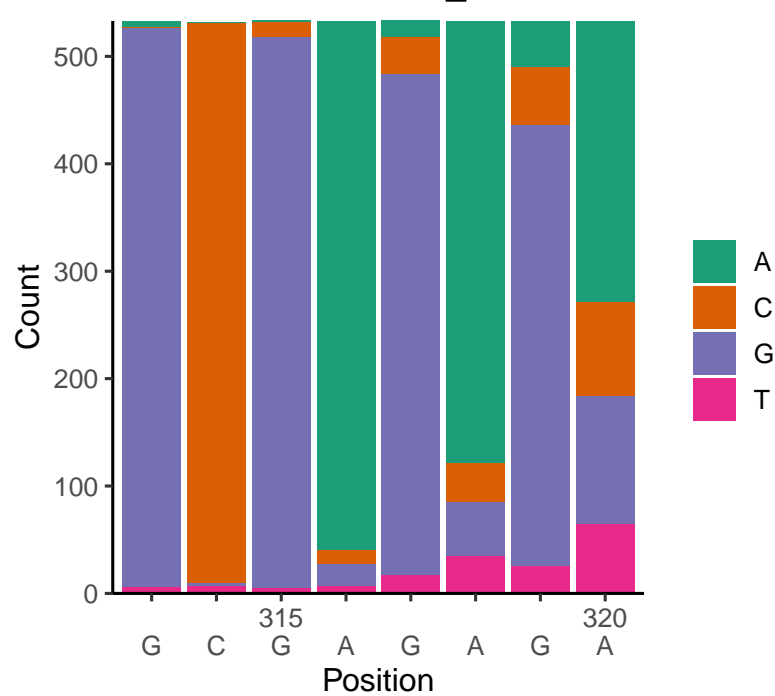
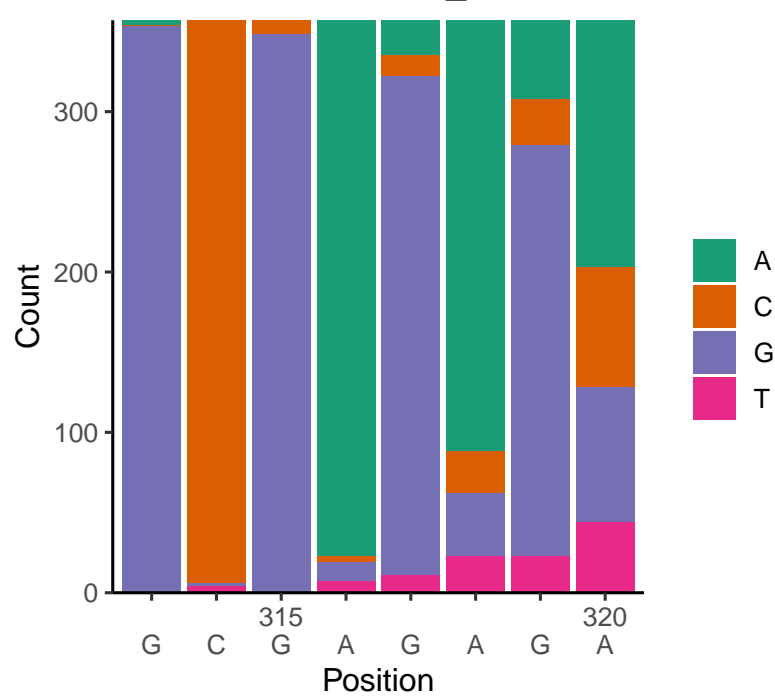


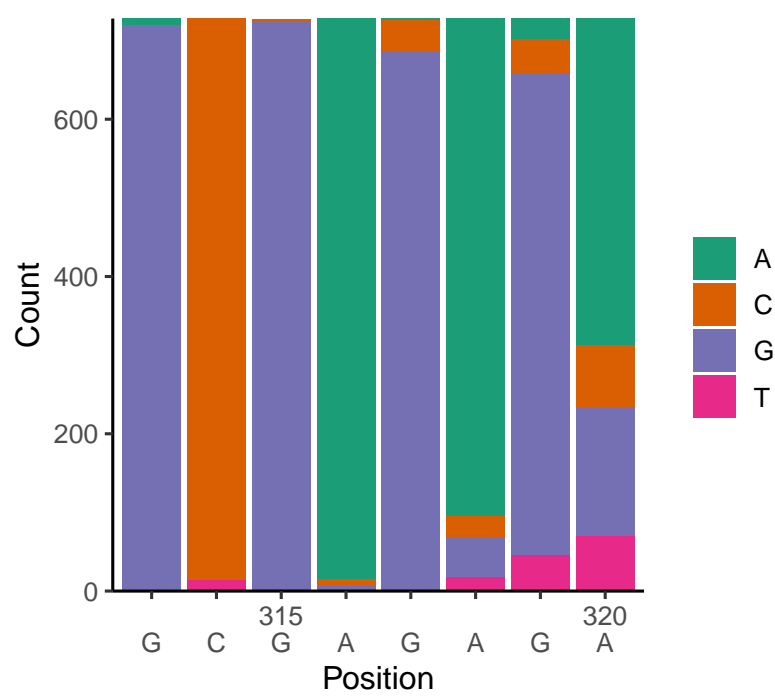
Gene IGHV1-69*04_C184T



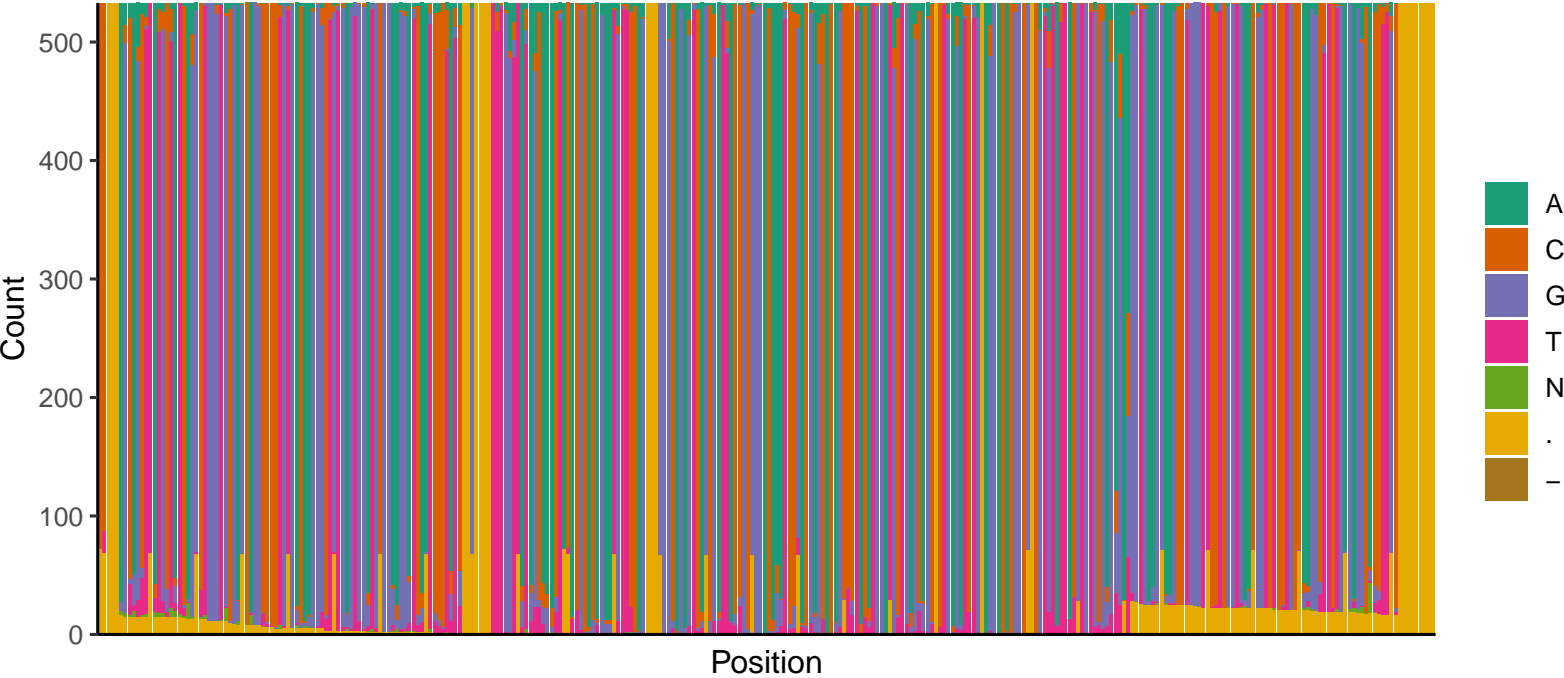
Gene IGHV1-69*08_C191T



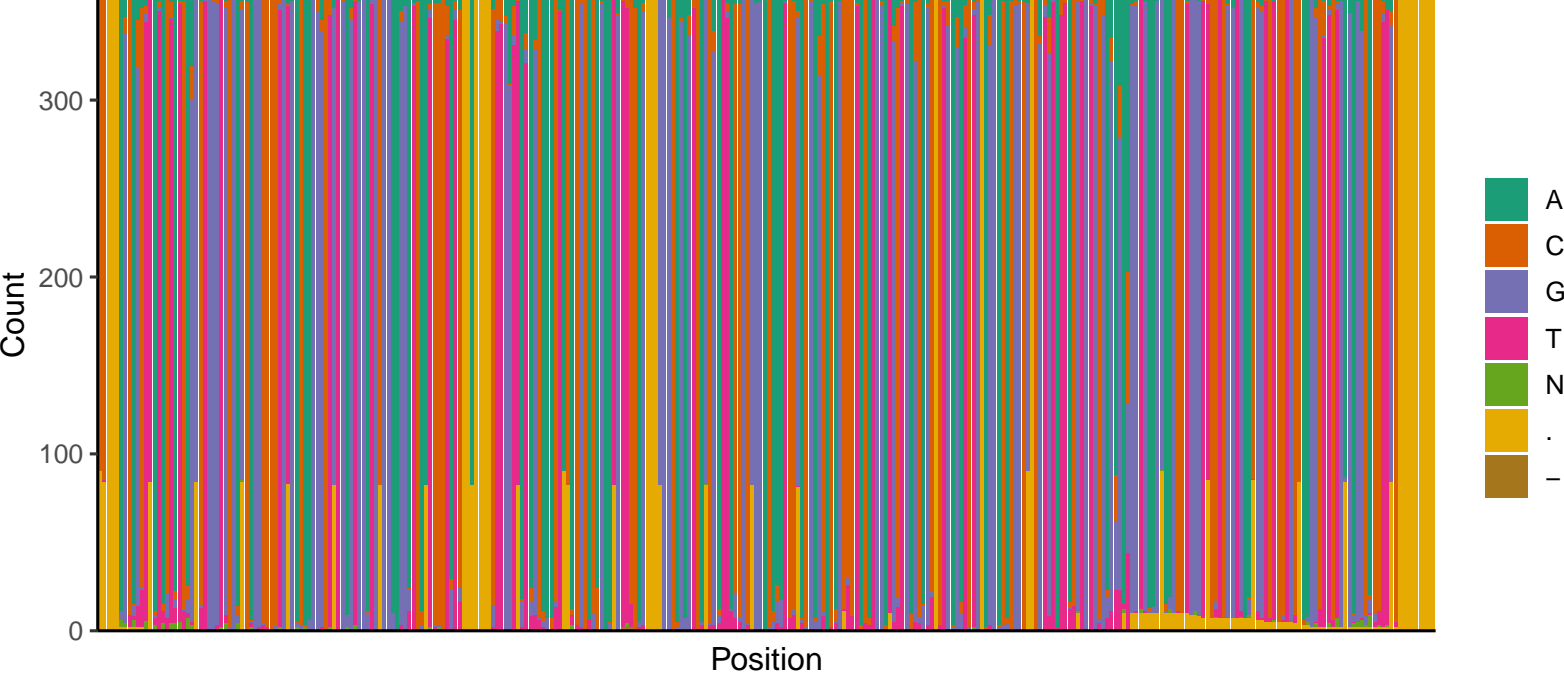
Gene IGHV3-21*01_G278C



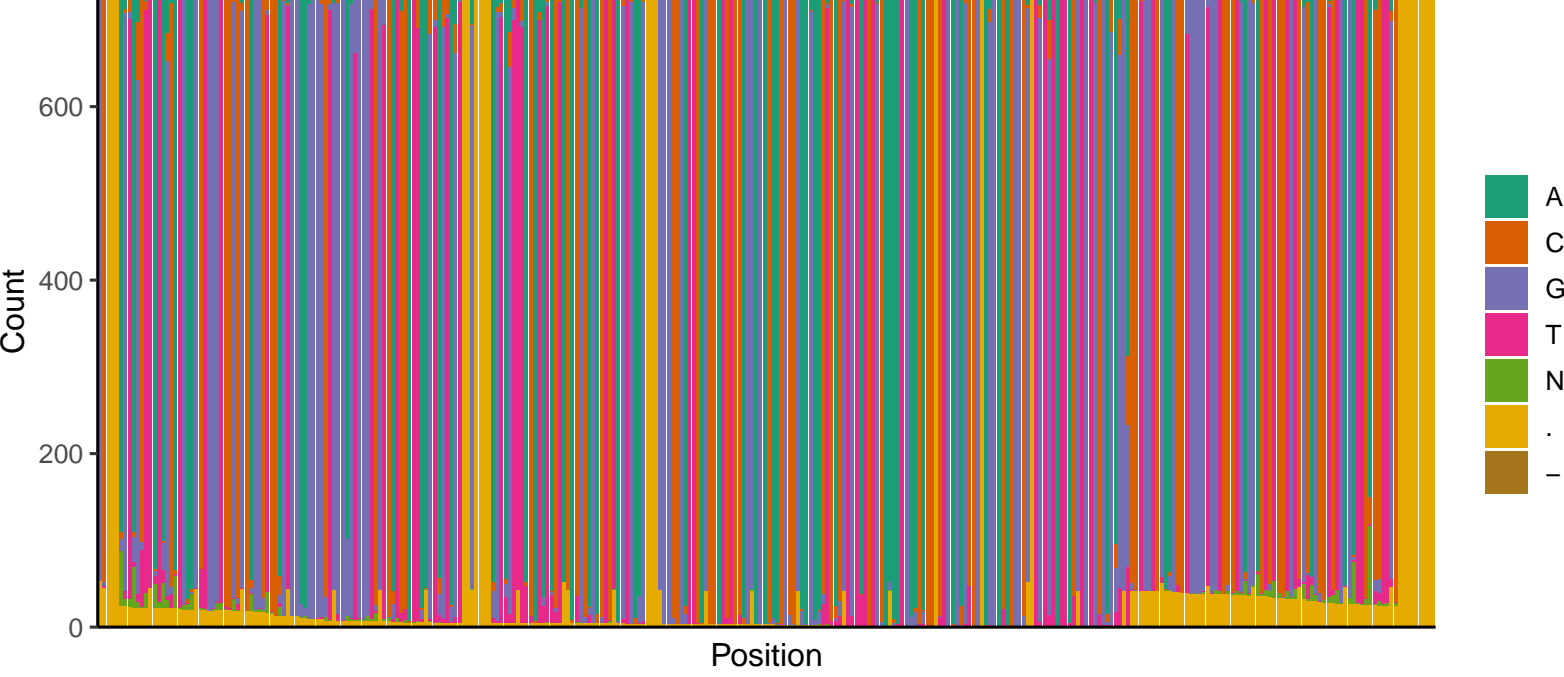
Gene IGHV1-69*04_C184T



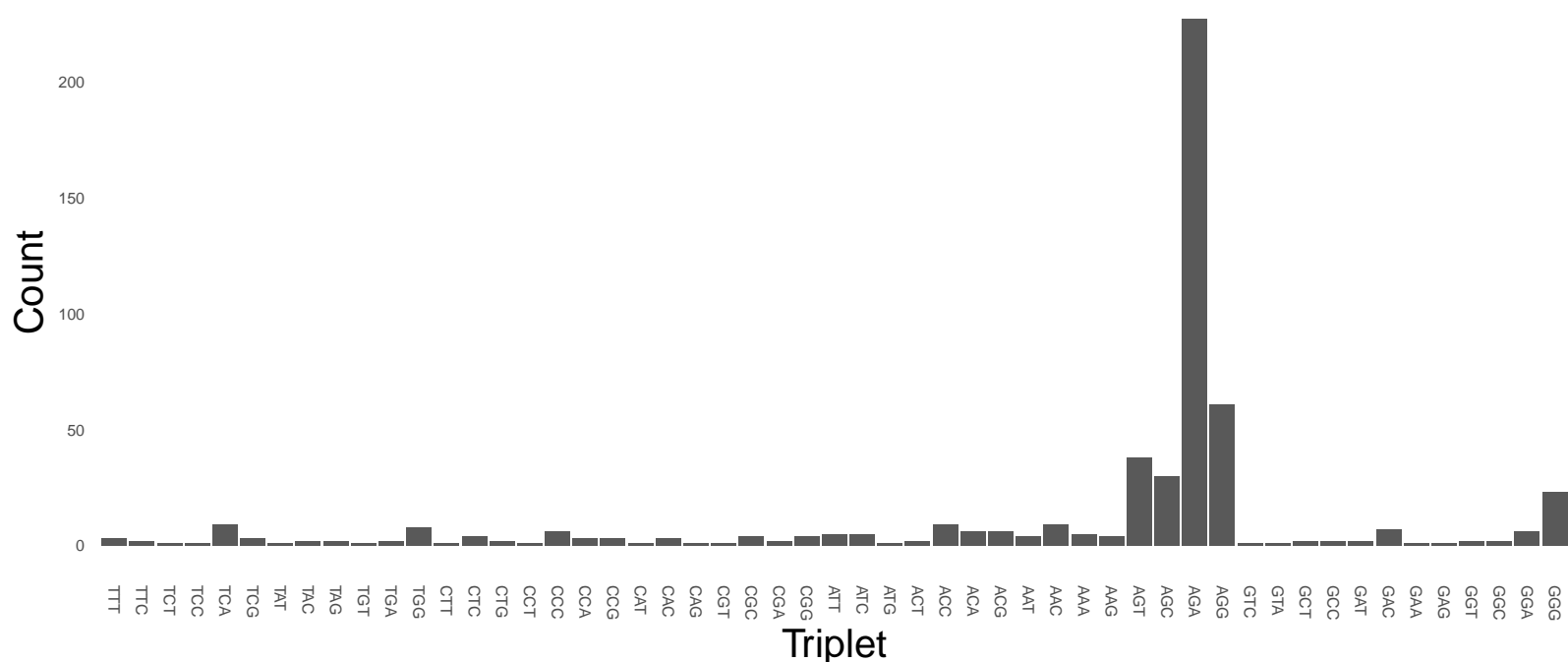
Gene IGHV1-69*08_C191T



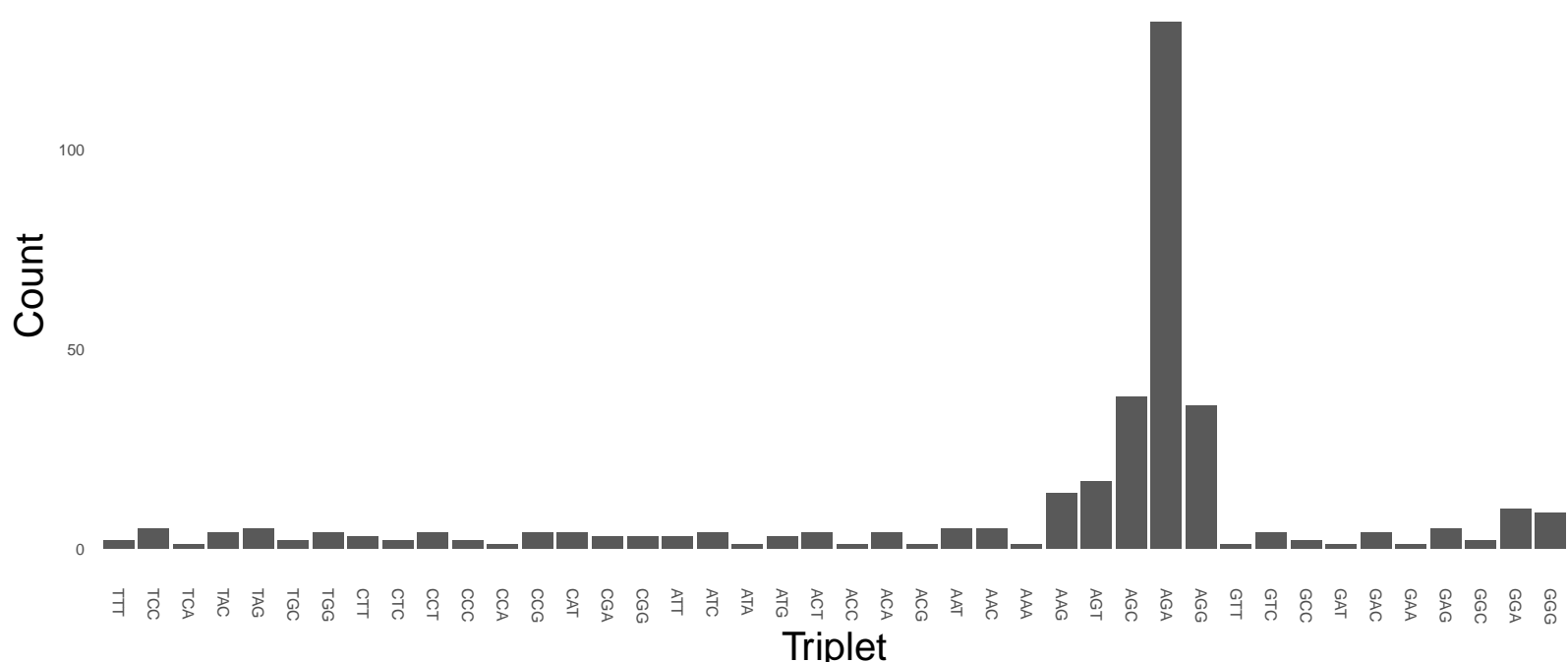
Gene IGHV3-21*01_G278C



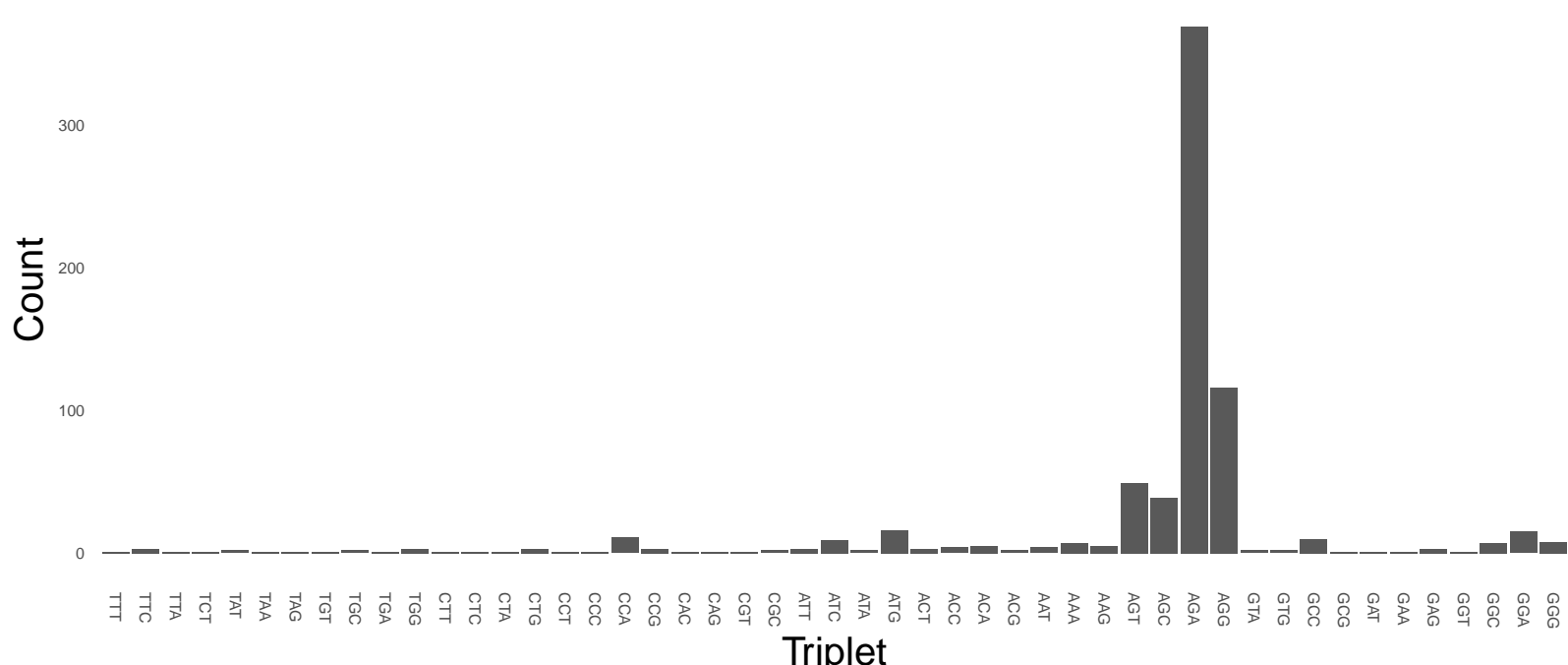
IGHV1-69*04_C184T- Final 3 nucleotides as a triplet



IGHV1-69*08_C191T- Final 3 nucleotides as a triplet

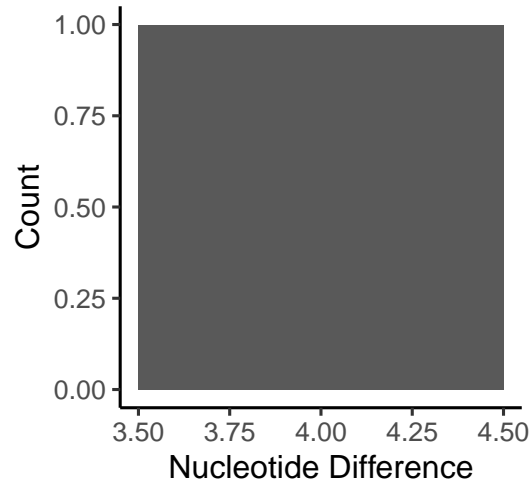


IGHV3-21*01_G278C- Final 3 nucleotides as a triplet



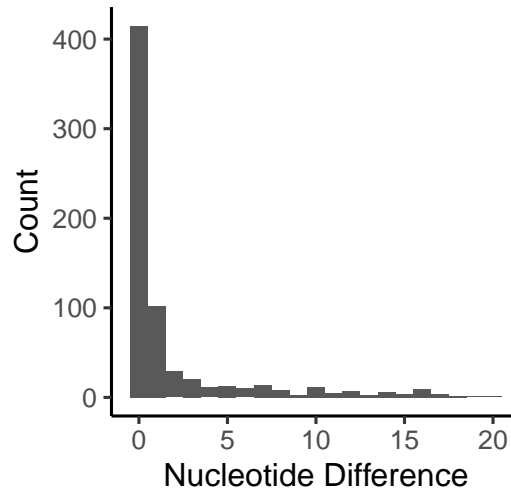
IGHV1/OR21-1*01

1 sequences assigned
No exact matches.



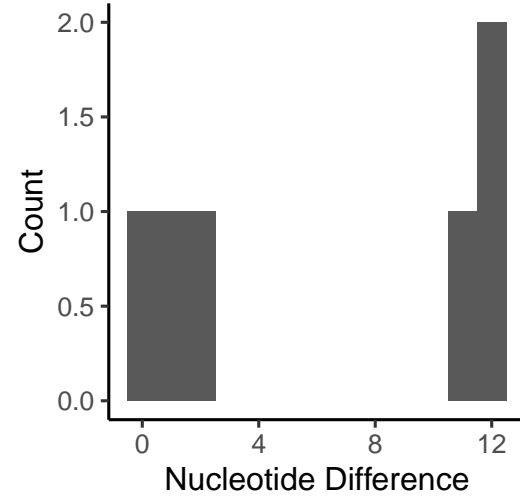
IGHV1-8*01

734 sequences assigned
415 (56.5%) exact matches, in which:
405 unique CDR3
7 unique J



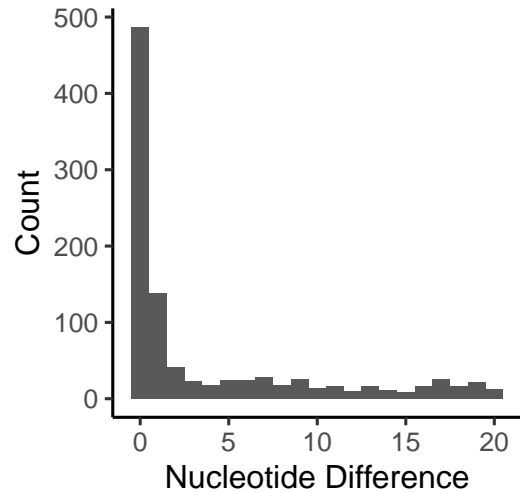
IGHV1-45*02

11 sequences assigned
1 (9.1%) exact matches, in which:
1 unique CDR3
1 unique J



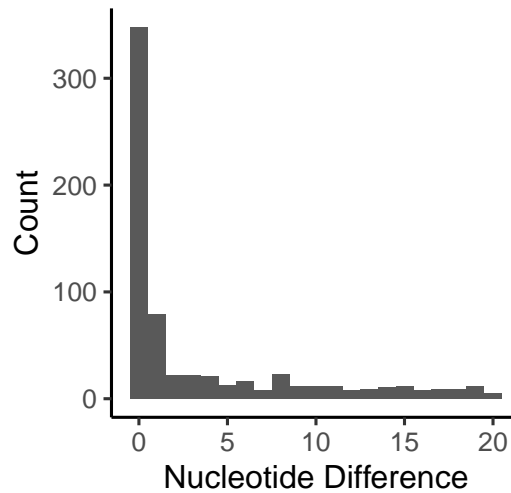
IGHV1-2*02

1159 sequences assigned
487 (42%) exact matches, in which:
480 unique CDR3
7 unique J



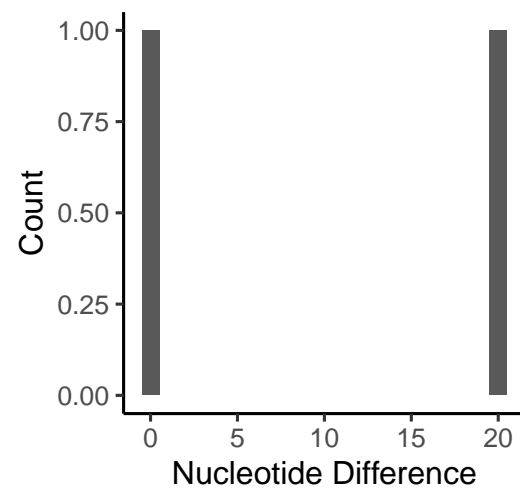
IGHV1-18*01

870 sequences assigned
348 (40%) exact matches, in which:
346 unique CDR3
7 unique J



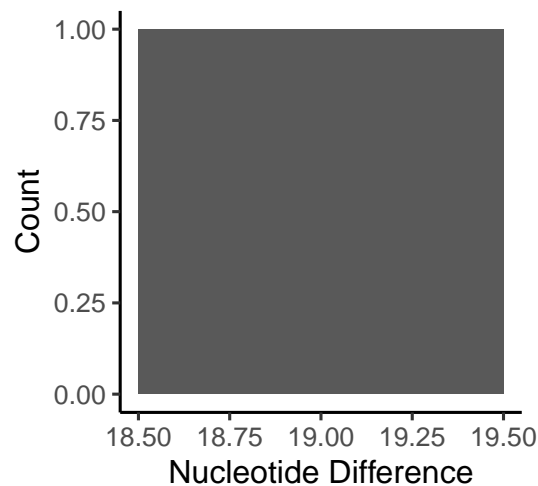
IGHV1-45*03

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



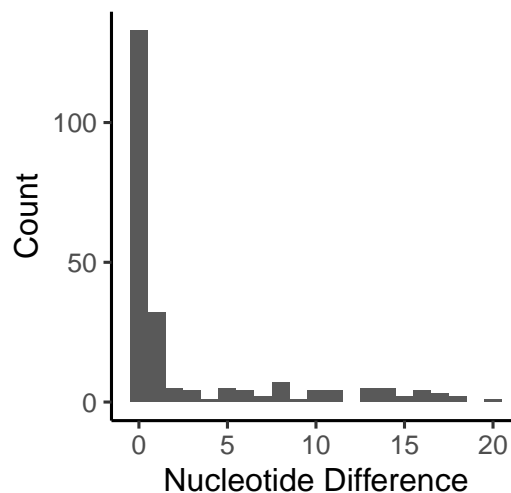
IGHV1-3*02

2 sequences assigned
No exact matches.



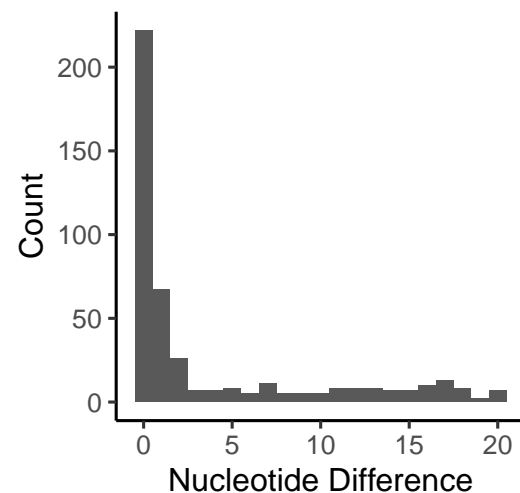
IGHV1-24*01

253 sequences assigned
133 (52.6%) exact matches, in which:
132 unique CDR3
7 unique J



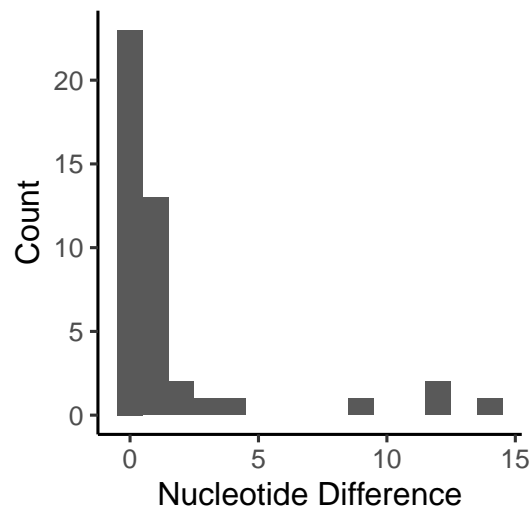
IGHV1-46*01

565 sequences assigned
222 (39.3%) exact matches, in which:
222 unique CDR3
7 unique J



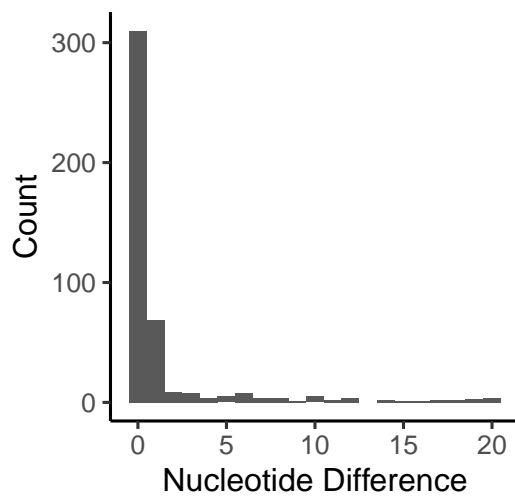
IGHV1-58*02

49 sequences assigned
23 (46.9%) exact matches, in which:
22 unique CDR3
6 unique J



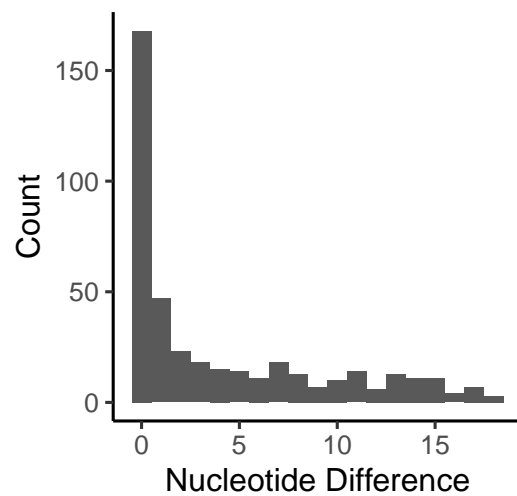
IGHV1-69*04_C184T

533 sequences assigned
310 (58.2%) exact matches, in which:
305 unique CDR3
6 unique J



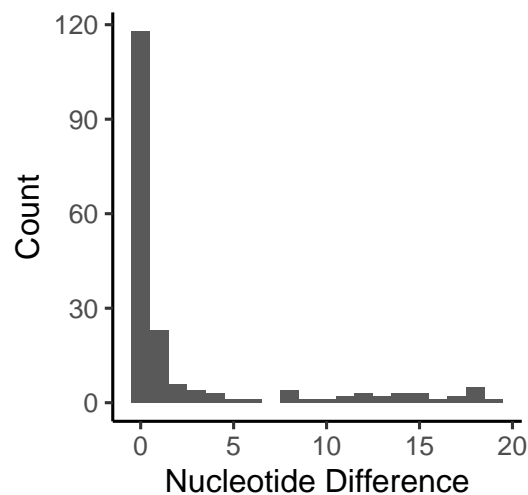
IGHV2-5*02

444 sequences assigned
168 (37.8%) exact matches, in which:
166 unique CDR3
6 unique J



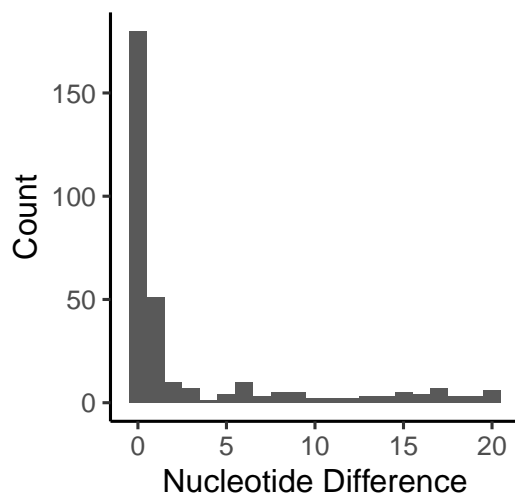
IGHV1-69-2*01

208 sequences assigned
118 (56.7%) exact matches, in which:
117 unique CDR3
6 unique J



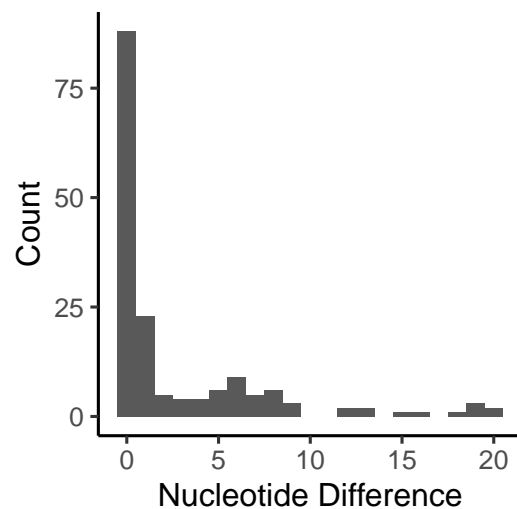
IGHV1-69*08_C191T

357 sequences assigned
180 (50.4%) exact matches, in which:
179 unique CDR3
6 unique J



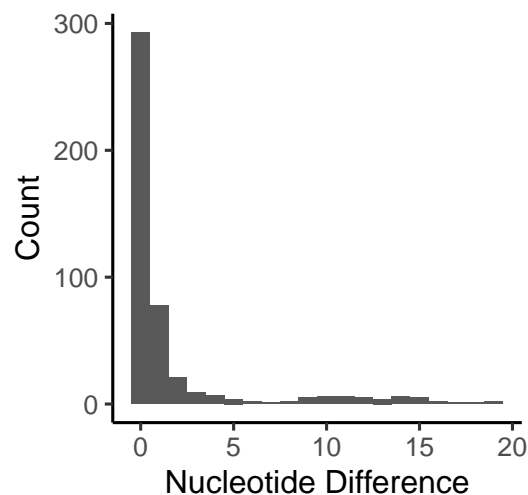
IGHV2-26*01

174 sequences assigned
88 (50.6%) exact matches, in which:
86 unique CDR3
7 unique J



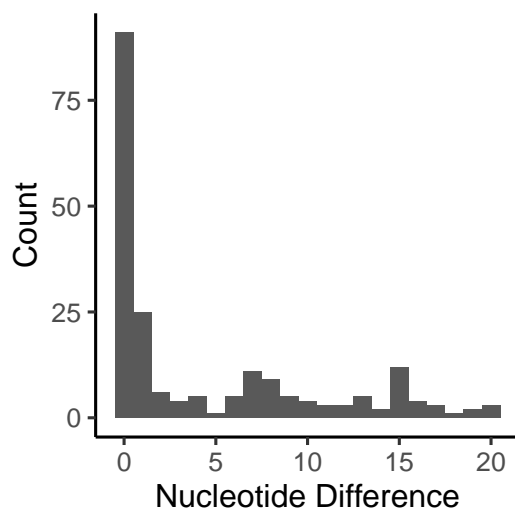
IGHV1-69*04

498 sequences assigned
293 (58.8%) exact matches, in which:
289 unique CDR3
7 unique J



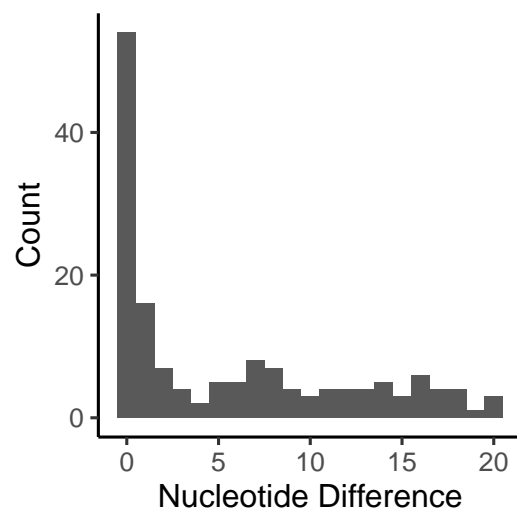
IGHV2-5*01

240 sequences assigned
91 (37.9%) exact matches, in which:
91 unique CDR3
5 unique J



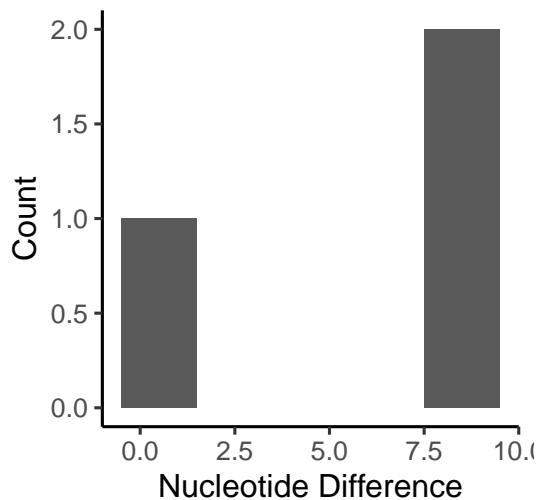
IGHV2-70*15

167 sequences assigned
54 (32.3%) exact matches, in which:
51 unique CDR3
5 unique J



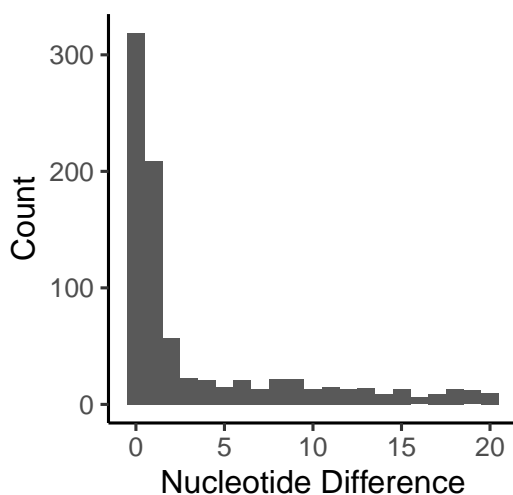
IGHV2-70D*04

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



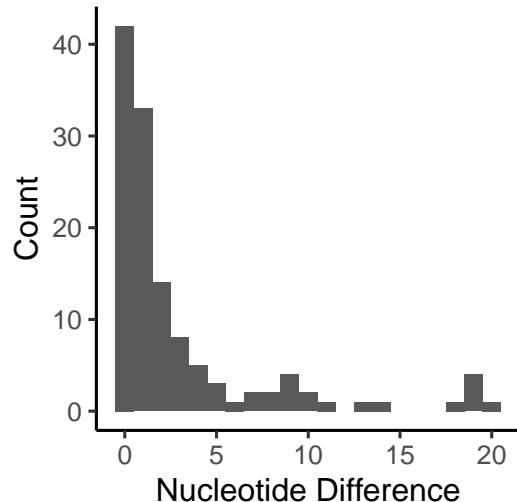
IGHV3-11*01

952 sequences assigned
319 (33.5%) exact matches, in which:
314 unique CDR3
7 unique J



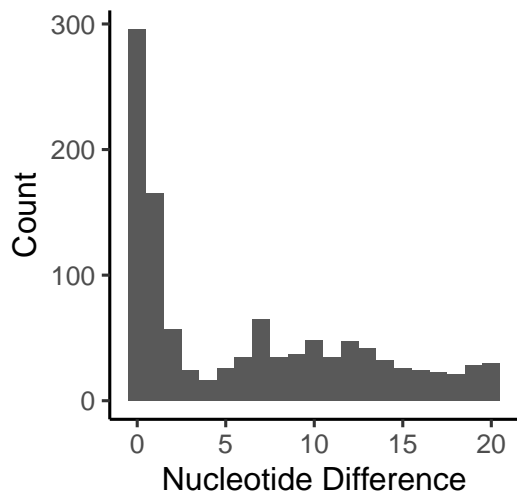
IGHV3-20*01

131 sequences assigned
42 (32.1%) exact matches, in which:
37 unique CDR3
5 unique J



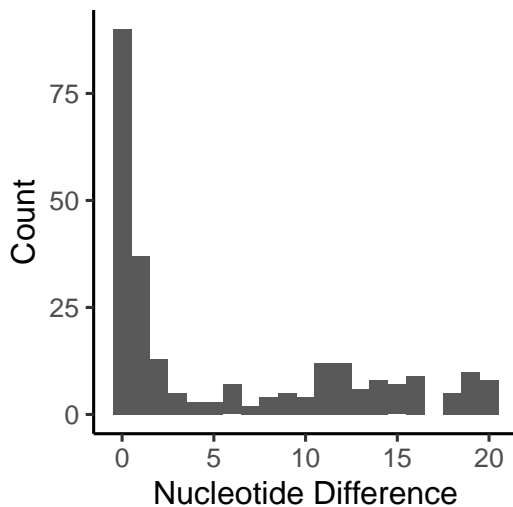
IGHV3-7*01

1326 sequences assigned
296 (22.3%) exact matches, in which:
287 unique CDR3
7 unique J



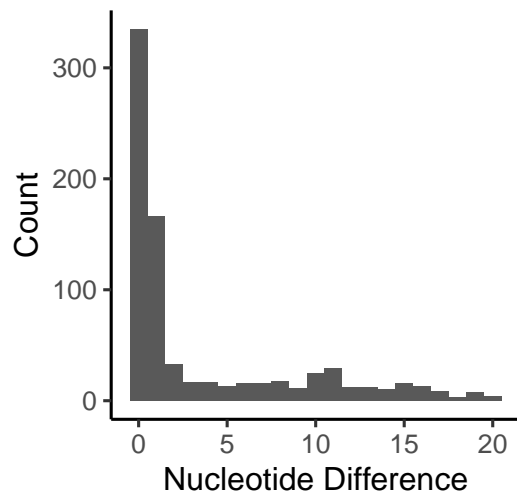
IGHV3-13*01

278 sequences assigned
90 (32.4%) exact matches, in which:
89 unique CDR3
6 unique J



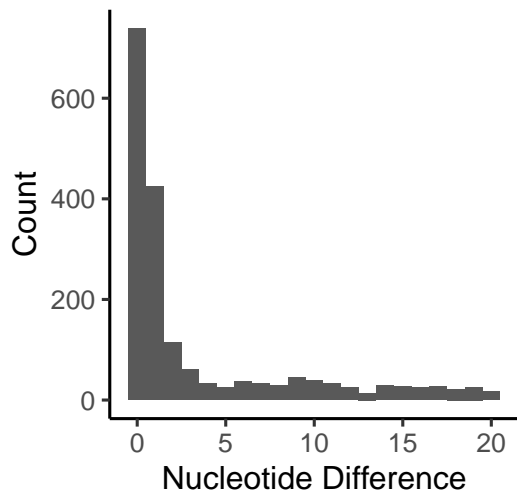
IGHV3-21*01

832 sequences assigned
335 (40.3%) exact matches, in which:
331 unique CDR3
7 unique J



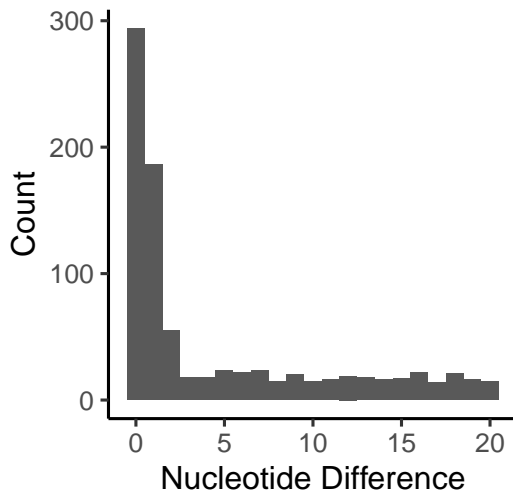
IGHV3-9*01

1962 sequences assigned
739 (37.7%) exact matches, in which:
719 unique CDR3
7 unique J



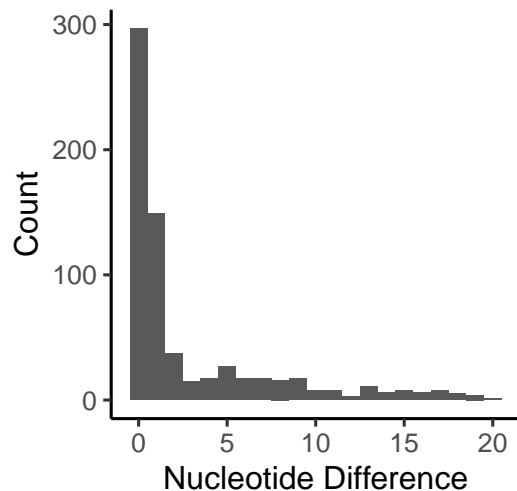
IGHV3-15*01

1032 sequences assigned
294 (28.5%) exact matches, in which:
285 unique CDR3
6 unique J



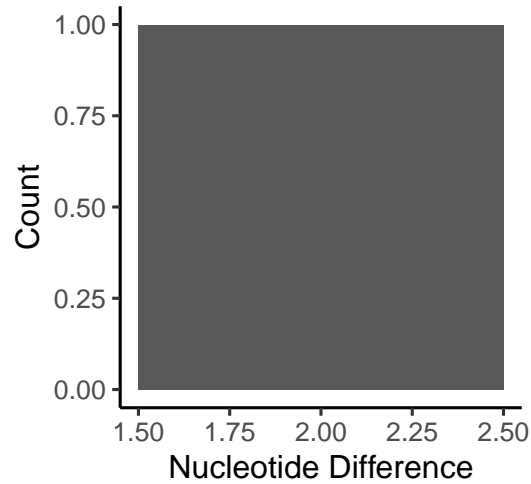
IGHV3-21*01_G278C

728 sequences assigned
297 (40.8%) exact matches, in which:
287 unique CDR3
7 unique J



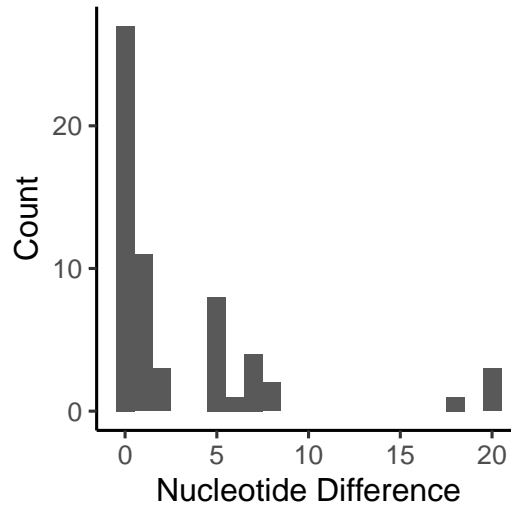
IGHV3-30-3*03

18 sequences assigned
No exact matches.



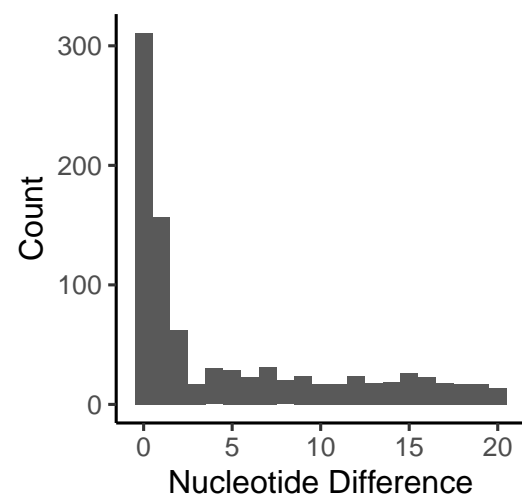
IGHV3-43*01

61 sequences assigned
27 (44.3%) exact matches, in which:
26 unique CDR3
5 unique J



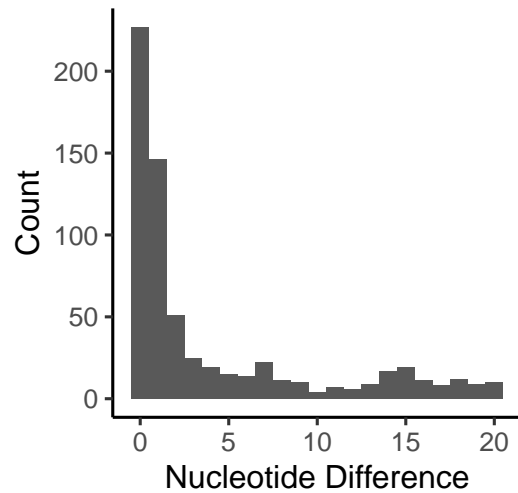
IGHV3-48*01

1073 sequences assigned
311 (29%) exact matches, in which:
305 unique CDR3
7 unique J



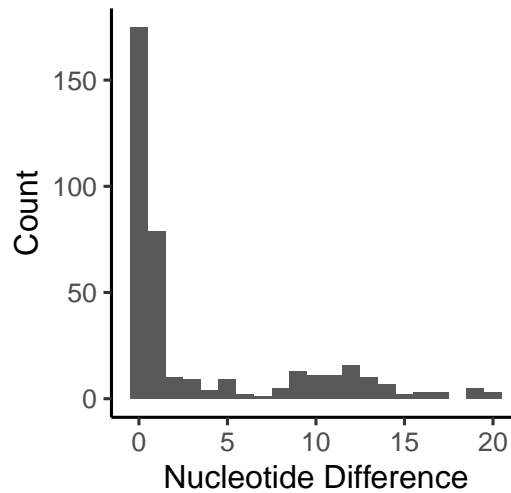
IGHV3-33*01

774 sequences assigned
227 (29.3%) exact matches, in which:
215 unique CDR3
6 unique J



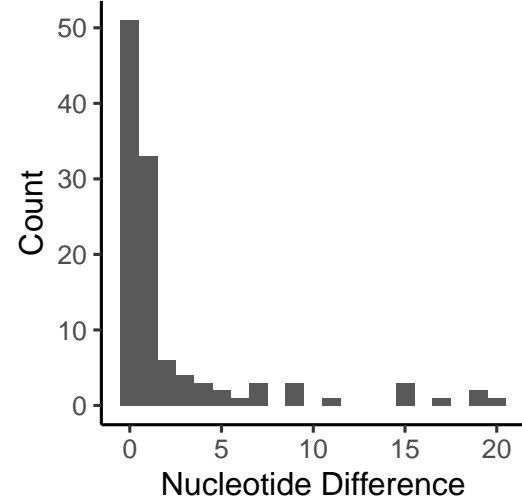
IGHV3-43*02

413 sequences assigned
175 (42.4%) exact matches, in which:
166 unique CDR3
6 unique J



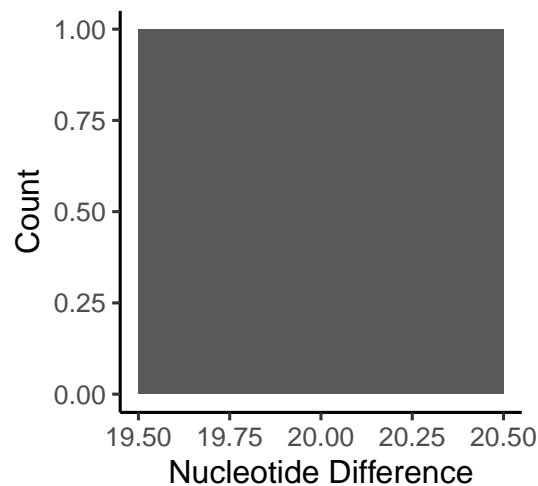
IGHV3-49*03

138 sequences assigned
51 (37%) exact matches, in which:
51 unique CDR3
5 unique J



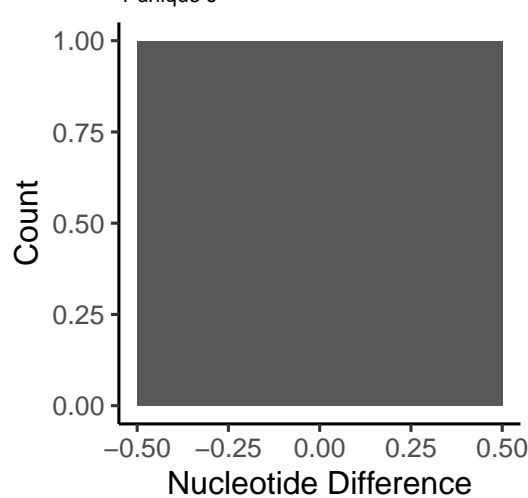
IGHV3-38-3*01

1 sequences assigned
No exact matches.



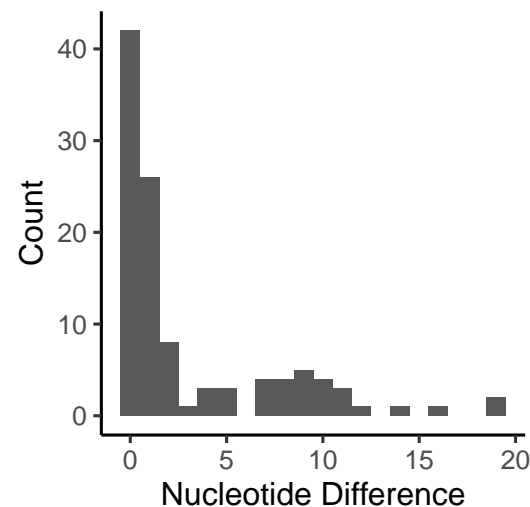
IGHV3-47*02

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



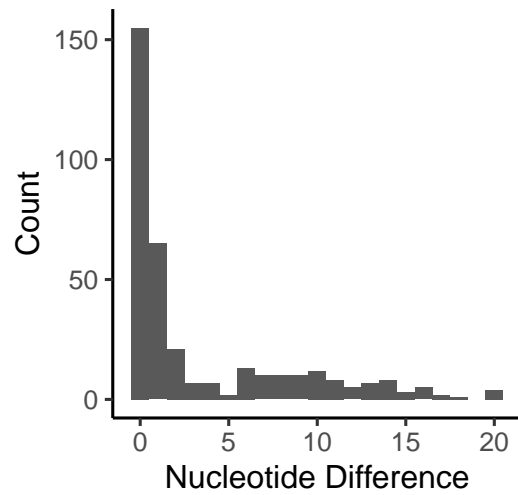
IGHV3-49*05

110 sequences assigned
42 (38.2%) exact matches, in which:
40 unique CDR3
5 unique J



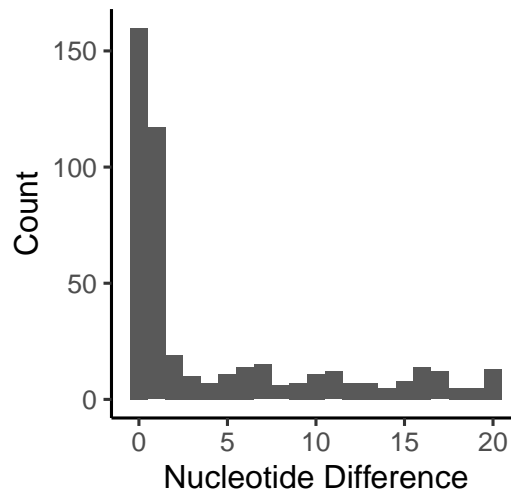
IGHV3-53*01

390 sequences assigned
155 (39.7%) exact matches, in which:
147 unique CDR3
6 unique J



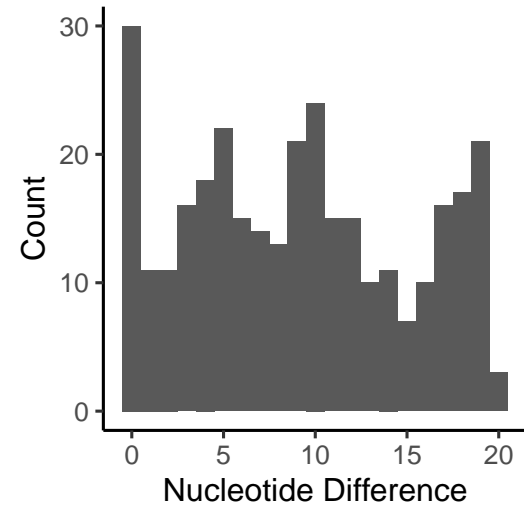
IGHV3-66*01

516 sequences assigned
160 (31%) exact matches, in which:
154 unique CDR3
7 unique J



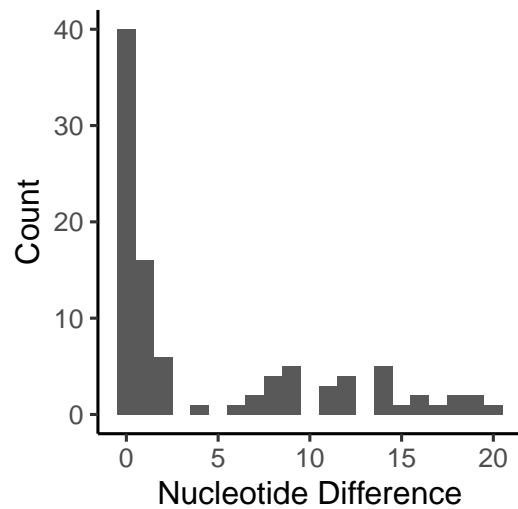
IGHV3-72*01

425 sequences assigned
30 (7.1%) exact matches, in which:
29 unique CDR3
5 unique J



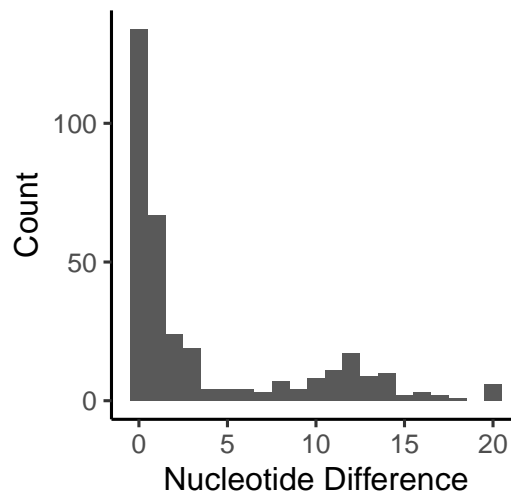
IGHV3-53*02

107 sequences assigned
40 (37.4%) exact matches, in which:
40 unique CDR3
7 unique J



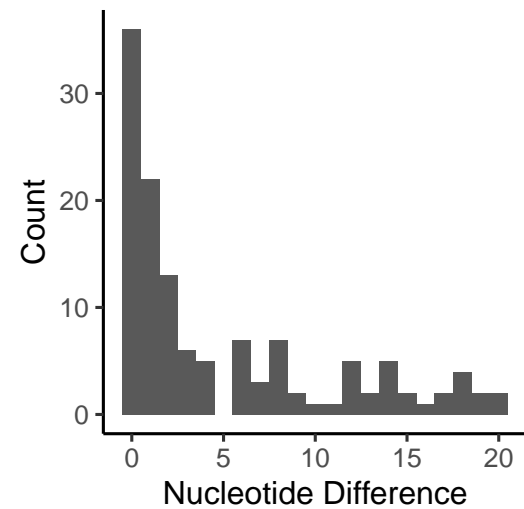
IGHV3-66*02

391 sequences assigned
134 (34.3%) exact matches, in which:
129 unique CDR3
5 unique J



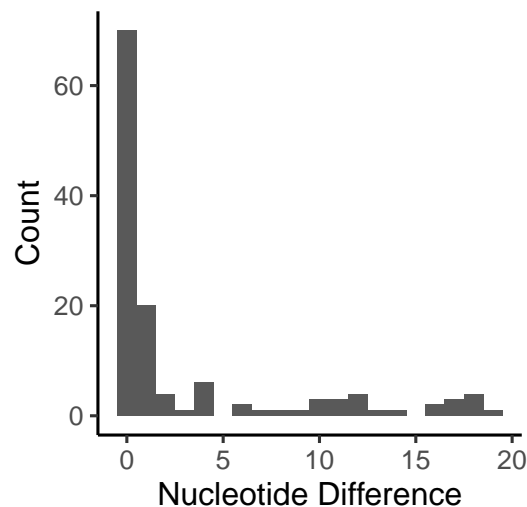
IGHV3-73*01

158 sequences assigned
36 (22.8%) exact matches, in which:
36 unique CDR3
6 unique J



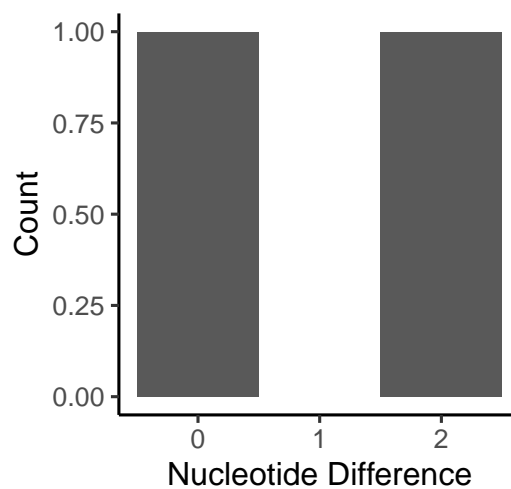
IGHV3-64*01

145 sequences assigned
70 (48.3%) exact matches, in which:
69 unique CDR3
6 unique J



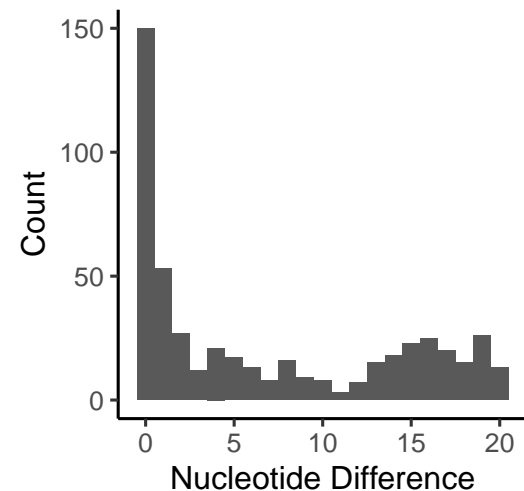
IGHV3-69-1*02

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



IGHV3-74*01

614 sequences assigned
150 (24.4%) exact matches, in which:
141 unique CDR3
7 unique J



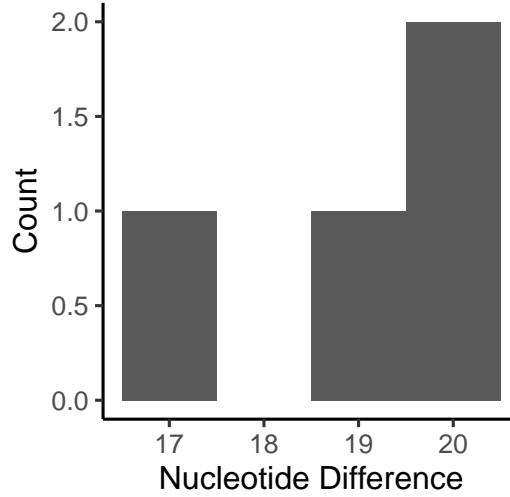
IGHV3-64D*06

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



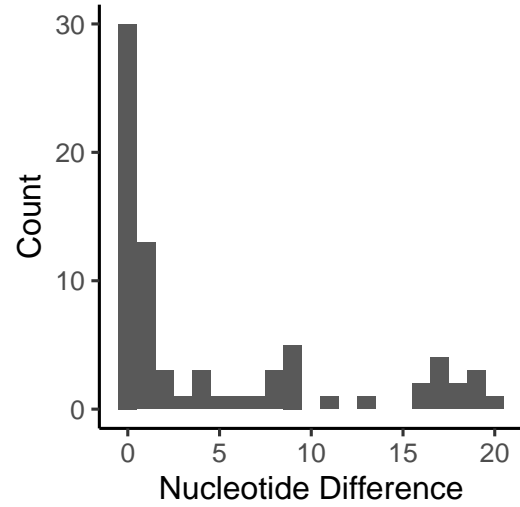
IGHV4-28*03

6 sequences assigned
No exact matches.



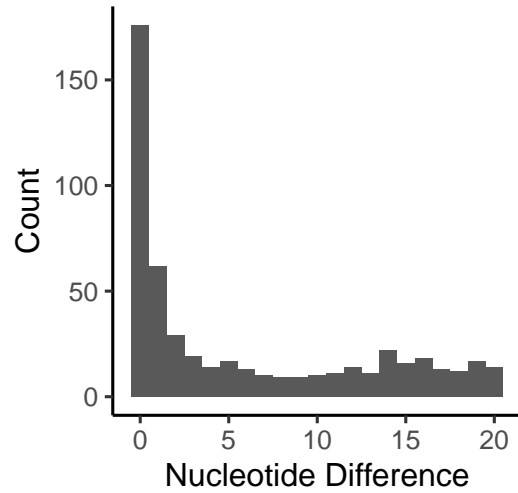
IGHV4-30-2*01

83 sequences assigned
30 (36.1%) exact matches, in which:
30 unique CDR3
5 unique J



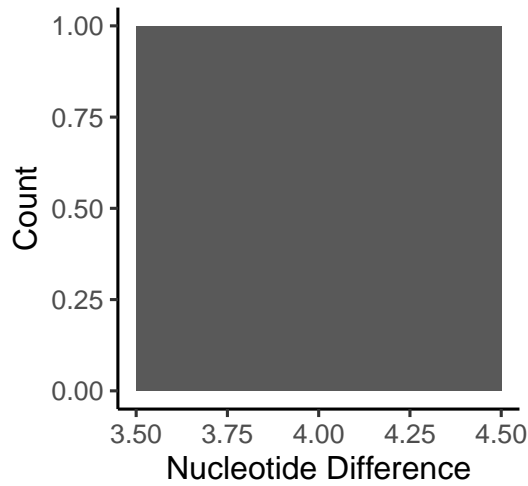
IGHV4-4*07

627 sequences assigned
176 (28.1%) exact matches, in which:
173 unique CDR3
7 unique J



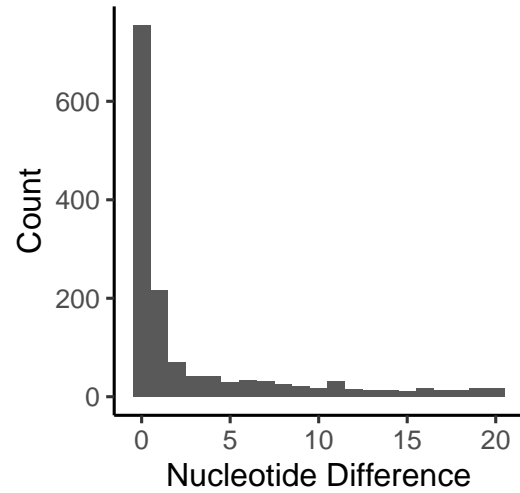
IGHV4-28*04

1 sequences assigned
No exact matches.



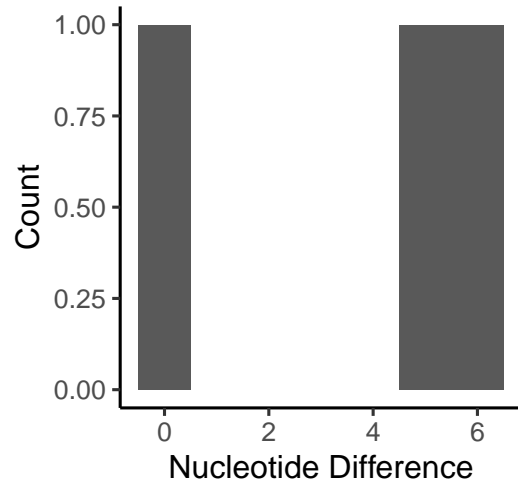
IGHV4-34*01

1649 sequences assigned
755 (45.8%) exact matches, in which:
731 unique CDR3
7 unique J



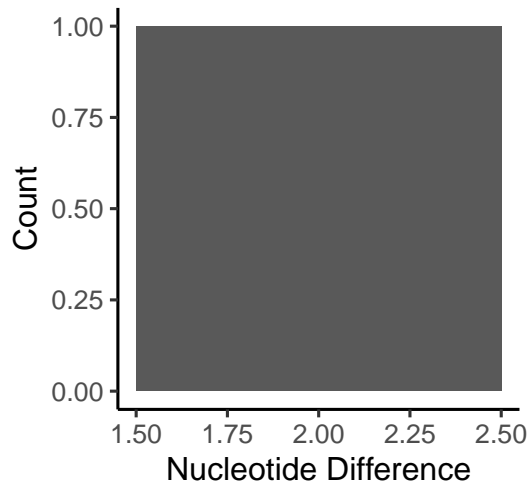
IGHV4-28*01

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



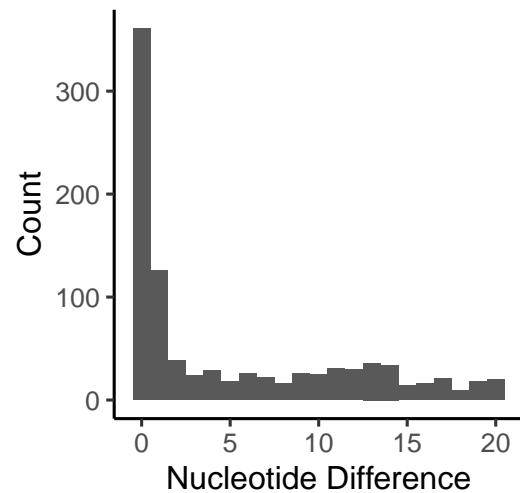
IGHV4-28*06

1 sequences assigned
No exact matches.



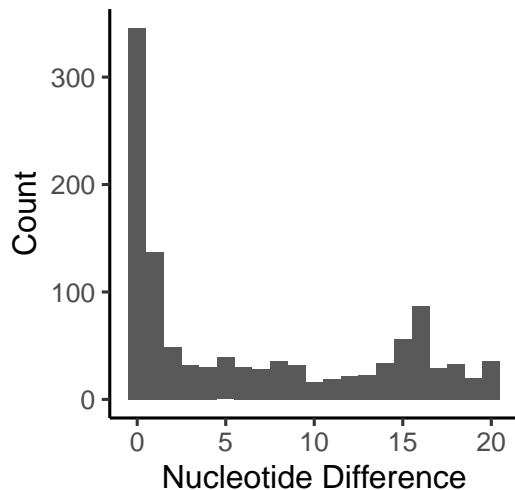
IGHV4-39*01

1144 sequences assigned
361 (31.6%) exact matches, in which:
351 unique CDR3
7 unique J



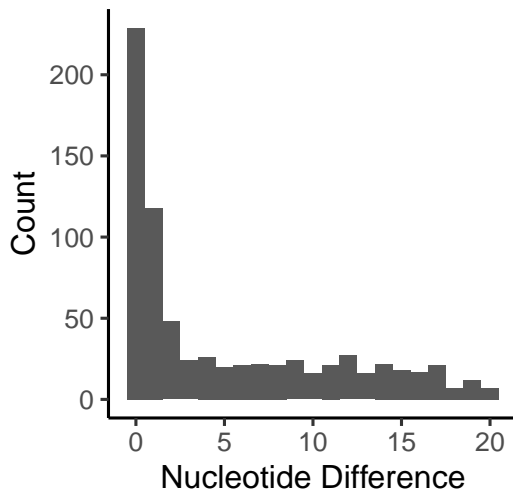
IGHV4-39*07

1437 sequences assigned
346 (24.1%) exact matches, in which:
337 unique CDR3
7 unique J



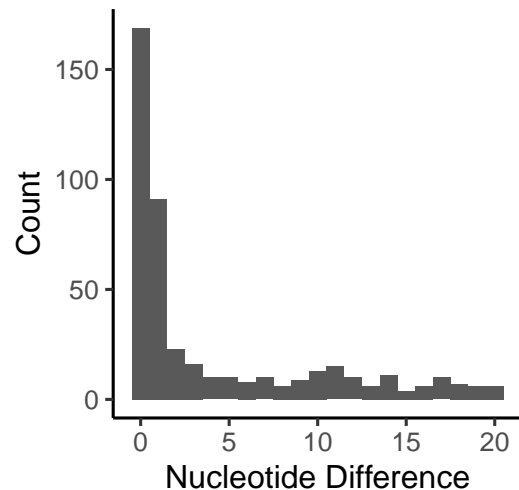
IGHV4-61*02

805 sequences assigned
229 (28.4%) exact matches, in which:
226 unique CDR3
7 unique J



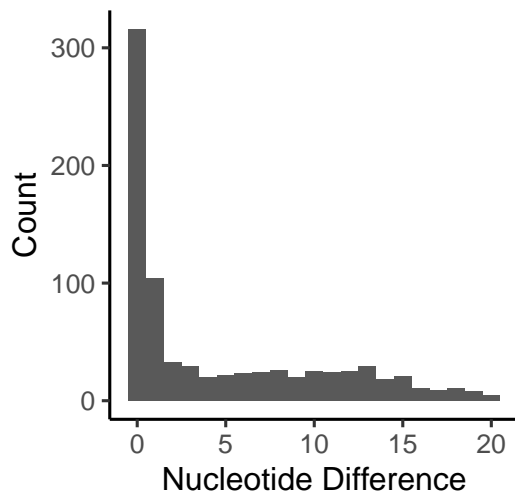
IGHV5-51*01

509 sequences assigned
169 (33.2%) exact matches, in which:
165 unique CDR3
6 unique J



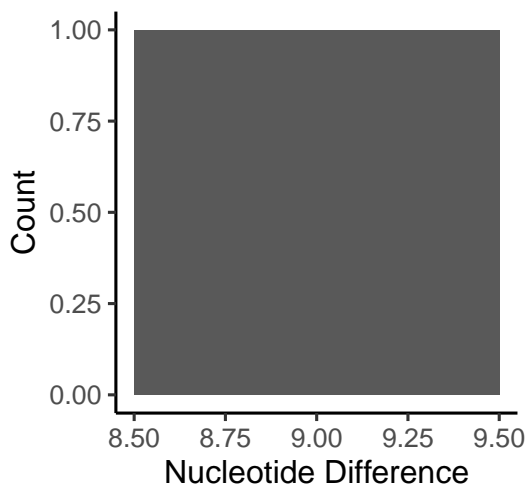
IGHV4-59*01

906 sequences assigned
316 (34.9%) exact matches, in which:
305 unique CDR3
7 unique J



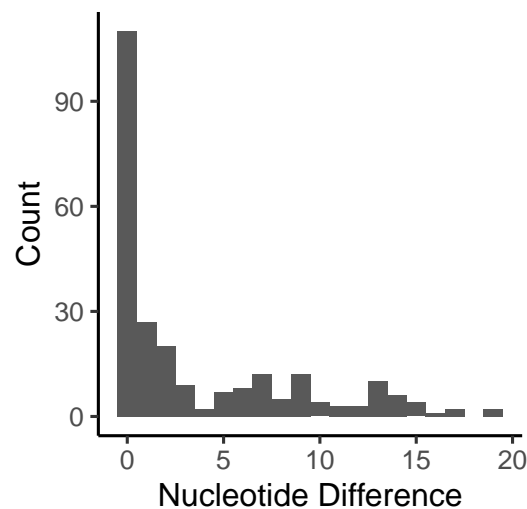
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



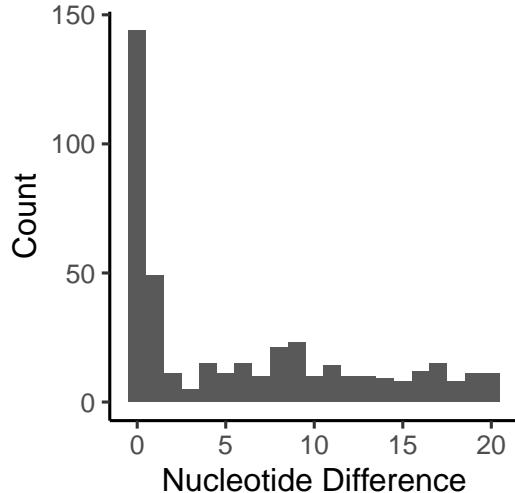
IGHV5-51*03

274 sequences assigned
110 (40.1%) exact matches, in which:
108 unique CDR3
5 unique J



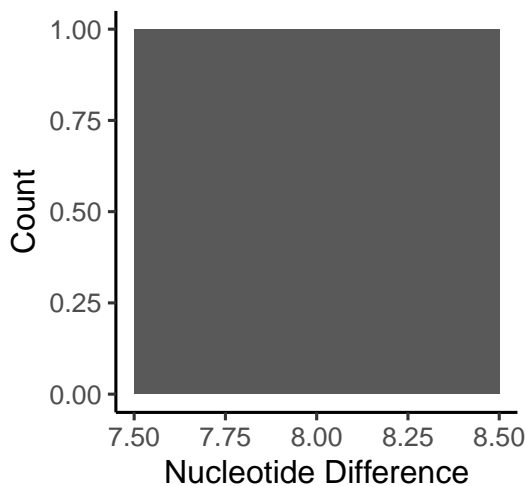
IGHV4-59*08

500 sequences assigned
144 (28.8%) exact matches, in which:
144 unique CDR3
6 unique J



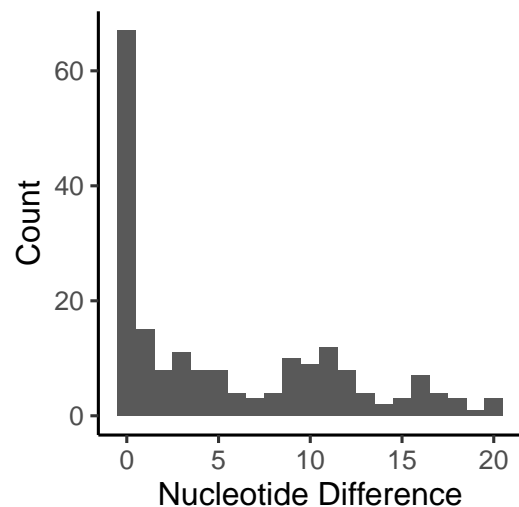
IGHV1/OR15-2*01

1 sequences assigned
No exact matches.



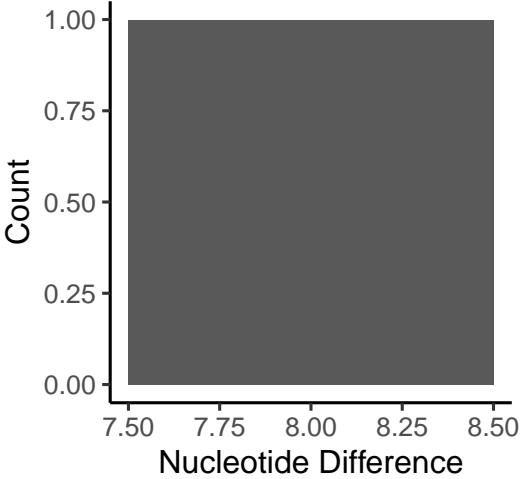
IGHV6-1*01

218 sequences assigned
67 (30.7%) exact matches, in which:
65 unique CDR3
7 unique J



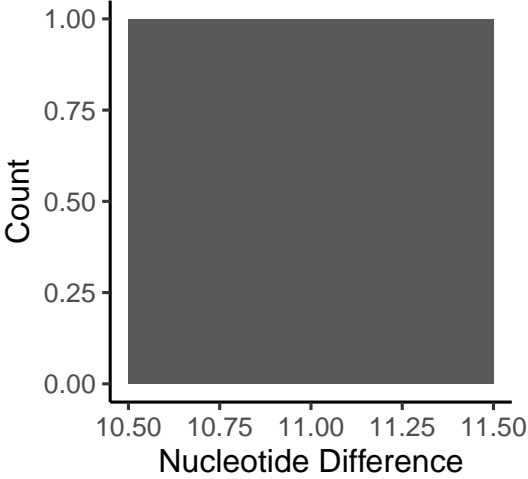
IGHV3/OR16-8*01

1 sequences assigned
No exact matches.

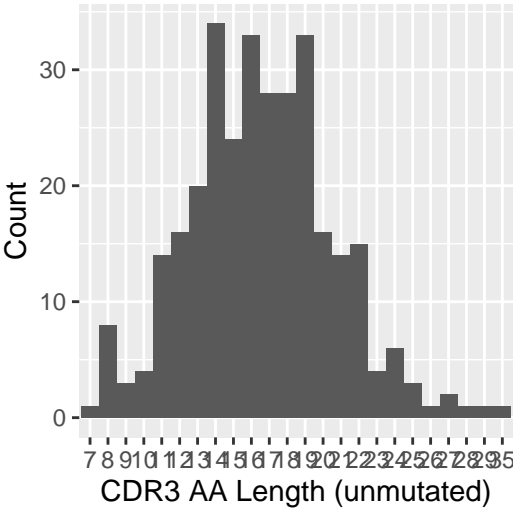


IGHV3/OR16-9*01

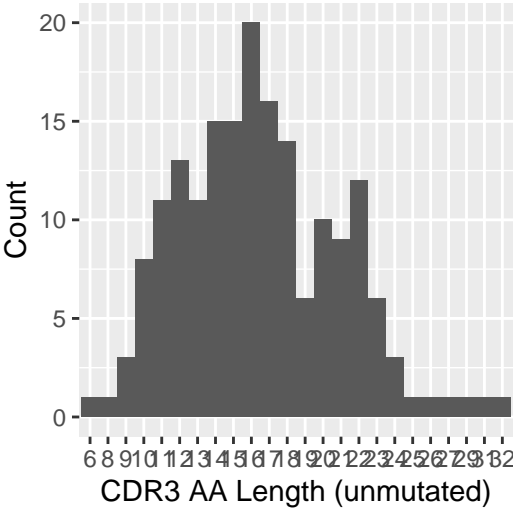
1 sequences assigned
No exact matches.



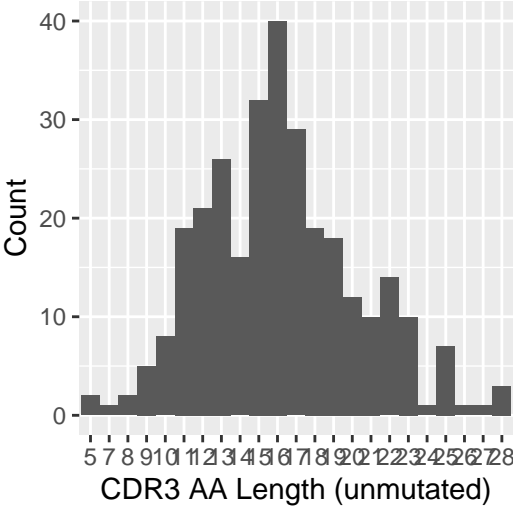
IGHV1-69*04_C184T



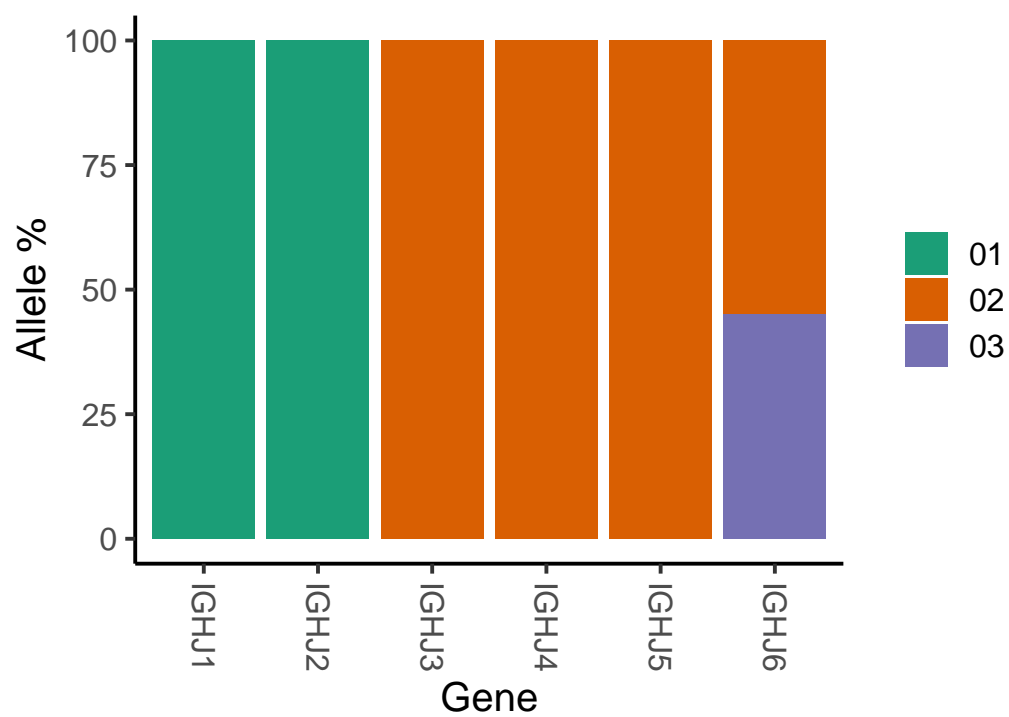
IGHV1-69*08_C191T



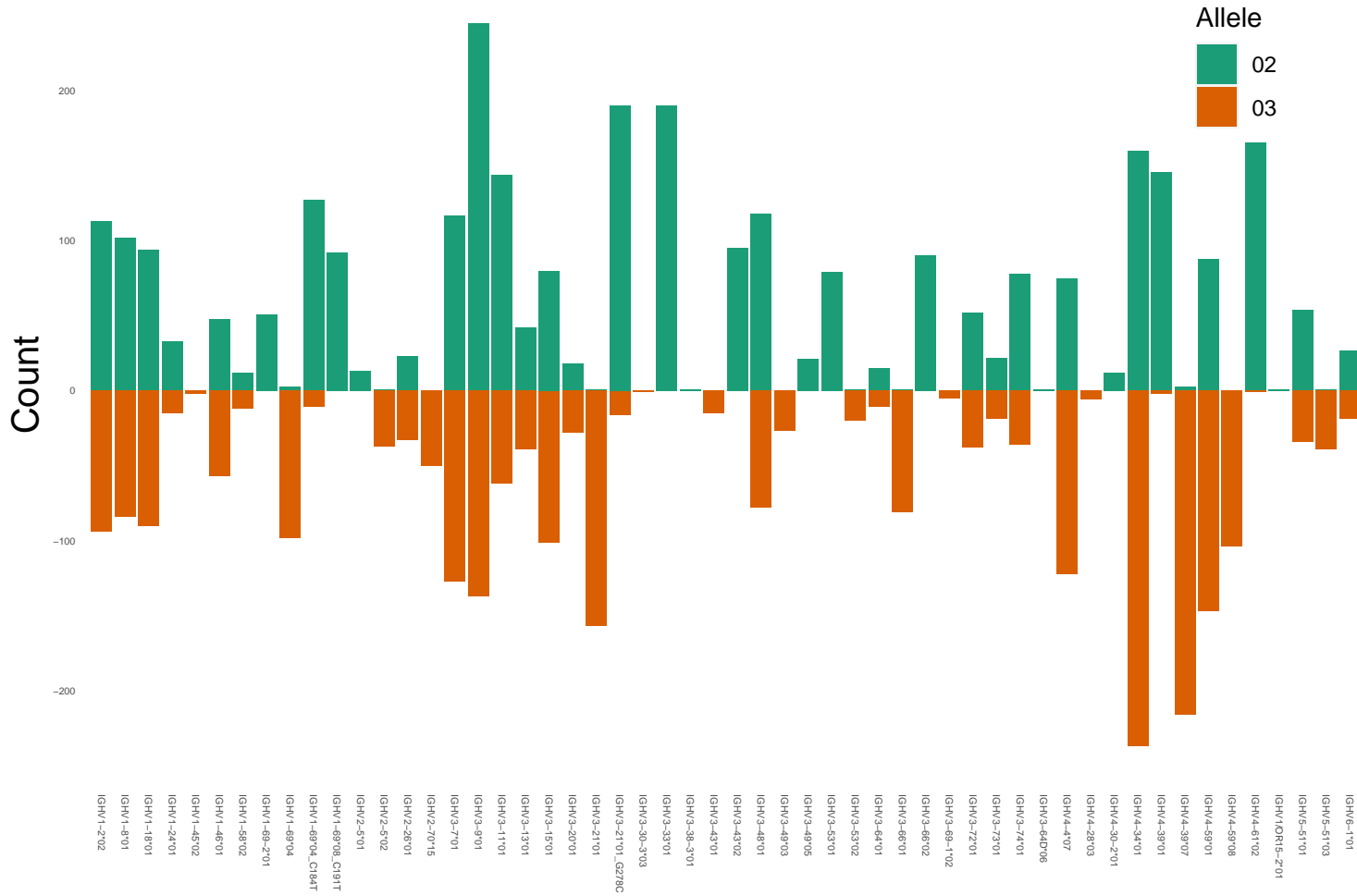
IGHV3-21*01_G278C



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]