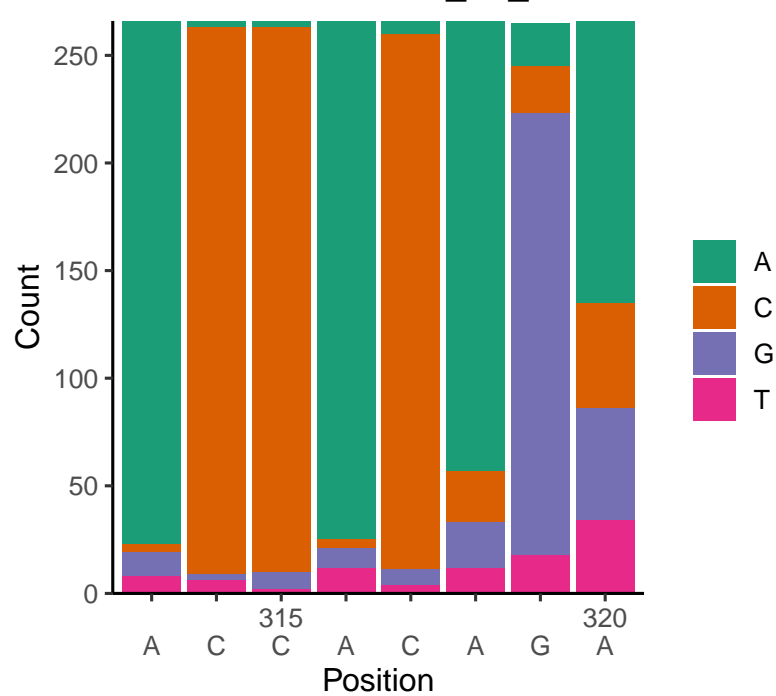
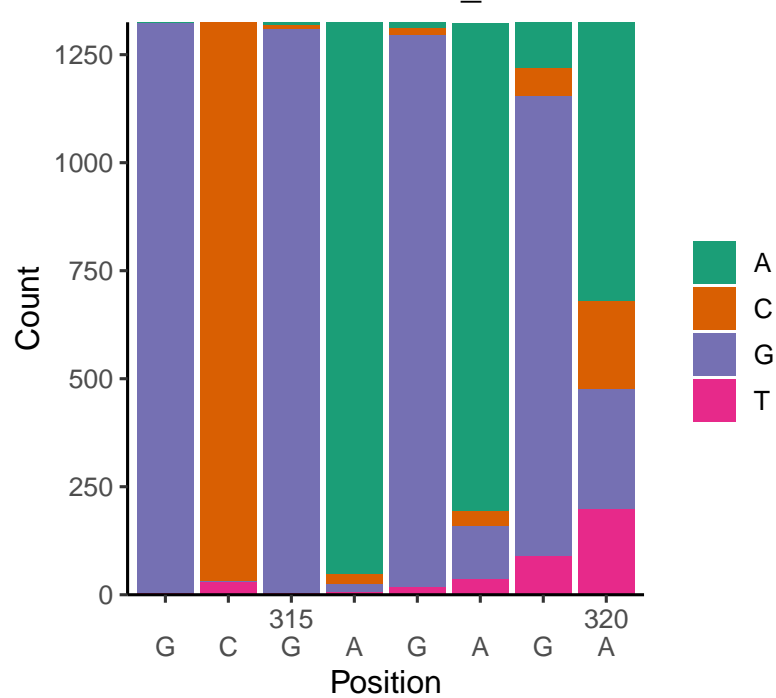


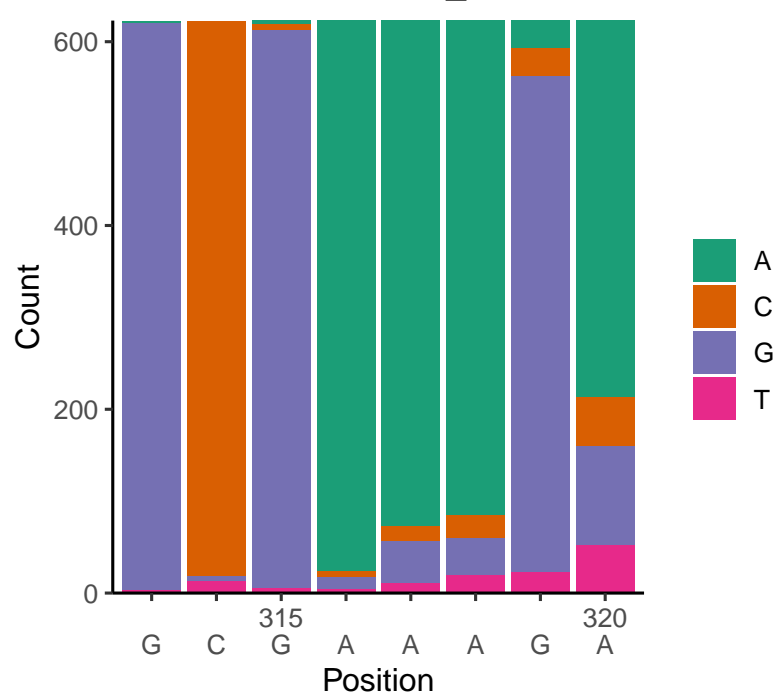
Gene IGHV3-15*01_02_G147A



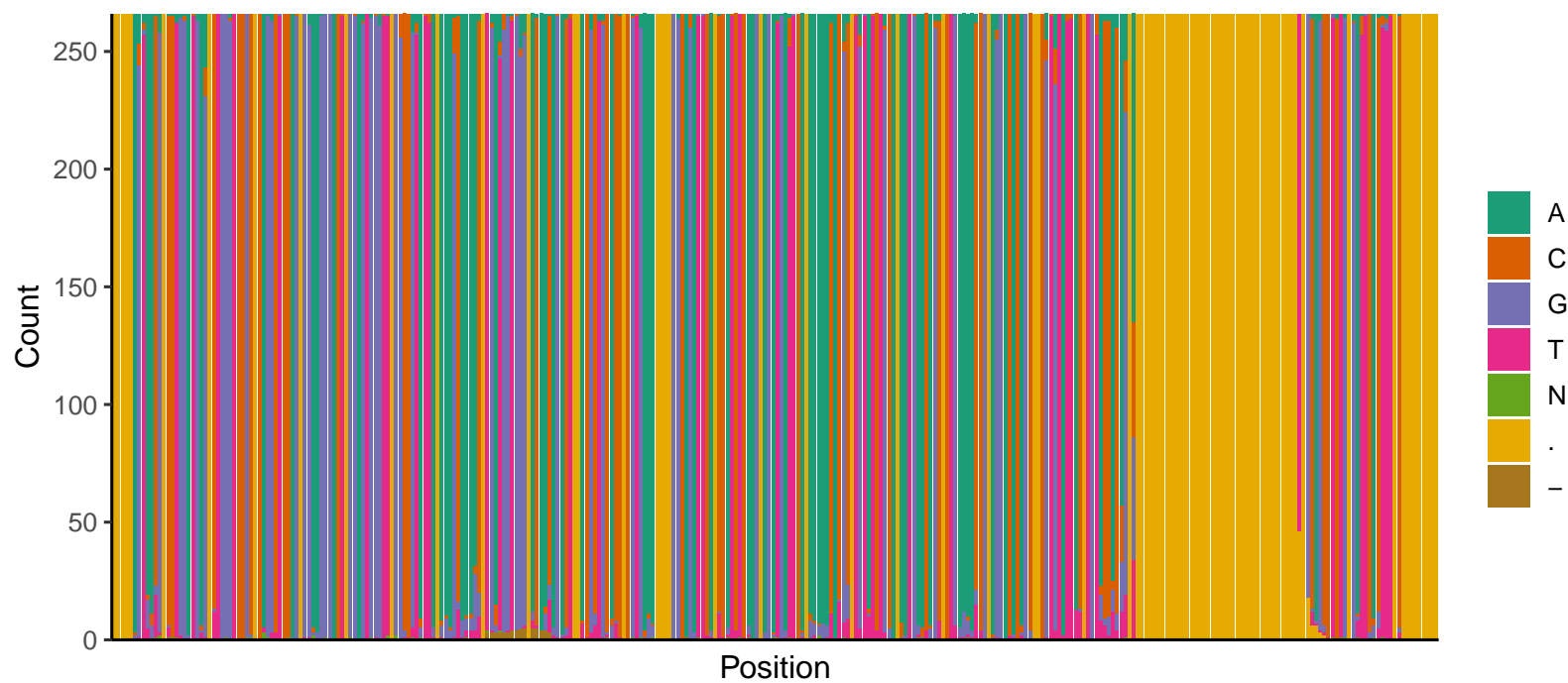
Gene IGHV1-18*01_A190G



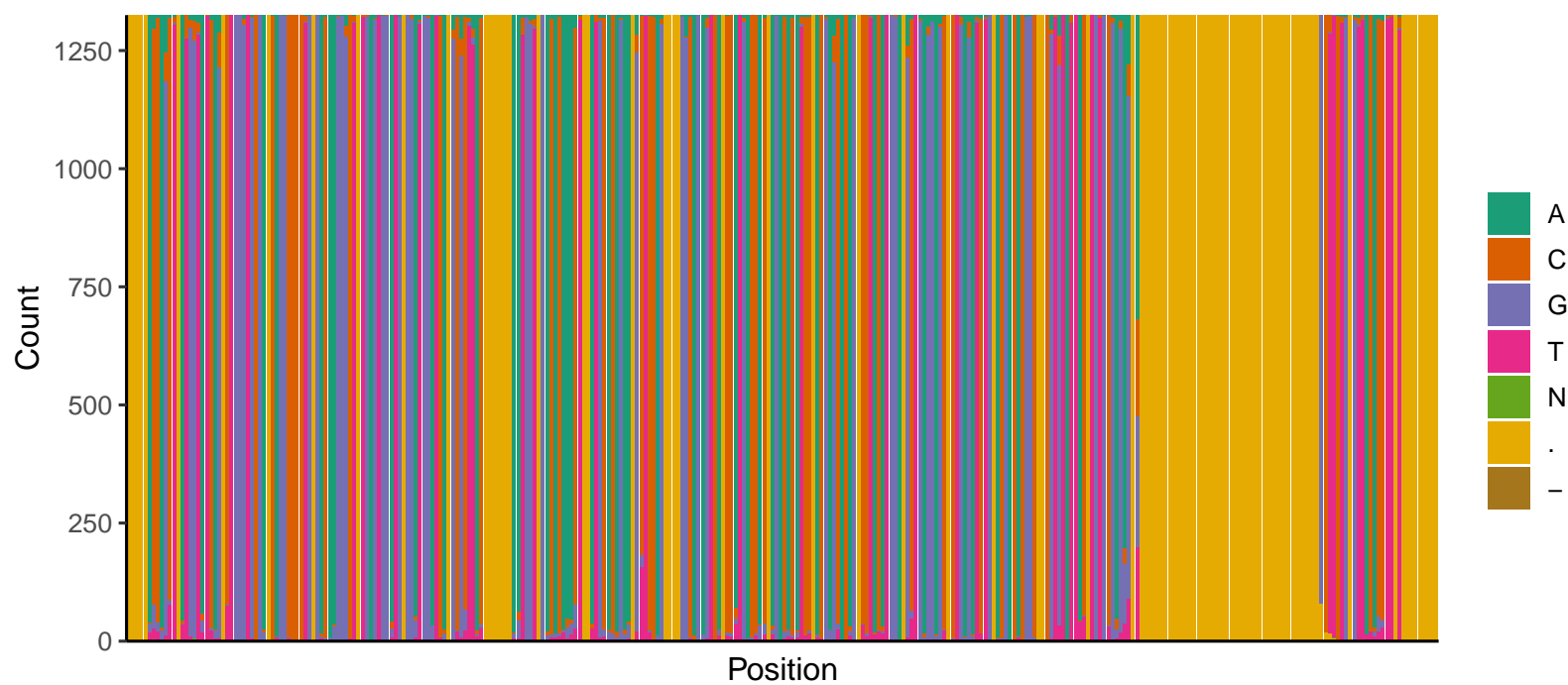
Gene IGHV3-30*02_A245G



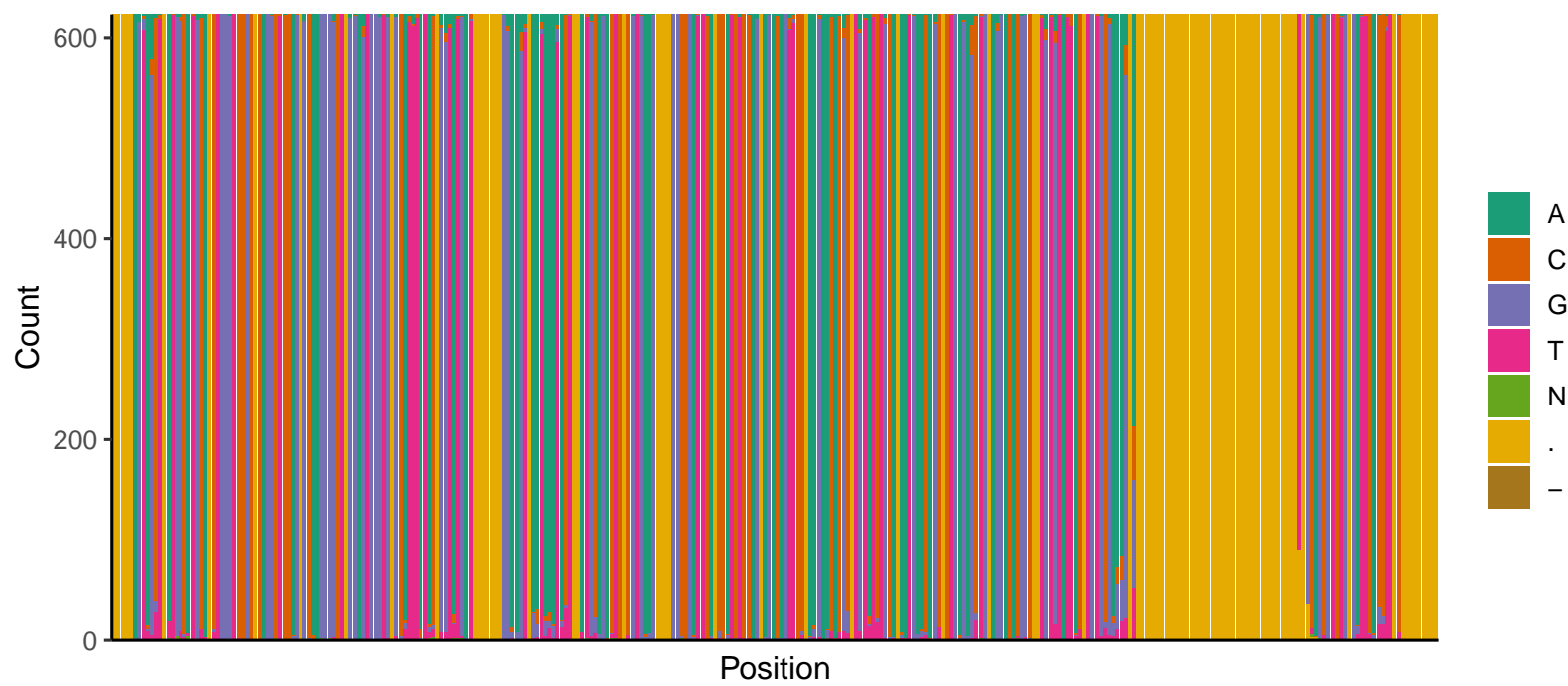
Gene IGHV3-15*01_02_G147A



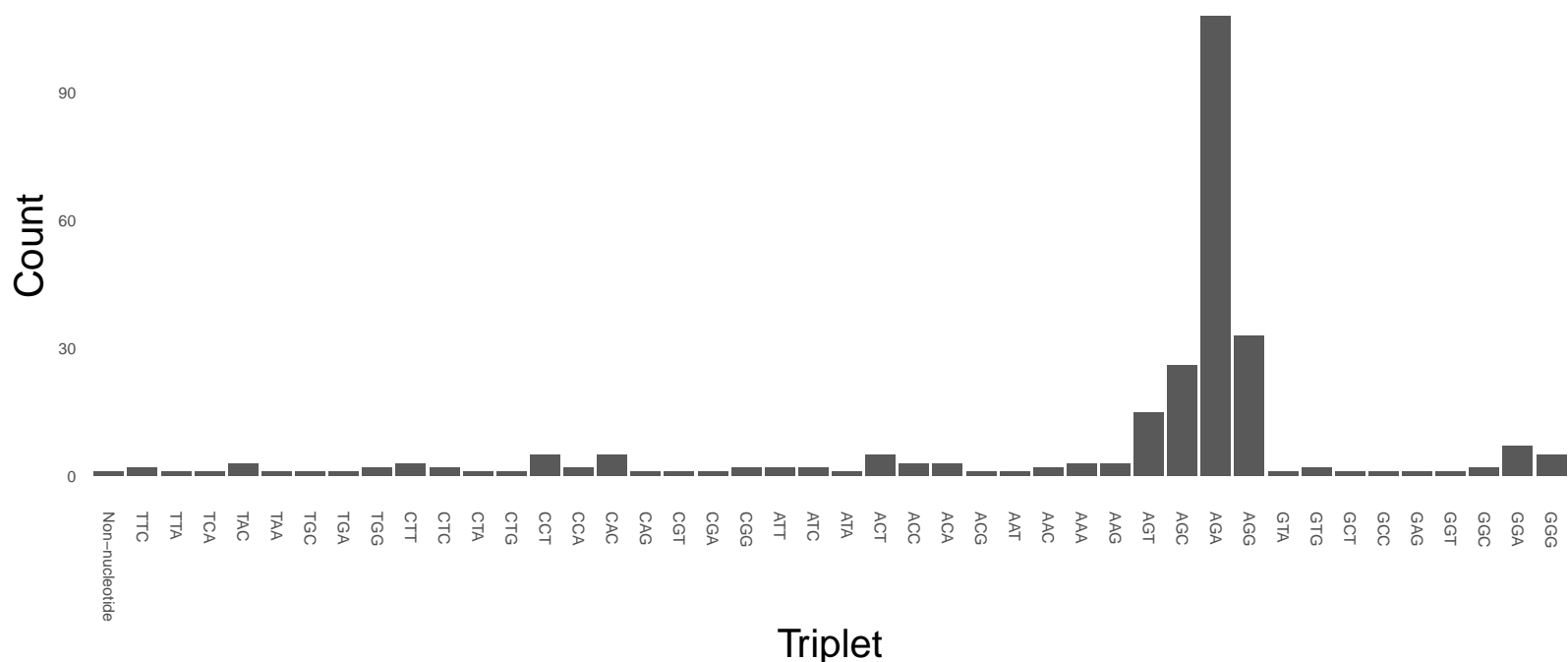
Gene IGHV1-18*01_A190G



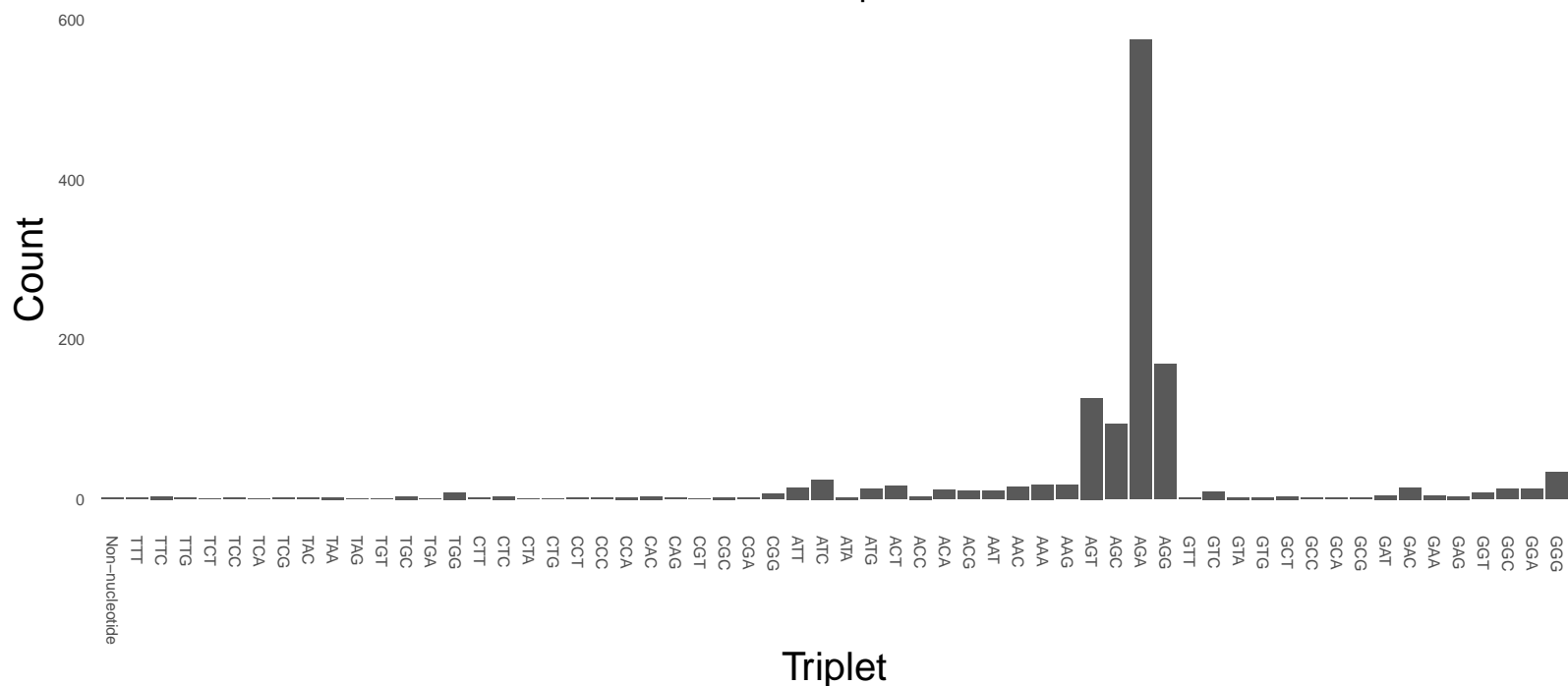
Gene IGHV3-30*02_A245G



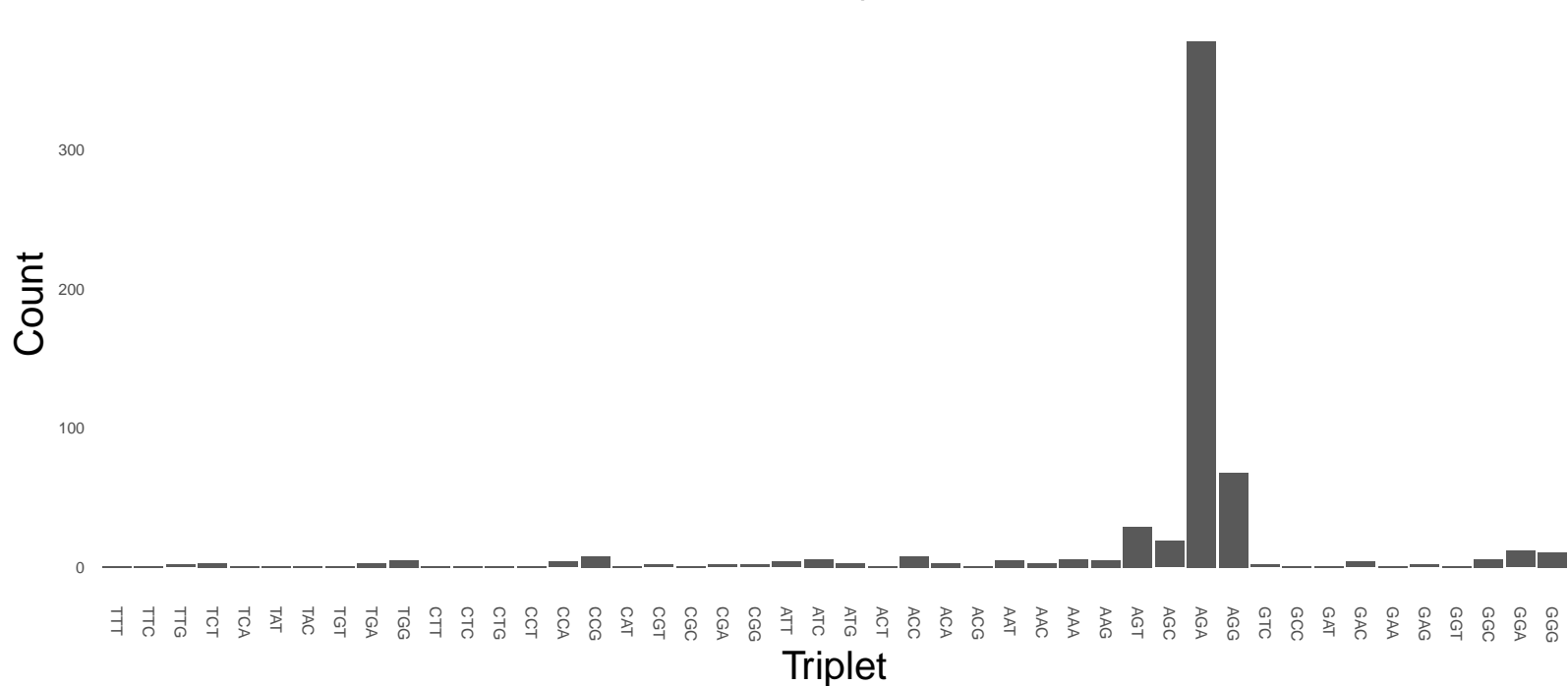
IGHV3-15*01_02_G147A- Final 3 nucleotides as a triplet



IGHV1-18*01_A190G- Final 3 nucleotides as a triplet

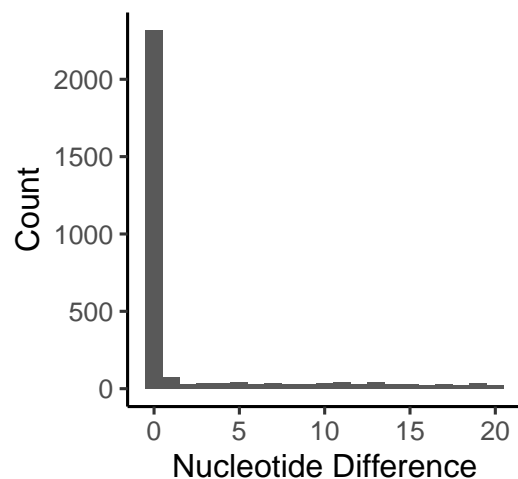


IGHV3-30*02_A245G- Final 3 nucleotides as a triplet



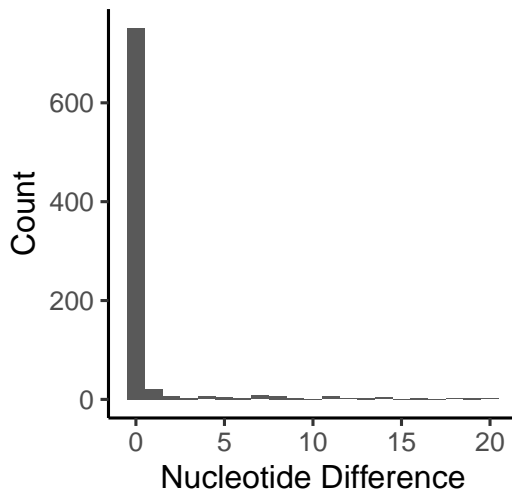
IGHV1-2*02

3191 sequences assigned
2316 (72.6%) exact matches, in which:
2293 unique CDR3
7 unique J



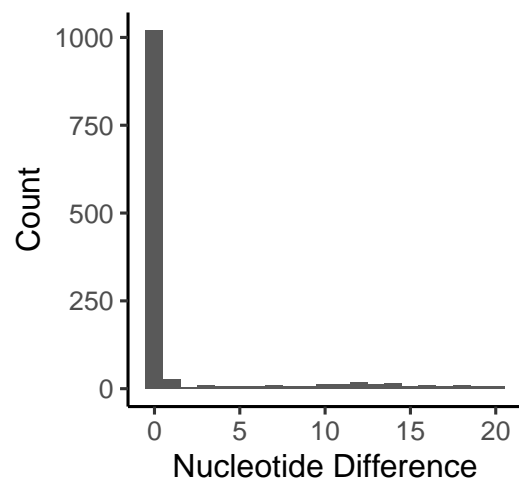
IGHV1-8*01

855 sequences assigned
752 (88%) exact matches, in which:
742 unique CDR3
6 unique J



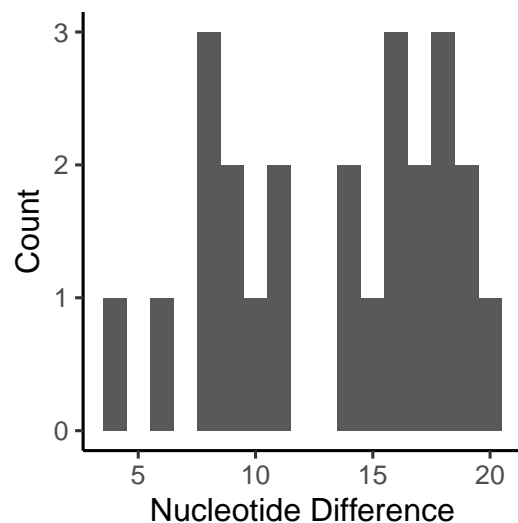
IGHV1-18*01_A190G

1325 sequences assigned
1020 (77%) exact matches, in which:
1010 unique CDR3
6 unique J



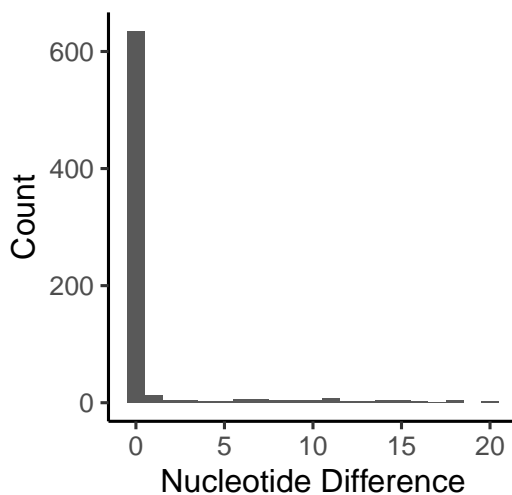
IGHV1-3*04

32 sequences assigned
No exact matches.



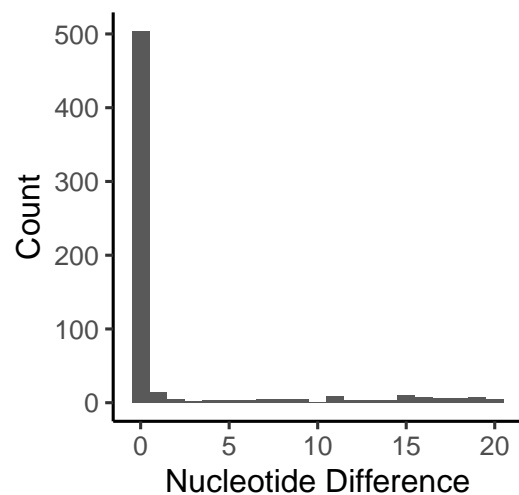
IGHV1-8*02

739 sequences assigned
635 (85.9%) exact matches, in which:
627 unique CDR3
7 unique J



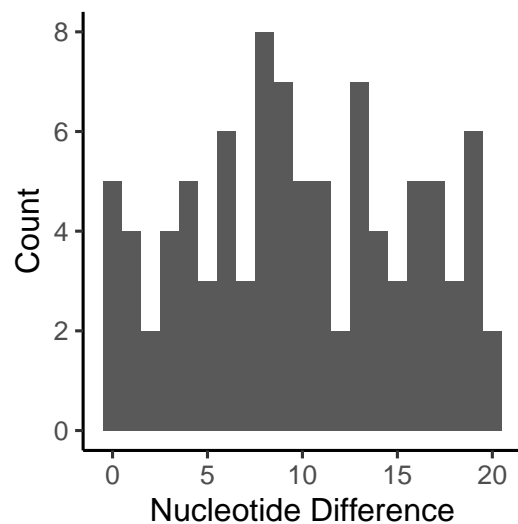
IGHV1-24*01

637 sequences assigned
504 (79.1%) exact matches, in which:
498 unique CDR3
7 unique J



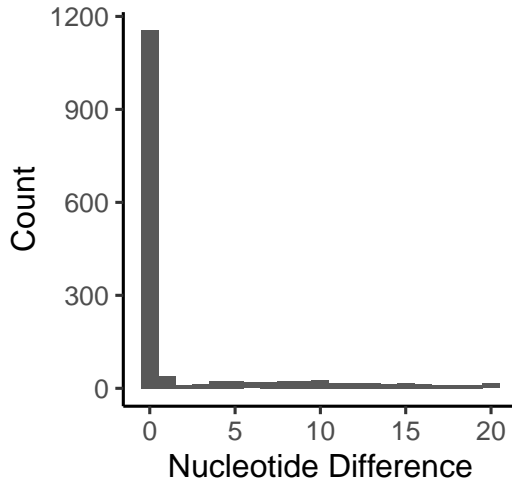
IGHV1-3*01_05

123 sequences assigned
5 (4.1%) exact matches, in which:
5 unique CDR3
2 unique J



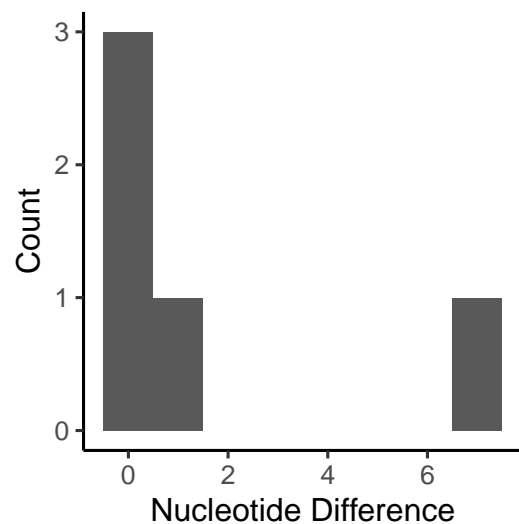
IGHV1-18*01

1626 sequences assigned
1156 (71.1%) exact matches, in which:
1147 unique CDR3
6 unique J



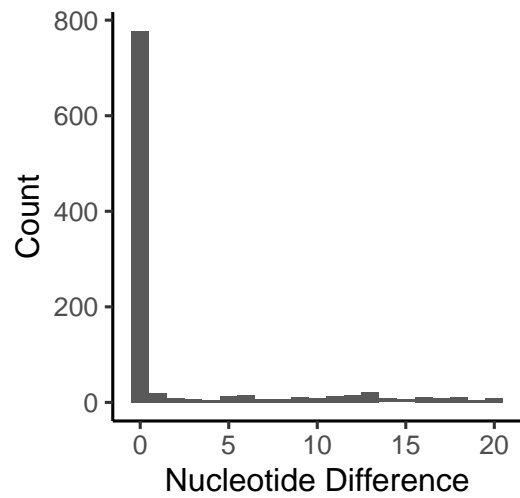
IGHV1-45*02

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
3 unique J



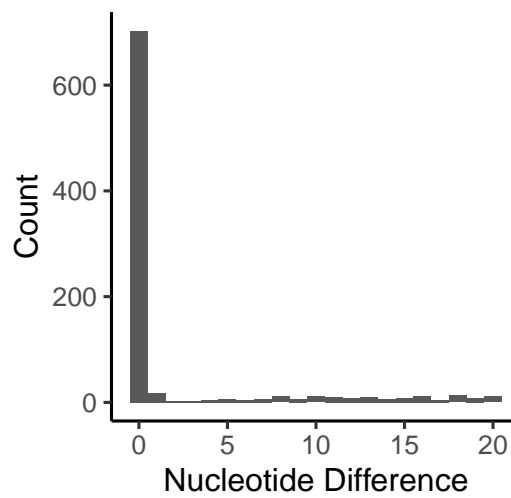
IGHV1-46*01

1064 sequences assigned
778 (73.1%) exact matches, in which:
775 unique CDR3
7 unique J



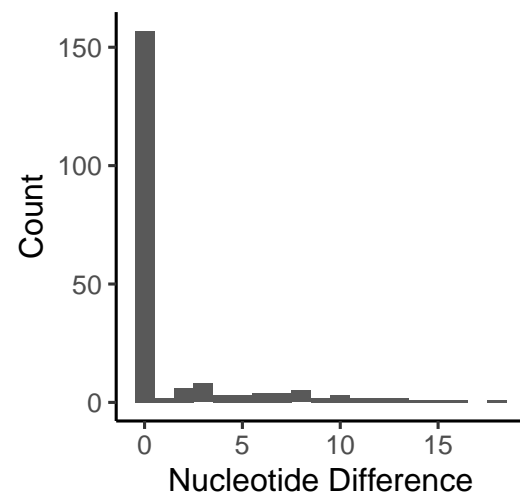
IGHV1-69*01_12_13

1022 sequences assigned
703 (68.8%) exact matches, in which:
700 unique CDR3
7 unique J



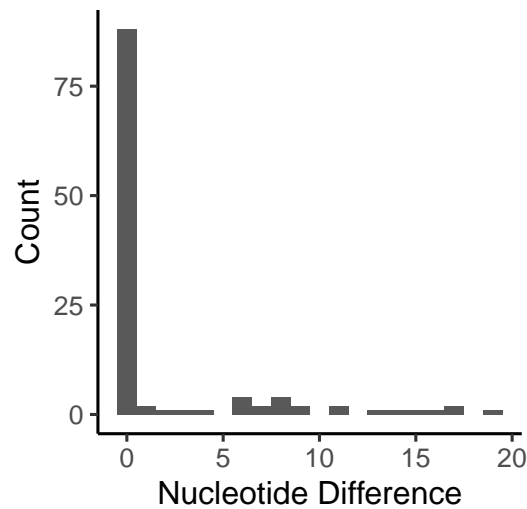
IGHV2-5*05_09

212 sequences assigned
157 (74.1%) exact matches, in which:
155 unique CDR3
6 unique J



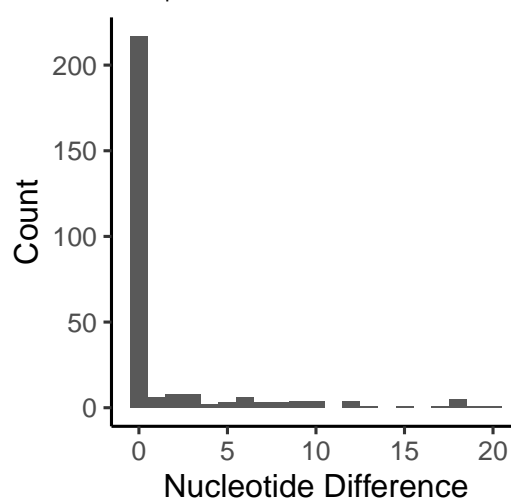
IGHV1-58*02

126 sequences assigned
88 (69.8%) exact matches, in which:
88 unique CDR3
7 unique J



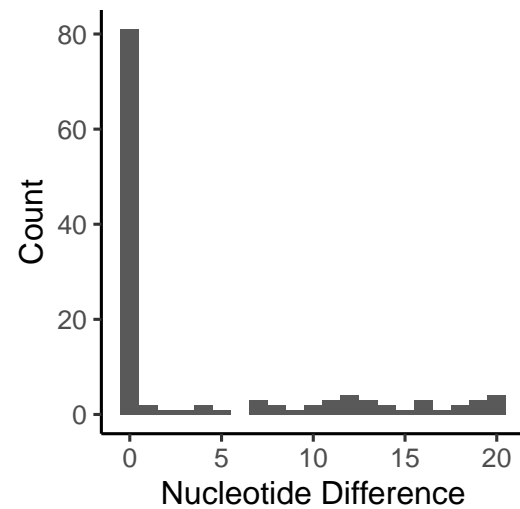
IGHV2-5*01

286 sequences assigned
217 (75.9%) exact matches, in which:
216 unique CDR3
6 unique J



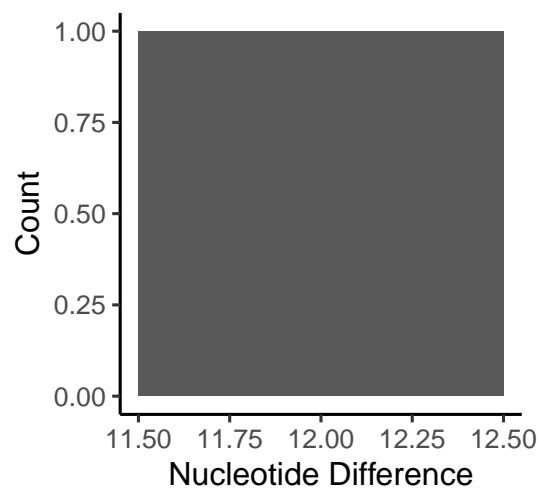
IGHV2-26*01

128 sequences assigned
81 (63.3%) exact matches, in which:
81 unique CDR3
7 unique J



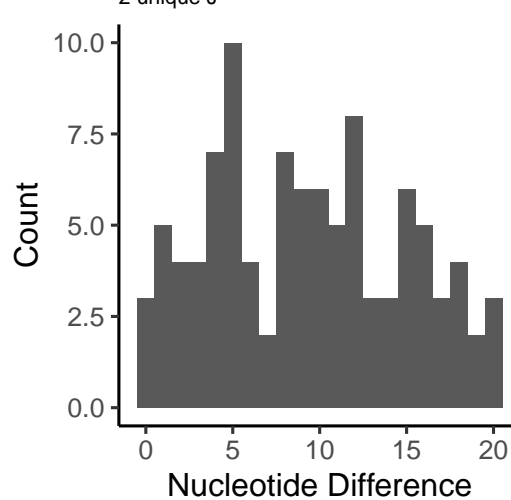
IGHV1-69-2*01

2 sequences assigned
No exact matches.



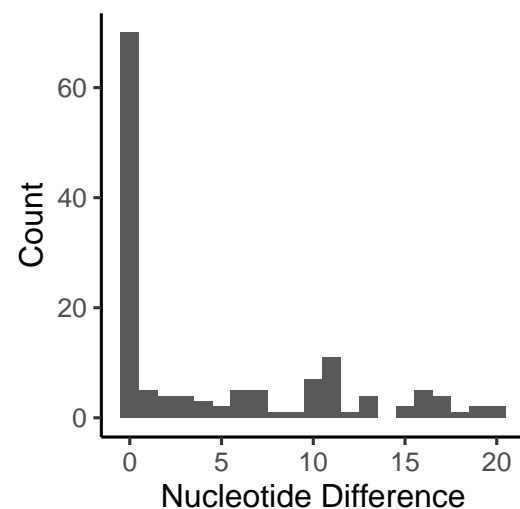
IGHV2-5*02

120 sequences assigned
3 (2.5%) exact matches, in which:
3 unique CDR3
2 unique J



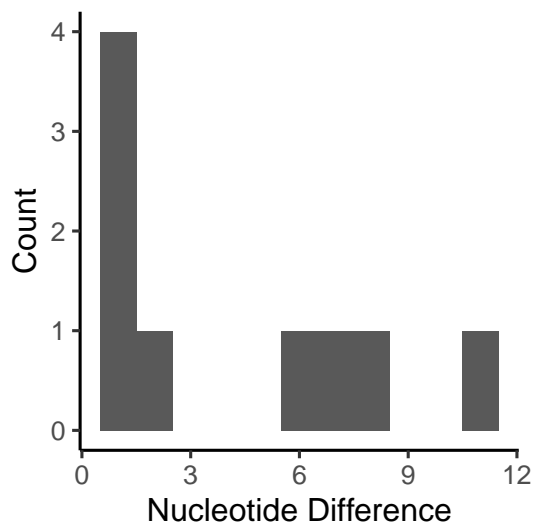
IGHV2-70*11_15

146 sequences assigned
70 (47.9%) exact matches, in which:
70 unique CDR3
5 unique J



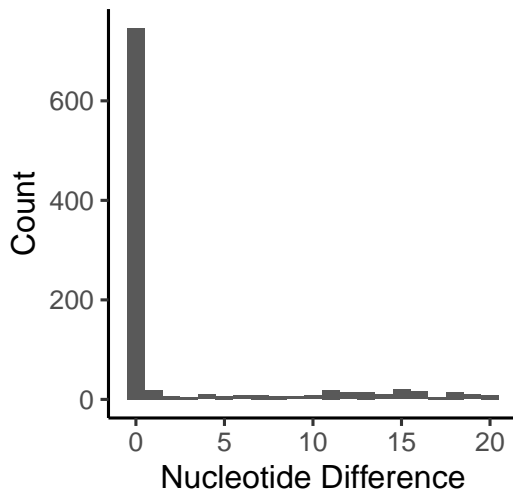
IGHV2-70D*04

11 sequences assigned
No exact matches.



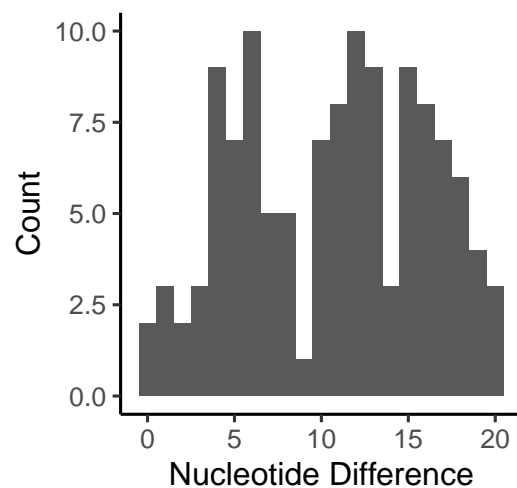
IGHV3-9*01

999 sequences assigned
747 (74.8%) exact matches, in which:
735 unique CDR3
7 unique J



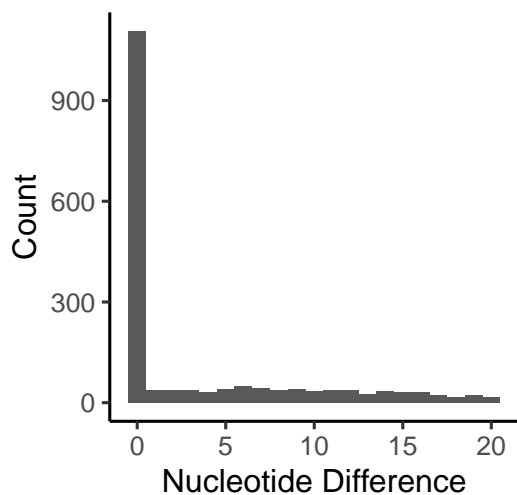
IGHV3-11*06

180 sequences assigned
2 (1.1%) exact matches, in which:
2 unique CDR3
2 unique J



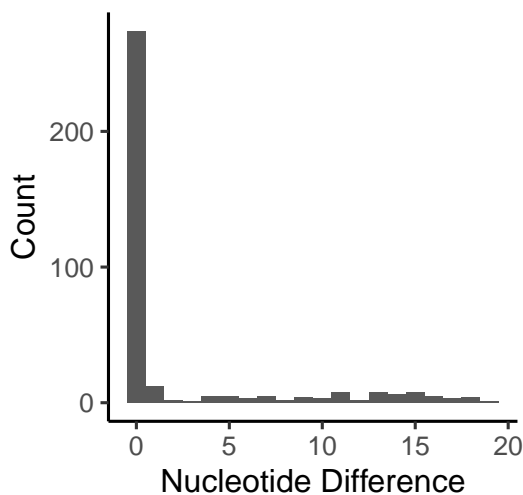
IGHV3-7*01

1904 sequences assigned
1107 (58.1%) exact matches, in which:
1076 unique CDR3
7 unique J



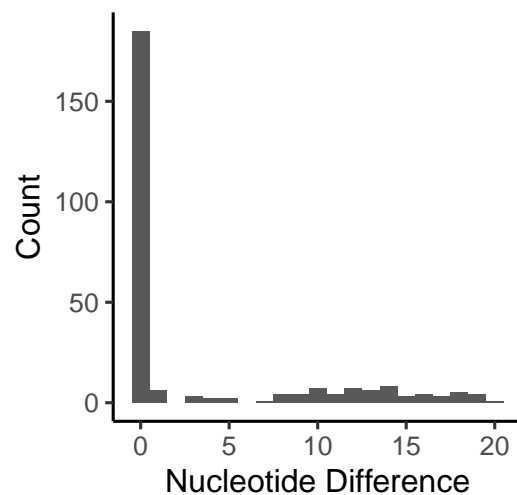
IGHV3-11*01

396 sequences assigned
274 (69.2%) exact matches, in which:
266 unique CDR3
6 unique J



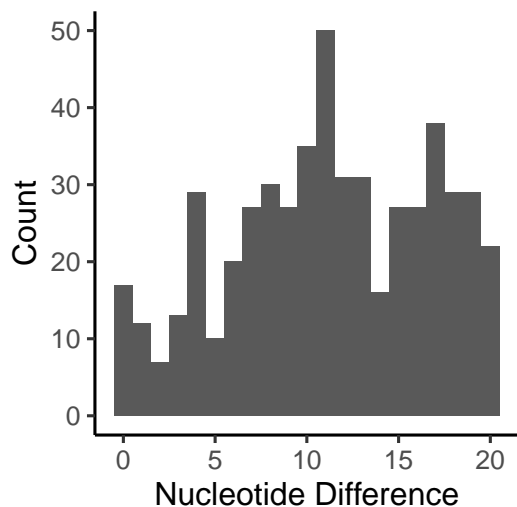
IGHV3-13*01

267 sequences assigned
185 (69.3%) exact matches, in which:
182 unique CDR3
7 unique J



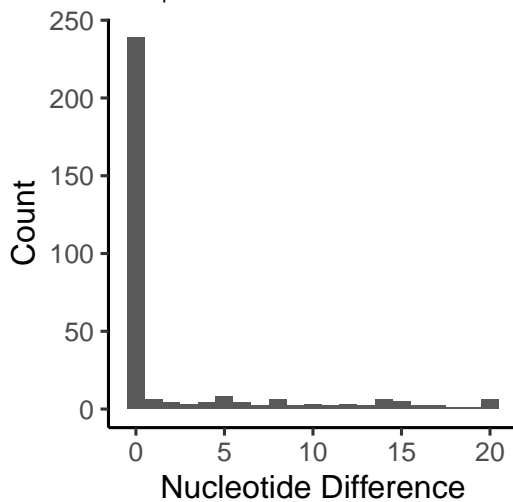
IGHV3-7*03

657 sequences assigned
17 (2.6%) exact matches, in which:
12 unique CDR3
5 unique J



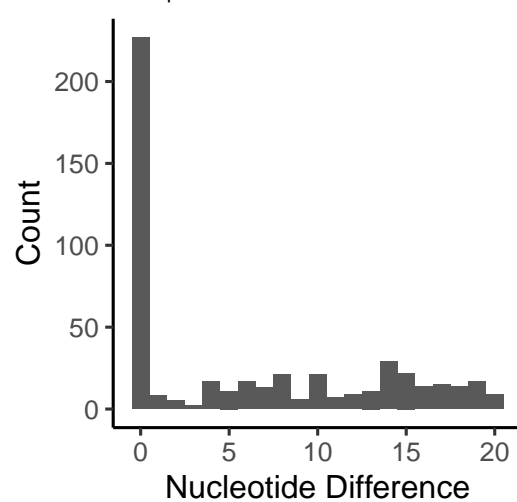
IGHV3-11*04

328 sequences assigned
239 (72.9%) exact matches, in which:
238 unique CDR3
6 unique J



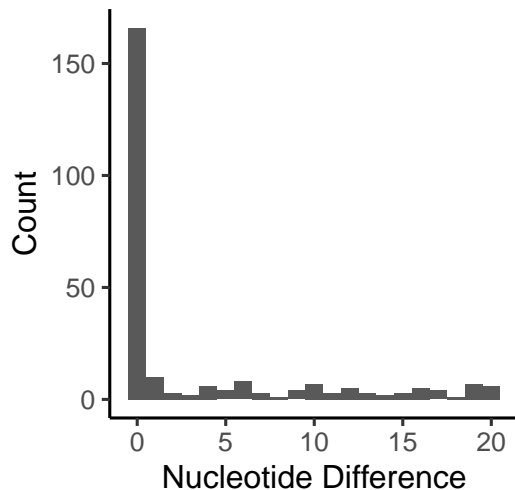
IGHV3-15*01_02

565 sequences assigned
227 (40.2%) exact matches, in which:
222 unique CDR3
6 unique J



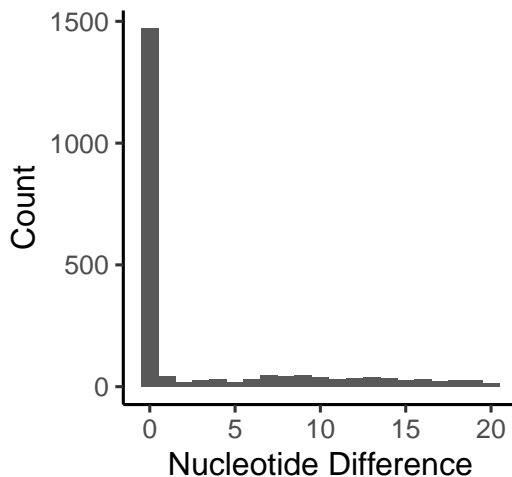
IGHV3-15*01_02_G147A

266 sequences assigned
166 (62.4%) exact matches, in which:
162 unique CDR3
6 unique J



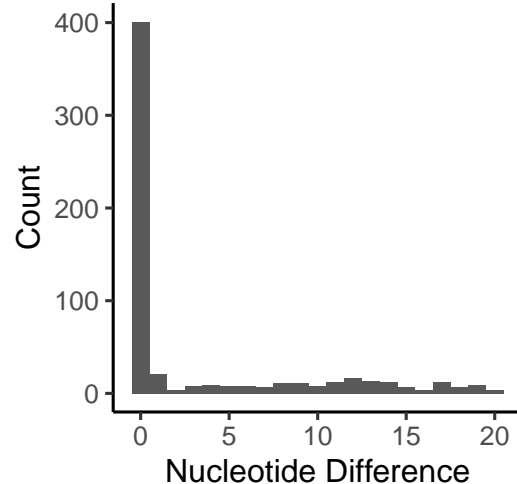
IGHV3-21*01_02

2307 sequences assigned
1471 (63.8%) exact matches, in which:
1423 unique CDR3
7 unique J



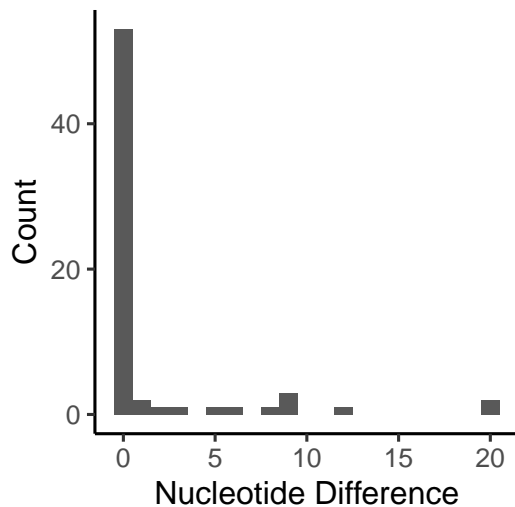
IGHV3-33*01

655 sequences assigned
401 (61.2%) exact matches, in which:
394 unique CDR3
6 unique J



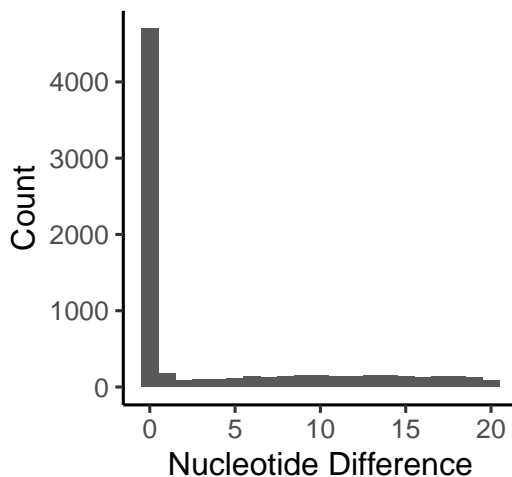
IGHV3-20*01_02

66 sequences assigned
53 (80.3%) exact matches, in which:
51 unique CDR3
6 unique J



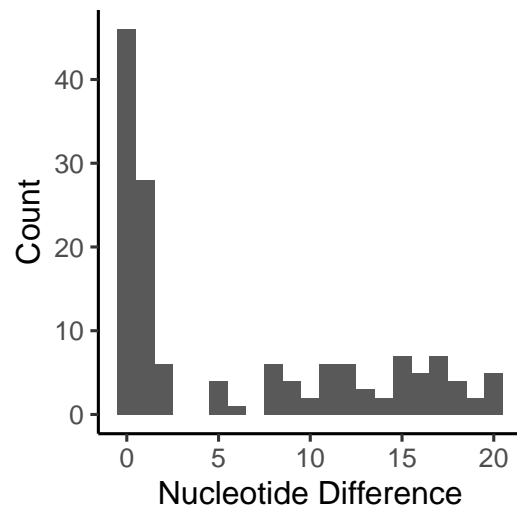
IGHV3-23*01_04

8211 sequences assigned
4697 (57.2%) exact matches, in which:
4550 unique CDR3
7 unique J



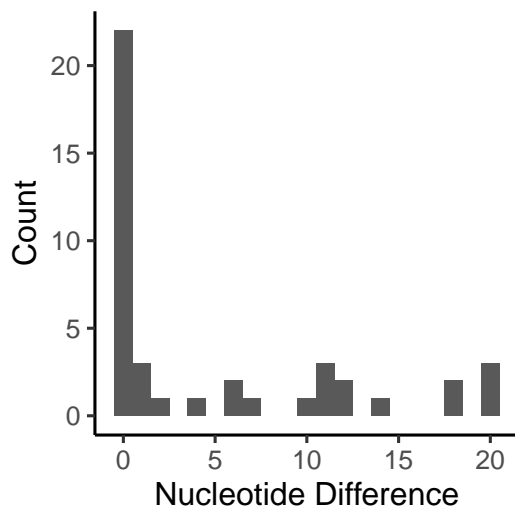
IGHV3-43*01

165 sequences assigned
46 (27.9%) exact matches, in which:
46 unique CDR3
6 unique J



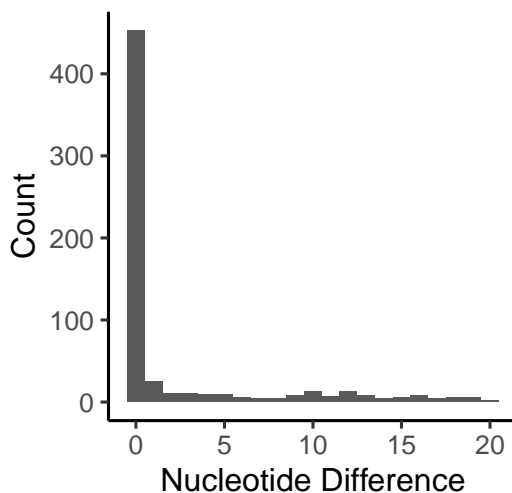
IGHV3-20*03_04

45 sequences assigned
22 (48.9%) exact matches, in which:
22 unique CDR3
4 unique J



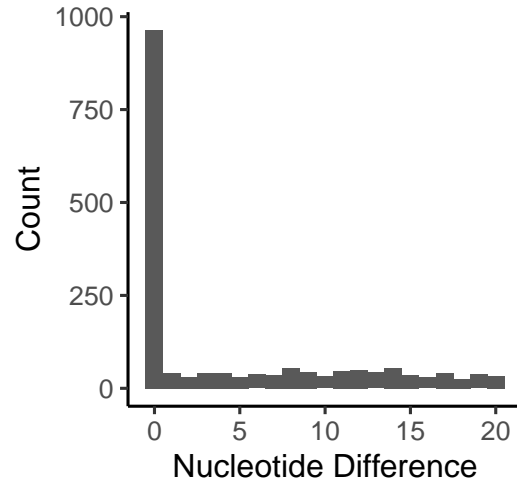
IGHV3-30*02_A245G

623 sequences assigned
453 (72.7%) exact matches, in which:
439 unique CDR3
6 unique J



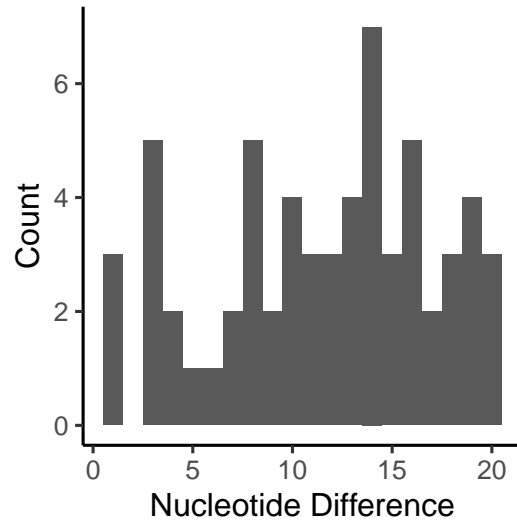
IGHV3-48*02

1947 sequences assigned
964 (49.5%) exact matches, in which:
940 unique CDR3
7 unique J



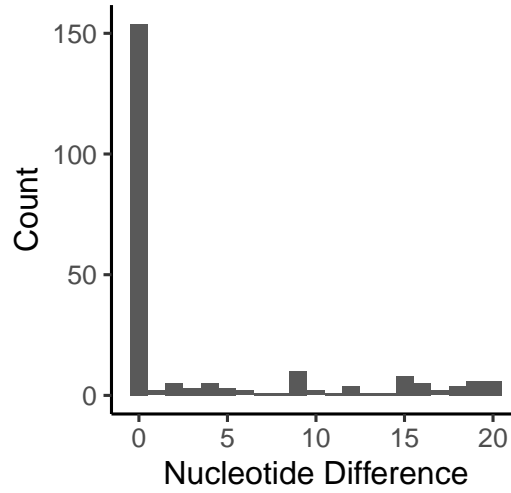
IGHV3-49*04

74 sequences assigned
No exact matches.



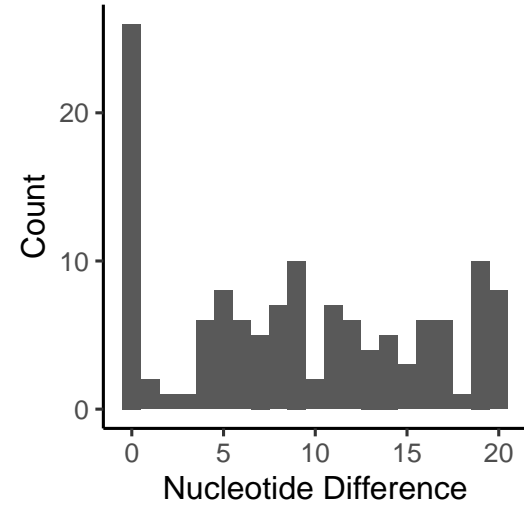
IGHV3-64*01

265 sequences assigned
154 (58.1%) exact matches, in which:
145 unique CDR3
7 unique J



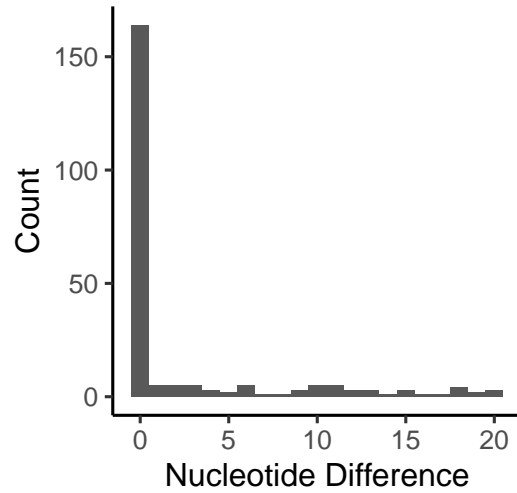
IGHV3-72*01

156 sequences assigned
26 (16.7%) exact matches, in which:
23 unique CDR3
5 unique J



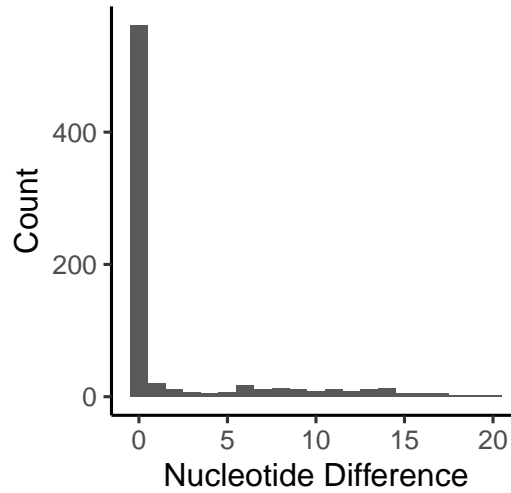
IGHV3-49*03_05

241 sequences assigned
164 (68%) exact matches, in which:
164 unique CDR3
7 unique J



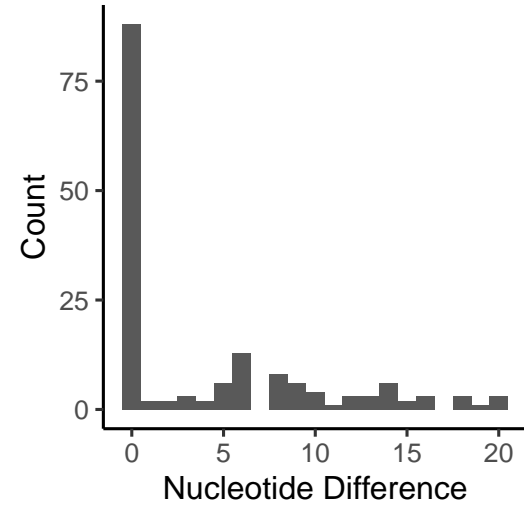
IGHV3-66*02

804 sequences assigned
562 (69.9%) exact matches, in which:
545 unique CDR3
7 unique J



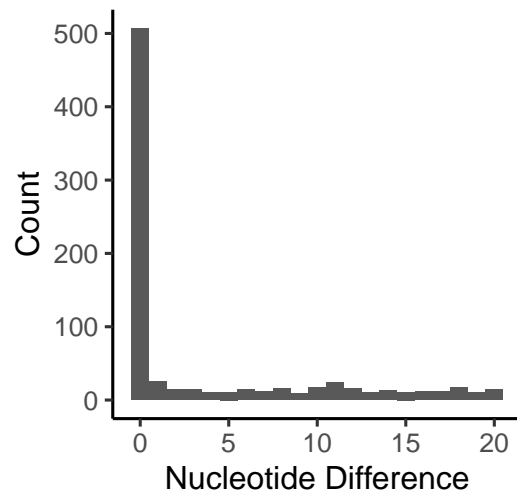
IGHV3-73*01_02

184 sequences assigned
88 (47.8%) exact matches, in which:
88 unique CDR3
6 unique J



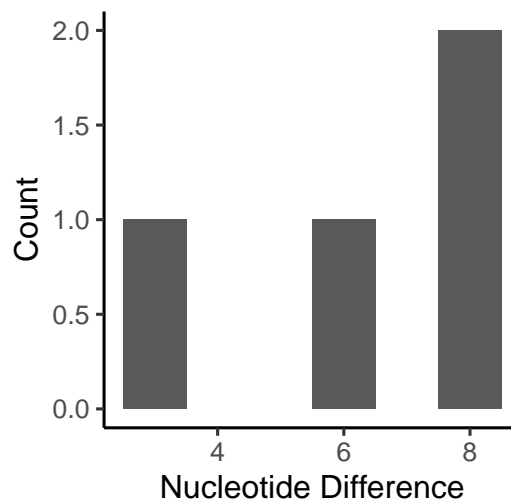
IGHV3-53*01_02

855 sequences assigned
507 (59.3%) exact matches, in which:
495 unique CDR3
7 unique J



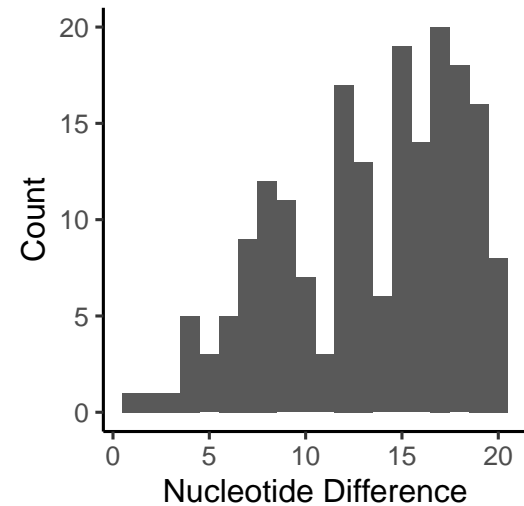
IGHV3-69-1*02

5 sequences assigned
No exact matches.



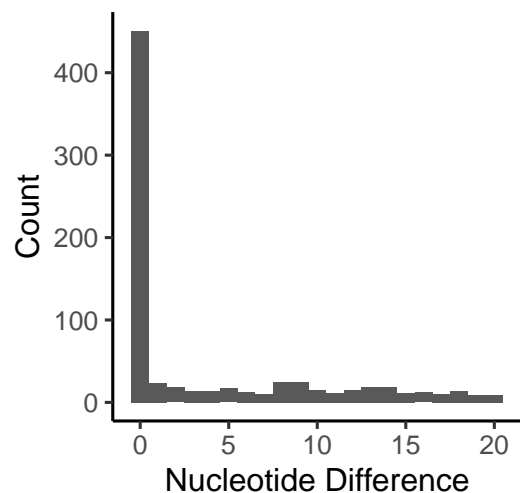
IGHV3-74*03

260 sequences assigned
No exact matches.



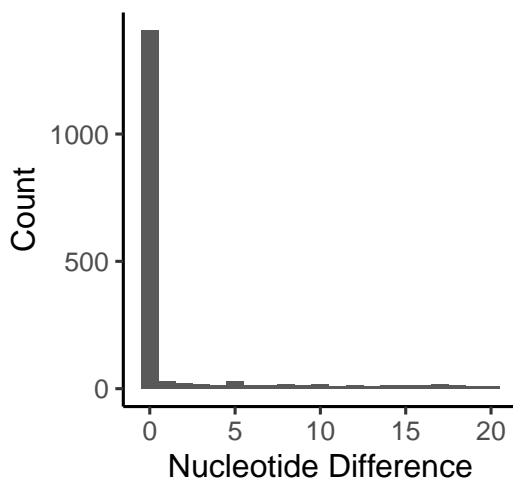
IGHV3-74*01_02

831 sequences assigned
451 (54.3%) exact matches, in which:
437 unique CDR3
7 unique J



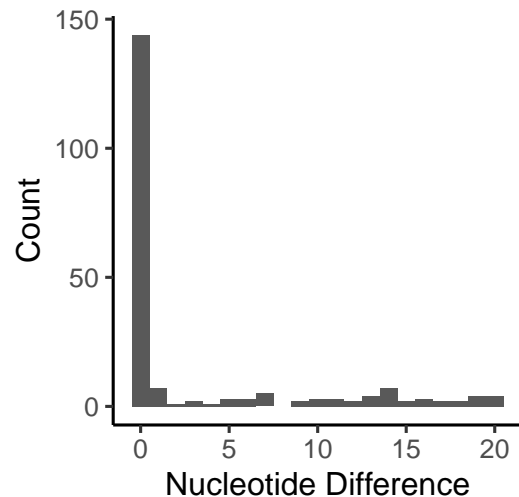
IGHV4-4*07

1804 sequences assigned
1407 (78%) exact matches, in which:
1370 unique CDR3
7 unique J



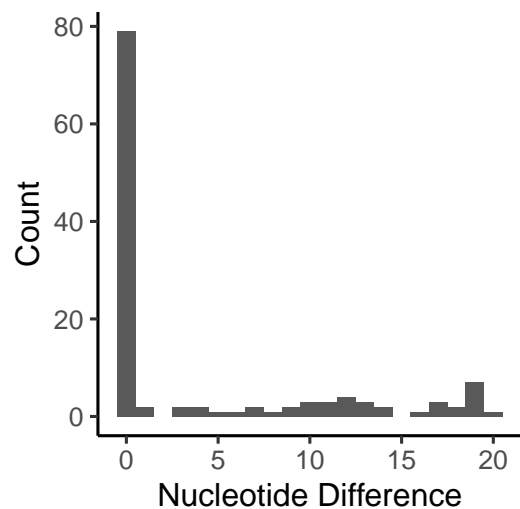
IGHV4-30-4*07

263 sequences assigned
144 (54.8%) exact matches, in which:
144 unique CDR3
6 unique J



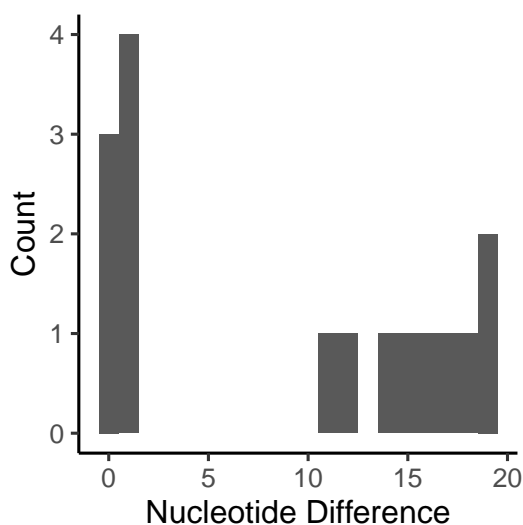
IGHV3-43D*03

128 sequences assigned
79 (61.7%) exact matches, in which:
79 unique CDR3
6 unique J



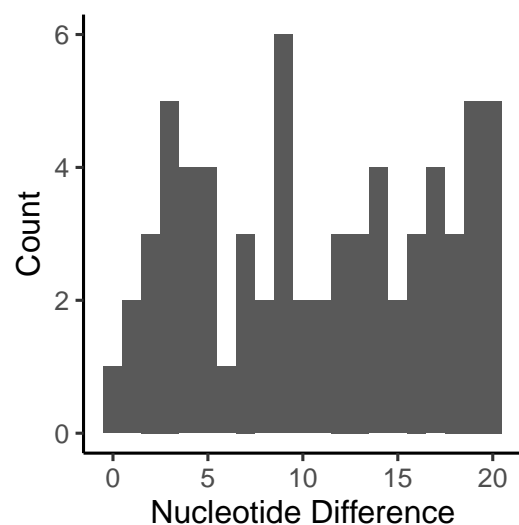
IGHV4-28*01_07

18 sequences assigned
3 (16.7%) exact matches, in which:
3 unique CDR3
2 unique J



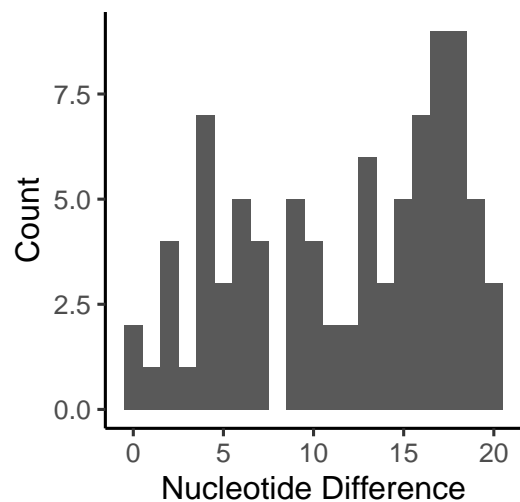
IGHV4-31*02

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



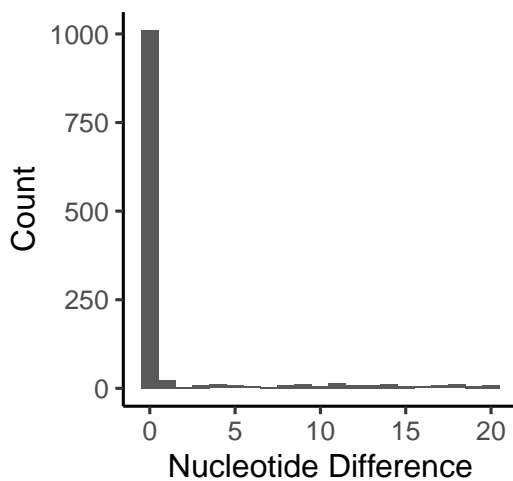
IGHV3-64D*06

144 sequences assigned
2 (1.4%) exact matches, in which:
2 unique CDR3
2 unique J



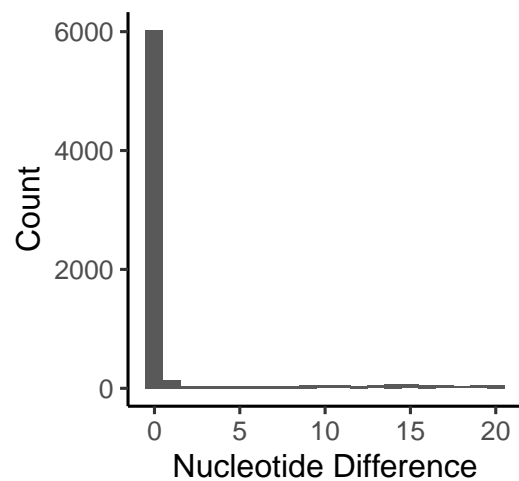
IGHV4-30-2*01

1282 sequences assigned
1011 (78.9%) exact matches, in which:
975 unique CDR3
6 unique J



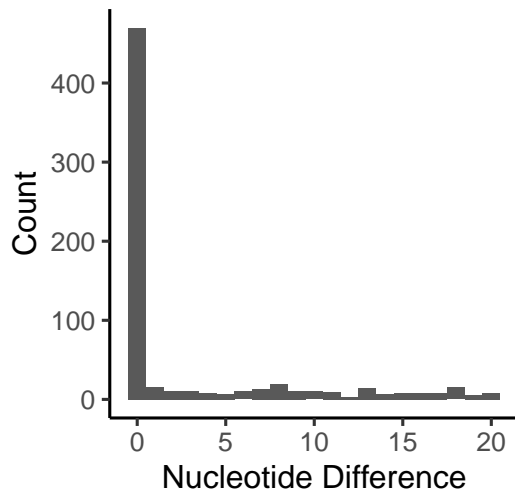
IGHV4-34*01_02

7381 sequences assigned
6027 (81.7%) exact matches, in which:
5779 unique CDR3
7 unique J



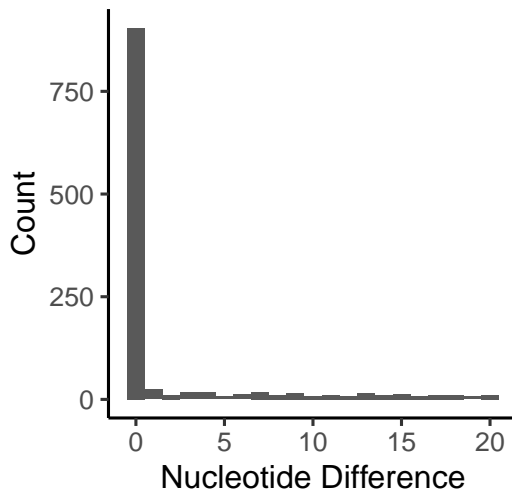
IGHV4-38-2*02

740 sequences assigned
470 (63.5%) exact matches, in which:
456 unique CDR3
6 unique J



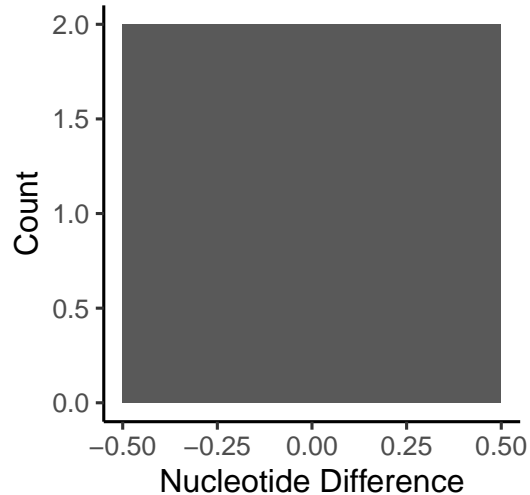
IGHV4-61*02

1233 sequences assigned
905 (73.4%) exact matches, in which:
892 unique CDR3
6 unique J



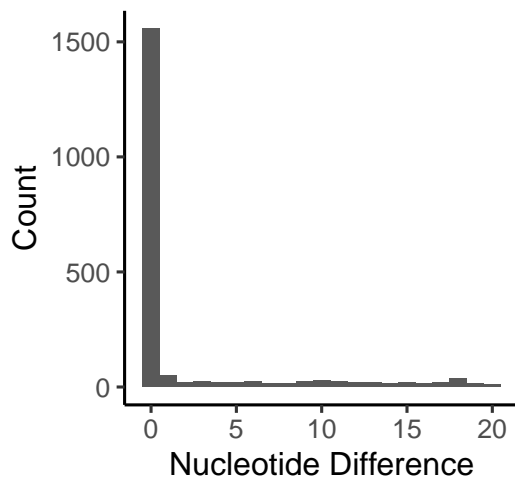
IGHV5-51*01_03

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
2 unique J



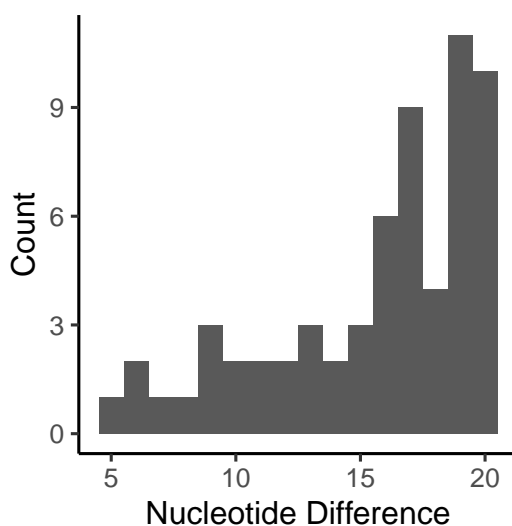
IGHV4-39*07

2177 sequences assigned
1557 (71.5%) exact matches, in which:
1528 unique CDR3
7 unique J



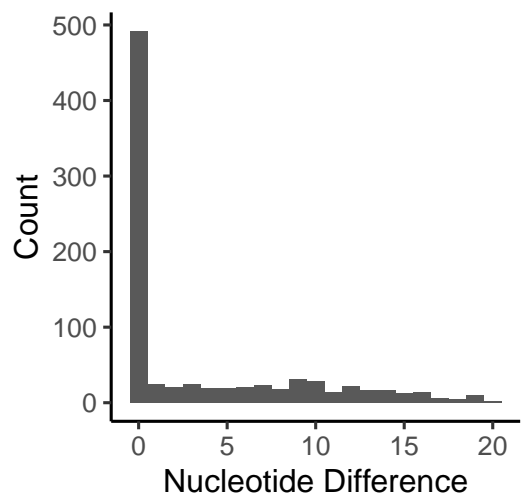
IGHV4/OR15-8*02

105 sequences assigned
No exact matches.



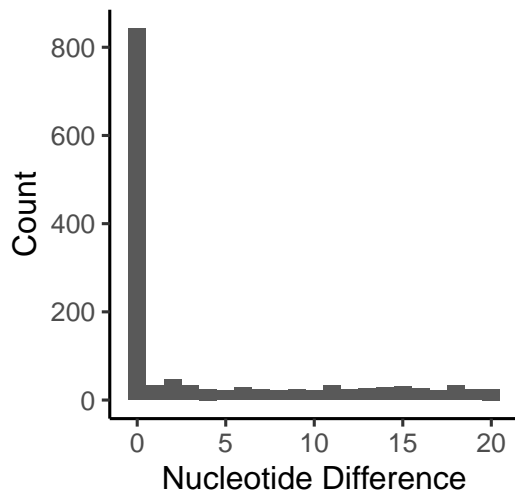
IGHV6-1*01_02

870 sequences assigned
492 (56.6%) exact matches, in which:
484 unique CDR3
7 unique J



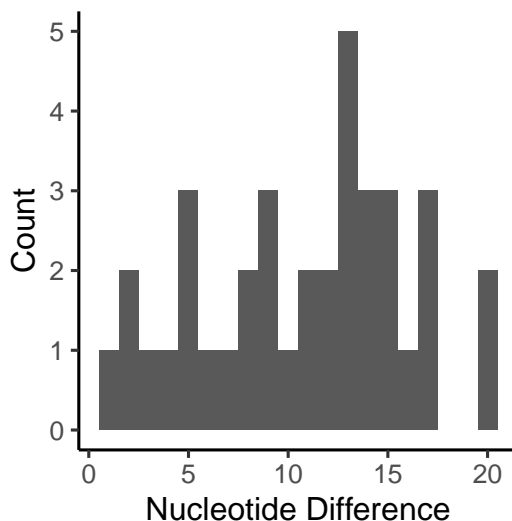
IGHV4-59*08

1614 sequences assigned
843 (52.2%) exact matches, in which:
814 unique CDR3
7 unique J



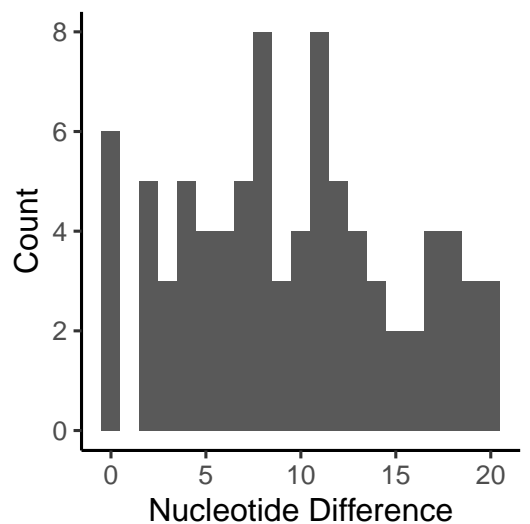
IGHV5-10-1*01_03

56 sequences assigned
No exact matches.

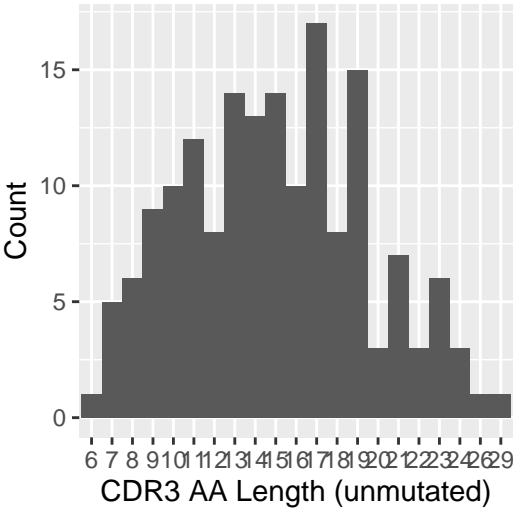


IGHV7-4-1*02

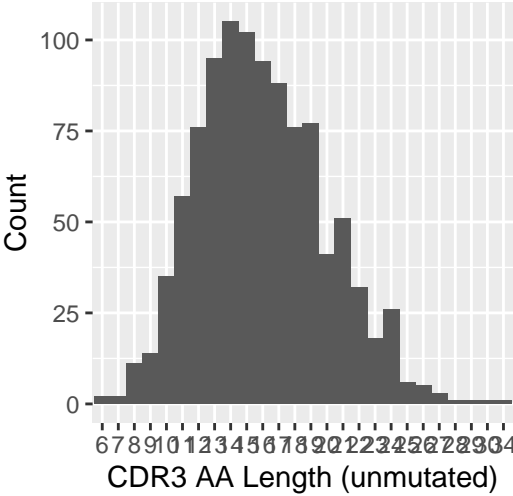
131 sequences assigned
6 (4.6%) exact matches, in which:
6 unique CDR3
1 unique J



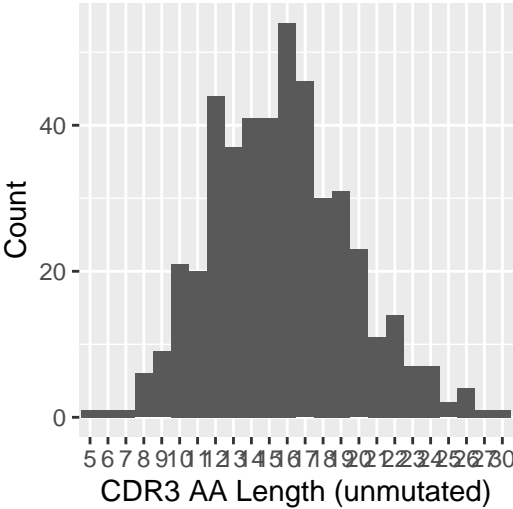
IGHV3-15*01_02_G147A



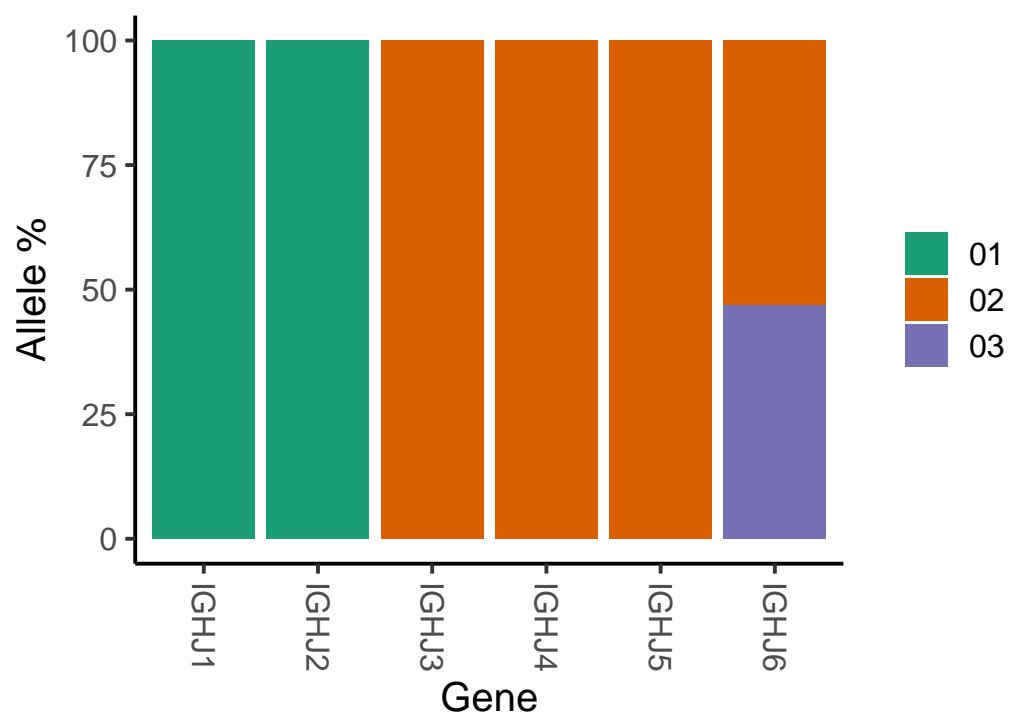
IGHV1-18*01_A190G



IGHV3-30*02_A245G



Allele Usage



Sequence Count byIGHJ6 allele usage



