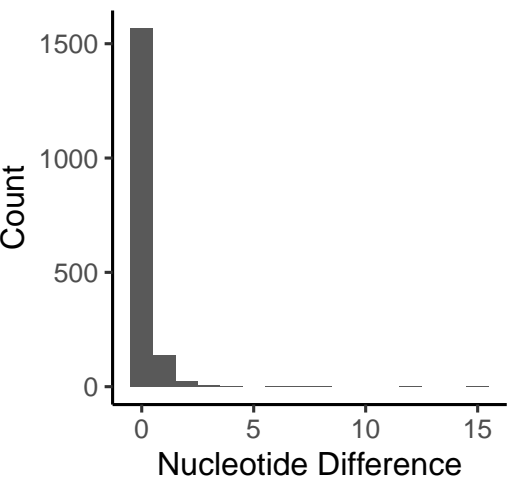


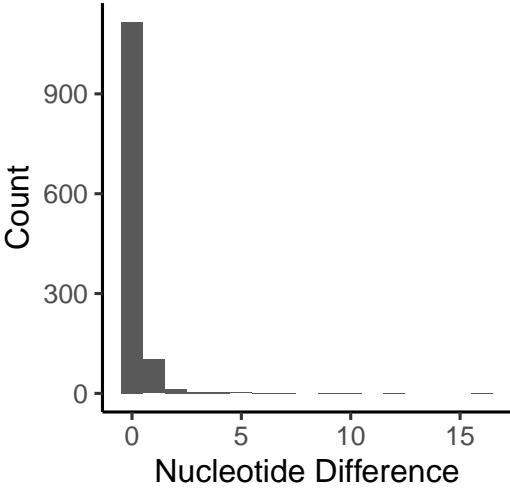
IGHV1-2\*02

1742 sequences assigned  
1567 (90%) exact matches, in which:  
1486 unique CDR3  
6 unique J



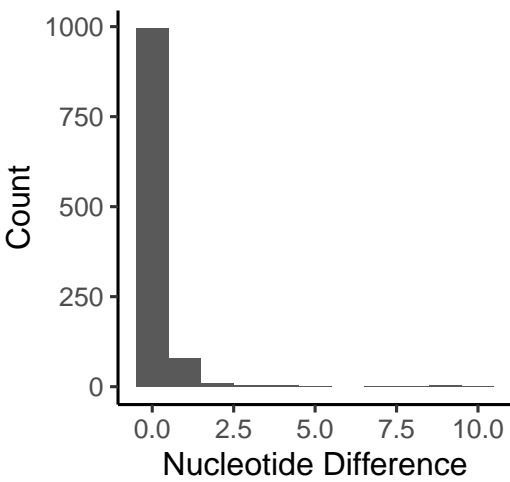
IGHV1-18\*01

1255 sequences assigned  
1117 (89%) exact matches, in which:  
1076 unique CDR3  
6 unique J



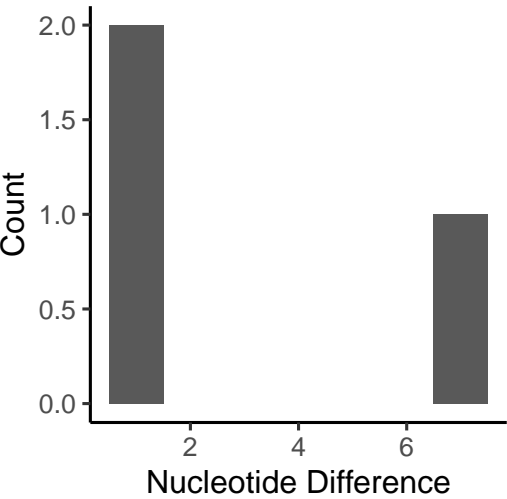
IGHV1-46\*01

1100 sequences assigned  
995 (90.5%) exact matches, in which:  
945 unique CDR3  
6 unique J



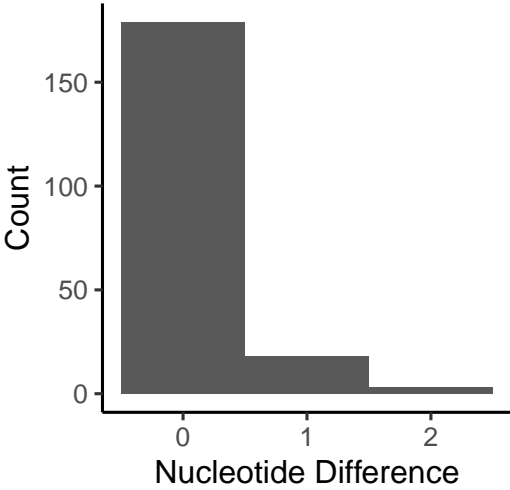
IGHV1-3\*02

3 sequences assigned  
No exact matches.



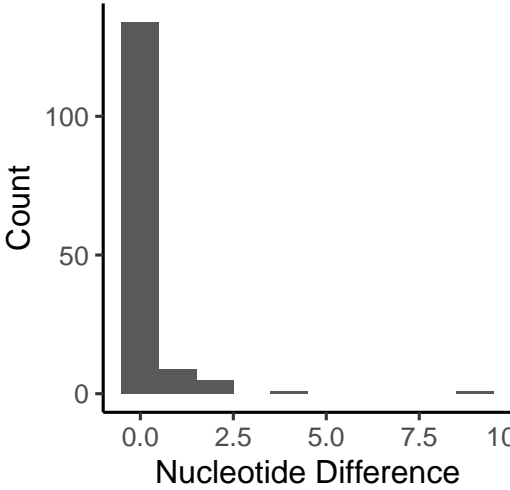
IGHV1-24\*01

200 sequences assigned  
179 (89.5%) exact matches, in which:  
174 unique CDR3  
5 unique J



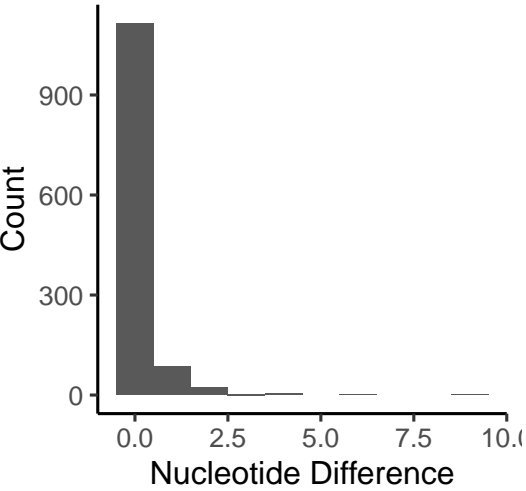
IGHV1-58\*01

150 sequences assigned  
134 (89.3%) exact matches, in which:  
132 unique CDR3  
5 unique J



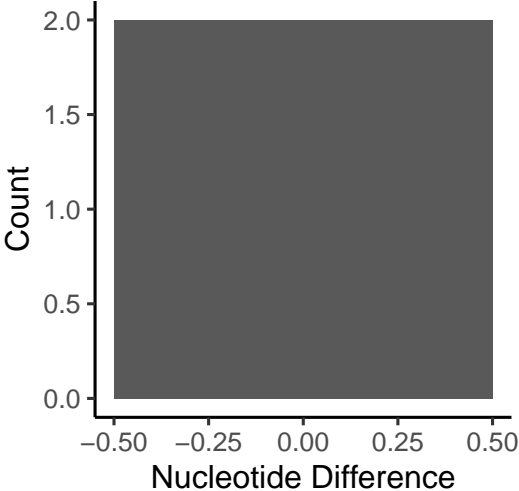
IGHV1-8\*01

1235 sequences assigned  
1115 (90.3%) exact matches, in which:  
1075 unique CDR3  
6 unique J



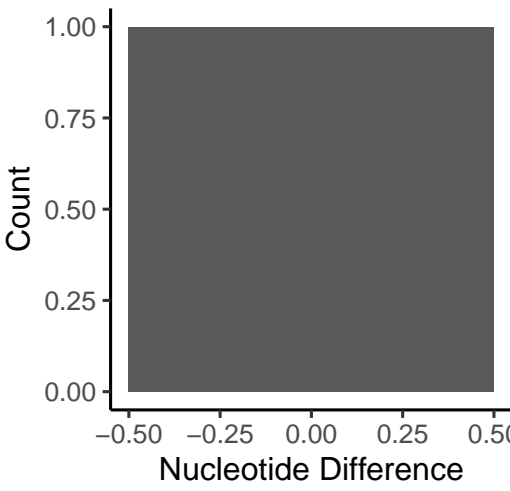
IGHV1-45\*02

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



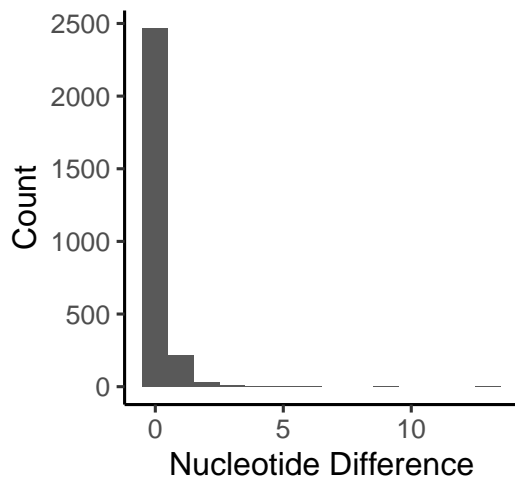
IGHV1-68\*02

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



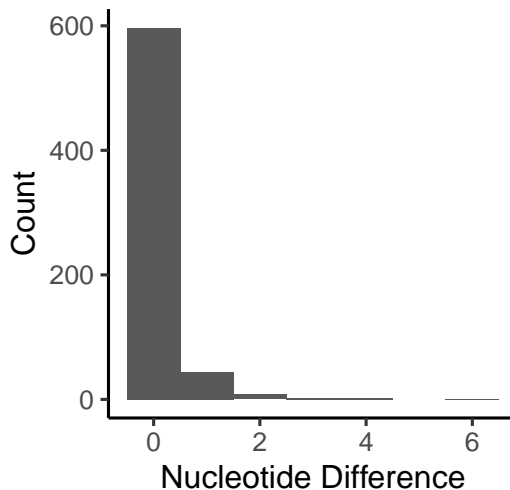
### IGHV1-69\*01

2734 sequences assigned  
2466 (90.2%) exact matches, in which:  
2343 unique CDR3  
6 unique J



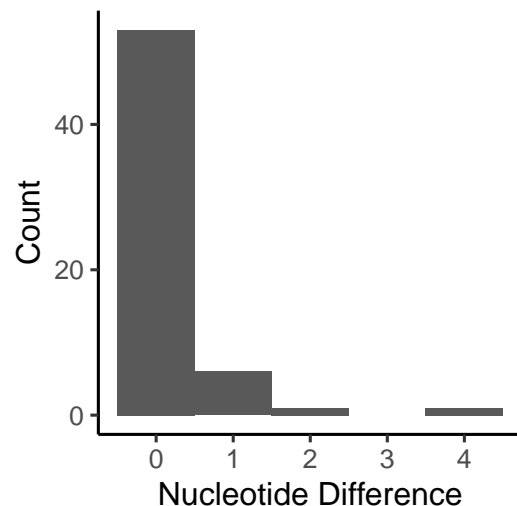
### IGHV2-5\*01

654 sequences assigned  
597 (91.3%) exact matches, in which:  
573 unique CDR3  
6 unique J



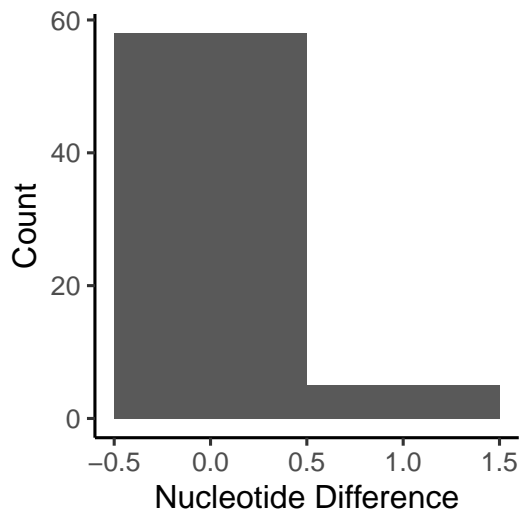
### IGHV2-70\*04

61 sequences assigned  
53 (86.9%) exact matches, in which:  
52 unique CDR3  
4 unique J



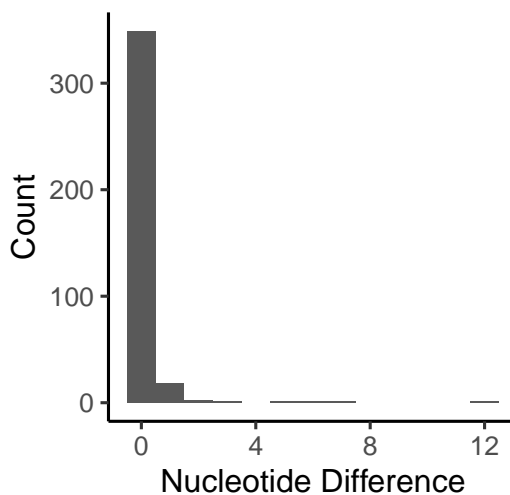
### IGHV1-69-2\*01

63 sequences assigned  
58 (92.1%) exact matches, in which:  
56 unique CDR3  
5 unique J



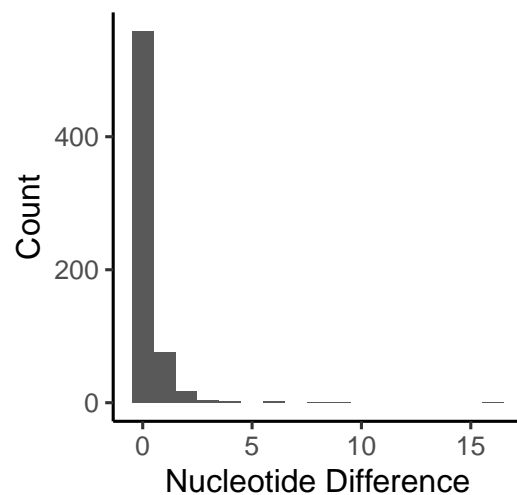
### IGHV2-26\*01

374 sequences assigned  
349 (93.3%) exact matches, in which:  
333 unique CDR3  
5 unique J



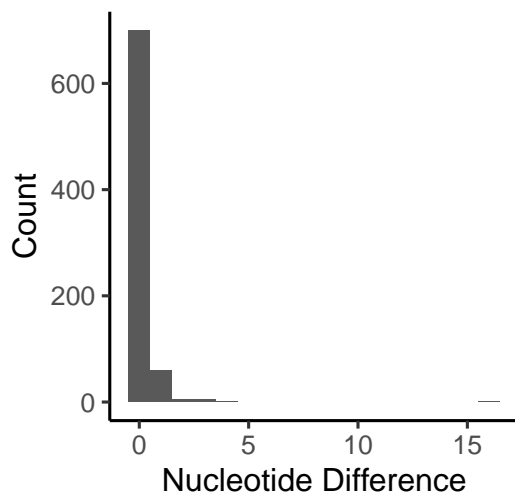
### IGHV3-7\*01

663 sequences assigned  
559 (84.3%) exact matches, in which:  
539 unique CDR3  
6 unique J



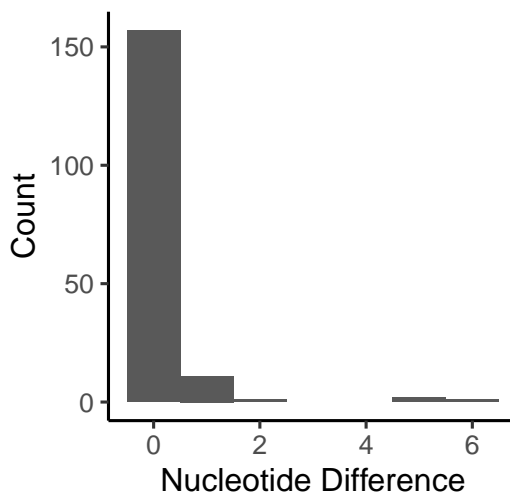
### IGHV1-69\*17

770 sequences assigned  
700 (90.9%) exact matches, in which:  
667 unique CDR3  
6 unique J



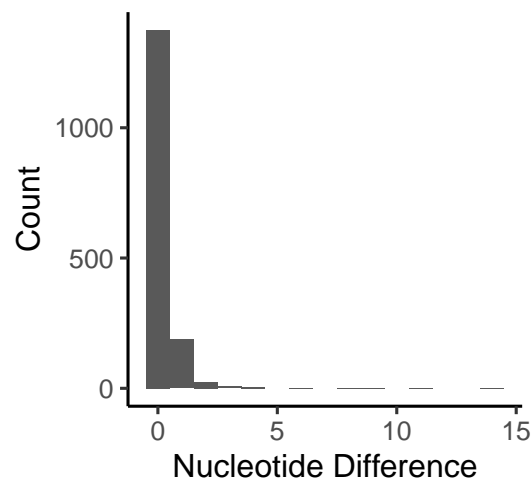
### IGHV2-70\*01

172 sequences assigned  
157 (91.3%) exact matches, in which:  
155 unique CDR3  
5 unique J



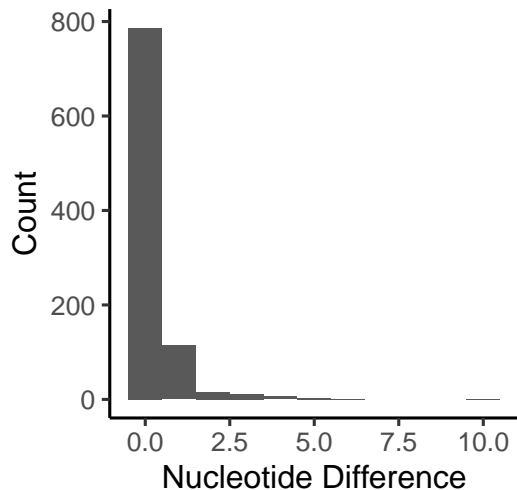
### IGHV3-9\*01

1607 sequences assigned  
1375 (85.6%) exact matches, in which:  
1290 unique CDR3  
6 unique J



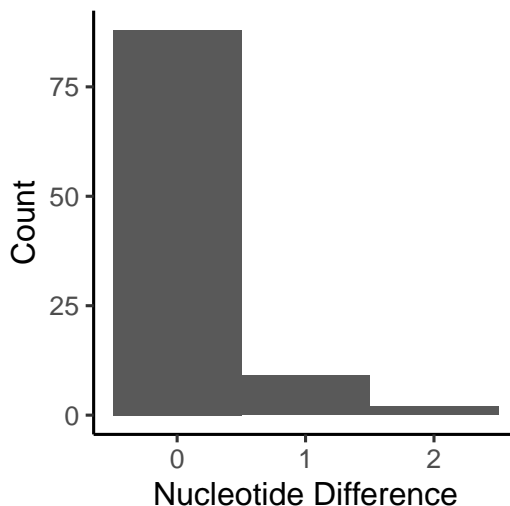
### IGHV3-11\*01

940 sequences assigned  
787 (83.7%) exact matches, in which:  
760 unique CDR3  
6 unique J



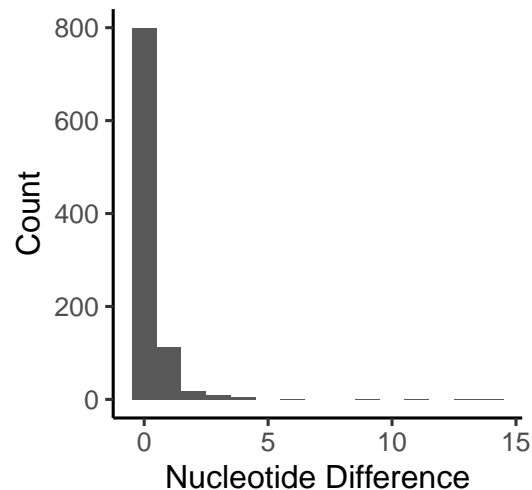
### IGHV3-20\*01

99 sequences assigned  
88 (88.9%) exact matches, in which:  
80 unique CDR3  
5 unique J



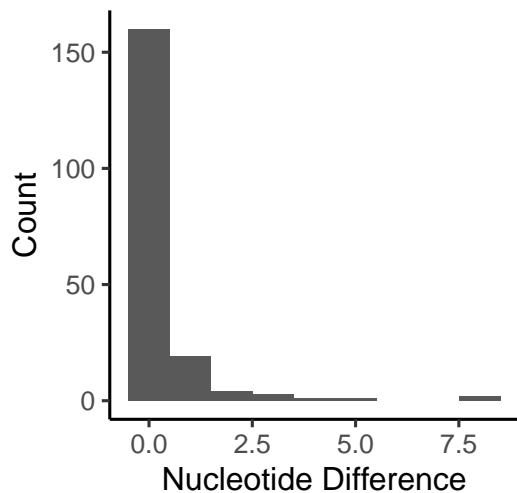
### IGHV3-30-3\*01

949 sequences assigned  
800 (84.3%) exact matches, in which:  
755 unique CDR3  
6 unique J



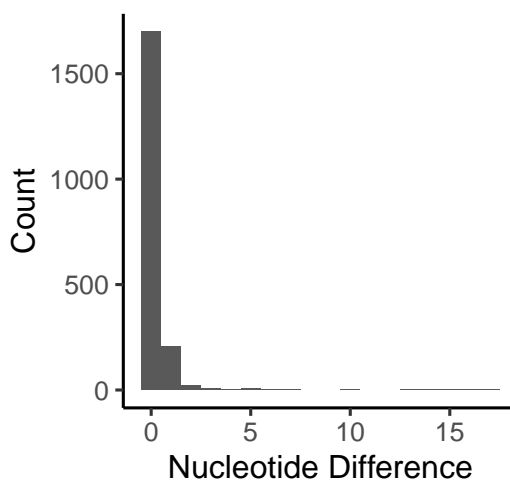
### IGHV3-13\*01

190 sequences assigned  
160 (84.2%) exact matches, in which:  
154 unique CDR3  
5 unique J



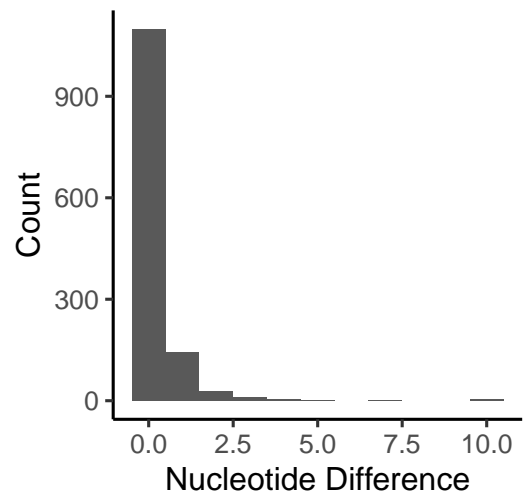
### IGHV3-21\*01

1952 sequences assigned  
1699 (87%) exact matches, in which:  
1602 unique CDR3  
6 unique J



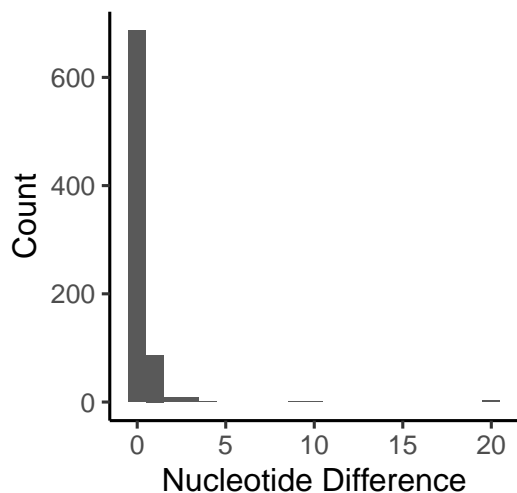
### IGHV3-30\*18

1291 sequences assigned  
1099 (85.1%) exact matches, in which:  
1057 unique CDR3  
6 unique J



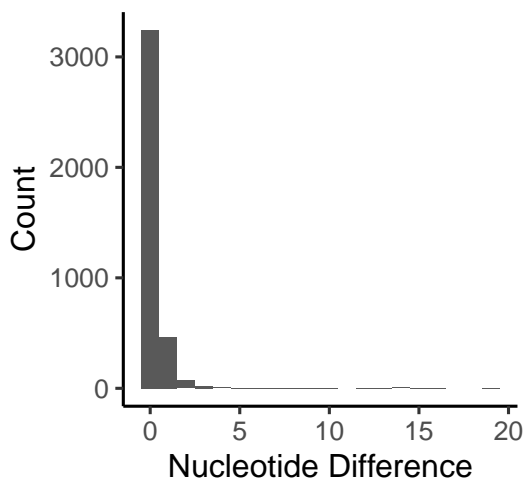
### IGHV3-15\*01

799 sequences assigned  
687 (86%) exact matches, in which:  
658 unique CDR3  
6 unique J



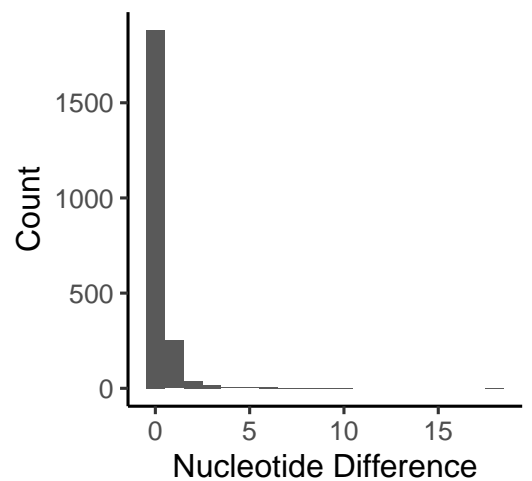
### IGHV3-23\*01

3841 sequences assigned  
3243 (84.4%) exact matches, in which:  
3076 unique CDR3  
6 unique J



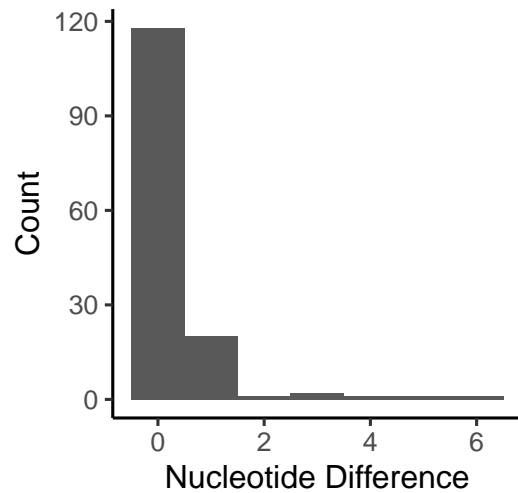
### IGHV3-33\*01

2216 sequences assigned  
1882 (84.9%) exact matches, in which:  
1797 unique CDR3  
6 unique J



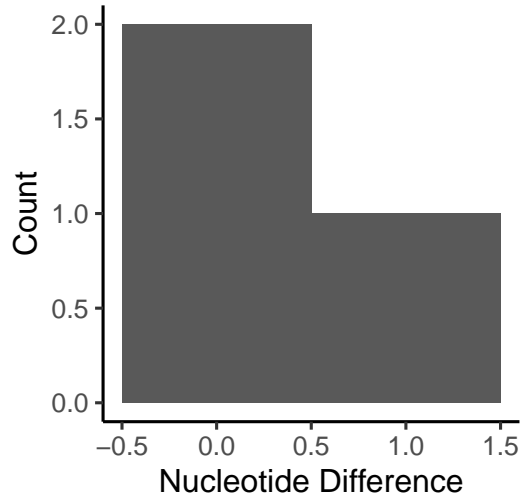
### IGHV3-43\*01

144 sequences assigned  
118 (81.9%) exact matches, in which:  
113 unique CDR3  
5 unique J



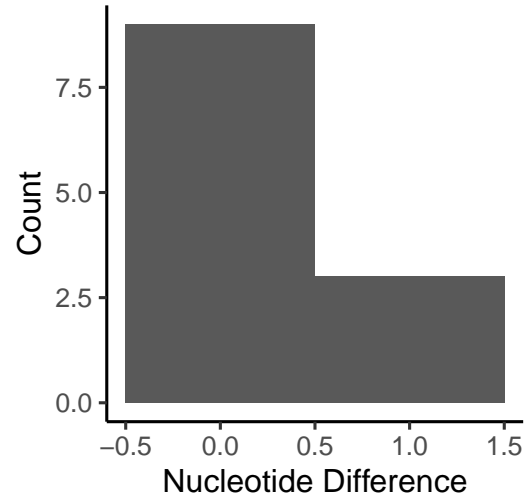
### IGHV3-52\*01

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



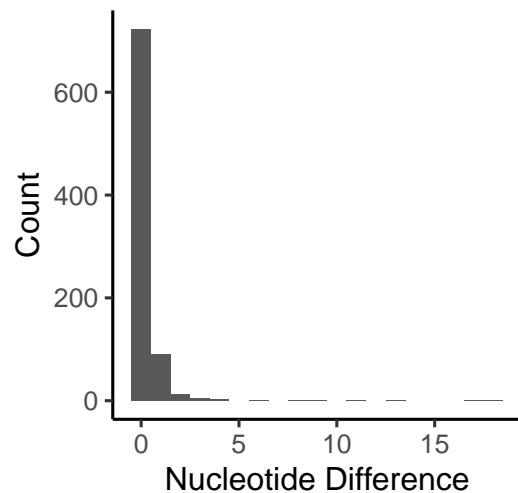
### IGHV3-64\*02

12 sequences assigned  
9 (75%) exact matches, in which:  
8 unique CDR3  
3 unique J



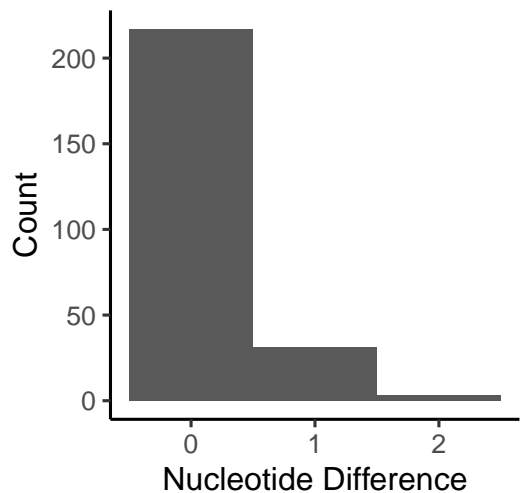
### IGHV3-48\*02

839 sequences assigned  
723 (86.2%) exact matches, in which:  
690 unique CDR3  
6 unique J



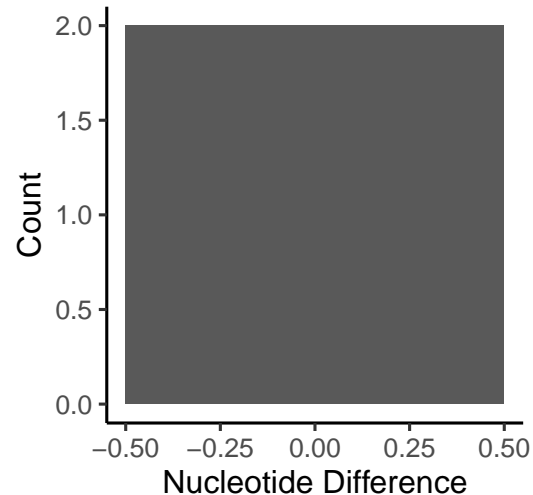
### IGHV3-53\*01

251 sequences assigned  
217 (86.5%) exact matches, in which:  
208 unique CDR3  
5 unique J



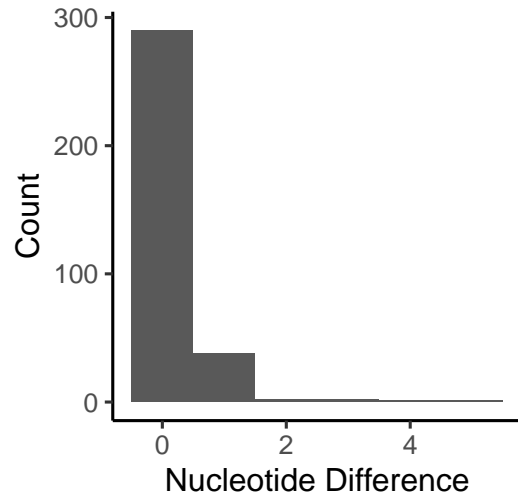
### IGHV3-66\*03

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



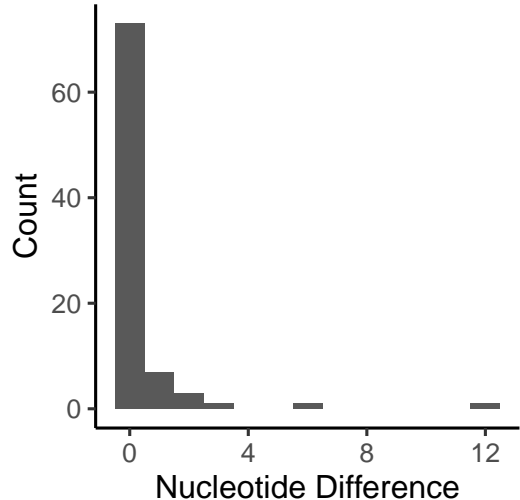
### IGHV3-49\*05

334 sequences assigned  
290 (86.8%) exact matches, in which:  
269 unique CDR3  
6 unique J



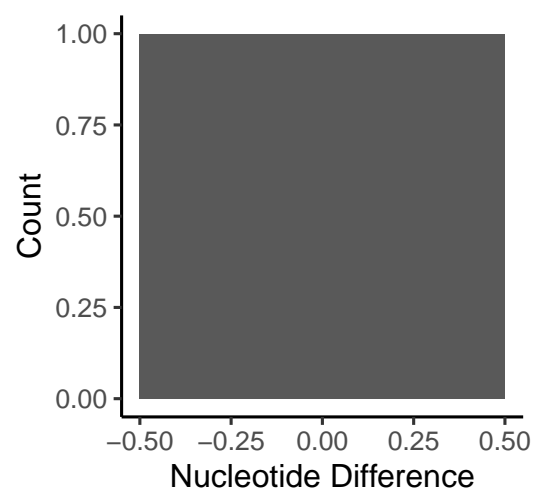
### IGHV3-53\*02

86 sequences assigned  
73 (84.9%) exact matches, in which:  
72 unique CDR3  
5 unique J



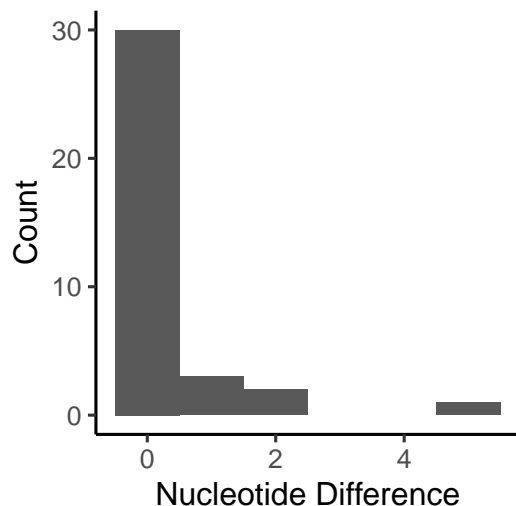
### IGHV3-69-1\*01

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



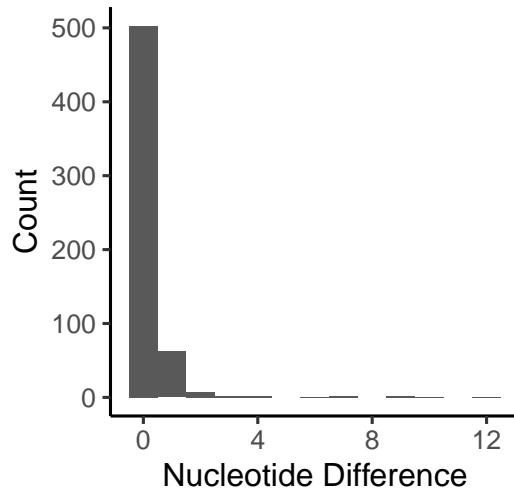
### IGHV3-72\*01

36 sequences assigned  
30 (83.3%) exact matches, in which:  
29 unique CDR3  
4 unique J



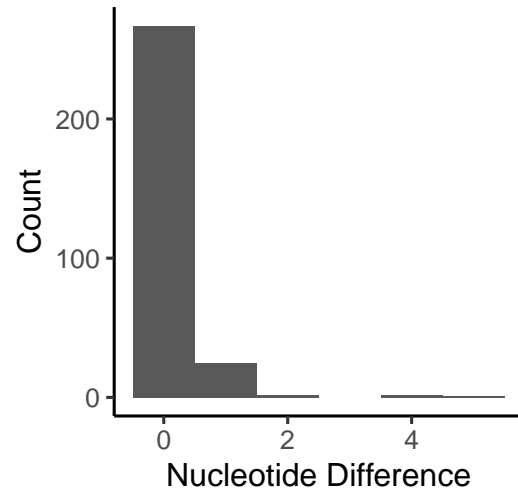
### IGHV4-4\*07

584 sequences assigned  
503 (86.1%) exact matches, in which:  
488 unique CDR3  
6 unique J



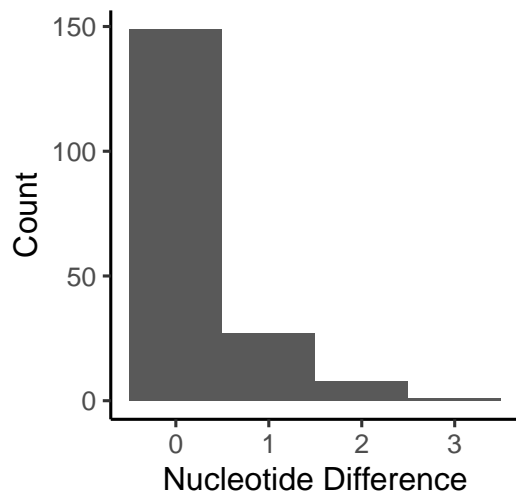
### IGHV4-30-4\*01

297 sequences assigned  
267 (89.9%) exact matches, in which:  
254 unique CDR3  
5 unique J



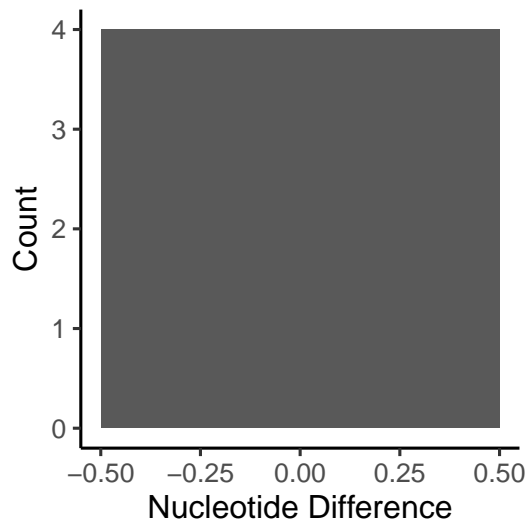
### IGHV3-73\*02

185 sequences assigned  
149 (80.5%) exact matches, in which:  
141 unique CDR3  
5 unique J



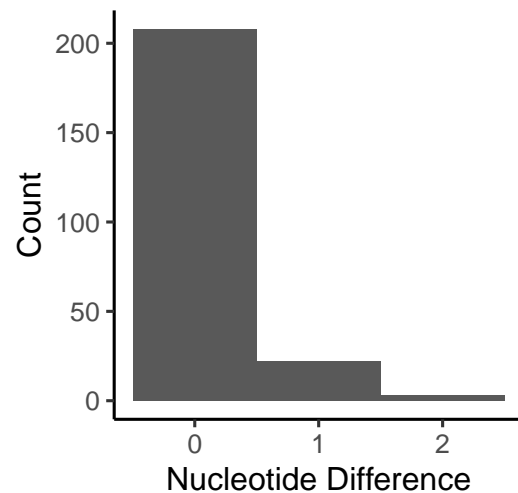
### IGHV4-28\*01

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



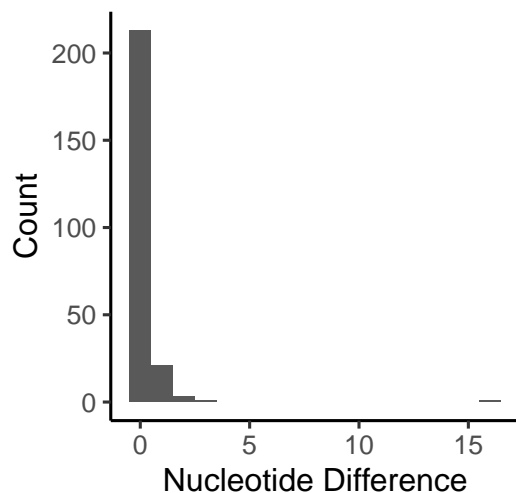
### IGHV4-30-2\*01

233 sequences assigned  
208 (89.3%) exact matches, in which:  
202 unique CDR3  
6 unique J



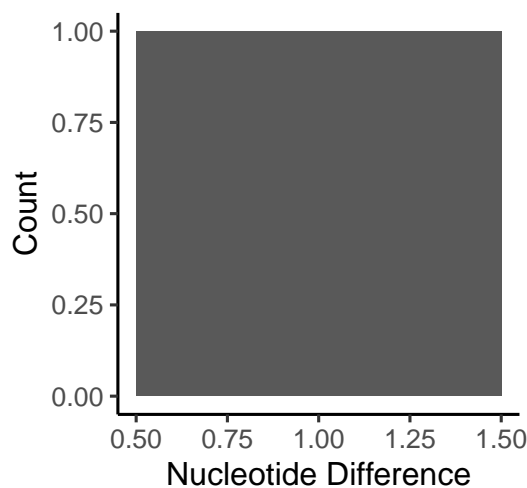
### IGHV3-74\*01

239 sequences assigned  
213 (89.1%) exact matches, in which:  
204 unique CDR3  
6 unique J



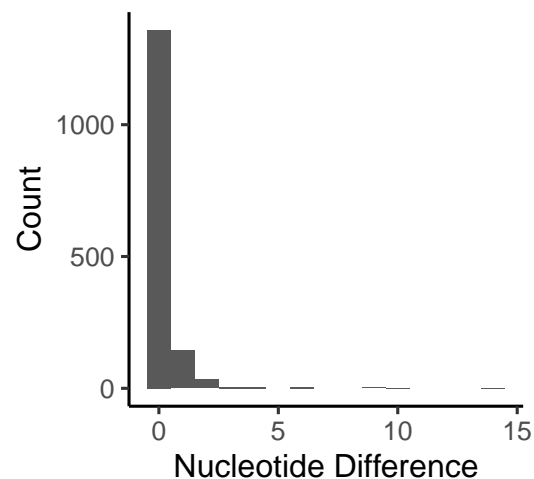
### IGHV4-28\*04

1 sequences assigned  
No exact matches.



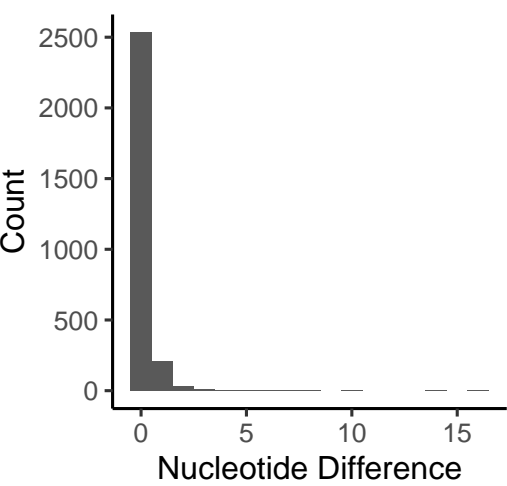
### IGHV4-31\*03

1557 sequences assigned  
1359 (87.3%) exact matches, in which:  
1318 unique CDR3  
6 unique J



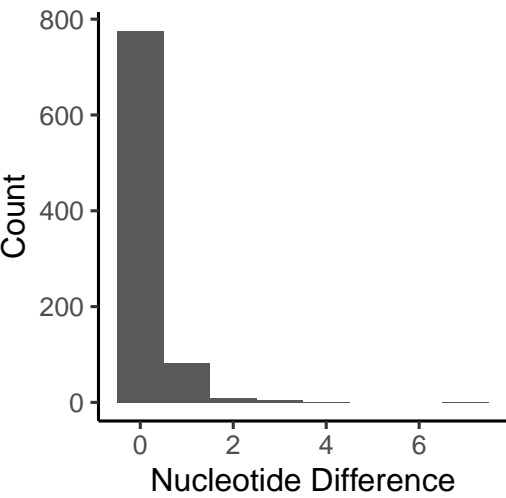
IGHV4-34\*01

2808 sequences assigned  
2534 (90.2%) exact matches, in which:  
2389 unique CDR3  
6 unique J



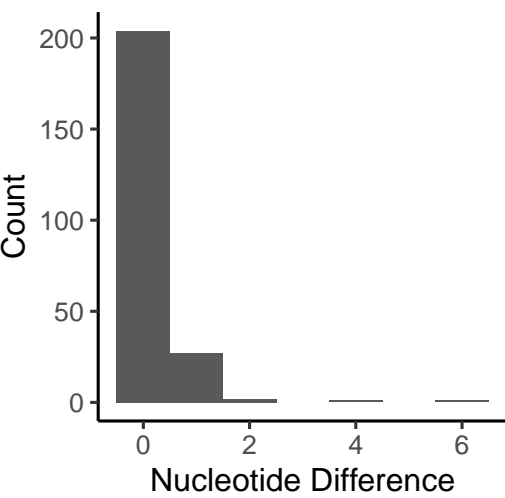
IGHV4-59\*01

874 sequences assigned  
776 (88.8%) exact matches, in which:  
756 unique CDR3  
6 unique J



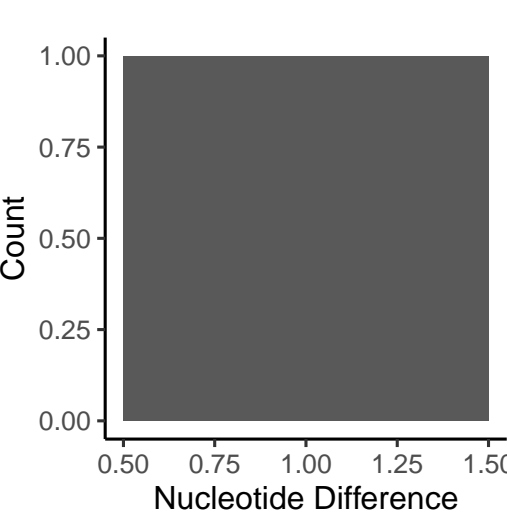
IGHV6-1\*01

235 sequences assigned  
204 (86.8%) exact matches, in which:  
197 unique CDR3  
6 unique J



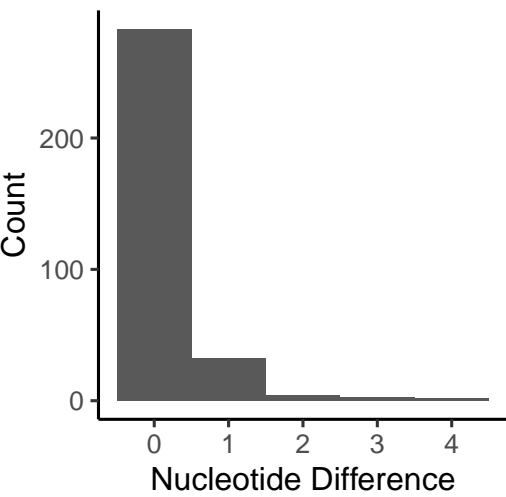
IGHV4-38-2\*02

1 sequences assigned  
No exact matches.



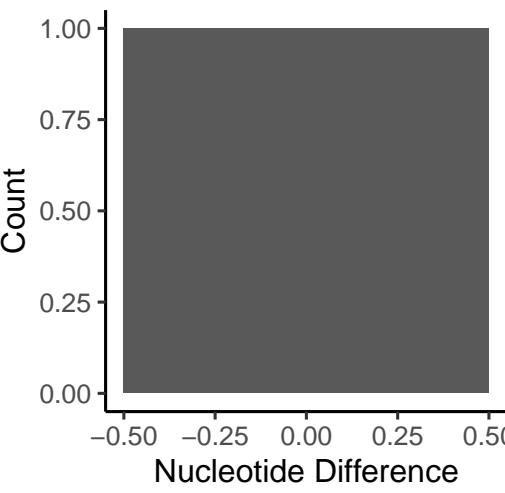
IGHV4-61\*01

324 sequences assigned  
283 (87.3%) exact matches, in which:  
272 unique CDR3  
6 unique J



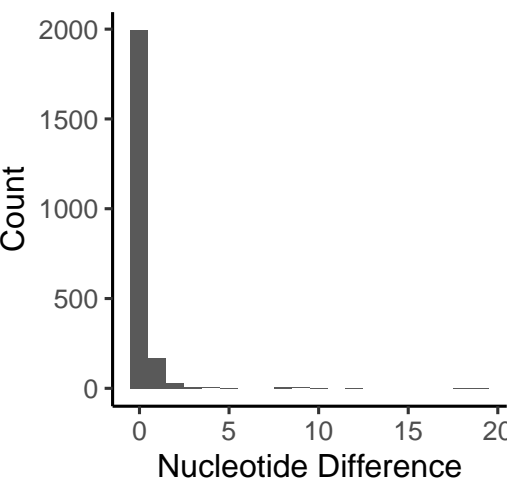
IGHV7-81\*01

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



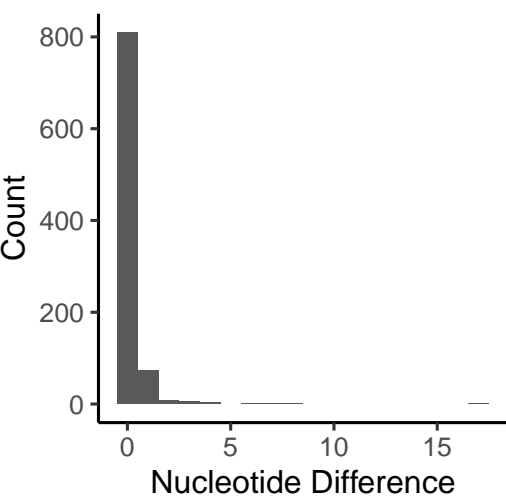
IGHV4-39\*01

2232 sequences assigned  
1995 (89.4%) exact matches, in which:  
1879 unique CDR3  
6 unique J



IGHV5-51\*01

908 sequences assigned  
810 (89.2%) exact matches, in which:  
782 unique CDR3  
6 unique J





Warning – no inferred sequences found.