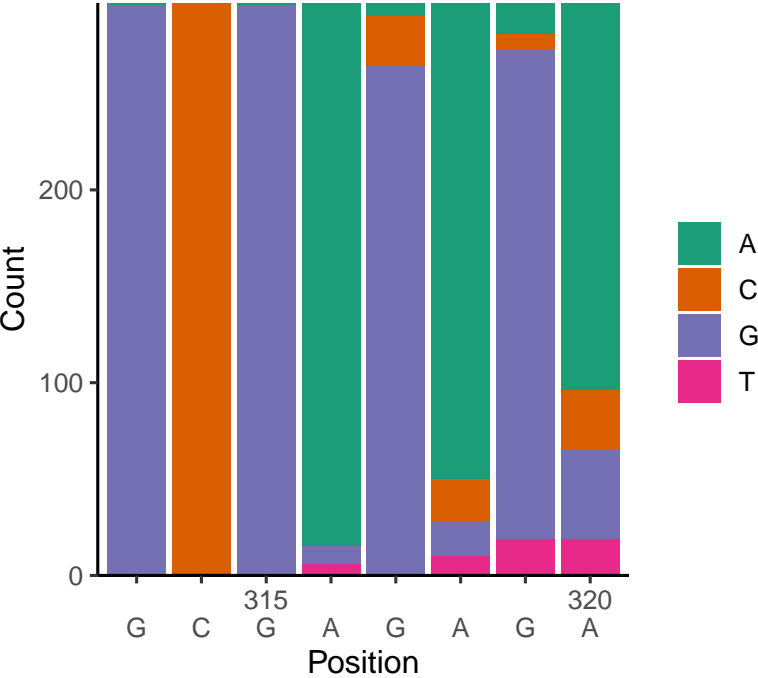
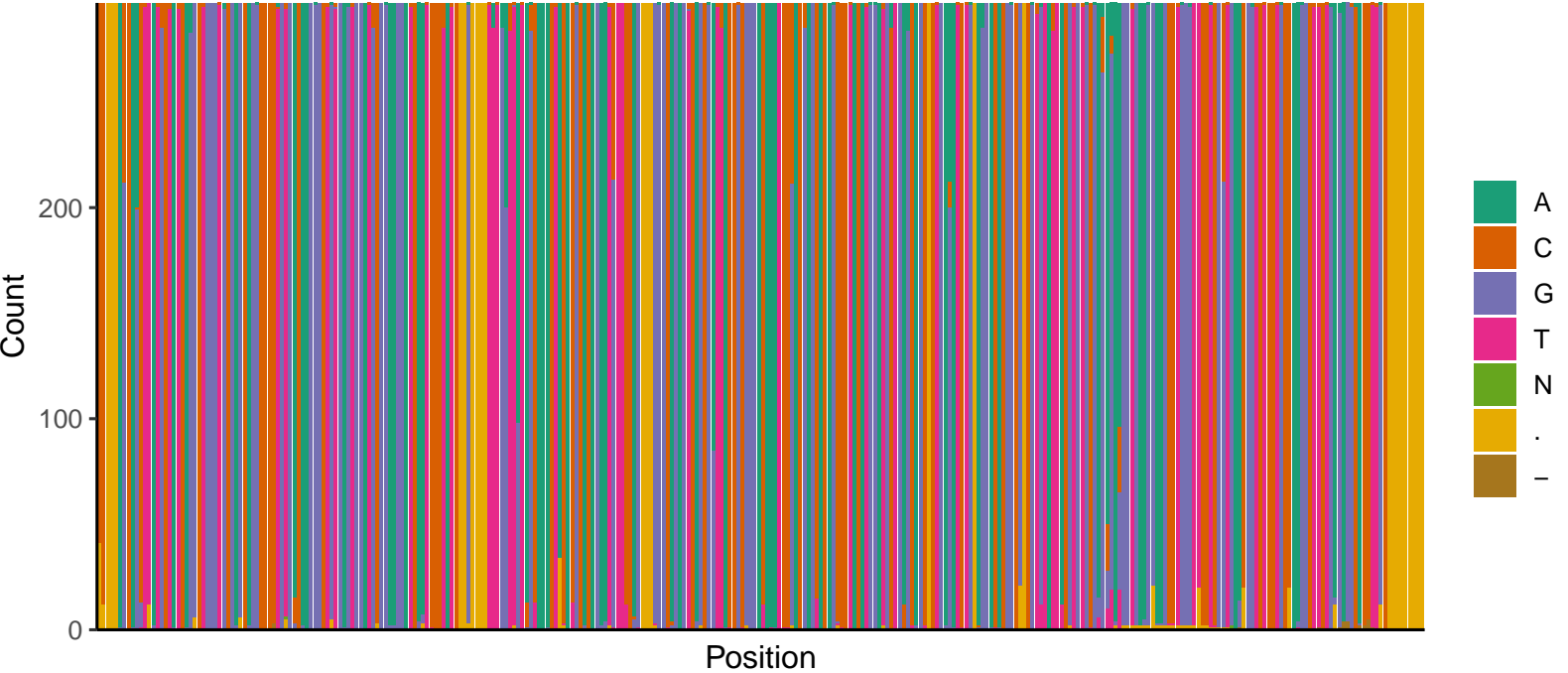


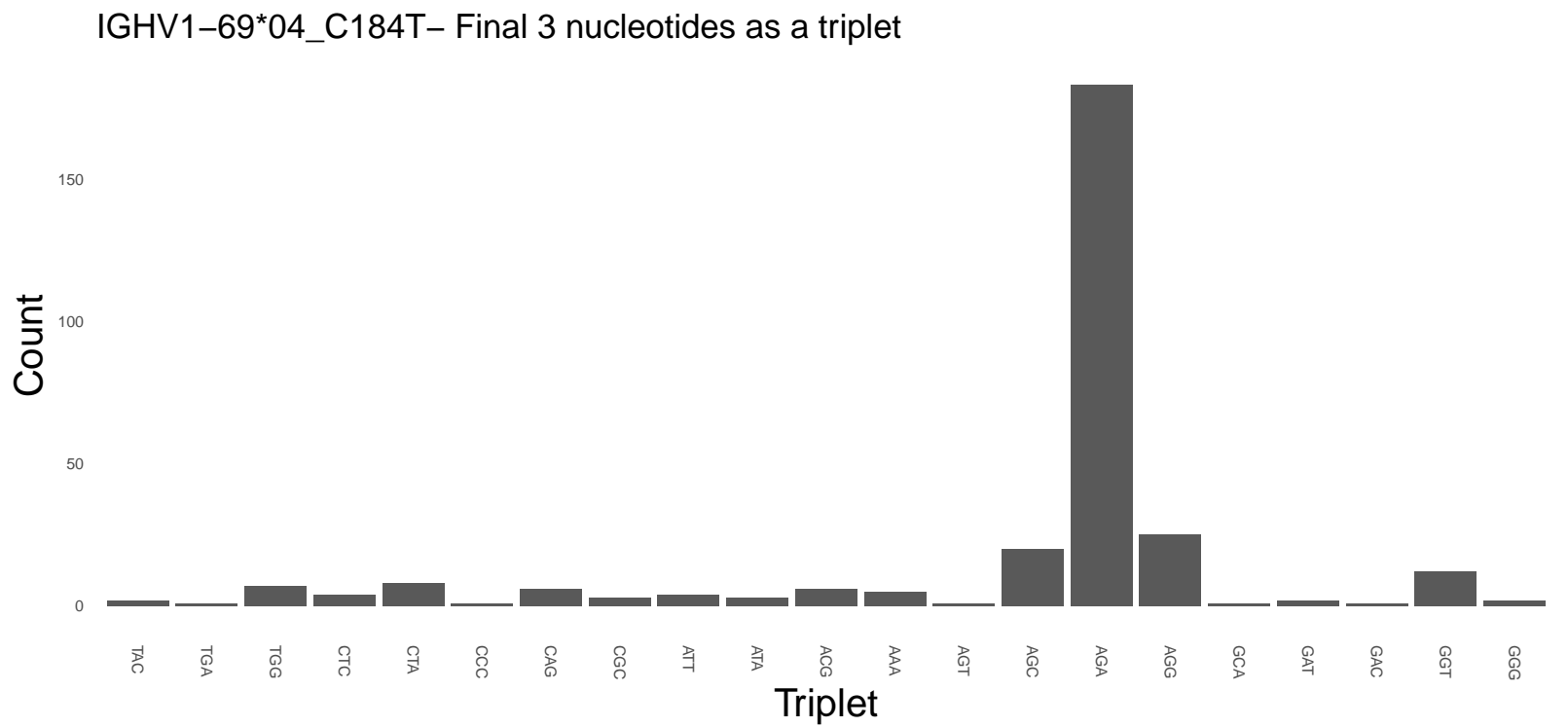
Gene IGHV1-69\*04\_C184T



Gene IGHV1-69\*04\_C184T

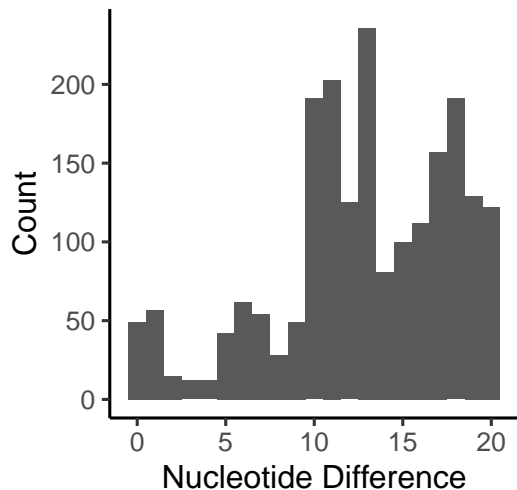


IGHV1-69\*04\_C184T- Final 3 nucleotides as a triplet



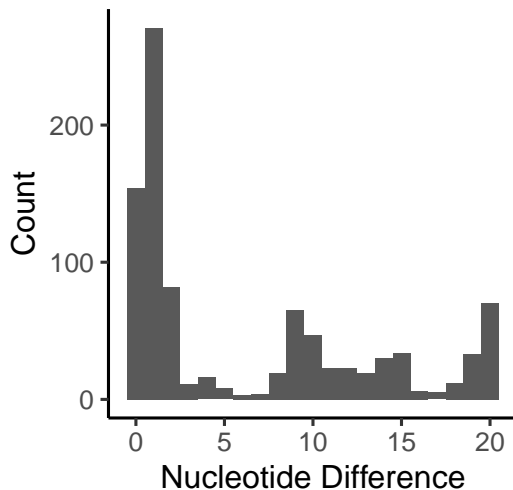
### IGHV1-2\*02

3042 sequences assigned  
49 (1.6%) exact matches, in which:  
34 unique CDR3  
4 unique J



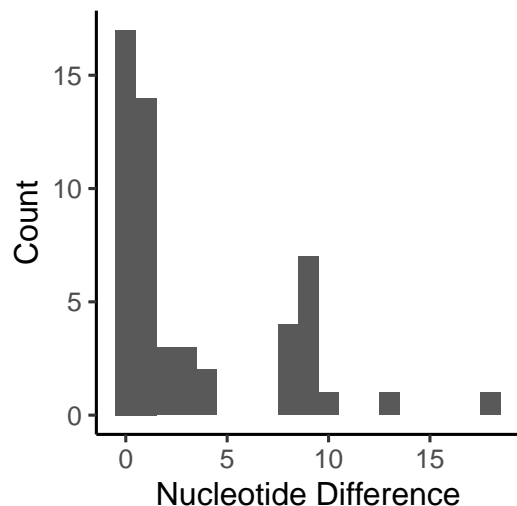
### IGHV1-18\*01

1021 sequences assigned  
154 (15.1%) exact matches, in which:  
99 unique CDR3  
7 unique J



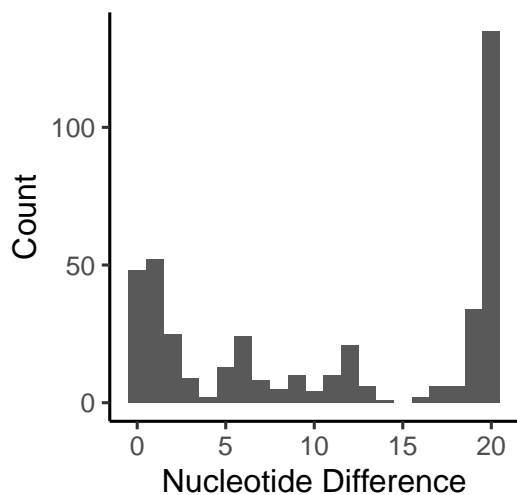
### IGHV1-46\*03

129 sequences assigned  
17 (13.2%) exact matches, in which:  
10 unique CDR3  
2 unique J



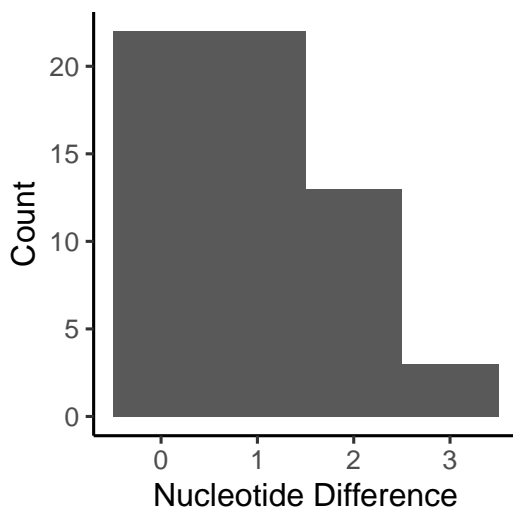
### IGHV1-3\*01

614 sequences assigned  
48 (7.8%) exact matches, in which:  
28 unique CDR3  
4 unique J



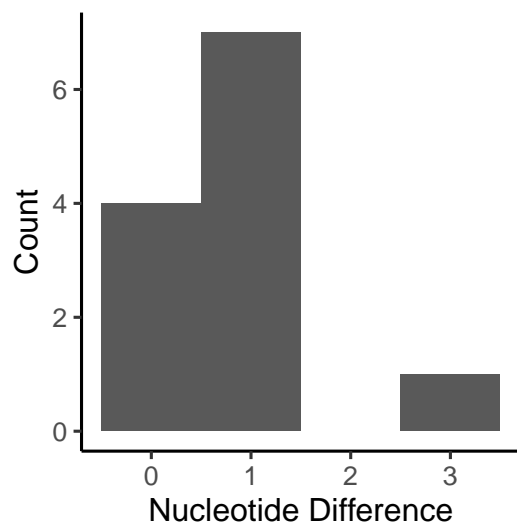
### IGHV1-24\*01

200 sequences assigned  
22 (11%) exact matches, in which:  
20 unique CDR3  
5 unique J



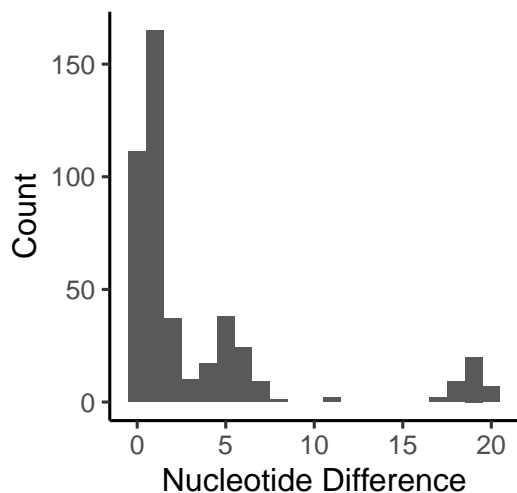
### IGHV1-58\*01

12 sequences assigned  
4 (33.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



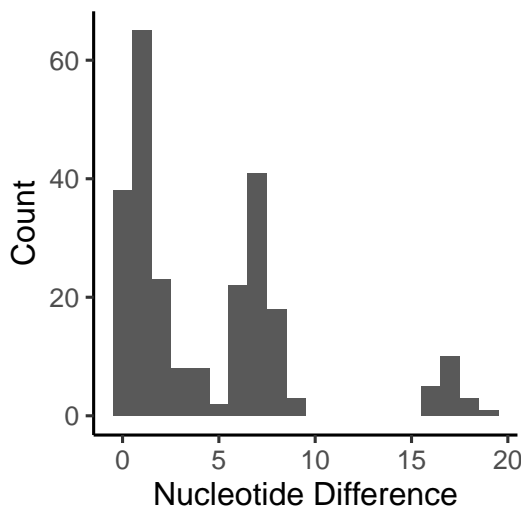
### IGHV1-8\*01

708 sequences assigned  
111 (15.7%) exact matches, in which:  
81 unique CDR3  
6 unique J



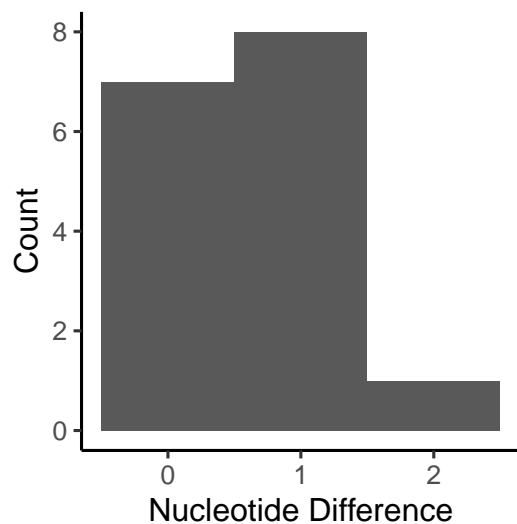
### IGHV1-46\*01

361 sequences assigned  
38 (10.5%) exact matches, in which:  
24 unique CDR3  
5 unique J



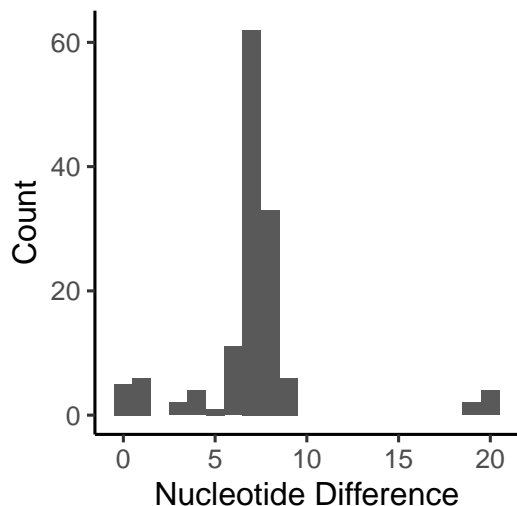
### IGHV1-58\*02

16 sequences assigned  
7 (43.8%) exact matches, in which:  
4 unique CDR3  
3 unique J



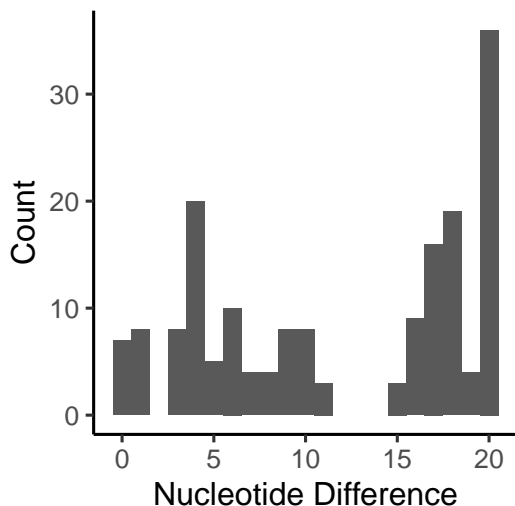
### IGHV1-69-2\*01

237 sequences assigned  
5 (2.1%) exact matches, in which:  
5 unique CDR3  
1 unique J



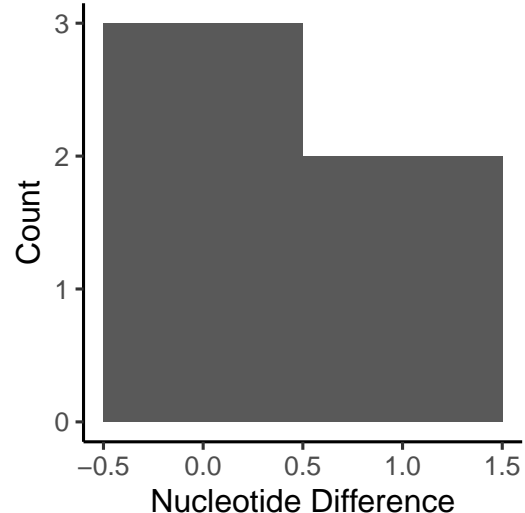
### IGHV2-5\*01

312 sequences assigned  
7 (2.2%) exact matches, in which:  
6 unique CDR3  
4 unique J



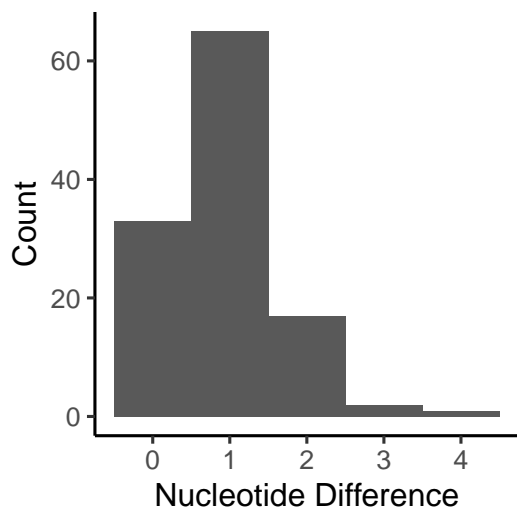
### IGHV2-70\*01

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



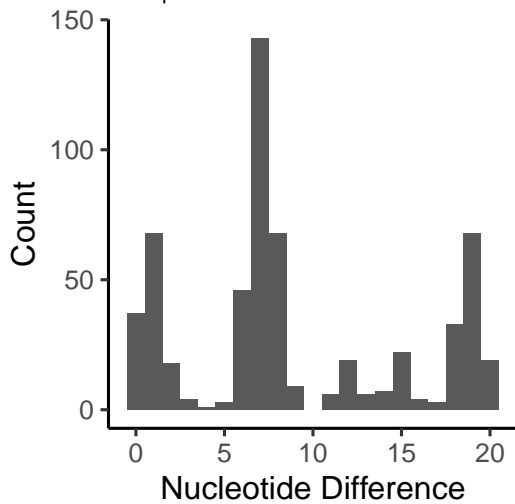
### IGHV1-69\*02

118 sequences assigned  
33 (28%) exact matches, in which:  
27 unique CDR3  
4 unique J



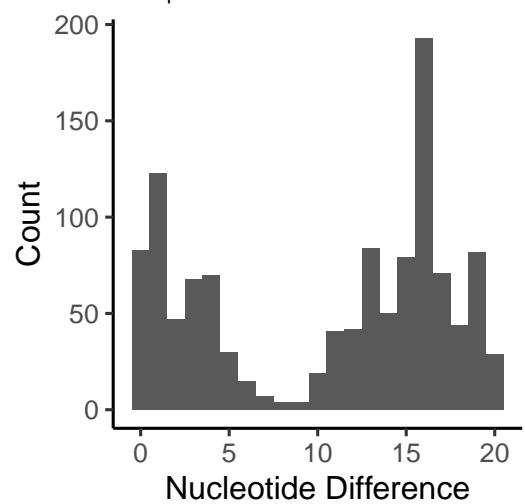
### IGHV2-5\*02

593 sequences assigned  
37 (6.2%) exact matches, in which:  
22 unique CDR3  
3 unique J



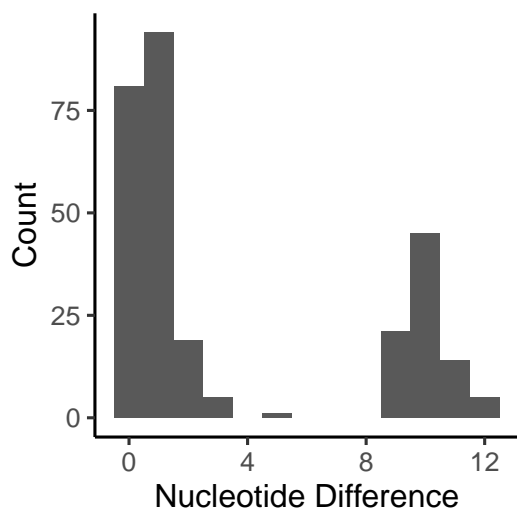
### IGHV3-7\*01

1303 sequences assigned  
83 (6.4%) exact matches, in which:  
65 unique CDR3  
7 unique J



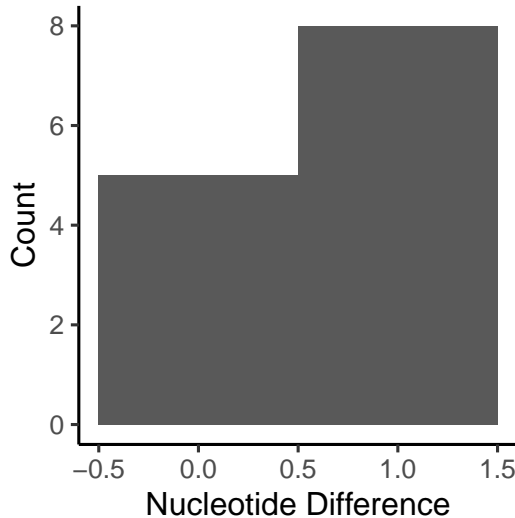
### IGHV1-69\*04\_C184T

297 sequences assigned  
81 (27.3%) exact matches, in which:  
66 unique CDR3  
6 unique J



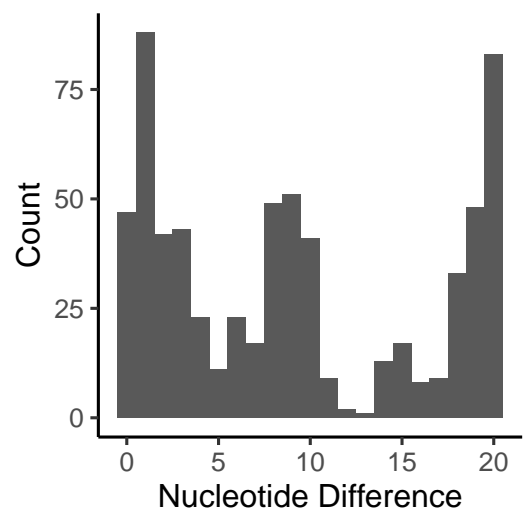
### IGHV2-26\*01

13 sequences assigned  
5 (38.5%) exact matches, in which:  
3 unique CDR3  
1 unique J



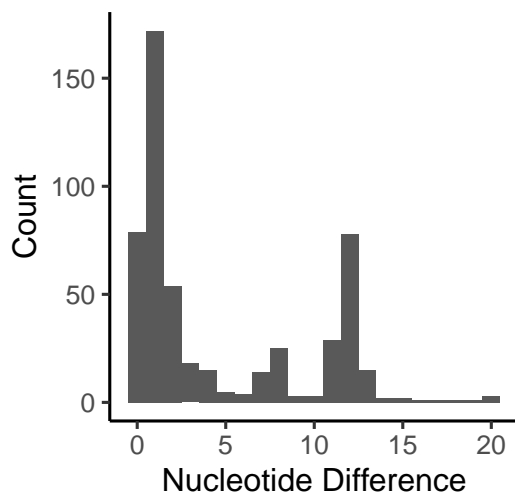
### IGHV3-9\*01

1067 sequences assigned  
47 (4.4%) exact matches, in which:  
36 unique CDR3  
5 unique J



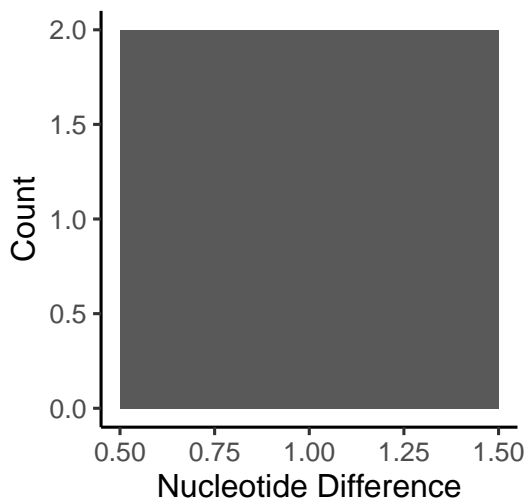
### IGHV3-11\*01

577 sequences assigned  
79 (13.7%) exact matches, in which:  
54 unique CDR3  
5 unique J



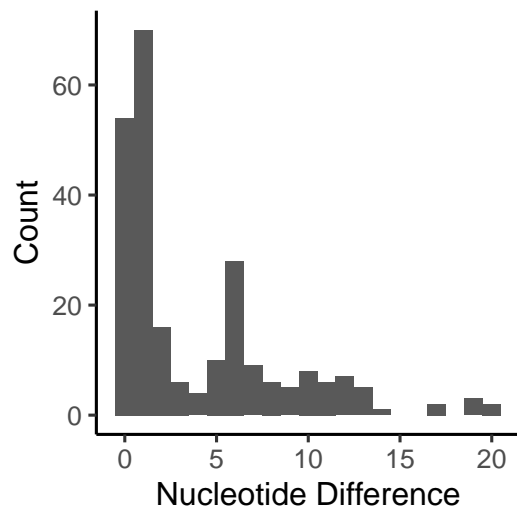
### IGHV3-20\*01

2 sequences assigned  
No exact matches.



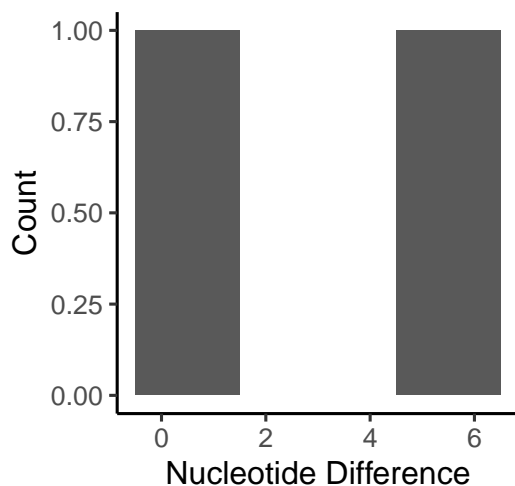
### IGHV3-33\*01

270 sequences assigned  
54 (20%) exact matches, in which:  
37 unique CDR3  
3 unique J



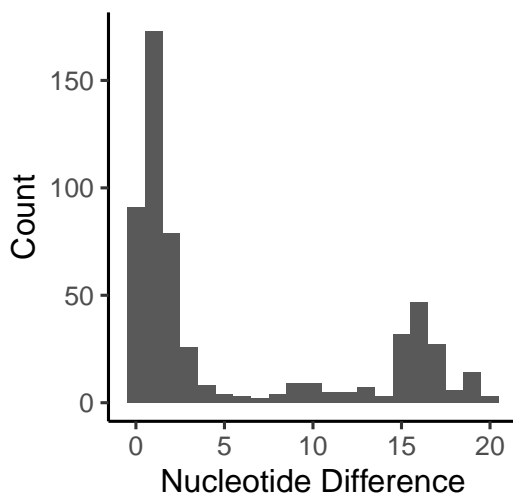
### IGHV3-13\*01

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



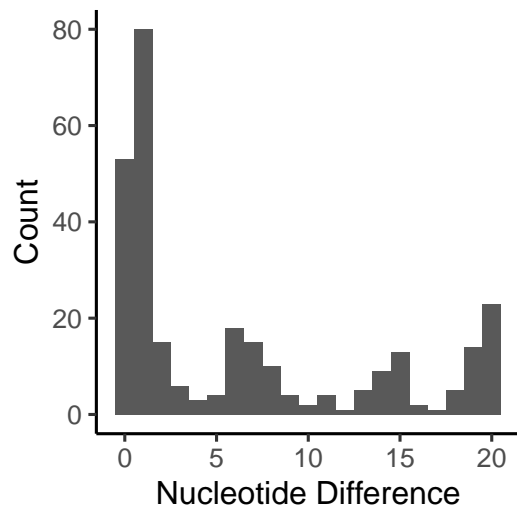
### IGHV3-21\*01

764 sequences assigned  
91 (11.9%) exact matches, in which:  
56 unique CDR3  
6 unique J



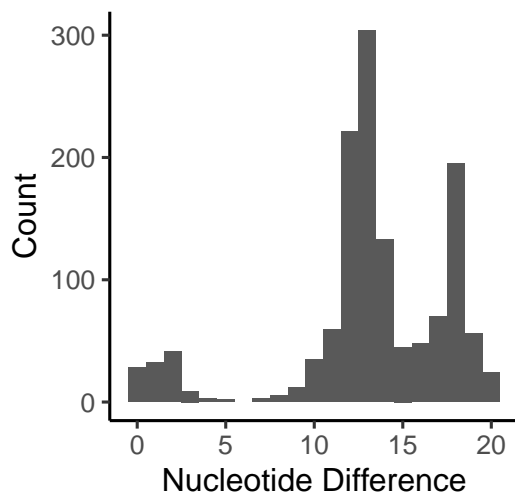
### IGHV3-33\*08

667 sequences assigned  
53 (7.9%) exact matches, in which:  
42 unique CDR3  
4 unique J



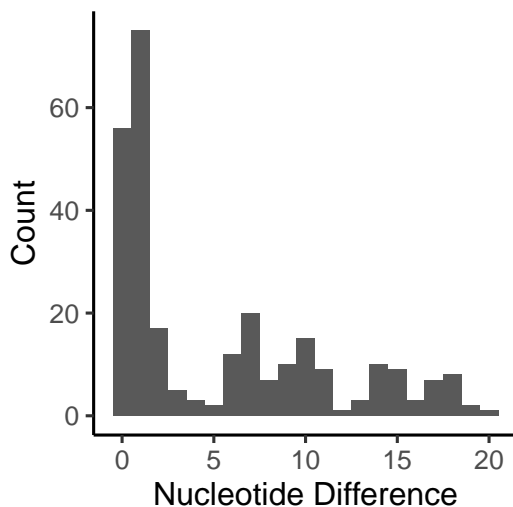
### IGHV3-15\*01

1358 sequences assigned  
28 (2.1%) exact matches, in which:  
25 unique CDR3  
4 unique J



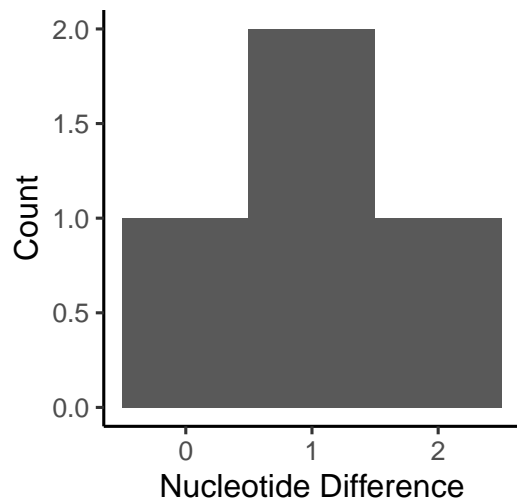
### IGHV3-30-3\*01

472 sequences assigned  
56 (11.9%) exact matches, in which:  
36 unique CDR3  
6 unique J



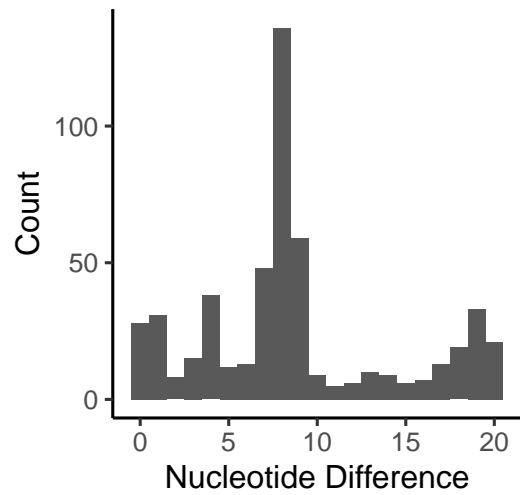
### IGHV3-43\*01

22 sequences assigned  
1 (4.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



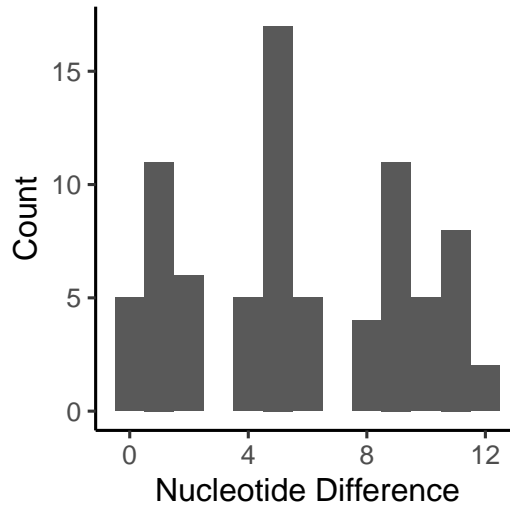
### IGHV3-48\*01

528 sequences assigned  
28 (5.3%) exact matches, in which:  
19 unique CDR3  
4 unique J



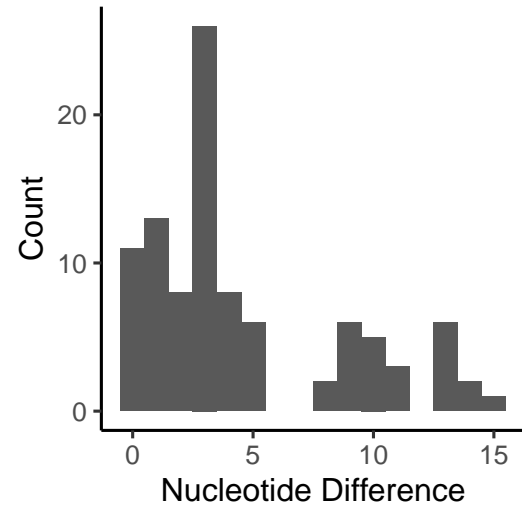
### IGHV3-49\*05

79 sequences assigned  
5 (6.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



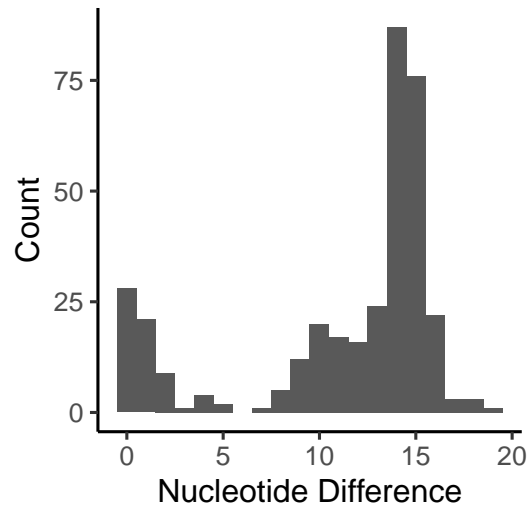
### IGHV3-66\*02

103 sequences assigned  
11 (10.7%) exact matches, in which:  
10 unique CDR3  
5 unique J



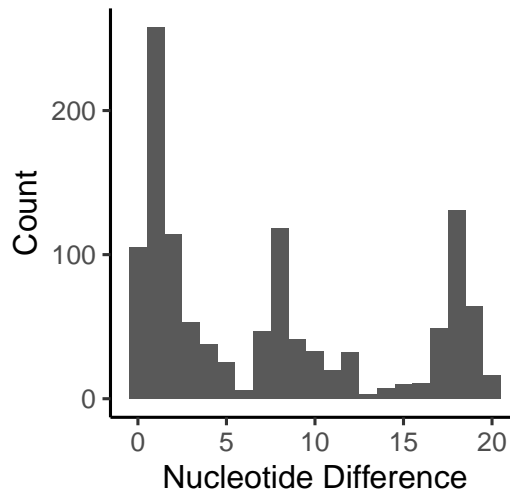
### IGHV3-48\*02

401 sequences assigned  
28 (7%) exact matches, in which:  
19 unique CDR3  
6 unique J



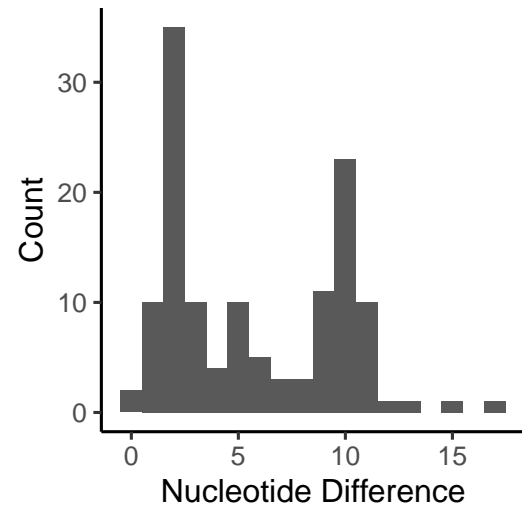
### IGHV3-53\*01

1544 sequences assigned  
105 (6.8%) exact matches, in which:  
75 unique CDR3  
6 unique J



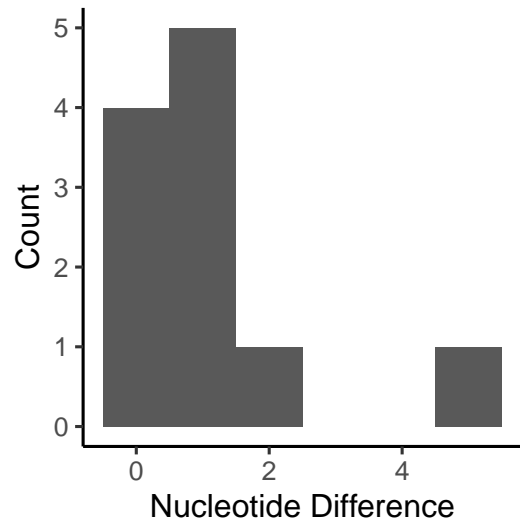
### IGHV3-72\*01

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



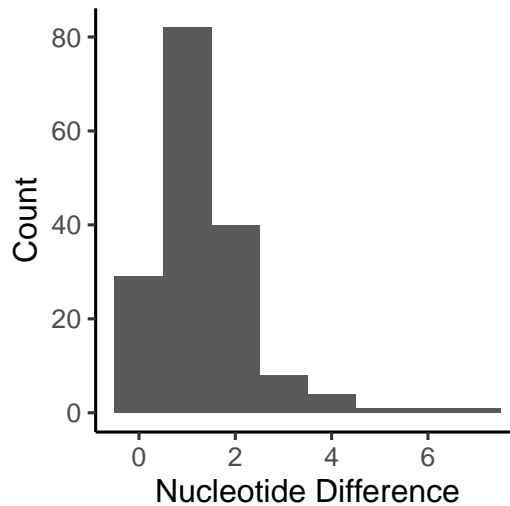
### IGHV3-49\*03

11 sequences assigned  
4 (36.4%) exact matches, in which:  
4 unique CDR3  
3 unique J



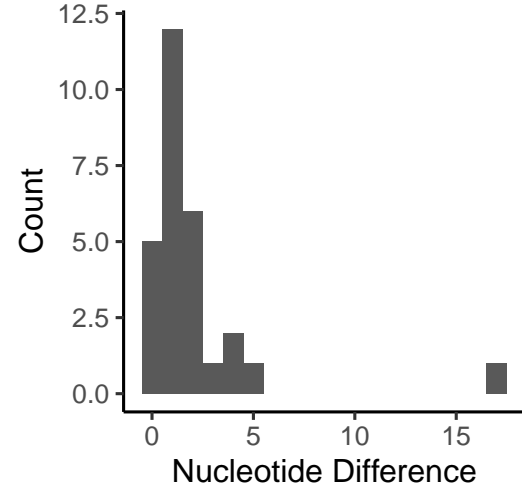
### IGHV3-64\*01

166 sequences assigned  
29 (17.5%) exact matches, in which:  
19 unique CDR3  
2 unique J



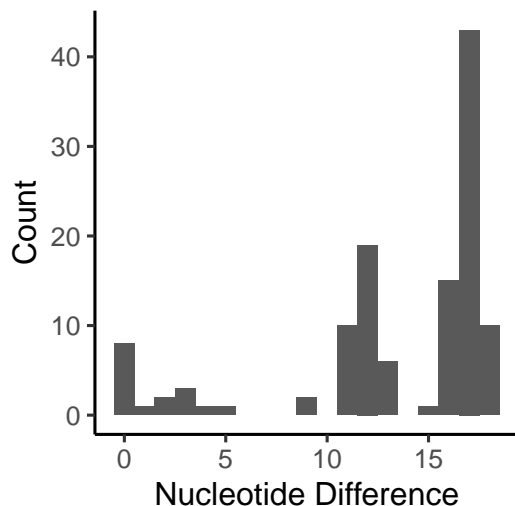
### IGHV3-73\*01

28 sequences assigned  
5 (17.9%) exact matches, in which:  
4 unique CDR3  
2 unique J



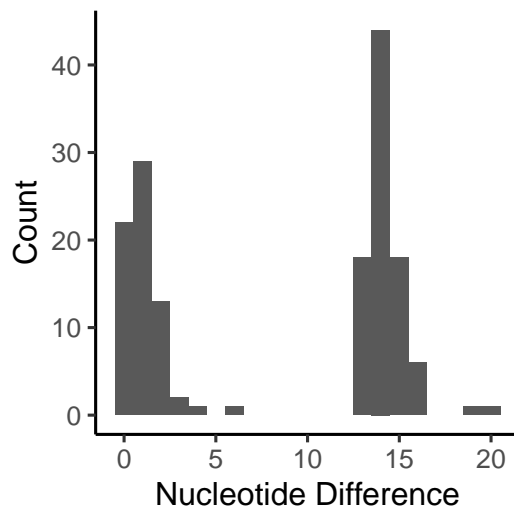
### IGHV3-73\*02

123 sequences assigned  
8 (6.5%) exact matches, in which:  
7 unique CDR3  
2 unique J



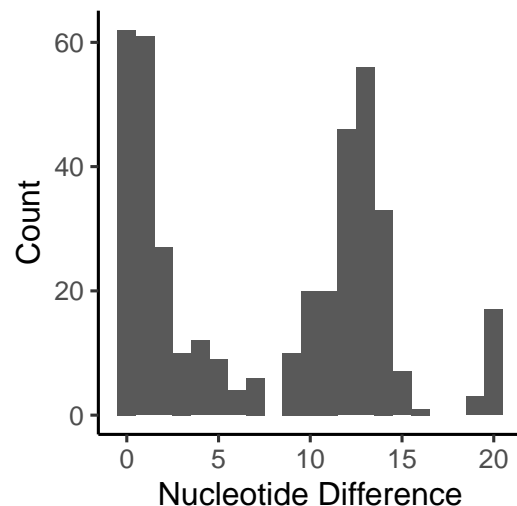
### IGHV4-30-4\*01

254 sequences assigned  
22 (8.7%) exact matches, in which:  
16 unique CDR3  
3 unique J



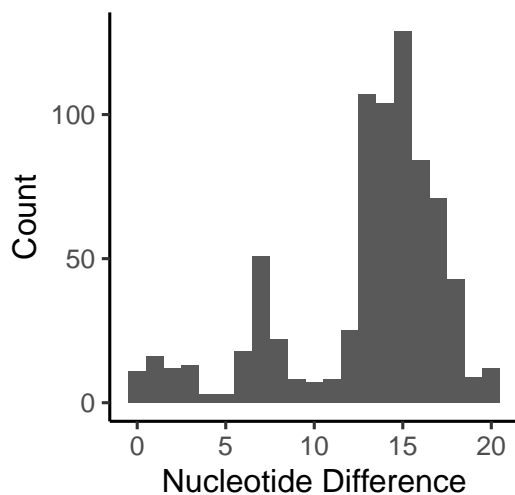
### IGHV4-34\*01

897 sequences assigned  
62 (6.9%) exact matches, in which:  
56 unique CDR3  
6 unique J



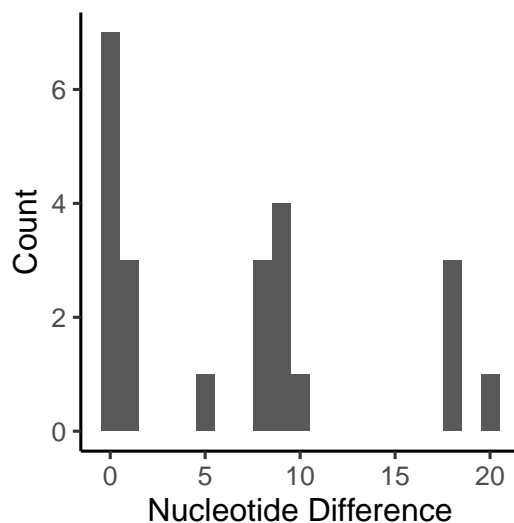
### IGHV3-74\*01

965 sequences assigned  
11 (1.1%) exact matches, in which:  
10 unique CDR3  
4 unique J



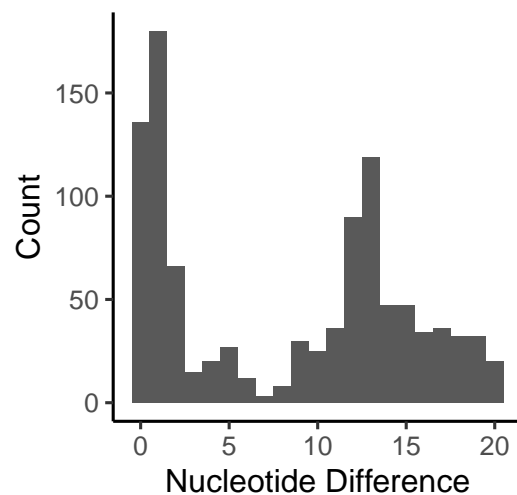
### IGHV4-30-2\*01

25 sequences assigned  
7 (28%) exact matches, in which:  
5 unique CDR3  
3 unique J



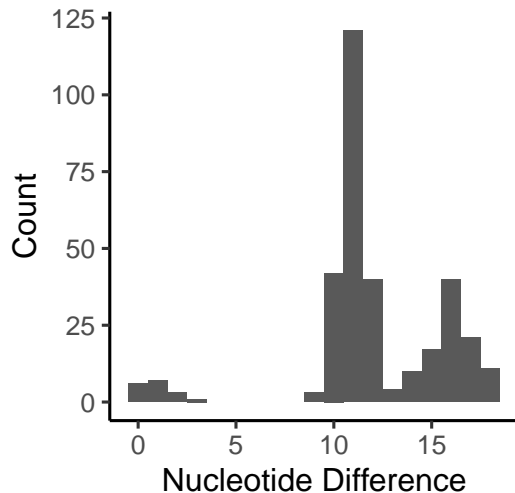
### IGHV4-39\*01

1295 sequences assigned  
136 (10.5%) exact matches, in which:  
102 unique CDR3  
7 unique J



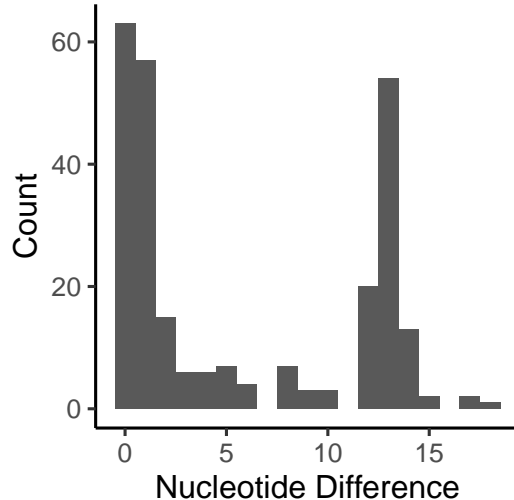
### IGHV4-4\*07

468 sequences assigned  
6 (1.3%) exact matches, in which:  
4 unique CDR3  
3 unique J



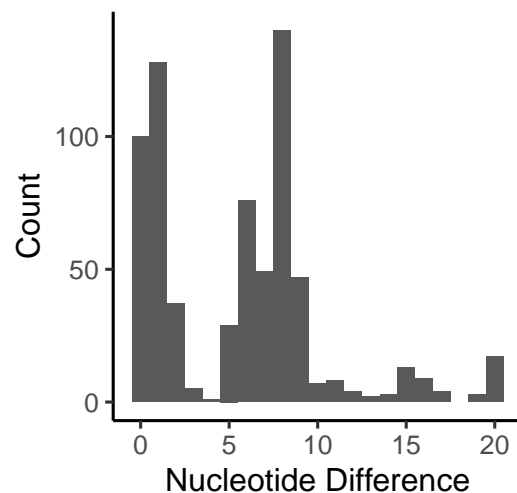
### IGHV4-31\*03

276 sequences assigned  
63 (22.8%) exact matches, in which:  
35 unique CDR3  
5 unique J



### IGHV4-59\*01

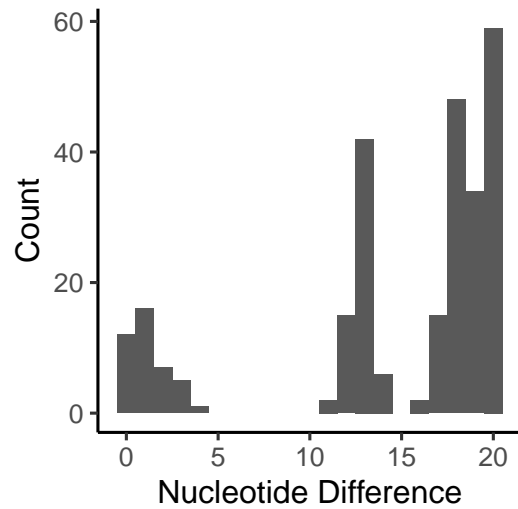
1274 sequences assigned  
100 (7.8%) exact matches, in which:  
68 unique CDR3  
5 unique J





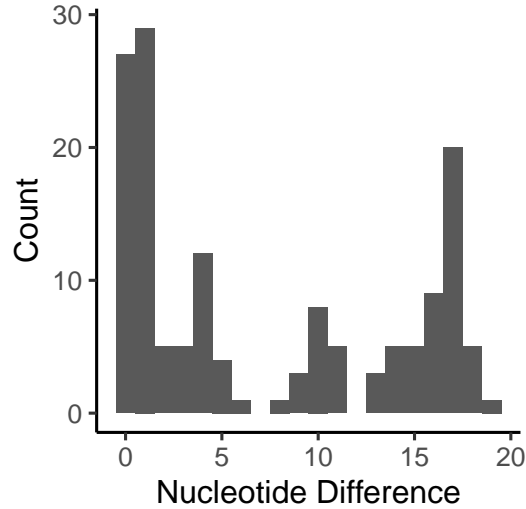
### IGHV4-61\*01

279 sequences assigned  
12 (4.3%) exact matches, in which:  
7 unique CDR3  
2 unique J



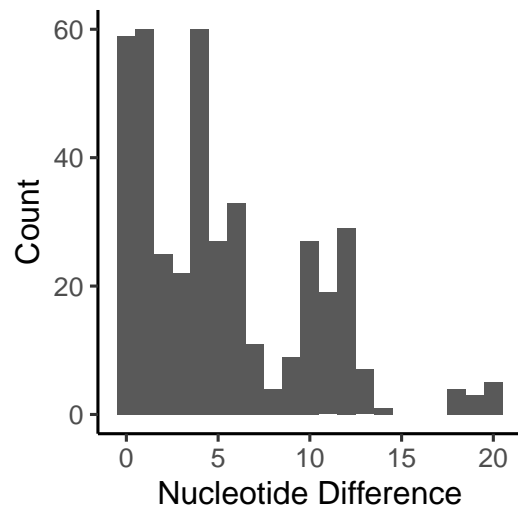
### IGHV5-51\*03

192 sequences assigned  
27 (14.1%) exact matches, in which:  
23 unique CDR3  
4 unique J



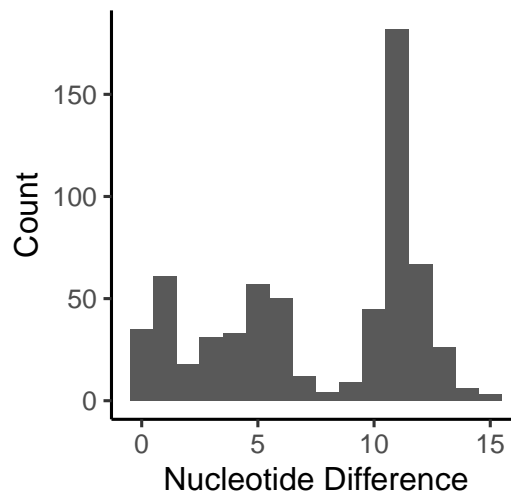
### IGHV4-61\*02

539 sequences assigned  
59 (10.9%) exact matches, in which:  
34 unique CDR3  
6 unique J



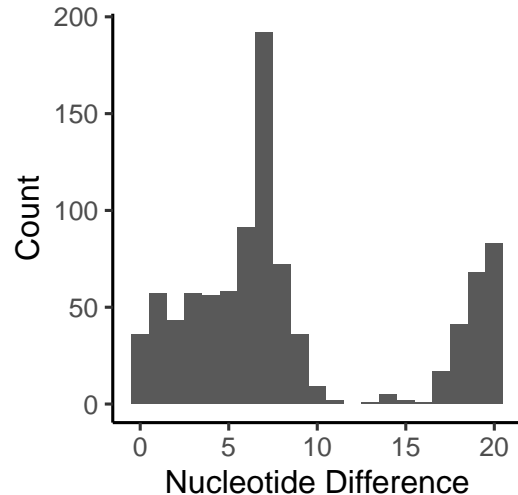
### IGHV6-1\*01

639 sequences assigned  
35 (5.5%) exact matches, in which:  
18 unique CDR3  
4 unique J



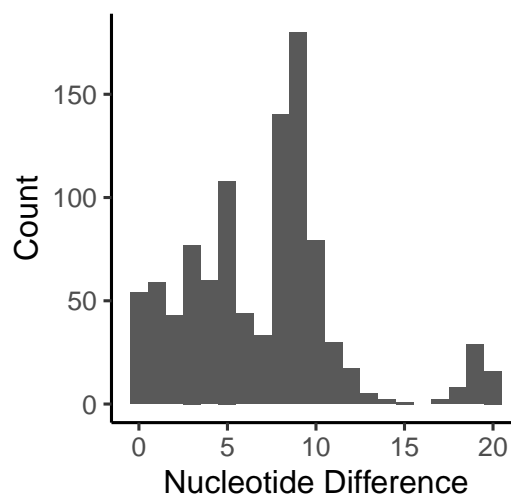
### IGHV5-51\*01

1171 sequences assigned  
36 (3.1%) exact matches, in which:  
32 unique CDR3  
4 unique J

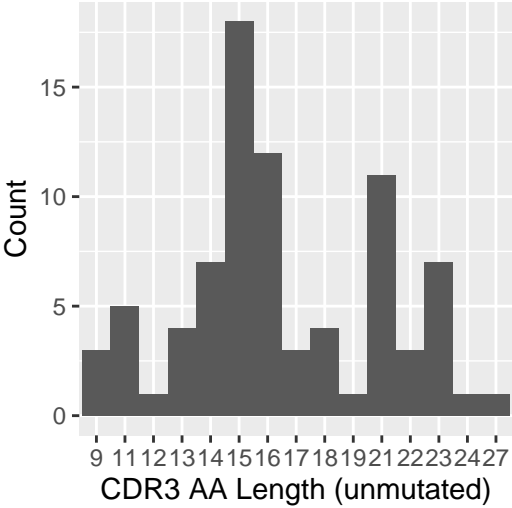


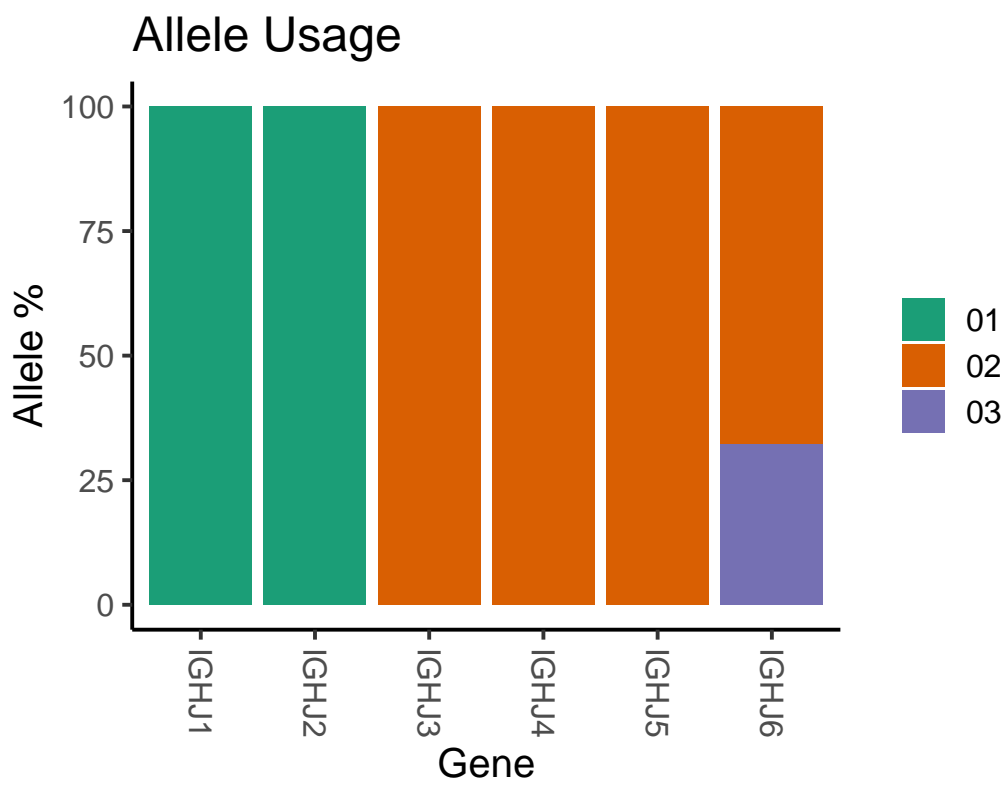
### IGHV7-4-1\*02

1047 sequences assigned  
54 (5.2%) exact matches, in which:  
32 unique CDR3  
6 unique J

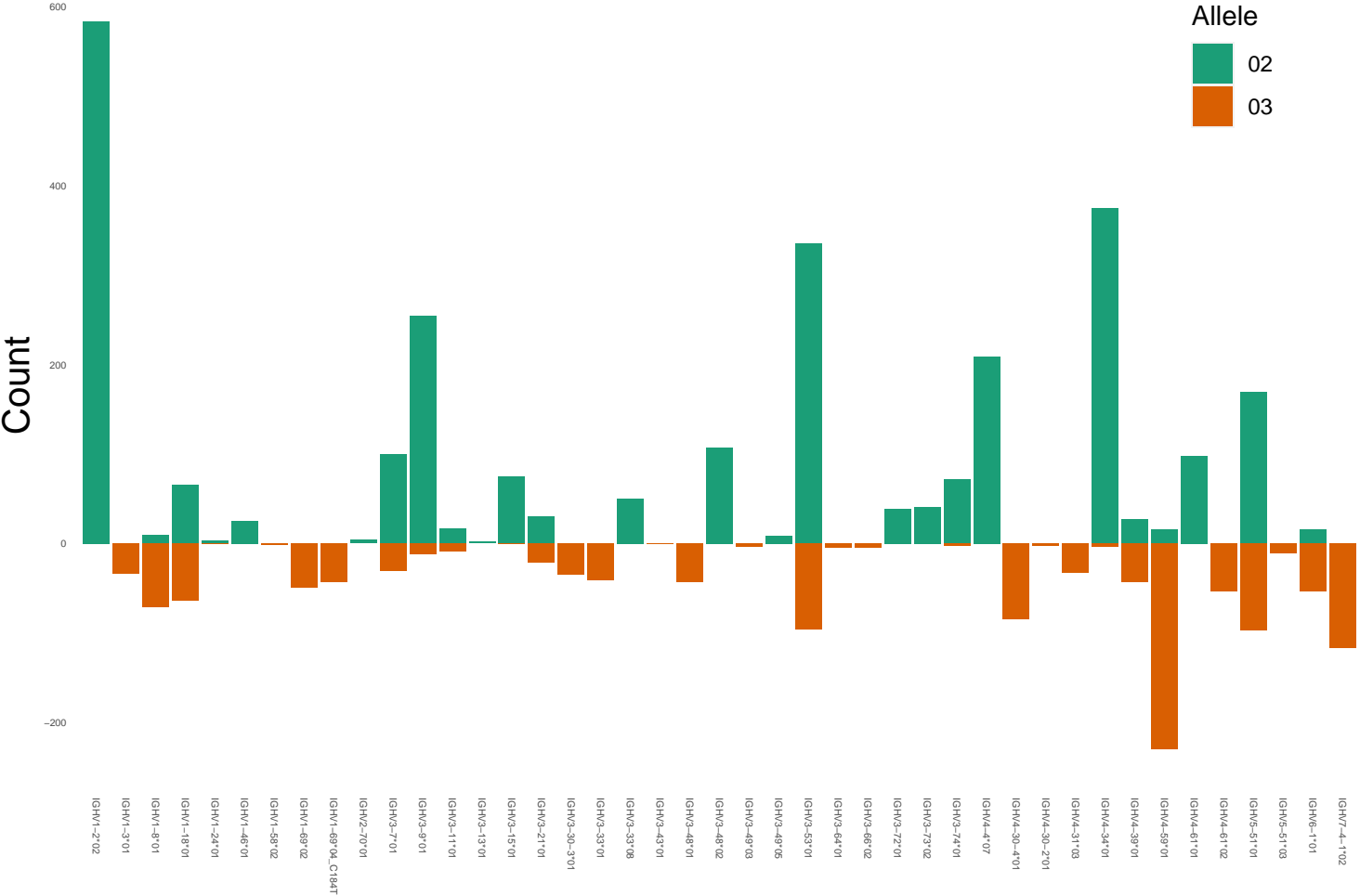


IGHV1-69\*04\_C184T





Sequence Count by IGHJ6 allele usage



[illegible]