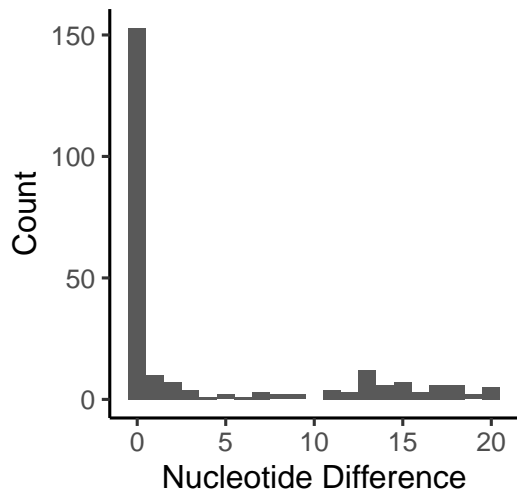


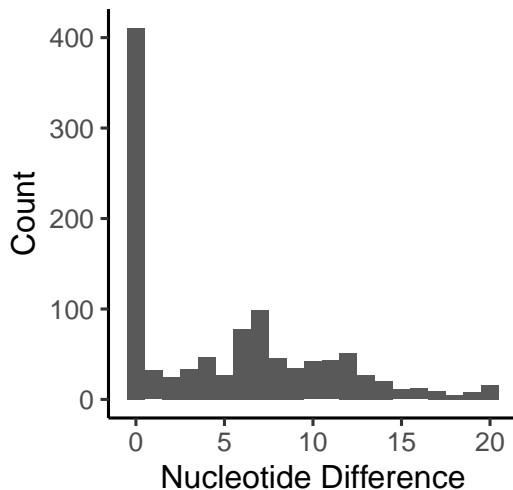
### IGHV1-2\*04

271 sequences assigned  
153 (56.5%) exact matches, in which:  
153 unique CDR3  
6 unique J



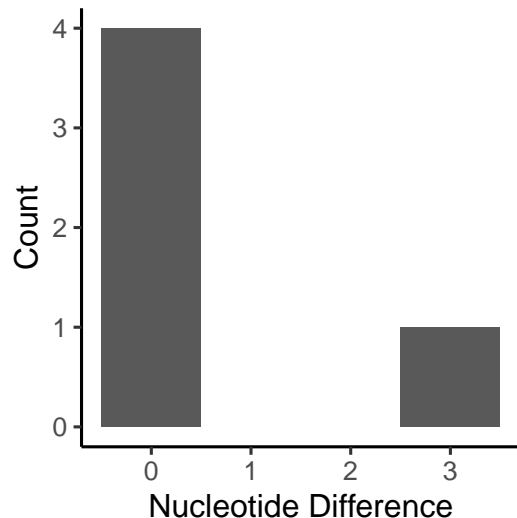
### IGHV1-18\*01

1481 sequences assigned  
411 (27.8%) exact matches, in which:  
410 unique CDR3  
6 unique J



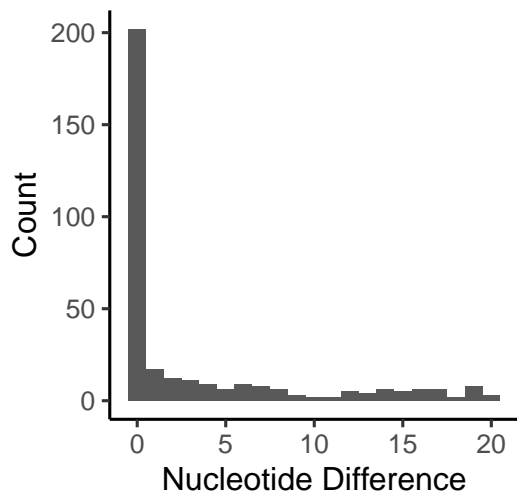
### IGHV1-45\*02

5 sequences assigned  
4 (80%) exact matches, in which:  
4 unique CDR3  
2 unique J



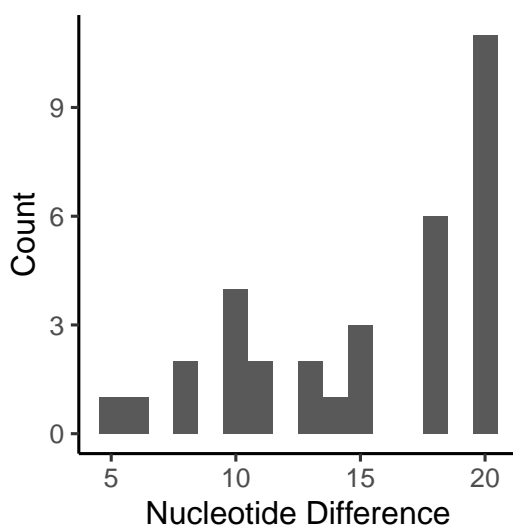
### IGHV1-3\*01\_05

351 sequences assigned  
202 (57.5%) exact matches, in which:  
202 unique CDR3  
5 unique J



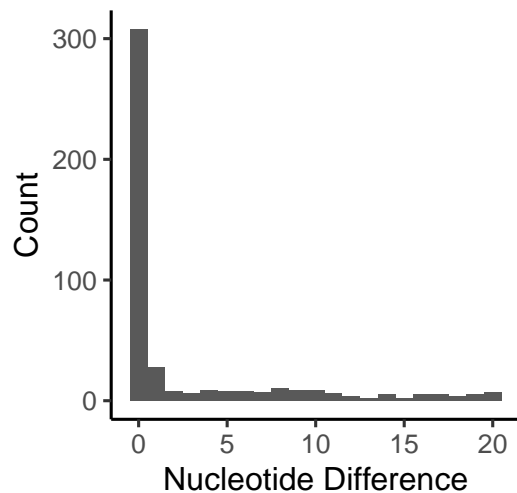
### IGHV1-18\*04

1351 sequences assigned  
No exact matches.



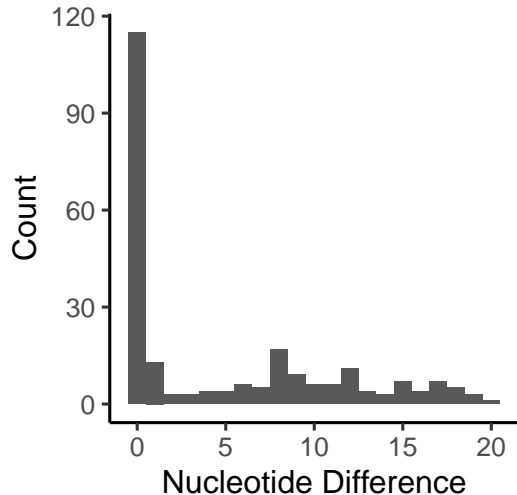
### IGHV1-46\*01

503 sequences assigned  
308 (61.2%) exact matches, in which:  
308 unique CDR3  
6 unique J



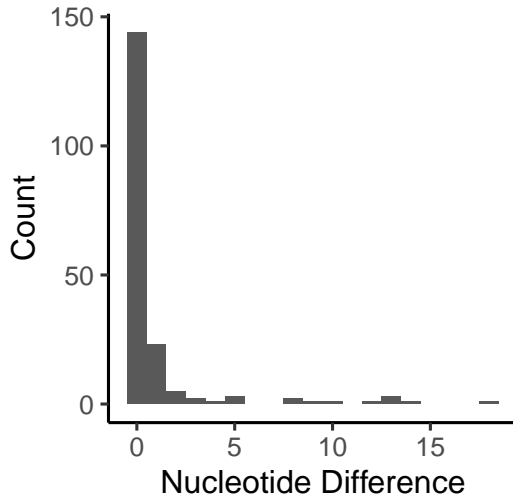
### IGHV1-8\*01

248 sequences assigned  
115 (46.4%) exact matches, in which:  
115 unique CDR3  
6 unique J



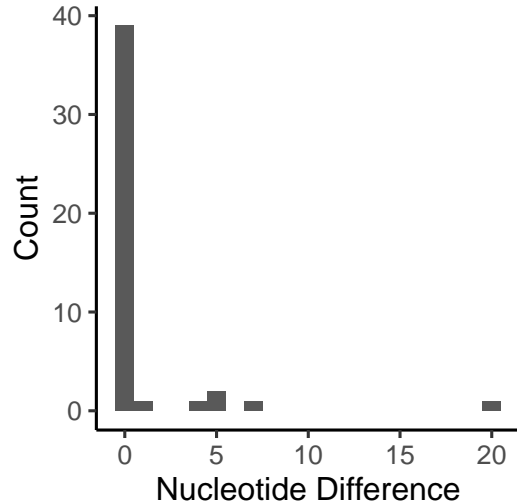
### IGHV1-24\*01

191 sequences assigned  
144 (75.4%) exact matches, in which:  
143 unique CDR3  
6 unique J



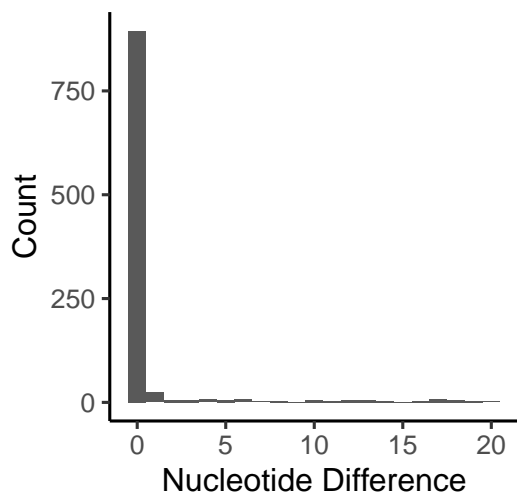
### IGHV1-58\*01\_03

45 sequences assigned  
39 (86.7%) exact matches, in which:  
39 unique CDR3  
4 unique J



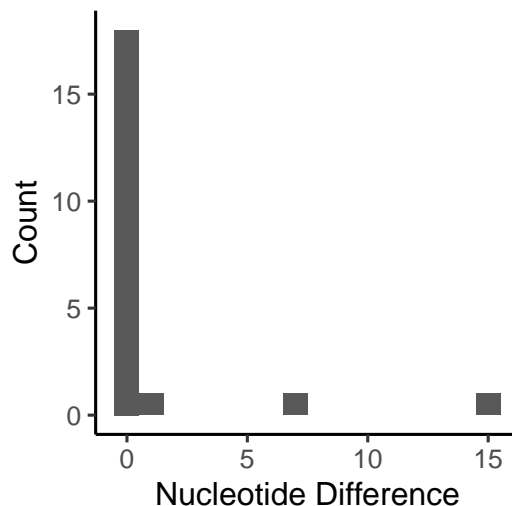
### IGHV1-69\*01\_12\_13

1026 sequences assigned  
895 (87.2%) exact matches, in which:  
894 unique CDR3  
6 unique J



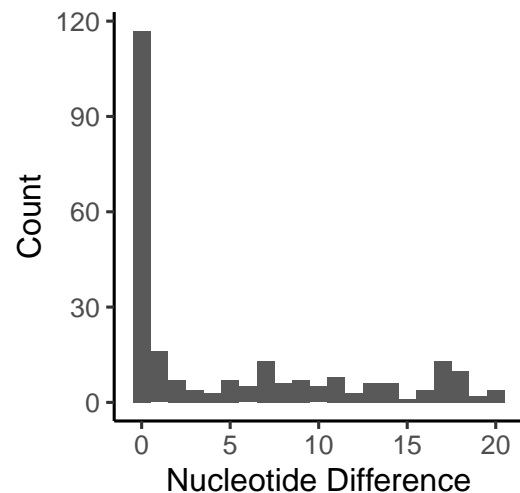
### IGHV2-26\*01

22 sequences assigned  
18 (81.8%) exact matches, in which:  
18 unique CDR3  
3 unique J



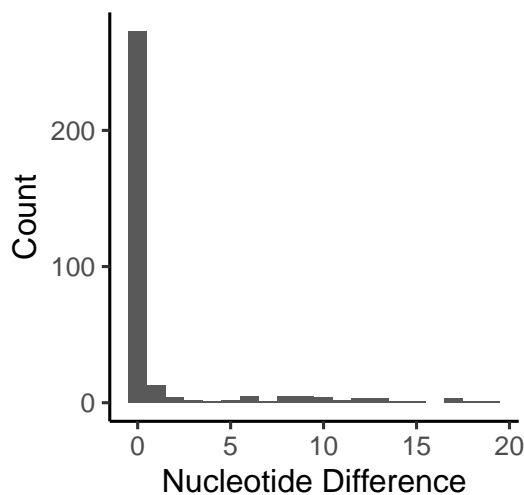
### IGHV3-7\*03

273 sequences assigned  
117 (42.9%) exact matches, in which:  
84 unique CDR3  
5 unique J



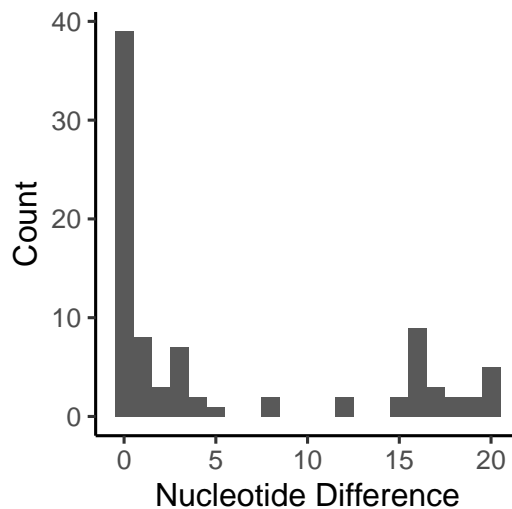
### IGHV1-69\*06\_14

351 sequences assigned  
273 (77.8%) exact matches, in which:  
270 unique CDR3  
6 unique J



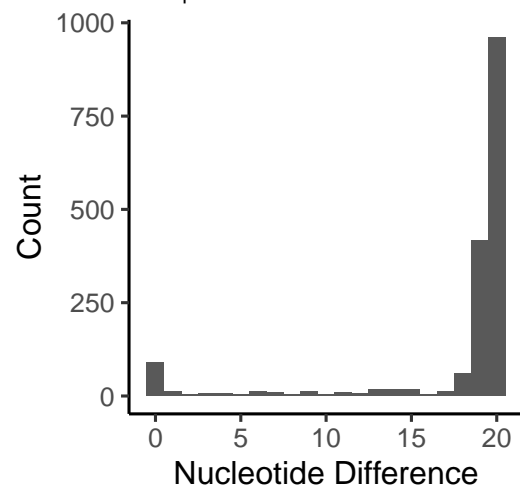
### IGHV2-70\*01

121 sequences assigned  
39 (32.2%) exact matches, in which:  
39 unique CDR3  
3 unique J



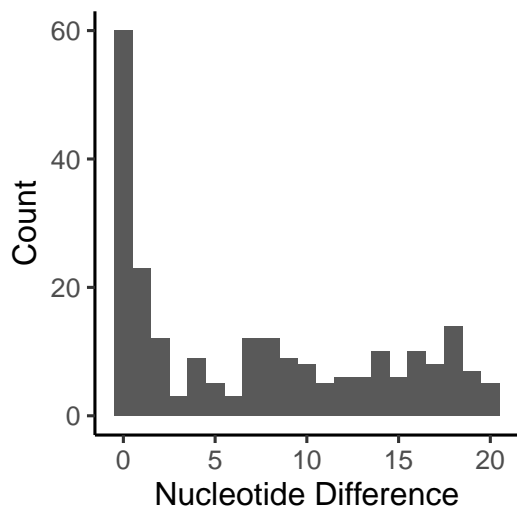
### IGHV3-9\*01

1768 sequences assigned  
89 (5%) exact matches, in which:  
71 unique CDR3  
6 unique J



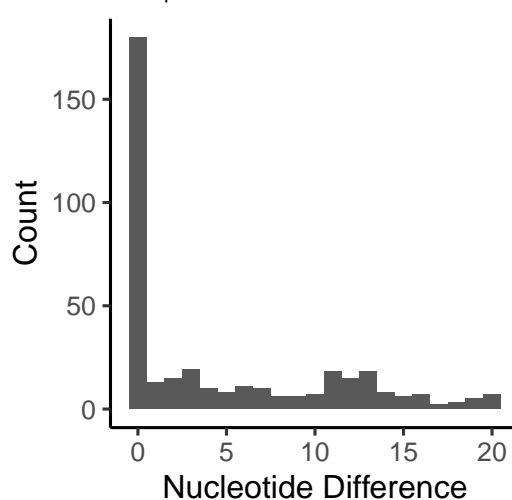
### IGHV2-5\*02

488 sequences assigned  
60 (12.3%) exact matches, in which:  
59 unique CDR3  
4 unique J



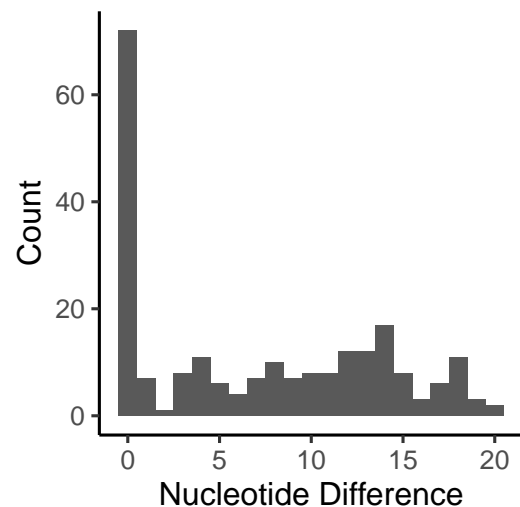
### IGHV3-7\*01

388 sequences assigned  
180 (46.4%) exact matches, in which:  
125 unique CDR3  
5 unique J



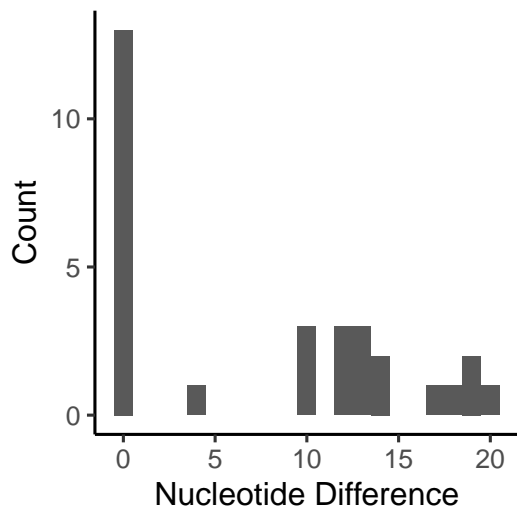
### IGHV3-11\*01

273 sequences assigned  
72 (26.4%) exact matches, in which:  
55 unique CDR3  
4 unique J



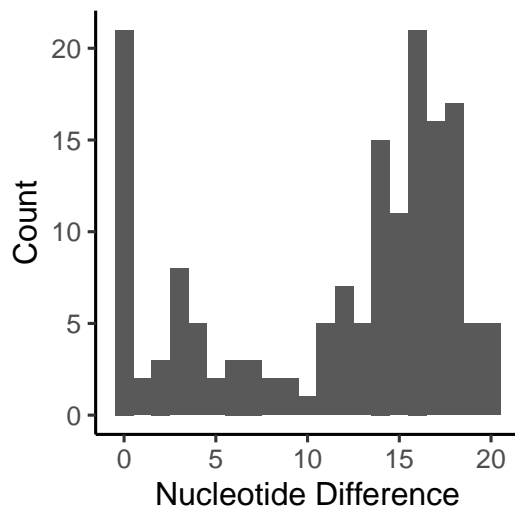
### IGHV3-11\*06

57 sequences assigned  
13 (22.8%) exact matches, in which:  
10 unique CDR3  
4 unique J



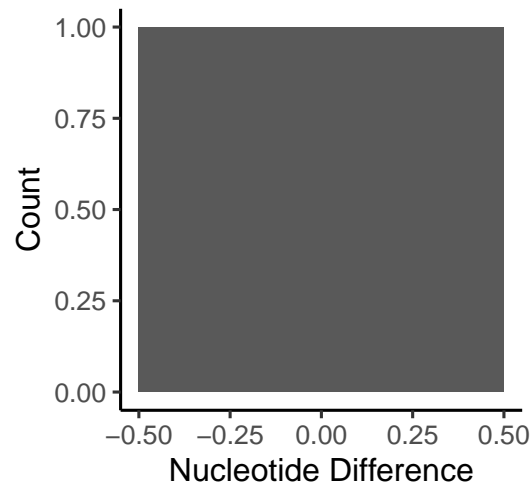
### IGHV3-15\*07

215 sequences assigned  
21 (9.8%) exact matches, in which:  
17 unique CDR3  
4 unique J



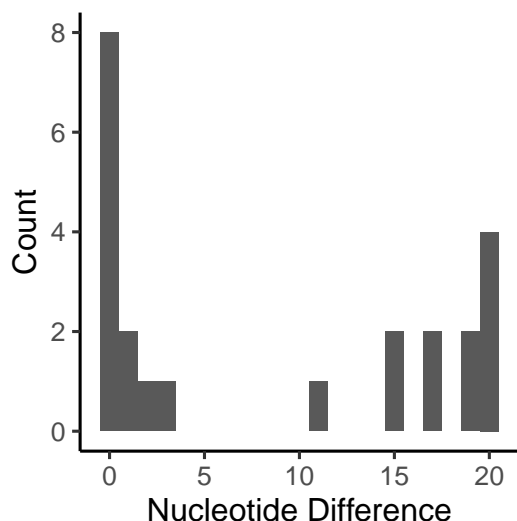
### IGHV3-20\*03\_04

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



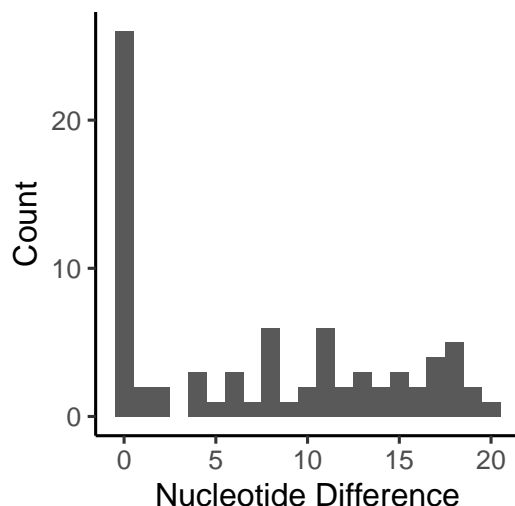
### IGHV3-13\*01

27 sequences assigned  
8 (29.6%) exact matches, in which:  
7 unique CDR3  
4 unique J



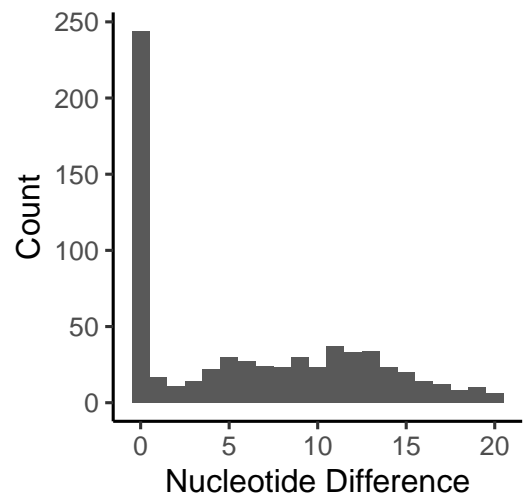
### IGHV3-15\*01\_02

96 sequences assigned  
26 (27.1%) exact matches, in which:  
20 unique CDR3  
4 unique J



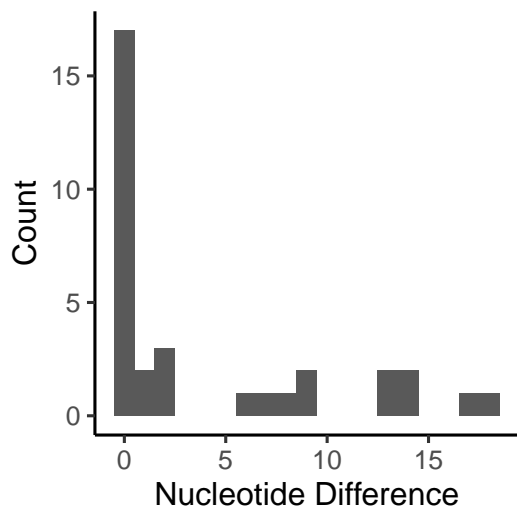
### IGHV3-21\*01\_02

1459 sequences assigned  
244 (16.7%) exact matches, in which:  
186 unique CDR3  
6 unique J



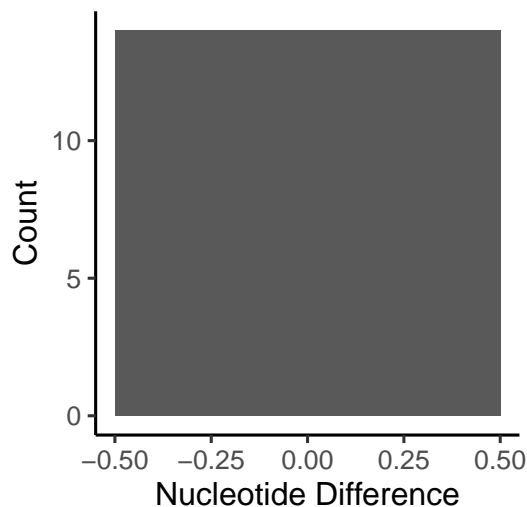
### IGHV3-13\*01\_G290A\_T3I

49 sequences assigned  
17 (34.7%) exact matches, in which:  
11 unique CDR3  
4 unique J



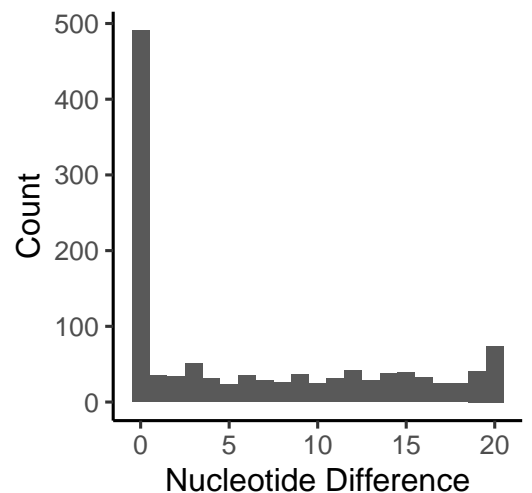
### IGHV3-20\*01\_02

14 sequences assigned  
14 (100%) exact matches, in which:  
9 unique CDR3  
3 unique J



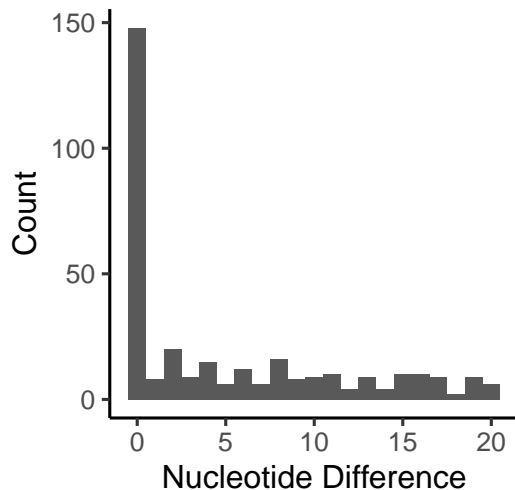
### IGHV3-23\*01\_04

4801 sequences assigned  
491 (10.2%) exact matches, in which:  
392 unique CDR3  
6 unique J



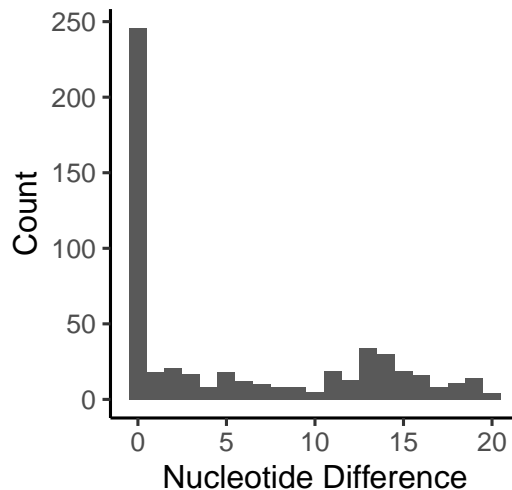
### IGHV3–33\*01

549 sequences assigned  
148 (27%) exact matches, in which:  
117 unique CDR3  
5 unique J



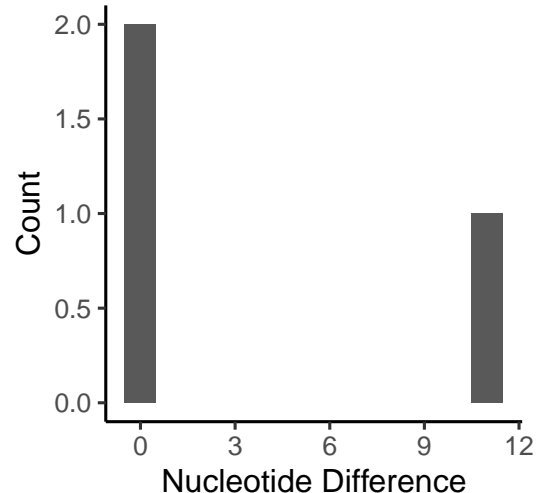
### IGHV3–48\*02

596 sequences assigned  
246 (41.3%) exact matches, in which:  
178 unique CDR3  
6 unique J



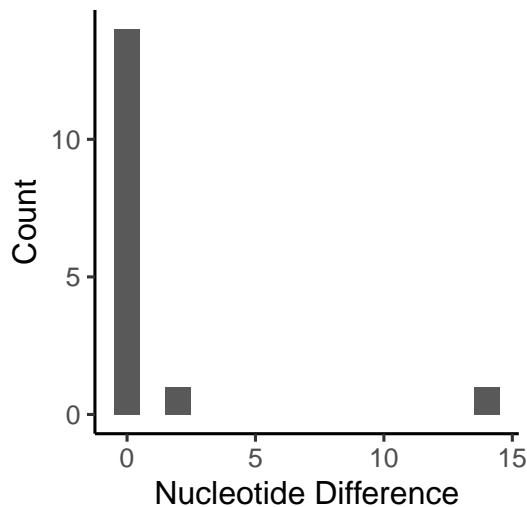
### IGHV3–64\*02\_07

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



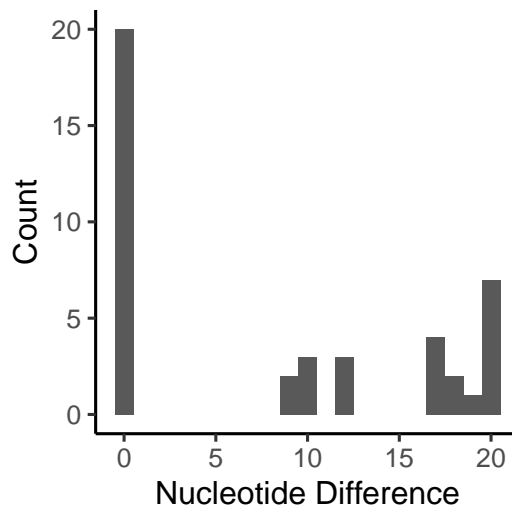
### IGHV3–43\*01

16 sequences assigned  
14 (87.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



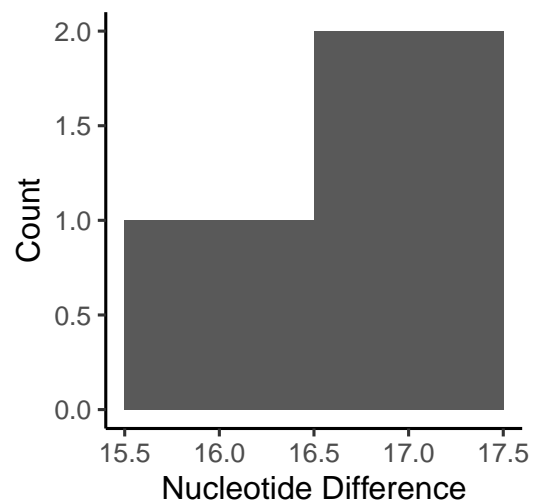
### IGHV3–49\*03\_05

137 sequences assigned  
20 (14.6%) exact matches, in which:  
16 unique CDR3  
4 unique J



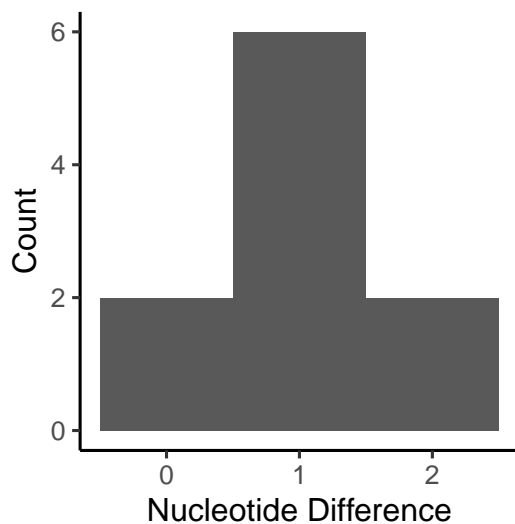
### IGHV3–66\*04

3 sequences assigned  
No exact matches.



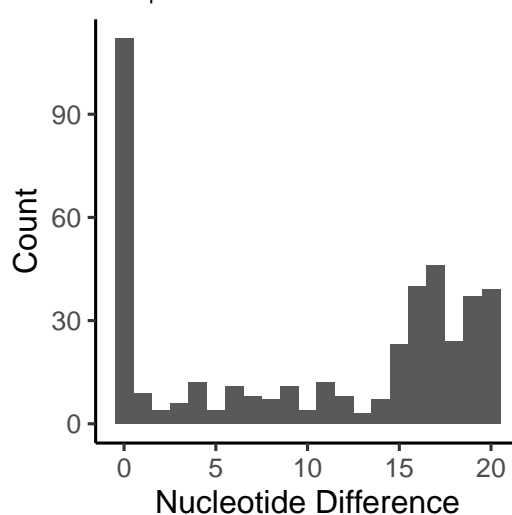
### IGHV3–47\*02

10 sequences assigned  
2 (20%) exact matches, in which:  
1 unique CDR3  
1 unique J



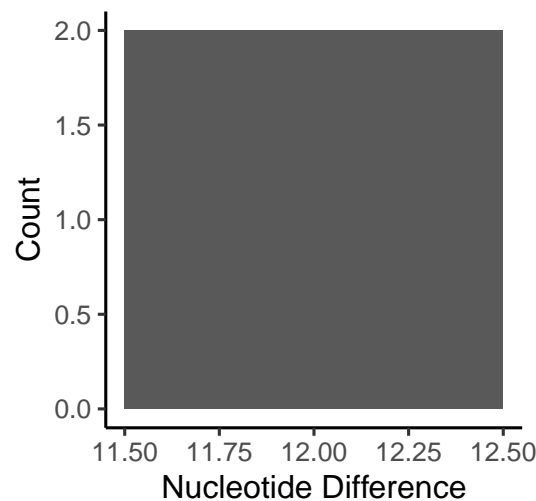
### IGHV3–53\*01\_02

1087 sequences assigned  
112 (10.3%) exact matches, in which:  
83 unique CDR3  
6 unique J



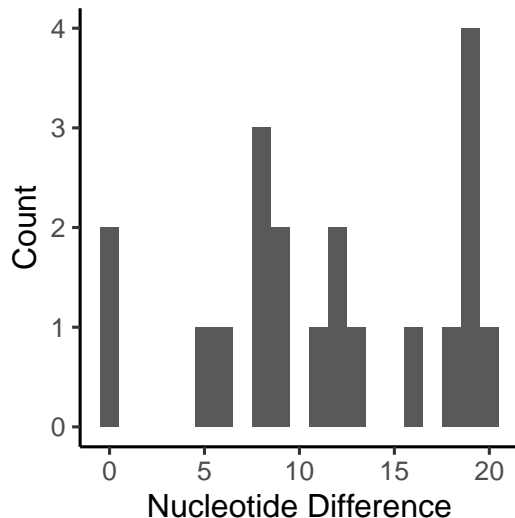
### IGHV3–69–1\*01

28 sequences assigned  
No exact matches.



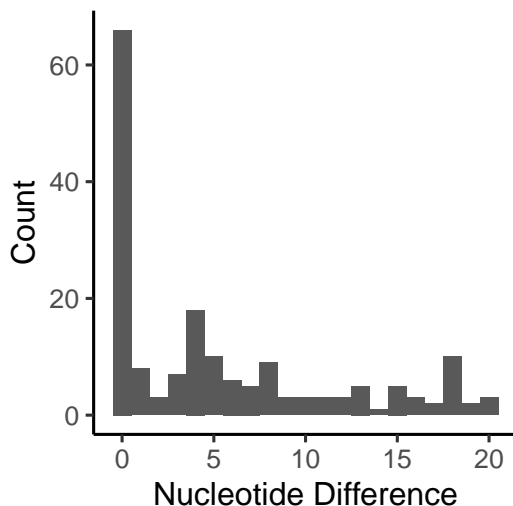
### IGHV3-72\*01

26 sequences assigned  
2 (7.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



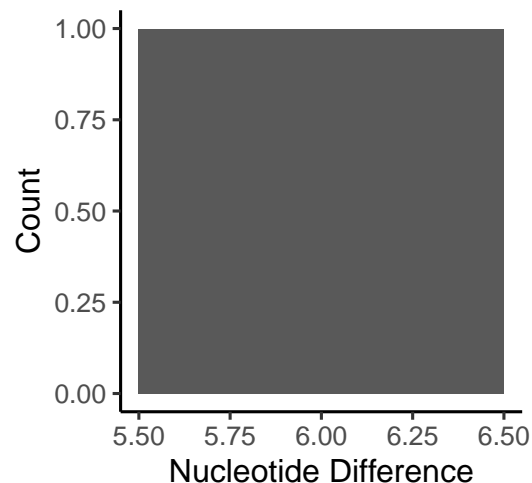
### IGHV3-74\*01\_02

207 sequences assigned  
66 (31.9%) exact matches, in which:  
48 unique CDR3  
4 unique J



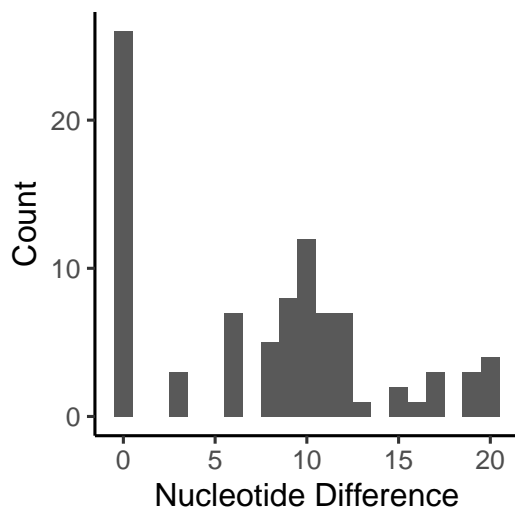
### IGHV4-28\*01\_07

1 sequences assigned  
No exact matches.



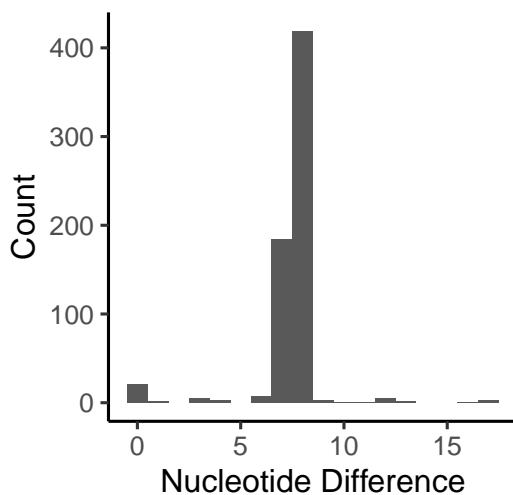
### IGHV3-73\*01\_02

136 sequences assigned  
26 (19.1%) exact matches, in which:  
19 unique CDR3  
3 unique J



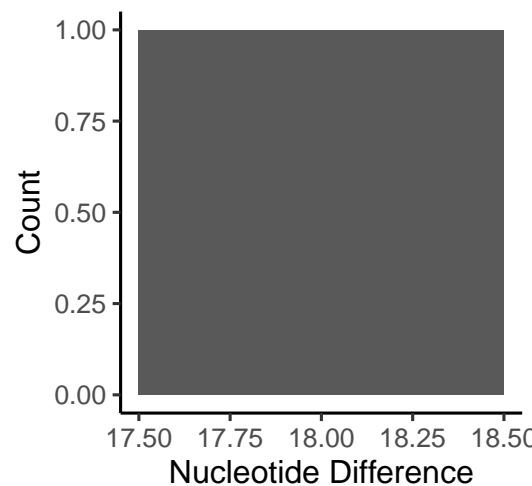
### IGHV3-64D\*06

667 sequences assigned  
21 (3.1%) exact matches, in which:  
17 unique CDR3  
4 unique J



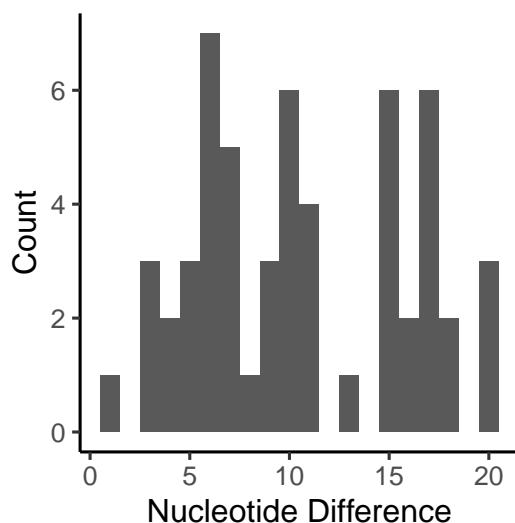
### IGHV4-30-4\*01

1 sequences assigned  
No exact matches.



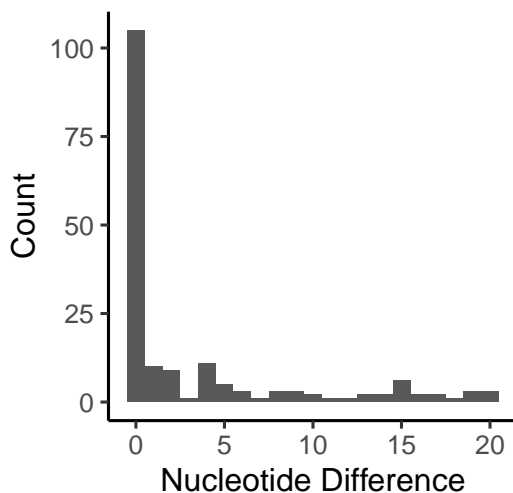
### IGHV3-74\*03

74 sequences assigned  
No exact matches.



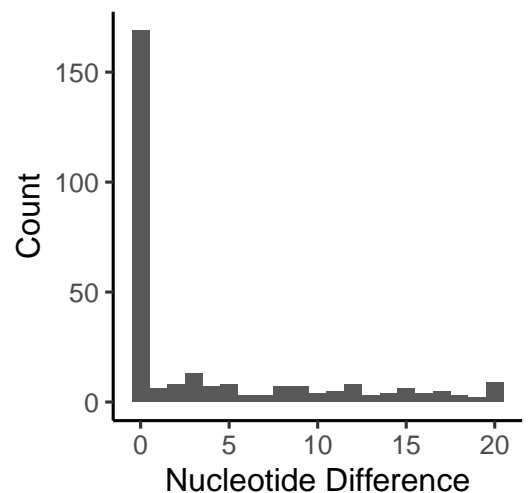
### IGHV4-4\*02\_03

211 sequences assigned  
105 (49.8%) exact matches, in which:  
104 unique CDR3  
5 unique J



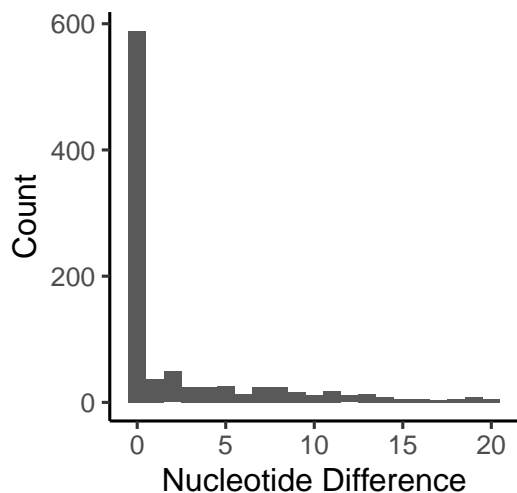
### IGHV4-31\*02

418 sequences assigned  
169 (40.4%) exact matches, in which:  
169 unique CDR3  
6 unique J



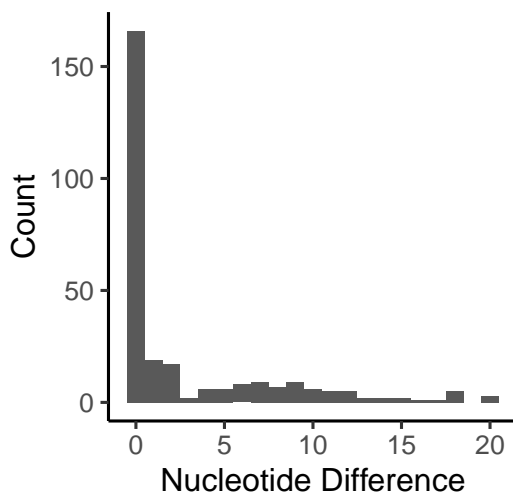
### IGHV4-34\*01\_02

1028 sequences assigned  
589 (57.3%) exact matches, in which:  
581 unique CDR3  
6 unique J



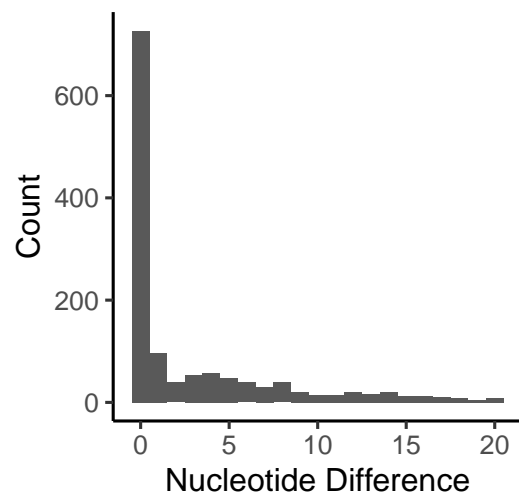
### IGHV4-61\*01

300 sequences assigned  
166 (55.3%) exact matches, in which:  
165 unique CDR3  
6 unique J



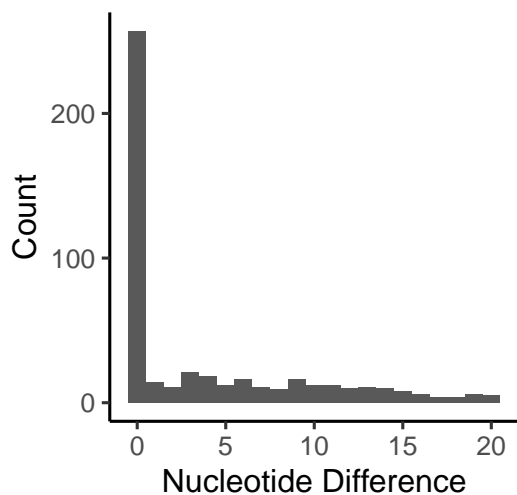
### IGHV5-51\*07\_A128G

1360 sequences assigned  
727 (53.5%) exact matches, in which:  
704 unique CDR3  
6 unique J



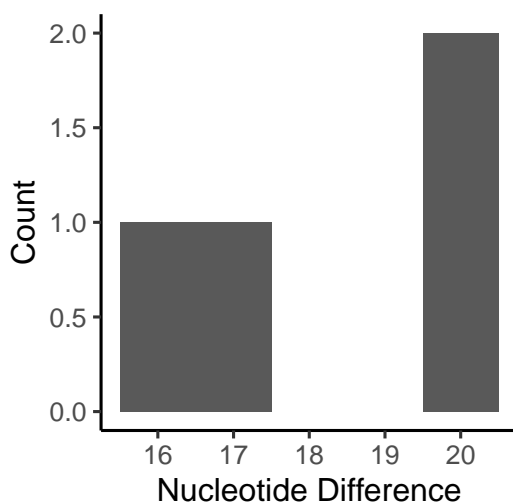
### IGHV4-39\*02\_C258G

540 sequences assigned  
257 (47.6%) exact matches, in which:  
252 unique CDR3  
6 unique J



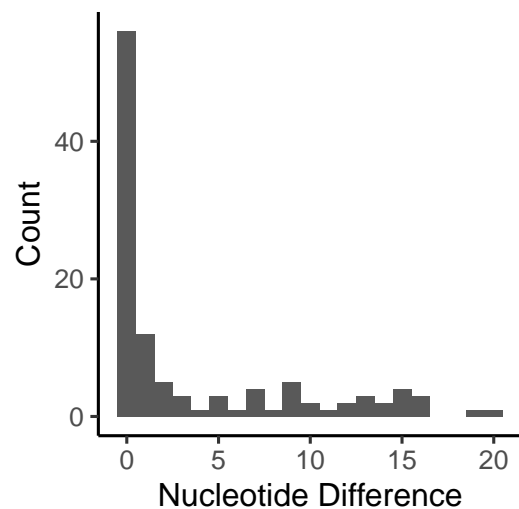
### IGHV4/OR15-8\*01

4 sequences assigned  
No exact matches.



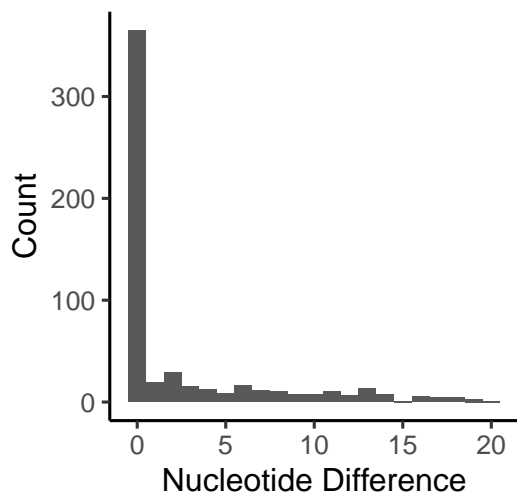
### IGHV6-1\*01\_02

122 sequences assigned  
56 (45.9%) exact matches, in which:  
55 unique CDR3  
4 unique J



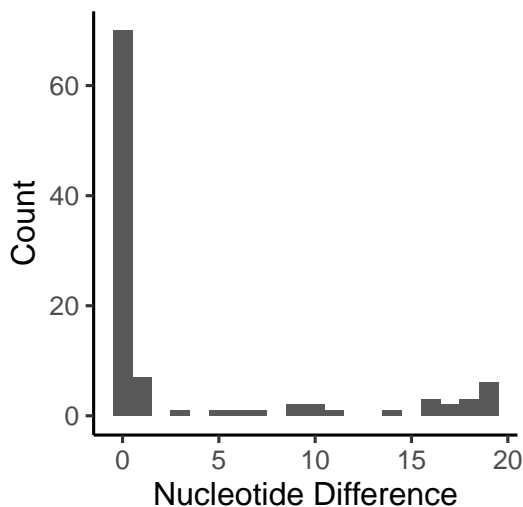
### IGHV4-59\*02\_G88A

599 sequences assigned  
365 (60.9%) exact matches, in which:  
363 unique CDR3  
6 unique J



### IGHV5-10-1\*01\_03

120 sequences assigned  
70 (58.3%) exact matches, in which:  
69 unique CDR3  
5 unique J





Warning – no inferred sequences found.