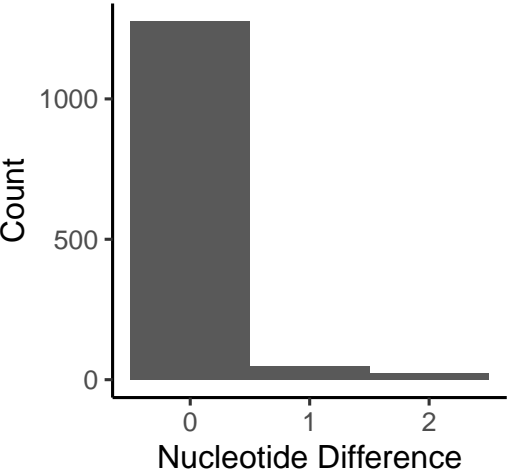


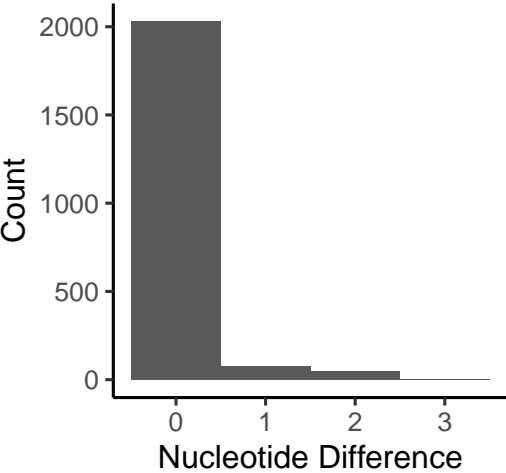
IGHV1-2\*02

1347 sequences assigned  
1276 (94.7%) exact matches, in which:  
1275 unique CDR3  
6 unique J



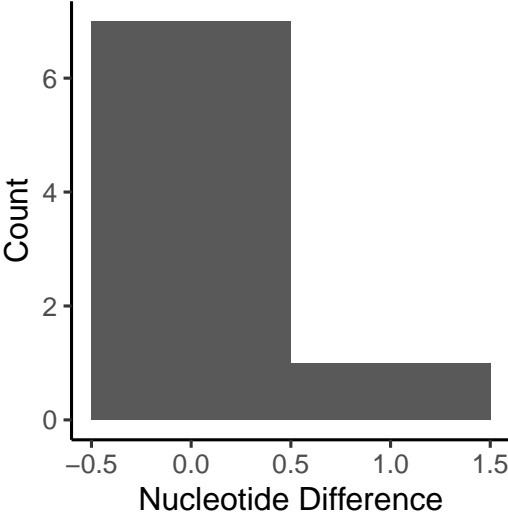
IGHV1-8\*01

2154 sequences assigned  
2030 (94.2%) exact matches, in which:  
2020 unique CDR3  
6 unique J



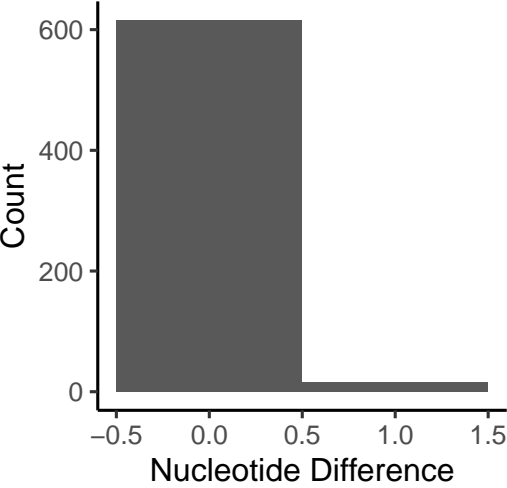
IGHV1-45\*02

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



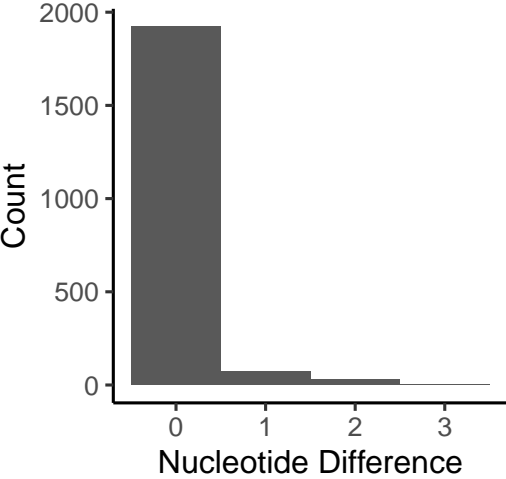
IGHV1-2\*06

631 sequences assigned  
616 (97.6%) exact matches, in which:  
616 unique CDR3  
6 unique J



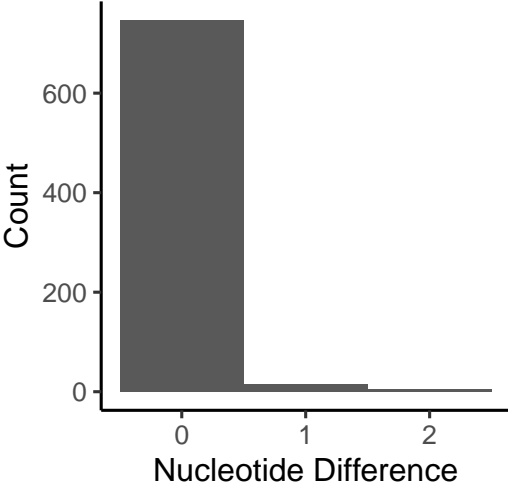
IGHV1-18\*01

2026 sequences assigned  
1922 (94.9%) exact matches, in which:  
1916 unique CDR3  
6 unique J



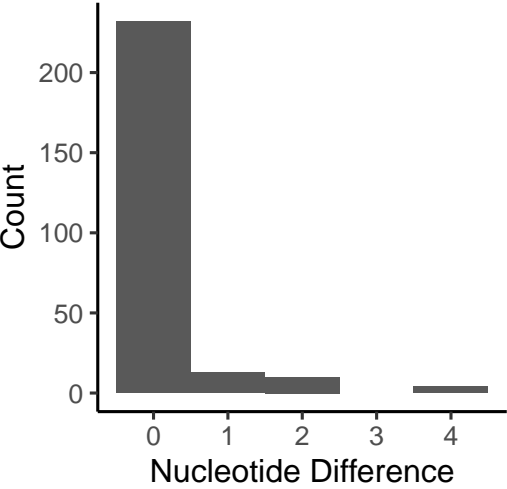
IGHV1-46\*01

768 sequences assigned  
747 (97.3%) exact matches, in which:  
746 unique CDR3  
6 unique J



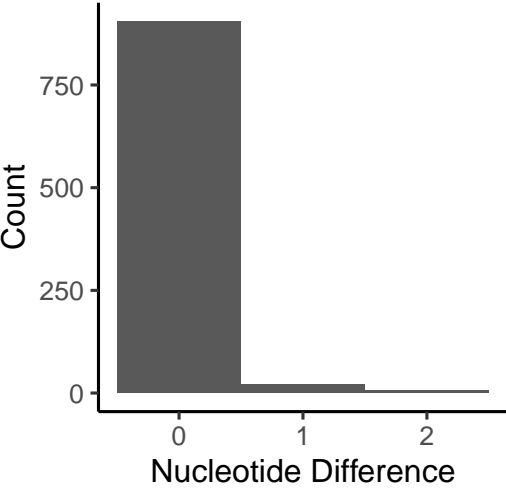
IGHV1-3\*01\_05

259 sequences assigned  
232 (89.6%) exact matches, in which:  
232 unique CDR3  
6 unique J



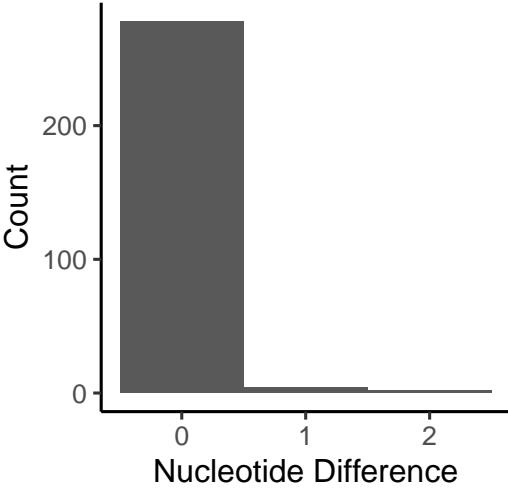
IGHV1-24\*01

932 sequences assigned  
905 (97.1%) exact matches, in which:  
903 unique CDR3  
6 unique J



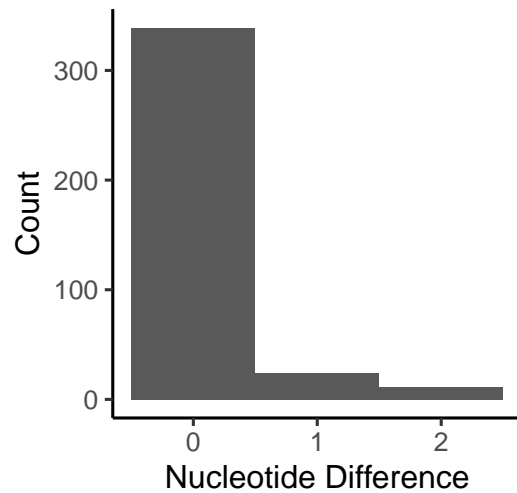
IGHV1-58\*01\_03

284 sequences assigned  
278 (97.9%) exact matches, in which:  
277 unique CDR3  
6 unique J



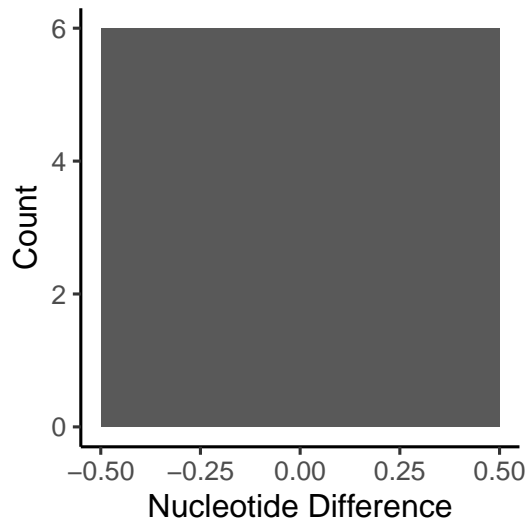
### IGHV2-5\*01

374 sequences assigned  
339 (90.6%) exact matches, in which:  
336 unique CDR3  
6 unique J



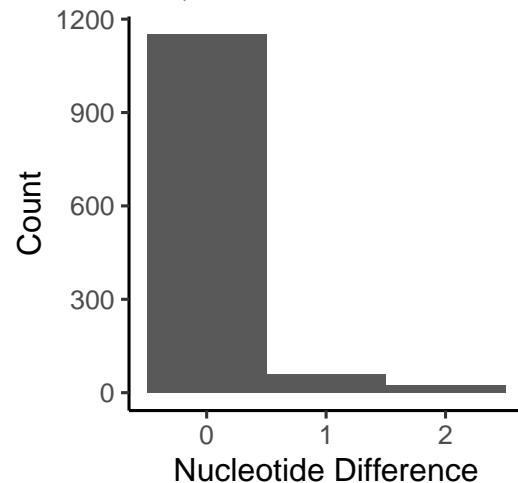
### IGHV2-26\*02

6 sequences assigned  
6 (100%) exact matches, in which:  
6 unique CDR3  
3 unique J



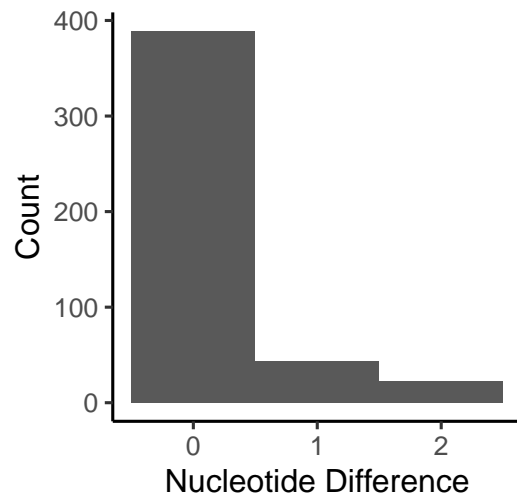
### IGHV3-9\*01

1234 sequences assigned  
1151 (93.3%) exact matches, in which:  
1111 unique CDR3  
6 unique J



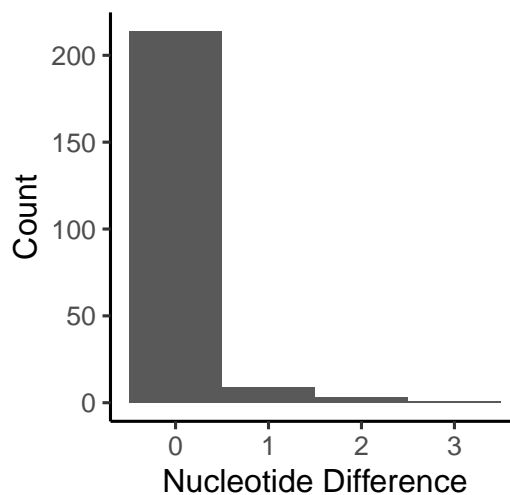
### IGHV2-5\*02

455 sequences assigned  
389 (85.5%) exact matches, in which:  
379 unique CDR3  
6 unique J



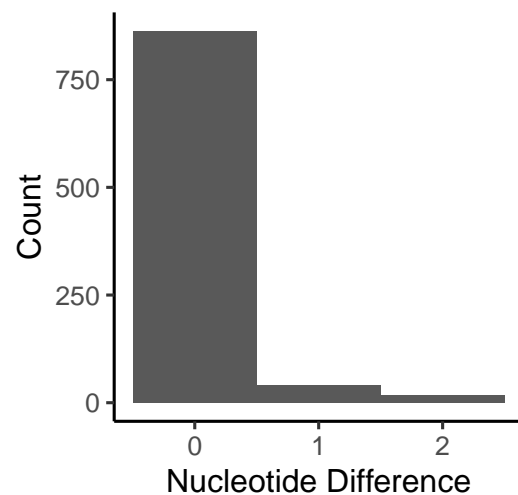
### IGHV2-70\*01

227 sequences assigned  
214 (94.3%) exact matches, in which:  
213 unique CDR3  
6 unique J



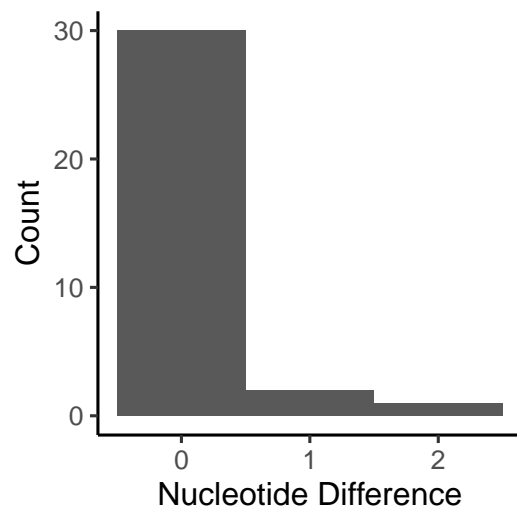
### IGHV3-11\*01

921 sequences assigned  
863 (93.7%) exact matches, in which:  
806 unique CDR3  
6 unique J



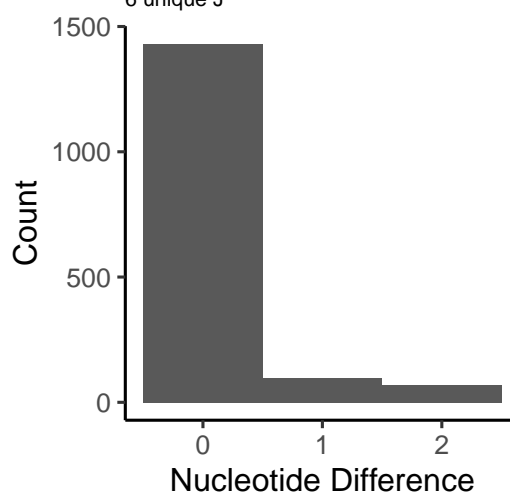
### IGHV2-26\*01

33 sequences assigned  
30 (90.9%) exact matches, in which:  
30 unique CDR3  
4 unique J



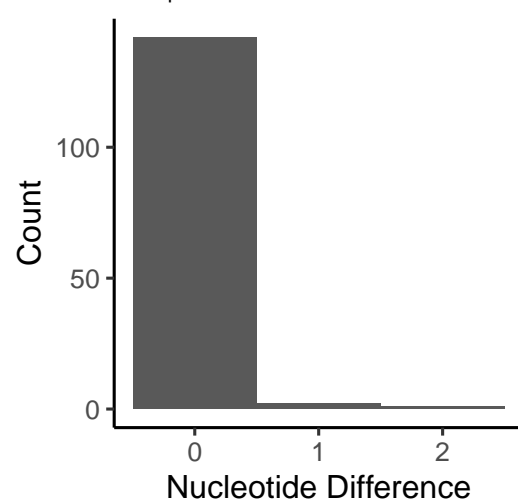
### IGHV3-7\*01

1596 sequences assigned  
1430 (89.6%) exact matches, in which:  
1355 unique CDR3  
6 unique J



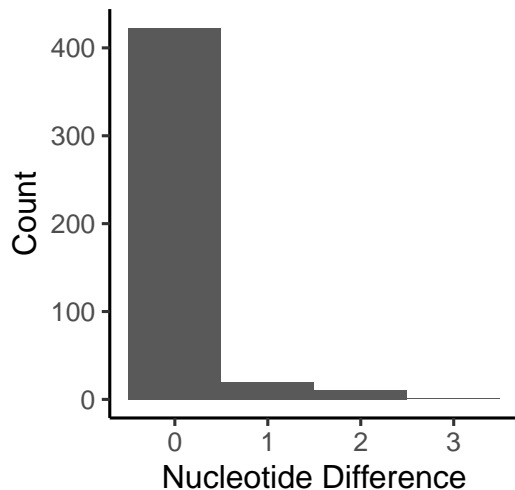
### IGHV3-13\*01

145 sequences assigned  
142 (97.9%) exact matches, in which:  
139 unique CDR3  
6 unique J



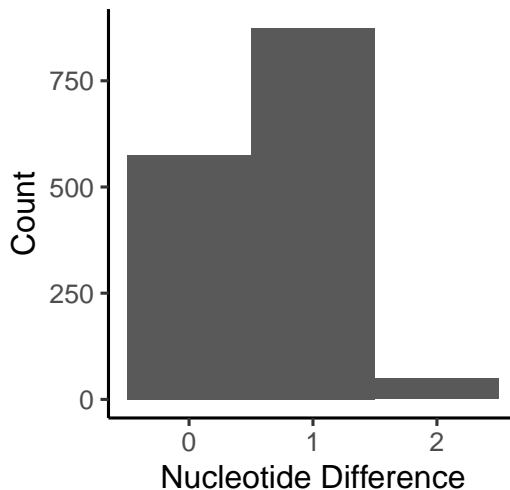
### IGHV3-15\*01\_02

455 sequences assigned  
423 (93%) exact matches, in which:  
408 unique CDR3  
6 unique J



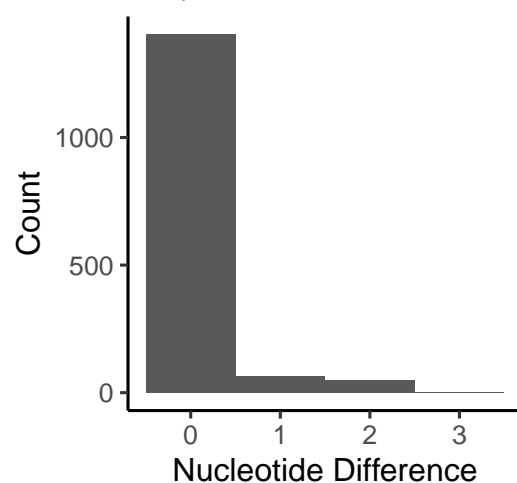
### IGHV3-33\*01

1500 sequences assigned  
576 (38.4%) exact matches, in which:  
544 unique CDR3  
6 unique J



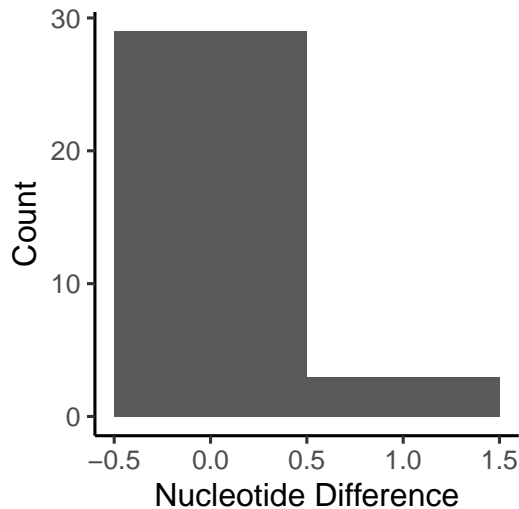
### IGHV3-48\*02

1520 sequences assigned  
1404 (92.4%) exact matches, in which:  
1278 unique CDR3  
6 unique J



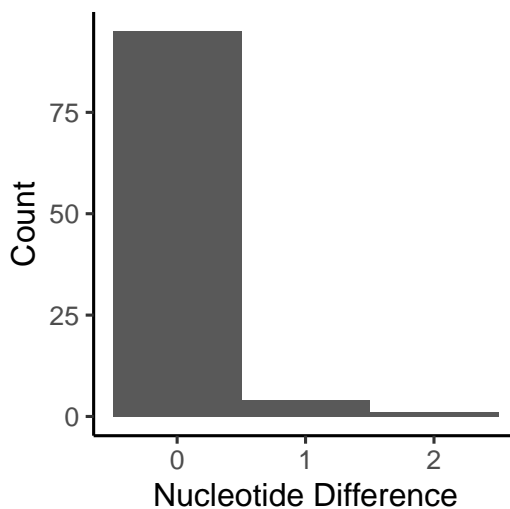
### IGHV3-20\*01\_02

32 sequences assigned  
29 (90.6%) exact matches, in which:  
28 unique CDR3  
5 unique J



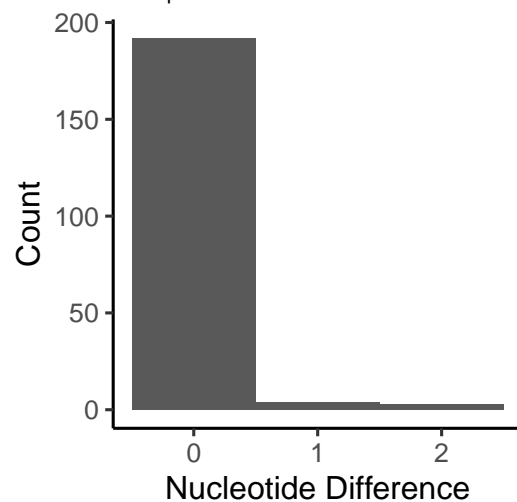
### IGHV3-43\*01

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



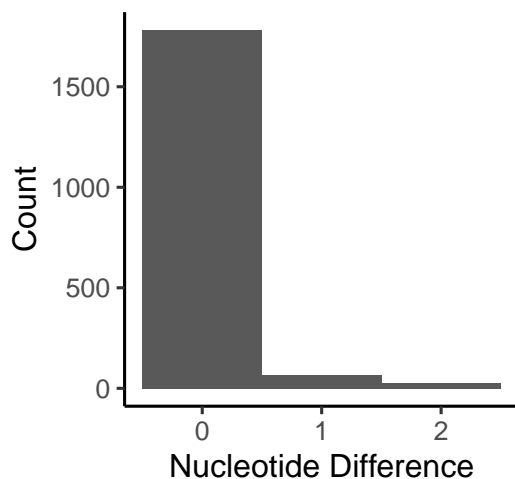
### IGHV3-49\*03\_05

199 sequences assigned  
192 (96.5%) exact matches, in which:  
188 unique CDR3  
6 unique J



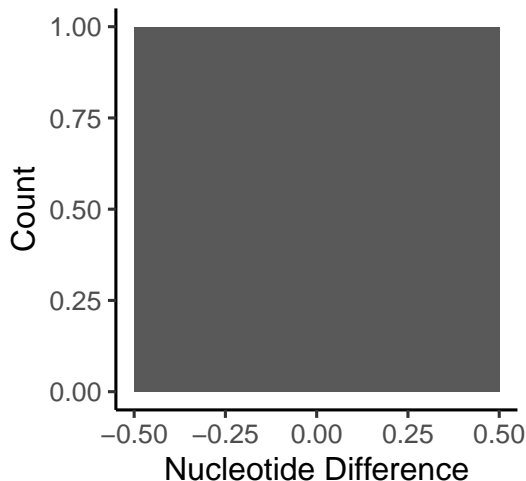
### IGHV3-21\*01\_02

1876 sequences assigned  
1782 (95%) exact matches, in which:  
1662 unique CDR3  
6 unique J



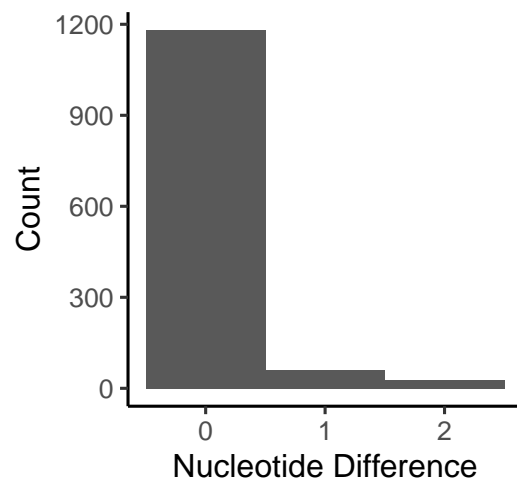
### IGHV3-47\*02

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



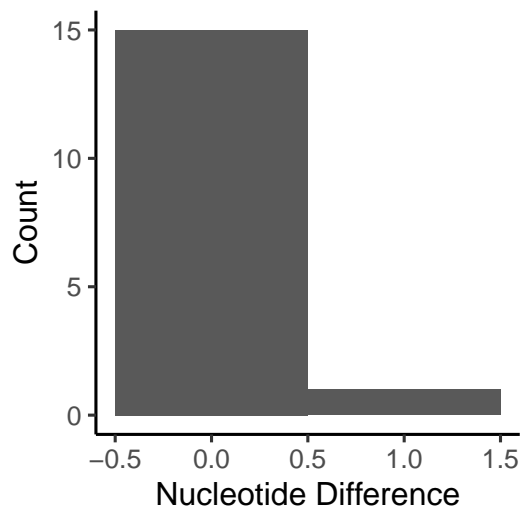
### IGHV3-53\*01\_02

1269 sequences assigned  
1181 (93.1%) exact matches, in which:  
1096 unique CDR3  
6 unique J



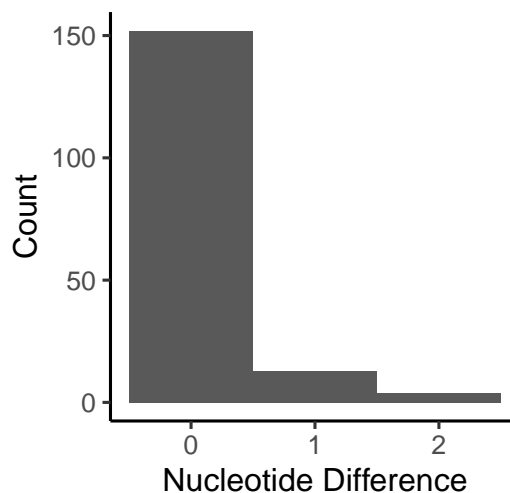
### IGHV3-64\*02\_07

16 sequences assigned  
15 (93.8%) exact matches, in which:  
13 unique CDR3  
4 unique J



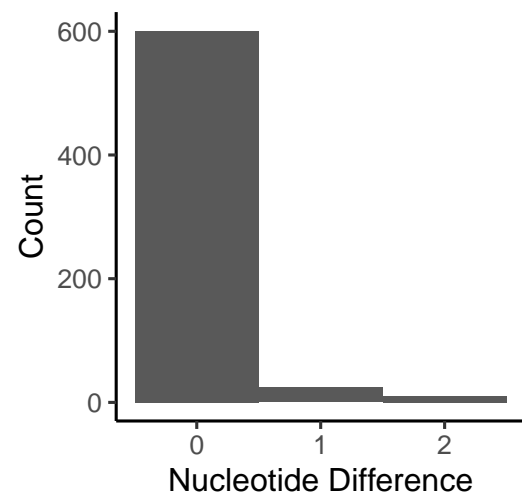
### IGHV3-73\*01\_02

169 sequences assigned  
152 (89.9%) exact matches, in which:  
142 unique CDR3  
5 unique J



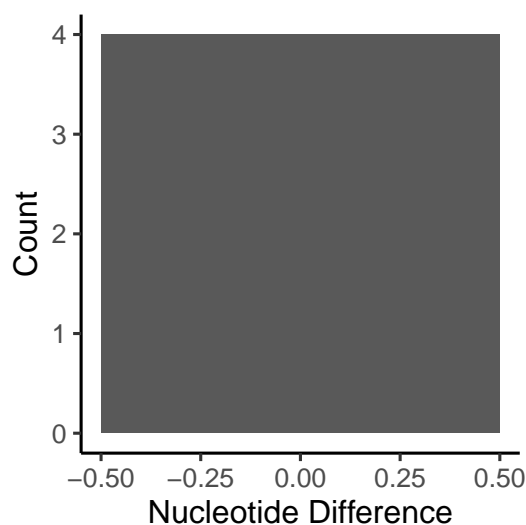
### IGHV4-4\*07

636 sequences assigned  
601 (94.5%) exact matches, in which:  
575 unique CDR3  
6 unique J



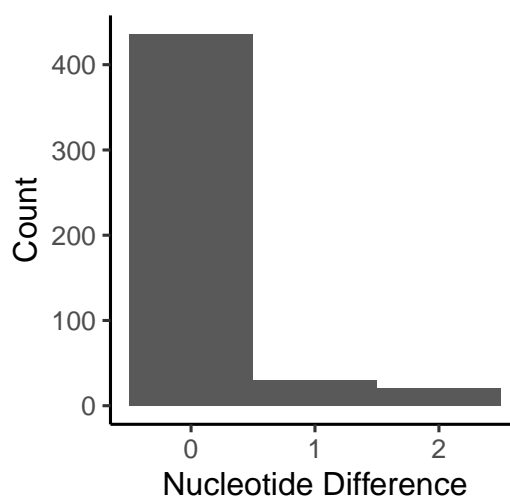
### IGHV3-66\*03

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



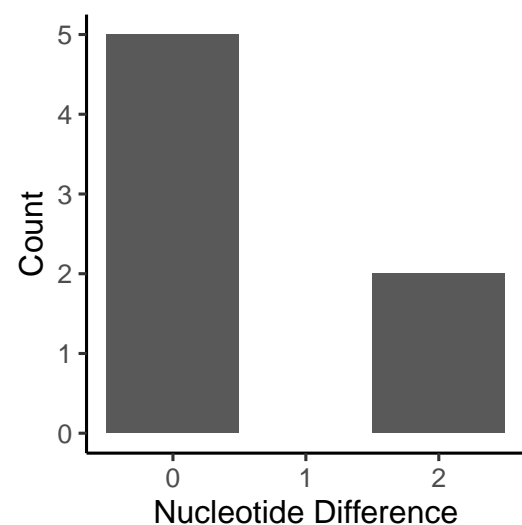
### IGHV3-74\*01\_02

486 sequences assigned  
436 (89.7%) exact matches, in which:  
416 unique CDR3  
6 unique J



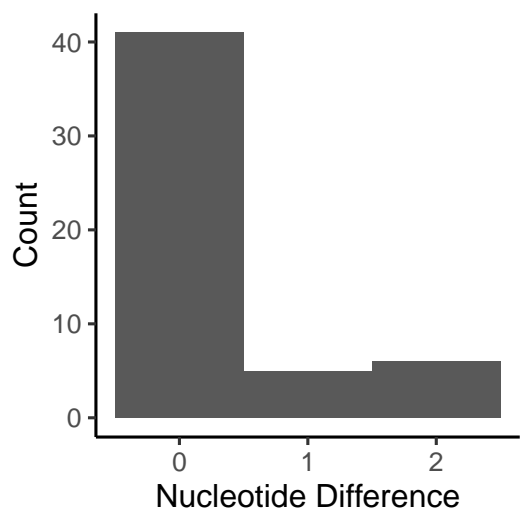
### IGHV4-28\*01\_07

7 sequences assigned  
5 (71.4%) exact matches, in which:  
5 unique CDR3  
4 unique J



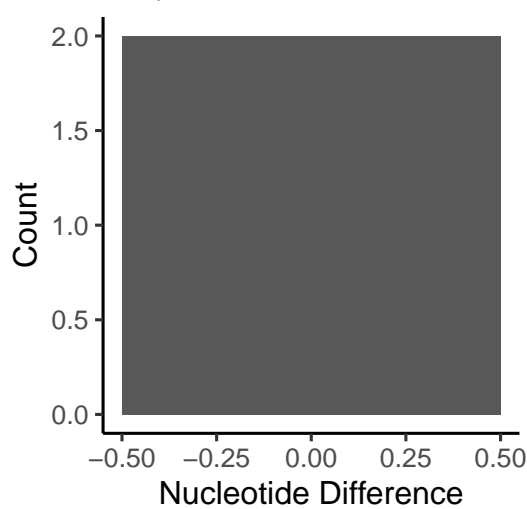
### IGHV3-72\*01

52 sequences assigned  
41 (78.8%) exact matches, in which:  
39 unique CDR3  
5 unique J



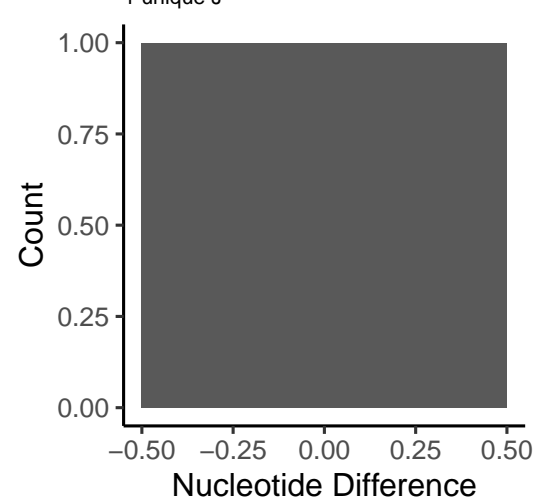
### IGHV3-64D\*06

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



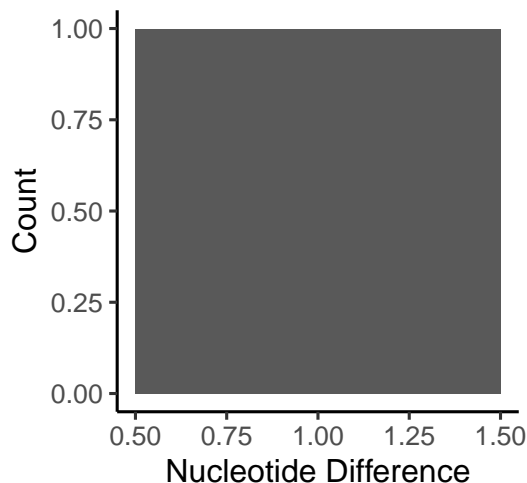
### IGHV4-28\*02\_05

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



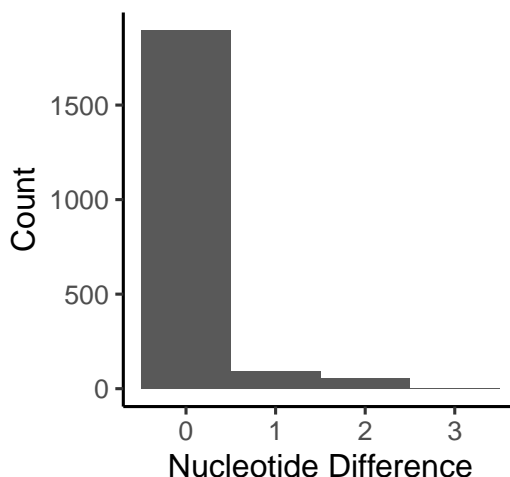
### IGHV4-31\*03\_04

1 sequences assigned  
No exact matches.



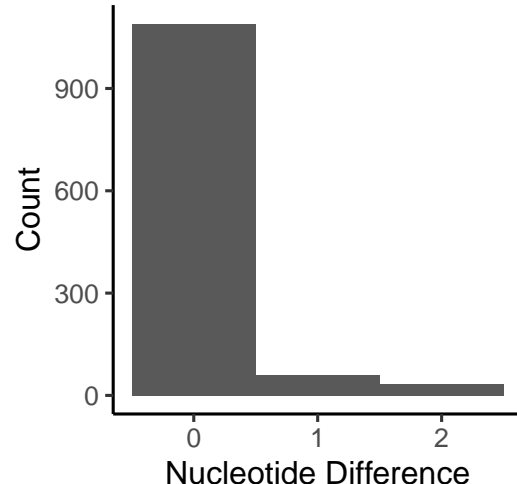
### IGHV4-39\*01\_05

2046 sequences assigned  
1895 (92.6%) exact matches, in which:  
1814 unique CDR3  
6 unique J



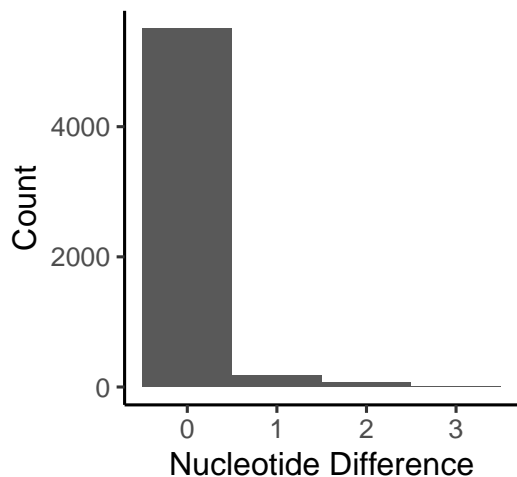
### IGHV5-51\*01\_03

1184 sequences assigned  
1090 (92.1%) exact matches, in which:  
1087 unique CDR3  
6 unique J



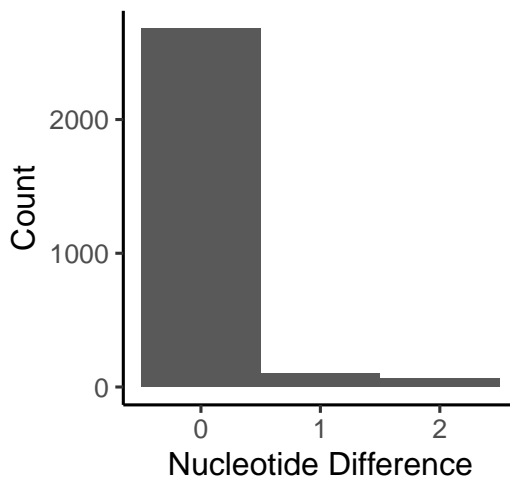
### IGHV4-34\*01\_02

5753 sequences assigned  
5505 (95.7%) exact matches, in which:  
5211 unique CDR3  
6 unique J



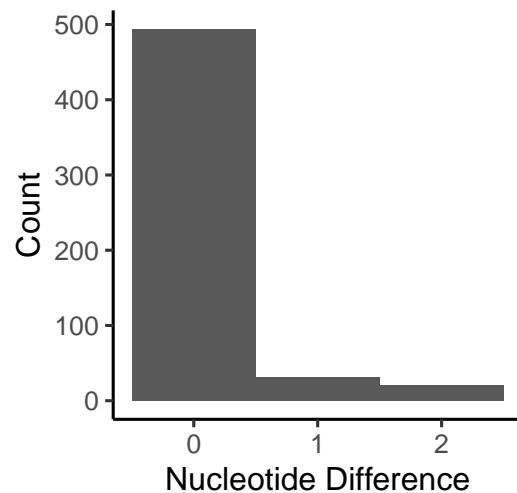
### IGHV4-59\*01\_07

2848 sequences assigned  
2679 (94.1%) exact matches, in which:  
2533 unique CDR3  
6 unique J



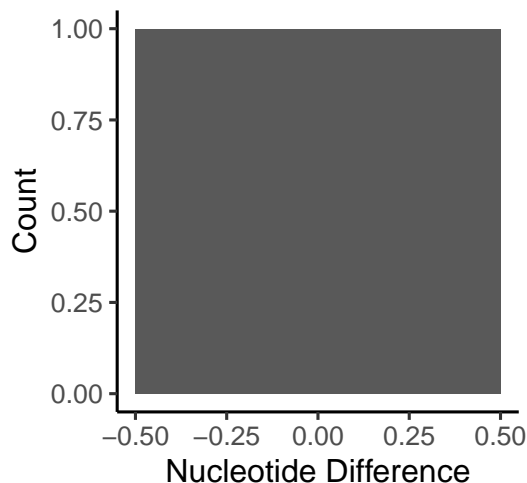
### IGHV6-1\*01\_02

545 sequences assigned  
494 (90.6%) exact matches, in which:  
493 unique CDR3  
6 unique J



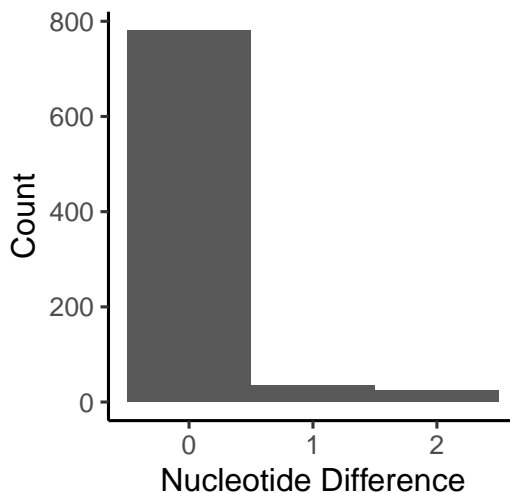
### IGHV4-38-2\*02

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



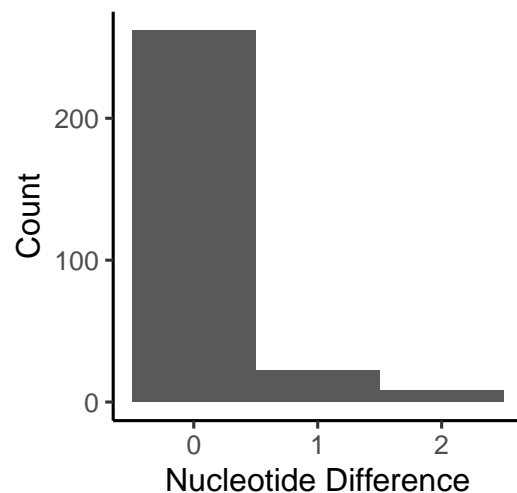
### IGHV4-61\*01

840 sequences assigned  
781 (93%) exact matches, in which:  
743 unique CDR3  
6 unique J



### IGHV7-4-1\*02

292 sequences assigned  
262 (89.7%) exact matches, in which:  
255 unique CDR3  
6 unique J





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\_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–11\*06\_T300CIGHV4–38–2\*02\_A70GIGHV4–39\*02\_C258GIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–39\*02\_C258GIGHV4–59\*02\_G88AIGHV5–51\*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.