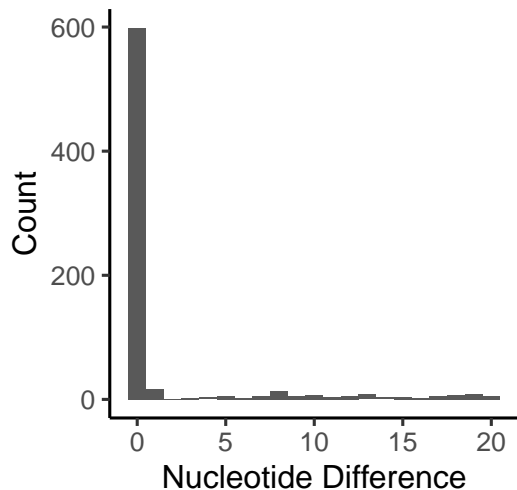


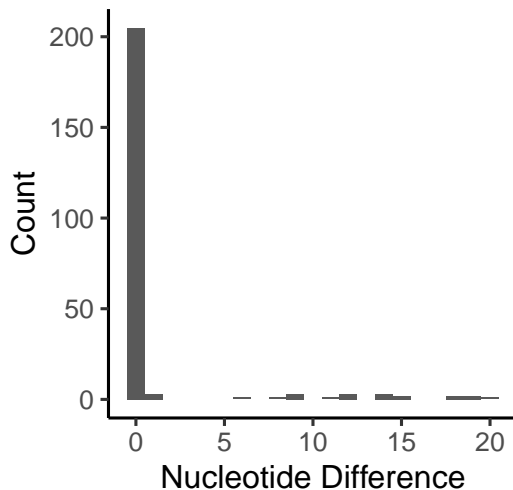
### IGHV1-2\*06

743 sequences assigned  
599 (80.6%) exact matches, in which:  
596 unique CDR3  
6 unique J



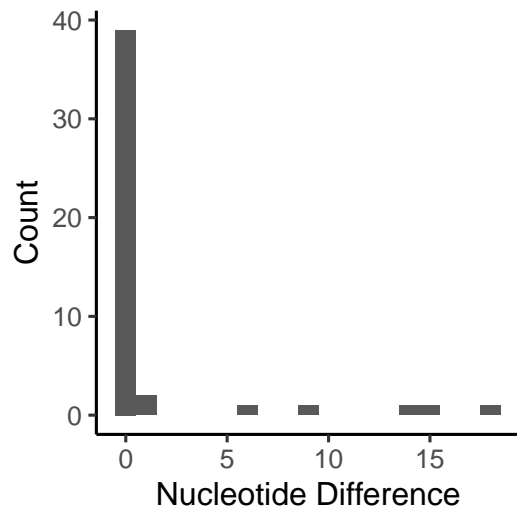
### IGHV1-24\*01

242 sequences assigned  
205 (84.7%) exact matches, in which:  
204 unique CDR3  
6 unique J



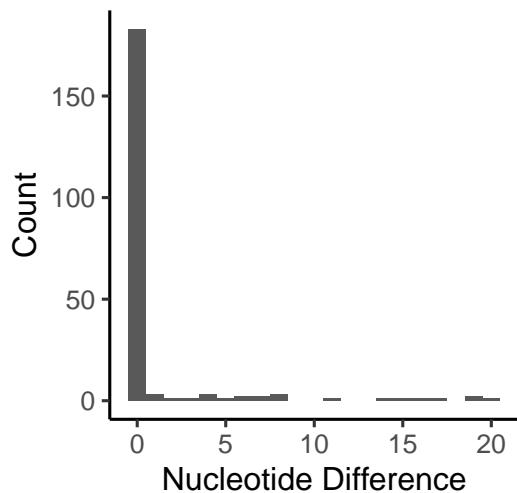
### IGHV1-58\*02

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



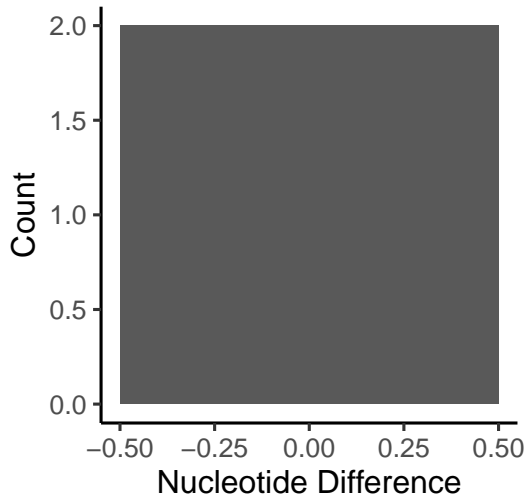
### IGHV1-8\*01

217 sequences assigned  
183 (84.3%) exact matches, in which:  
183 unique CDR3  
6 unique J



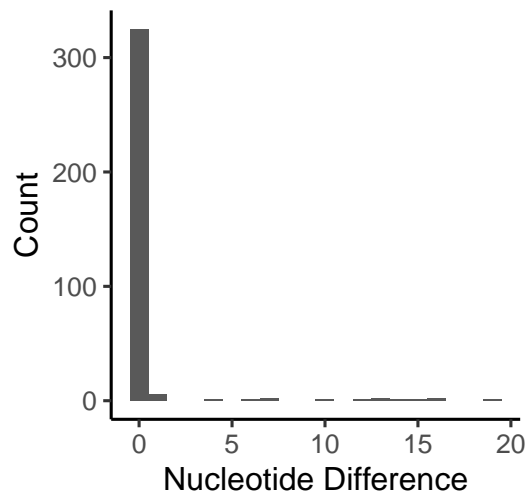
### IGHV1-45\*02

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



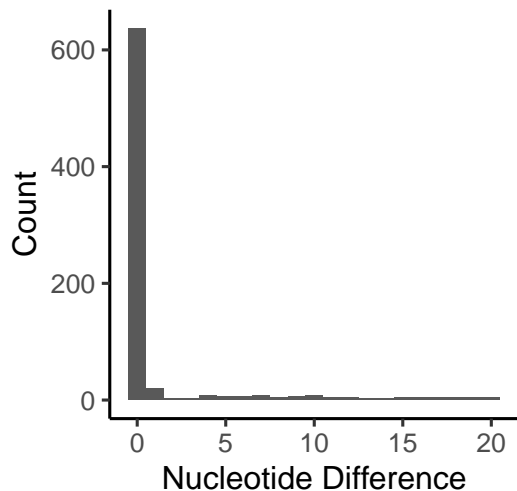
### IGHV1-69\*10

356 sequences assigned  
325 (91.3%) exact matches, in which:  
325 unique CDR3  
6 unique J



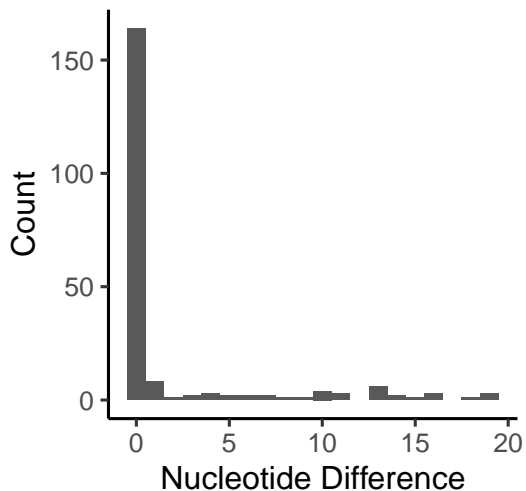
### IGHV1-18\*01

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



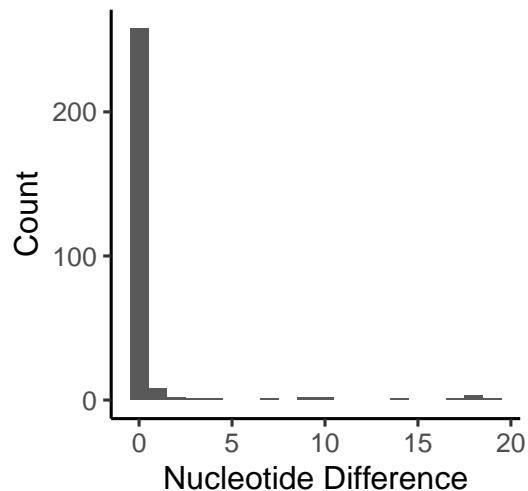
### IGHV1-46\*01

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



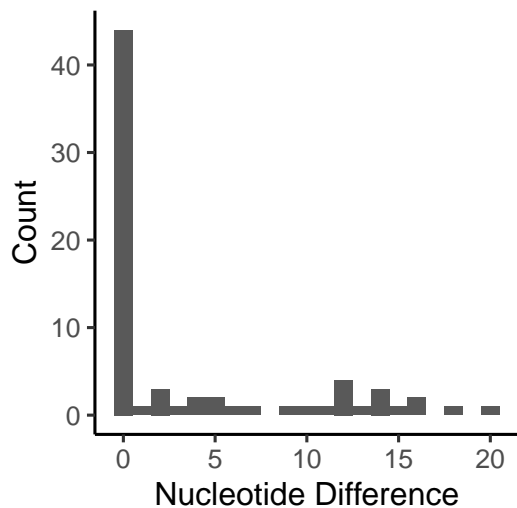
### IGHV1-69\*04\_09

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



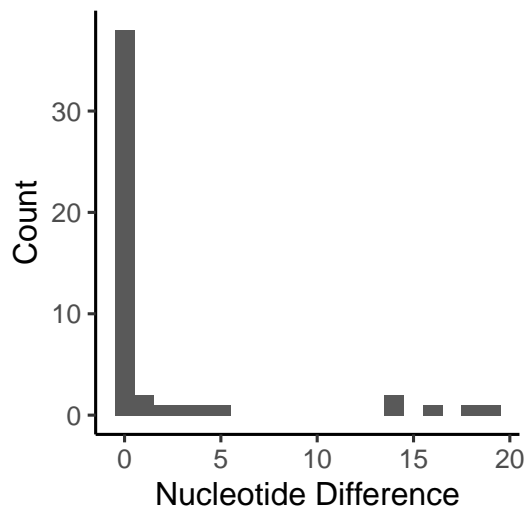
### IGHV2-5\*01

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



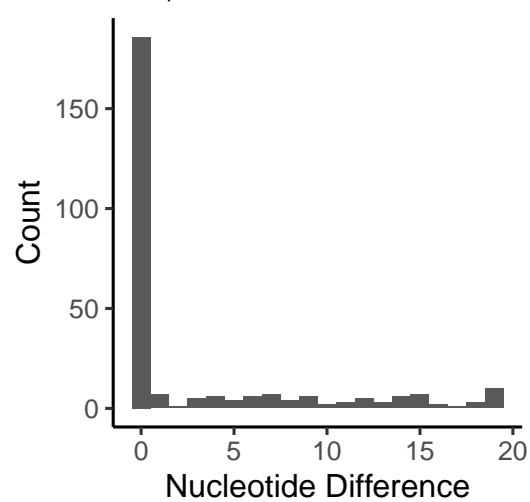
### IGHV2-70\*11\_15

51 sequences assigned  
38 (74.5%) exact matches, in which:  
37 unique CDR3  
4 unique J



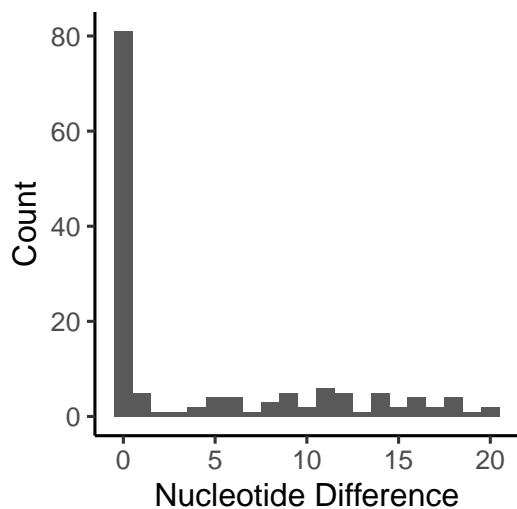
### IGHV3-9\*01

287 sequences assigned  
186 (64.8%) exact matches, in which:  
178 unique CDR3  
6 unique J



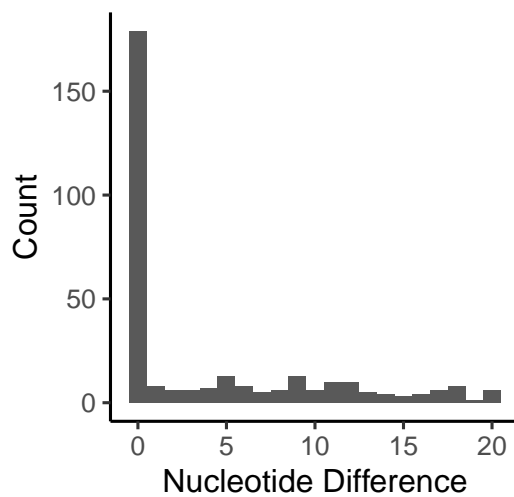
### IGHV2-5\*02

159 sequences assigned  
81 (50.9%) exact matches, in which:  
81 unique CDR3  
6 unique J



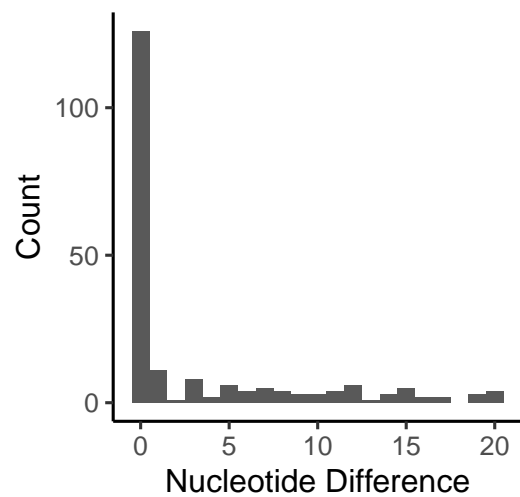
### IGHV3-7\*01

337 sequences assigned  
179 (53.1%) exact matches, in which:  
171 unique CDR3  
6 unique J



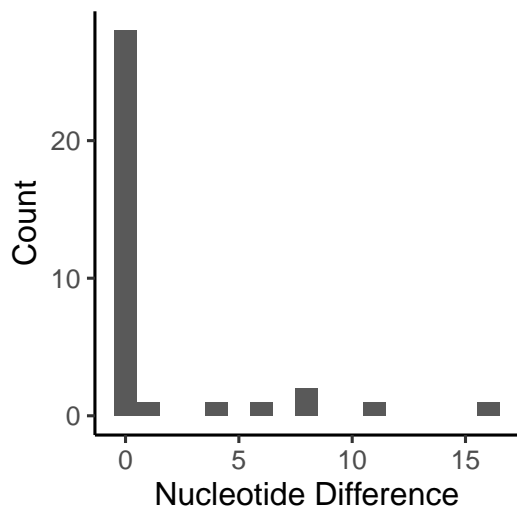
### IGHV3-11\*01

229 sequences assigned  
126 (55%) exact matches, in which:  
123 unique CDR3  
6 unique J



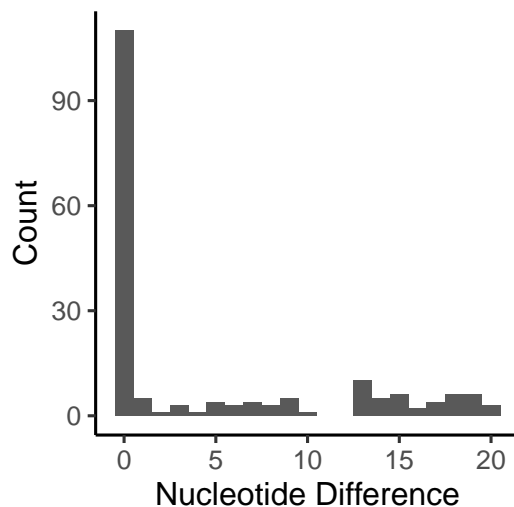
### IGHV2-26\*01

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



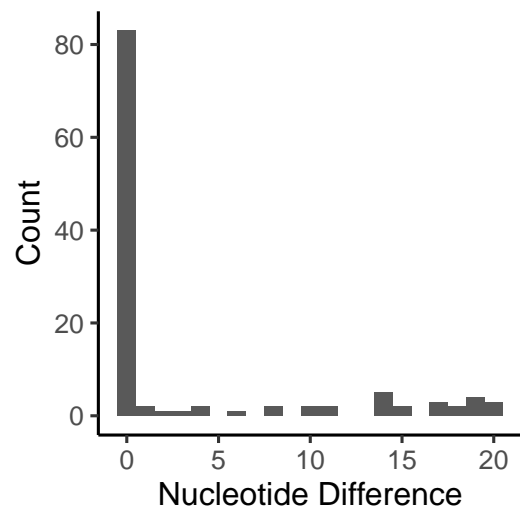
### IGHV3-7\*05

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



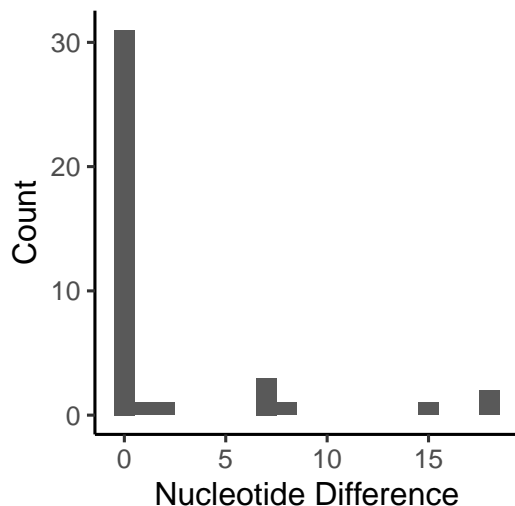
### IGHV3-11\*06

121 sequences assigned  
83 (68.6%) exact matches, in which:  
82 unique CDR3  
4 unique J



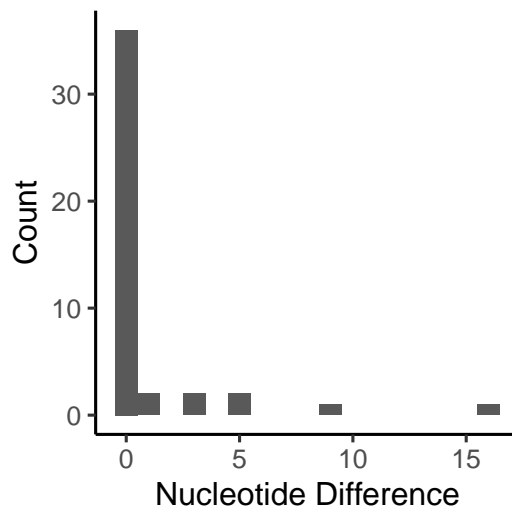
### IGHV3-13\*01

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



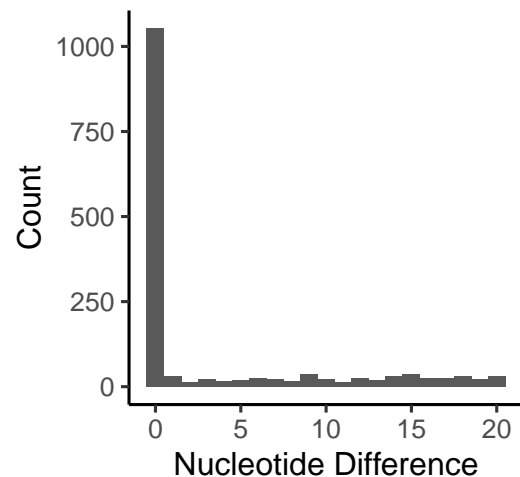
### IGHV3-20\*01\_02

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



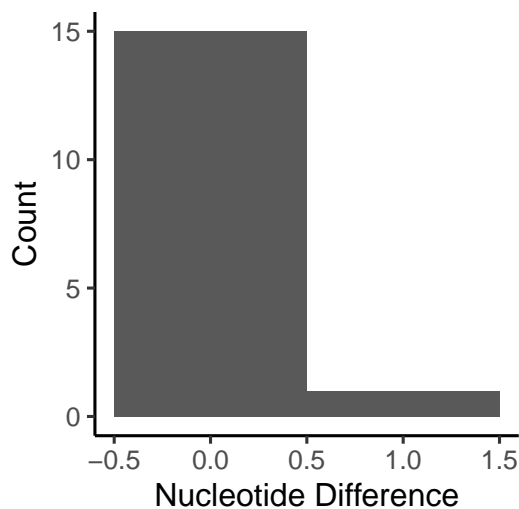
### IGHV3-23\*01\_04

1710 sequences assigned  
1053 (61.6%) exact matches, in which:  
1009 unique CDR3  
6 unique J



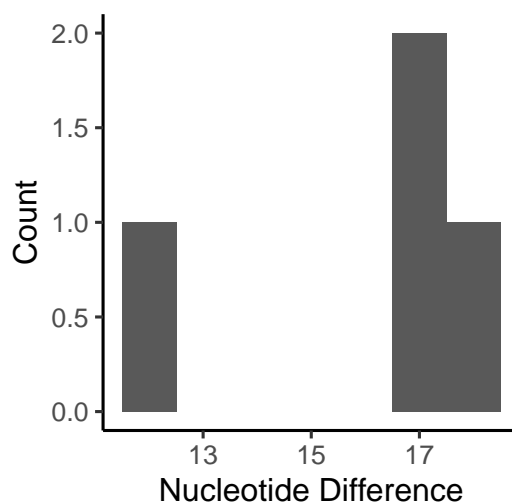
### IGHV3-13\*05

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



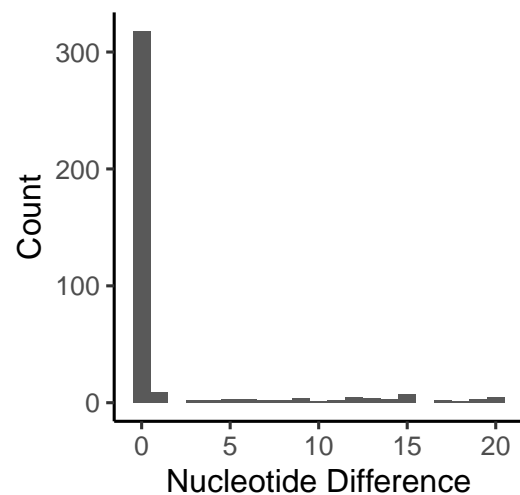
### IGHV3-20\*03\_04

9 sequences assigned  
No exact matches.



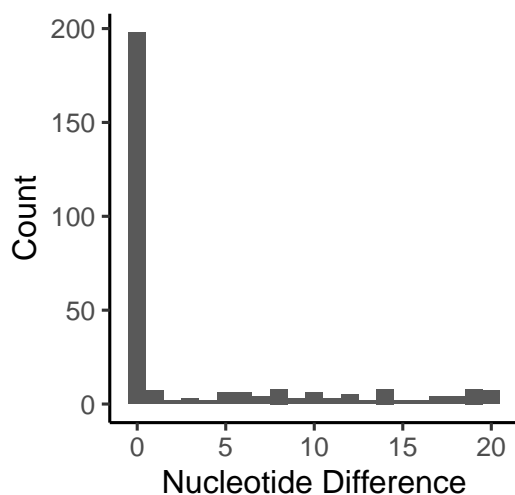
### IGHV3-30-3\*01

424 sequences assigned  
318 (75%) exact matches, in which:  
312 unique CDR3  
6 unique J



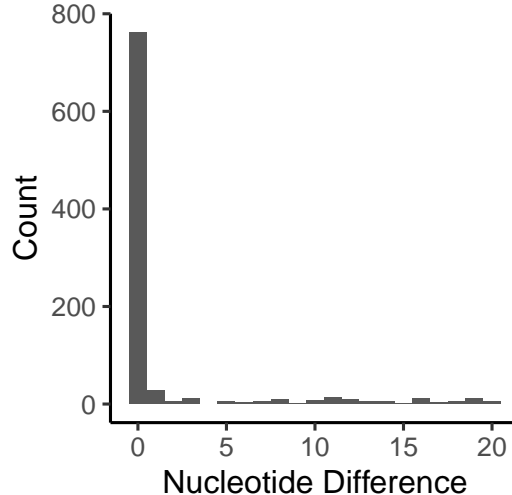
### IGHV3-15\*01\_02

323 sequences assigned  
198 (61.3%) exact matches, in which:  
197 unique CDR3  
6 unique J



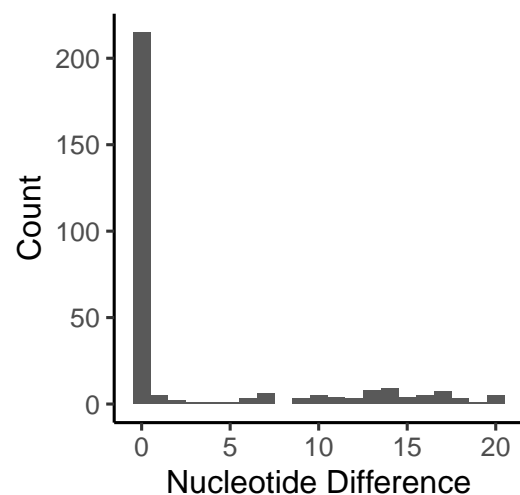
### IGHV3-21\*01\_02

979 sequences assigned  
762 (77.8%) exact matches, in which:  
742 unique CDR3  
6 unique J



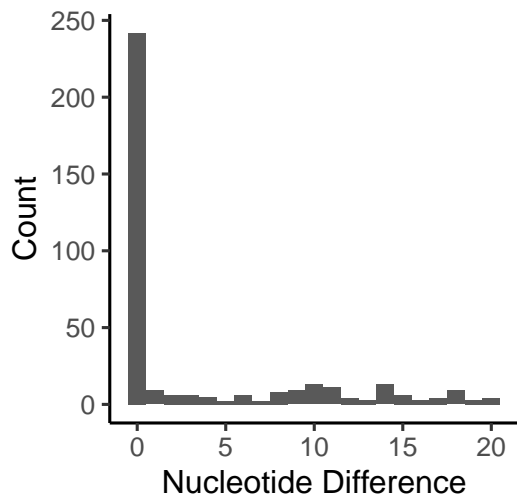
### IGHV3-30\*04\_G160A

313 sequences assigned  
215 (68.7%) exact matches, in which:  
208 unique CDR3  
5 unique J



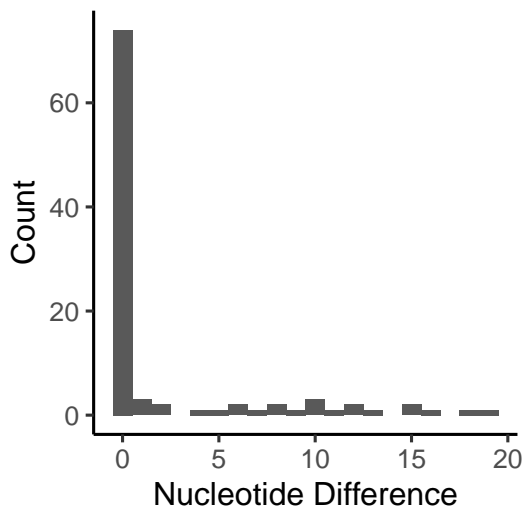
### IGHV3–33\*06

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



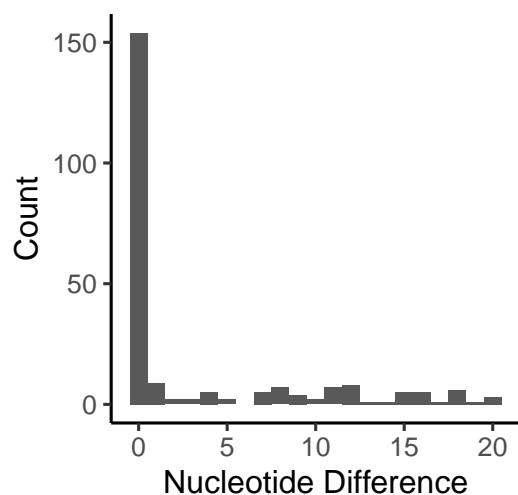
### IGHV3–49\*03\_05

113 sequences assigned  
74 (65.5%) exact matches, in which:  
72 unique CDR3  
6 unique J



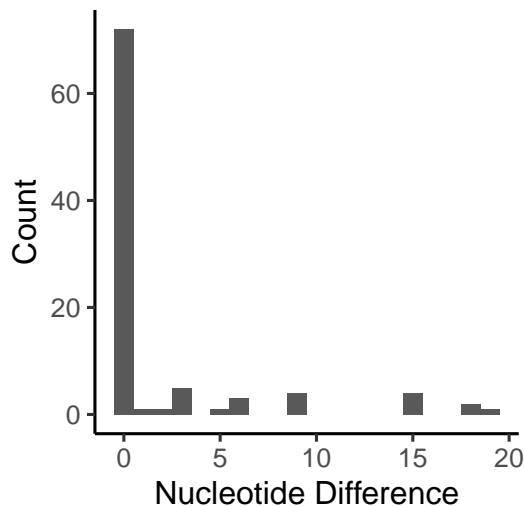
### IGHV3–66\*01

257 sequences assigned  
154 (59.9%) exact matches, in which:  
149 unique CDR3  
6 unique J



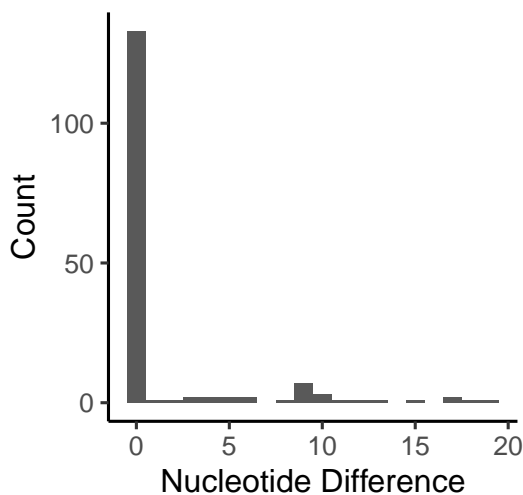
### IGHV3–43\*01

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



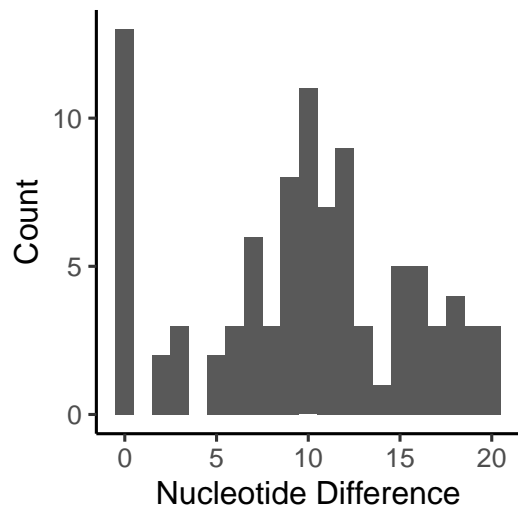
### IGHV3–53\*04

174 sequences assigned  
133 (76.4%) exact matches, in which:  
128 unique CDR3  
5 unique J



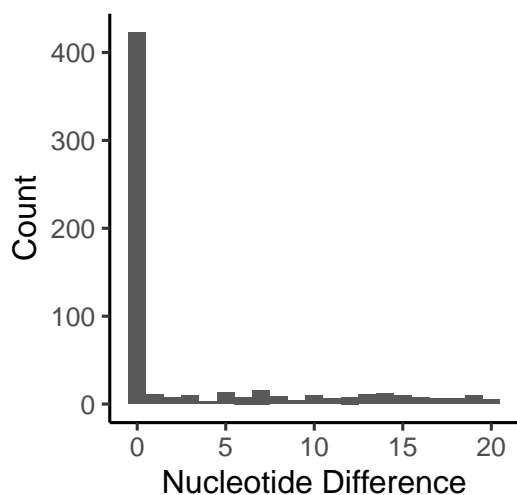
### IGHV3–72\*01

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



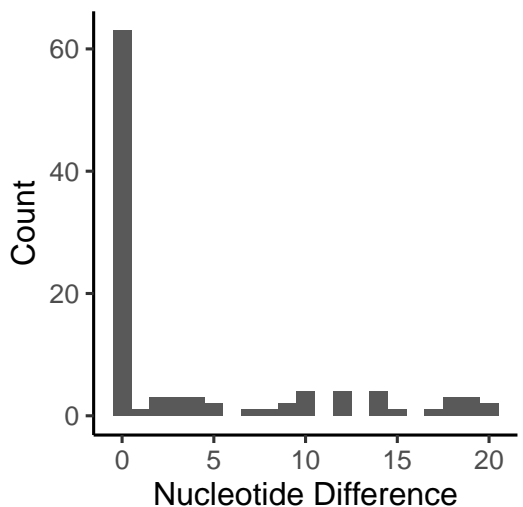
### IGHV3–48\*04

647 sequences assigned  
423 (65.4%) exact matches, in which:  
407 unique CDR3  
6 unique J



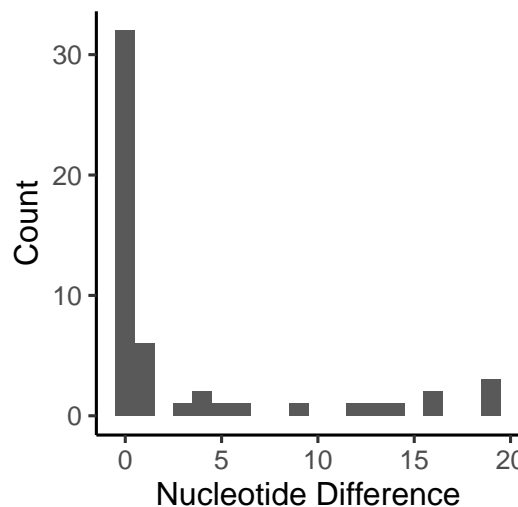
### IGHV3–64\*01

110 sequences assigned  
63 (57.3%) exact matches, in which:  
61 unique CDR3  
5 unique J



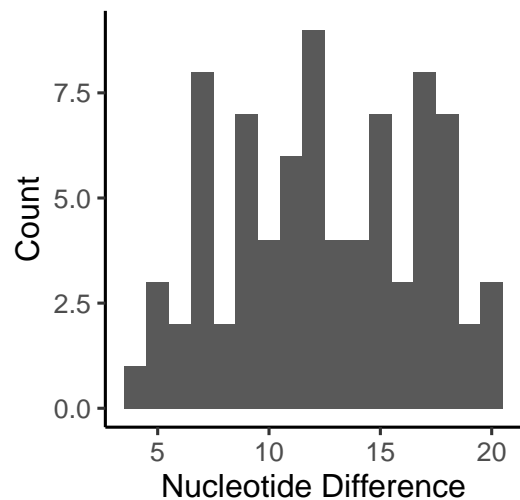
### IGHV3–73\*01\_02

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



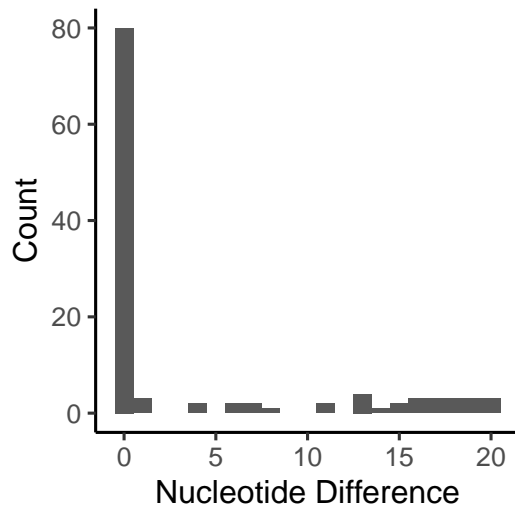
### IGHV3-74\*03

102 sequences assigned  
No exact matches.



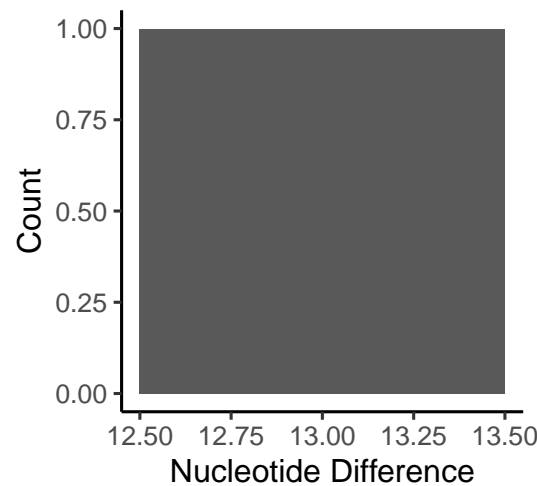
### IGHV3-64D\*06

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



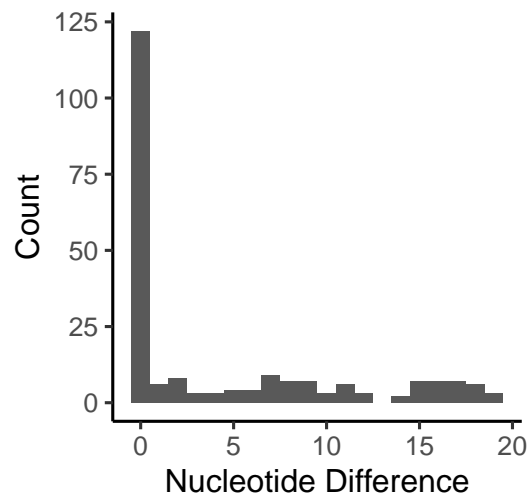
### IGHV4-28\*02\_05

1 sequences assigned  
No exact matches.



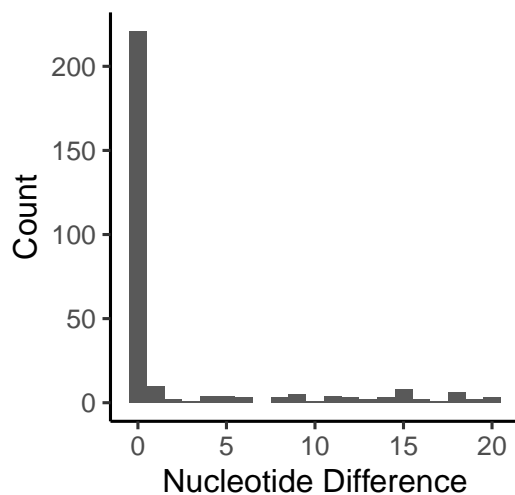
### IGHV3-74\*01\_02

221 sequences assigned  
122 (55.2%) exact matches, in which:  
114 unique CDR3  
6 unique J



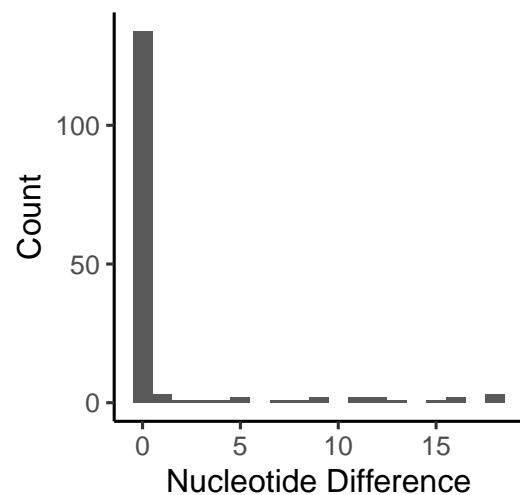
### IGHV4-4\*02\_03

313 sequences assigned  
221 (70.6%) exact matches, in which:  
219 unique CDR3  
6 unique J



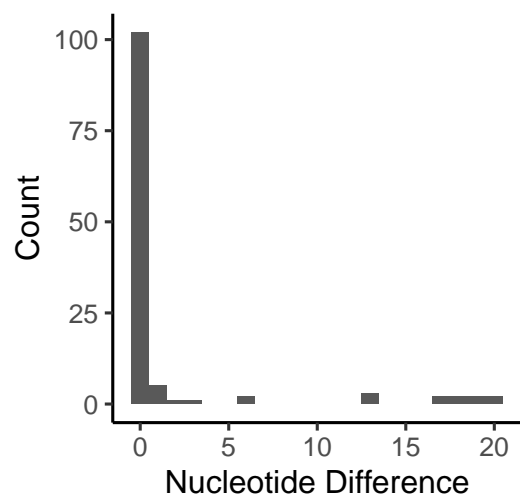
### IGHV4-30-4\*01

173 sequences assigned  
134 (77.5%) exact matches, in which:  
131 unique CDR3  
5 unique J



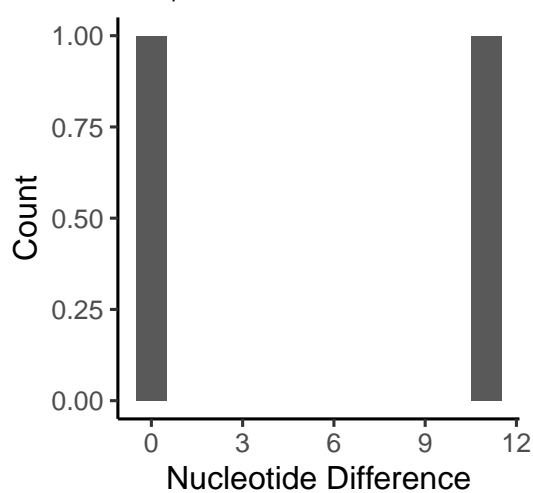
### IGHV3-43D\*03

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



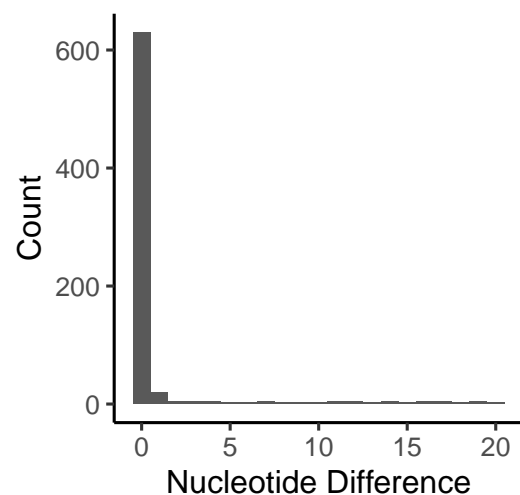
### IGHV4-28\*01\_07

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



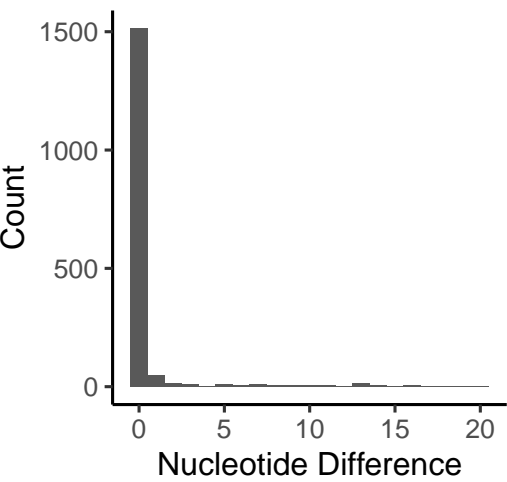
### IGHV4-31\*02

790 sequences assigned  
630 (79.7%) exact matches, in which:  
622 unique CDR3  
6 unique J



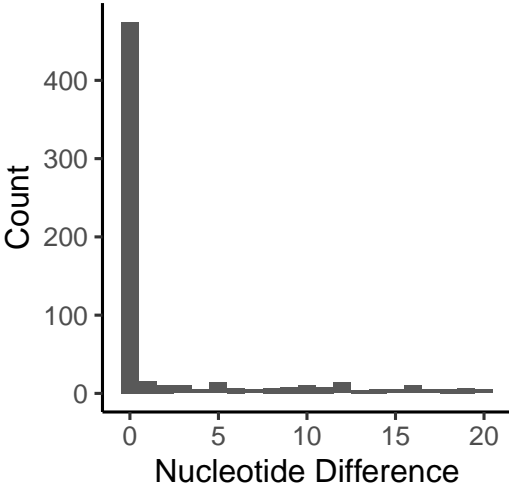
IGHV4-34\*01\_02

1734 sequences assigned  
1514 (87.3%) exact matches, in which:  
1463 unique CDR3  
6 unique J



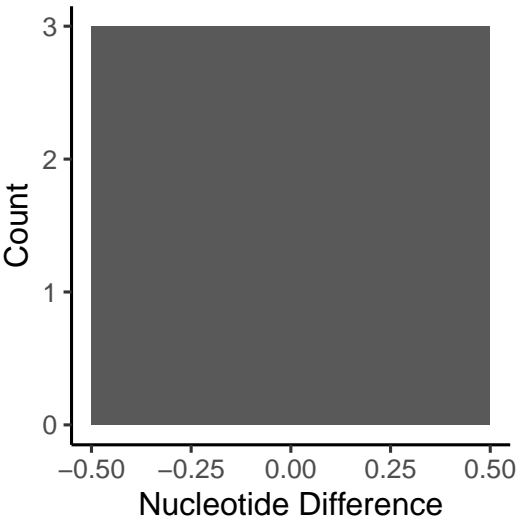
IGHV4-59\*08

727 sequences assigned  
475 (65.3%) exact matches, in which:  
461 unique CDR3  
6 unique J



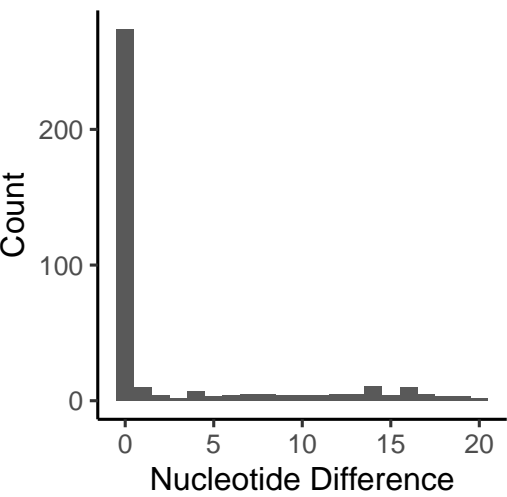
IGHV5-51\*01\_03

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



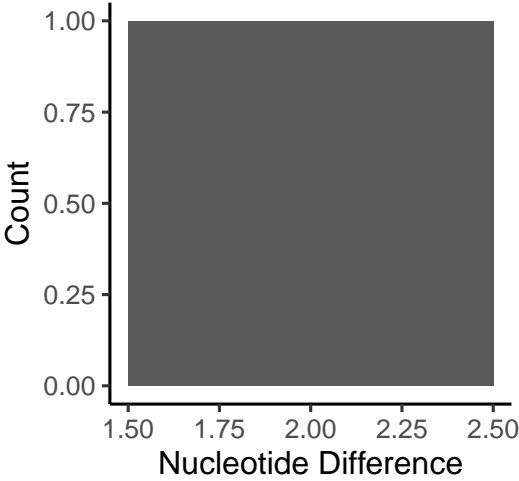
IGHV4-38-2\*02

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



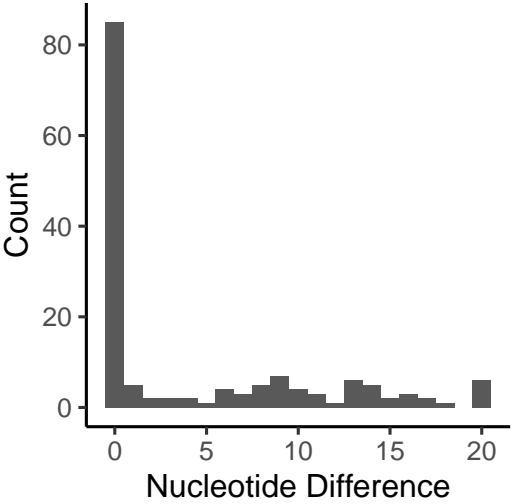
IGHV4-61\*01

1 sequences assigned  
No exact matches.



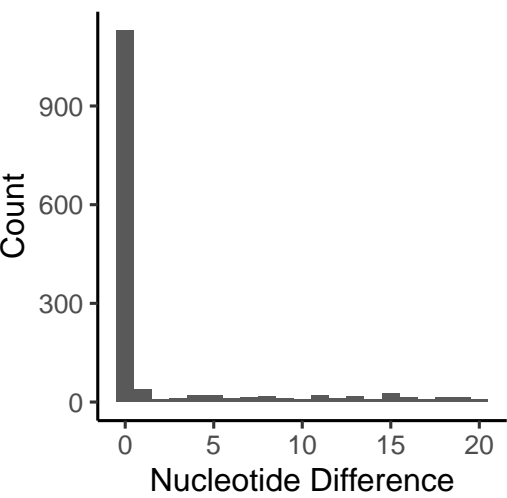
IGHV6-1\*01\_02

171 sequences assigned  
85 (49.7%) exact matches, in which:  
85 unique CDR3  
5 unique J



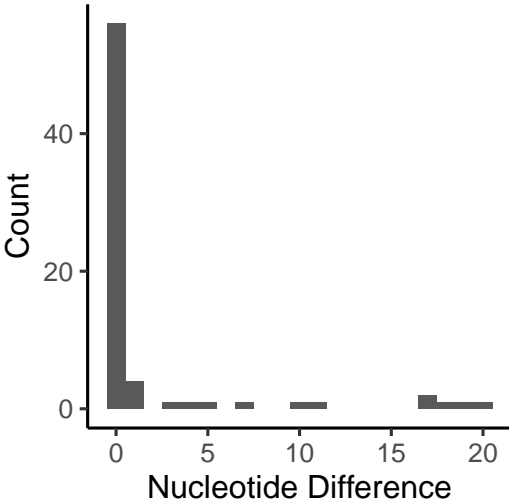
IGHV4-39\*07

1554 sequences assigned  
1130 (72.7%) exact matches, in which:  
1080 unique CDR3  
6 unique J



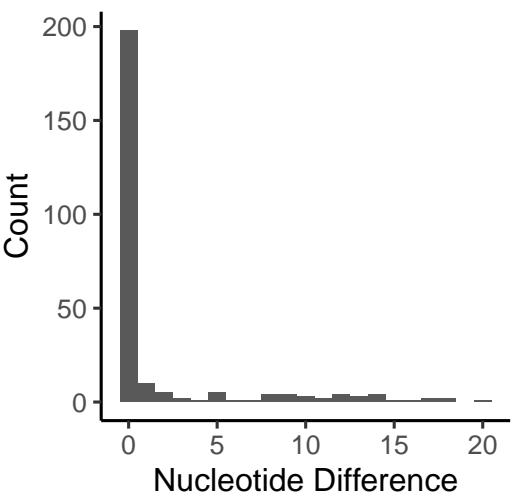
IGHV5-10-1\*01\_03

77 sequences assigned  
56 (72.7%) exact matches, in which:  
56 unique CDR3  
5 unique J



IGHV7-4-1\*02

270 sequences assigned  
198 (73.3%) exact matches, in which:  
198 unique CDR3  
5 unique J





Warning – no inferred sequences found.