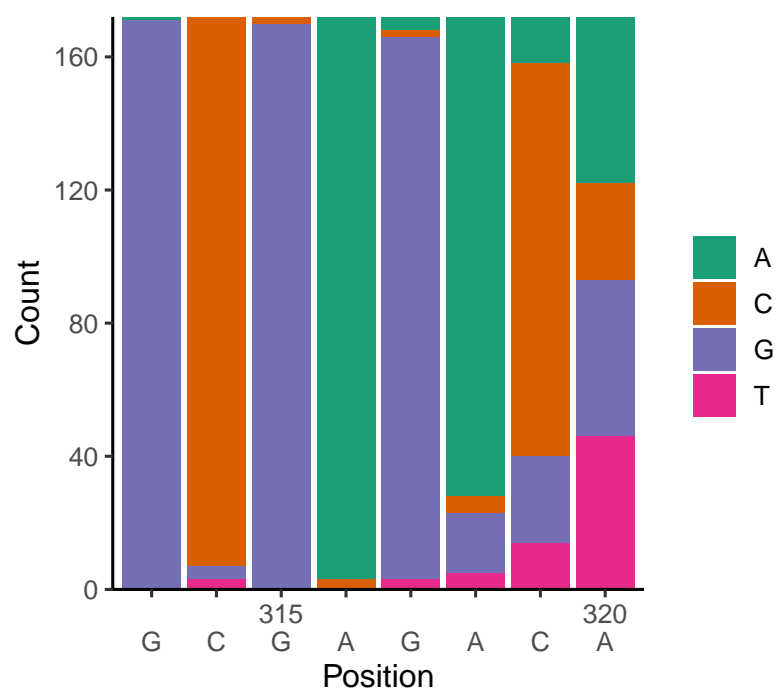
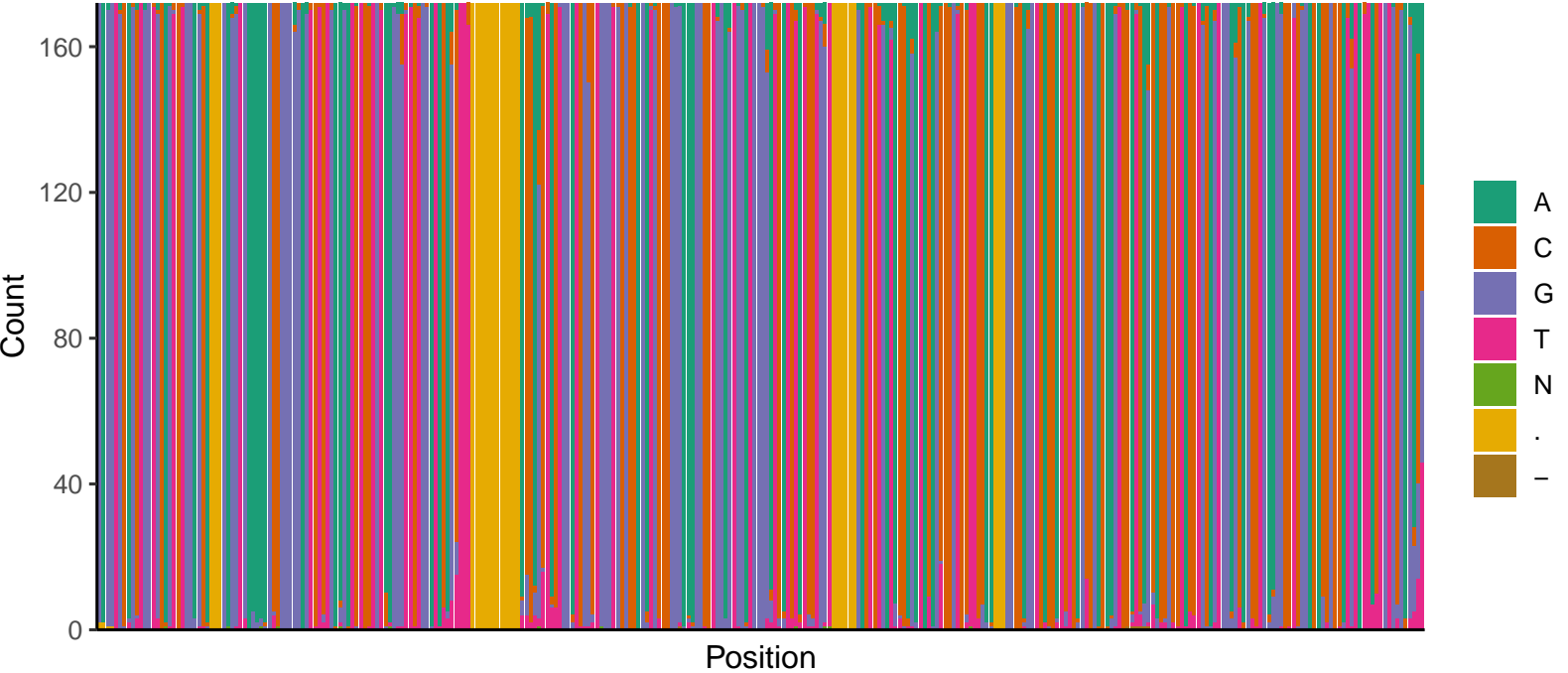


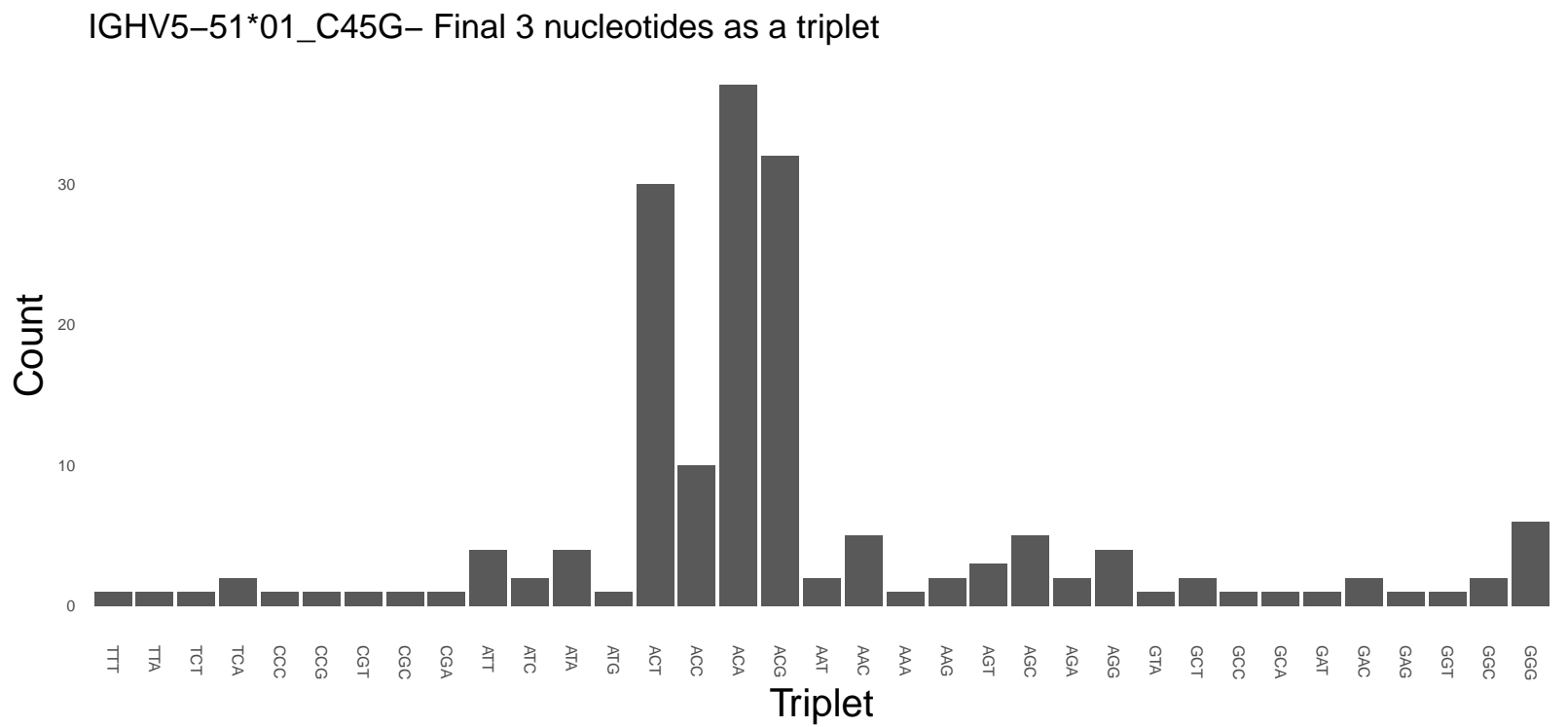
# Gene IGHV5-51\*01\_C45G



Gene IGHV5-51\*01\_C45G

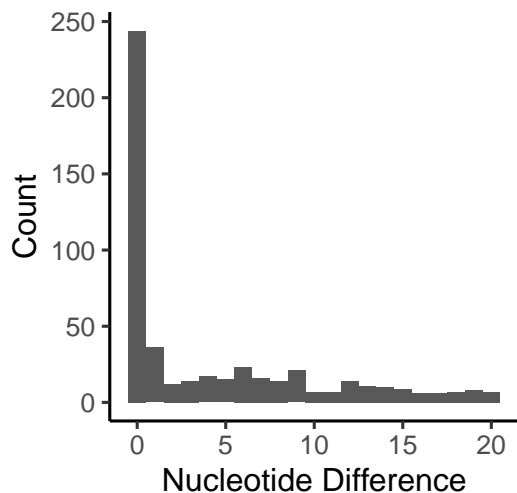


IGHV5-51\*01\_C45G- Final 3 nucleotides as a triplet



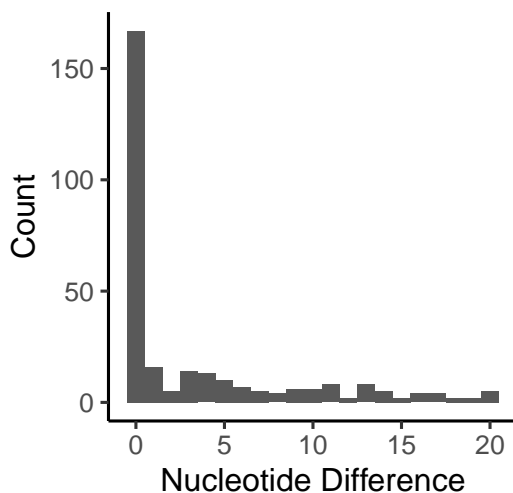
### IGHV1-2\*02

550 sequences assigned  
244 (44.4%) exact matches, in which:  
244 unique CDR3  
6 unique J



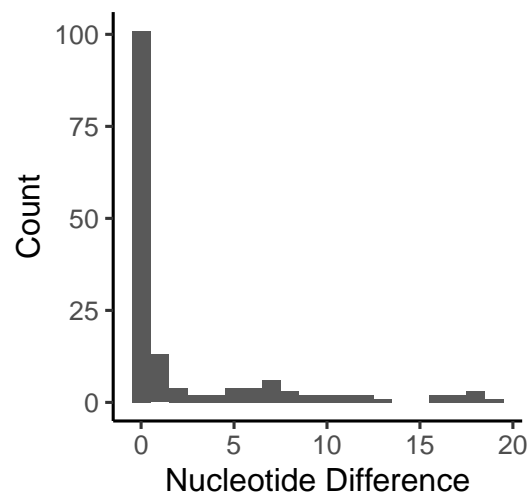
### IGHV1-18\*01

326 sequences assigned  
167 (51.2%) exact matches, in which:  
167 unique CDR3  
5 unique J



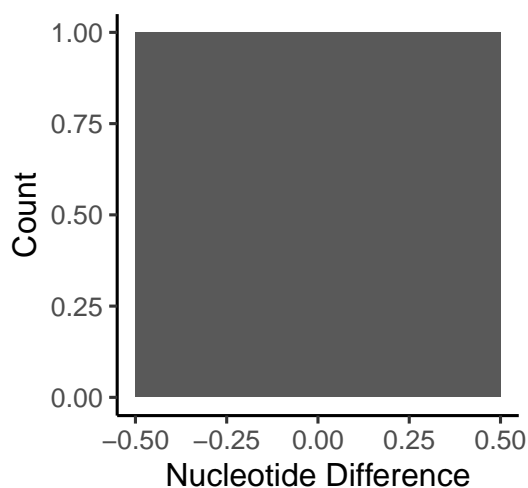
### IGHV1-46\*01

162 sequences assigned  
101 (62.3%) exact matches, in which:  
100 unique CDR3  
6 unique J



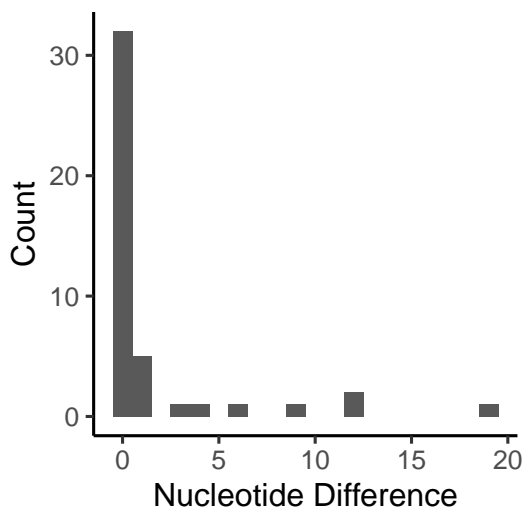
### IGHV1-3\*02

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



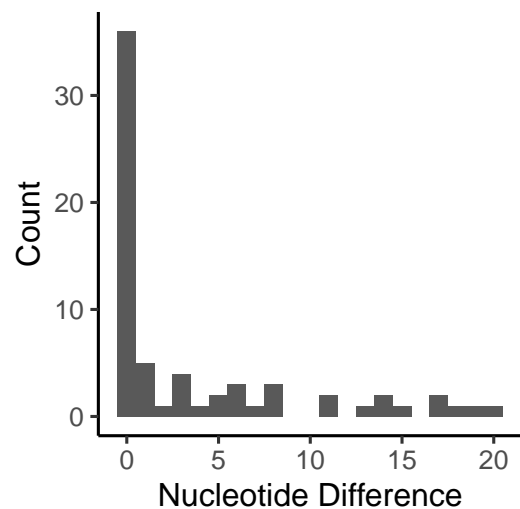
### IGHV1-24\*01

47 sequences assigned  
32 (68.1%) exact matches, in which:  
32 unique CDR3  
5 unique J



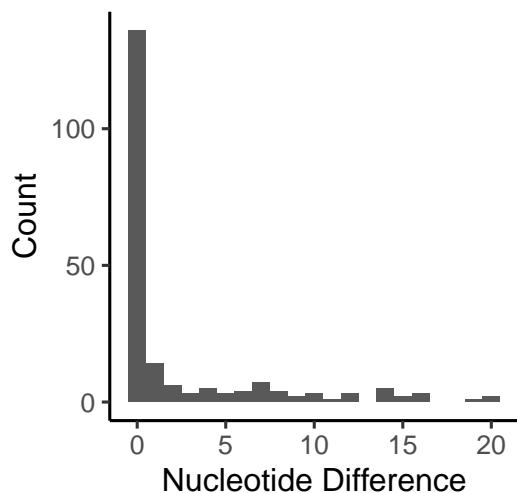
### IGHV1-46\*03

68 sequences assigned  
36 (52.9%) exact matches, in which:  
36 unique CDR3  
6 unique J



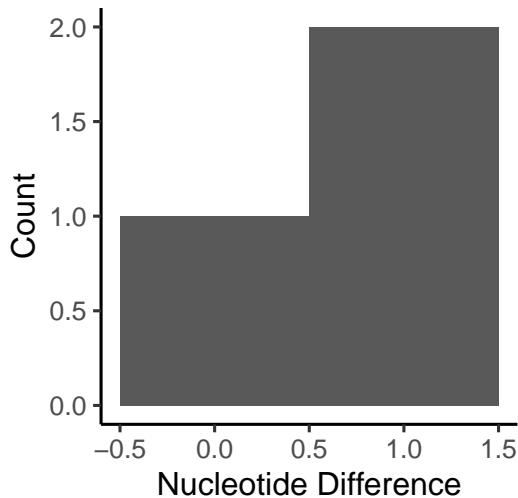
### IGHV1-8\*01

216 sequences assigned  
136 (63%) exact matches, in which:  
135 unique CDR3  
6 unique J



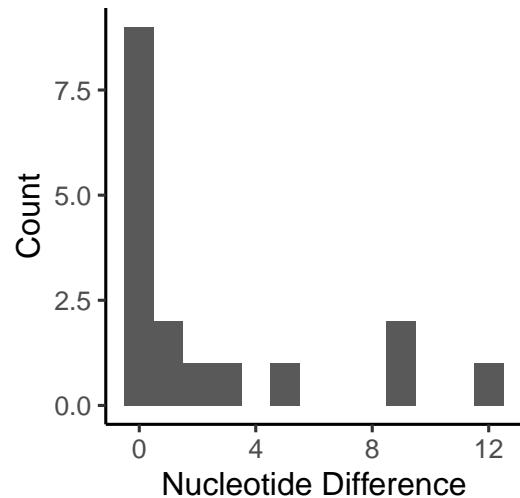
### IGHV1-45\*02

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



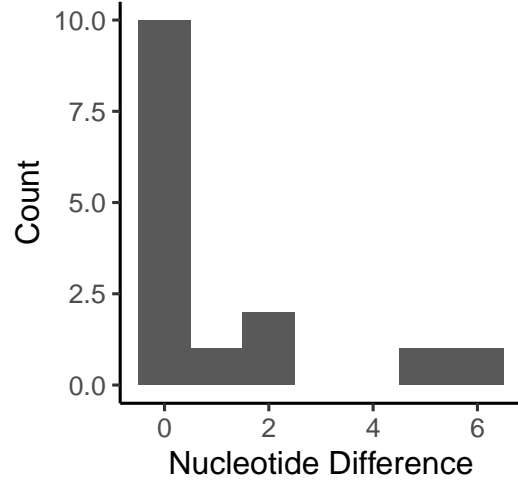
### IGHV1-58\*01

17 sequences assigned  
9 (52.9%) exact matches, in which:  
9 unique CDR3  
5 unique J



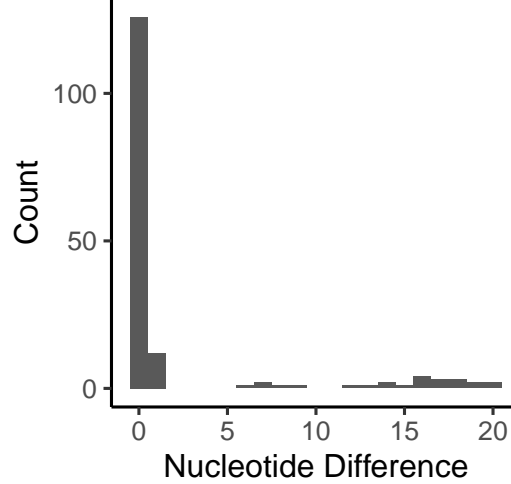
### IGHV1-58\*02

15 sequences assigned  
10 (66.7%) exact matches, in which:  
10 unique CDR3  
3 unique J



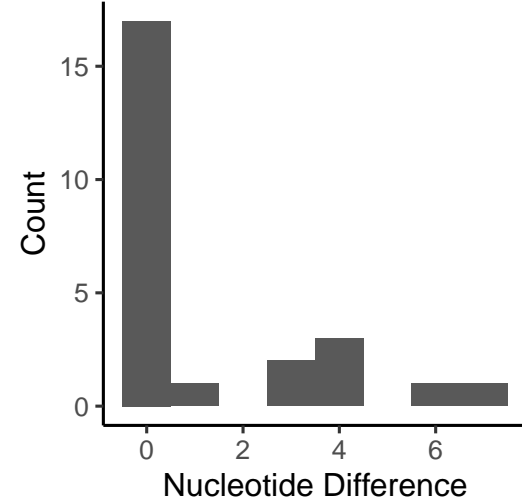
### IGHV1-69\*10

175 sequences assigned  
126 (72%) exact matches, in which:  
126 unique CDR3  
5 unique J



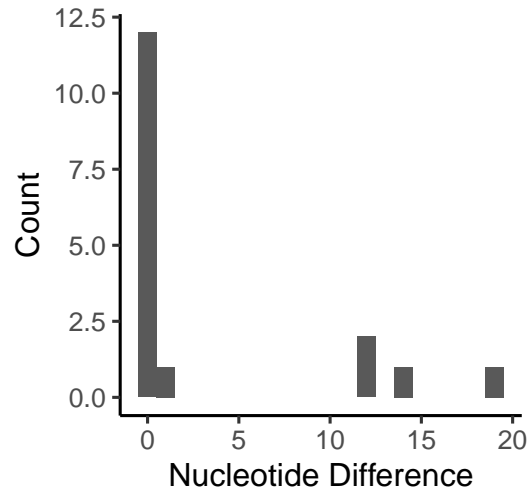
### IGHV2-70\*01

26 sequences assigned  
17 (65.4%) exact matches, in which:  
17 unique CDR3  
4 unique J



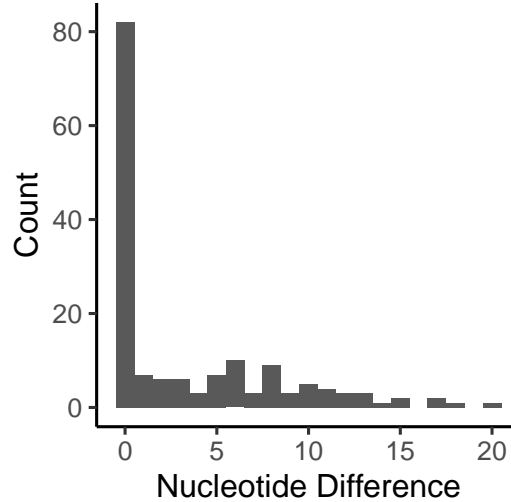
### IGHV1-69-2\*01

19 sequences assigned  
12 (63.2%) exact matches, in which:  
12 unique CDR3  
4 unique J



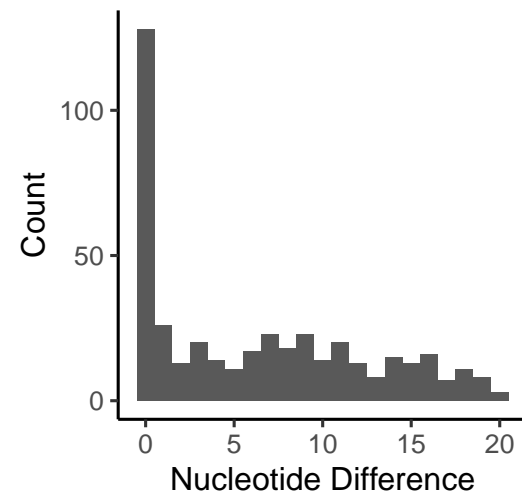
### IGHV2-5\*01

164 sequences assigned  
82 (50%) exact matches, in which:  
81 unique CDR3  
6 unique J



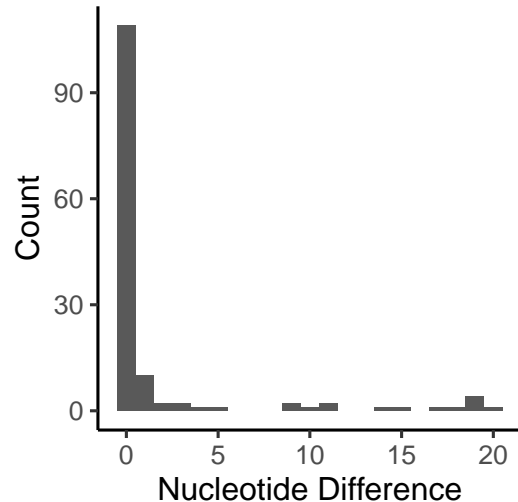
### IGHV3-7\*01

442 sequences assigned  
128 (29%) exact matches, in which:  
127 unique CDR3  
6 unique J



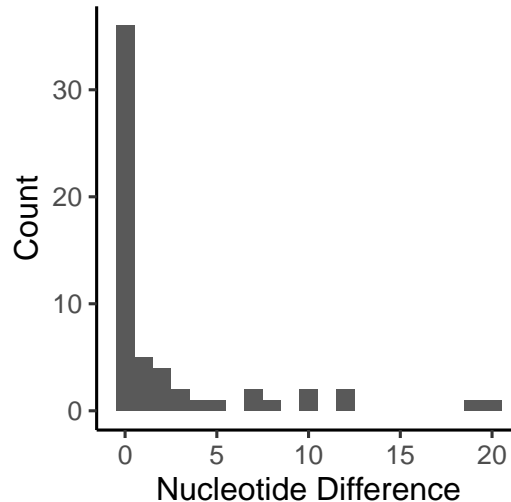
### IGHV1-69\*06

158 sequences assigned  
109 (69%) exact matches, in which:  
109 unique CDR3  
4 unique J



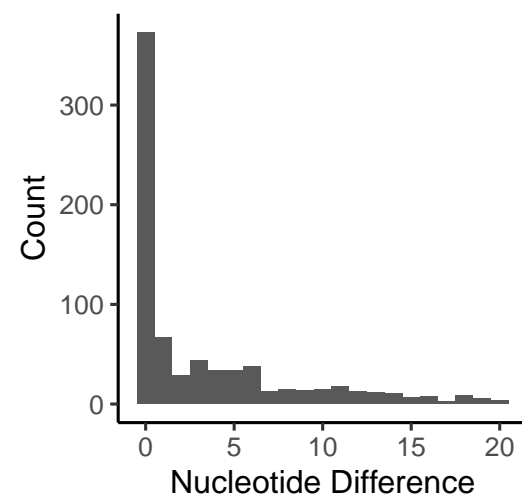
### IGHV2-26\*01

59 sequences assigned  
36 (61%) exact matches, in which:  
36 unique CDR3  
5 unique J



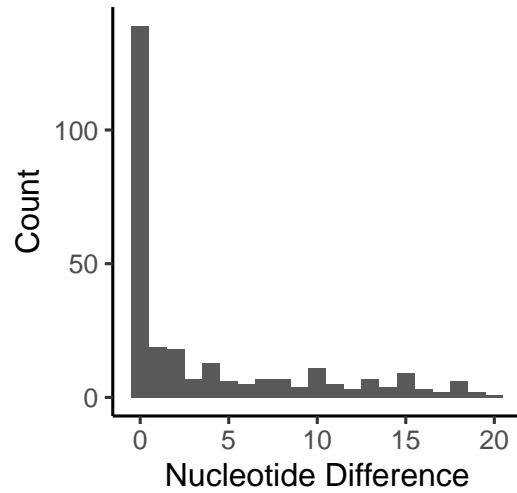
### IGHV3-9\*01

781 sequences assigned  
373 (47.8%) exact matches, in which:  
372 unique CDR3  
6 unique J



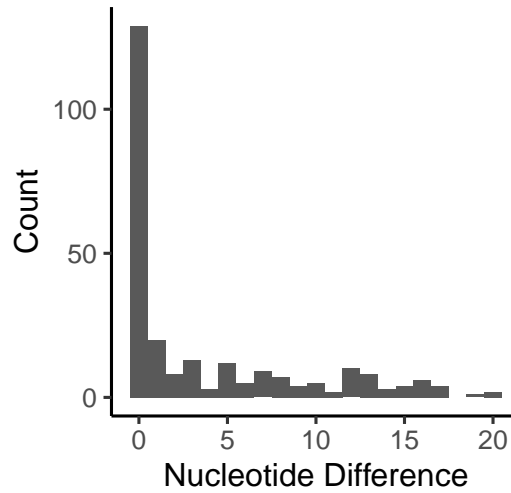
### IGHV3-11\*01

286 sequences assigned  
139 (48.6%) exact matches, in which:  
139 unique CDR3  
6 unique J



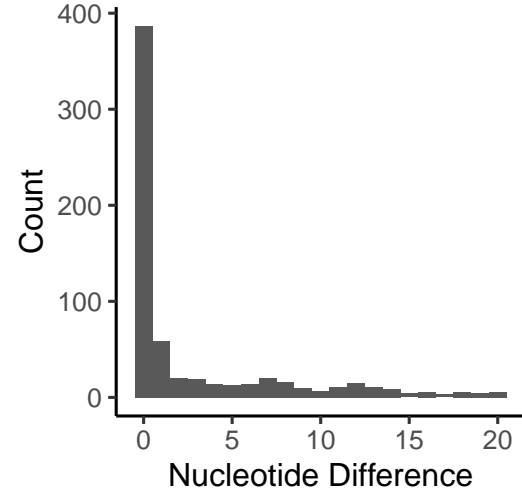
### IGHV3-15\*07

277 sequences assigned  
129 (46.6%) exact matches, in which:  
129 unique CDR3  
5 unique J



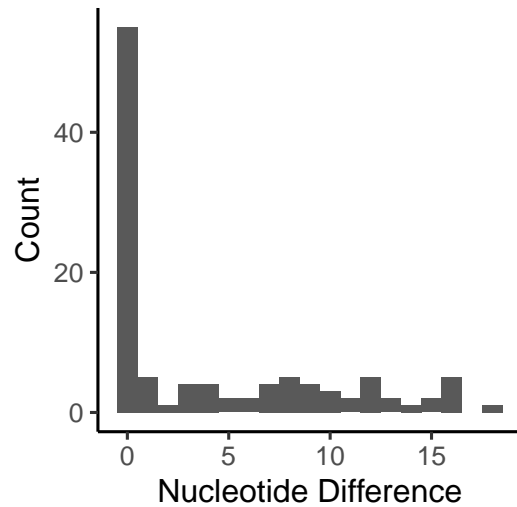
### IGHV3-21\*01

687 sequences assigned  
387 (56.3%) exact matches, in which:  
386 unique CDR3  
6 unique J



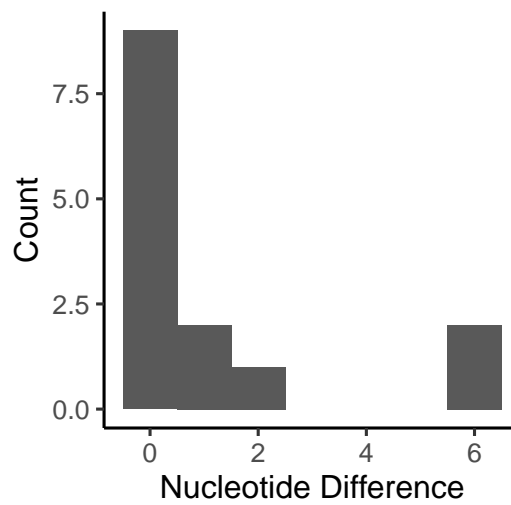
### IGHV3-13\*01

113 sequences assigned  
55 (48.7%) exact matches, in which:  
55 unique CDR3  
5 unique J



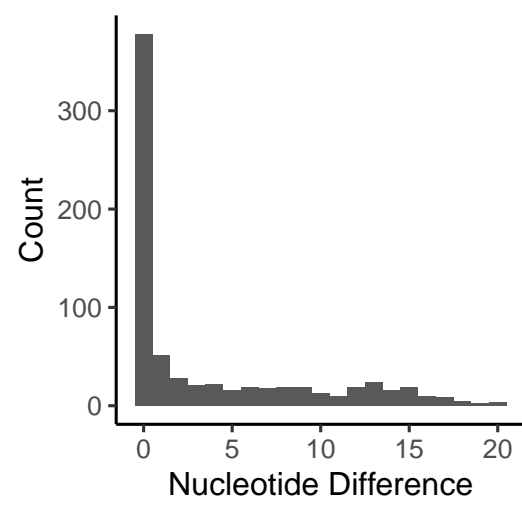
### IGHV3-20\*01

14 sequences assigned  
9 (64.3%) exact matches, in which:  
9 unique CDR3  
4 unique J



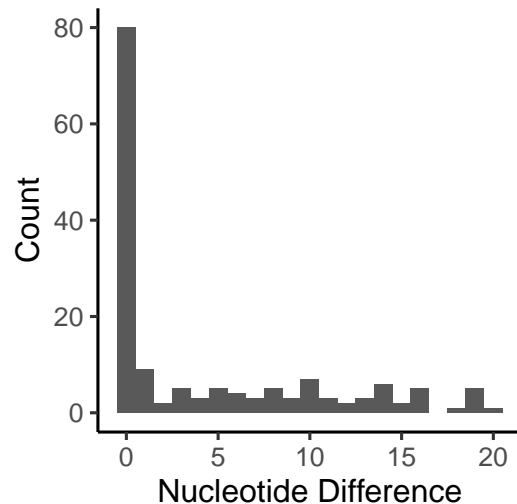
### IGHV3-33\*01

751 sequences assigned  
378 (50.3%) exact matches, in which:  
378 unique CDR3  
6 unique J



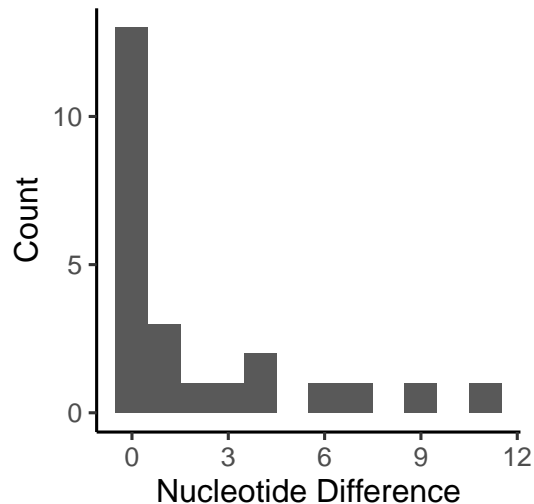
### IGHV3-15\*01

167 sequences assigned  
80 (47.9%) exact matches, in which:  
80 unique CDR3  
4 unique J



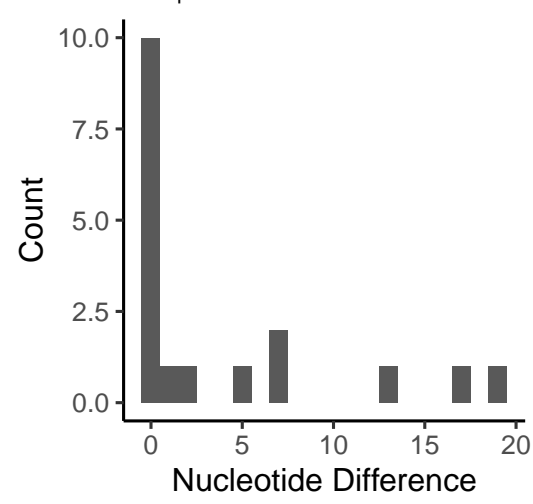
### IGHV3-20\*04

26 sequences assigned  
13 (50%) exact matches, in which:  
13 unique CDR3  
3 unique J



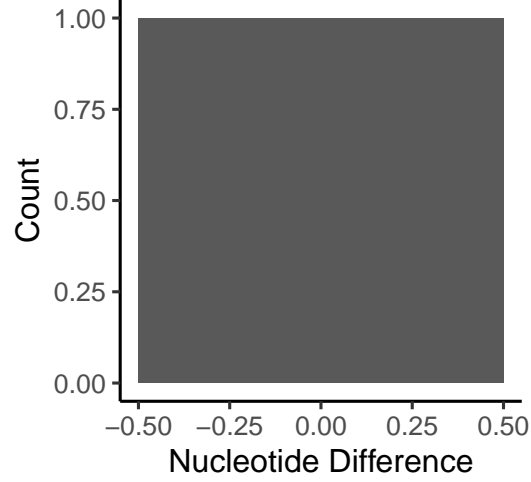
### IGHV3-43\*01

18 sequences assigned  
10 (55.6%) exact matches, in which:  
10 unique CDR3  
3 unique J



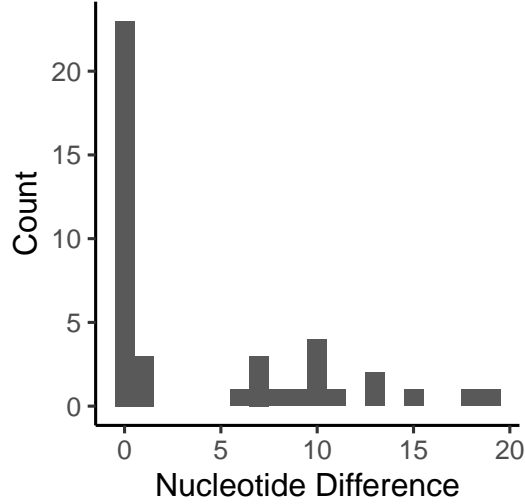
### IGHV3-47\*02

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



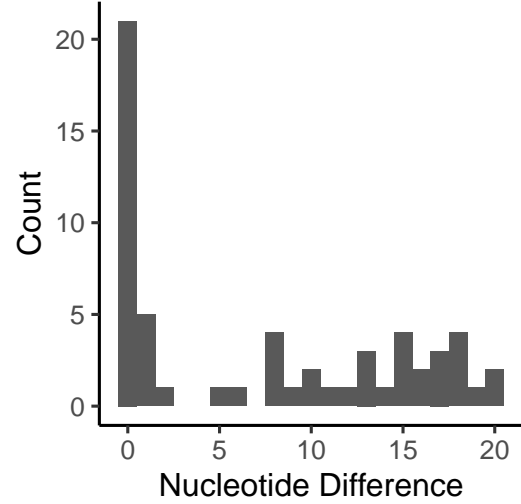
### IGHV3-49\*03

47 sequences assigned  
23 (48.9%) exact matches, in which:  
23 unique CDR3  
5 unique J



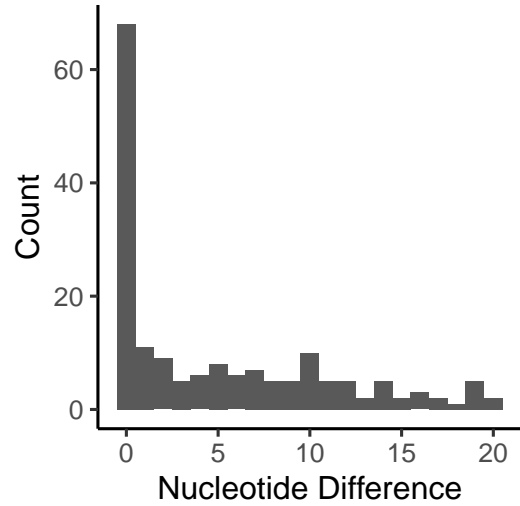
### IGHV3-53\*02

63 sequences assigned  
21 (33.3%) exact matches, in which:  
21 unique CDR3  
4 unique J



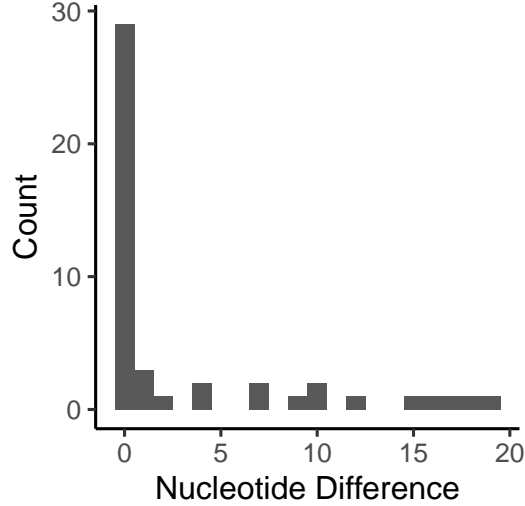
### IGHV3-48\*01

180 sequences assigned  
68 (37.8%) exact matches, in which:  
68 unique CDR3  
6 unique J



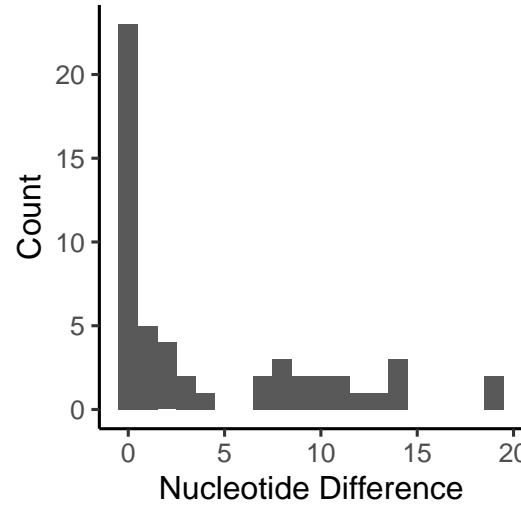
### IGHV3-49\*05

49 sequences assigned  
29 (59.2%) exact matches, in which:  
29 unique CDR3  
4 unique J



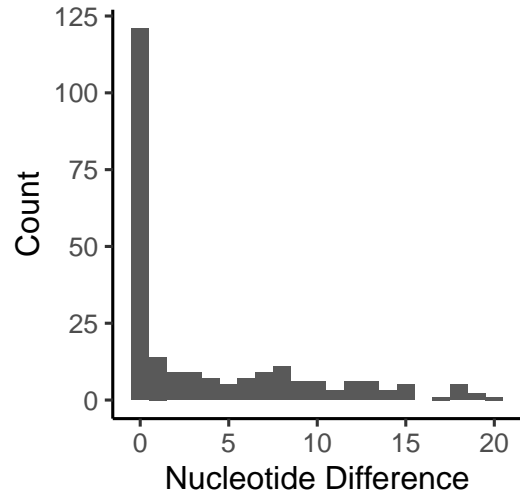
### IGHV3-64\*01

60 sequences assigned  
23 (38.3%) exact matches, in which:  
23 unique CDR3  
6 unique J



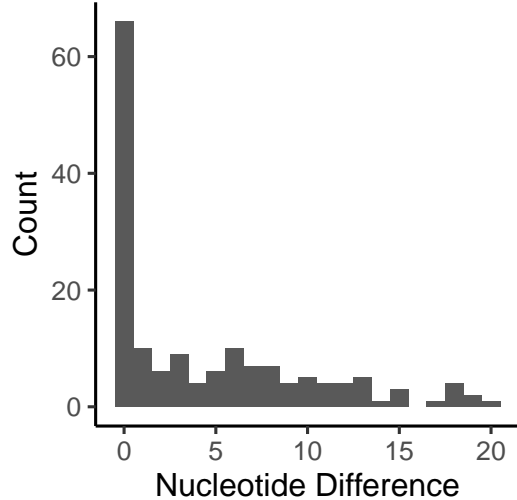
### IGHV3-48\*02

245 sequences assigned  
121 (49.4%) exact matches, in which:  
121 unique CDR3  
6 unique J



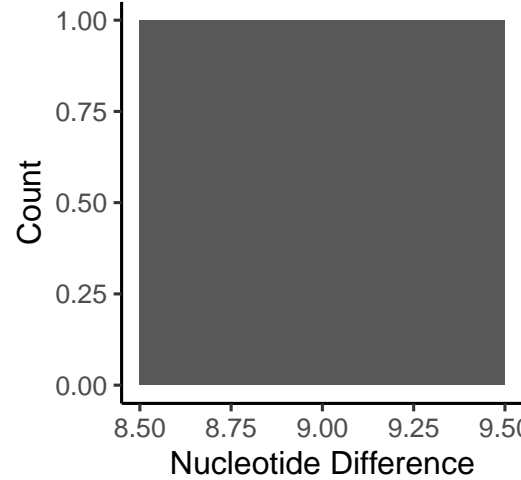
### IGHV3-53\*01

176 sequences assigned  
66 (37.5%) exact matches, in which:  
66 unique CDR3  
5 unique J



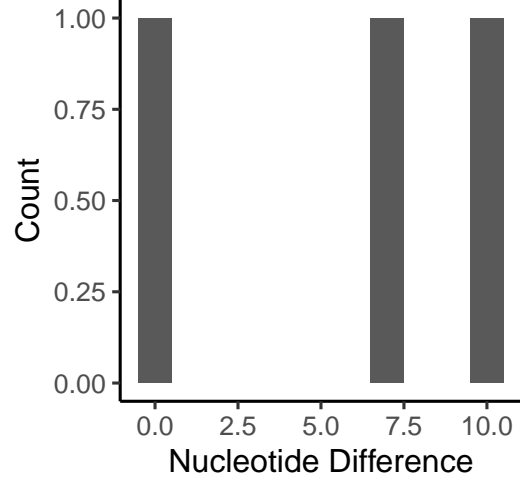
### IGHV3-66\*03

1 sequences assigned  
No exact matches.



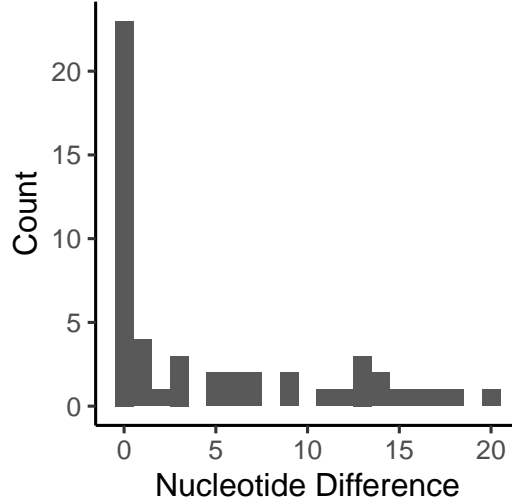
### IGHV3-69-1\*01

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



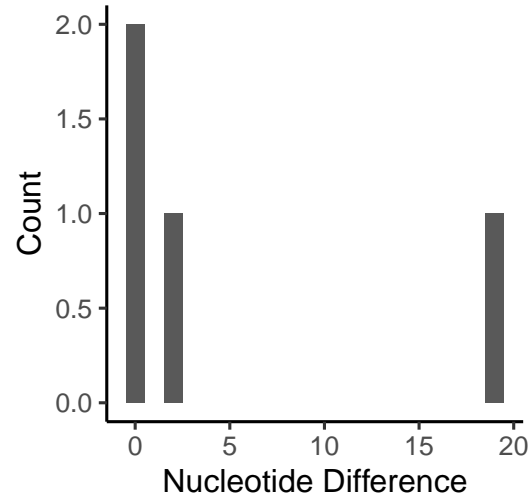
### IGHV3-73\*02

53 sequences assigned  
23 (43.4%) exact matches, in which:  
22 unique CDR3  
4 unique J



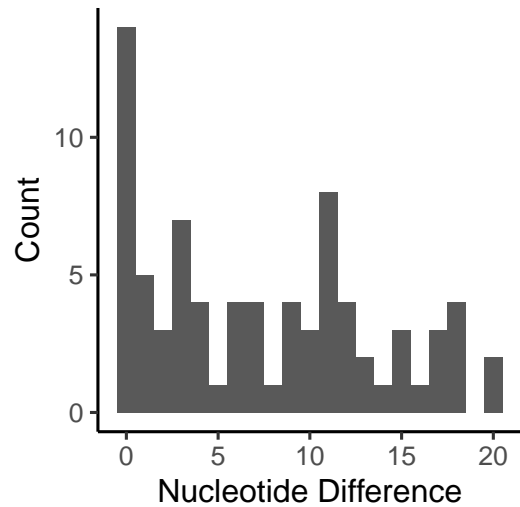
### IGHV4-28\*01

4 sequences assigned  
2 (50%) exact matches, in which:  
2 unique CDR3  
2 unique J



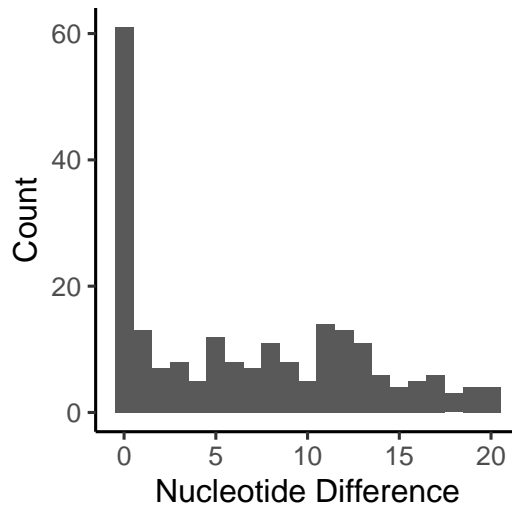
### IGHV3-72\*01

89 sequences assigned  
14 (15.7%) exact matches, in which:  
14 unique CDR3  
2 unique J



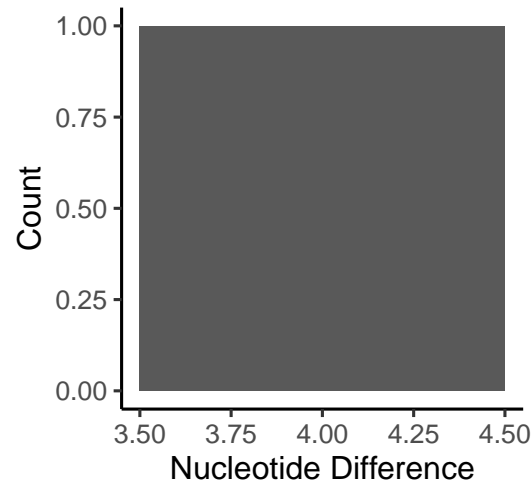
### IGHV3-74\*01

231 sequences assigned  
61 (26.4%) exact matches, in which:  
61 unique CDR3  
5 unique J



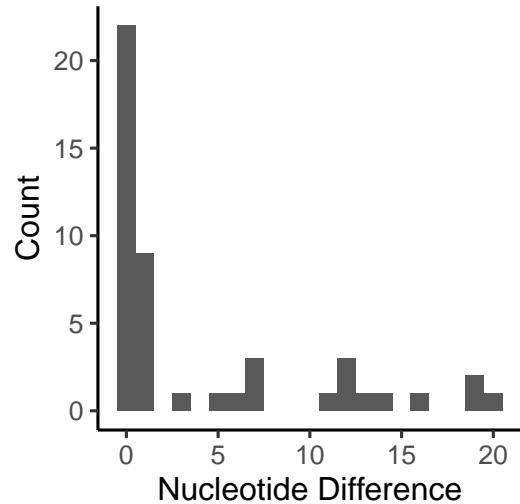
### IGHV4-28\*03

2 sequences assigned  
No exact matches.



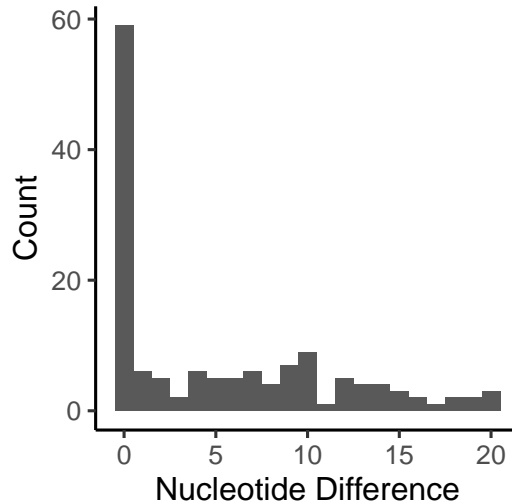
### IGHV3-73\*01

49 sequences assigned  
22 (44.9%) exact matches, in which:  
22 unique CDR3  
5 unique J



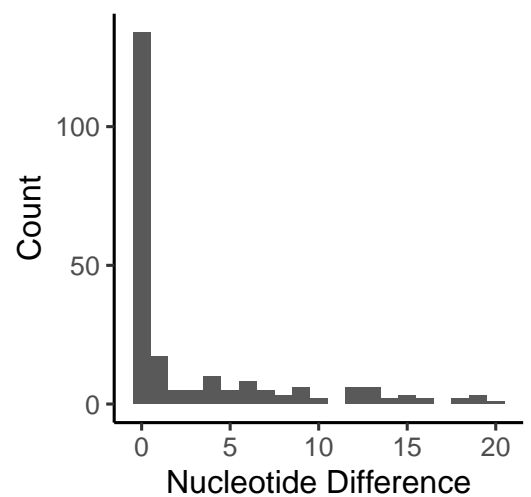
### IGHV4-4\*07

151 sequences assigned  
59 (39.1%) exact matches, in which:  
59 unique CDR3  
5 unique J



### IGHV4-31\*03

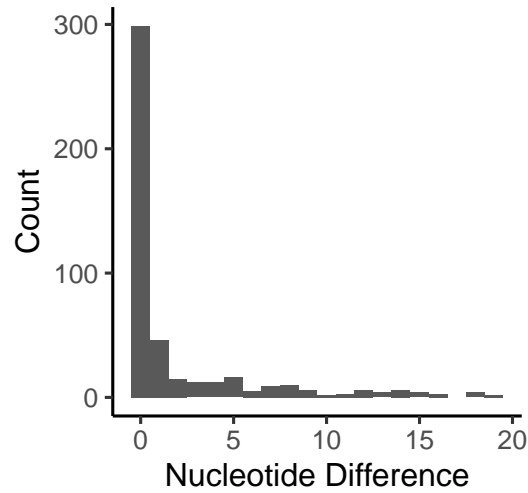
238 sequences assigned  
134 (56.3%) exact matches, in which:  
133 unique CDR3  
6 unique J





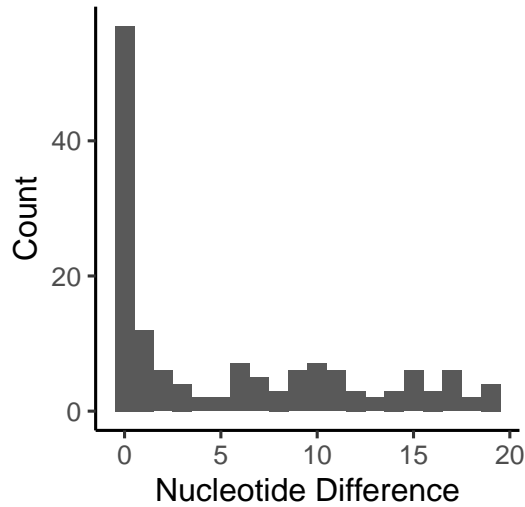
### IGHV4-34\*01

484 sequences assigned  
299 (61.8%) exact matches, in which:  
297 unique CDR3  
6 unique J



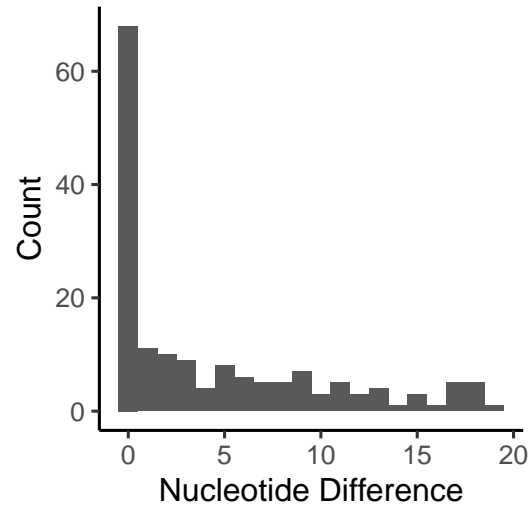
### IGHV4-59\*08

153 sequences assigned  
57 (37.3%) exact matches, in which:  
57 unique CDR3  
6 unique J



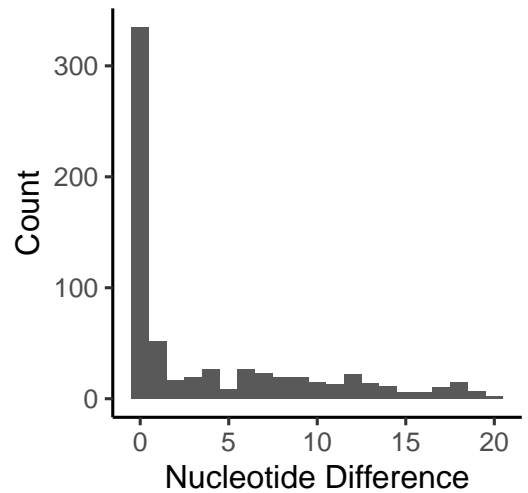
### IGHV5-51\*01\_C45G

172 sequences assigned  
68 (39.5%) exact matches, in which:  
68 unique CDR3  
5 unique J



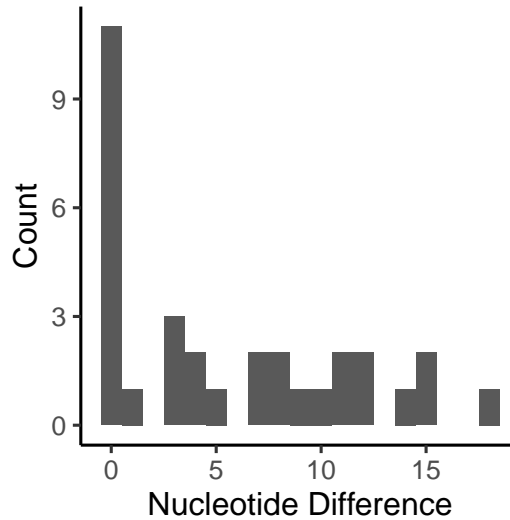
### IGHV4-39\*01

721 sequences assigned  
335 (46.5%) exact matches, in which:  
334 unique CDR3  
6 unique J



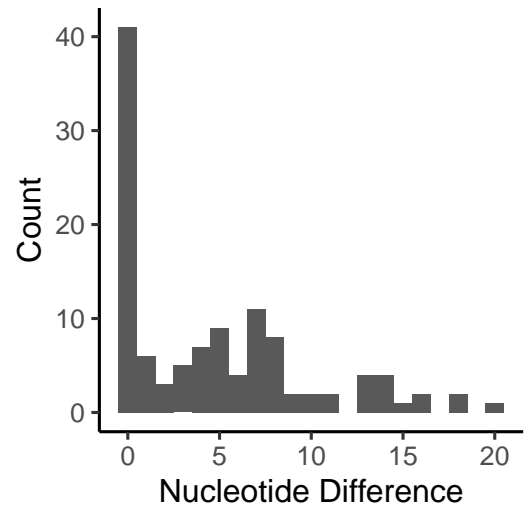
### IGHV4-61\*01

36 sequences assigned  
11 (30.6%) exact matches, in which:  
11 unique CDR3  
3 unique J



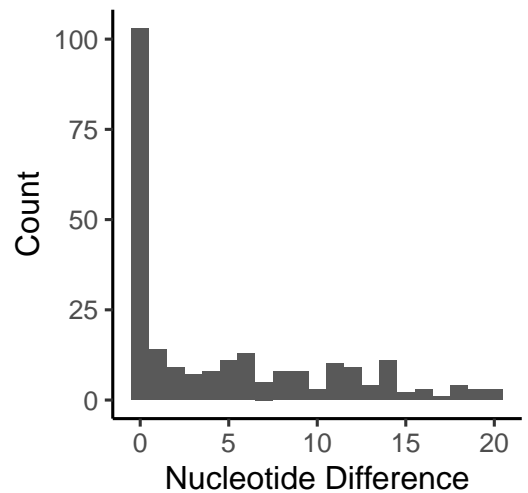
### IGHV6-1\*01

118 sequences assigned  
41 (34.7%) exact matches, in which:  
41 unique CDR3  
5 unique J



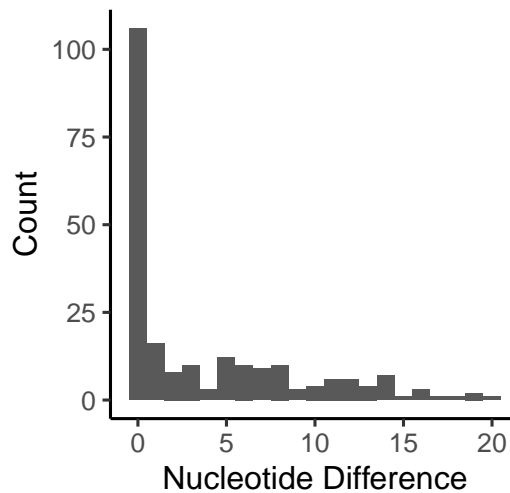
### IGHV4-59\*01

257 sequences assigned  
103 (40.1%) exact matches, in which:  
103 unique CDR3  
5 unique J



### IGHV5-51\*01

228 sequences assigned  
106 (46.5%) exact matches, in which:  
106 unique CDR3  
6 unique J





[illegible]