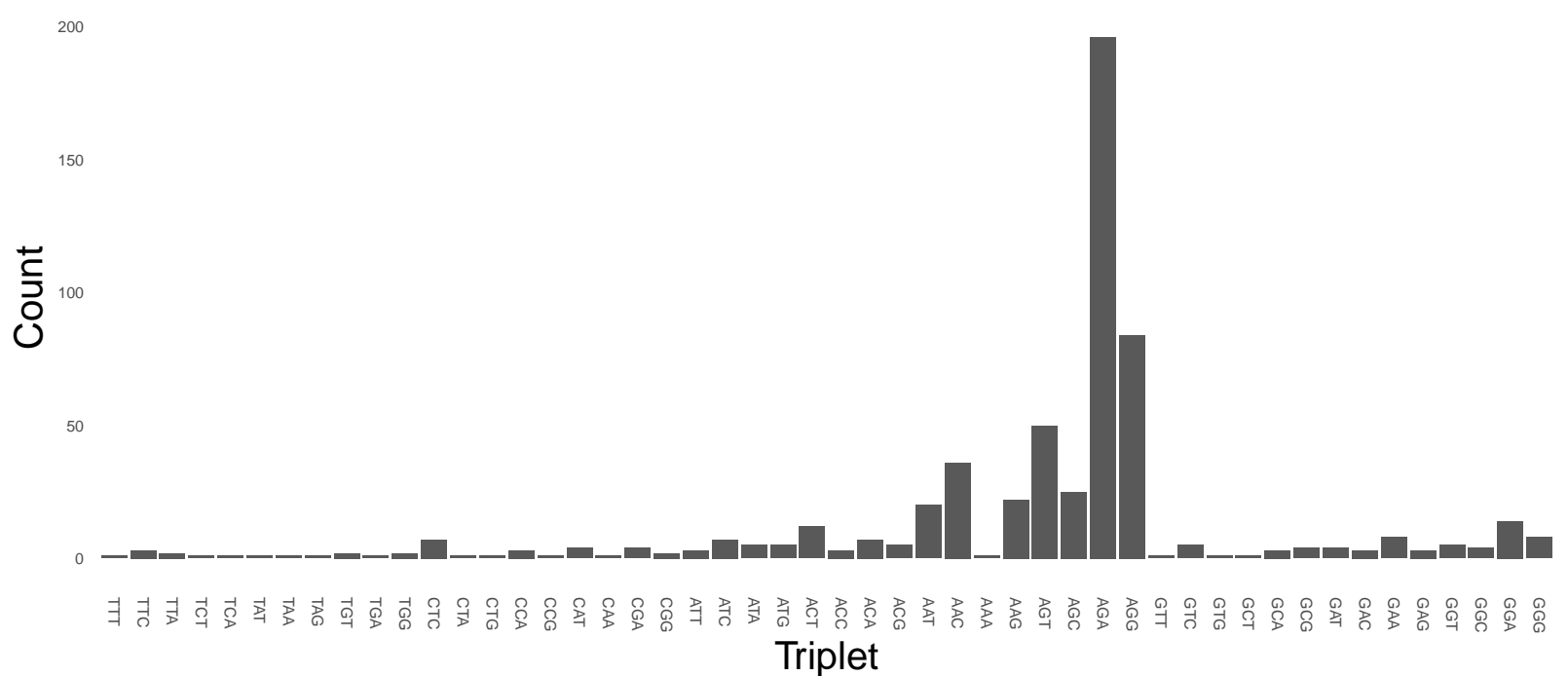
IGHV3-43*01_T177A- Final 3 nucleotides as a triplet



IGHV1-18*01_A196G- Final 3 nucleotides as a triplet

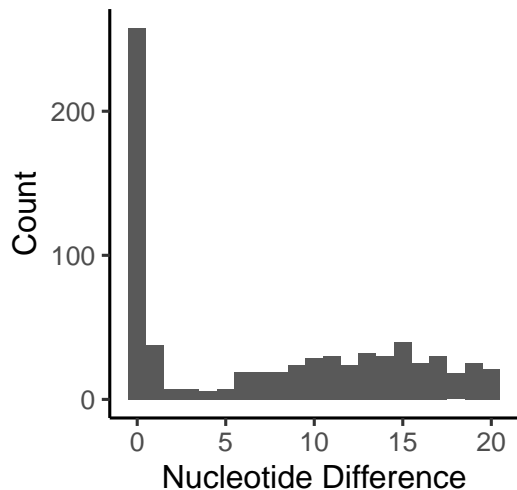


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



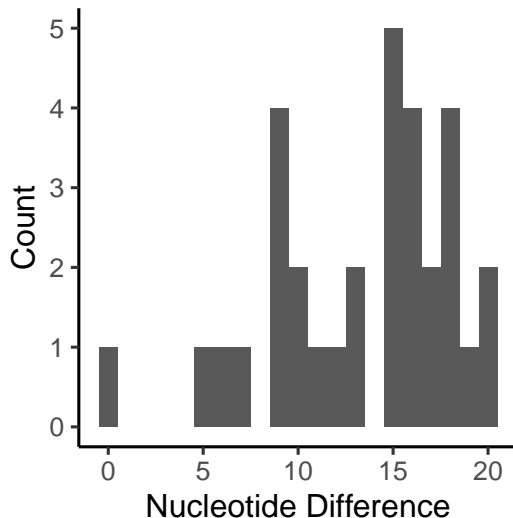
IGHV1-2*02

957 sequences assigned
258 (27%) exact matches, in which:
257 unique CDR3
6 unique J



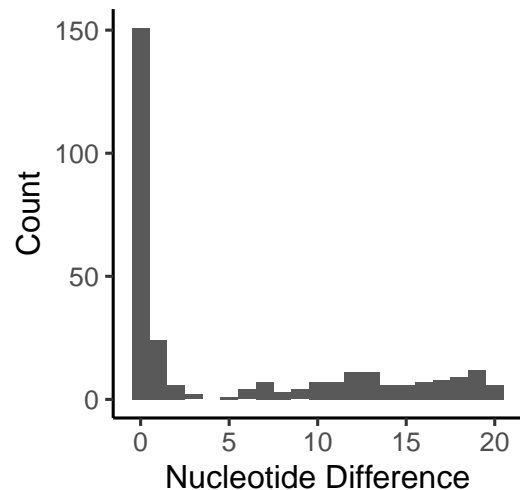
IGHV1-3*04

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



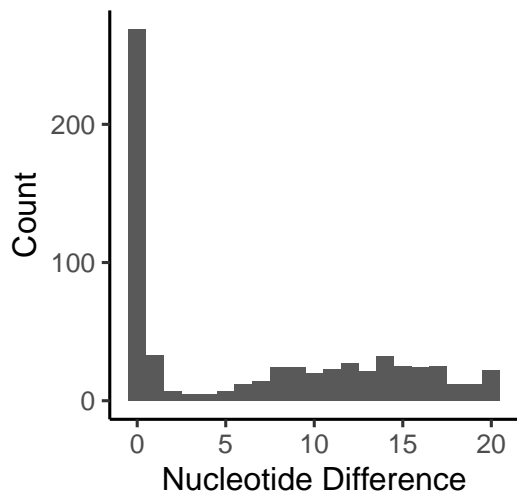
IGHV1-18*01_A196G

407 sequences assigned
151 (37.1%) exact matches, in which:
150 unique CDR3
6 unique J



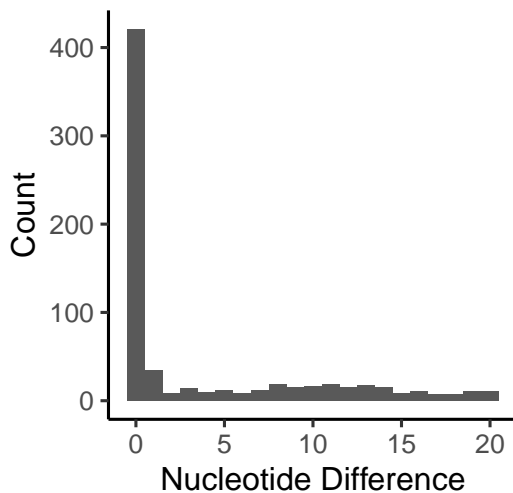
IGHV1-2*06

883 sequences assigned
269 (30.5%) exact matches, in which:
269 unique CDR3
6 unique J



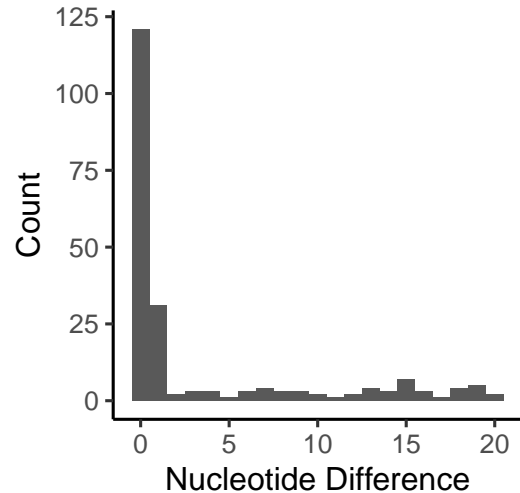
IGHV1-8*01

793 sequences assigned
421 (53.1%) exact matches, in which:
419 unique CDR3
7 unique J



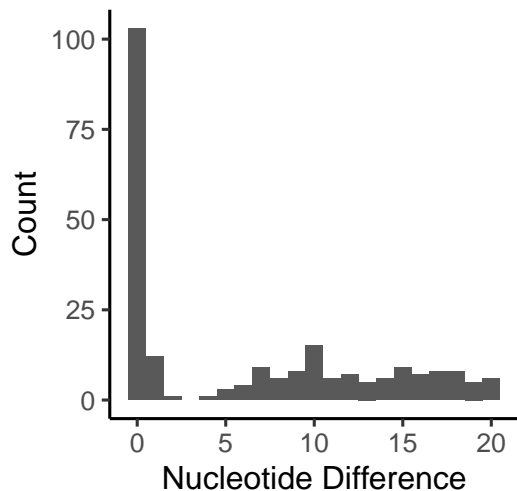
IGHV1-24*01

255 sequences assigned
121 (47.5%) exact matches, in which:
119 unique CDR3
7 unique J



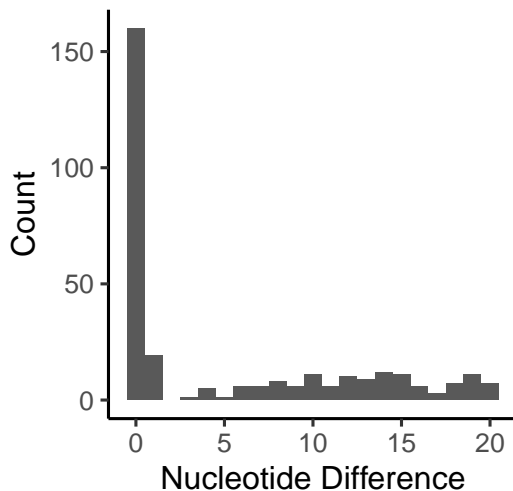
IGHV1-3*01

275 sequences assigned
103 (37.5%) exact matches, in which:
102 unique CDR3
6 unique J



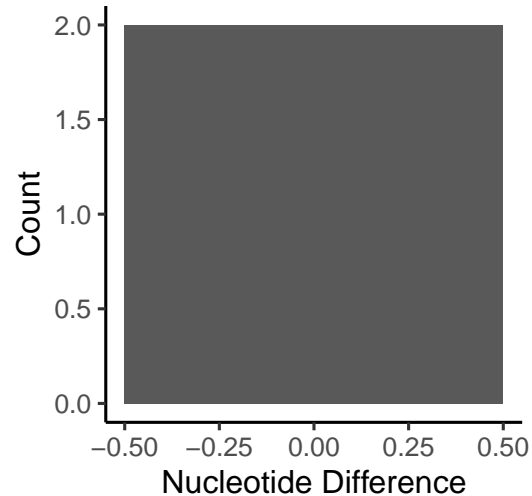
IGHV1-18*01

403 sequences assigned
160 (39.7%) exact matches, in which:
159 unique CDR3
7 unique J



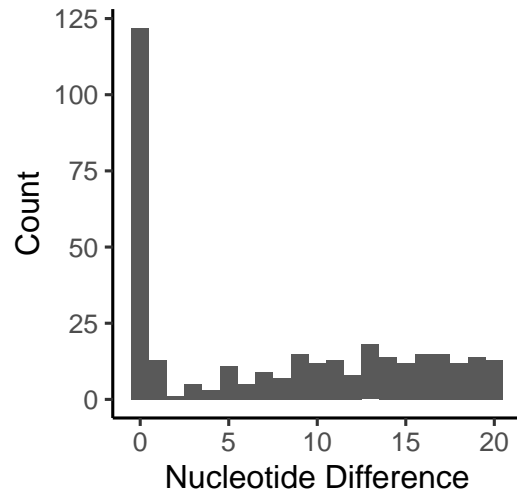
IGHV1-45*02

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



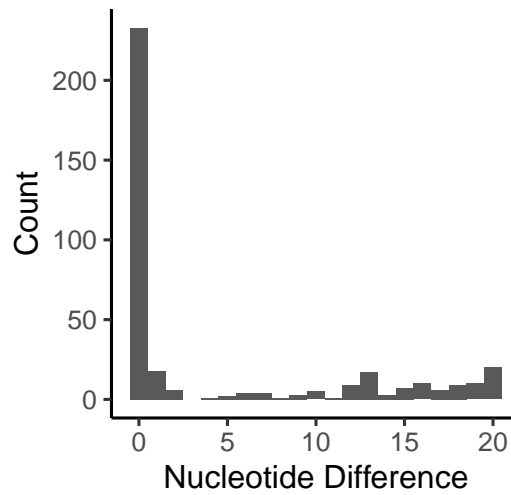
IGHV1-46*01

444 sequences assigned
122 (27.5%) exact matches, in which:
120 unique CDR3
7 unique J



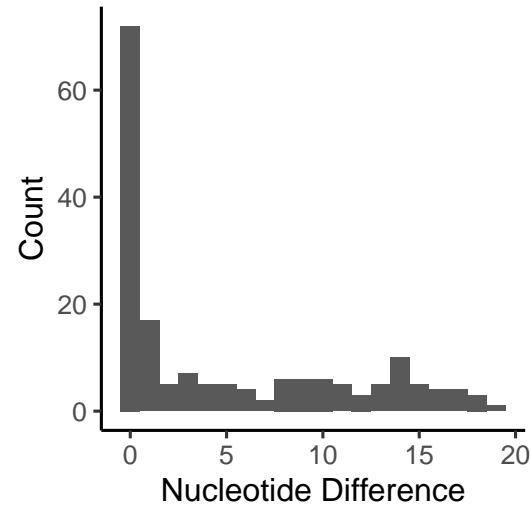
IGHV1-69*06

565 sequences assigned
233 (41.2%) exact matches, in which:
232 unique CDR3
6 unique J



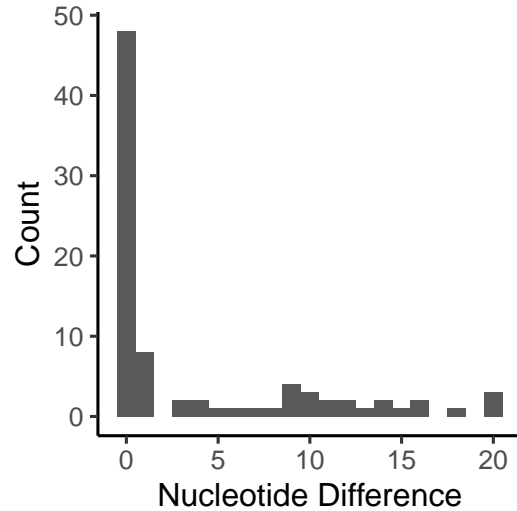
IGHV2-26*01

196 sequences assigned
72 (36.7%) exact matches, in which:
71 unique CDR3
5 unique J



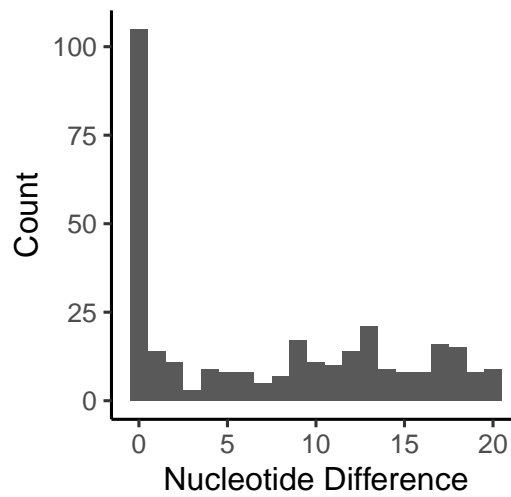
IGHV1-58*01

124 sequences assigned
48 (38.7%) exact matches, in which:
48 unique CDR3
7 unique J



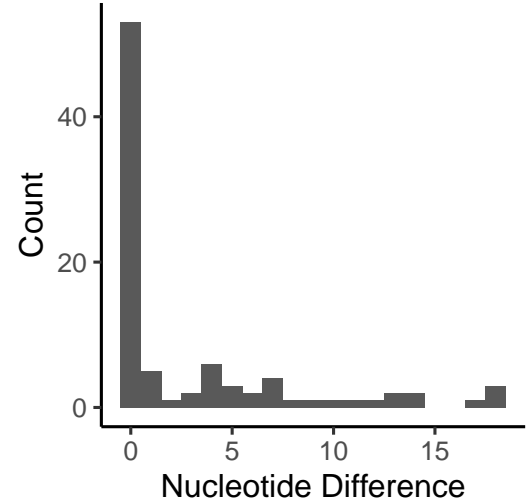
IGHV2-5*01

355 sequences assigned
105 (29.6%) exact matches, in which:
105 unique CDR3
6 unique J



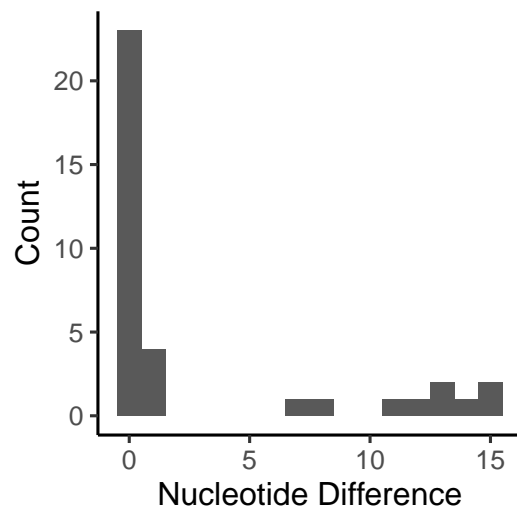
IGHV2-70*01

107 sequences assigned
53 (49.5%) exact matches, in which:
53 unique CDR3
5 unique J



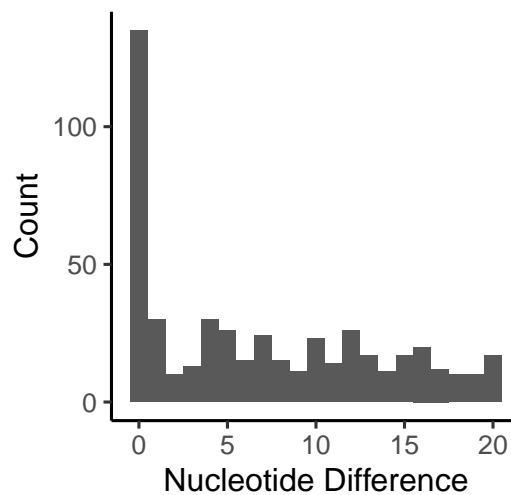
IGHV1-69-2*01

43 sequences assigned
23 (53.5%) exact matches, in which:
23 unique CDR3
5 unique J



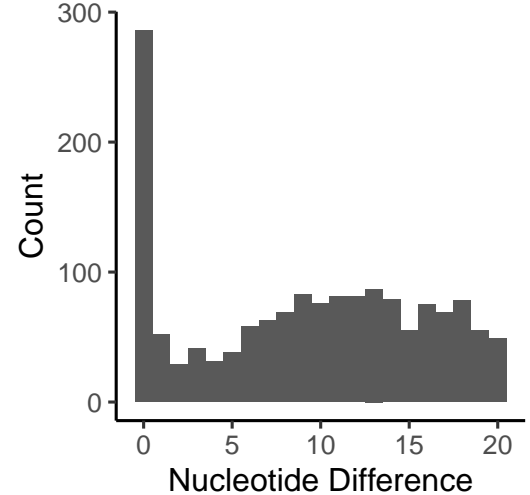
IGHV2-5*02

640 sequences assigned
135 (21.1%) exact matches, in which:
135 unique CDR3
6 unique J



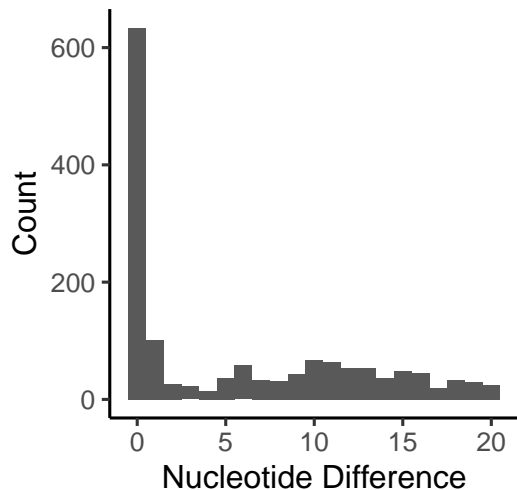
IGHV3-7*01

1840 sequences assigned
286 (15.5%) exact matches, in which:
286 unique CDR3
7 unique J



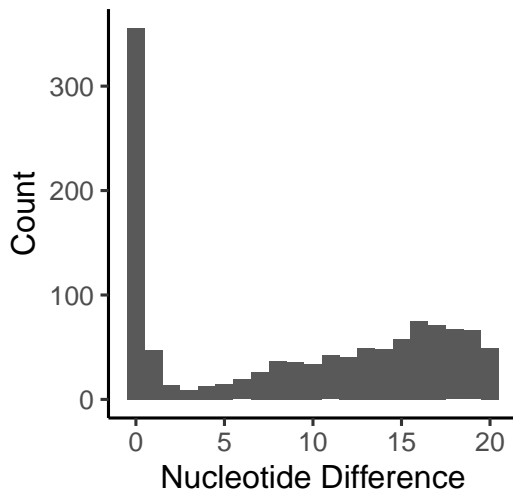
IGHV3-9*01

1700 sequences assigned
634 (37.3%) exact matches, in which:
629 unique CDR3
7 unique J



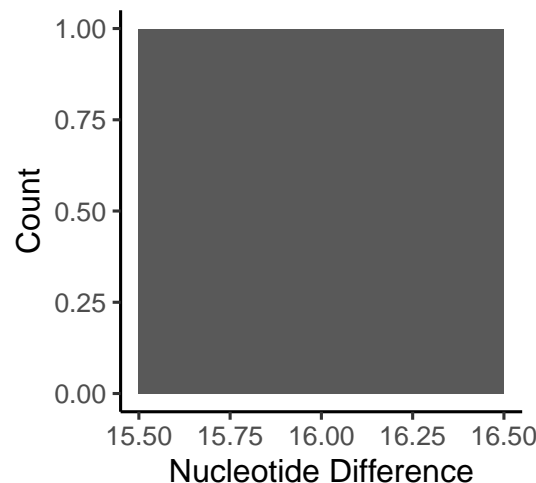
IGHV3-15*01

1536 sequences assigned
356 (23.2%) exact matches, in which:
356 unique CDR3
7 unique J



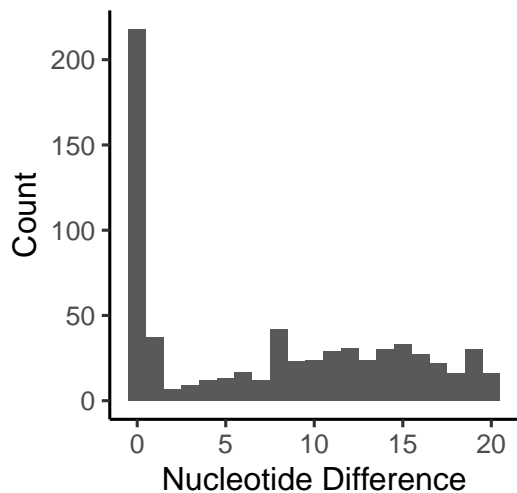
IGHV3-20*04

5 sequences assigned
No exact matches.



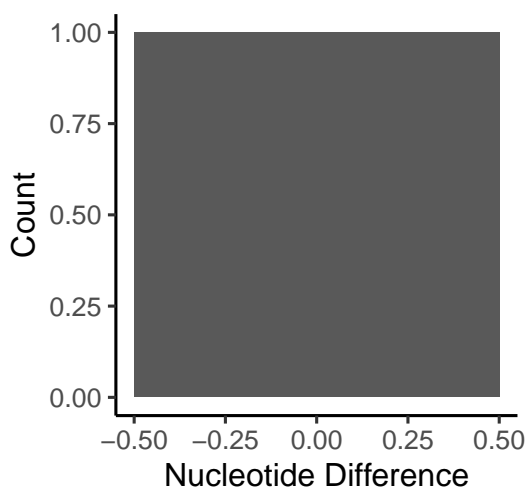
IGHV3-11*01

780 sequences assigned
218 (27.9%) exact matches, in which:
217 unique CDR3
7 unique J



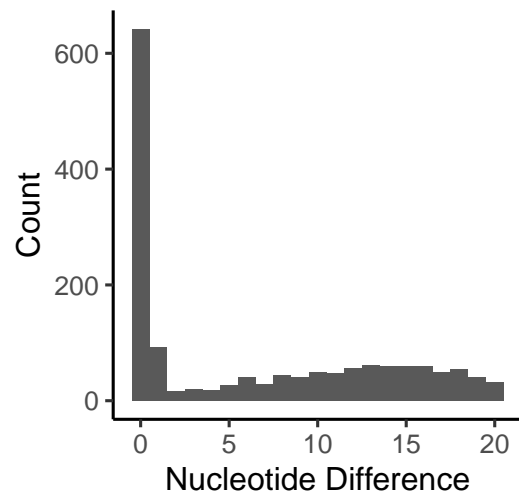
IGHV3-19*01

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



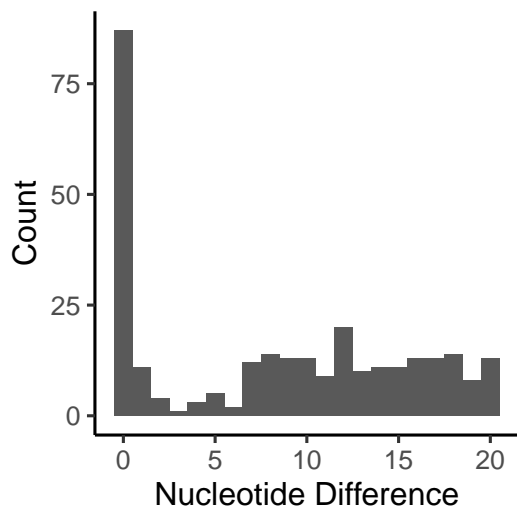
IGHV3-21*01

1843 sequences assigned
642 (34.8%) exact matches, in which:
636 unique CDR3
7 unique J



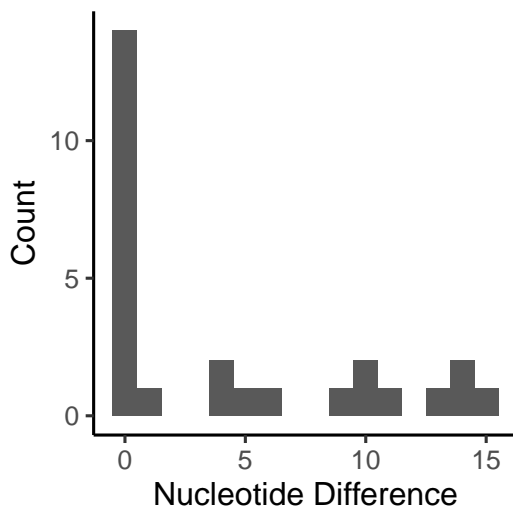
IGHV3-13*01

353 sequences assigned
87 (24.6%) exact matches, in which:
87 unique CDR3
6 unique J



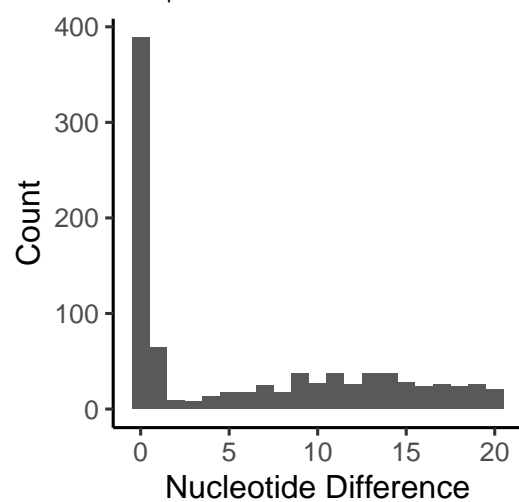
IGHV3-20*01

31 sequences assigned
14 (45.2%) exact matches, in which:
13 unique CDR3
5 unique J



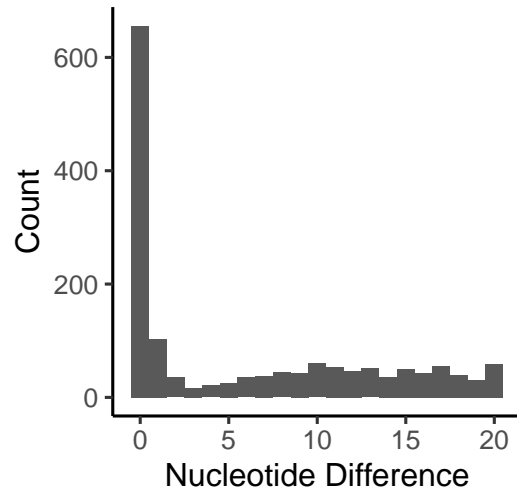
IGHV3-30-3*01

1157 sequences assigned
389 (33.6%) exact matches, in which:
384 unique CDR3
6 unique J



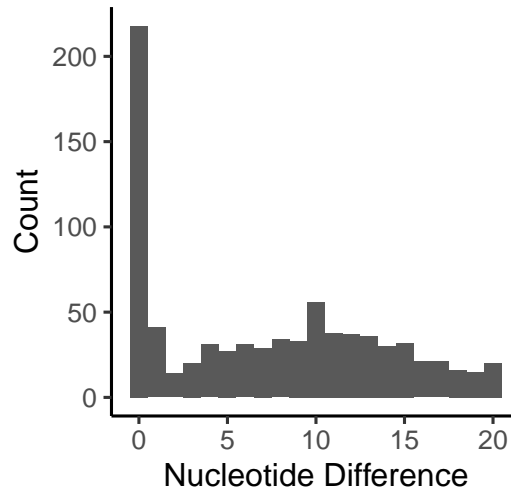
IGHV3–33*01

1840 sequences assigned
656 (35.7%) exact matches, in which:
653 unique CDR3
7 unique J



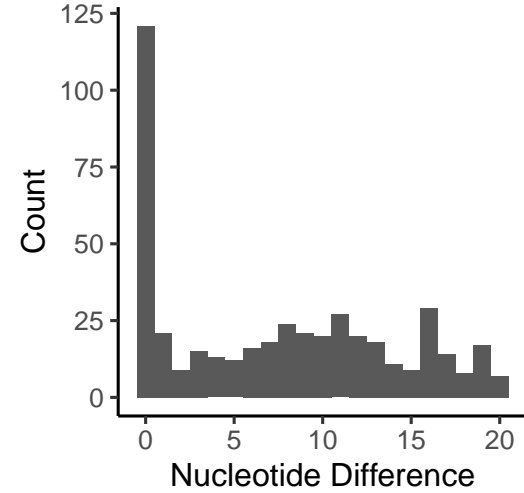
IGHV3–48*03

945 sequences assigned
218 (23.1%) exact matches, in which:
216 unique CDR3
6 unique J



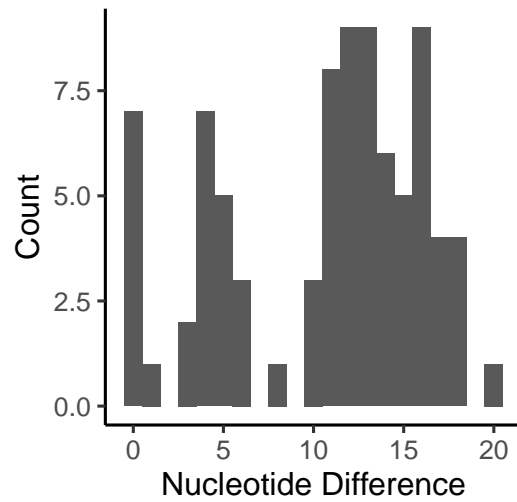
IGHV3–53*01

566 sequences assigned
121 (21.4%) exact matches, in which:
121 unique CDR3
7 unique J



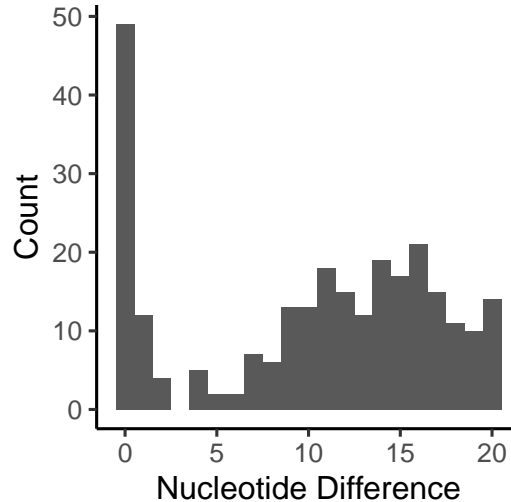
IGHV3–43*01_T177A

95 sequences assigned
7 (7.4%) exact matches, in which:
7 unique CDR3
3 unique J



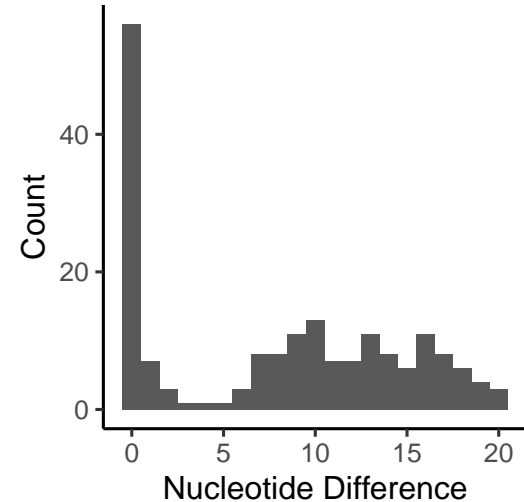
IGHV3–49*04

344 sequences assigned
49 (14.2%) exact matches, in which:
49 unique CDR3
4 unique J



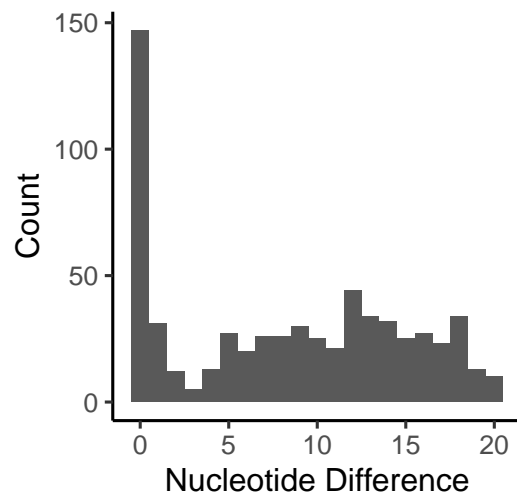
IGHV3–53*02

239 sequences assigned
56 (23.4%) exact matches, in which:
54 unique CDR3
6 unique J



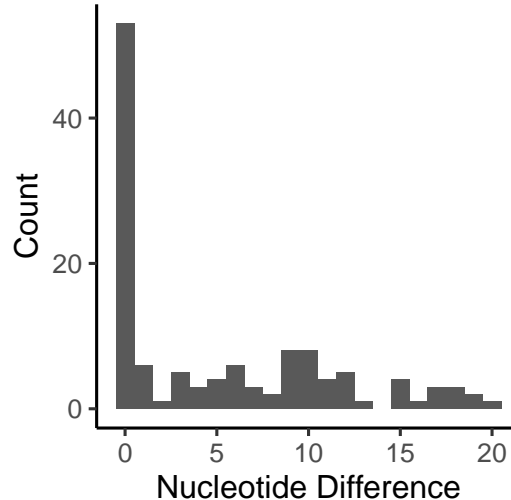
IGHV3–48*02

730 sequences assigned
147 (20.1%) exact matches, in which:
147 unique CDR3
6 unique J



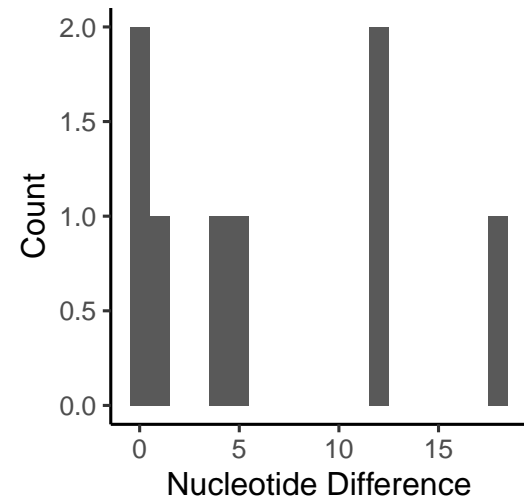
IGHV3–49*05

162 sequences assigned
53 (32.7%) exact matches, in which:
53 unique CDR3
5 unique J



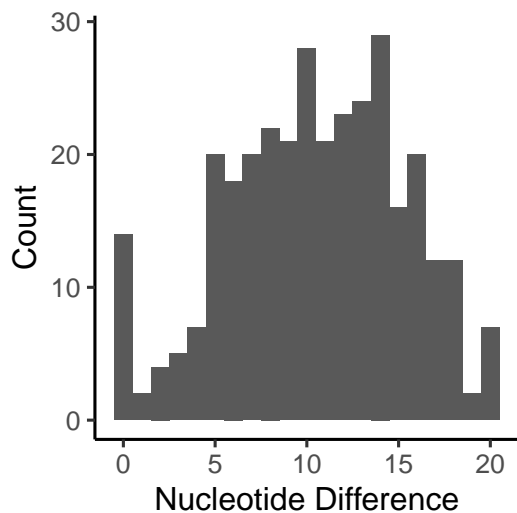
IGHV3–64*02

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



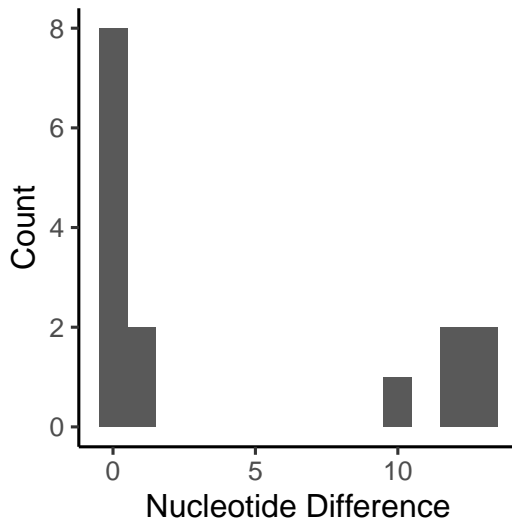
IGHV3-72*01

354 sequences assigned
14 (4%) exact matches, in which:
14 unique CDR3
4 unique J



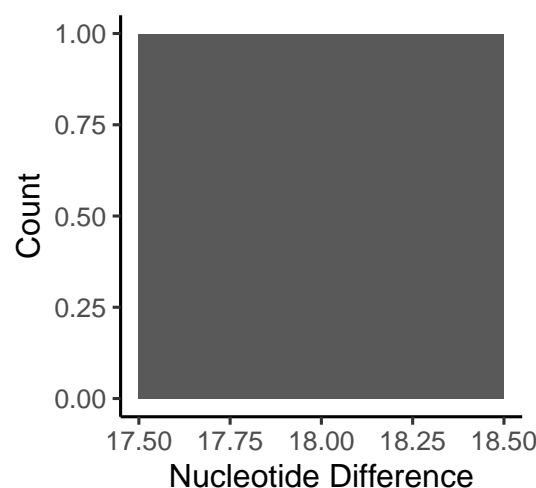
IGHV3-43D*04

27 sequences assigned
8 (29.6%) exact matches, in which:
8 unique CDR3
3 unique J



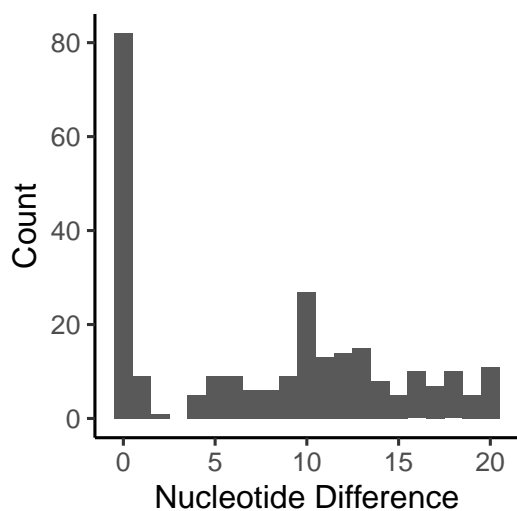
IGHV4-28*01

1 sequences assigned
No exact matches.



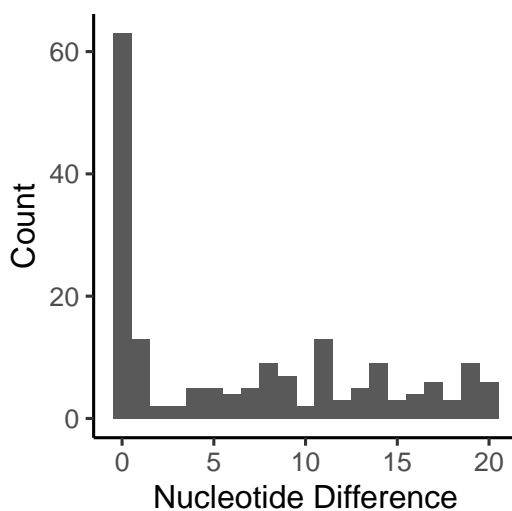
IGHV3-73*02

300 sequences assigned
82 (27.3%) exact matches, in which:
82 unique CDR3
6 unique J



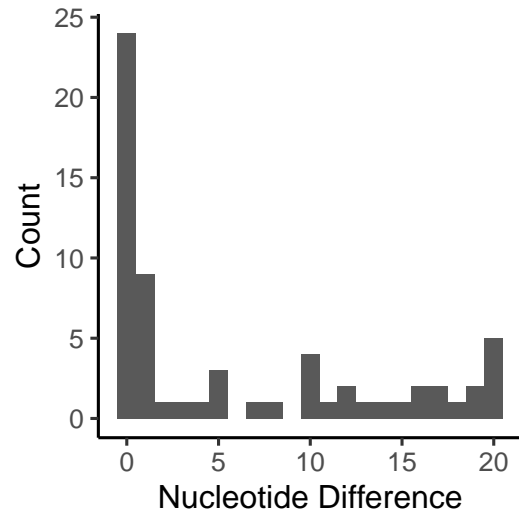
IGHV4-4*02

247 sequences assigned
63 (25.5%) exact matches, in which:
63 unique CDR3
6 unique J



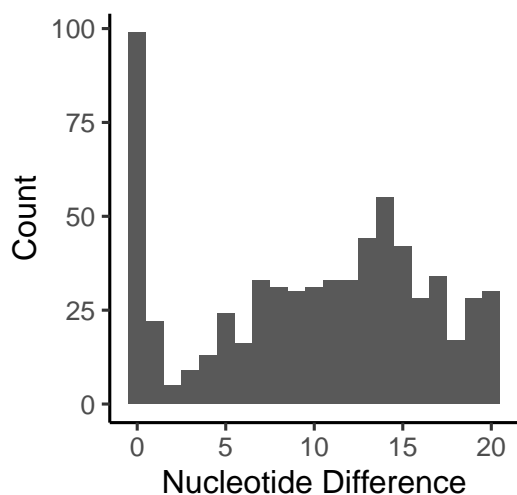
IGHV4-30-2*01

90 sequences assigned
24 (26.7%) exact matches, in which:
24 unique CDR3
5 unique J



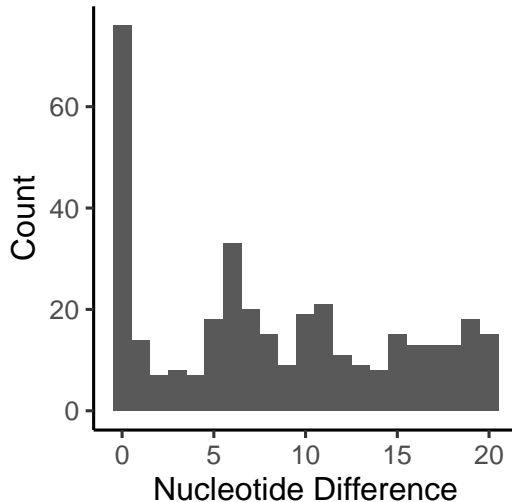
IGHV3-74*01

815 sequences assigned
99 (12.1%) exact matches, in which:
99 unique CDR3
7 unique J



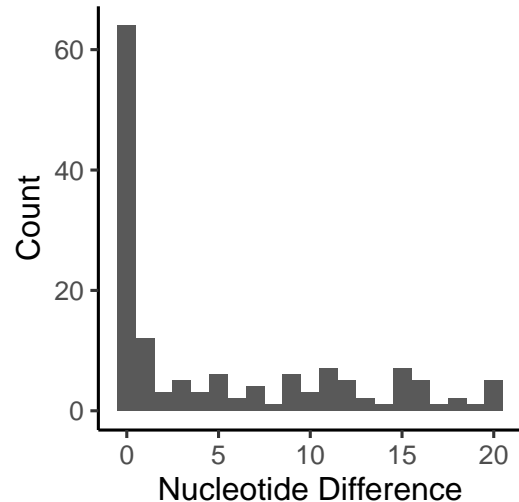
IGHV4-4*07

445 sequences assigned
76 (17.1%) exact matches, in which:
76 unique CDR3
5 unique J



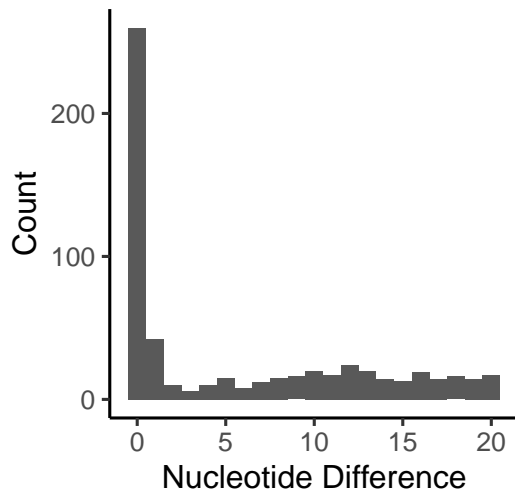
IGHV4-30-4*01

189 sequences assigned
64 (33.9%) exact matches, in which:
64 unique CDR3
6 unique J



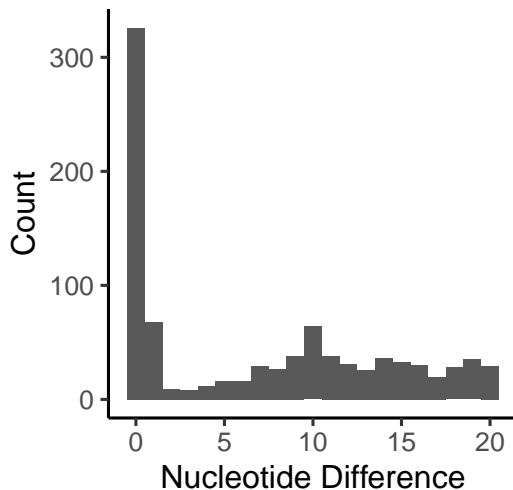
IGHV4-31*03

830 sequences assigned
260 (31.3%) exact matches, in which:
259 unique CDR3
7 unique J



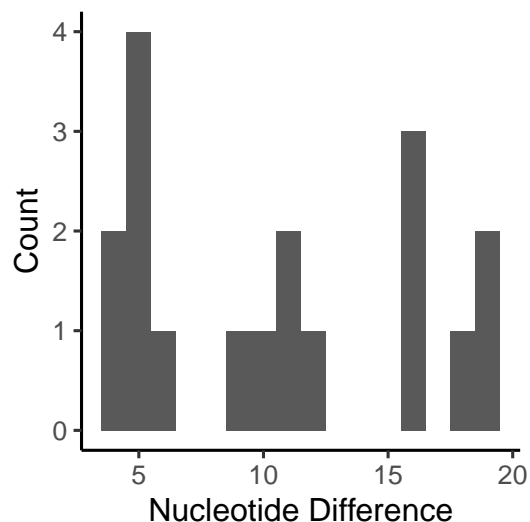
IGHV4-39*01

1274 sequences assigned
326 (25.6%) exact matches, in which:
323 unique CDR3
6 unique J



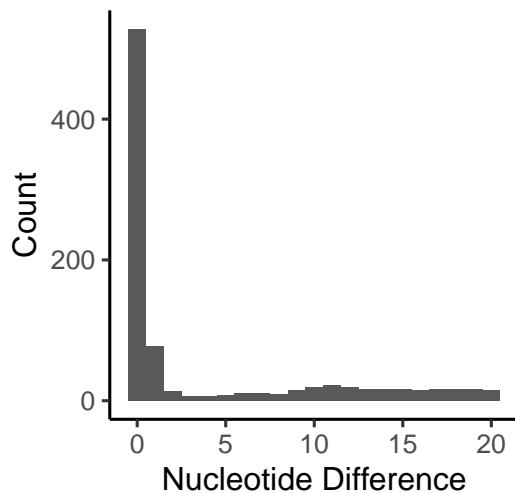
IGHV4-61*08

33 sequences assigned
No exact matches.



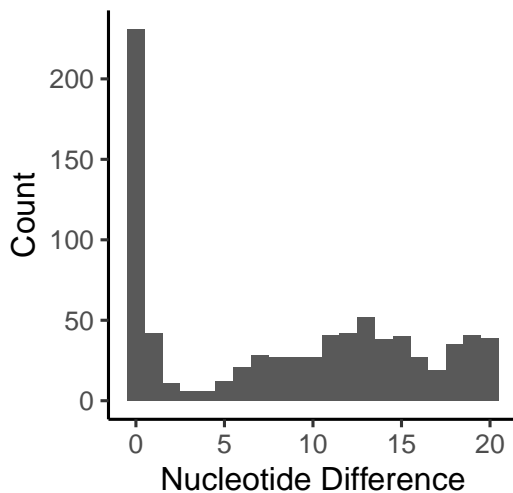
IGHV4-34*01

1041 sequences assigned
528 (50.7%) exact matches, in which:
522 unique CDR3
7 unique J



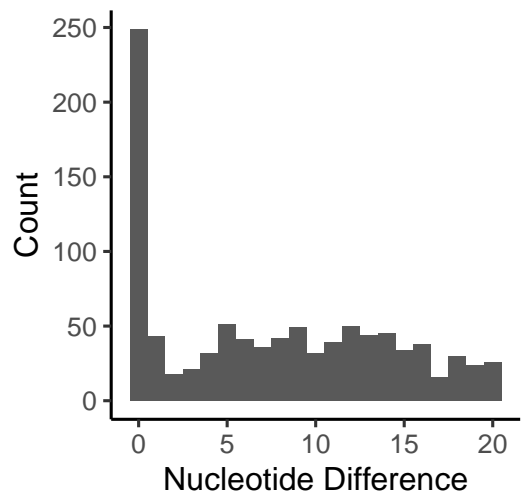
IGHV4-59*01

1127 sequences assigned
231 (20.5%) exact matches, in which:
230 unique CDR3
7 unique J



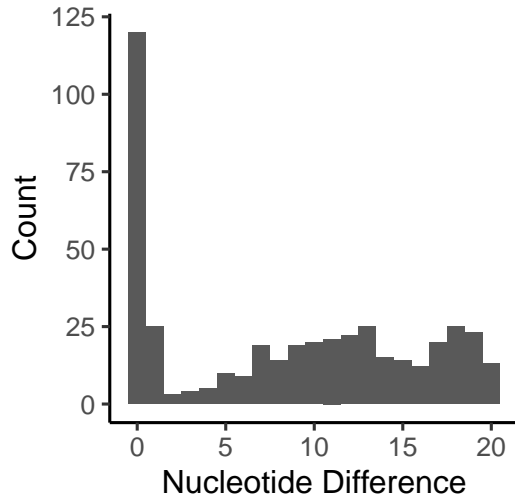
IGHV5-51*01

1140 sequences assigned
249 (21.8%) exact matches, in which:
245 unique CDR3
7 unique J



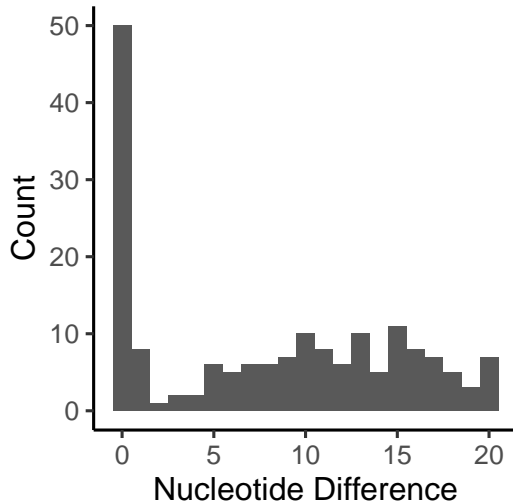
IGHV4-38-2*02_A70G

585 sequences assigned
120 (20.5%) exact matches, in which:
120 unique CDR3
6 unique J



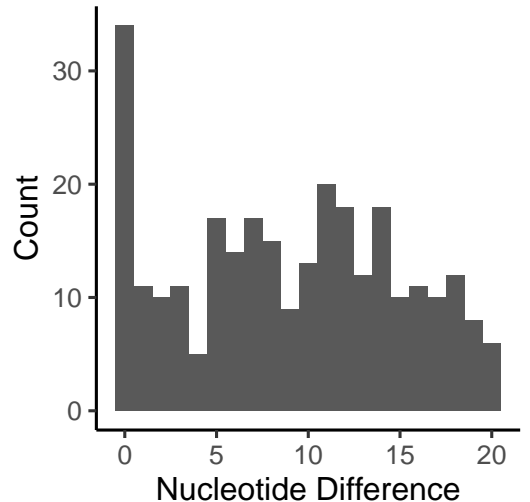
IGHV4-61*01

224 sequences assigned
50 (22.3%) exact matches, in which:
50 unique CDR3
6 unique J



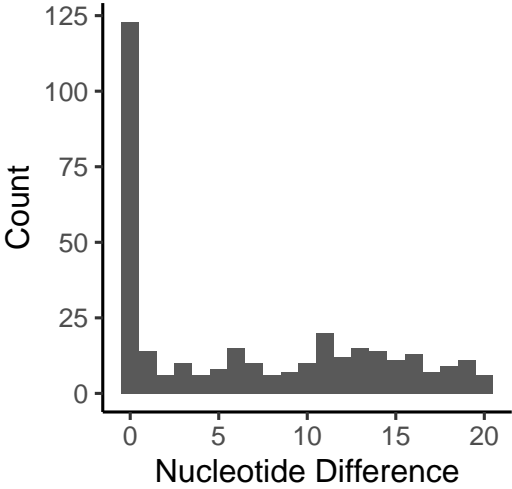
IGHV6-1*01

313 sequences assigned
34 (10.9%) exact matches, in which:
34 unique CDR3
6 unique J

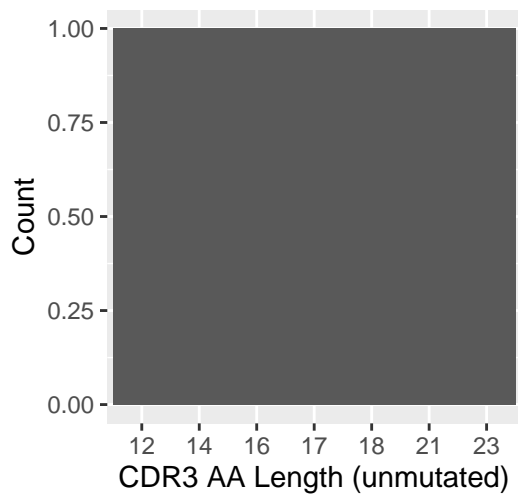


IGHV7-4-1*02

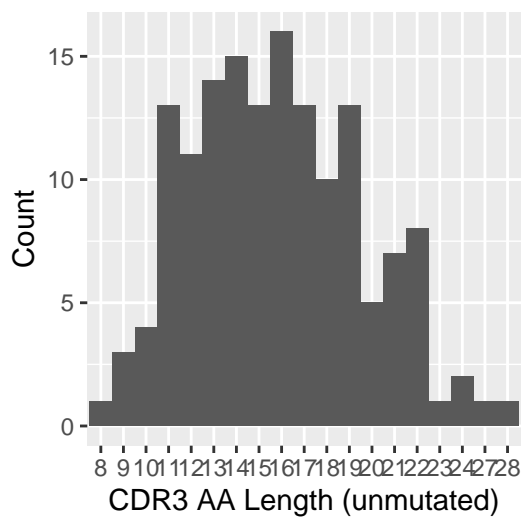
389 sequences assigned
123 (31.6%) exact matches, in which:
123 unique CDR3
7 unique J



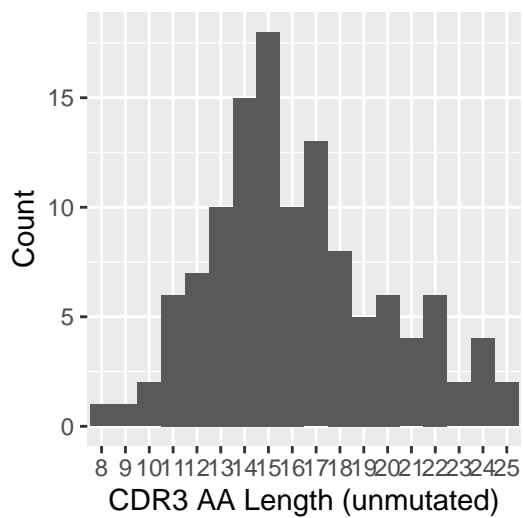
IGHV3-43*01_T177A



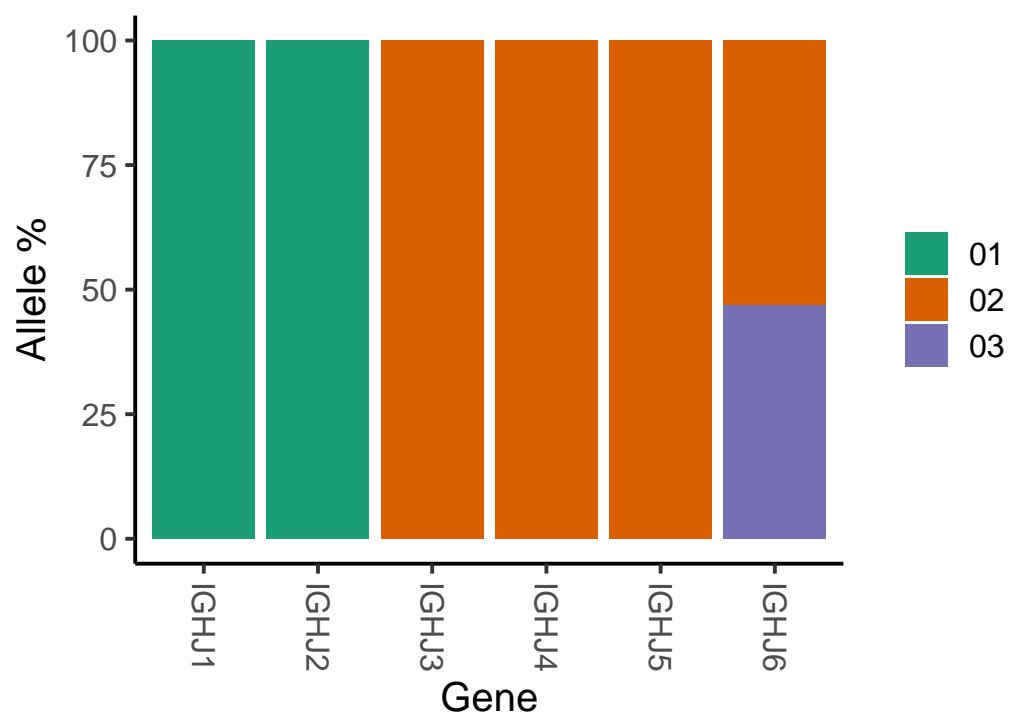
IGHV1-18*01_A196G



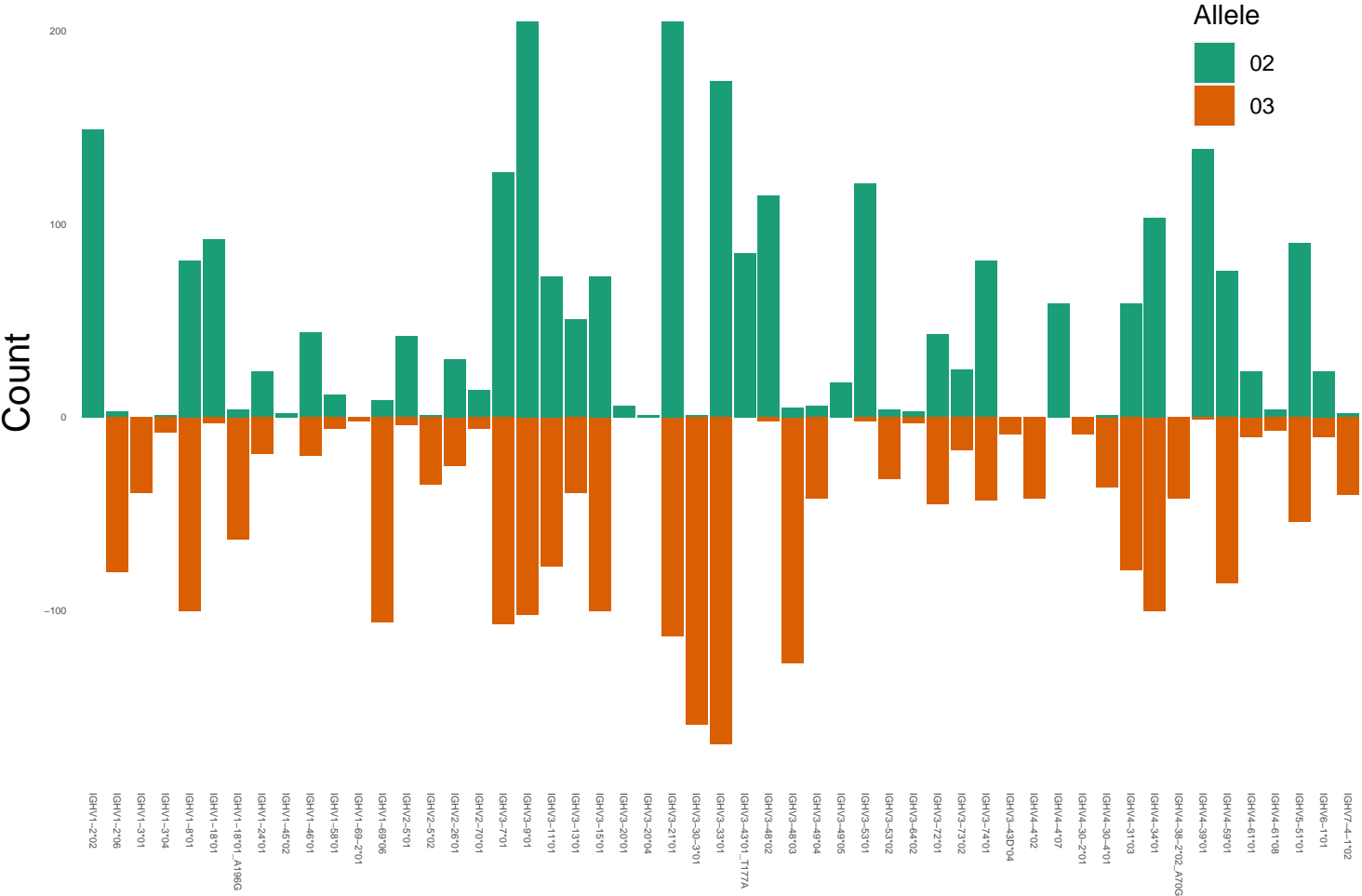
IGHV4-38-2*02_A70G



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]