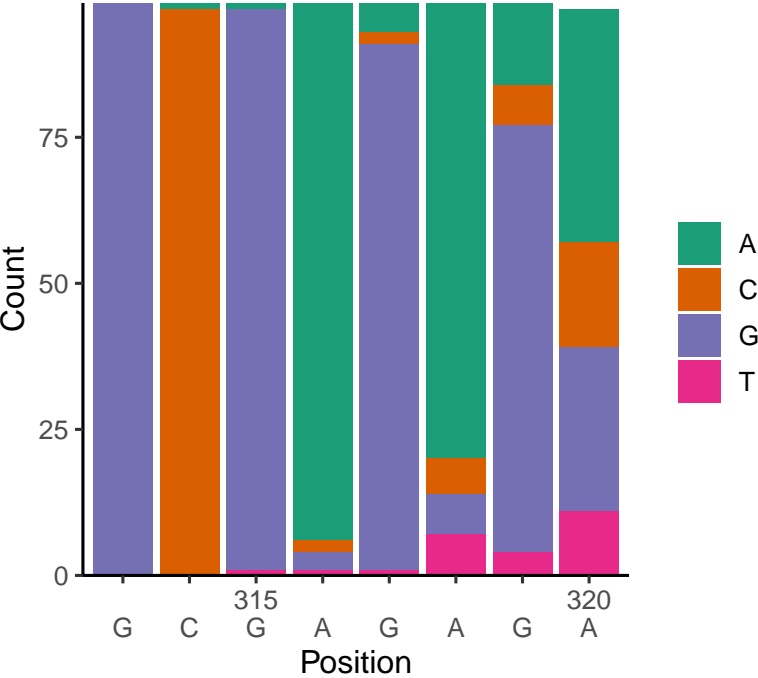
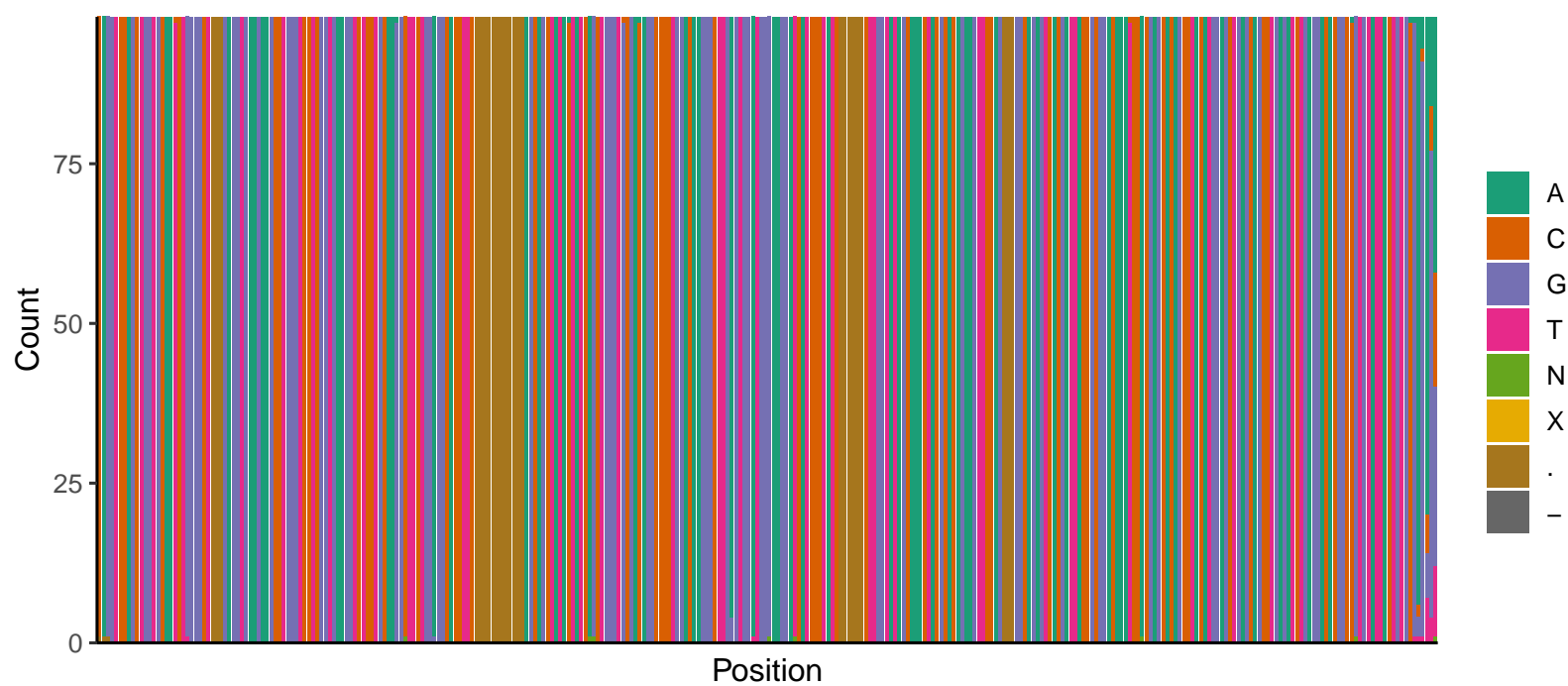


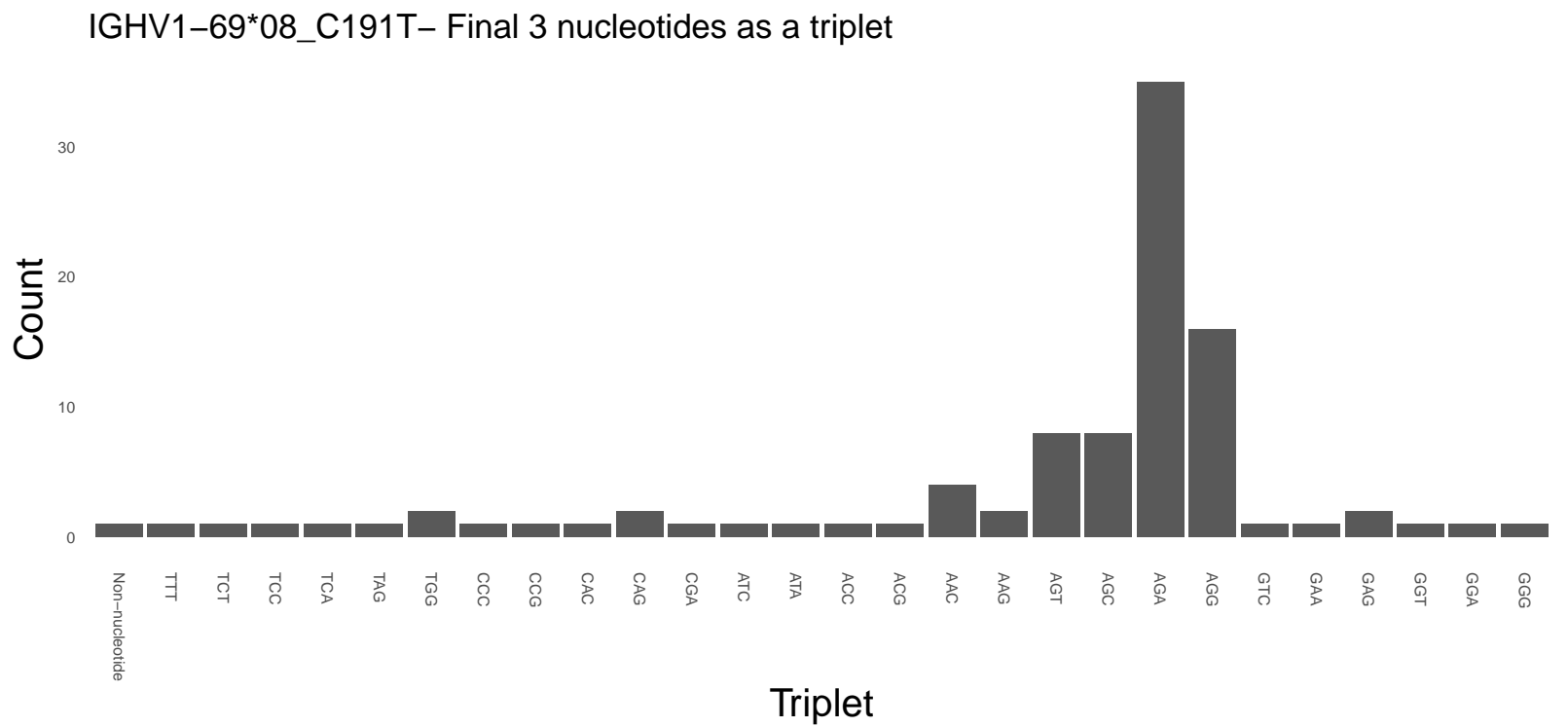
Gene IGHV1-69\*08\_C191T



Gene IGHV1-69\*08\_C191T

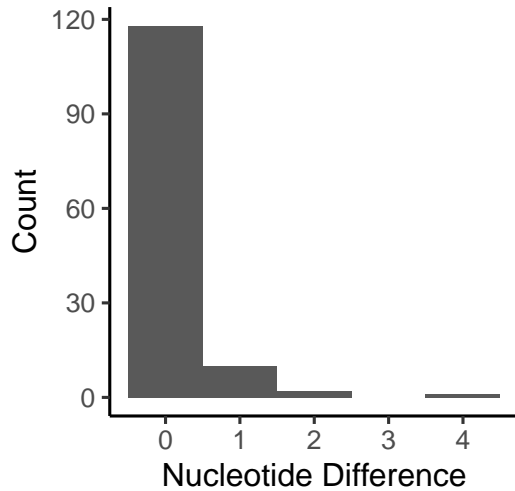


IGHV1-69\*08\_C191T- Final 3 nucleotides as a triplet



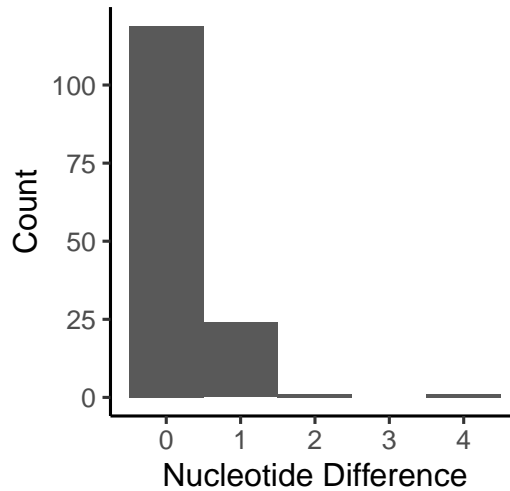
### IGHV1–2\*04

131 sequences assigned  
118 (90.1%) exact matches, in which:  
118 unique CDR3  
5 unique J



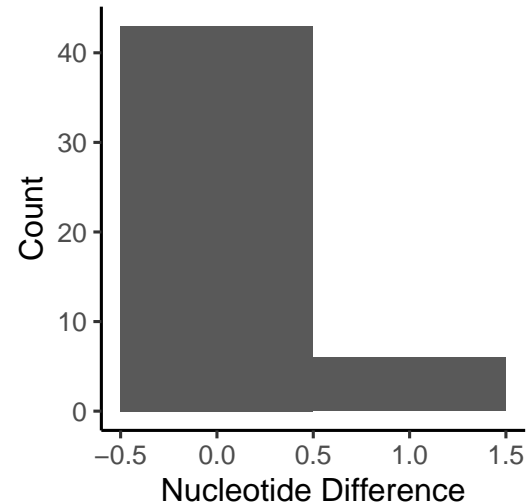
### IGHV1–18\*01

145 sequences assigned  
119 (82.1%) exact matches, in which:  
119 unique CDR3  
5 unique J



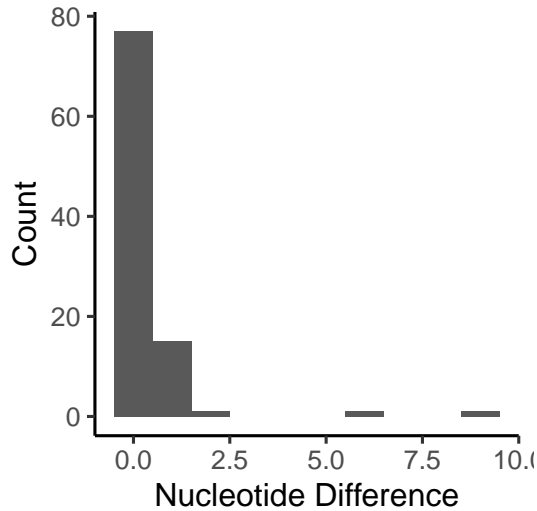
### IGHV1–46\*01

49 sequences assigned  
43 (87.8%) exact matches, in which:  
43 unique CDR3  
5 unique J



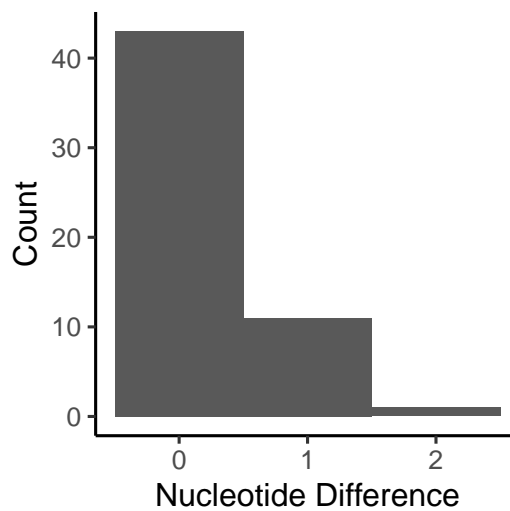
### IGHV1–3\*01

95 sequences assigned  
77 (81.1%) exact matches, in which:  
76 unique CDR3  
6 unique J



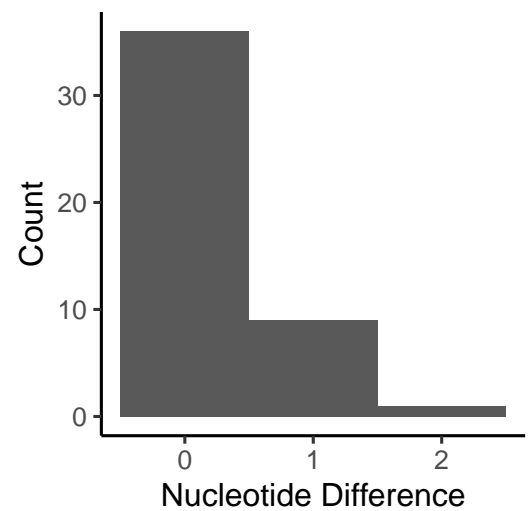
### IGHV1–24\*01

55 sequences assigned  
43 (78.2%) exact matches, in which:  
43 unique CDR3  
6 unique J



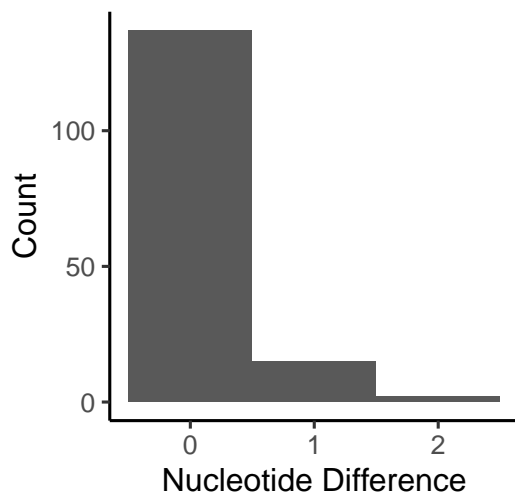
### IGHV1–46\*03

46 sequences assigned  
36 (78.3%) exact matches, in which:  
36 unique CDR3  
5 unique J



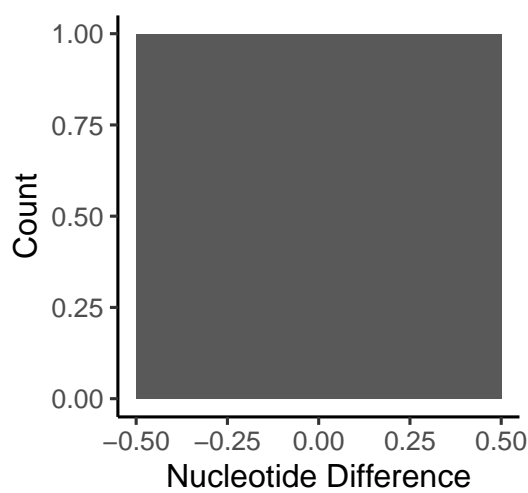
### IGHV1–8\*01

154 sequences assigned  
137 (89%) exact matches, in which:  
136 unique CDR3  
4 unique J



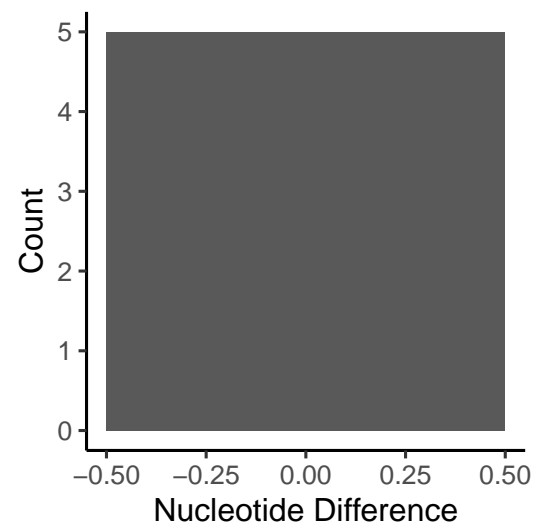
### IGHV1–45\*02

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



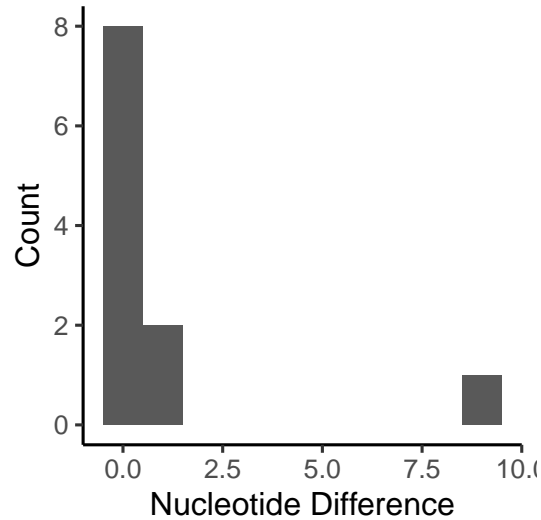
### IGHV1–58\*01

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



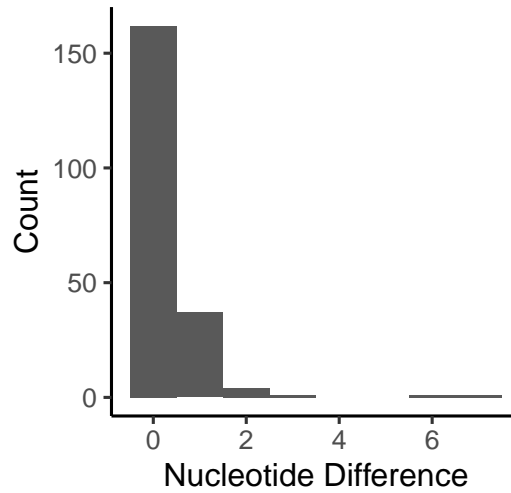
### IGHV1-58\*02

11 sequences assigned  
8 (72.7%) exact matches, in which:  
8 unique CDR3  
3 unique J



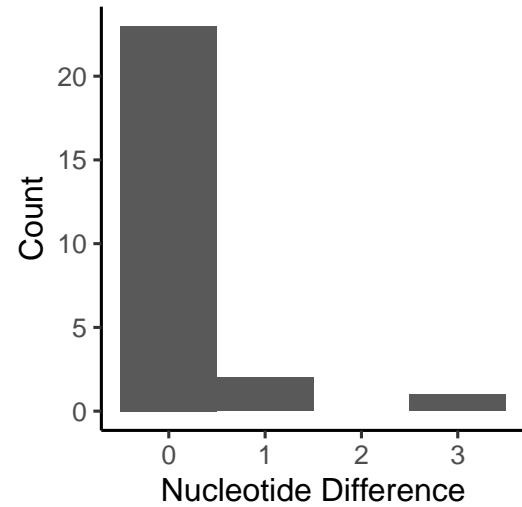
### IGHV1-69\*06

206 sequences assigned  
162 (78.6%) exact matches, in which:  
161 unique CDR3  
5 unique J



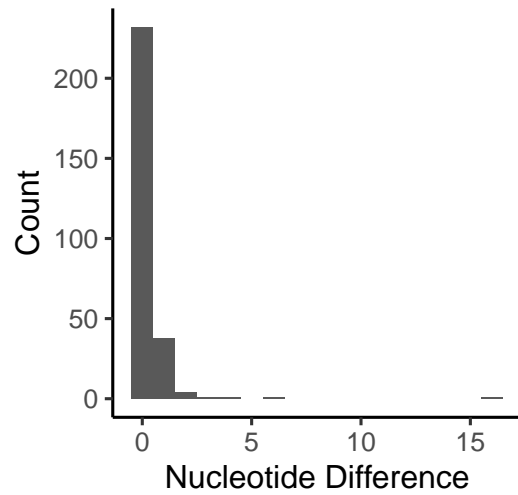
### IGHV2-26\*01

26 sequences assigned  
23 (88.5%) exact matches, in which:  
23 unique CDR3  
5 unique J



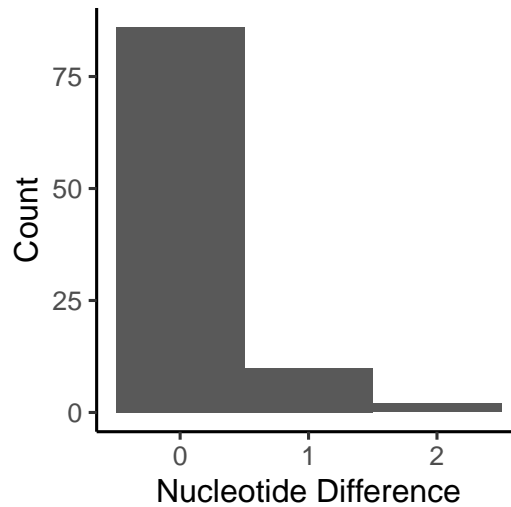
### IGHV1-69\*01

278 sequences assigned  
232 (83.5%) exact matches, in which:  
231 unique CDR3  
6 unique J



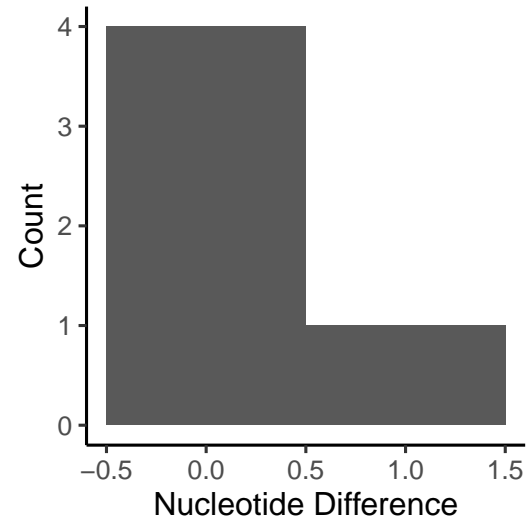
### IGHV1-69\*08\_C191T

98 sequences assigned  
86 (87.8%) exact matches, in which:  
86 unique CDR3  
6 unique J



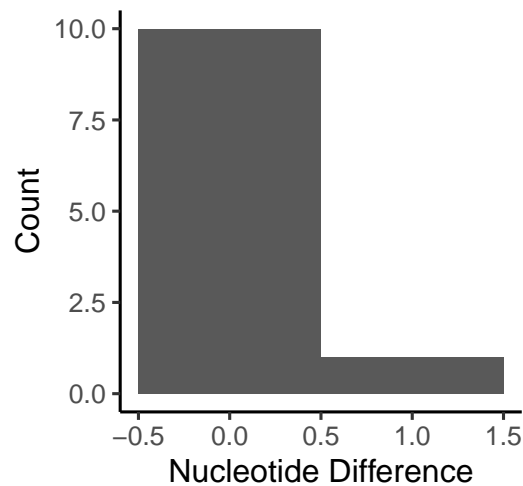
### IGHV2-70\*01

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



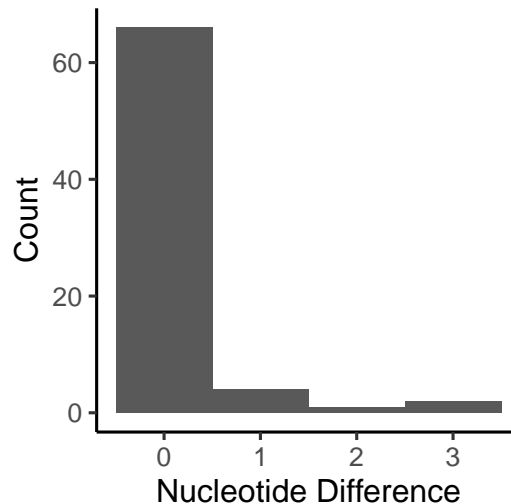
### IGHV1-69-2\*01

11 sequences assigned  
10 (90.9%) exact matches, in which:  
10 unique CDR3  
3 unique J



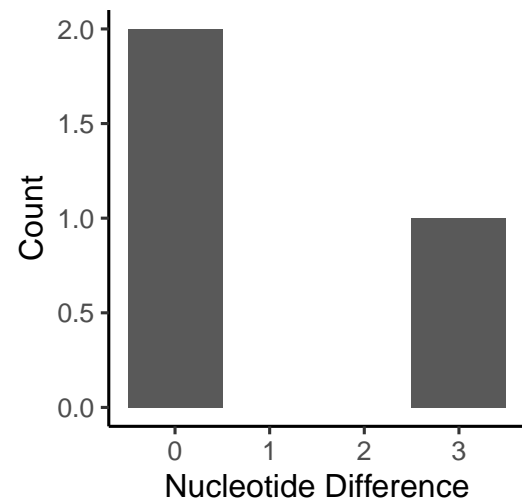
### IGHV2-5\*02

73 sequences assigned  
66 (90.4%) exact matches, in which:  
66 unique CDR3  
6 unique J



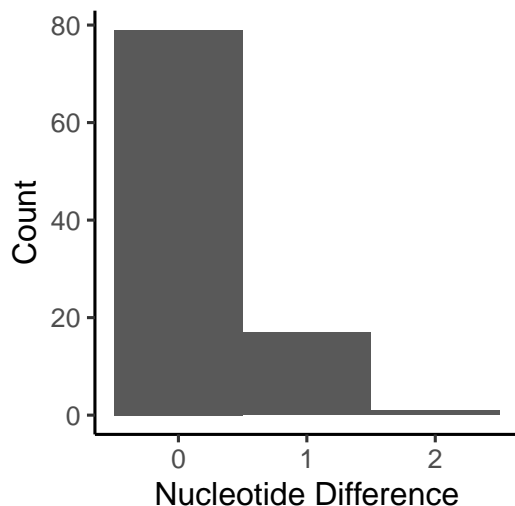
### IGHV2-70\*04

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
1 unique J



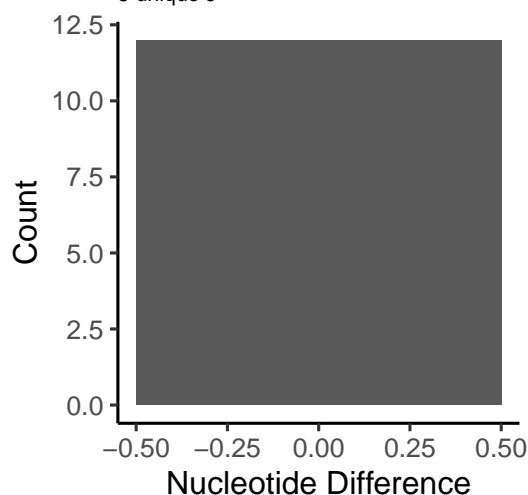
### IGHV3-7\*01

97 sequences assigned  
79 (81.4%) exact matches, in which:  
79 unique CDR3  
5 unique J



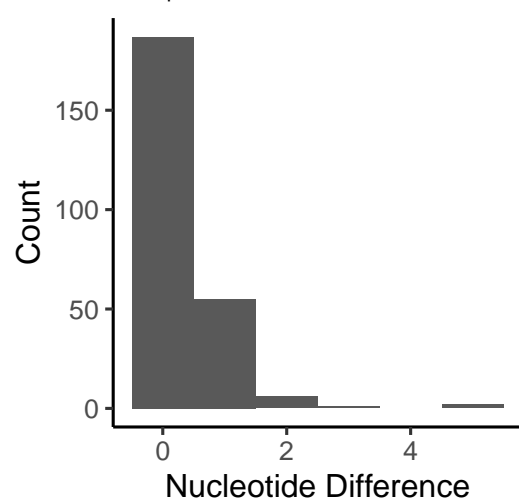
### IGHV3-13\*01

12 sequences assigned  
12 (100%) exact matches, in which:  
12 unique CDR3  
5 unique J



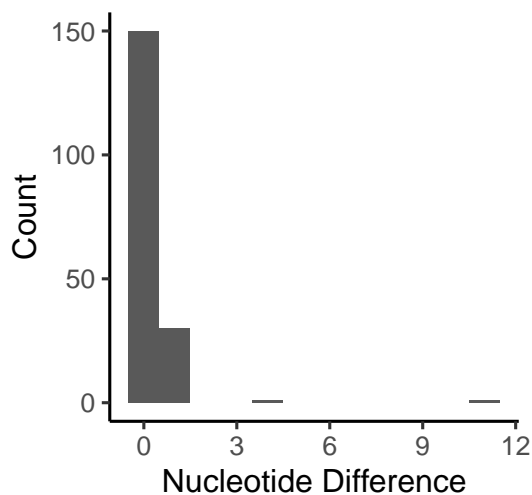
### IGHV3-21\*01

251 sequences assigned  
187 (74.5%) exact matches, in which:  
187 unique CDR3  
6 unique J



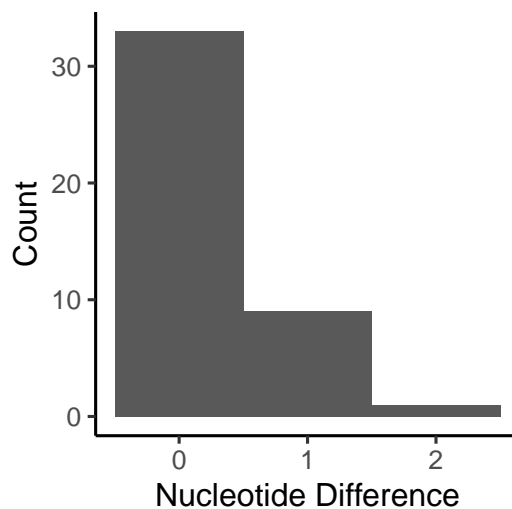
### IGHV3-9\*01

182 sequences assigned  
150 (82.4%) exact matches, in which:  
150 unique CDR3  
6 unique J



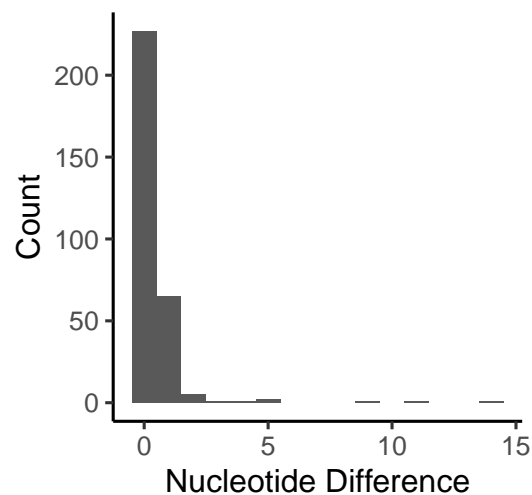
### IGHV3-15\*01

43 sequences assigned  
33 (76.7%) exact matches, in which:  
33 unique CDR3  
5 unique J



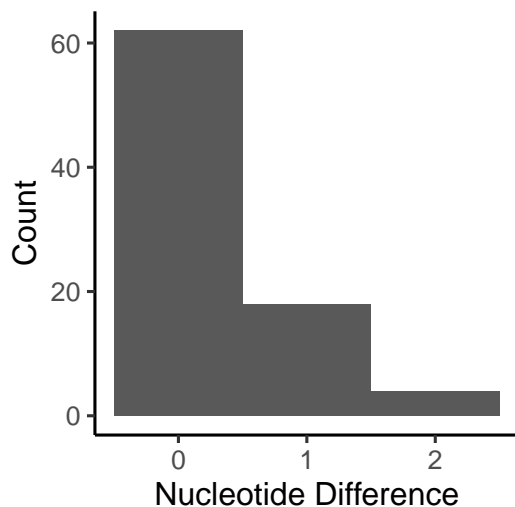
### IGHV3-23\*01

306 sequences assigned  
227 (74.2%) exact matches, in which:  
227 unique CDR3  
6 unique J



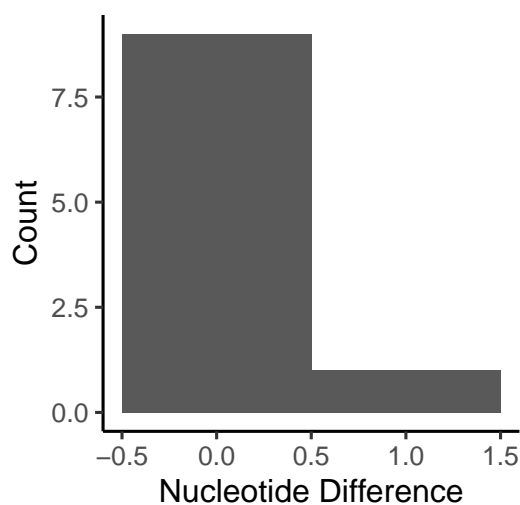
### IGHV3-11\*01

84 sequences assigned  
62 (73.8%) exact matches, in which:  
62 unique CDR3  
4 unique J



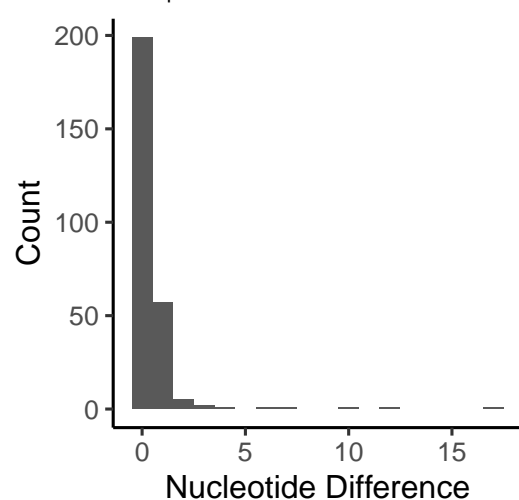
### IGHV3-20\*01

10 sequences assigned  
9 (90%) exact matches, in which:  
9 unique CDR3  
4 unique J



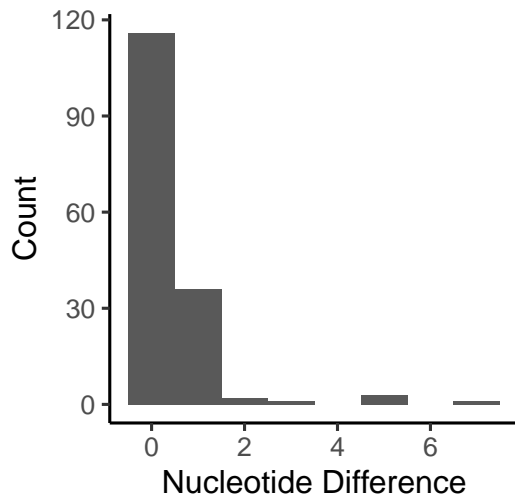
### IGHV3-30-3\*01

269 sequences assigned  
199 (74%) exact matches, in which:  
199 unique CDR3  
6 unique J



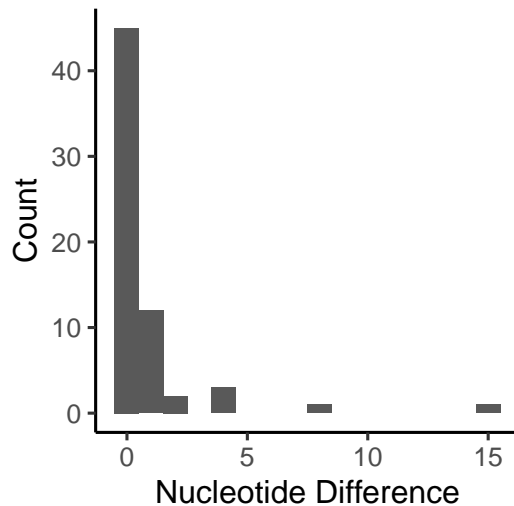
### IGHV3–30\*18

159 sequences assigned  
116 (73%) exact matches, in which:  
116 unique CDR3  
6 unique J



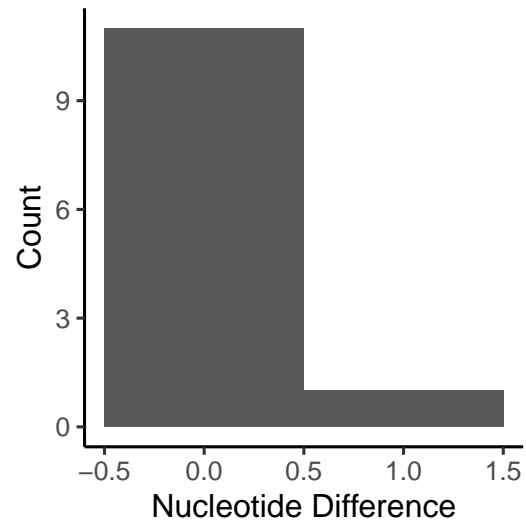
### IGHV3–48\*01

64 sequences assigned  
45 (70.3%) exact matches, in which:  
45 unique CDR3  
5 unique J



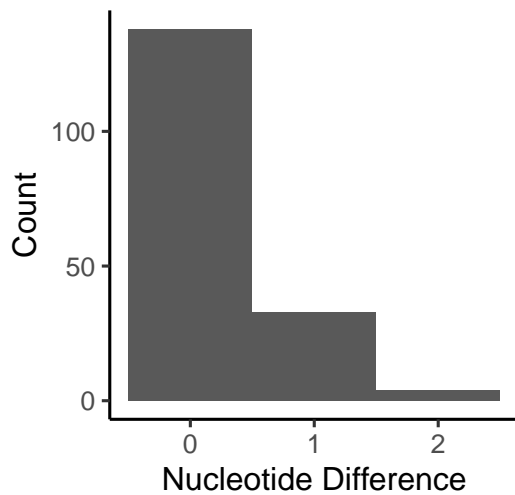
### IGHV3–49\*04

12 sequences assigned  
11 (91.7%) exact matches, in which:  
11 unique CDR3  
4 unique J



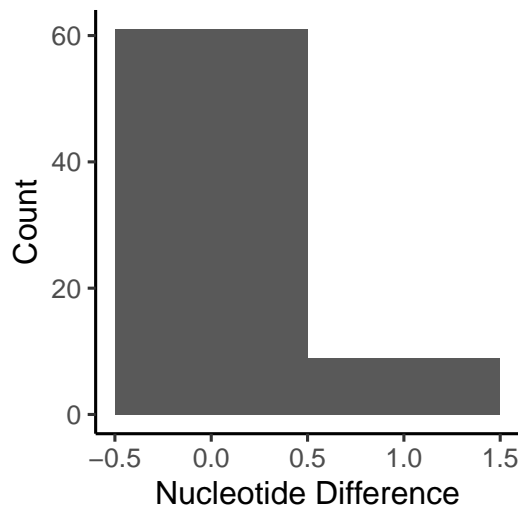
### IGHV3–33\*01

175 sequences assigned  
138 (78.9%) exact matches, in which:  
138 unique CDR3  
6 unique J



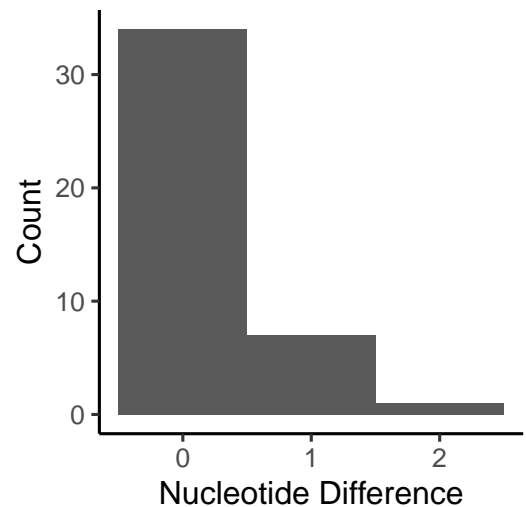
### IGHV3–48\*03

70 sequences assigned  
61 (87.1%) exact matches, in which:  
60 unique CDR3  
4 unique J



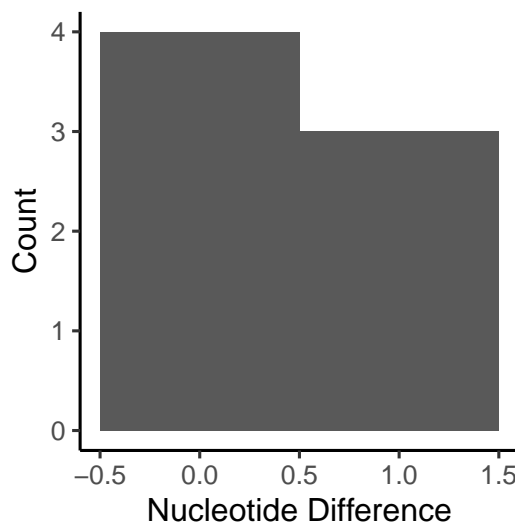
### IGHV3–53\*02

42 sequences assigned  
34 (81%) exact matches, in which:  
34 unique CDR3  
4 unique J



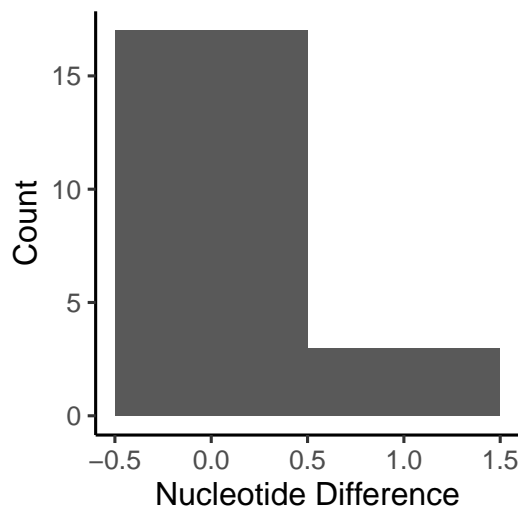
### IGHV3–43\*01

7 sequences assigned  
4 (57.1%) exact matches, in which:  
4 unique CDR3  
2 unique J



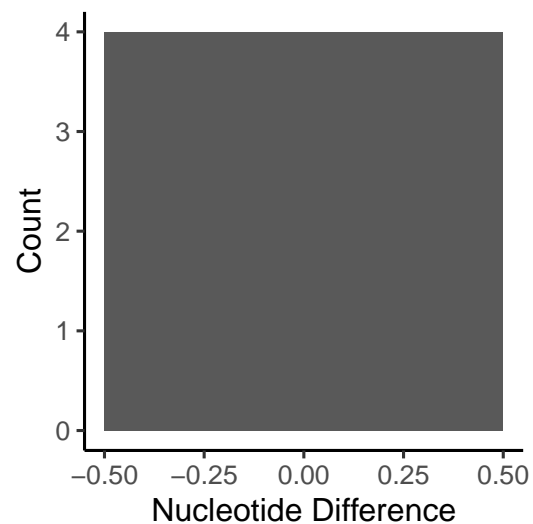
### IGHV3–49\*03

20 sequences assigned  
17 (85%) exact matches, in which:  
16 unique CDR3  
4 unique J



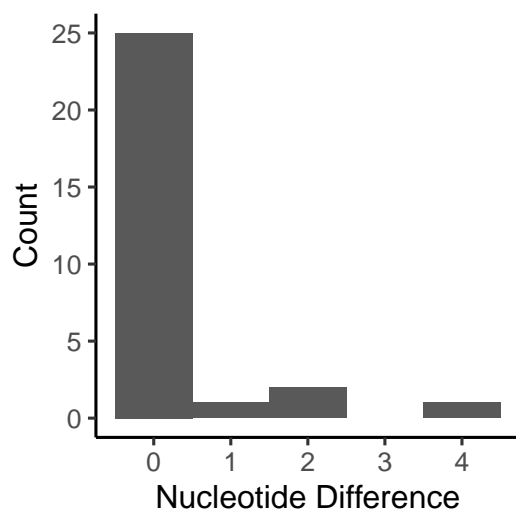
### IGHV3–64\*01

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



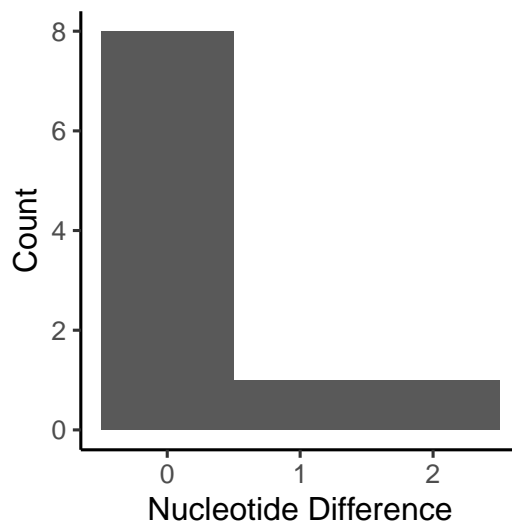
### IGHV3-66\*02

29 sequences assigned  
25 (86.2%) exact matches, in which:  
25 unique CDR3  
4 unique J



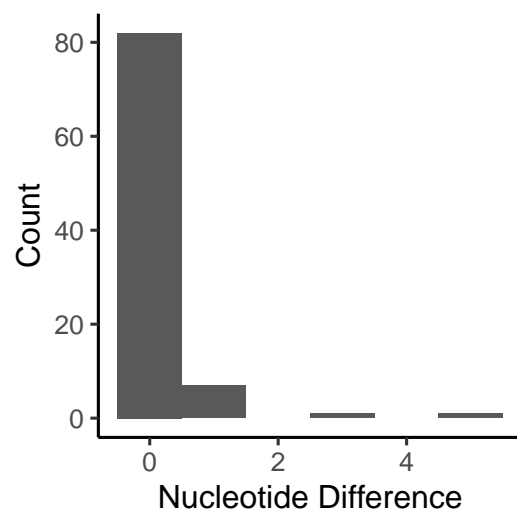
### IGHV3-73\*02

10 sequences assigned  
8 (80%) exact matches, in which:  
8 unique CDR3  
4 unique J



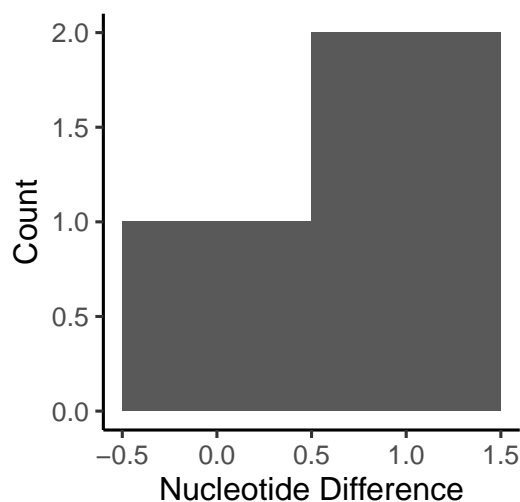
### IGHV4-4\*02

92 sequences assigned  
82 (89.1%) exact matches, in which:  
82 unique CDR3  
5 unique J



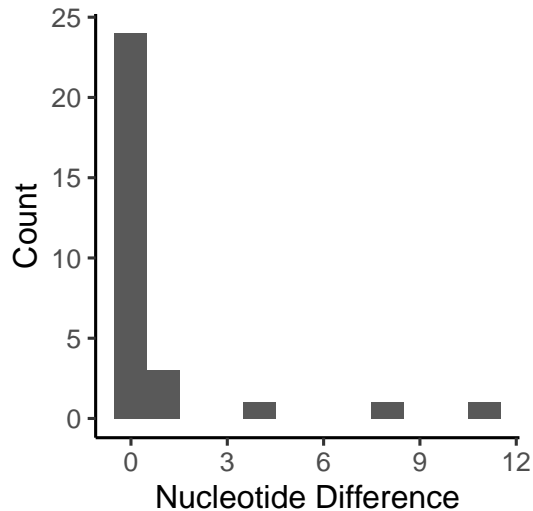
### IGHV3-72\*01

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



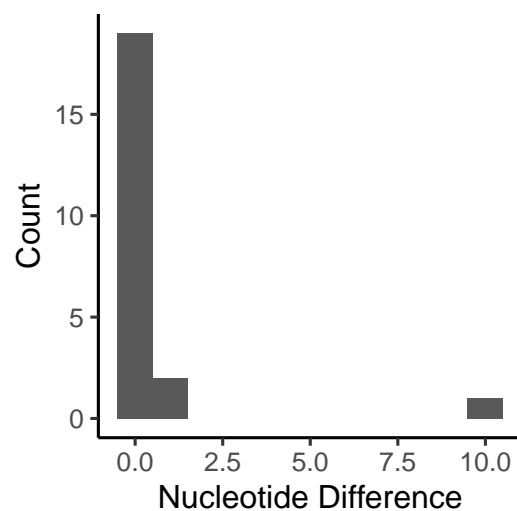
### IGHV3-74\*01

30 sequences assigned  
24 (80%) exact matches, in which:  
24 unique CDR3  
4 unique J



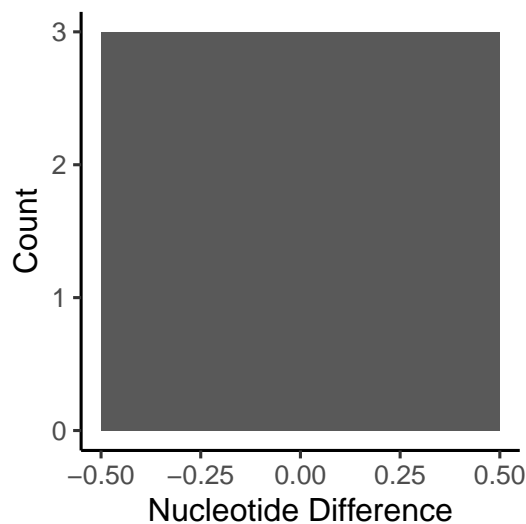
### IGHV4-30-4\*01

22 sequences assigned  
19 (86.4%) exact matches, in which:  
19 unique CDR3  
6 unique J



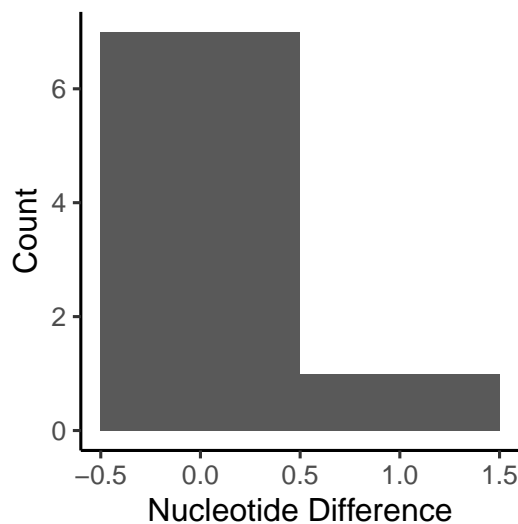
### IGHV3-73\*01

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



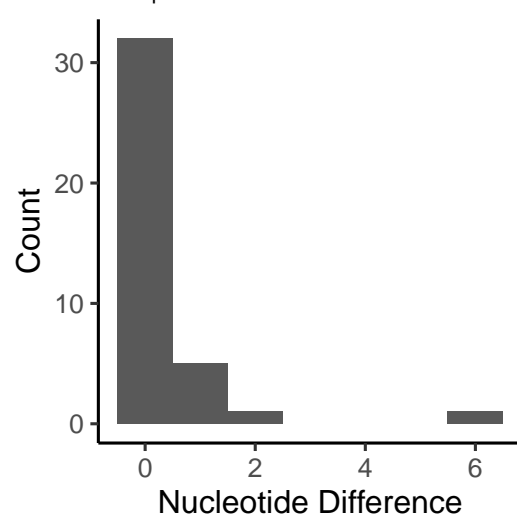
### IGHV3-43D\*04

8 sequences assigned  
7 (87.5%) exact matches, in which:  
7 unique CDR3  
4 unique J



### IGHV4-30-2\*01

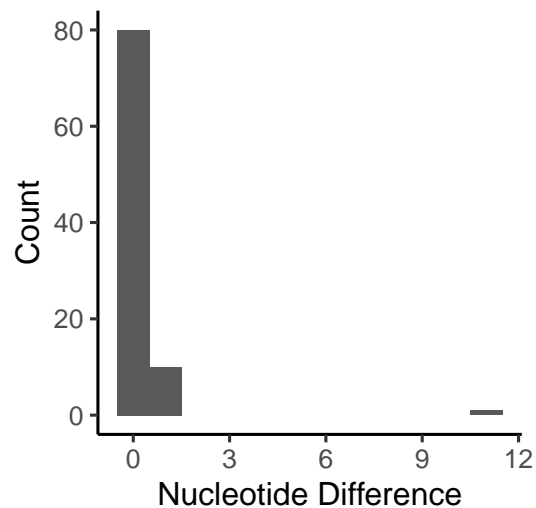
39 sequences assigned  
32 (82.1%) exact matches, in which:  
32 unique CDR3  
5 unique J





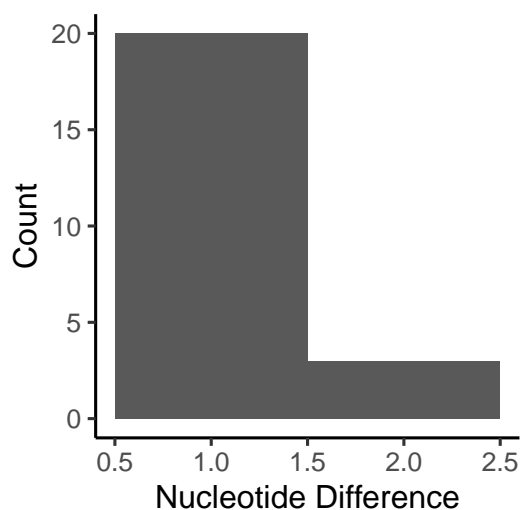
### IGHV4-31\*03

91 sequences assigned  
80 (87.9%) exact matches, in which:  
80 unique CDR3  
5 unique J



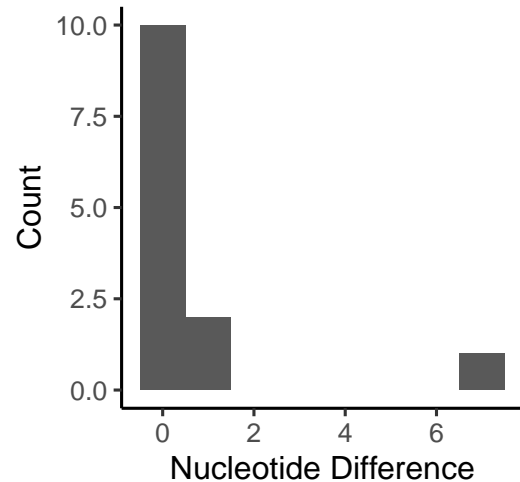
### IGHV4-38-2\*02

23 sequences assigned  
No exact matches.



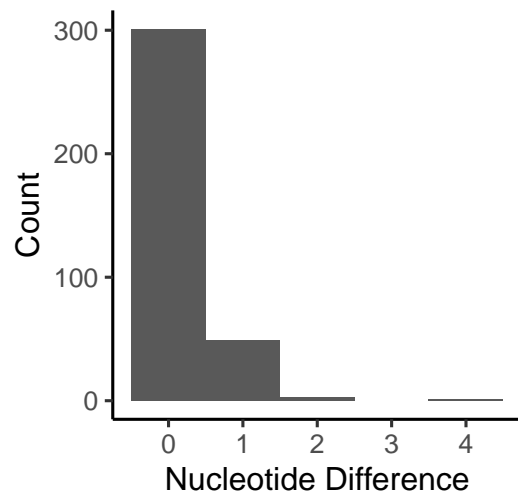
### IGHV4-61\*01

13 sequences assigned  
10 (76.9%) exact matches, in which:  
10 unique CDR3  
4 unique J



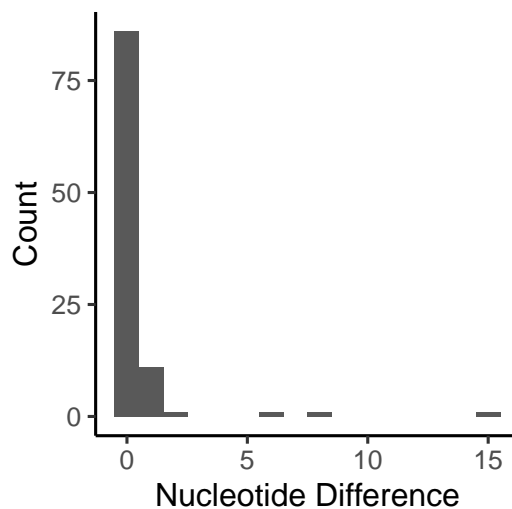
### IGHV4-34\*01

354 sequences assigned  
301 (85%) exact matches, in which:  
300 unique CDR3  
6 unique J



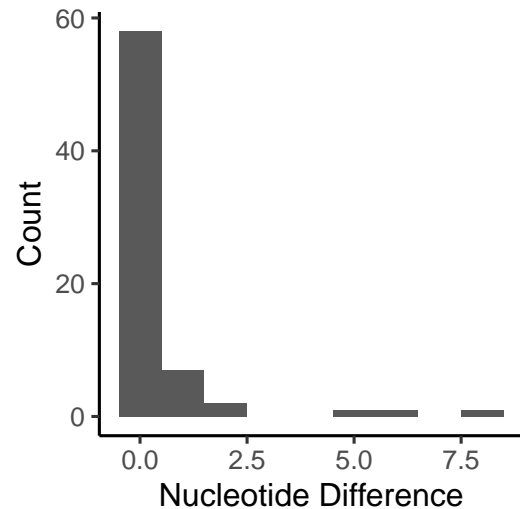
### IGHV4-39\*01

101 sequences assigned  
86 (85.1%) exact matches, in which:  
86 unique CDR3  
6 unique J



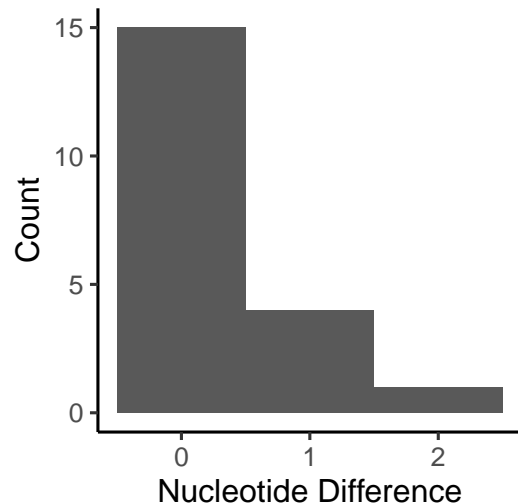
### IGHV4-61\*02

70 sequences assigned  
58 (82.9%) exact matches, in which:  
57 unique CDR3  
6 unique J



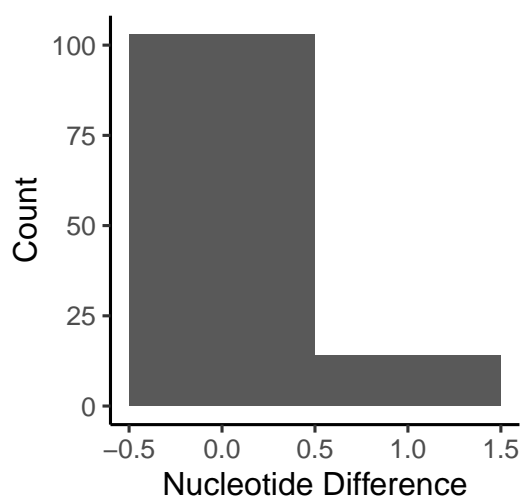
### IGHV4-38-2\*01

20 sequences assigned  
15 (75%) exact matches, in which:  
15 unique CDR3  
4 unique J



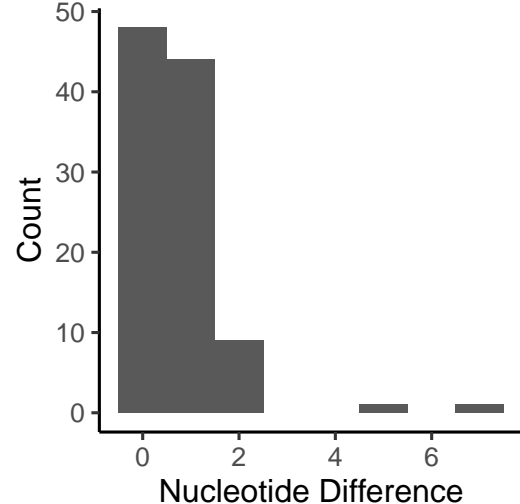
### IGHV4-59\*01

117 sequences assigned  
103 (88%) exact matches, in which:  
103 unique CDR3  
6 unique J



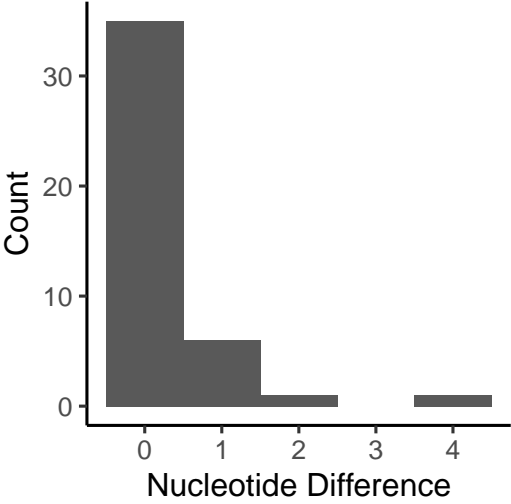
### IGHV5-51\*01

104 sequences assigned  
48 (46.2%) exact matches, in which:  
48 unique CDR3  
6 unique J



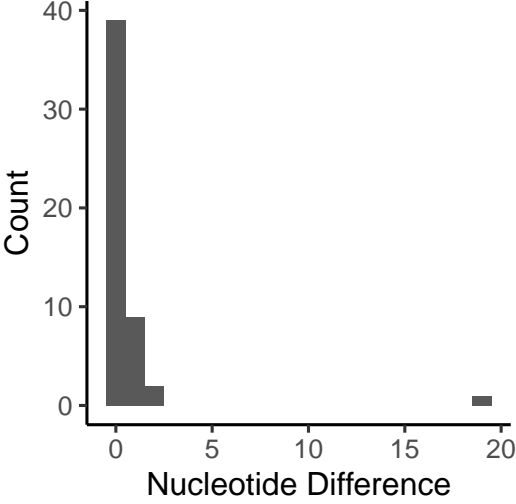
IGHV5-51\*03

43 sequences assigned  
35 (81.4%) exact matches, in which:  
35 unique CDR3  
5 unique J



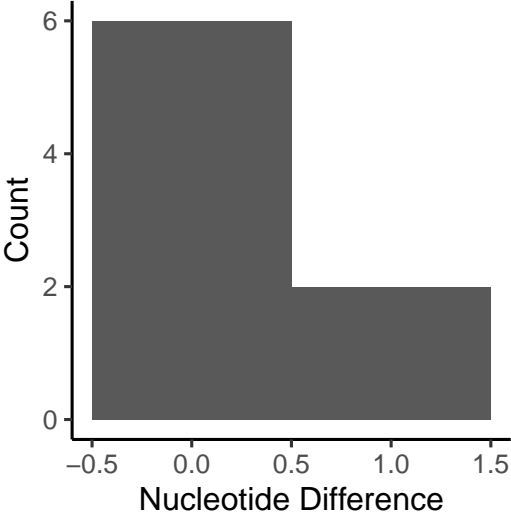
IGHV6-1\*01

51 sequences assigned  
39 (76.5%) exact matches, in which:  
39 unique CDR3  
5 unique J



IGHV7-4-1\*01

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



IGHV1-69\*08\_C191T

