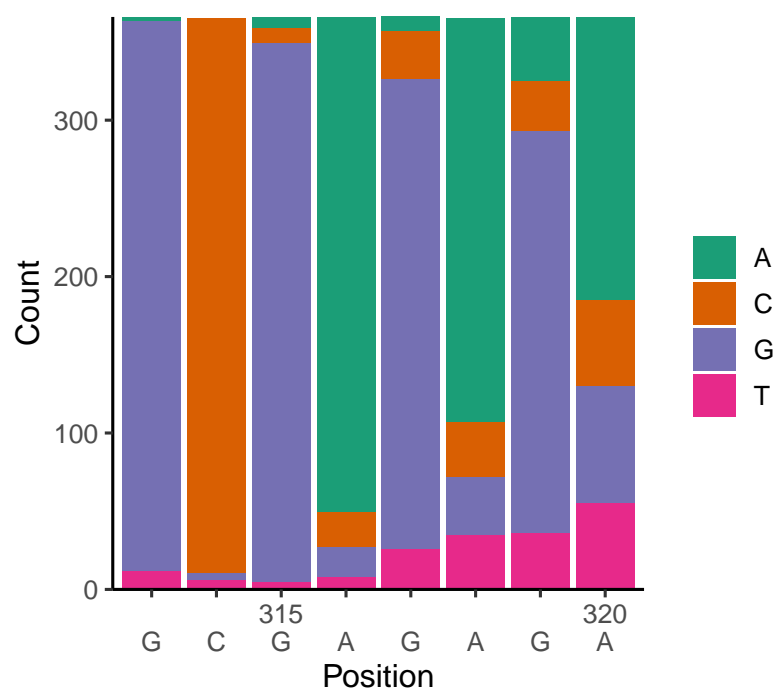
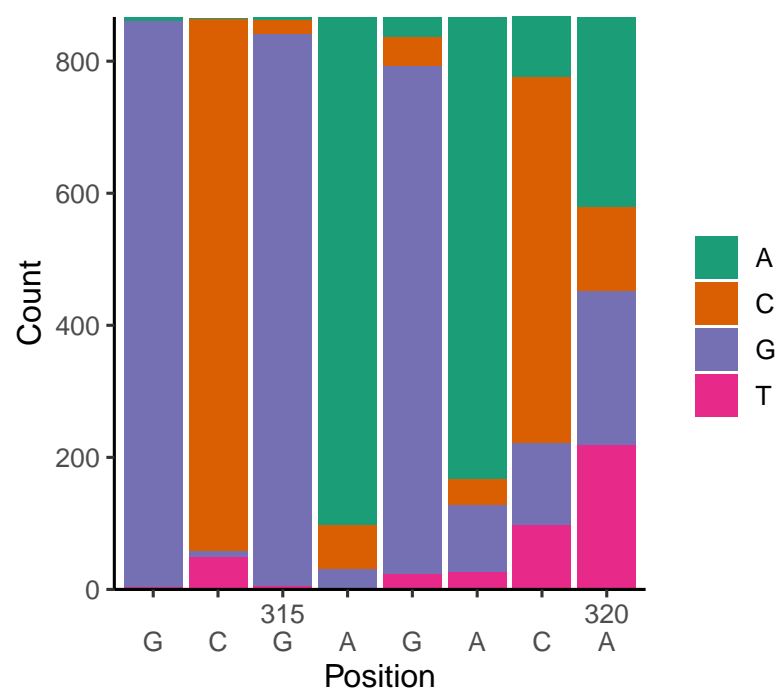


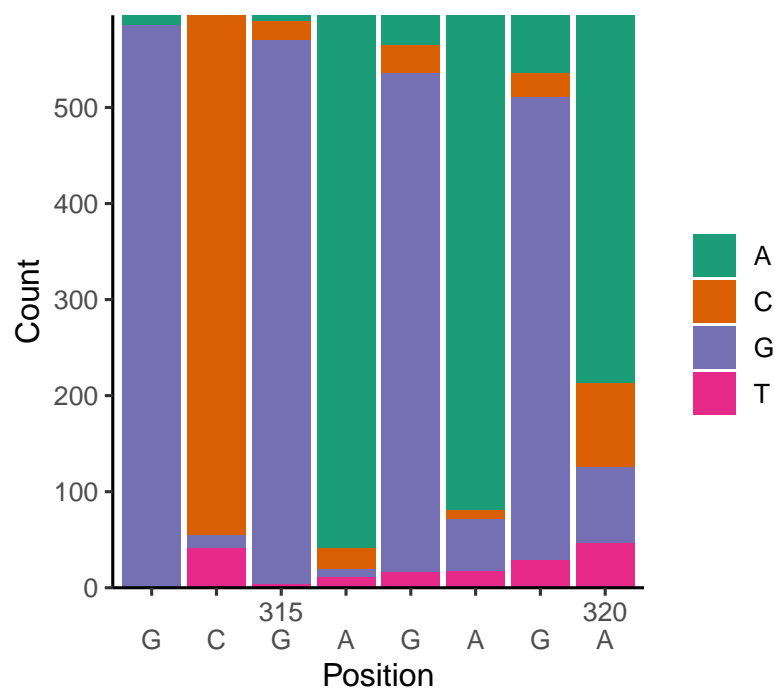
Gene IGHV1-69*08_C191T



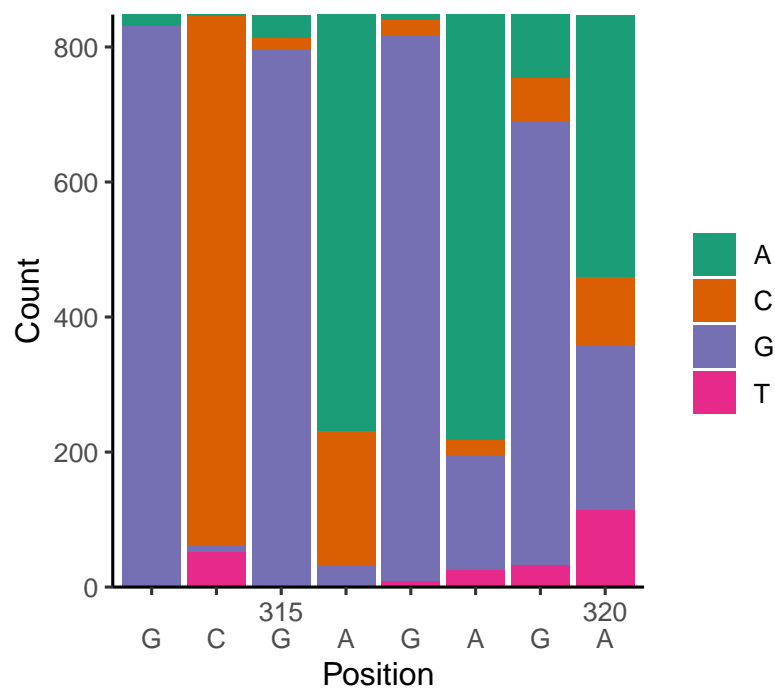
Gene IGHV5-51*01_C45G



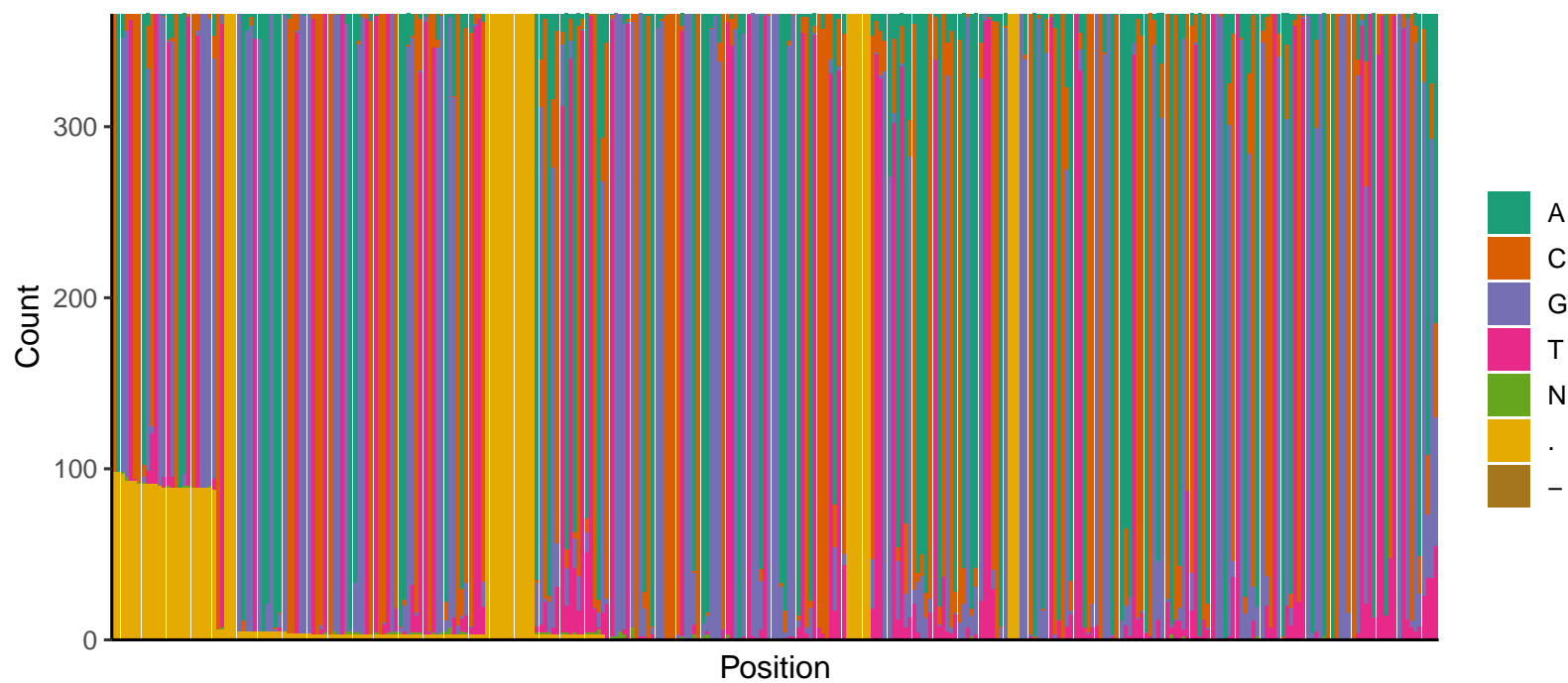
Gene IGHV3-33*01_T158G



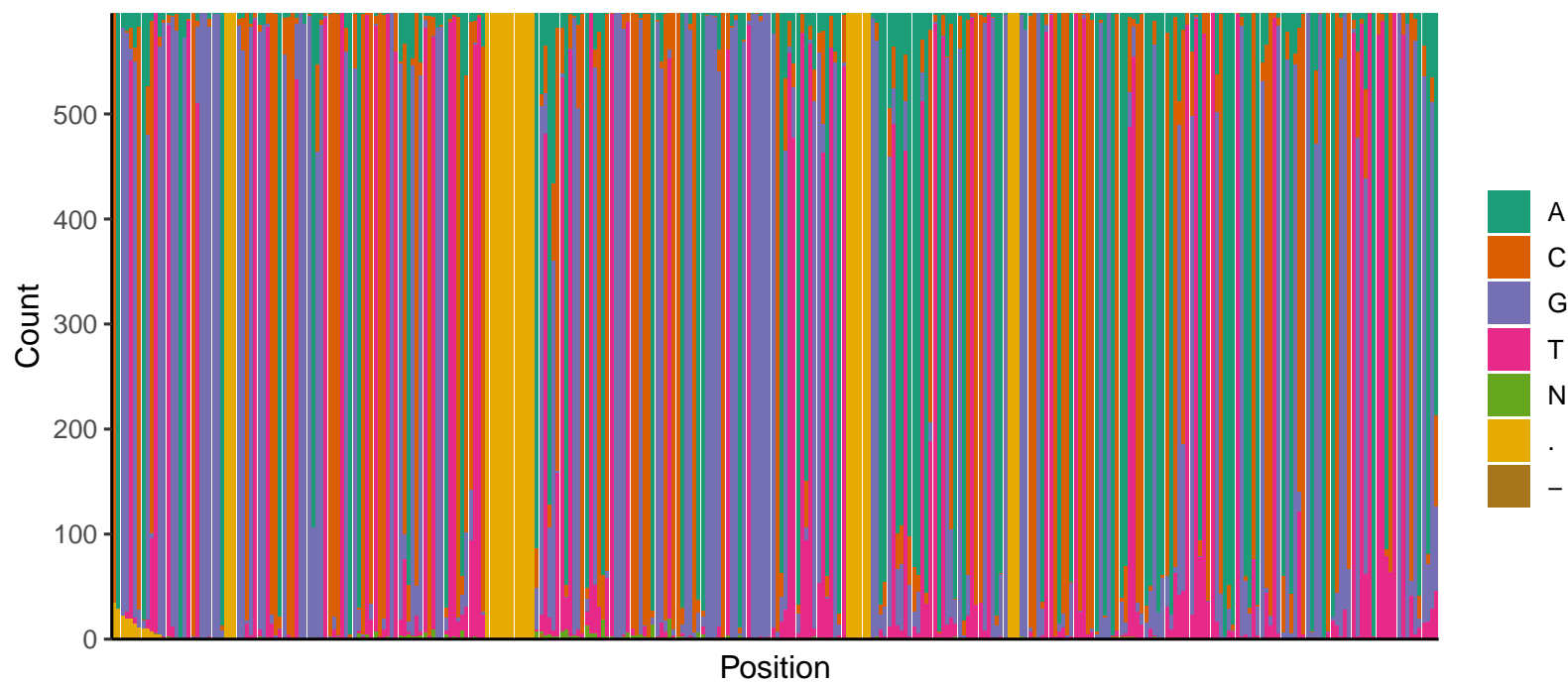
Gene IGHV4-61*02_A234G



Gene IGHV1-69*08_C191T



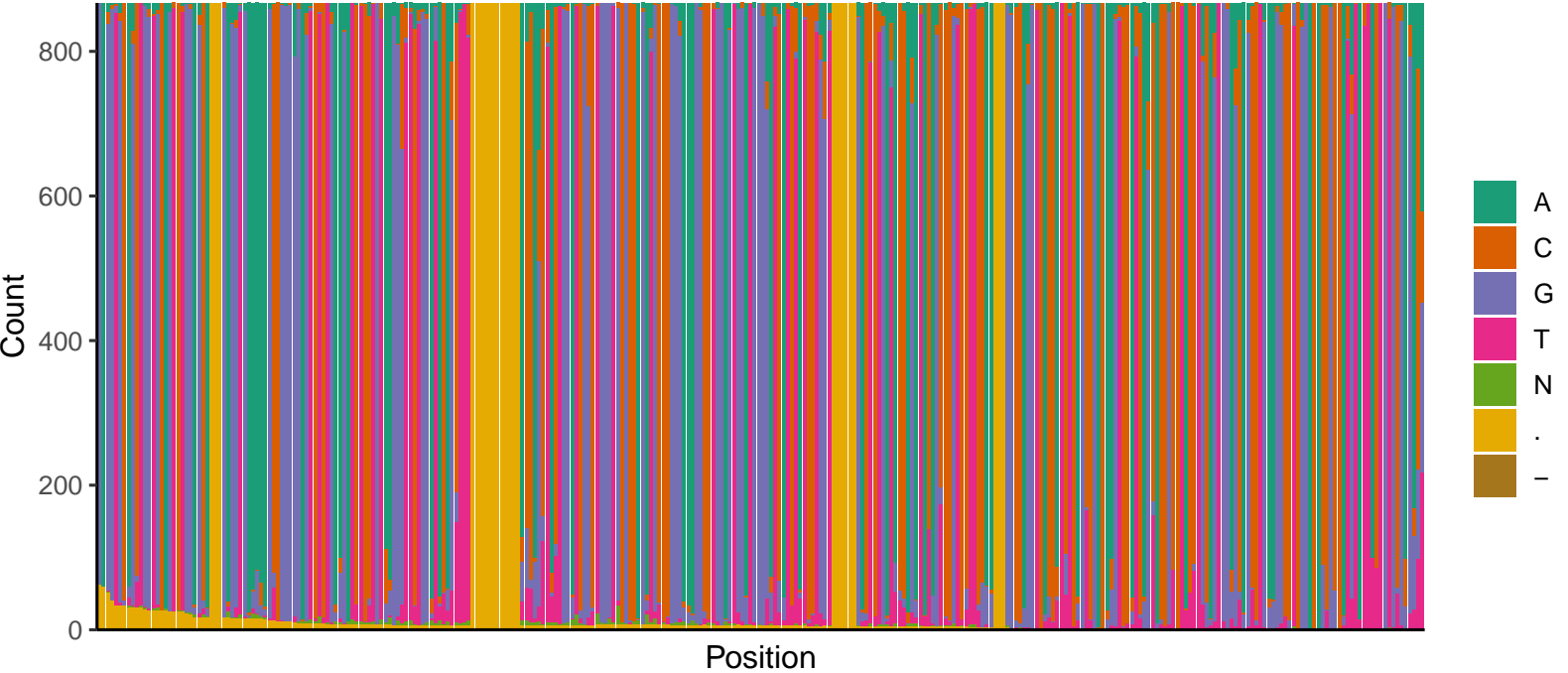
Gene IGHV3-33*01_T158G



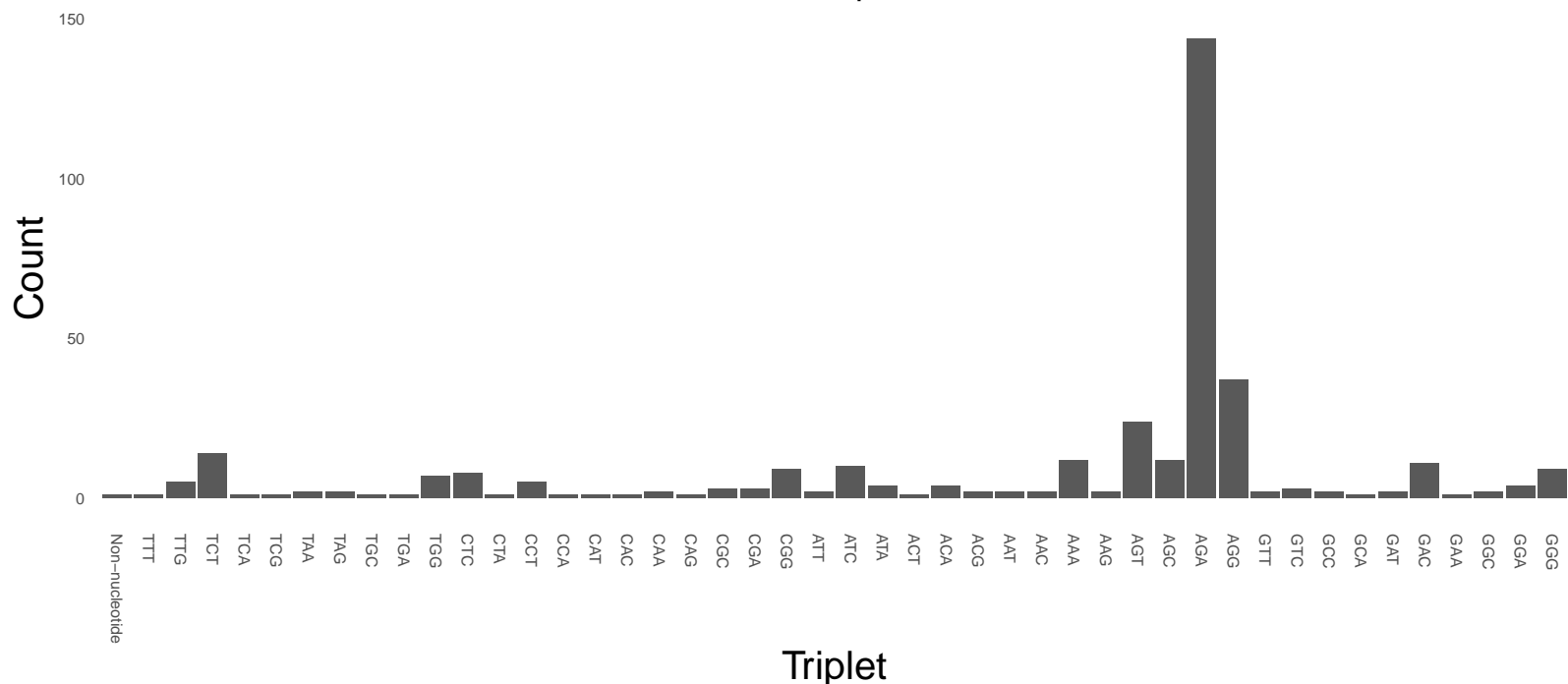
Gene IGHV4-61*02_A234G



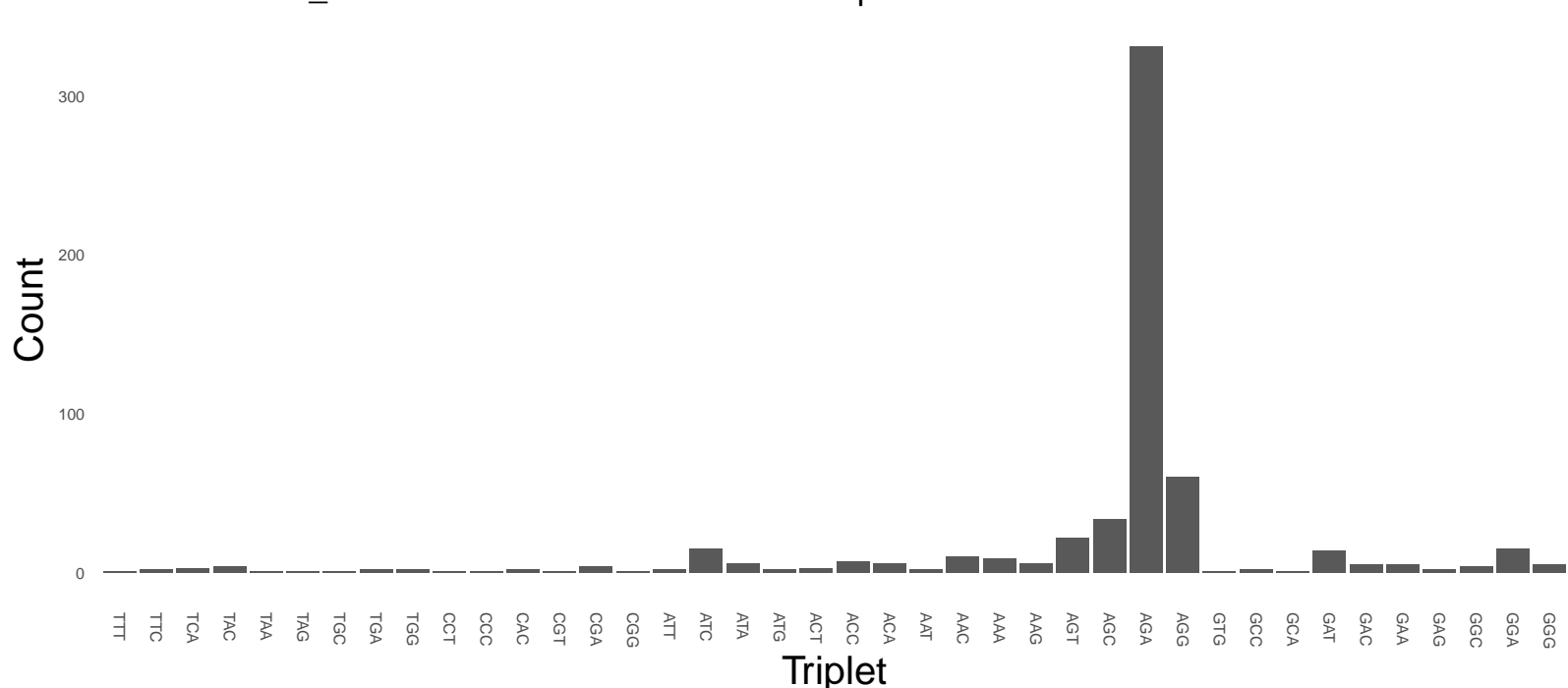
Gene IGHV5-51*01_C45G



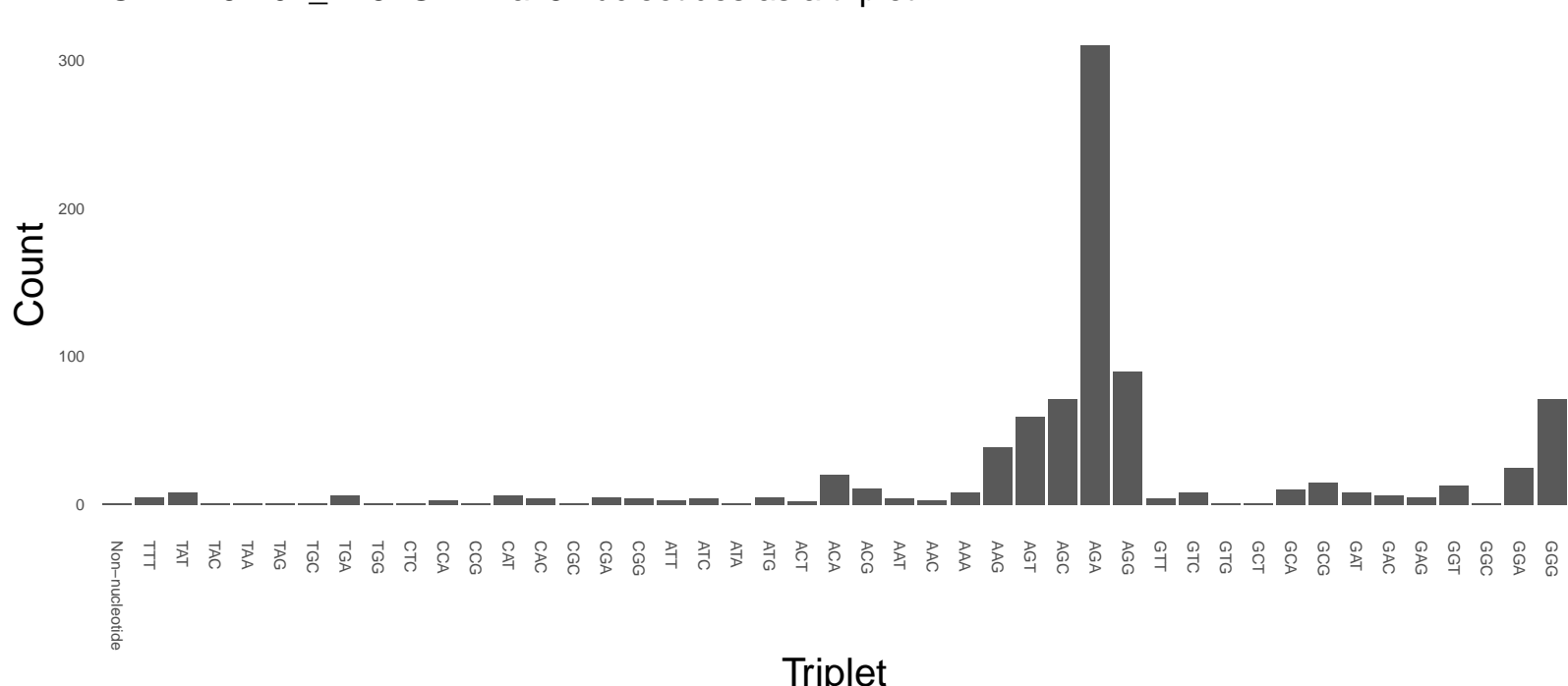
IGHV1-69*08_C191T- Final 3 nucleotides as a triplet



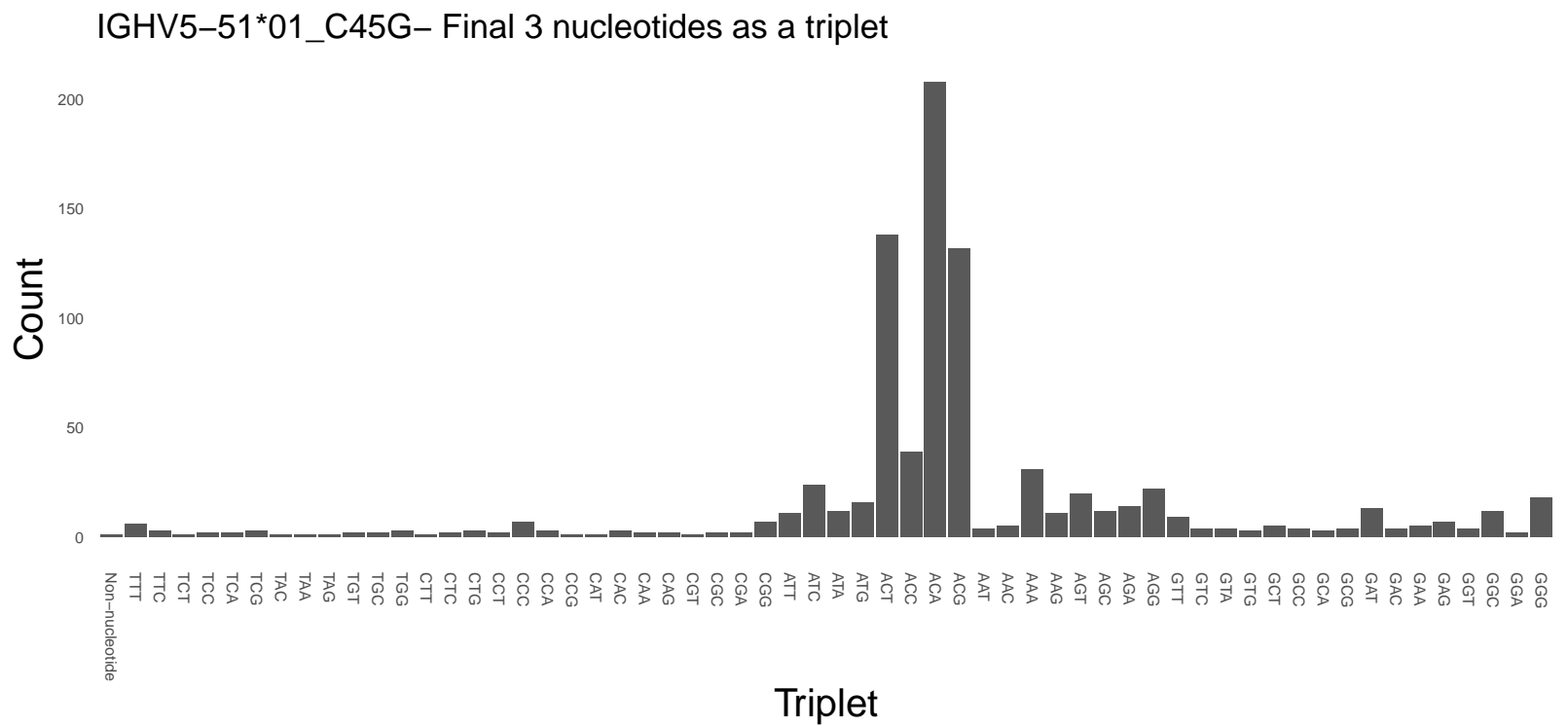
IGHV3-33*01_T158G- Final 3 nucleotides as a triplet



IGHV4-61*02_A234G- Final 3 nucleotides as a triplet

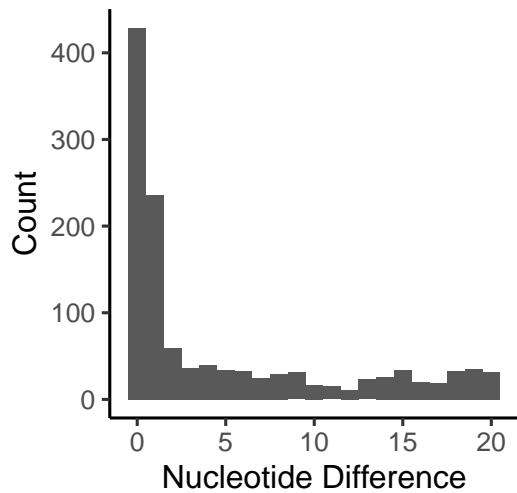


IGHV5-51*01_C45G- Final 3 nucleotides as a triplet



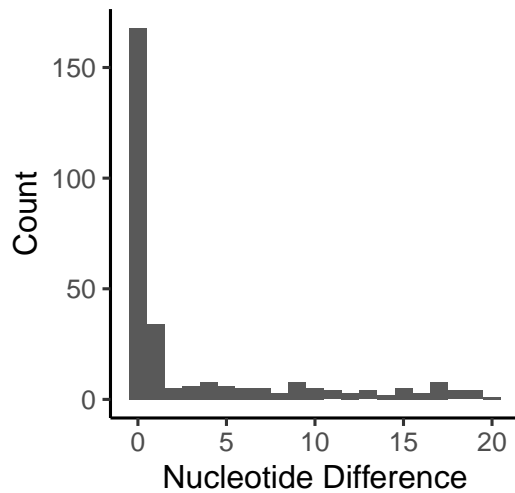
IGHV1-2*02

1620 sequences assigned
429 (26.5%) exact matches, in which:
429 unique CDR3
7 unique J



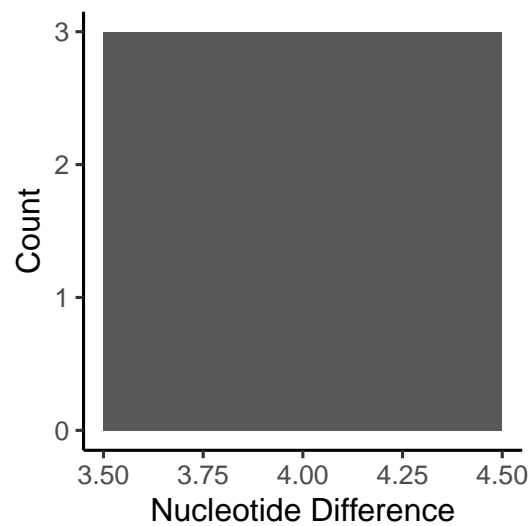
IGHV1-8*01

358 sequences assigned
168 (46.9%) exact matches, in which:
166 unique CDR3
7 unique J



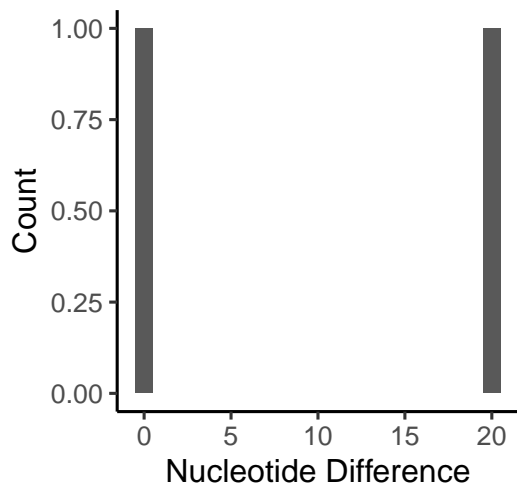
IGHV1-45*02

15 sequences assigned
No exact matches.



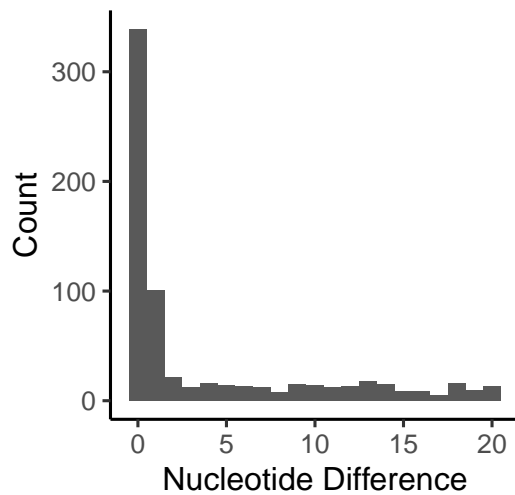
IGHV1-3*01

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



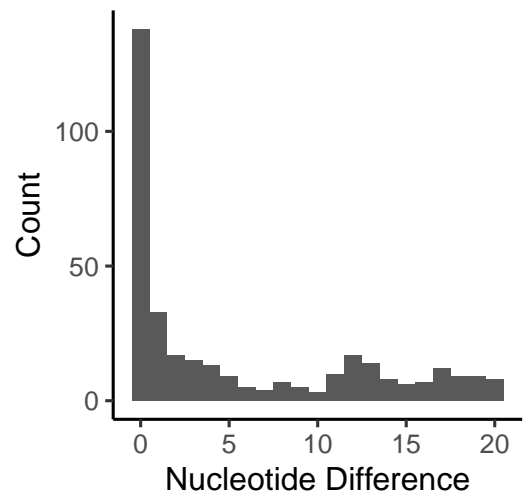
IGHV1-18*01

994 sequences assigned
339 (34.1%) exact matches, in which:
337 unique CDR3
7 unique J



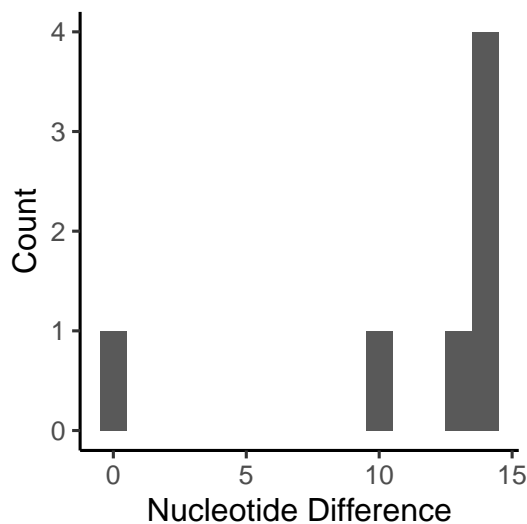
IGHV1-46*03

521 sequences assigned
138 (26.5%) exact matches, in which:
136 unique CDR3
7 unique J



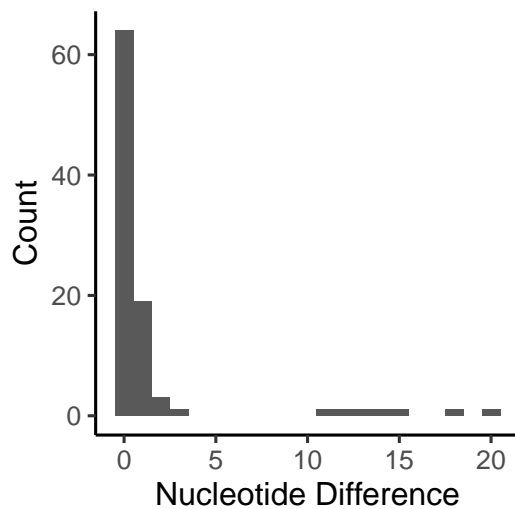
IGHV1-3*02

10 sequences assigned
1 (10%) exact matches, in which:
1 unique CDR3
1 unique J



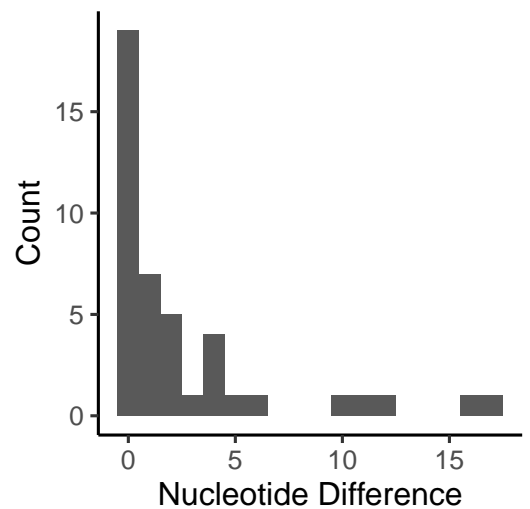
IGHV1-24*01

124 sequences assigned
64 (51.6%) exact matches, in which:
64 unique CDR3
7 unique J



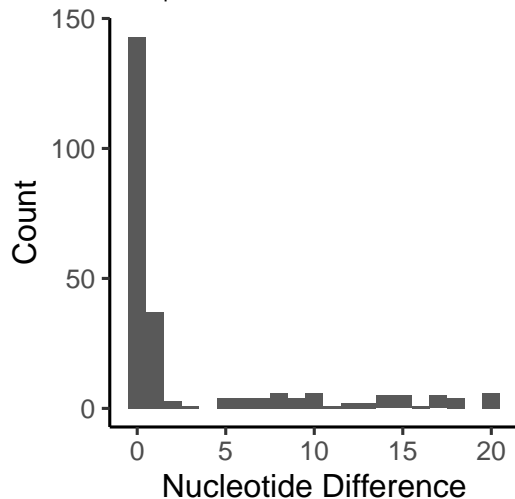
IGHV1-58*02

62 sequences assigned
19 (30.6%) exact matches, in which:
18 unique CDR3
5 unique J



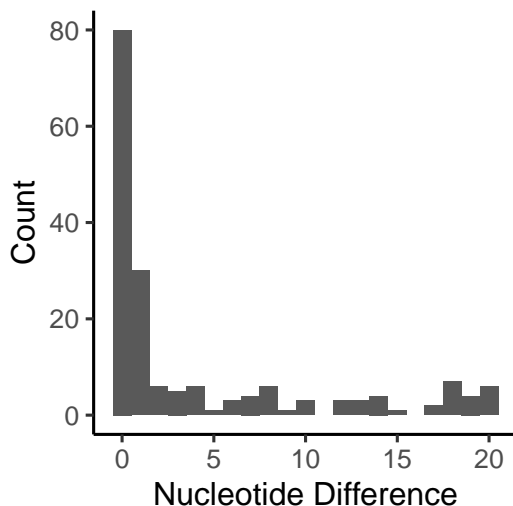
IGHV1–69*08_C191T

366 sequences assigned
143 (39.1%) exact matches, in which:
138 unique CDR3
6 unique J



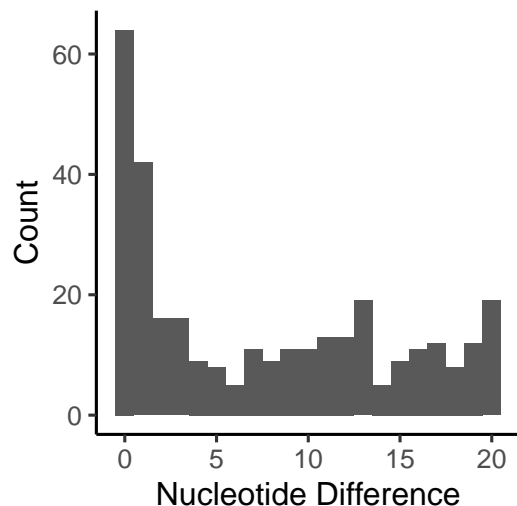
IGHV2–26*01

219 sequences assigned
80 (36.5%) exact matches, in which:
80 unique CDR3
6 unique J



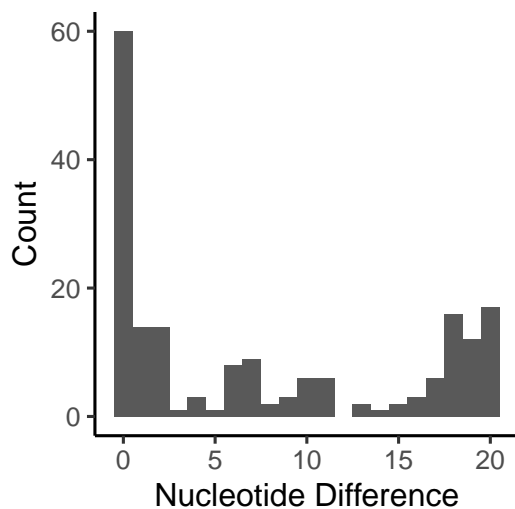
IGHV3–7*01

603 sequences assigned
64 (10.6%) exact matches, in which:
64 unique CDR3
5 unique J



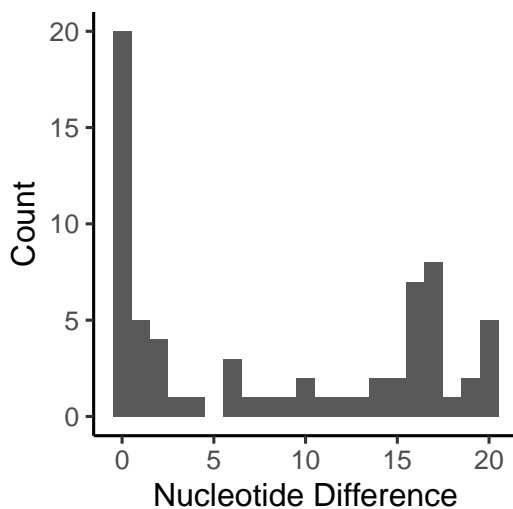
IGHV2–5*01

267 sequences assigned
60 (22.5%) exact matches, in which:
60 unique CDR3
5 unique J



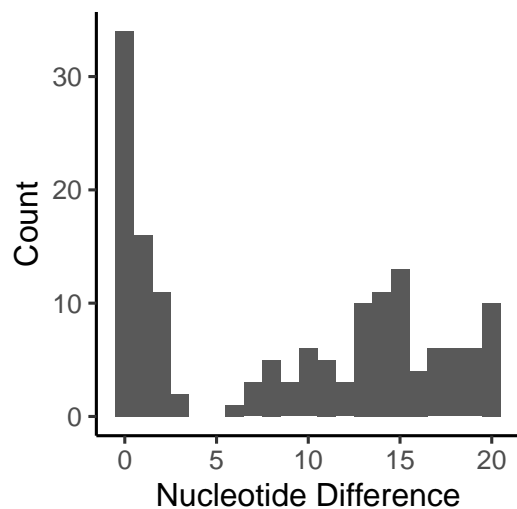
IGHV2–70*01

98 sequences assigned
20 (20.4%) exact matches, in which:
20 unique CDR3
5 unique J



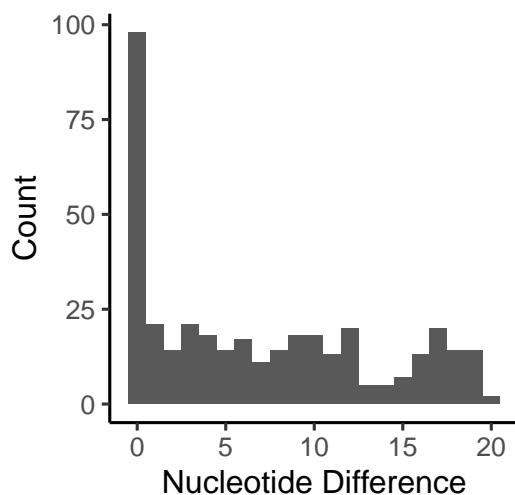
IGHV3–7*04

231 sequences assigned
34 (14.7%) exact matches, in which:
34 unique CDR3
6 unique J



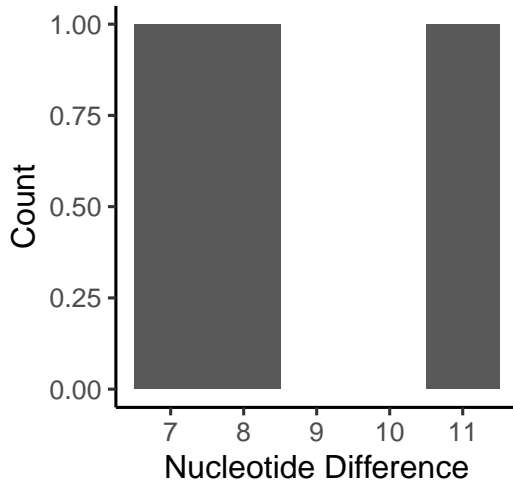
IGHV2–5*02

597 sequences assigned
98 (16.4%) exact matches, in which:
98 unique CDR3
5 unique J



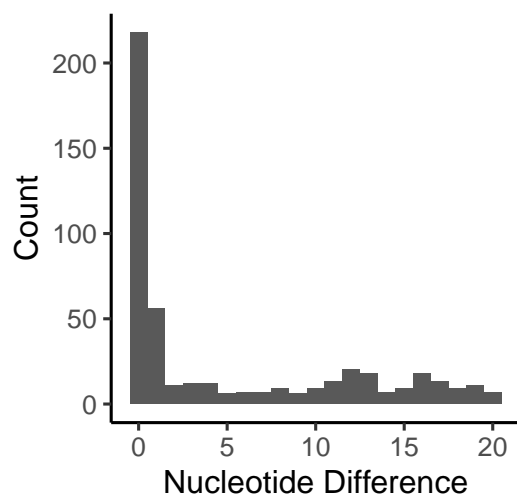
IGHV2–70D*04

3 sequences assigned
No exact matches.



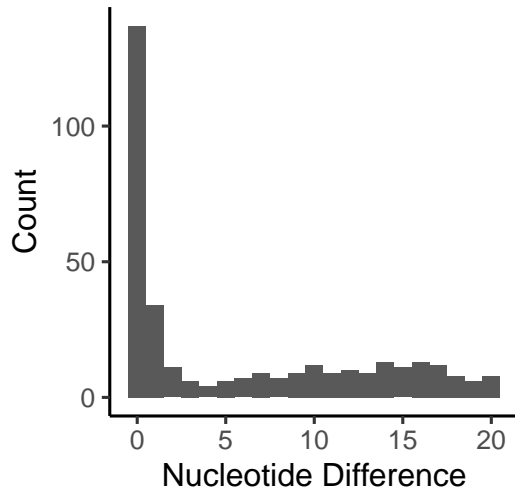
IGHV3–9*01

837 sequences assigned
218 (26%) exact matches, in which:
216 unique CDR3
7 unique J



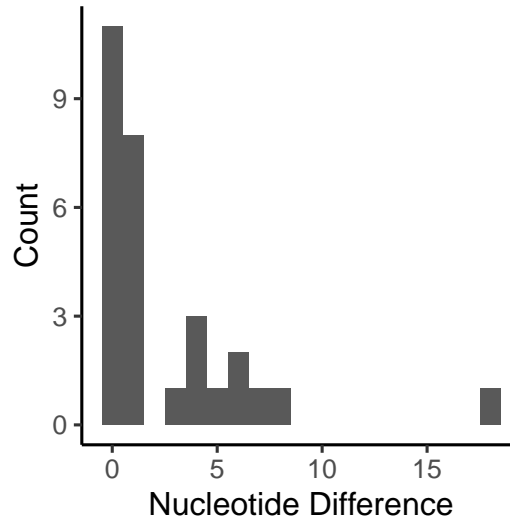
IGHV3-11*01

614 sequences assigned
137 (22.3%) exact matches, in which:
136 unique CDR3
6 unique J



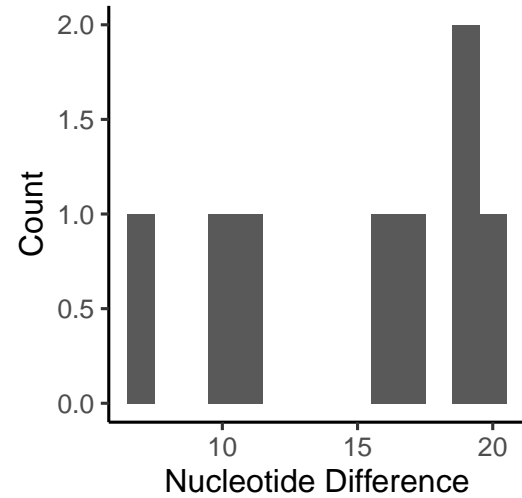
IGHV3-13*05

30 sequences assigned
11 (36.7%) exact matches, in which:
11 unique CDR3
4 unique J



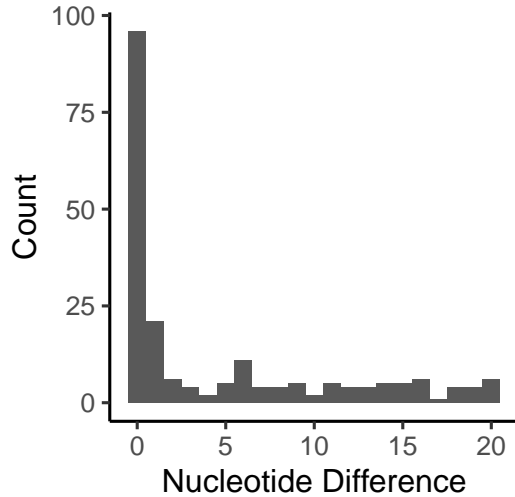
IGHV3-20*04

82 sequences assigned
No exact matches.



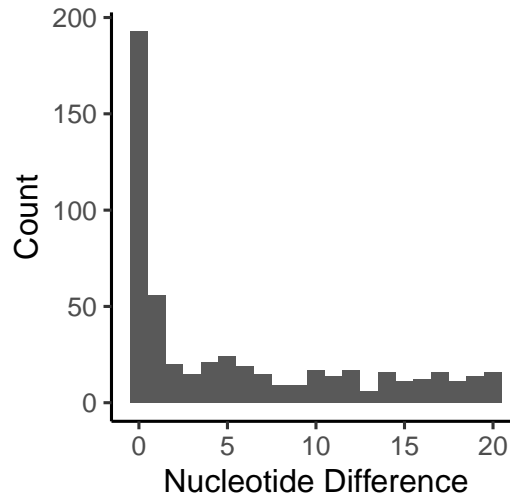
IGHV3-11*06

298 sequences assigned
96 (32.2%) exact matches, in which:
96 unique CDR3
5 unique J



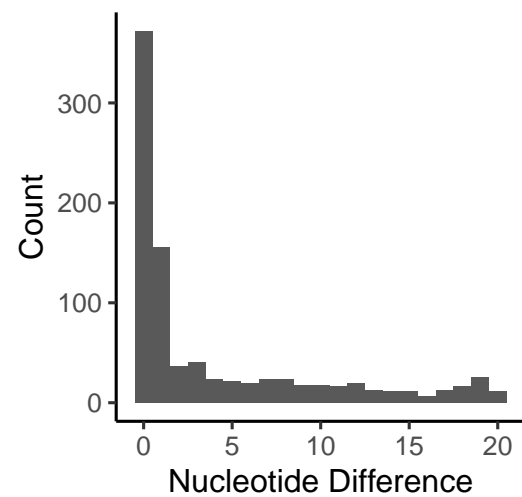
IGHV3-15*01

841 sequences assigned
193 (22.9%) exact matches, in which:
193 unique CDR3
6 unique J



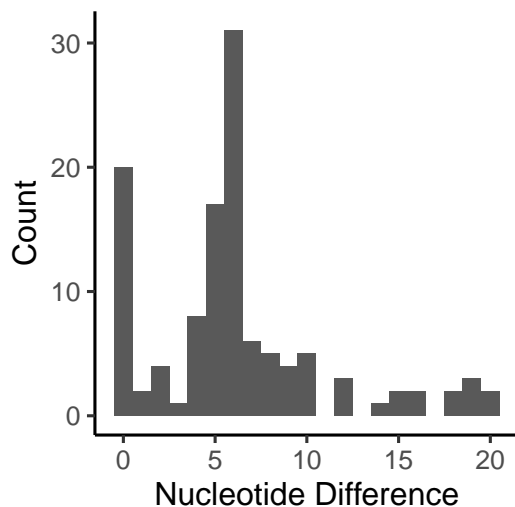
IGHV3-21*01

1266 sequences assigned
372 (29.4%) exact matches, in which:
372 unique CDR3
7 unique J



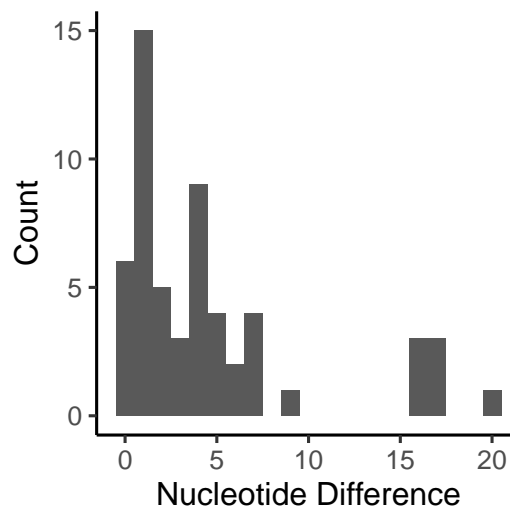
IGHV3-13*01

129 sequences assigned
20 (15.5%) exact matches, in which:
20 unique CDR3
4 unique J



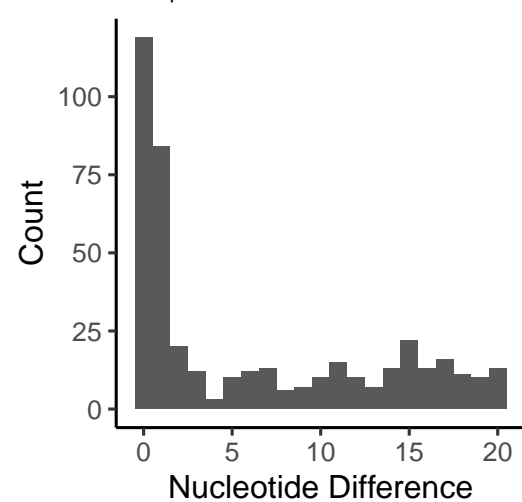
IGHV3-20*01

58 sequences assigned
6 (10.3%) exact matches, in which:
6 unique CDR3
4 unique J



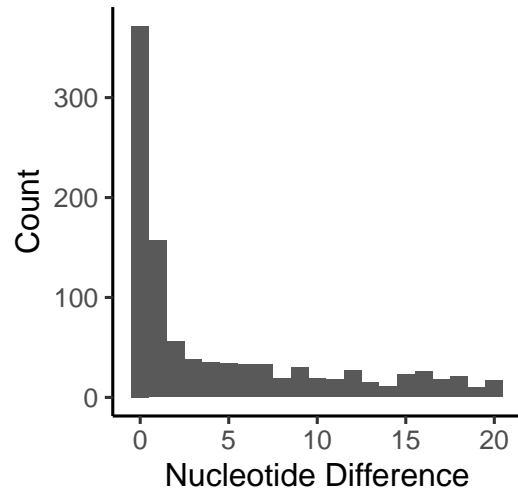
IGHV3-30-3*01

746 sequences assigned
119 (16%) exact matches, in which:
119 unique CDR3
5 unique J



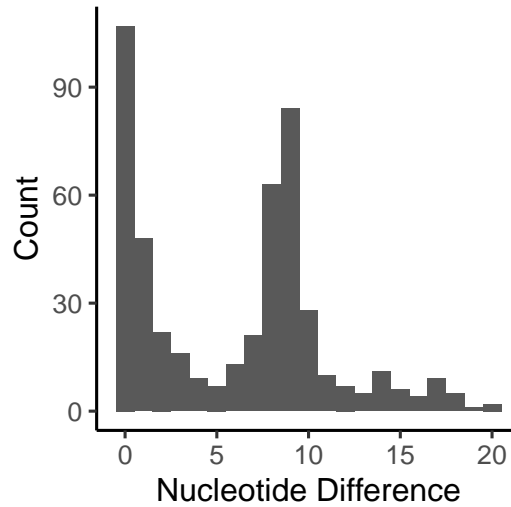
IGHV3-33*01

2001 sequences assigned
372 (18.6%) exact matches, in which:
370 unique CDR3
7 unique J



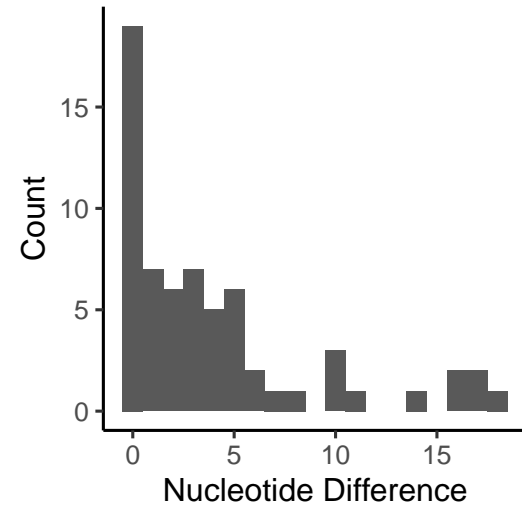
IGHV3-48*01

666 sequences assigned
107 (16.1%) exact matches, in which:
104 unique CDR3
7 unique J



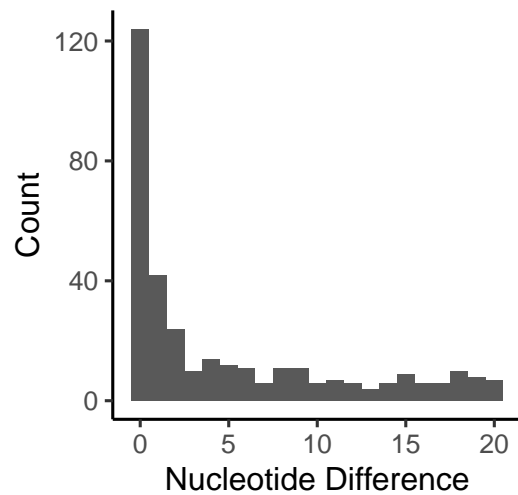
IGHV3-64*01

75 sequences assigned
19 (25.3%) exact matches, in which:
19 unique CDR3
3 unique J



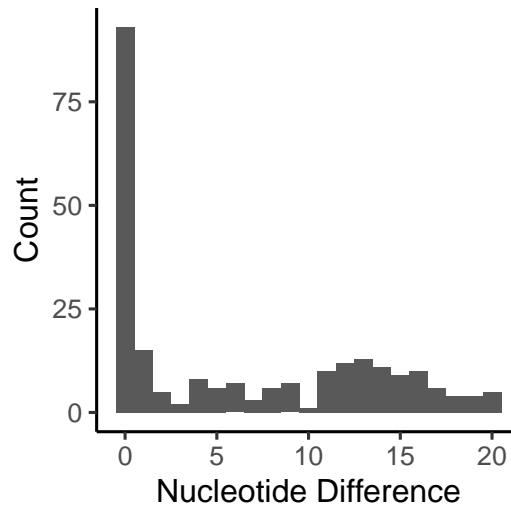
IGHV3-33*01_T158G

596 sequences assigned
124 (20.8%) exact matches, in which:
124 unique CDR3
7 unique J



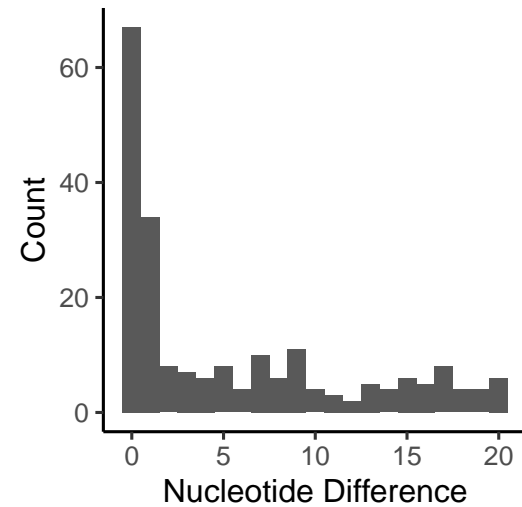
IGHV3-49*03

318 sequences assigned
93 (29.2%) exact matches, in which:
93 unique CDR3
7 unique J



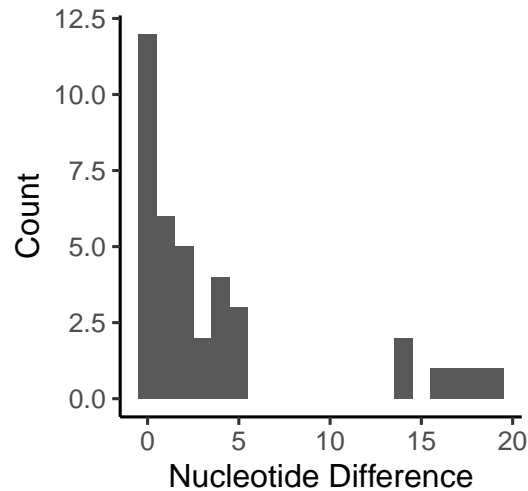
IGHV3-66*02

362 sequences assigned
67 (18.5%) exact matches, in which:
67 unique CDR3
6 unique J



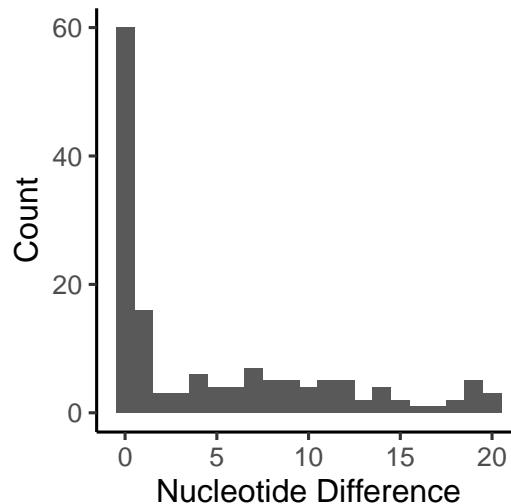
IGHV3-43*01

43 sequences assigned
12 (27.9%) exact matches, in which:
12 unique CDR3
3 unique J



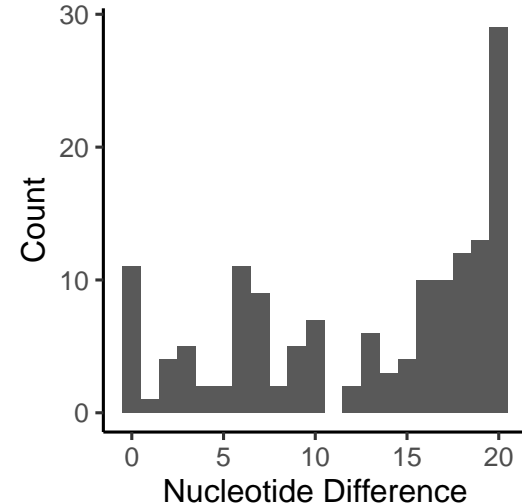
IGHV3-53*02

218 sequences assigned
60 (27.5%) exact matches, in which:
60 unique CDR3
6 unique J



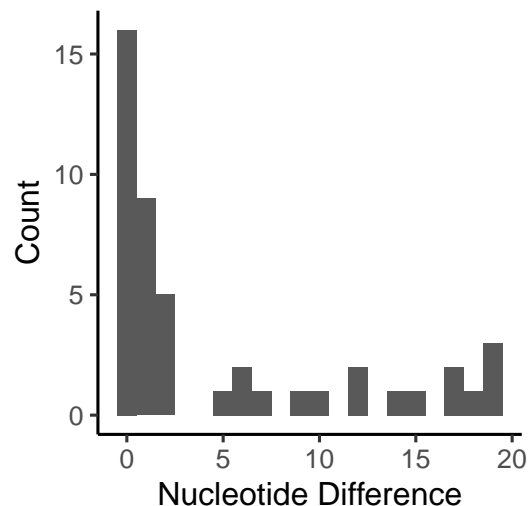
IGHV3-72*01

214 sequences assigned
11 (5.1%) exact matches, in which:
11 unique CDR3
3 unique J



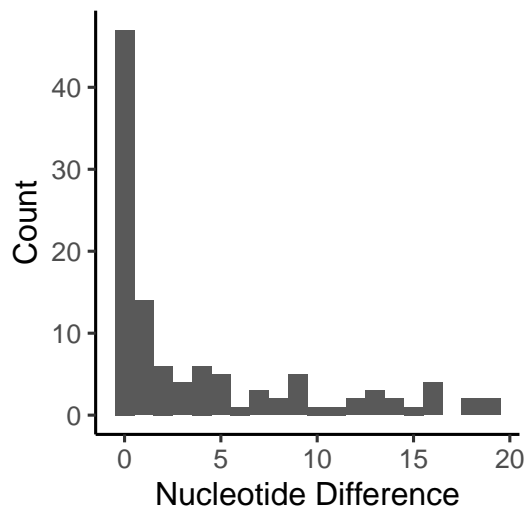
IGHV3-73*01

86 sequences assigned
16 (18.6%) exact matches, in which:
16 unique CDR3
4 unique J



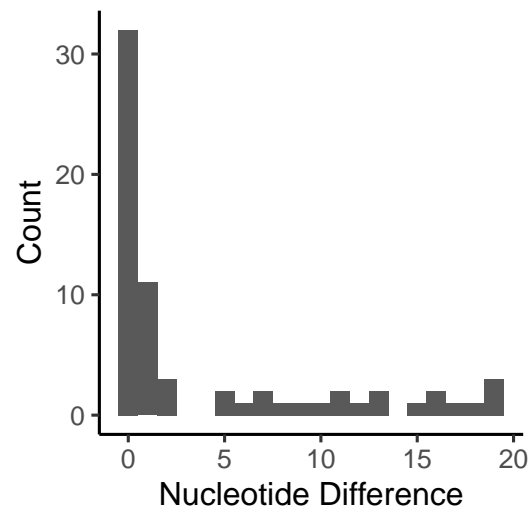
IGHV3-64D*06

223 sequences assigned
47 (21.1%) exact matches, in which:
46 unique CDR3
5 unique J



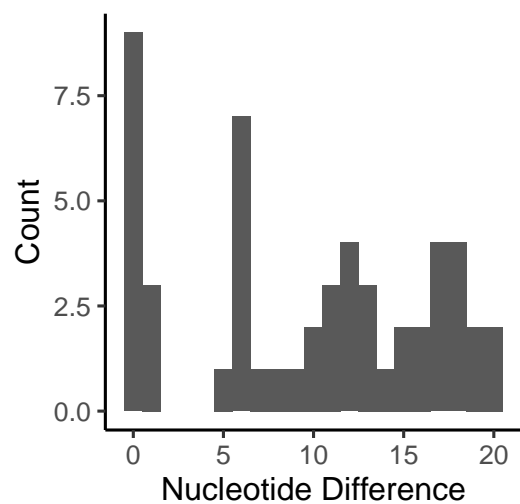
IGHV4-30-4*01

160 sequences assigned
32 (20%) exact matches, in which:
31 unique CDR3
6 unique J



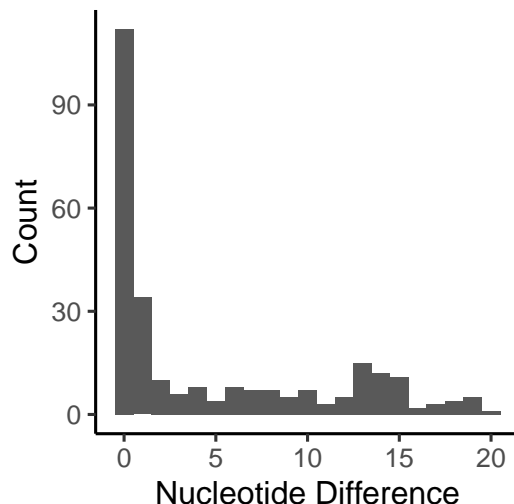
IGHV3-73*02

85 sequences assigned
9 (10.6%) exact matches, in which:
9 unique CDR3
2 unique J



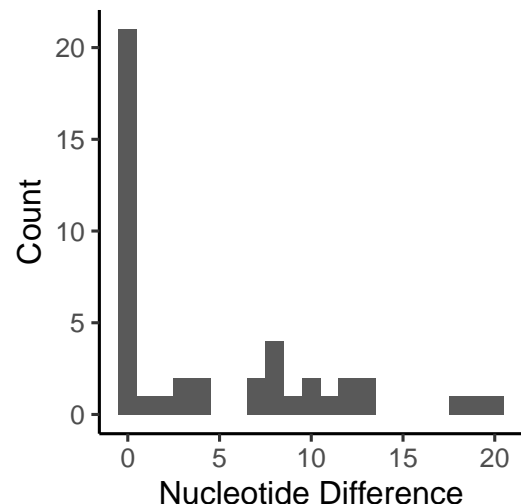
IGHV4-4*07

437 sequences assigned
112 (25.6%) exact matches, in which:
112 unique CDR3
7 unique J



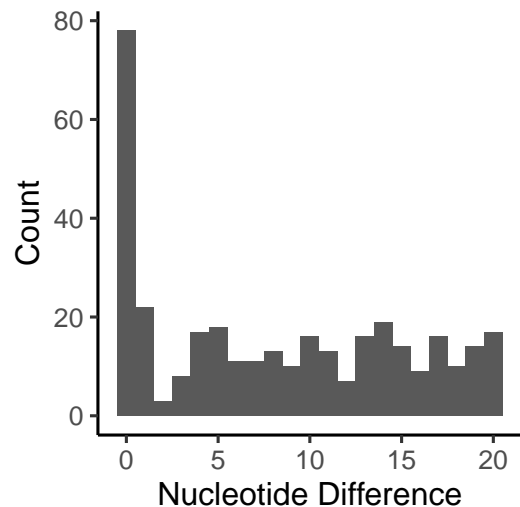
IGHV4-30-2*01

67 sequences assigned
21 (31.3%) exact matches, in which:
21 unique CDR3
5 unique J



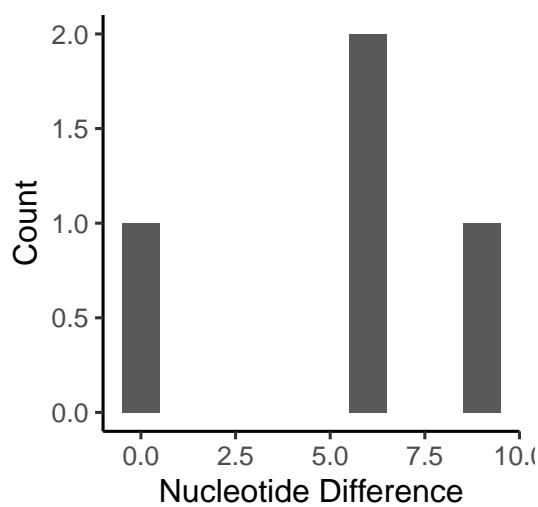
IGHV3-74*01

514 sequences assigned
78 (15.2%) exact matches, in which:
78 unique CDR3
6 unique J



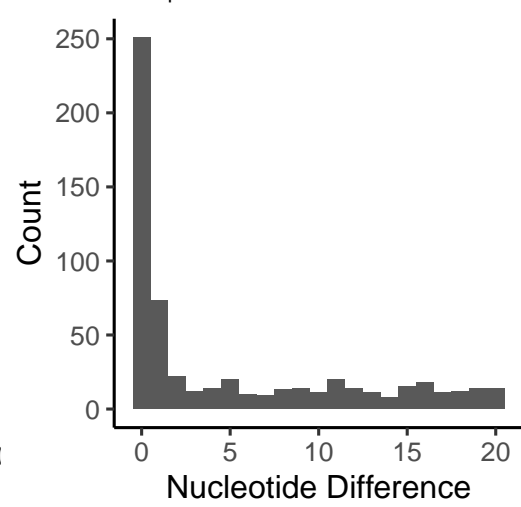
IGHV4-28*01

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



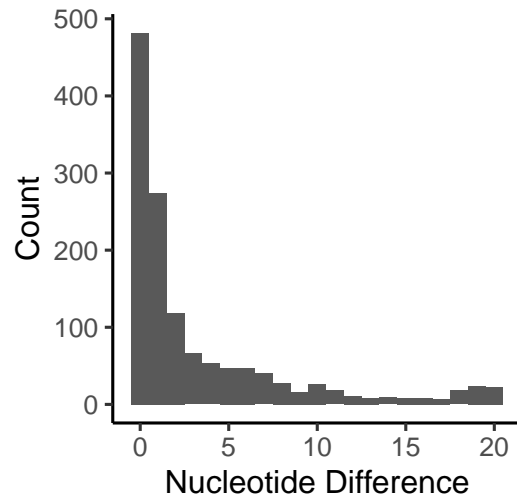
IGHV4-31*03

890 sequences assigned
251 (28.2%) exact matches, in which:
249 unique CDR3
7 unique J



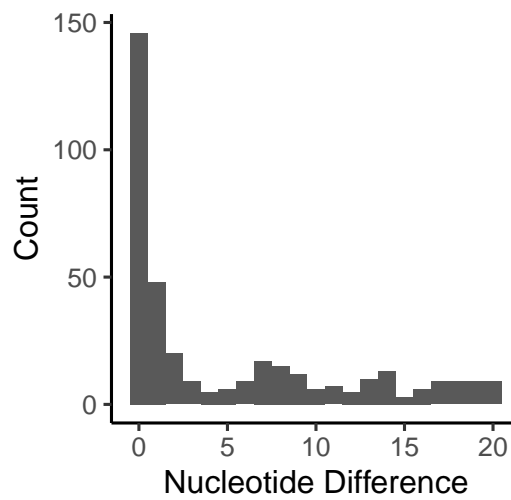
IGHV4-34*01

1847 sequences assigned
482 (26.1%) exact matches, in which:
473 unique CDR3
7 unique J



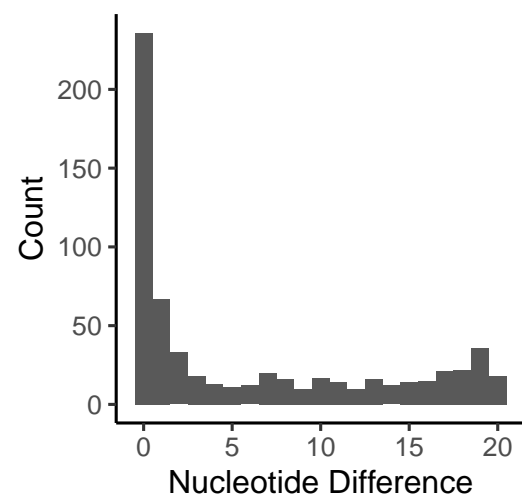
IGHV4-61*02

480 sequences assigned
146 (30.4%) exact matches, in which:
146 unique CDR3
6 unique J



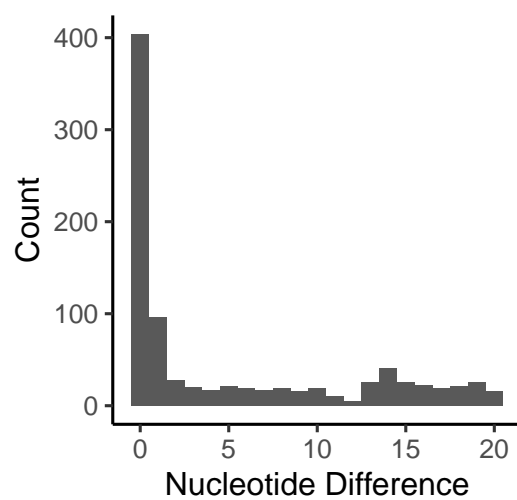
IGHV5-51*01_C45G

867 sequences assigned
236 (27.2%) exact matches, in which:
235 unique CDR3
7 unique J



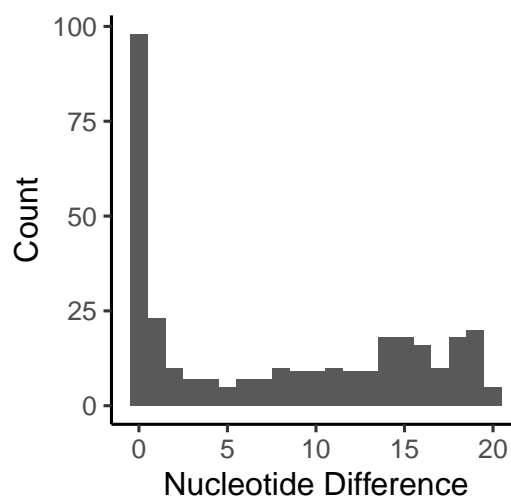
IGHV4-39*01

1512 sequences assigned
404 (26.7%) exact matches, in which:
402 unique CDR3
6 unique J



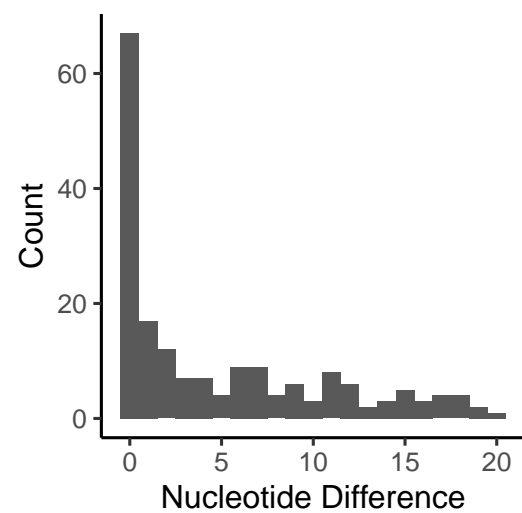
IGHV4-61*02_A234G

848 sequences assigned
98 (11.6%) exact matches, in which:
94 unique CDR3
5 unique J



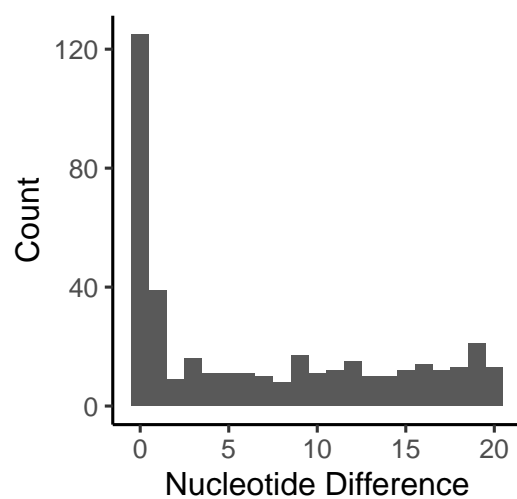
IGHV6-1*01

225 sequences assigned
67 (29.8%) exact matches, in which:
66 unique CDR3
6 unique J



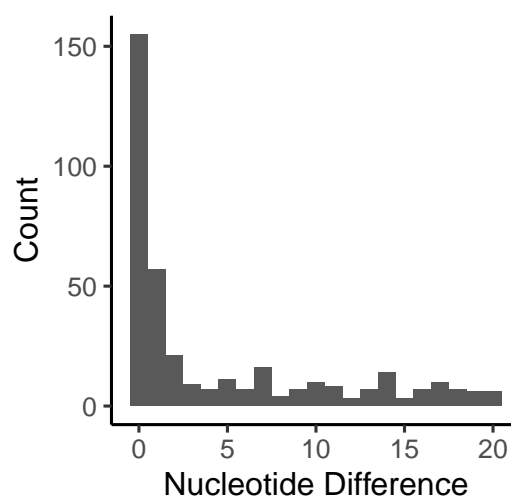
IGHV4-59*01

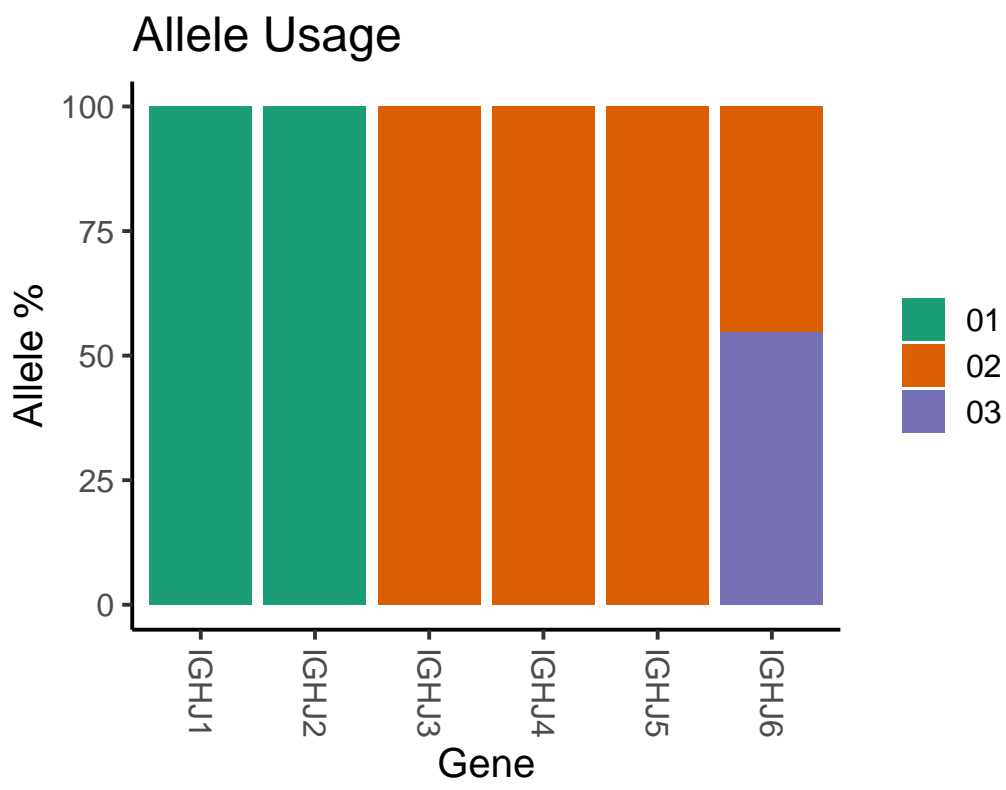
632 sequences assigned
125 (19.8%) exact matches, in which:
125 unique CDR3
6 unique J



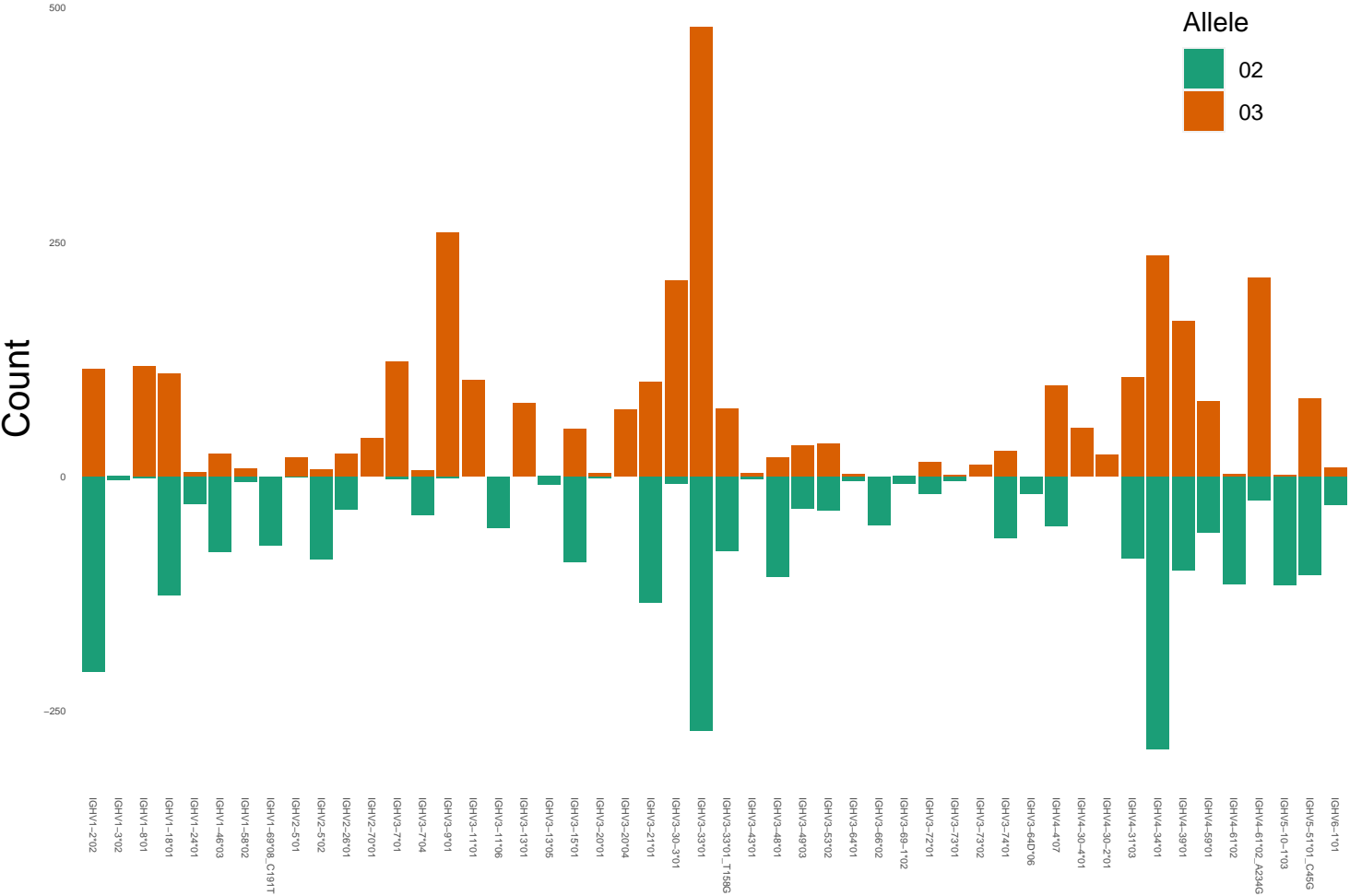
IGHV5-10-1*03

578 sequences assigned
155 (26.8%) exact matches, in which:
154 unique CDR3
6 unique J





Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.