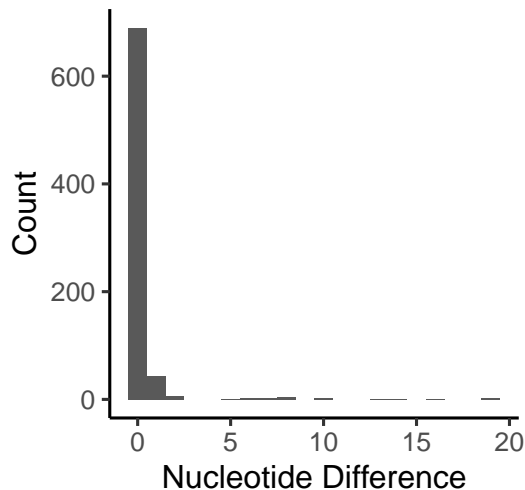


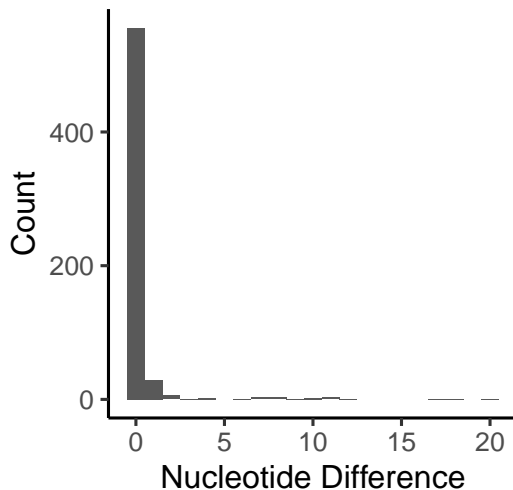
### IGHV1-2\*02

758 sequences assigned  
690 (91%) exact matches, in which:  
687 unique CDR3  
6 unique J



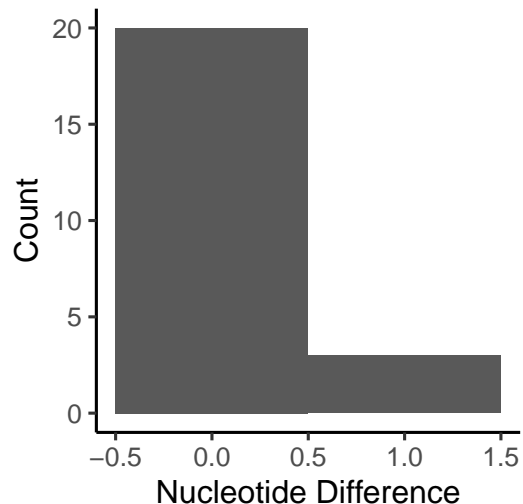
### IGHV1-18\*01

611 sequences assigned  
556 (91%) exact matches, in which:  
554 unique CDR3  
6 unique J



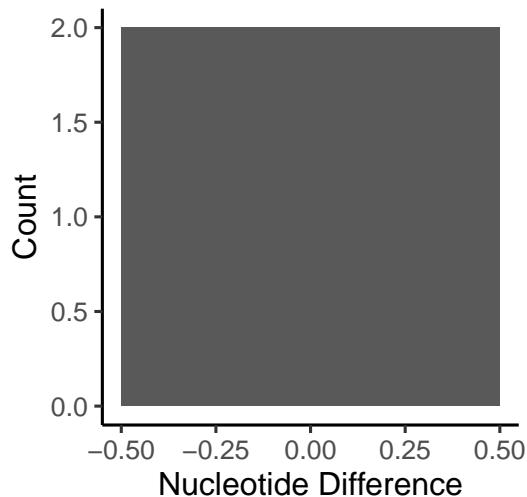
### IGHV1-58\*01

23 sequences assigned  
20 (87%) exact matches, in which:  
20 unique CDR3  
5 unique J



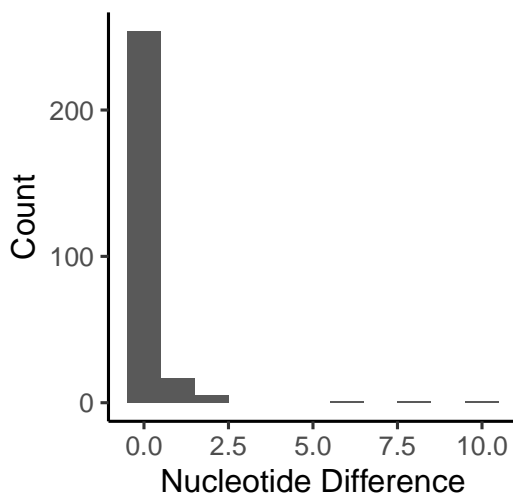
### IGHV1-3\*02

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



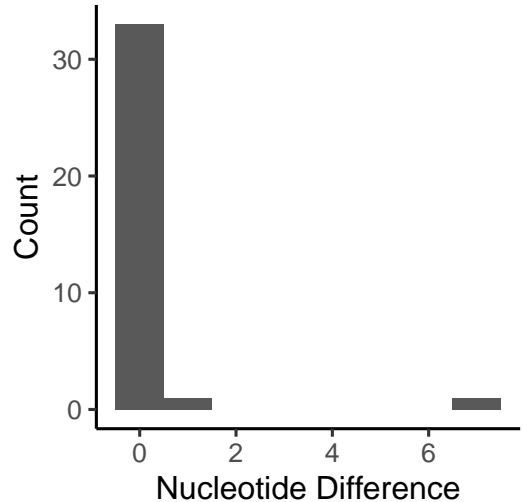
### IGHV1-24\*01

279 sequences assigned  
254 (91%) exact matches, in which:  
254 unique CDR3  
6 unique J



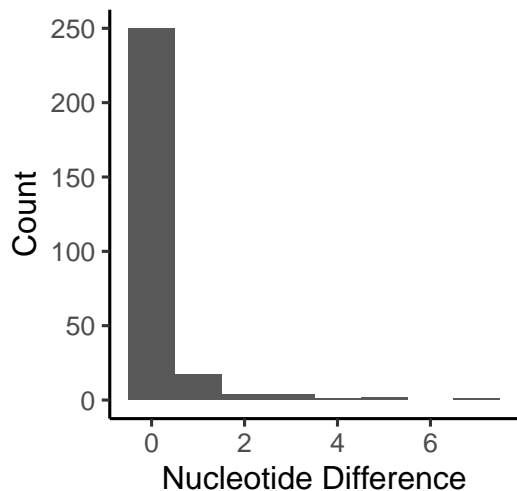
### IGHV1-69-2\*01

35 sequences assigned  
33 (94.3%) exact matches, in which:  
33 unique CDR3  
5 unique J



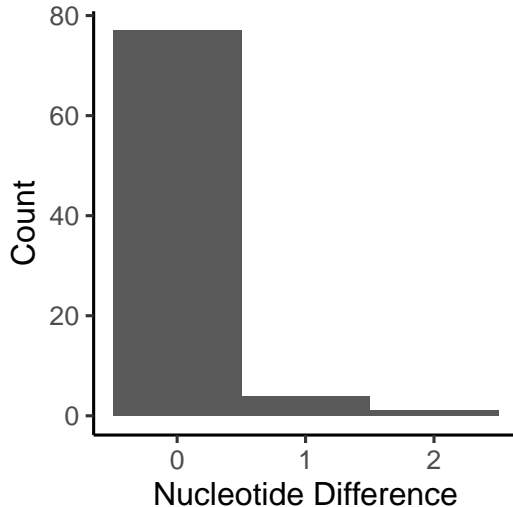
### IGHV1-8\*01

280 sequences assigned  
250 (89.3%) exact matches, in which:  
250 unique CDR3  
6 unique J



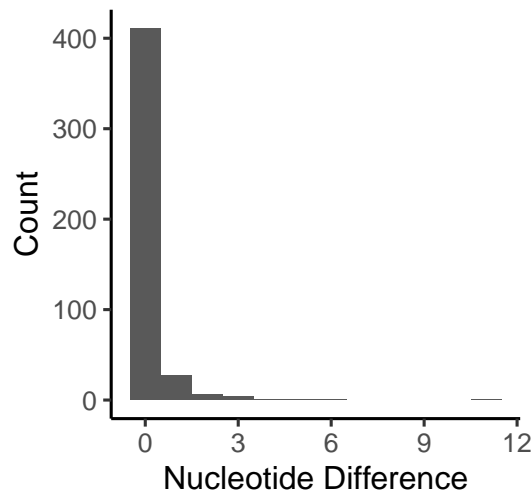
### IGHV1-46\*01

82 sequences assigned  
77 (93.9%) exact matches, in which:  
77 unique CDR3  
6 unique J



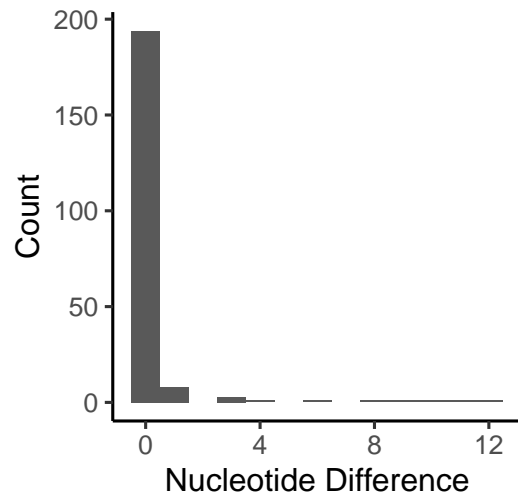
### IGHV1-69\*06

452 sequences assigned  
411 (90.9%) exact matches, in which:  
411 unique CDR3  
6 unique J



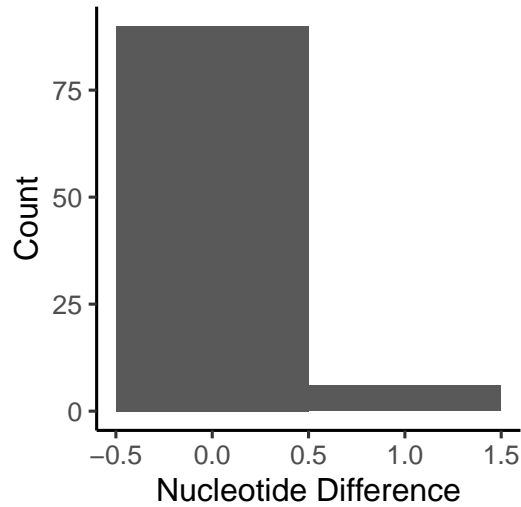
### IGHV2-5\*01

213 sequences assigned  
194 (91.1%) exact matches, in which:  
194 unique CDR3  
6 unique J



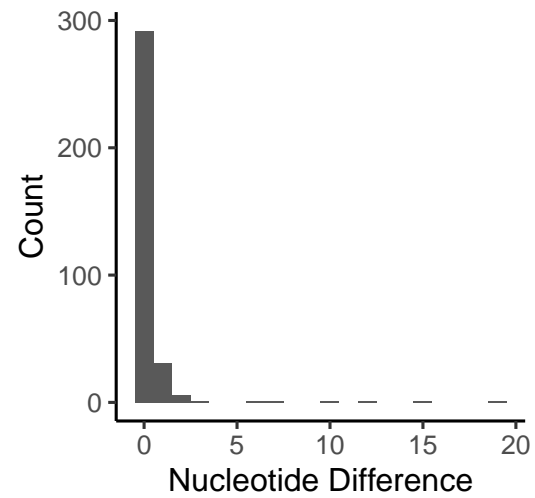
### IGHV2-70\*01

96 sequences assigned  
90 (93.8%) exact matches, in which:  
90 unique CDR3  
5 unique J



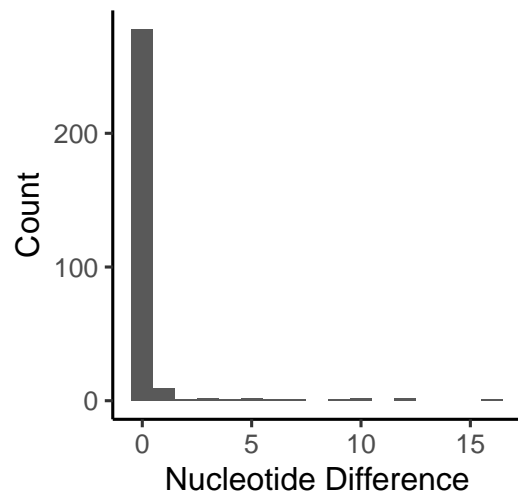
### IGHV3-9\*01

336 sequences assigned  
292 (86.9%) exact matches, in which:  
291 unique CDR3  
6 unique J



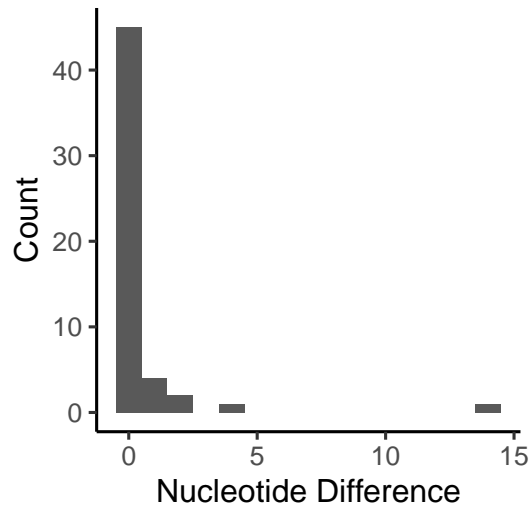
### IGHV2-5\*02

301 sequences assigned  
278 (92.4%) exact matches, in which:  
278 unique CDR3  
6 unique J



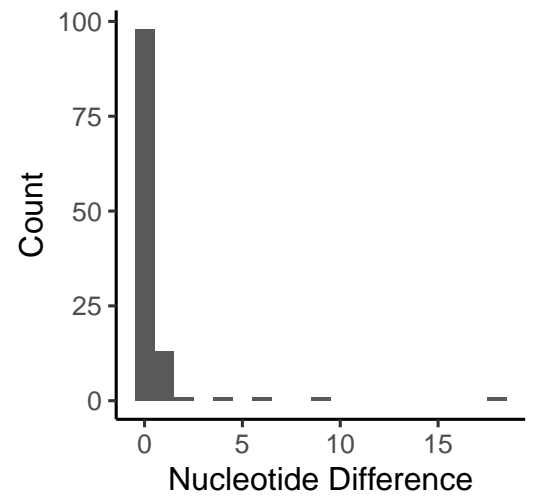
### IGHV3-7\*01

53 sequences assigned  
45 (84.9%) exact matches, in which:  
45 unique CDR3  
6 unique J



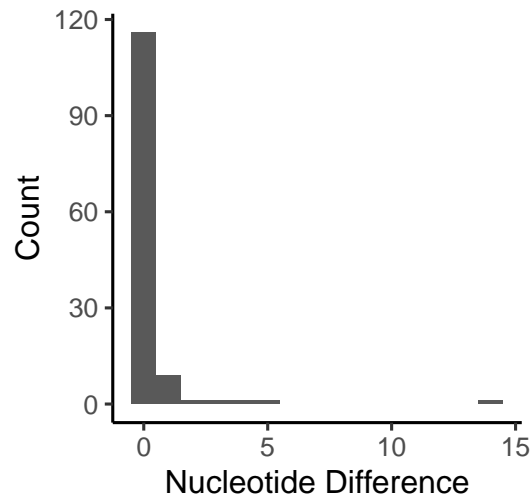
### IGHV3-11\*01

116 sequences assigned  
98 (84.5%) exact matches, in which:  
98 unique CDR3  
5 unique J



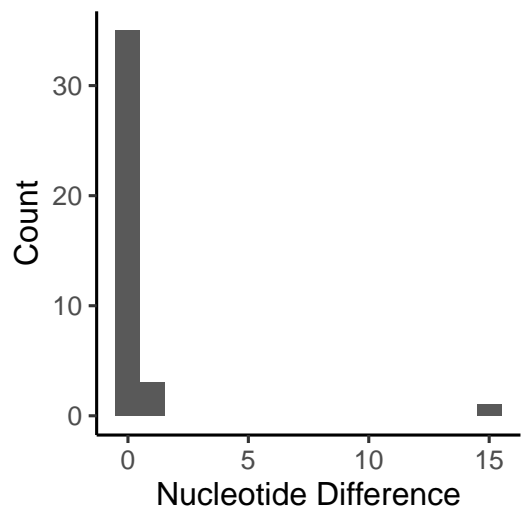
### IGHV2-26\*01

130 sequences assigned  
116 (89.2%) exact matches, in which:  
116 unique CDR3  
5 unique J



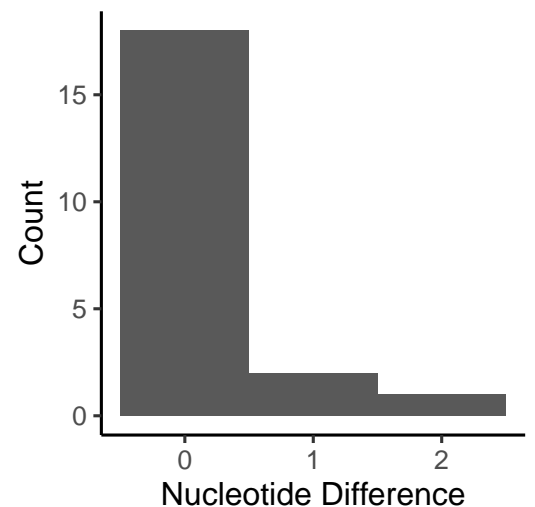
### IGHV3-7\*04

39 sequences assigned  
35 (89.7%) exact matches, in which:  
35 unique CDR3  
5 unique J



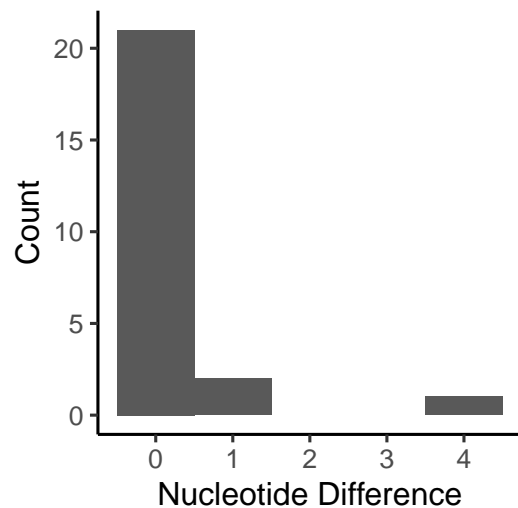
### IGHV3-13\*01

21 sequences assigned  
18 (85.7%) exact matches, in which:  
18 unique CDR3  
5 unique J



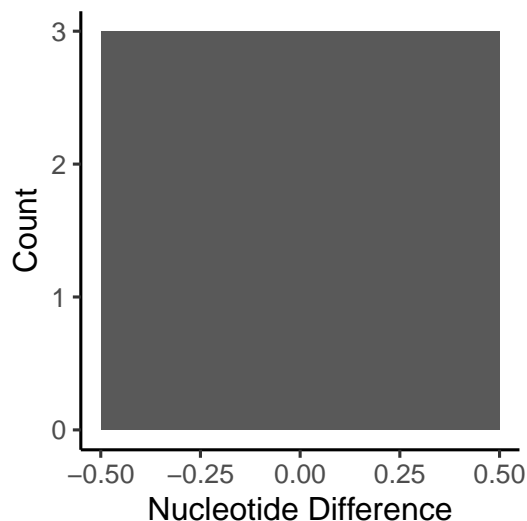
### IGHV3-15\*01

24 sequences assigned  
21 (87.5%) exact matches, in which:  
21 unique CDR3  
3 unique J



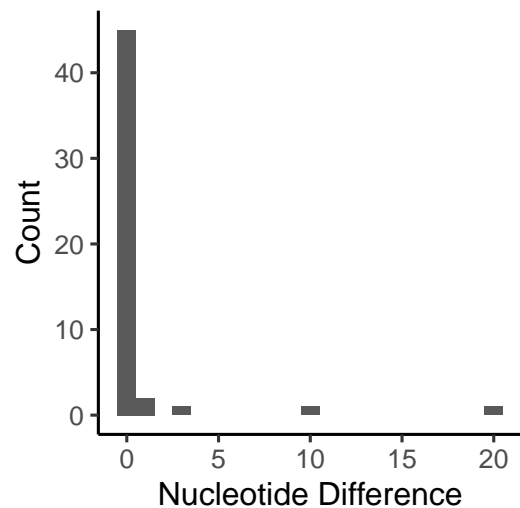
### IGHV3-20\*04

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



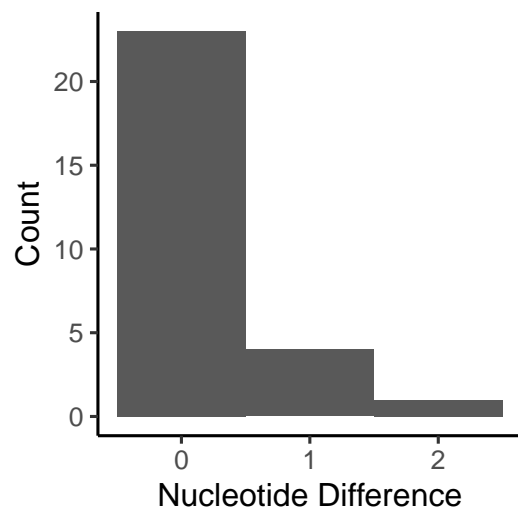
### IGHV3-33\*01

50 sequences assigned  
45 (90%) exact matches, in which:  
45 unique CDR3  
4 unique J



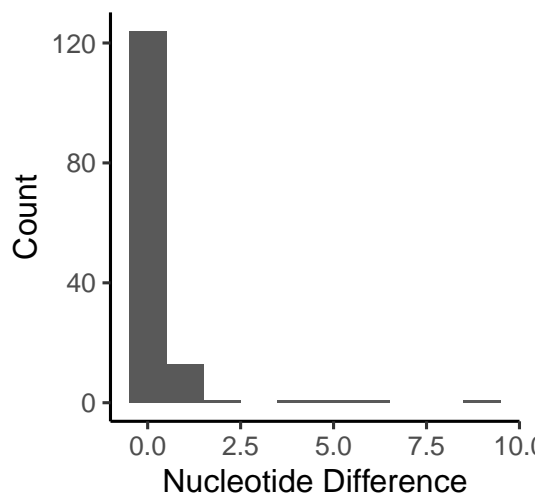
### IGHV3-15\*07

28 sequences assigned  
23 (82.1%) exact matches, in which:  
23 unique CDR3  
4 unique J



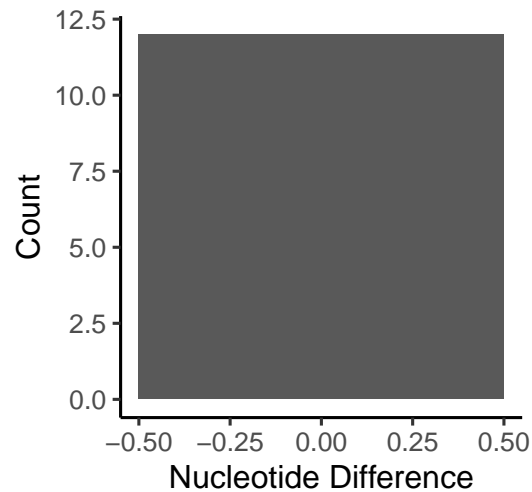
### IGHV3-21\*01

142 sequences assigned  
124 (87.3%) exact matches, in which:  
124 unique CDR3  
6 unique J



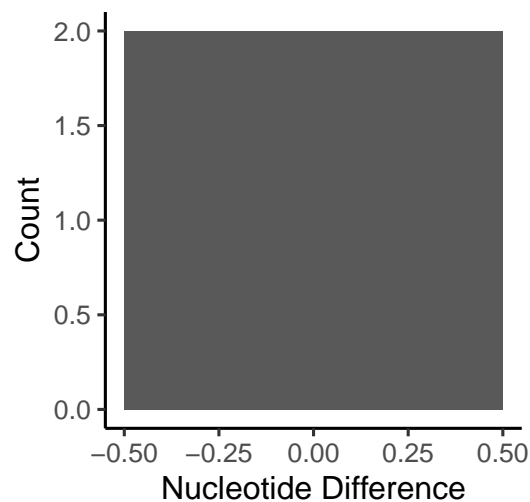
### IGHV3-43\*01

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



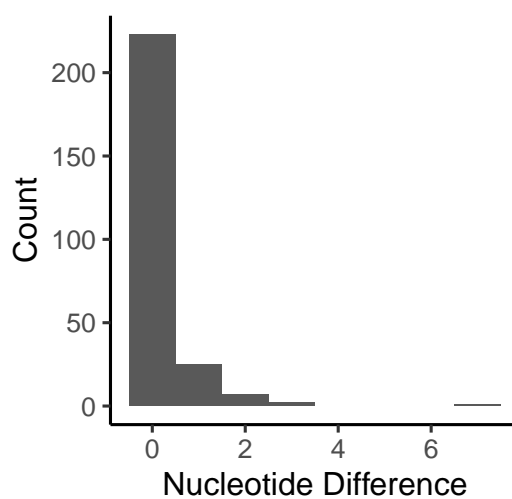
### IGHV3-20\*01

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



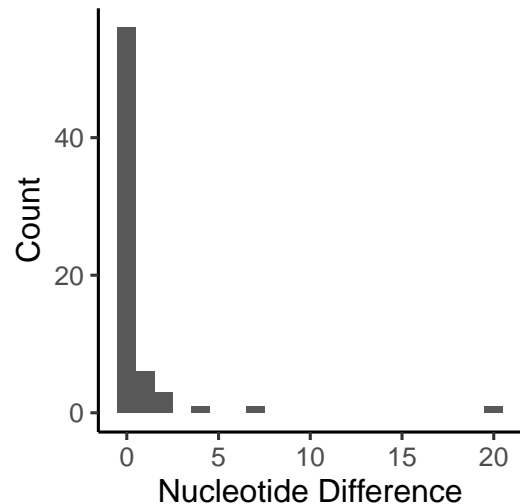
### IGHV3-30-3\*01

258 sequences assigned  
223 (86.4%) exact matches, in which:  
223 unique CDR3  
6 unique J



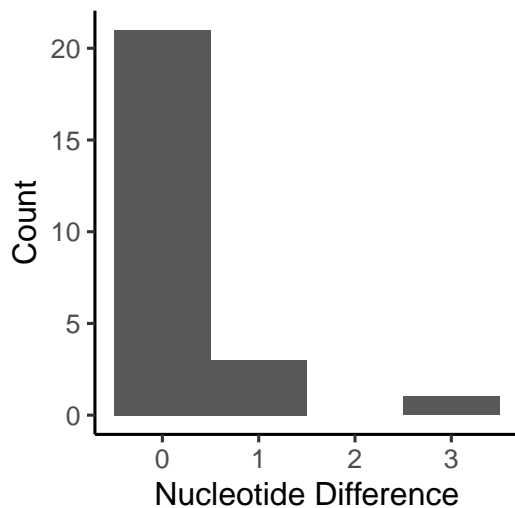
### IGHV3-48\*02

69 sequences assigned  
56 (81.2%) exact matches, in which:  
56 unique CDR3  
5 unique J



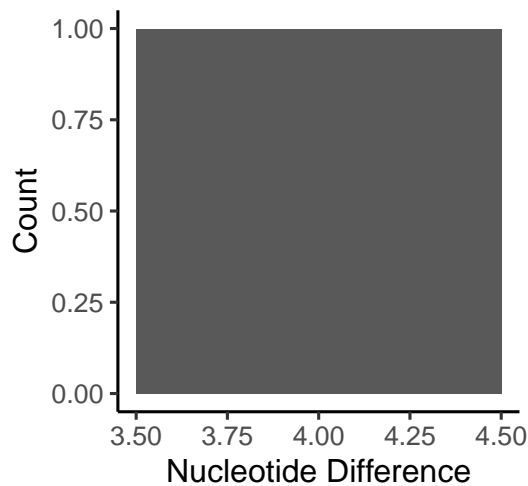
### IGHV3-49\*05

25 sequences assigned  
21 (84%) exact matches, in which:  
21 unique CDR3  
3 unique J



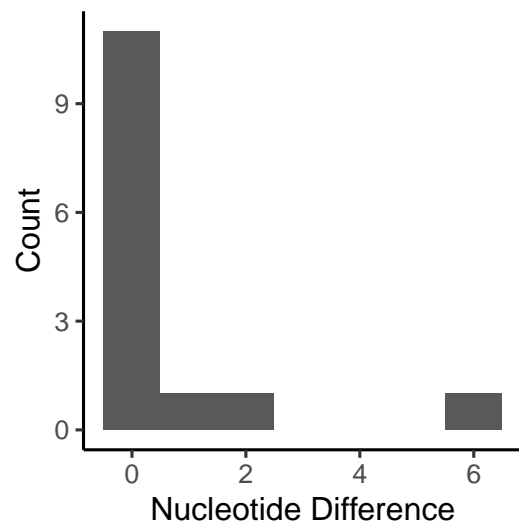
### IGHV3-66\*03

1 sequences assigned  
No exact matches.



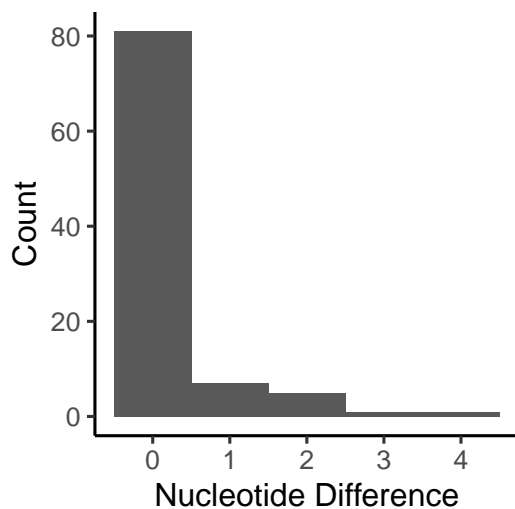
### IGHV3-73\*02

14 sequences assigned  
11 (78.6%) exact matches, in which:  
11 unique CDR3  
3 unique J



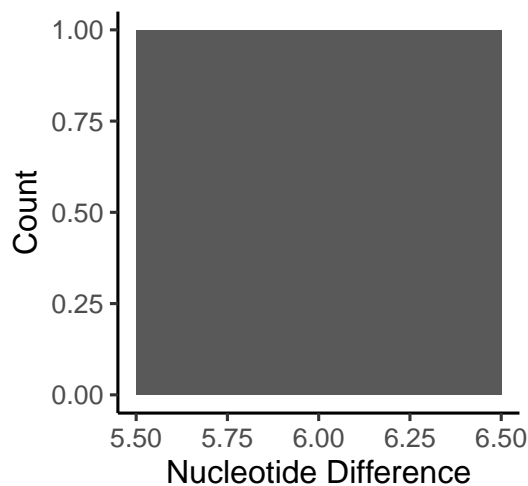
### IGHV3-53\*01

95 sequences assigned  
81 (85.3%) exact matches, in which:  
81 unique CDR3  
5 unique J



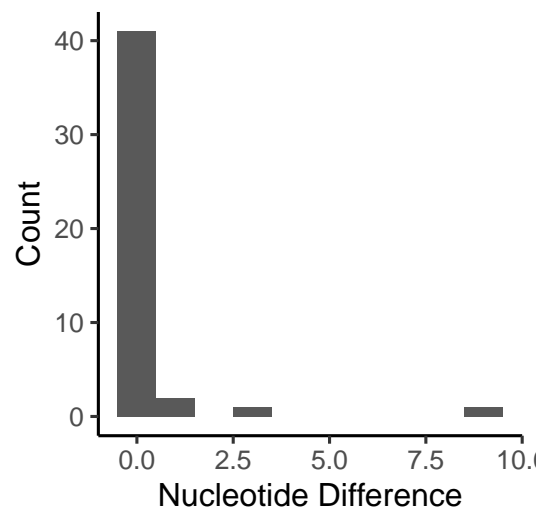
### IGHV3-69-1\*01

1 sequences assigned  
No exact matches.



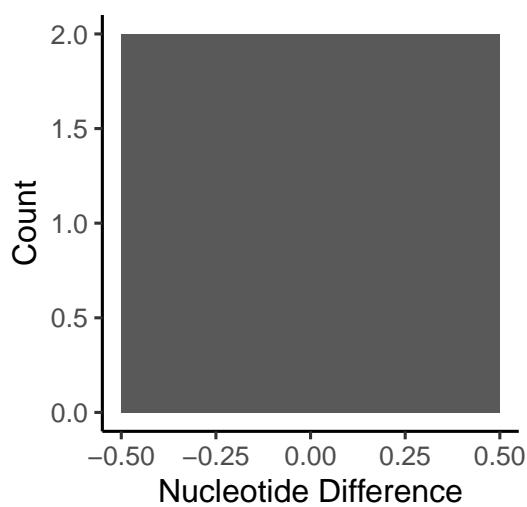
### IGHV3-74\*01

45 sequences assigned  
41 (91.1%) exact matches, in which:  
40 unique CDR3  
5 unique J



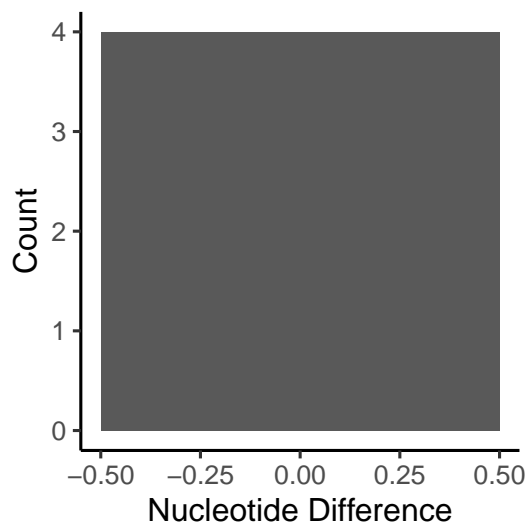
### IGHV3-64\*02

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



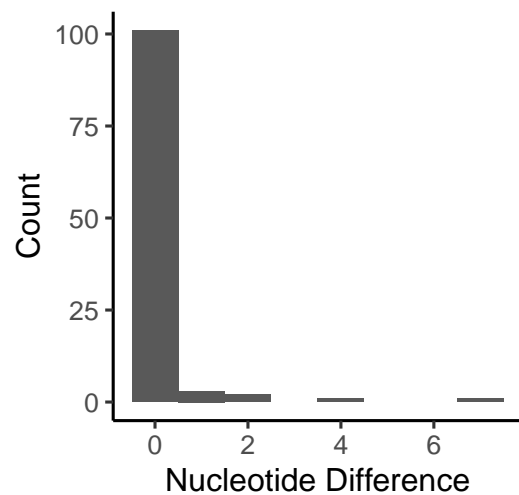
### IGHV3-72\*01

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



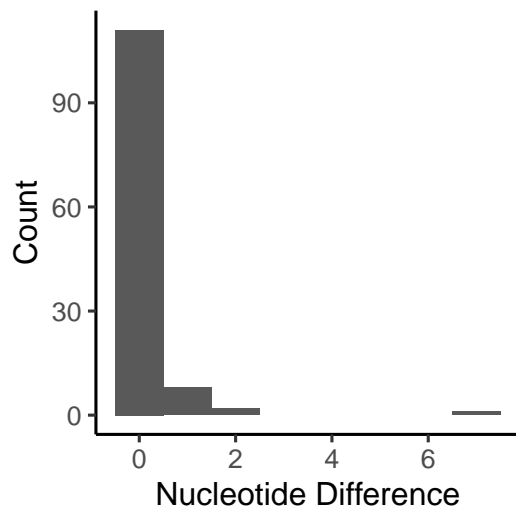
### IGHV4-4\*07

108 sequences assigned  
101 (93.5%) exact matches, in which:  
101 unique CDR3  
6 unique J



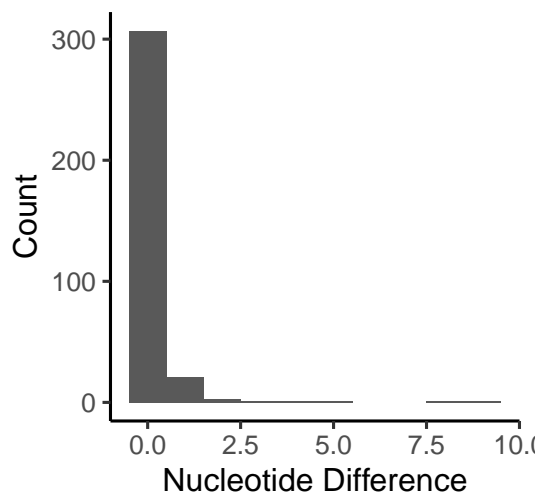
### IGHV4-30-4\*01

122 sequences assigned  
111 (91%) exact matches, in which:  
110 unique CDR3  
6 unique J



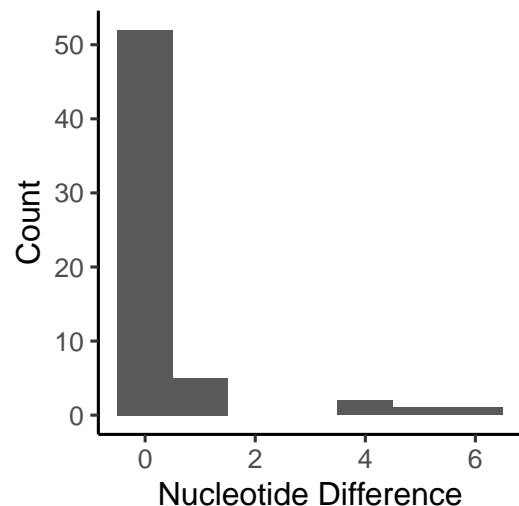
### IGHV4-34\*01

336 sequences assigned  
307 (91.4%) exact matches, in which:  
307 unique CDR3  
6 unique J



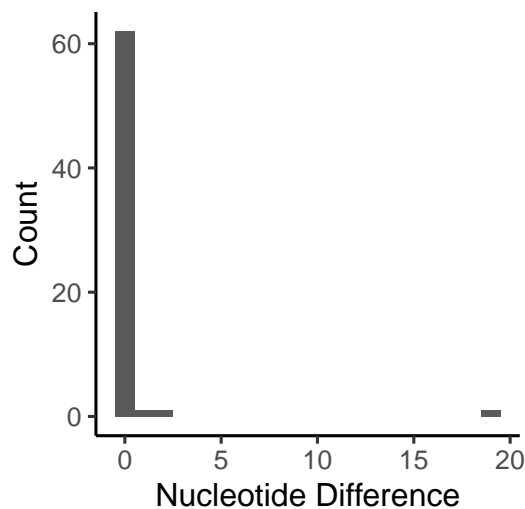
### IGHV4-61\*01

61 sequences assigned  
52 (85.2%) exact matches, in which:  
52 unique CDR3  
5 unique J



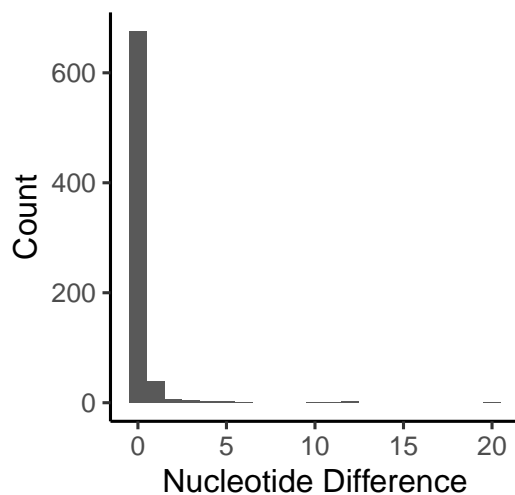
### IGHV4-30-2\*01

65 sequences assigned  
62 (95.4%) exact matches, in which:  
62 unique CDR3  
6 unique J



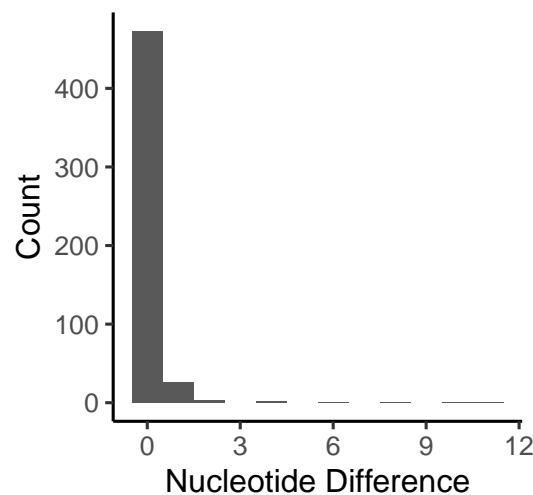
### IGHV4-39\*01

741 sequences assigned  
676 (91.2%) exact matches, in which:  
676 unique CDR3  
6 unique J



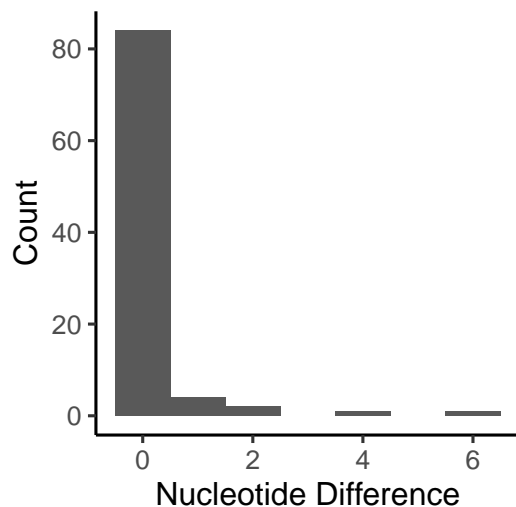
### IGHV5-51\*01

509 sequences assigned  
473 (92.9%) exact matches, in which:  
473 unique CDR3  
6 unique J



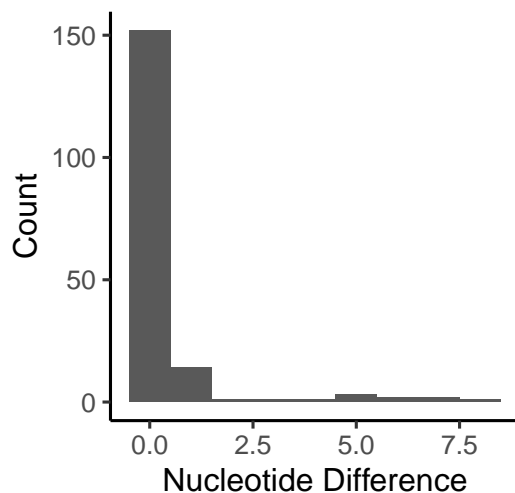
### IGHV4-31\*03

93 sequences assigned  
84 (90.3%) exact matches, in which:  
83 unique CDR3  
5 unique J



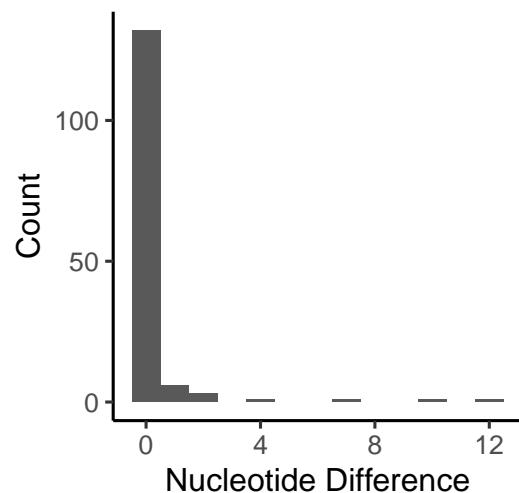
### IGHV4-59\*01

177 sequences assigned  
152 (85.9%) exact matches, in which:  
152 unique CDR3  
6 unique J



### IGHV6-1\*01

145 sequences assigned  
132 (91%) exact matches, in which:  
132 unique CDR3  
6 unique J





Warning – no inferred sequences found.