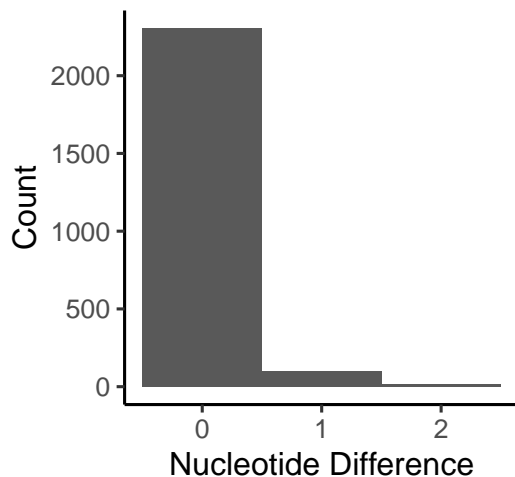


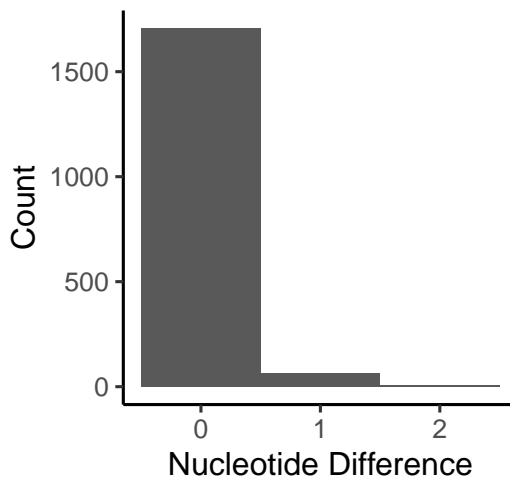
### IGHV1-2\*02

2417 sequences assigned  
2304 (95.3%) exact matches, in which:  
2303 unique CDR3  
6 unique J



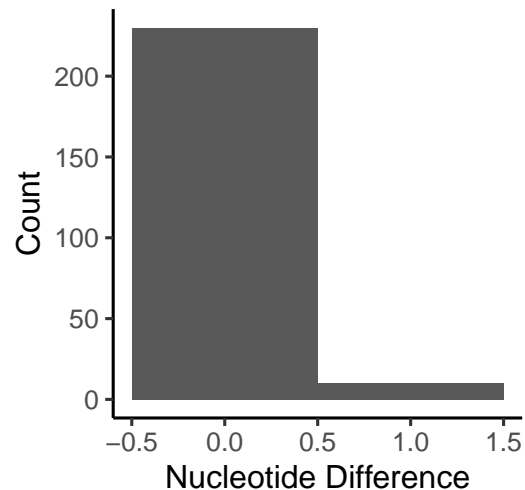
### IGHV1-18\*01

1774 sequences assigned  
1706 (96.2%) exact matches, in which:  
1705 unique CDR3  
6 unique J



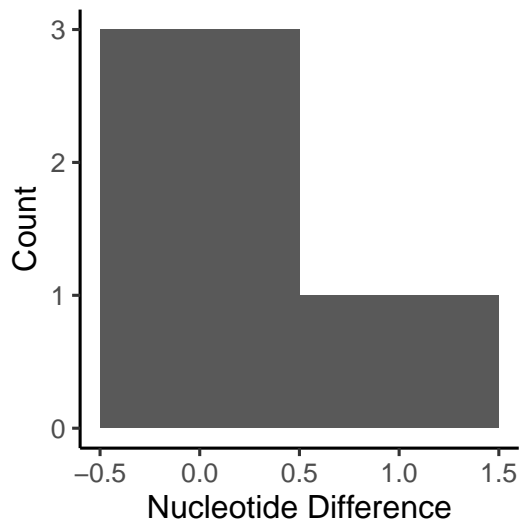
### IGHV1-46\*01

240 sequences assigned  
230 (95.8%) exact matches, in which:  
230 unique CDR3  
6 unique J



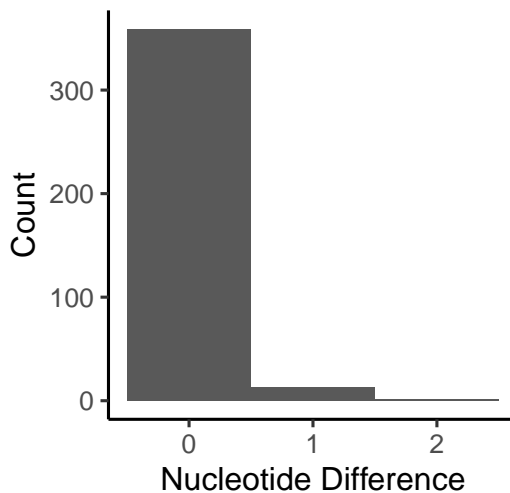
### IGHV1-3\*02

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



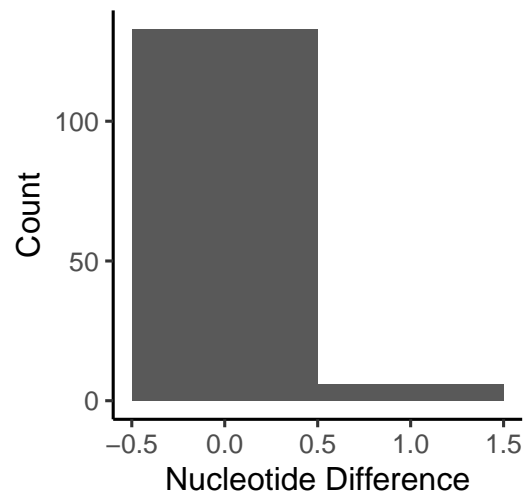
### IGHV1-24\*01

373 sequences assigned  
359 (96.2%) exact matches, in which:  
359 unique CDR3  
6 unique J



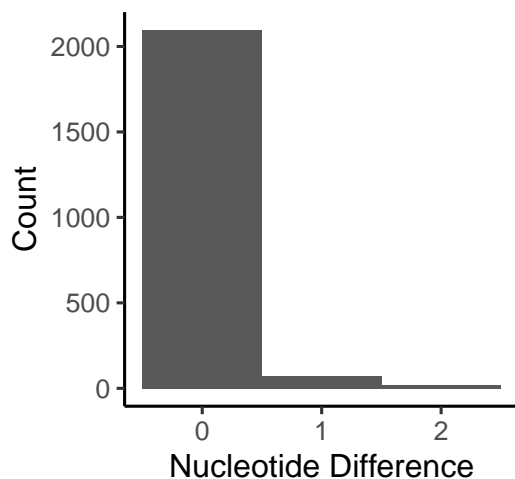
### IGHV1-46\*03

139 sequences assigned  
133 (95.7%) exact matches, in which:  
133 unique CDR3  
5 unique J



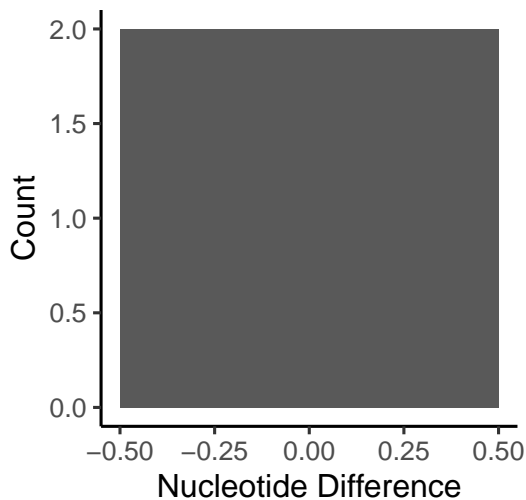
### IGHV1-8\*01

2186 sequences assigned  
2096 (95.9%) exact matches, in which:  
2092 unique CDR3  
6 unique J



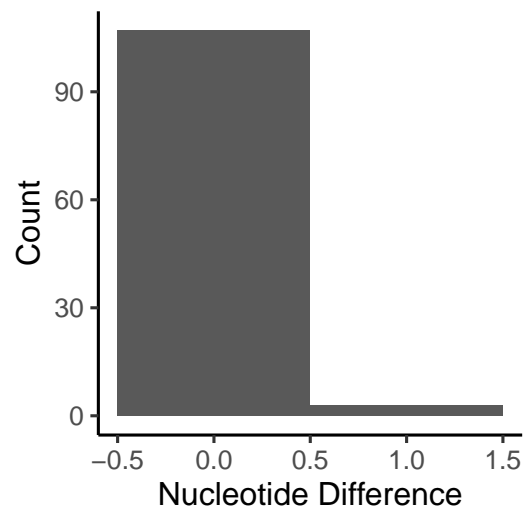
### IGHV1-45\*02

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



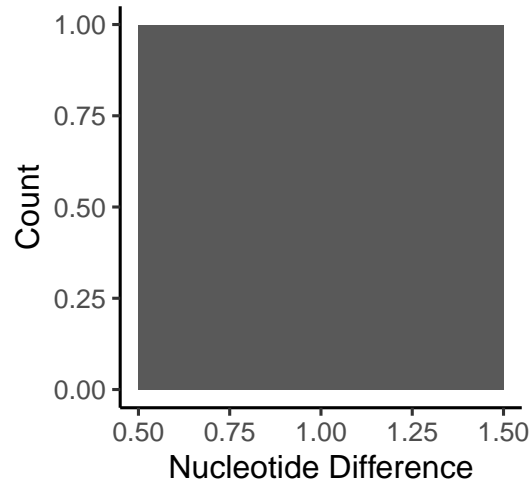
### IGHV1-58\*01\_03

110 sequences assigned  
107 (97.3%) exact matches, in which:  
107 unique CDR3  
5 unique J



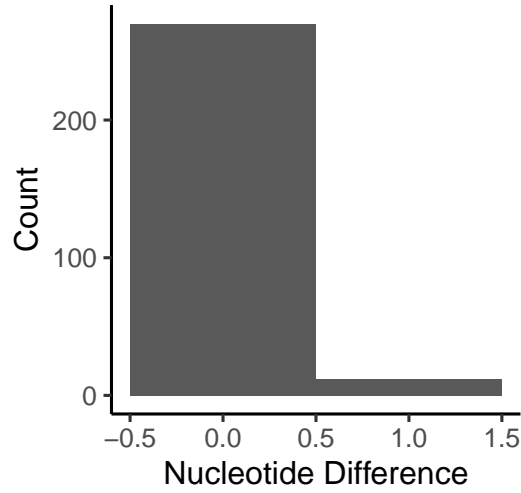
### IGHV1-68\*01

1 sequences assigned  
No exact matches.



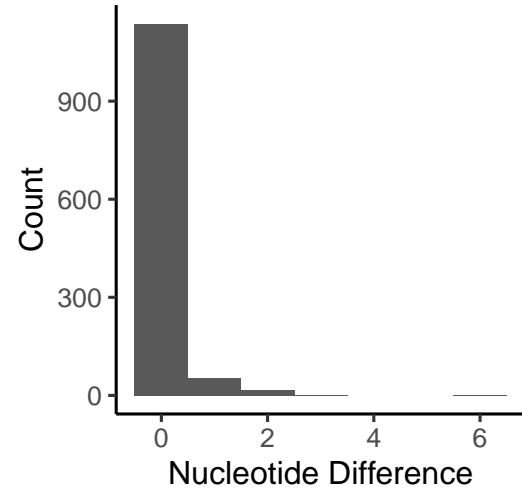
### IGHV2-5\*02

282 sequences assigned  
270 (95.7%) exact matches, in which:  
270 unique CDR3  
6 unique J



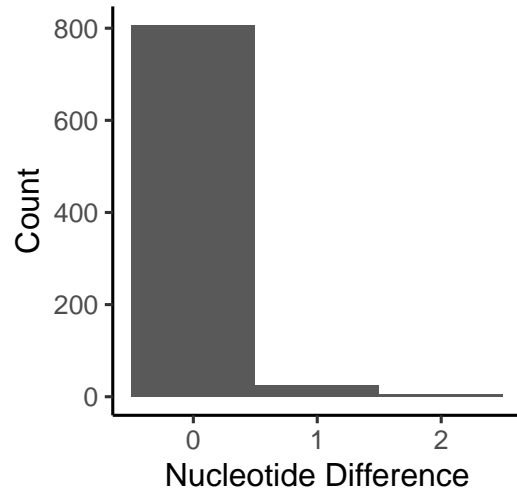
### IGHV3-7\*01

1208 sequences assigned  
1137 (94.1%) exact matches, in which:  
1118 unique CDR3  
6 unique J



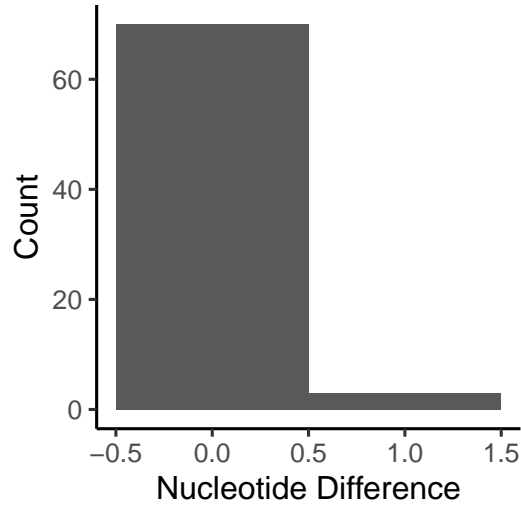
### IGHV1-69\*06\_14

839 sequences assigned  
807 (96.2%) exact matches, in which:  
807 unique CDR3  
6 unique J



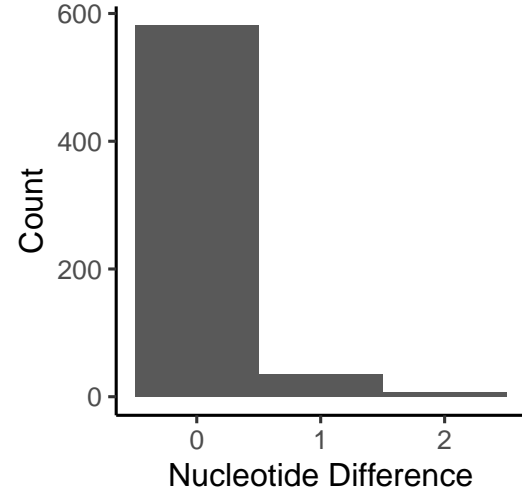
### IGHV2-26\*01

73 sequences assigned  
70 (95.9%) exact matches, in which:  
70 unique CDR3  
5 unique J



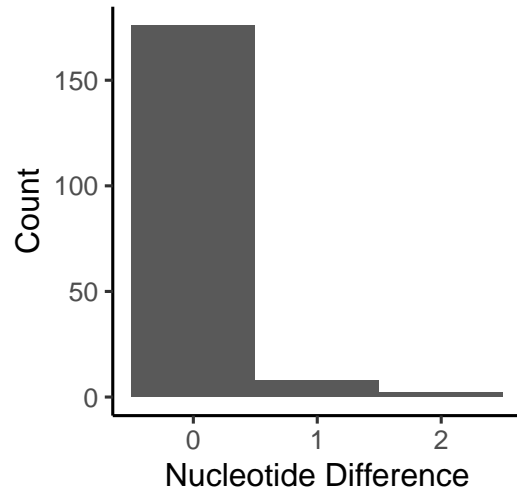
### IGHV3-9\*01

625 sequences assigned  
582 (93.1%) exact matches, in which:  
575 unique CDR3  
6 unique J



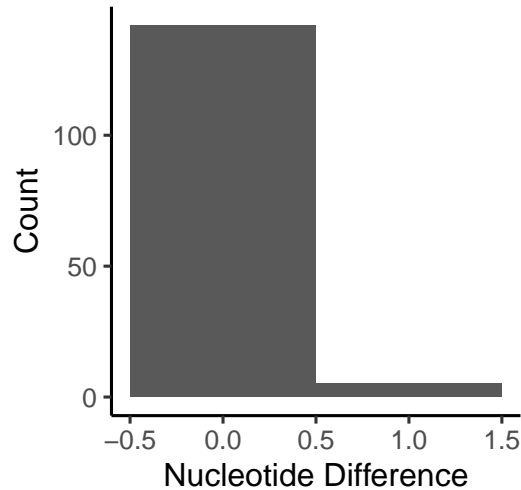
### IGHV2-5\*01

186 sequences assigned  
176 (94.6%) exact matches, in which:  
176 unique CDR3  
6 unique J



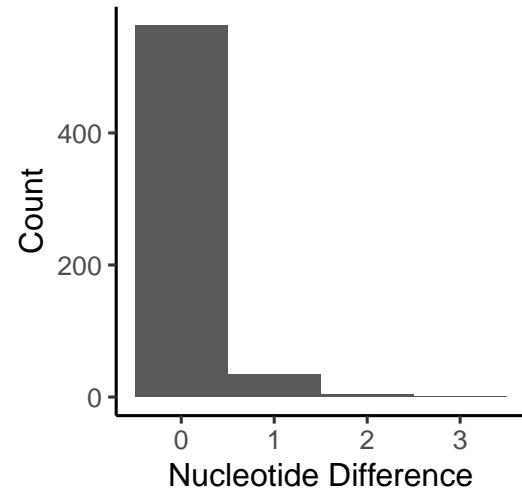
### IGHV2-70\*01

147 sequences assigned  
142 (96.6%) exact matches, in which:  
141 unique CDR3  
5 unique J



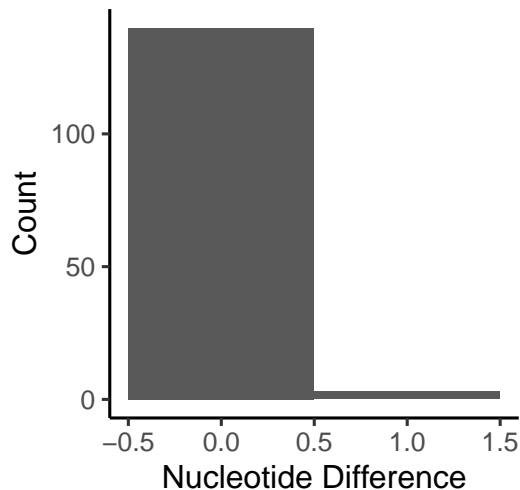
### IGHV3-11\*01

602 sequences assigned  
563 (93.5%) exact matches, in which:  
560 unique CDR3  
6 unique J



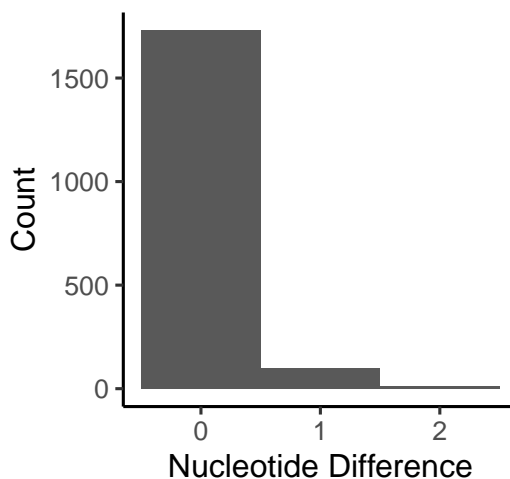
### IGHV3-13\*01

143 sequences assigned  
140 (97.9%) exact matches, in which:  
139 unique CDR3  
5 unique J



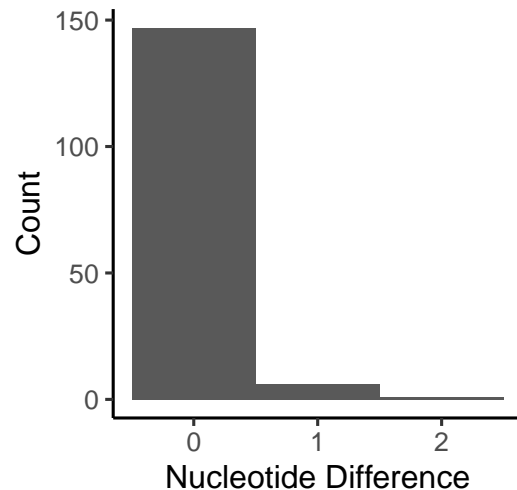
### IGHV3-21\*01\_02

1845 sequences assigned  
1730 (93.8%) exact matches, in which:  
1716 unique CDR3  
6 unique J



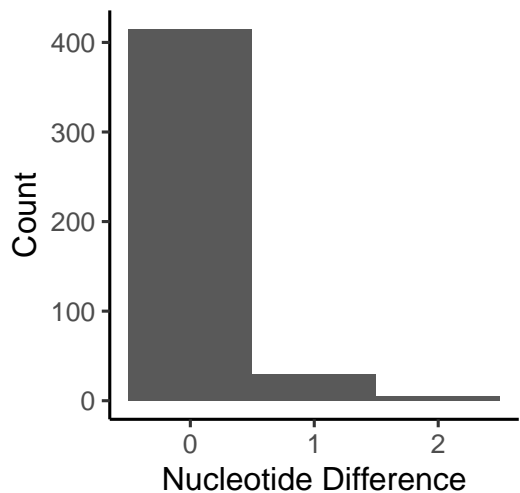
### IGHV3-43\*01

154 sequences assigned  
147 (95.5%) exact matches, in which:  
147 unique CDR3  
6 unique J



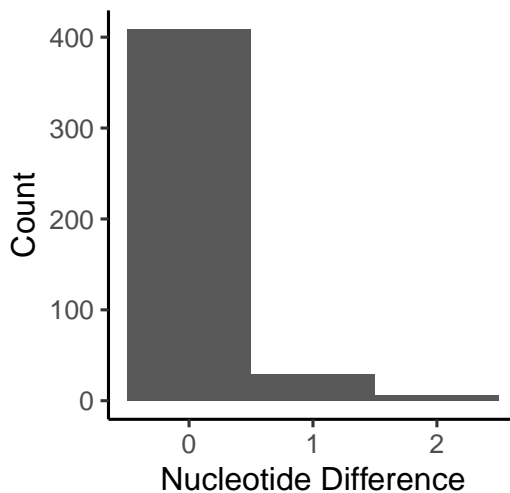
### IGHV3-15\*01\_02

450 sequences assigned  
415 (92.2%) exact matches, in which:  
413 unique CDR3  
6 unique J



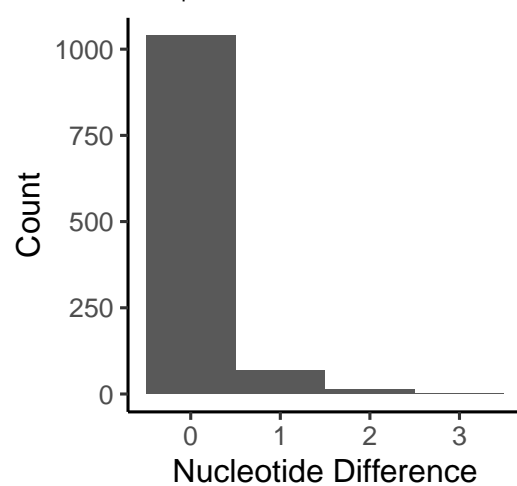
### IGHV3-30\*03

444 sequences assigned  
409 (92.1%) exact matches, in which:  
408 unique CDR3  
6 unique J



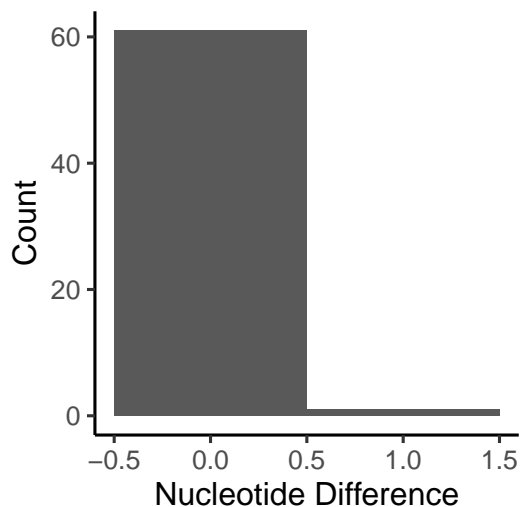
### IGHV3-48\*02

1121 sequences assigned  
1039 (92.7%) exact matches, in which:  
1022 unique CDR3  
6 unique J



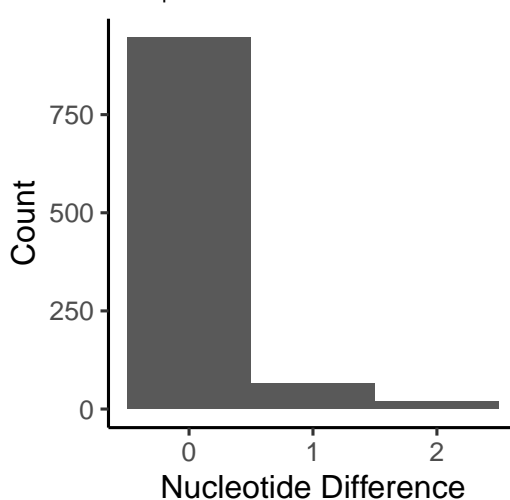
### IGHV3-20\*01\_02

62 sequences assigned  
61 (98.4%) exact matches, in which:  
61 unique CDR3  
6 unique J



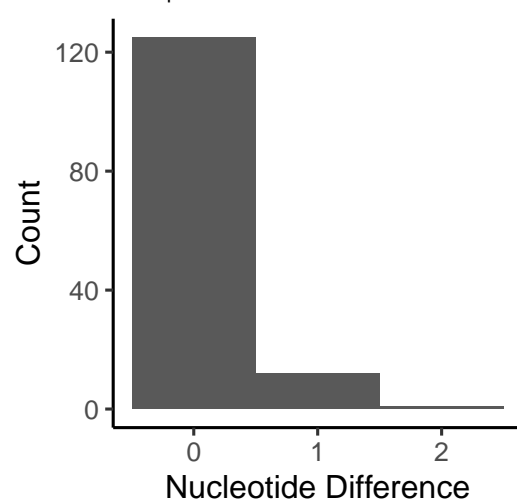
### IGHV3-33\*01

1030 sequences assigned  
947 (91.9%) exact matches, in which:  
944 unique CDR3  
6 unique J



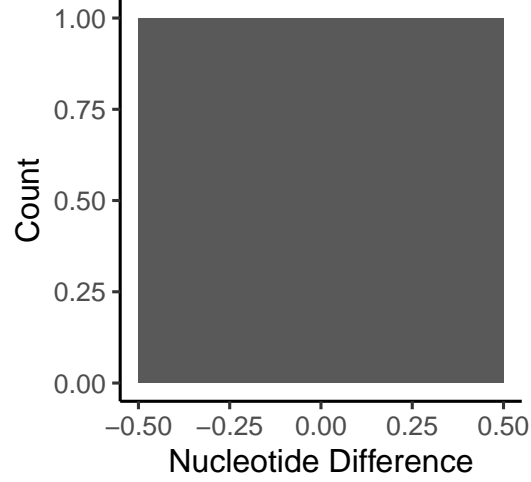
### IGHV3-49\*03\_05

138 sequences assigned  
125 (90.6%) exact matches, in which:  
125 unique CDR3  
6 unique J



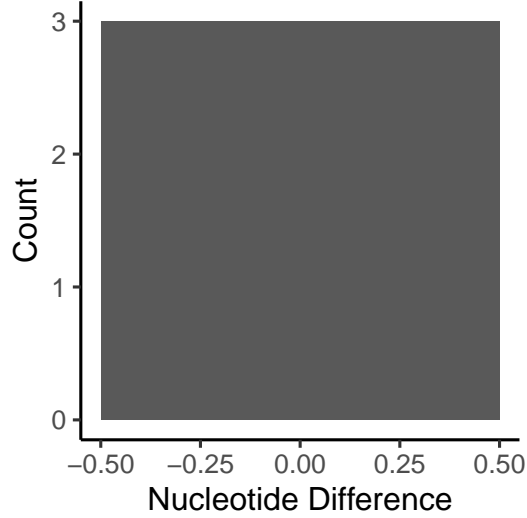
### IGHV3-52\*01\_03

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



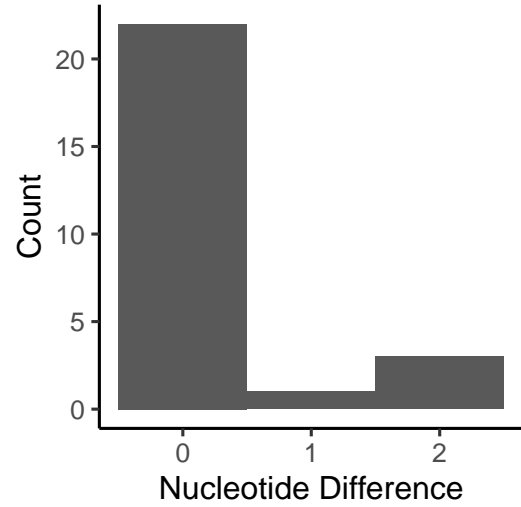
### IGHV3-66\*03

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



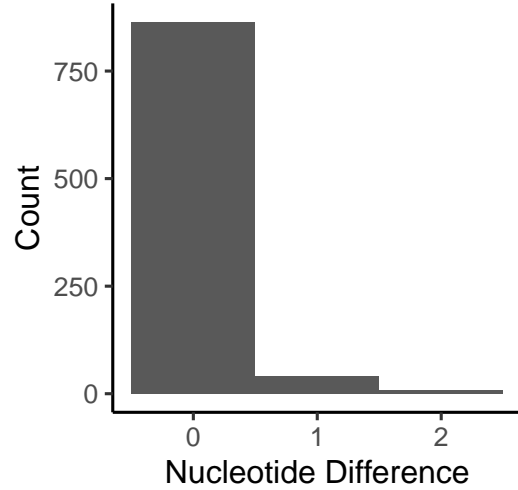
### IGHV3-72\*01

26 sequences assigned  
22 (84.6%) exact matches, in which:  
22 unique CDR3  
4 unique J



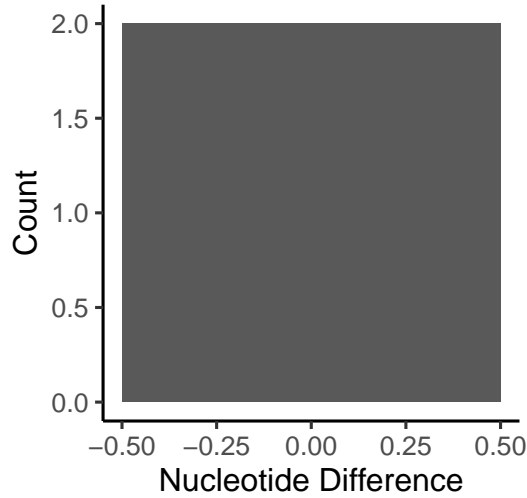
### IGHV3-53\*01\_02

912 sequences assigned  
864 (94.7%) exact matches, in which:  
857 unique CDR3  
6 unique J



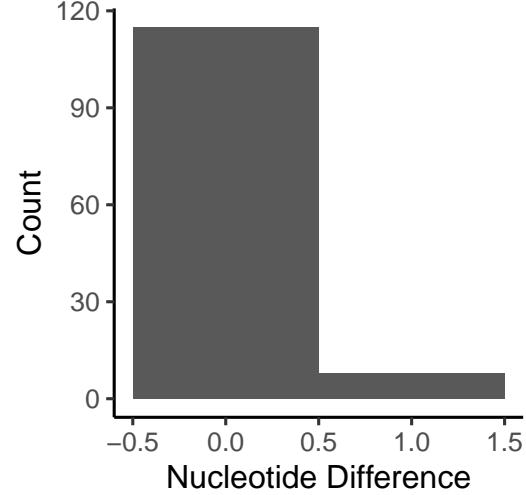
### IGHV3-69-1\*01

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



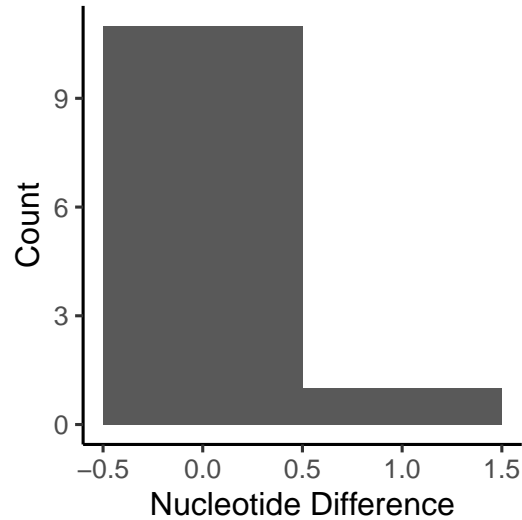
### IGHV3-73\*01\_02

123 sequences assigned  
115 (93.5%) exact matches, in which:  
114 unique CDR3  
6 unique J



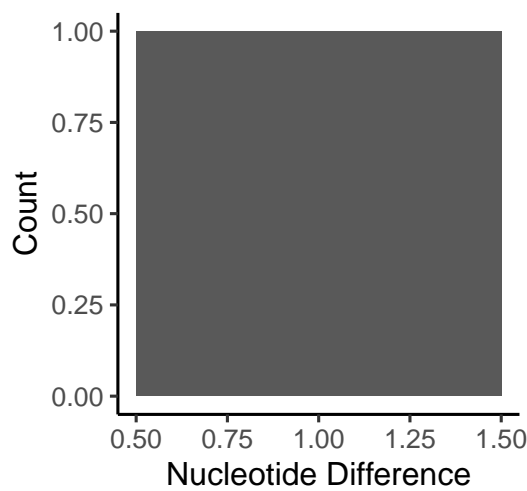
### IGHV3-64\*02\_07

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



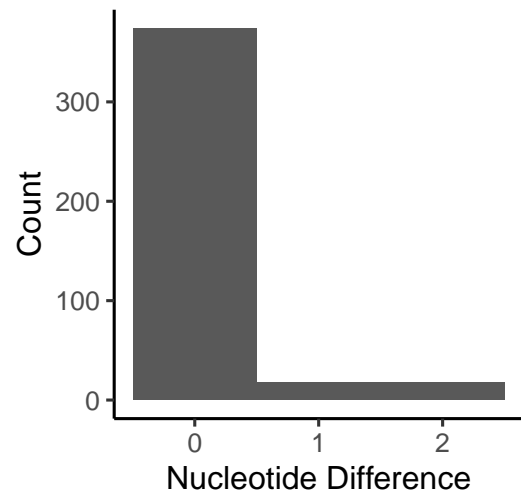
### IGHV3-71\*01\_04

1 sequences assigned  
No exact matches.



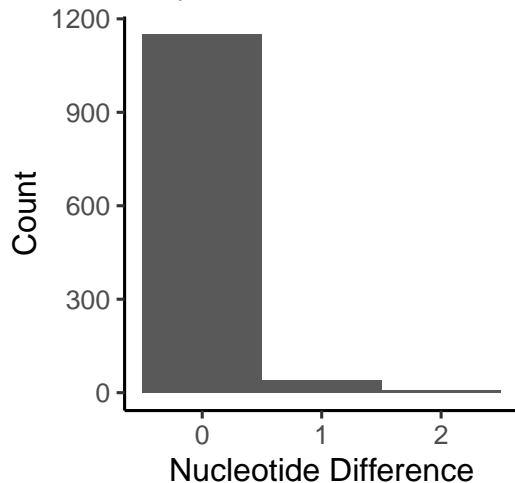
### IGHV3-74\*01\_02

410 sequences assigned  
374 (91.2%) exact matches, in which:  
366 unique CDR3  
6 unique J



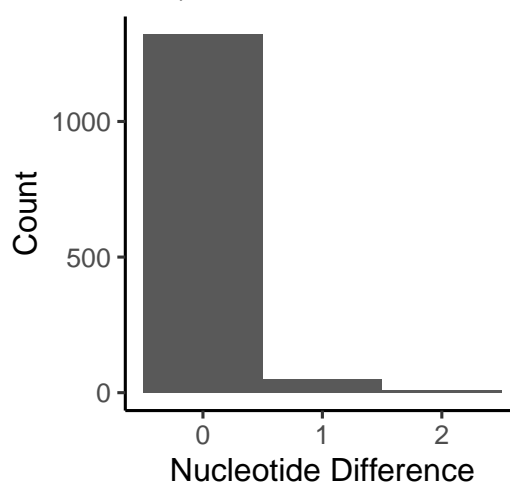
### IGHV4-4\*07

1197 sequences assigned  
1150 (96.1%) exact matches, in which:  
1139 unique CDR3  
6 unique J



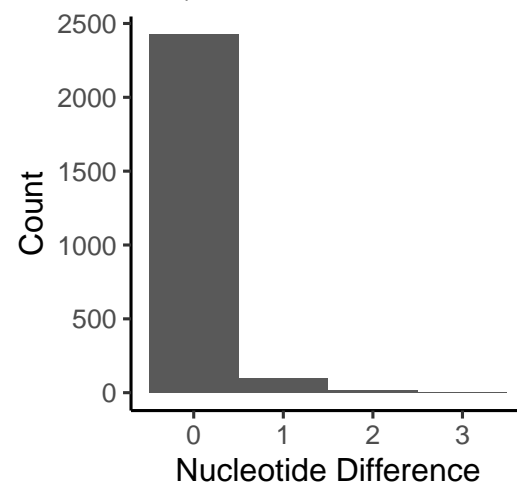
### IGHV4-31\*03\_04

1381 sequences assigned  
1321 (95.7%) exact matches, in which:  
1314 unique CDR3  
6 unique J



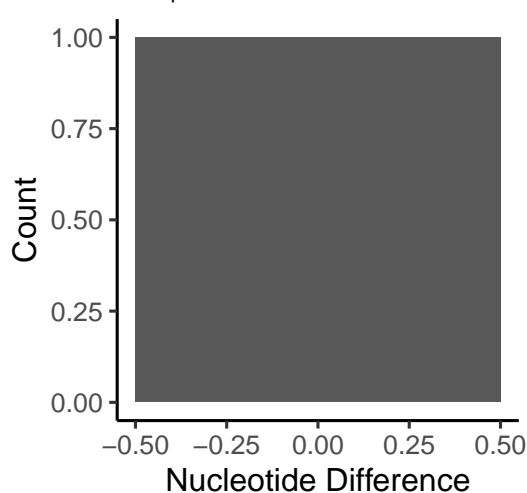
### IGHV4-59\*01\_07

2542 sequences assigned  
2426 (95.4%) exact matches, in which:  
2405 unique CDR3  
6 unique J



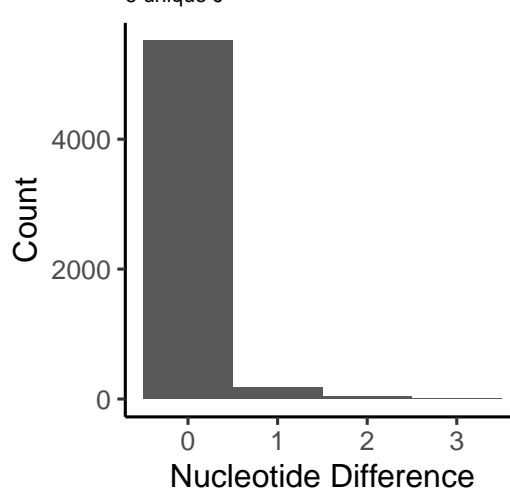
### IGHV4-28\*03

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



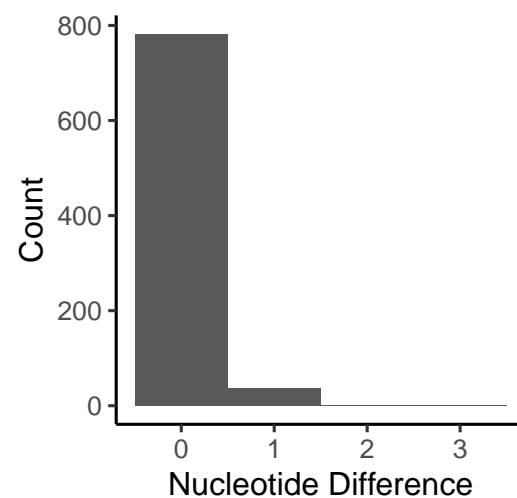
### IGHV4-34\*01\_02

5741 sequences assigned  
5516 (96.1%) exact matches, in which:  
5470 unique CDR3  
6 unique J



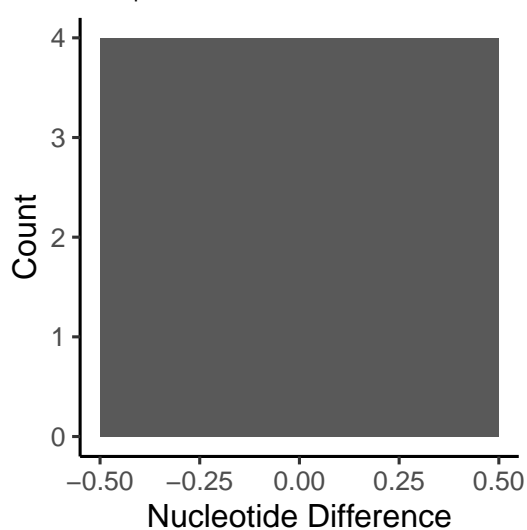
### IGHV4-61\*01

821 sequences assigned  
782 (95.2%) exact matches, in which:  
779 unique CDR3  
6 unique J



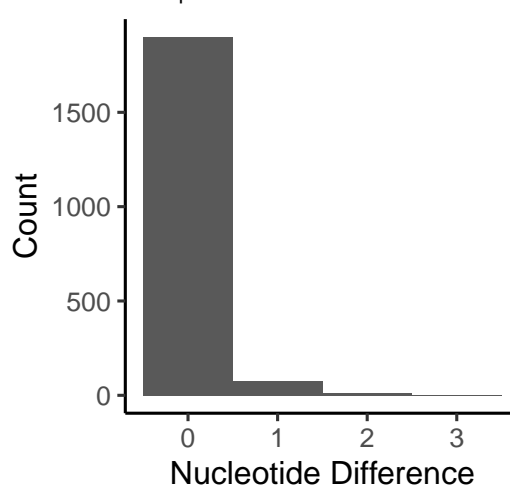
### IGHV4-28\*01\_07

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



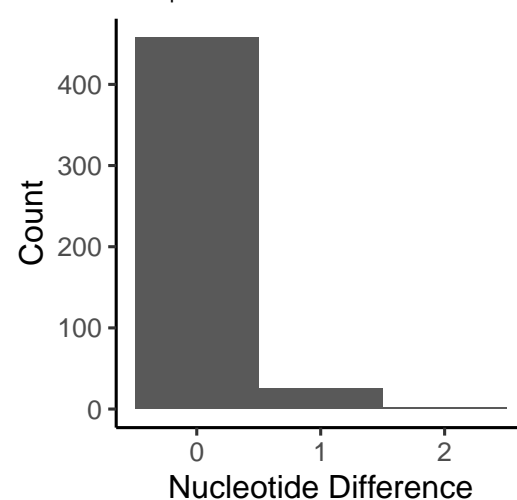
### IGHV4-39\*01\_05

1989 sequences assigned  
1899 (95.5%) exact matches, in which:  
1882 unique CDR3  
6 unique J



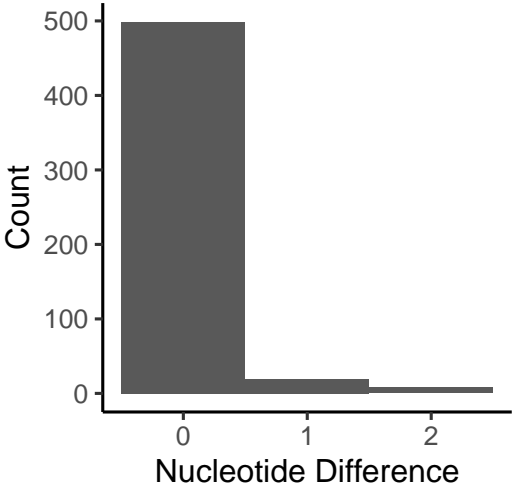
### IGHV5-51\*01\_03

485 sequences assigned  
458 (94.4%) exact matches, in which:  
457 unique CDR3  
6 unique J



# IGHV6-1\*01\_02

526 sequences assigned  
499 (94.9%) exact matches, in which:  
498 unique CDR3  
6 unique J





Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-39\*02\_C258GIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4-59\*02\_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4-59\*02\_G88AIGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.