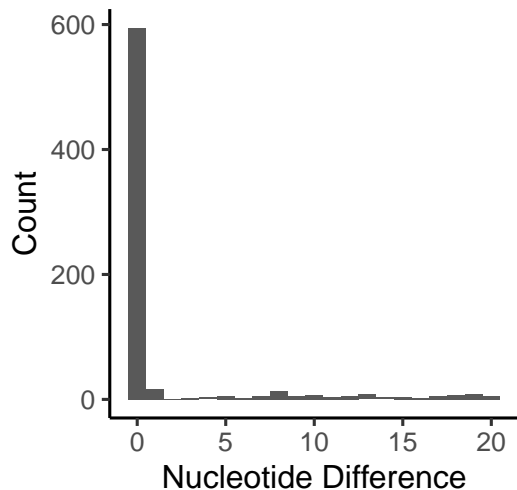


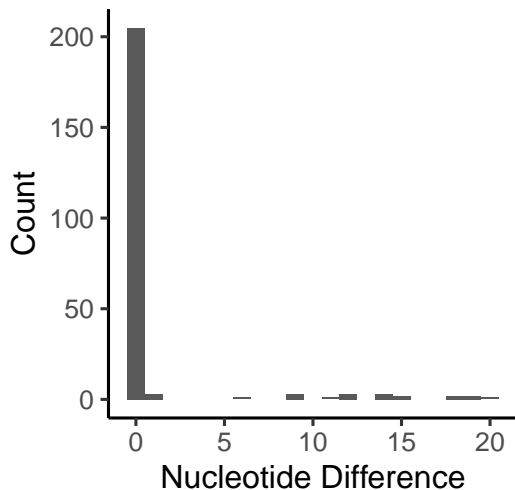
### IGHV1-2\*06

739 sequences assigned  
595 (80.5%) exact matches, in which:  
594 unique CDR3  
6 unique J



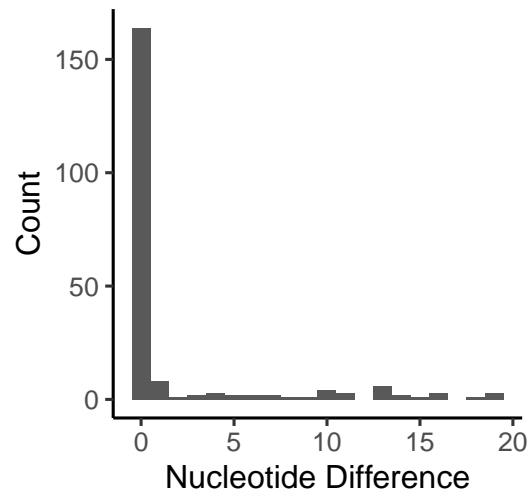
### IGHV1-24\*01

241 sequences assigned  
205 (85.1%) exact matches, in which:  
204 unique CDR3  
6 unique J



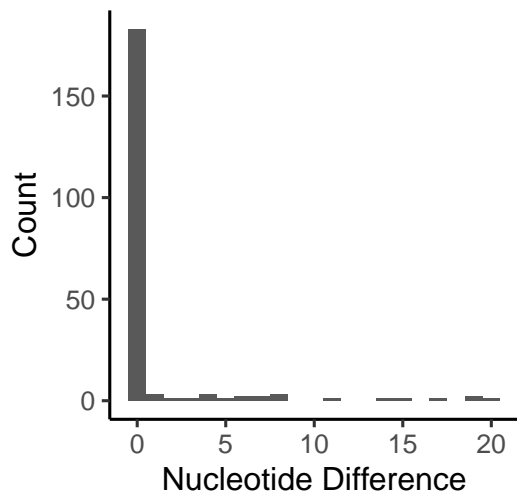
### IGHV1-46\*01

223 sequences assigned  
164 (73.5%) exact matches, in which:  
163 unique CDR3  
6 unique J



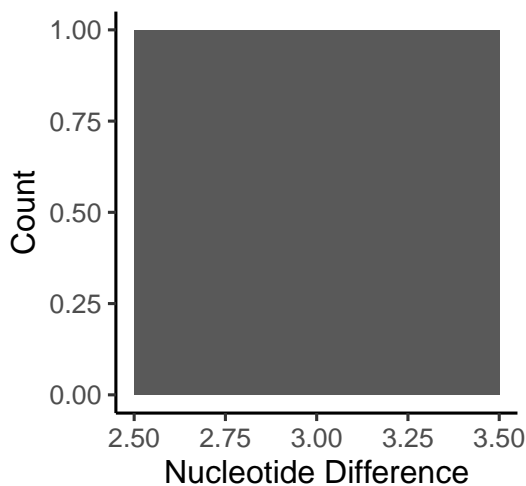
### IGHV1-8\*01

216 sequences assigned  
183 (84.7%) exact matches, in which:  
183 unique CDR3  
6 unique J



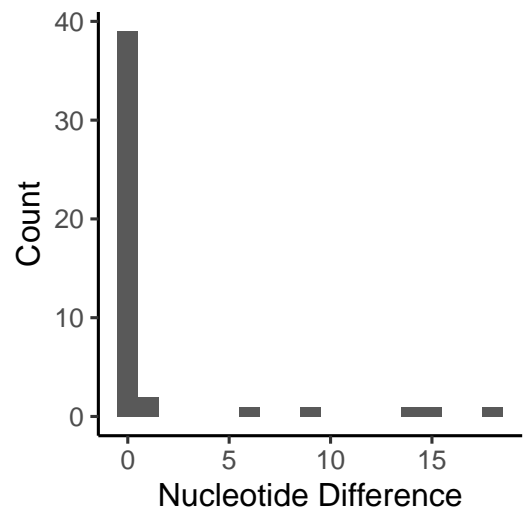
### IGHV1-38-4\*01

1 sequences assigned  
No exact matches.



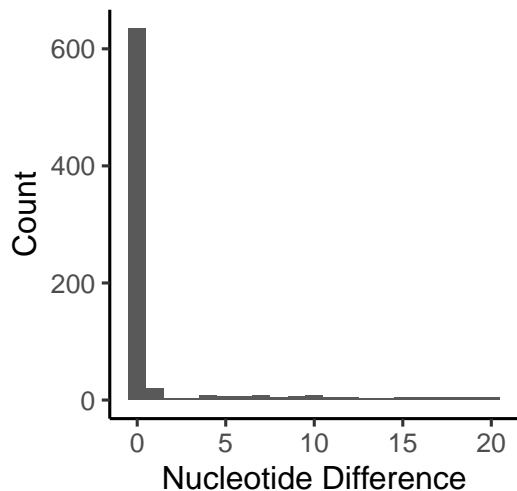
### IGHV1-58\*02

46 sequences assigned  
39 (84.8%) exact matches, in which:  
39 unique CDR3  
5 unique J



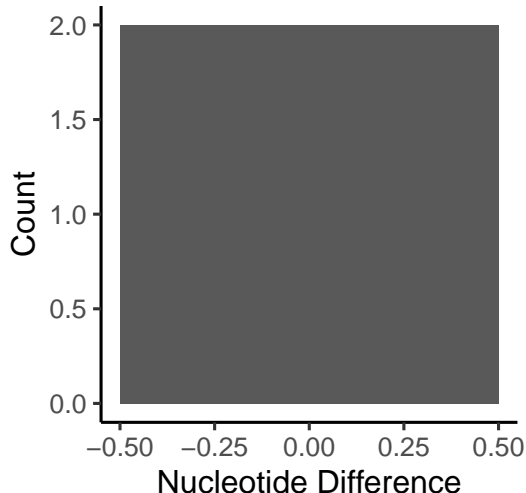
### IGHV1-18\*01

787 sequences assigned  
635 (80.7%) exact matches, in which:  
634 unique CDR3  
6 unique J



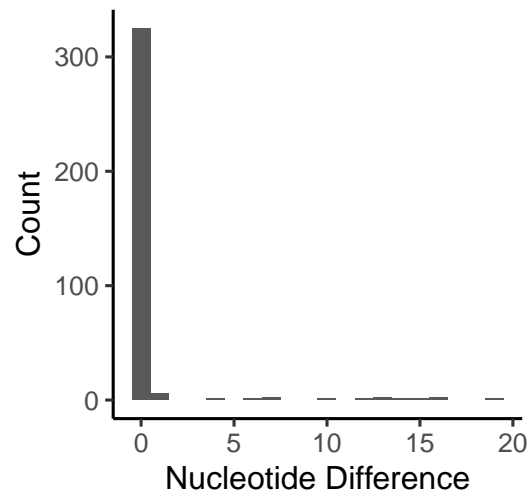
### IGHV1-45\*02

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



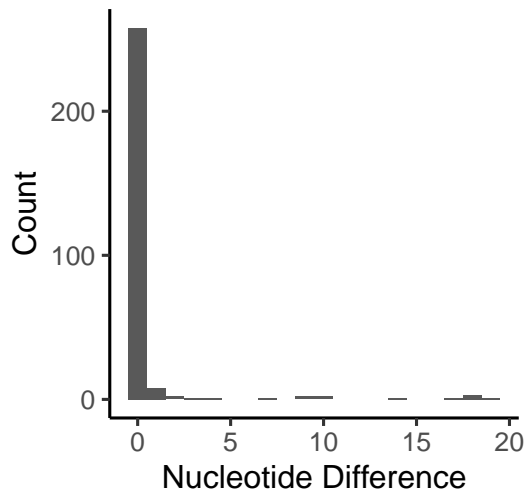
### IGHV1-69\*10

354 sequences assigned  
325 (91.8%) exact matches, in which:  
325 unique CDR3  
6 unique J



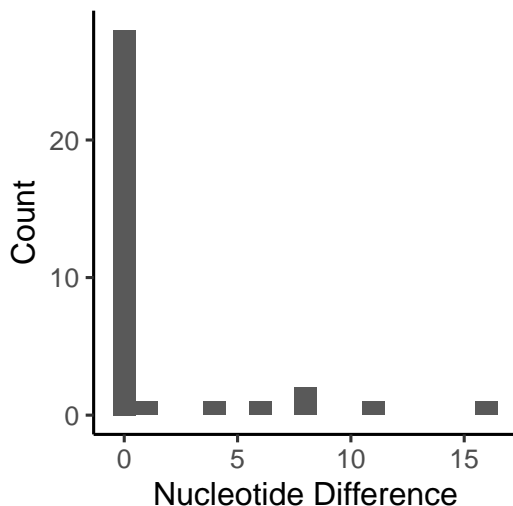
### IGHV1–69\*04\_09

301 sequences assigned  
258 (85.7%) exact matches, in which:  
258 unique CDR3  
6 unique J



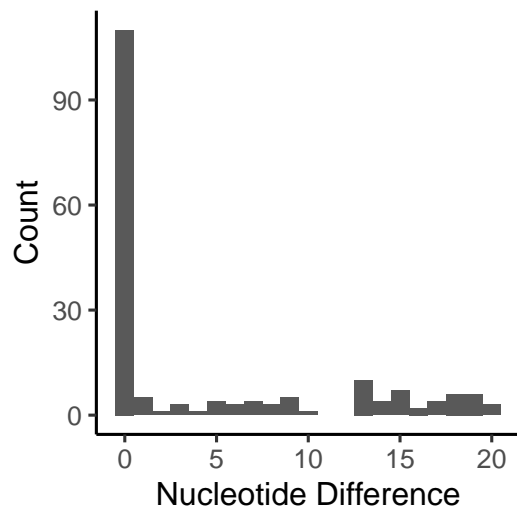
### IGHV2–26\*01

39 sequences assigned  
28 (71.8%) exact matches, in which:  
28 unique CDR3  
5 unique J



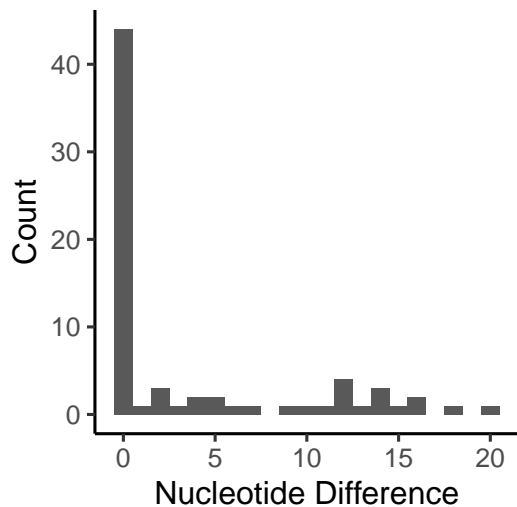
### IGHV3–7\*05

207 sequences assigned  
110 (53.1%) exact matches, in which:  
110 unique CDR3  
6 unique J



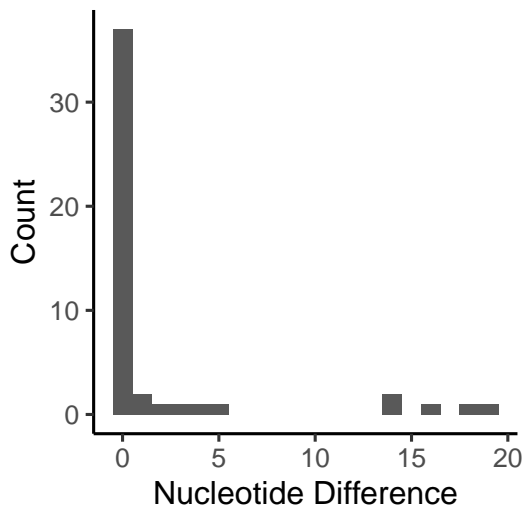
### IGHV2–5\*01

78 sequences assigned  
44 (56.4%) exact matches, in which:  
44 unique CDR3  
6 unique J



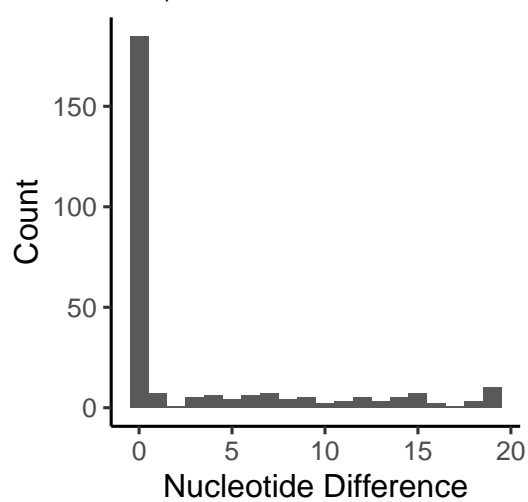
### IGHV2–70\*11\_15

50 sequences assigned  
37 (74%) exact matches, in which:  
37 unique CDR3  
4 unique J



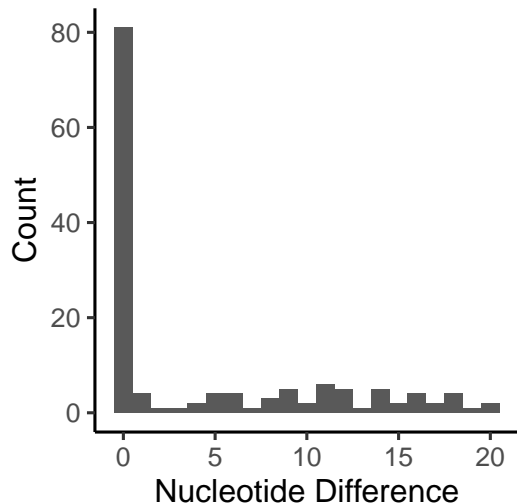
### IGHV3–9\*01

284 sequences assigned  
185 (65.1%) exact matches, in which:  
178 unique CDR3  
6 unique J



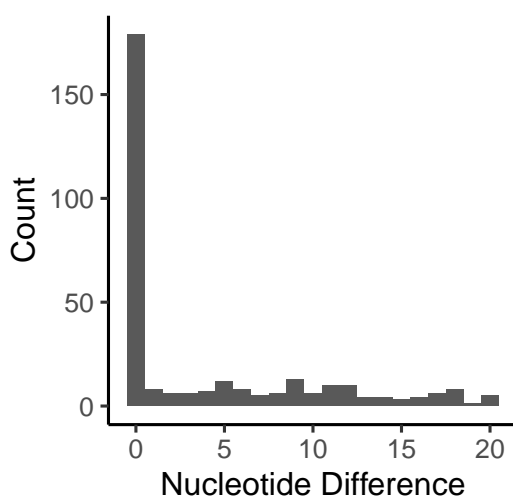
### IGHV2–5\*02

158 sequences assigned  
81 (51.3%) exact matches, in which:  
81 unique CDR3  
6 unique J



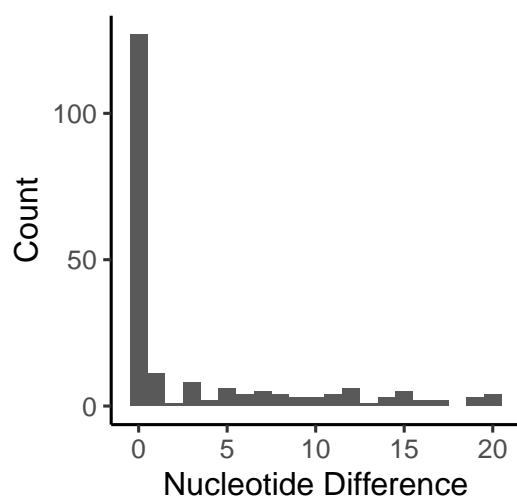
### IGHV3–7\*01

338 sequences assigned  
179 (53%) exact matches, in which:  
171 unique CDR3  
6 unique J



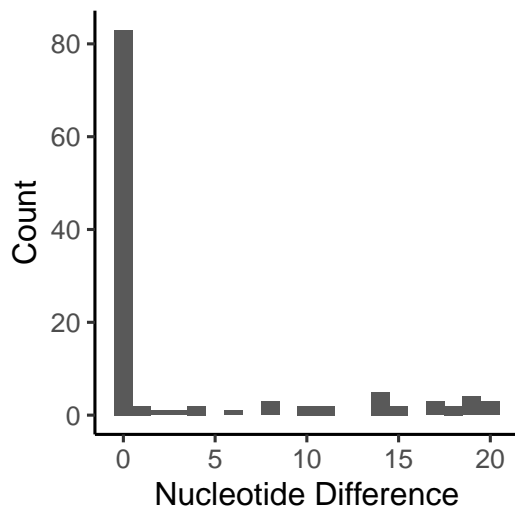
### IGHV3–11\*01

230 sequences assigned  
127 (55.2%) exact matches, in which:  
124 unique CDR3  
6 unique J



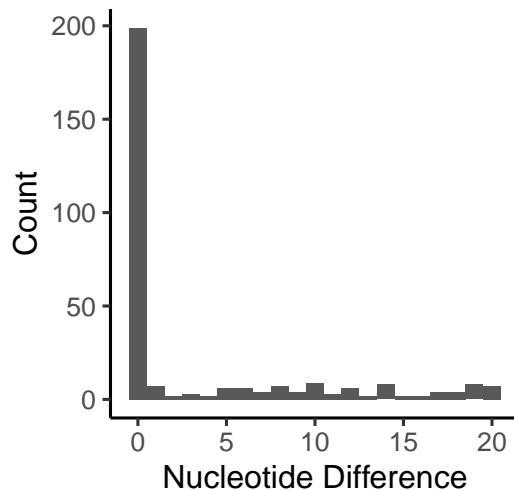
### IGHV3-11\*06

123 sequences assigned  
83 (67.5%) exact matches, in which:  
82 unique CDR3  
4 unique J



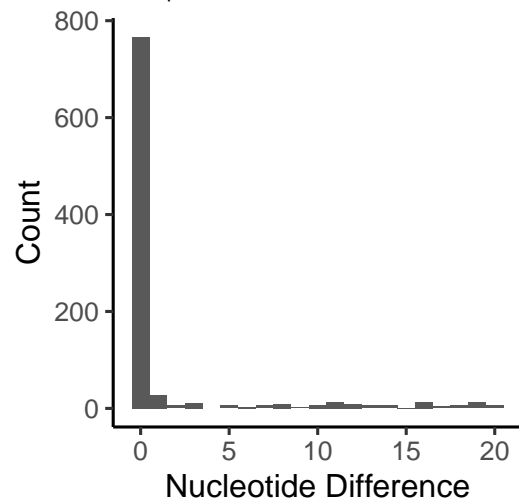
### IGHV3-15\*01\_02

328 sequences assigned  
199 (60.7%) exact matches, in which:  
197 unique CDR3  
6 unique J



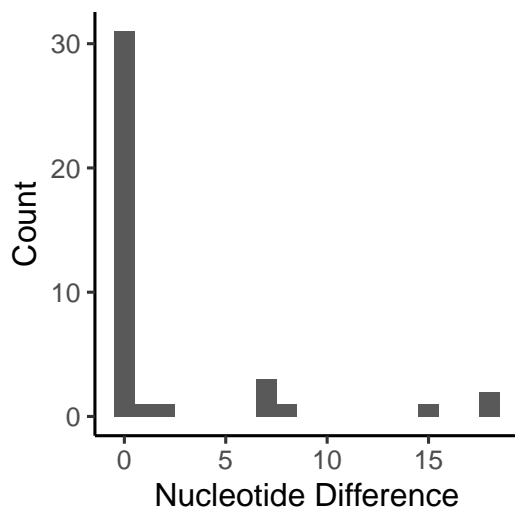
### IGHV3-21\*01\_02

985 sequences assigned  
767 (77.9%) exact matches, in which:  
747 unique CDR3  
6 unique J



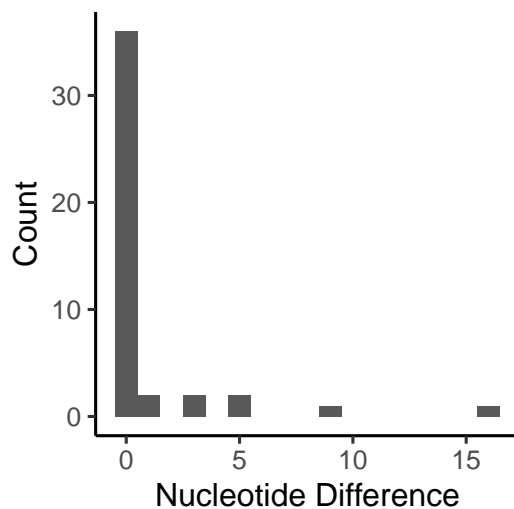
### IGHV3-13\*01

44 sequences assigned  
31 (70.5%) exact matches, in which:  
30 unique CDR3  
4 unique J



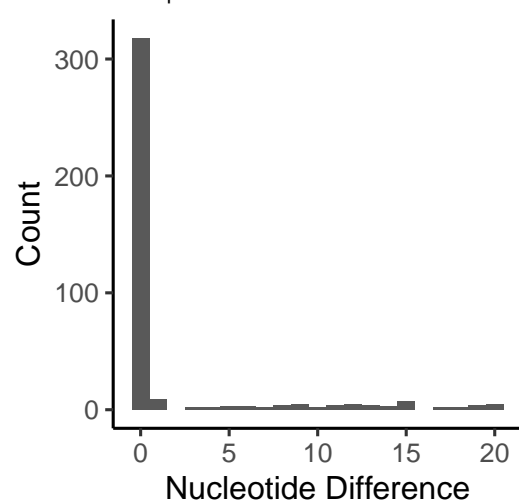
### IGHV3-20\*01\_02

44 sequences assigned  
36 (81.8%) exact matches, in which:  
35 unique CDR3  
5 unique J



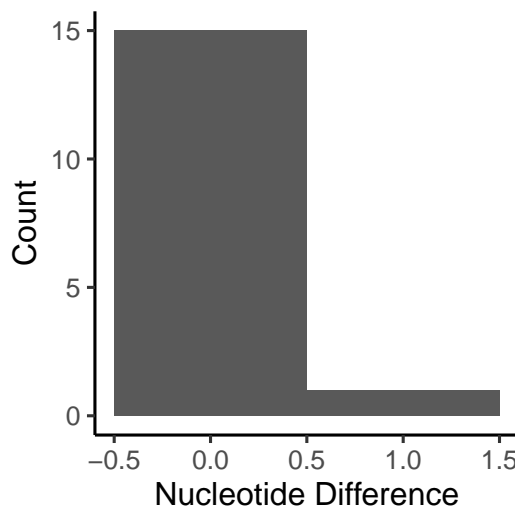
### IGHV3-30-3\*01

434 sequences assigned  
318 (73.3%) exact matches, in which:  
312 unique CDR3  
6 unique J



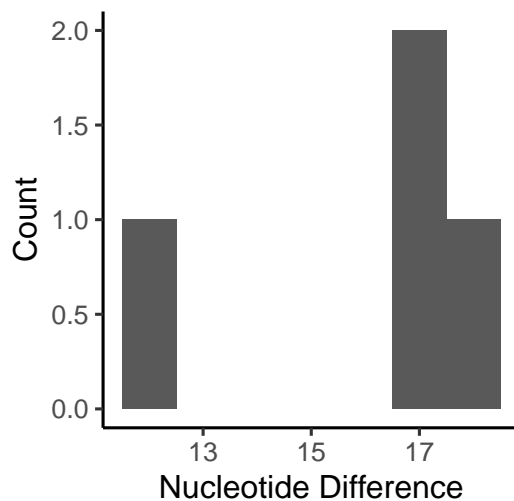
### IGHV3-13\*05

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



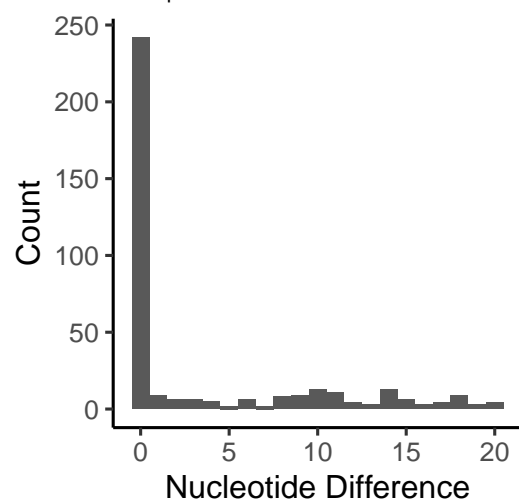
### IGHV3-20\*03\_04

9 sequences assigned  
No exact matches.



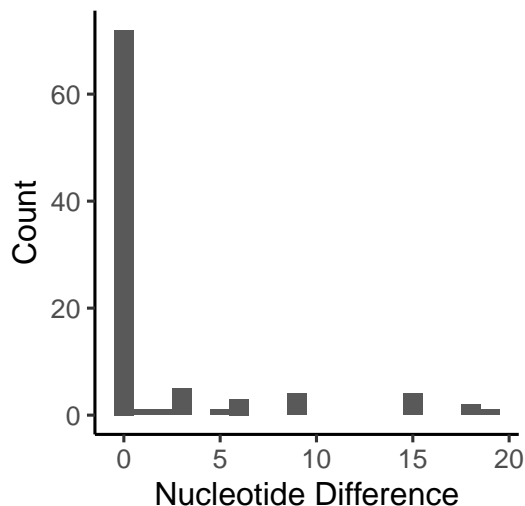
### IGHV3-33\*06

394 sequences assigned  
242 (61.4%) exact matches, in which:  
236 unique CDR3  
6 unique J



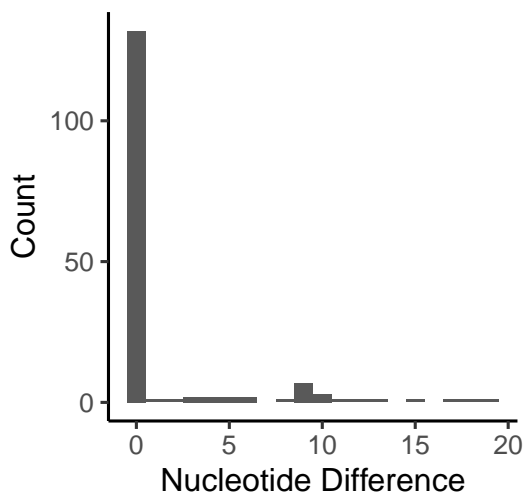
### IGHV3-43\*01

107 sequences assigned  
72 (67.3%) exact matches, in which:  
71 unique CDR3  
5 unique J



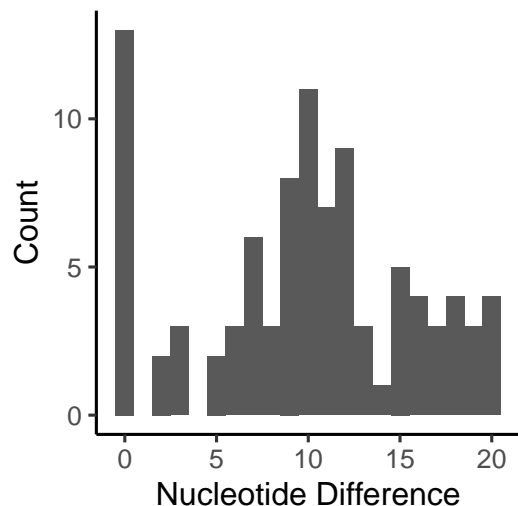
### IGHV3-53\*04

172 sequences assigned  
132 (76.7%) exact matches, in which:  
127 unique CDR3  
5 unique J



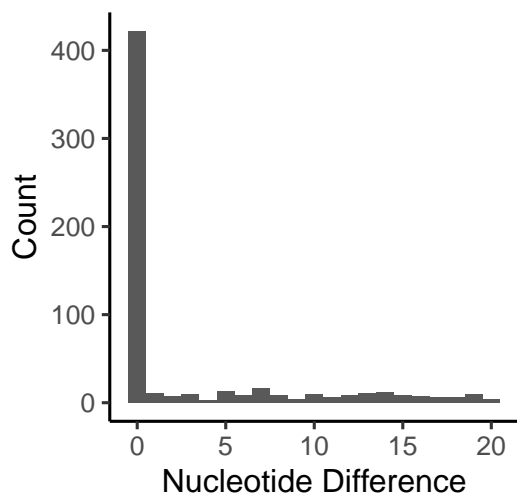
### IGHV3-72\*01

108 sequences assigned  
13 (12%) exact matches, in which:  
13 unique CDR3  
2 unique J



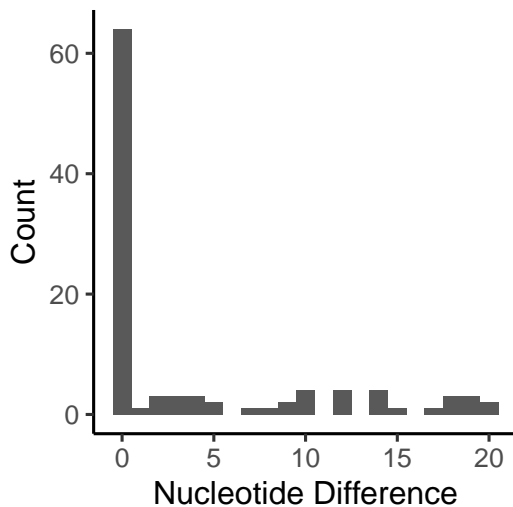
### IGHV3-48\*04

643 sequences assigned  
422 (65.6%) exact matches, in which:  
406 unique CDR3  
6 unique J



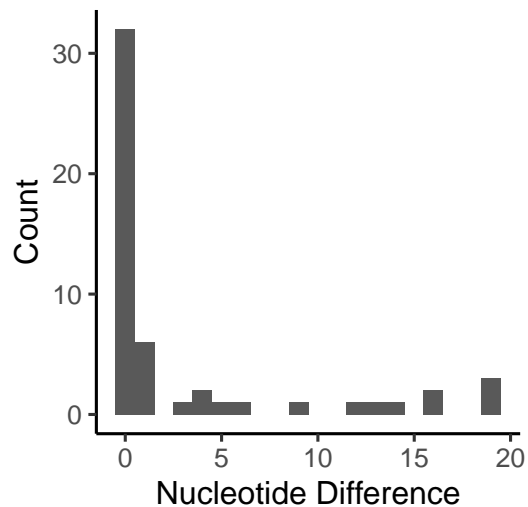
### IGHV3-64\*01

111 sequences assigned  
64 (57.7%) exact matches, in which:  
62 unique CDR3  
5 unique J



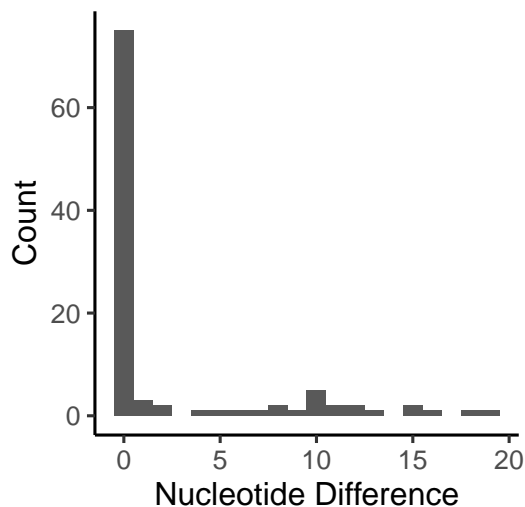
### IGHV3-73\*01\_02

54 sequences assigned  
32 (59.3%) exact matches, in which:  
31 unique CDR3  
5 unique J



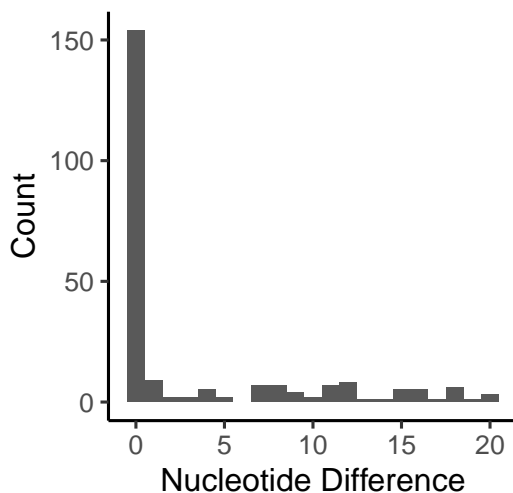
### IGHV3-49\*03\_05

116 sequences assigned  
75 (64.7%) exact matches, in which:  
73 unique CDR3  
6 unique J



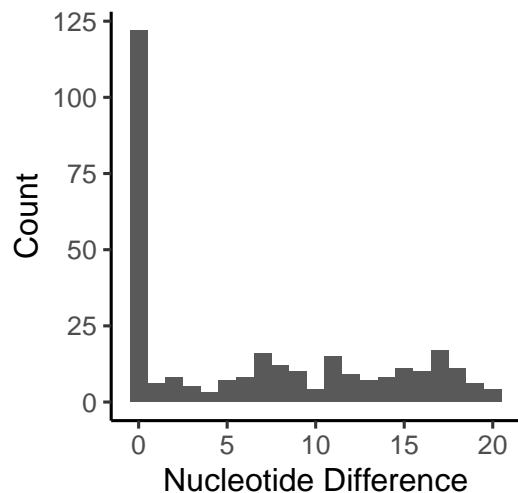
### IGHV3-66\*01

259 sequences assigned  
154 (59.5%) exact matches, in which:  
149 unique CDR3  
6 unique J



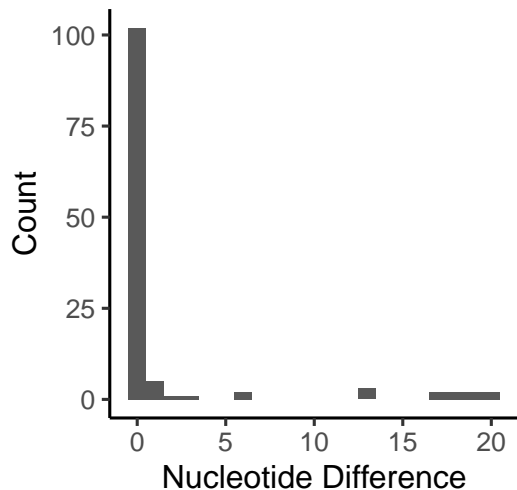
### IGHV3-74\*01\_02

324 sequences assigned  
122 (37.7%) exact matches, in which:  
114 unique CDR3  
6 unique J



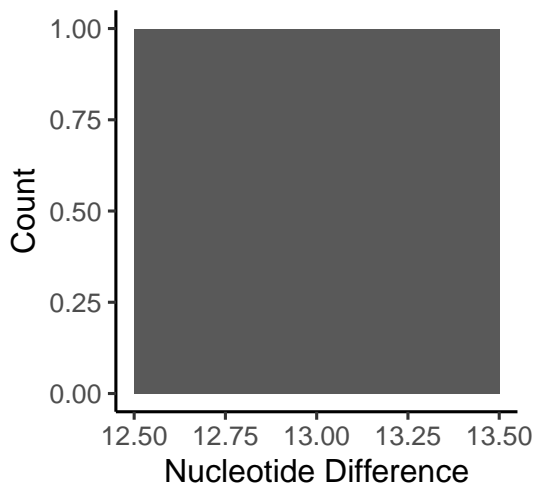
### IGHV3-43D\*03

134 sequences assigned  
102 (76.1%) exact matches, in which:  
99 unique CDR3  
6 unique J



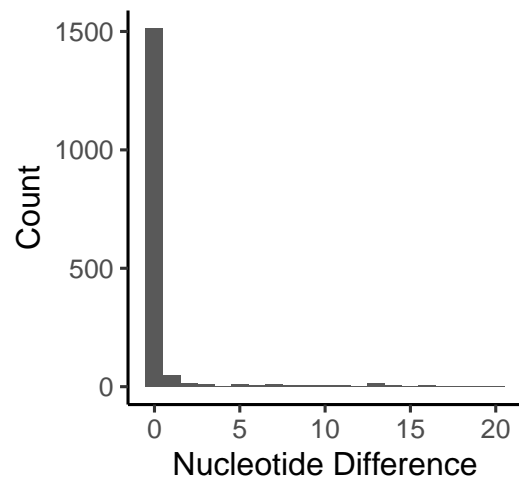
### IGHV4-28\*02\_05

1 sequences assigned  
No exact matches.



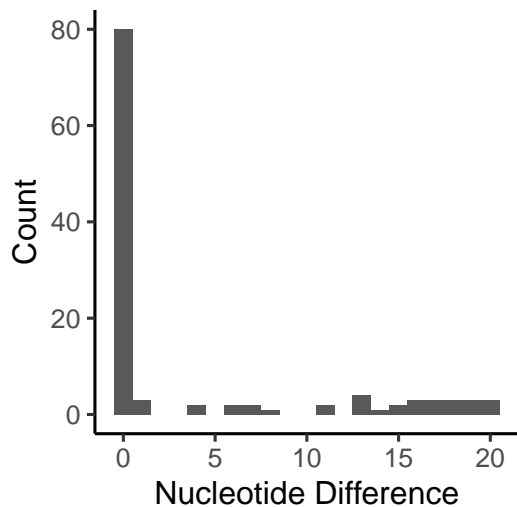
### IGHV4-34\*01\_02

1733 sequences assigned  
1513 (87.3%) exact matches, in which:  
1464 unique CDR3  
6 unique J



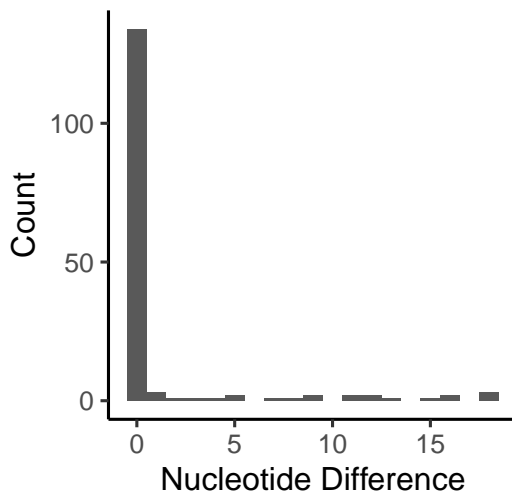
### IGHV3-64D\*06

138 sequences assigned  
80 (58%) exact matches, in which:  
74 unique CDR3  
5 unique J



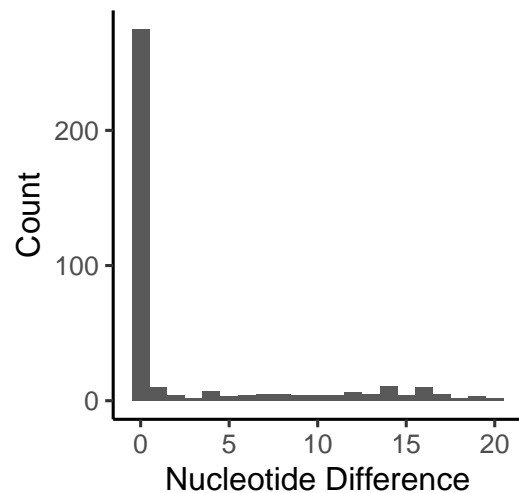
### IGHV4-30-4\*01

172 sequences assigned  
134 (77.9%) exact matches, in which:  
131 unique CDR3  
5 unique J



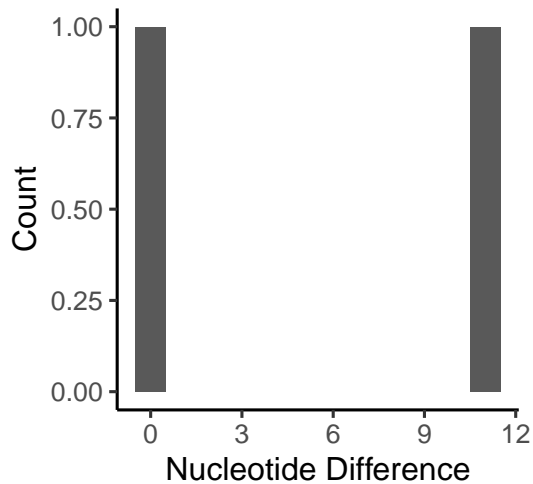
### IGHV4-38-2\*02

398 sequences assigned  
275 (69.1%) exact matches, in which:  
270 unique CDR3  
6 unique J



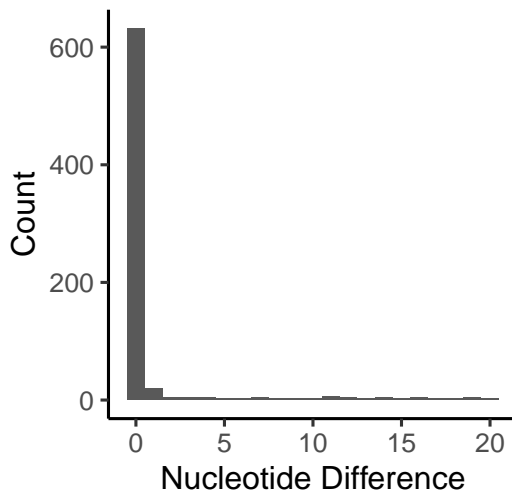
### IGHV4-28\*01\_07

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



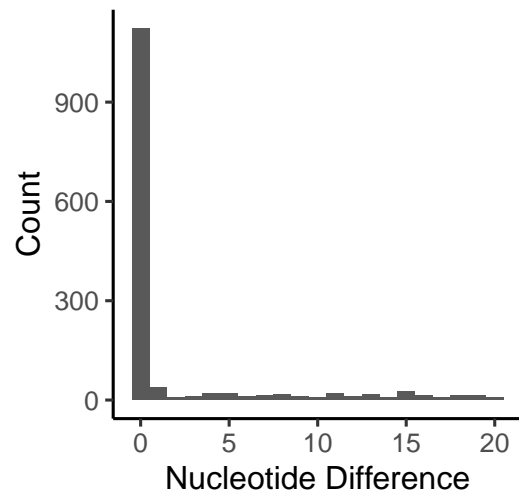
### IGHV4-31\*03\_04

799 sequences assigned  
632 (79.1%) exact matches, in which:  
622 unique CDR3  
6 unique J



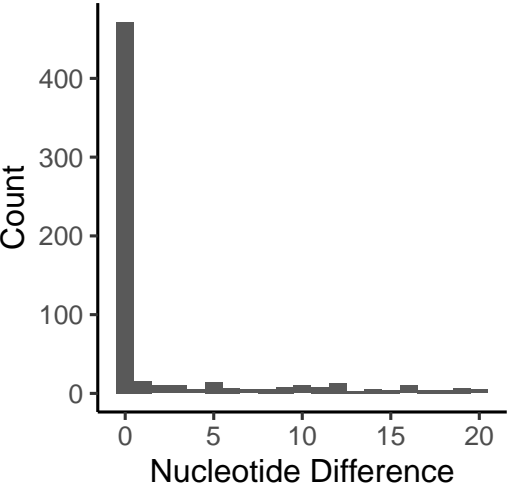
### IGHV4-39\*07

1551 sequences assigned  
1123 (72.4%) exact matches, in which:  
1077 unique CDR3  
6 unique J



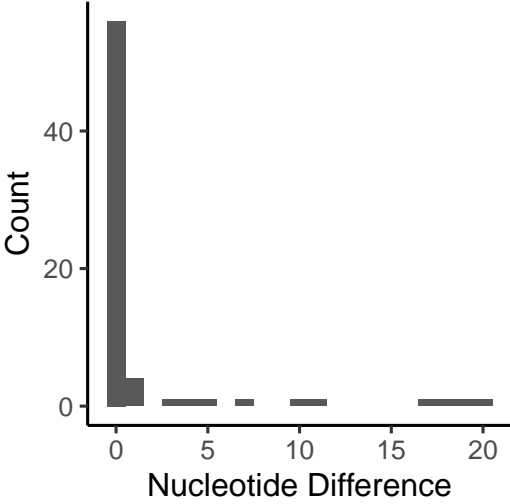
IGHV4-59\*08

692 sequences assigned  
472 (68.2%) exact matches, in which:  
459 unique CDR3  
6 unique J



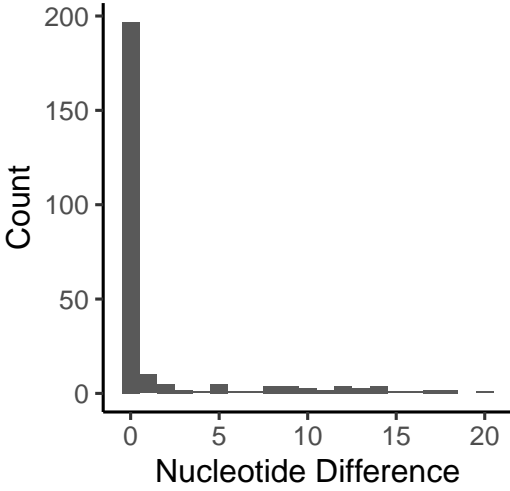
IGHV5-10-1\*01\_03

76 sequences assigned  
56 (73.7%) exact matches, in which:  
56 unique CDR3  
5 unique J



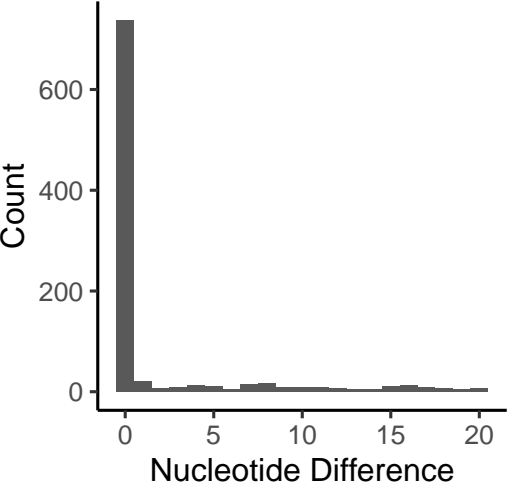
IGHV7-4-1\*02

269 sequences assigned  
197 (73.2%) exact matches, in which:  
197 unique CDR3  
5 unique J



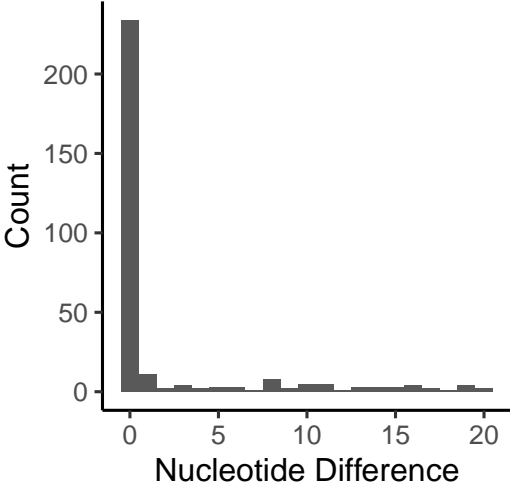
IGHV4-59\*01\_07

993 sequences assigned  
738 (74.3%) exact matches, in which:  
722 unique CDR3  
6 unique J



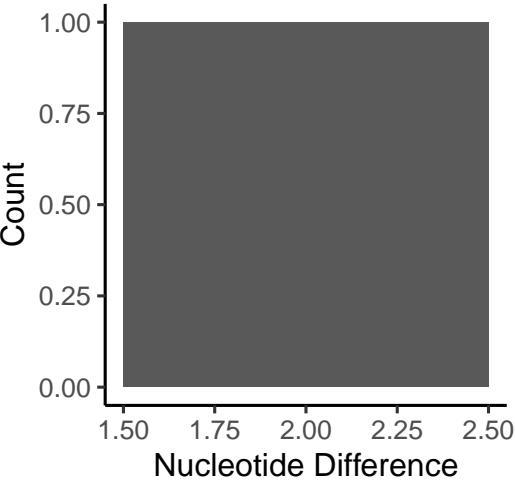
IGHV5-51\*01\_03

322 sequences assigned  
234 (72.7%) exact matches, in which:  
233 unique CDR3  
6 unique J



IGHV4-61\*01

1 sequences assigned  
No exact matches.



IGHV6-1\*01\_02

158 sequences assigned  
84 (53.2%) exact matches, in which:  
84 unique CDR3  
5 unique J

