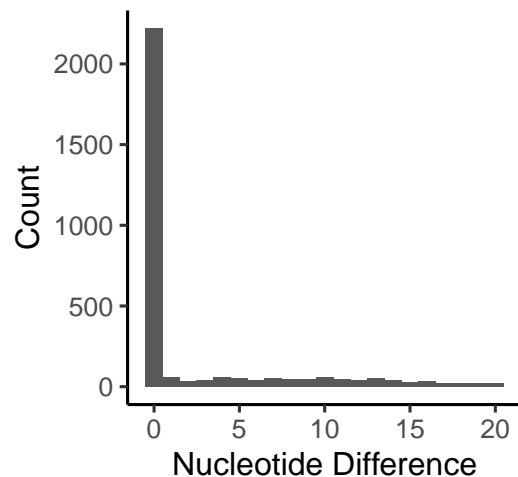


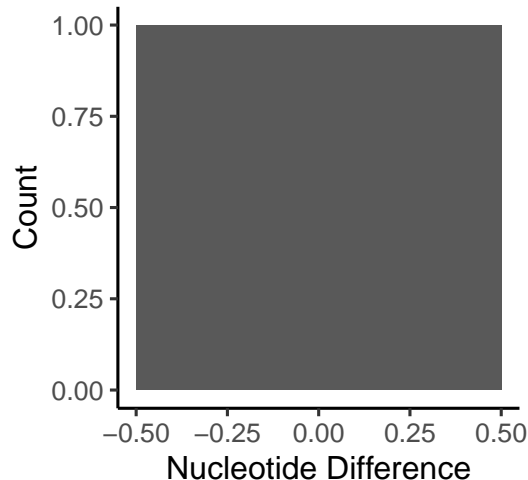
### IGHV1-2\*02

3182 sequences assigned  
2220 (69.8%) exact matches, in which:  
2212 unique CDR3  
6 unique J



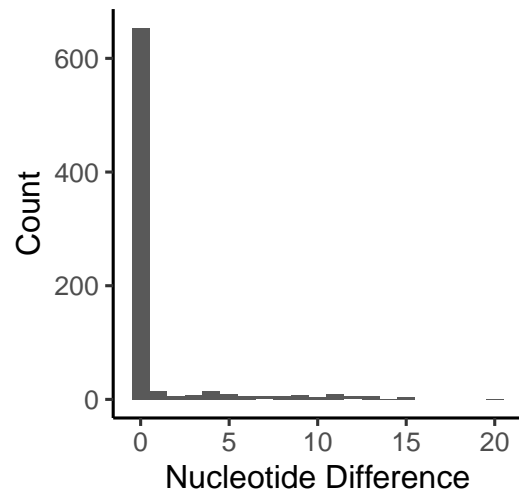
### IGHV1-3\*01\_05

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



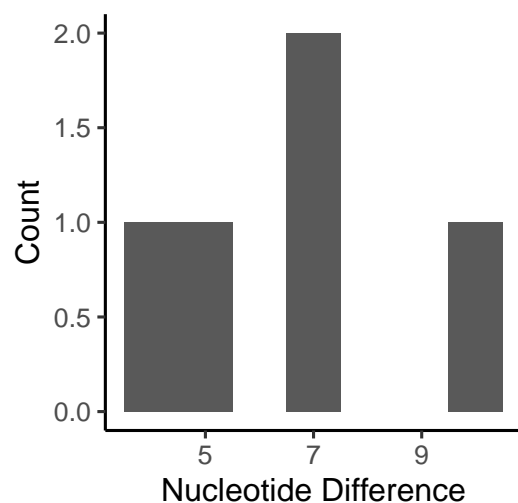
### IGHV1-24\*01

765 sequences assigned  
654 (85.5%) exact matches, in which:  
654 unique CDR3  
6 unique J



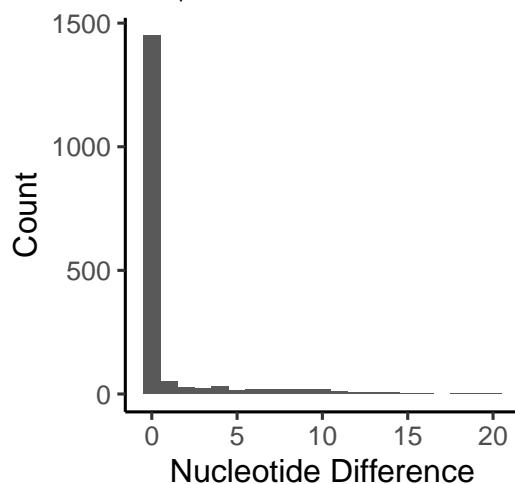
### IGHV1-3\*02

5 sequences assigned  
No exact matches.



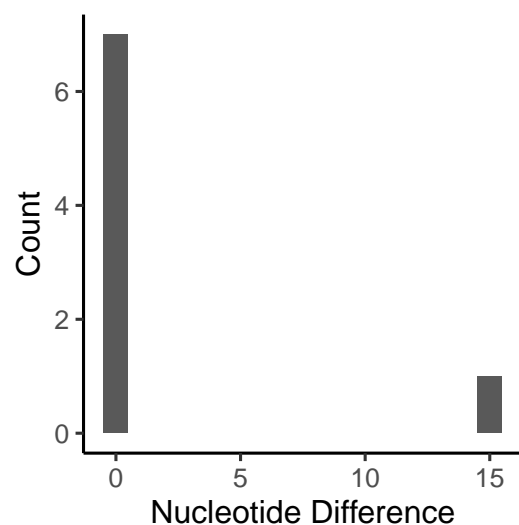
### IGHV1-8\*01

1741 sequences assigned  
1449 (83.2%) exact matches, in which:  
1445 unique CDR3  
6 unique J



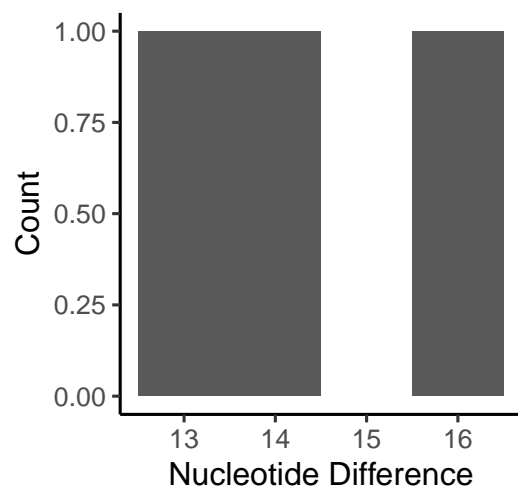
### IGHV1-45\*02

9 sequences assigned  
7 (77.8%) exact matches, in which:  
7 unique CDR3  
4 unique J



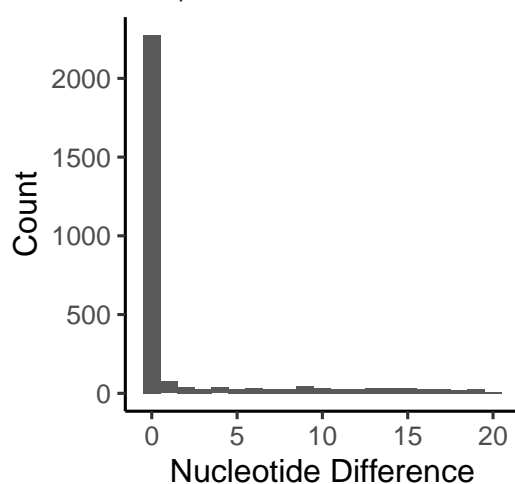
### IGHV1-3\*03

3 sequences assigned  
No exact matches.



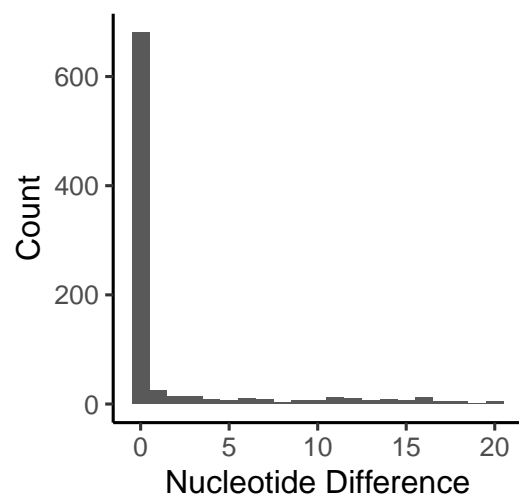
### IGHV1-18\*01

3059 sequences assigned  
2275 (74.4%) exact matches, in which:  
2268 unique CDR3  
6 unique J



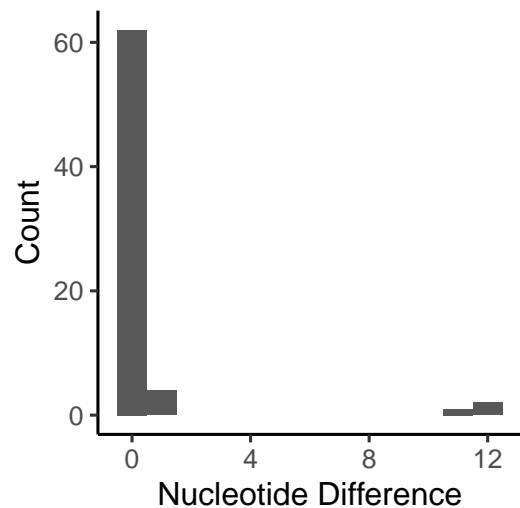
### IGHV1-46\*01

891 sequences assigned  
681 (76.4%) exact matches, in which:  
680 unique CDR3  
6 unique J



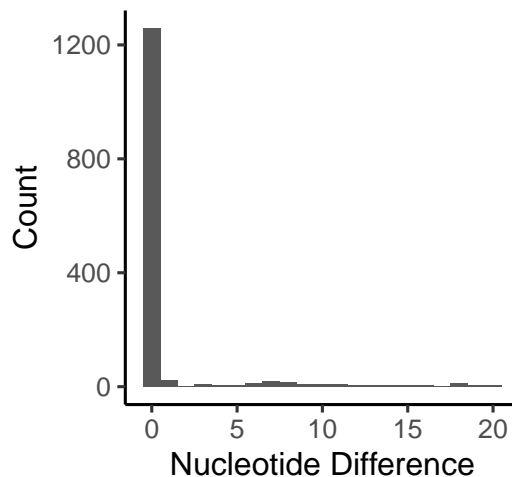
### IGHV1-58\*02

73 sequences assigned  
62 (84.9%) exact matches, in which:  
62 unique CDR3  
4 unique J



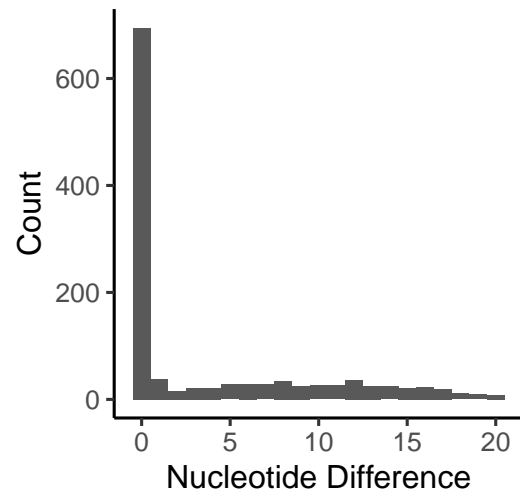
### IGHV1-69\*01\_12\_13

1454 sequences assigned  
1258 (86.5%) exact matches, in which:  
1257 unique CDR3  
6 unique J



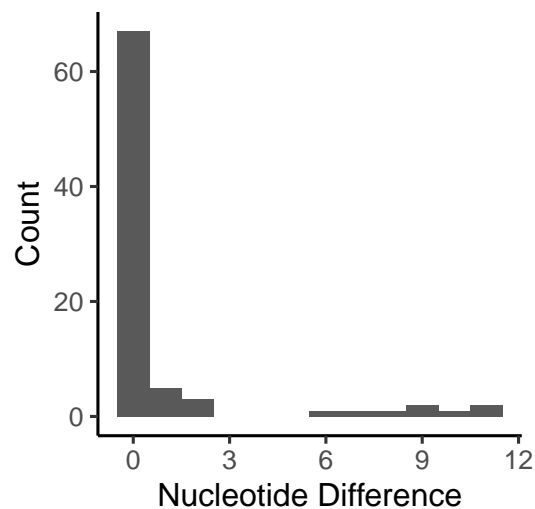
### IGHV2-5\*01

1323 sequences assigned  
695 (52.5%) exact matches, in which:  
694 unique CDR3  
6 unique J



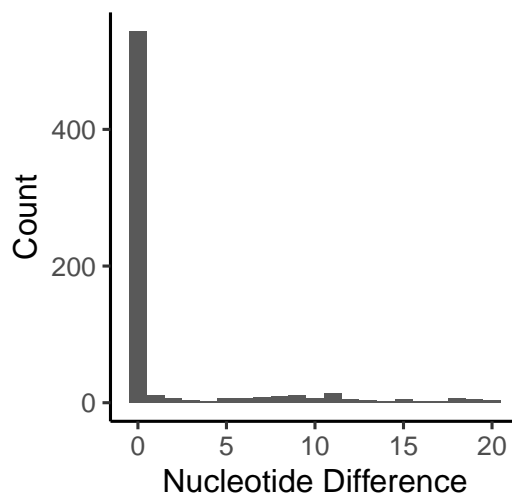
### IGHV1-58\*01\_03

86 sequences assigned  
67 (77.9%) exact matches, in which:  
67 unique CDR3  
6 unique J



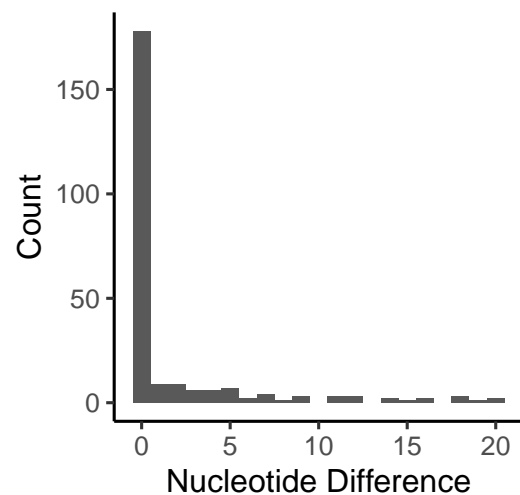
### IGHV1-69\*17

679 sequences assigned  
544 (80.1%) exact matches, in which:  
543 unique CDR3  
6 unique J



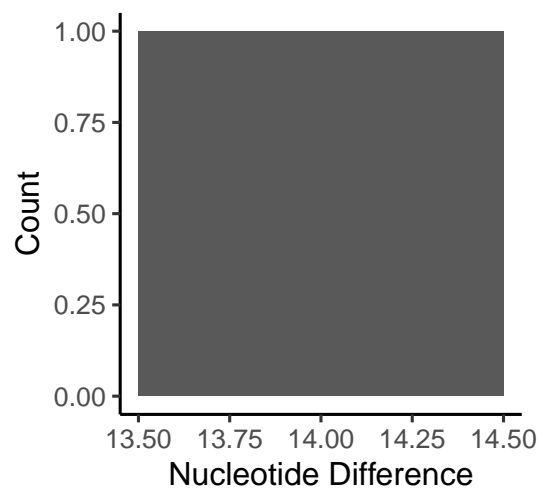
### IGHV2-26\*01

243 sequences assigned  
178 (73.3%) exact matches, in which:  
175 unique CDR3  
5 unique J



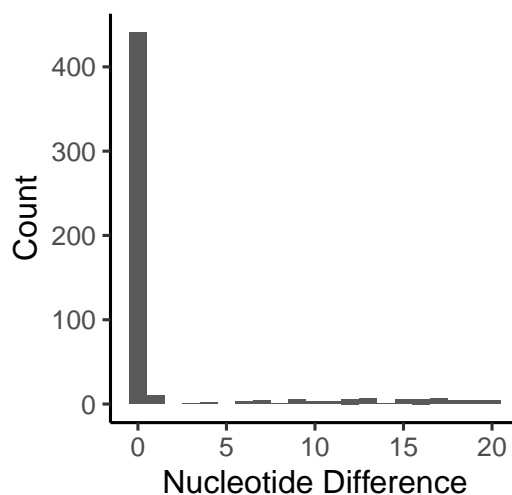
### IGHV1-69-2\*01

1 sequences assigned  
No exact matches.



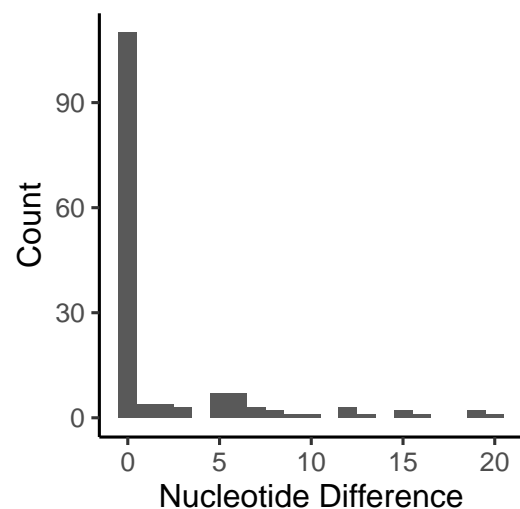
### IGHV1-69\*04\_09\_G112A

547 sequences assigned  
441 (80.6%) exact matches, in which:  
441 unique CDR3  
6 unique J



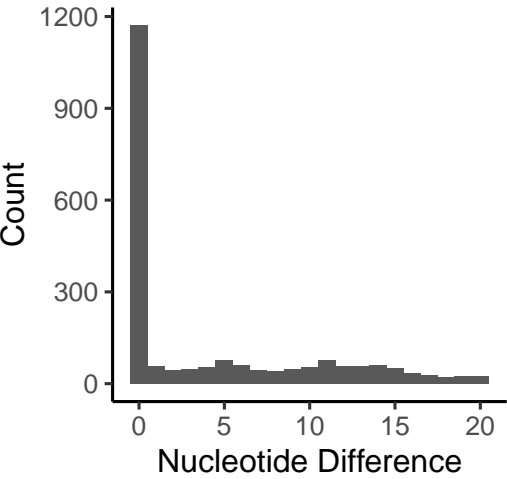
### IGHV2-70\*01

155 sequences assigned  
110 (71%) exact matches, in which:  
110 unique CDR3  
6 unique J



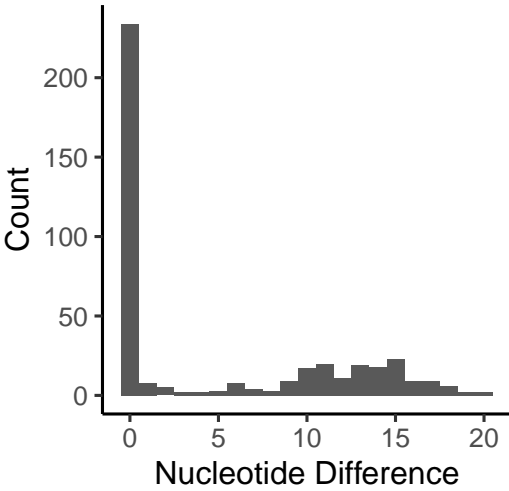
IGHV3-7\*01

2203 sequences assigned  
1171 (53.2%) exact matches, in which:  
1112 unique CDR3  
6 unique J



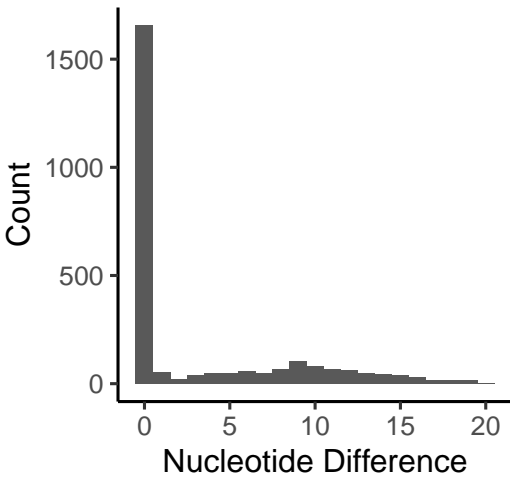
IGHV3-13\*01

445 sequences assigned  
234 (52.6%) exact matches, in which:  
221 unique CDR3  
6 unique J



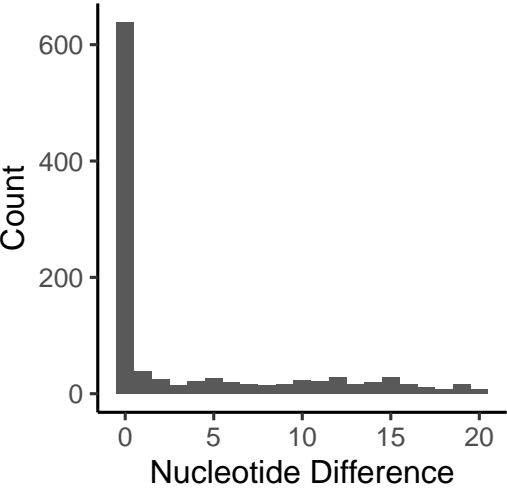
IGHV3-21\*01\_02

2674 sequences assigned  
1656 (61.9%) exact matches, in which:  
1542 unique CDR3  
6 unique J



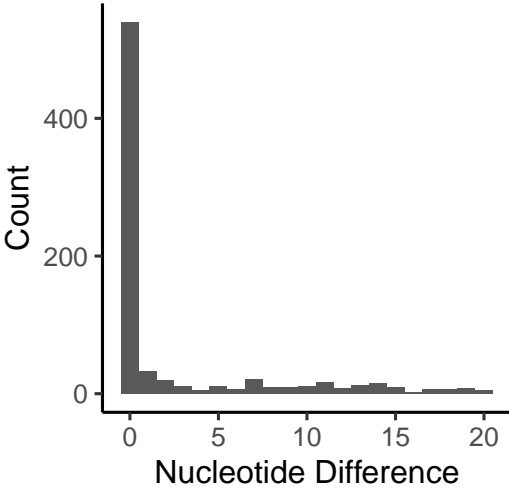
IGHV3-9\*01

1067 sequences assigned  
639 (59.9%) exact matches, in which:  
608 unique CDR3  
6 unique J



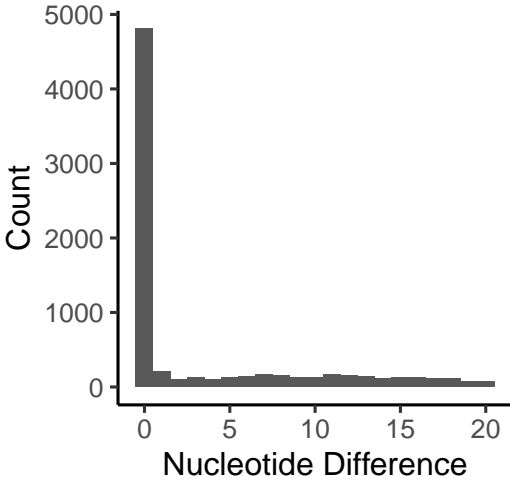
IGHV3-15\*01\_02

781 sequences assigned  
540 (69.1%) exact matches, in which:  
499 unique CDR3  
6 unique J



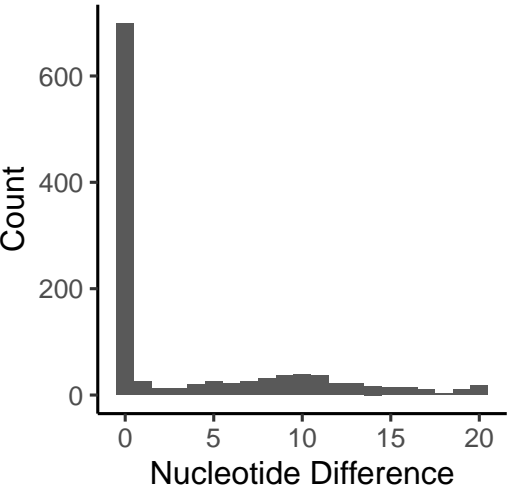
IGHV3-23\*01\_04

7725 sequences assigned  
4808 (62.2%) exact matches, in which:  
4592 unique CDR3  
6 unique J



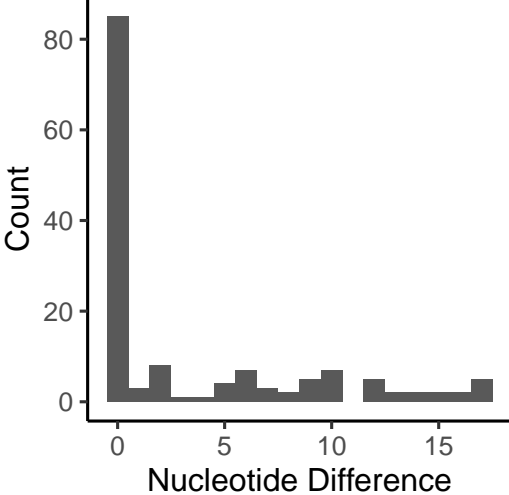
IGHV3-11\*01

1155 sequences assigned  
699 (60.5%) exact matches, in which:  
659 unique CDR3  
6 unique J



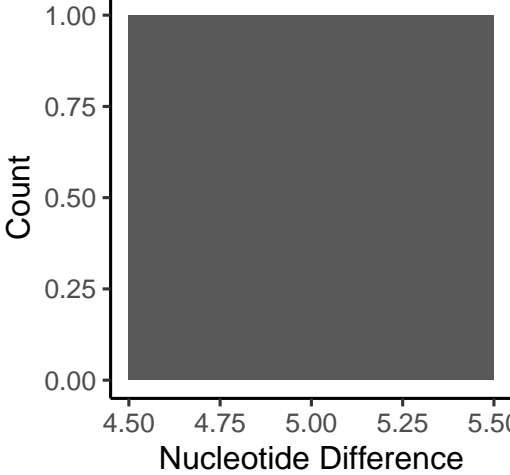
IGHV3-20\*01\_02

144 sequences assigned  
85 (59%) exact matches, in which:  
80 unique CDR3  
6 unique J



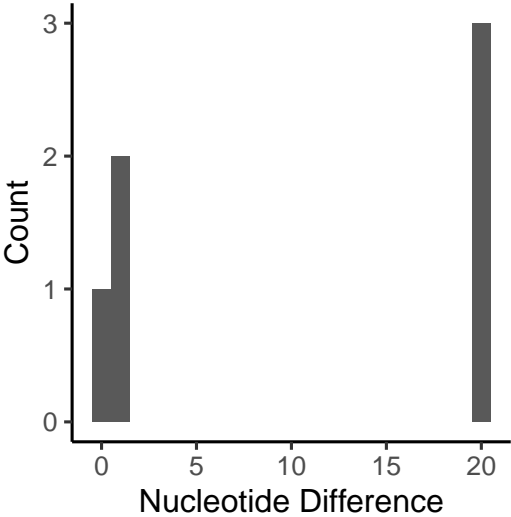
IGHV3-30-3\*02

1 sequences assigned  
No exact matches.



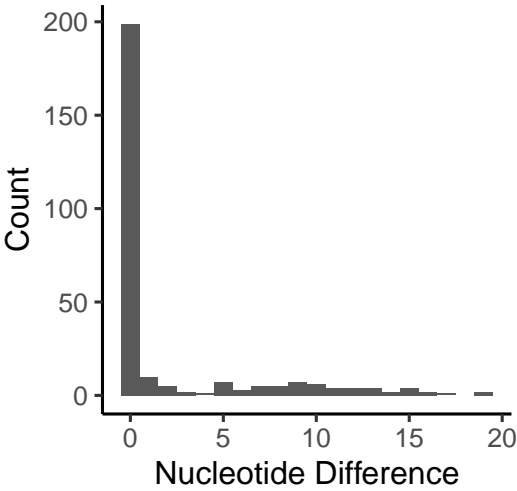
IGHV3-30-3\*03

7 sequences assigned  
1 (14.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



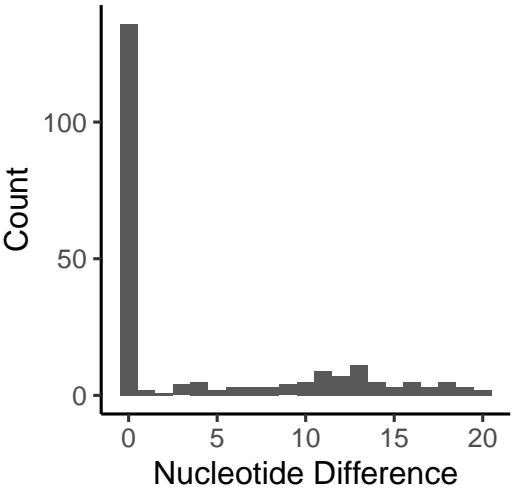
IGHV3-43\*01

283 sequences assigned  
199 (70.3%) exact matches, in which:  
189 unique CDR3  
6 unique J



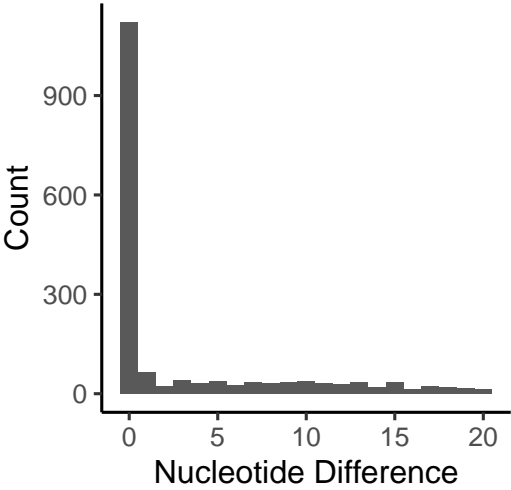
IGHV3-49\*03\_05

259 sequences assigned  
136 (52.5%) exact matches, in which:  
134 unique CDR3  
5 unique J



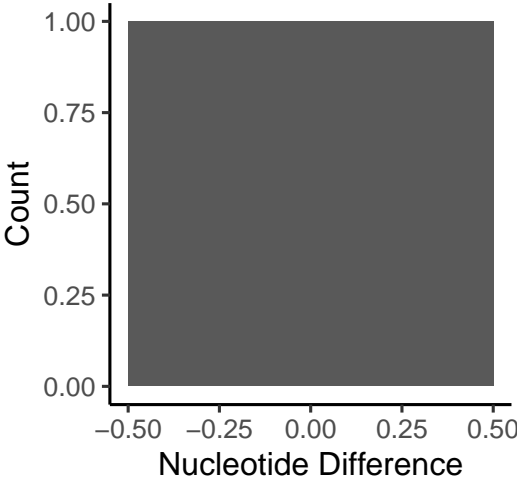
IGHV3-33\*01

1810 sequences assigned  
1122 (62%) exact matches, in which:  
1035 unique CDR3  
6 unique J



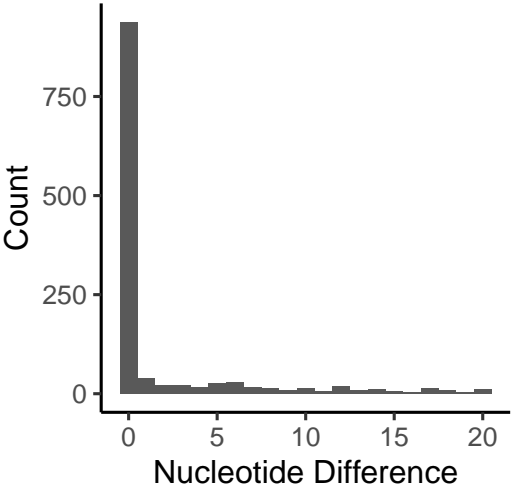
IGHV3-47\*02

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



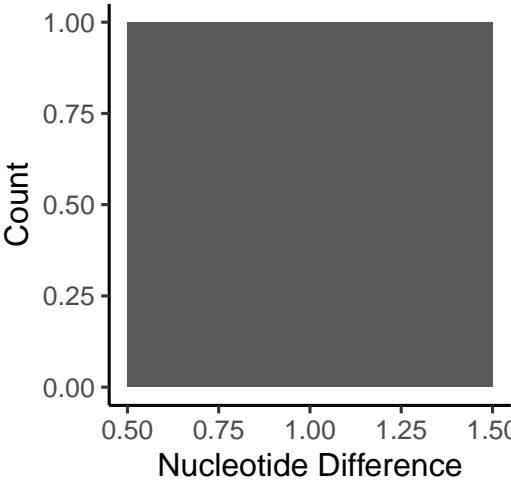
IGHV3-53\*01\_02

1254 sequences assigned  
938 (74.8%) exact matches, in which:  
896 unique CDR3  
6 unique J



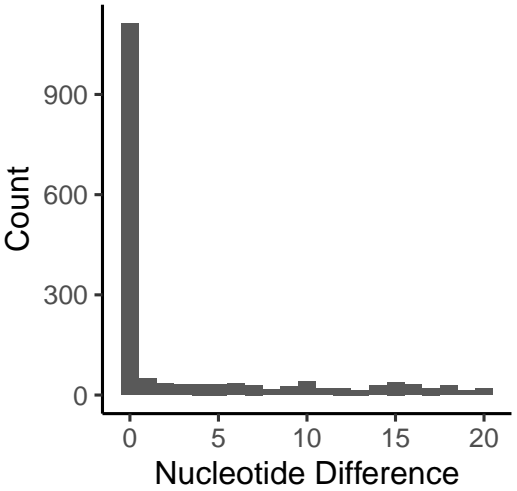
IGHV3-35\*01

1 sequences assigned  
No exact matches.



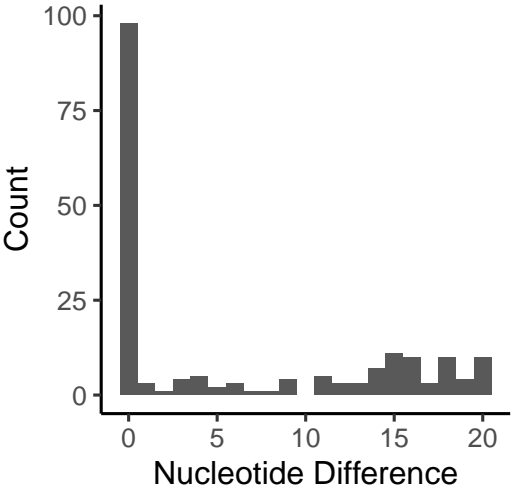
IGHV3-48\*02

1751 sequences assigned  
1113 (63.6%) exact matches, in which:  
1041 unique CDR3  
6 unique J



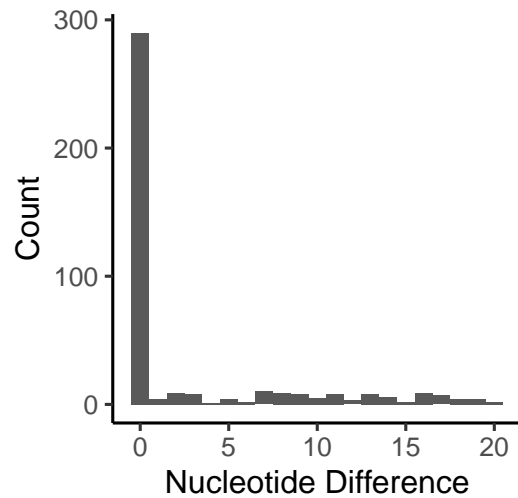
IGHV3-64\*01

273 sequences assigned  
98 (35.9%) exact matches, in which:  
84 unique CDR3  
6 unique J



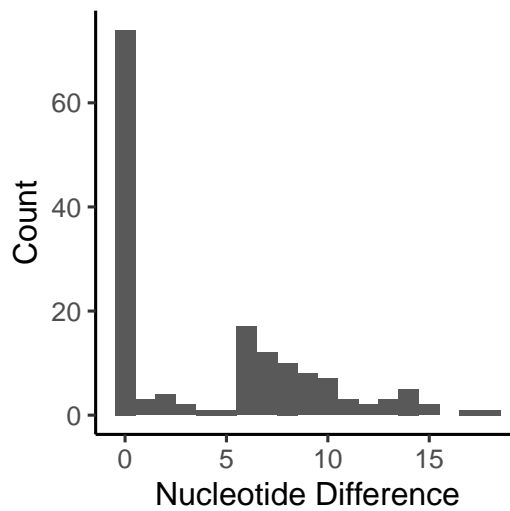
### IGHV3–66\*02

414 sequences assigned  
290 (70%) exact matches, in which:  
278 unique CDR3  
6 unique J



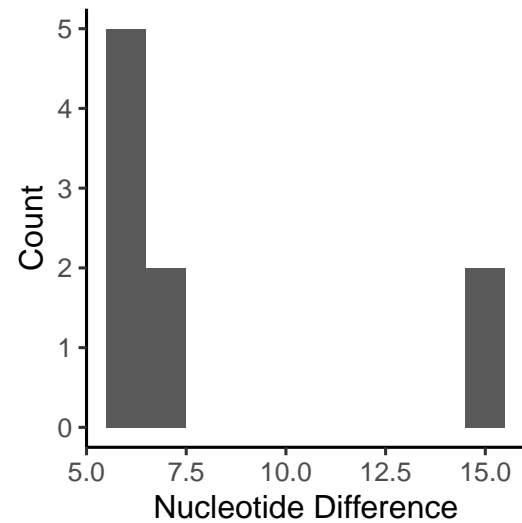
### IGHV3–73\*01\_02

163 sequences assigned  
74 (45.4%) exact matches, in which:  
70 unique CDR3  
5 unique J



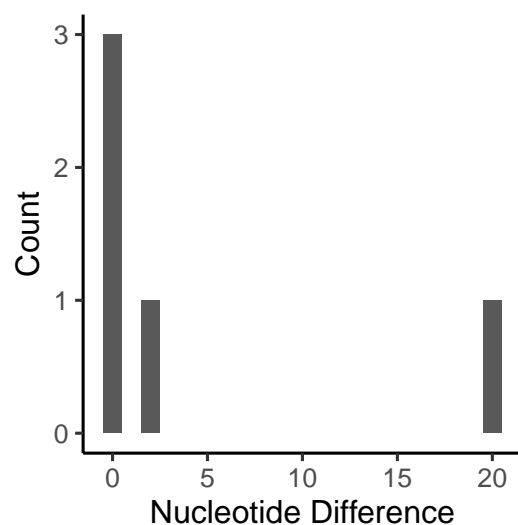
### IGHV3–43D\*04

9 sequences assigned  
No exact matches.



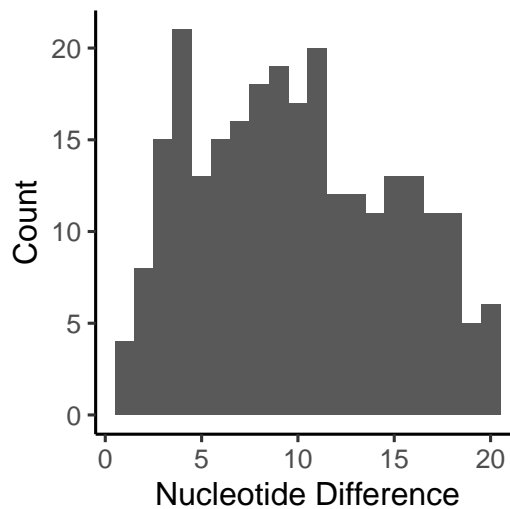
### IGHV3–69–1\*01

9 sequences assigned  
3 (33.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



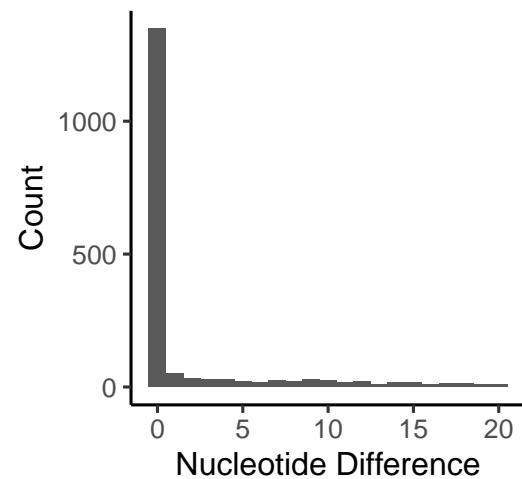
### IGHV3–74\*03

274 sequences assigned  
No exact matches.



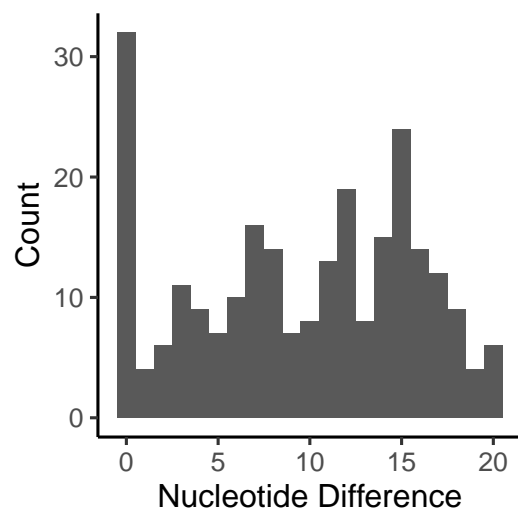
### IGHV4–4\*07

1816 sequences assigned  
1348 (74.2%) exact matches, in which:  
1311 unique CDR3  
6 unique J



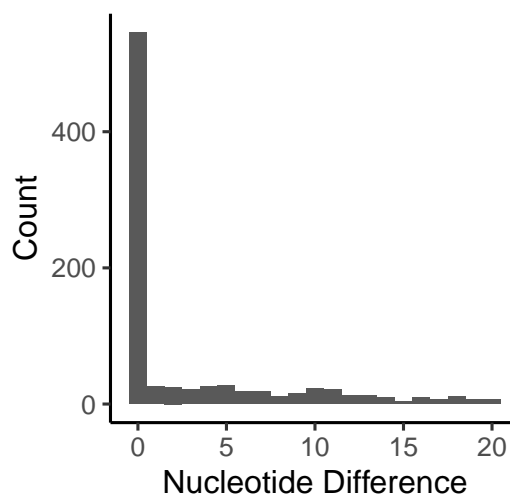
### IGHV3–72\*01

262 sequences assigned  
32 (12.2%) exact matches, in which:  
30 unique CDR3  
4 unique J



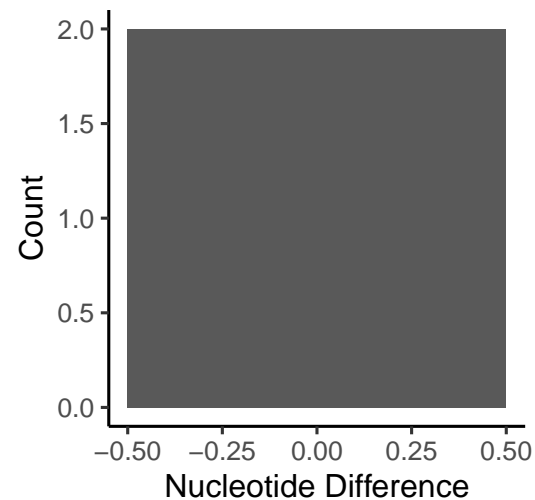
### IGHV3–74\*01\_02

865 sequences assigned  
546 (63.1%) exact matches, in which:  
506 unique CDR3  
6 unique J



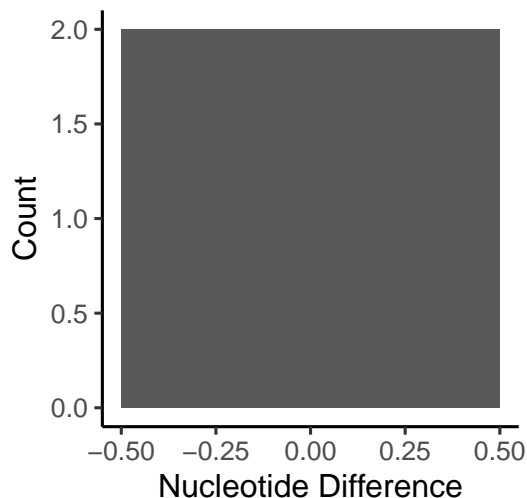
### IGHV4–28\*03

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



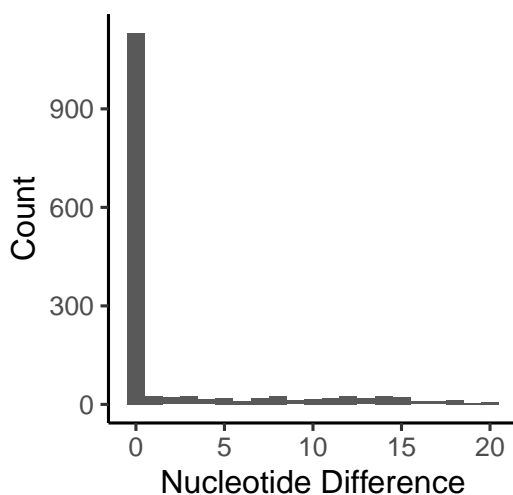
### IGHV4-28\*01\_07

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



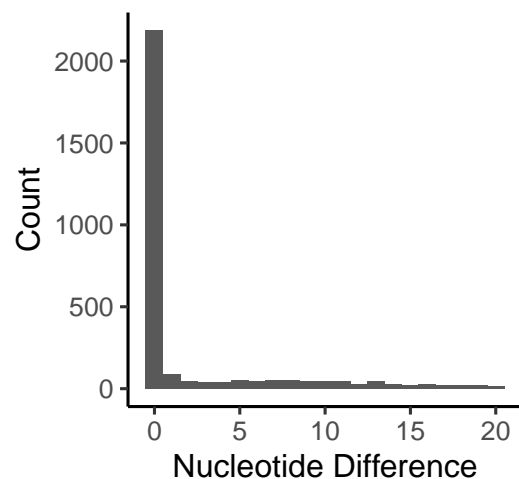
### IGHV4-31\*02

1617 sequences assigned  
1132 (70%) exact matches, in which:  
1106 unique CDR3  
6 unique J



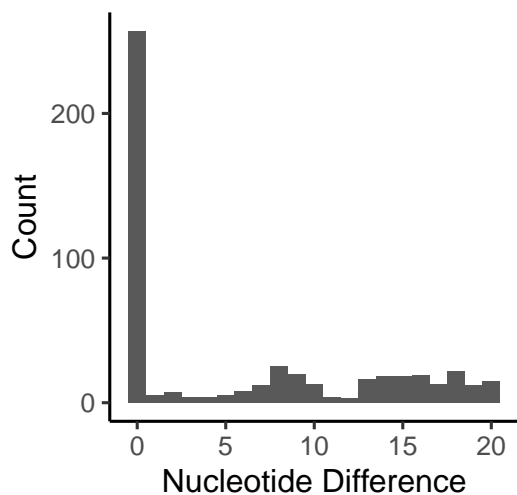
### IGHV4-39\*02\_C258G

3075 sequences assigned  
2187 (71.1%) exact matches, in which:  
2083 unique CDR3  
6 unique J



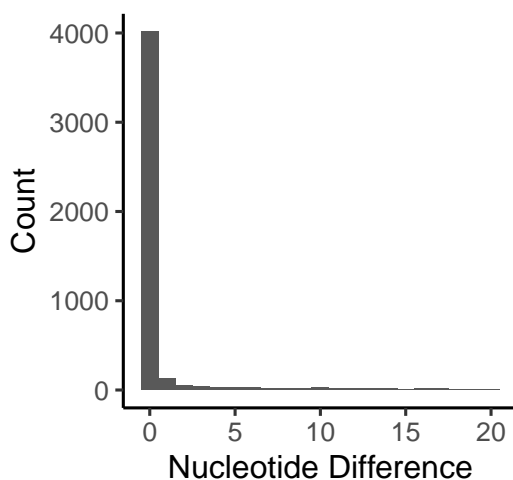
### IGHV4-30-2\*01

863 sequences assigned  
257 (29.8%) exact matches, in which:  
248 unique CDR3  
6 unique J



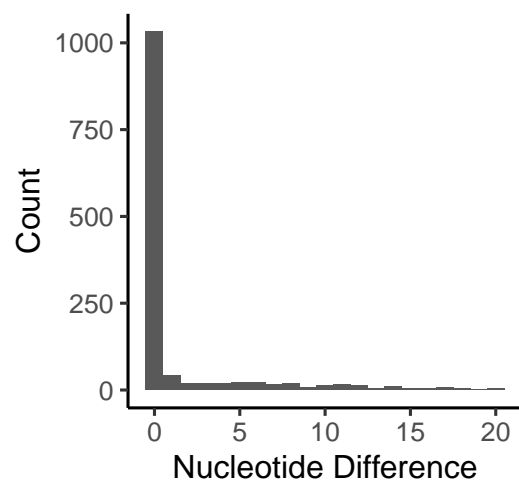
### IGHV4-34\*01\_02

4619 sequences assigned  
4014 (86.9%) exact matches, in which:  
3885 unique CDR3  
6 unique J



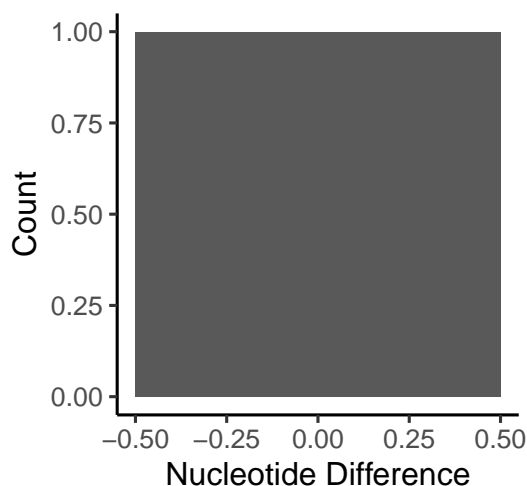
### IGHV4-59\*08

1337 sequences assigned  
1032 (77.2%) exact matches, in which:  
994 unique CDR3  
6 unique J



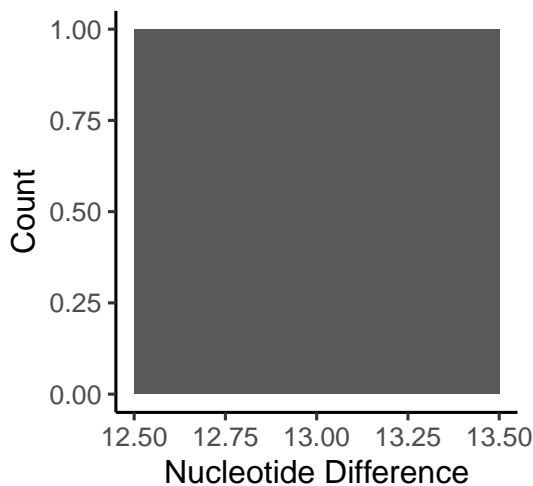
### IGHV4-30-4\*01

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



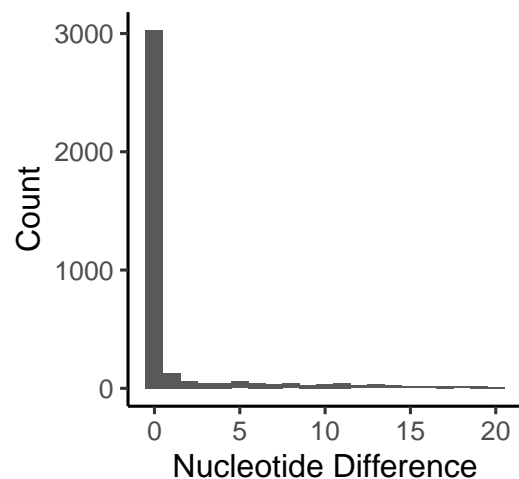
### IGHV4-38-2\*02

1 sequences assigned  
No exact matches.



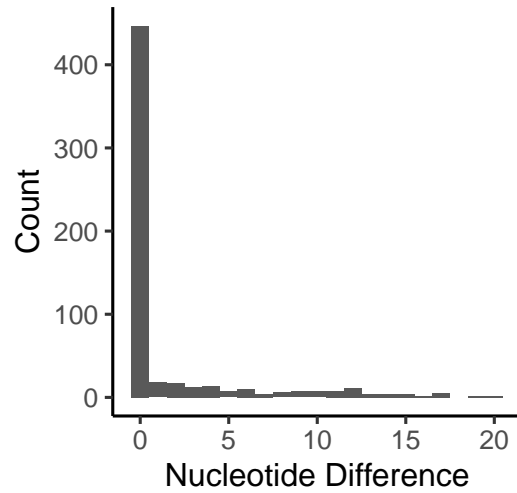
### IGHV4-59\*02\_G88A

3856 sequences assigned  
3029 (78.6%) exact matches, in which:  
2903 unique CDR3  
6 unique J



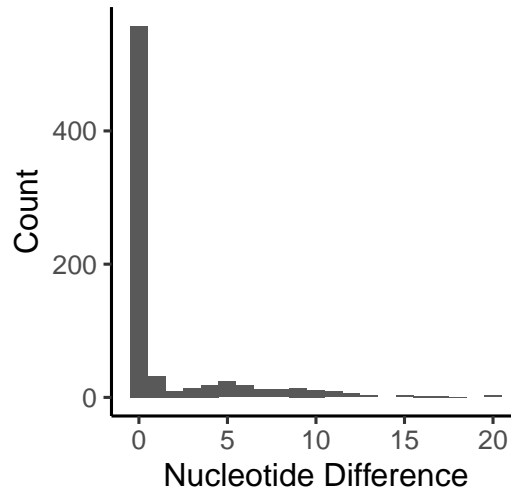
### IGHV4-61\*01

624 sequences assigned  
447 (71.6%) exact matches, in which:  
431 unique CDR3  
6 unique J



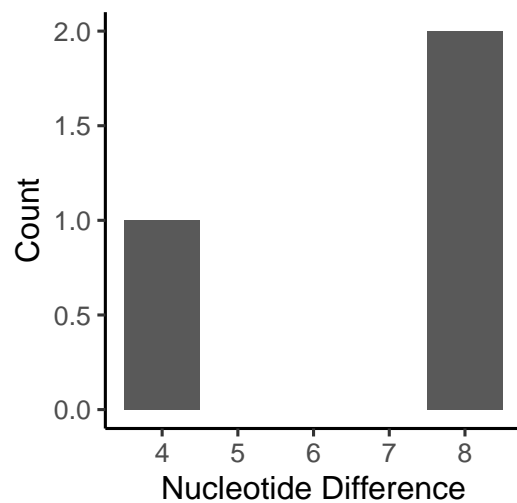
### IGHV6-1\*01\_02

819 sequences assigned  
558 (68.1%) exact matches, in which:  
555 unique CDR3  
6 unique J



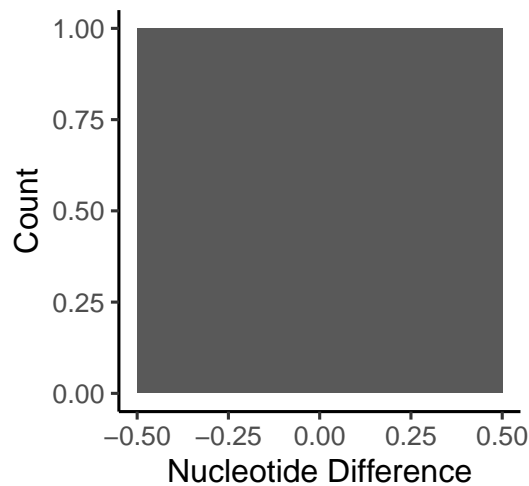
### IGHV4/OR15-8\*01

3 sequences assigned  
No exact matches.



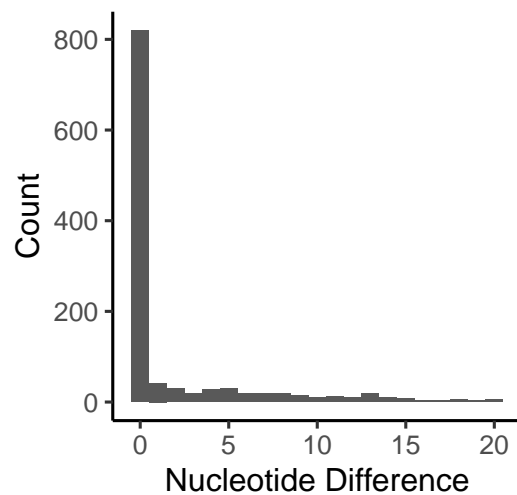
### IGHV7-4-1\*01

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



### IGHV5-51\*07\_A128G

1152 sequences assigned  
820 (71.2%) exact matches, in which:  
815 unique CDR3  
6 unique J







Warning – no inferred sequences found.