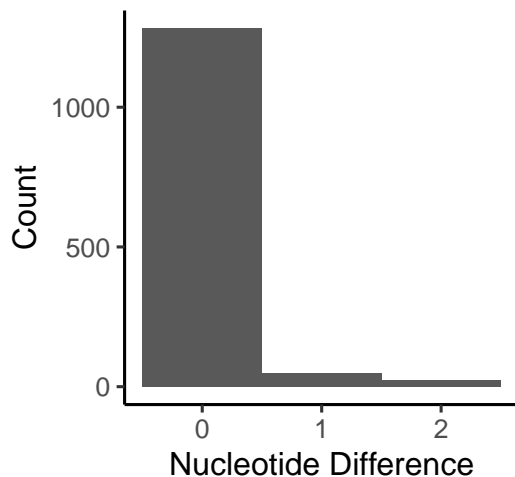


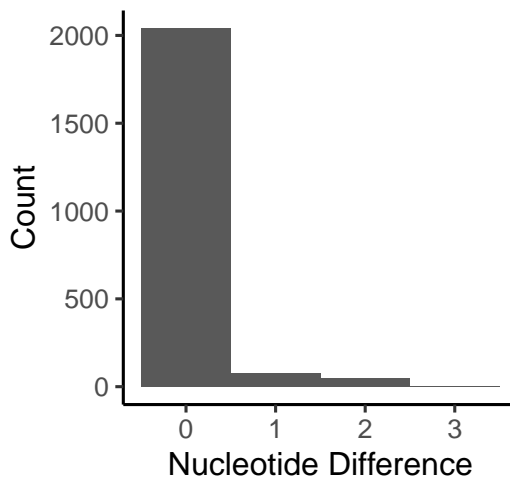
### IGHV1-2\*02

1353 sequences assigned  
1282 (94.8%) exact matches, in which:  
1281 unique CDR3  
6 unique J



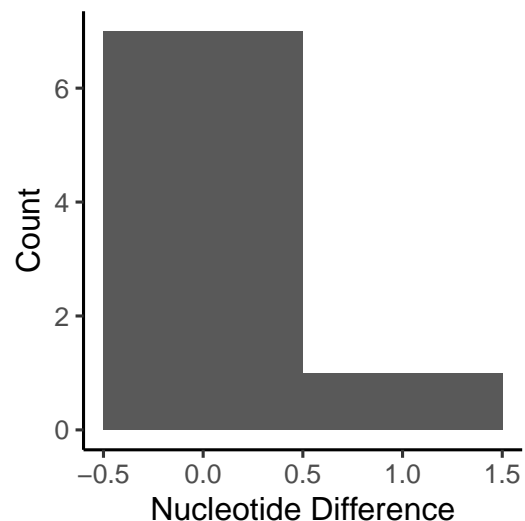
### IGHV1-8\*01

2164 sequences assigned  
2040 (94.3%) exact matches, in which:  
2030 unique CDR3  
6 unique J



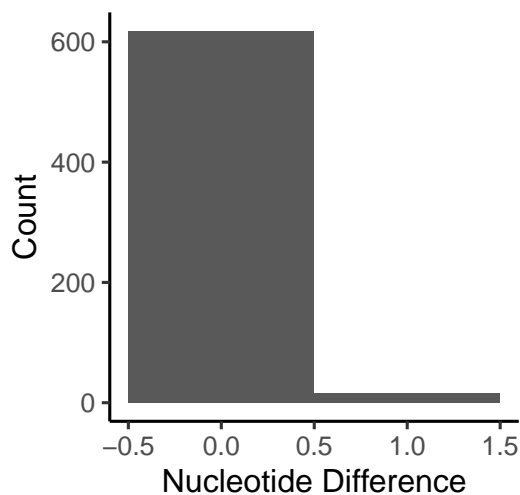
### IGHV1-45\*02

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



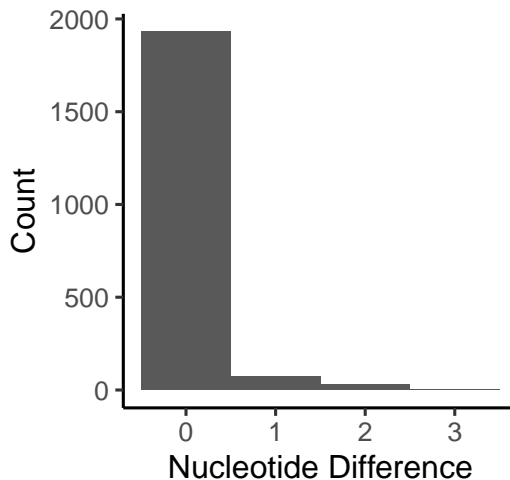
### IGHV1-2\*06

633 sequences assigned  
618 (97.6%) exact matches, in which:  
618 unique CDR3  
6 unique J



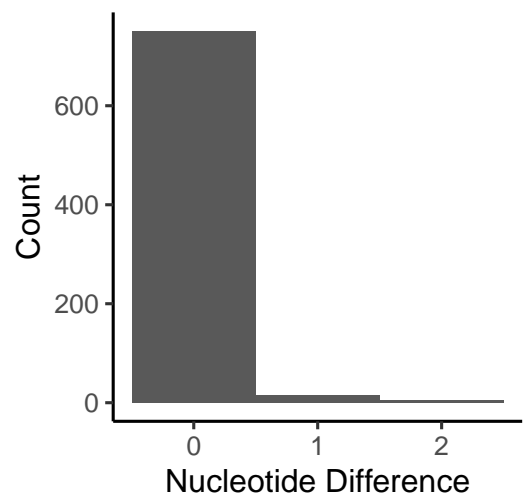
### IGHV1-18\*01

2036 sequences assigned  
1931 (94.8%) exact matches, in which:  
1925 unique CDR3  
6 unique J



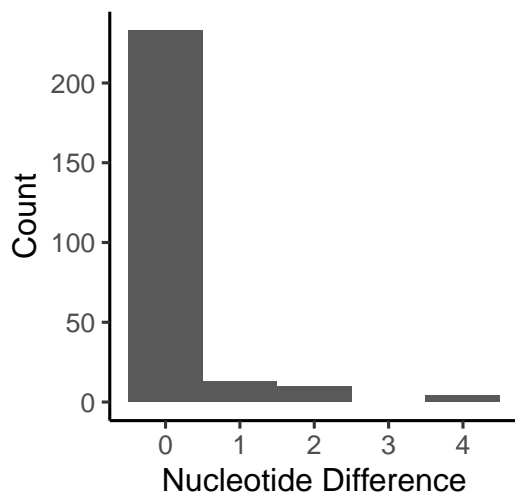
### IGHV1-46\*01

772 sequences assigned  
751 (97.3%) exact matches, in which:  
750 unique CDR3  
6 unique J



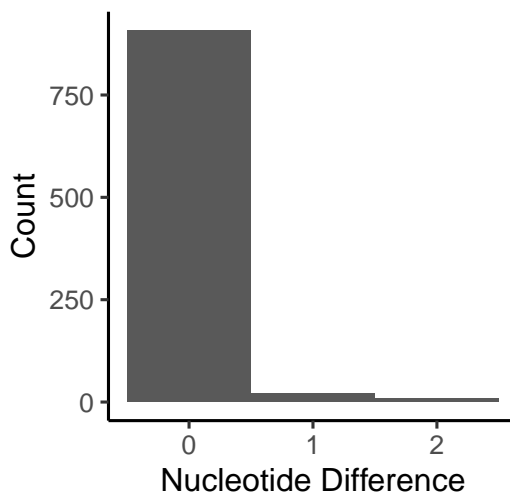
### IGHV1-3\*01\_05

260 sequences assigned  
233 (89.6%) exact matches, in which:  
233 unique CDR3  
6 unique J



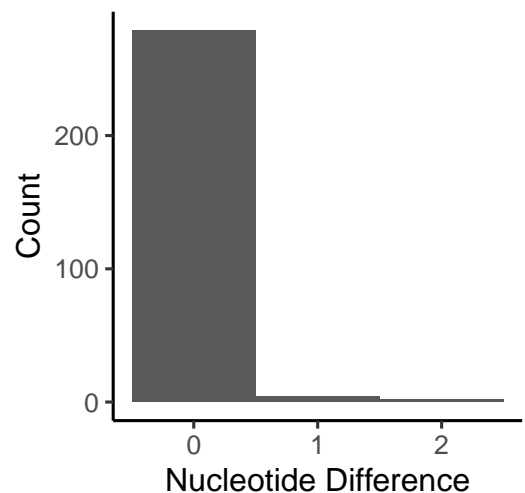
### IGHV1-24\*01

937 sequences assigned  
908 (96.9%) exact matches, in which:  
906 unique CDR3  
6 unique J



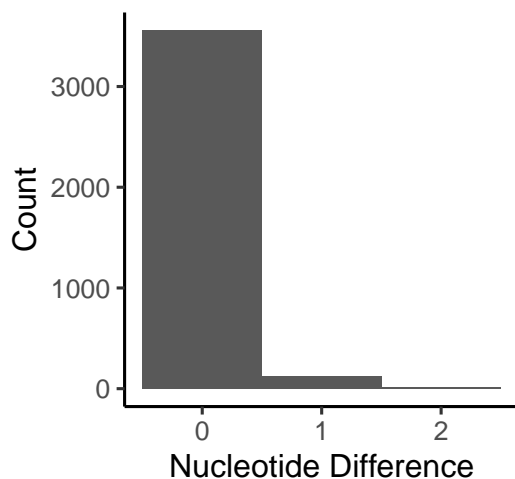
### IGHV1-58\*01\_03

285 sequences assigned  
279 (97.9%) exact matches, in which:  
278 unique CDR3  
6 unique J



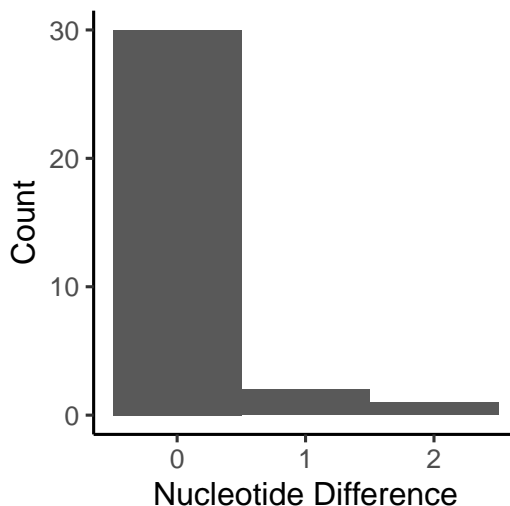
### IGHV1-69\*01\_12\_13

3693 sequences assigned  
3557 (96.3%) exact matches, in which:  
3549 unique CDR3  
6 unique J



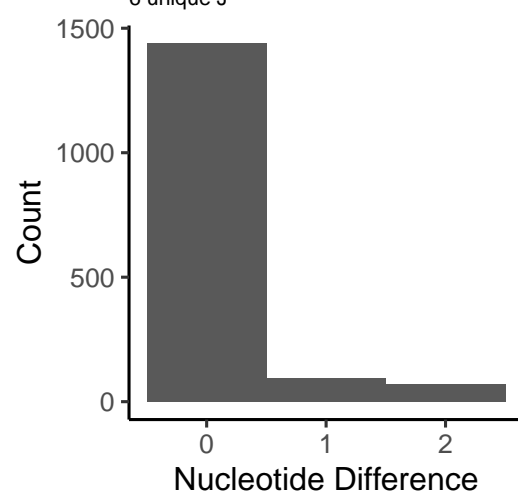
### IGHV2-26\*01

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



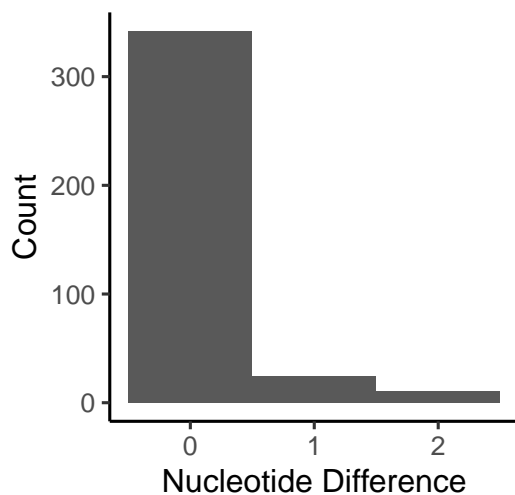
### IGHV3-7\*01

1606 sequences assigned  
1439 (89.6%) exact matches, in which:  
1364 unique CDR3  
6 unique J



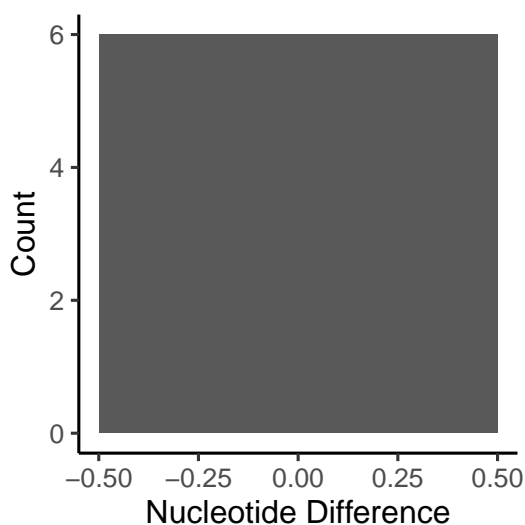
### IGHV2-5\*01

377 sequences assigned  
342 (90.7%) exact matches, in which:  
339 unique CDR3  
6 unique J



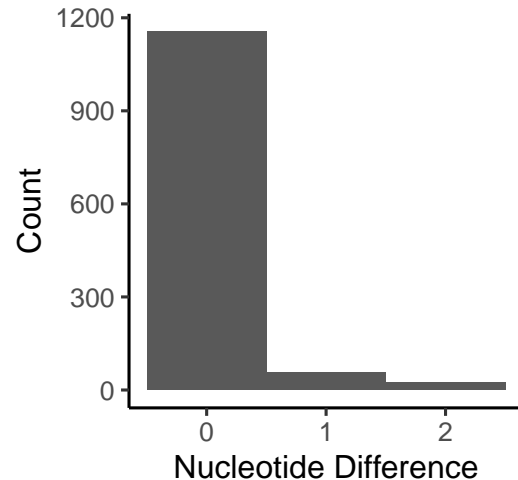
### IGHV2-26\*04

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



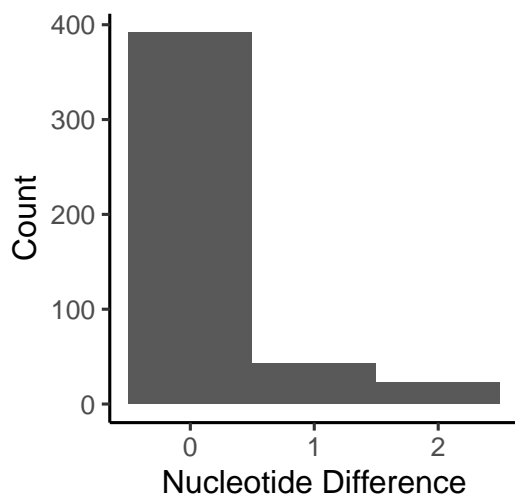
### IGHV3-9\*01

1238 sequences assigned  
1155 (93.3%) exact matches, in which:  
1115 unique CDR3  
6 unique J



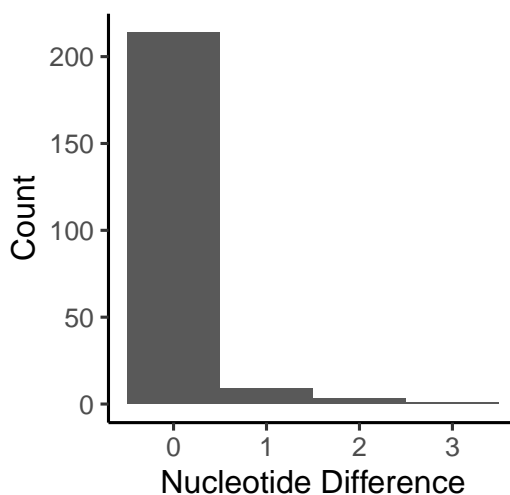
### IGHV2-5\*02

458 sequences assigned  
392 (85.6%) exact matches, in which:  
382 unique CDR3  
6 unique J



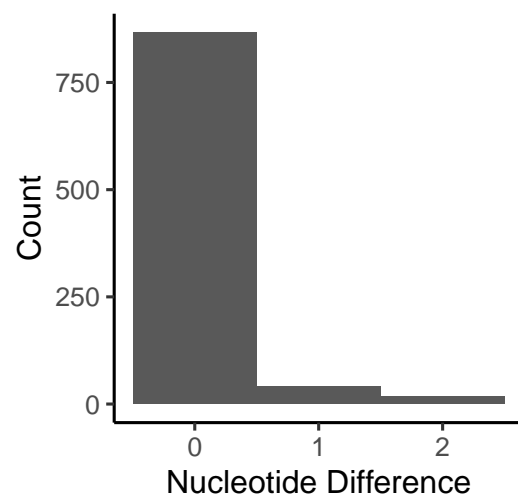
### IGHV2-70\*01

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



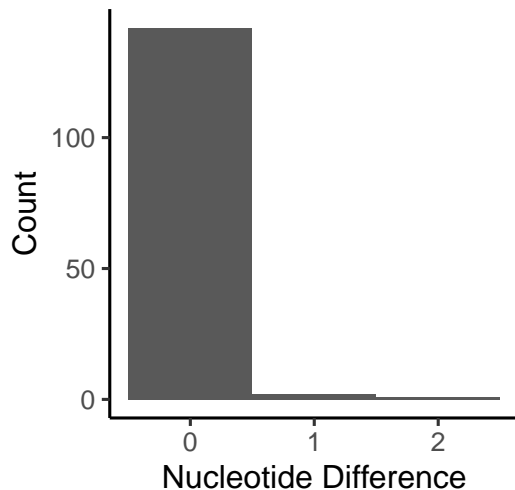
### IGHV3-11\*01

925 sequences assigned  
867 (93.7%) exact matches, in which:  
810 unique CDR3  
6 unique J



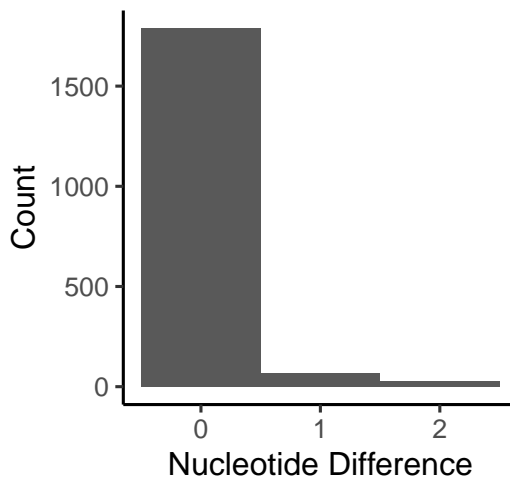
### IGHV3-13\*01

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



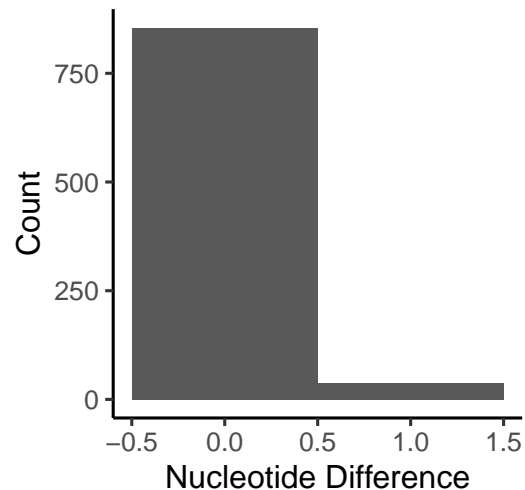
### IGHV3-21\*01\_02

1882 sequences assigned  
1788 (95%) exact matches, in which:  
1668 unique CDR3  
6 unique J



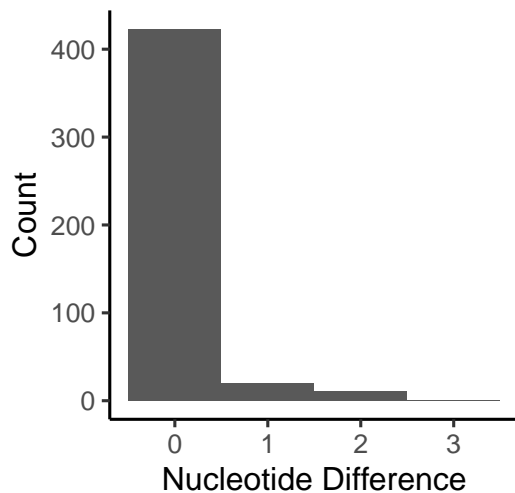
### IGHV3-33\*08

892 sequences assigned  
855 (95.9%) exact matches, in which:  
822 unique CDR3  
6 unique J



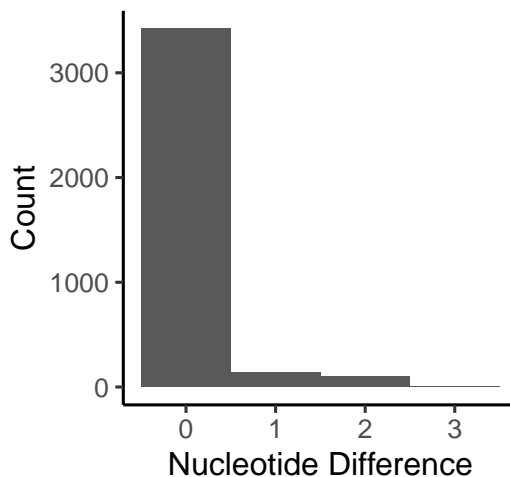
### IGHV3-15\*01\_02

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



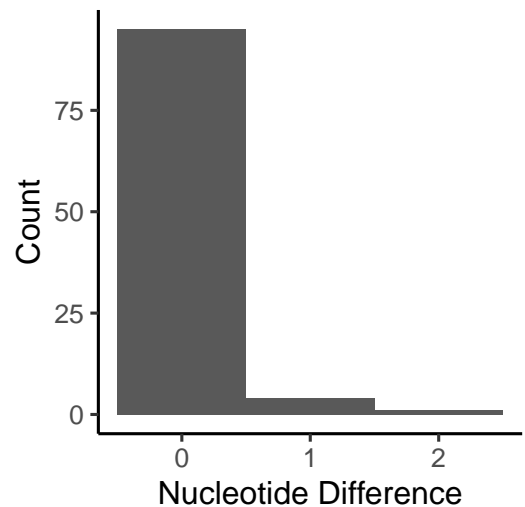
### IGHV3-23\*01\_04

3652 sequences assigned  
3421 (93.7%) exact matches, in which:  
3173 unique CDR3  
6 unique J



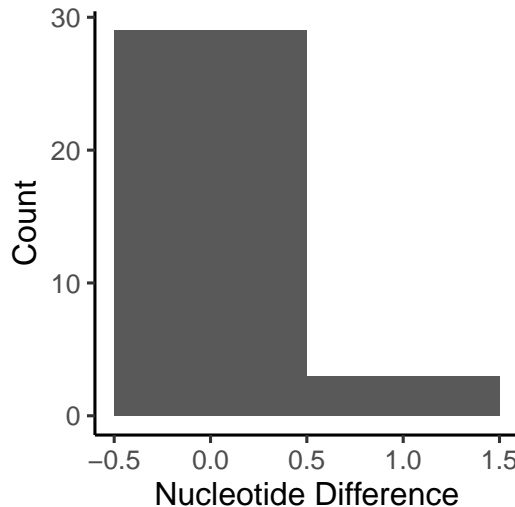
### IGHV3-43\*01

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



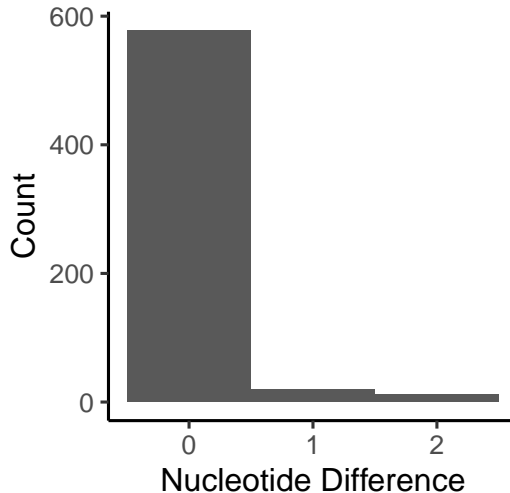
### IGHV3-20\*01\_02

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



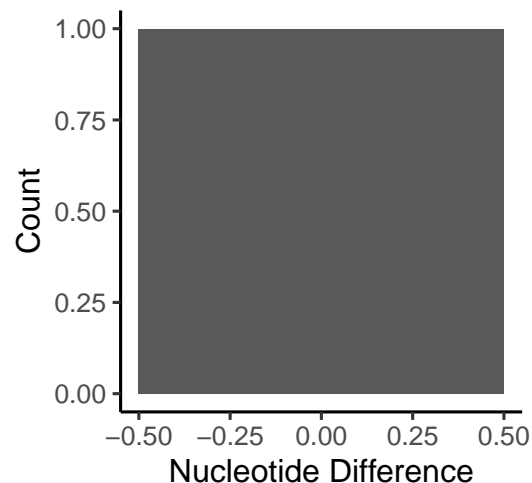
### IGHV3-33\*01

610 sequences assigned  
578 (94.8%) exact matches, in which:  
546 unique CDR3  
6 unique J



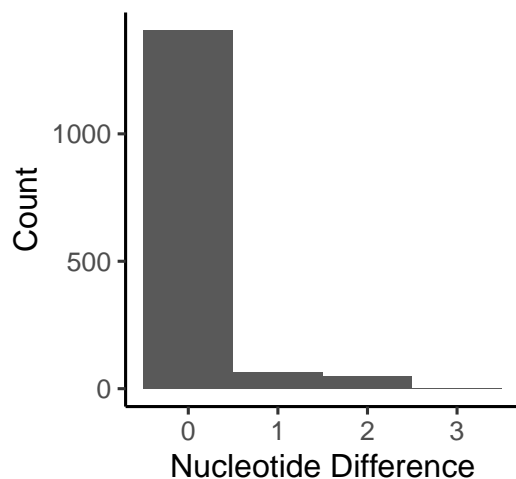
### IGHV3-47\*02

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



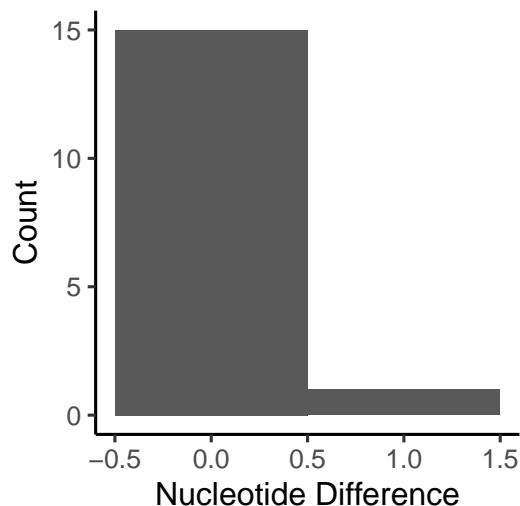
### IGHV3-48\*02

1523 sequences assigned  
1406 (92.3%) exact matches, in which:  
1280 unique CDR3  
6 unique J



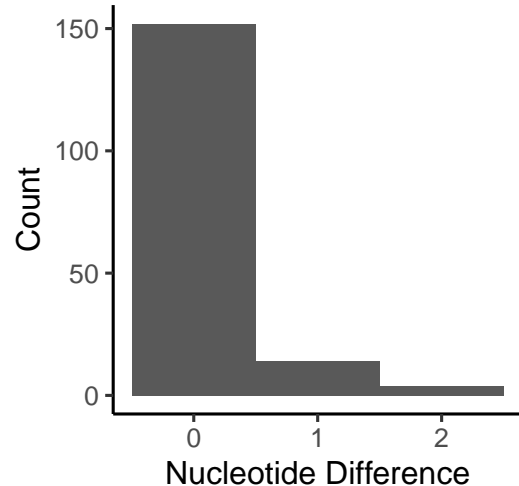
### IGHV3-64\*02\_07

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



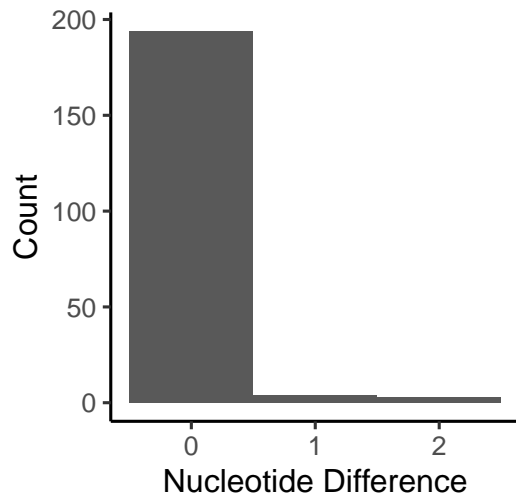
### IGHV3-73\*01\_02

170 sequences assigned  
152 (89.4%) exact matches, in which:  
142 unique CDR3  
5 unique J



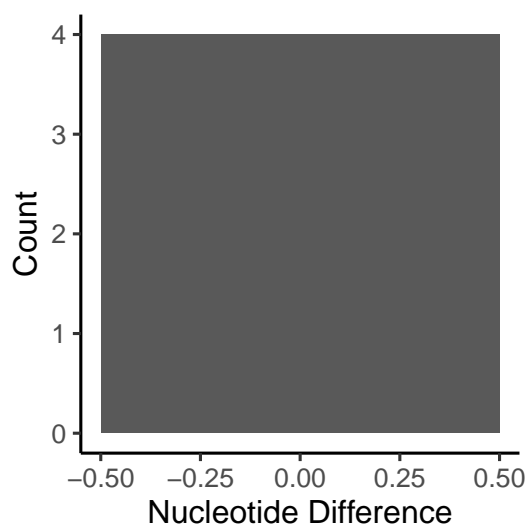
### IGHV3-49\*03\_05

201 sequences assigned  
194 (96.5%) exact matches, in which:  
190 unique CDR3  
6 unique J



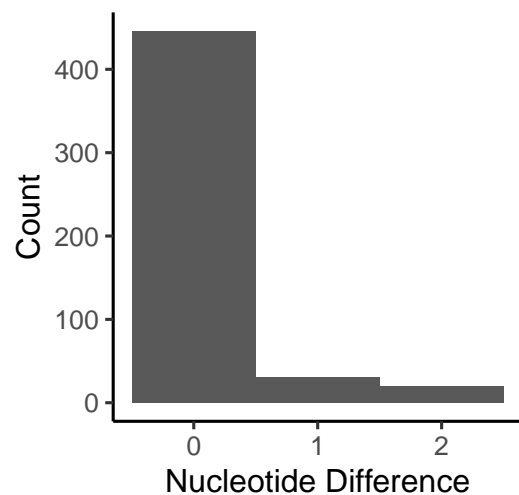
### IGHV3-66\*03

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



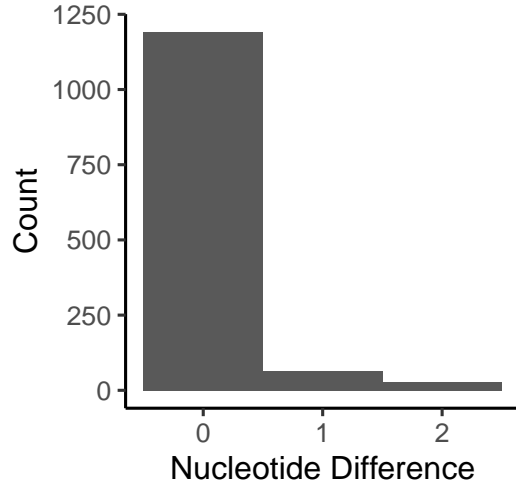
### IGHV3-74\*01\_02

496 sequences assigned  
446 (89.9%) exact matches, in which:  
426 unique CDR3  
6 unique J



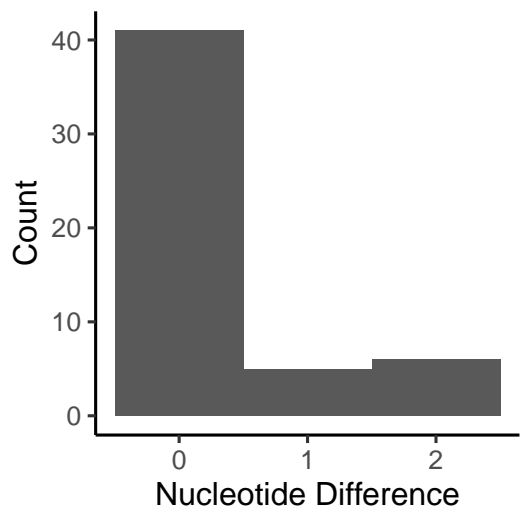
### IGHV3-53\*01\_02

1282 sequences assigned  
1191 (92.9%) exact matches, in which:  
1105 unique CDR3  
6 unique J



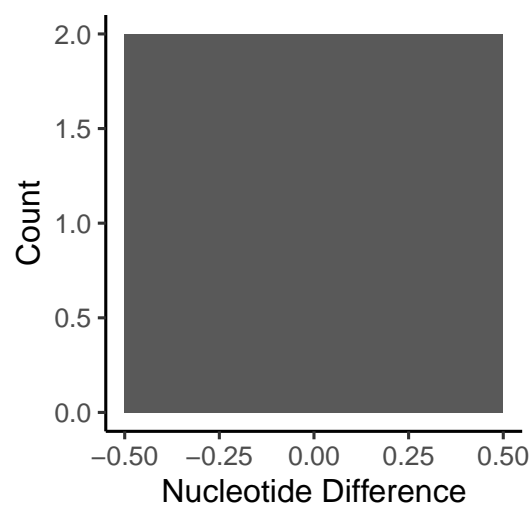
### IGHV3-72\*01

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



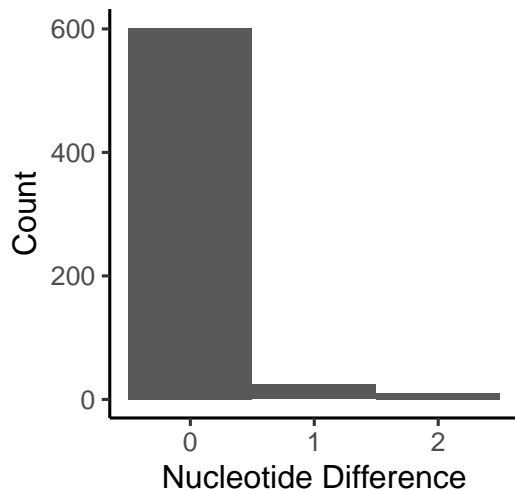
### IGHV3-64D\*06

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



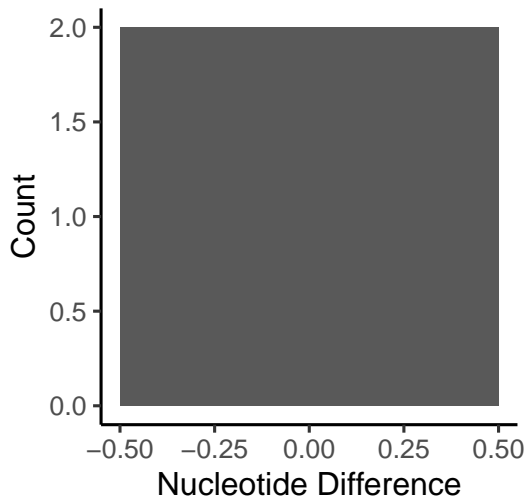
### IGHV4-4\*07

637 sequences assigned  
602 (94.5%) exact matches, in which:  
576 unique CDR3  
6 unique J



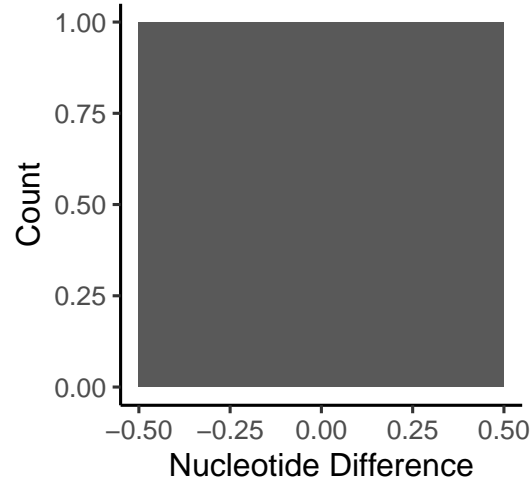
### IGHV4-28\*02\_05

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



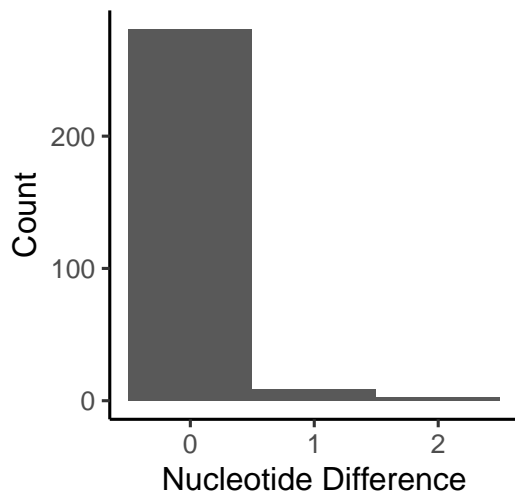
### IGHV4-38-2\*02

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



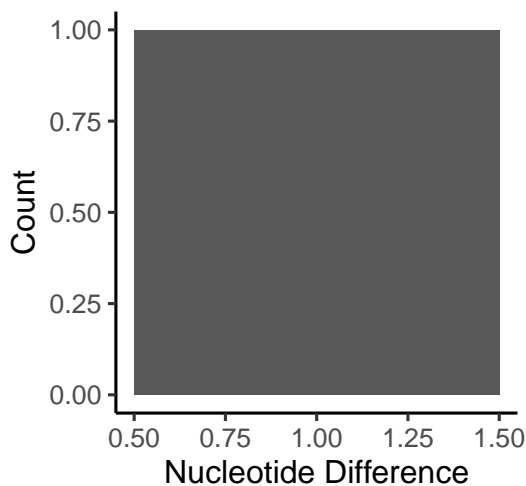
### IGHV4-4\*02\_03

293 sequences assigned  
281 (95.9%) exact matches, in which:  
276 unique CDR3  
6 unique J



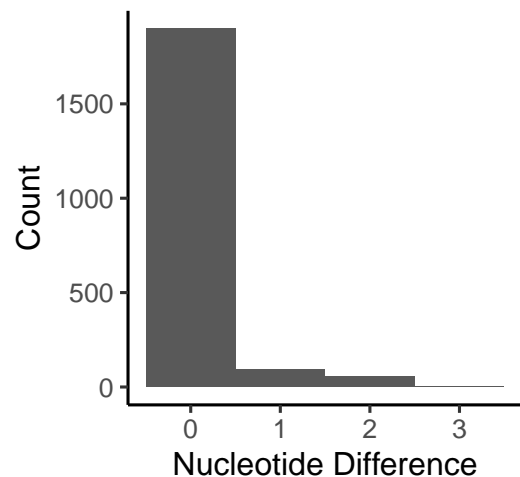
### IGHV4-31\*02

1 sequences assigned  
No exact matches.



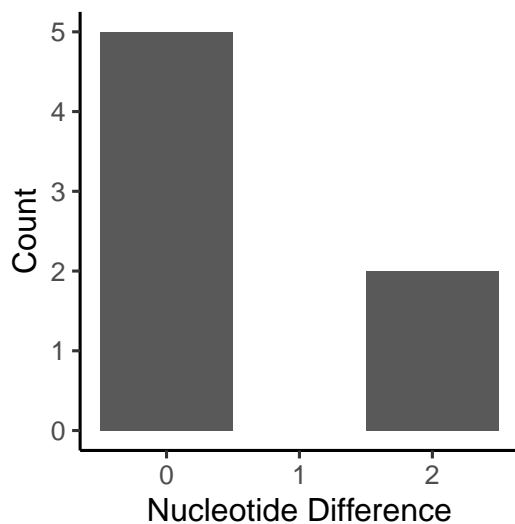
### IGHV4-39\*02\_C258G

2050 sequences assigned  
1898 (92.6%) exact matches, in which:  
1815 unique CDR3  
6 unique J



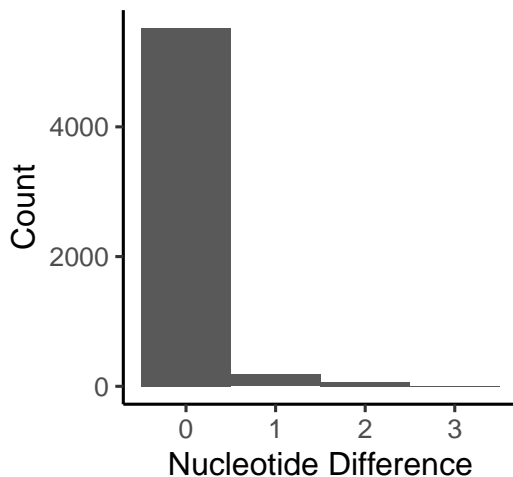
### IGHV4-28\*01\_07

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



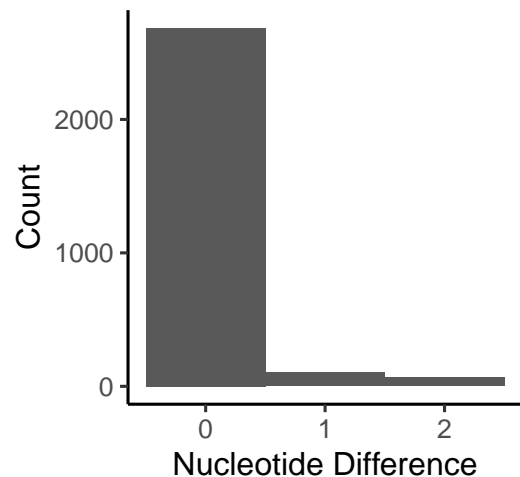
### IGHV4-34\*01\_02

5772 sequences assigned  
5523 (95.7%) exact matches, in which:  
5225 unique CDR3  
6 unique J



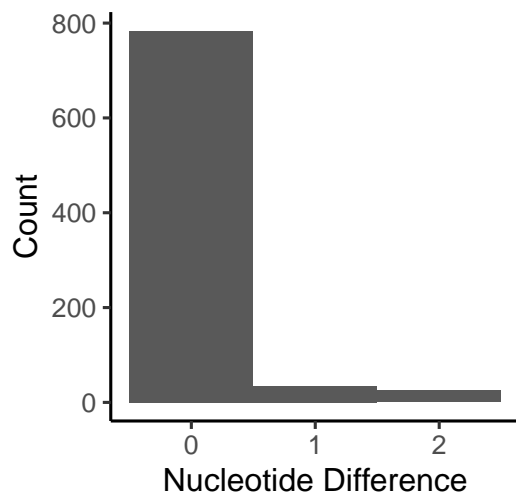
### IGHV4-59\*02\_G88A

2855 sequences assigned  
2685 (94%) exact matches, in which:  
2538 unique CDR3  
6 unique J



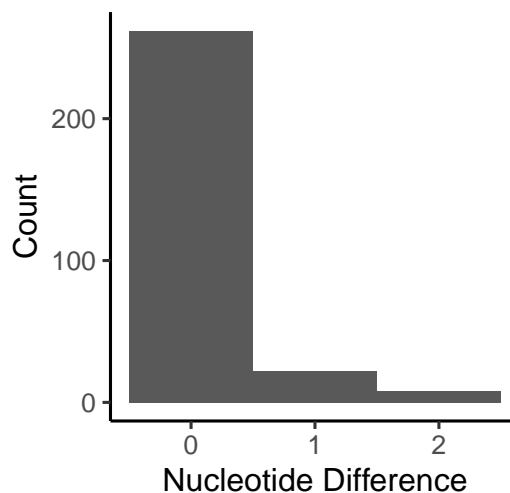
### IGHV4-61\*01

843 sequences assigned  
784 (93%) exact matches, in which:  
746 unique CDR3  
6 unique J



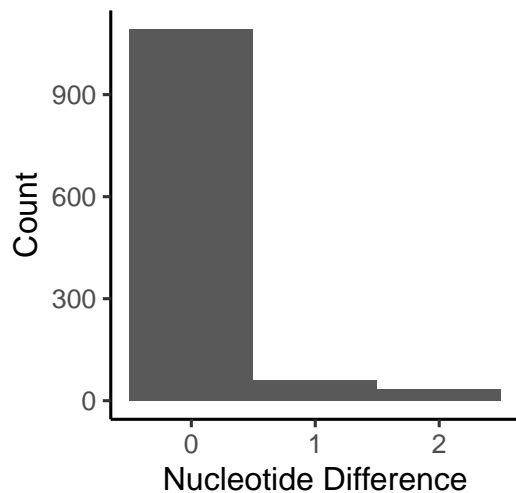
### IGHV7-4-1\*02

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



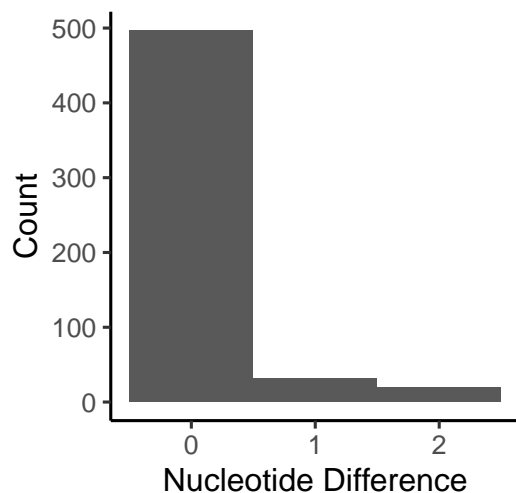
### IGHV5-51\*07\_A128G

1187 sequences assigned  
1093 (92.1%) exact matches, in which:  
1090 unique CDR3  
6 unique J



### IGHV6-1\*01\_02

548 sequences assigned  
497 (90.7%) exact matches, in which:  
496 unique CDR3  
6 unique J





Warning – no inferred sequences found.