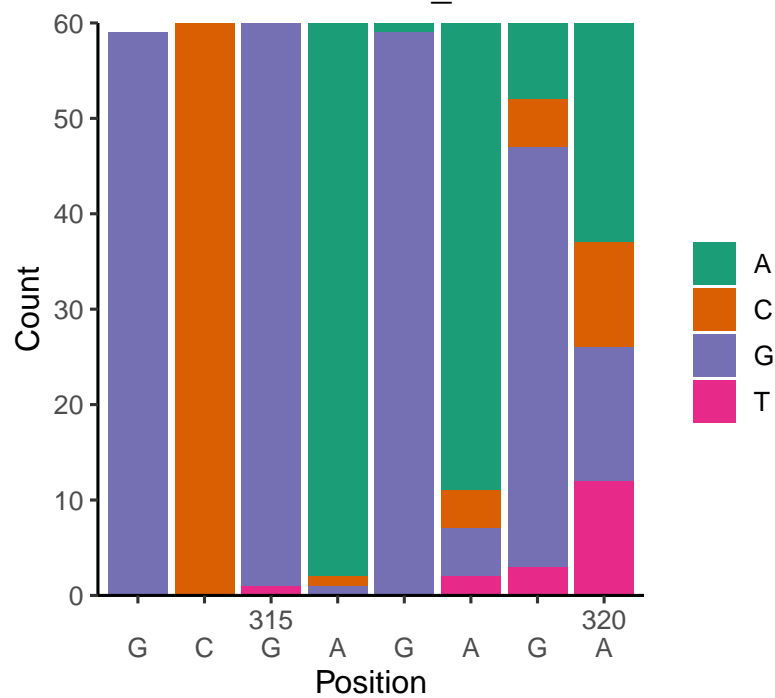
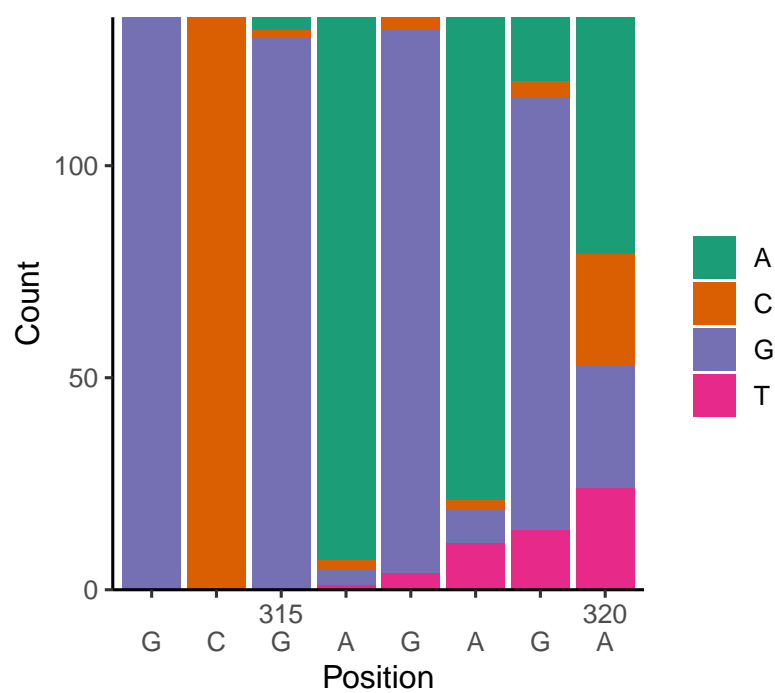


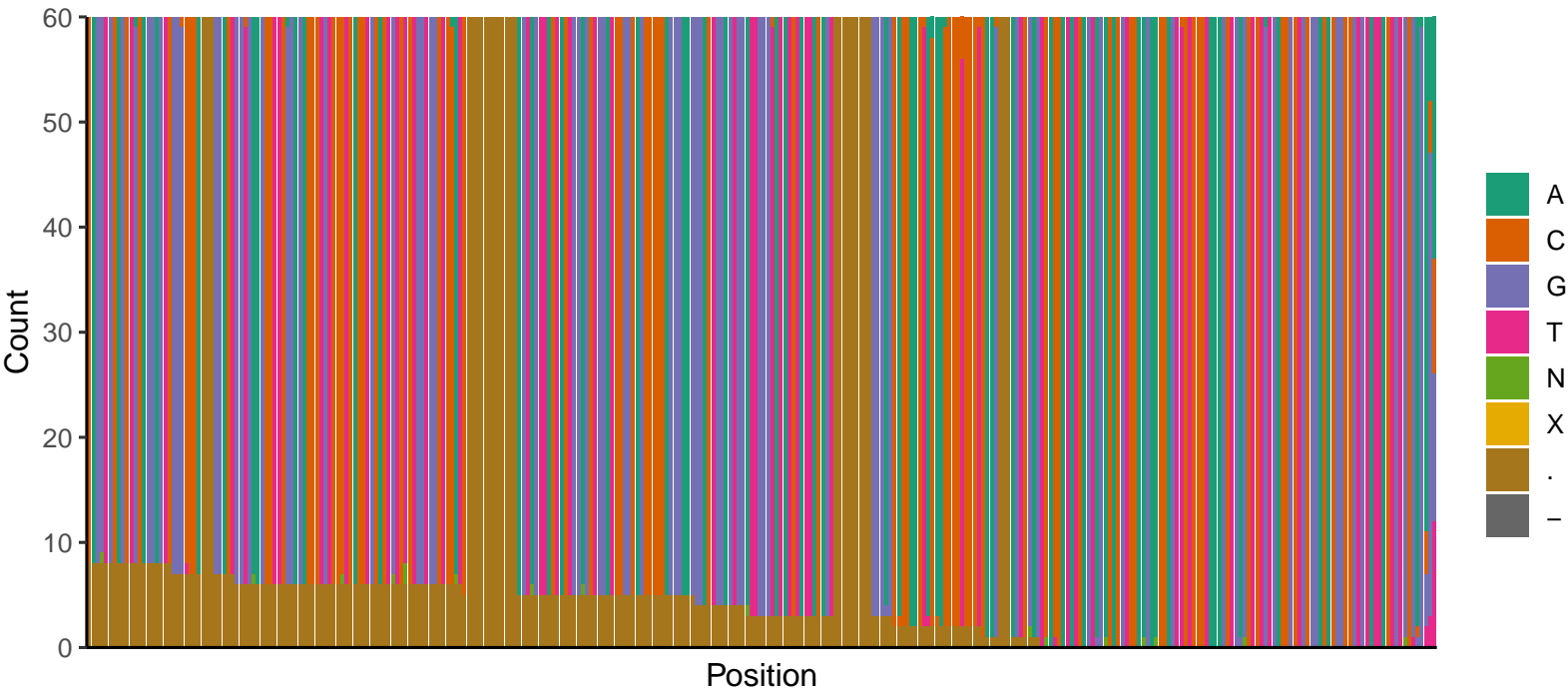
Gene IGHV4-59*01_G267A



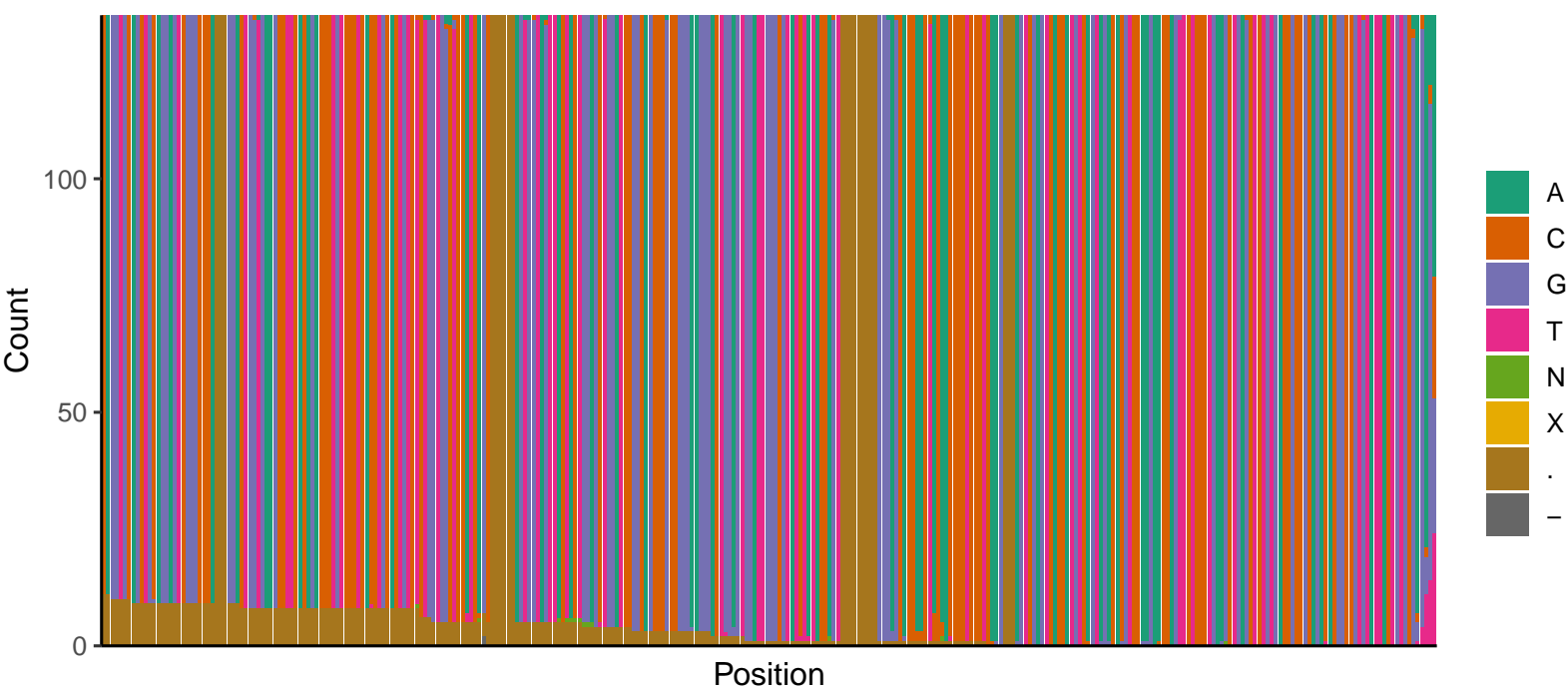
Gene IGHV4-61*02_A234G



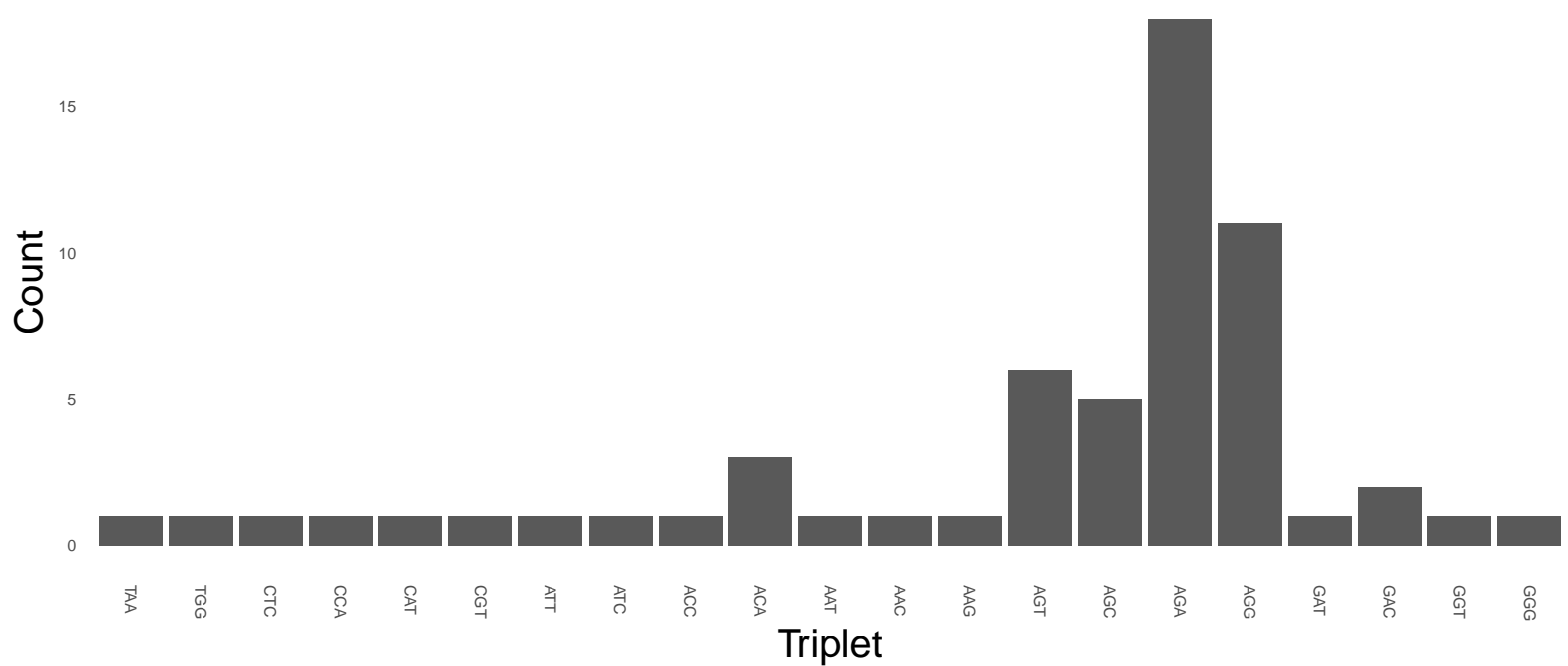
Gene IGHV4-59*01_G267A



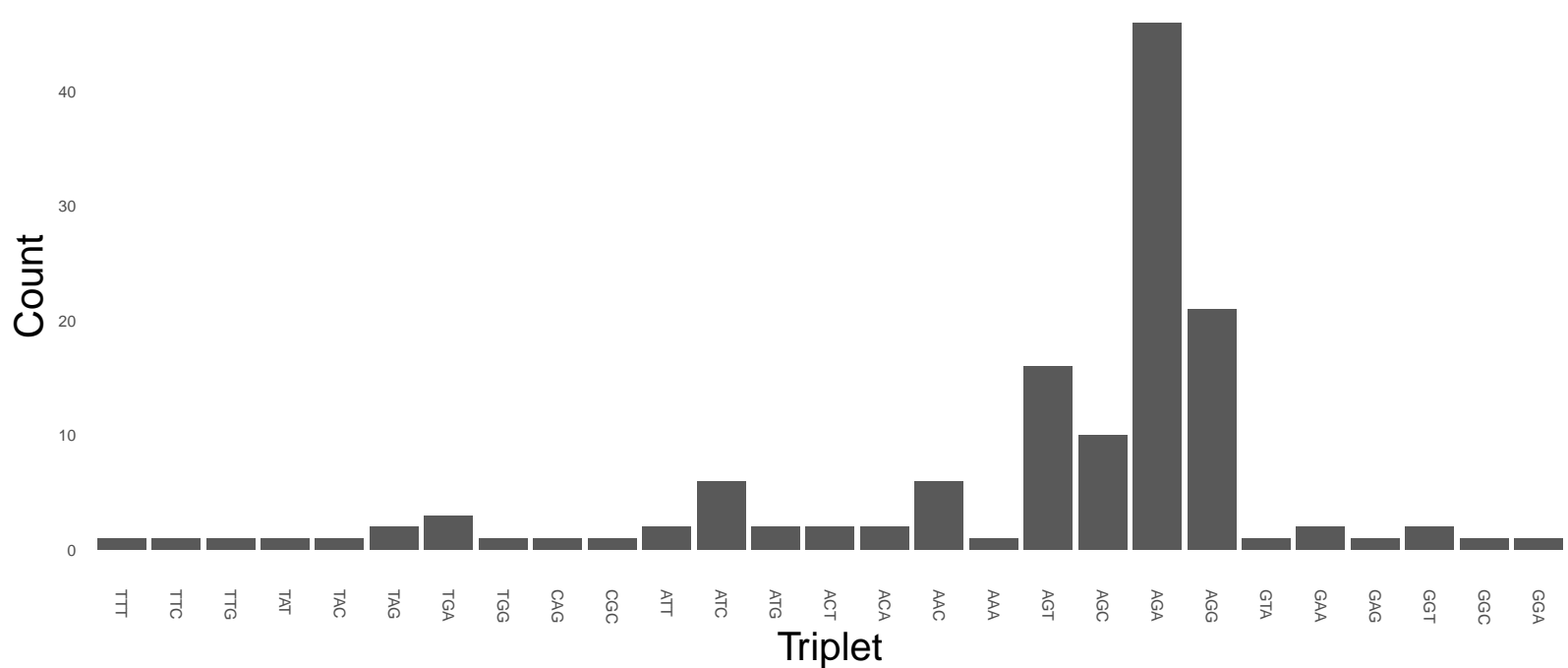
Gene IGHV4-61*02_A234G



IGHV4–59*01_G267A– Final 3 nucleotides as a triplet

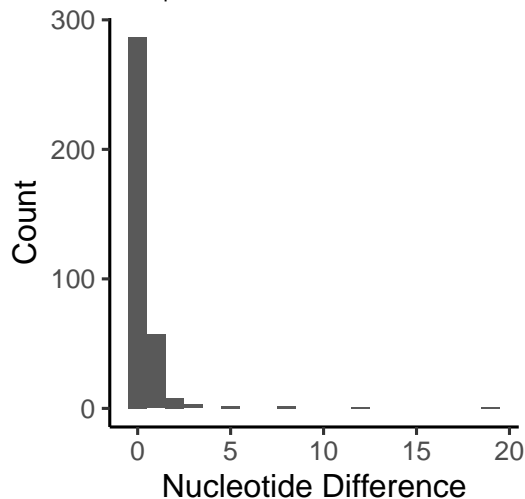


IGHV4–61*02_A234G– Final 3 nucleotides as a triplet



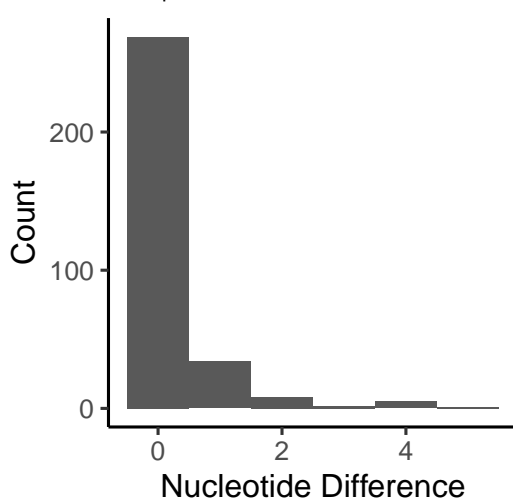
IGHV1-2*02

361 sequences assigned
287 (79.5%) exact matches, in which:
285 unique CDR3
7 unique J



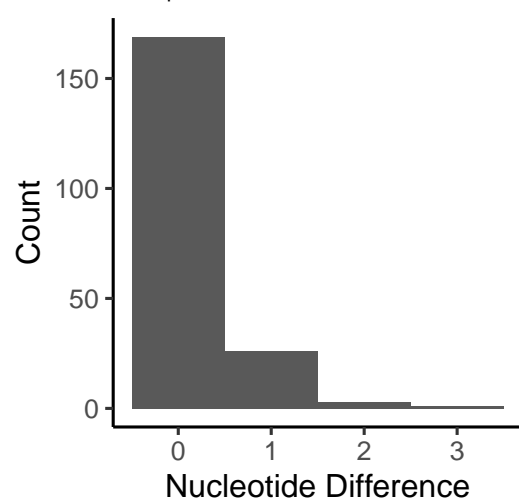
IGHV1-18*01

319 sequences assigned
269 (84.3%) exact matches, in which:
265 unique CDR3
7 unique J



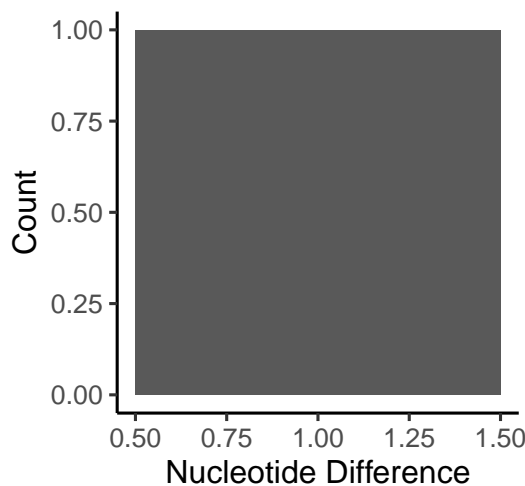
IGHV1-46*01

199 sequences assigned
169 (84.9%) exact matches, in which:
168 unique CDR3
7 unique J



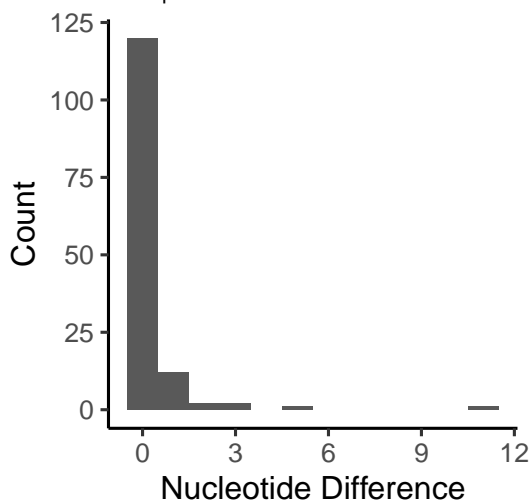
IGHV1-3*02

1 sequences assigned
No exact matches.



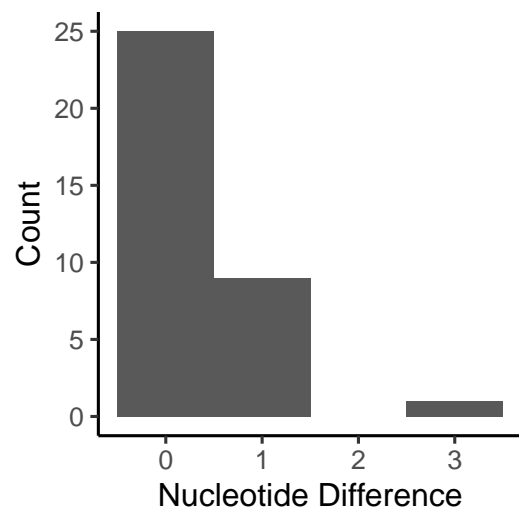
IGHV1-24*01

138 sequences assigned
120 (87%) exact matches, in which:
119 unique CDR3
6 unique J



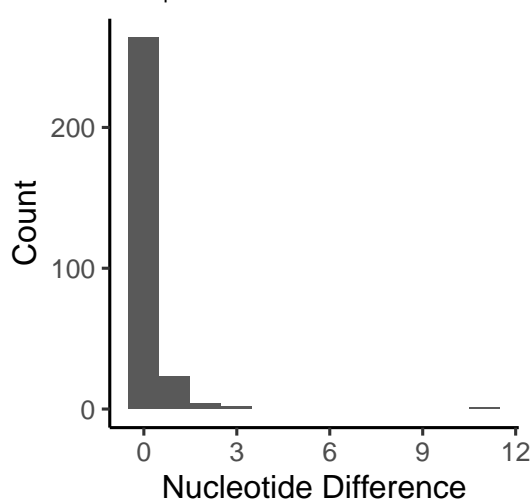
IGHV1-58*01

35 sequences assigned
25 (71.4%) exact matches, in which:
25 unique CDR3
7 unique J



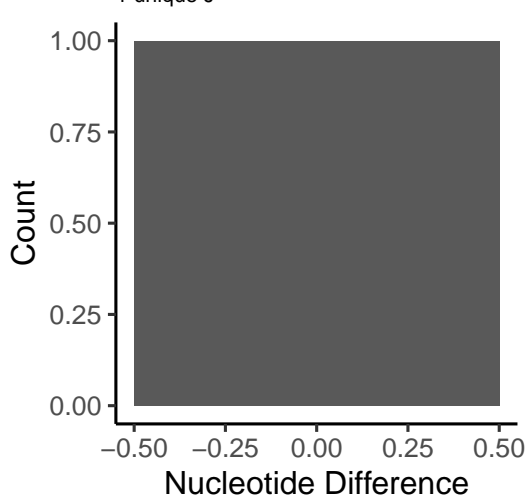
IGHV1-8*01

295 sequences assigned
264 (89.5%) exact matches, in which:
262 unique CDR3
7 unique J



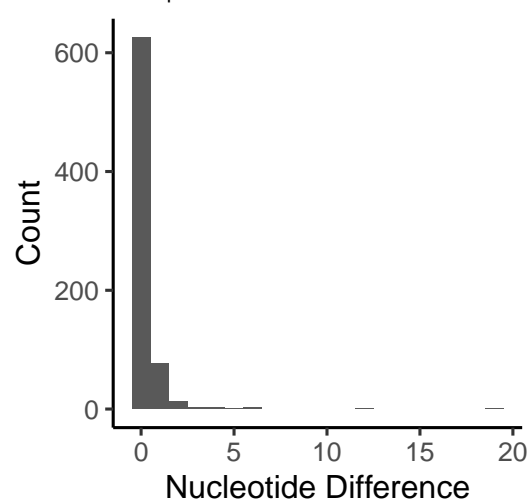
IGHV1-45*02

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



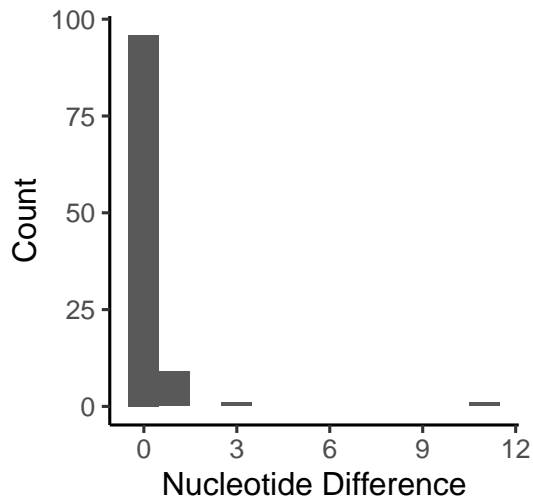
IGHV1-69*01

726 sequences assigned
626 (86.2%) exact matches, in which:
612 unique CDR3
7 unique J



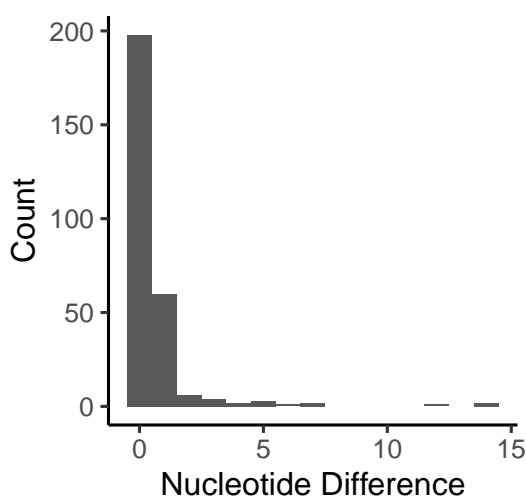
IGHV2-5*01

107 sequences assigned
96 (89.7%) exact matches, in which:
96 unique CDR3
6 unique J



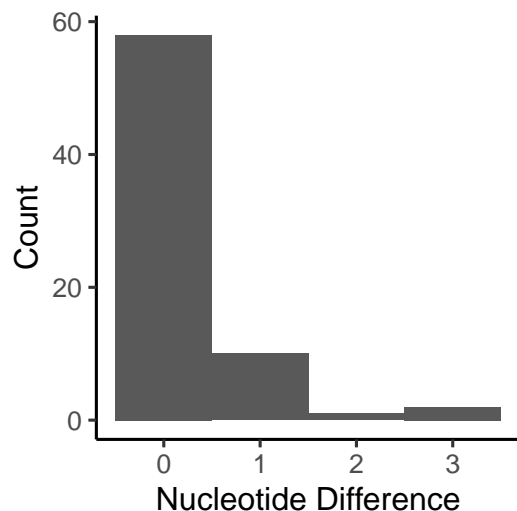
IGHV3-7*01

280 sequences assigned
198 (70.7%) exact matches, in which:
195 unique CDR3
7 unique J



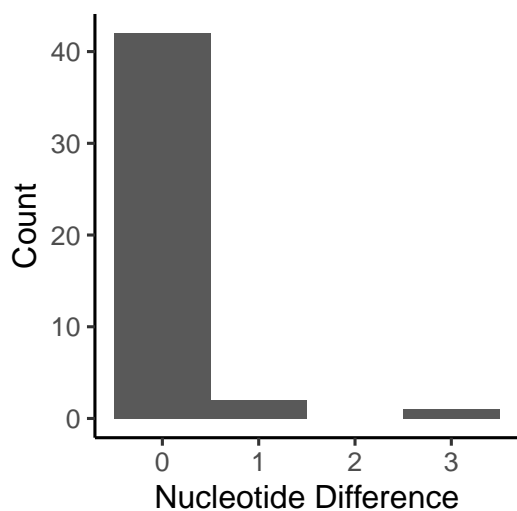
IGHV3-13*01

71 sequences assigned
58 (81.7%) exact matches, in which:
58 unique CDR3
6 unique J



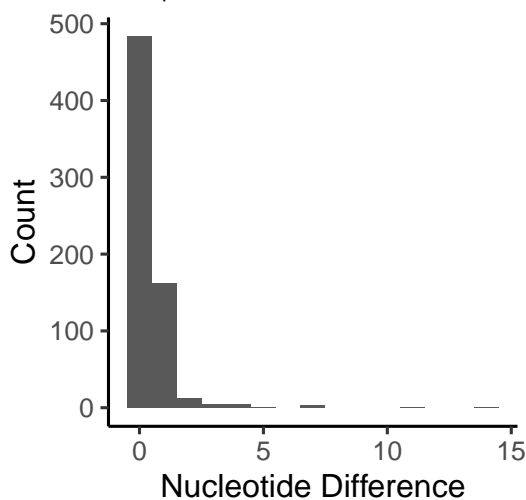
IGHV2-26*01

45 sequences assigned
42 (93.3%) exact matches, in which:
41 unique CDR3
6 unique J



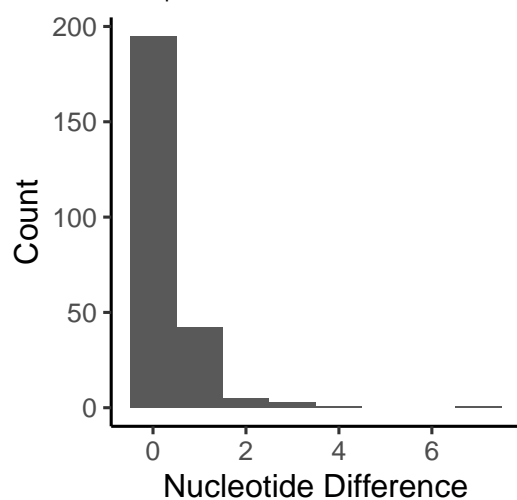
IGHV3-9*01

675 sequences assigned
484 (71.7%) exact matches, in which:
476 unique CDR3
7 unique J



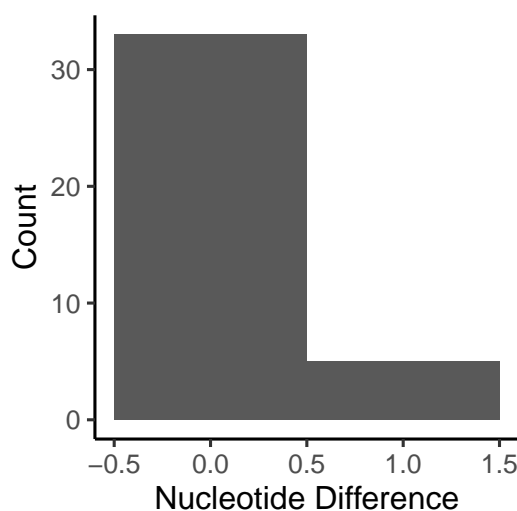
IGHV3-15*01

248 sequences assigned
195 (78.6%) exact matches, in which:
193 unique CDR3
7 unique J



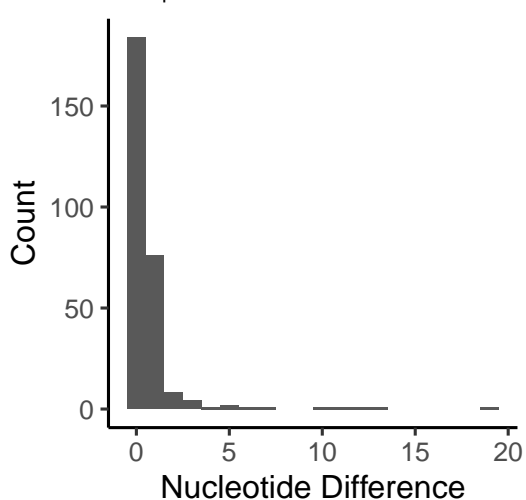
IGHV2-70*01

38 sequences assigned
33 (86.8%) exact matches, in which:
33 unique CDR3
5 unique J



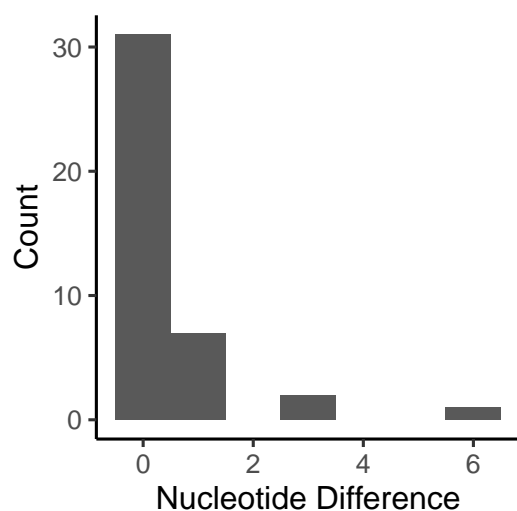
IGHV3-11*01

282 sequences assigned
184 (65.2%) exact matches, in which:
181 unique CDR3
6 unique J



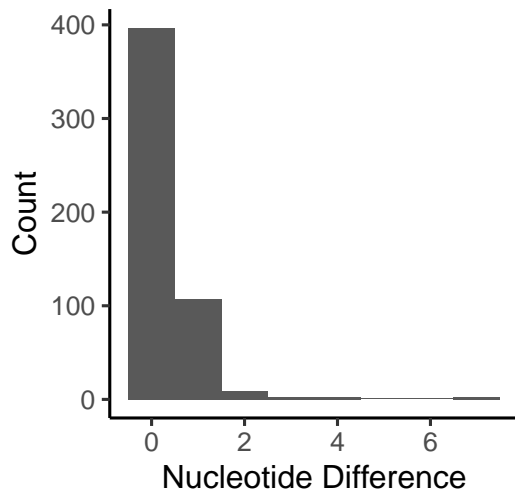
IGHV3-20*01

41 sequences assigned
31 (75.6%) exact matches, in which:
29 unique CDR3
6 unique J



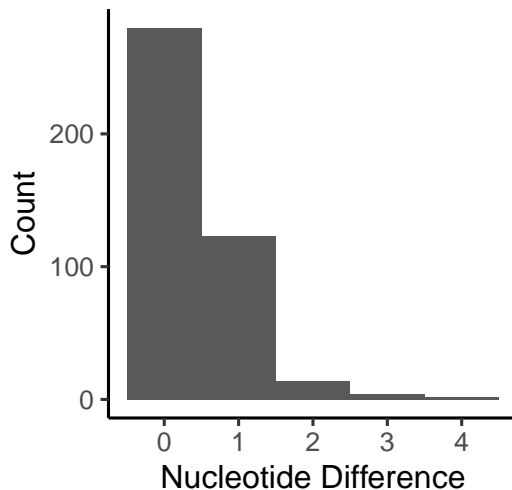
IGHV3-21*01

524 sequences assigned
397 (75.8%) exact matches, in which:
389 unique CDR3
7 unique J



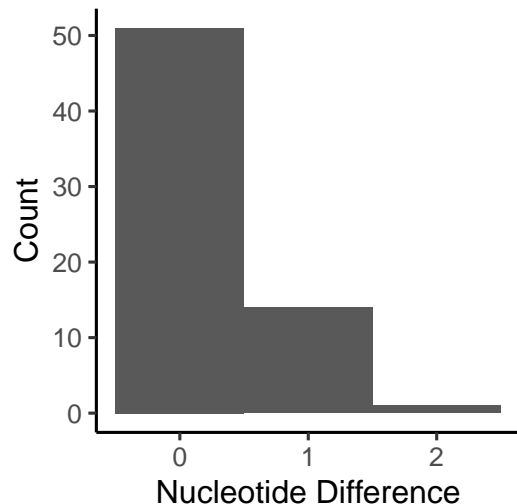
IGHV3-30*18

425 sequences assigned
280 (65.9%) exact matches, in which:
275 unique CDR3
7 unique J



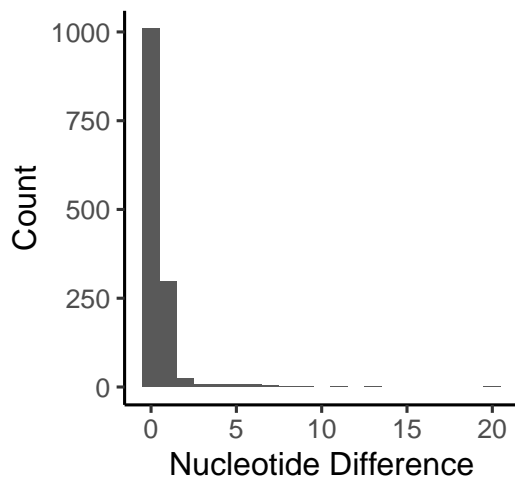
IGHV3-48*01

66 sequences assigned
51 (77.3%) exact matches, in which:
51 unique CDR3
5 unique J



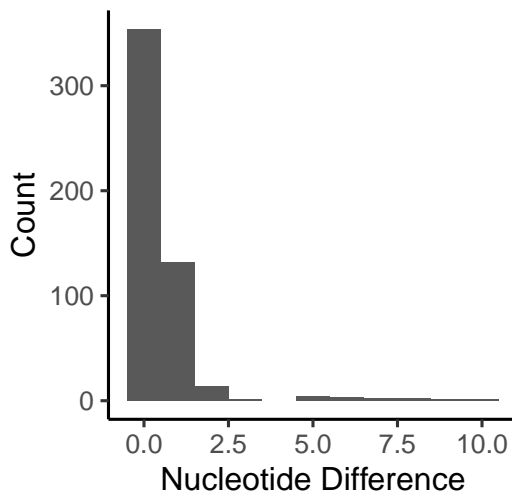
IGHV3-23*01

1370 sequences assigned
1009 (73.6%) exact matches, in which:
990 unique CDR3
7 unique J



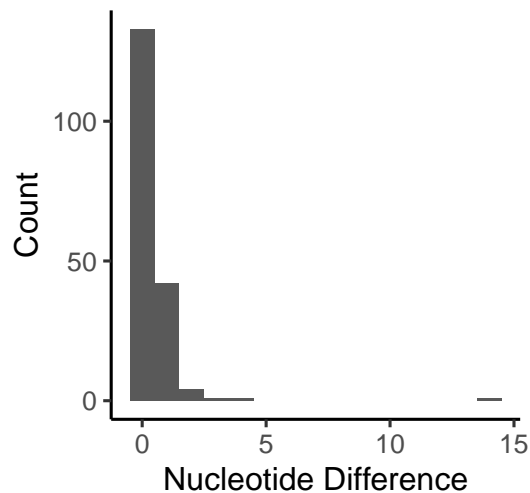
IGHV3-33*01

514 sequences assigned
354 (68.9%) exact matches, in which:
348 unique CDR3
7 unique J



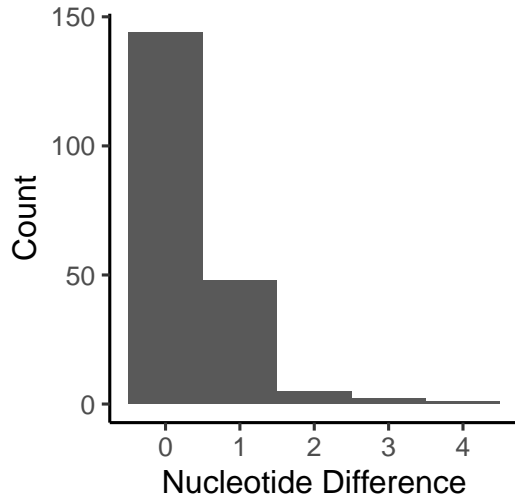
IGHV3-48*02

182 sequences assigned
133 (73.1%) exact matches, in which:
130 unique CDR3
6 unique J



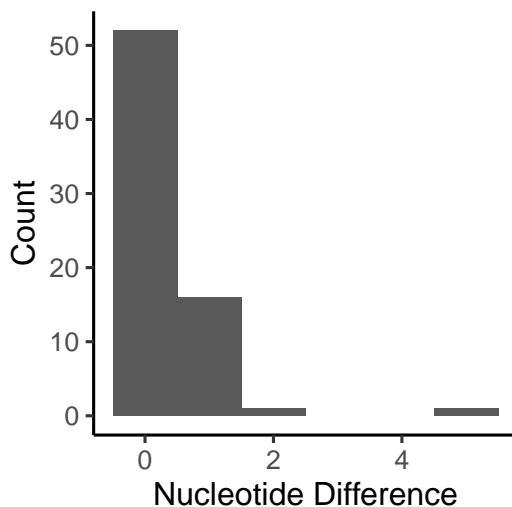
IGHV3-30-3*01

200 sequences assigned
144 (72%) exact matches, in which:
139 unique CDR3
6 unique J



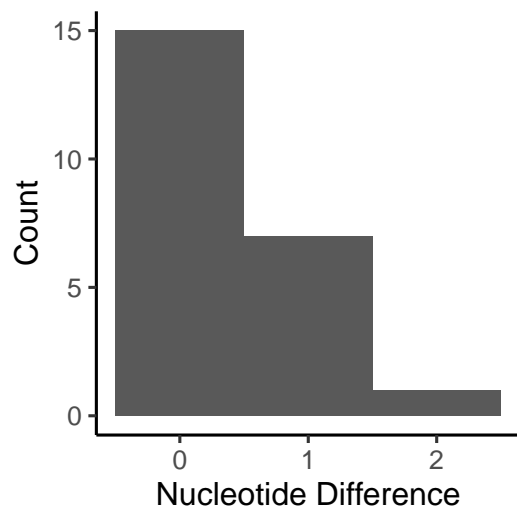
IGHV3-43*01

70 sequences assigned
52 (74.3%) exact matches, in which:
52 unique CDR3
5 unique J



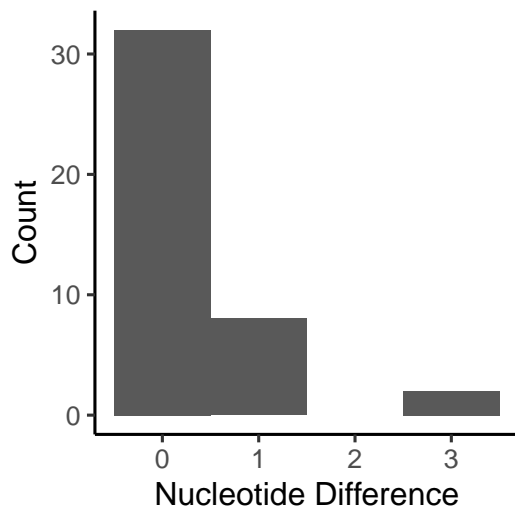
IGHV3-49*03

23 sequences assigned
15 (65.2%) exact matches, in which:
14 unique CDR3
5 unique J



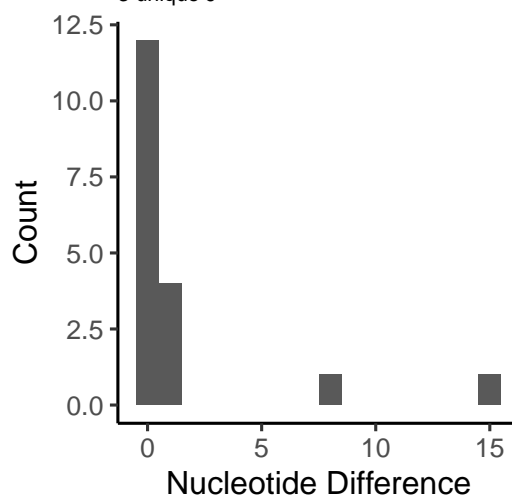
IGHV3-49*05

42 sequences assigned
32 (76.2%) exact matches, in which:
32 unique CDR3
5 unique J



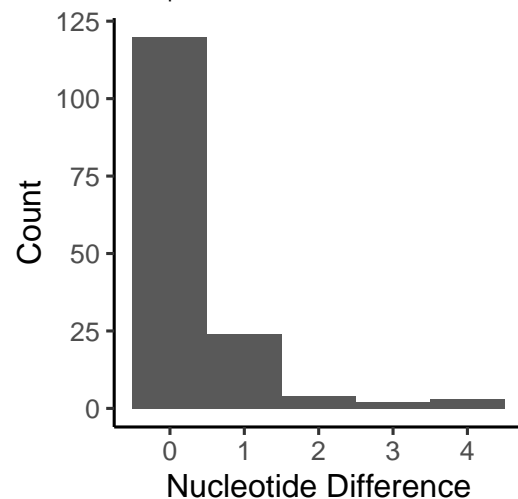
IGHV3-72*01

18 sequences assigned
12 (66.7%) exact matches, in which:
11 unique CDR3
3 unique J



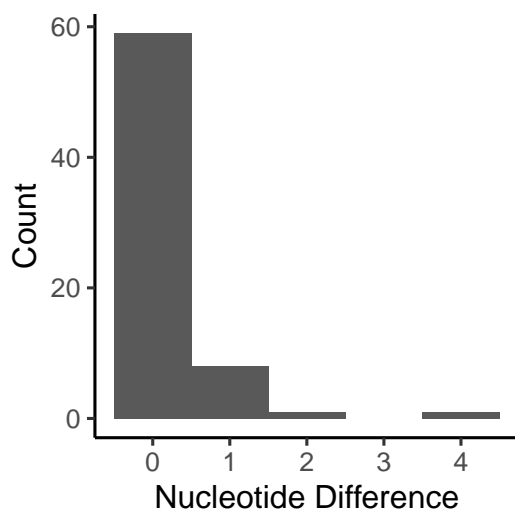
IGHV4-4*07

153 sequences assigned
120 (78.4%) exact matches, in which:
118 unique CDR3
7 unique J



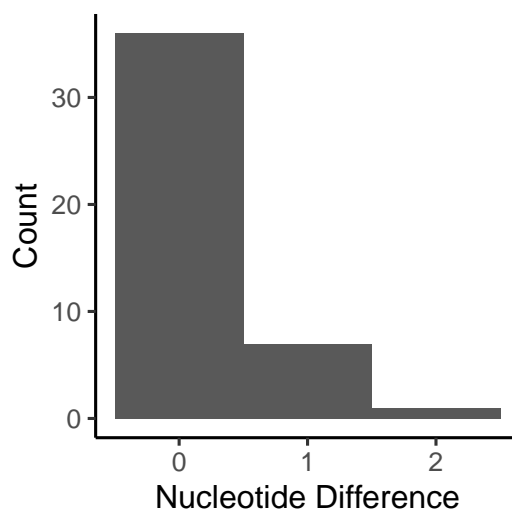
IGHV3-53*02

69 sequences assigned
59 (85.5%) exact matches, in which:
58 unique CDR3
6 unique J



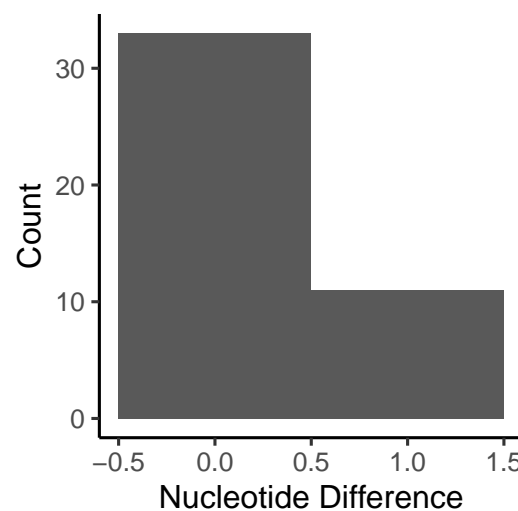
IGHV3-73*02

44 sequences assigned
36 (81.8%) exact matches, in which:
35 unique CDR3
5 unique J



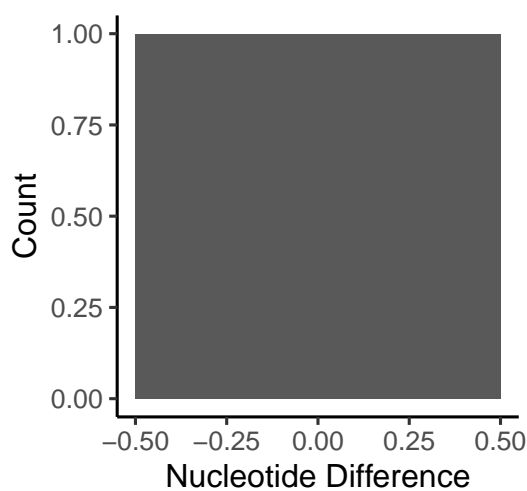
IGHV4-30-4*01

45 sequences assigned
33 (73.3%) exact matches, in which:
33 unique CDR3
5 unique J



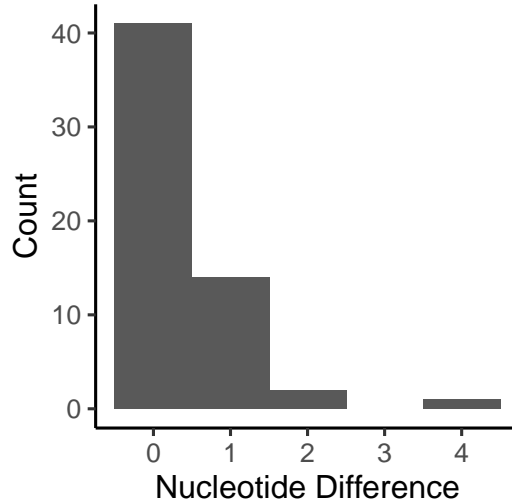
IGHV3-64*02

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



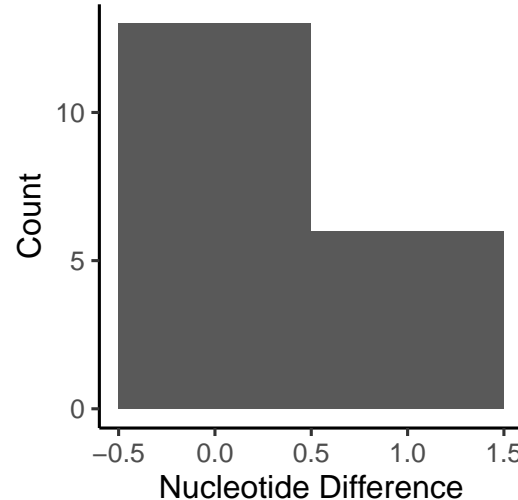
IGHV3-74*01

58 sequences assigned
41 (70.7%) exact matches, in which:
40 unique CDR3
5 unique J



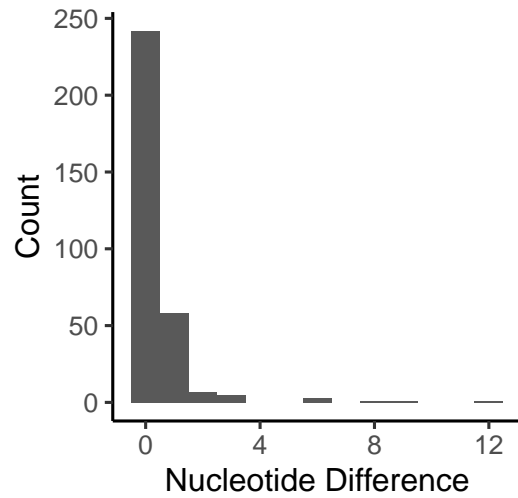
IGHV4-30-2*01

19 sequences assigned
13 (68.4%) exact matches, in which:
13 unique CDR3
4 unique J



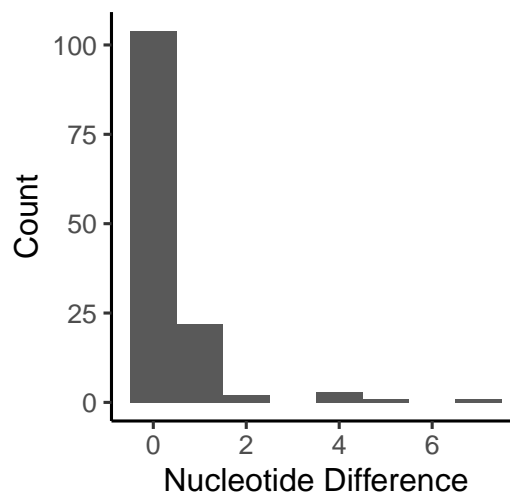
IGHV4-31*03

318 sequences assigned
242 (76.1%) exact matches, in which:
237 unique CDR3
7 unique J



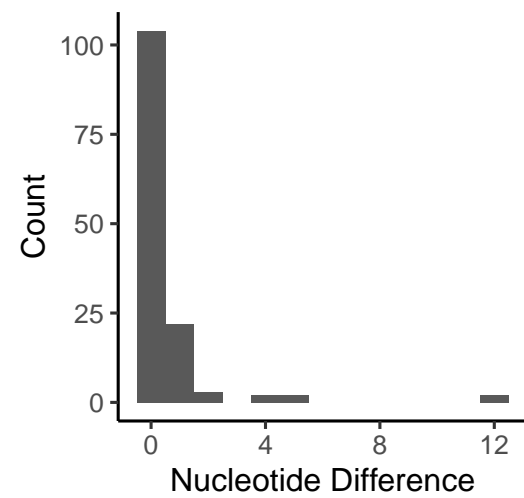
IGHV4-59*01

133 sequences assigned
104 (78.2%) exact matches, in which:
103 unique CDR3
5 unique J



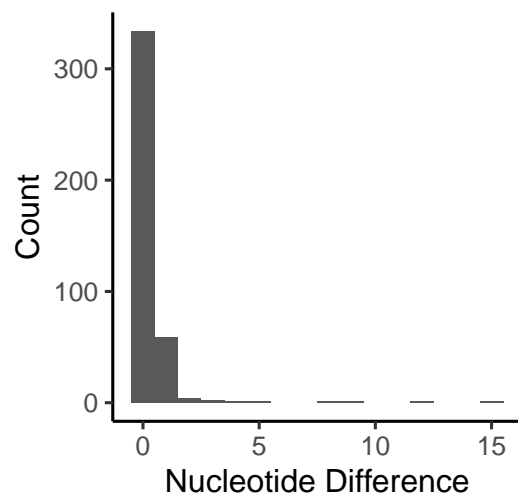
IGHV4-61*02_A234G

135 sequences assigned
104 (77%) exact matches, in which:
104 unique CDR3
6 unique J



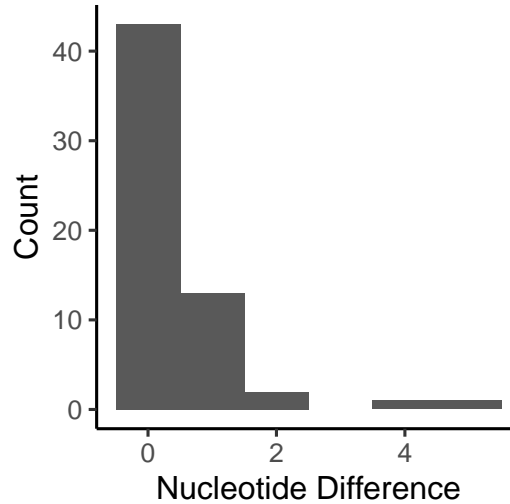
IGHV4-34*01

406 sequences assigned
334 (82.3%) exact matches, in which:
329 unique CDR3
7 unique J



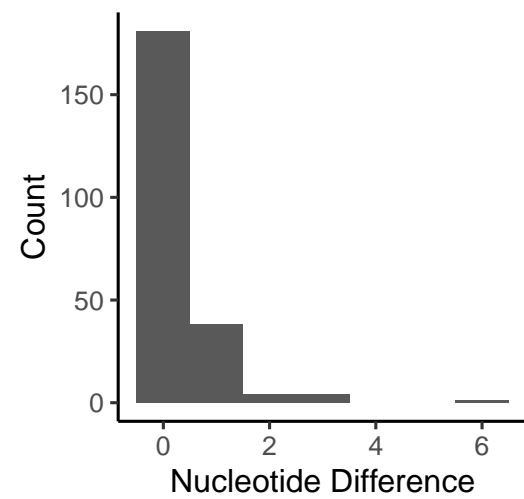
IGHV4-59*01_G267A

60 sequences assigned
43 (71.7%) exact matches, in which:
43 unique CDR3
5 unique J



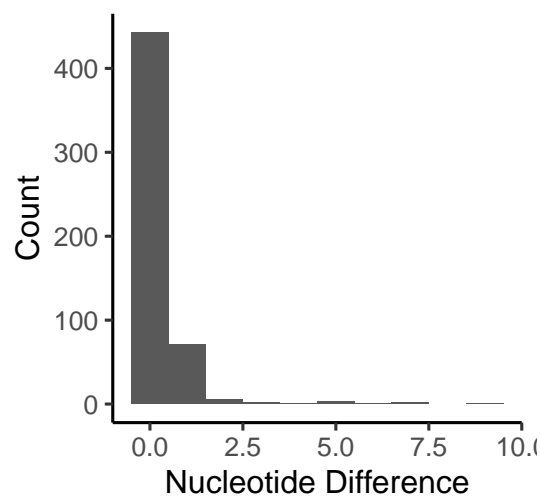
IGHV5-51*01

228 sequences assigned
181 (79.4%) exact matches, in which:
181 unique CDR3
6 unique J



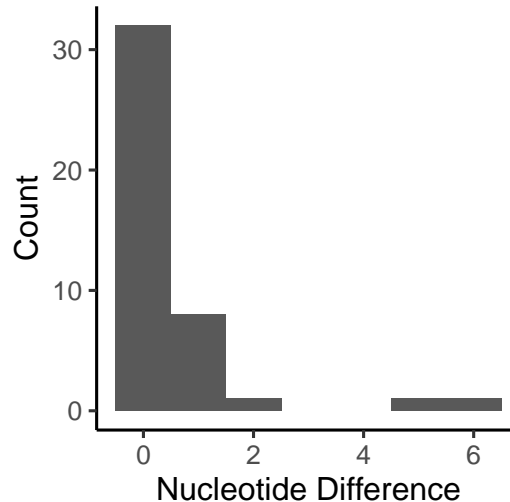
IGHV4-39*01

530 sequences assigned
443 (83.6%) exact matches, in which:
436 unique CDR3
7 unique J



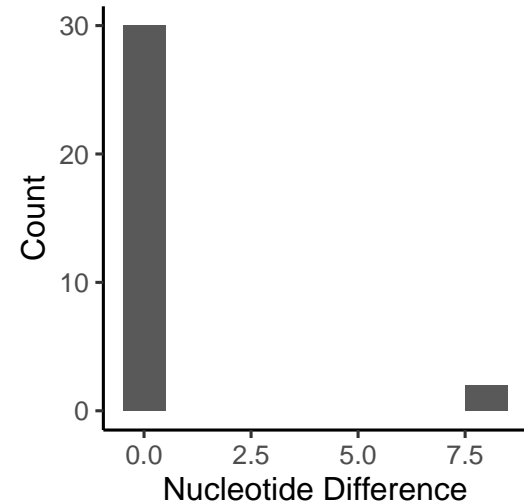
IGHV4-61*01

44 sequences assigned
32 (72.7%) exact matches, in which:
32 unique CDR3
5 unique J



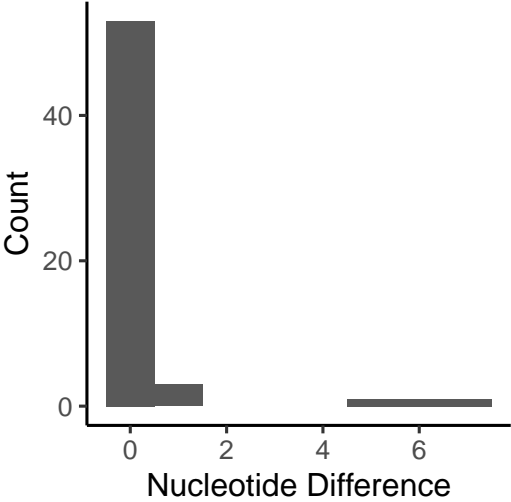
IGHV5-51*03

32 sequences assigned
30 (93.8%) exact matches, in which:
30 unique CDR3
6 unique J

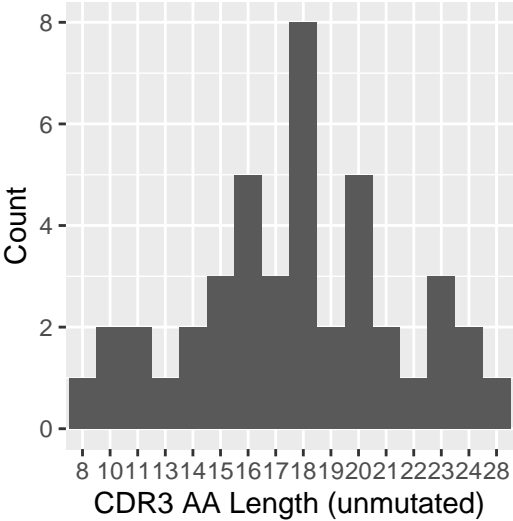


IGHV6-1*01

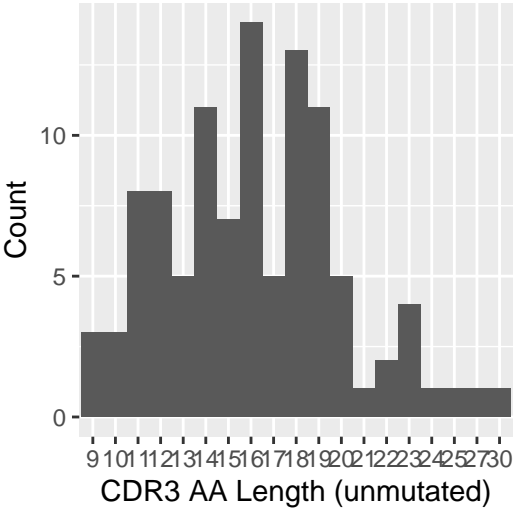
59 sequences assigned
53 (89.8%) exact matches, in which:
52 unique CDR3
6 unique J



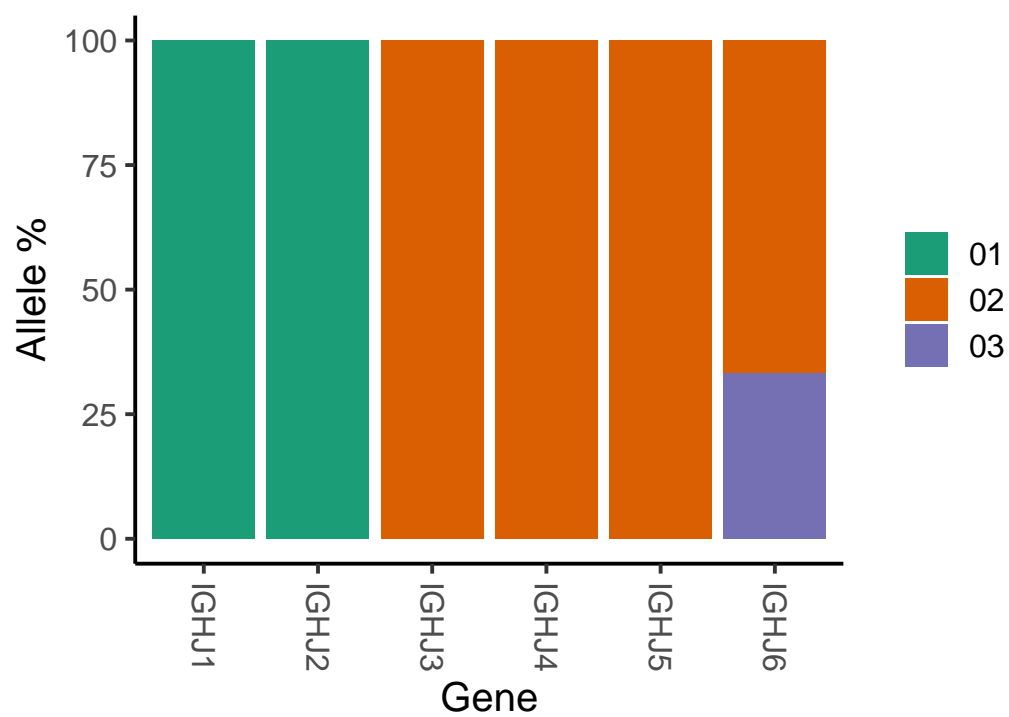
IGHV4-59*01_G267A



IGHV4-61*02_A234G



Allele Usage



Sequence Count by IGHJ6 allele usage

