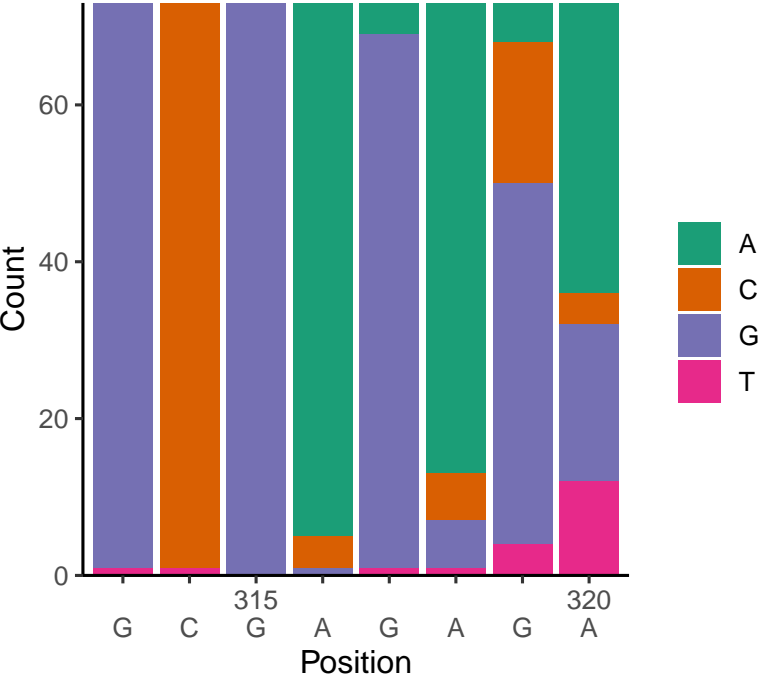
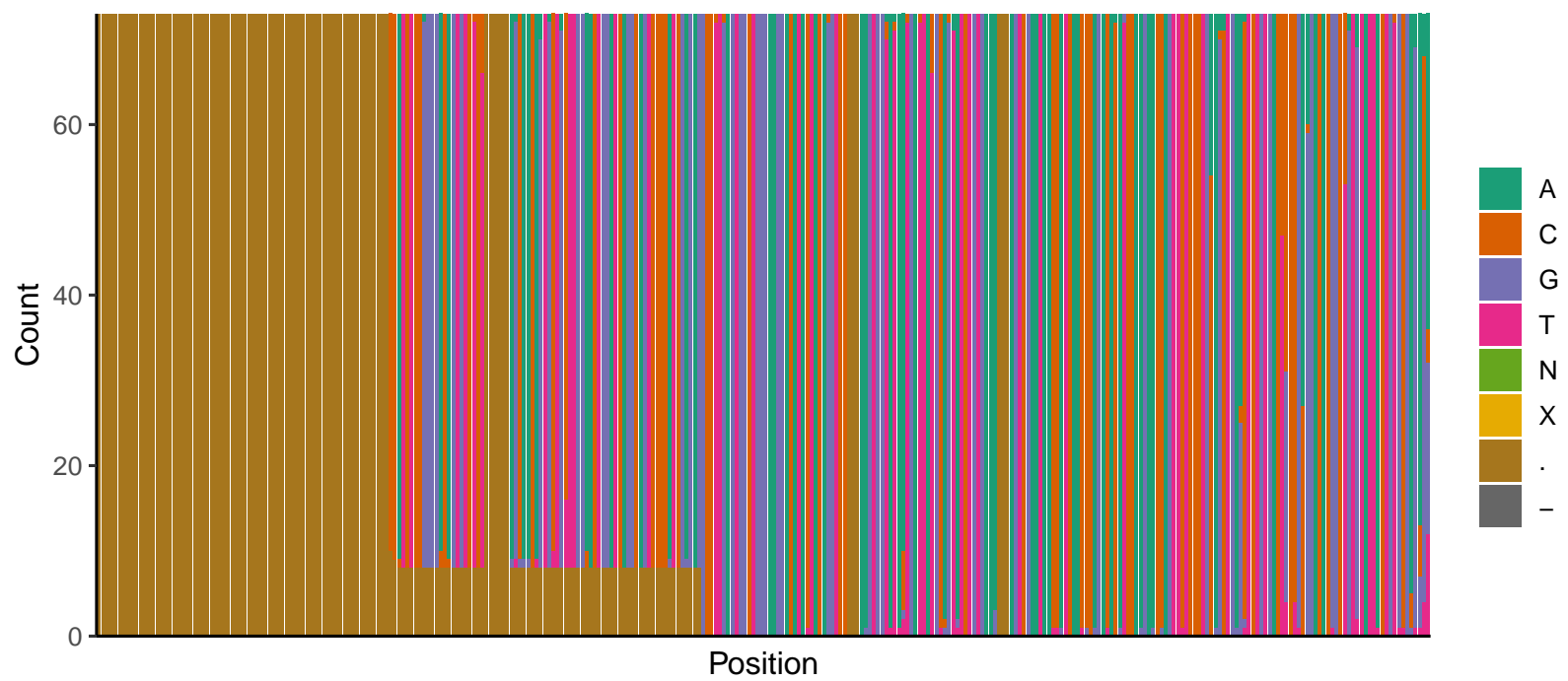


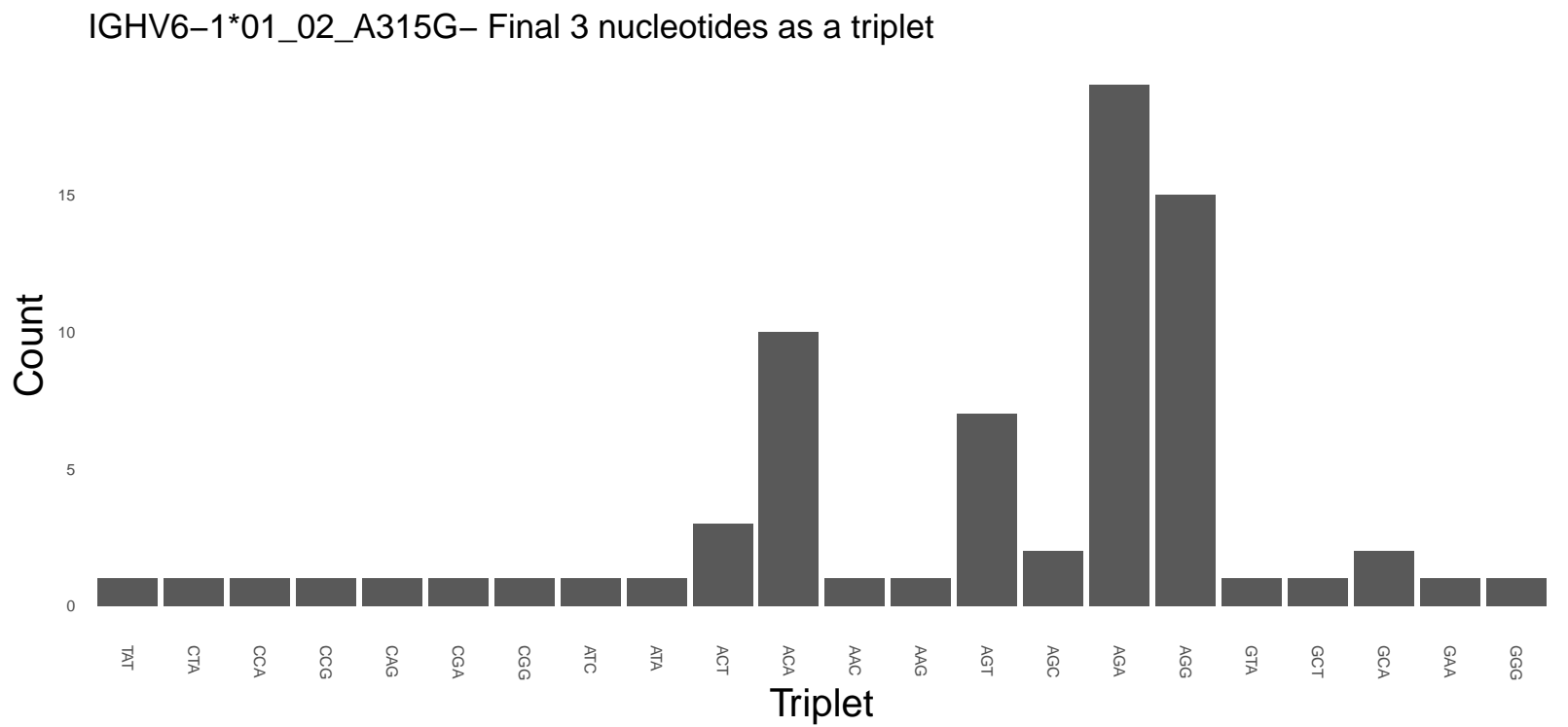
Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

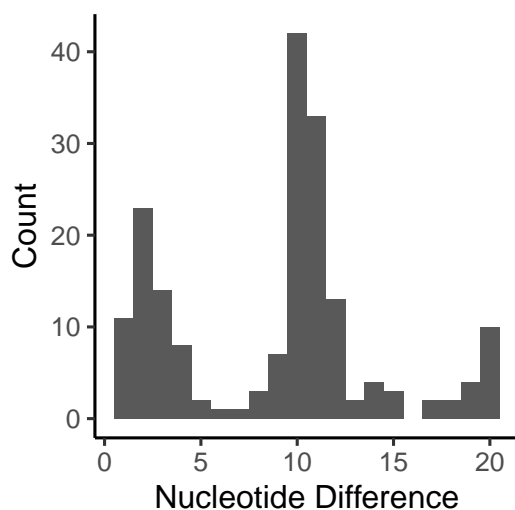


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



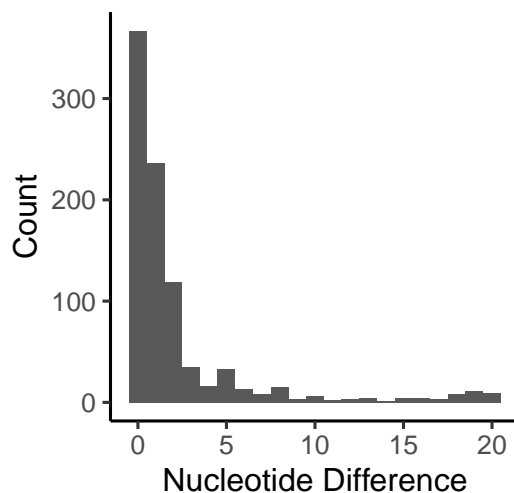
### IGHV1-2\*02

201 sequences assigned  
No exact matches.



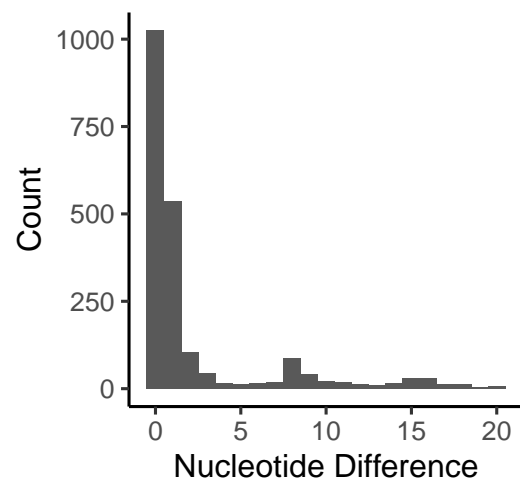
### IGHV1-8\*01

1123 sequences assigned  
367 (32.7%) exact matches, in which:  
357 unique CDR3  
6 unique J



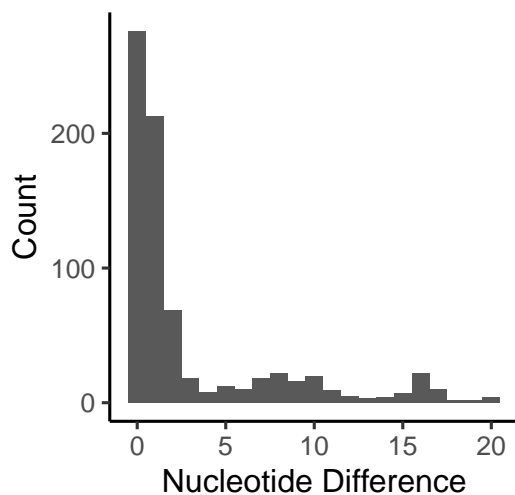
### IGHV1-18\*04

2374 sequences assigned  
1025 (43.2%) exact matches, in which:  
981 unique CDR3  
6 unique J



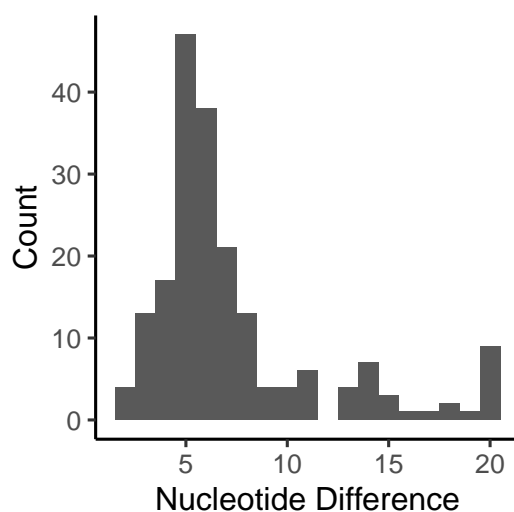
### IGHV1-2\*04

796 sequences assigned  
276 (34.7%) exact matches, in which:  
250 unique CDR3  
6 unique J



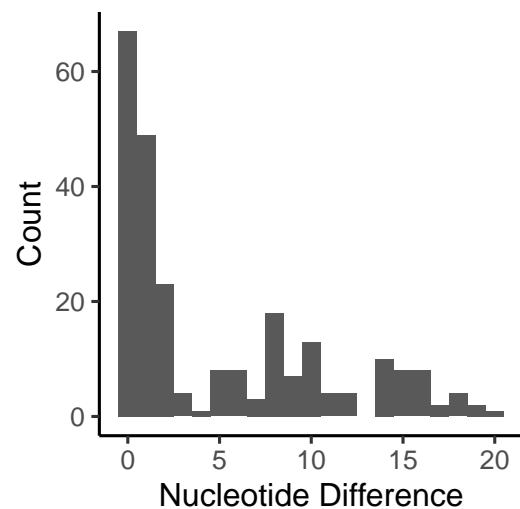
### IGHV1-8\*02

412 sequences assigned  
No exact matches.



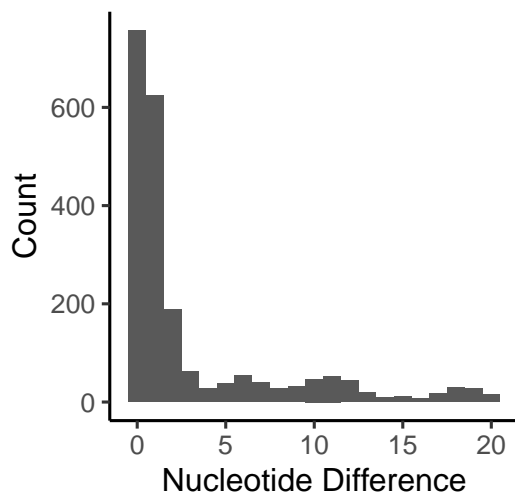
### IGHV1-24\*01

299 sequences assigned  
67 (22.4%) exact matches, in which:  
64 unique CDR3  
6 unique J



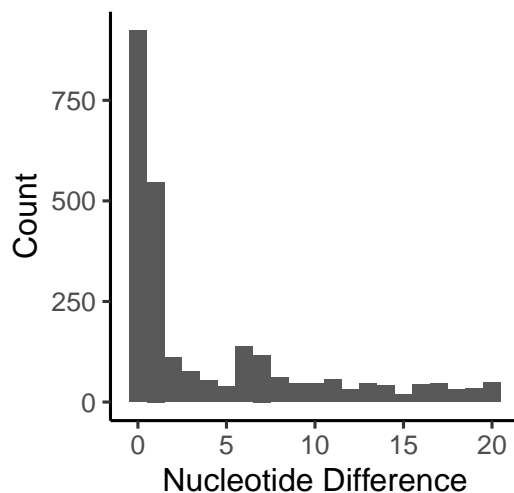
### IGHV1-3\*01\_05

2551 sequences assigned  
757 (29.7%) exact matches, in which:  
679 unique CDR3  
6 unique J



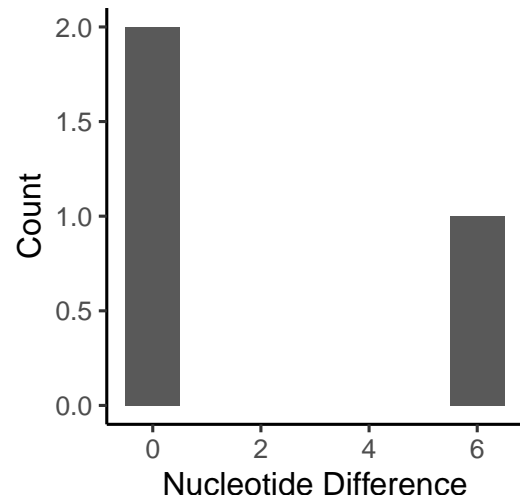
### IGHV1-18\*01

2965 sequences assigned  
924 (31.2%) exact matches, in which:  
887 unique CDR3  
6 unique J



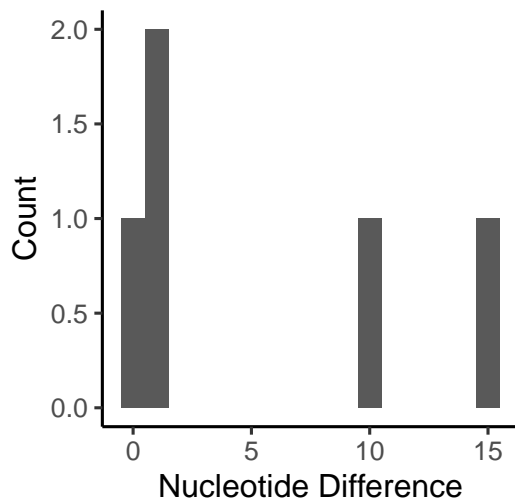
### IGHV1-45\*02

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



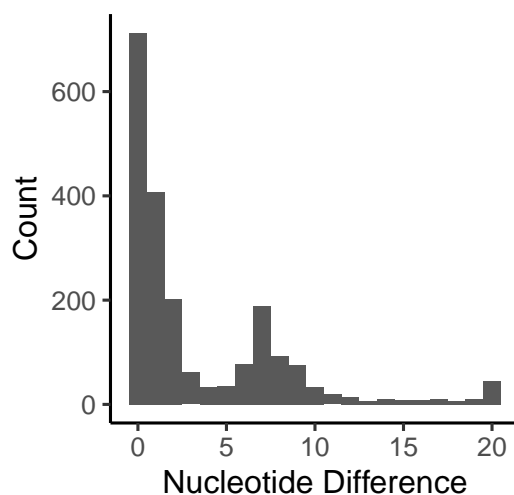
### IGHV1-45\*03

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



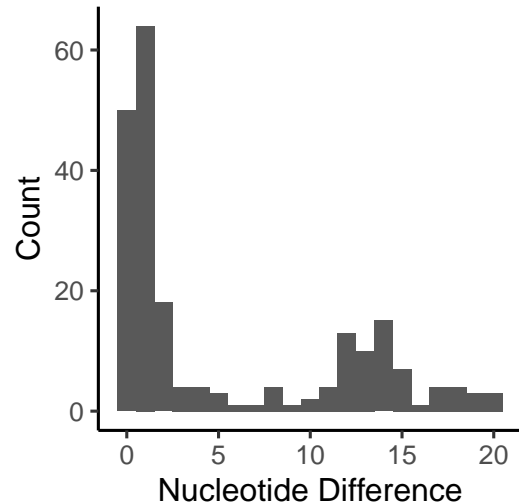
### IGHV1-69\*04\_09

2295 sequences assigned  
713 (31.1%) exact matches, in which:  
687 unique CDR3  
6 unique J



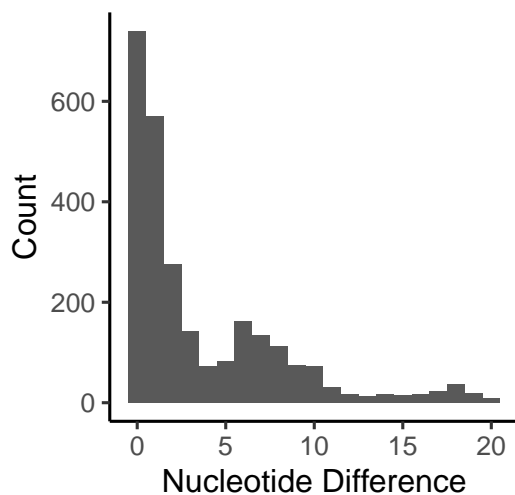
### IGHV2-26\*01

232 sequences assigned  
50 (21.6%) exact matches, in which:  
38 unique CDR3  
4 unique J



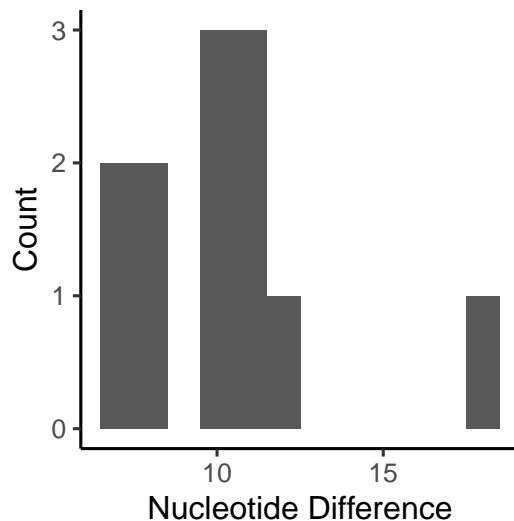
### IGHV1-46\*01

2955 sequences assigned  
740 (25%) exact matches, in which:  
696 unique CDR3  
6 unique J



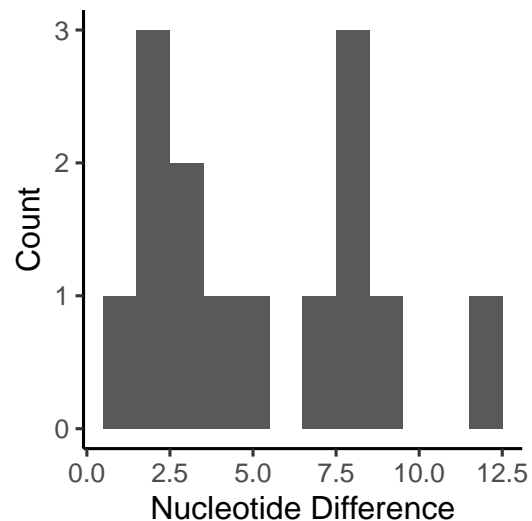
### IGHV1-NL1\*01

12 sequences assigned  
No exact matches.



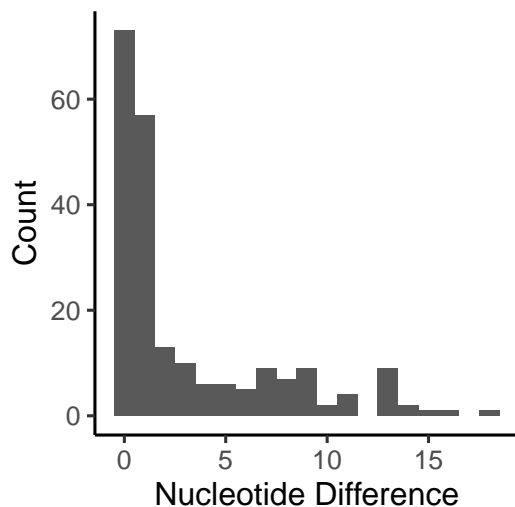
### IGHV2-70\*12

14 sequences assigned  
No exact matches.



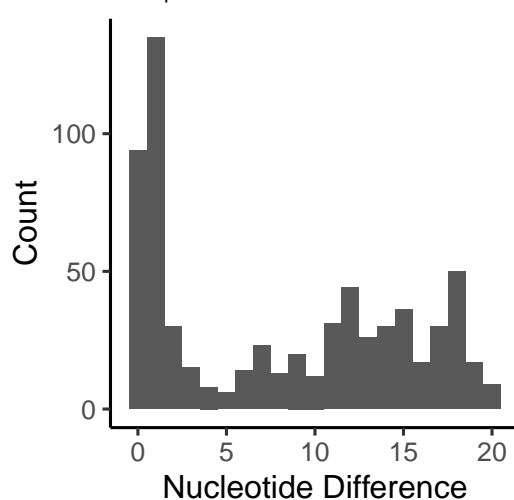
### IGHV1-58\*02

221 sequences assigned  
73 (33%) exact matches, in which:  
70 unique CDR3  
5 unique J



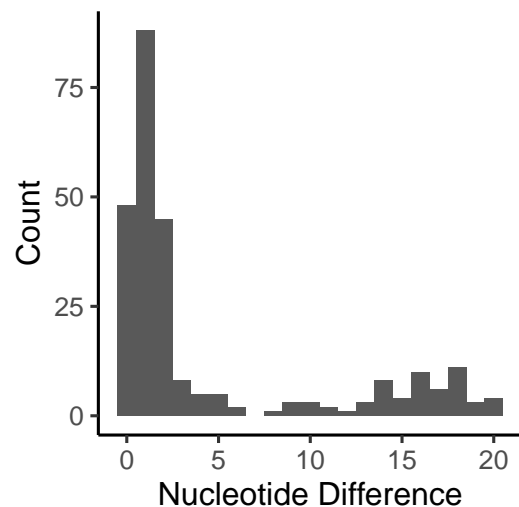
### IGHV2-5\*02

741 sequences assigned  
94 (12.7%) exact matches, in which:  
80 unique CDR3  
5 unique J



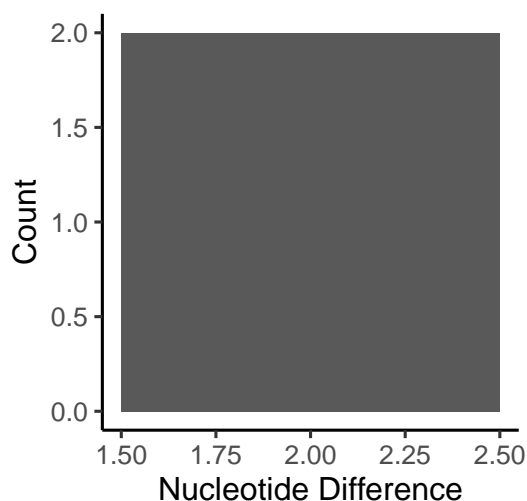
### IGHV2-70\*11\_15

324 sequences assigned  
48 (14.8%) exact matches, in which:  
40 unique CDR3  
5 unique J



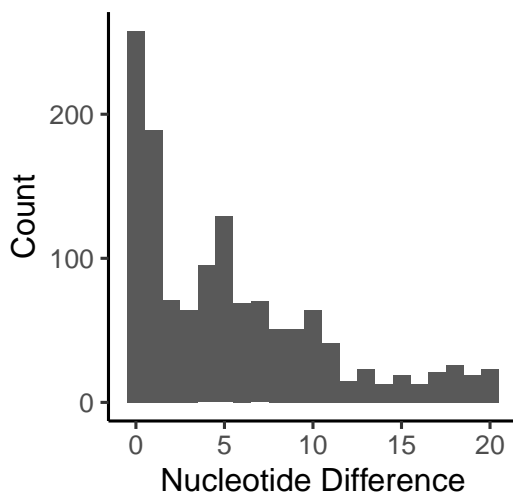
### IGHV2-70D\*14

4 sequences assigned  
No exact matches.



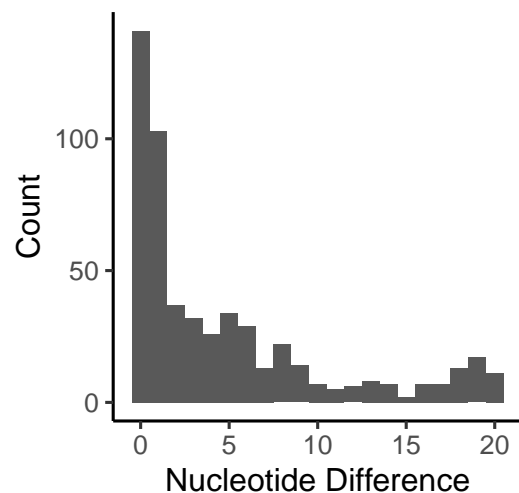
### IGHV3-9\*01

1730 sequences assigned  
258 (14.9%) exact matches, in which:  
196 unique CDR3  
6 unique J



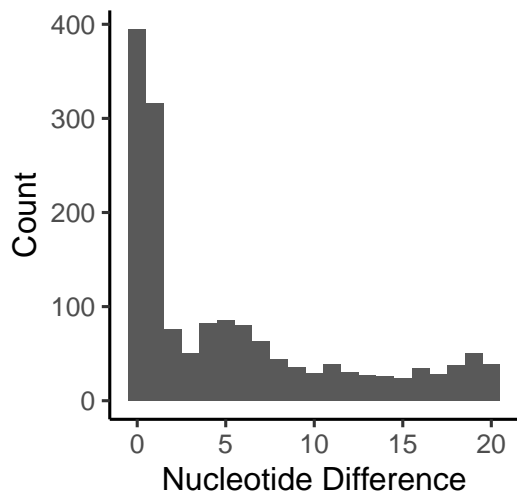
### IGHV3-11\*06

834 sequences assigned  
141 (16.9%) exact matches, in which:  
116 unique CDR3  
5 unique J



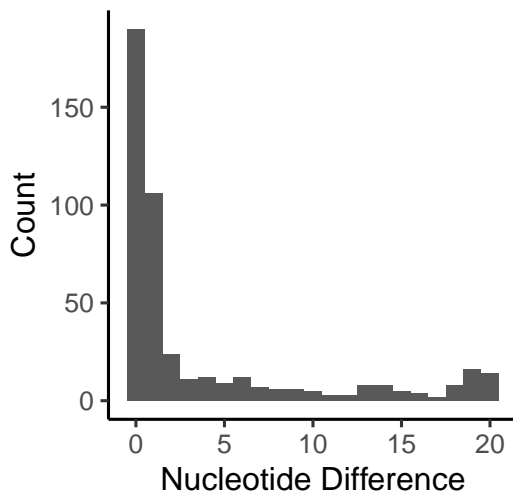
### IGHV3-7\*01

2424 sequences assigned  
395 (16.3%) exact matches, in which:  
341 unique CDR3  
6 unique J



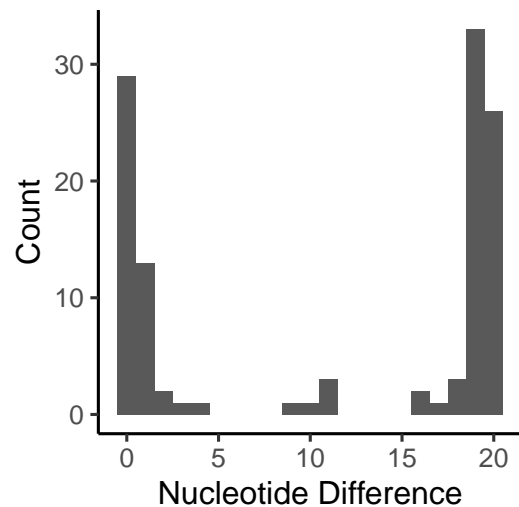
### IGHV3-11\*01

639 sequences assigned  
190 (29.7%) exact matches, in which:  
155 unique CDR3  
6 unique J



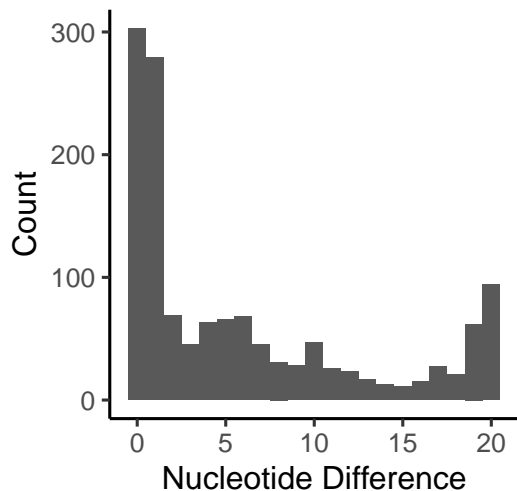
### IGHV3-13\*01

180 sequences assigned  
29 (16.1%) exact matches, in which:  
25 unique CDR3  
3 unique J



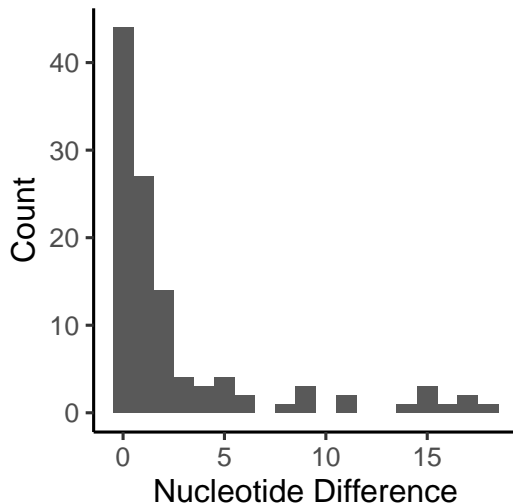
### IGHV3-7\*03

2237 sequences assigned  
303 (13.5%) exact matches, in which:  
243 unique CDR3  
6 unique J



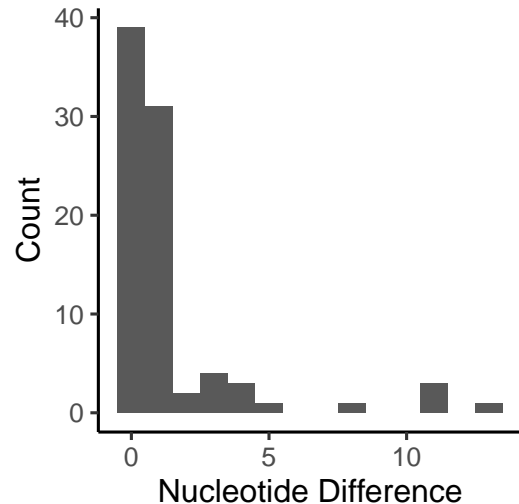
### IGHV3-11\*04

124 sequences assigned  
44 (35.5%) exact matches, in which:  
44 unique CDR3  
4 unique J



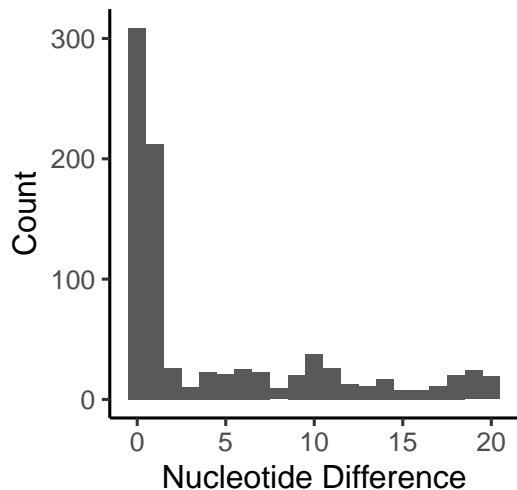
### IGHV3-13\*05

86 sequences assigned  
39 (45.3%) exact matches, in which:  
29 unique CDR3  
5 unique J



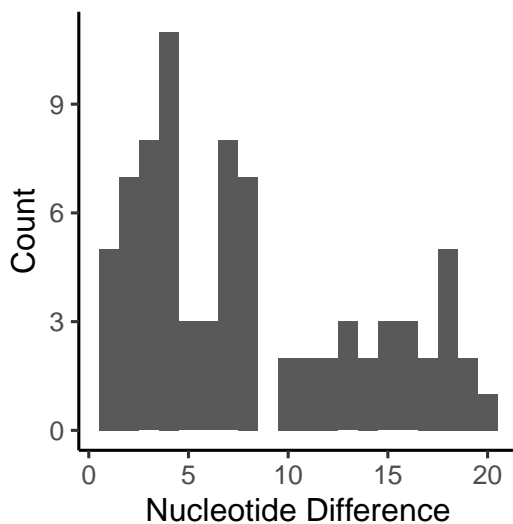
### IGHV3-15\*01\_02

1183 sequences assigned  
309 (26.1%) exact matches, in which:  
202 unique CDR3  
6 unique J



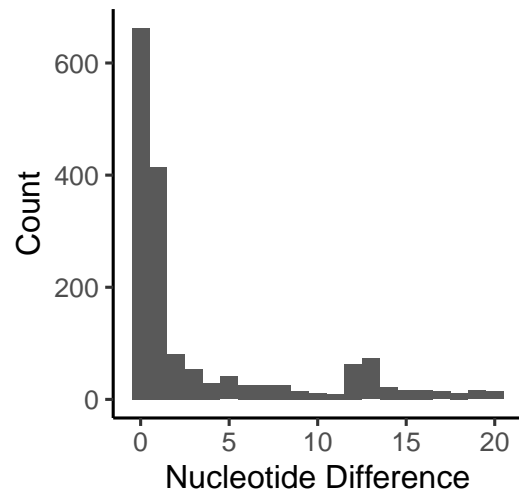
### IGHV3-20\*03\_04

124 sequences assigned  
No exact matches.



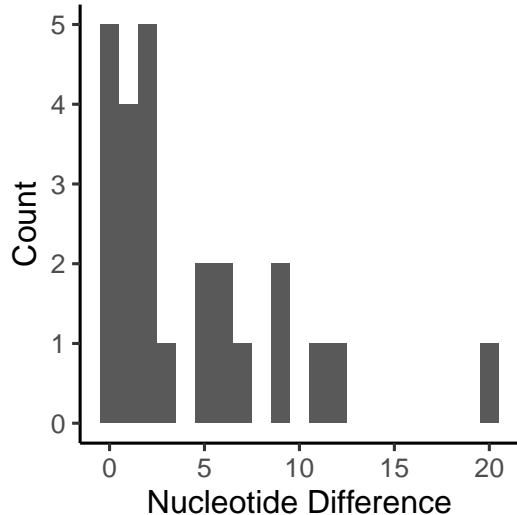
### IGHV3-30-3\*01

1891 sequences assigned  
663 (35.1%) exact matches, in which:  
531 unique CDR3  
6 unique J



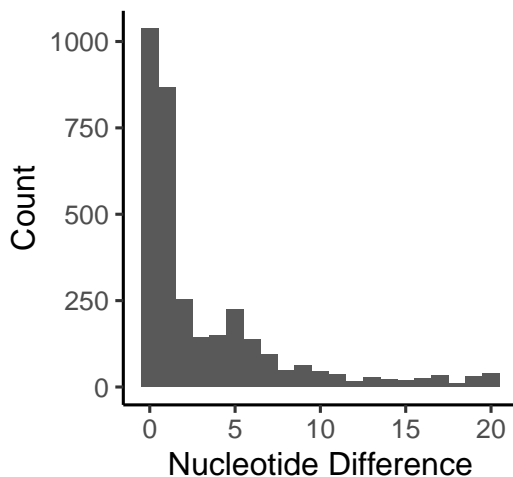
### IGHV3-19\*01

25 sequences assigned  
5 (20%) exact matches, in which:  
5 unique CDR3  
2 unique J



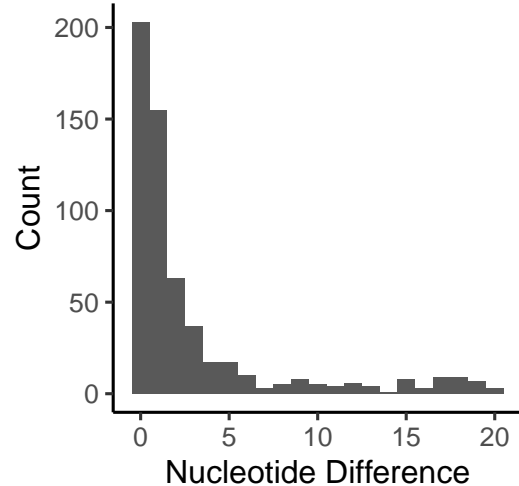
### IGHV3-21\*01\_02

3997 sequences assigned  
1037 (25.9%) exact matches, in which:  
819 unique CDR3  
6 unique J



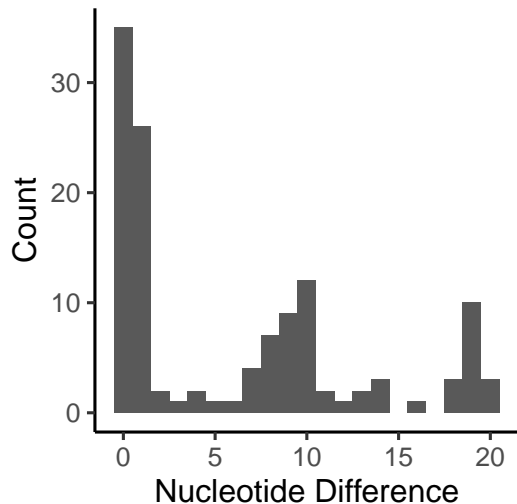
### IGHV3-30\*03

704 sequences assigned  
203 (28.8%) exact matches, in which:  
194 unique CDR3  
5 unique J



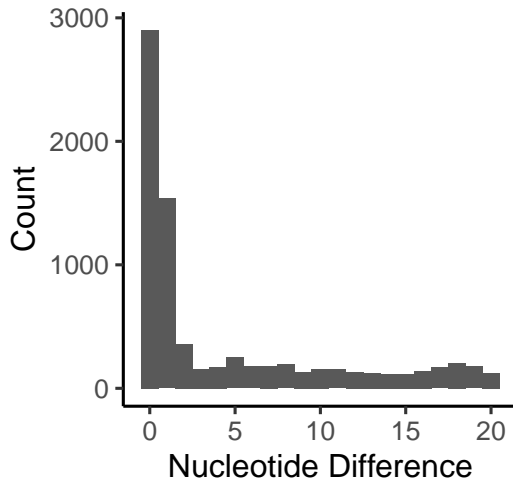
### IGHV3-20\*01\_02

170 sequences assigned  
35 (20.6%) exact matches, in which:  
25 unique CDR3  
4 unique J



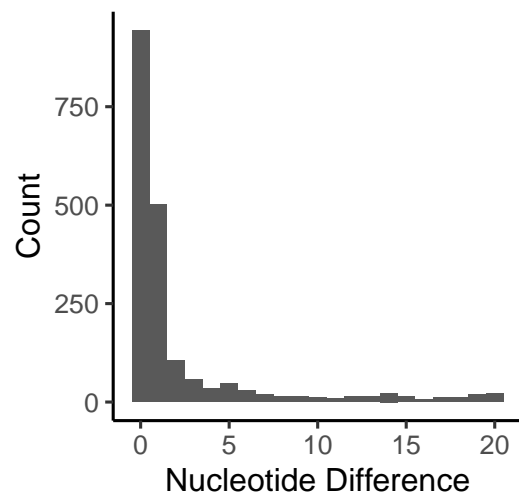
### IGHV3-23\*01\_04

10421 sequences assigned  
2901 (27.8%) exact matches, in which:  
2290 unique CDR3  
6 unique J



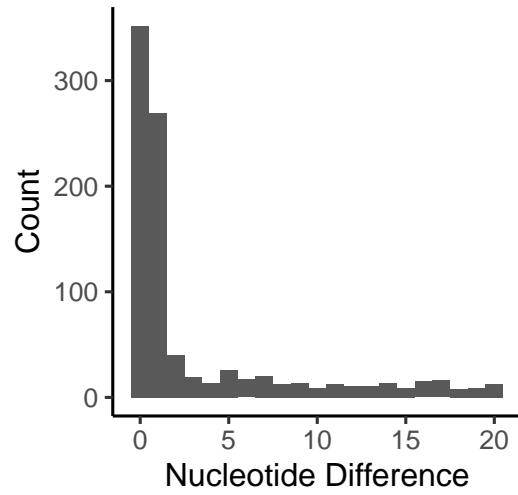
### IGHV3-30\*04

2253 sequences assigned  
944 (41.9%) exact matches, in which:  
757 unique CDR3  
6 unique J



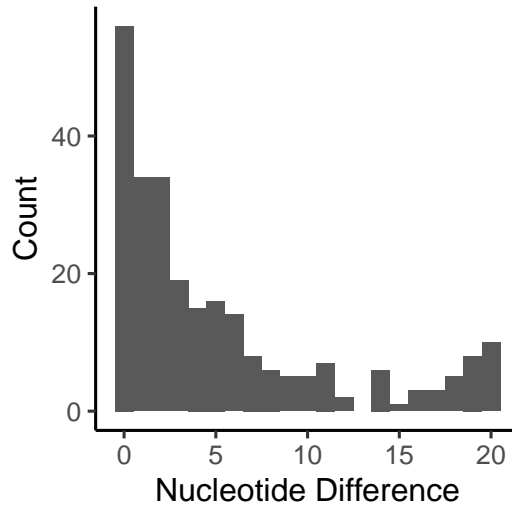
### IGHV3-30\*18

1192 sequences assigned  
352 (29.5%) exact matches, in which:  
257 unique CDR3  
6 unique J



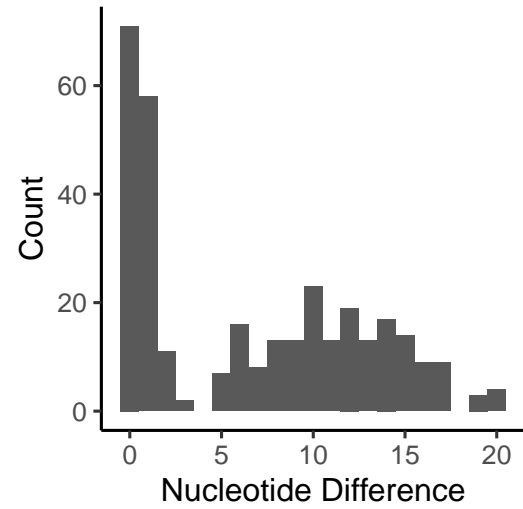
### IGHV3-33\*08

464 sequences assigned  
56 (12.1%) exact matches, in which:  
46 unique CDR3  
5 unique J



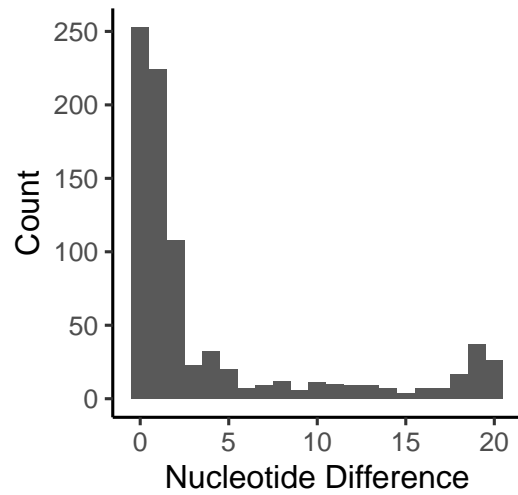
### IGHV3-43\*02

422 sequences assigned  
71 (16.8%) exact matches, in which:  
53 unique CDR3  
5 unique J



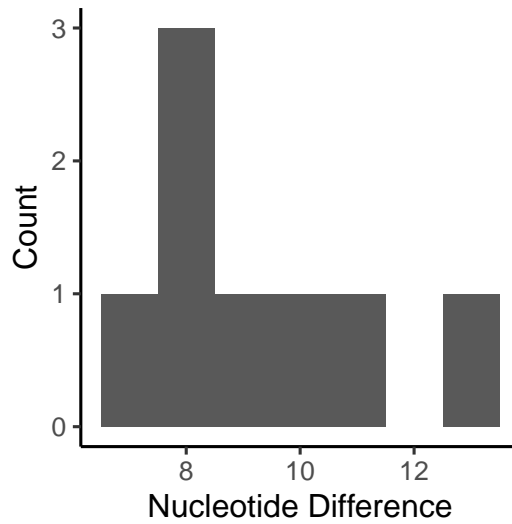
### IGHV3-33\*01

1145 sequences assigned  
253 (22.1%) exact matches, in which:  
203 unique CDR3  
6 unique J



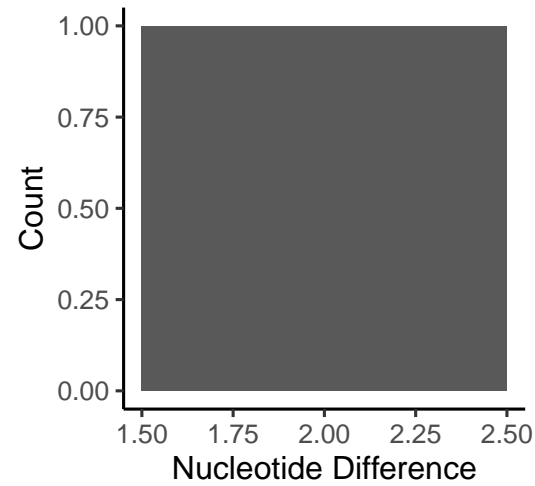
### IGHV3-35\*01

8 sequences assigned  
No exact matches.



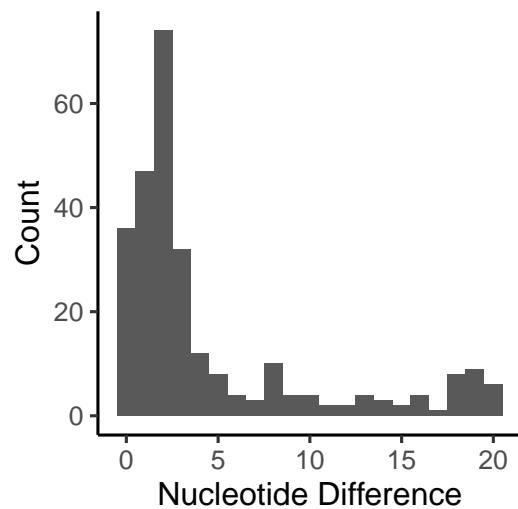
### IGHV3-47\*01

1 sequences assigned  
No exact matches.



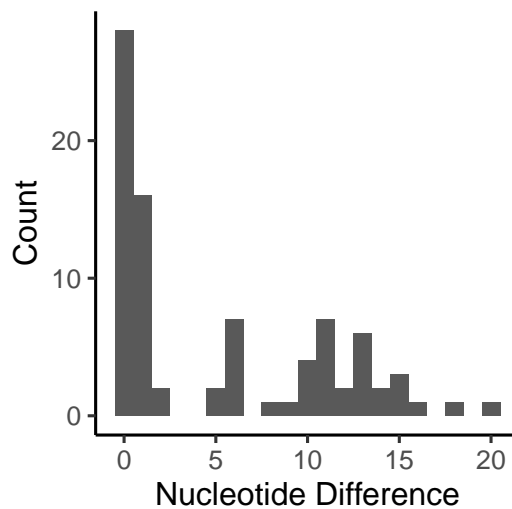
### IGHV3-33\*06

365 sequences assigned  
36 (9.9%) exact matches, in which:  
33 unique CDR3  
6 unique J



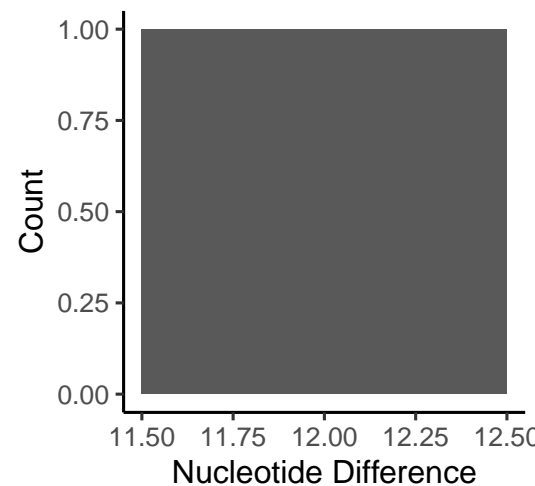
### IGHV3-43\*01

145 sequences assigned  
28 (19.3%) exact matches, in which:  
22 unique CDR3  
4 unique J



### IGHV3-47\*02

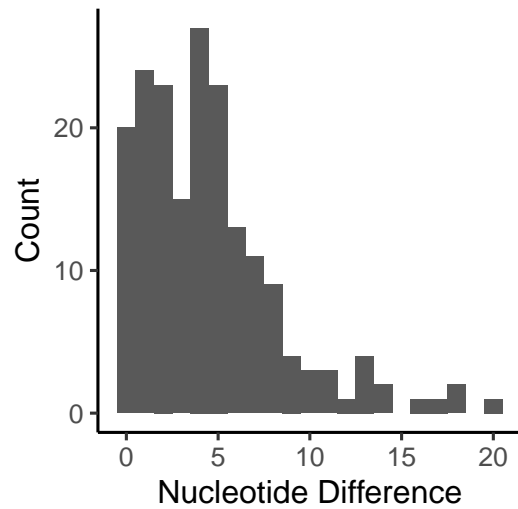
1 sequences assigned  
No exact matches.





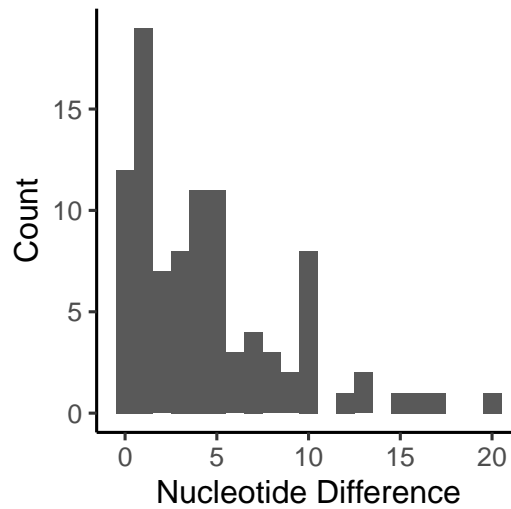
### IGHV3-48\*01

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



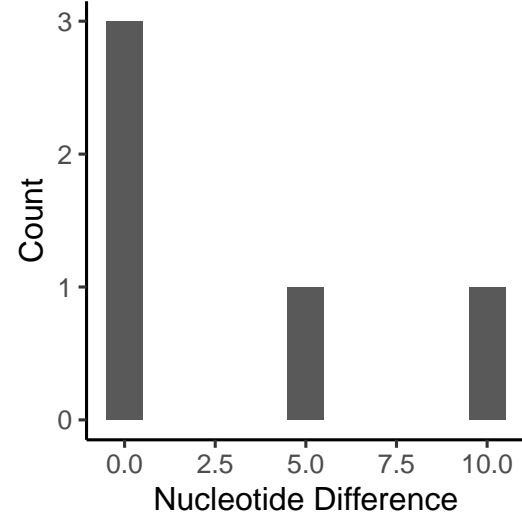
### IGHV3-48\*04

121 sequences assigned  
12 (9.9%) exact matches, in which:  
11 unique CDR3  
4 unique J



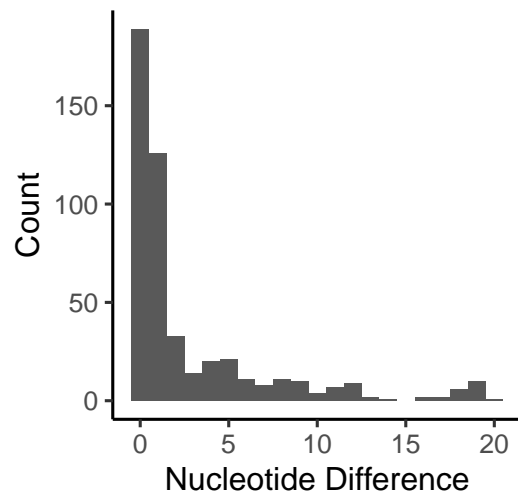
### IGHV3-52\*01\_03

5 sequences assigned  
3 (60%) exact matches, in which:  
3 unique CDR3  
2 unique J



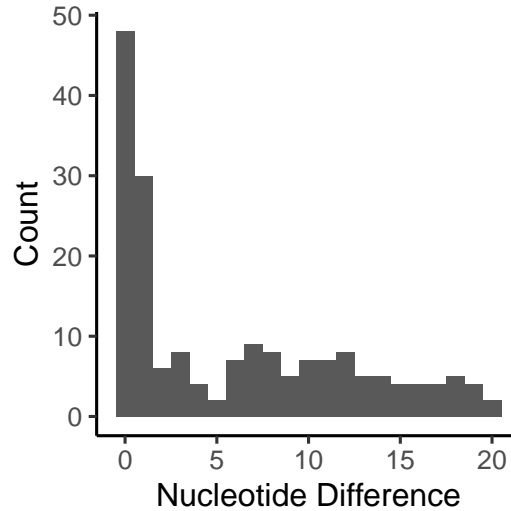
### IGHV3-48\*02

584 sequences assigned  
189 (32.4%) exact matches, in which:  
142 unique CDR3  
6 unique J



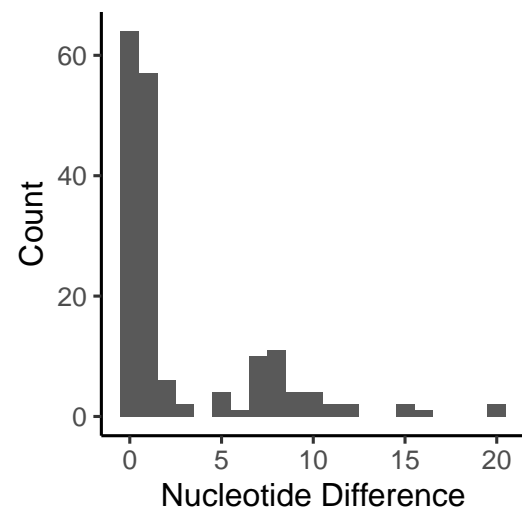
### IGHV3-49\*04

292 sequences assigned  
48 (16.4%) exact matches, in which:  
39 unique CDR3  
4 unique J



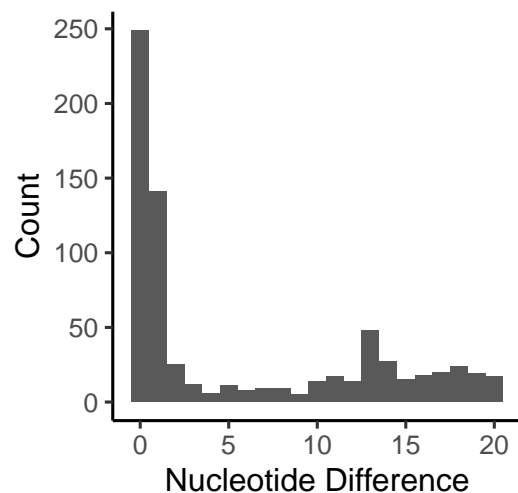
### IGHV3-53\*04

200 sequences assigned  
64 (32%) exact matches, in which:  
54 unique CDR3  
6 unique J



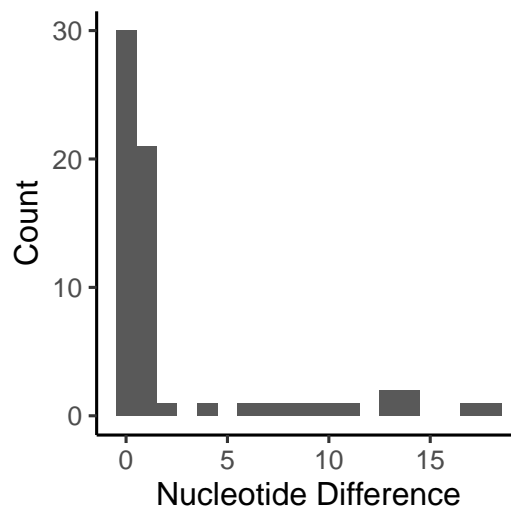
### IGHV3-48\*03

886 sequences assigned  
249 (28.1%) exact matches, in which:  
182 unique CDR3  
6 unique J



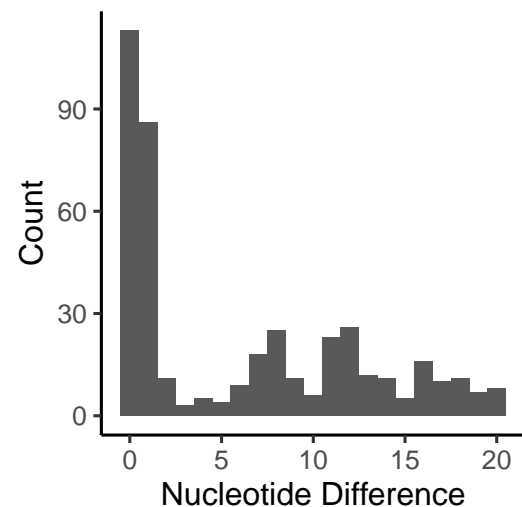
### IGHV3-49\*03\_05

142 sequences assigned  
30 (21.1%) exact matches, in which:  
24 unique CDR3  
4 unique J



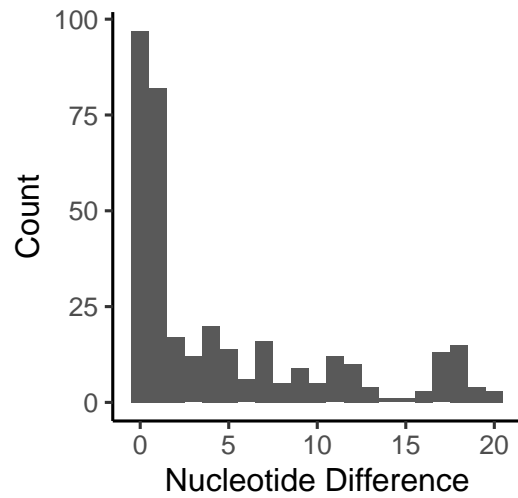
### IGHV3-53\*01\_02

534 sequences assigned  
113 (21.2%) exact matches, in which:  
99 unique CDR3  
5 unique J



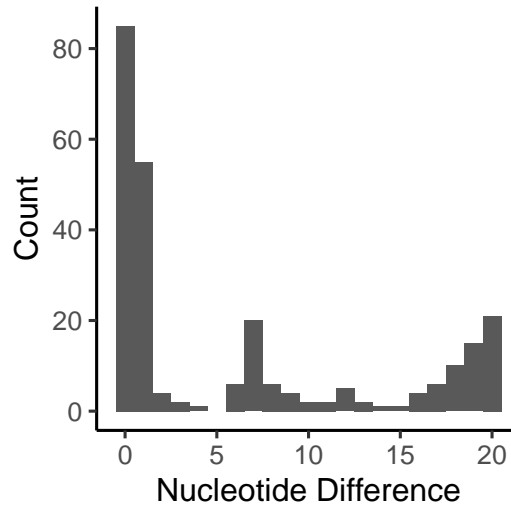
### IGHV3-64\*01

436 sequences assigned  
97 (22.2%) exact matches, in which:  
75 unique CDR3  
4 unique J



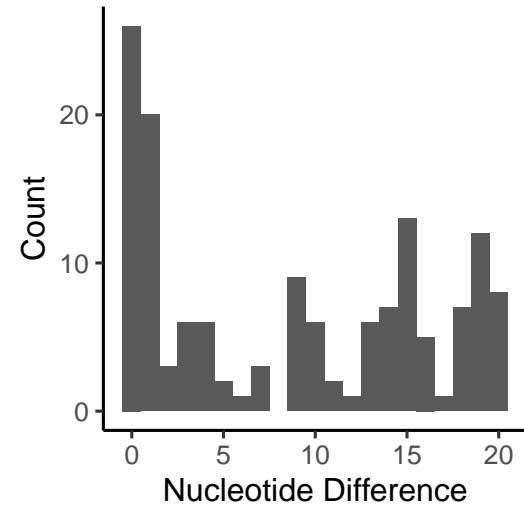
### IGHV3-66\*02

441 sequences assigned  
85 (19.3%) exact matches, in which:  
69 unique CDR3  
5 unique J



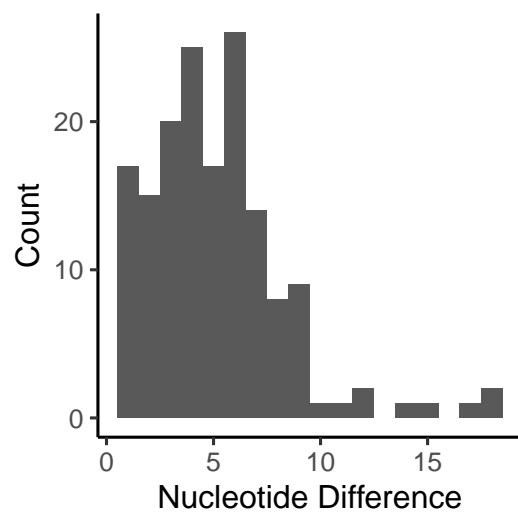
### IGHV3-72\*01

221 sequences assigned  
26 (11.8%) exact matches, in which:  
19 unique CDR3  
3 unique J



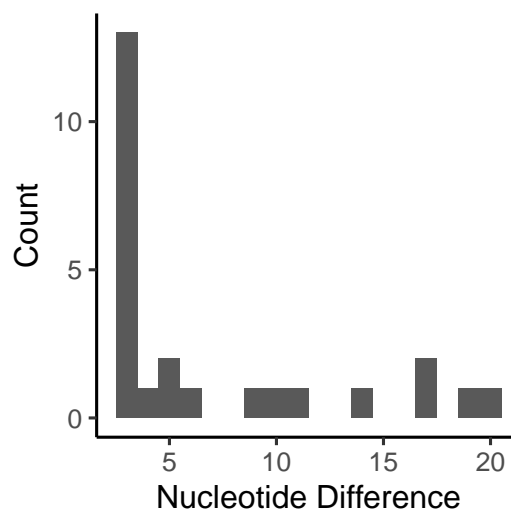
### IGHV3-64\*04

184 sequences assigned  
No exact matches.



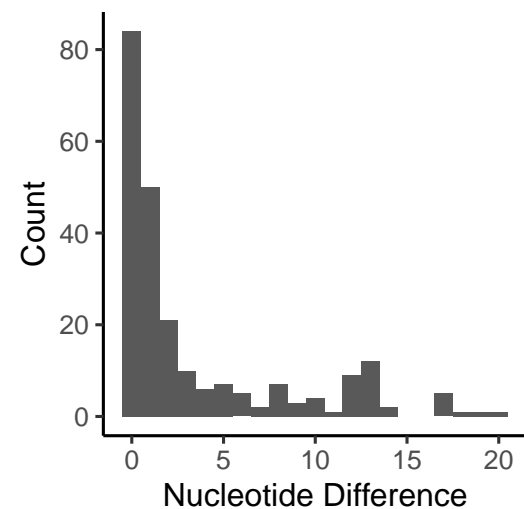
### IGHV3-69-1\*01

35 sequences assigned  
No exact matches.



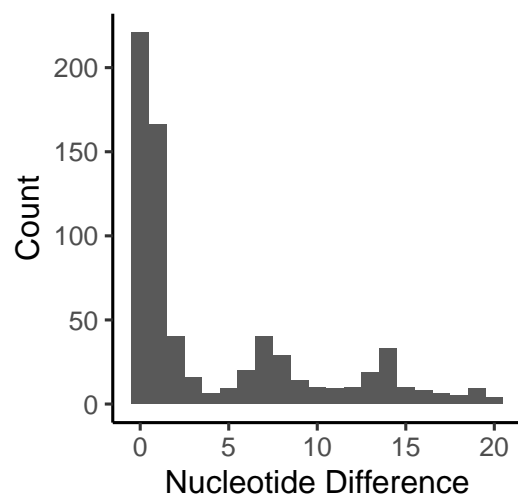
### IGHV3-73\*01\_02

355 sequences assigned  
84 (23.7%) exact matches, in which:  
63 unique CDR3  
4 unique J



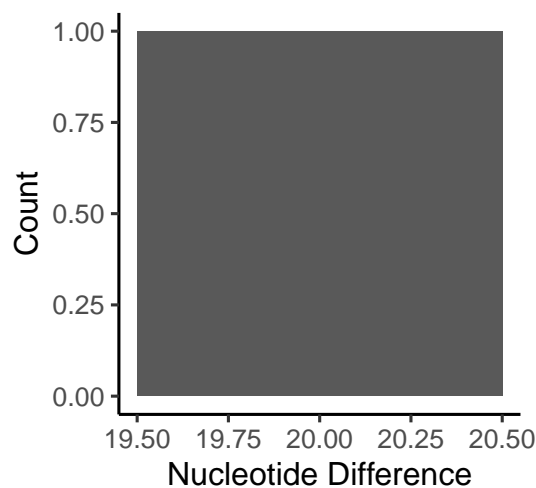
### IGHV3-66\*01

882 sequences assigned  
221 (25.1%) exact matches, in which:  
183 unique CDR3  
6 unique J



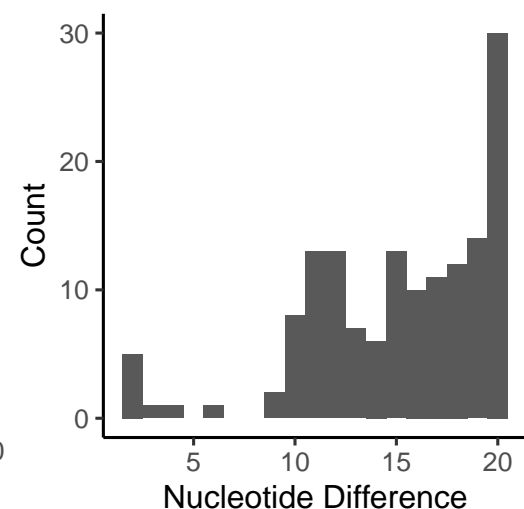
### IGHV3-69-1\*02

13 sequences assigned  
No exact matches.



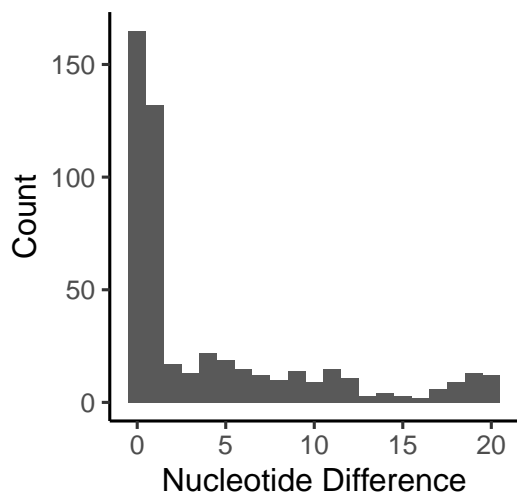
### IGHV3-74\*03

536 sequences assigned  
No exact matches.



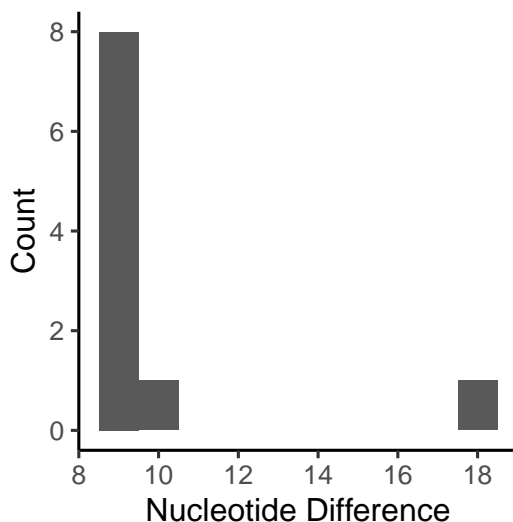
### IGHV3-74\*01\_02

701 sequences assigned  
165 (23.5%) exact matches, in which:  
124 unique CDR3  
4 unique J



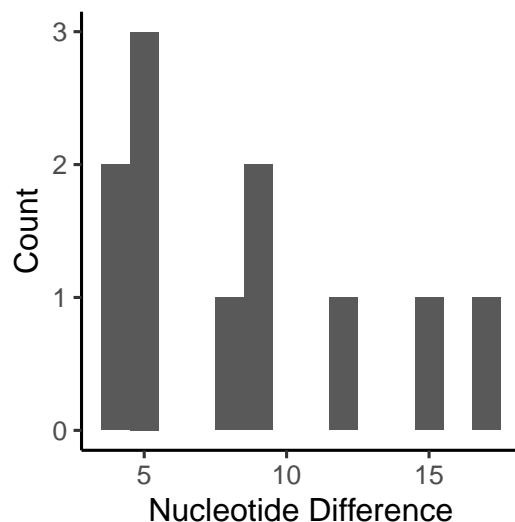
### IGHV3-64D\*08

20 sequences assigned  
No exact matches.



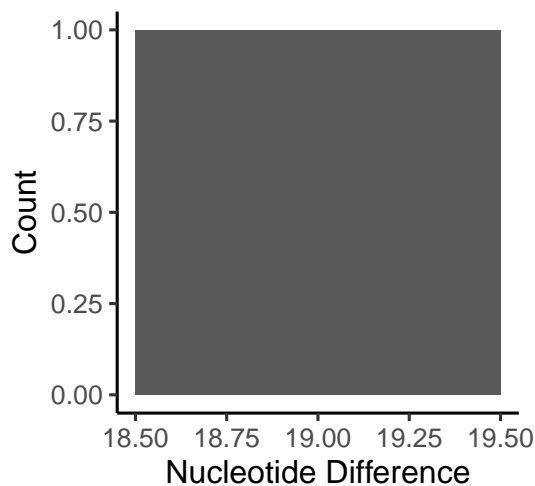
### IGHV4-28\*03

14 sequences assigned  
No exact matches.



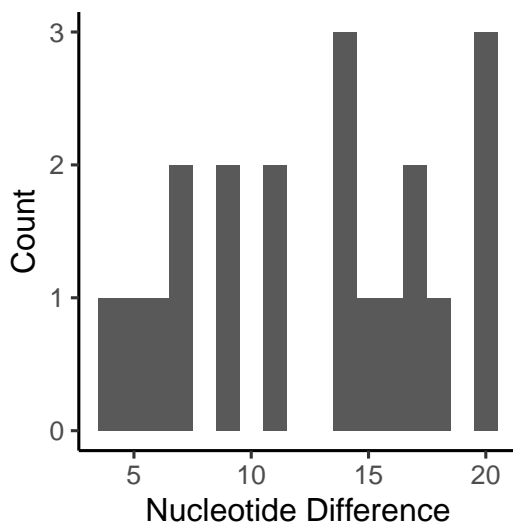
### IGHV3-43D\*04

28 sequences assigned  
No exact matches.



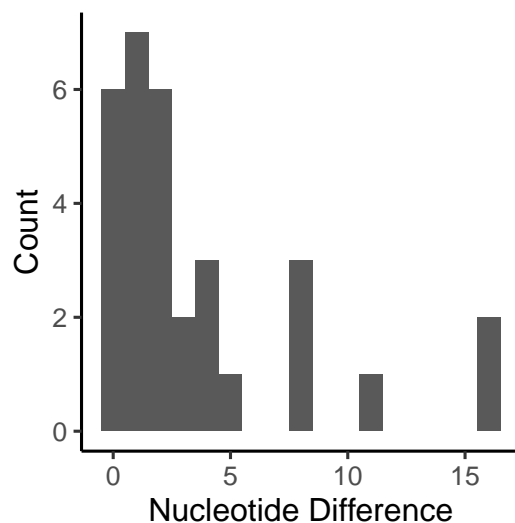
### IGHV3-NL1\*01

39 sequences assigned  
No exact matches.



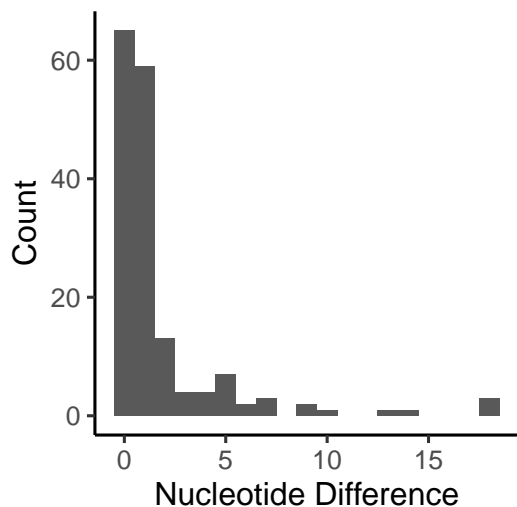
### IGHV4-28\*02\_05

38 sequences assigned  
6 (15.8%) exact matches, in which:  
6 unique CDR3  
4 unique J



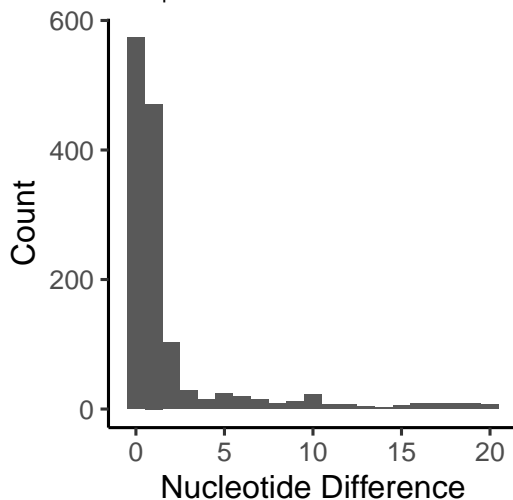
### IGHV3-64D\*06

168 sequences assigned  
65 (38.7%) exact matches, in which:  
45 unique CDR3  
5 unique J



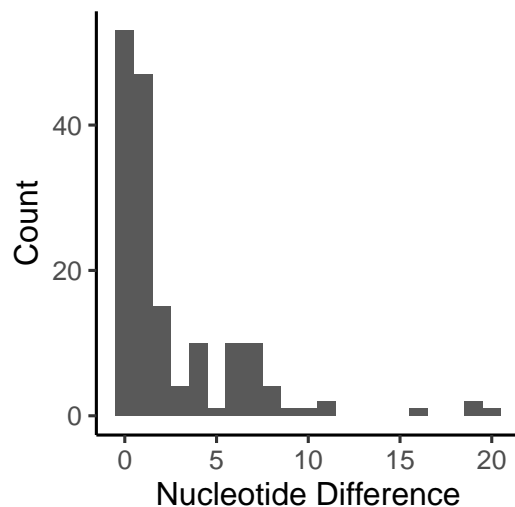
### IGHV4-4\*02\_03

1577 sequences assigned  
574 (36.4%) exact matches, in which:  
494 unique CDR3  
6 unique J



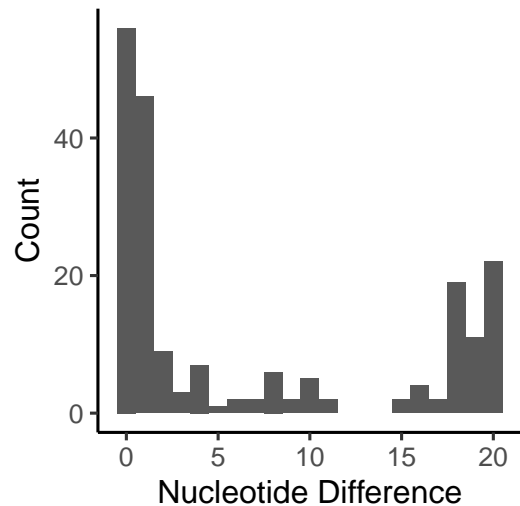
### IGHV4-30-2\*01

185 sequences assigned  
53 (28.6%) exact matches, in which:  
36 unique CDR3  
5 unique J



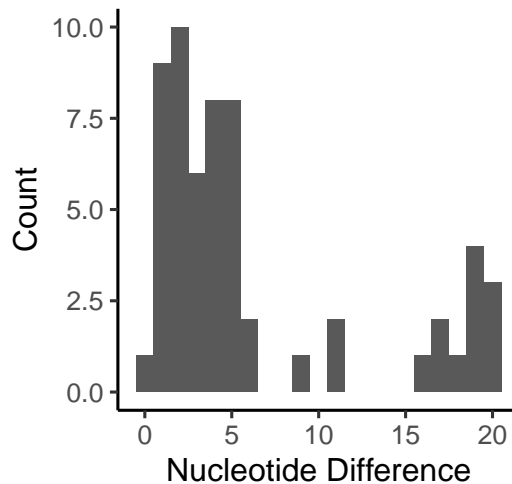
### IGHV4-30-4\*01

351 sequences assigned  
56 (16%) exact matches, in which:  
51 unique CDR3  
5 unique J



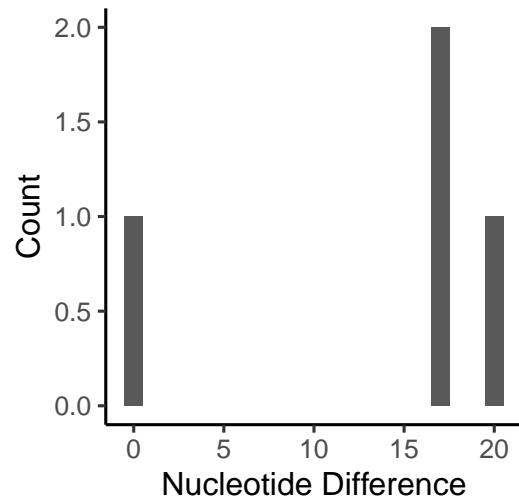
### IGHV4-30-4\*08

124 sequences assigned  
1 (0.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



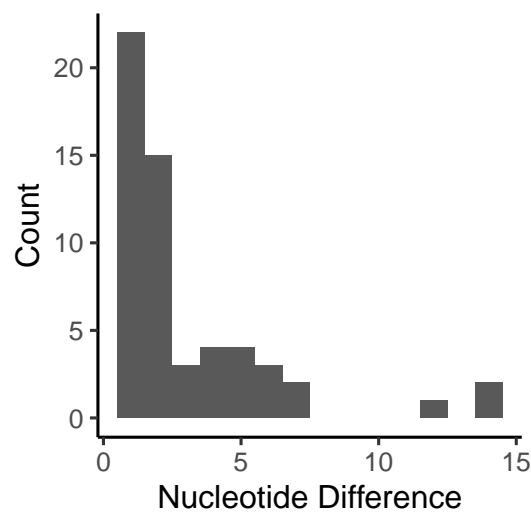
### IGHV4-38-2\*02

21 sequences assigned  
1 (4.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



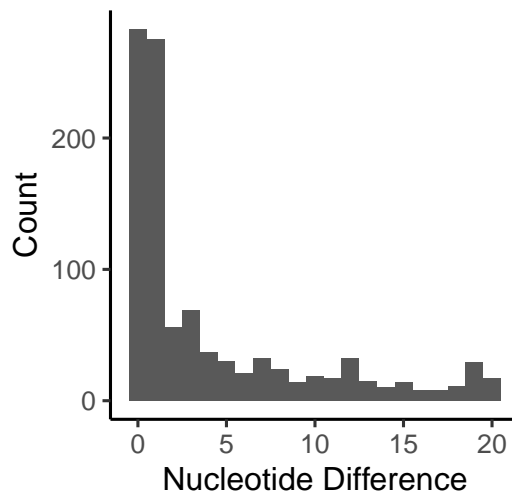
### IGHV4-30-2\*03

58 sequences assigned  
No exact matches.



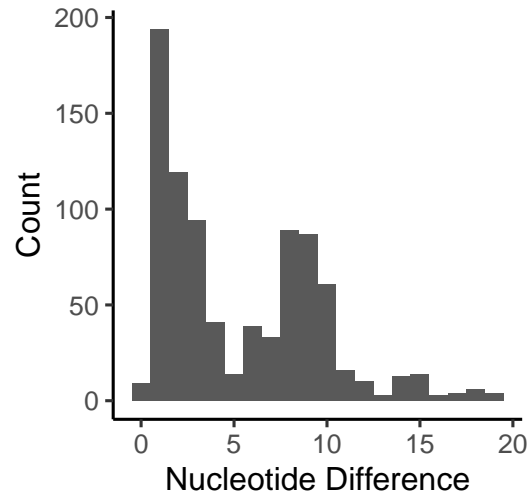
### IGHV4-31\*02

1287 sequences assigned  
283 (22%) exact matches, in which:  
241 unique CDR3  
6 unique J



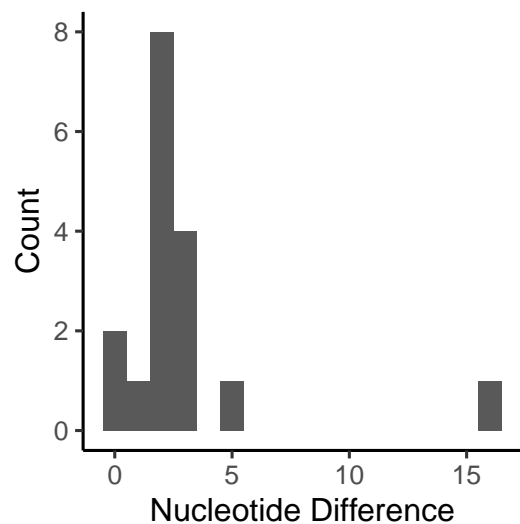
### IGHV4-39\*07

917 sequences assigned  
9 (1%) exact matches, in which:  
9 unique CDR3  
2 unique J



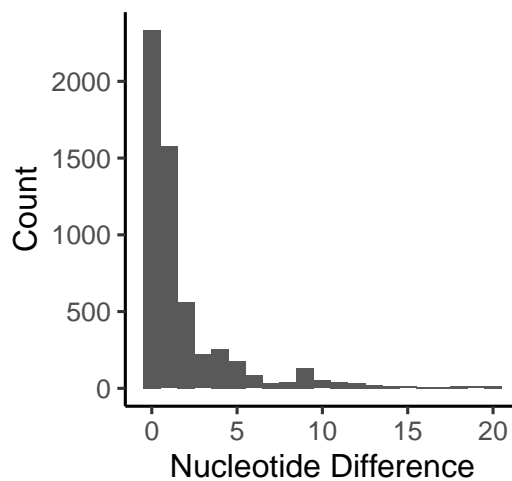
### IGHV4-30-2\*05

17 sequences assigned  
2 (11.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



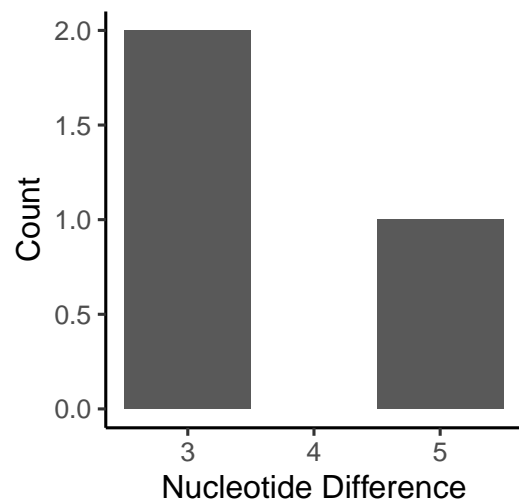
### IGHV4-34\*01\_02

5901 sequences assigned  
2334 (39.6%) exact matches, in which:  
2022 unique CDR3  
6 unique J



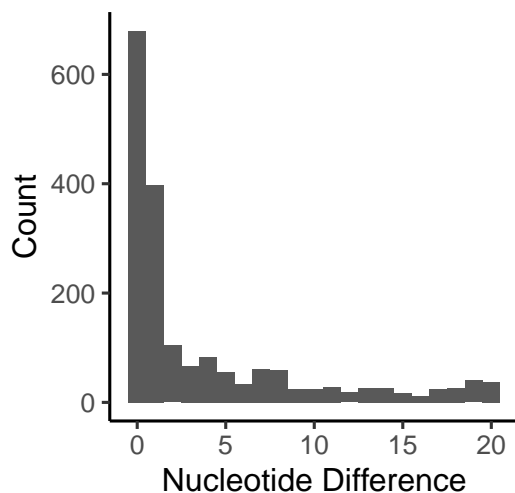
### IGHV4-55\*09

3 sequences assigned  
No exact matches.



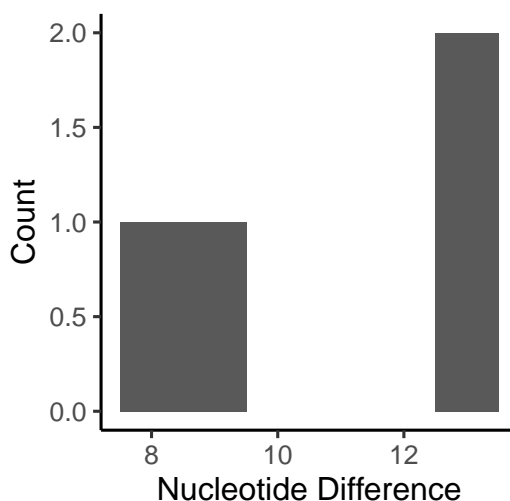
### IGHV4–59\*08

2706 sequences assigned  
680 (25.1%) exact matches, in which:  
627 unique CDR3  
6 unique J



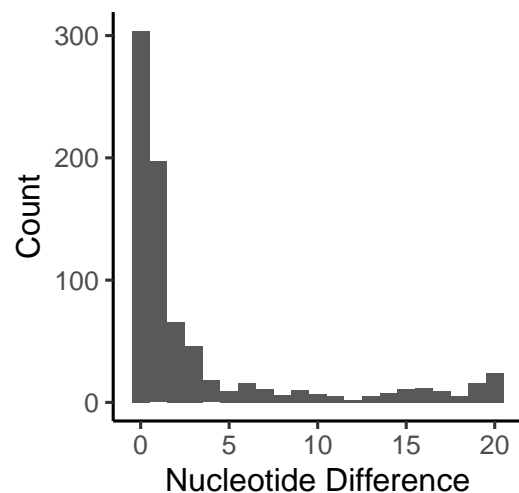
### IGHV1/OR15–3\*02

4 sequences assigned  
No exact matches.



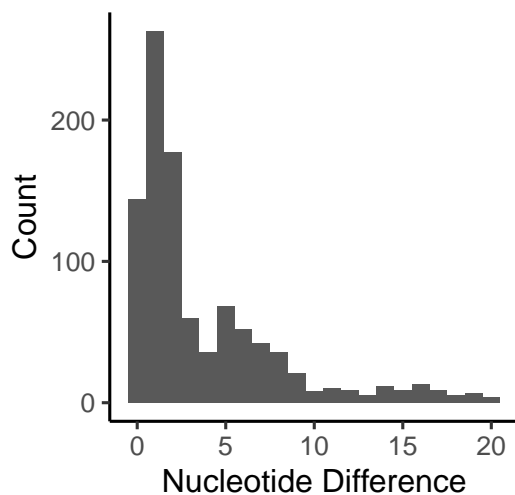
### IGHV5–10–1\*01\_03

991 sequences assigned  
304 (30.7%) exact matches, in which:  
255 unique CDR3  
6 unique J



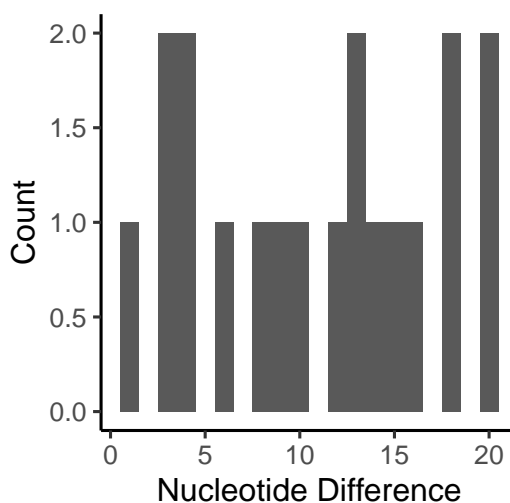
### IGHV4–59\*12

1399 sequences assigned  
144 (10.3%) exact matches, in which:  
144 unique CDR3  
6 unique J



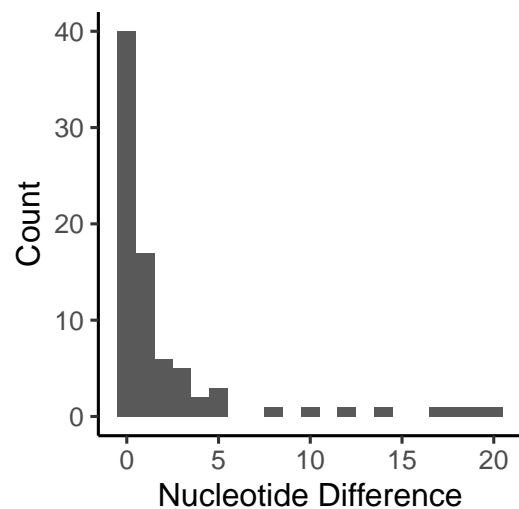
### IGHV4/OR15–8\*01

22 sequences assigned  
No exact matches.



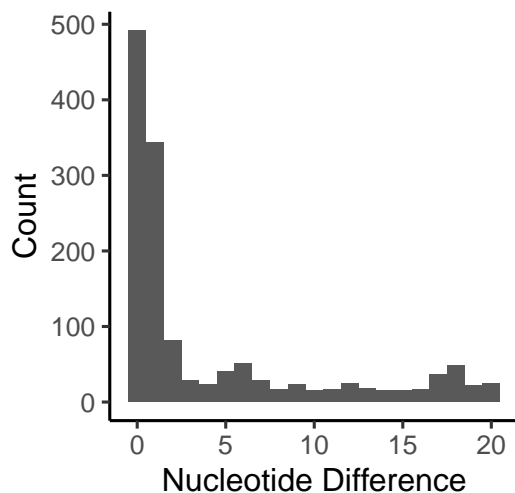
### IGHV5–51\*07

89 sequences assigned  
40 (44.9%) exact matches, in which:  
37 unique CDR3  
5 unique J



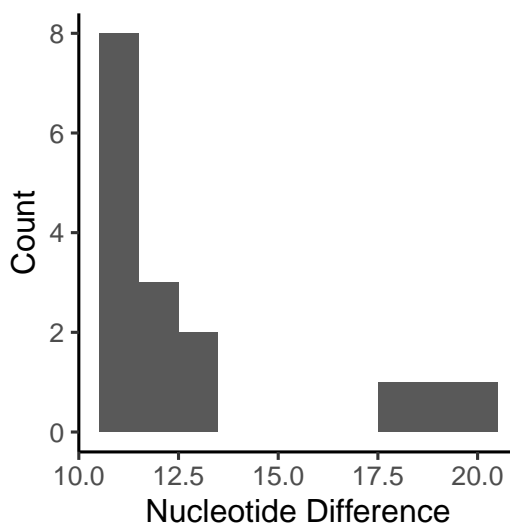
### IGHV4–61\*02

1719 sequences assigned  
492 (28.6%) exact matches, in which:  
442 unique CDR3  
6 unique J



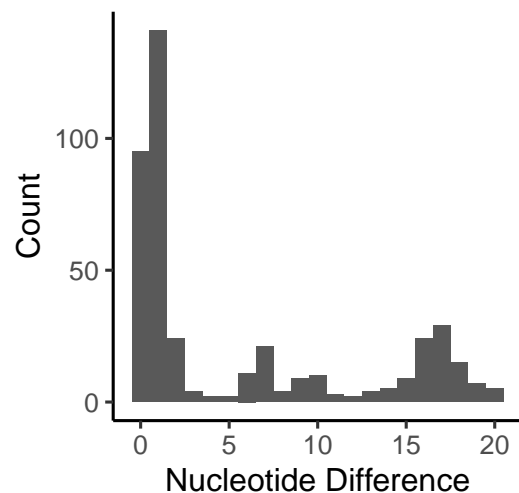
### IGHV4/OR15–8\*02

62 sequences assigned  
No exact matches.



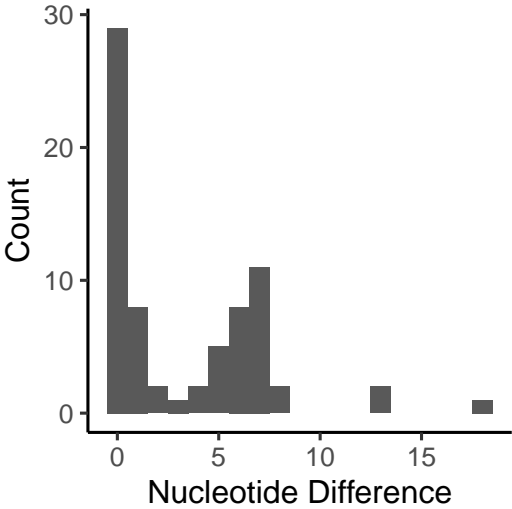
### IGHV6–1\*01\_02

485 sequences assigned  
95 (19.6%) exact matches, in which:  
84 unique CDR3  
6 unique J



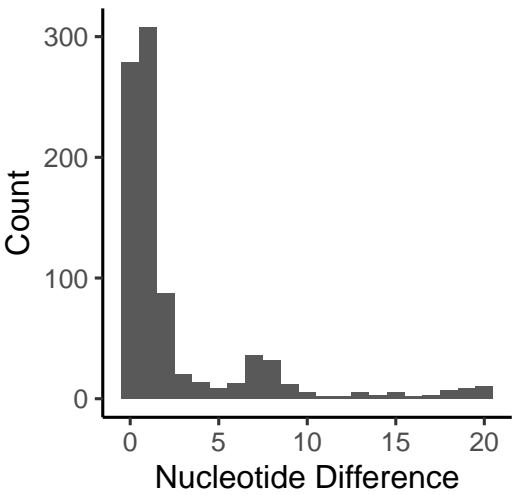
# IGHV6-1\*01\_02\_A315G

73 sequences assigned  
29 (39.7%) exact matches, in which:  
29 unique CDR3  
5 unique J



# IGHV7-4-1\*02

1179 sequences assigned  
279 (23.7%) exact matches, in which:  
243 unique CDR3  
6 unique J



IGHV6-1\*01\_02\_A315G

