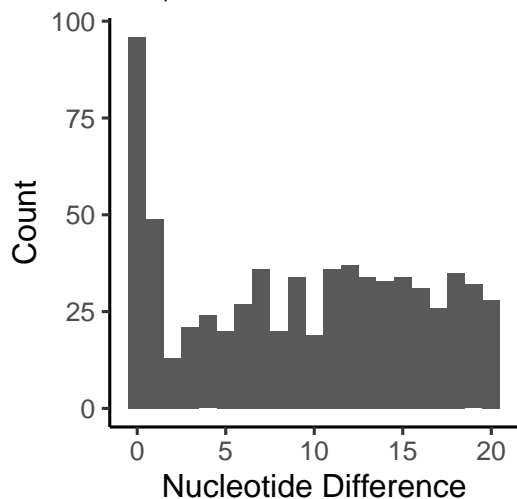


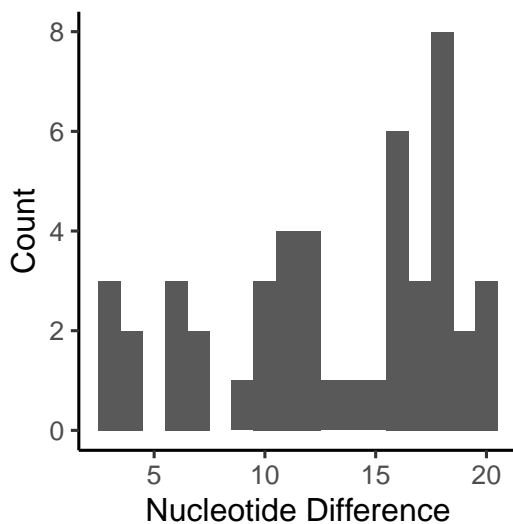
### IGHV1-2\*02

1149 sequences assigned  
96 (8.4%) exact matches, in which:  
95 unique CDR3  
5 unique J



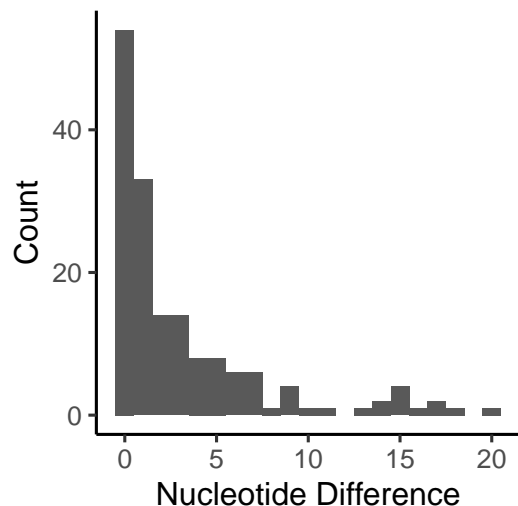
### IGHV1-3\*04

84 sequences assigned  
No exact matches.



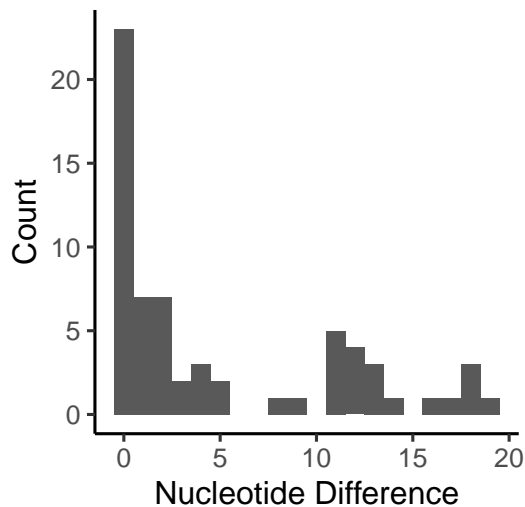
### IGHV1-24\*01

184 sequences assigned  
54 (29.3%) exact matches, in which:  
52 unique CDR3  
5 unique J



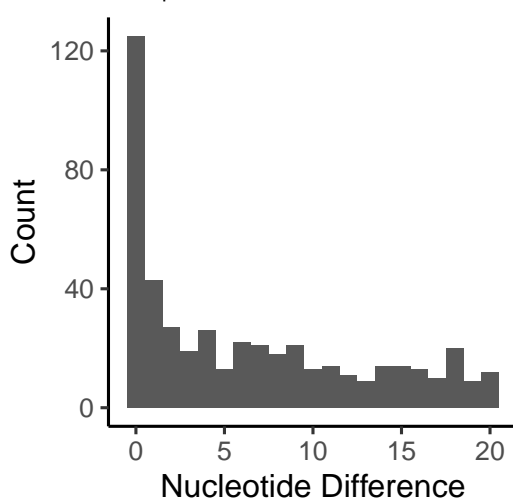
### IGHV1-2\*04

86 sequences assigned  
23 (26.7%) exact matches, in which:  
23 unique CDR3  
4 unique J



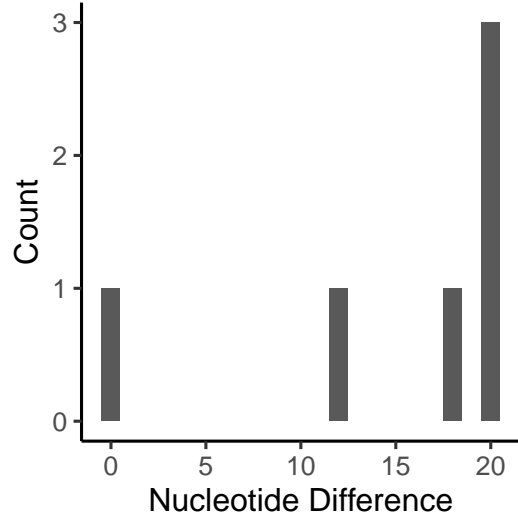
### IGHV1-8\*01

568 sequences assigned  
125 (22%) exact matches, in which:  
122 unique CDR3  
6 unique J



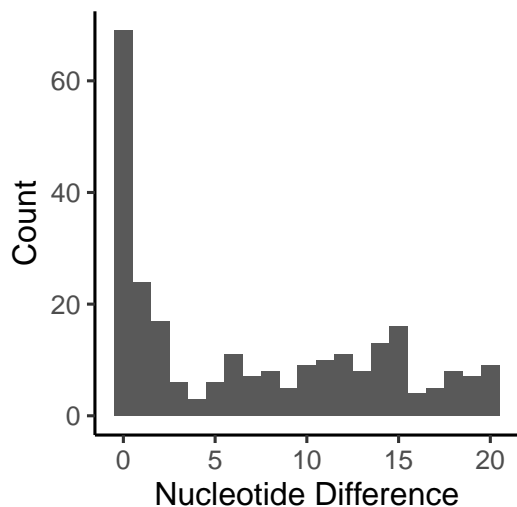
### IGHV1-45\*02

30 sequences assigned  
1 (3.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



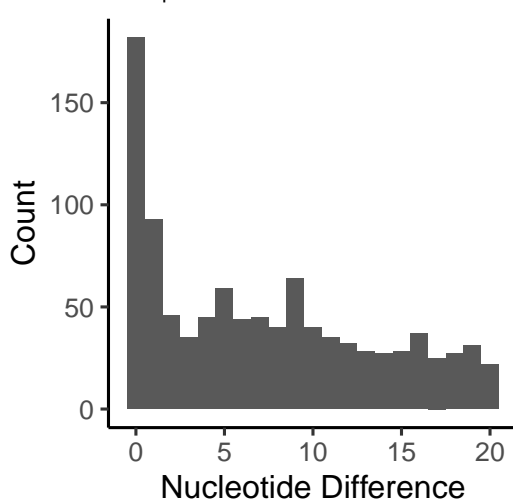
### IGHV1-3\*01

361 sequences assigned  
69 (19.1%) exact matches, in which:  
60 unique CDR3  
5 unique J



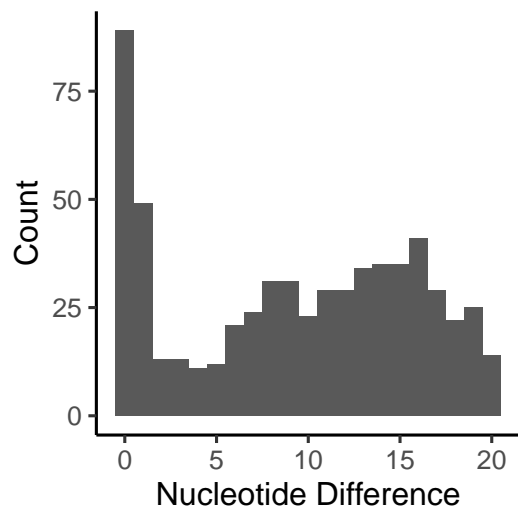
### IGHV1-18\*01

1471 sequences assigned  
182 (12.4%) exact matches, in which:  
172 unique CDR3  
6 unique J



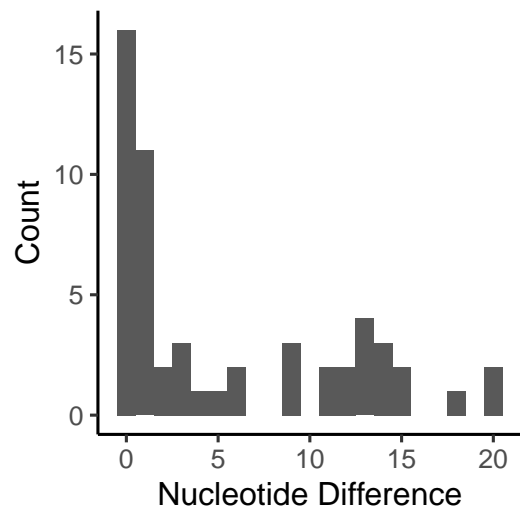
### IGHV1-46\*01

877 sequences assigned  
89 (10.1%) exact matches, in which:  
88 unique CDR3  
5 unique J



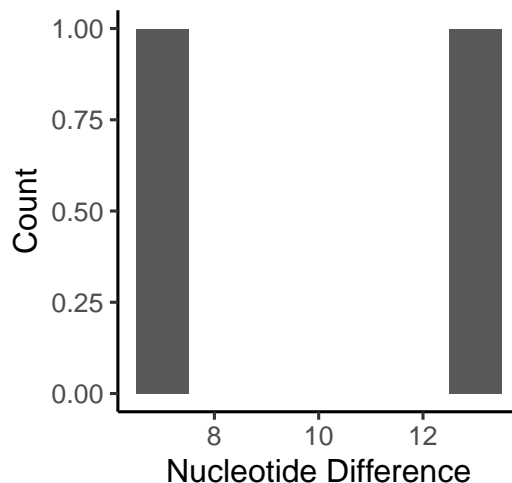
### IGHV1-58\*01

71 sequences assigned  
16 (22.5%) exact matches, in which:  
16 unique CDR3  
4 unique J



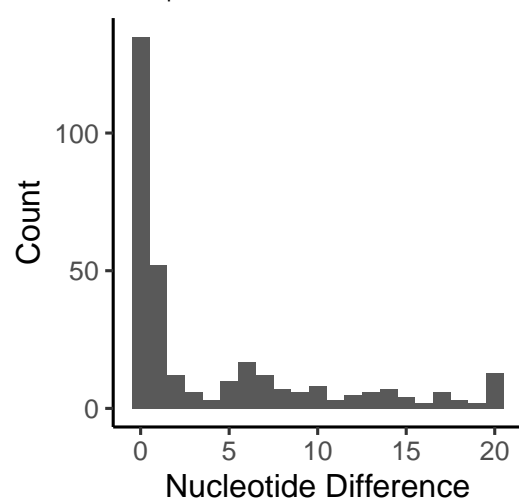
### IGHV1-NL1\*01

2 sequences assigned  
No exact matches.



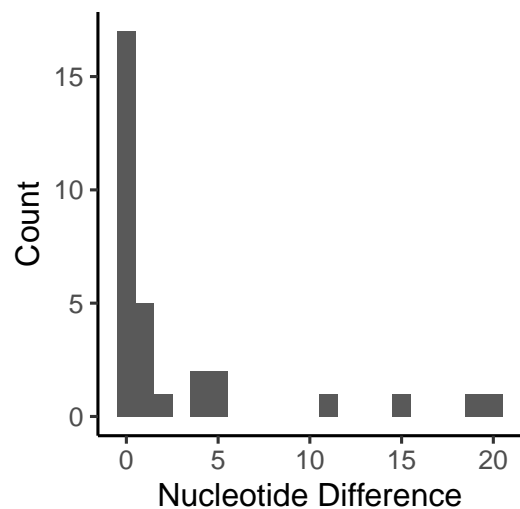
### IGHV2-26\*01

410 sequences assigned  
135 (32.9%) exact matches, in which:  
128 unique CDR3  
6 unique J



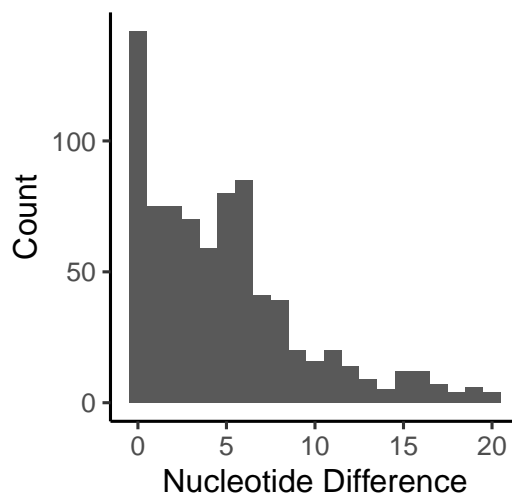
### IGHV1-69-2\*01

51 sequences assigned  
17 (33.3%) exact matches, in which:  
16 unique CDR3  
3 unique J



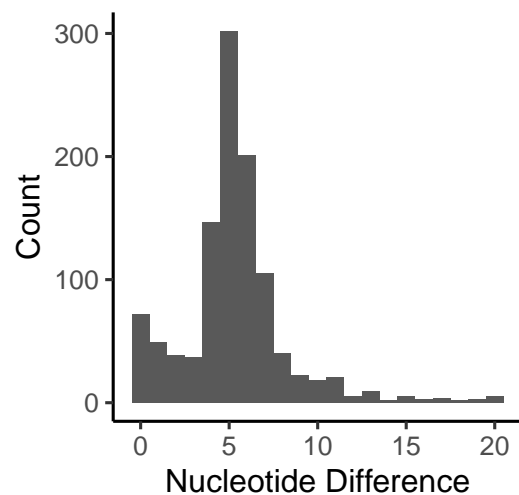
### IGHV2-5\*01

863 sequences assigned  
142 (16.5%) exact matches, in which:  
129 unique CDR3  
6 unique J



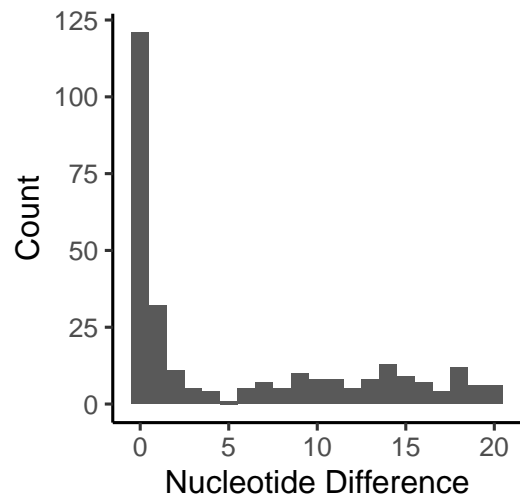
### IGHV2-70\*01

1120 sequences assigned  
72 (6.4%) exact matches, in which:  
70 unique CDR3  
5 unique J



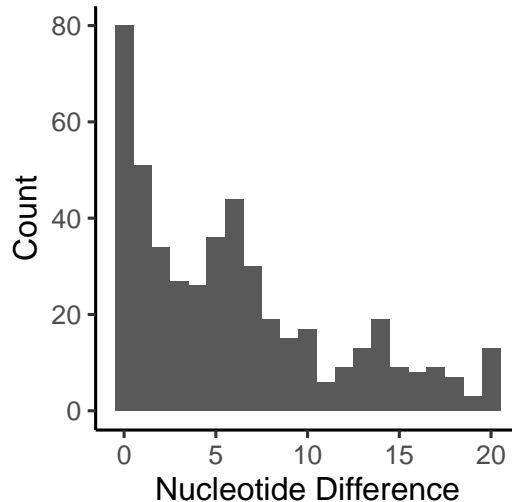
### IGHV1-69\*06

447 sequences assigned  
121 (27.1%) exact matches, in which:  
120 unique CDR3  
5 unique J



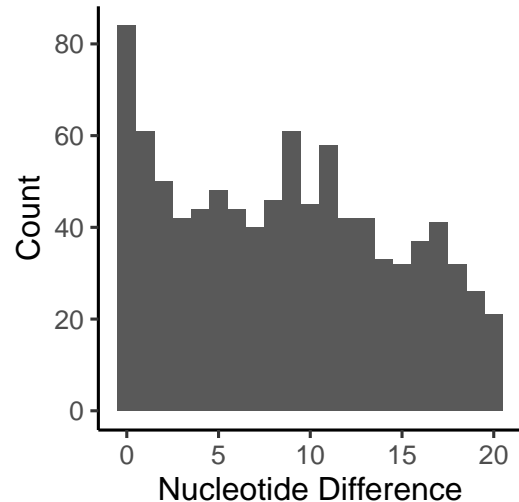
### IGHV2-5\*02

601 sequences assigned  
80 (13.3%) exact matches, in which:  
79 unique CDR3  
6 unique J



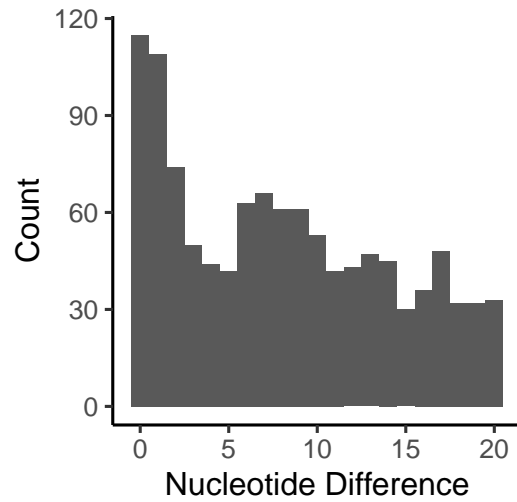
### IGHV3-7\*01

1099 sequences assigned  
84 (7.6%) exact matches, in which:  
74 unique CDR3  
5 unique J



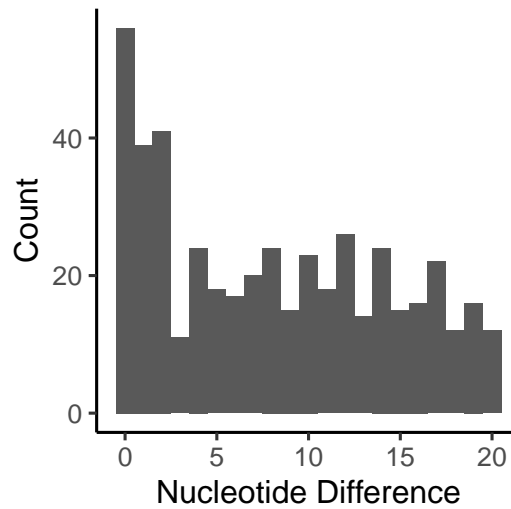
### IGHV3-9\*01

1402 sequences assigned  
115 (8.2%) exact matches, in which:  
105 unique CDR3  
5 unique J



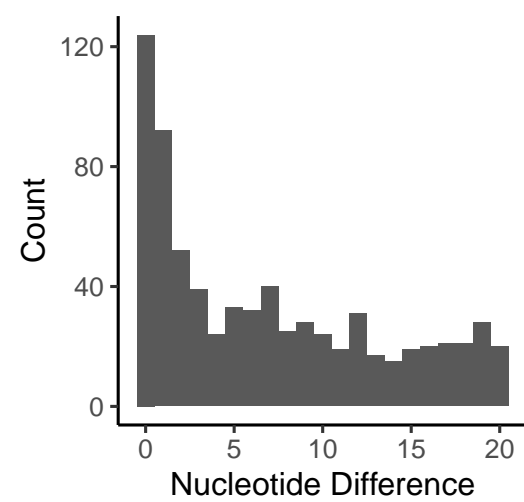
### IGHV3-15\*01

607 sequences assigned  
56 (9.2%) exact matches, in which:  
54 unique CDR3  
4 unique J



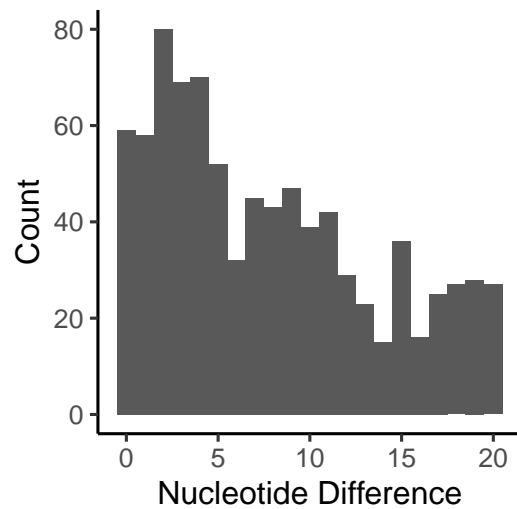
### IGHV3-21\*01

944 sequences assigned  
124 (13.1%) exact matches, in which:  
118 unique CDR3  
6 unique J



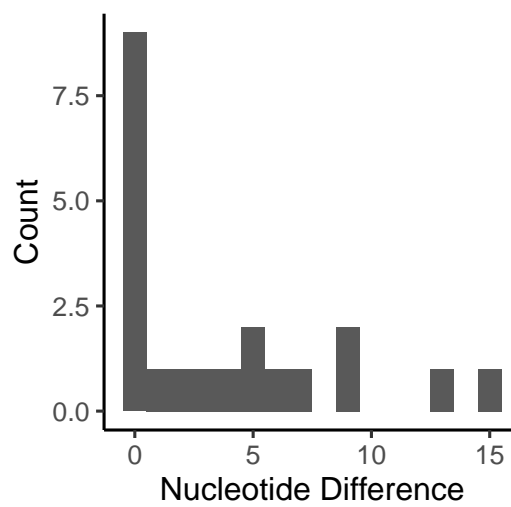
### IGHV3-11\*01

1160 sequences assigned  
59 (5.1%) exact matches, in which:  
58 unique CDR3  
5 unique J



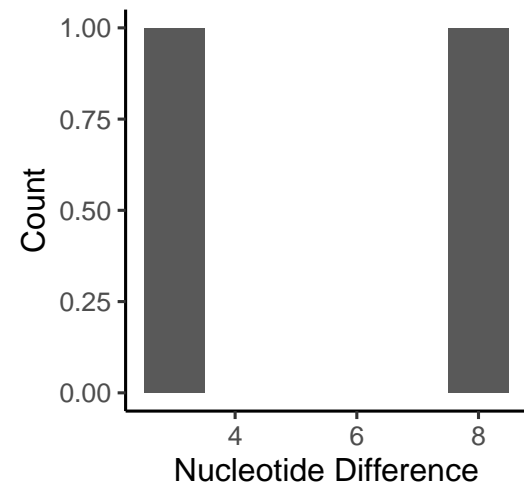
### IGHV3-20\*01

28 sequences assigned  
9 (32.1%) exact matches, in which:  
9 unique CDR3  
4 unique J



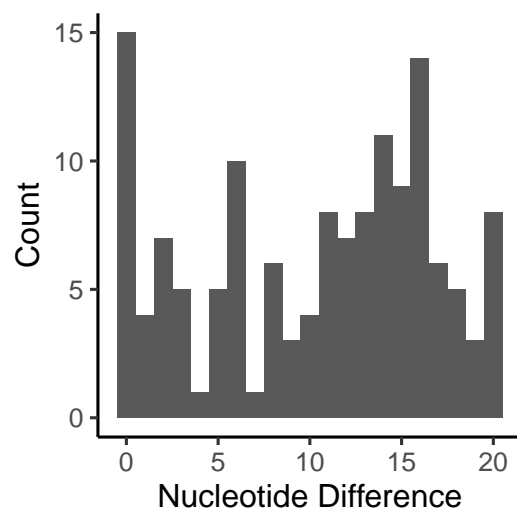
### IGHV3-30-3\*03

32 sequences assigned  
No exact matches.



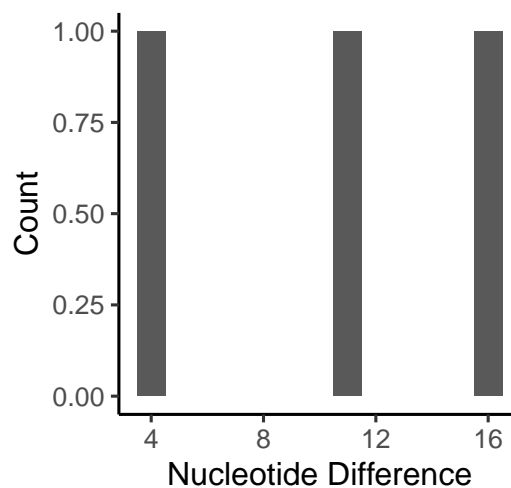
### IGHV3-13\*01

221 sequences assigned  
15 (6.8%) exact matches, in which:  
15 unique CDR3  
4 unique J



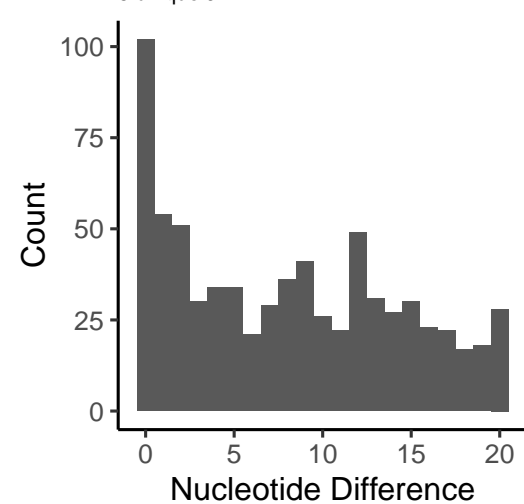
### IGHV3-20\*04

18 sequences assigned  
No exact matches.



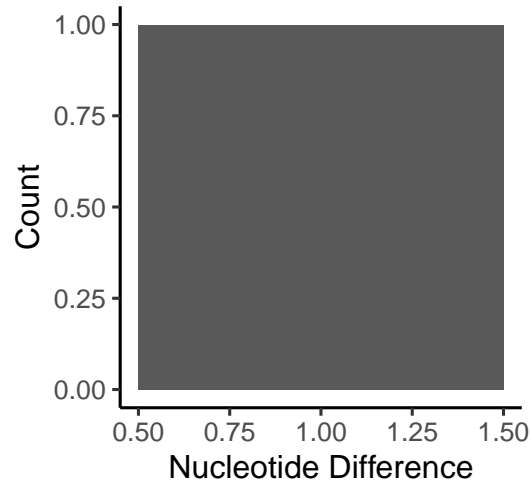
### IGHV3-33\*01

918 sequences assigned  
102 (11.1%) exact matches, in which:  
101 unique CDR3  
5 unique J



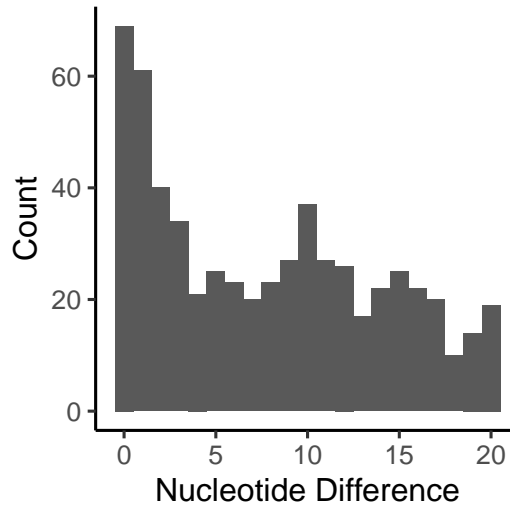
### IGHV3-35\*01

1 sequences assigned  
No exact matches.



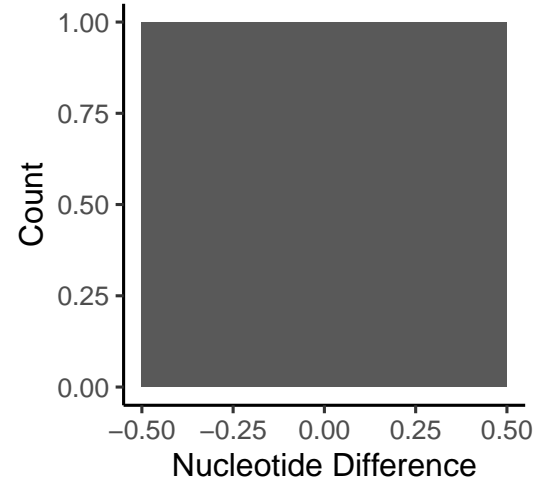
### IGHV3-48\*02

759 sequences assigned  
69 (9.1%) exact matches, in which:  
60 unique CDR3  
6 unique J



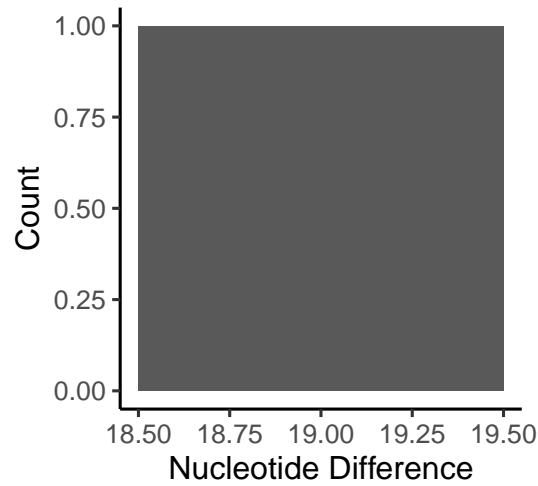
### IGHV3-64\*01

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



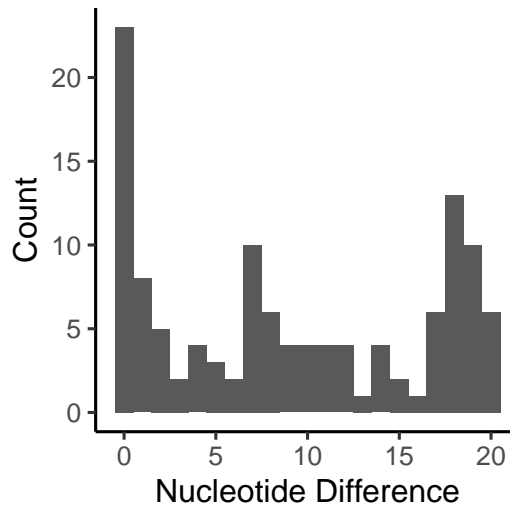
### IGHV3-41\*02

1 sequences assigned  
No exact matches.



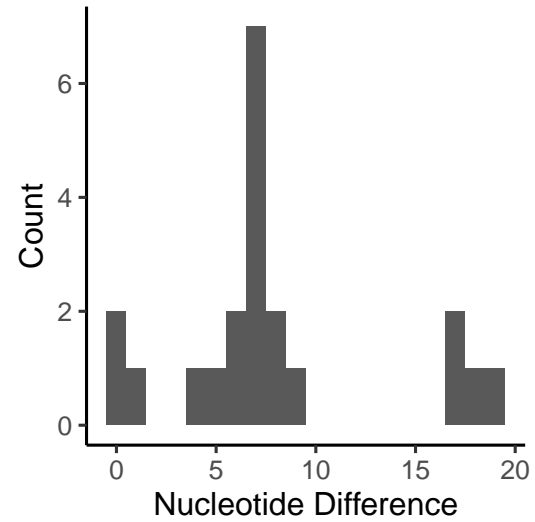
### IGHV3-49\*05

260 sequences assigned  
23 (8.8%) exact matches, in which:  
23 unique CDR3  
6 unique J



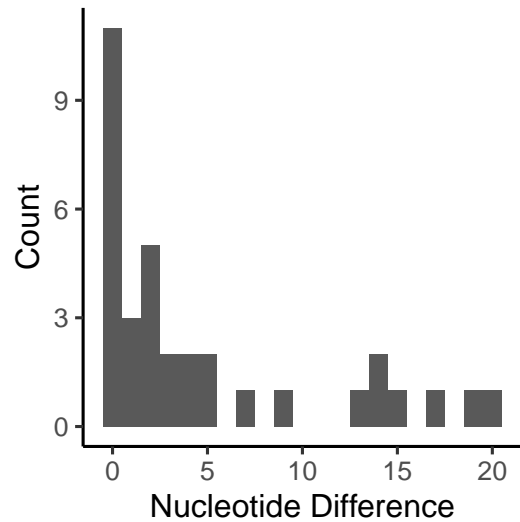
### IGHV3-64\*02

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



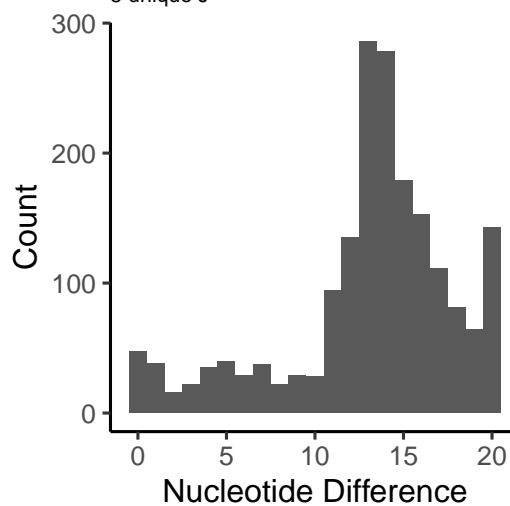
### IGHV3-43\*01

64 sequences assigned  
11 (17.2%) exact matches, in which:  
10 unique CDR3  
3 unique J



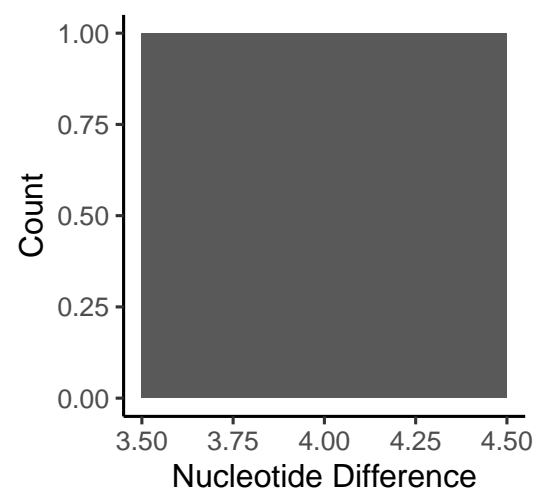
### IGHV3-53\*01

2551 sequences assigned  
47 (1.8%) exact matches, in which:  
44 unique CDR3  
5 unique J



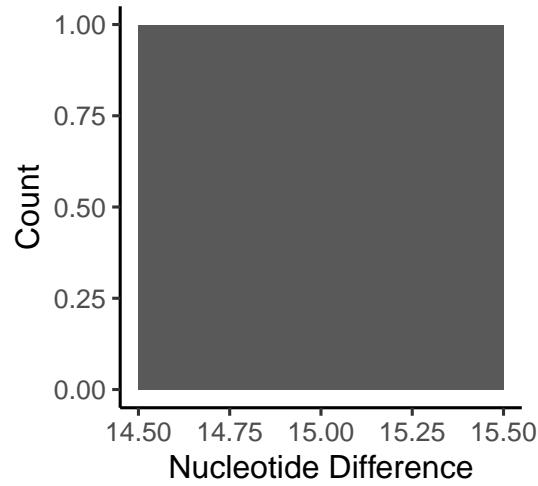
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



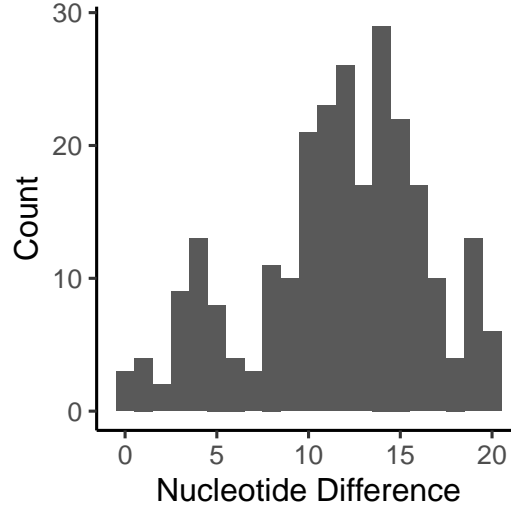
### IGHV3-69-1\*01

4 sequences assigned  
No exact matches.



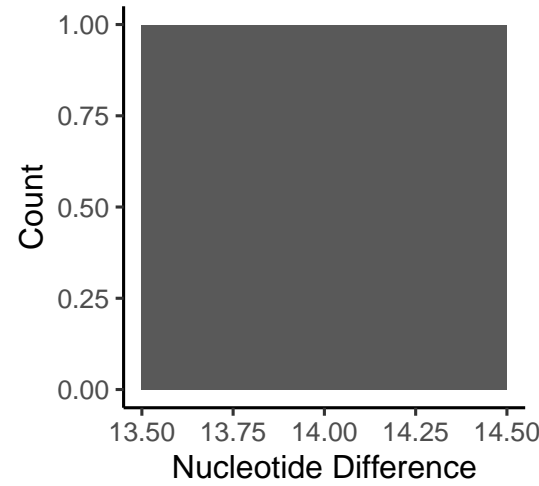
### IGHV3-72\*01

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



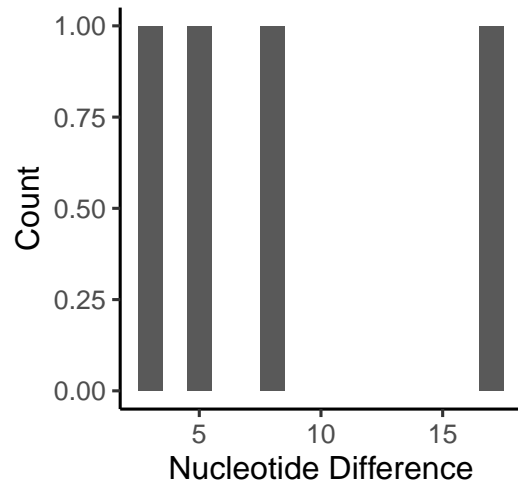
### IGHV3-43D\*04

2 sequences assigned  
No exact matches.



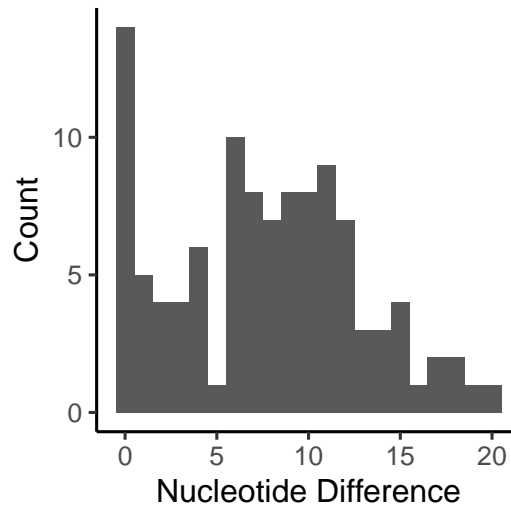
### IGHV3-69-1\*02

4 sequences assigned  
No exact matches.



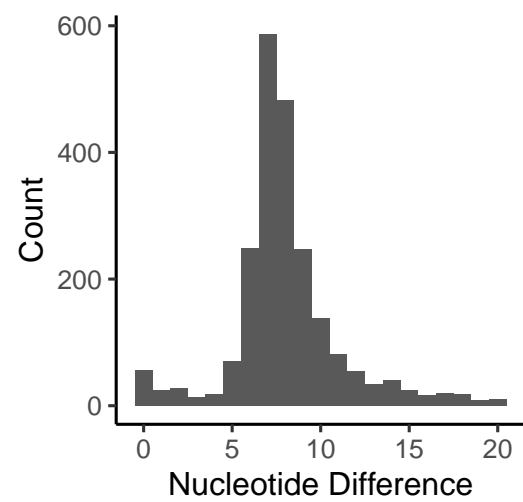
### IGHV3-73\*02

117 sequences assigned  
14 (12%) exact matches, in which:  
14 unique CDR3  
3 unique J



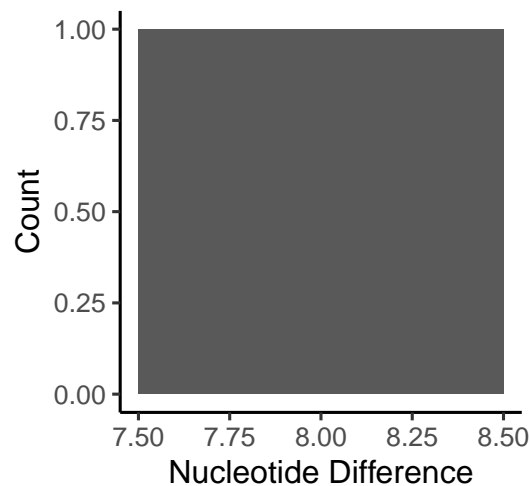
### IGHV4-4\*02

2348 sequences assigned  
56 (2.4%) exact matches, in which:  
46 unique CDR3  
5 unique J



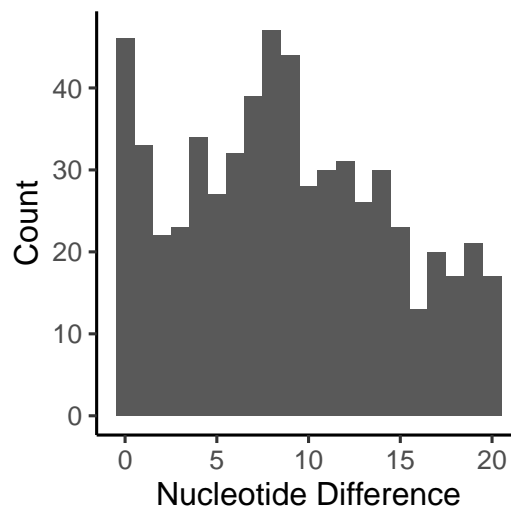
### IGHV3-71\*01

1 sequences assigned  
No exact matches.



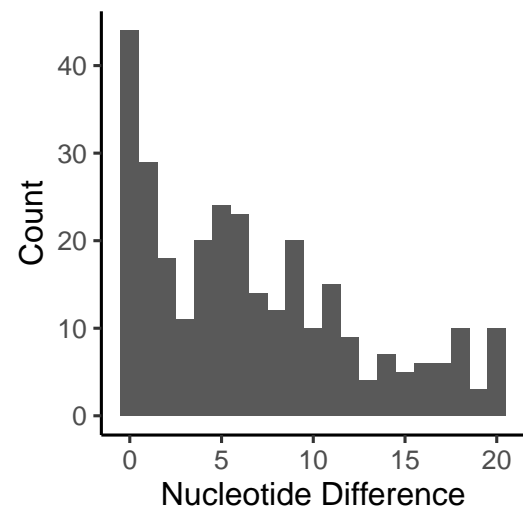
### IGHV3-74\*01

770 sequences assigned  
46 (6%) exact matches, in which:  
41 unique CDR3  
5 unique J



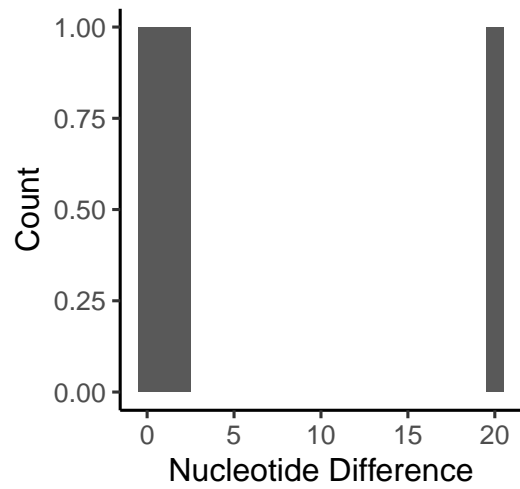
### IGHV4-4\*07

388 sequences assigned  
44 (11.3%) exact matches, in which:  
43 unique CDR3  
6 unique J



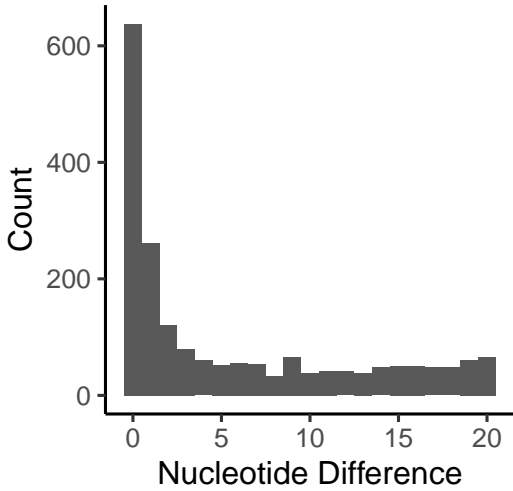
### IGHV4-28\*01

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



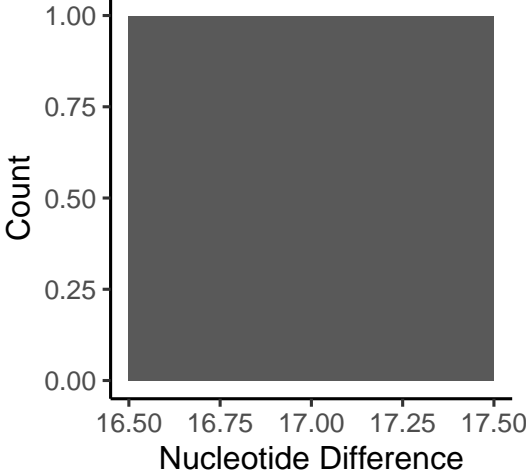
### IGHV4-34\*01

3036 sequences assigned  
638 (21%) exact matches, in which:  
632 unique CDR3  
6 unique J



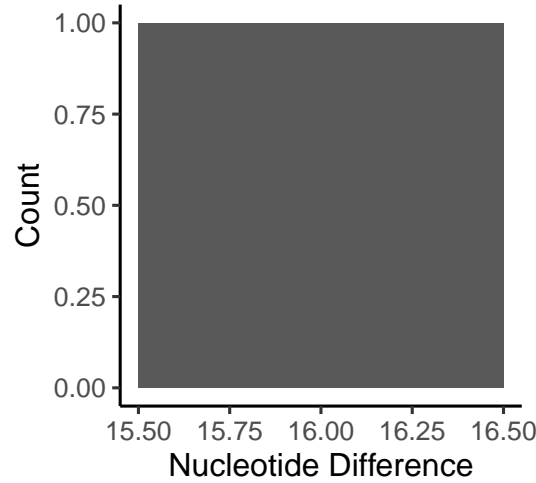
### IGHV4-55\*08

1 sequences assigned  
No exact matches.



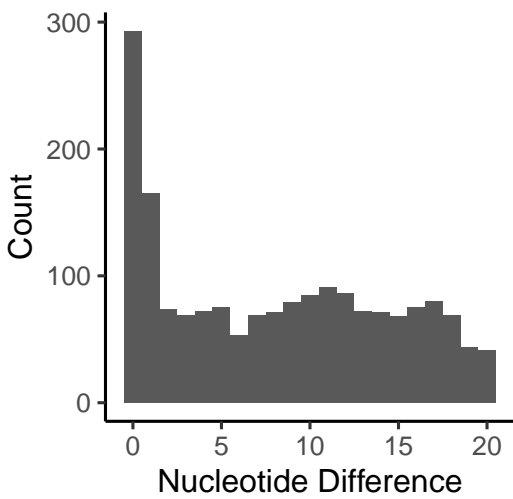
### IGHV4-30-4\*05

2 sequences assigned  
No exact matches.



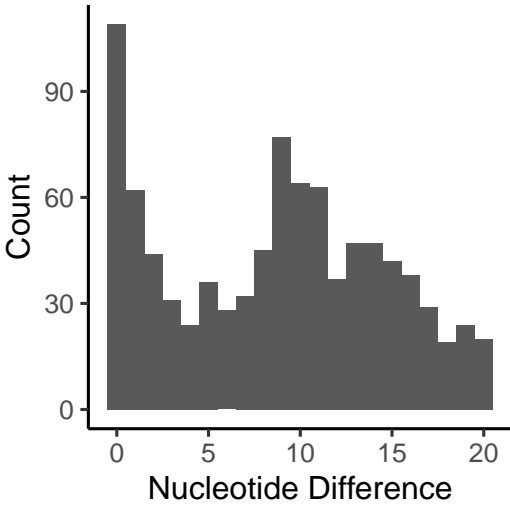
### IGHV4-39\*01

3187 sequences assigned  
293 (9.2%) exact matches, in which:  
285 unique CDR3  
6 unique J



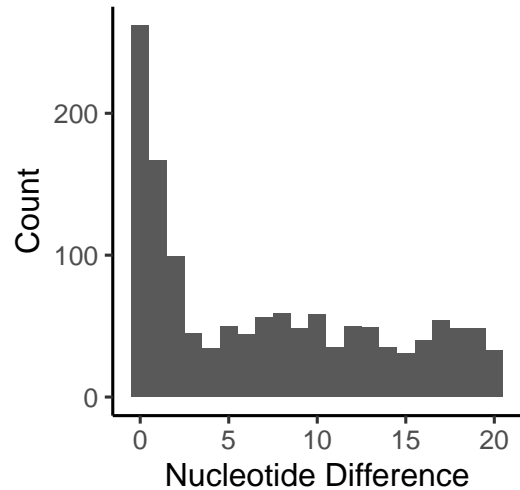
### IGHV4-59\*01

1085 sequences assigned  
109 (10%) exact matches, in which:  
102 unique CDR3  
5 unique J



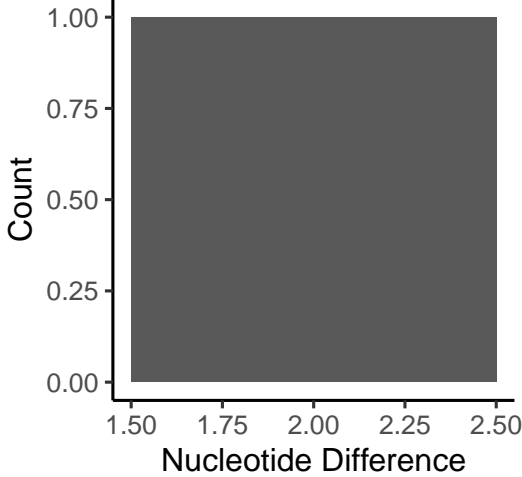
### IGHV4-31\*03

1706 sequences assigned  
262 (15.4%) exact matches, in which:  
242 unique CDR3  
6 unique J



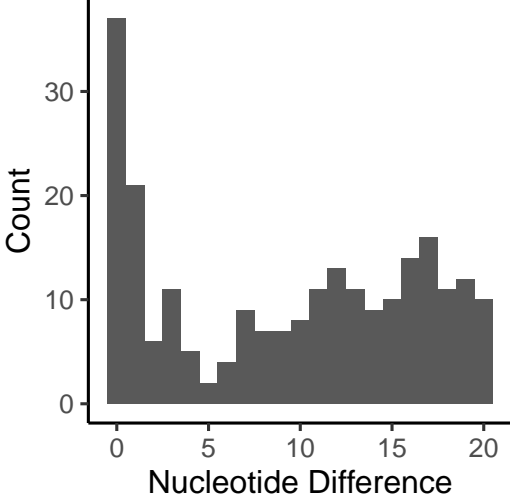
### IGHV4-55\*01

1 sequences assigned  
No exact matches.



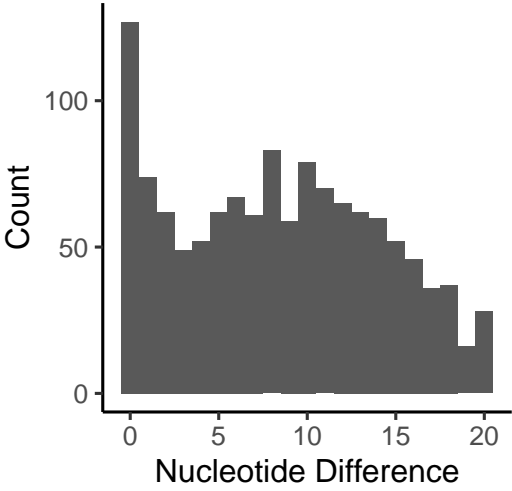
### IGHV4-61\*01

310 sequences assigned  
37 (11.9%) exact matches, in which:  
37 unique CDR3  
5 unique J



# IGHV5-51\*01

1458 sequences assigned  
127 (8.7%) exact matches, in which:  
122 unique CDR3  
5 unique J



# IGHV6-1\*01

333 sequences assigned  
29 (8.7%) exact matches, in which:  
26 unique CDR3  
5 unique J

