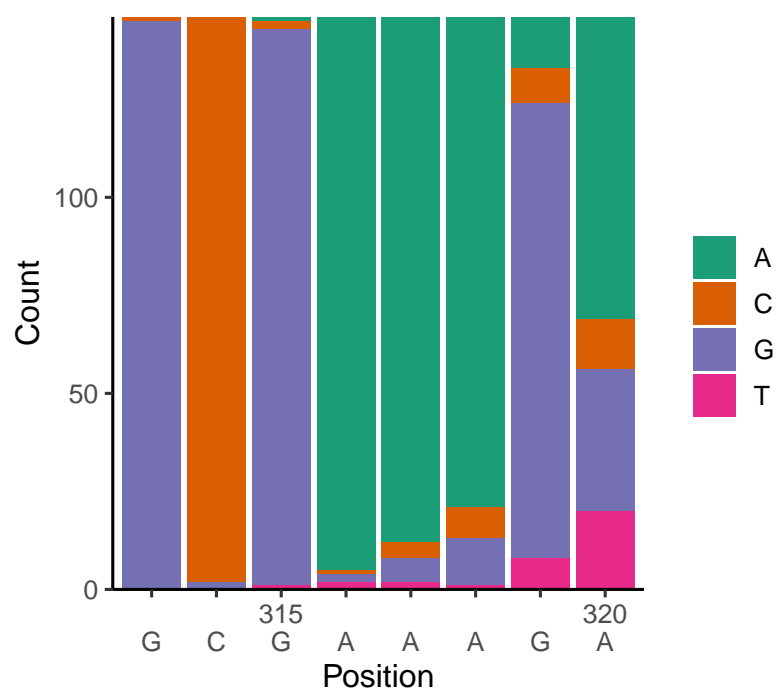
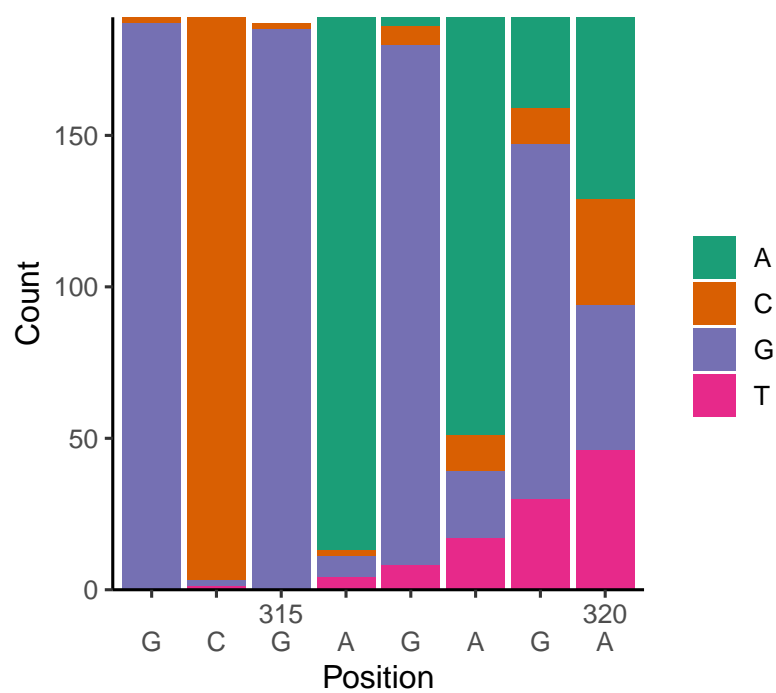


Gene IGHV3-30\*18\_T158G



Gene IGHV4-4\*02\_C20T



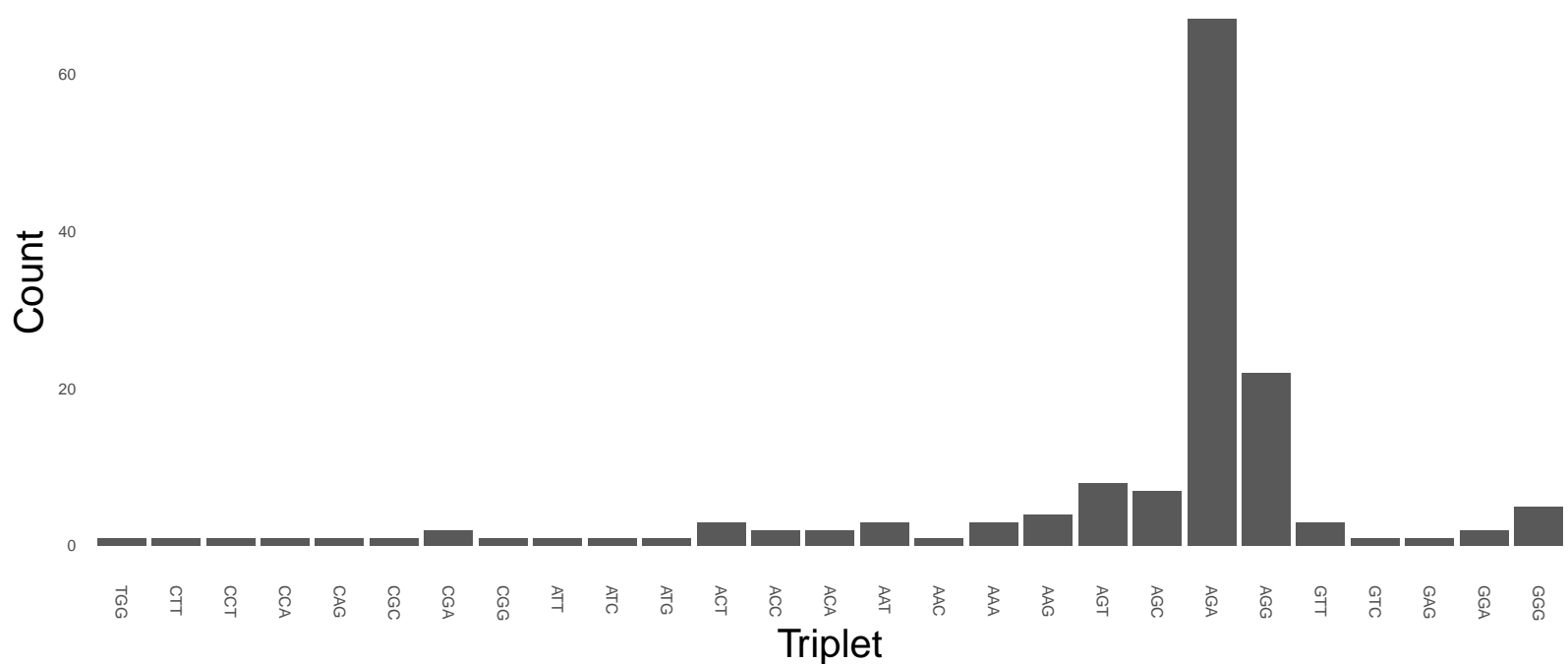
Gene IGHV3-30\*18\_T158G



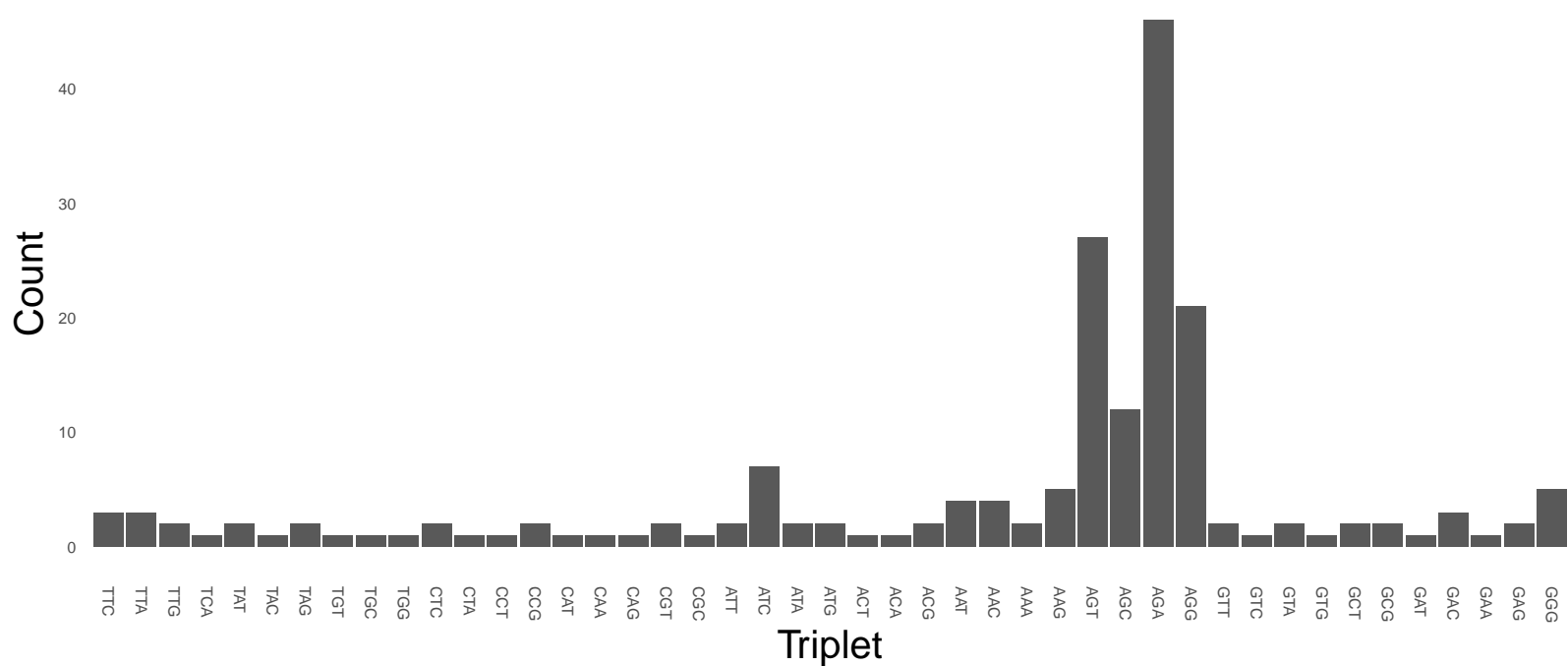
Gene IGHV4-4\*02\_C20T



IGHV3–30\*18\_T158G– Final 3 nucleotides as a triplet

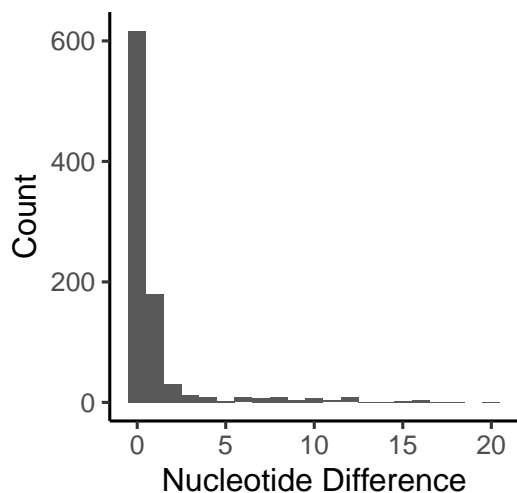


IGHV4–4\*02\_C20T– Final 3 nucleotides as a triplet



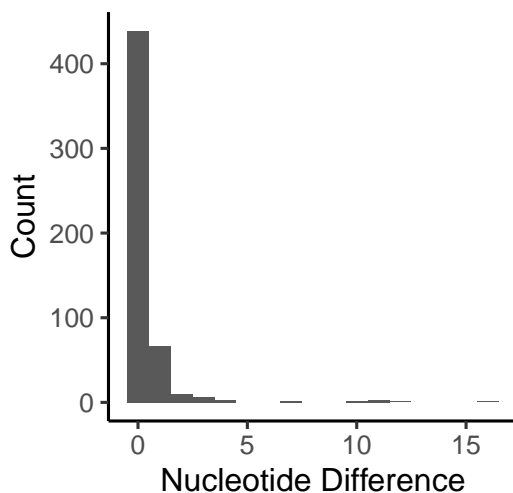
### IGHV1-2\*02

916 sequences assigned  
617 (67.4%) exact matches, in which:  
616 unique CDR3  
6 unique J



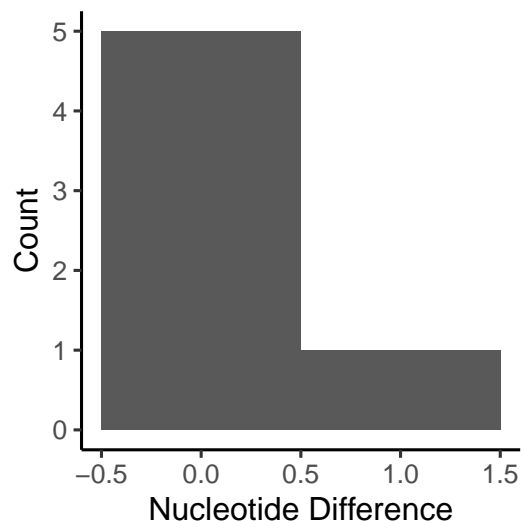
### IGHV1-8\*01

534 sequences assigned  
439 (82.2%) exact matches, in which:  
437 unique CDR3  
7 unique J



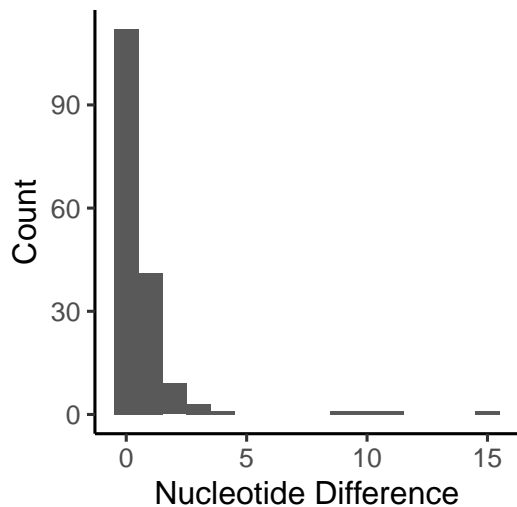
### IGHV1-45\*02

6 sequences assigned  
5 (83.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



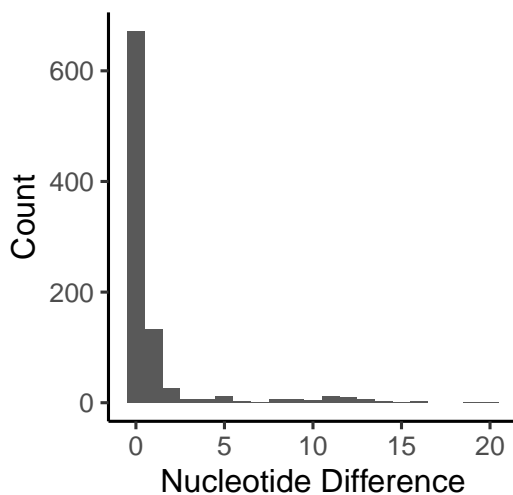
### IGHV1-2\*04

170 sequences assigned  
112 (65.9%) exact matches, in which:  
110 unique CDR3  
6 unique J



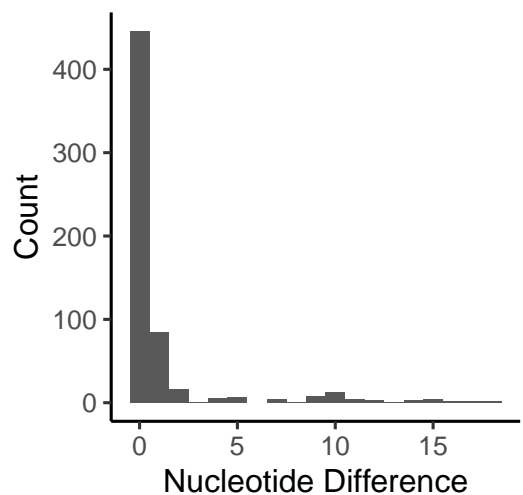
### IGHV1-18\*01

919 sequences assigned  
672 (73.1%) exact matches, in which:  
670 unique CDR3  
7 unique J



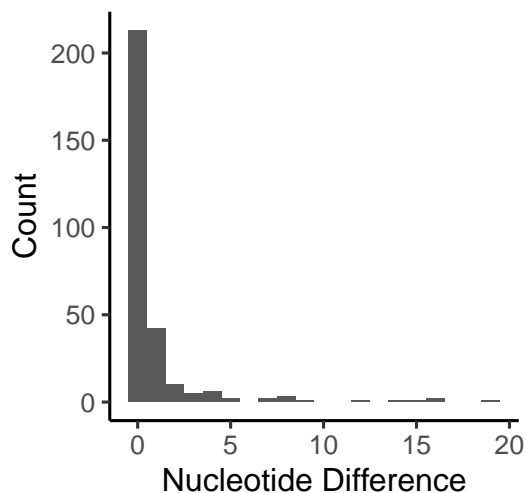
### IGHV1-46\*01

613 sequences assigned  
446 (72.8%) exact matches, in which:  
444 unique CDR3  
7 unique J



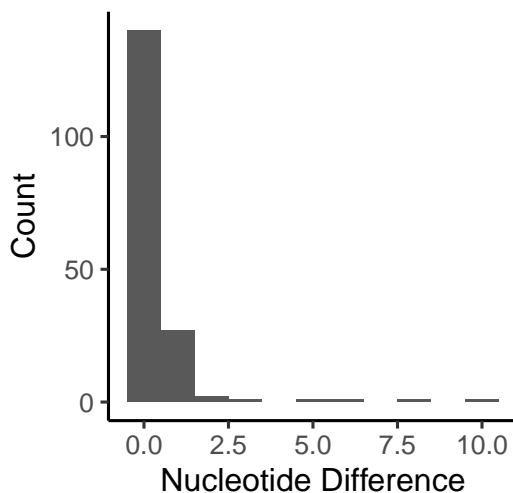
### IGHV1-3\*01

292 sequences assigned  
213 (72.9%) exact matches, in which:  
212 unique CDR3  
6 unique J



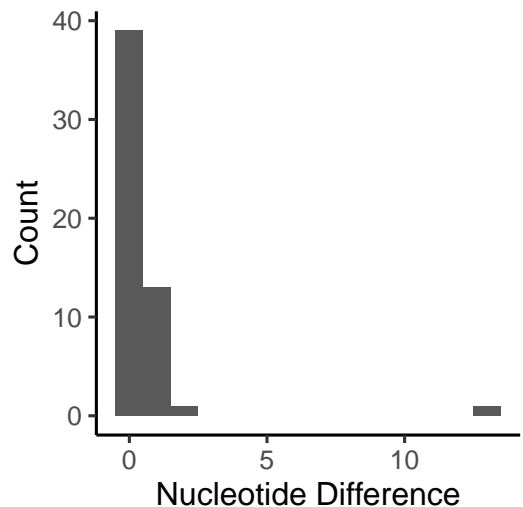
### IGHV1-24\*01

174 sequences assigned  
140 (80.5%) exact matches, in which:  
140 unique CDR3  
7 unique J



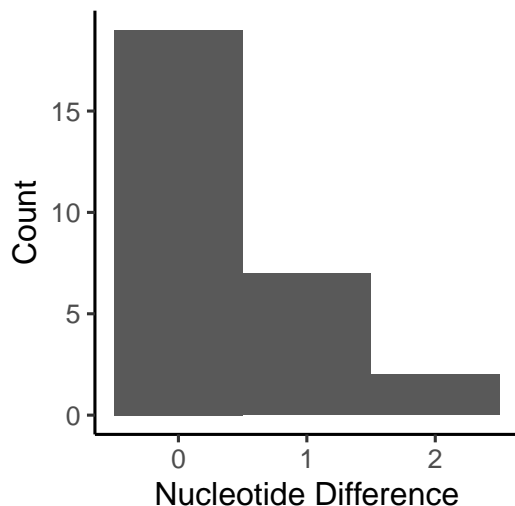
### IGHV1-58\*01

54 sequences assigned  
39 (72.2%) exact matches, in which:  
39 unique CDR3  
5 unique J



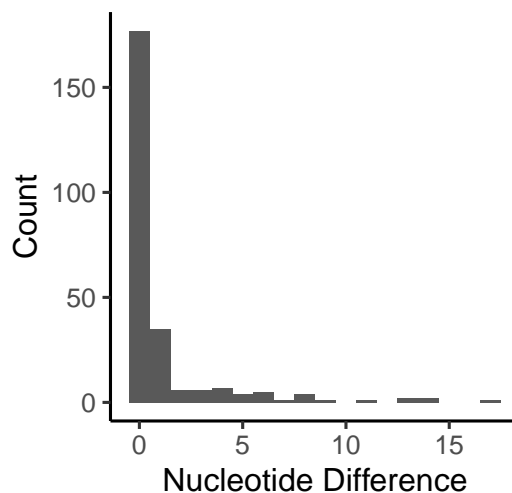
### IGHV1-58\*02

28 sequences assigned  
19 (67.9%) exact matches, in which:  
19 unique CDR3  
4 unique J



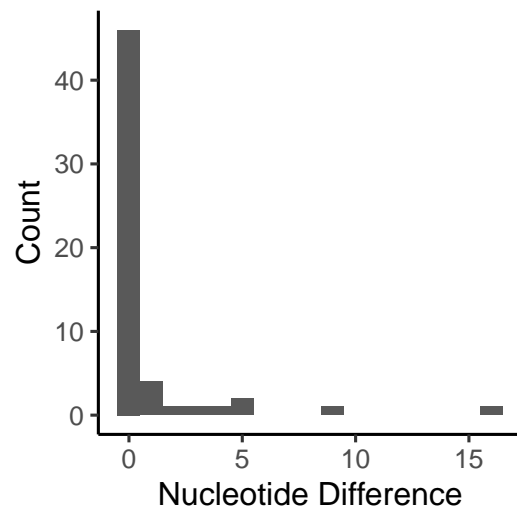
### IGHV2-5\*01

252 sequences assigned  
177 (70.2%) exact matches, in which:  
176 unique CDR3  
6 unique J



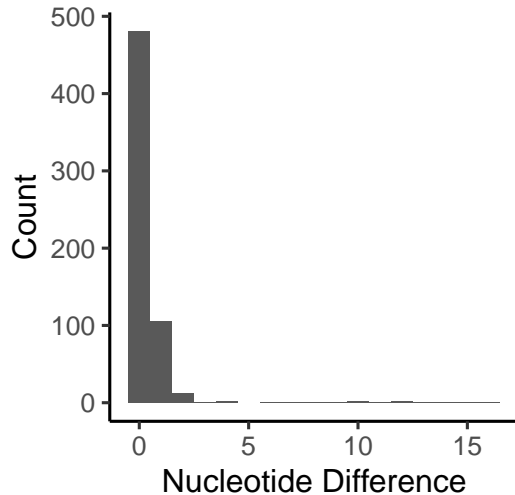
### IGHV2-70\*01

58 sequences assigned  
46 (79.3%) exact matches, in which:  
46 unique CDR3  
5 unique J



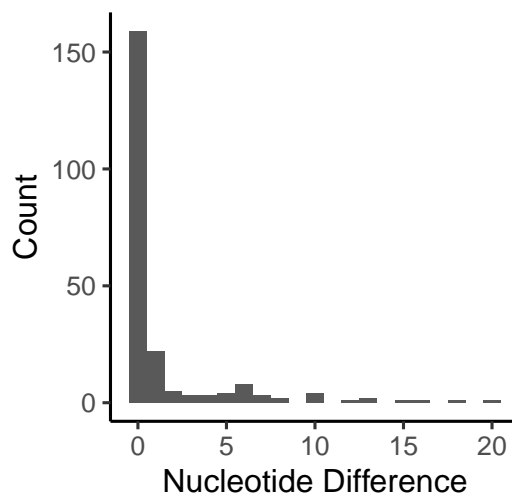
### IGHV1-69\*04

619 sequences assigned  
481 (77.7%) exact matches, in which:  
477 unique CDR3  
6 unique J



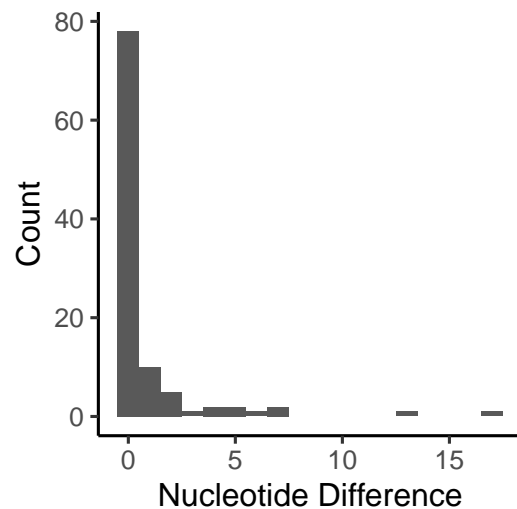
### IGHV2-5\*02

222 sequences assigned  
159 (71.6%) exact matches, in which:  
159 unique CDR3  
6 unique J



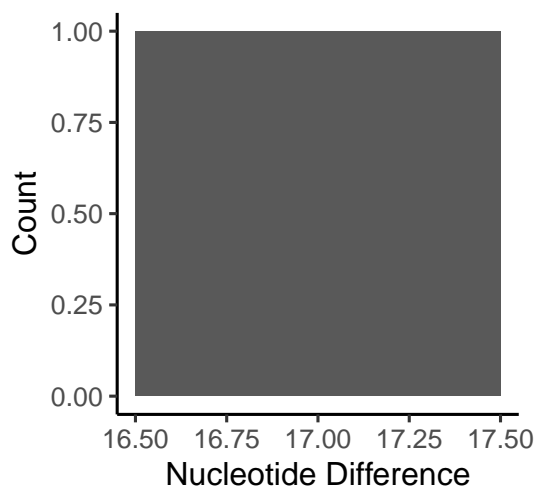
### IGHV2-70\*15

106 sequences assigned  
78 (73.6%) exact matches, in which:  
78 unique CDR3  
4 unique J



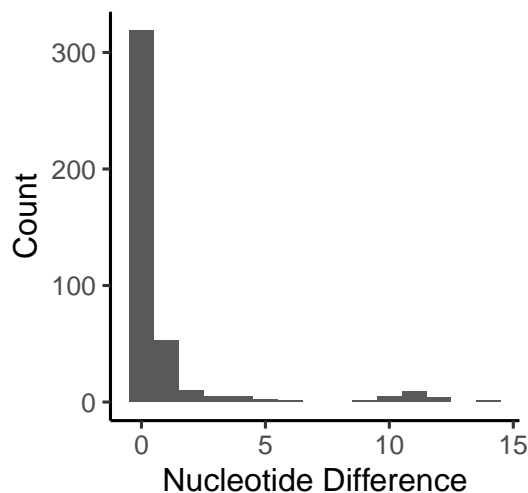
### IGHV1-NL1\*01

1 sequences assigned  
No exact matches.



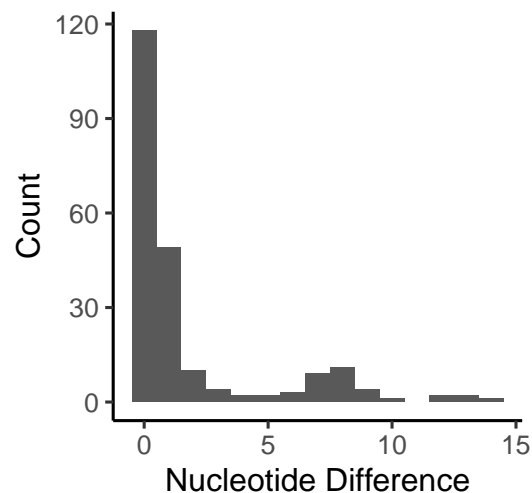
### IGHV2-26\*01

415 sequences assigned  
319 (76.9%) exact matches, in which:  
319 unique CDR3  
7 unique J



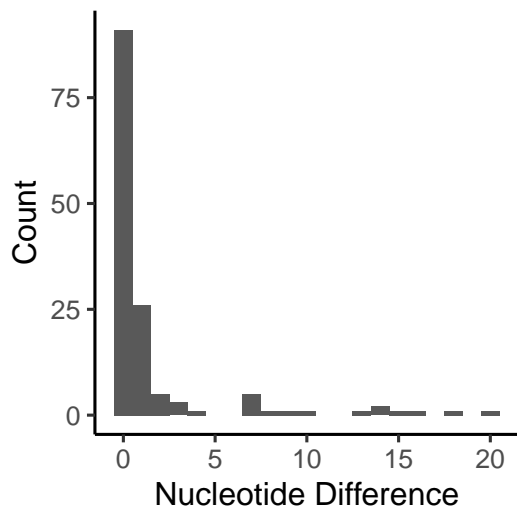
### IGHV3-7\*01

218 sequences assigned  
118 (54.1%) exact matches, in which:  
118 unique CDR3  
6 unique J



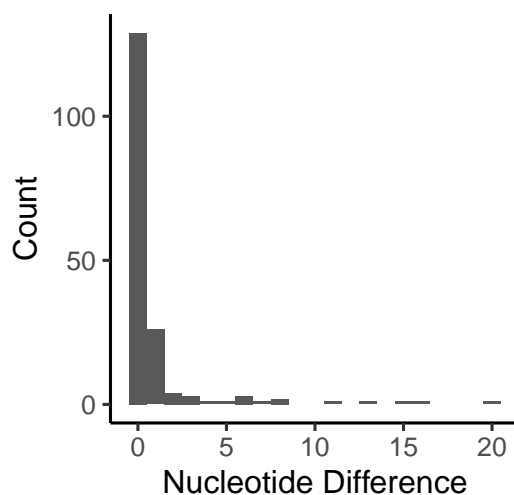
### IGHV3-7\*03

142 sequences assigned  
91 (64.1%) exact matches, in which:  
91 unique CDR3  
5 unique J



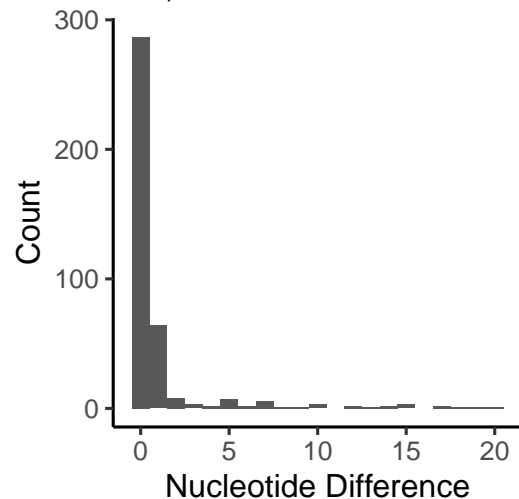
### IGHV3-11\*06

176 sequences assigned  
129 (73.3%) exact matches, in which:  
129 unique CDR3  
6 unique J



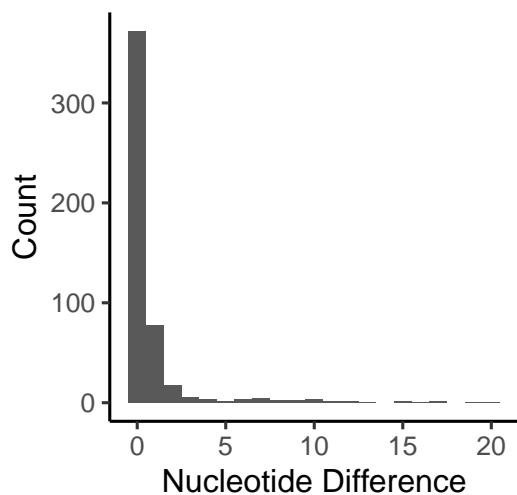
### IGHV3-15\*01

408 sequences assigned  
287 (70.3%) exact matches, in which:  
287 unique CDR3  
7 unique J



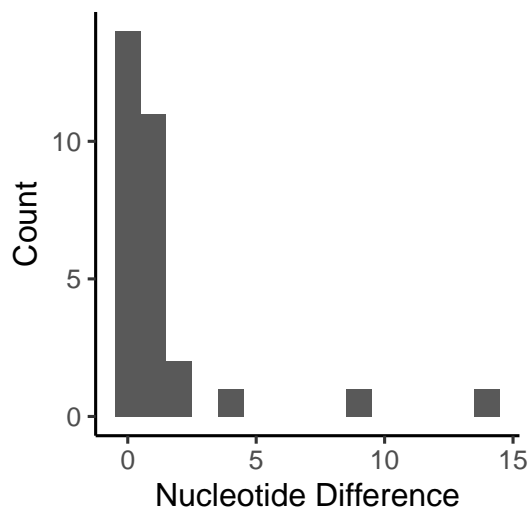
### IGHV3-9\*01

512 sequences assigned  
372 (72.7%) exact matches, in which:  
370 unique CDR3  
6 unique J



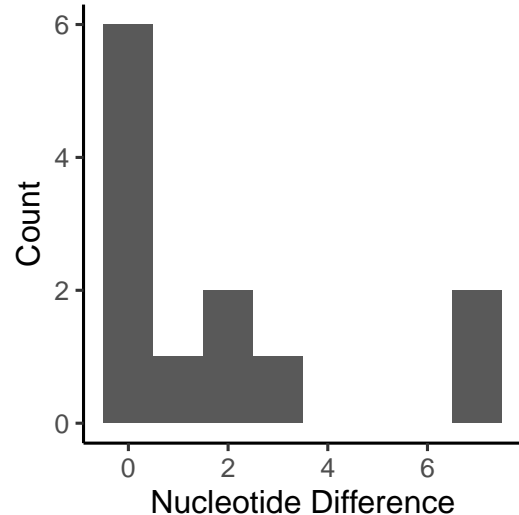
### IGHV3-13\*01

30 sequences assigned  
14 (46.7%) exact matches, in which:  
14 unique CDR3  
4 unique J



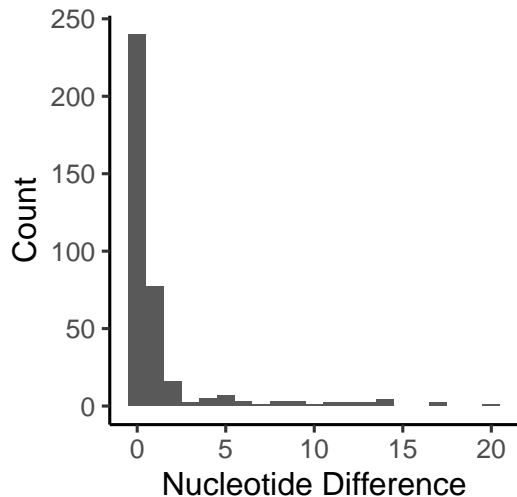
### IGHV3-20\*01

12 sequences assigned  
6 (50%) exact matches, in which:  
6 unique CDR3  
3 unique J



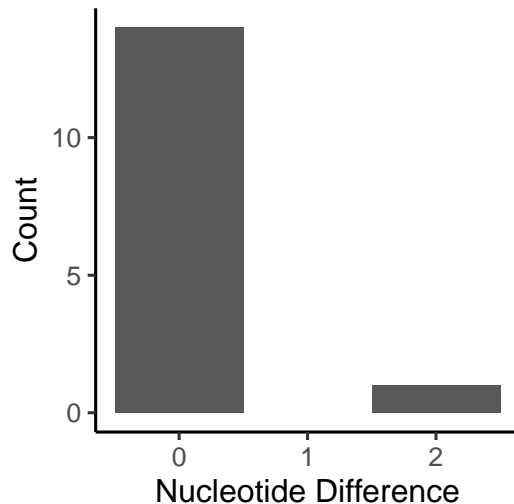
### IGHV3-11\*01

377 sequences assigned  
240 (63.7%) exact matches, in which:  
240 unique CDR3  
6 unique J



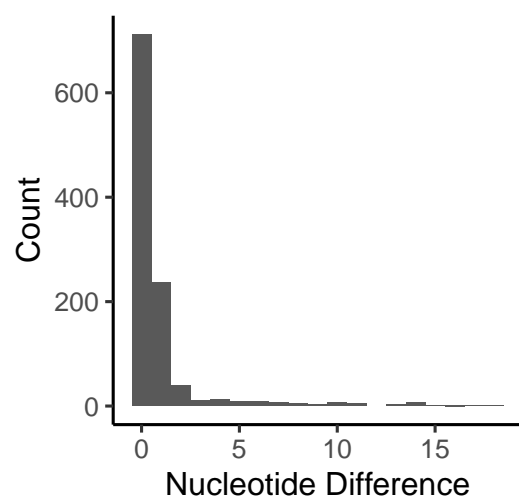
### IGHV3-13\*05

15 sequences assigned  
14 (93.3%) exact matches, in which:  
14 unique CDR3  
5 unique J



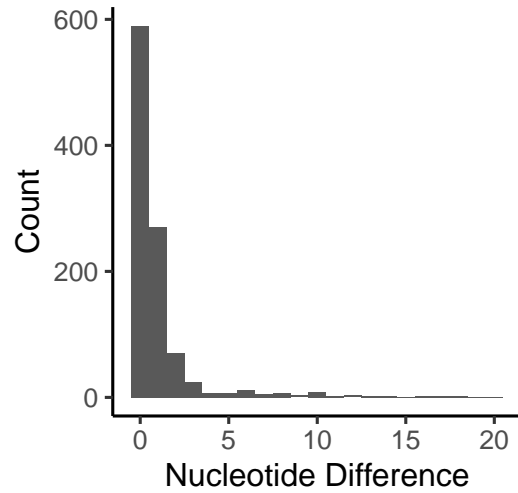
### IGHV3-21\*01

1067 sequences assigned  
712 (66.7%) exact matches, in which:  
710 unique CDR3  
7 unique J



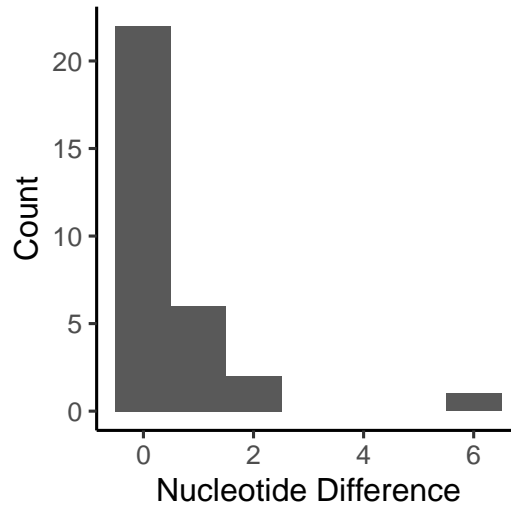
### IGHV3-30-3\*01

1033 sequences assigned  
590 (57.1%) exact matches, in which:  
588 unique CDR3  
7 unique J



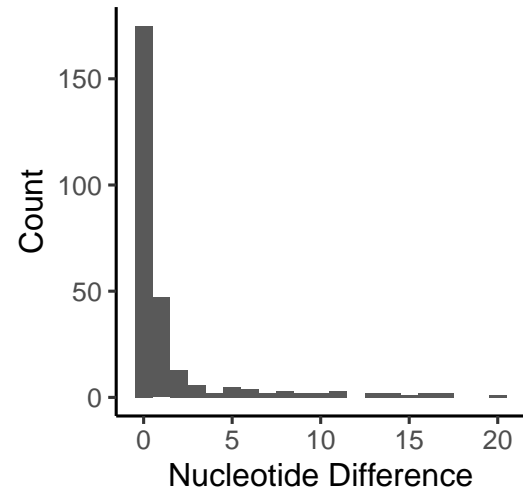
### IGHV3-43\*01

31 sequences assigned  
22 (71%) exact matches, in which:  
22 unique CDR3  
5 unique J



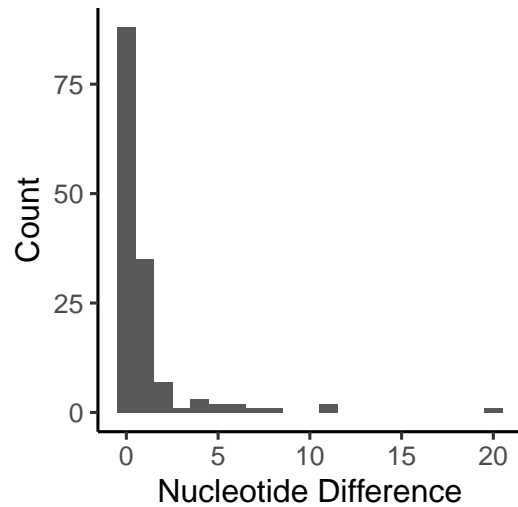
### IGHV3-48\*03

276 sequences assigned  
175 (63.4%) exact matches, in which:  
175 unique CDR3  
6 unique J



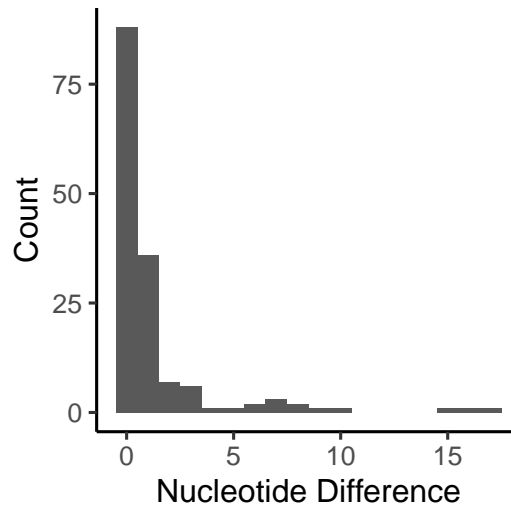
### IGHV3-30\*18\_T158G

146 sequences assigned  
88 (60.3%) exact matches, in which:  
88 unique CDR3  
7 unique J



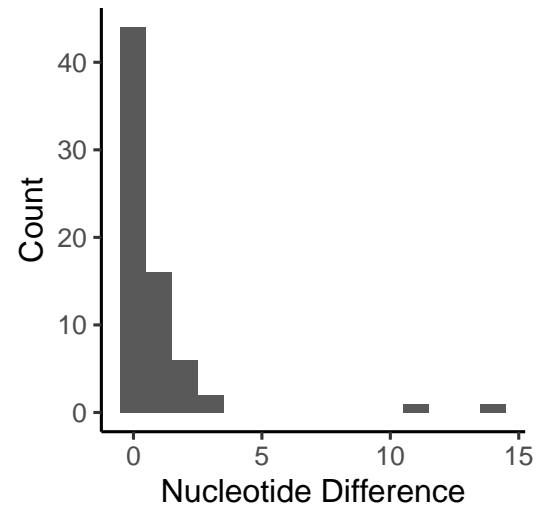
### IGHV3-43\*02

152 sequences assigned  
88 (57.9%) exact matches, in which:  
88 unique CDR3  
5 unique J



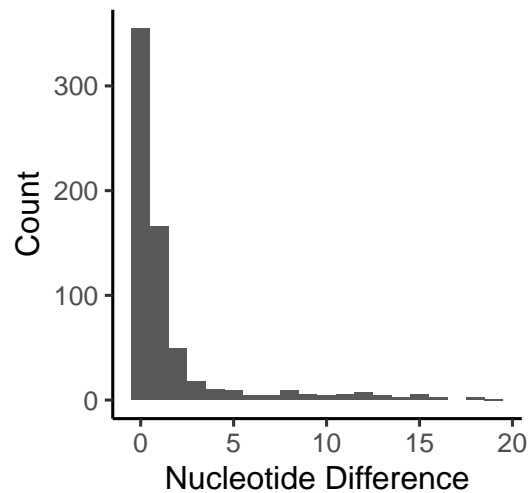
### IGHV3-49\*04

71 sequences assigned  
44 (62%) exact matches, in which:  
41 unique CDR3  
5 unique J



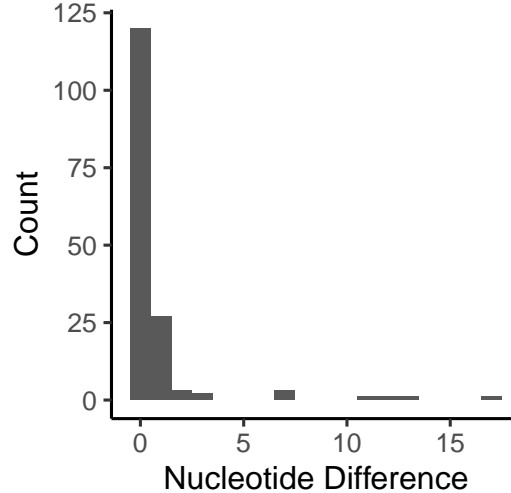
### IGHV3-33\*01

664 sequences assigned  
355 (53.5%) exact matches, in which:  
355 unique CDR3  
7 unique J



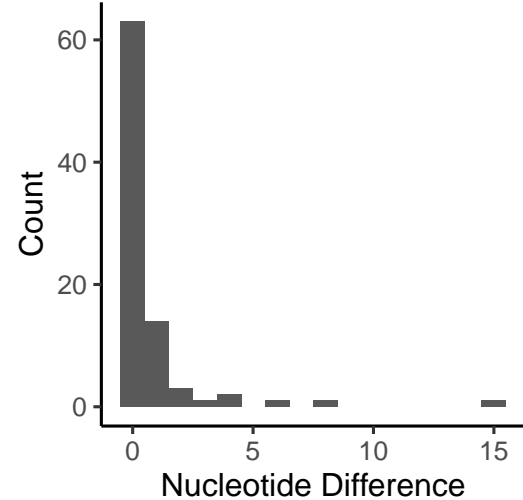
### IGHV3-48\*02

160 sequences assigned  
120 (75%) exact matches, in which:  
120 unique CDR3  
6 unique J



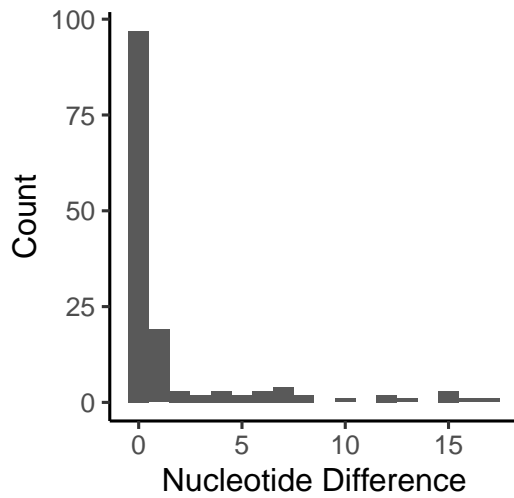
### IGHV3-49\*05

86 sequences assigned  
63 (73.3%) exact matches, in which:  
63 unique CDR3  
6 unique J



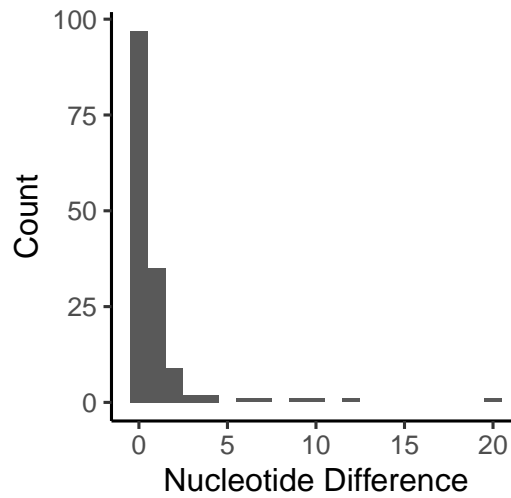
### IGHV3-53\*01

149 sequences assigned  
97 (65.1%) exact matches, in which:  
97 unique CDR3  
6 unique J



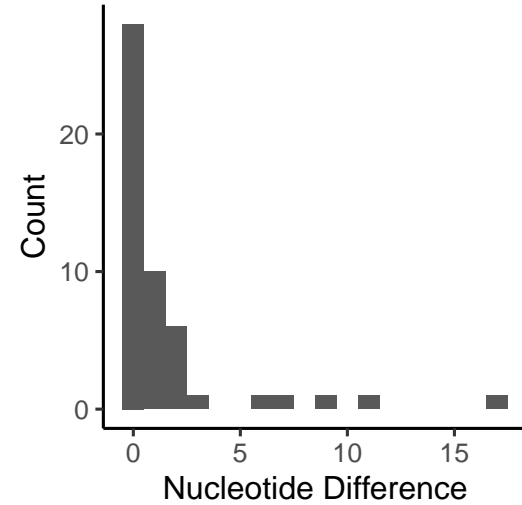
### IGHV3-66\*01

151 sequences assigned  
97 (64.2%) exact matches, in which:  
96 unique CDR3  
6 unique J



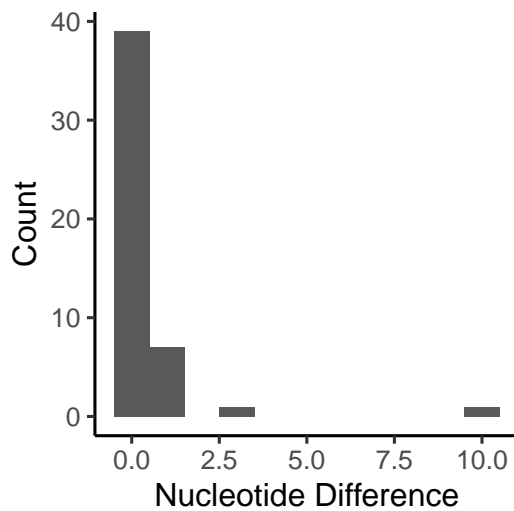
### IGHV3-73\*02

50 sequences assigned  
28 (56%) exact matches, in which:  
28 unique CDR3  
4 unique J



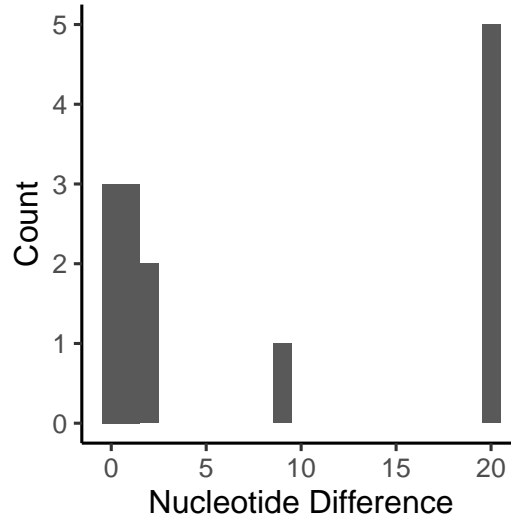
### IGHV3-53\*04

48 sequences assigned  
39 (81.2%) exact matches, in which:  
39 unique CDR3  
5 unique J



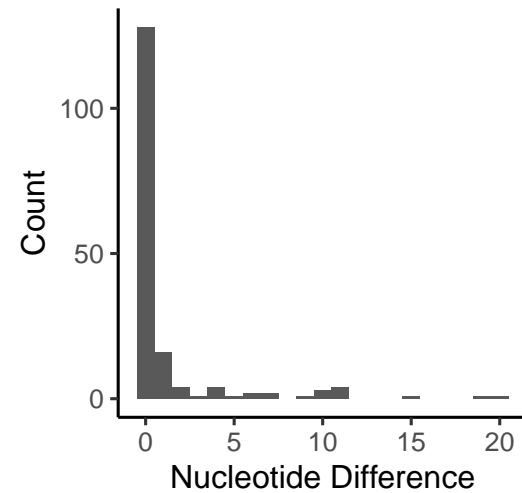
### IGHV3-72\*01

16 sequences assigned  
3 (18.8%) exact matches, in which:  
3 unique CDR3  
2 unique J



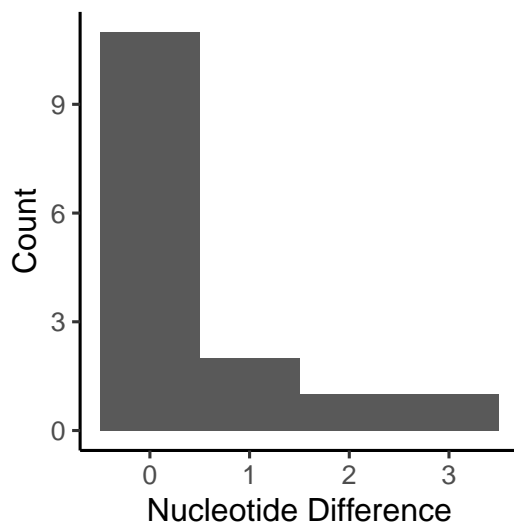
### IGHV3-74\*01

171 sequences assigned  
128 (74.9%) exact matches, in which:  
126 unique CDR3  
7 unique J



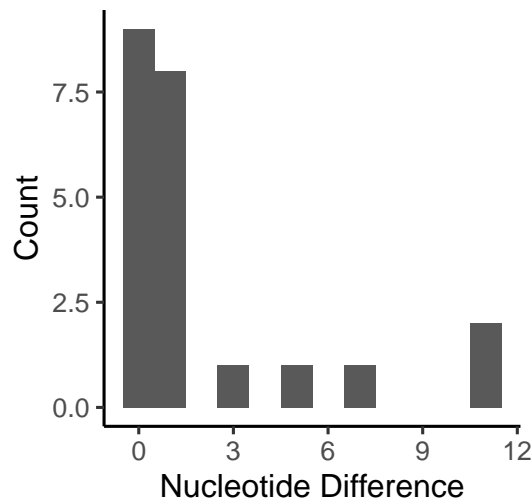
### IGHV3-64\*01

15 sequences assigned  
11 (73.3%) exact matches, in which:  
11 unique CDR3  
2 unique J



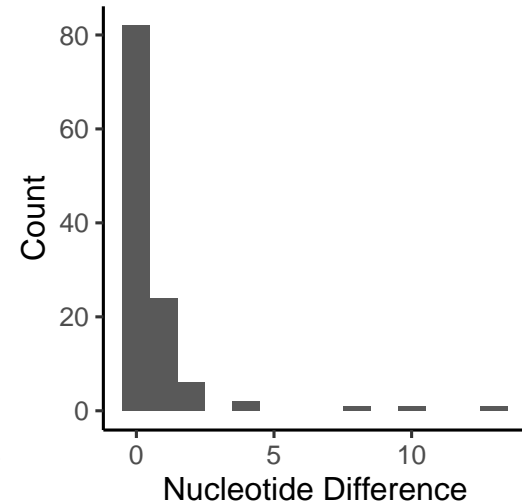
### IGHV3-73\*01

22 sequences assigned  
9 (40.9%) exact matches, in which:  
9 unique CDR3  
3 unique J



### IGHV3-64D\*06

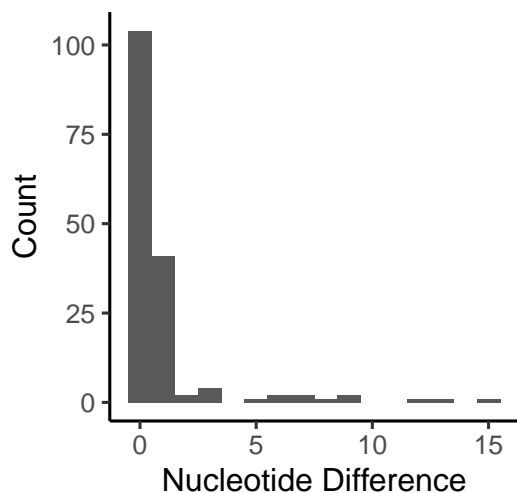
118 sequences assigned  
82 (69.5%) exact matches, in which:  
82 unique CDR3  
6 unique J





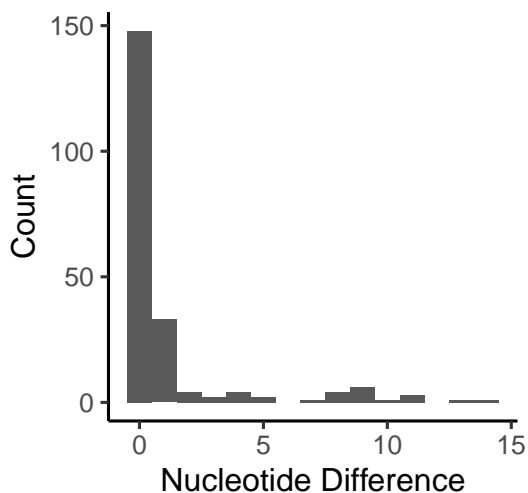
### IGHV4-4\*07

163 sequences assigned  
104 (63.8%) exact matches, in which:  
104 unique CDR3  
5 unique J



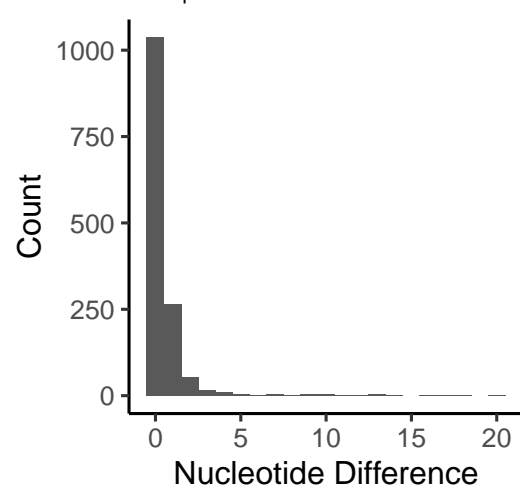
### IGHV4-30-4\*01

212 sequences assigned  
148 (69.8%) exact matches, in which:  
148 unique CDR3  
5 unique J



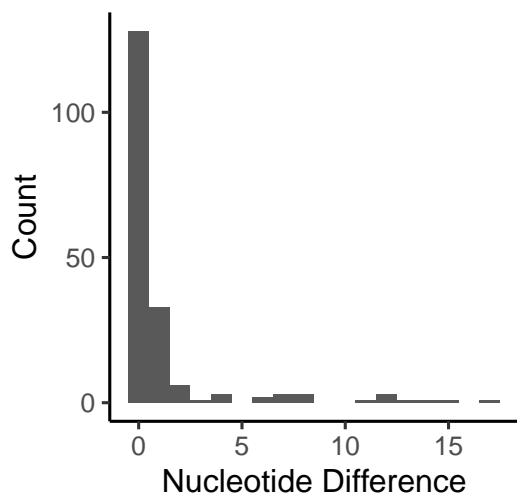
### IGHV4-34\*01

1420 sequences assigned  
1037 (73%) exact matches, in which:  
1032 unique CDR3  
7 unique J



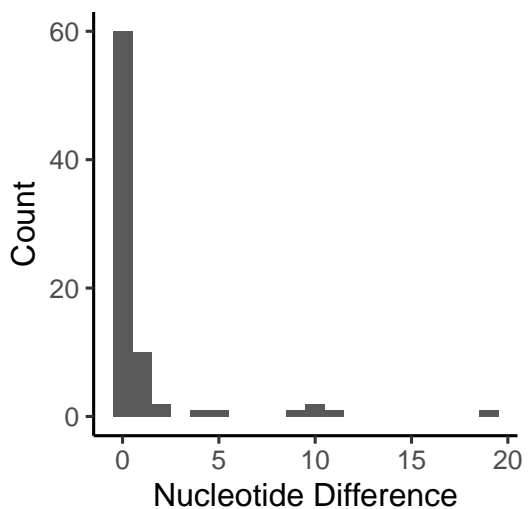
### IGHV4-4\*02\_C20T

189 sequences assigned  
128 (67.7%) exact matches, in which:  
128 unique CDR3  
6 unique J



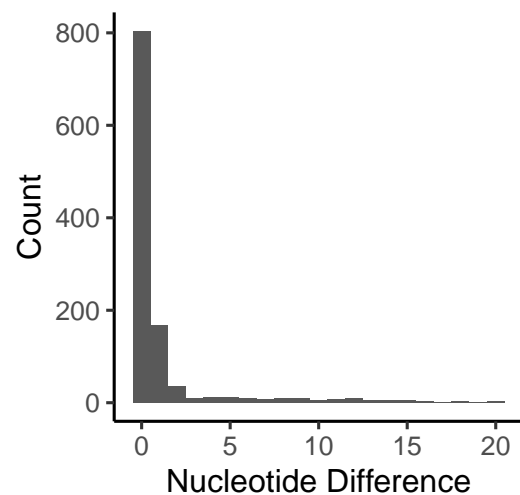
### IGHV4-30-2\*01

79 sequences assigned  
60 (75.9%) exact matches, in which:  
60 unique CDR3  
6 unique J



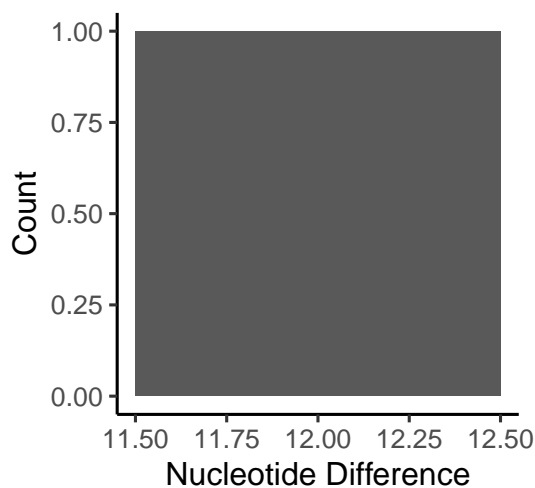
### IGHV4-39\*01

1138 sequences assigned  
804 (70.7%) exact matches, in which:  
802 unique CDR3  
7 unique J



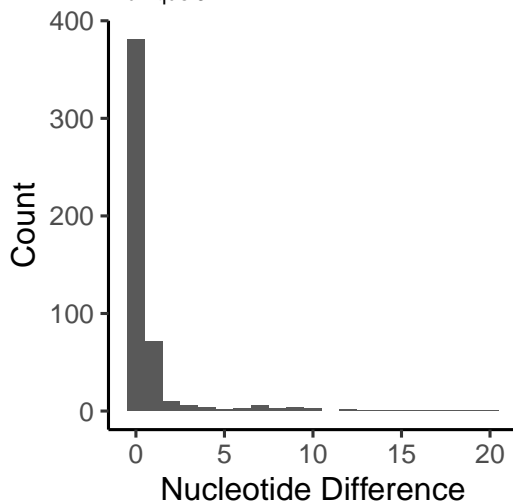
### IGHV4-28\*01

1 sequences assigned  
No exact matches.



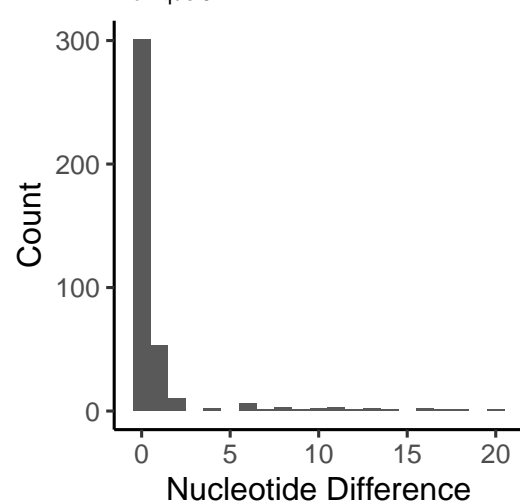
### IGHV4-31\*03

507 sequences assigned  
381 (75.1%) exact matches, in which:  
380 unique CDR3  
7 unique J



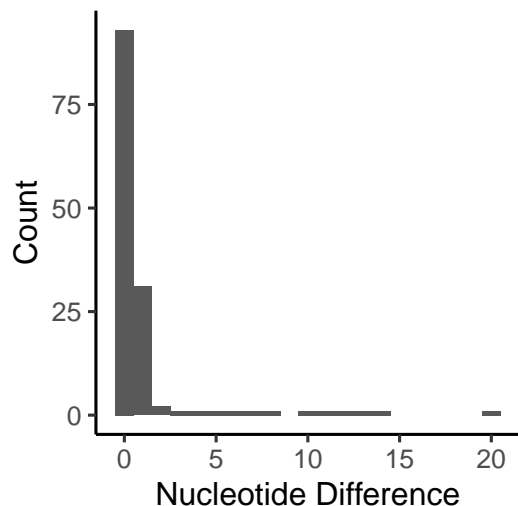
### IGHV4-59\*01

395 sequences assigned  
301 (76.2%) exact matches, in which:  
299 unique CDR3  
7 unique J



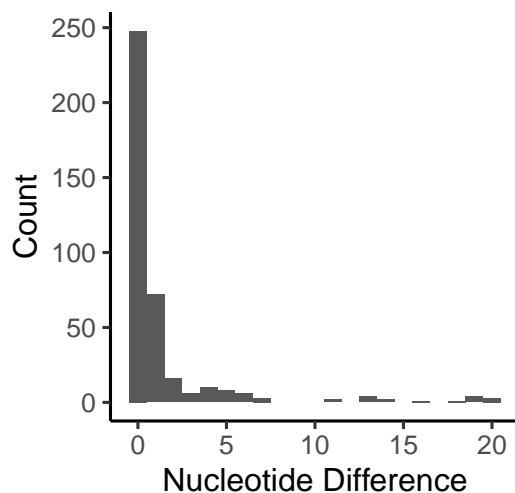
## IGHV4-59\*08

140 sequences assigned  
93 (66.4%) exact matches, in which:  
92 unique CDR3  
6 unique J



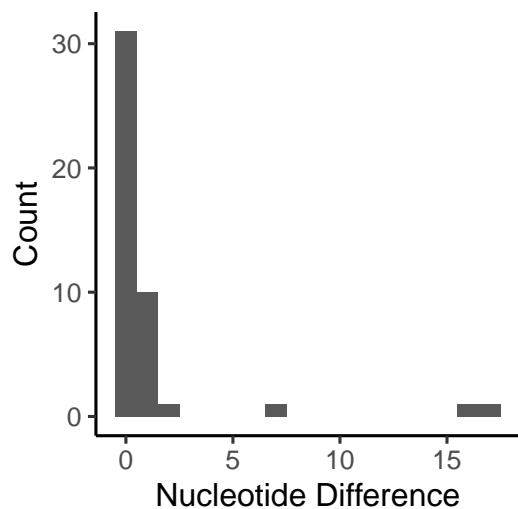
## IGHV5-51\*01

392 sequences assigned  
248 (63.3%) exact matches, in which:  
248 unique CDR3  
6 unique J



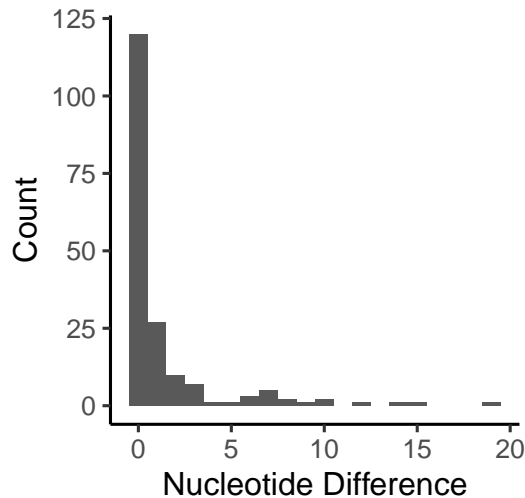
## IGHV4-61\*01

46 sequences assigned  
31 (67.4%) exact matches, in which:  
31 unique CDR3  
4 unique J



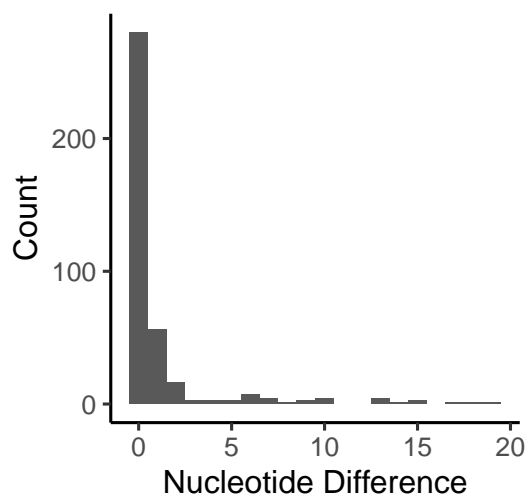
## IGHV6-1\*01

183 sequences assigned  
120 (65.6%) exact matches, in which:  
120 unique CDR3  
6 unique J



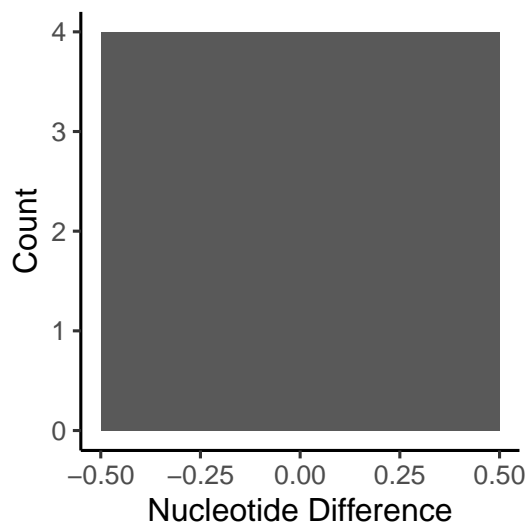
## IGHV5-10-1\*03

393 sequences assigned  
280 (71.2%) exact matches, in which:  
279 unique CDR3  
6 unique J

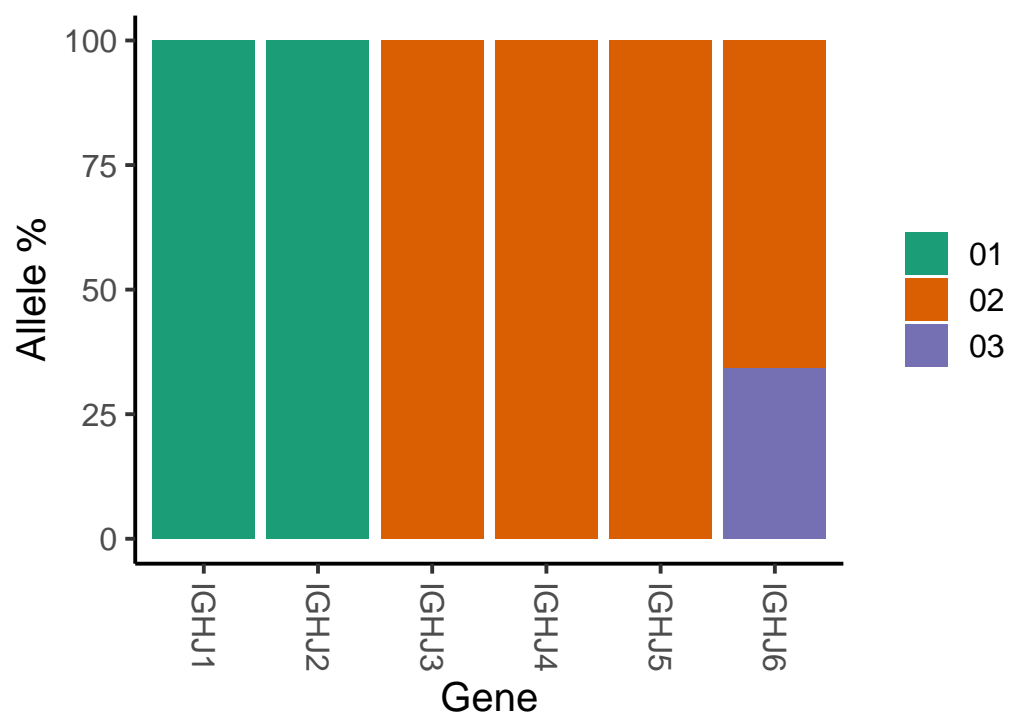


## IGHV7-4-1\*01

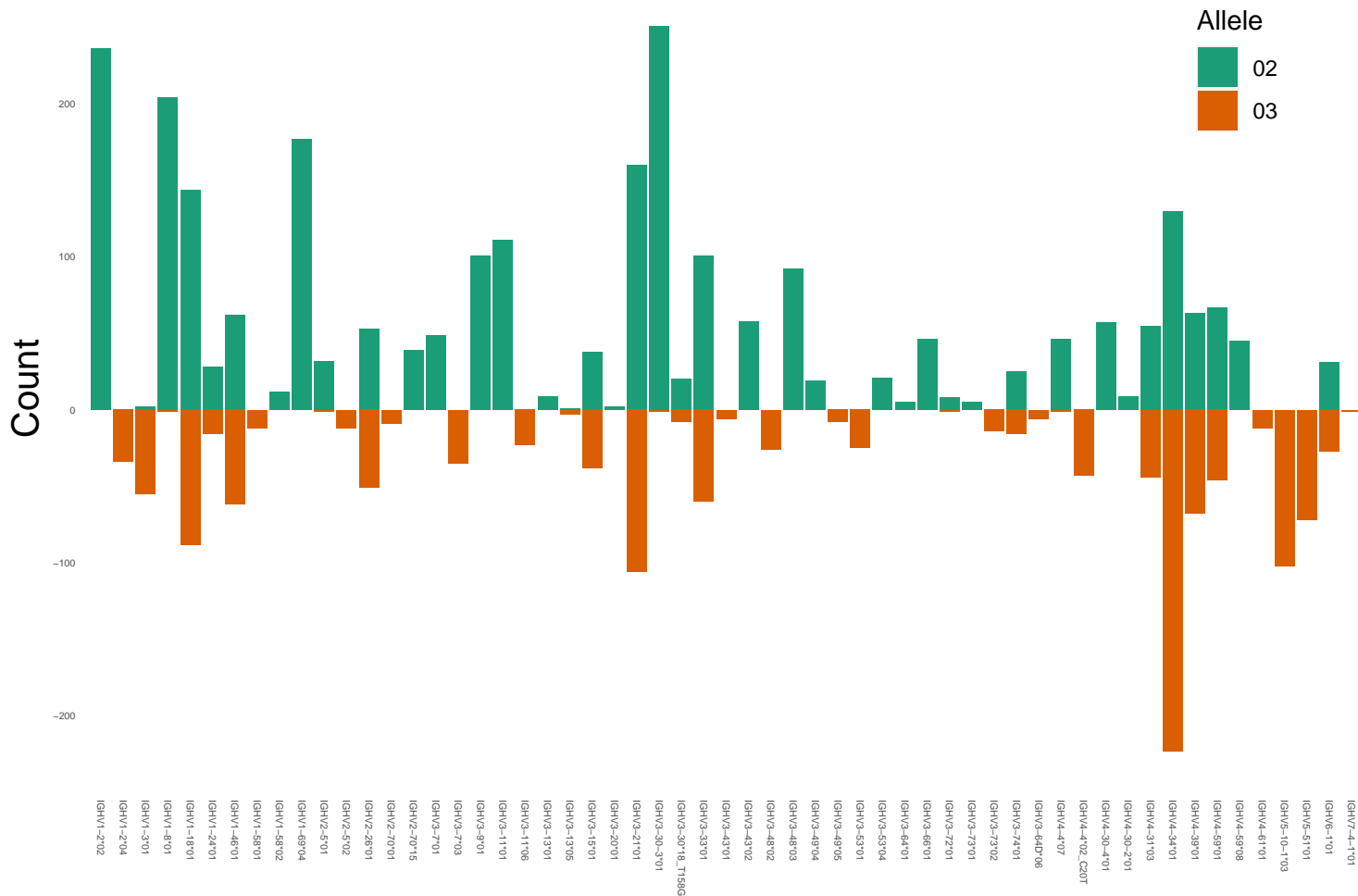
4 sequences assigned  
4 (100%) exact matches, in which:  
4 unique CDR3  
3 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.