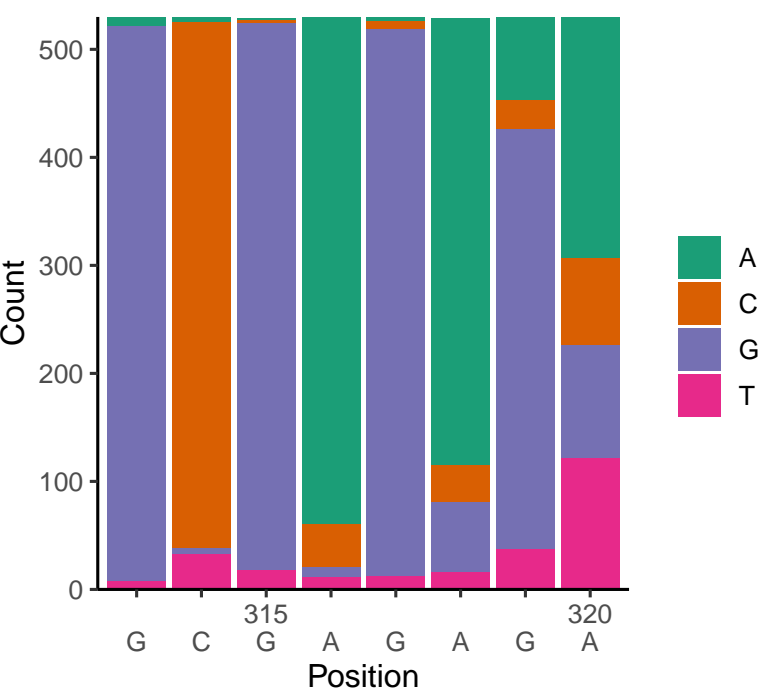
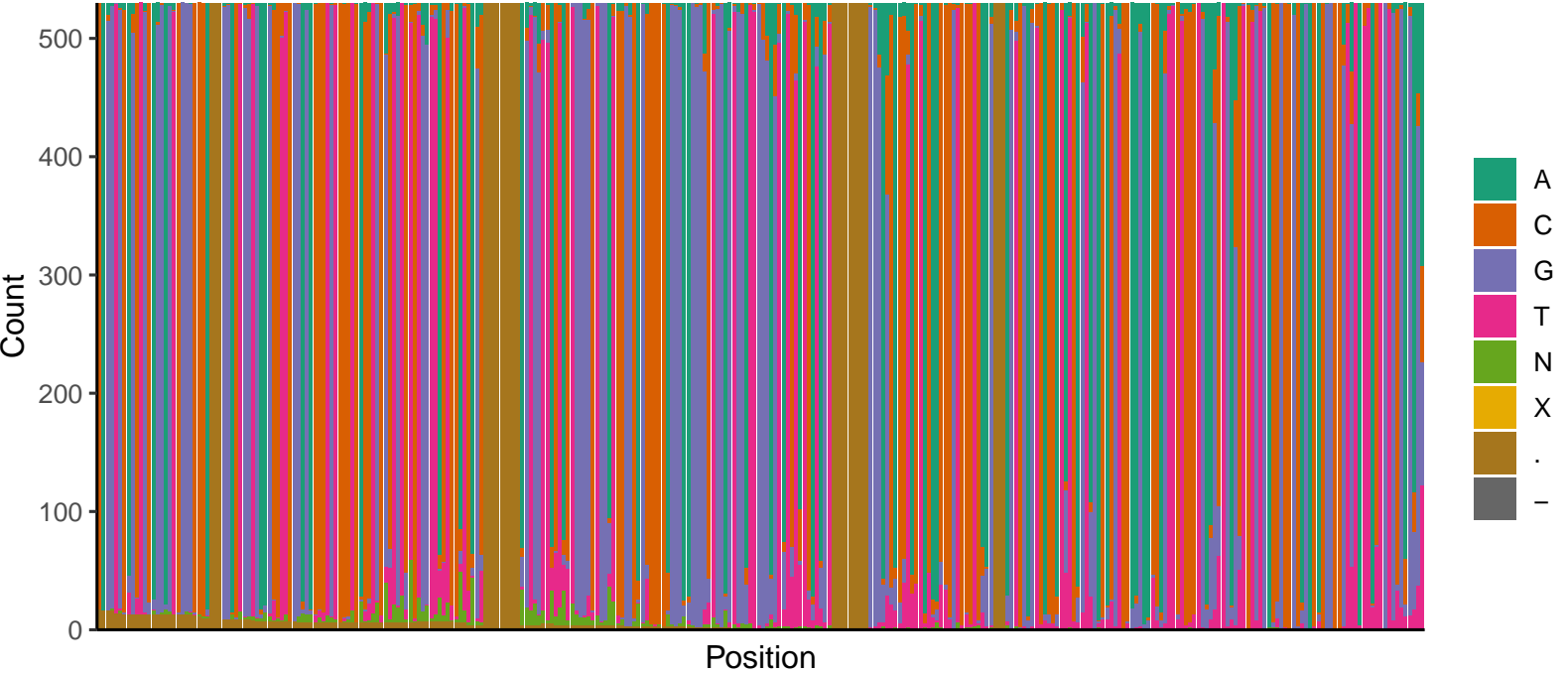


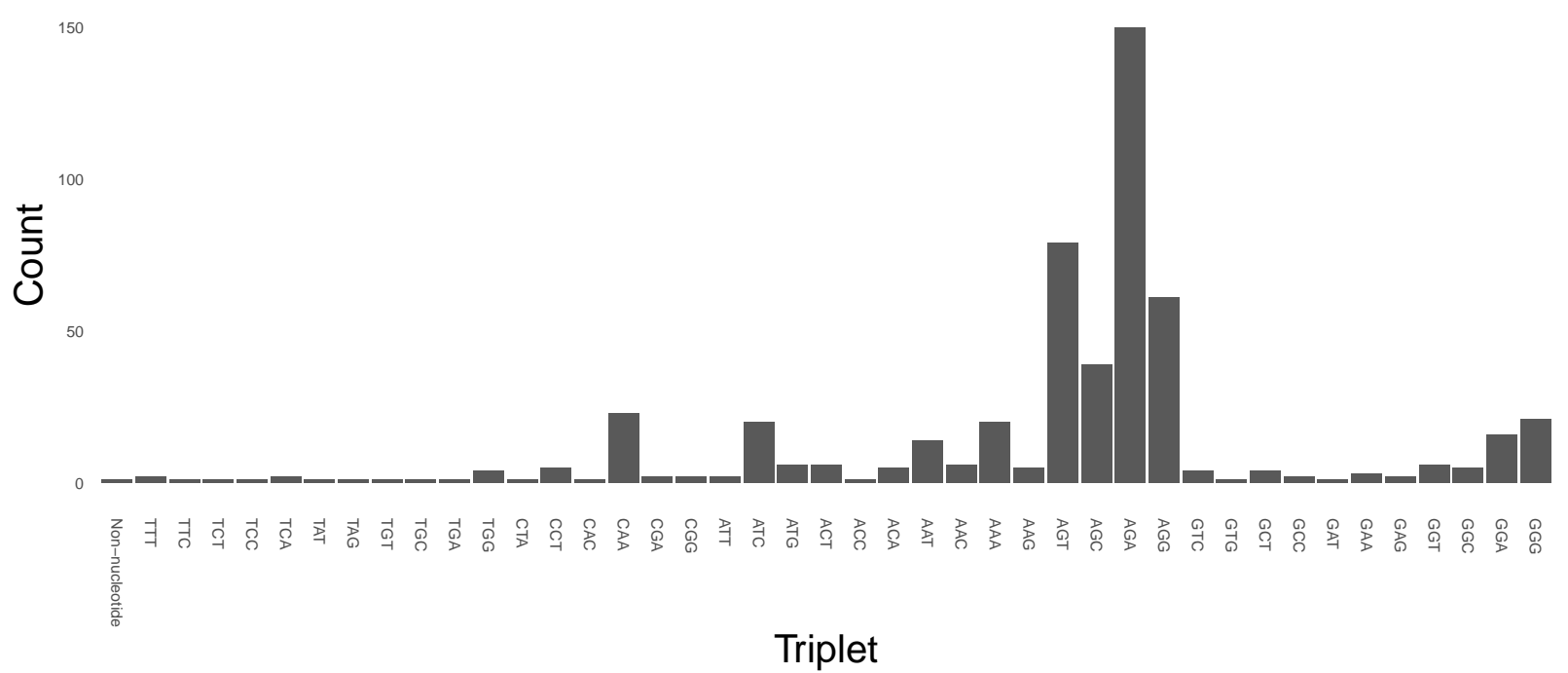
Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

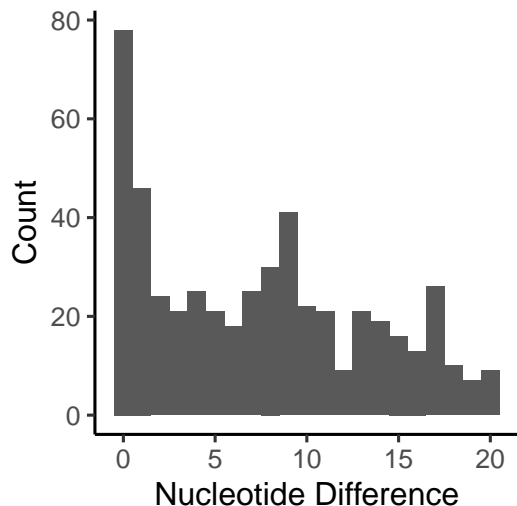


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



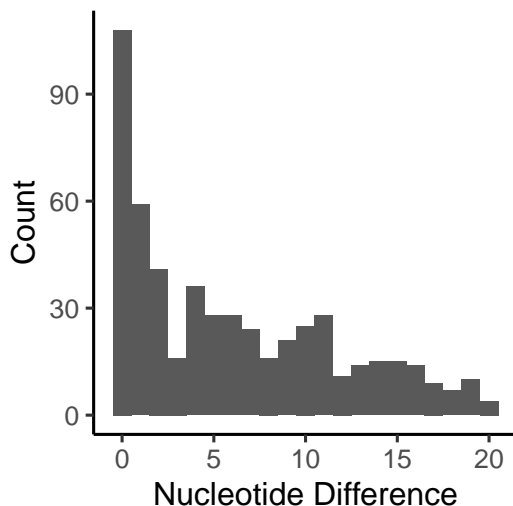
### IGHV1-2\*02

638 sequences assigned  
78 (12.2%) exact matches, in which:  
70 unique CDR3  
4 unique J



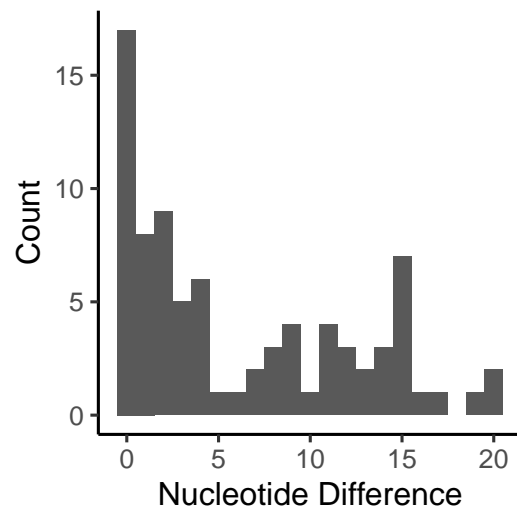
### IGHV1-8\*01

620 sequences assigned  
108 (17.4%) exact matches, in which:  
100 unique CDR3  
6 unique J



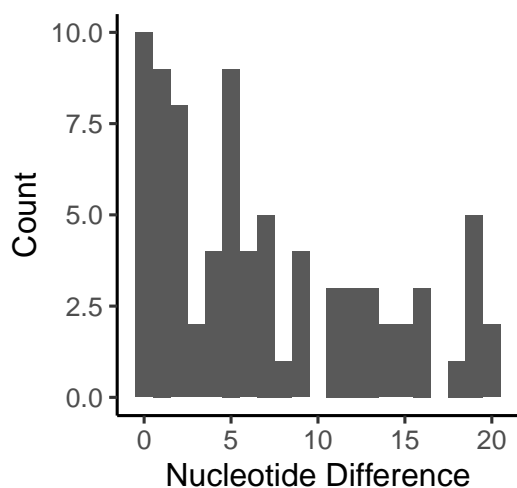
### IGHV1-24\*01

92 sequences assigned  
17 (18.5%) exact matches, in which:  
15 unique CDR3  
3 unique J



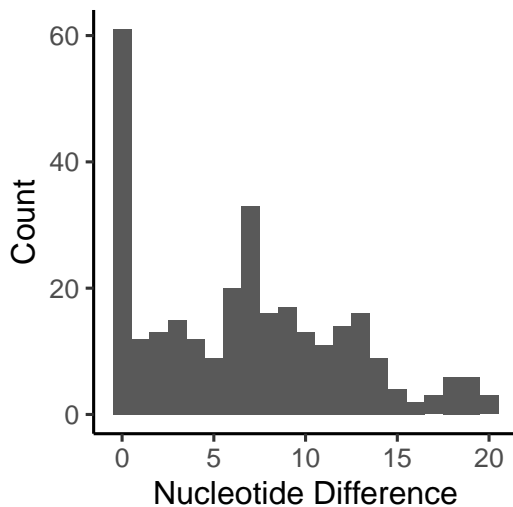
### IGHV1-2\*04

90 sequences assigned  
10 (11.1%) exact matches, in which:  
10 unique CDR3  
4 unique J



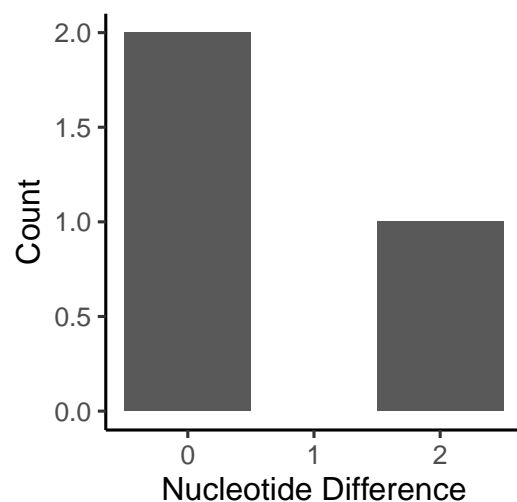
### IGHV1-18\*01

382 sequences assigned  
61 (16%) exact matches, in which:  
61 unique CDR3  
5 unique J



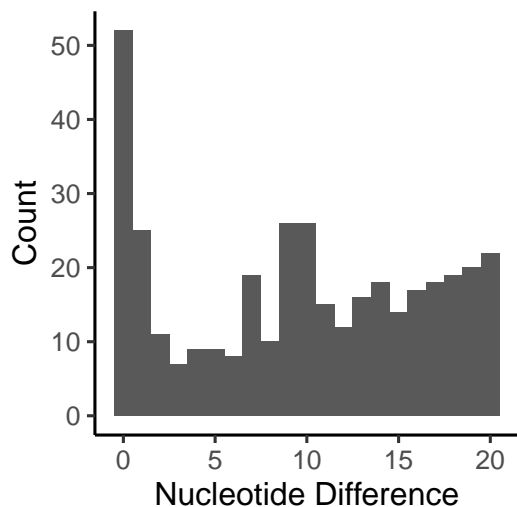
### IGHV1-45\*02

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



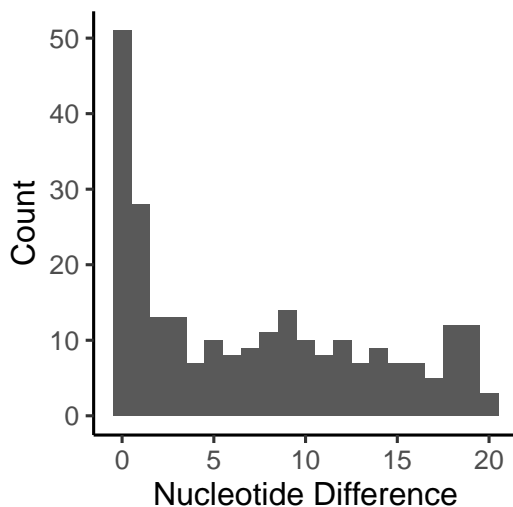
### IGHV1-3\*01

503 sequences assigned  
52 (10.3%) exact matches, in which:  
45 unique CDR3  
5 unique J



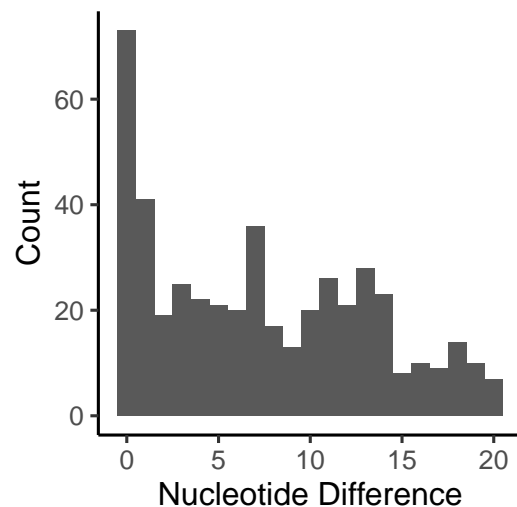
### IGHV1-18\*04

337 sequences assigned  
51 (15.1%) exact matches, in which:  
49 unique CDR3  
5 unique J



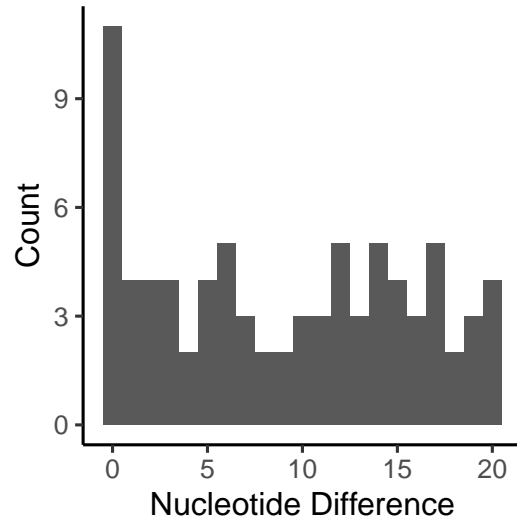
### IGHV1-46\*01

595 sequences assigned  
73 (12.3%) exact matches, in which:  
62 unique CDR3  
5 unique J



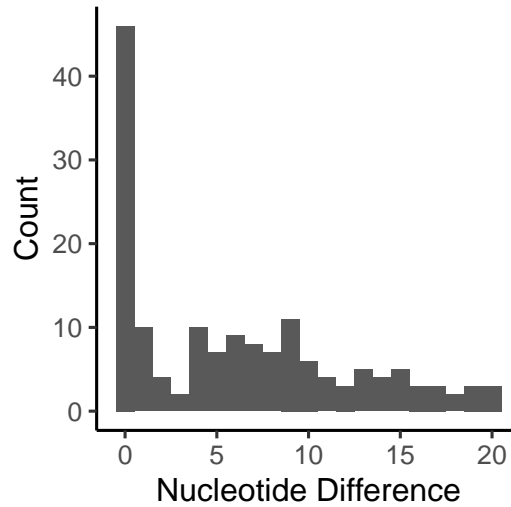
### IGHV1-58\*01

92 sequences assigned  
11 (12%) exact matches, in which:  
10 unique CDR3  
3 unique J



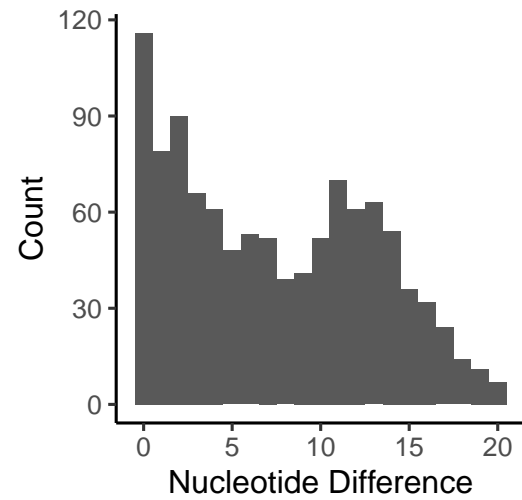
### IGHV2-26\*01

165 sequences assigned  
46 (27.9%) exact matches, in which:  
43 unique CDR3  
5 unique J



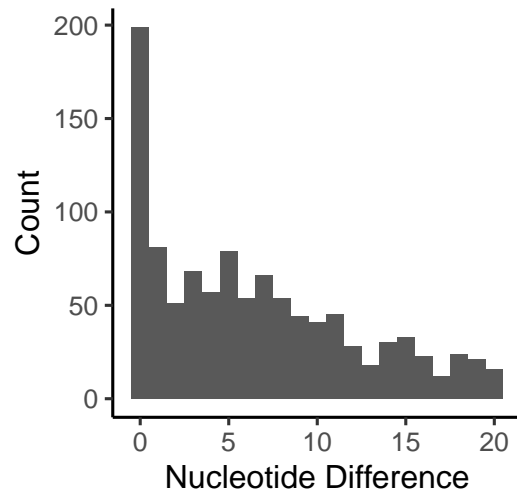
### IGHV3-9\*01

1236 sequences assigned  
116 (9.4%) exact matches, in which:  
109 unique CDR3  
5 unique J



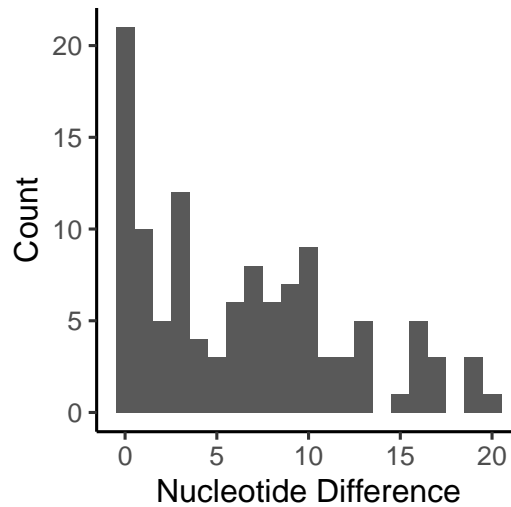
### IGHV1-69\*01

1275 sequences assigned  
199 (15.6%) exact matches, in which:  
182 unique CDR3  
6 unique J



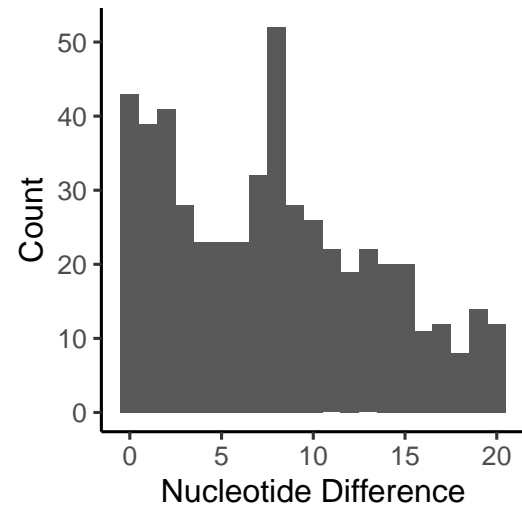
### IGHV2-70\*01

121 sequences assigned  
21 (17.4%) exact matches, in which:  
21 unique CDR3  
4 unique J



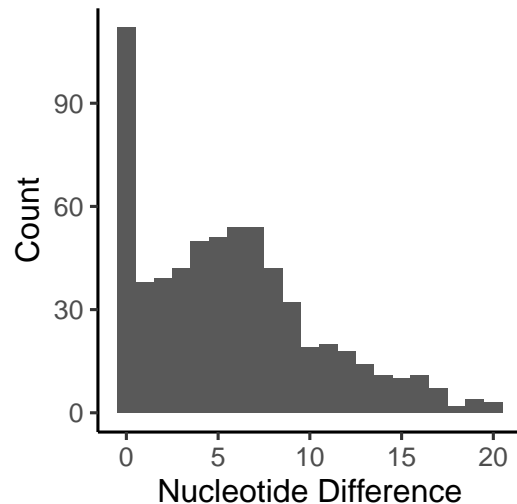
### IGHV3-11\*01

649 sequences assigned  
43 (6.6%) exact matches, in which:  
36 unique CDR3  
5 unique J



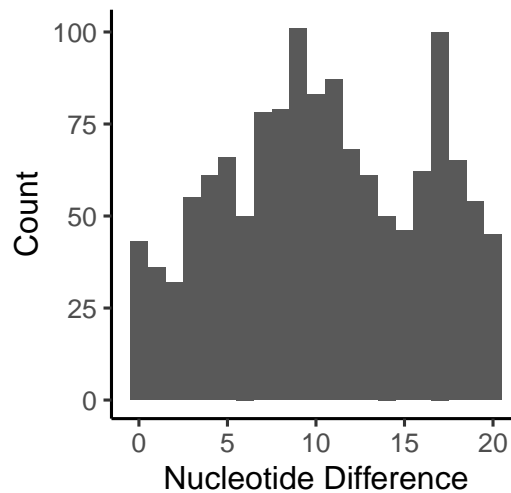
### IGHV2-5\*01

652 sequences assigned  
112 (17.2%) exact matches, in which:  
105 unique CDR3  
5 unique J



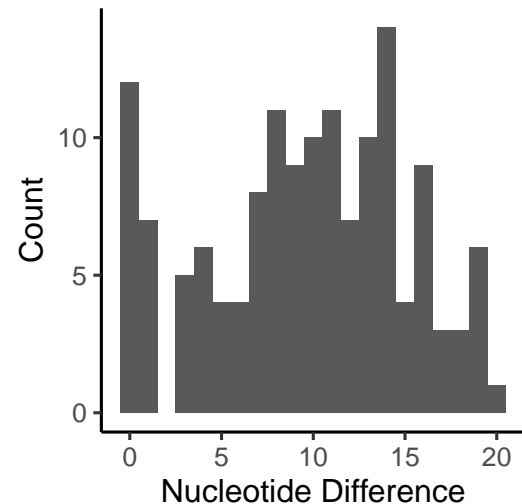
### IGHV3-7\*01

1617 sequences assigned  
43 (2.7%) exact matches, in which:  
43 unique CDR3  
4 unique J



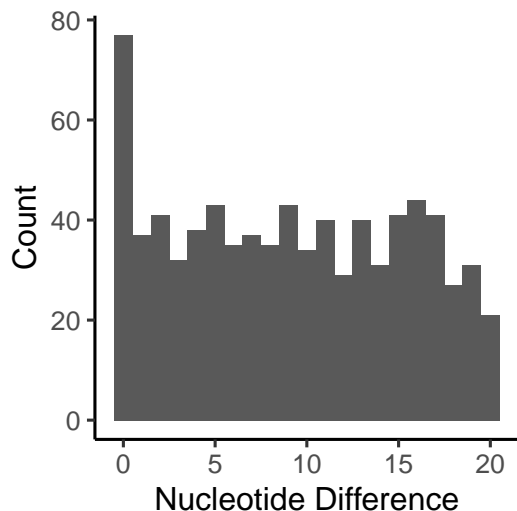
### IGHV3-13\*01

178 sequences assigned  
12 (6.7%) exact matches, in which:  
12 unique CDR3  
3 unique J



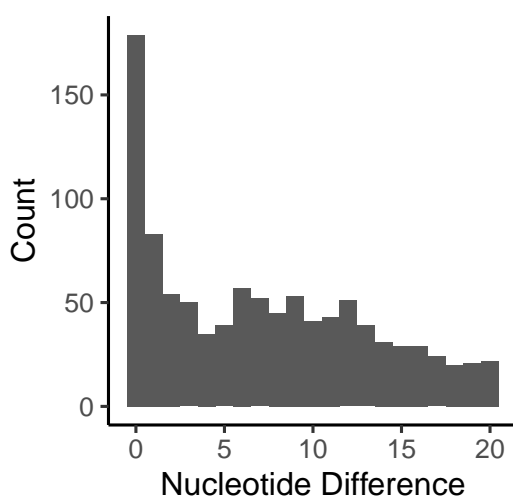
### IGHV3-15\*01

1335 sequences assigned  
77 (5.8%) exact matches, in which:  
75 unique CDR3  
5 unique J



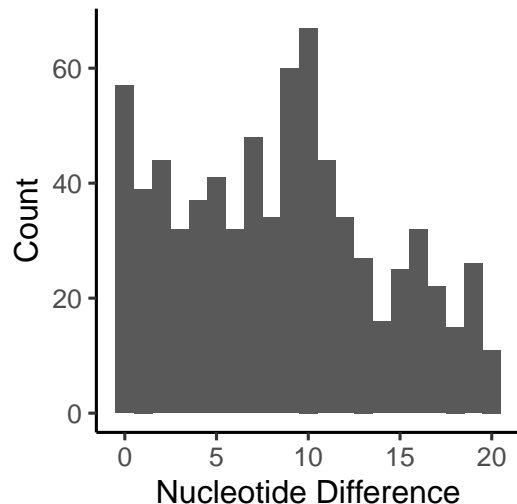
### IGHV3-21\*01

1226 sequences assigned  
179 (14.6%) exact matches, in which:  
169 unique CDR3  
5 unique J



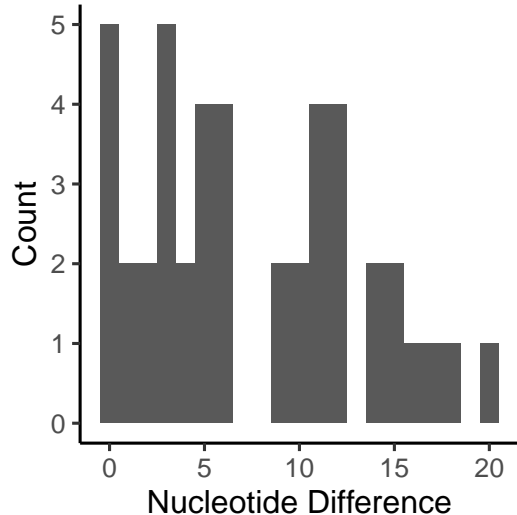
### IGHV3-33\*01

1011 sequences assigned  
57 (5.6%) exact matches, in which:  
55 unique CDR3  
5 unique J



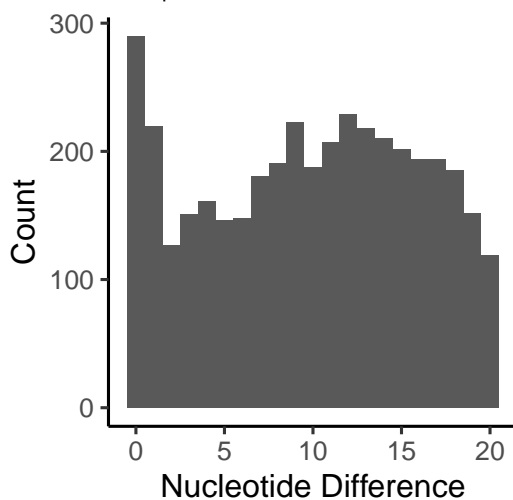
### IGHV3-20\*01

47 sequences assigned  
5 (10.6%) exact matches, in which:  
5 unique CDR3  
3 unique J



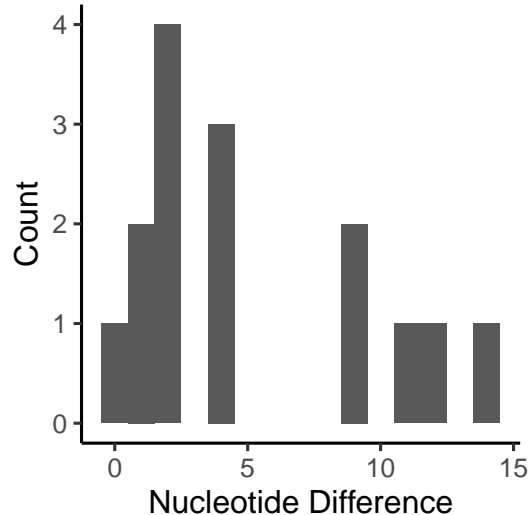
### IGHV3-23\*01

5126 sequences assigned  
290 (5.7%) exact matches, in which:  
272 unique CDR3  
6 unique J



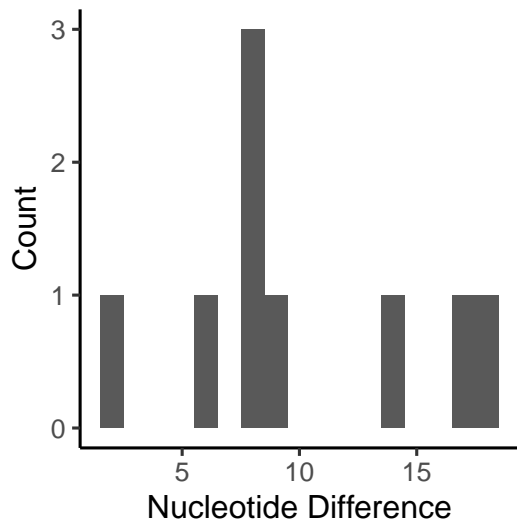
### IGHV3-43\*01

43 sequences assigned  
1 (2.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



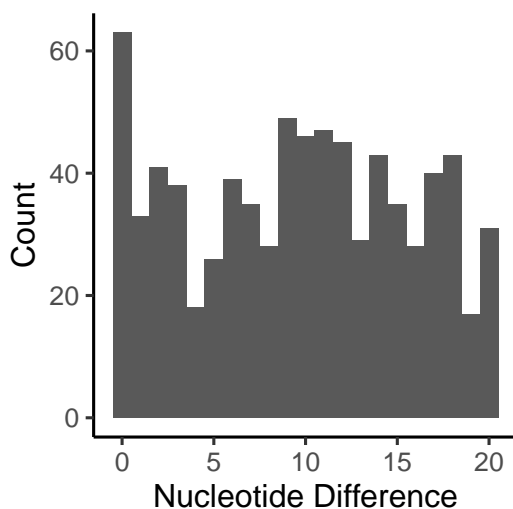
### IGHV3-20\*04

15 sequences assigned  
No exact matches.



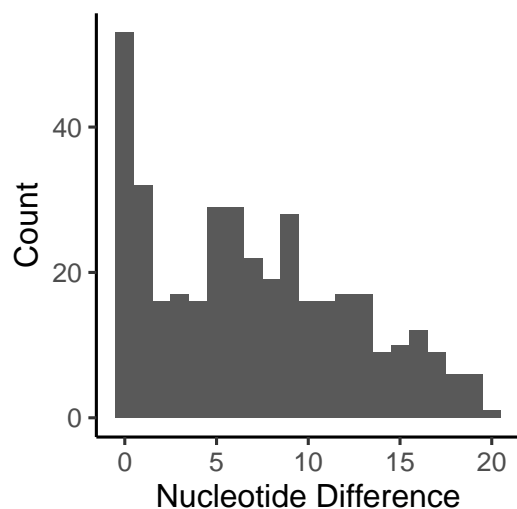
### IGHV3-30\*18

1111 sequences assigned  
63 (5.7%) exact matches, in which:  
58 unique CDR3  
6 unique J



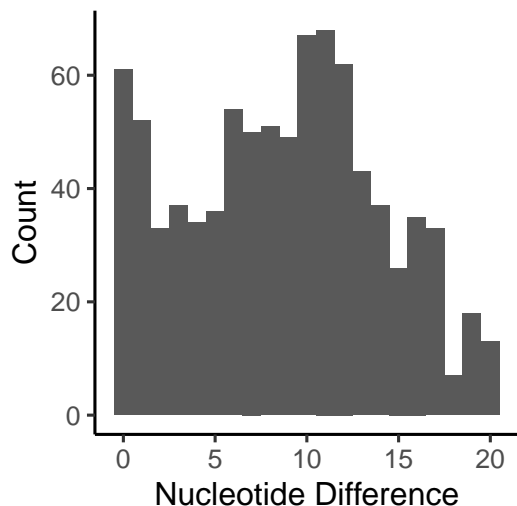
### IGHV3-48\*01

435 sequences assigned  
53 (12.2%) exact matches, in which:  
47 unique CDR3  
6 unique J



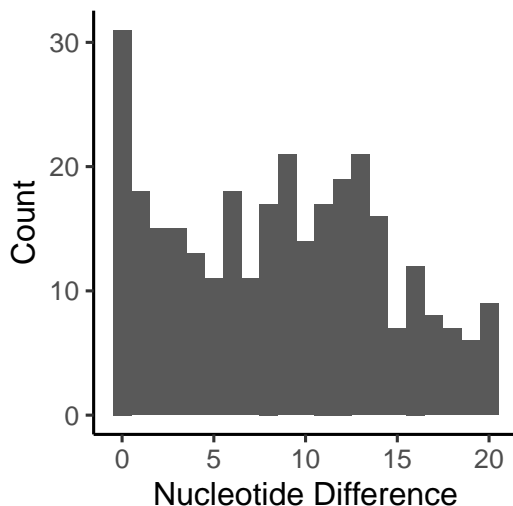
### IGHV3-48\*03

1063 sequences assigned  
61 (5.7%) exact matches, in which:  
60 unique CDR3  
5 unique J



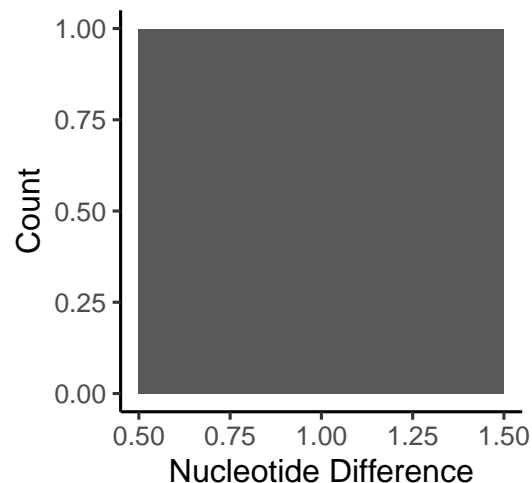
### IGHV3-53\*01

362 sequences assigned  
31 (8.6%) exact matches, in which:  
28 unique CDR3  
5 unique J



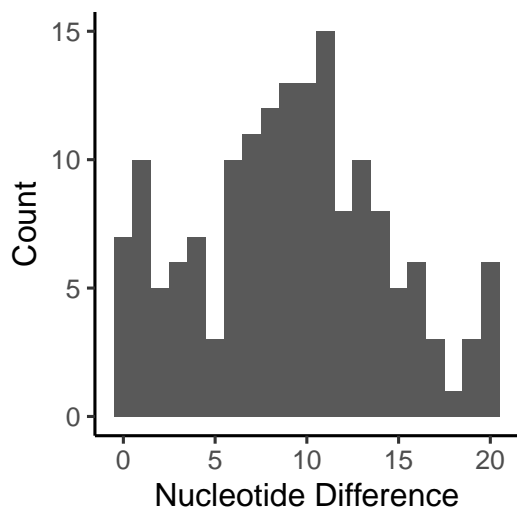
### IGHV3-66\*03

1 sequences assigned  
No exact matches.



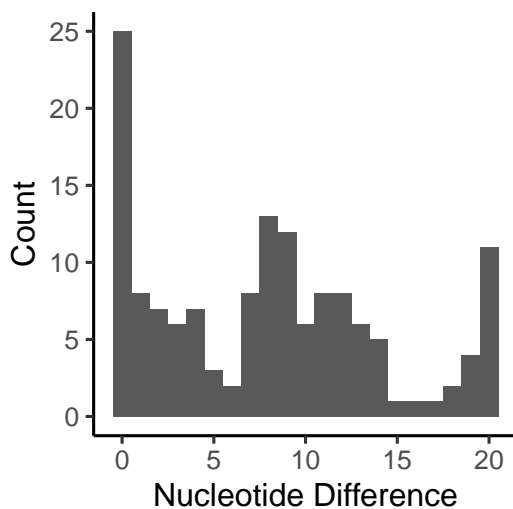
### IGHV3-49\*03

219 sequences assigned  
7 (3.2%) exact matches, in which:  
6 unique CDR3  
2 unique J



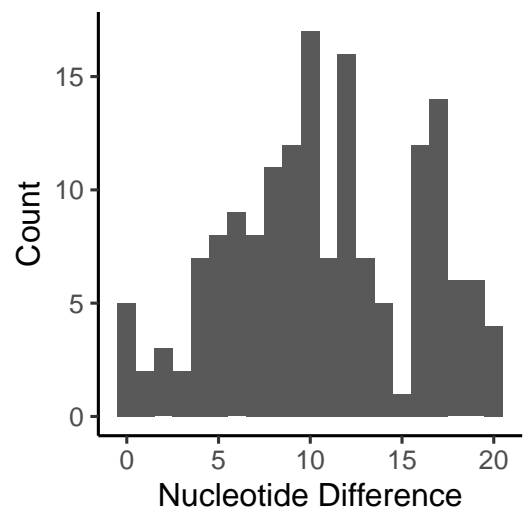
### IGHV3-53\*02

202 sequences assigned  
25 (12.4%) exact matches, in which:  
23 unique CDR3  
5 unique J



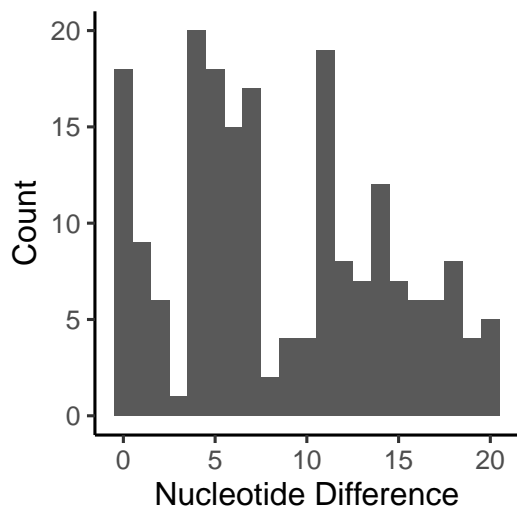
### IGHV3-72\*01

189 sequences assigned  
5 (2.6%) exact matches, in which:  
5 unique CDR3  
4 unique J



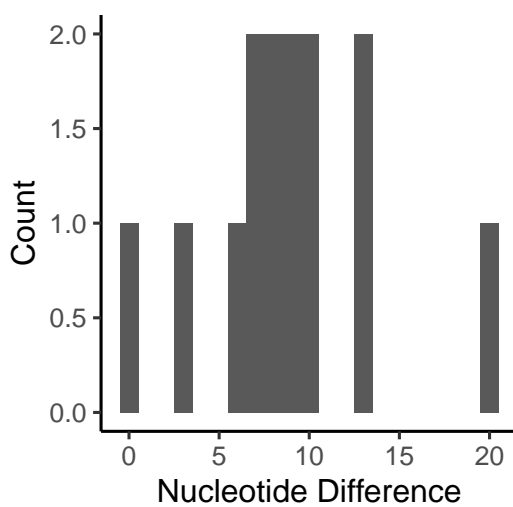
### IGHV3-49\*04

262 sequences assigned  
18 (6.9%) exact matches, in which:  
17 unique CDR3  
2 unique J



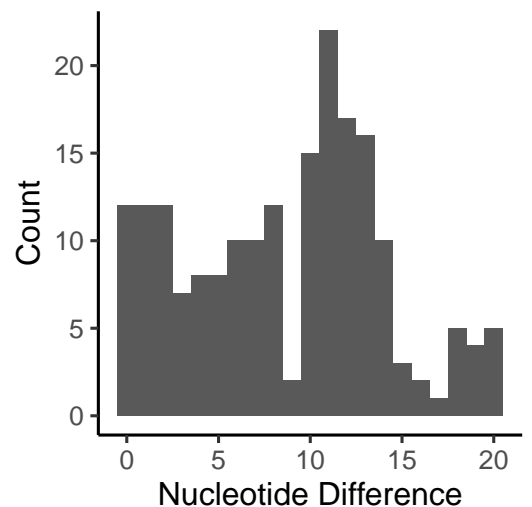
### IGHV3-64\*02

14 sequences assigned  
1 (7.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



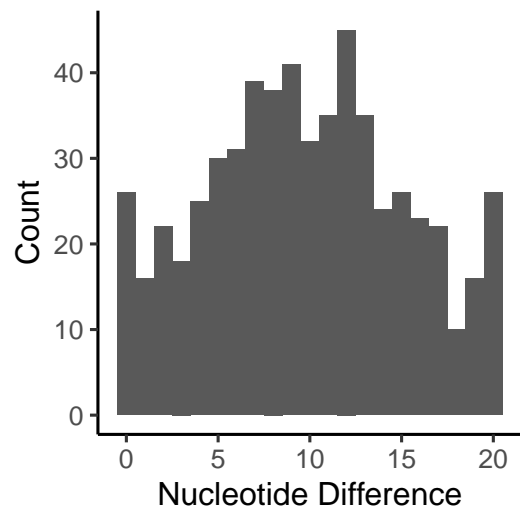
### IGHV3-73\*02

238 sequences assigned  
12 (5%) exact matches, in which:  
12 unique CDR3  
4 unique J



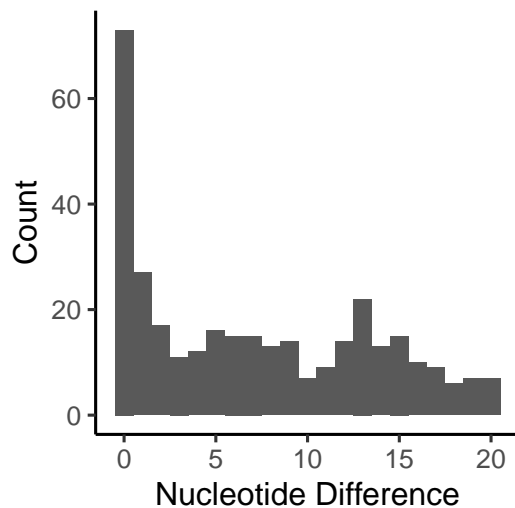
### IGHV3-74\*01

696 sequences assigned  
26 (3.7%) exact matches, in which:  
25 unique CDR3  
5 unique J



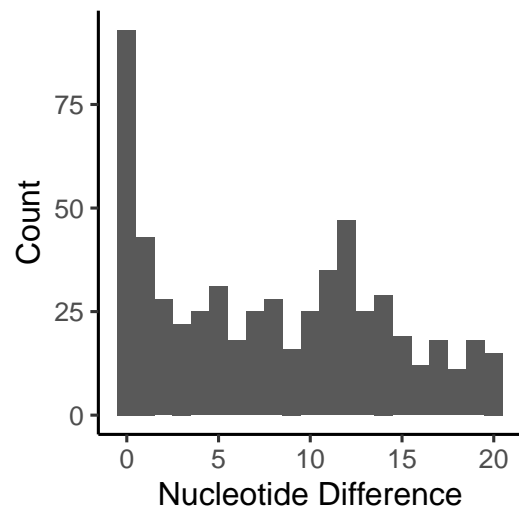
### IGHV4-4\*02

389 sequences assigned  
73 (18.8%) exact matches, in which:  
69 unique CDR3  
5 unique J



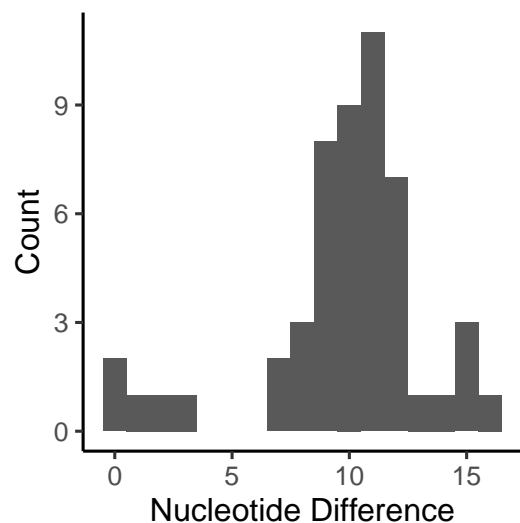
### IGHV4-31\*03

773 sequences assigned  
93 (12%) exact matches, in which:  
88 unique CDR3  
6 unique J



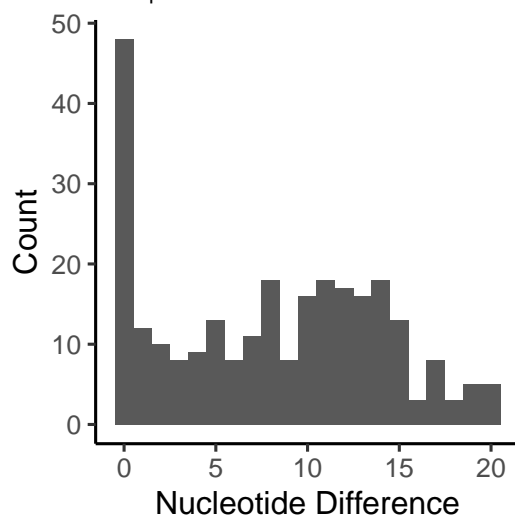
### IGHV3-43D\*04

53 sequences assigned  
2 (3.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



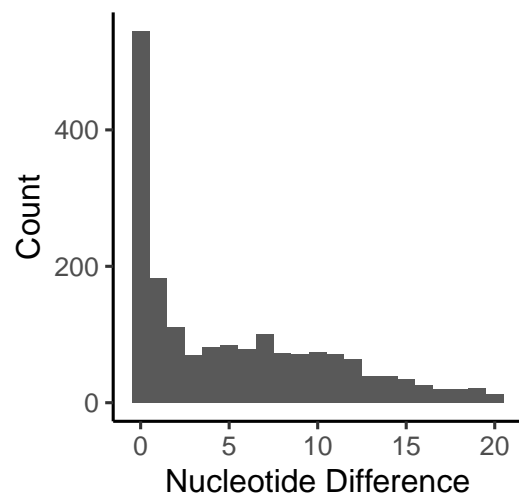
### IGHV4-4\*07

316 sequences assigned  
48 (15.2%) exact matches, in which:  
45 unique CDR3  
6 unique J



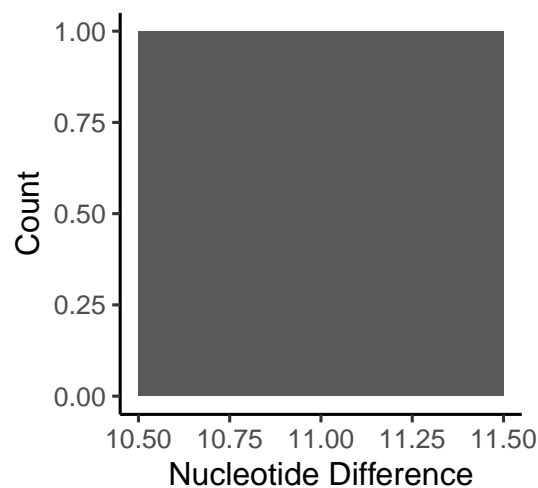
### IGHV4-34\*01

2238 sequences assigned  
545 (24.4%) exact matches, in which:  
512 unique CDR3  
6 unique J



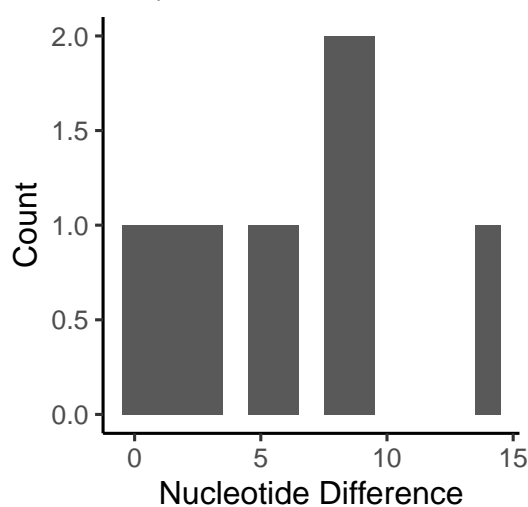
### IGHV3-NL1\*01

1 sequences assigned  
No exact matches.



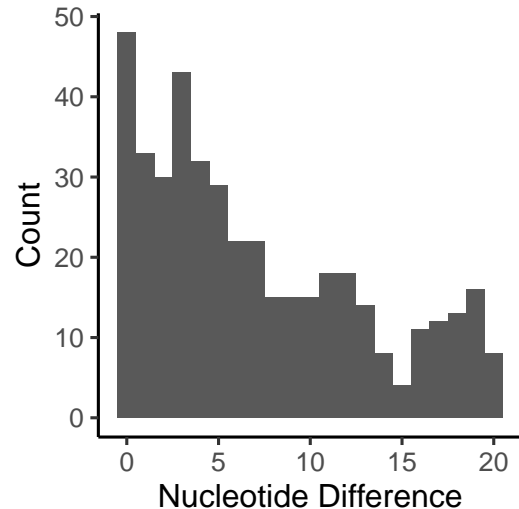
### IGHV4-28\*01

11 sequences assigned  
1 (9.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



### IGHV4-38-2\*02\_A70G

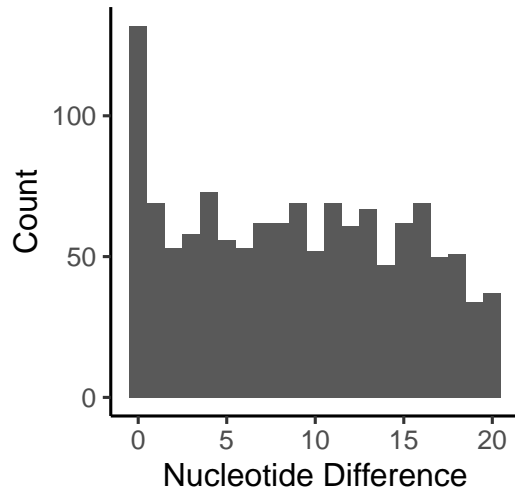
530 sequences assigned  
48 (9.1%) exact matches, in which:  
45 unique CDR3  
5 unique J





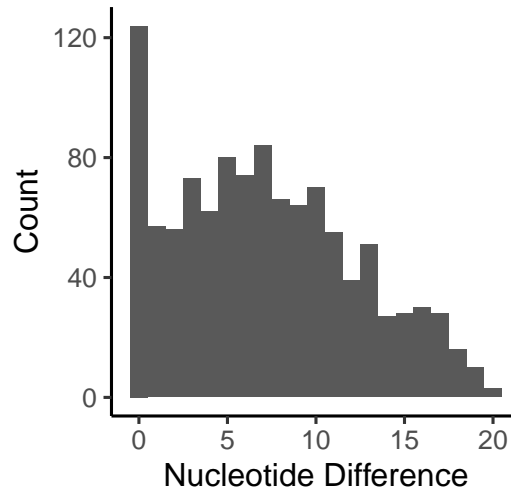
### IGHV4–39\*01

1625 sequences assigned  
132 (8.1%) exact matches, in which:  
121 unique CDR3  
6 unique J



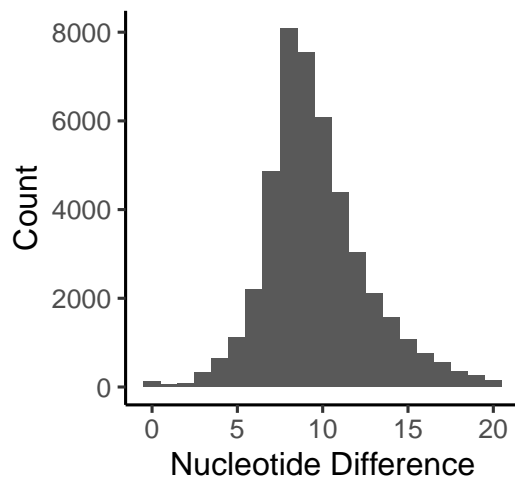
### IGHV5–51\*01

1172 sequences assigned  
124 (10.6%) exact matches, in which:  
115 unique CDR3  
6 unique J



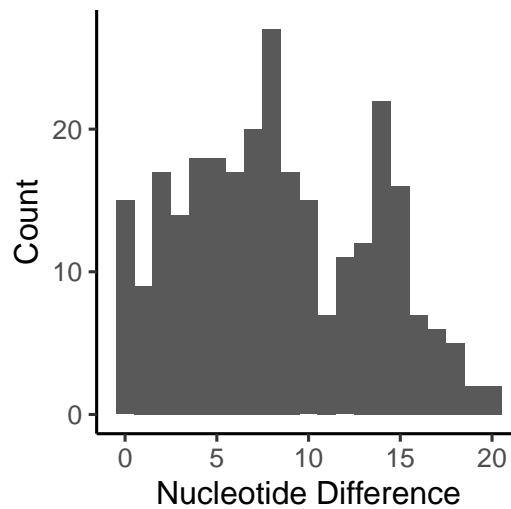
### IGHV4–59\*01

45740 sequences assigned  
124 (0.3%) exact matches, in which:  
111 unique CDR3  
6 unique J



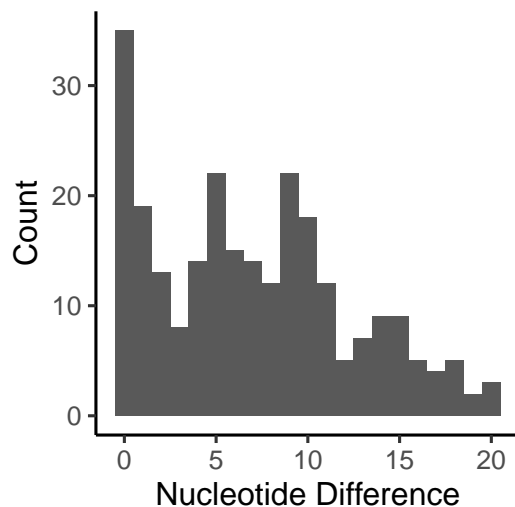
### IGHV6–1\*01

285 sequences assigned  
15 (5.3%) exact matches, in which:  
12 unique CDR3  
3 unique J



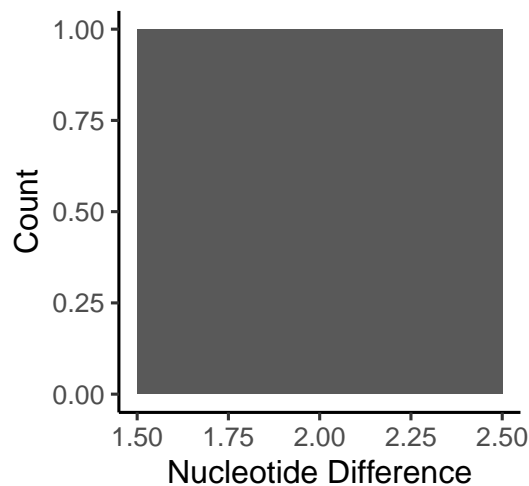
### IGHV4–61\*01

335 sequences assigned  
35 (10.4%) exact matches, in which:  
32 unique CDR3  
6 unique J



### IGHV7–4–1\*01

1 sequences assigned  
No exact matches.



IGHV4-38-2\*02\_A70G

