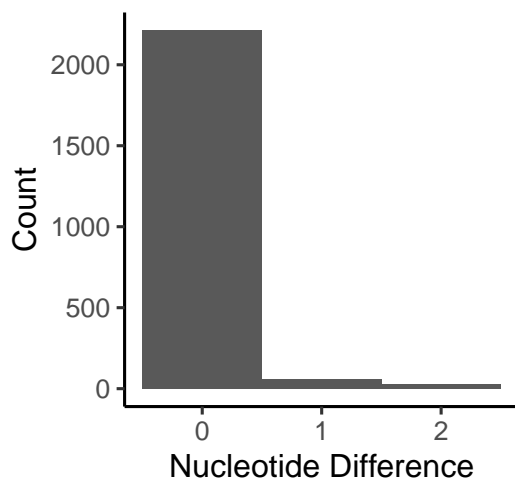


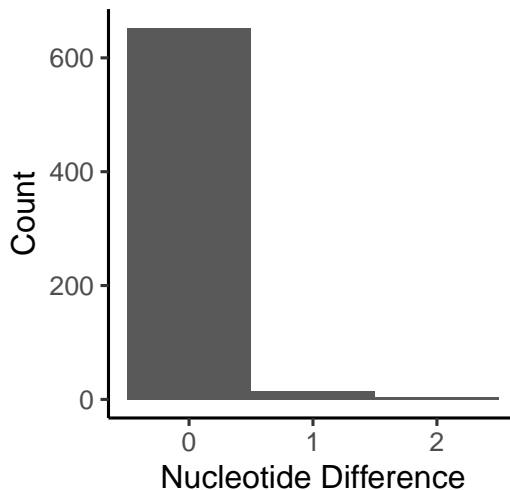
### IGHV1-2\*02

2299 sequences assigned  
2212 (96.2%) exact matches, in which:  
2194 unique CDR3  
6 unique J



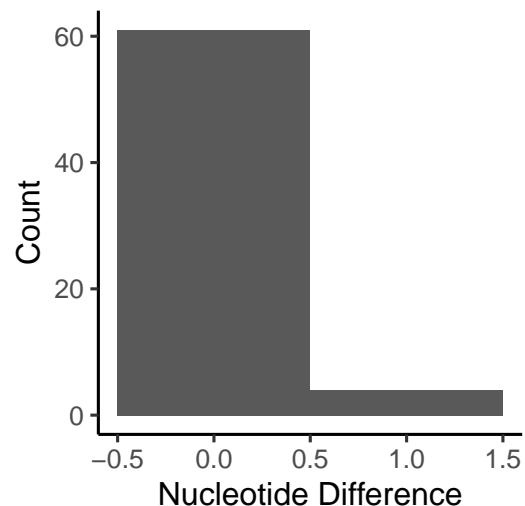
### IGHV1-24\*01

672 sequences assigned  
653 (97.2%) exact matches, in which:  
650 unique CDR3  
6 unique J



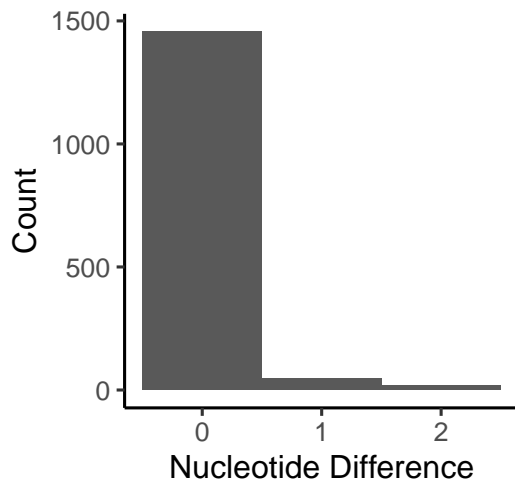
### IGHV1-58\*02

65 sequences assigned  
61 (93.8%) exact matches, in which:  
61 unique CDR3  
4 unique J



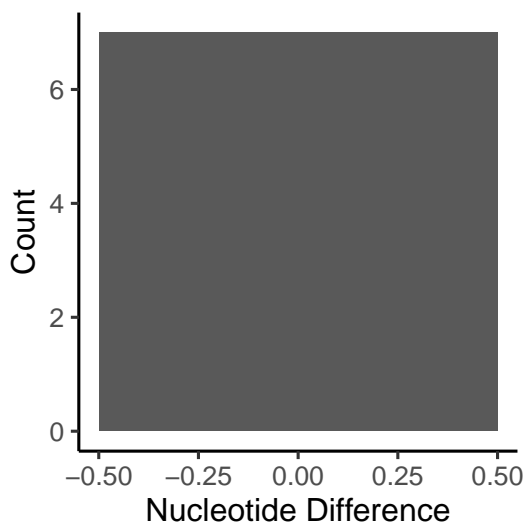
### IGHV1-8\*01

1523 sequences assigned  
1456 (95.6%) exact matches, in which:  
1439 unique CDR3  
6 unique J



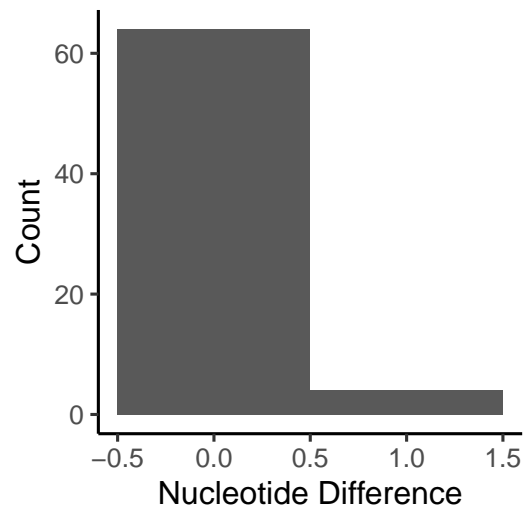
### IGHV1-45\*02

7 sequences assigned  
7 (100%) exact matches, in which:  
7 unique CDR3  
4 unique J



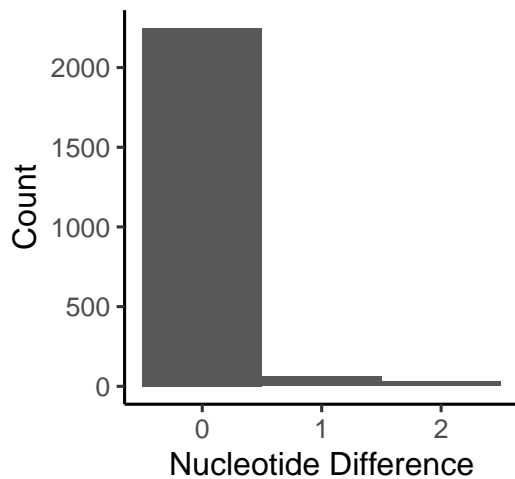
### IGHV1-58\*01\_03

68 sequences assigned  
64 (94.1%) exact matches, in which:  
64 unique CDR3  
6 unique J



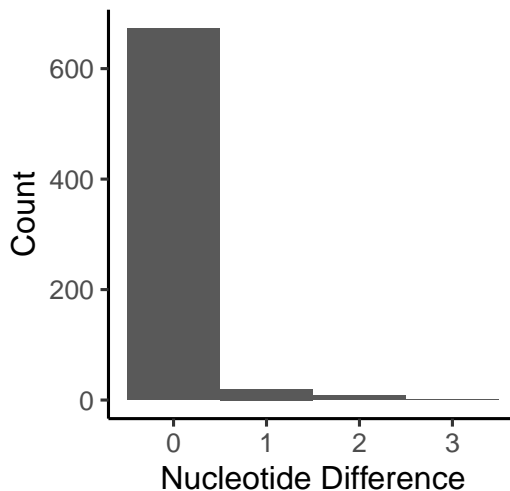
### IGHV1-18\*01

2339 sequences assigned  
2248 (96.1%) exact matches, in which:  
2222 unique CDR3  
6 unique J



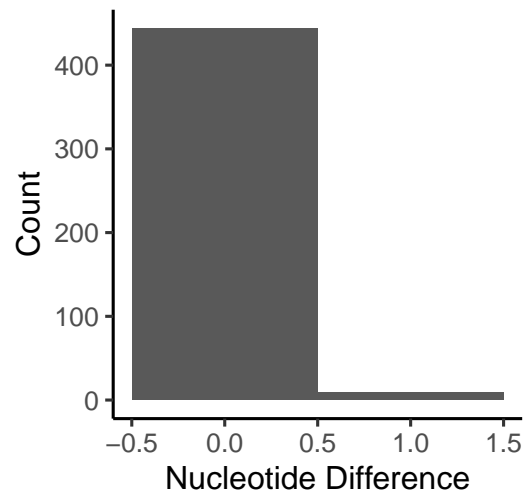
### IGHV1-46\*01

703 sequences assigned  
673 (95.7%) exact matches, in which:  
669 unique CDR3  
6 unique J



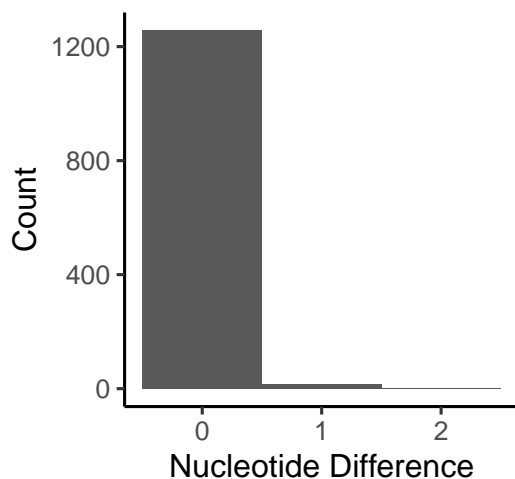
### IGHV1-69\*02

453 sequences assigned  
444 (98%) exact matches, in which:  
440 unique CDR3  
6 unique J



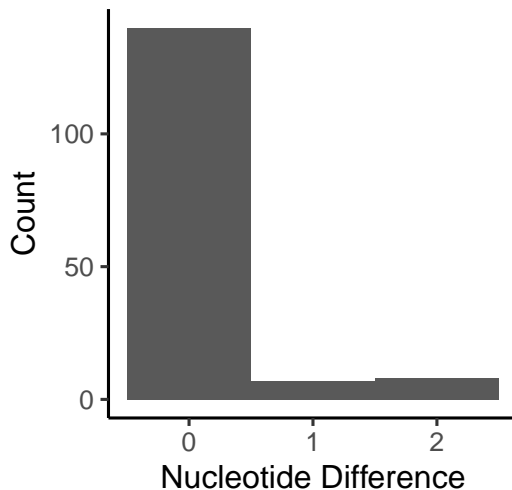
### IGHV1-69\*01\_12\_13

1276 sequences assigned  
1257 (98.5%) exact matches, in which:  
1245 unique CDR3  
6 unique J



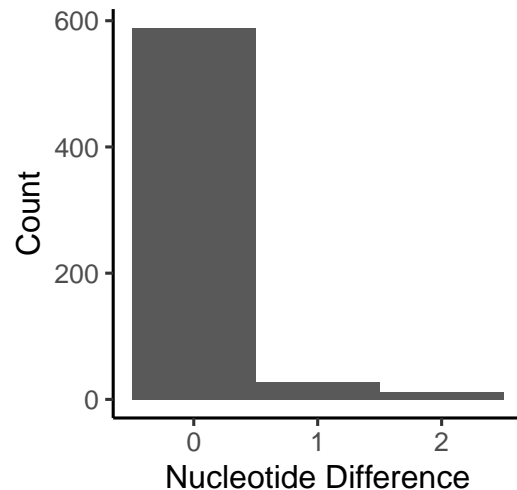
### IGHV2-26\*01

155 sequences assigned  
140 (90.3%) exact matches, in which:  
140 unique CDR3  
5 unique J



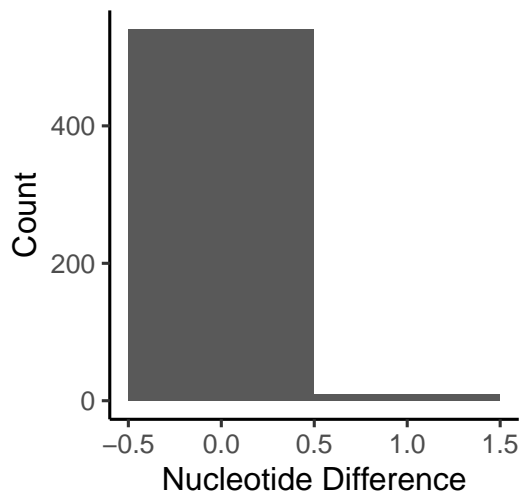
### IGHV3-9\*01

629 sequences assigned  
589 (93.6%) exact matches, in which:  
578 unique CDR3  
6 unique J



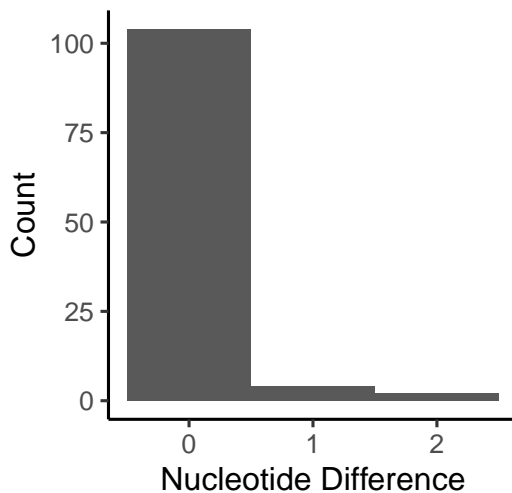
### IGHV1-69\*17

550 sequences assigned  
541 (98.4%) exact matches, in which:  
538 unique CDR3  
6 unique J



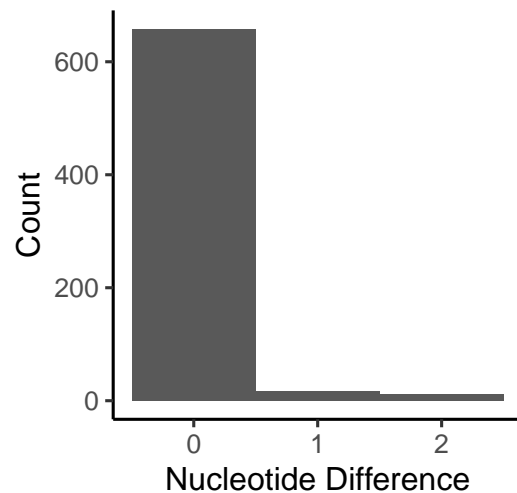
### IGHV2-70\*01

110 sequences assigned  
104 (94.5%) exact matches, in which:  
104 unique CDR3  
5 unique J



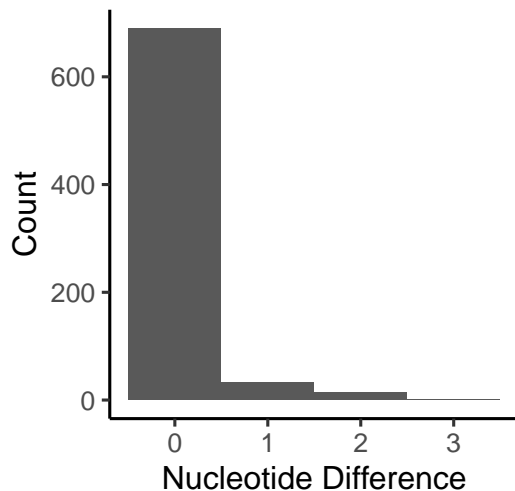
### IGHV3-11\*01

686 sequences assigned  
658 (95.9%) exact matches, in which:  
635 unique CDR3  
6 unique J



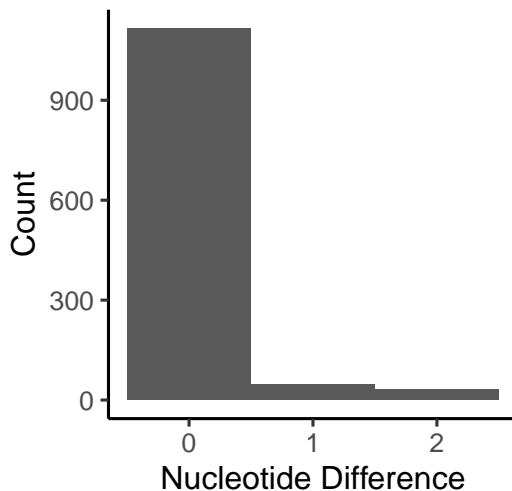
### IGHV2-5\*01

738 sequences assigned  
690 (93.5%) exact matches, in which:  
682 unique CDR3  
6 unique J



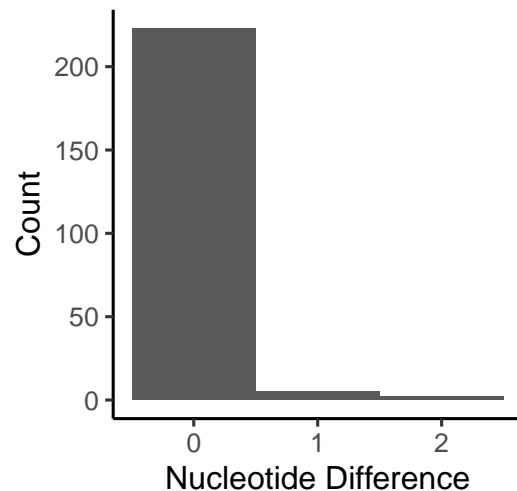
### IGHV3-7\*01

1197 sequences assigned  
1116 (93.2%) exact matches, in which:  
1079 unique CDR3  
6 unique J



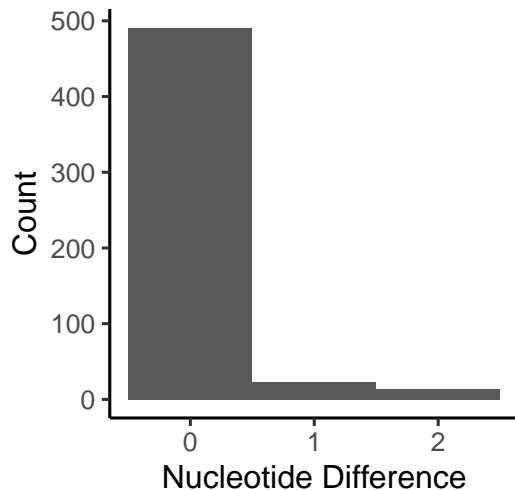
### IGHV3-13\*01

230 sequences assigned  
223 (97%) exact matches, in which:  
216 unique CDR3  
6 unique J



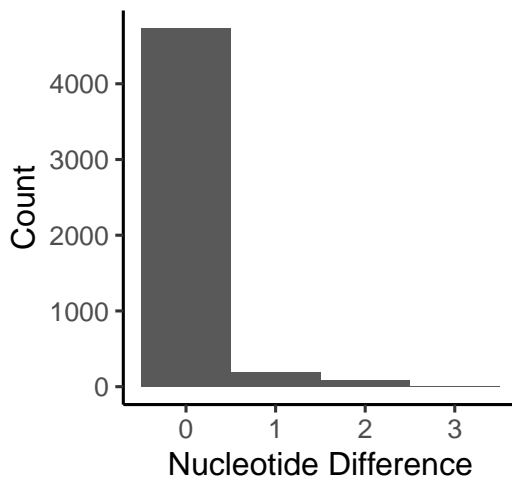
### IGHV3-15\*01\_02

528 sequences assigned  
491 (93%) exact matches, in which:  
474 unique CDR3  
6 unique J



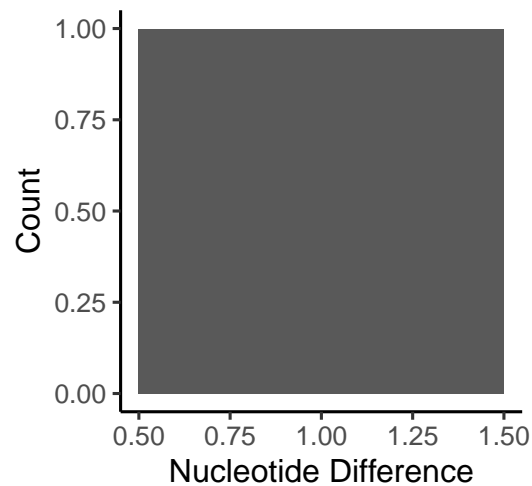
### IGHV3-23\*01\_04

5007 sequences assigned  
4731 (94.5%) exact matches, in which:  
4541 unique CDR3  
6 unique J



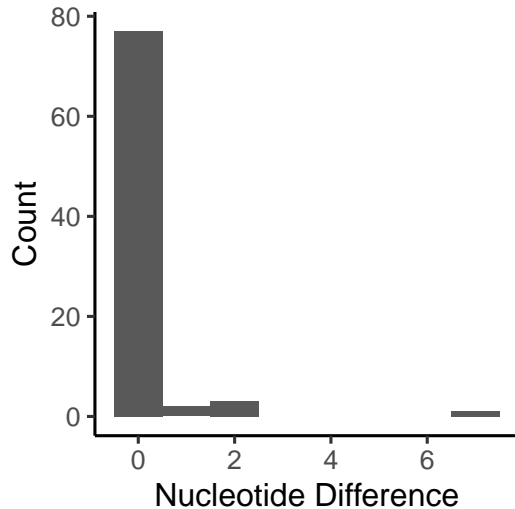
### IGHV3-35\*01

1 sequences assigned  
No exact matches.



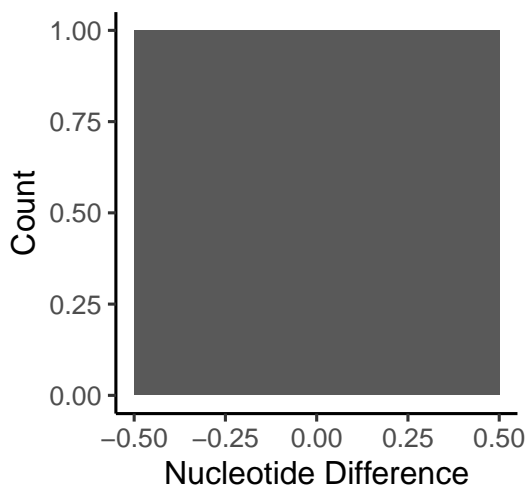
### IGHV3-20\*01\_02

83 sequences assigned  
77 (92.8%) exact matches, in which:  
75 unique CDR3  
5 unique J



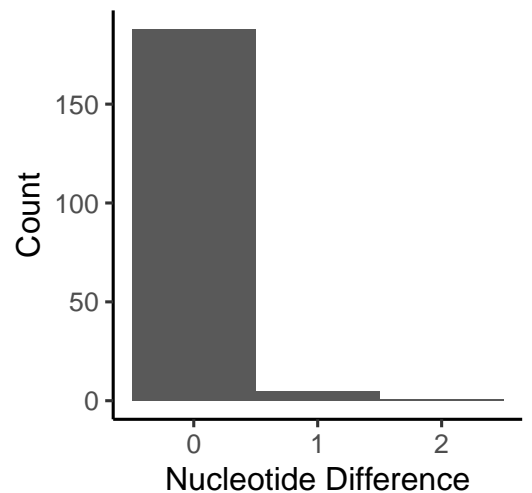
### IGHV3-30-3\*03

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



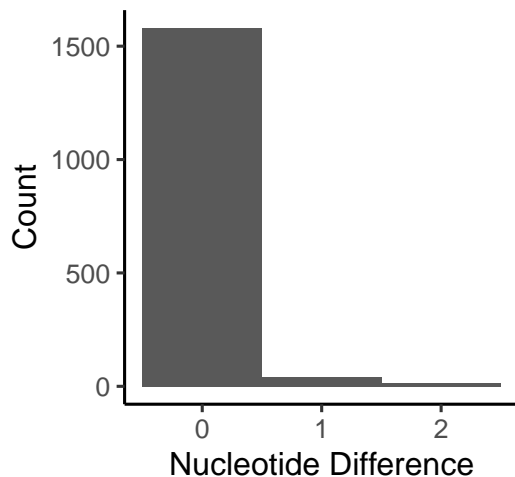
### IGHV3-43\*01

194 sequences assigned  
188 (96.9%) exact matches, in which:  
185 unique CDR3  
6 unique J



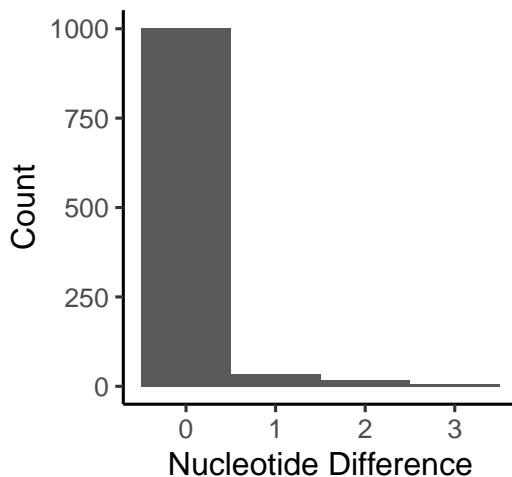
### IGHV3-21\*01\_02

1637 sequences assigned  
1580 (96.5%) exact matches, in which:  
1497 unique CDR3  
6 unique J



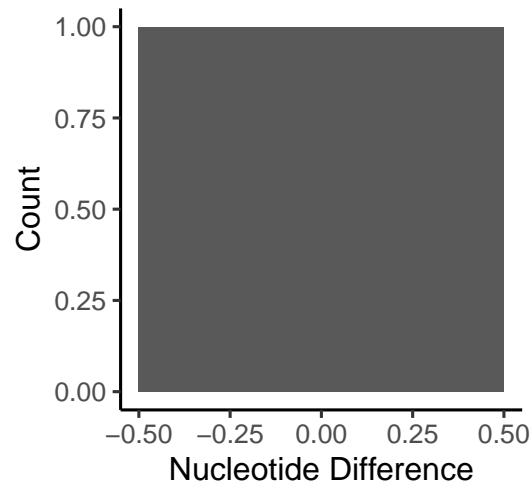
### IGHV3-33\*01

1060 sequences assigned  
1002 (94.5%) exact matches, in which:  
968 unique CDR3  
6 unique J



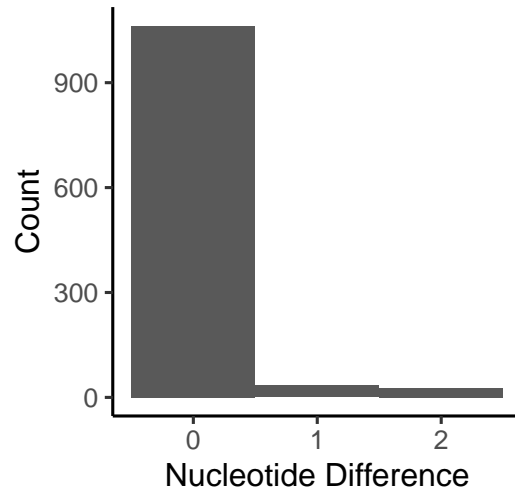
### IGHV3-47\*02

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



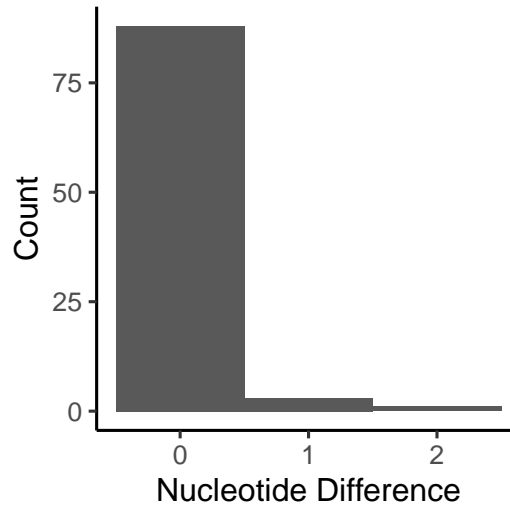
### IGHV3-48\*02

1123 sequences assigned  
1063 (94.7%) exact matches, in which:  
1019 unique CDR3  
6 unique J



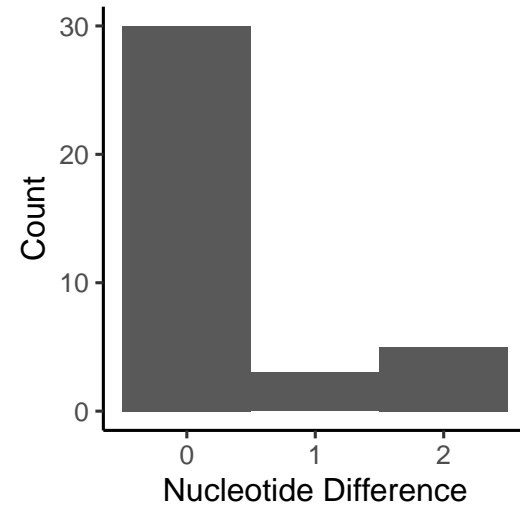
### IGHV3-64\*01

92 sequences assigned  
88 (95.7%) exact matches, in which:  
80 unique CDR3  
6 unique J



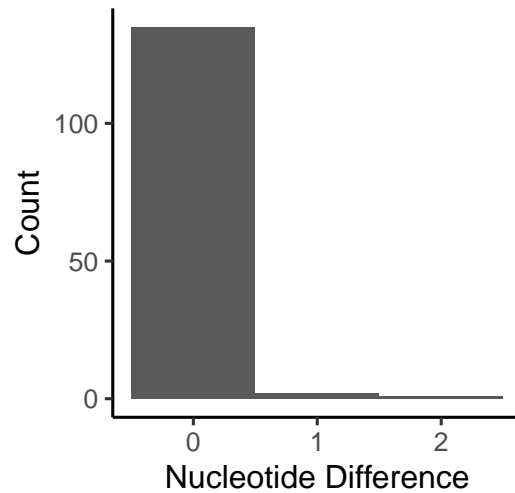
### IGHV3-72\*01

38 sequences assigned  
30 (78.9%) exact matches, in which:  
29 unique CDR3  
4 unique J



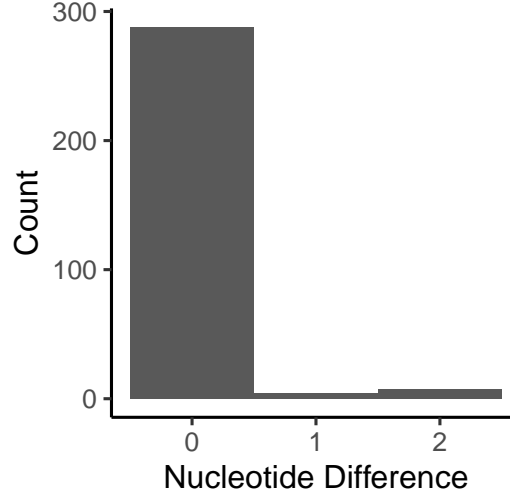
### IGHV3-49\*03\_05

138 sequences assigned  
135 (97.8%) exact matches, in which:  
133 unique CDR3  
5 unique J



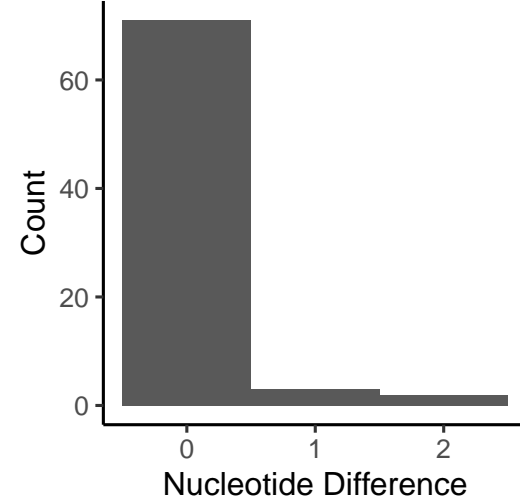
### IGHV3-66\*02

299 sequences assigned  
288 (96.3%) exact matches, in which:  
275 unique CDR3  
6 unique J



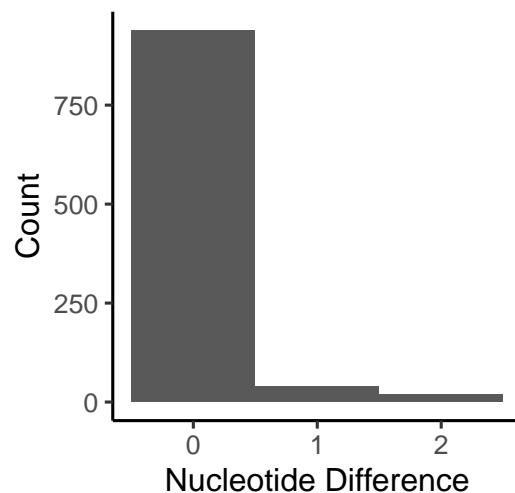
### IGHV3-73\*01\_02

76 sequences assigned  
71 (93.4%) exact matches, in which:  
68 unique CDR3  
4 unique J



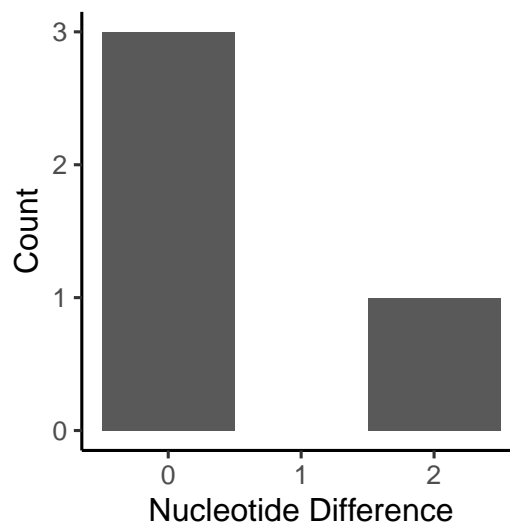
### IGHV3-53\*01\_02

998 sequences assigned  
939 (94.1%) exact matches, in which:  
892 unique CDR3  
6 unique J



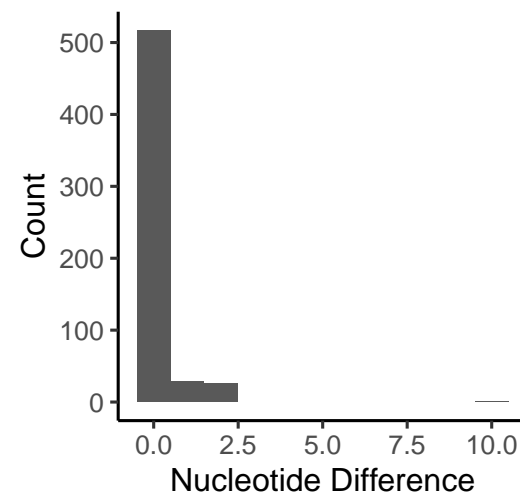
### IGHV3-69-1\*01

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



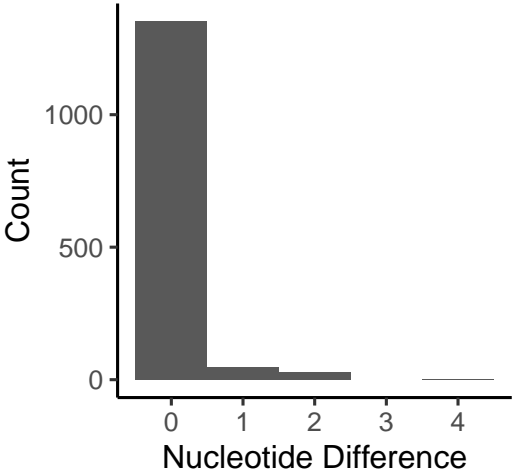
### IGHV3-74\*01\_02

573 sequences assigned  
517 (90.2%) exact matches, in which:  
492 unique CDR3  
6 unique J



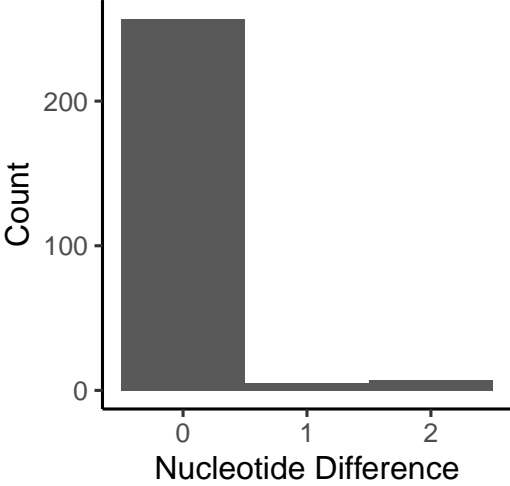
IGHV4-4\*07

1430 sequences assigned  
1352 (94.5%) exact matches, in which:  
1304 unique CDR3  
6 unique J



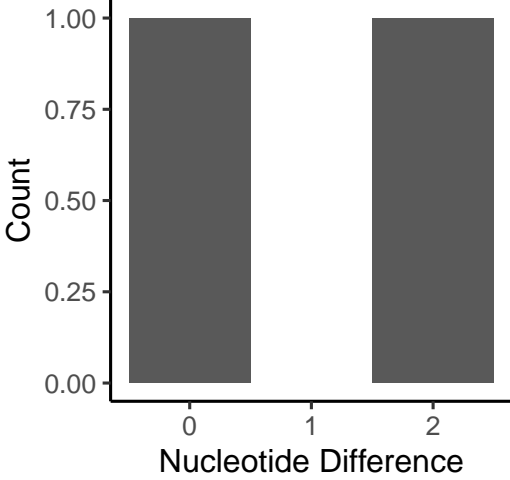
IGHV4-30-2\*01

269 sequences assigned  
257 (95.5%) exact matches, in which:  
248 unique CDR3  
6 unique J



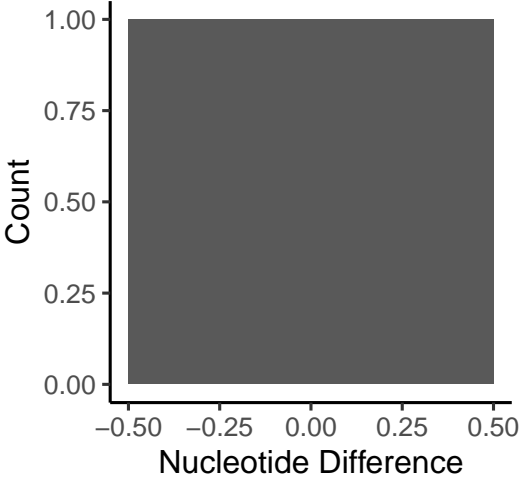
IGHV4-39\*02

2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J



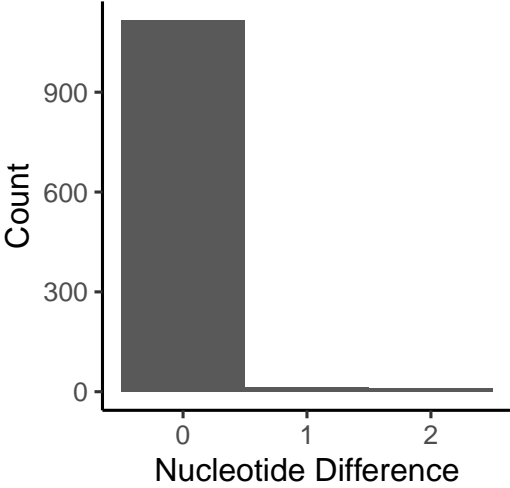
IGHV4-28\*03

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



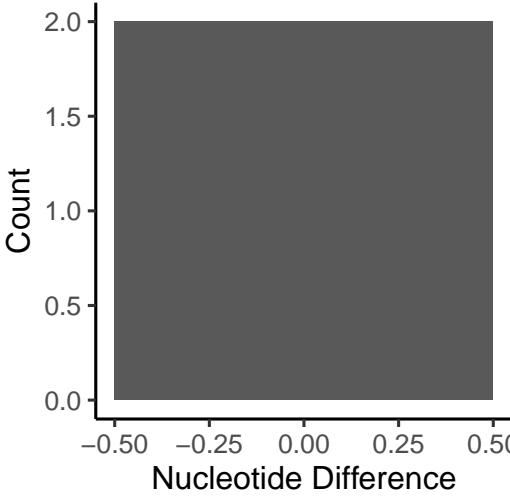
IGHV4-31\*02

1144 sequences assigned  
1117 (97.6%) exact matches, in which:  
1089 unique CDR3  
6 unique J



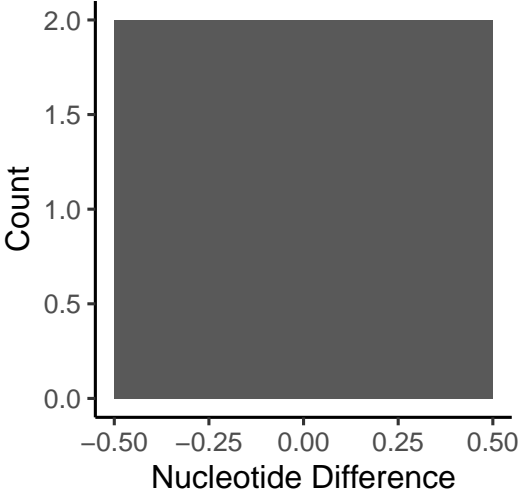
IGHV4-39\*07

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



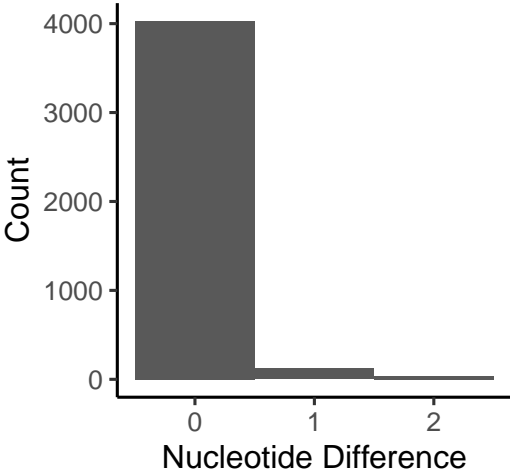
IGHV4-28\*01\_07

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



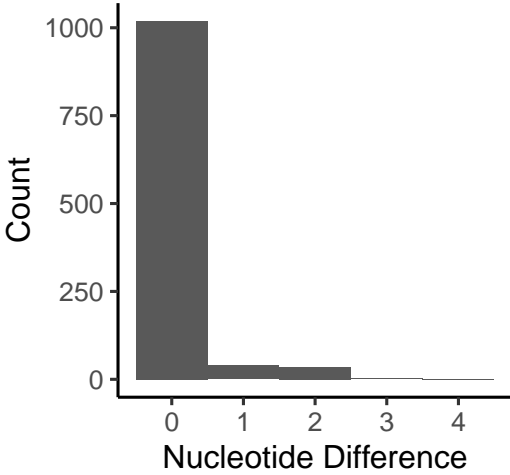
IGHV4-34\*01\_02

4192 sequences assigned  
4029 (96.1%) exact matches, in which:  
3880 unique CDR3  
6 unique J



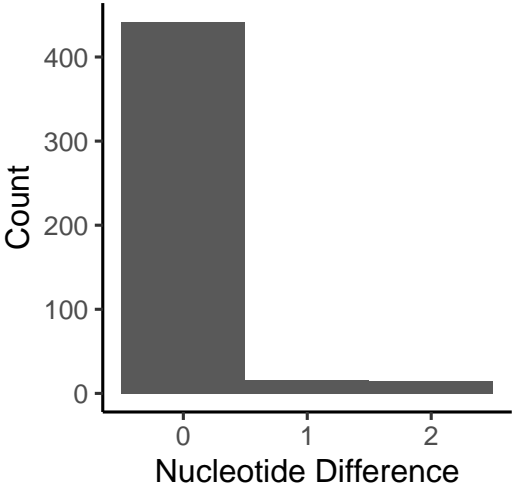
IGHV4-59\*08

1096 sequences assigned  
1019 (93%) exact matches, in which:  
983 unique CDR3  
6 unique J



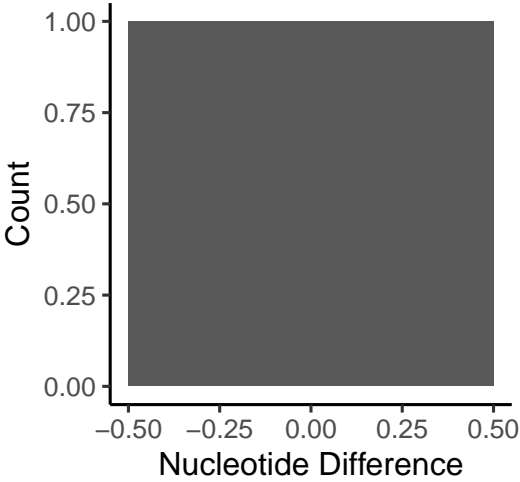
IGHV4–61\*01

473 sequences assigned  
442 (93.4%) exact matches, in which:  
427 unique CDR3  
5 unique J



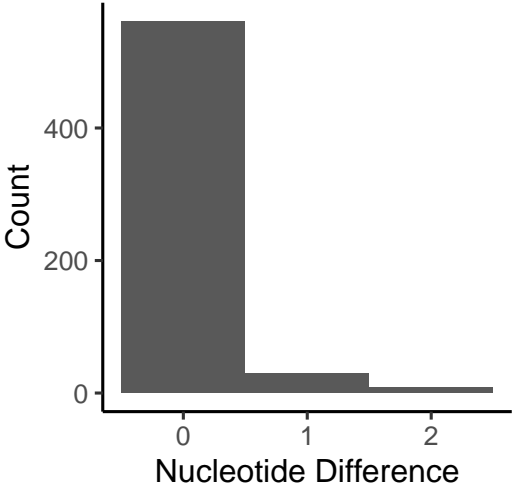
IGHV5–51\*01\_03

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



IGHV6–1\*01\_02

600 sequences assigned  
561 (93.5%) exact matches, in which:  
548 unique CDR3  
6 unique J





[illegible]