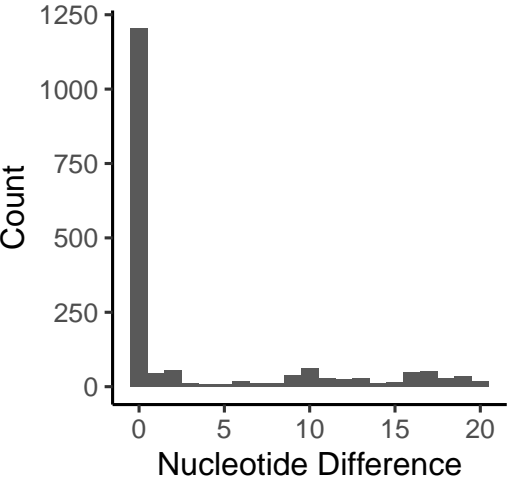


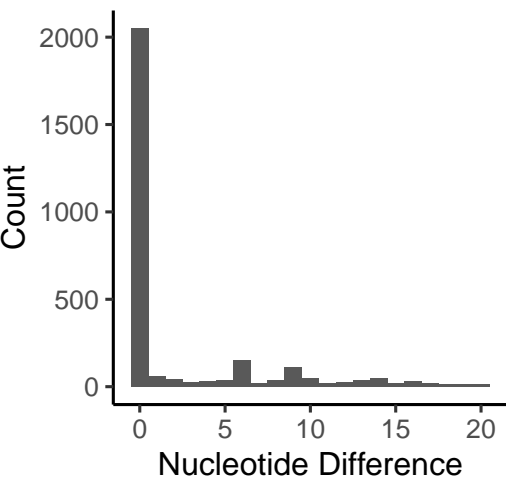
IGHV1-2\*02

1854 sequences assigned  
1204 (64.9%) exact matches, in which:  
1188 unique CDR3  
6 unique J



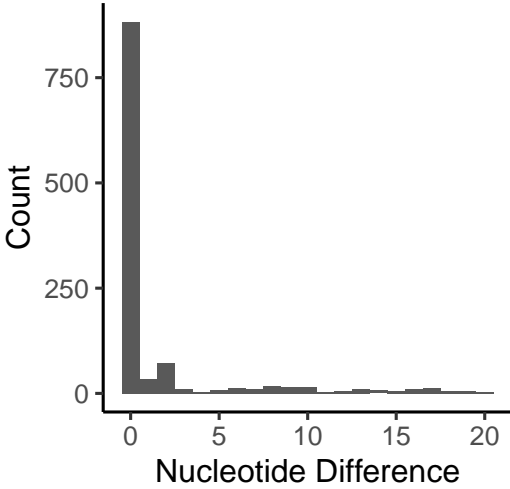
IGHV1-18\*01

2948 sequences assigned  
2050 (69.5%) exact matches, in which:  
2036 unique CDR3  
6 unique J



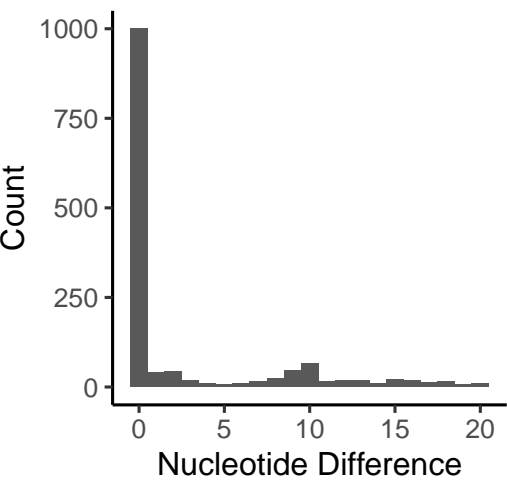
IGHV1-46\*01

1308 sequences assigned  
883 (67.5%) exact matches, in which:  
876 unique CDR3  
6 unique J



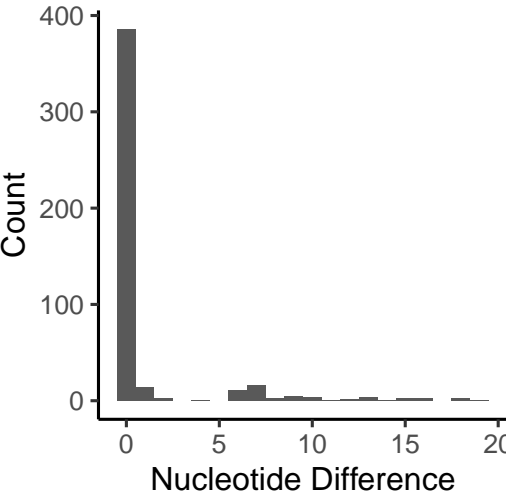
IGHV1-2\*06

1584 sequences assigned  
1000 (63.1%) exact matches, in which:  
994 unique CDR3  
6 unique J



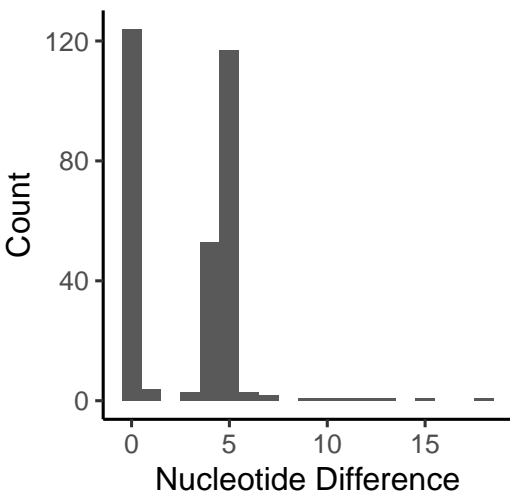
IGHV1-24\*01

462 sequences assigned  
386 (83.5%) exact matches, in which:  
383 unique CDR3  
6 unique J



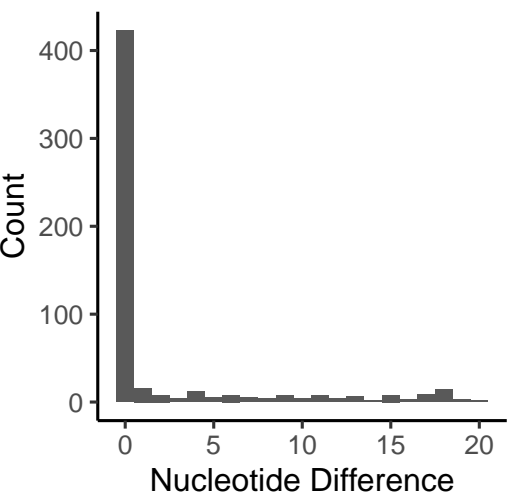
IGHV1-58\*01\_03

322 sequences assigned  
124 (38.5%) exact matches, in which:  
123 unique CDR3  
6 unique J



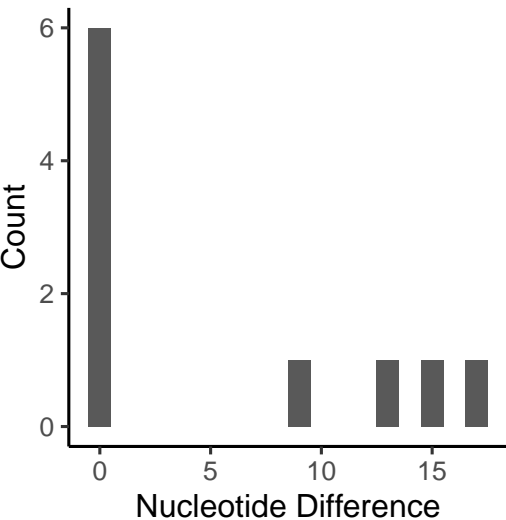
IGHV1-3\*01\_05

625 sequences assigned  
423 (67.7%) exact matches, in which:  
417 unique CDR3  
6 unique J



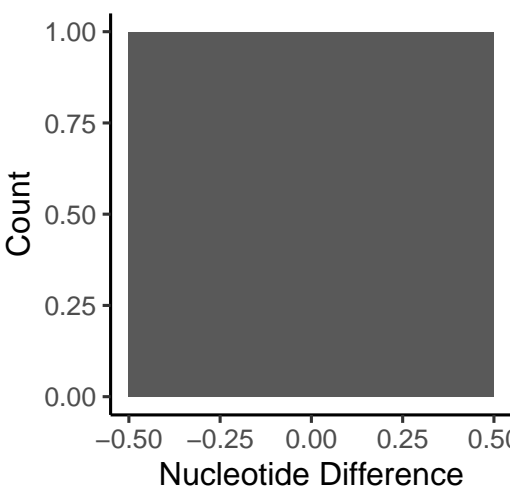
IGHV1-45\*02

13 sequences assigned  
6 (46.2%) exact matches, in which:  
6 unique CDR3  
4 unique J



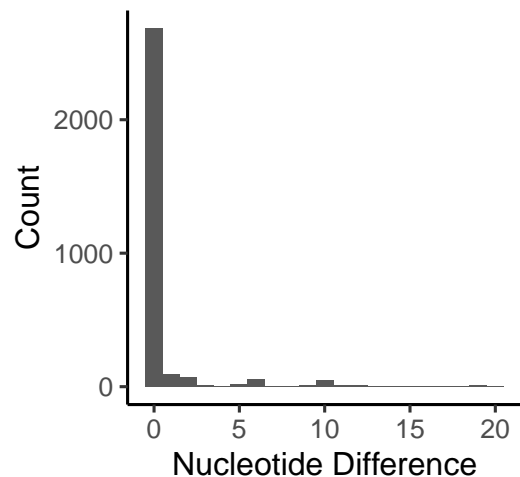
IGHV1-69-2\*01

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



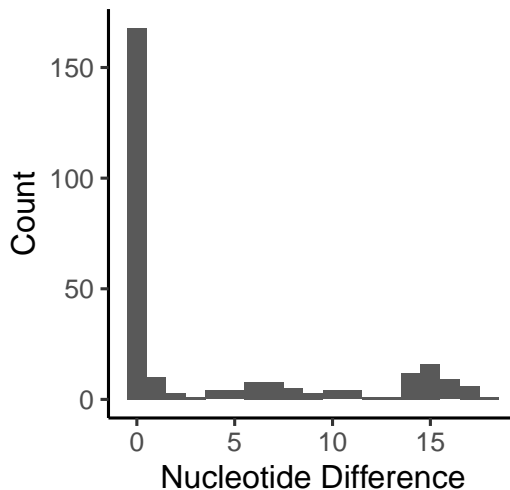
### IGHV1-69\*01\_12\_13

3168 sequences assigned  
2684 (84.7%) exact matches, in which:  
2669 unique CDR3  
6 unique J



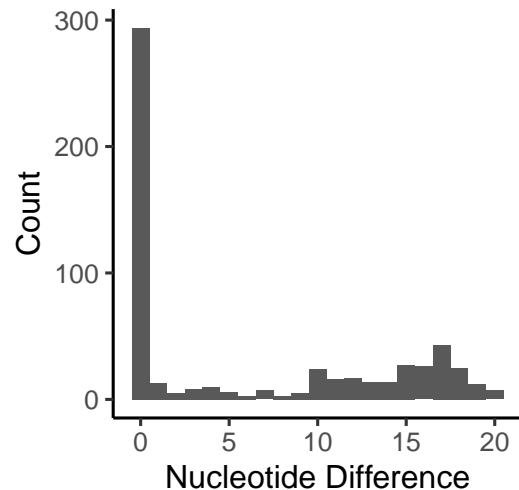
### IGHV2-5\*02

305 sequences assigned  
168 (55.1%) exact matches, in which:  
164 unique CDR3  
6 unique J



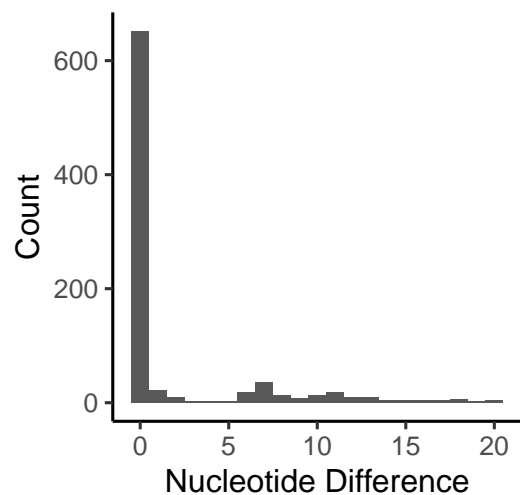
### IGHV3-7\*03

667 sequences assigned  
294 (44.1%) exact matches, in which:  
230 unique CDR3  
6 unique J



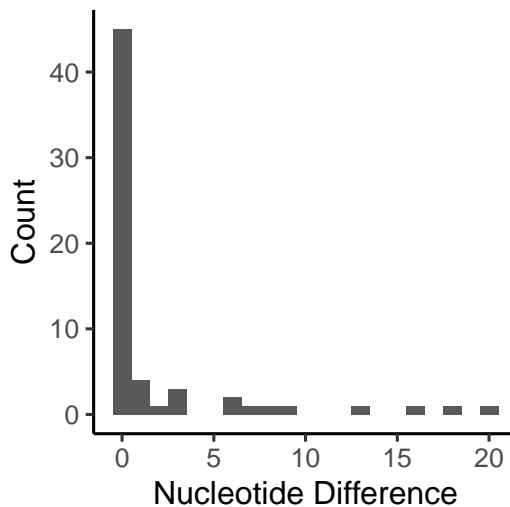
### IGHV1-69\*06\_14

881 sequences assigned  
652 (74%) exact matches, in which:  
648 unique CDR3  
6 unique J



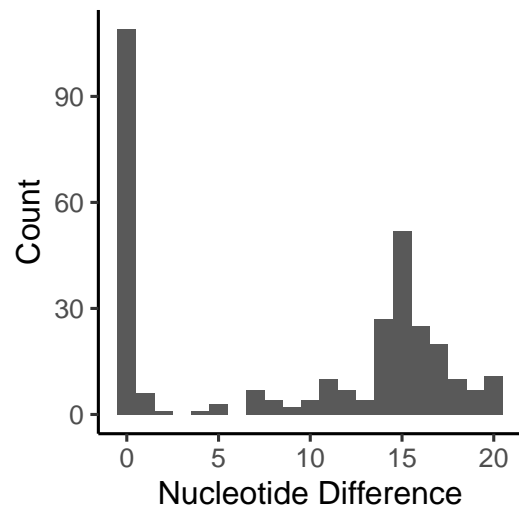
### IGHV2-26\*01

62 sequences assigned  
45 (72.6%) exact matches, in which:  
43 unique CDR3  
5 unique J



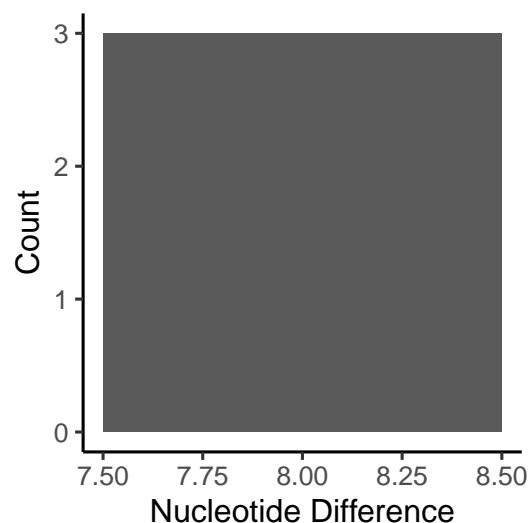
### IGHV3-7\*04

344 sequences assigned  
109 (31.7%) exact matches, in which:  
93 unique CDR3  
6 unique J



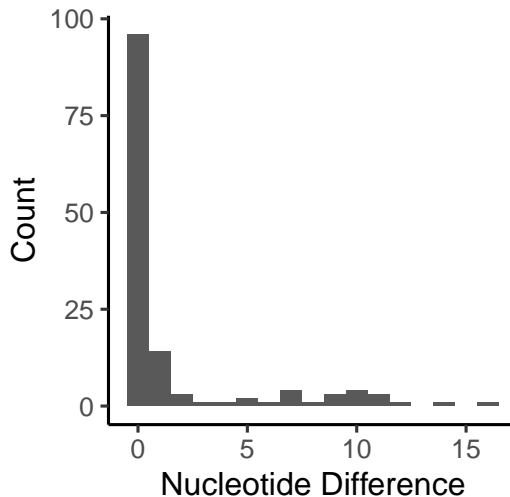
### IGHV1-NL1\*01

3 sequences assigned  
No exact matches.



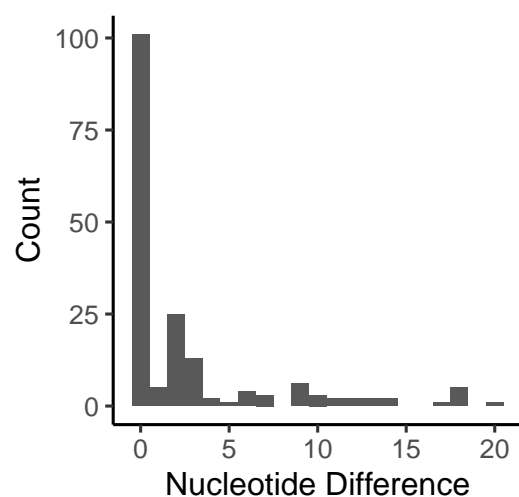
### IGHV2-70\*01

138 sequences assigned  
96 (69.6%) exact matches, in which:  
95 unique CDR3  
5 unique J



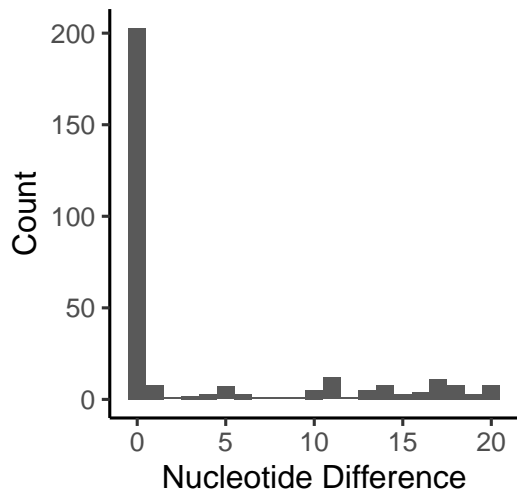
### IGHV3-11\*06

194 sequences assigned  
101 (52.1%) exact matches, in which:  
85 unique CDR3  
6 unique J



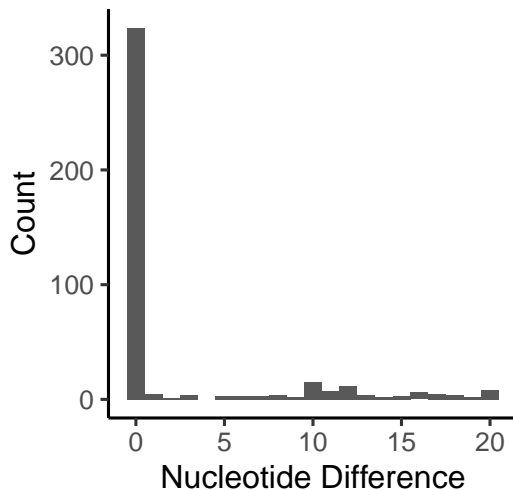
### IGHV3-11\*06\_T300C

327 sequences assigned  
203 (62.1%) exact matches, in which:  
165 unique CDR3  
6 unique J



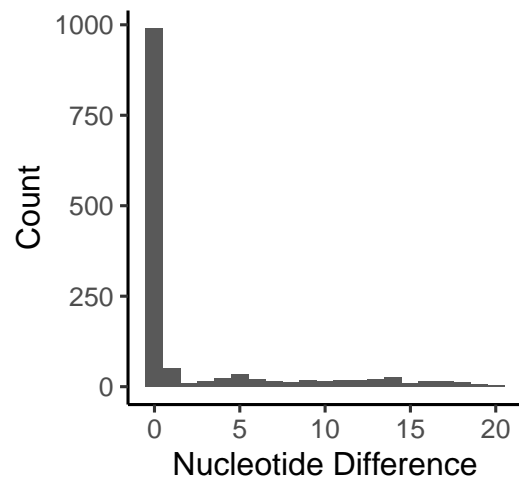
### IGHV3-15\*01\_02

460 sequences assigned  
324 (70.4%) exact matches, in which:  
254 unique CDR3  
6 unique J



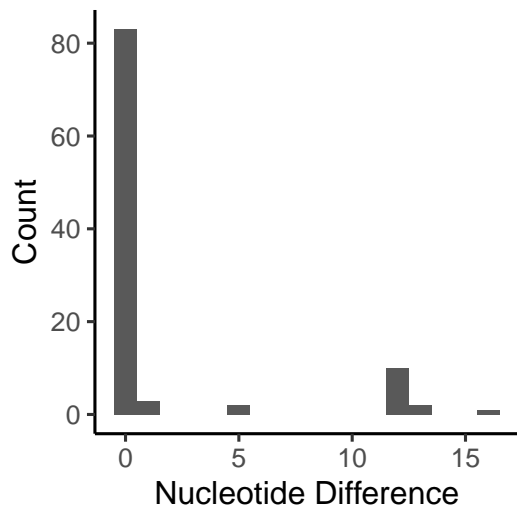
### IGHV3-21\*01\_02

1440 sequences assigned  
990 (68.8%) exact matches, in which:  
771 unique CDR3  
6 unique J



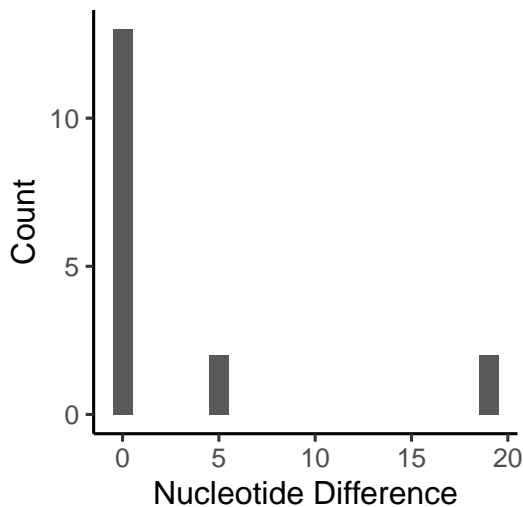
### IGHV3-13\*04

102 sequences assigned  
83 (81.4%) exact matches, in which:  
68 unique CDR3  
5 unique J



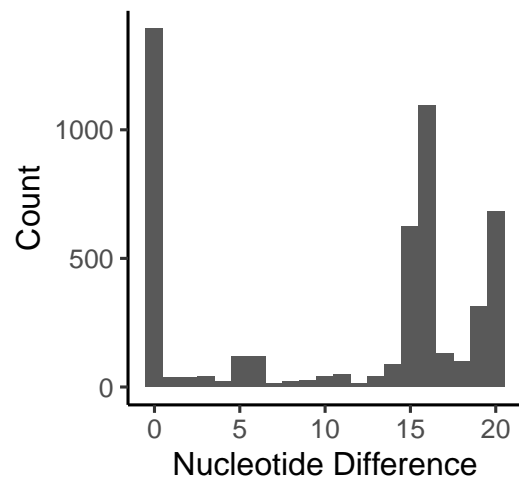
### IGHV3-20\*01\_02

17 sequences assigned  
13 (76.5%) exact matches, in which:  
11 unique CDR3  
4 unique J



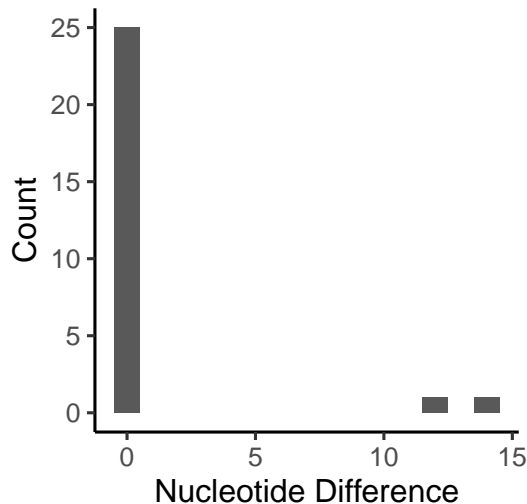
### IGHV3-23\*01\_04

5730 sequences assigned  
1393 (24.3%) exact matches, in which:  
1095 unique CDR3  
6 unique J



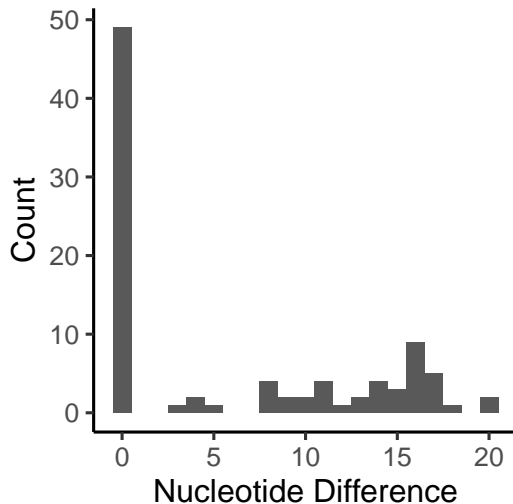
### IGHV3-13\*05

27 sequences assigned  
25 (92.6%) exact matches, in which:  
19 unique CDR3  
5 unique J



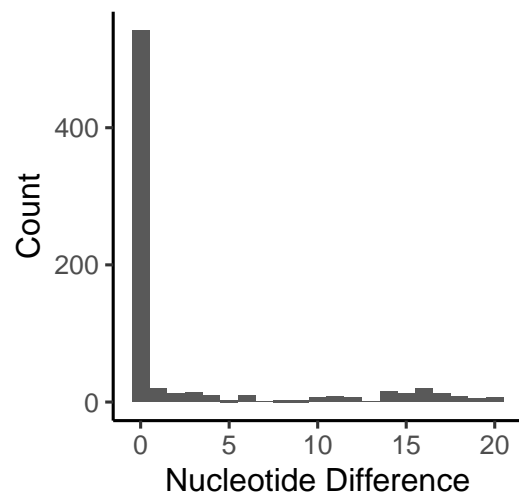
### IGHV3-20\*03\_04

107 sequences assigned  
49 (45.8%) exact matches, in which:  
39 unique CDR3  
5 unique J



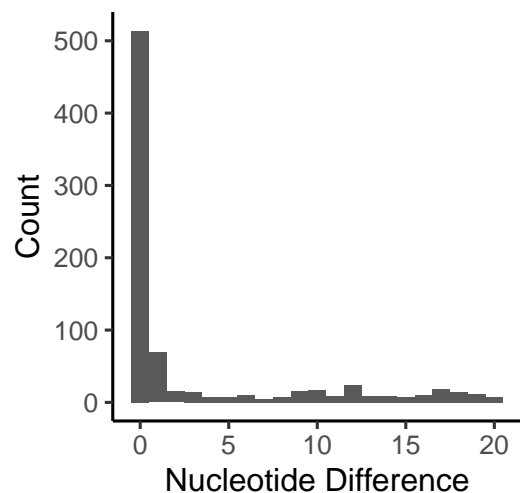
### IGHV3-30-3\*01

829 sequences assigned  
542 (65.4%) exact matches, in which:  
433 unique CDR3  
6 unique J



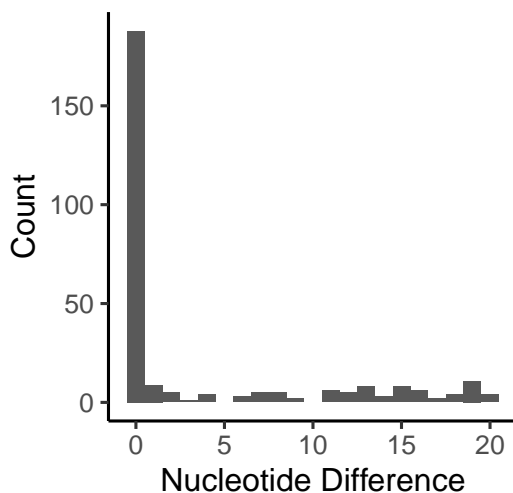
### IGHV3–33\*01

900 sequences assigned  
514 (57.1%) exact matches, in which:  
421 unique CDR3  
6 unique J



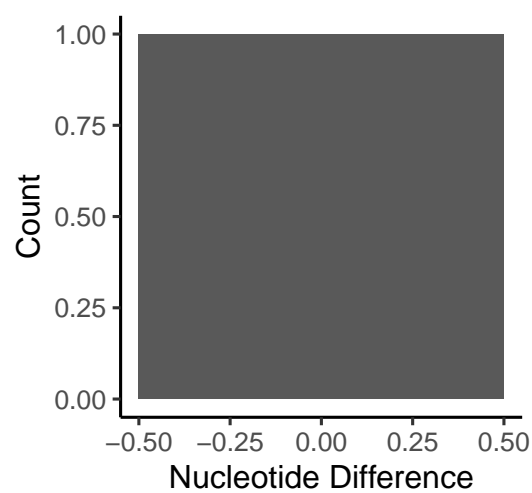
### IGHV3–48\*03

344 sequences assigned  
188 (54.7%) exact matches, in which:  
151 unique CDR3  
6 unique J



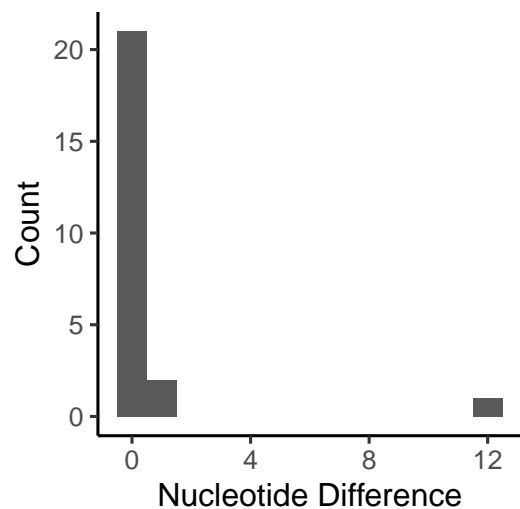
### IGHV3–52\*01\_03

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



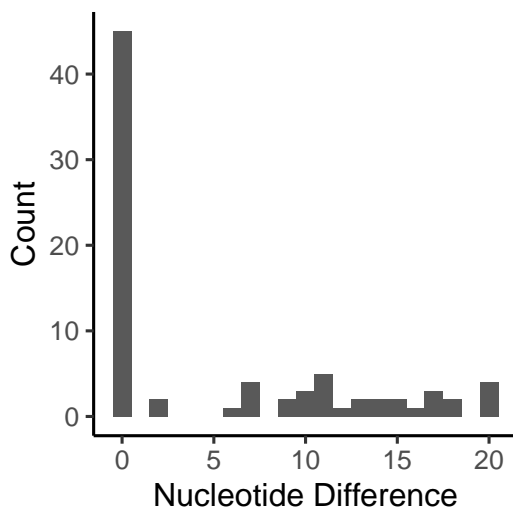
### IGHV3–43\*01

27 sequences assigned  
21 (77.8%) exact matches, in which:  
17 unique CDR3  
3 unique J



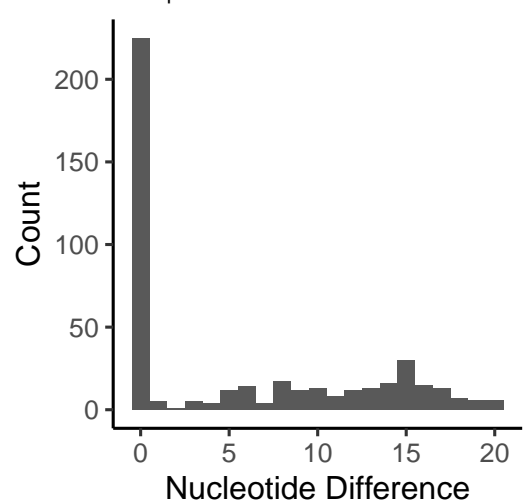
### IGHV3–49\*04

89 sequences assigned  
45 (50.6%) exact matches, in which:  
39 unique CDR3  
4 unique J



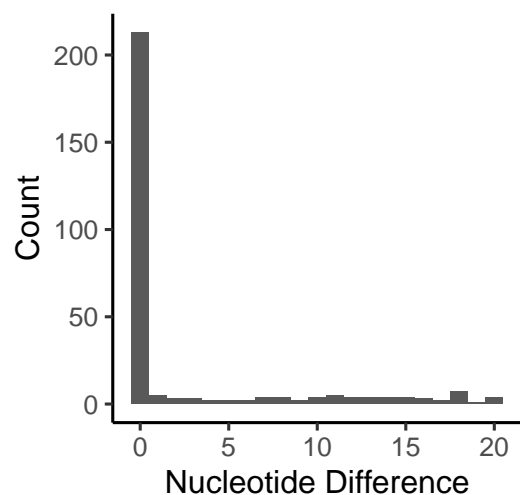
### IGHV3–53\*01\_02

523 sequences assigned  
225 (43%) exact matches, in which:  
184 unique CDR3  
6 unique J



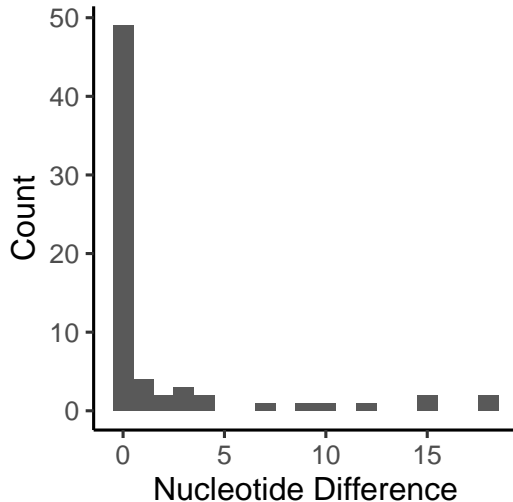
### IGHV3–48\*02

331 sequences assigned  
213 (64.4%) exact matches, in which:  
171 unique CDR3  
4 unique J



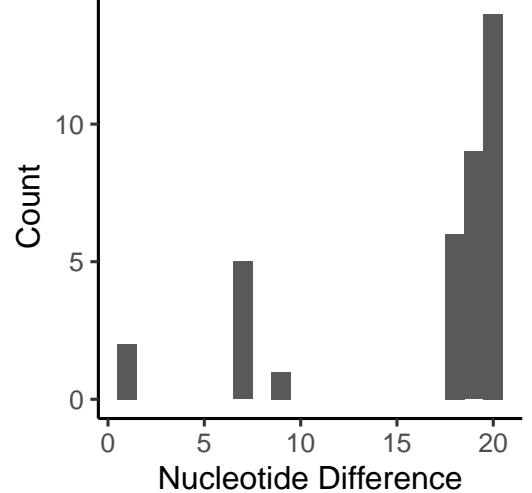
### IGHV3–49\*03\_05

75 sequences assigned  
49 (65.3%) exact matches, in which:  
36 unique CDR3  
4 unique J



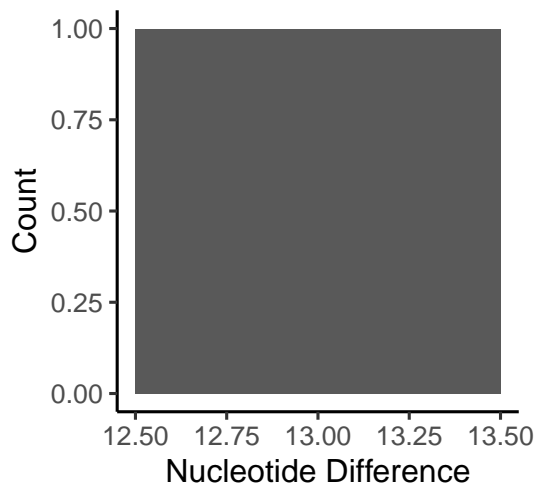
### IGHV3–64\*04

48 sequences assigned  
No exact matches.



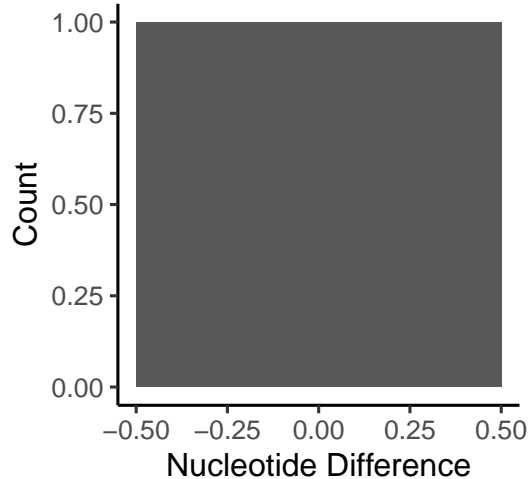
### IGHV3-66\*02

1 sequences assigned  
No exact matches.



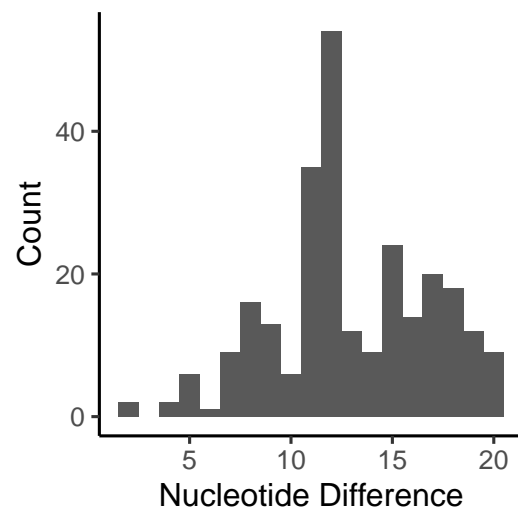
### IGHV3-69-1\*01

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



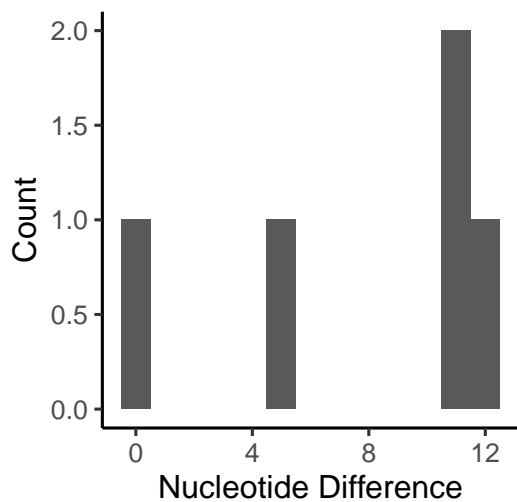
### IGHV3-74\*03

313 sequences assigned  
No exact matches.



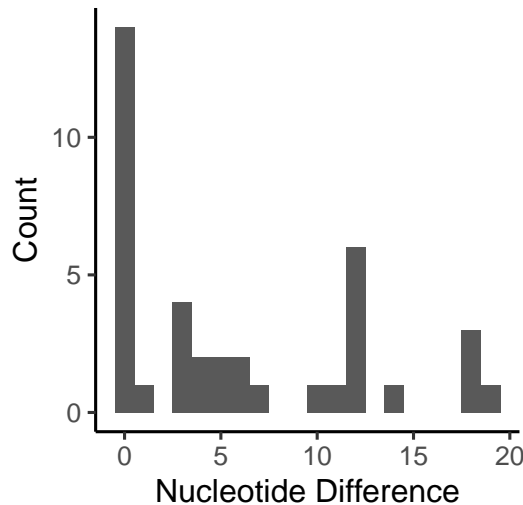
### IGHV3-66\*03

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



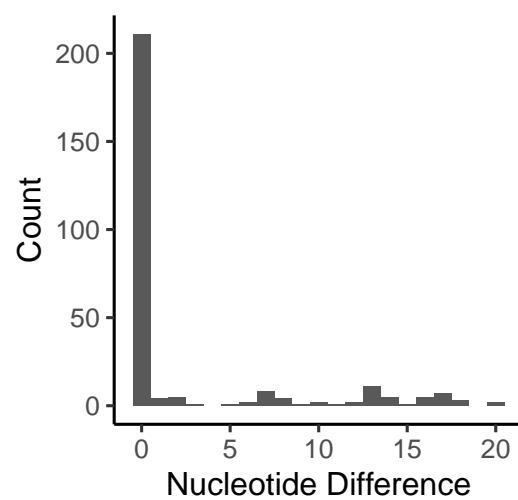
### IGHV3-72\*01

54 sequences assigned  
14 (25.9%) exact matches, in which:  
10 unique CDR3  
5 unique J



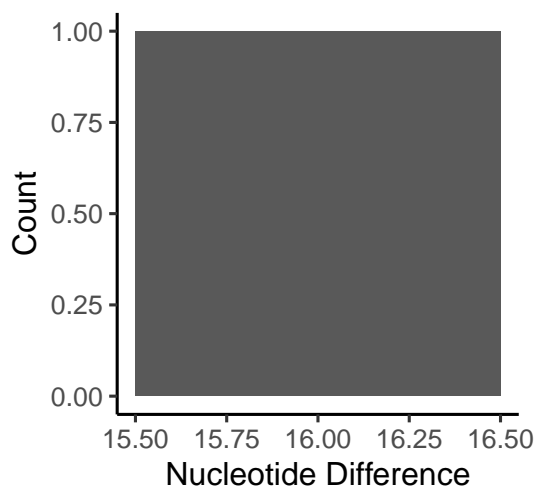
### IGHV3-74\*01\_02

292 sequences assigned  
211 (72.3%) exact matches, in which:  
174 unique CDR3  
6 unique J



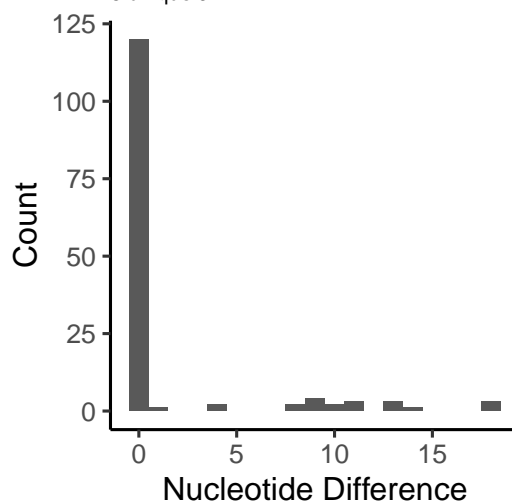
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



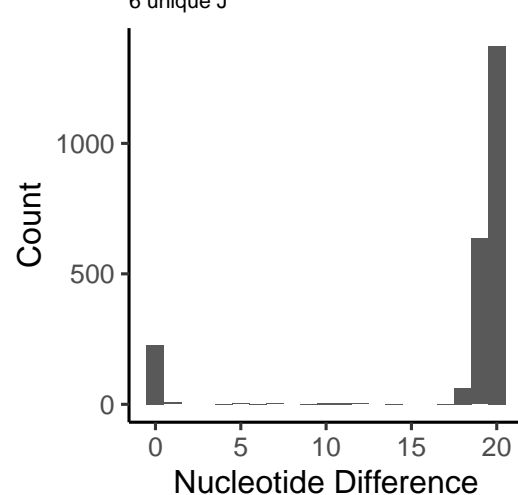
### IGHV3-73\*01\_02

164 sequences assigned  
120 (73.2%) exact matches, in which:  
98 unique CDR3  
5 unique J



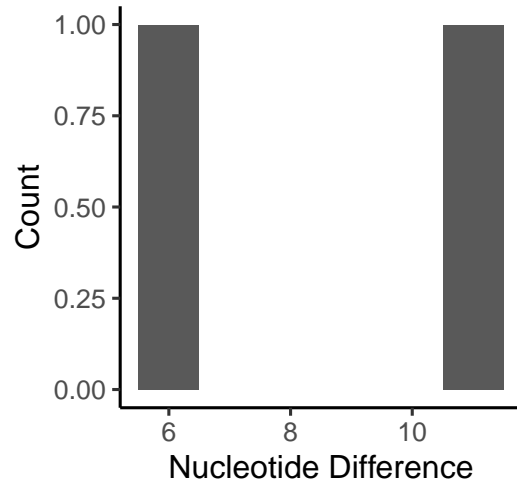
### IGHV3-64D\*06

2498 sequences assigned  
228 (9.1%) exact matches, in which:  
174 unique CDR3  
6 unique J



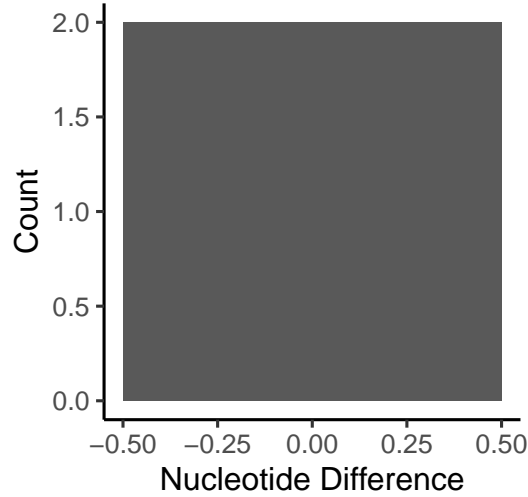
### IGHV3–NL1\*01

2 sequences assigned  
No exact matches.



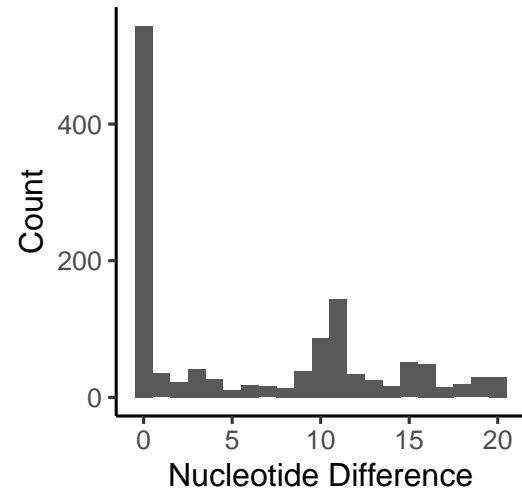
### IGHV4–28\*01\_07

2 sequences assigned  
2 (100%) exact matches, in which:  
2 unique CDR3  
1 unique J



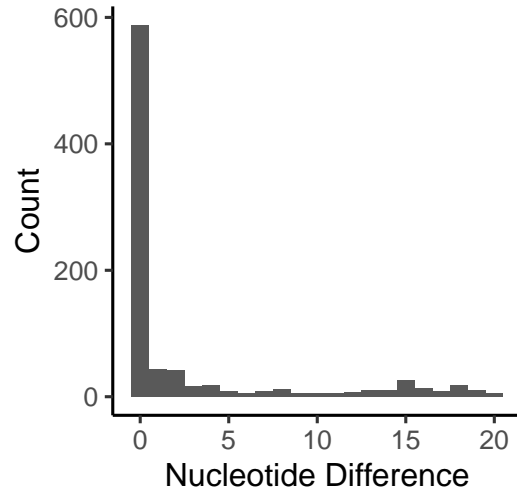
### IGHV4–31\*02

1348 sequences assigned  
544 (40.4%) exact matches, in which:  
537 unique CDR3  
6 unique J



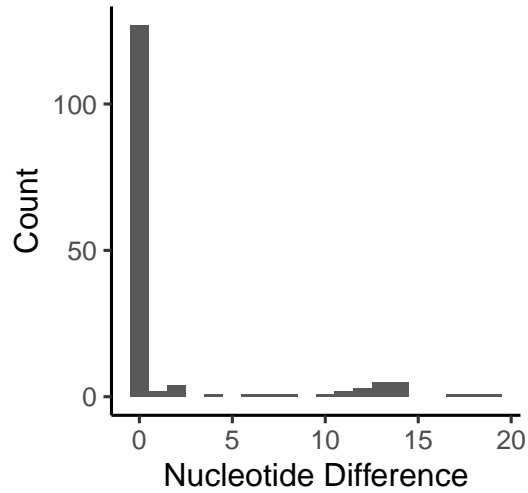
### IGHV4–4\*02\_03

1004 sequences assigned  
588 (58.6%) exact matches, in which:  
574 unique CDR3  
6 unique J



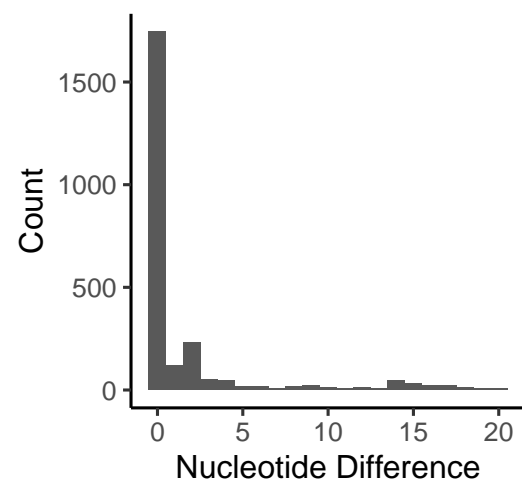
### IGHV4–30–2\*01

162 sequences assigned  
127 (78.4%) exact matches, in which:  
124 unique CDR3  
5 unique J



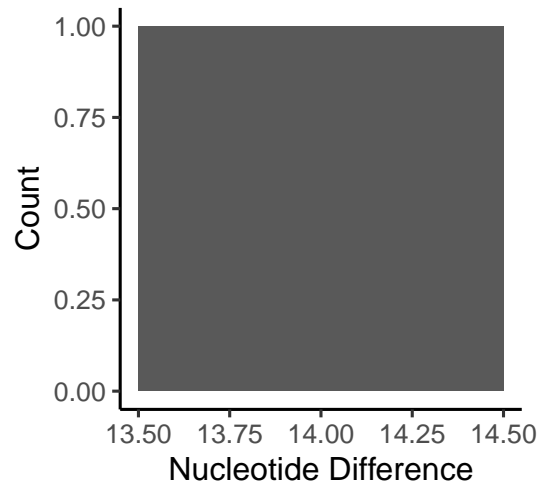
### IGHV4–34\*01\_02

2580 sequences assigned  
1745 (67.6%) exact matches, in which:  
1714 unique CDR3  
6 unique J



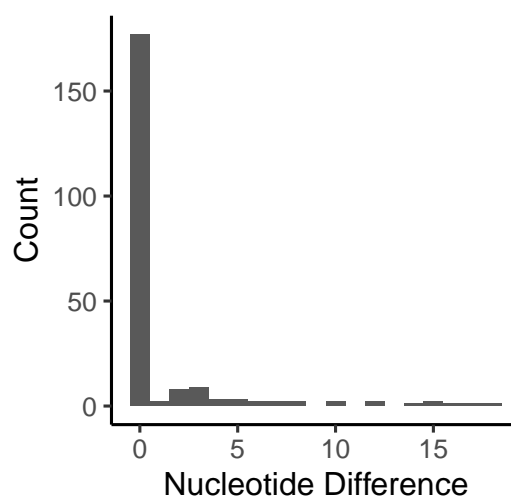
### IGHV4–28\*03

2 sequences assigned  
No exact matches.



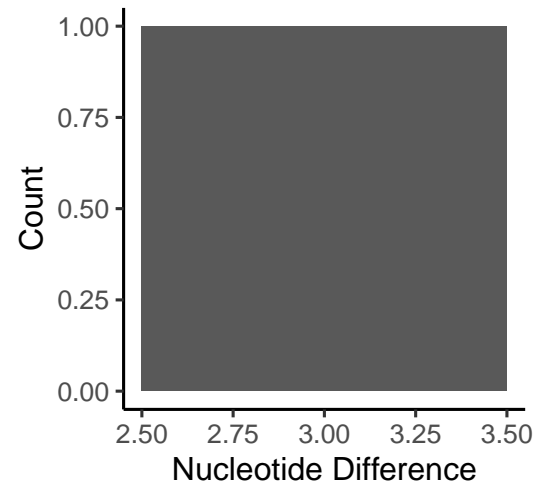
### IGHV4–30–4\*01

266 sequences assigned  
177 (66.5%) exact matches, in which:  
173 unique CDR3  
6 unique J



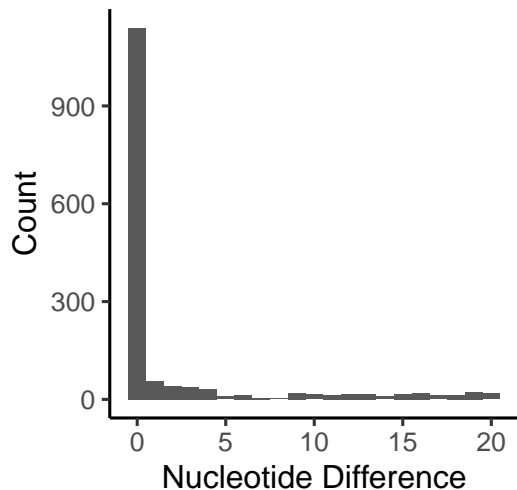
### IGHV4–38–2\*02

1 sequences assigned  
No exact matches.



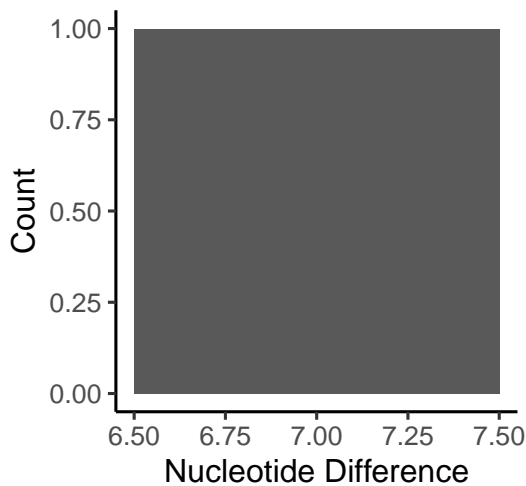
### IGHV4–39\*02\_C258G

1724 sequences assigned  
1140 (66.1%) exact matches, in which:  
1123 unique CDR3  
6 unique J



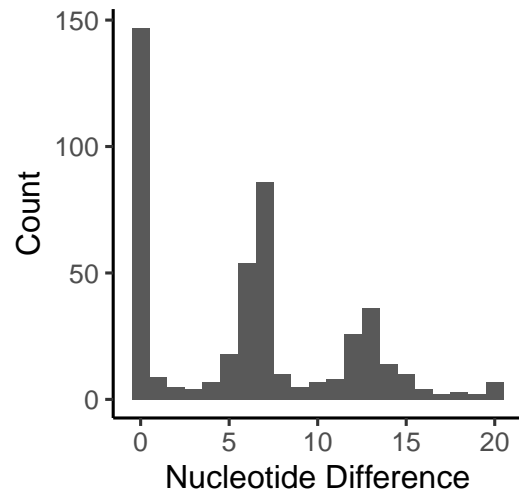
### IGHV4/OR15–8\*01

3 sequences assigned  
No exact matches.



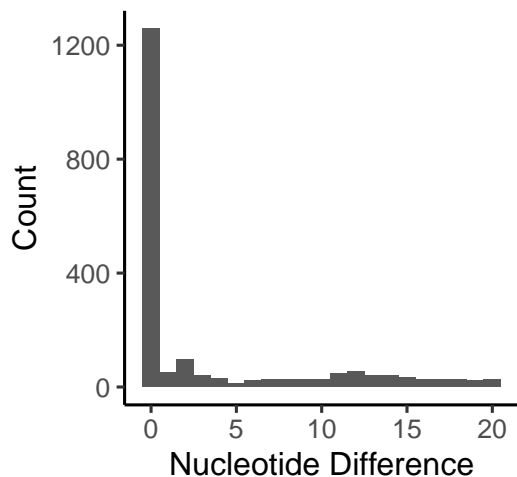
### IGHV6–1\*01\_02

486 sequences assigned  
147 (30.2%) exact matches, in which:  
145 unique CDR3  
5 unique J



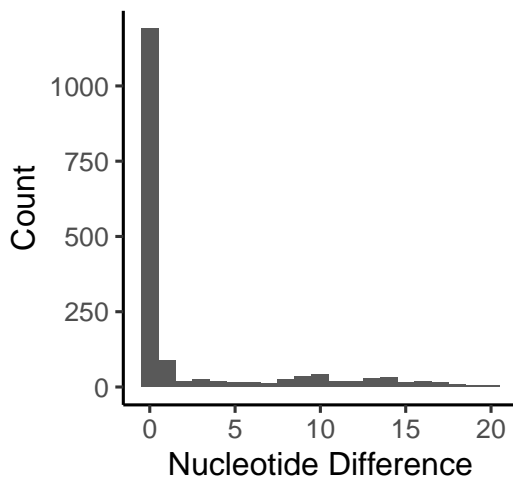
### IGHV4–59\*02\_G88A

2135 sequences assigned  
1258 (58.9%) exact matches, in which:  
1254 unique CDR3  
6 unique J



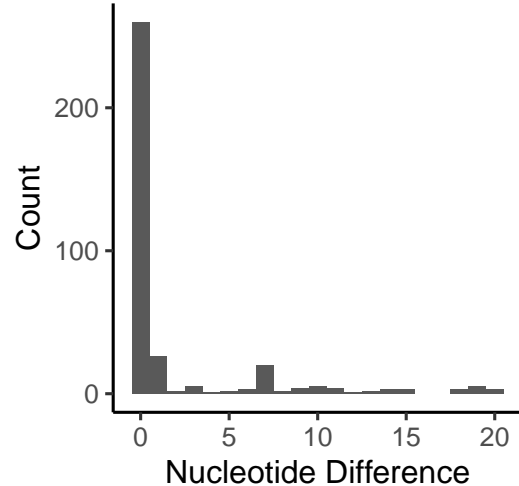
### IGHV5–10–1\*01\_03

1711 sequences assigned  
1190 (69.5%) exact matches, in which:  
971 unique CDR3  
6 unique J



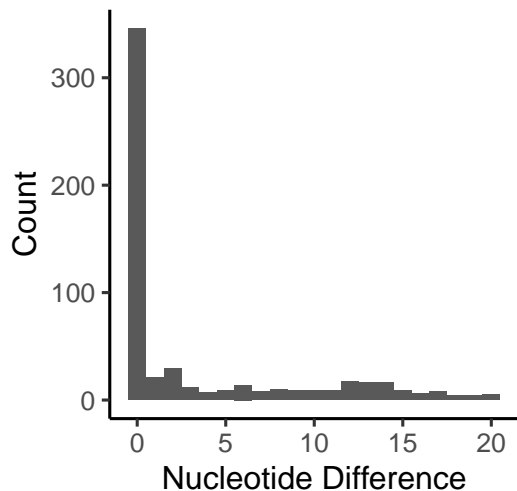
### IGHV7–4–1\*02

362 sequences assigned  
260 (71.8%) exact matches, in which:  
259 unique CDR3  
6 unique J



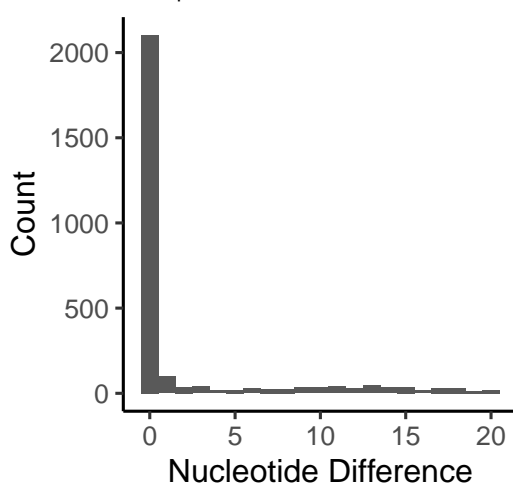
### IGHV4–61\*01

653 sequences assigned  
346 (53%) exact matches, in which:  
343 unique CDR3  
6 unique J



### IGHV5–51\*07\_A128G

2821 sequences assigned  
2103 (74.5%) exact matches, in which:  
1667 unique CDR3  
6 unique J







Warning – no inferred sequences found.