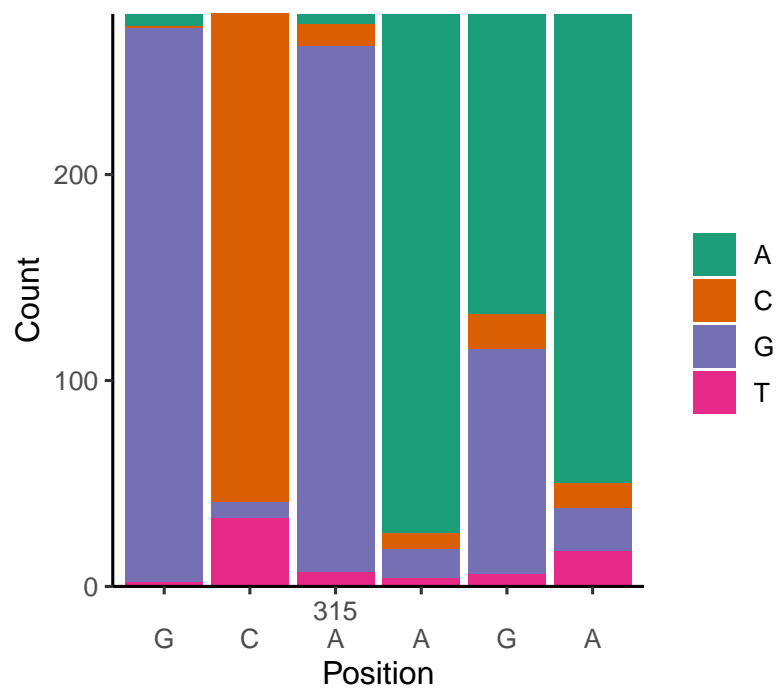


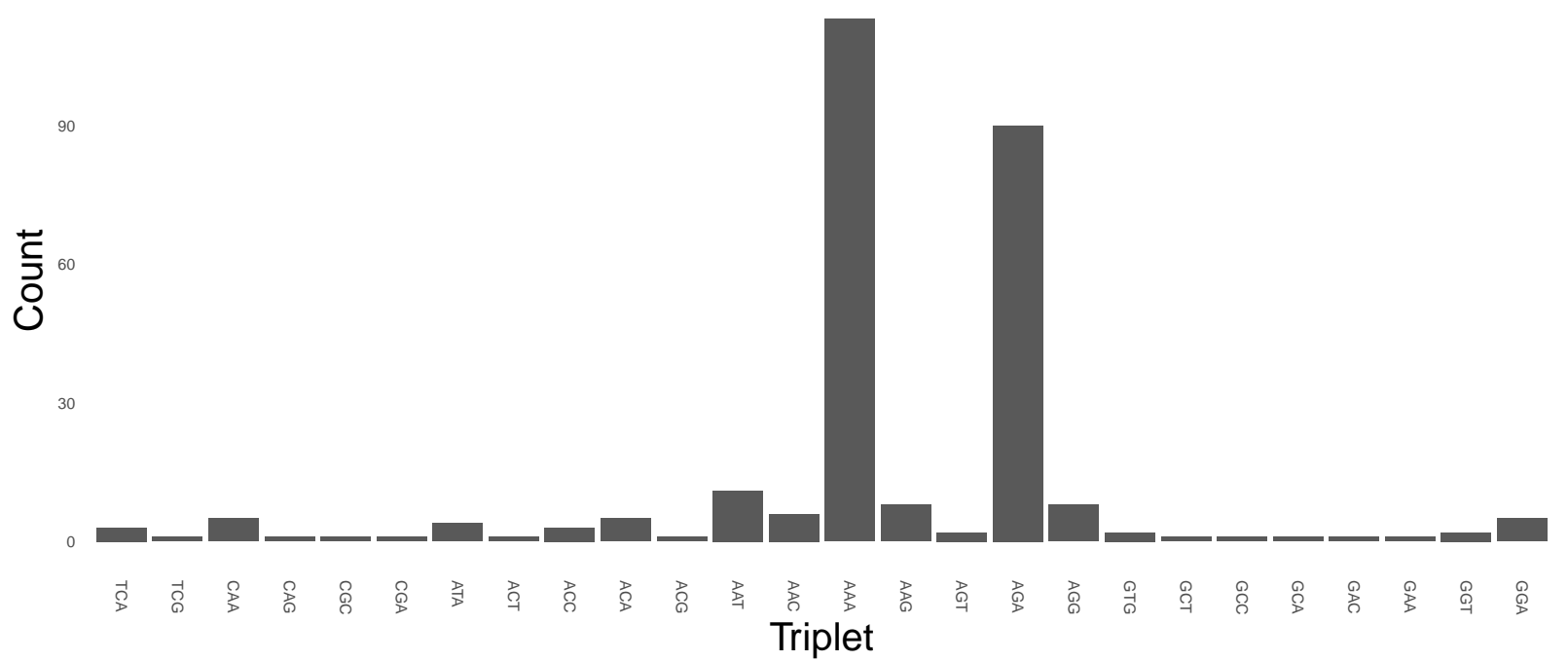
Gene IGHV3-74\*01\_02\_C246T\_G247T\_T279C\_T300C\_G303A



Gene IGHV3-74\*01\_02\_C246T\_G247T\_T279C\_T300C\_G303A

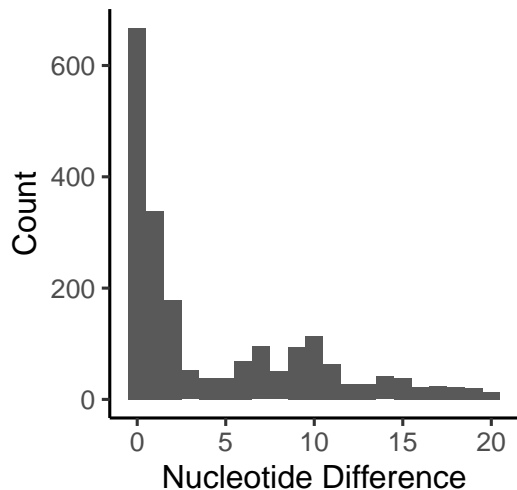


IGHV3-74\*01\_02\_C246T\_G247T\_T279C\_T300C\_G303A- Final 3 nucleotides as a triplet



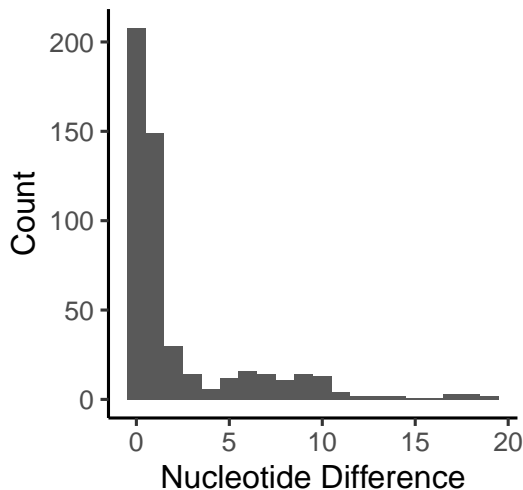
### IGHV1-2\*02

2266 sequences assigned  
668 (29.5%) exact matches, in which:  
649 unique CDR3  
6 unique J



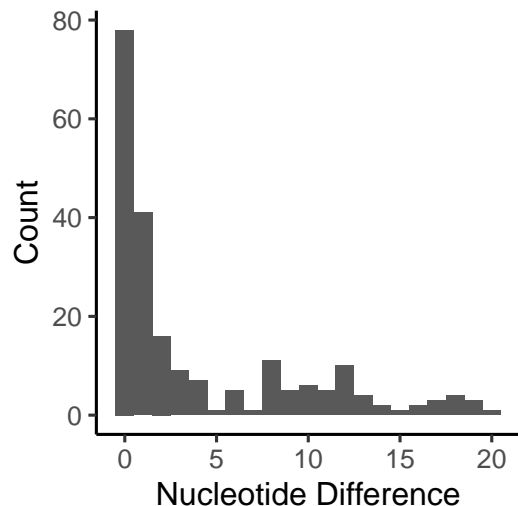
### IGHV1-8\*01

519 sequences assigned  
208 (40.1%) exact matches, in which:  
200 unique CDR3  
5 unique J



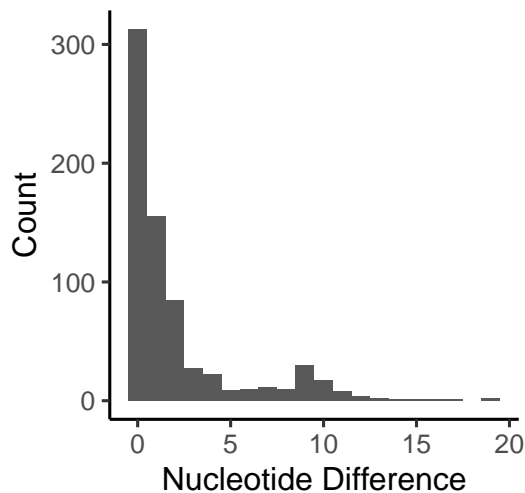
### IGHV1-24\*01

302 sequences assigned  
78 (25.8%) exact matches, in which:  
74 unique CDR3  
6 unique J



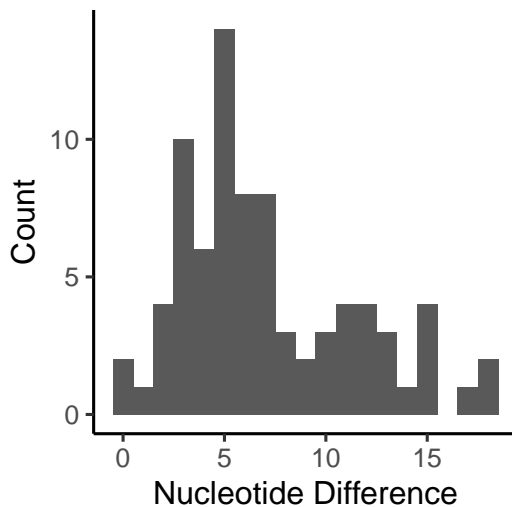
### IGHV1-2\*04

780 sequences assigned  
313 (40.1%) exact matches, in which:  
297 unique CDR3  
6 unique J



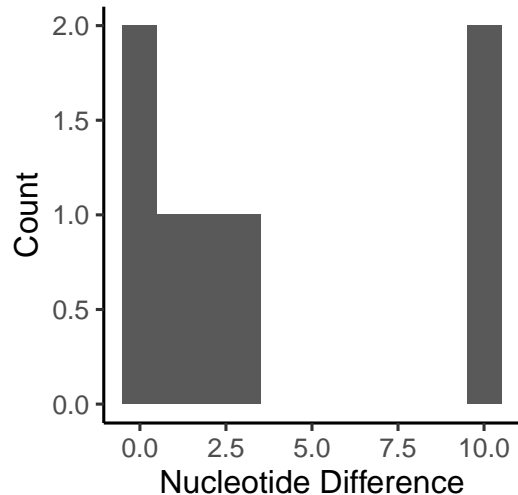
### IGHV1-8\*02

82 sequences assigned  
2 (2.4%) exact matches, in which:  
2 unique CDR3  
1 unique J



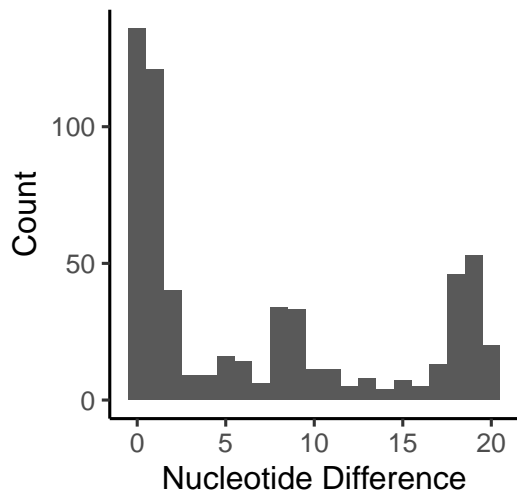
### IGHV1-45\*02

7 sequences assigned  
2 (28.6%) exact matches, in which:  
2 unique CDR3  
2 unique J



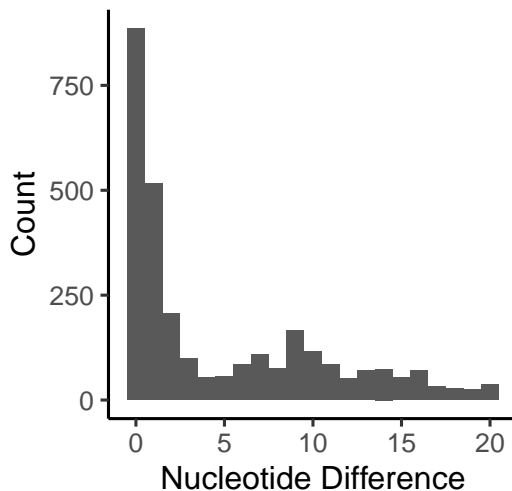
### IGHV1-3\*01\_05

651 sequences assigned  
136 (20.9%) exact matches, in which:  
123 unique CDR3  
6 unique J



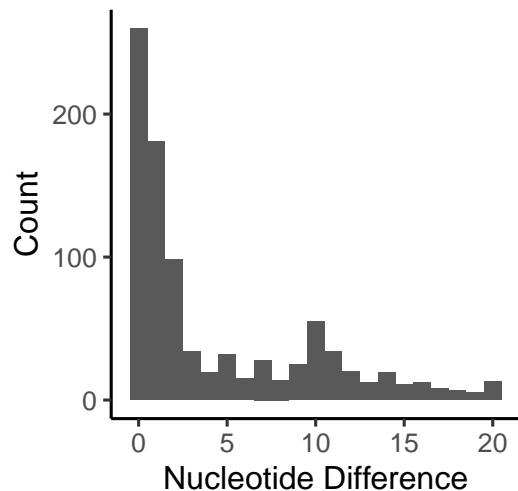
### IGHV1-18\*01

3340 sequences assigned  
886 (26.5%) exact matches, in which:  
843 unique CDR3  
6 unique J



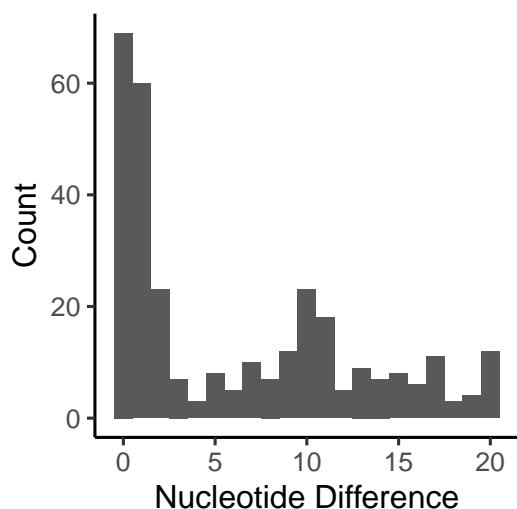
### IGHV1-46\*01

1086 sequences assigned  
260 (23.9%) exact matches, in which:  
255 unique CDR3  
6 unique J



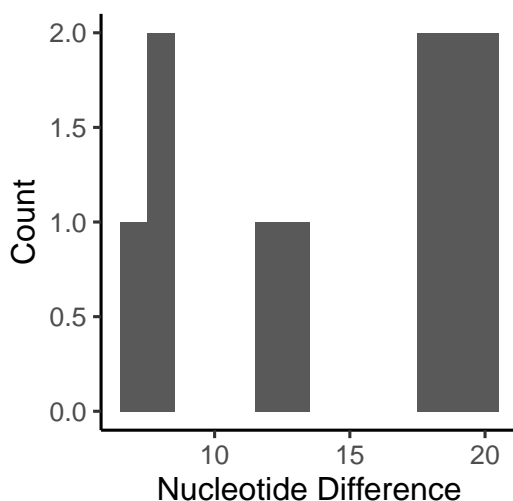
### IGHV1-46\*03

414 sequences assigned  
69 (16.7%) exact matches, in which:  
68 unique CDR3  
4 unique J



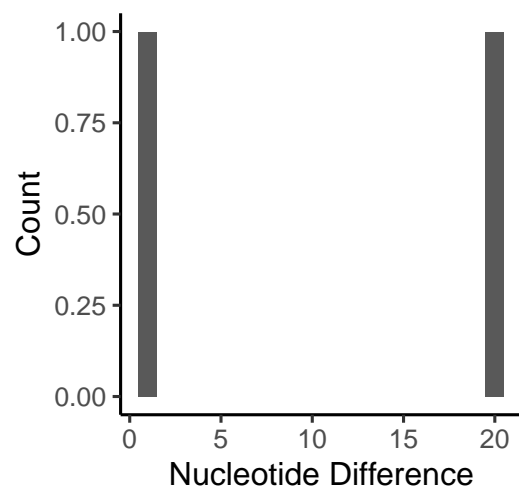
### IGHV1-69\*08

117 sequences assigned  
No exact matches.



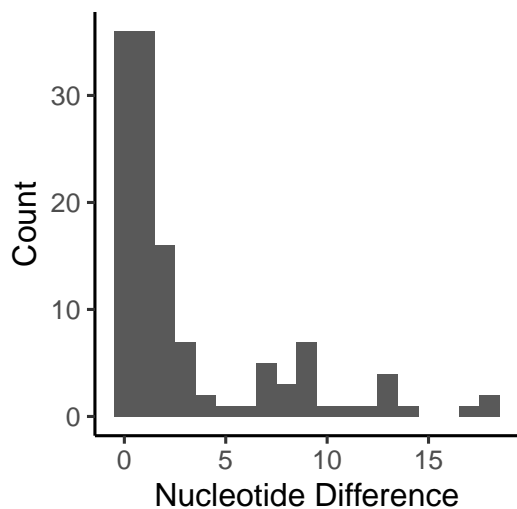
### IGHV1-69\*06\_14

19 sequences assigned  
No exact matches.



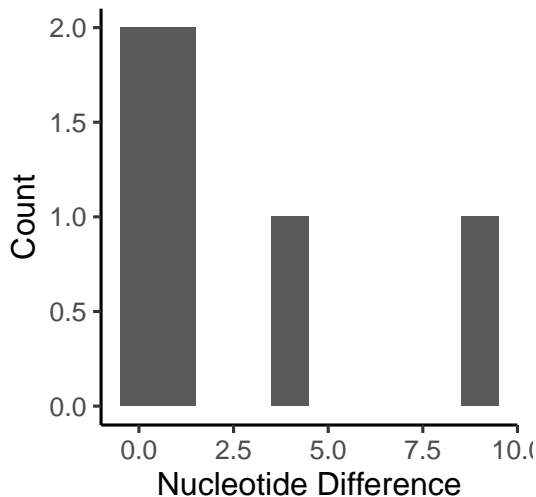
### IGHV1-58\*02

137 sequences assigned  
36 (26.3%) exact matches, in which:  
34 unique CDR3  
3 unique J



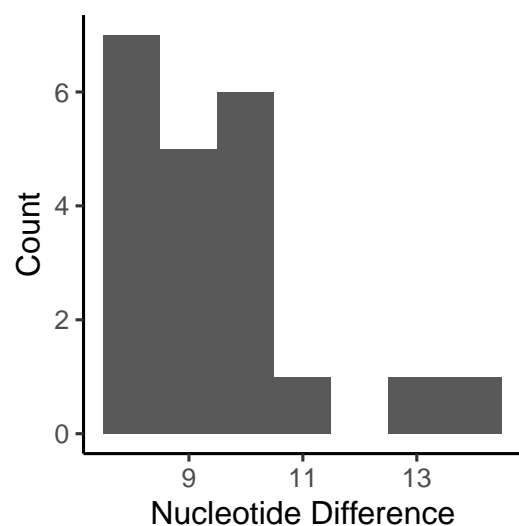
### IGHV1-69\*01\_12\_13

7 sequences assigned  
2 (28.6%) exact matches, in which:  
2 unique CDR3  
2 unique J



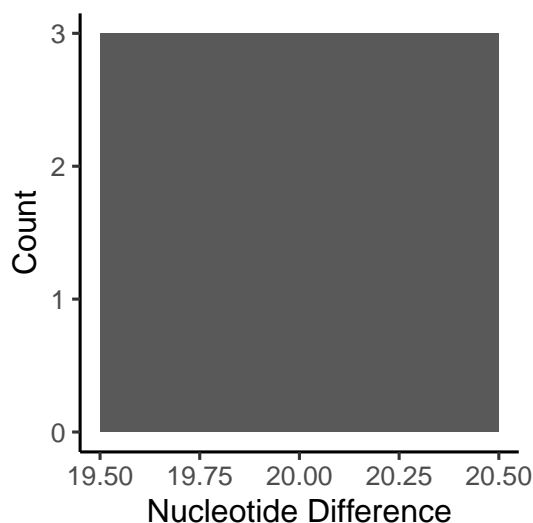
### IGHV1-NL1\*01

21 sequences assigned  
No exact matches.



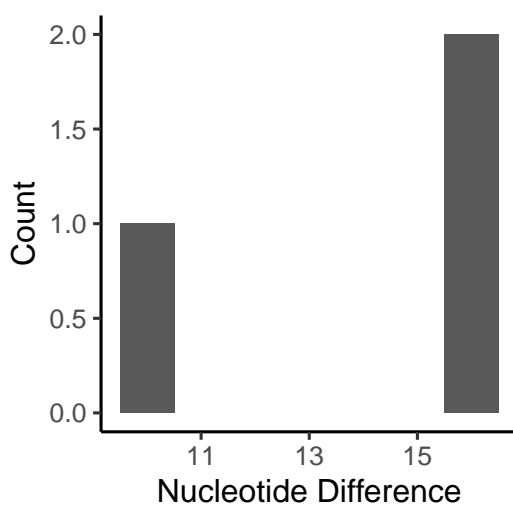
### IGHV1-69-2\*01

3 sequences assigned  
No exact matches.



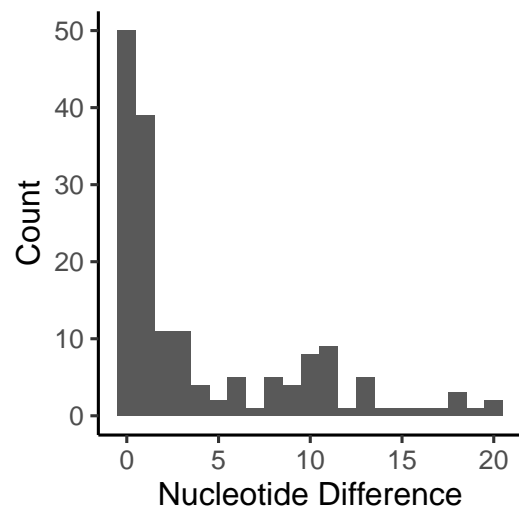
### IGHV1-69\*04\_09

9 sequences assigned  
No exact matches.



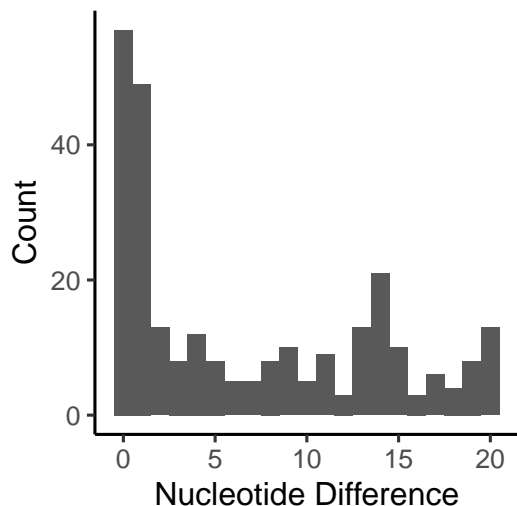
### IGHV2-5\*01

266 sequences assigned  
50 (18.8%) exact matches, in which:  
47 unique CDR3  
6 unique J



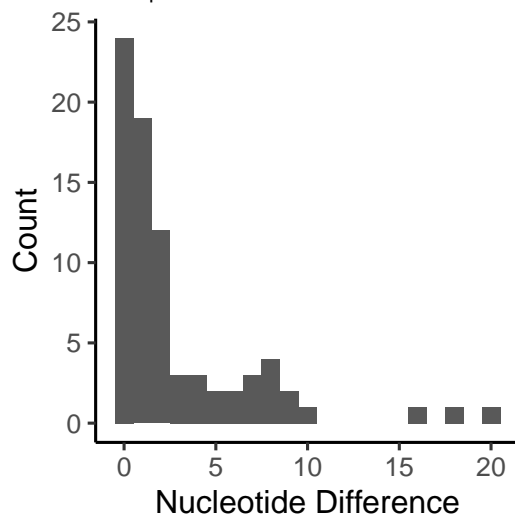
## IGHV2-5\*02

472 sequences assigned  
57 (12.1%) exact matches, in which:  
50 unique CDR3  
6 unique J



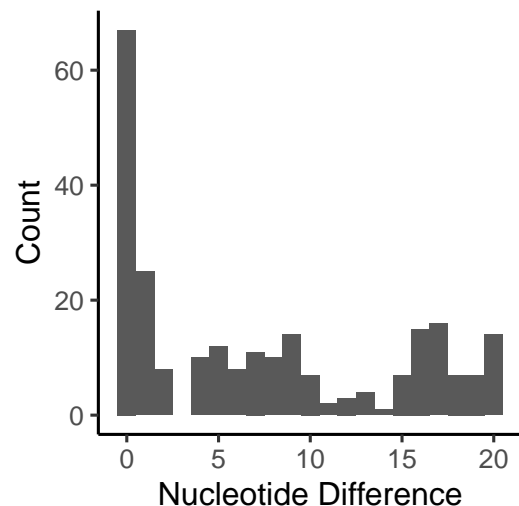
## IGHV2-70\*11\_15

89 sequences assigned  
24 (27%) exact matches, in which:  
20 unique CDR3  
5 unique J



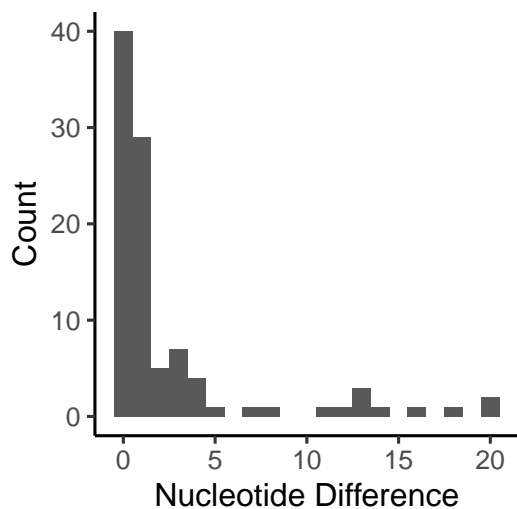
## IGHV3-7\*04

329 sequences assigned  
67 (20.4%) exact matches, in which:  
44 unique CDR3  
4 unique J



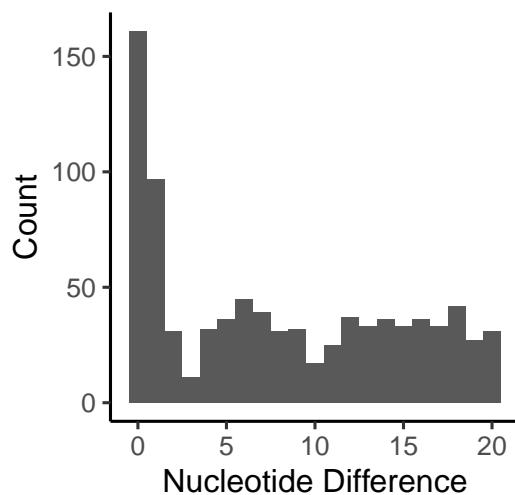
## IGHV2-26\*01

103 sequences assigned  
40 (38.8%) exact matches, in which:  
37 unique CDR3  
5 unique J



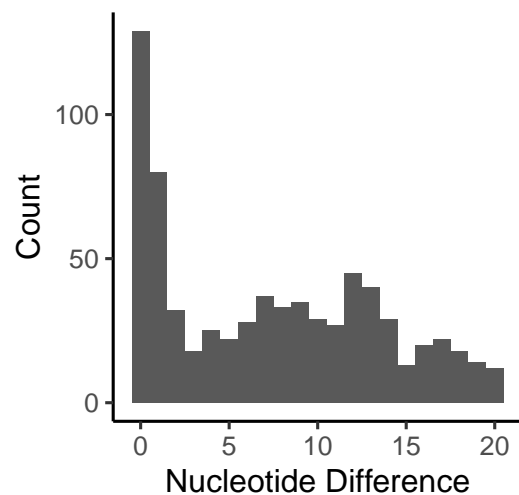
## IGHV3-7\*01

994 sequences assigned  
161 (16.2%) exact matches, in which:  
125 unique CDR3  
5 unique J



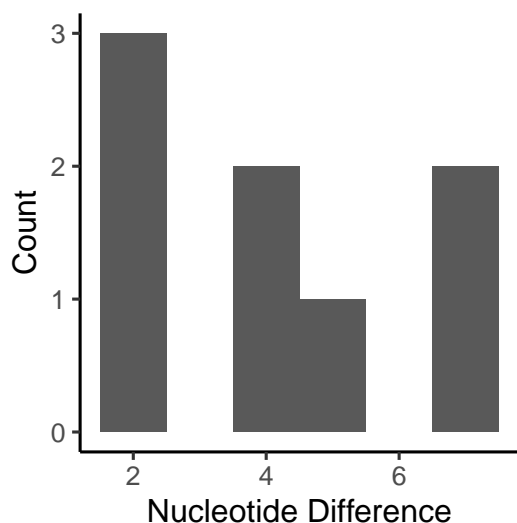
## IGHV3-9\*01

841 sequences assigned  
129 (15.3%) exact matches, in which:  
95 unique CDR3  
6 unique J



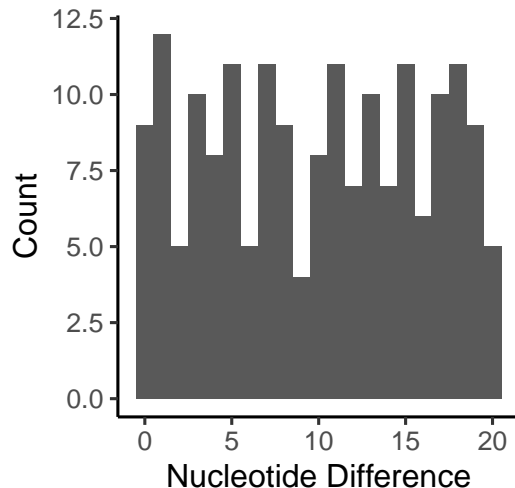
## IGHV2-70\*12

8 sequences assigned  
No exact matches.



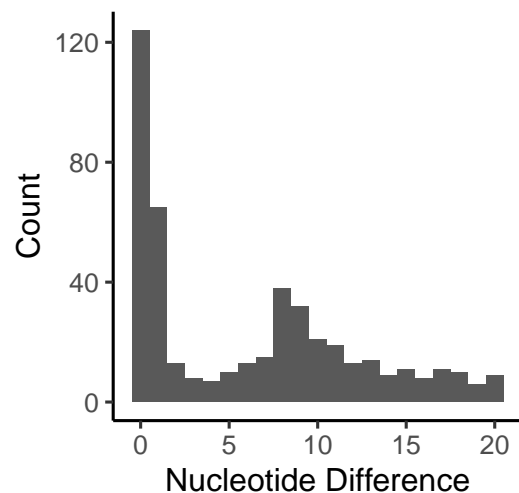
## IGHV3-7\*03

233 sequences assigned  
9 (3.9%) exact matches, in which:  
7 unique CDR3  
3 unique J



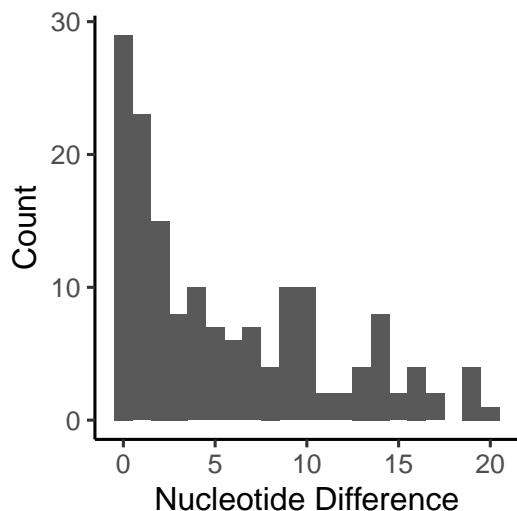
## IGHV3-11\*01

551 sequences assigned  
124 (22.5%) exact matches, in which:  
96 unique CDR3  
5 unique J



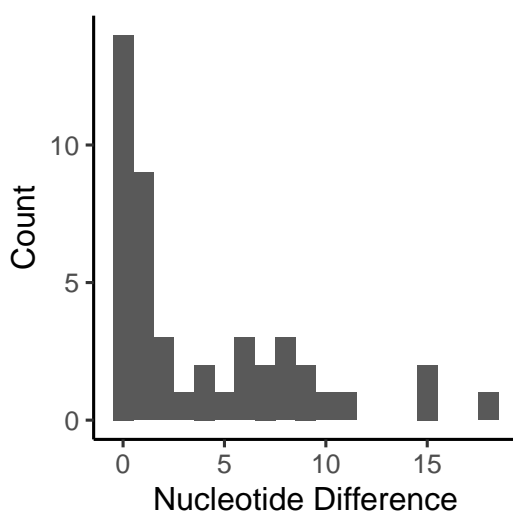
### IGHV3-11\*04

177 sequences assigned  
29 (16.4%) exact matches, in which:  
29 unique CDR3  
5 unique J



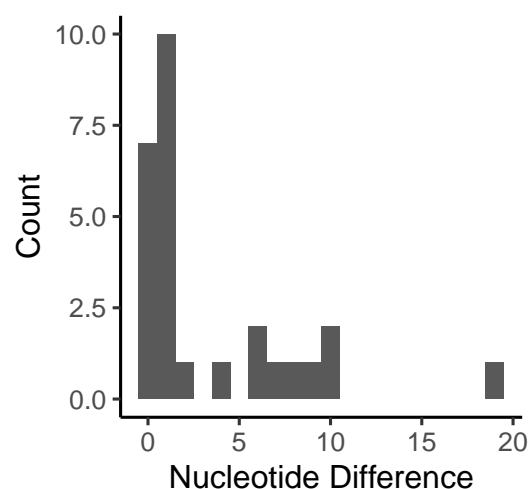
### IGHV3-13\*05

46 sequences assigned  
14 (30.4%) exact matches, in which:  
11 unique CDR3  
5 unique J



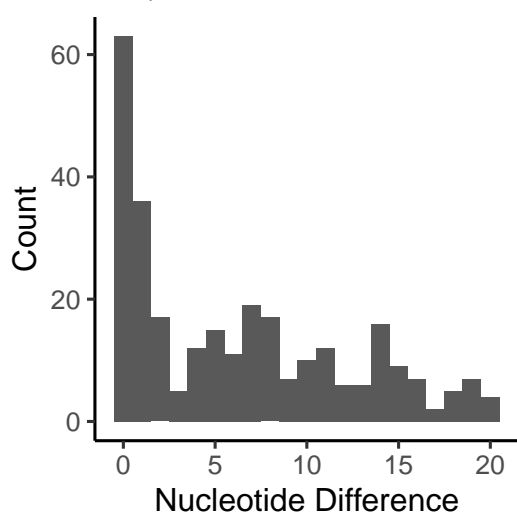
### IGHV3-20\*01\_02

27 sequences assigned  
7 (25.9%) exact matches, in which:  
5 unique CDR3  
2 unique J



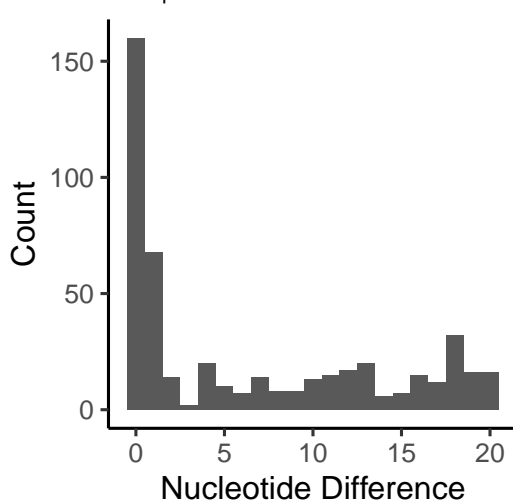
### IGHV3-11\*06

427 sequences assigned  
63 (14.8%) exact matches, in which:  
52 unique CDR3  
5 unique J



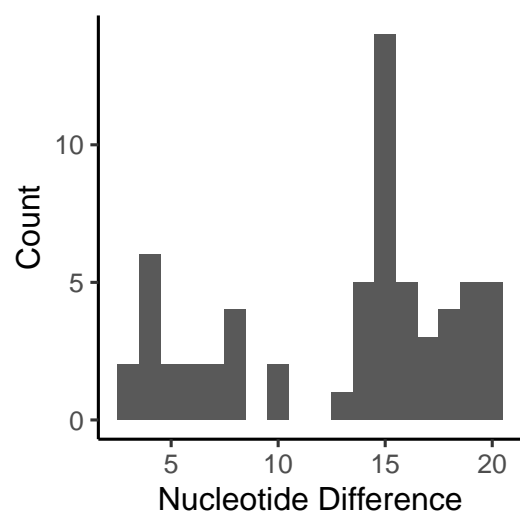
### IGHV3-15\*01\_02

737 sequences assigned  
160 (21.7%) exact matches, in which:  
110 unique CDR3  
6 unique J



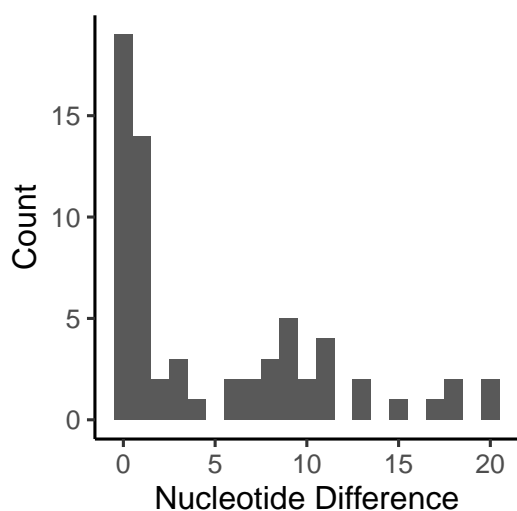
### IGHV3-20\*03\_04

102 sequences assigned  
No exact matches.



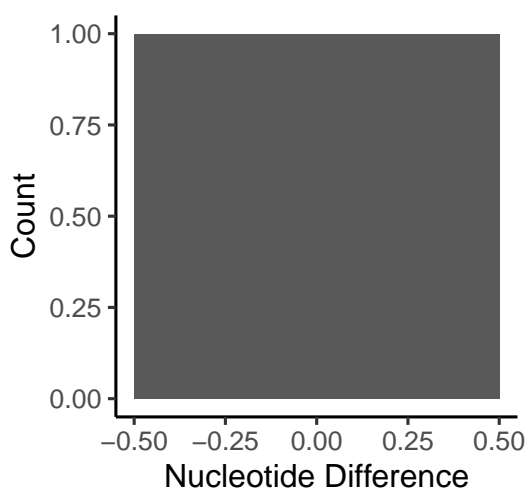
### IGHV3-13\*01

66 sequences assigned  
19 (28.8%) exact matches, in which:  
15 unique CDR3  
2 unique J



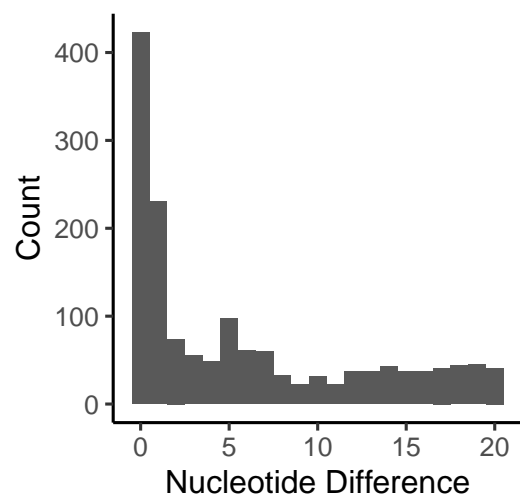
### IGHV3-19\*01

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



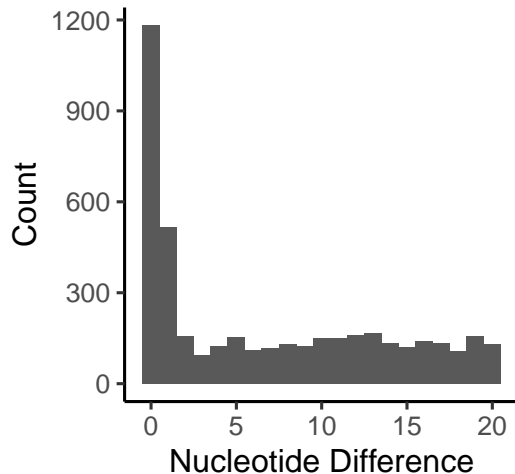
### IGHV3-21\*01\_02

1904 sequences assigned  
423 (22.2%) exact matches, in which:  
337 unique CDR3  
6 unique J



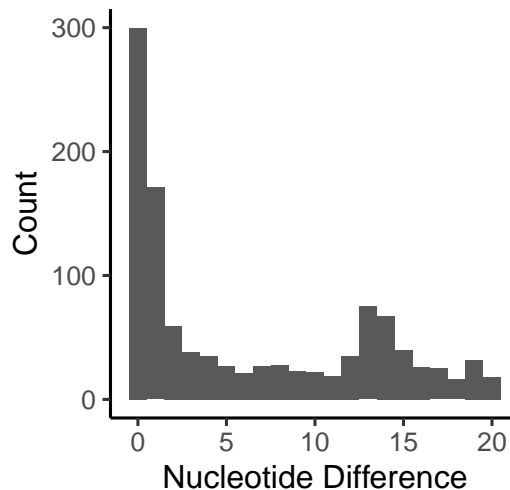
### IGHV3-23\*01\_04

5075 sequences assigned  
1182 (23.3%) exact matches, in which:  
948 unique CDR3  
6 unique J



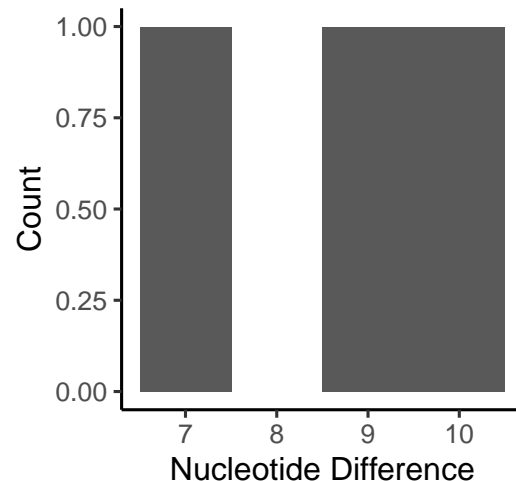
### IGHV3-33\*01

1262 sequences assigned  
300 (23.8%) exact matches, in which:  
233 unique CDR3  
6 unique J



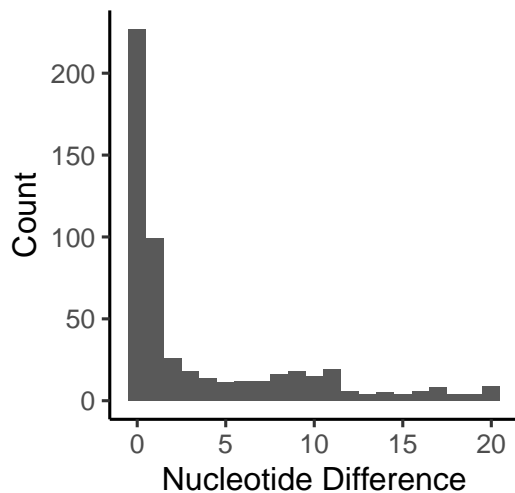
### IGHV3-35\*01

3 sequences assigned  
No exact matches.



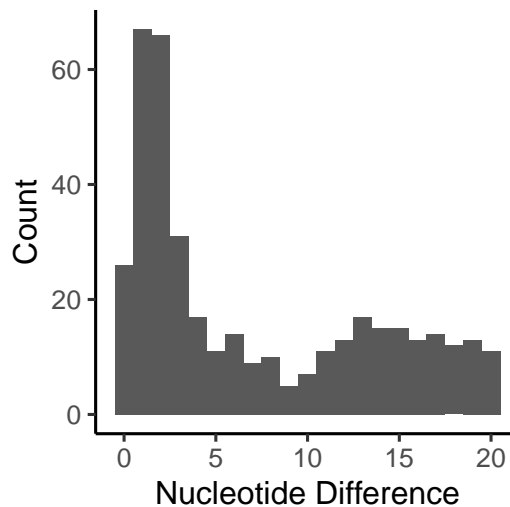
### IGHV3-30-3\*01

679 sequences assigned  
227 (33.4%) exact matches, in which:  
182 unique CDR3  
5 unique J



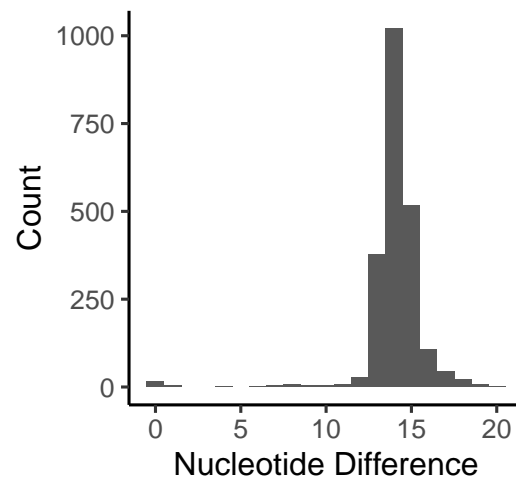
### IGHV3-33\*06

444 sequences assigned  
26 (5.9%) exact matches, in which:  
24 unique CDR3  
4 unique J



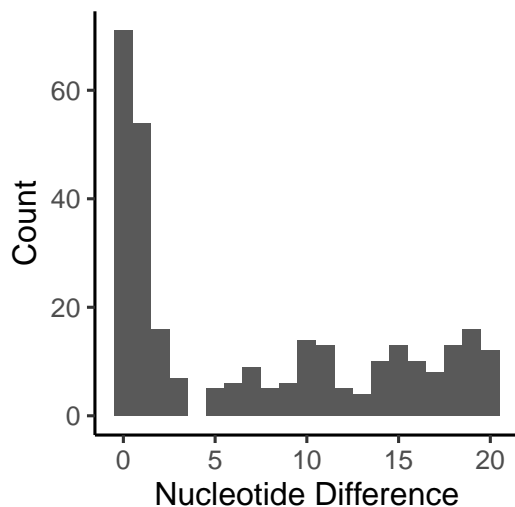
### IGHV3-43\*01

2218 sequences assigned  
17 (0.8%) exact matches, in which:  
13 unique CDR3  
4 unique J



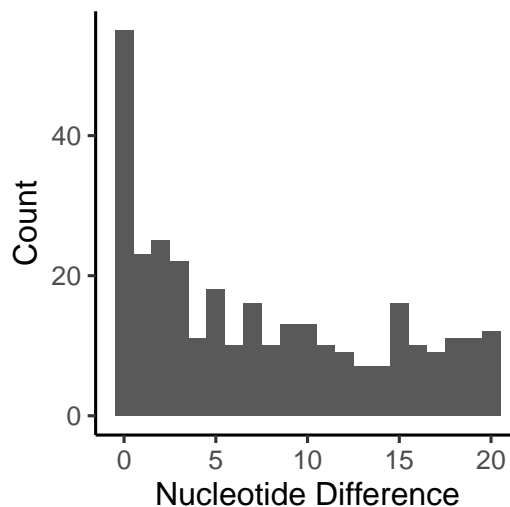
### IGHV3-30\*03

357 sequences assigned  
71 (19.9%) exact matches, in which:  
68 unique CDR3  
4 unique J



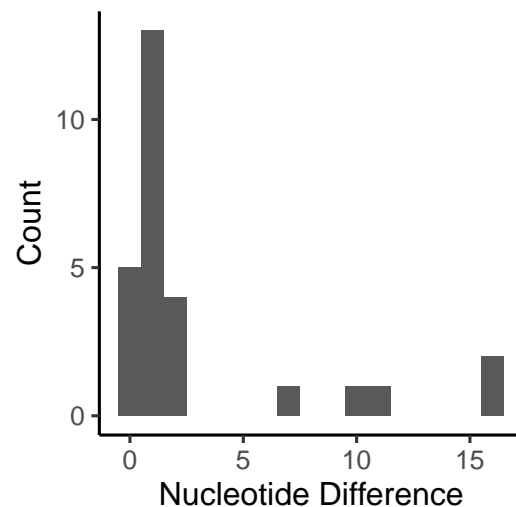
### IGHV3-33\*08

425 sequences assigned  
55 (12.9%) exact matches, in which:  
54 unique CDR3  
4 unique J



### IGHV3-47\*02

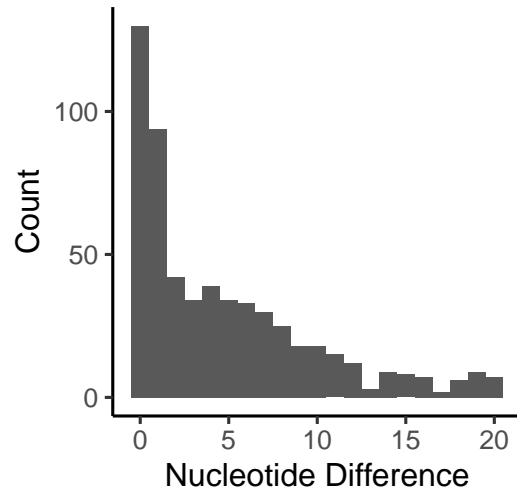
27 sequences assigned  
5 (18.5%) exact matches, in which:  
4 unique CDR3  
1 unique J





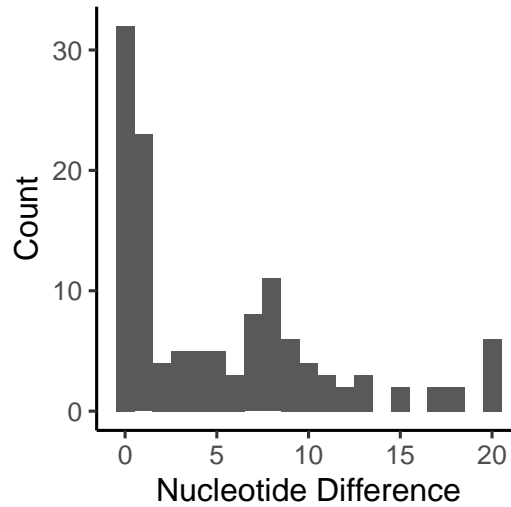
### IGHV3-48\*01

677 sequences assigned  
130 (19.2%) exact matches, in which:  
99 unique CDR3  
6 unique J



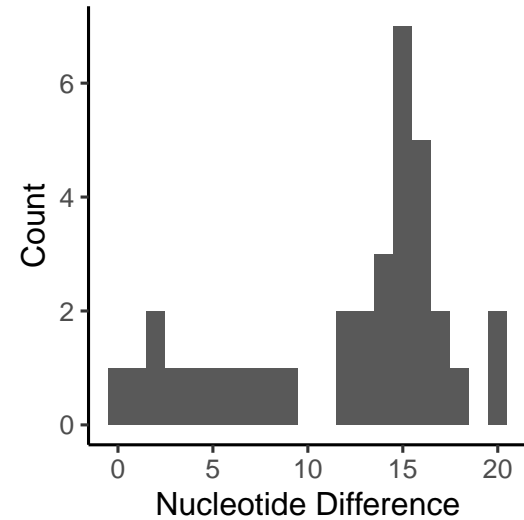
### IGHV3-49\*03\_05

151 sequences assigned  
32 (21.2%) exact matches, in which:  
25 unique CDR3  
5 unique J



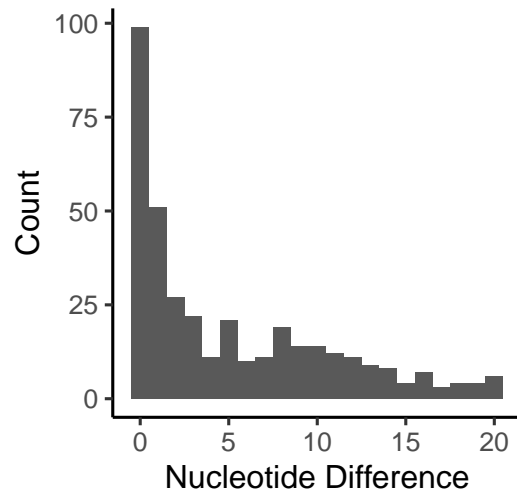
### IGHV3-53\*05

37 sequences assigned  
1 (2.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



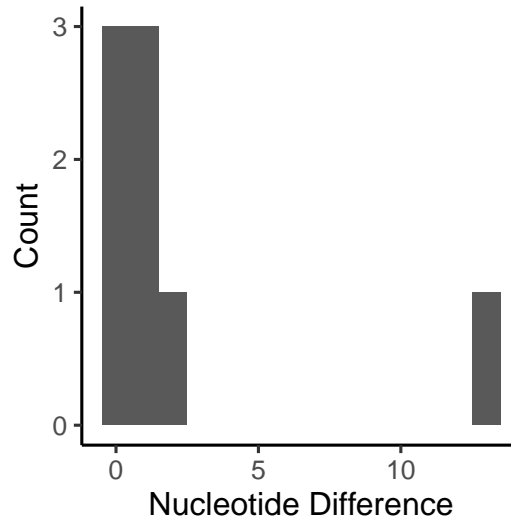
### IGHV3-48\*02

422 sequences assigned  
99 (23.5%) exact matches, in which:  
74 unique CDR3  
5 unique J



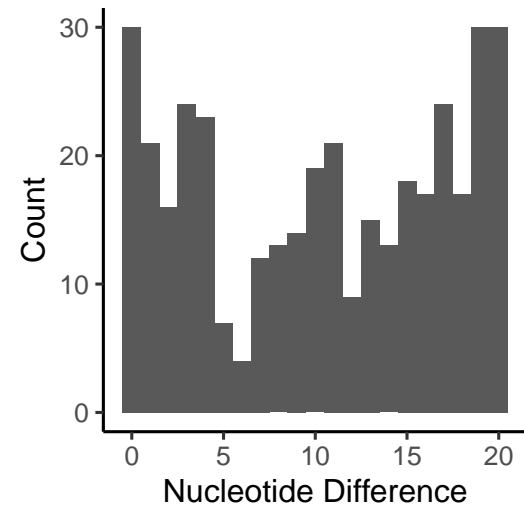
### IGHV3-52\*02

8 sequences assigned  
3 (37.5%) exact matches, in which:  
2 unique CDR3  
1 unique J



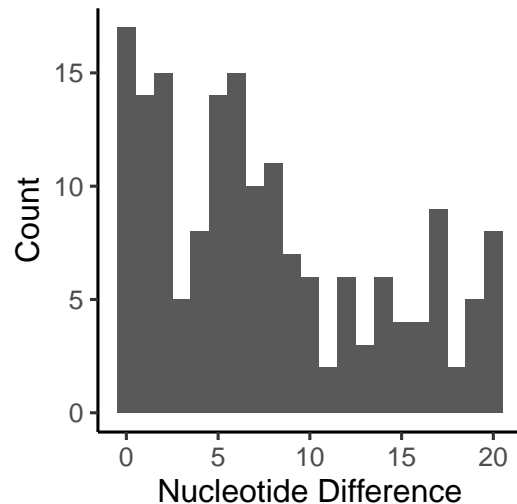
### IGHV3-53\*01\_02

487 sequences assigned  
30 (6.2%) exact matches, in which:  
25 unique CDR3  
3 unique J



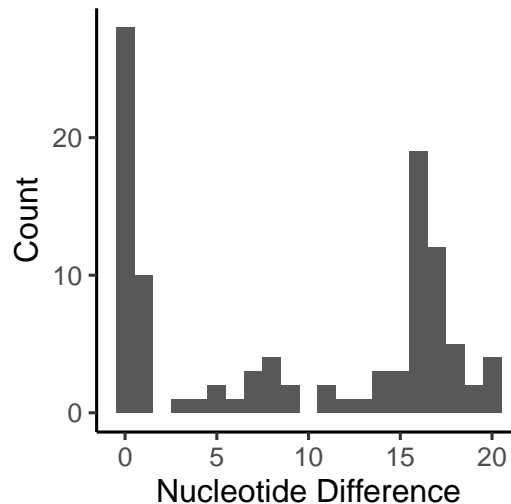
### IGHV3-48\*04

239 sequences assigned  
17 (7.1%) exact matches, in which:  
17 unique CDR3  
3 unique J



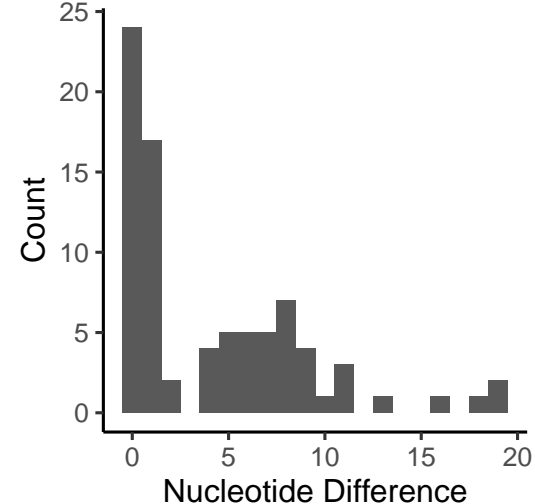
### IGHV3-53\*04

123 sequences assigned  
28 (22.8%) exact matches, in which:  
20 unique CDR3  
4 unique J



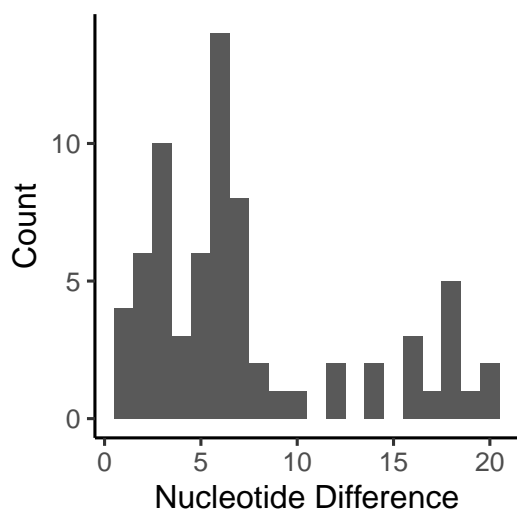
### IGHV3-64\*01

86 sequences assigned  
24 (27.9%) exact matches, in which:  
18 unique CDR3  
5 unique J



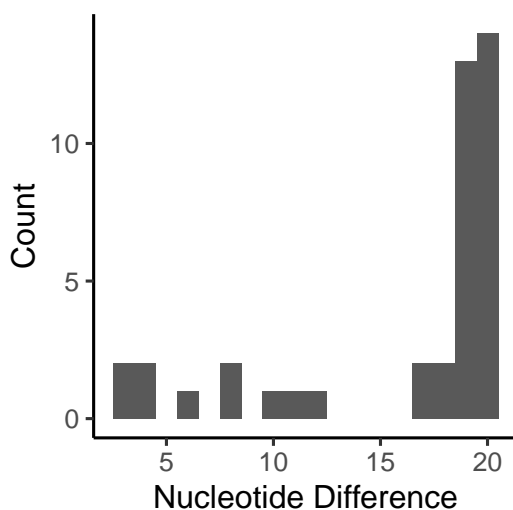
### IGHV3-64\*04

86 sequences assigned  
No exact matches.



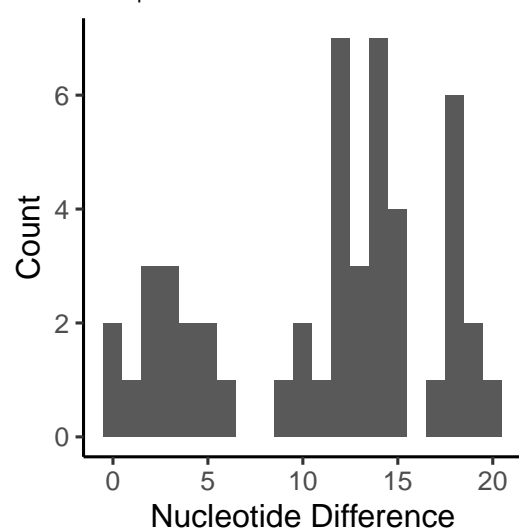
### IGHV3-69-1\*01

61 sequences assigned  
No exact matches.



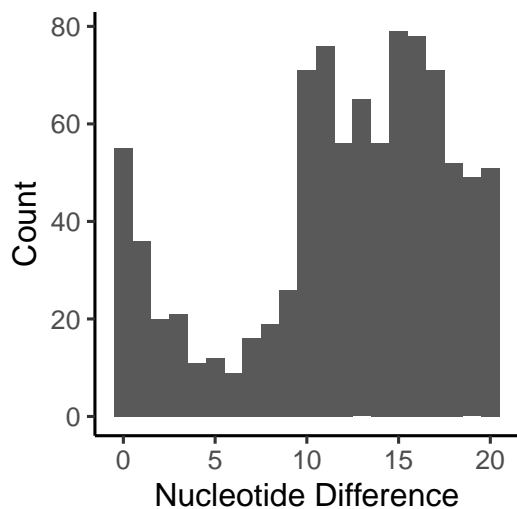
### IGHV3-72\*01

104 sequences assigned  
2 (1.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



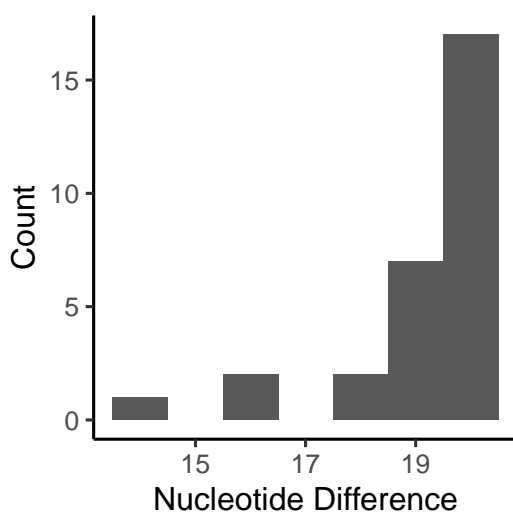
### IGHV3-66\*01

1134 sequences assigned  
55 (4.9%) exact matches, in which:  
46 unique CDR3  
5 unique J



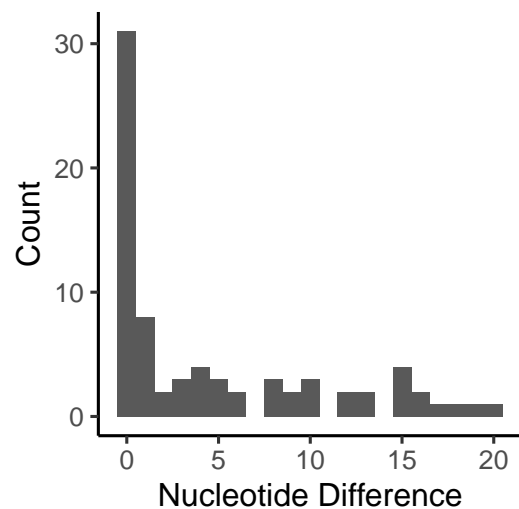
### IGHV3-69-1\*02

83 sequences assigned  
No exact matches.



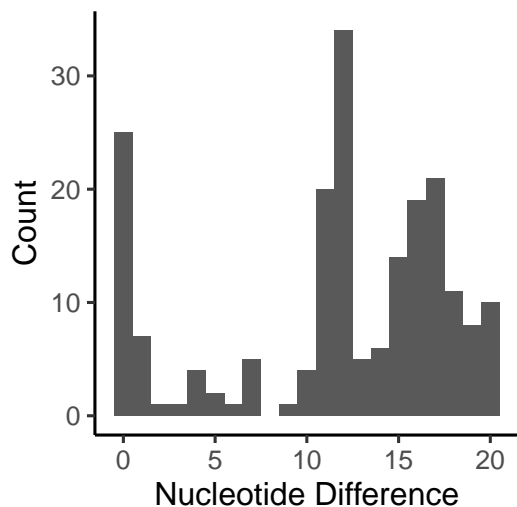
### IGHV3-73\*01\_02

89 sequences assigned  
31 (34.8%) exact matches, in which:  
23 unique CDR3  
4 unique J



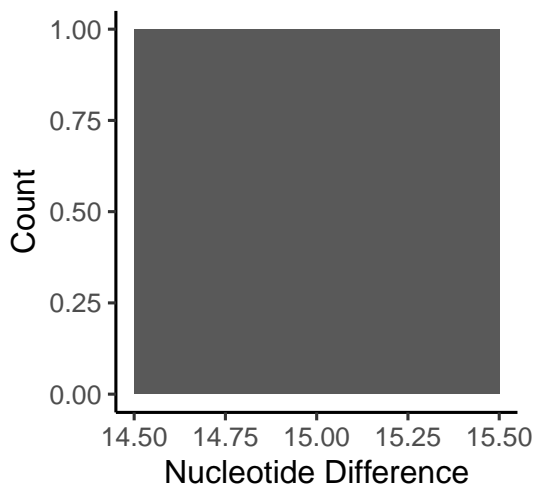
### IGHV3-66\*02

292 sequences assigned  
25 (8.6%) exact matches, in which:  
22 unique CDR3  
5 unique J



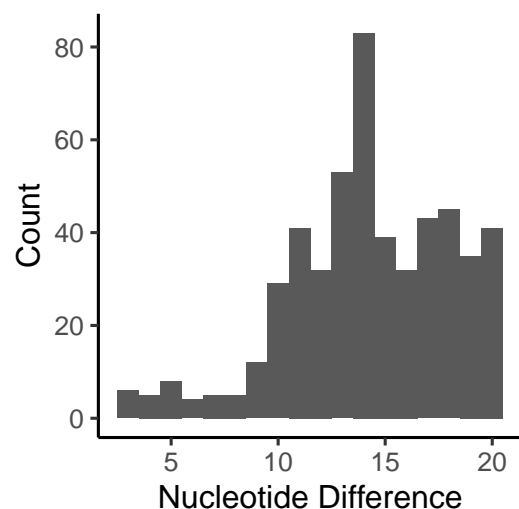
### IGHV3-71\*01\_04

2 sequences assigned  
No exact matches.



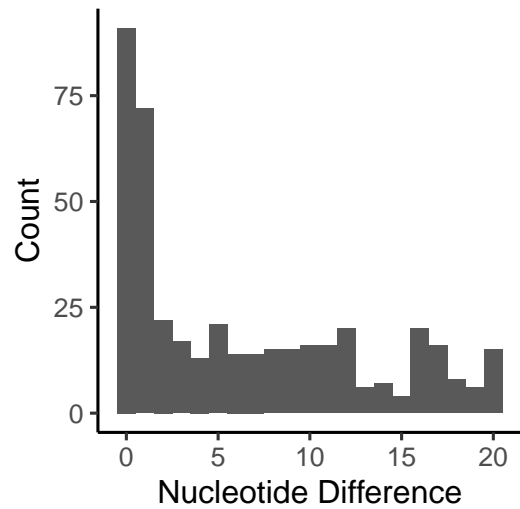
### IGHV3-74\*03

778 sequences assigned  
No exact matches.



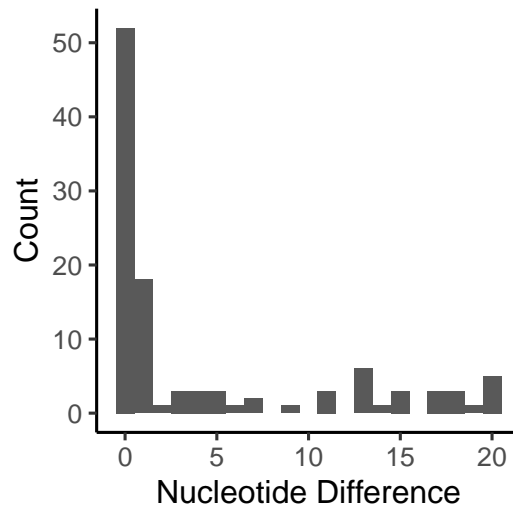
### IGHV3-74\*01\_02

542 sequences assigned  
91 (16.8%) exact matches, in which:  
70 unique CDR3  
4 unique J



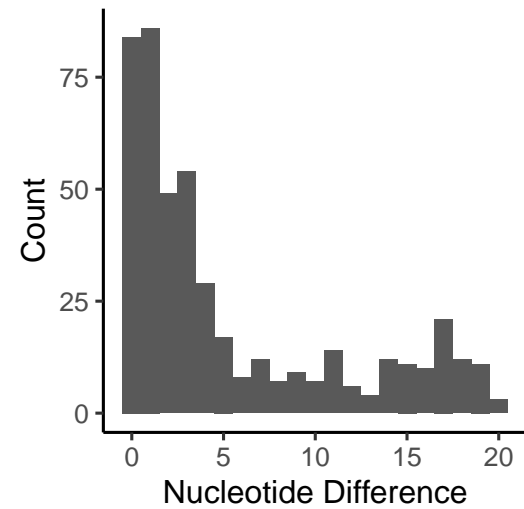
### IGHV3-64D\*06

276 sequences assigned  
52 (18.8%) exact matches, in which:  
41 unique CDR3  
6 unique J



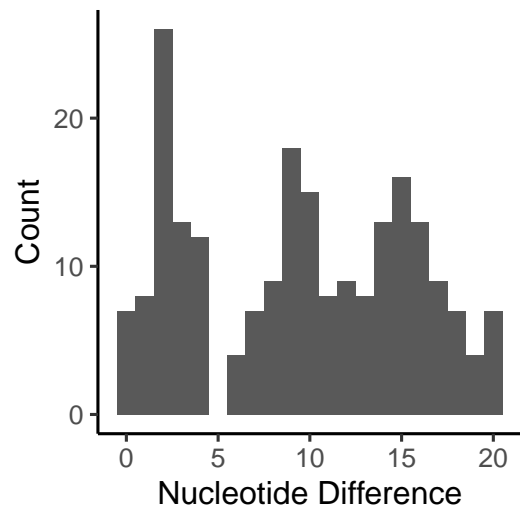
### IGHV4-4\*02\_03

602 sequences assigned  
84 (14%) exact matches, in which:  
73 unique CDR3  
5 unique J



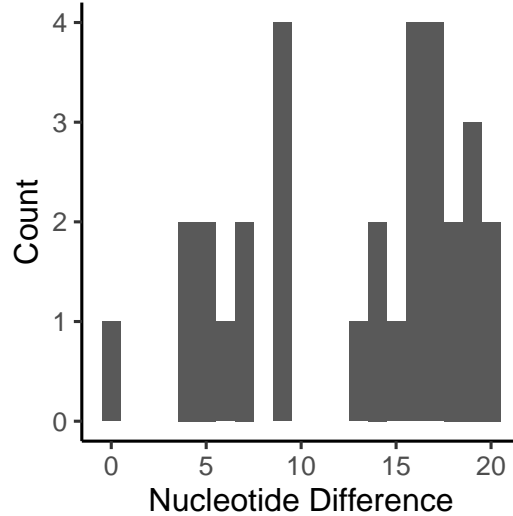
### IGHV3-74\*01\_02\_C246T\_

278 sequences assigned  
7 (2.5%) exact matches, in which:  
7 unique CDR3  
3 unique J



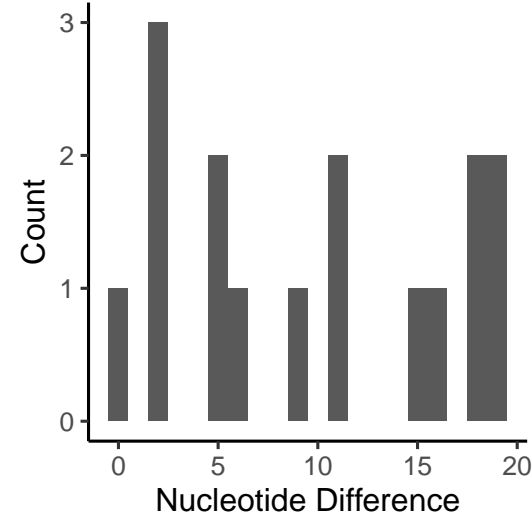
### IGHV3-NL1\*01

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



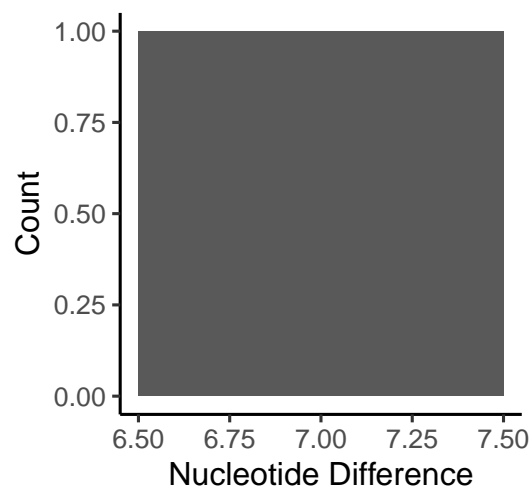
### IGHV4-28\*03

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



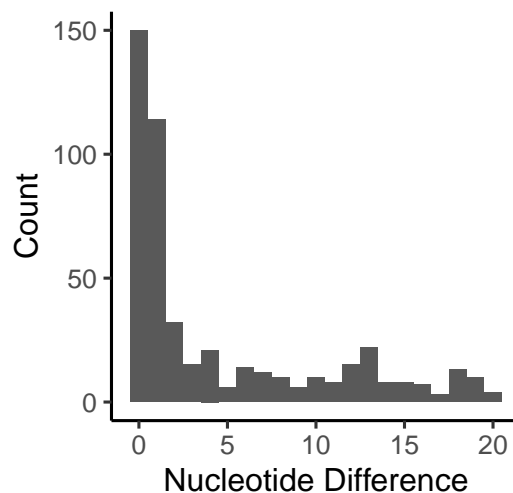
### IGHV3-43D\*04

2 sequences assigned  
No exact matches.



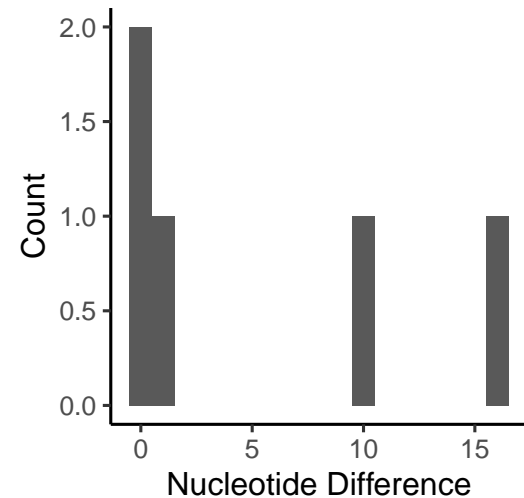
### IGHV4-4\*07

591 sequences assigned  
150 (25.4%) exact matches, in which:  
144 unique CDR3  
5 unique J



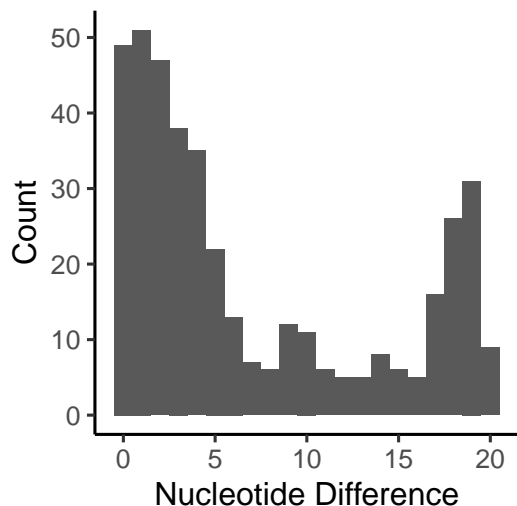
### IGHV4-28\*01\_07

11 sequences assigned  
2 (18.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



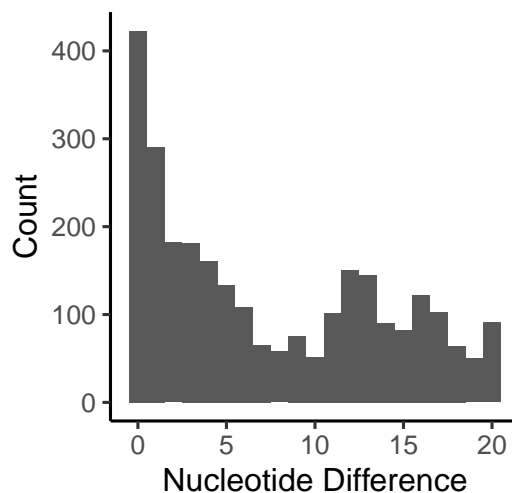
### IGHV4-30-4\*01

561 sequences assigned  
49 (8.7%) exact matches, in which:  
47 unique CDR3  
5 unique J



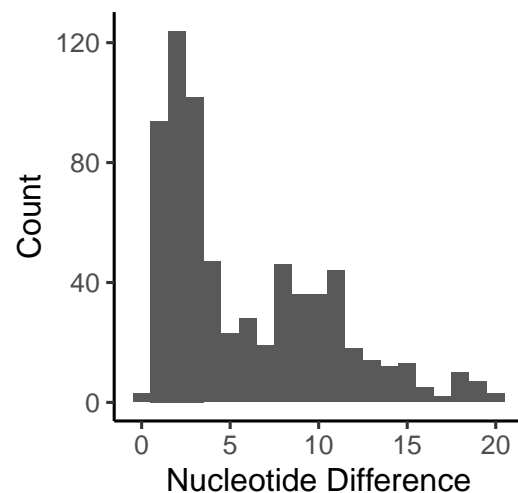
### IGHV4-31\*02

3192 sequences assigned  
423 (13.3%) exact matches, in which:  
381 unique CDR3  
6 unique J



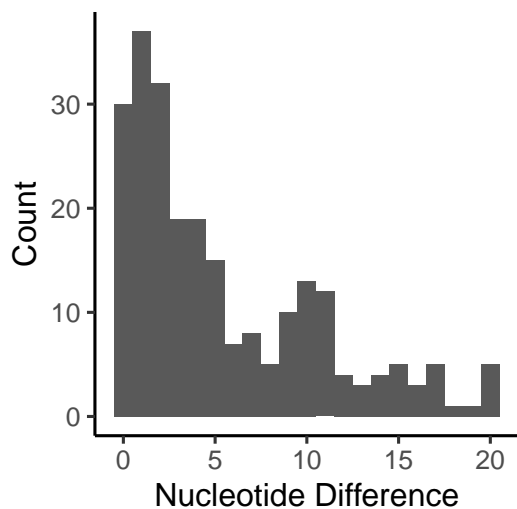
### IGHV4-39\*07

823 sequences assigned  
3 (0.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



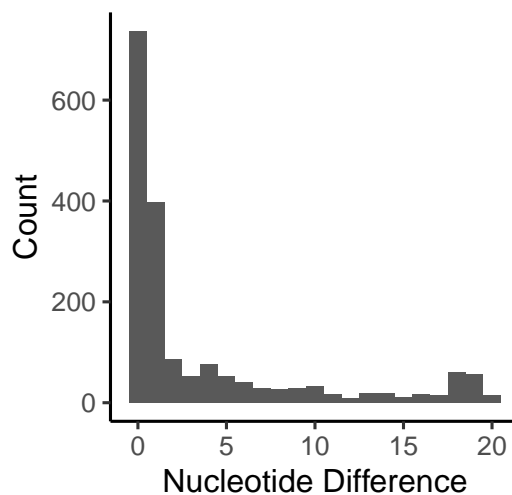
### IGHV4-30-2\*01

249 sequences assigned  
30 (12%) exact matches, in which:  
27 unique CDR3  
5 unique J



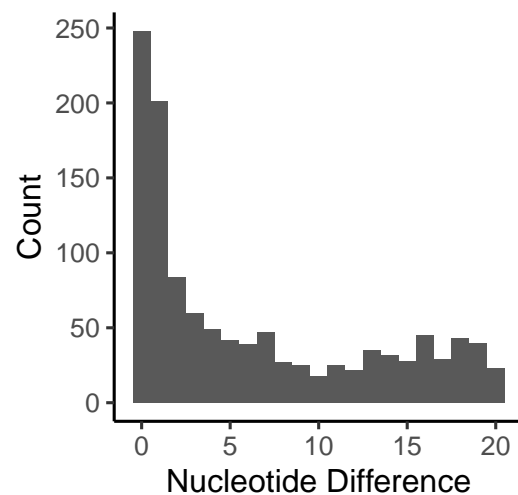
### IGHV4-34\*01\_02

1977 sequences assigned  
737 (37.3%) exact matches, in which:  
680 unique CDR3  
6 unique J



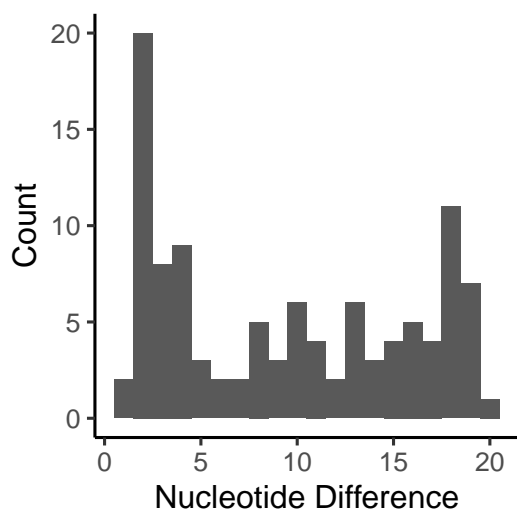
### IGHV4-59\*08

1581 sequences assigned  
248 (15.7%) exact matches, in which:  
230 unique CDR3  
6 unique J



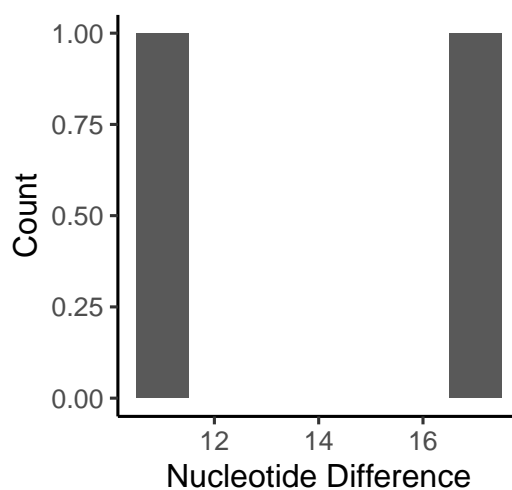
### IGHV4-30-4\*08

133 sequences assigned  
No exact matches.



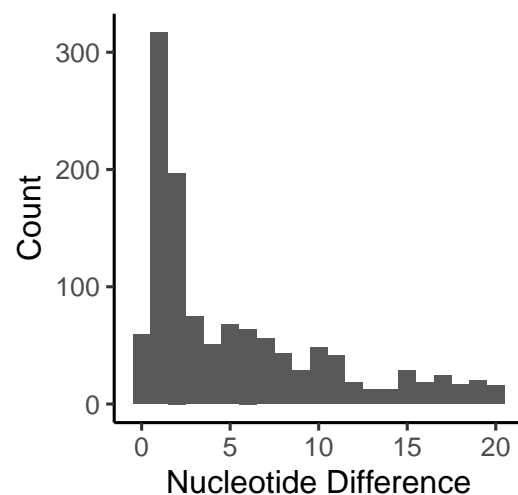
### IGHV4-38-2\*02

2 sequences assigned  
No exact matches.



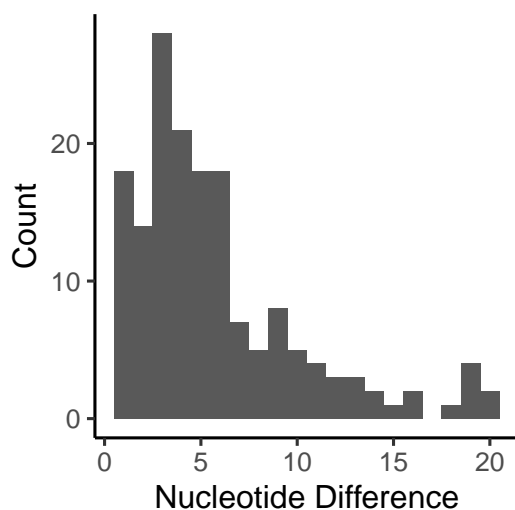
### IGHV4-59\*12

1388 sequences assigned  
59 (4.3%) exact matches, in which:  
59 unique CDR3  
6 unique J



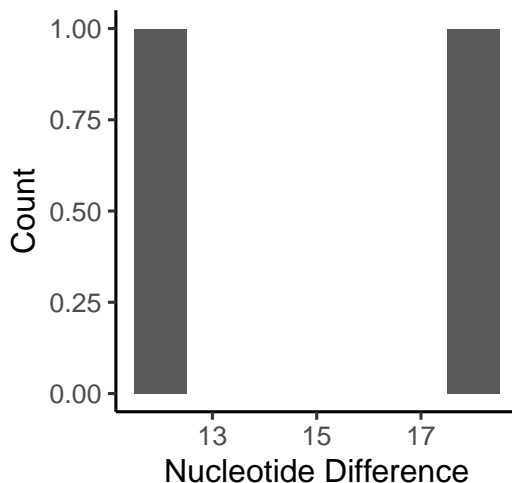
### IGHV4-61\*01

194 sequences assigned  
No exact matches.



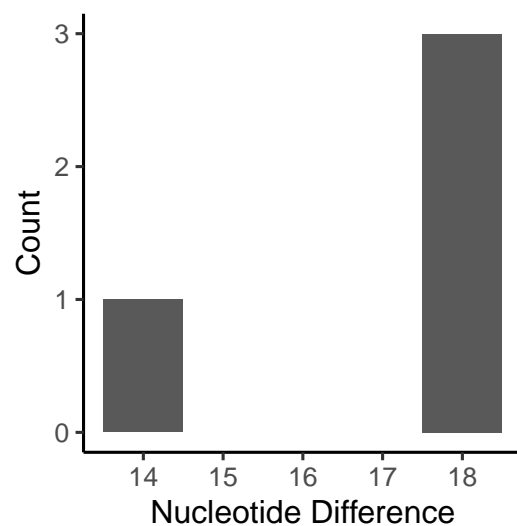
### IGHV1/OR15-2\*02\_03

2 sequences assigned  
No exact matches.



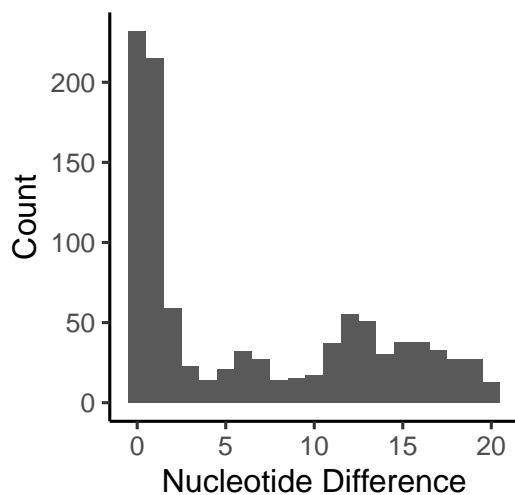
### IGHV4/OR15-8\*02

37 sequences assigned  
No exact matches.



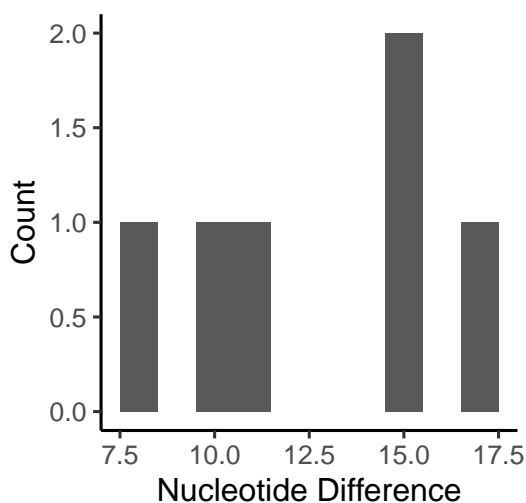
### IGHV4-61\*02

1224 sequences assigned  
232 (19%) exact matches, in which:  
213 unique CDR3  
6 unique J



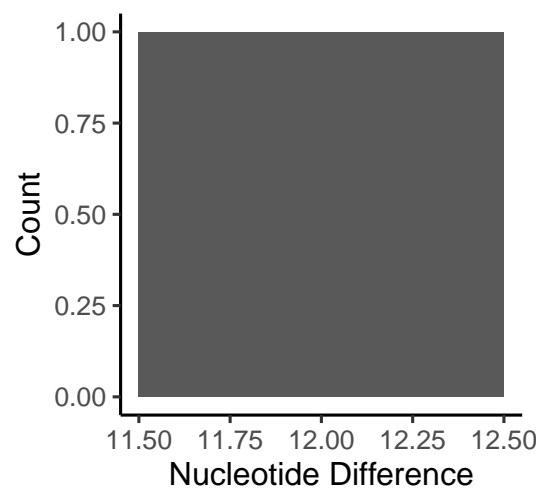
### IGHV1/OR15-3\*02

6 sequences assigned  
No exact matches.



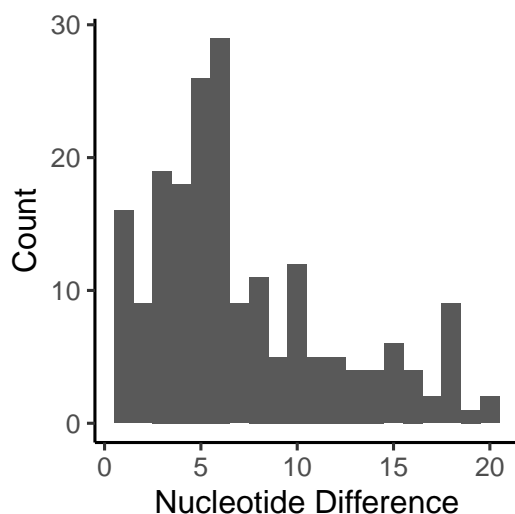
### IGHV1/OR15-9\*01

1 sequences assigned  
No exact matches.



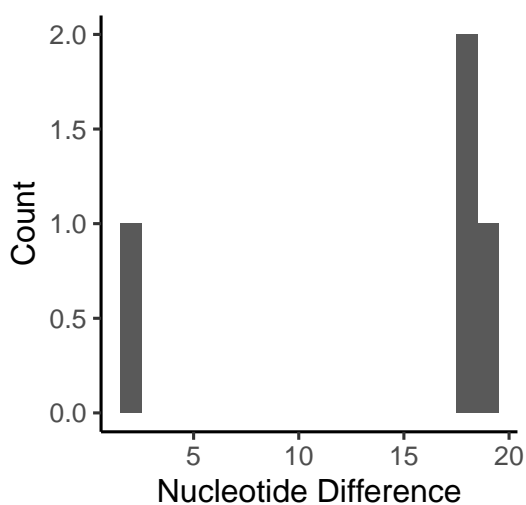
### IGHV4-61\*08

219 sequences assigned  
No exact matches.



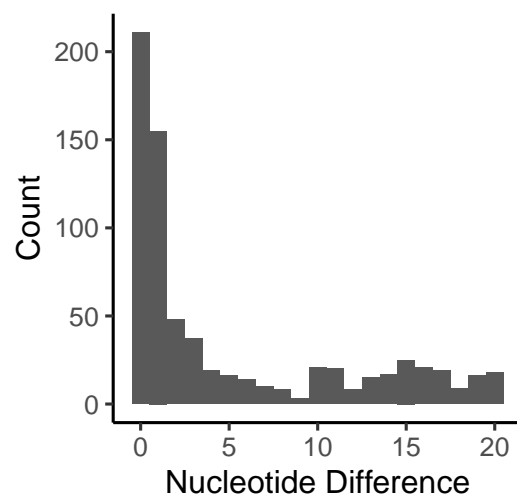
### IGHV4/OR15-8\*01

6 sequences assigned  
No exact matches.



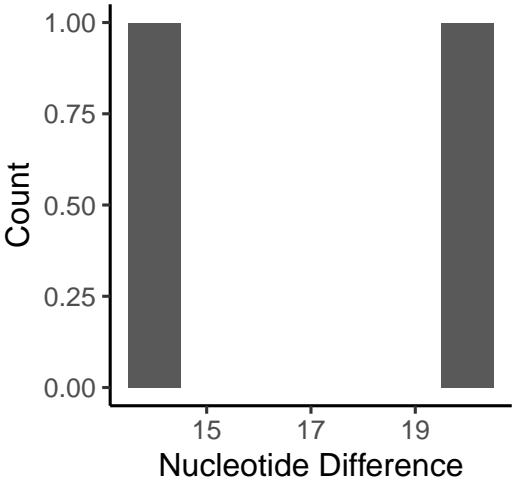
### IGHV5-10-1\*01\_03

844 sequences assigned  
211 (25%) exact matches, in which:  
188 unique CDR3  
6 unique J



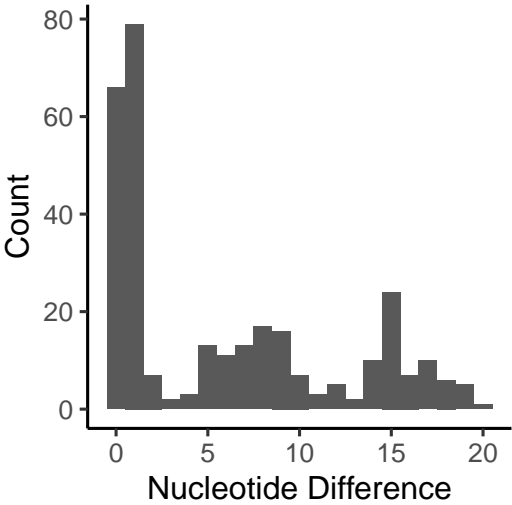
IGHV5-51\*04

3 sequences assigned  
No exact matches.



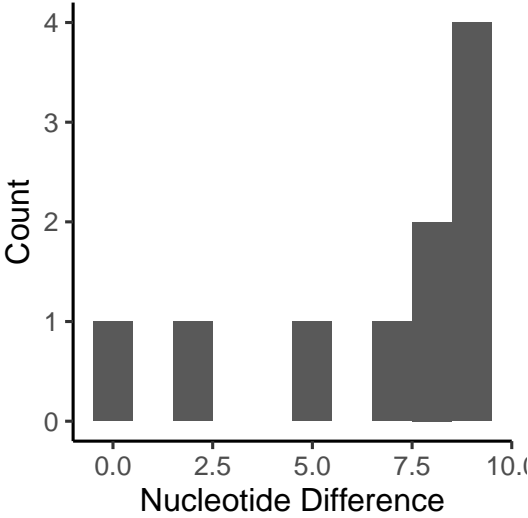
IGHV6-1\*01\_02

393 sequences assigned  
66 (16.8%) exact matches, in which:  
61 unique CDR3  
5 unique J



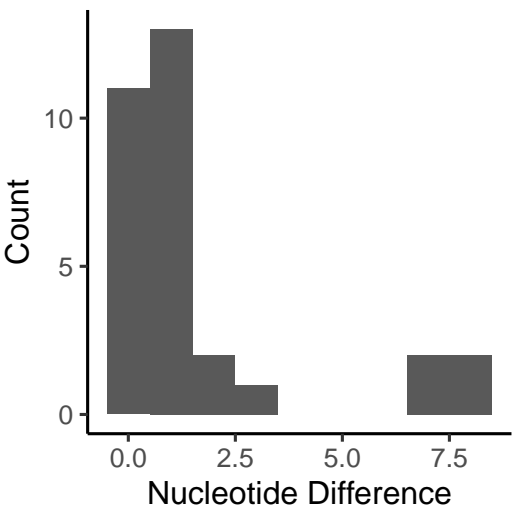
IGHV5-51\*06

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



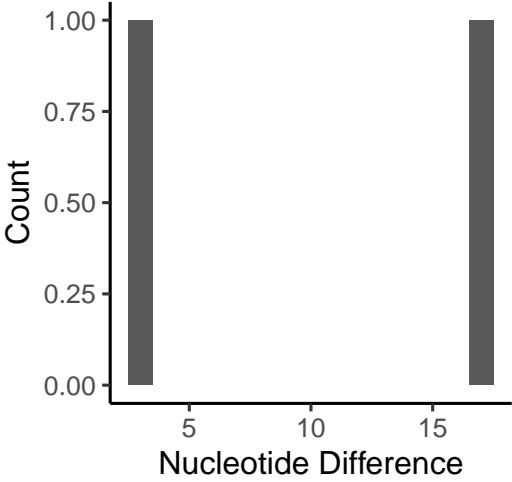
IGHV7-4-1\*01

31 sequences assigned  
11 (35.5%) exact matches, in which:  
11 unique CDR3  
2 unique J

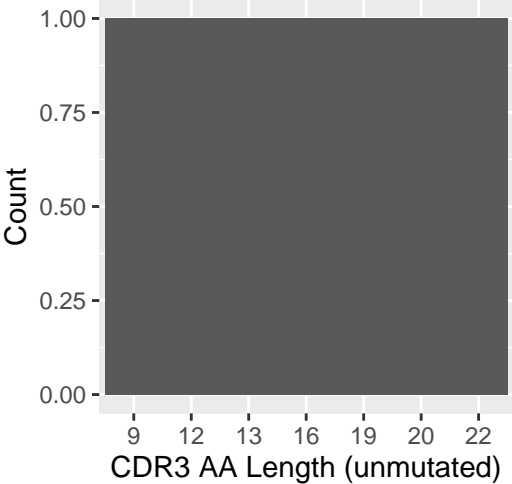


IGHV5-51\*07

3 sequences assigned  
No exact matches.



IGHV3-74\*01\_02\_C246T\_G247T\_T279C\_T300C\_G303A







[illegible]