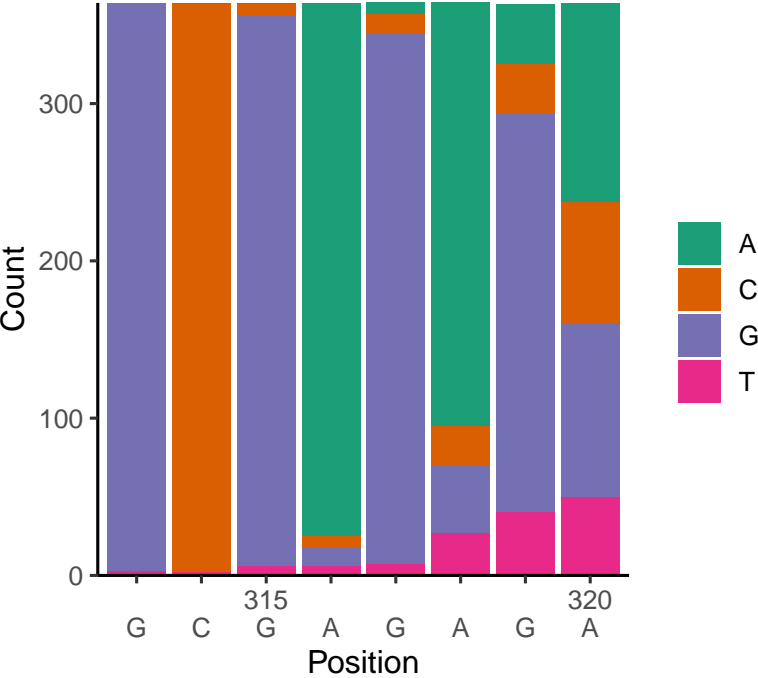
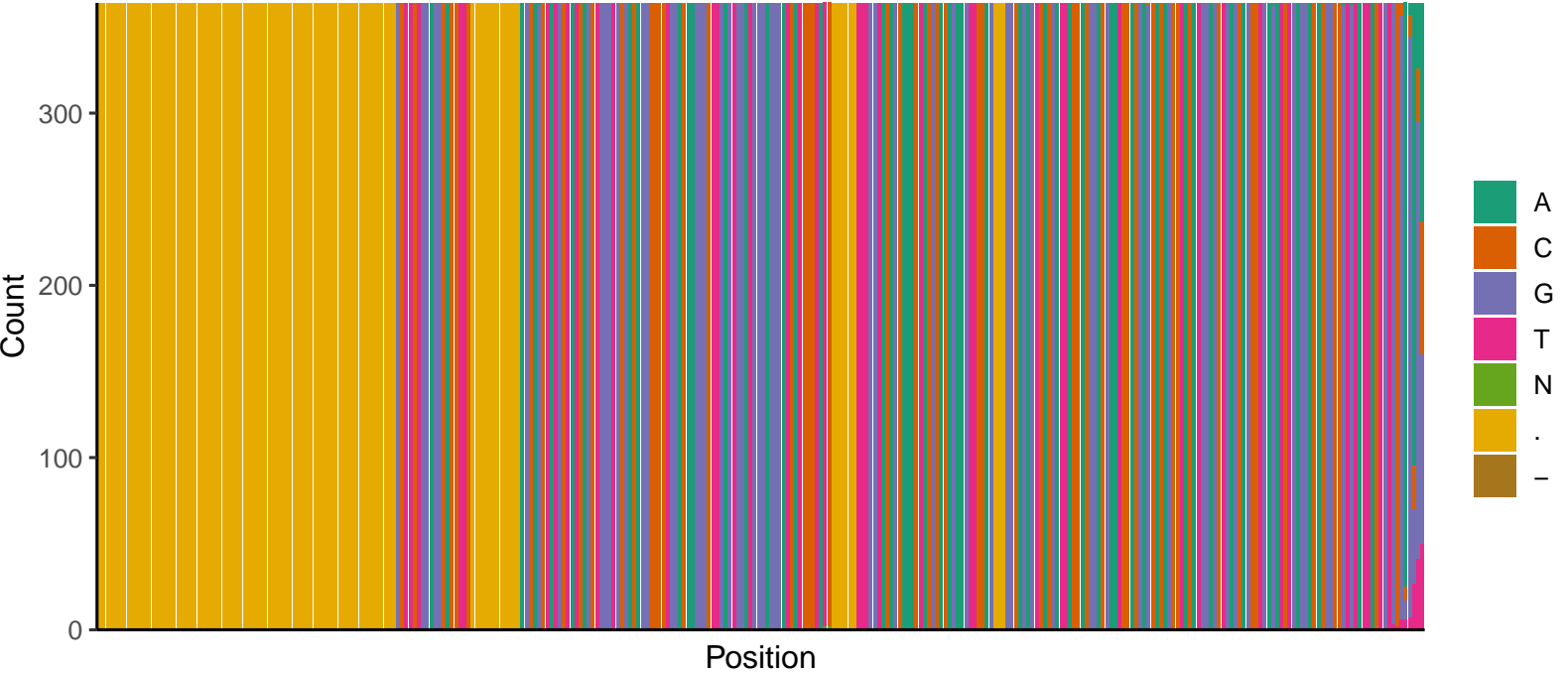


Gene IGHV1-69\*01\_12\_13\_G238A



Gene IGHV1-69\*01\_12\_13\_G238A



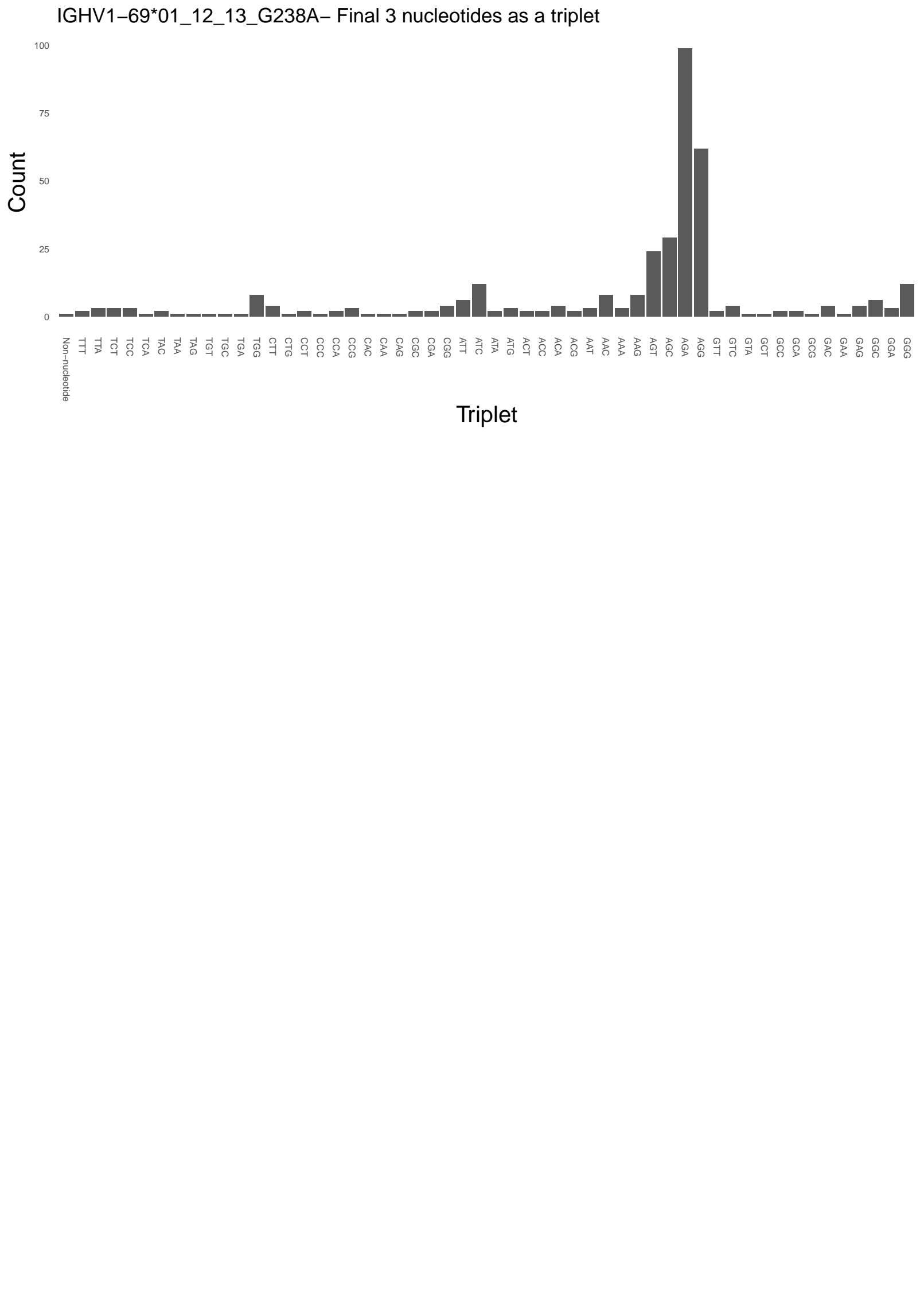
IGHV1-69\*01\_12\_13\_G238A- Final 3 nucleotides as a triplet

Count

100  
75  
50  
25  
0

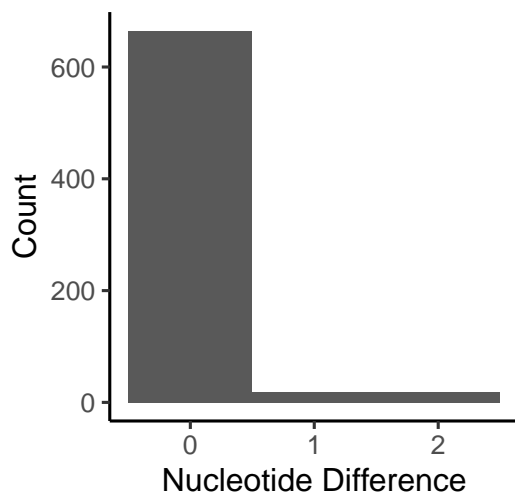
Non-nucleotide  
TTT  
TTA  
TCT  
TCC  
TCA  
TAC  
TAA  
TAG  
TGT  
TGC  
TGA  
TGG  
CTT  
CTG  
CTC  
CCT  
CCA  
CCG  
CAC  
CAA  
CAG  
CGC  
CGA  
CGG  
ATT  
ATC  
ATA  
ATG  
ACT  
ACC  
ACA  
ACG  
AAT  
AAC  
AAA  
AAG  
AGT  
AGC  
AGA  
AGG  
GTT  
GTC  
GTA  
GCT  
GCC  
GCA  
GCG  
GAC  
GAA  
GAG  
GGC  
GGA  
GGG

Triplet



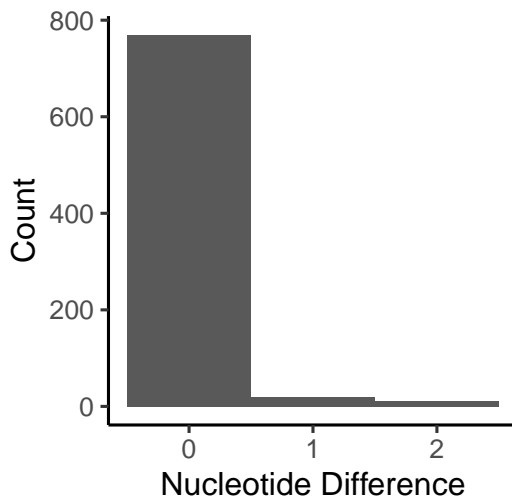
### IGHV1-2\*02

702 sequences assigned  
665 (94.7%) exact matches, in which:  
665 unique CDR3  
6 unique J



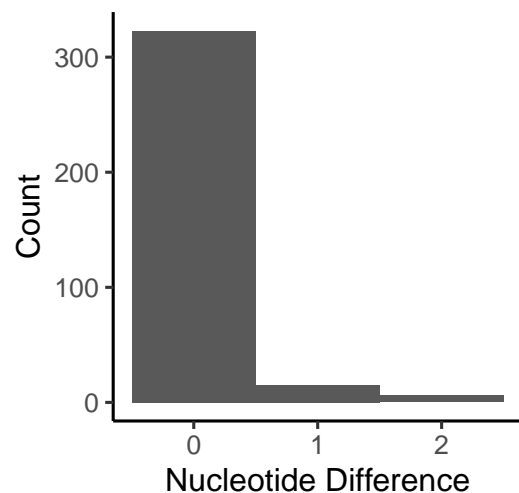
### IGHV1-8\*01

802 sequences assigned  
770 (96%) exact matches, in which:  
770 unique CDR3  
6 unique J



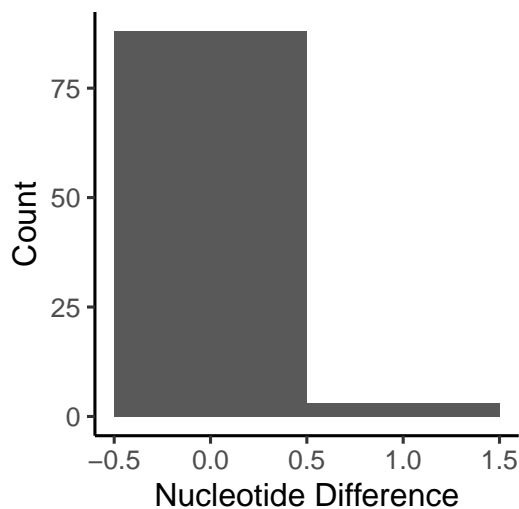
### IGHV1-24\*01

344 sequences assigned  
323 (93.9%) exact matches, in which:  
323 unique CDR3  
6 unique J



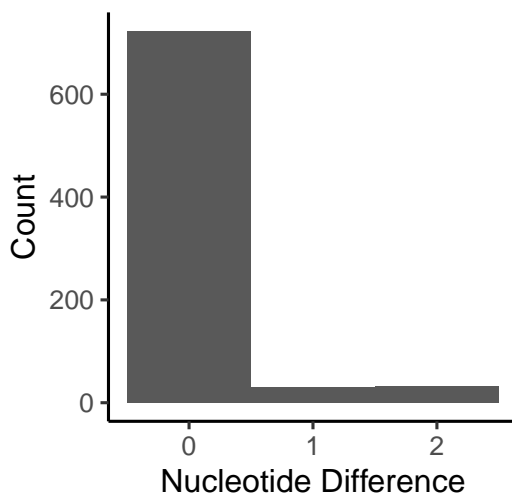
### IGHV1-2\*04

91 sequences assigned  
88 (96.7%) exact matches, in which:  
88 unique CDR3  
5 unique J



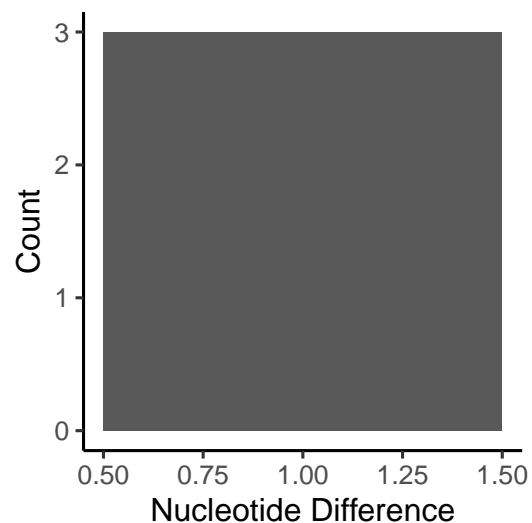
### IGHV1-18\*01

787 sequences assigned  
723 (91.9%) exact matches, in which:  
722 unique CDR3  
6 unique J



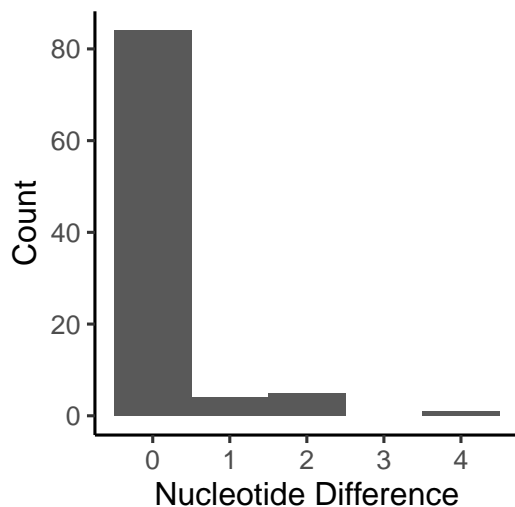
### IGHV1-38-4\*01

3 sequences assigned  
No exact matches.



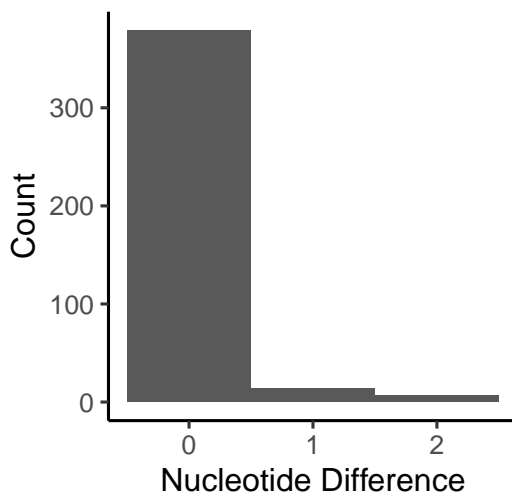
### IGHV1-3\*01\_05

94 sequences assigned  
84 (89.4%) exact matches, in which:  
84 unique CDR3  
5 unique J



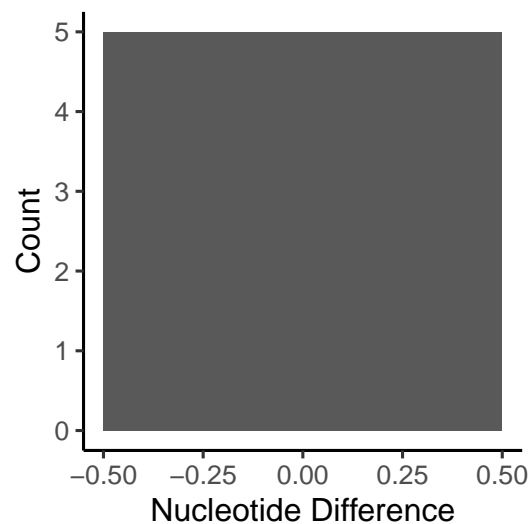
### IGHV1-18\*04

400 sequences assigned  
379 (94.8%) exact matches, in which:  
378 unique CDR3  
6 unique J



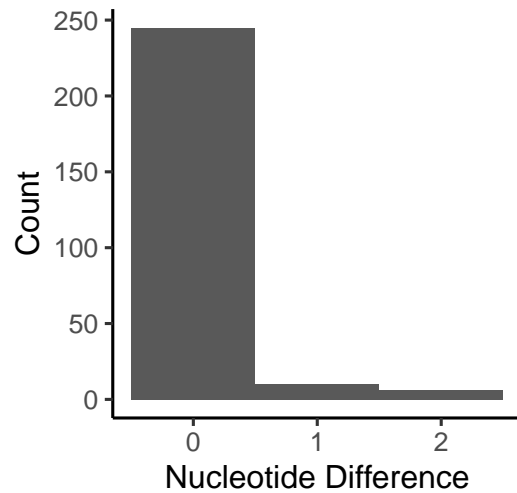
### IGHV1-45\*02

5 sequences assigned  
5 (100%) exact matches, in which:  
5 unique CDR3  
3 unique J



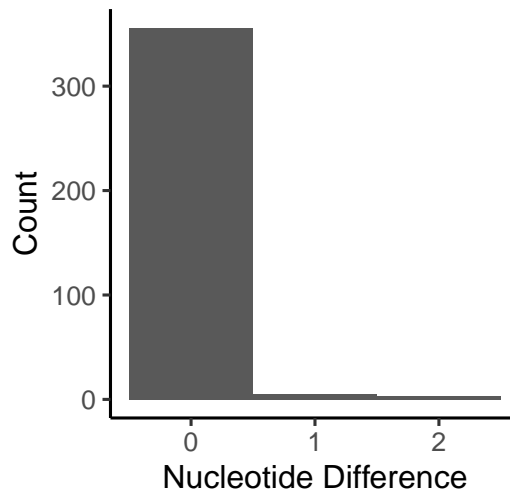
### IGHV1-46\*03

261 sequences assigned  
245 (93.9%) exact matches, in which:  
245 unique CDR3  
6 unique J



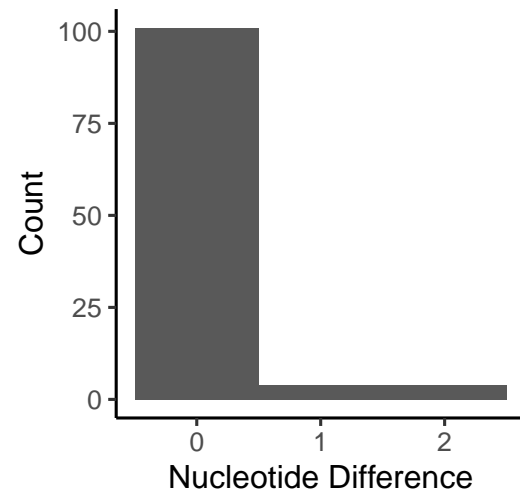
### IGHV1-69\*01\_12\_13\_G2

364 sequences assigned  
356 (97.8%) exact matches, in which:  
356 unique CDR3  
6 unique J



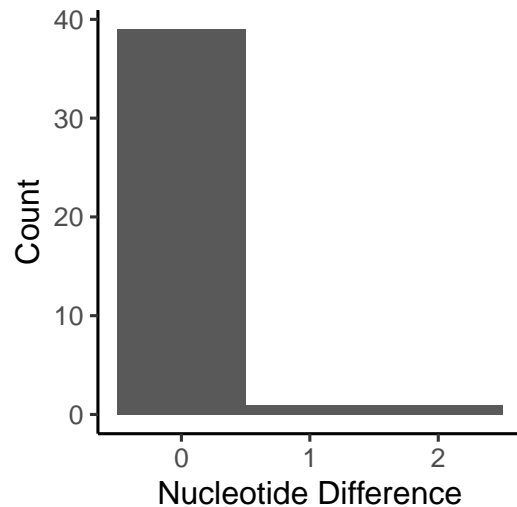
### IGHV2-70\*11\_15

109 sequences assigned  
101 (92.7%) exact matches, in which:  
99 unique CDR3  
5 unique J



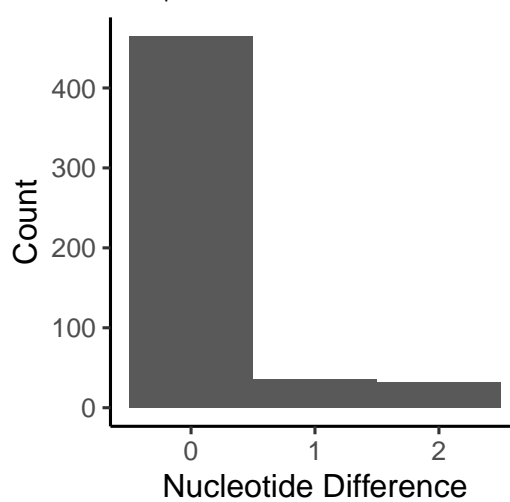
### IGHV1-58\*02

41 sequences assigned  
39 (95.1%) exact matches, in which:  
39 unique CDR3  
5 unique J



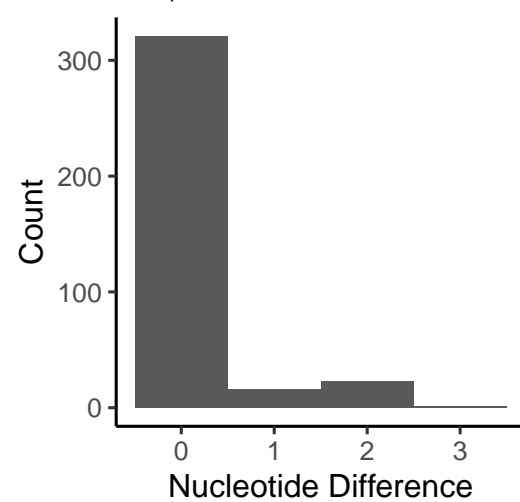
### IGHV2-5\*01

533 sequences assigned  
465 (87.2%) exact matches, in which:  
461 unique CDR3  
6 unique J



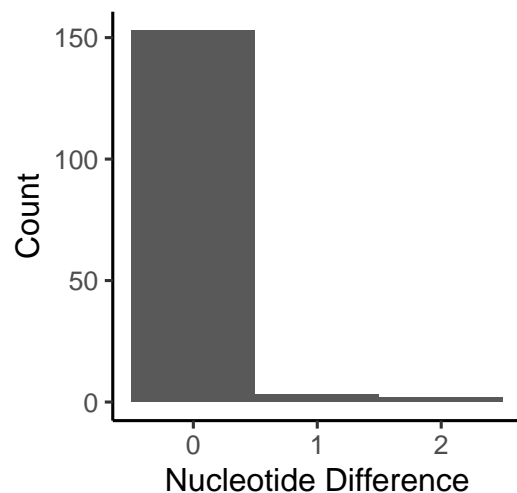
### IGHV3-7\*01

361 sequences assigned  
321 (88.9%) exact matches, in which:  
313 unique CDR3  
6 unique J



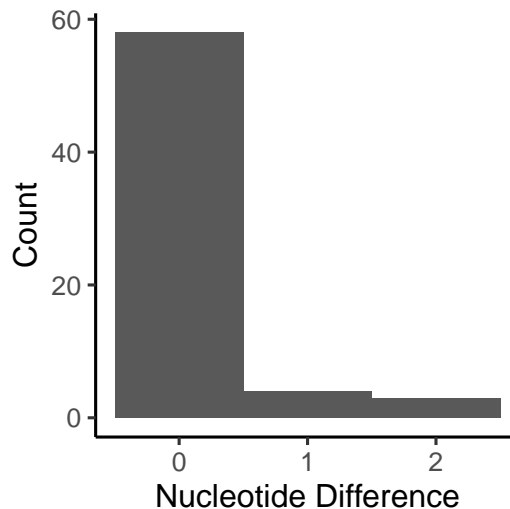
### IGHV1-69\*02

158 sequences assigned  
153 (96.8%) exact matches, in which:  
153 unique CDR3  
6 unique J



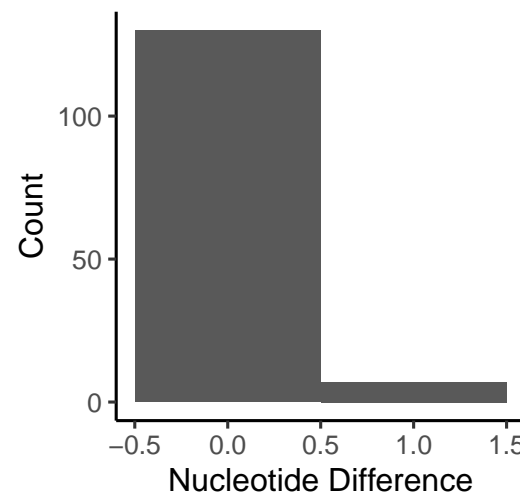
### IGHV2-26\*01

65 sequences assigned  
58 (89.2%) exact matches, in which:  
58 unique CDR3  
4 unique J



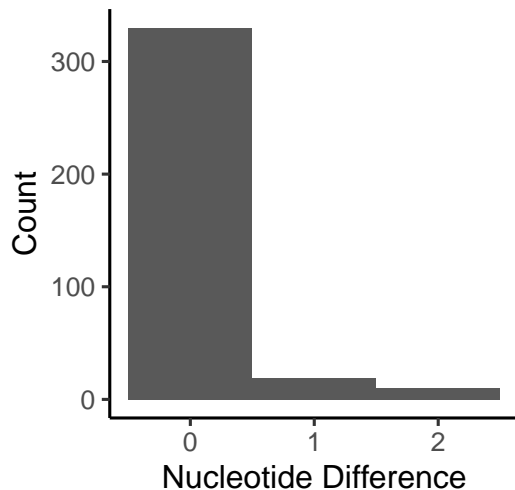
### IGHV3-7\*05

137 sequences assigned  
130 (94.9%) exact matches, in which:  
126 unique CDR3  
5 unique J



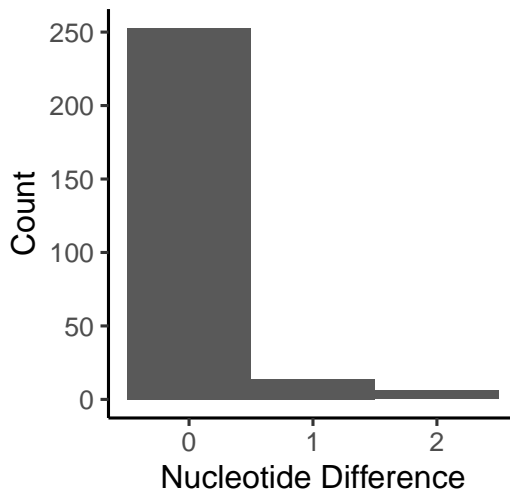
### IGHV3-9\*01

359 sequences assigned  
330 (91.9%) exact matches, in which:  
322 unique CDR3  
6 unique J



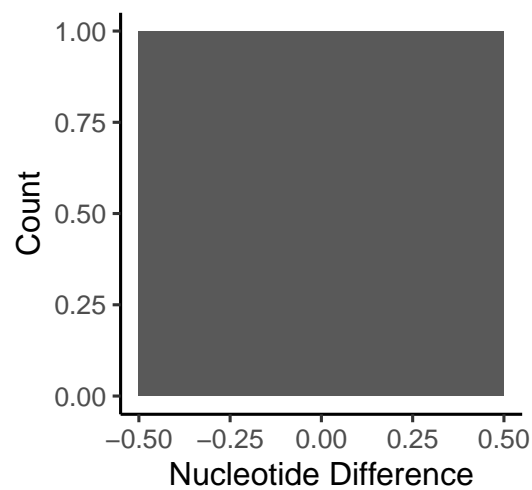
### IGHV3-15\*01\_02

273 sequences assigned  
253 (92.7%) exact matches, in which:  
251 unique CDR3  
6 unique J



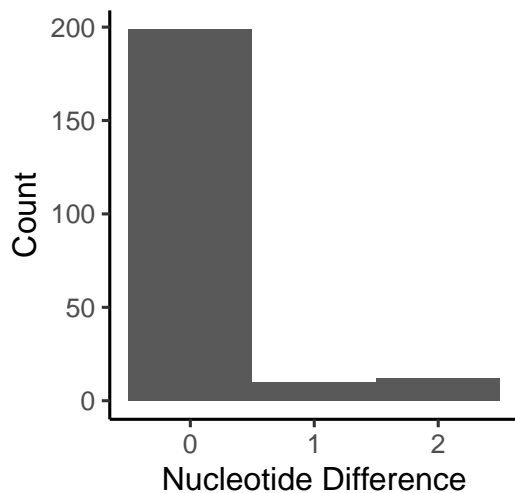
### IGHV3-38-3\*01

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



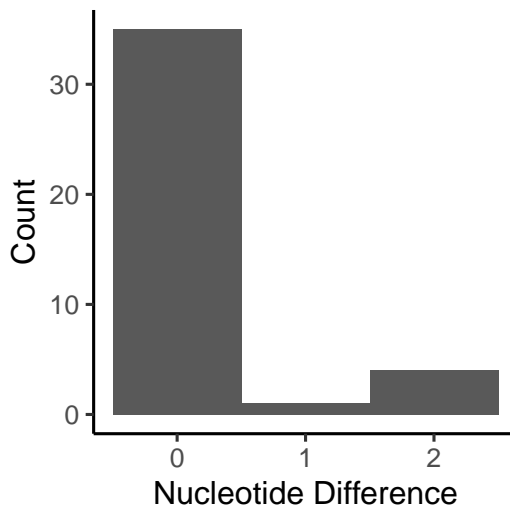
### IGHV3-11\*01

221 sequences assigned  
199 (90%) exact matches, in which:  
195 unique CDR3  
6 unique J



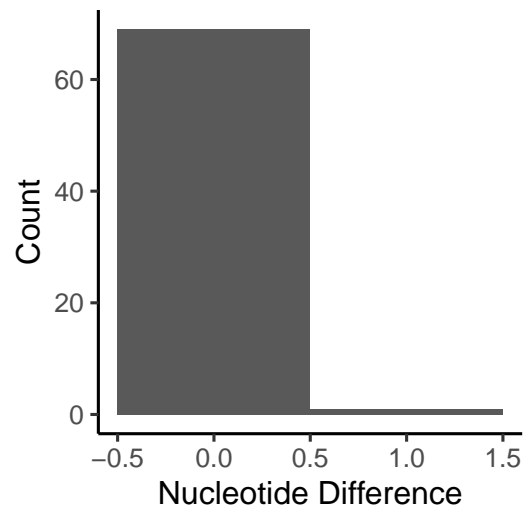
### IGHV3-20\*01\_02

40 sequences assigned  
35 (87.5%) exact matches, in which:  
34 unique CDR3  
5 unique J



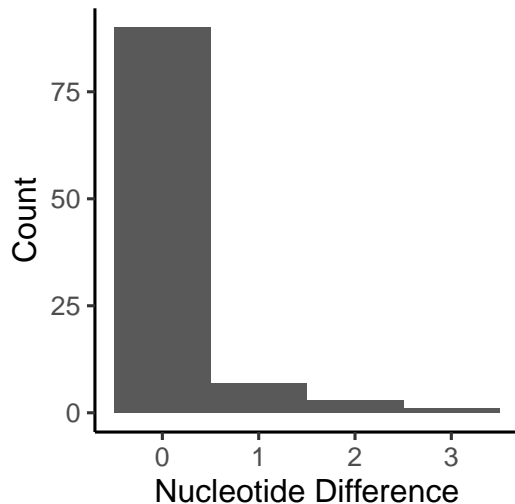
### IGHV3-43\*01

70 sequences assigned  
69 (98.6%) exact matches, in which:  
68 unique CDR3  
6 unique J



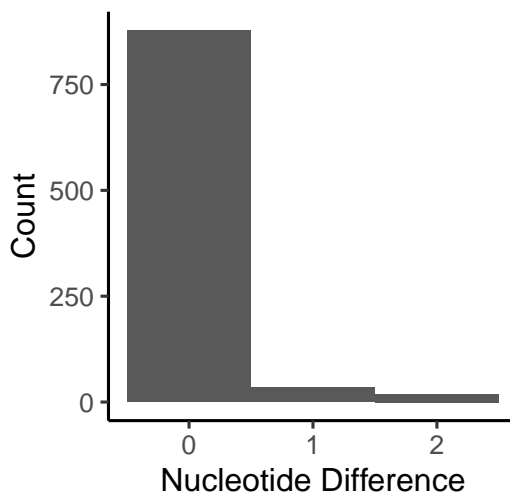
### IGHV3-13\*01

101 sequences assigned  
90 (89.1%) exact matches, in which:  
86 unique CDR3  
5 unique J



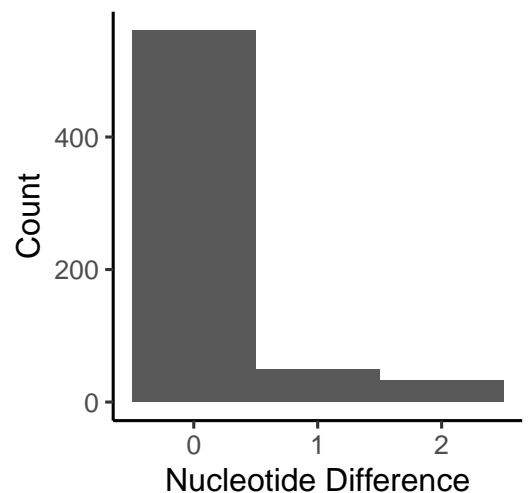
### IGHV3-21\*01\_02

931 sequences assigned  
878 (94.3%) exact matches, in which:  
846 unique CDR3  
6 unique J



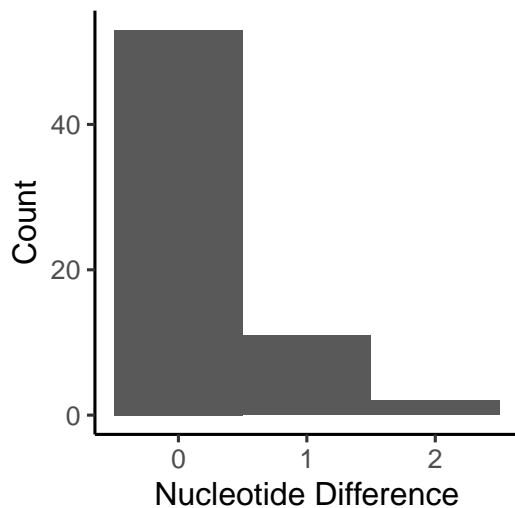
### IGHV3-48\*01

643 sequences assigned  
561 (87.2%) exact matches, in which:  
543 unique CDR3  
6 unique J



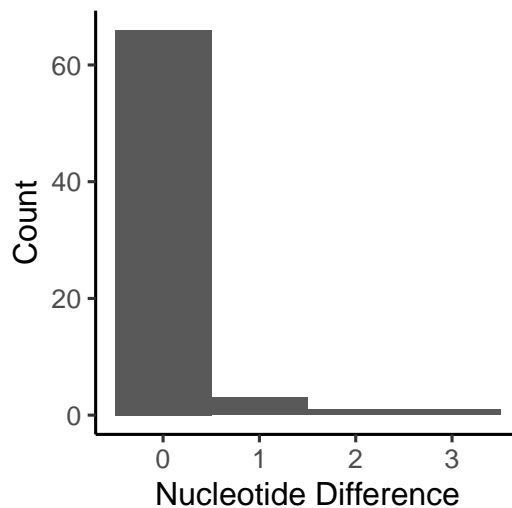
### IGHV3-49\*03\_05

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



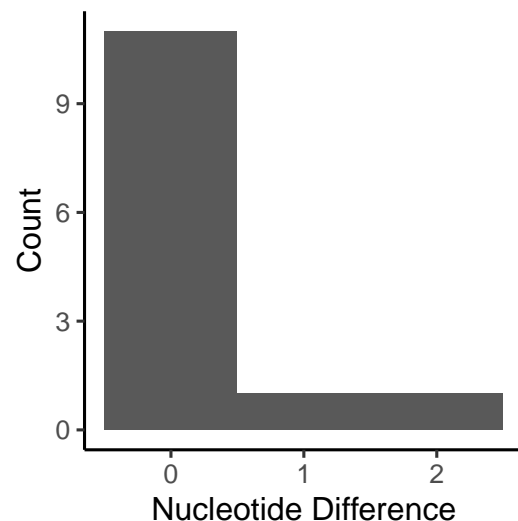
### IGHV3-64\*01

71 sequences assigned  
66 (93%) exact matches, in which:  
64 unique CDR3  
5 unique J



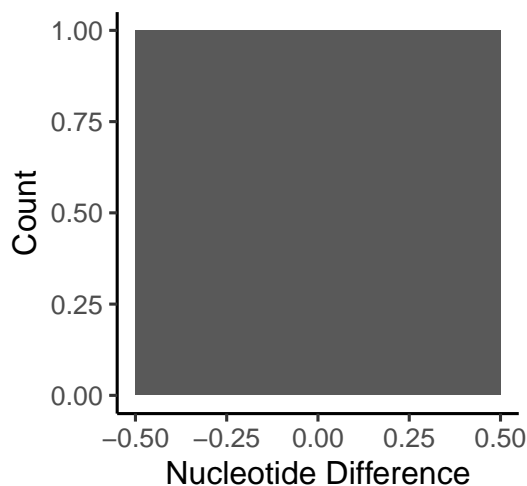
### IGHV3-72\*01

13 sequences assigned  
11 (84.6%) exact matches, in which:  
11 unique CDR3  
5 unique J



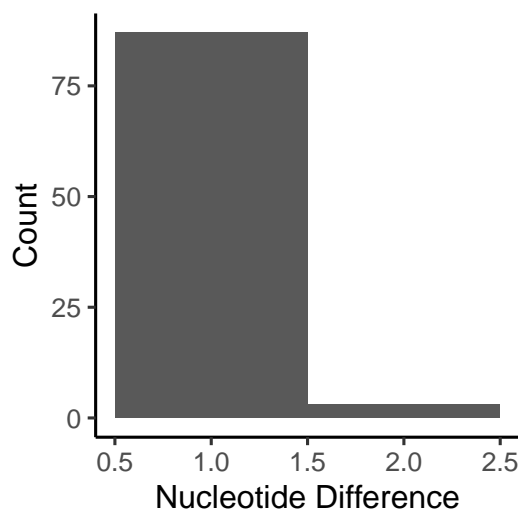
### IGHV3-52\*02

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



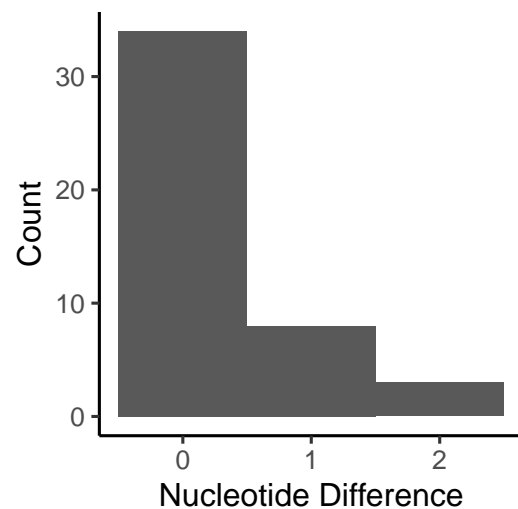
### IGHV3-66\*01

90 sequences assigned  
No exact matches.



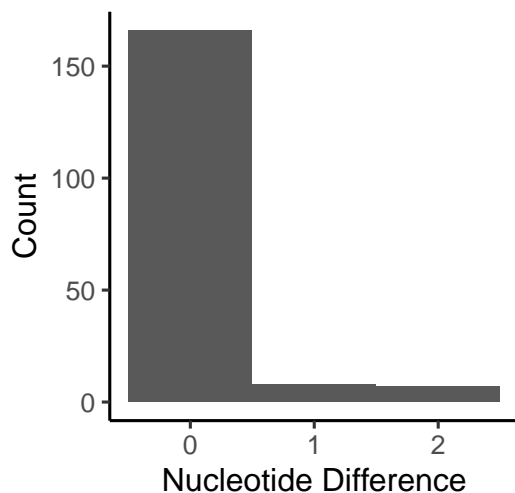
### IGHV3-73\*01\_02

45 sequences assigned  
34 (75.6%) exact matches, in which:  
34 unique CDR3  
5 unique J



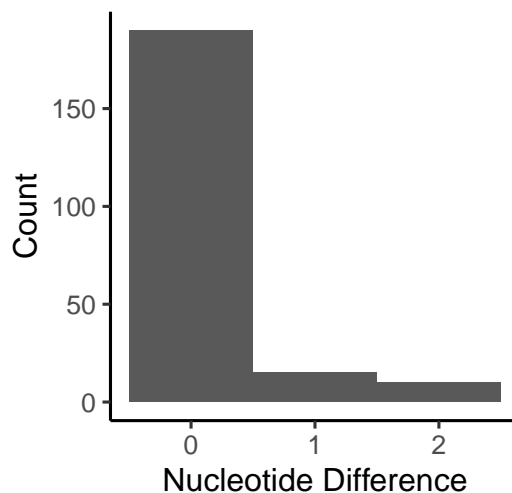
### IGHV3-53\*01\_02

181 sequences assigned  
166 (91.7%) exact matches, in which:  
159 unique CDR3  
6 unique J



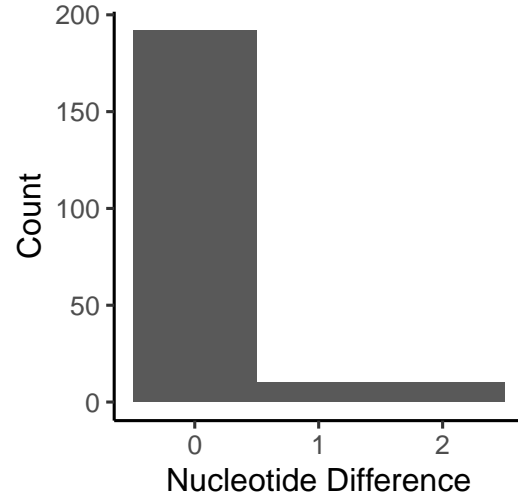
### IGHV3-66\*02

215 sequences assigned  
190 (88.4%) exact matches, in which:  
185 unique CDR3  
6 unique J



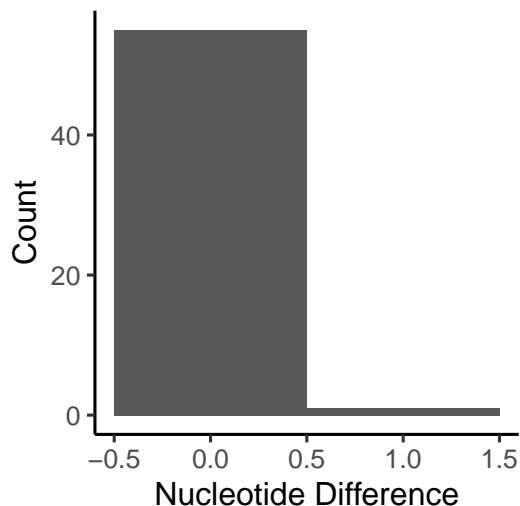
### IGHV3-74\*01\_02

212 sequences assigned  
192 (90.6%) exact matches, in which:  
189 unique CDR3  
6 unique J



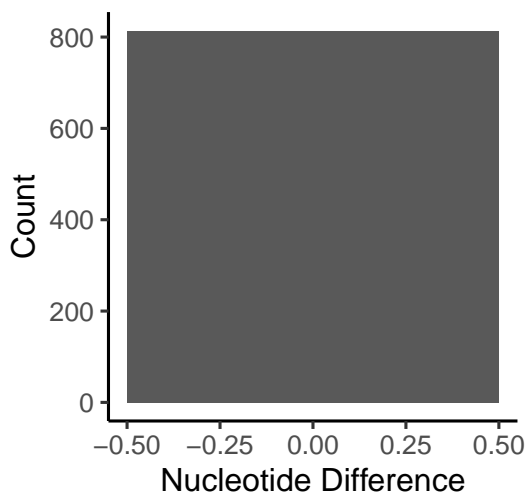
### IGHV3-43D\*04

56 sequences assigned  
55 (98.2%) exact matches, in which:  
55 unique CDR3  
4 unique J



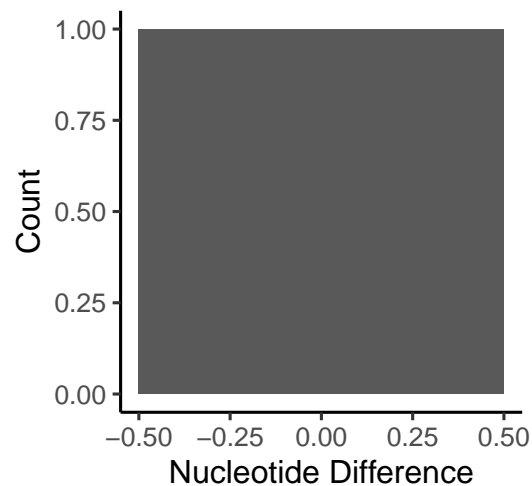
### IGHV4-4\*09

814 sequences assigned  
814 (100%) exact matches, in which:  
793 unique CDR3  
6 unique J



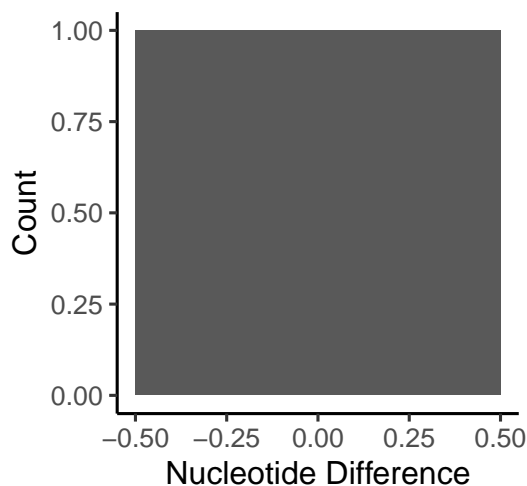
### IGHV4-30-2\*01

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



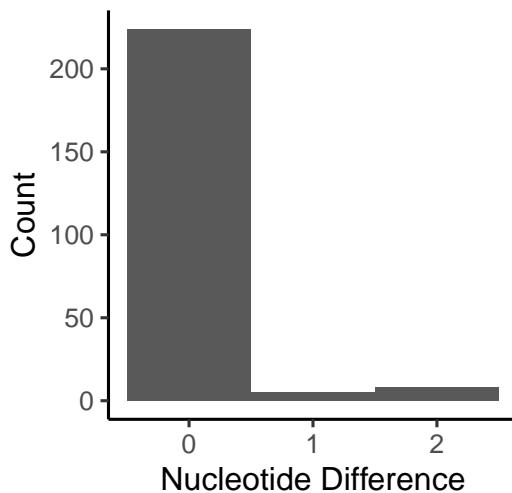
### IGHV3-64D\*06

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



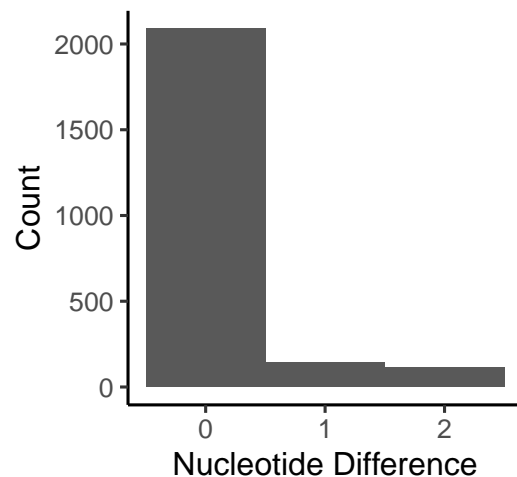
### IGHV4-4\*02\_03

237 sequences assigned  
224 (94.5%) exact matches, in which:  
219 unique CDR3  
6 unique J



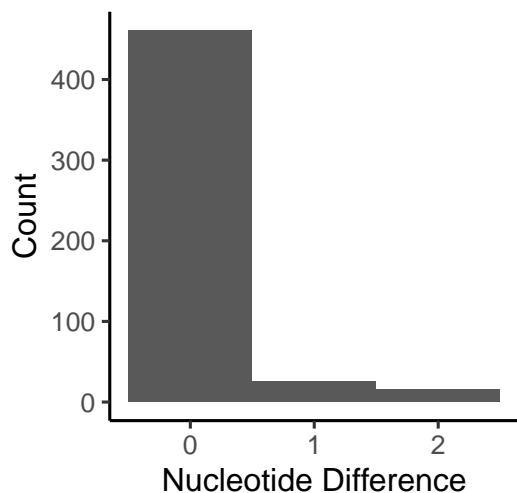
### IGHV4-34\*01\_02

2345 sequences assigned  
2089 (89.1%) exact matches, in which:  
2000 unique CDR3  
6 unique J



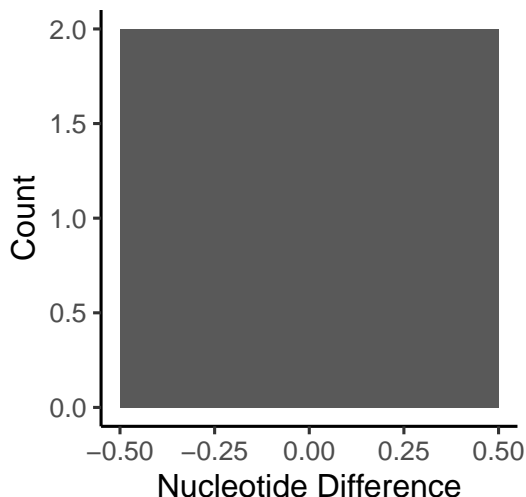
### IGHV4-4\*07

503 sequences assigned  
461 (91.7%) exact matches, in which:  
445 unique CDR3  
5 unique J



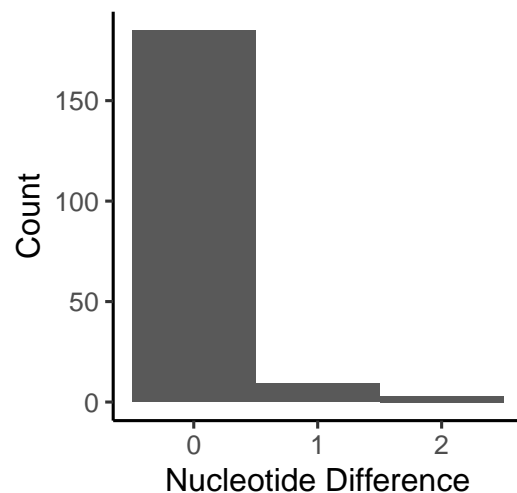
### IGHV4-28\*02\_05

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



### IGHV4-38-2\*01

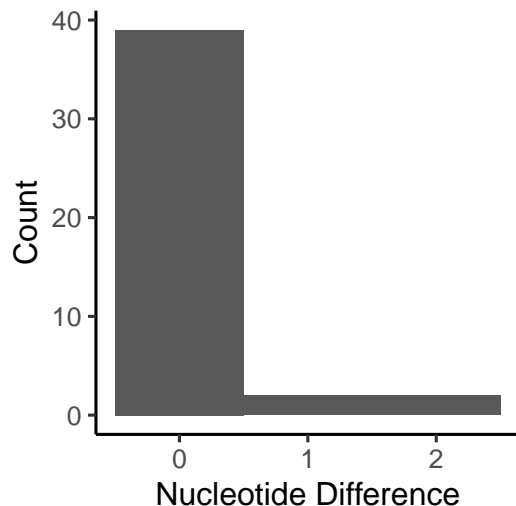
197 sequences assigned  
185 (93.9%) exact matches, in which:  
185 unique CDR3  
6 unique J





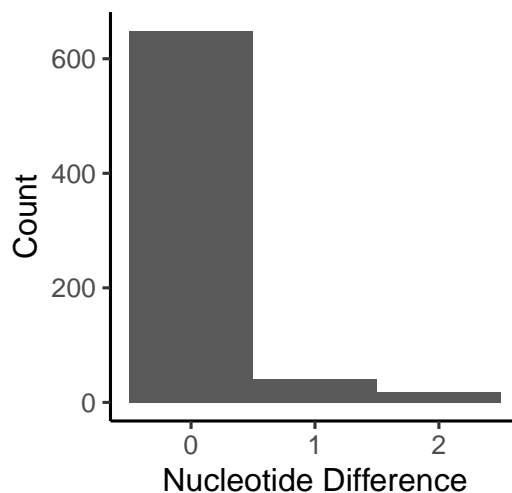
### IGHV4-38-2\*02

43 sequences assigned  
39 (90.7%) exact matches, in which:  
39 unique CDR3  
5 unique J



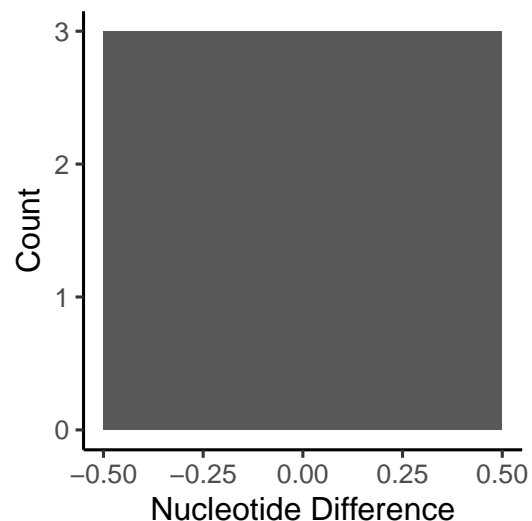
### IGHV4-61\*02

708 sequences assigned  
649 (91.7%) exact matches, in which:  
639 unique CDR3  
6 unique J



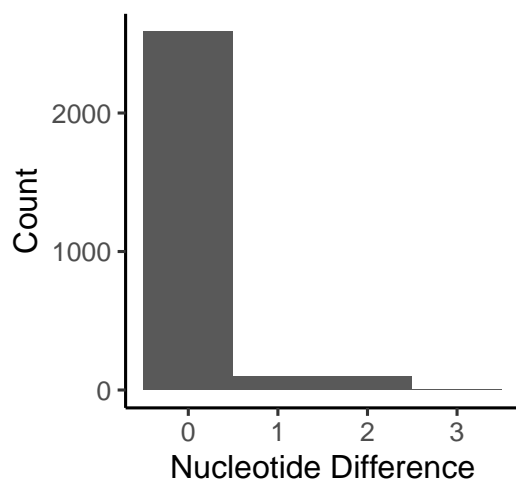
### IGHV7-4-1\*01

3 sequences assigned  
3 (100%) exact matches, in which:  
3 unique CDR3  
2 unique J



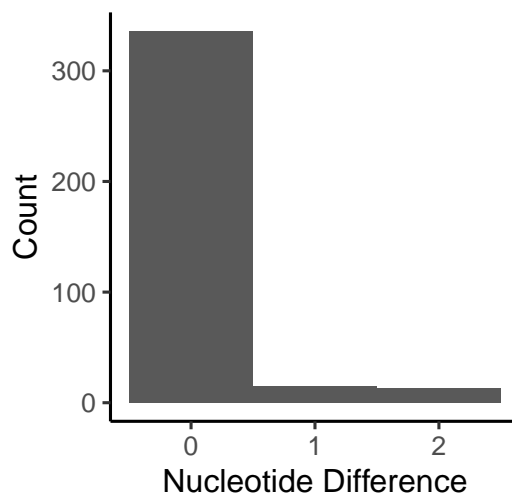
### IGHV4-39\*01\_05

2778 sequences assigned  
2587 (93.1%) exact matches, in which:  
2488 unique CDR3  
6 unique J



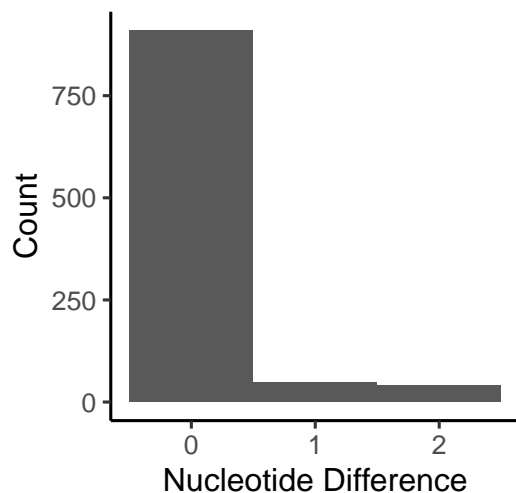
### IGHV5-51\*01\_03

364 sequences assigned  
336 (92.3%) exact matches, in which:  
336 unique CDR3  
6 unique J



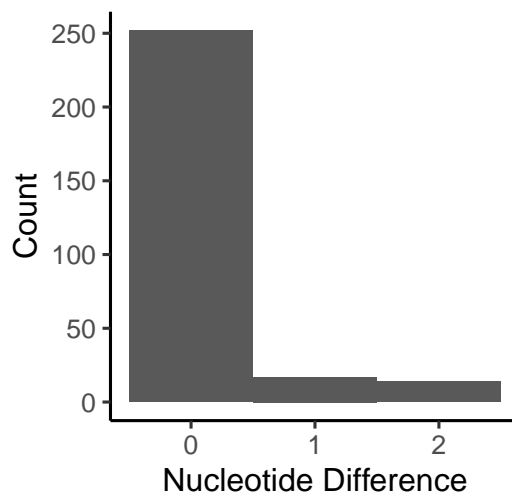
### IGHV4-59\*01\_07

997 sequences assigned  
910 (91.3%) exact matches, in which:  
871 unique CDR3  
6 unique J



### IGHV6-1\*01\_02

283 sequences assigned  
252 (89%) exact matches, in which:  
252 unique CDR3  
6 unique J





[illegible]