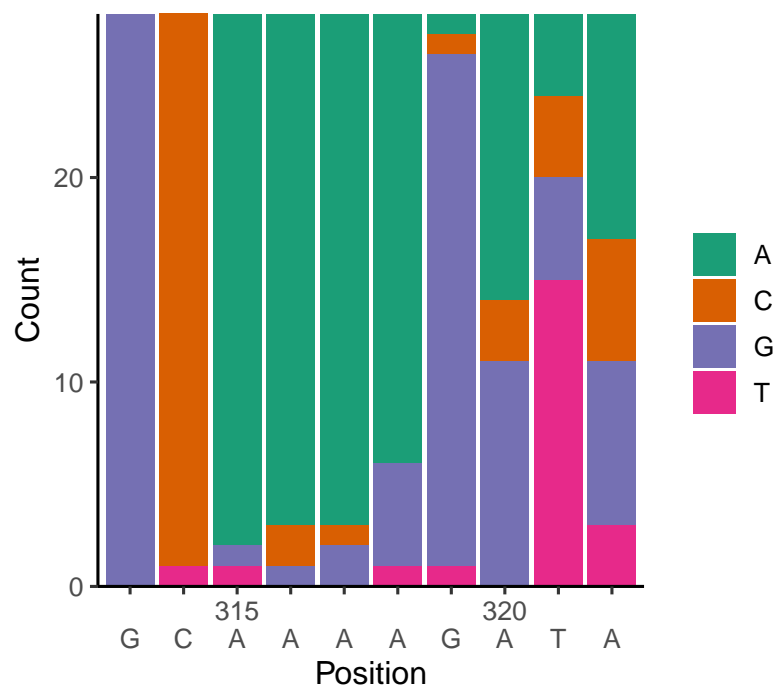
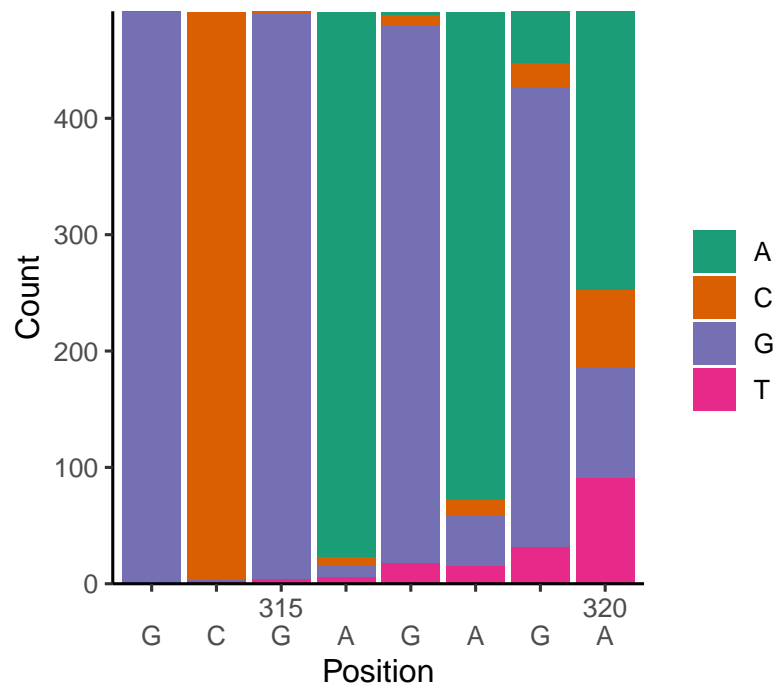


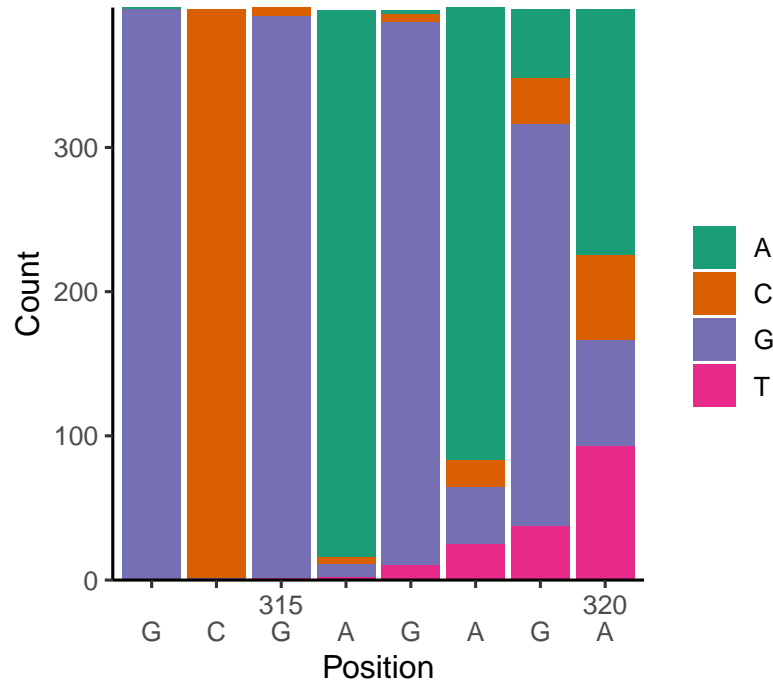
Gene IGHV3-43*01_T177A



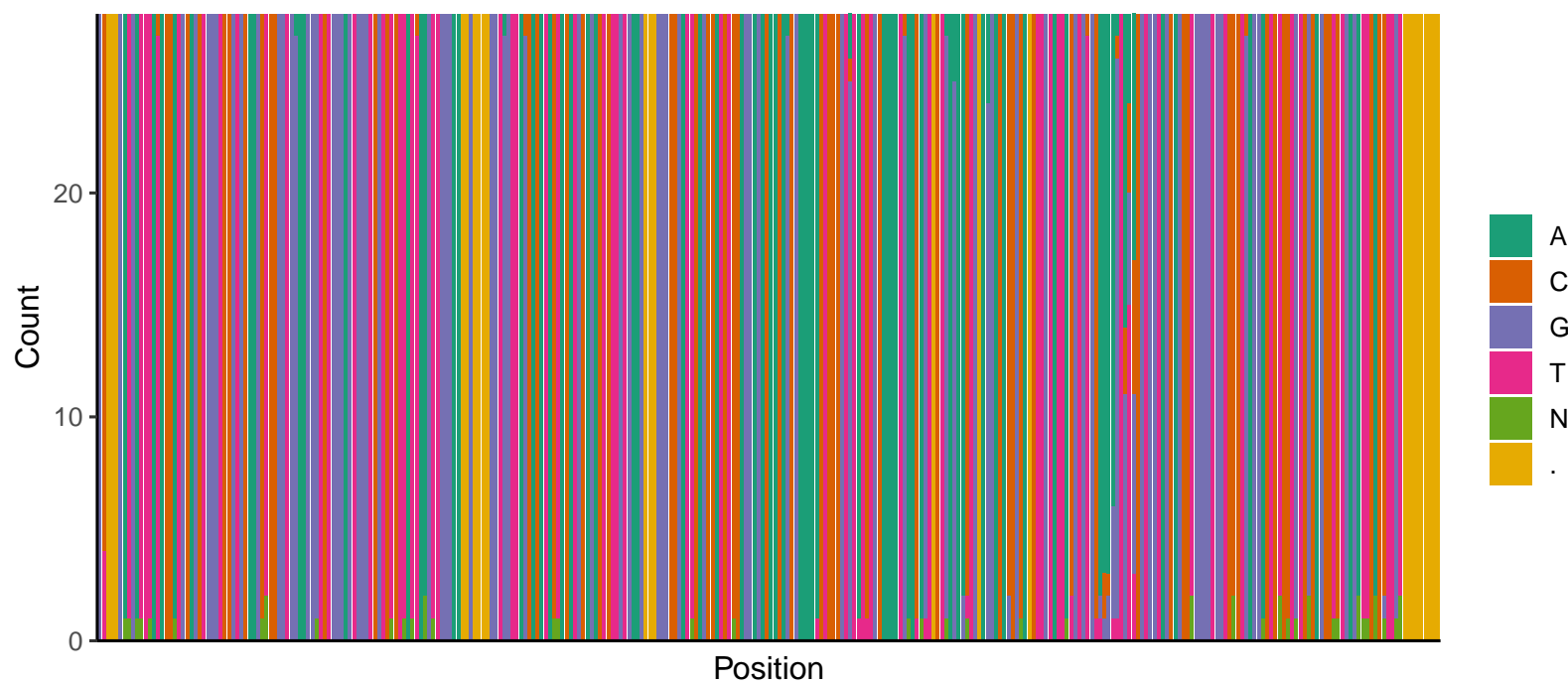
Gene IGHV1-18*01_A196G



Gene IGHV4-38-2*02_A70G



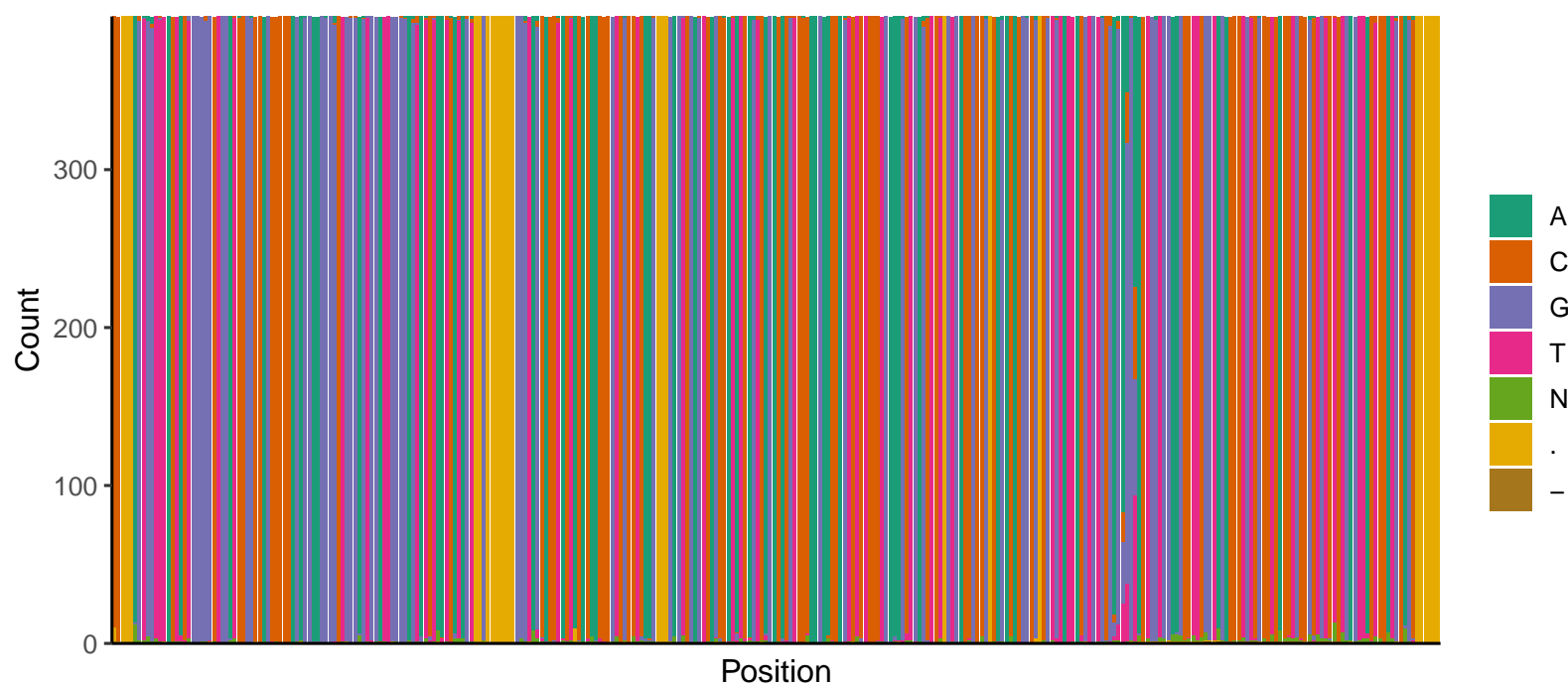
Gene IGHV3-43*01_T177A



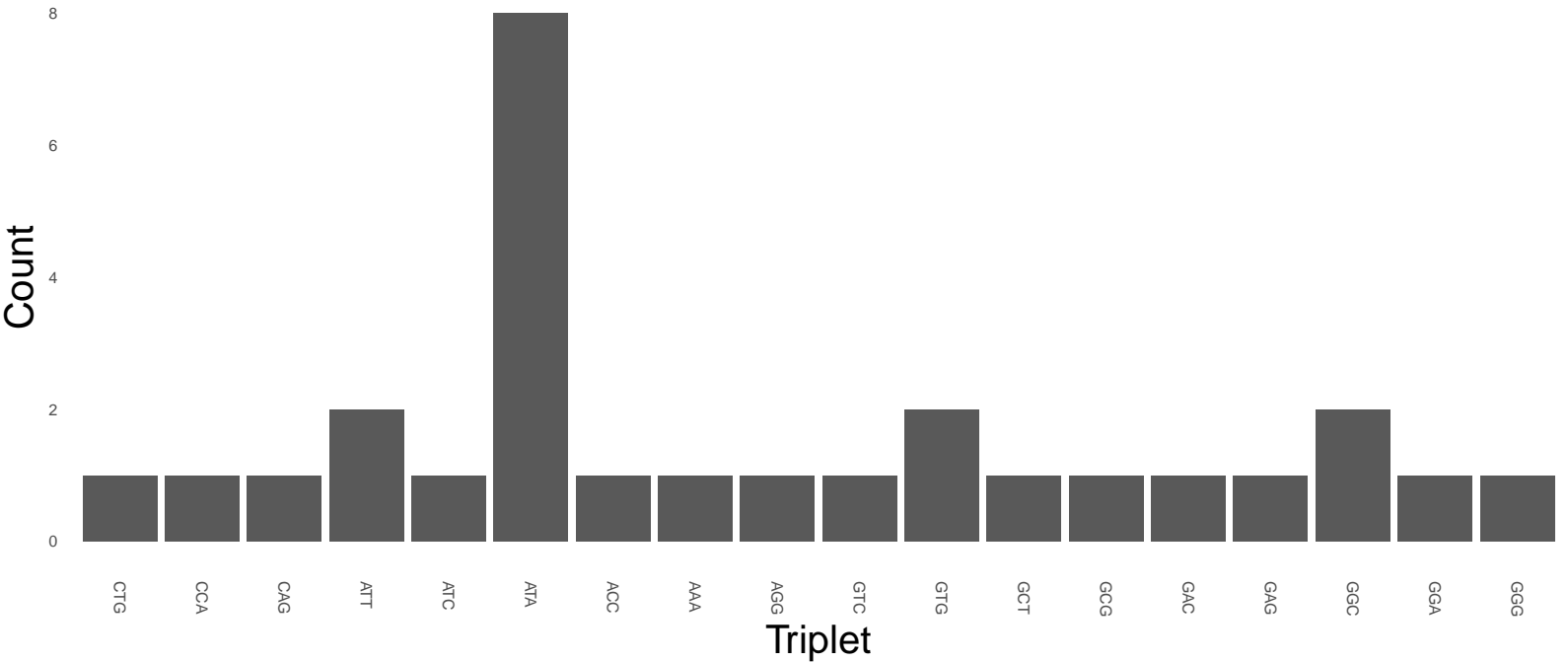
Gene IGHV1-18*01_A196G



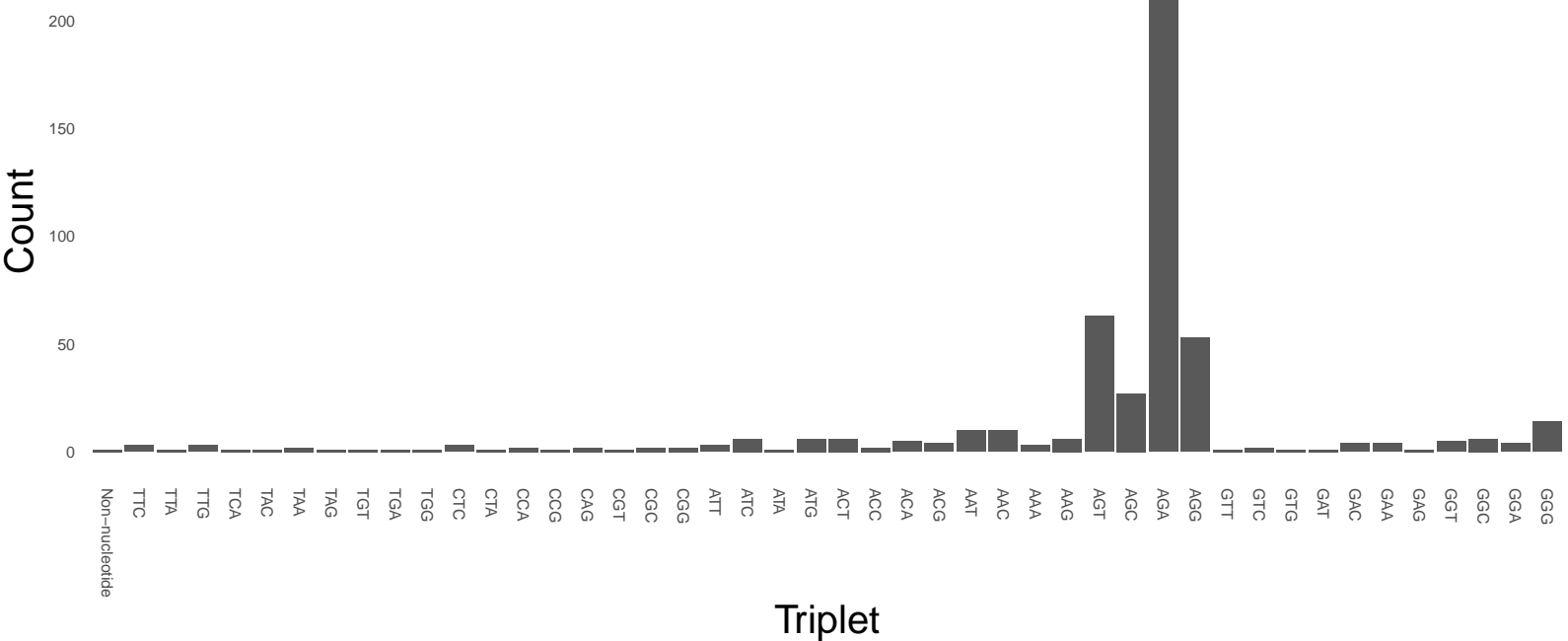
Gene IGHV4-38-2*02_A70G



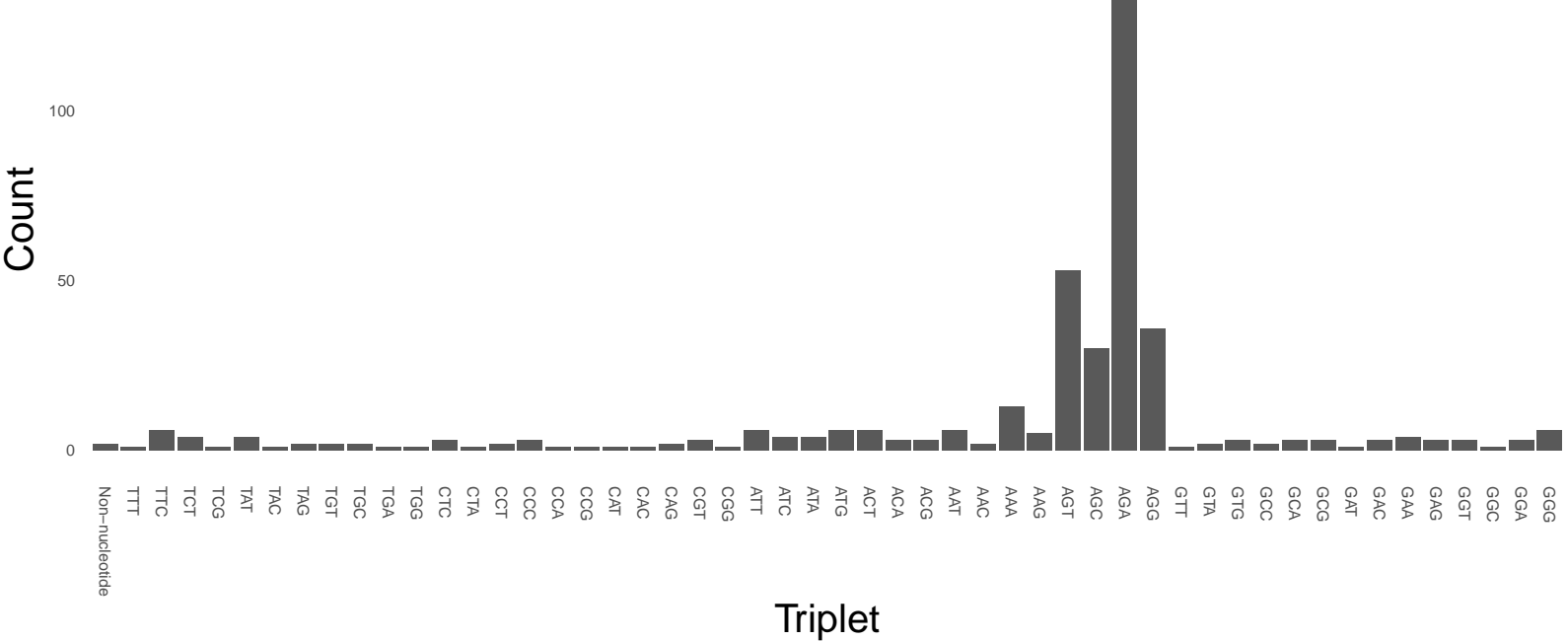
IGHV3-43*01_T177A- Final 3 nucleotides as a triplet



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

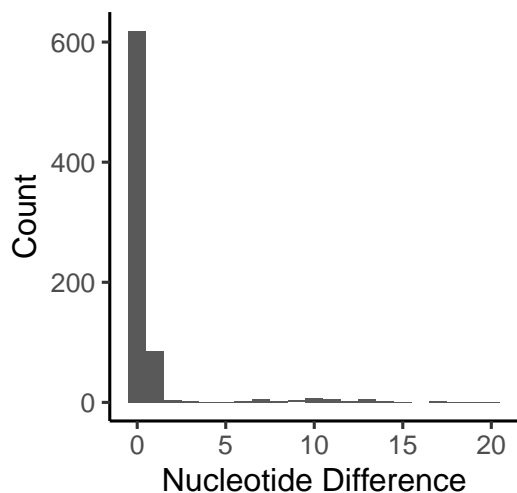


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



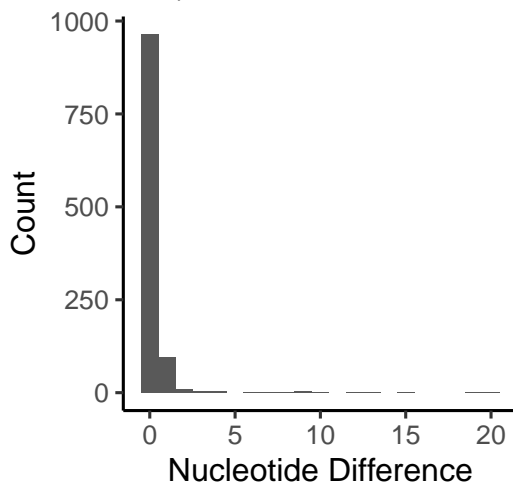
IGHV1-2*02

761 sequences assigned
619 (81.3%) exact matches, in which:
589 unique CDR3
6 unique J



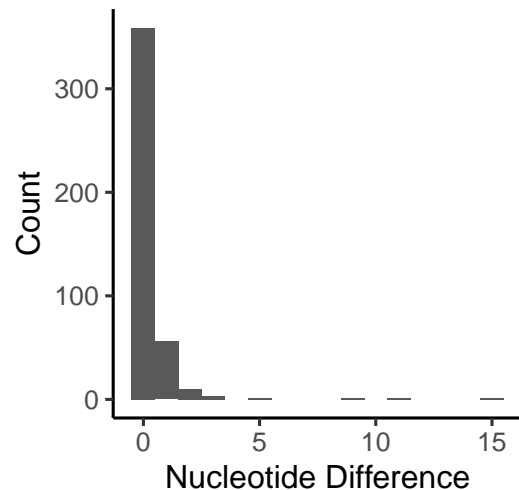
IGHV1-8*01

1091 sequences assigned
964 (88.4%) exact matches, in which:
929 unique CDR3
7 unique J



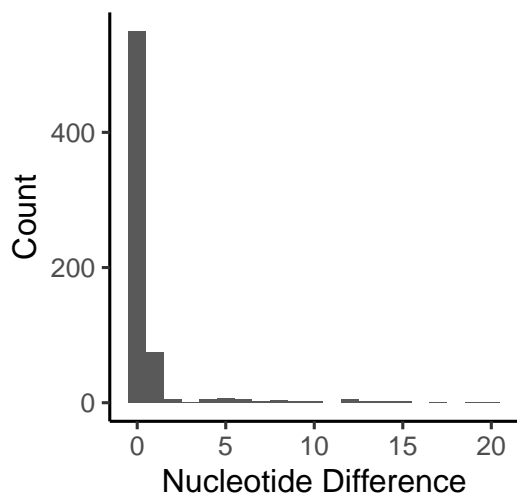
IGHV1-24*01

432 sequences assigned
359 (83.1%) exact matches, in which:
343 unique CDR3
7 unique J



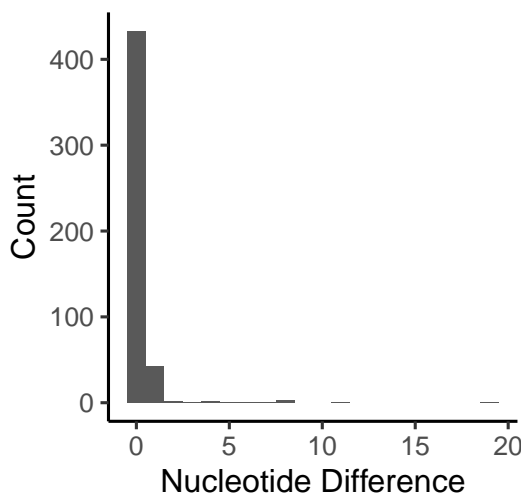
IGHV1-2*06

674 sequences assigned
550 (81.6%) exact matches, in which:
520 unique CDR3
6 unique J



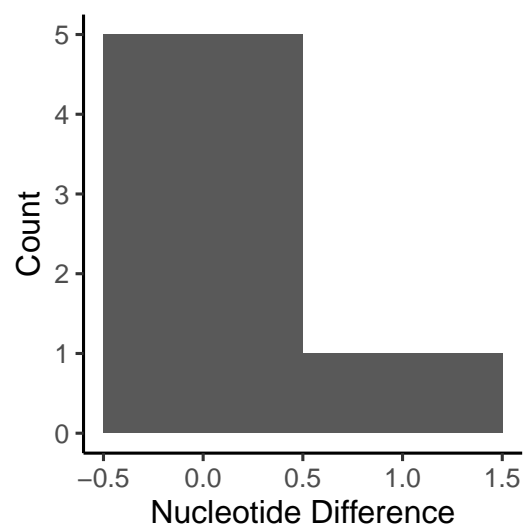
IGHV1-18*01

490 sequences assigned
433 (88.4%) exact matches, in which:
421 unique CDR3
6 unique J



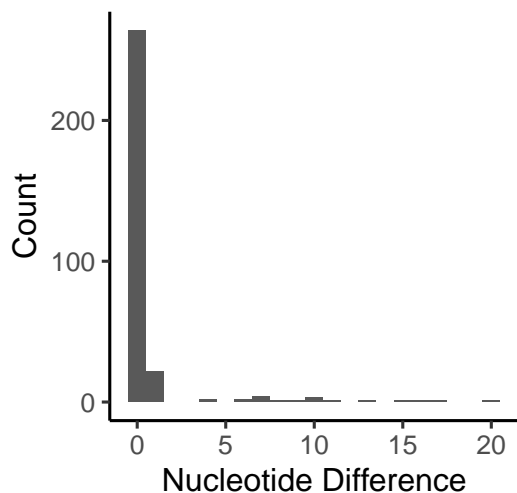
IGHV1-45*02

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
3 unique J



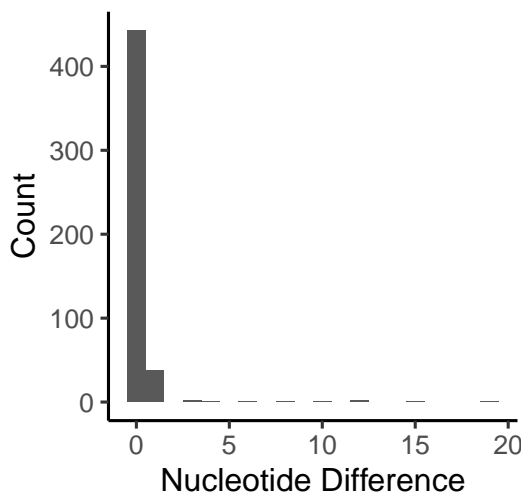
IGHV1-3*01

307 sequences assigned
264 (86%) exact matches, in which:
260 unique CDR3
6 unique J



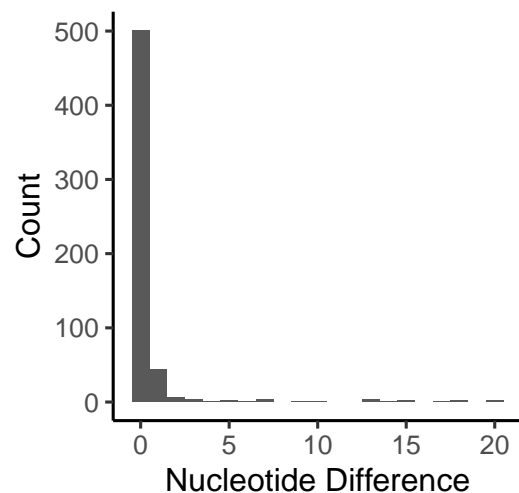
IGHV1-18*01_A196G

492 sequences assigned
443 (90%) exact matches, in which:
429 unique CDR3
6 unique J



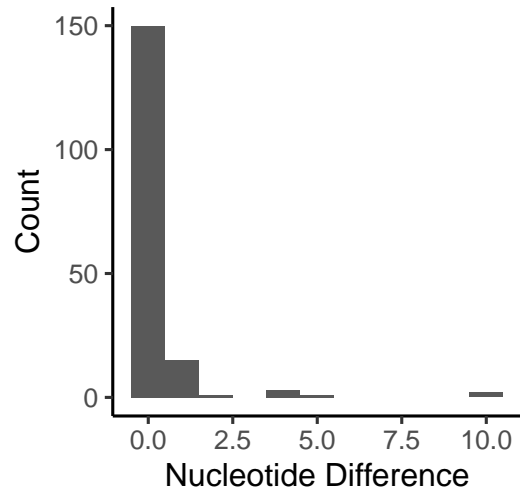
IGHV1-46*01

575 sequences assigned
501 (87.1%) exact matches, in which:
471 unique CDR3
7 unique J



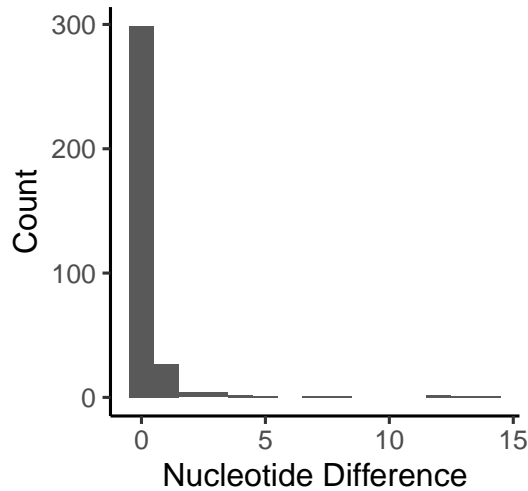
IGHV1–58*01

174 sequences assigned
150 (86.2%) exact matches, in which:
142 unique CDR3
6 unique J



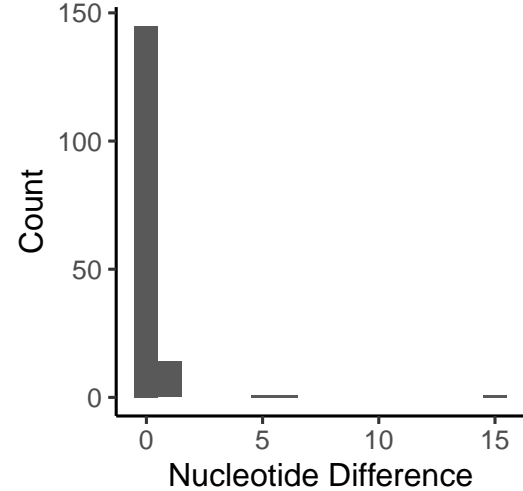
IGHV2–5*01

343 sequences assigned
299 (87.2%) exact matches, in which:
287 unique CDR3
6 unique J



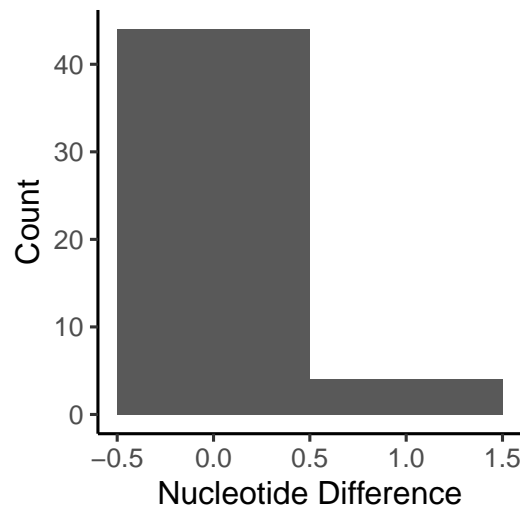
IGHV2–70*01

162 sequences assigned
145 (89.5%) exact matches, in which:
144 unique CDR3
6 unique J



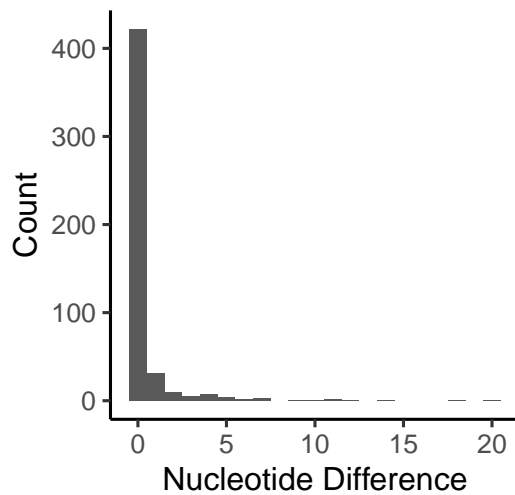
IGHV1–69–2*01

48 sequences assigned
44 (91.7%) exact matches, in which:
42 unique CDR3
6 unique J



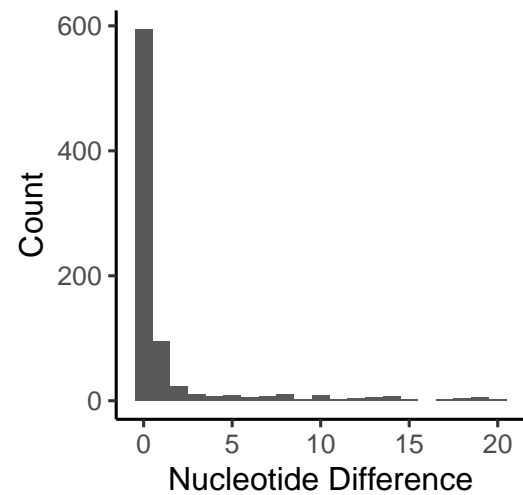
IGHV2–5*02

493 sequences assigned
422 (85.6%) exact matches, in which:
400 unique CDR3
6 unique J



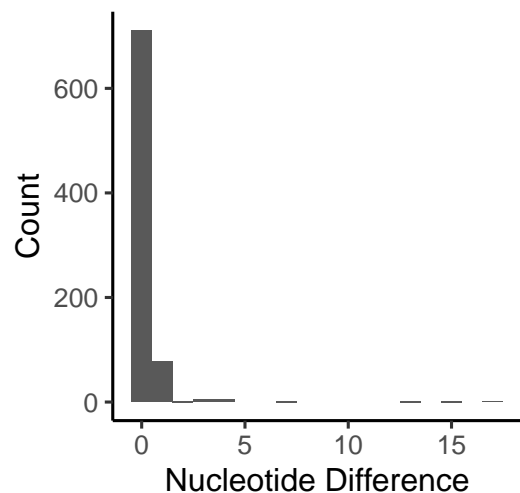
IGHV3–7*01

819 sequences assigned
595 (72.6%) exact matches, in which:
570 unique CDR3
7 unique J



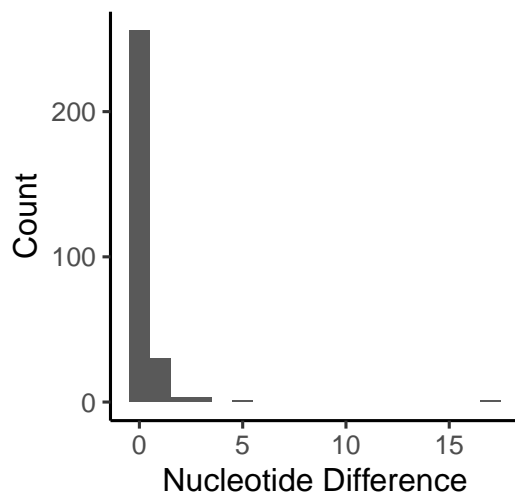
IGHV1–69*06

810 sequences assigned
711 (87.8%) exact matches, in which:
674 unique CDR3
7 unique J



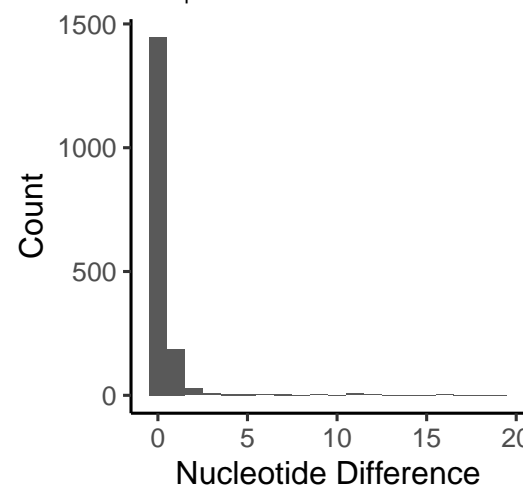
IGHV2–26*01

294 sequences assigned
256 (87.1%) exact matches, in which:
247 unique CDR3
7 unique J



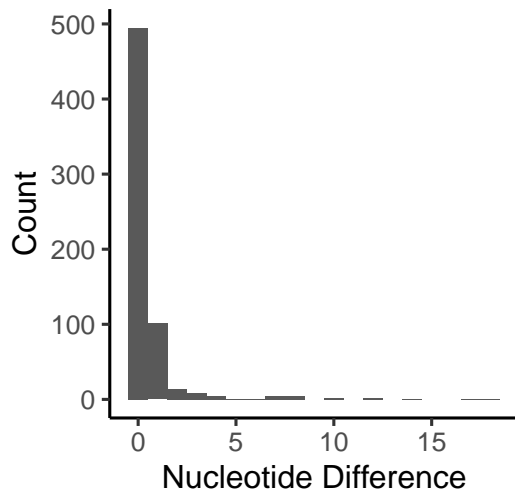
IGHV3–9*01

1719 sequences assigned
1447 (84.2%) exact matches, in which:
1361 unique CDR3
7 unique J



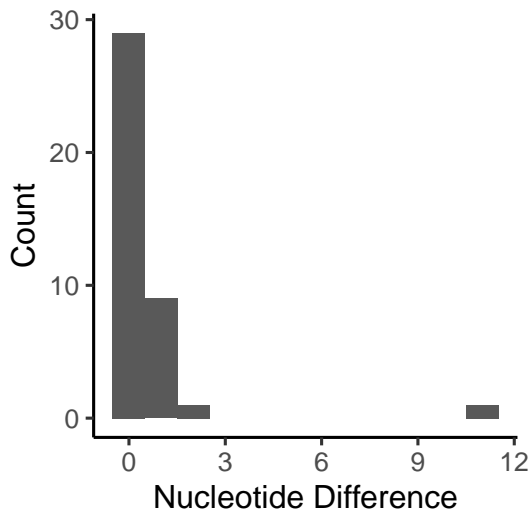
IGHV3-11*01

643 sequences assigned
495 (77%) exact matches, in which:
479 unique CDR3
7 unique J



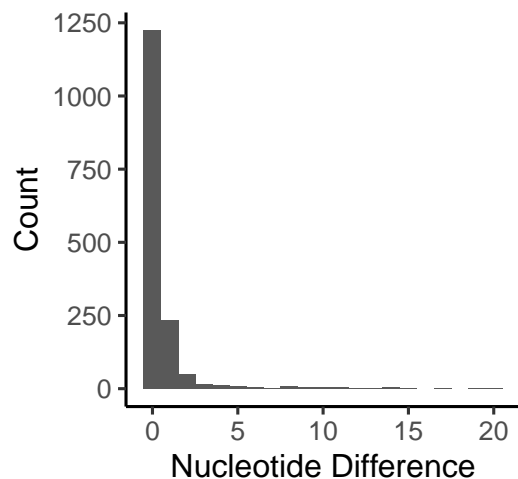
IGHV3-20*01

40 sequences assigned
29 (72.5%) exact matches, in which:
27 unique CDR3
4 unique J



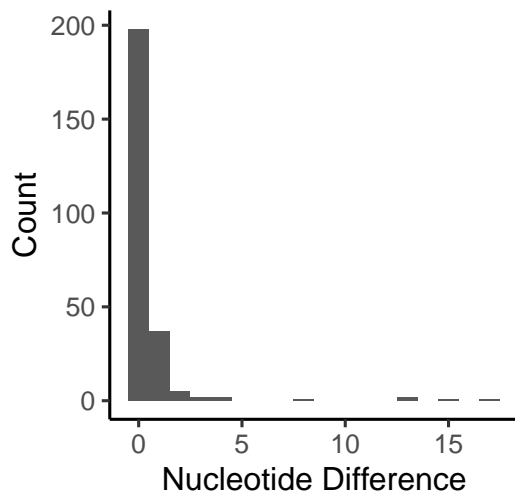
IGHV3-33*01

1592 sequences assigned
1224 (76.9%) exact matches, in which:
1180 unique CDR3
7 unique J



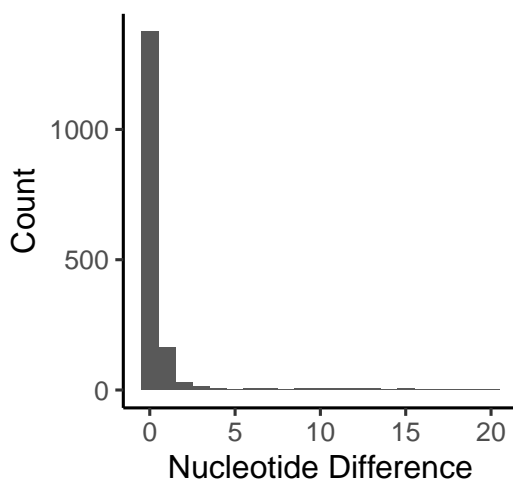
IGHV3-13*01

249 sequences assigned
198 (79.5%) exact matches, in which:
191 unique CDR3
7 unique J



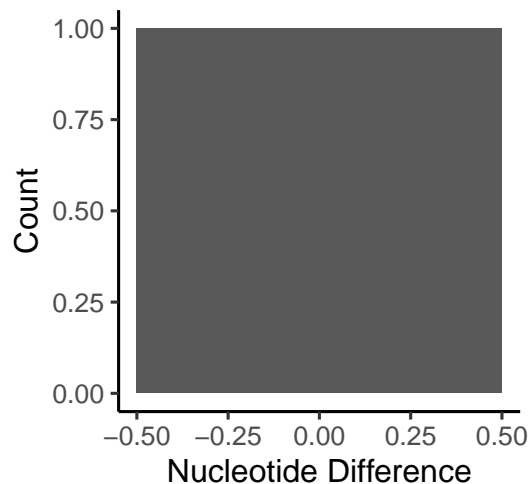
IGHV3-21*01

1641 sequences assigned
1375 (83.8%) exact matches, in which:
1318 unique CDR3
7 unique J



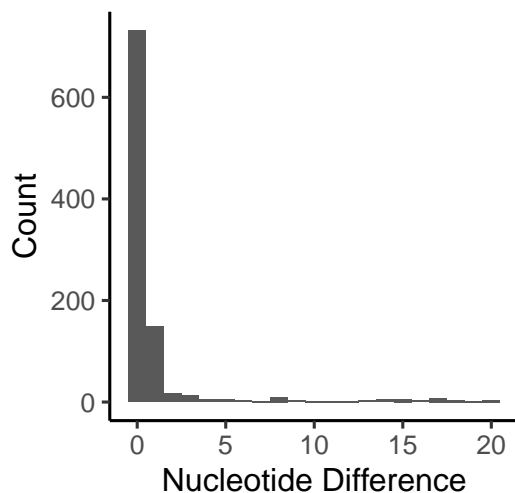
IGHV3-35*01

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



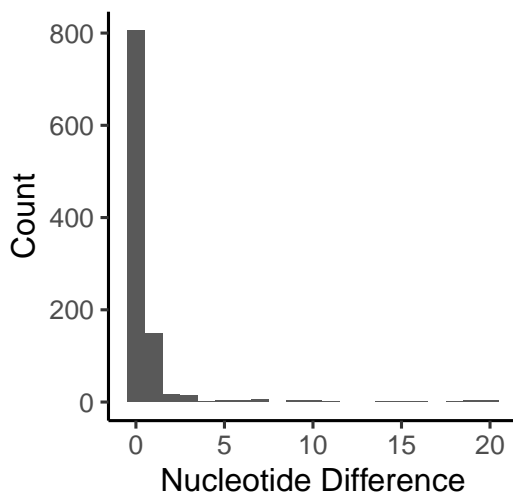
IGHV3-15*01

1003 sequences assigned
732 (73%) exact matches, in which:
702 unique CDR3
7 unique J



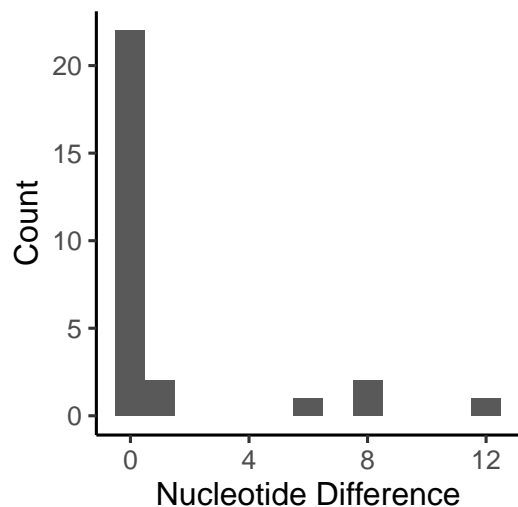
IGHV3-30-3*01

1021 sequences assigned
806 (78.9%) exact matches, in which:
769 unique CDR3
7 unique J



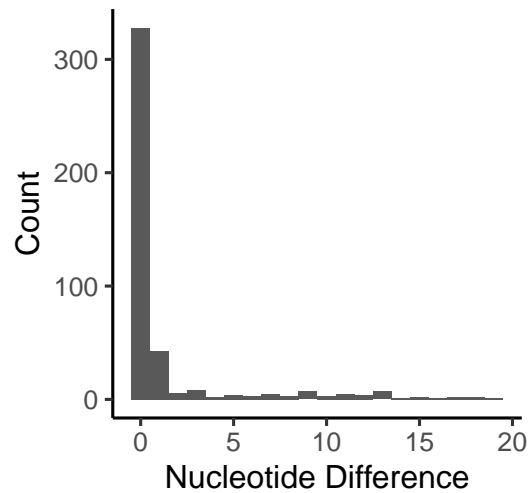
IGHV3-43*01_T177A

28 sequences assigned
22 (78.6%) exact matches, in which:
21 unique CDR3
4 unique J



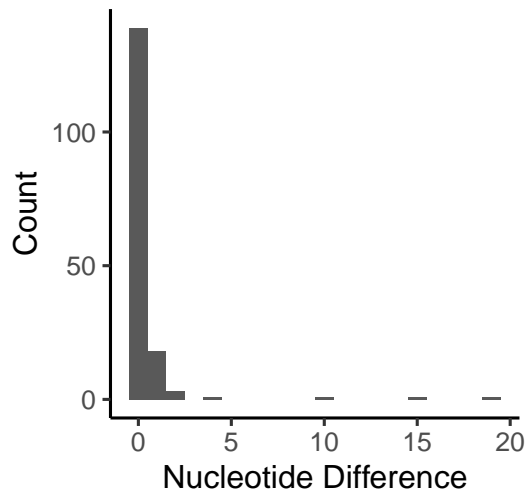
IGHV3-48*02

438 sequences assigned
328 (74.9%) exact matches, in which:
319 unique CDR3
6 unique J



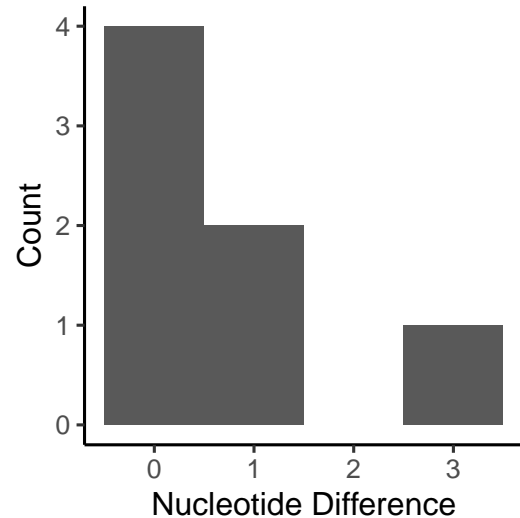
IGHV3-49*05

167 sequences assigned
139 (83.2%) exact matches, in which:
135 unique CDR3
6 unique J



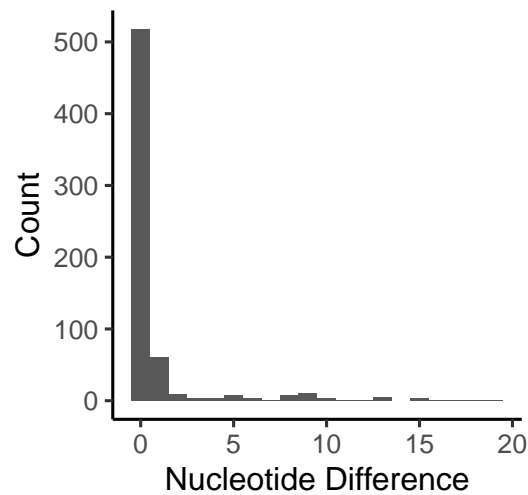
IGHV3-64*02

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
2 unique J



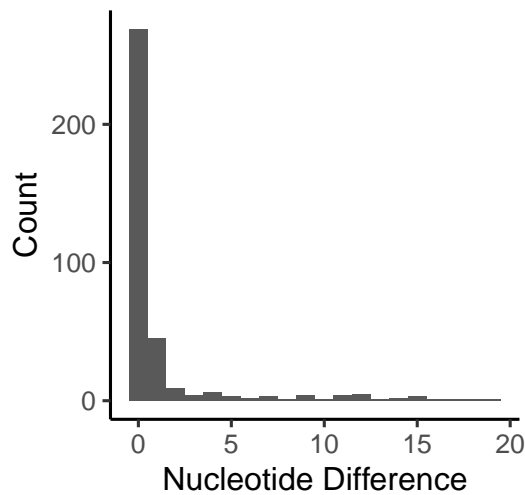
IGHV3-48*03

642 sequences assigned
518 (80.7%) exact matches, in which:
498 unique CDR3
6 unique J



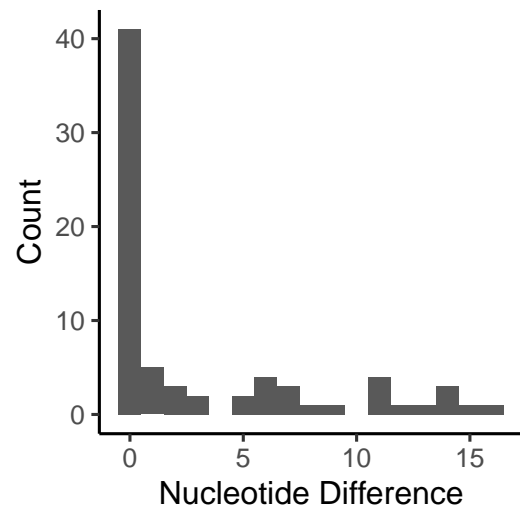
IGHV3-53*01

369 sequences assigned
269 (72.9%) exact matches, in which:
258 unique CDR3
6 unique J



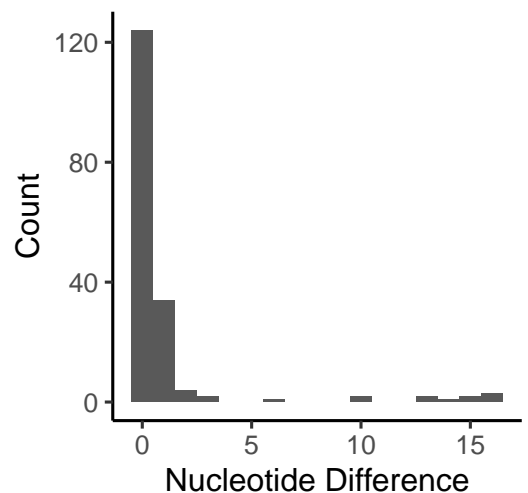
IGHV3-72*01

74 sequences assigned
41 (55.4%) exact matches, in which:
40 unique CDR3
7 unique J



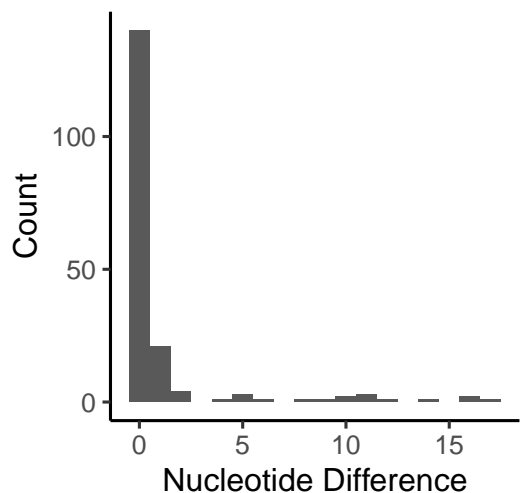
IGHV3-49*04

177 sequences assigned
124 (70.1%) exact matches, in which:
123 unique CDR3
6 unique J



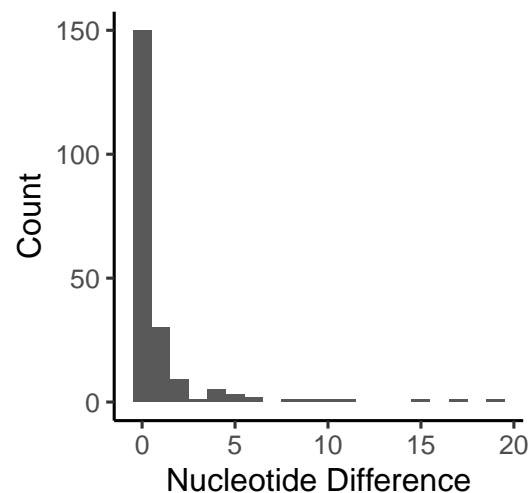
IGHV3-53*02

182 sequences assigned
140 (76.9%) exact matches, in which:
135 unique CDR3
6 unique J



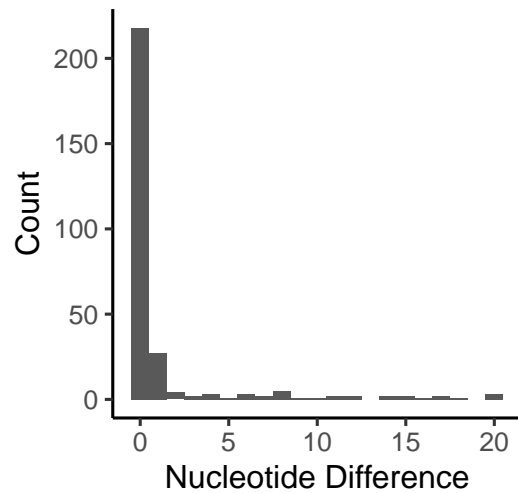
IGHV3-73*02

207 sequences assigned
150 (72.5%) exact matches, in which:
143 unique CDR3
7 unique J



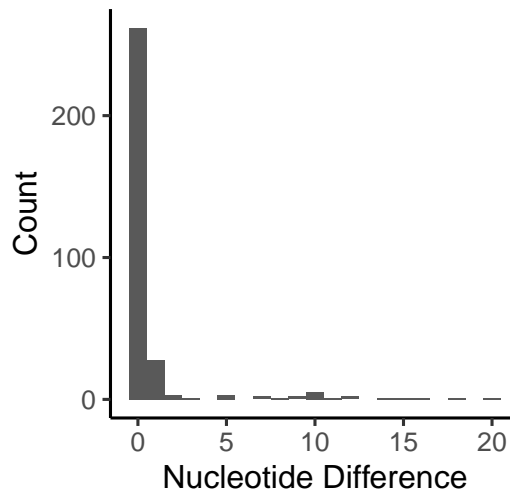
IGHV3-74*01

288 sequences assigned
218 (75.7%) exact matches, in which:
213 unique CDR3
7 unique J



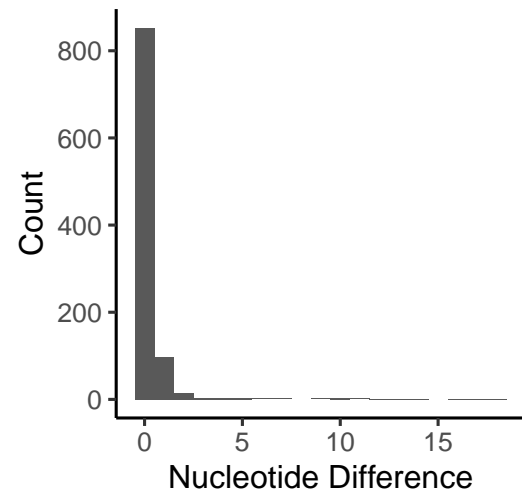
IGHV4-4*07

318 sequences assigned
262 (82.4%) exact matches, in which:
253 unique CDR3
6 unique J



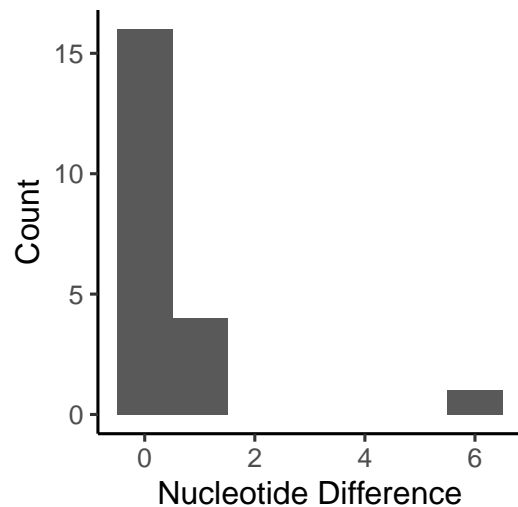
IGHV4-31*03

995 sequences assigned
853 (85.7%) exact matches, in which:
822 unique CDR3
7 unique J



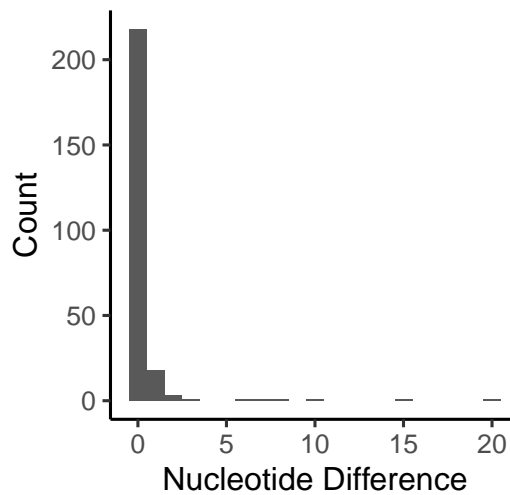
IGHV3-43D*04

21 sequences assigned
16 (76.2%) exact matches, in which:
16 unique CDR3
6 unique J



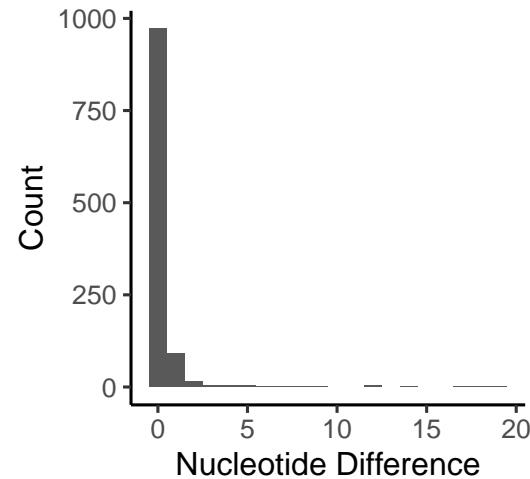
IGHV4-30-4*01

246 sequences assigned
218 (88.6%) exact matches, in which:
210 unique CDR3
7 unique J



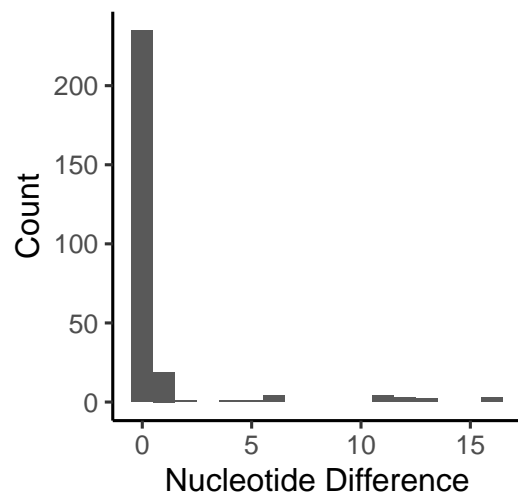
IGHV4-34*01

1107 sequences assigned
972 (87.8%) exact matches, in which:
916 unique CDR3
7 unique J



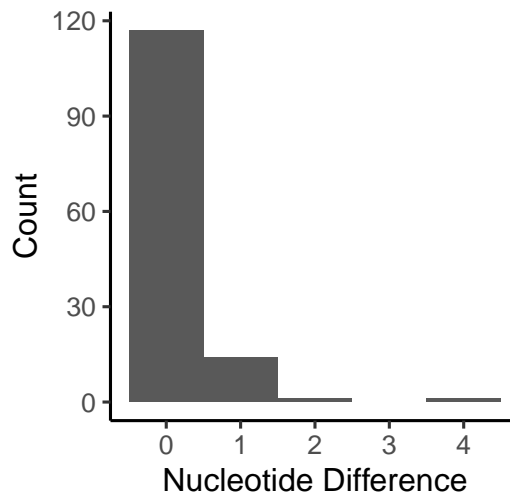
IGHV4-4*02

275 sequences assigned
235 (85.5%) exact matches, in which:
222 unique CDR3
6 unique J



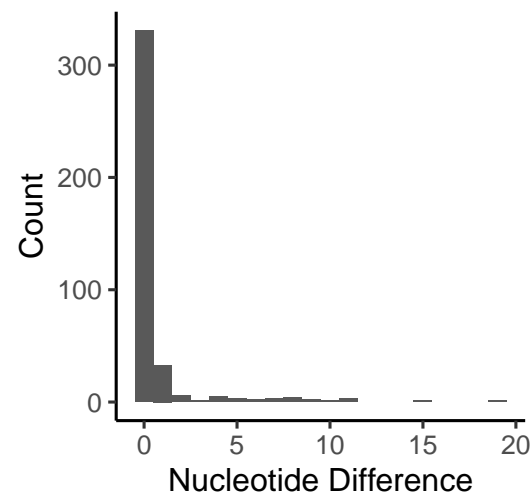
IGHV4-30-2*01

133 sequences assigned
117 (88%) exact matches, in which:
111 unique CDR3
5 unique J



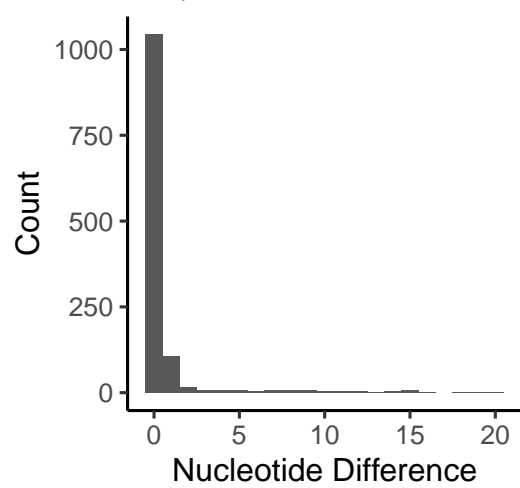
IGHV4-38-2*02_A70G

397 sequences assigned
331 (83.4%) exact matches, in which:
303 unique CDR3
6 unique J



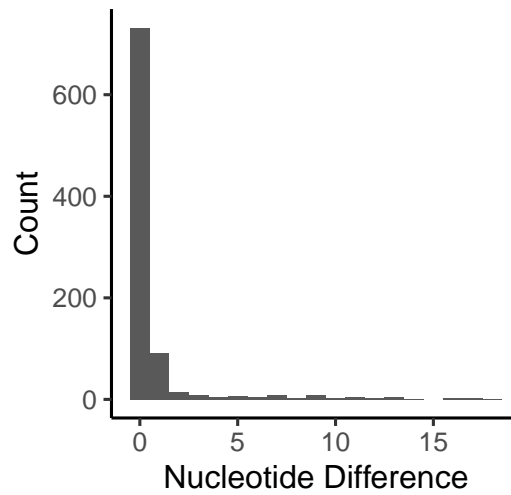
IGHV4-39*01

1249 sequences assigned
1044 (83.6%) exact matches, in which:
999 unique CDR3
7 unique J



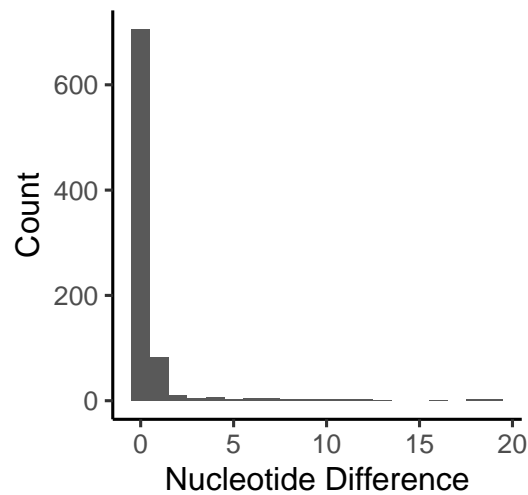
IGHV5-51*01

908 sequences assigned
732 (80.6%) exact matches, in which:
706 unique CDR3
7 unique J



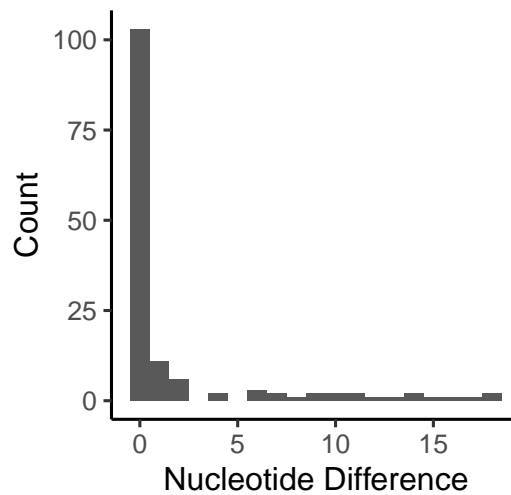
IGHV4-59*01

850 sequences assigned
706 (83.1%) exact matches, in which:
690 unique CDR3
7 unique J



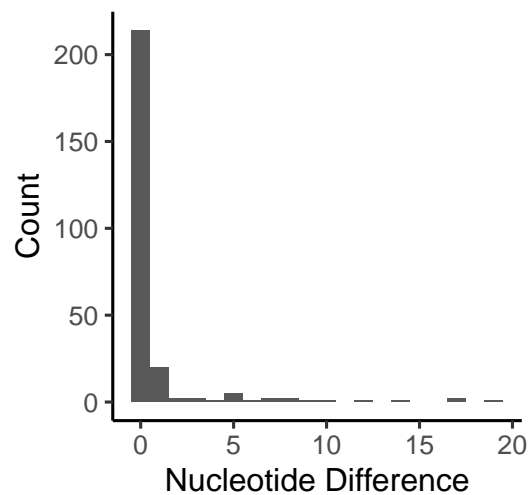
IGHV6-1*01

143 sequences assigned
103 (72%) exact matches, in which:
97 unique CDR3
6 unique J



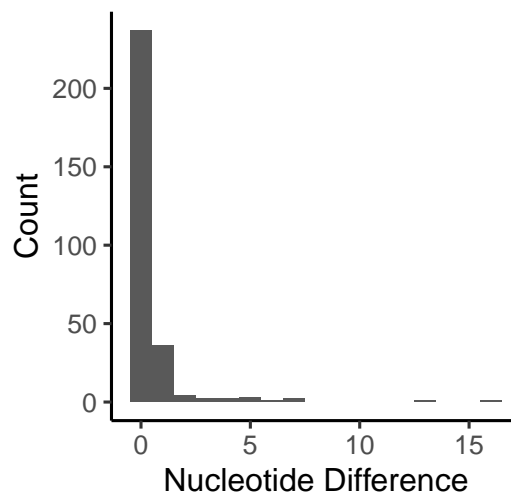
IGHV4-61*01

257 sequences assigned
214 (83.3%) exact matches, in which:
211 unique CDR3
7 unique J

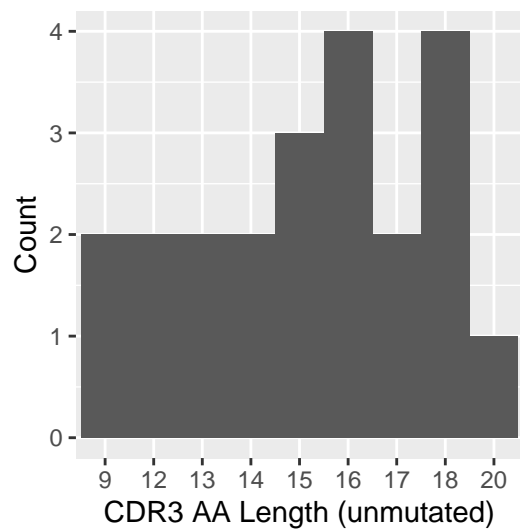


IGHV7-4-1*02

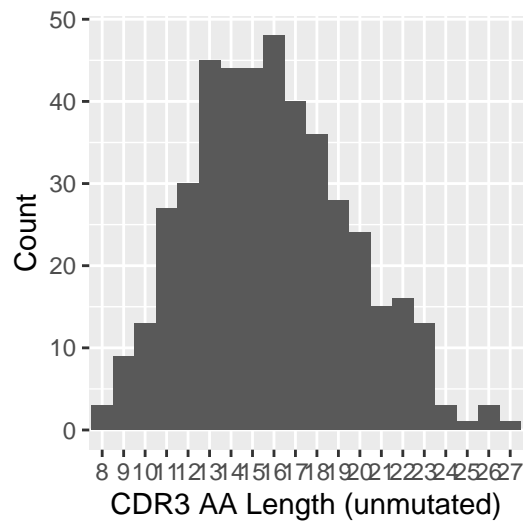
289 sequences assigned
237 (82%) exact matches, in which:
232 unique CDR3
6 unique J



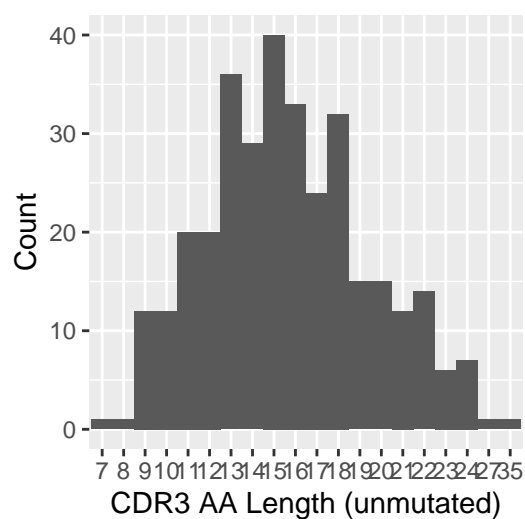
IGHV3-43*01_T177A



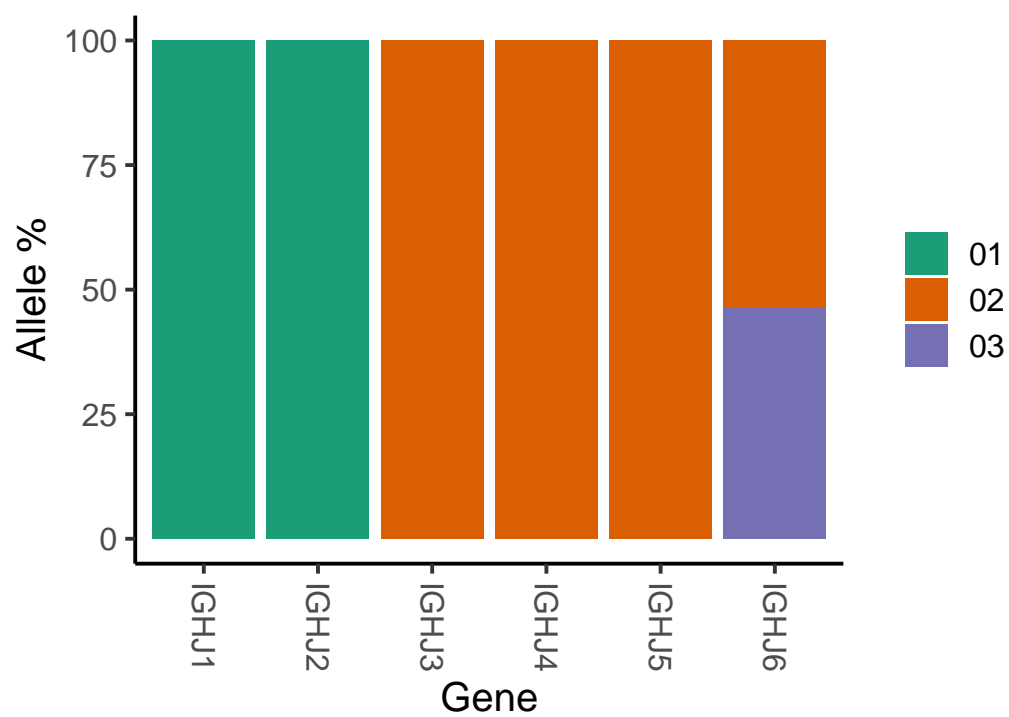
IGHV1-18*01_A196G



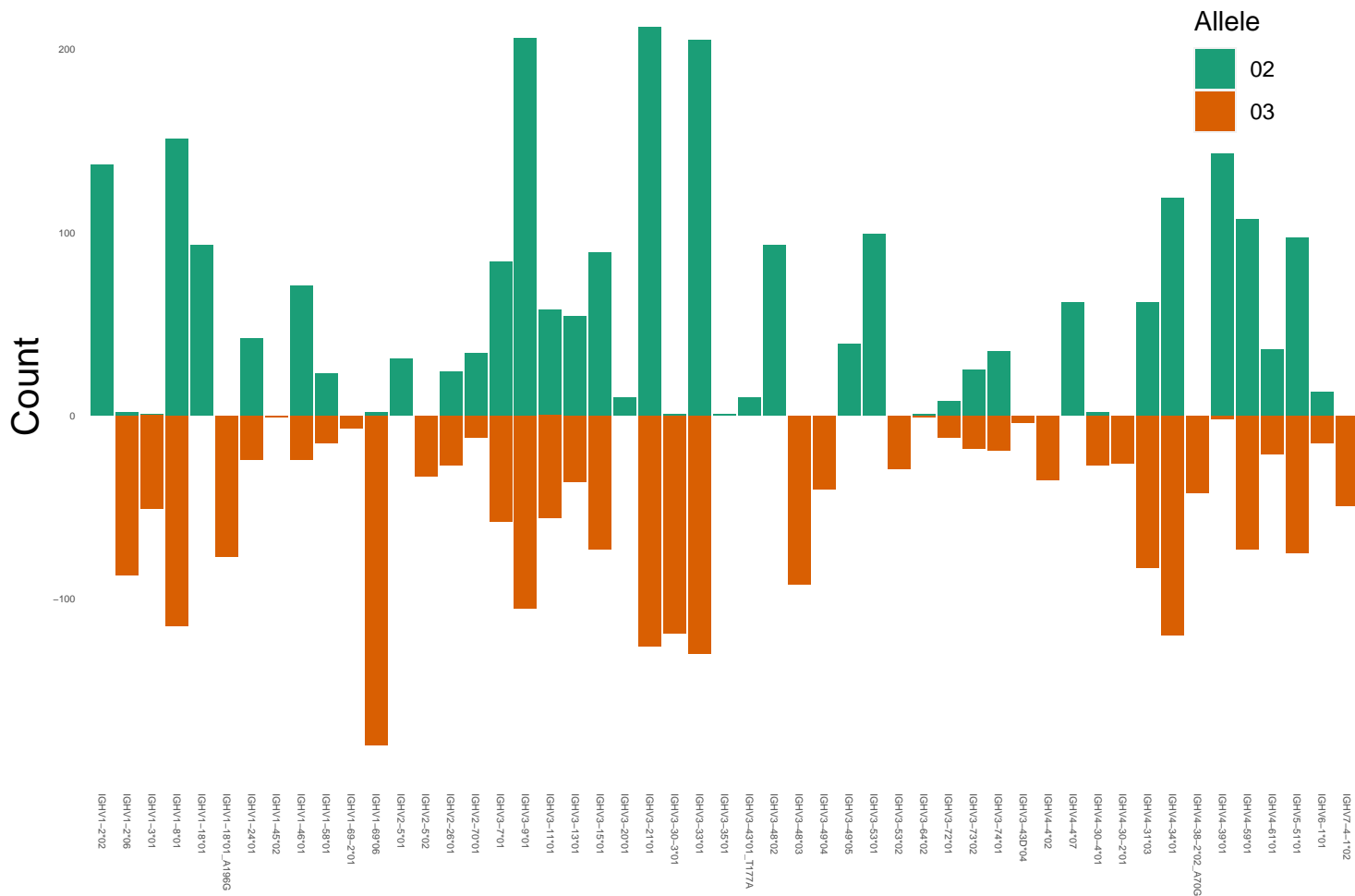
IGHV4-38-2*02_A70G



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]