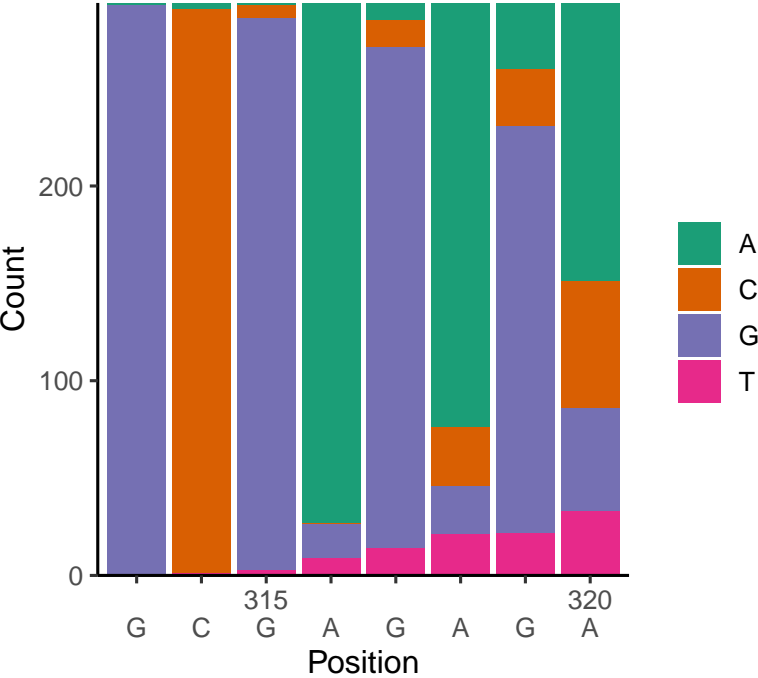
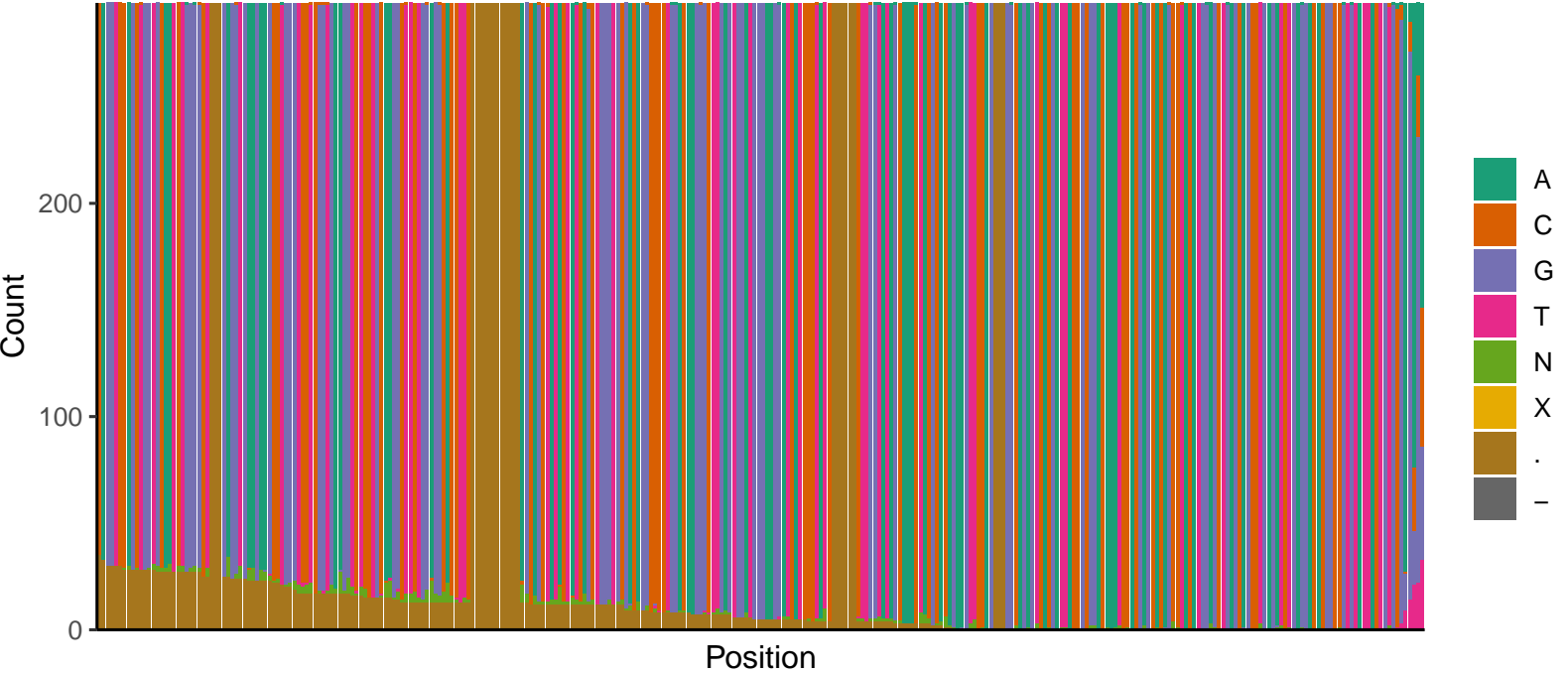


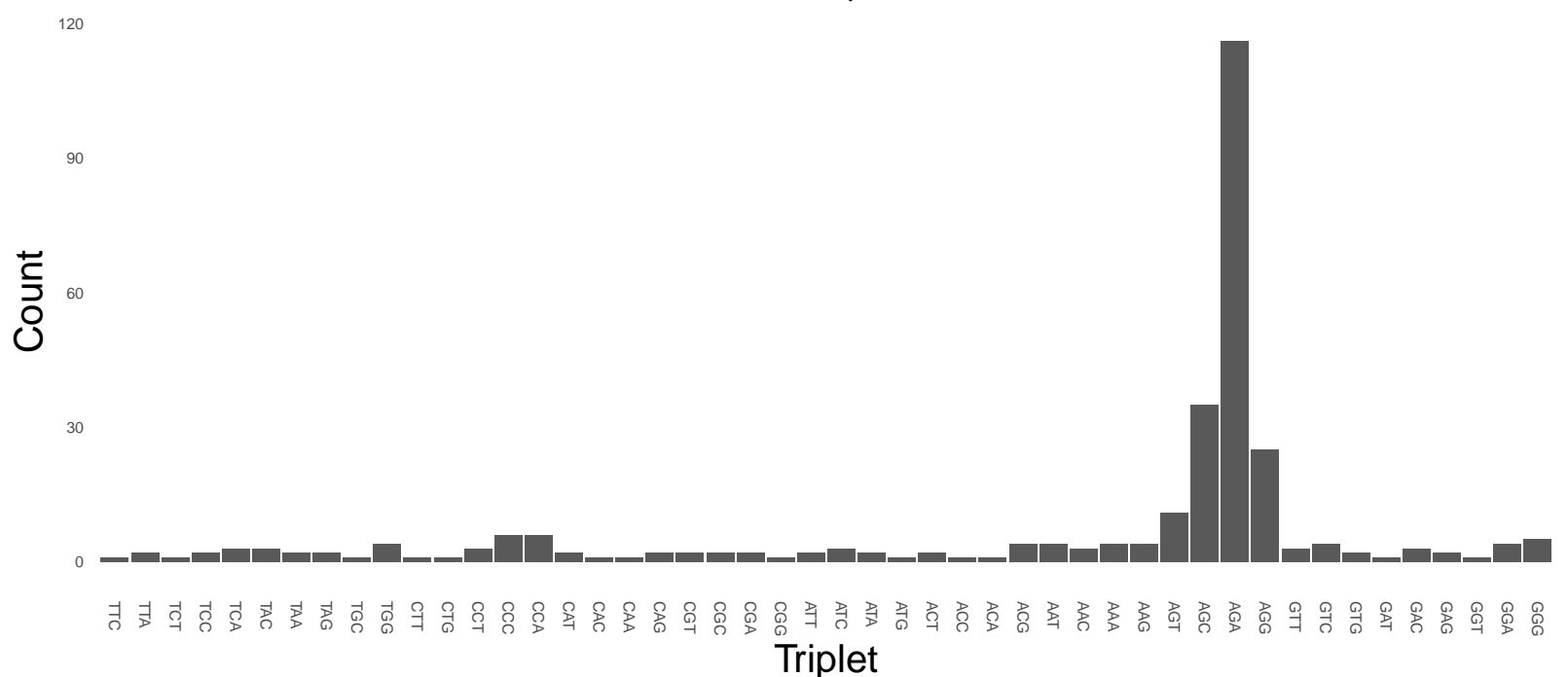
Gene IGHV1-69\*08\_C191T



Gene IGHV1-69\*08\_C191T

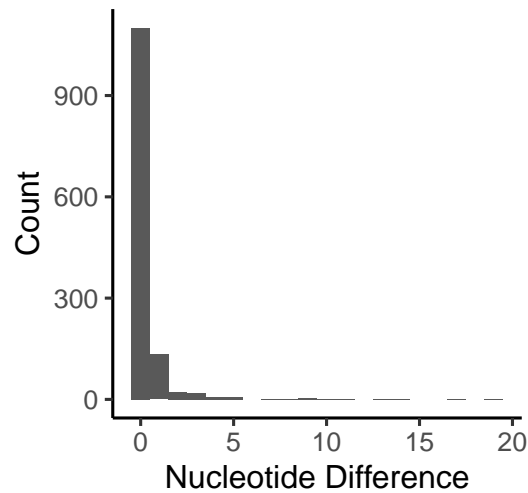


IGHV1-69\*08\_C191T- Final 3 nucleotides as a triplet



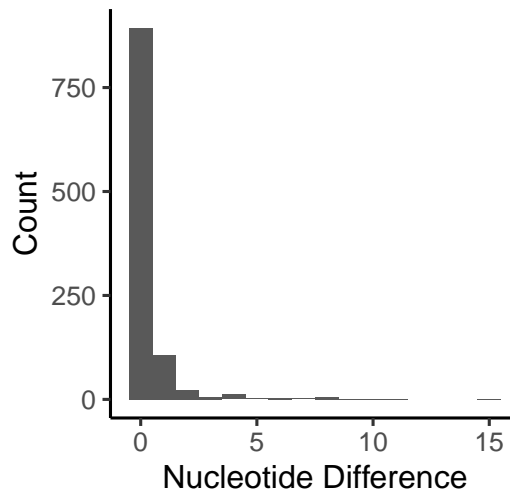
### IGHV1-2\*02

1306 sequences assigned  
1101 (84.3%) exact matches, in which:  
1057 unique CDR3  
6 unique J



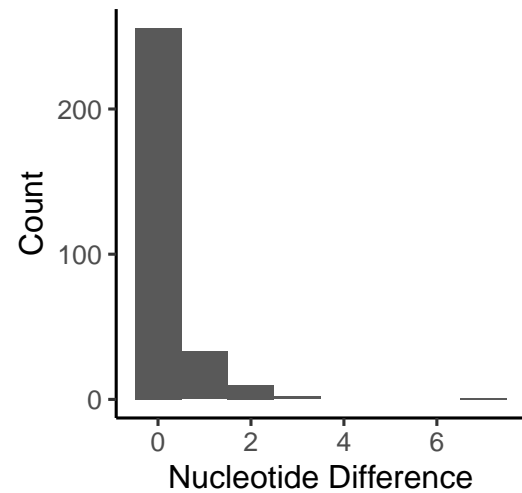
### IGHV1-18\*01

1056 sequences assigned  
894 (84.7%) exact matches, in which:  
855 unique CDR3  
6 unique J



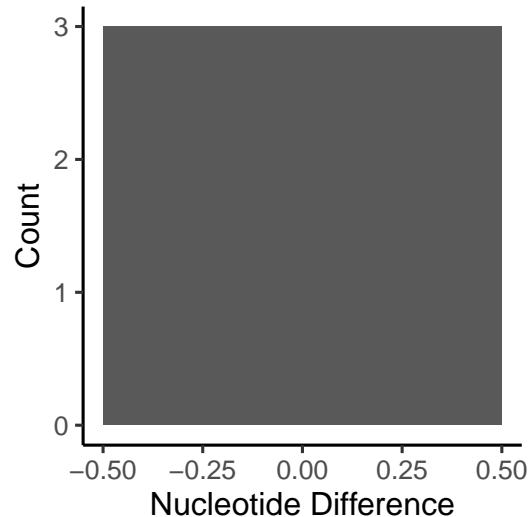
### IGHV1-46\*01

303 sequences assigned  
256 (84.5%) exact matches, in which:  
246 unique CDR3  
6 unique J



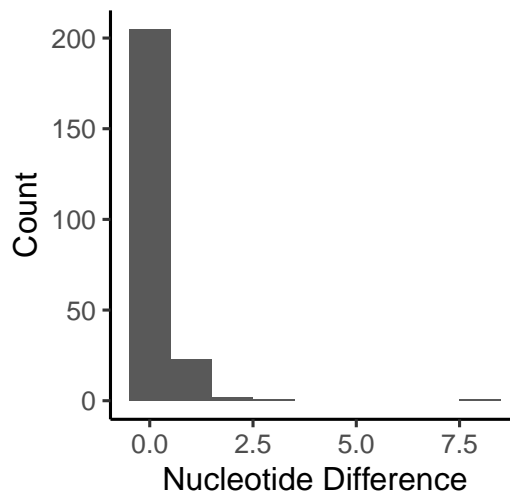
### IGHV1-3\*02

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



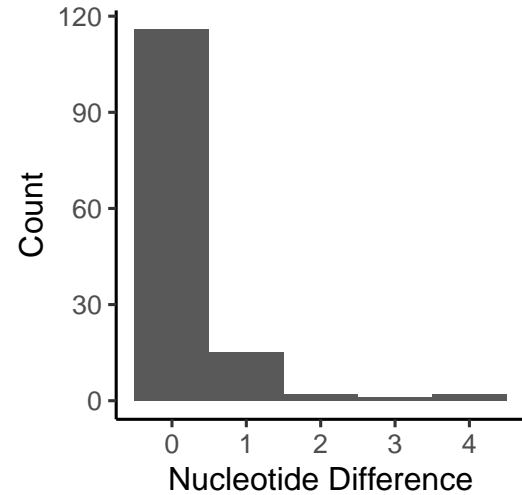
### IGHV1-24\*01

232 sequences assigned  
205 (88.4%) exact matches, in which:  
199 unique CDR3  
6 unique J



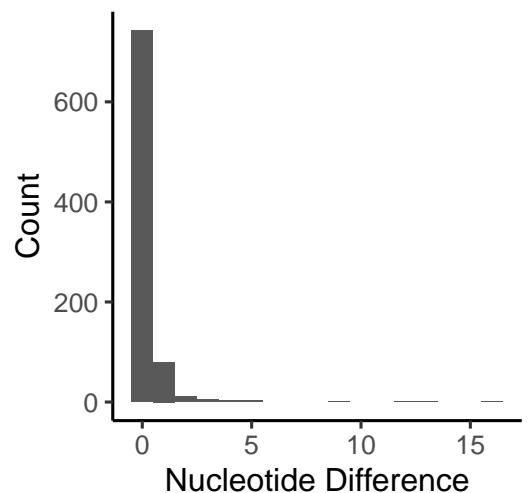
### IGHV1-46\*03

136 sequences assigned  
116 (85.3%) exact matches, in which:  
115 unique CDR3  
6 unique J



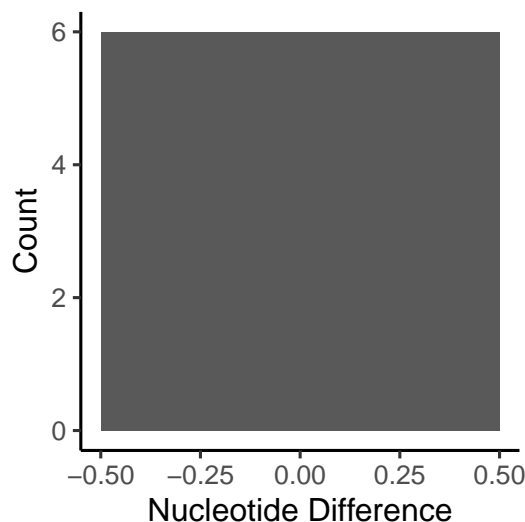
### IGHV1-8\*01

851 sequences assigned  
743 (87.3%) exact matches, in which:  
717 unique CDR3  
6 unique J



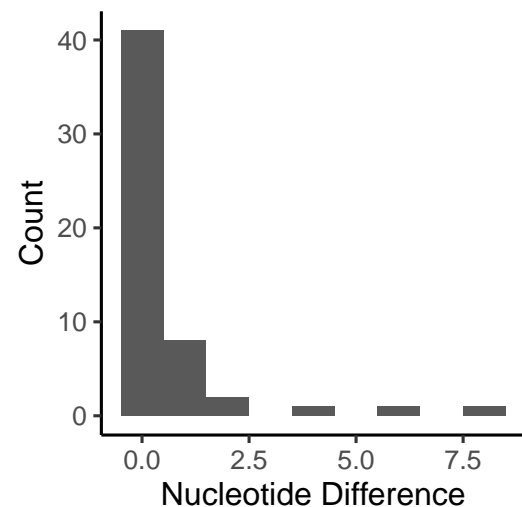
### IGHV1-45\*02

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



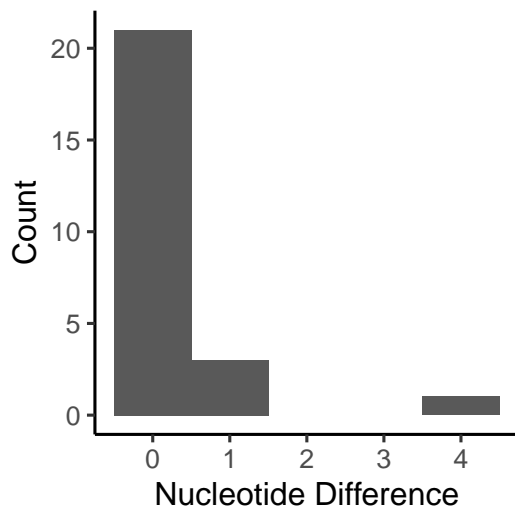
### IGHV1-58\*01

54 sequences assigned  
41 (75.9%) exact matches, in which:  
41 unique CDR3  
6 unique J



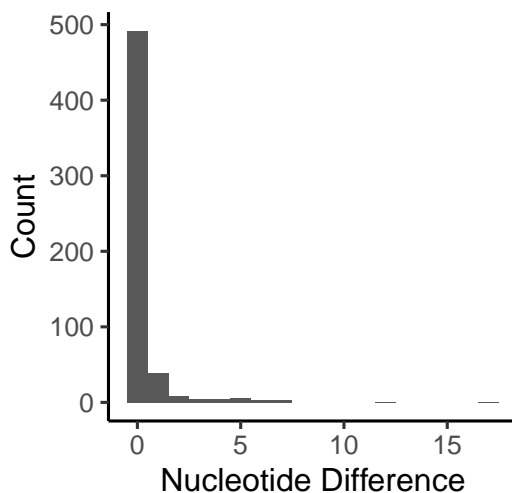
### IGHV1-58\*02

25 sequences assigned  
21 (84%) exact matches, in which:  
19 unique CDR3  
5 unique J



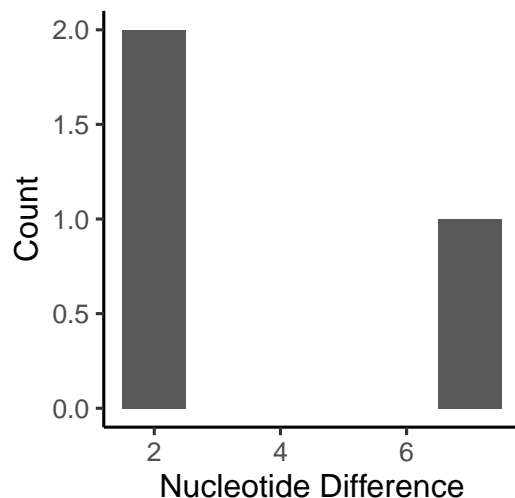
### IGHV2-5\*01

565 sequences assigned  
492 (87.1%) exact matches, in which:  
474 unique CDR3  
6 unique J



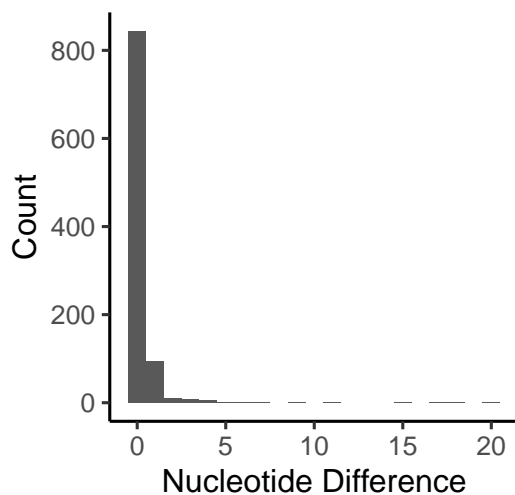
### IGHV2-70D\*14

3 sequences assigned  
No exact matches.



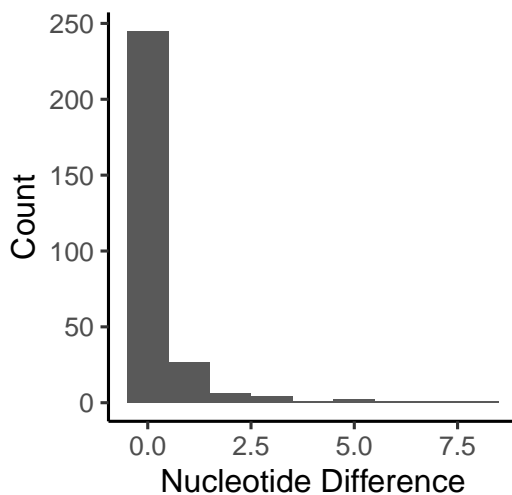
### IGHV1-69\*01

976 sequences assigned  
844 (86.5%) exact matches, in which:  
805 unique CDR3  
6 unique J



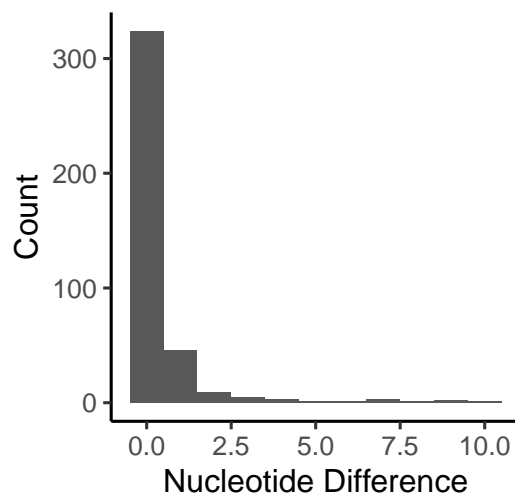
### IGHV2-26\*01

288 sequences assigned  
245 (85.1%) exact matches, in which:  
240 unique CDR3  
6 unique J



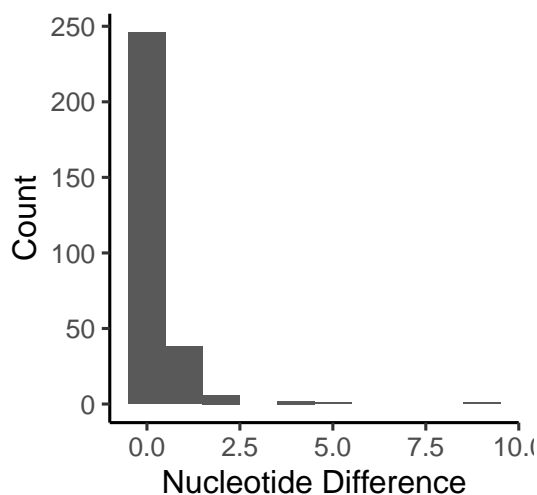
### IGHV3-7\*01

396 sequences assigned  
324 (81.8%) exact matches, in which:  
314 unique CDR3  
6 unique J



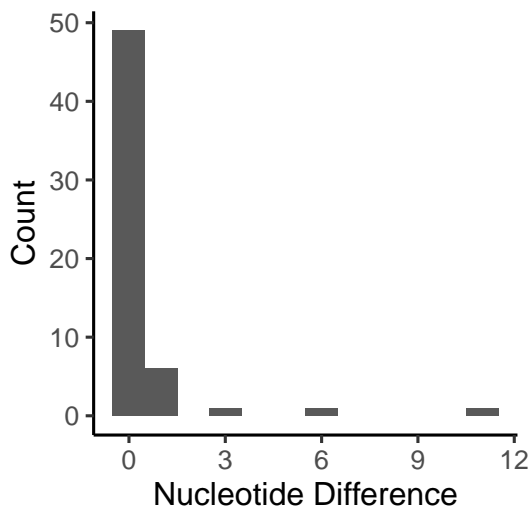
### IGHV1-69\*08\_C191T

294 sequences assigned  
246 (83.7%) exact matches, in which:  
232 unique CDR3  
6 unique J



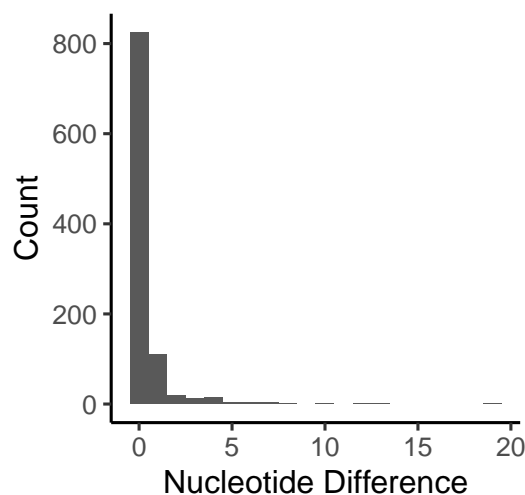
### IGHV2-70\*01

58 sequences assigned  
49 (84.5%) exact matches, in which:  
49 unique CDR3  
5 unique J



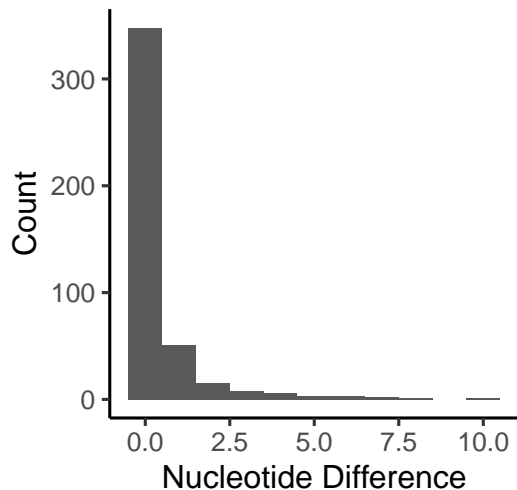
### IGHV3-9\*01

996 sequences assigned  
825 (82.8%) exact matches, in which:  
797 unique CDR3  
6 unique J



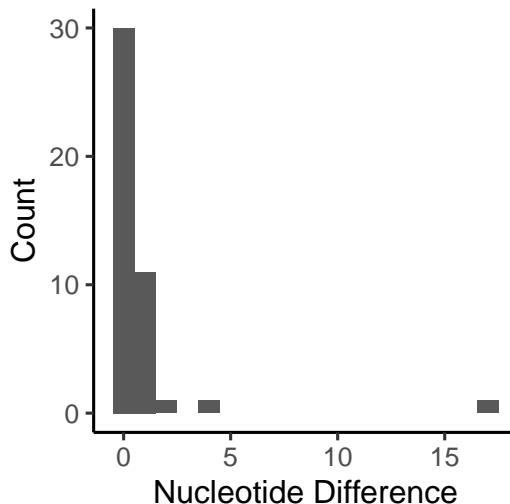
### IGHV3-11\*01

439 sequences assigned  
348 (79.3%) exact matches, in which:  
339 unique CDR3  
6 unique J



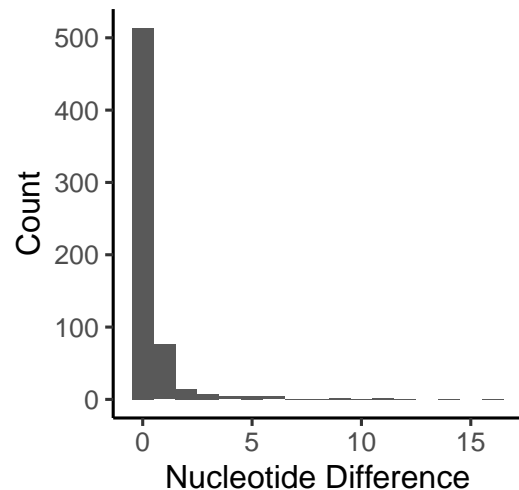
### IGHV3-20\*01

44 sequences assigned  
30 (68.2%) exact matches, in which:  
30 unique CDR3  
5 unique J



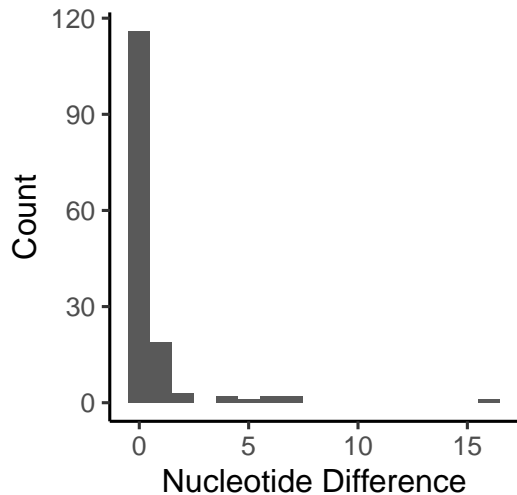
### IGHV3-30-3\*01

637 sequences assigned  
514 (80.7%) exact matches, in which:  
502 unique CDR3  
6 unique J



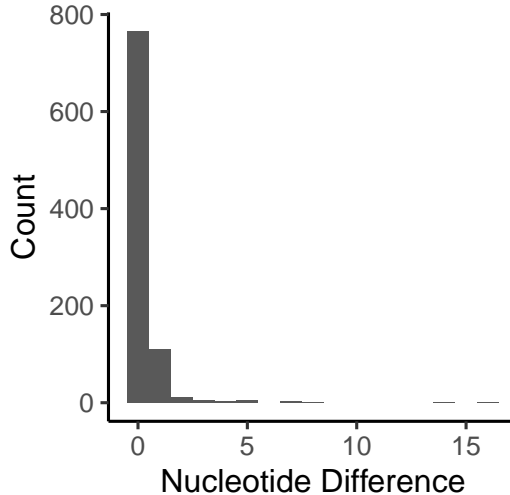
### IGHV3-13\*01

146 sequences assigned  
116 (79.5%) exact matches, in which:  
114 unique CDR3  
5 unique J



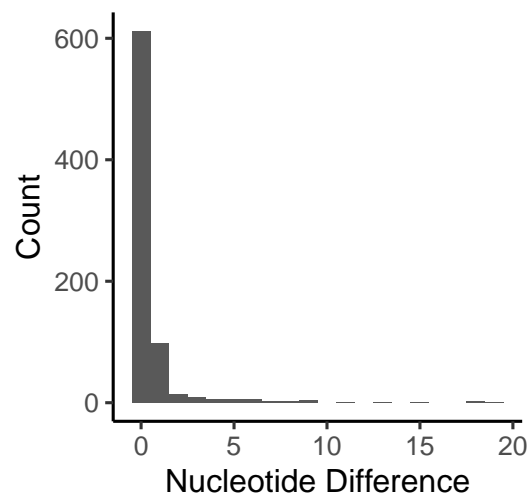
### IGHV3-21\*01

913 sequences assigned  
766 (83.9%) exact matches, in which:  
748 unique CDR3  
6 unique J



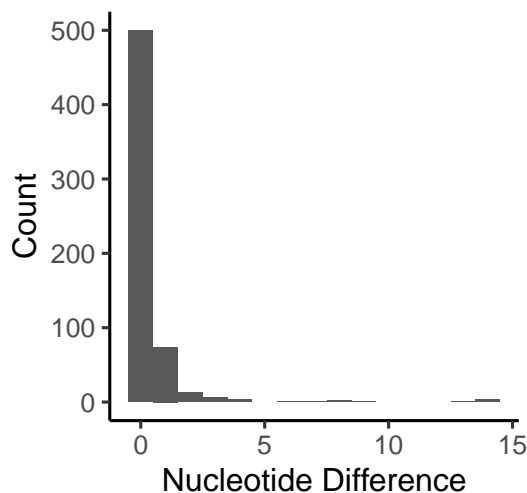
### IGHV3-30\*18

768 sequences assigned  
612 (79.7%) exact matches, in which:  
597 unique CDR3  
6 unique J



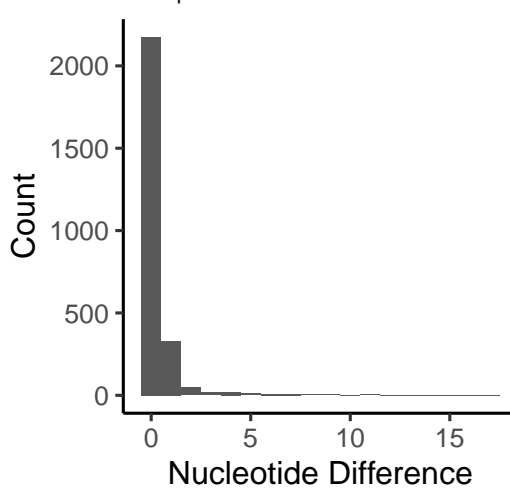
### IGHV3-15\*01

605 sequences assigned  
500 (82.6%) exact matches, in which:  
489 unique CDR3  
6 unique J



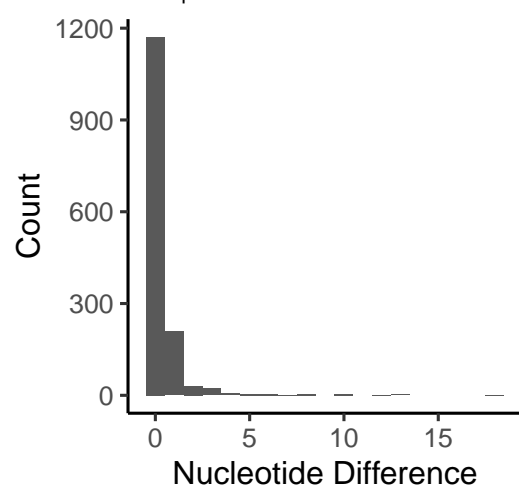
### IGHV3-23\*01

2644 sequences assigned  
2175 (82.3%) exact matches, in which:  
2110 unique CDR3  
6 unique J



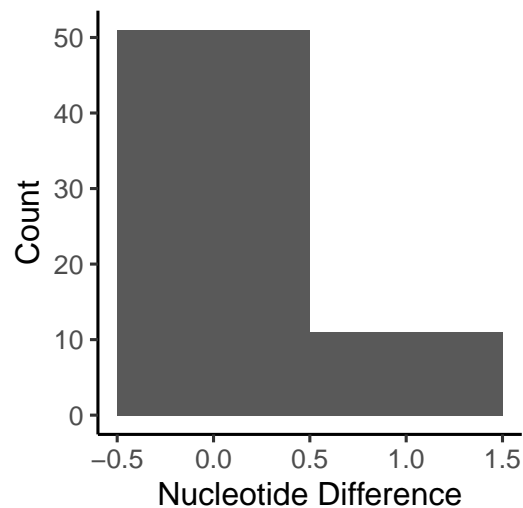
### IGHV3-33\*01

1467 sequences assigned  
1171 (79.8%) exact matches, in which:  
1133 unique CDR3  
6 unique J



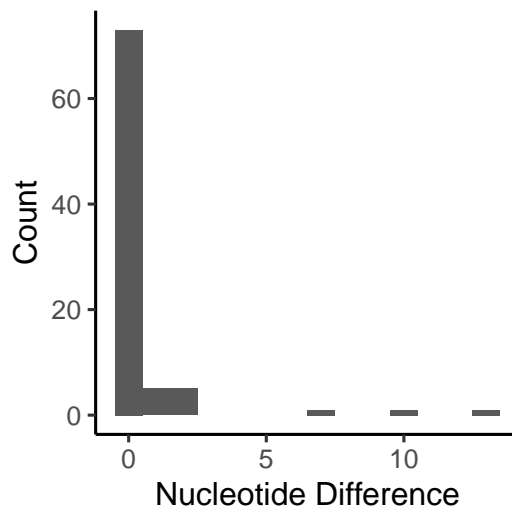
### IGHV3-43\*01

62 sequences assigned  
51 (82.3%) exact matches, in which:  
50 unique CDR3  
6 unique J



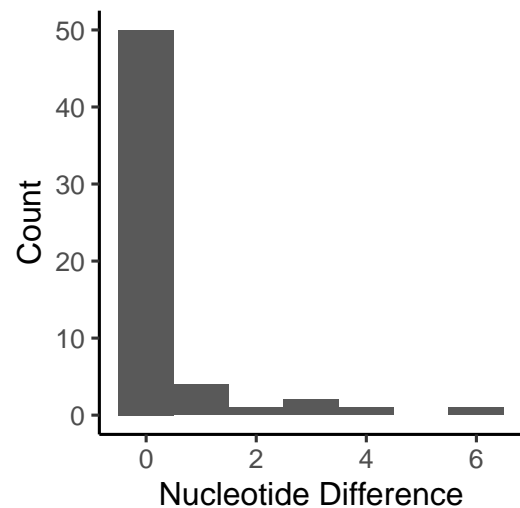
### IGHV3-49\*03

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



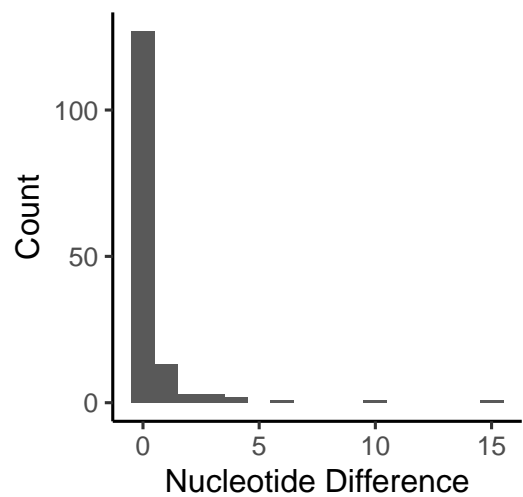
### IGHV3-53\*02

59 sequences assigned  
50 (84.7%) exact matches, in which:  
49 unique CDR3  
6 unique J



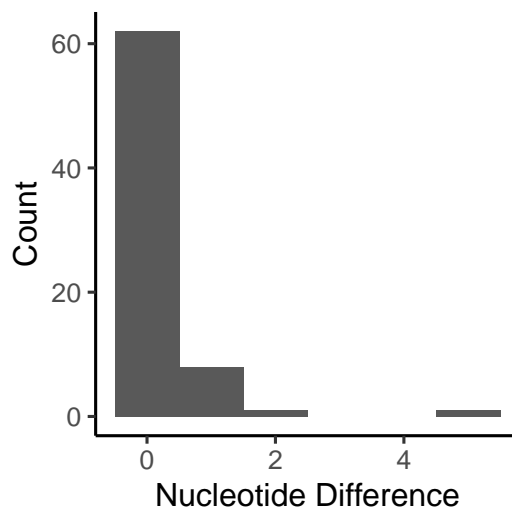
### IGHV3-48\*01

151 sequences assigned  
127 (84.1%) exact matches, in which:  
124 unique CDR3  
6 unique J



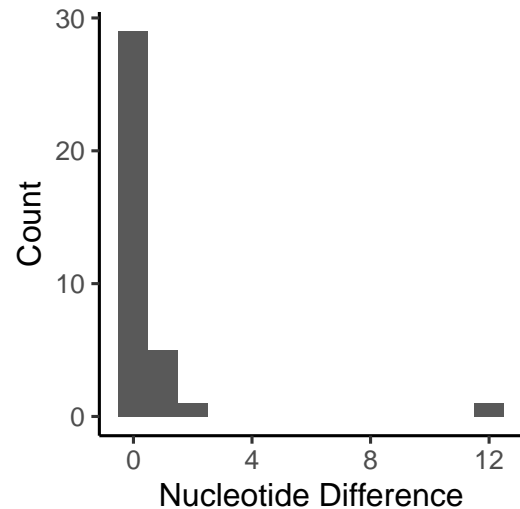
### IGHV3-49\*05

72 sequences assigned  
62 (86.1%) exact matches, in which:  
60 unique CDR3  
5 unique J



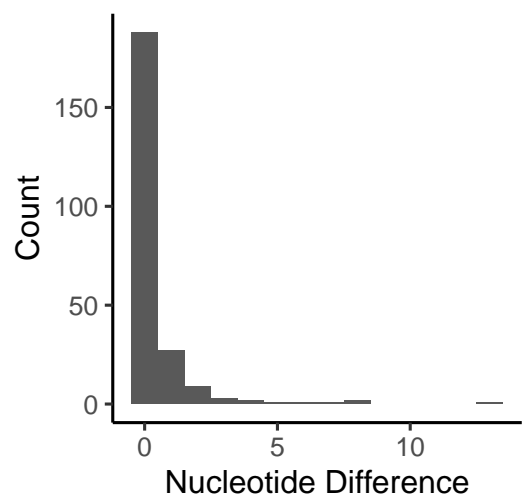
### IGHV3-64\*01

36 sequences assigned  
29 (80.6%) exact matches, in which:  
29 unique CDR3  
4 unique J



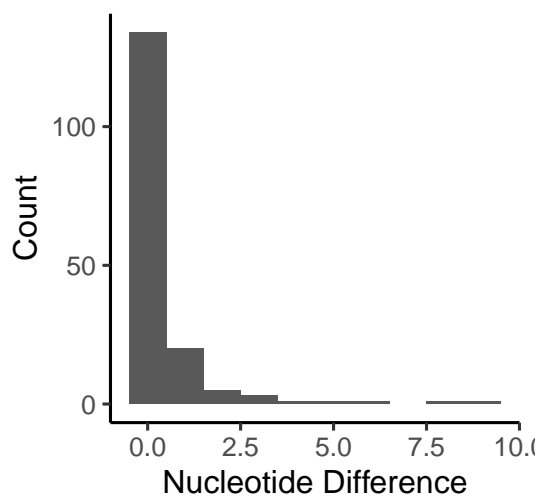
### IGHV3-48\*02

235 sequences assigned  
188 (80%) exact matches, in which:  
183 unique CDR3  
6 unique J



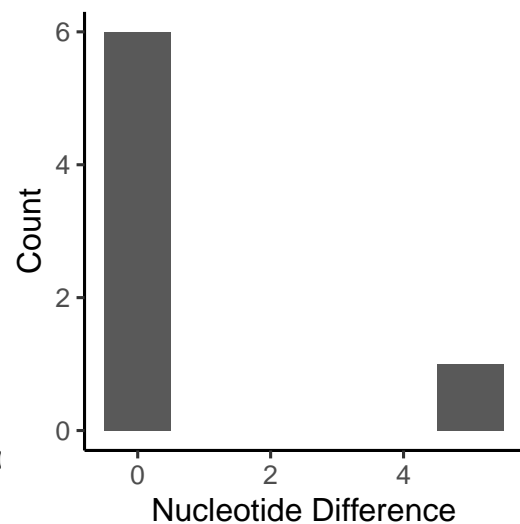
### IGHV3-53\*01

167 sequences assigned  
134 (80.2%) exact matches, in which:  
132 unique CDR3  
6 unique J



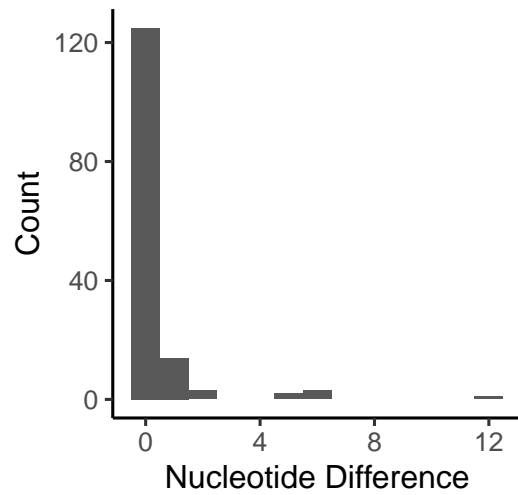
### IGHV3-64\*02

7 sequences assigned  
6 (85.7%) exact matches, in which:  
6 unique CDR3  
4 unique J



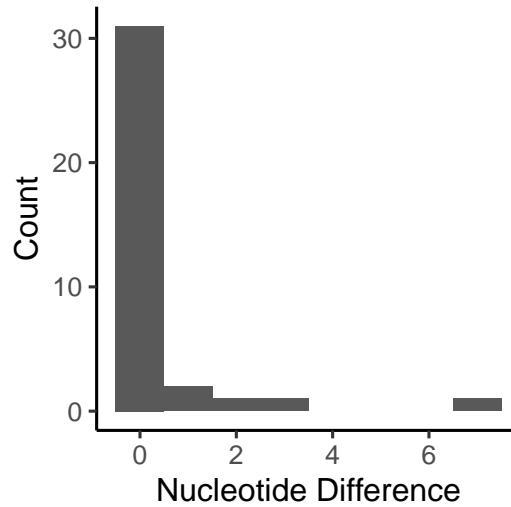
### IGHV3-66\*02

148 sequences assigned  
125 (84.5%) exact matches, in which:  
121 unique CDR3  
5 unique J



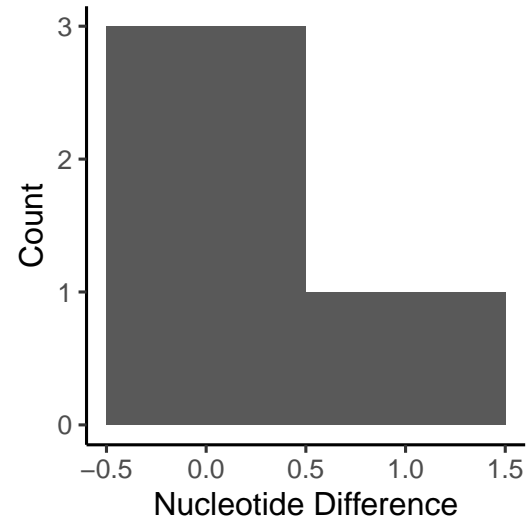
### IGHV3-73\*02

36 sequences assigned  
31 (86.1%) exact matches, in which:  
31 unique CDR3  
4 unique J



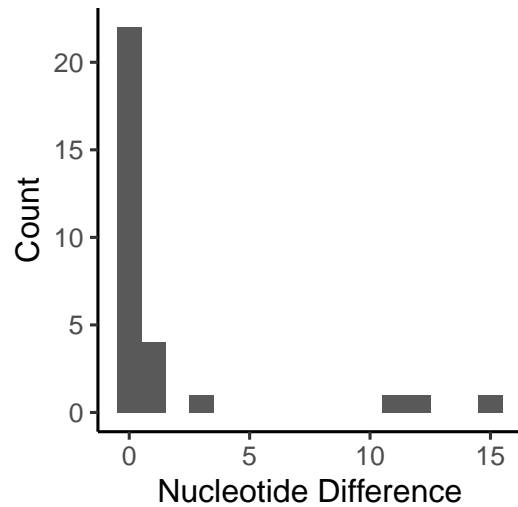
### IGHV4-28\*01

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



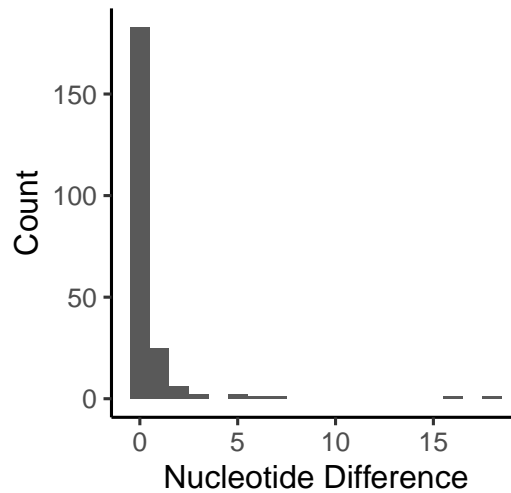
### IGHV3-72\*01

30 sequences assigned  
22 (73.3%) exact matches, in which:  
21 unique CDR3  
5 unique J



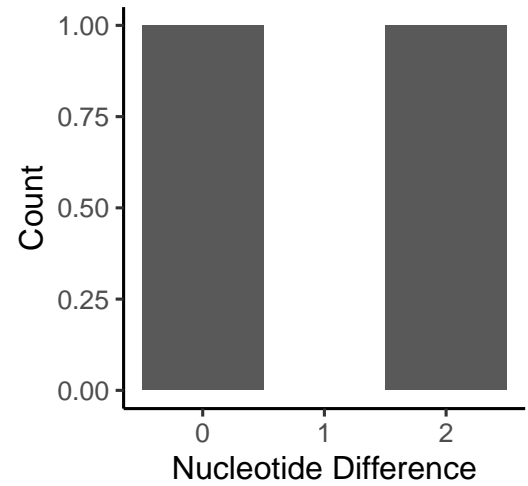
### IGHV3-74\*01

223 sequences assigned  
183 (82.1%) exact matches, in which:  
182 unique CDR3  
6 unique J



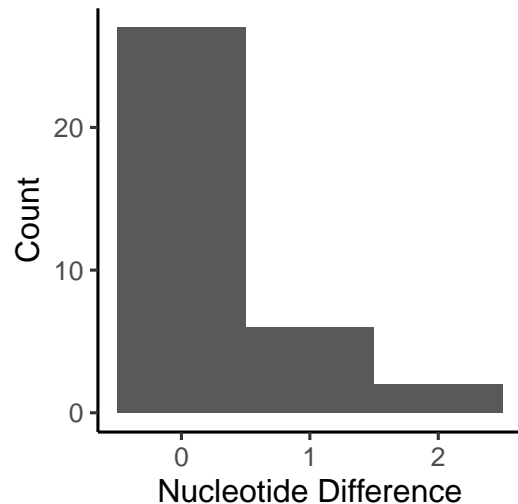
### IGHV4-28\*03

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



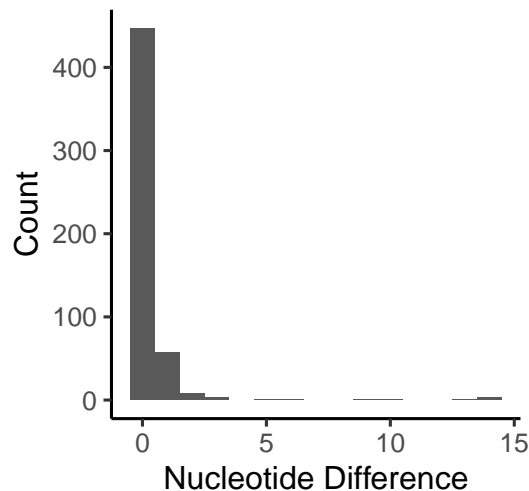
### IGHV3-73\*01

35 sequences assigned  
27 (77.1%) exact matches, in which:  
26 unique CDR3  
3 unique J



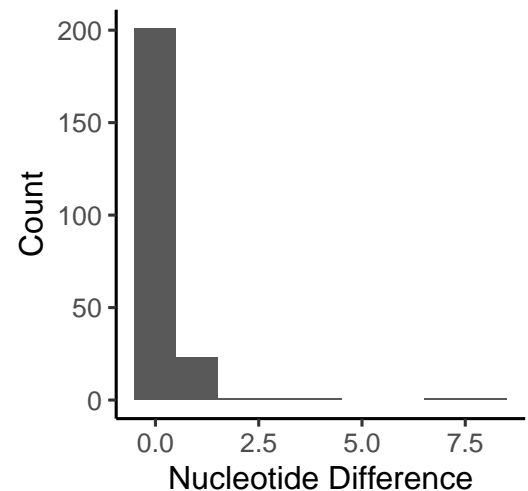
### IGHV4-4\*07

529 sequences assigned  
447 (84.5%) exact matches, in which:  
429 unique CDR3  
6 unique J



### IGHV4-30-4\*01

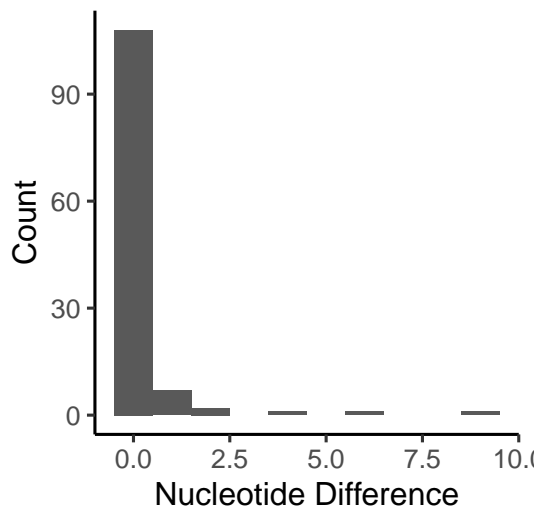
229 sequences assigned  
201 (87.8%) exact matches, in which:  
191 unique CDR3  
6 unique J





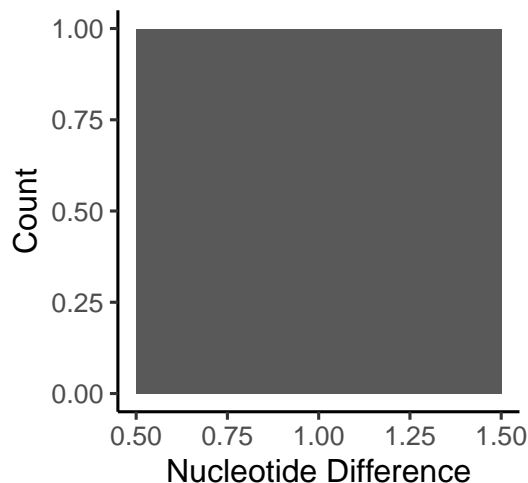
### IGHV4-30-2\*01

120 sequences assigned  
108 (90%) exact matches, in which:  
105 unique CDR3  
6 unique J



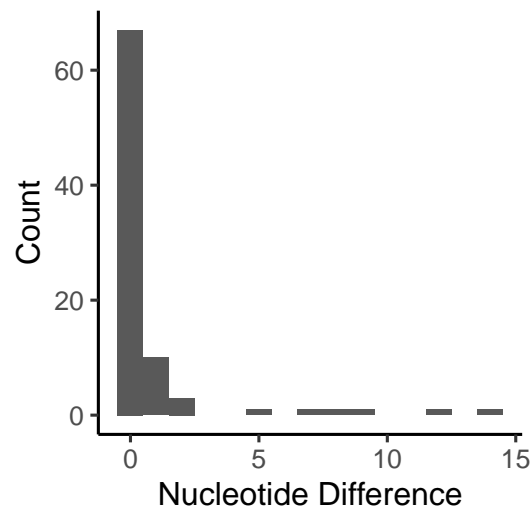
### IGHV4-38-2\*02

1 sequences assigned  
No exact matches.



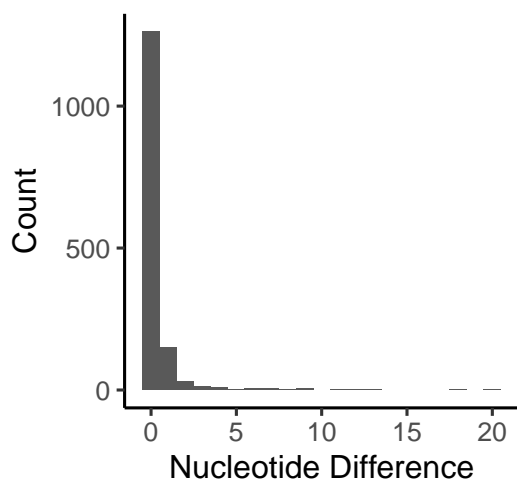
### IGHV4-61\*01

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



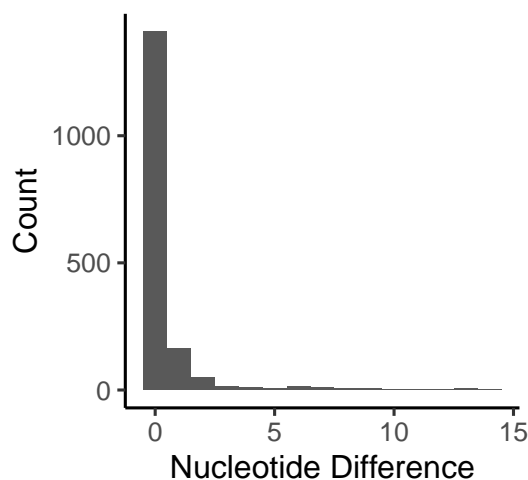
### IGHV4-31\*03

1485 sequences assigned  
1262 (85%) exact matches, in which:  
1230 unique CDR3  
6 unique J



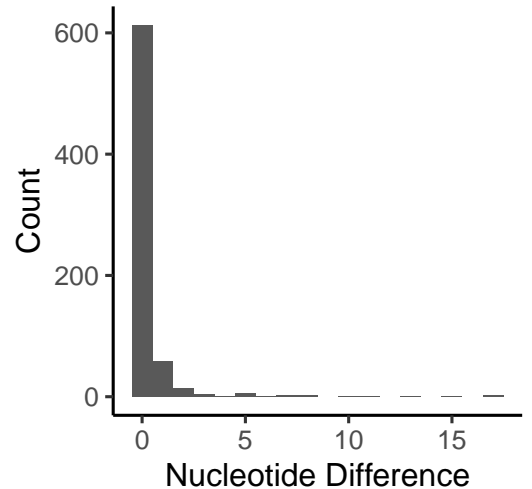
### IGHV4-39\*01

1703 sequences assigned  
1409 (82.7%) exact matches, in which:  
1339 unique CDR3  
6 unique J



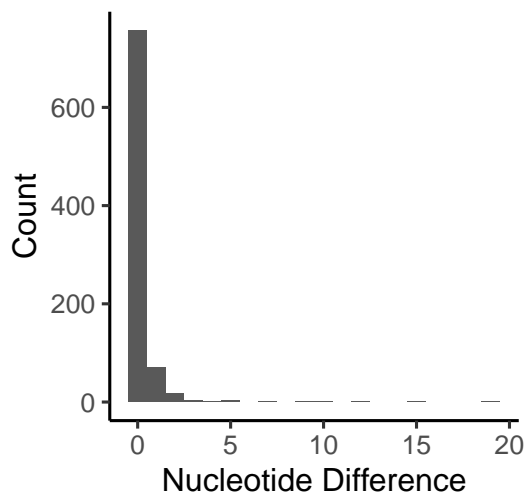
### IGHV4-61\*02

709 sequences assigned  
613 (86.5%) exact matches, in which:  
590 unique CDR3  
6 unique J



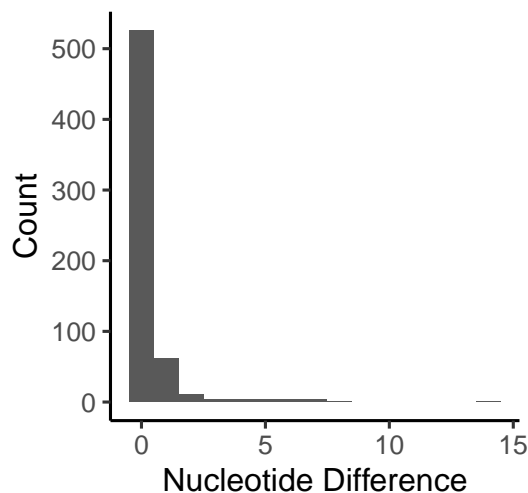
### IGHV4-34\*01

859 sequences assigned  
757 (88.1%) exact matches, in which:  
719 unique CDR3  
6 unique J



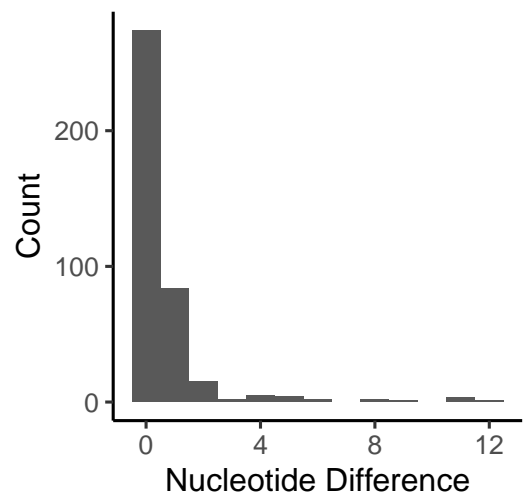
### IGHV4-59\*01

620 sequences assigned  
526 (84.8%) exact matches, in which:  
512 unique CDR3  
6 unique J



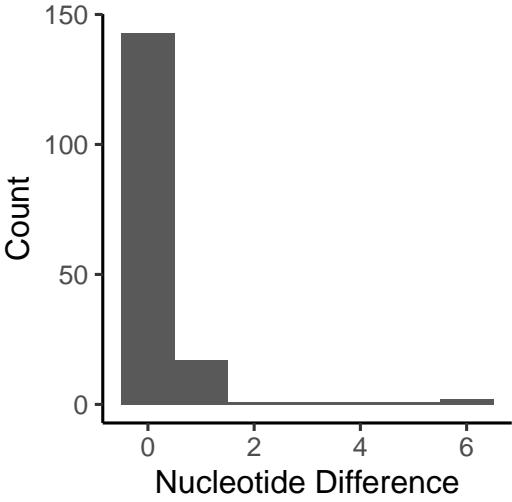
### IGHV5-51\*01

397 sequences assigned  
274 (69%) exact matches, in which:  
262 unique CDR3  
6 unique J



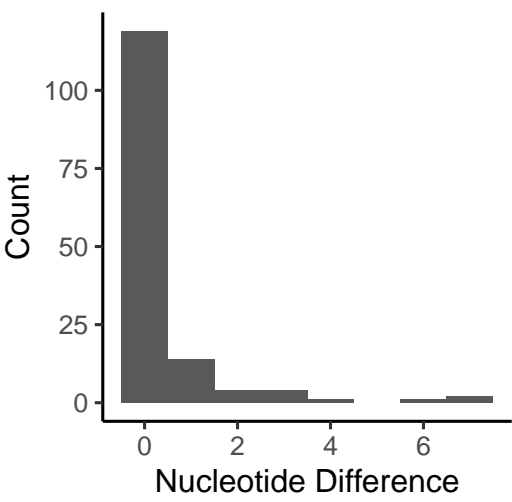
IGHV5–51\*03

167 sequences assigned  
143 (85.6%) exact matches, in which:  
139 unique CDR3  
5 unique J



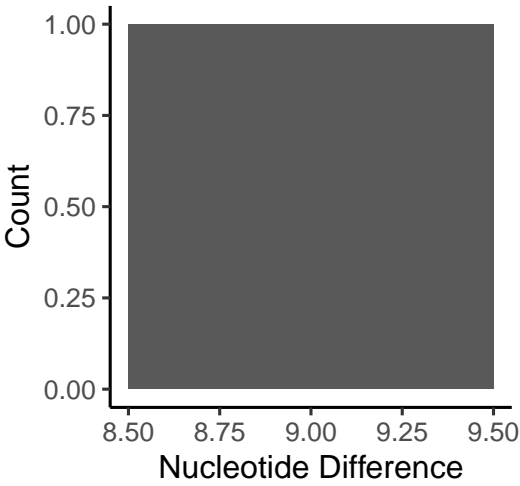
IGHV6–1\*01

145 sequences assigned  
119 (82.1%) exact matches, in which:  
116 unique CDR3  
6 unique J



IGHV7–81\*01

1 sequences assigned  
No exact matches.



IGHV1-69\*08\_C191T

