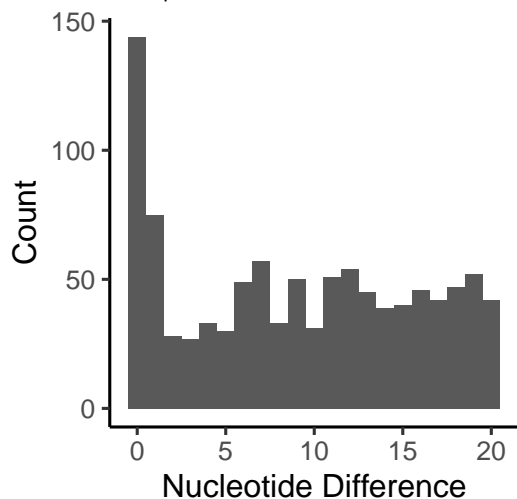


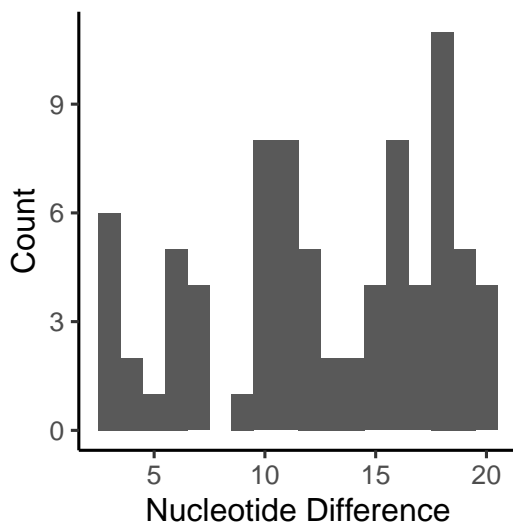
### IGHV1-2\*02

1675 sequences assigned  
144 (8.6%) exact matches, in which:  
139 unique CDR3  
5 unique J



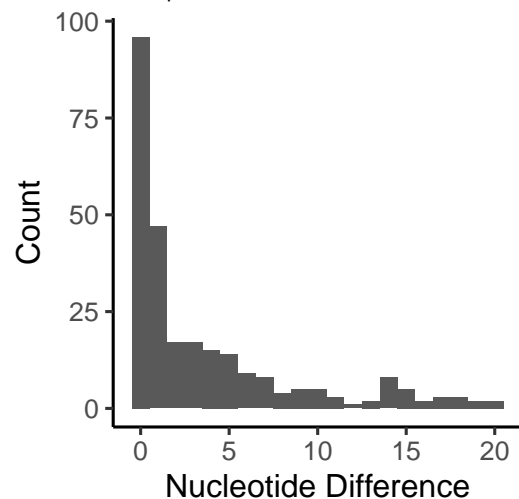
### IGHV1-3\*04

144 sequences assigned  
No exact matches.



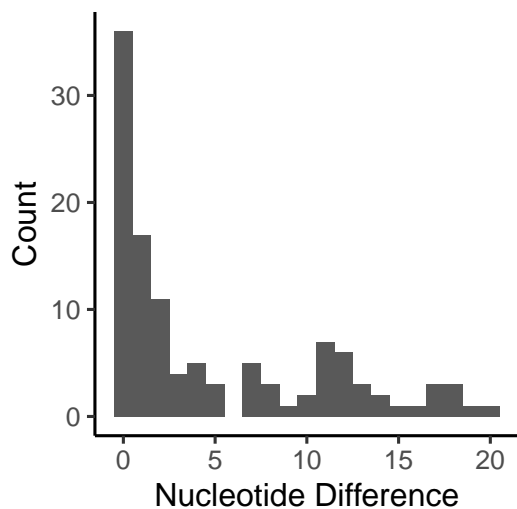
### IGHV1-24\*01

317 sequences assigned  
96 (30.3%) exact matches, in which:  
89 unique CDR3  
6 unique J



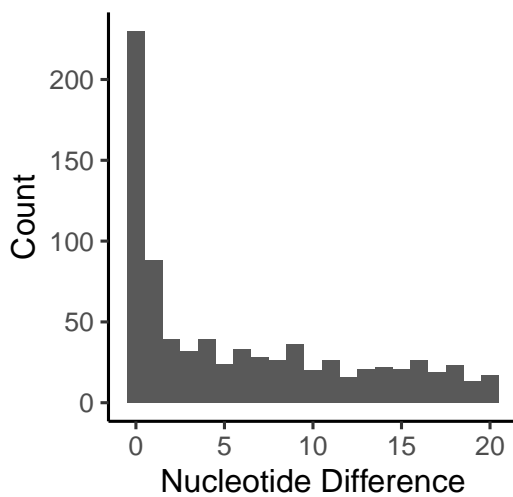
### IGHV1-2\*04

146 sequences assigned  
36 (24.7%) exact matches, in which:  
36 unique CDR3  
4 unique J



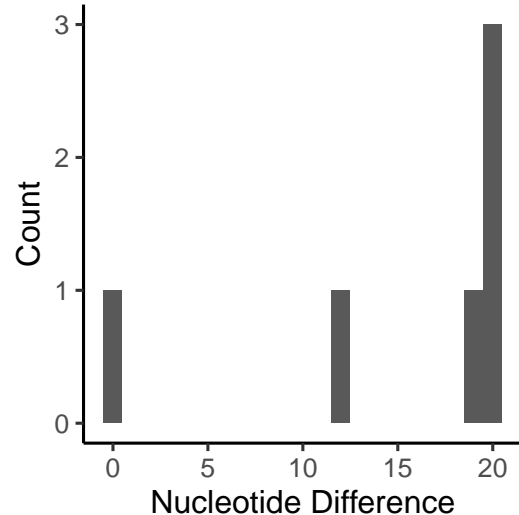
### IGHV1-8\*01

937 sequences assigned  
230 (24.5%) exact matches, in which:  
225 unique CDR3  
6 unique J



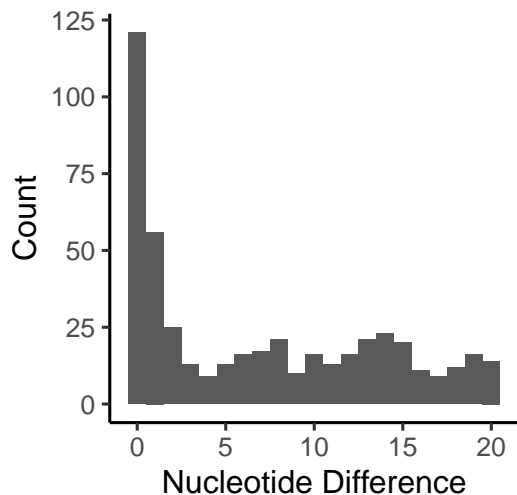
### IGHV1-45\*02

46 sequences assigned  
1 (2.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



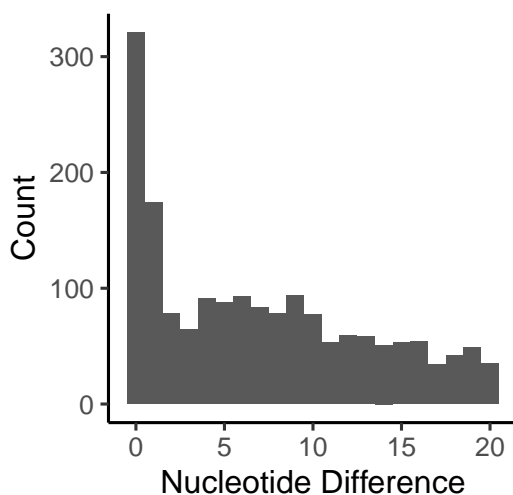
### IGHV1-3\*01

644 sequences assigned  
121 (18.8%) exact matches, in which:  
97 unique CDR3  
6 unique J



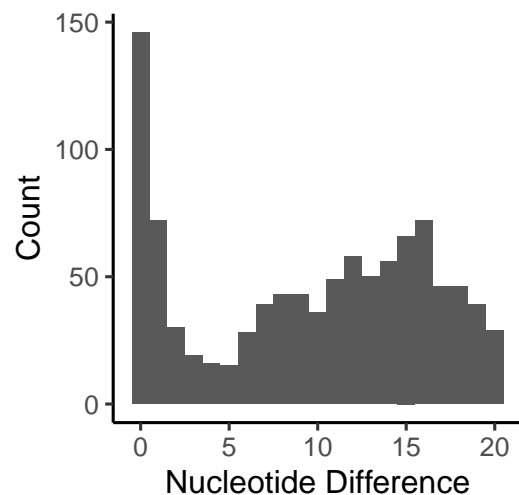
### IGHV1-18\*01

2535 sequences assigned  
321 (12.7%) exact matches, in which:  
300 unique CDR3  
6 unique J



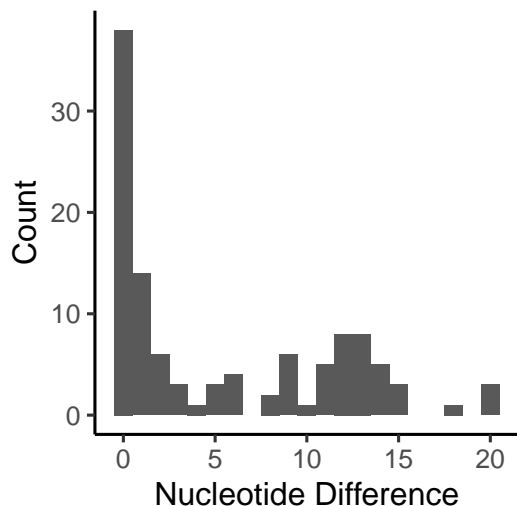
### IGHV1-46\*01

1417 sequences assigned  
146 (10.3%) exact matches, in which:  
143 unique CDR3  
6 unique J



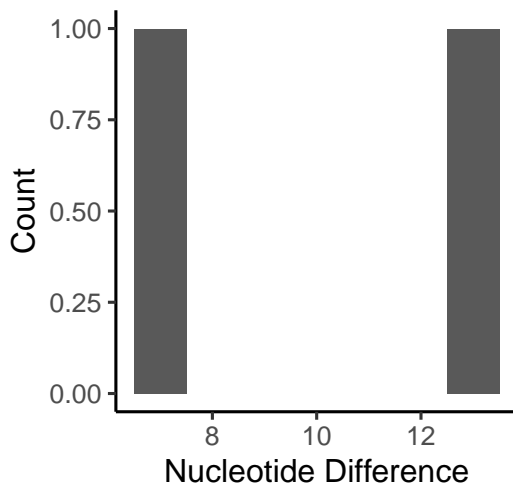
### IGHV1-58\*01

137 sequences assigned  
38 (27.7%) exact matches, in which:  
38 unique CDR3  
5 unique J



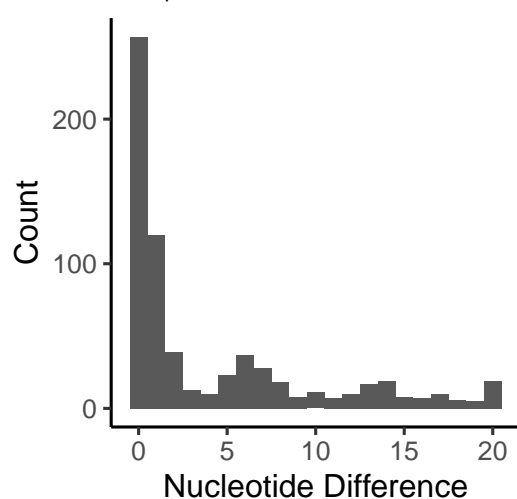
### IGHV1-NL1\*01

2 sequences assigned  
No exact matches.



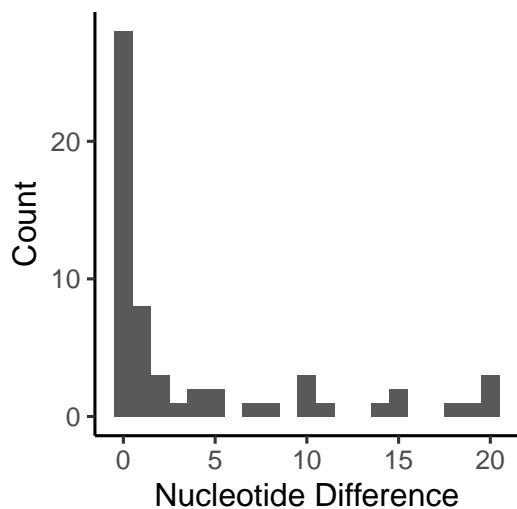
### IGHV2-26\*01

827 sequences assigned  
257 (31.1%) exact matches, in which:  
243 unique CDR3  
6 unique J



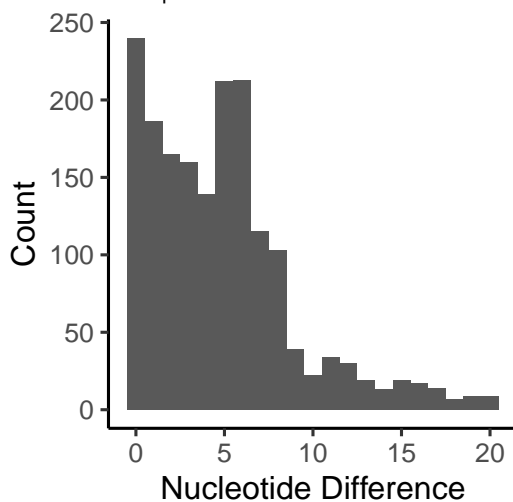
### IGHV1-69-2\*01

86 sequences assigned  
28 (32.6%) exact matches, in which:  
27 unique CDR3  
4 unique J



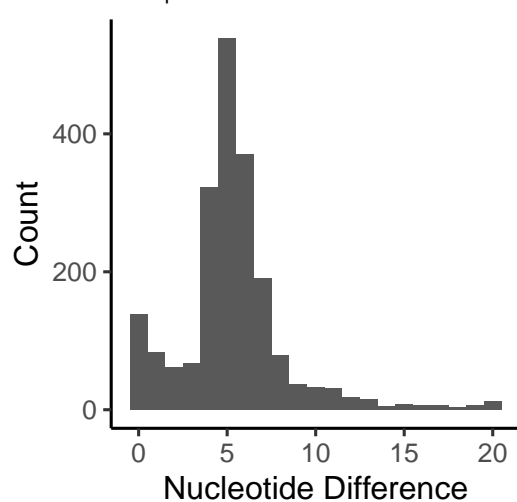
### IGHV2-5\*01

1887 sequences assigned  
240 (12.7%) exact matches, in which:  
217 unique CDR3  
6 unique J



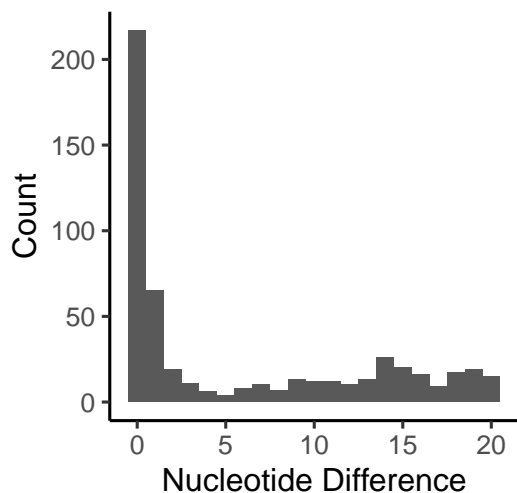
### IGHV2-70\*01

2106 sequences assigned  
138 (6.6%) exact matches, in which:  
134 unique CDR3  
5 unique J



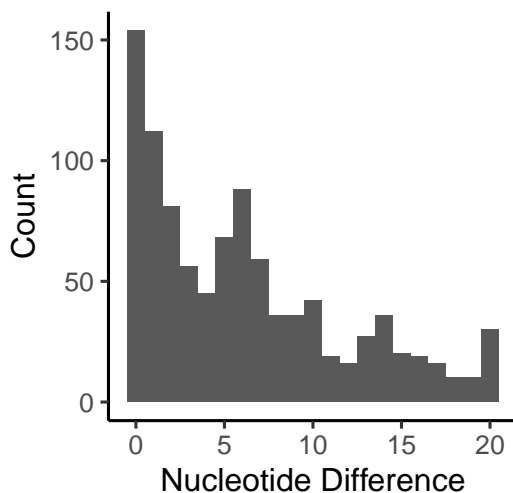
### IGHV1-69\*06

803 sequences assigned  
217 (27%) exact matches, in which:  
214 unique CDR3  
6 unique J



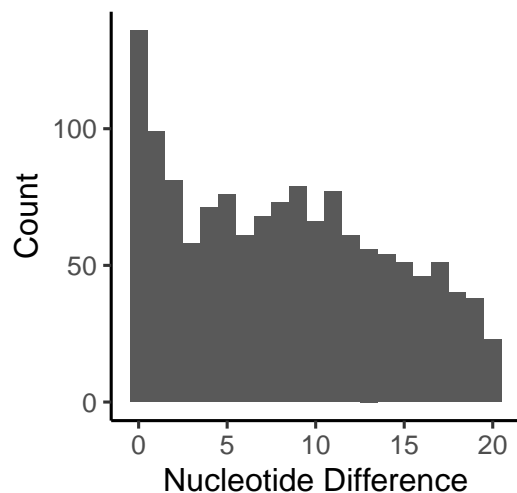
### IGHV2-5\*02

1202 sequences assigned  
154 (12.8%) exact matches, in which:  
144 unique CDR3  
6 unique J



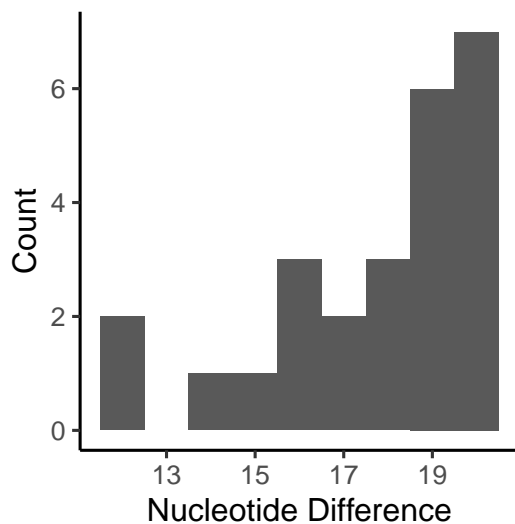
### IGHV3-7\*01

1596 sequences assigned  
136 (8.5%) exact matches, in which:  
119 unique CDR3  
5 unique J



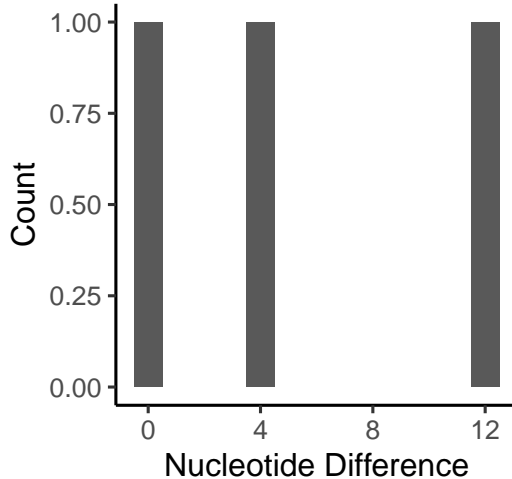
### IGHV3-7\*03

43 sequences assigned  
No exact matches.



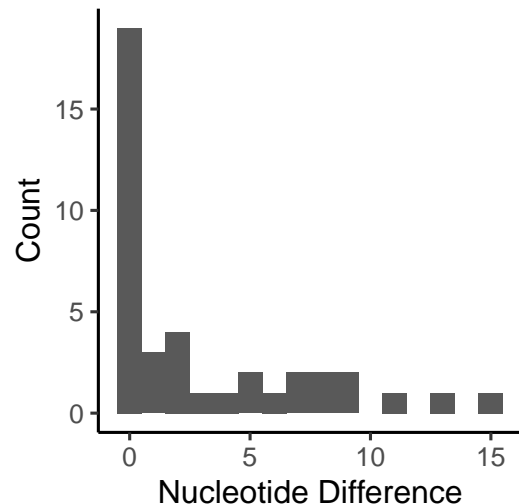
### IGHV3-11\*06

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



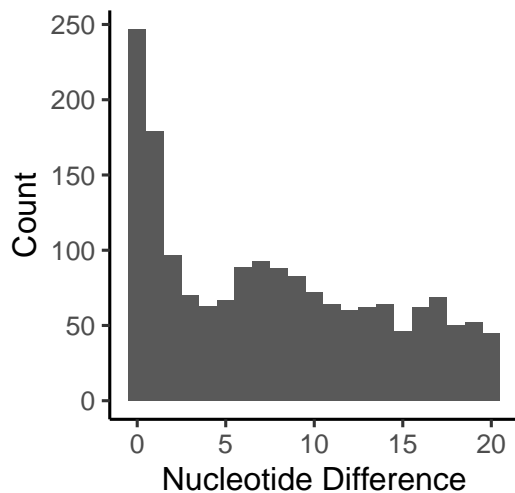
### IGHV3-20\*01

50 sequences assigned  
19 (38%) exact matches, in which:  
19 unique CDR3  
5 unique J



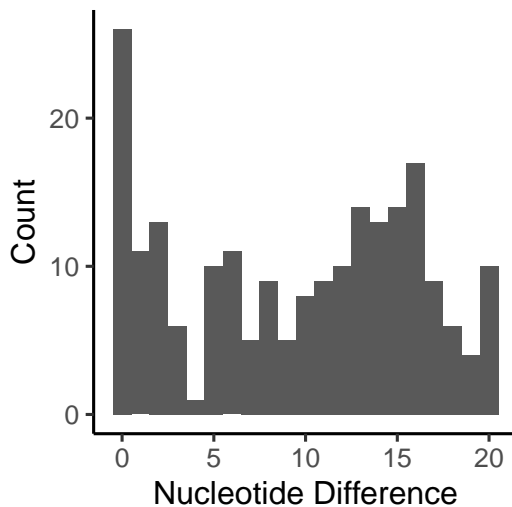
### IGHV3-9\*01

2090 sequences assigned  
247 (11.8%) exact matches, in which:  
223 unique CDR3  
5 unique J



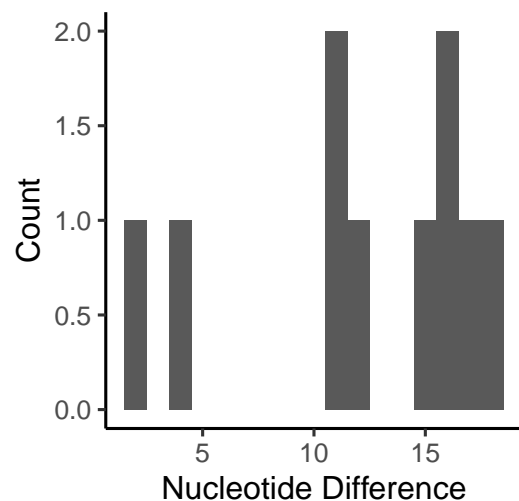
### IGHV3-13\*01

335 sequences assigned  
26 (7.8%) exact matches, in which:  
26 unique CDR3  
4 unique J



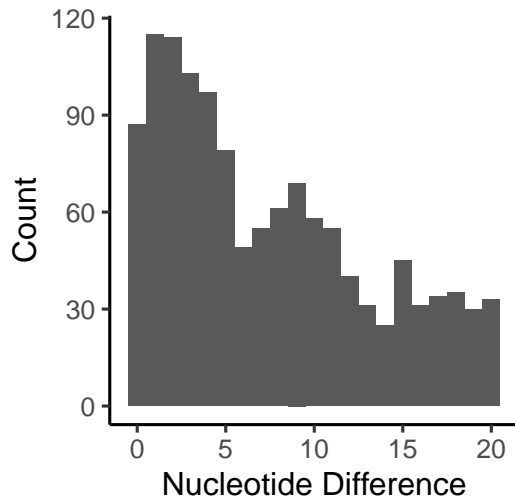
### IGHV3-20\*04

29 sequences assigned  
No exact matches.



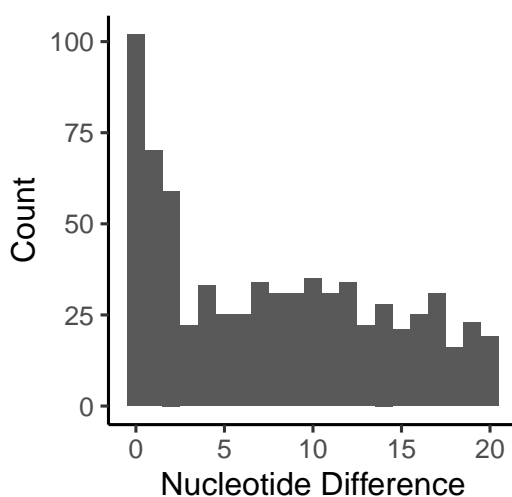
### IGHV3-11\*01

1601 sequences assigned  
87 (5.4%) exact matches, in which:  
83 unique CDR3  
6 unique J



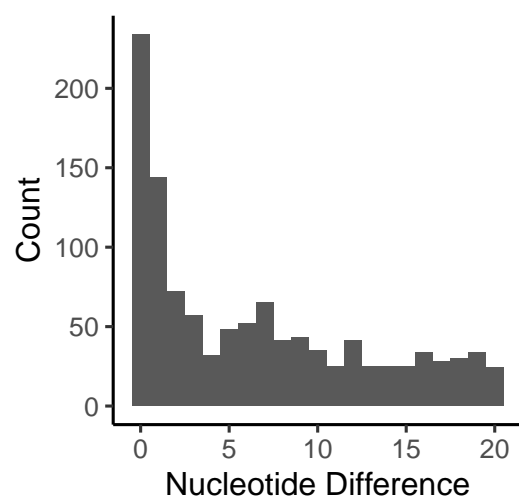
### IGHV3-15\*01

904 sequences assigned  
102 (11.3%) exact matches, in which:  
98 unique CDR3  
5 unique J



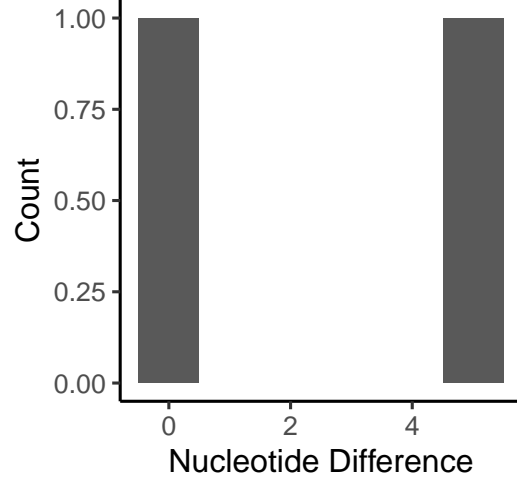
### IGHV3-21\*01

1419 sequences assigned  
234 (16.5%) exact matches, in which:  
224 unique CDR3  
6 unique J



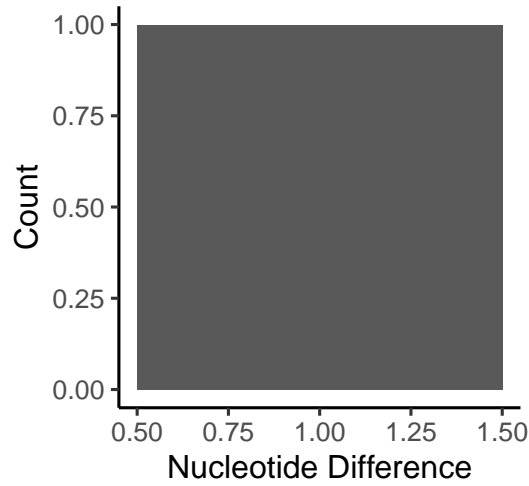
### IGHV3-30-3\*01

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



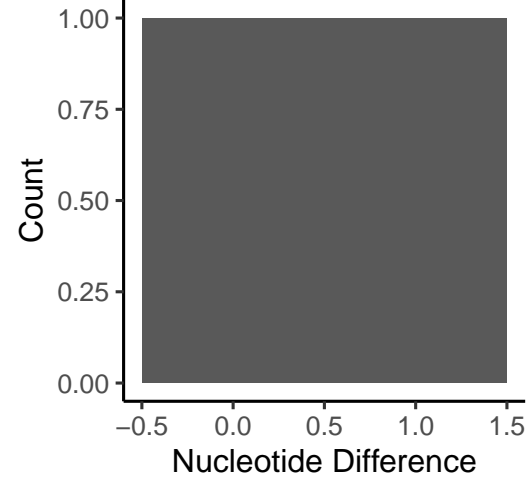
### IGHV3-35\*01

1 sequences assigned  
No exact matches.



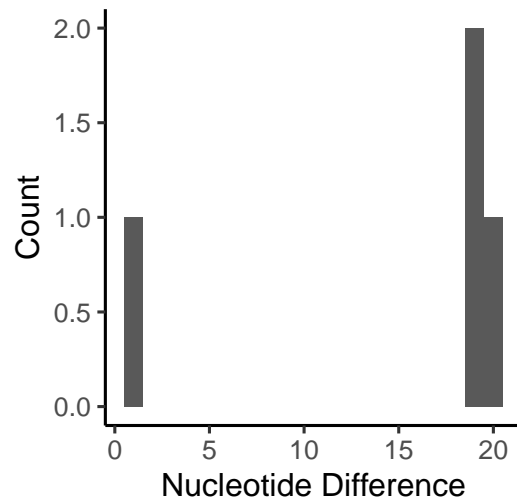
### IGHV3-47\*02

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



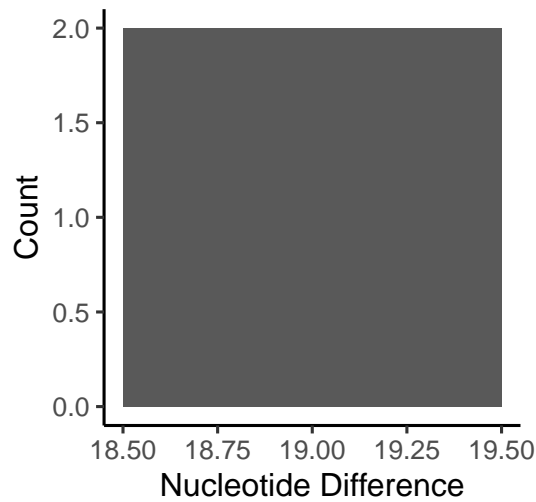
### IGHV3-30-3\*03

40 sequences assigned  
No exact matches.



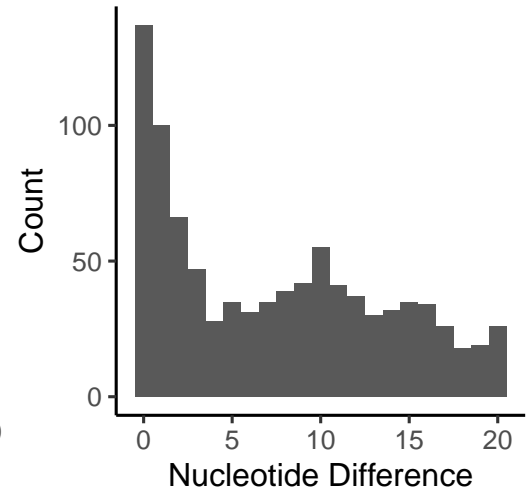
### IGHV3-41\*02

2 sequences assigned  
No exact matches.



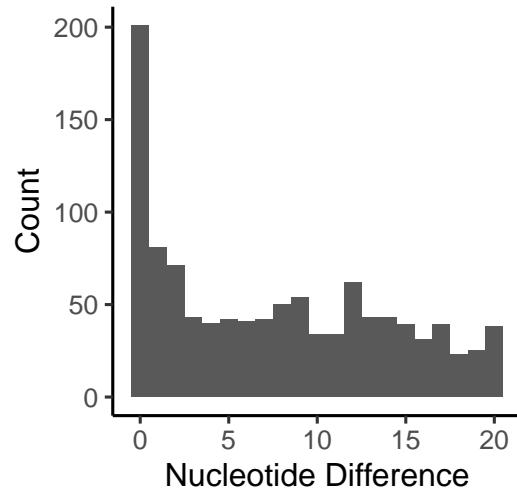
### IGHV3-48\*02

1155 sequences assigned  
137 (11.9%) exact matches, in which:  
124 unique CDR3  
6 unique J



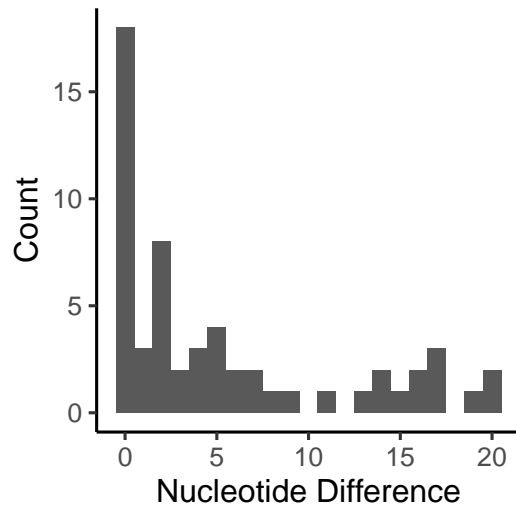
### IGHV3-33\*01

1338 sequences assigned  
201 (15%) exact matches, in which:  
197 unique CDR3  
6 unique J



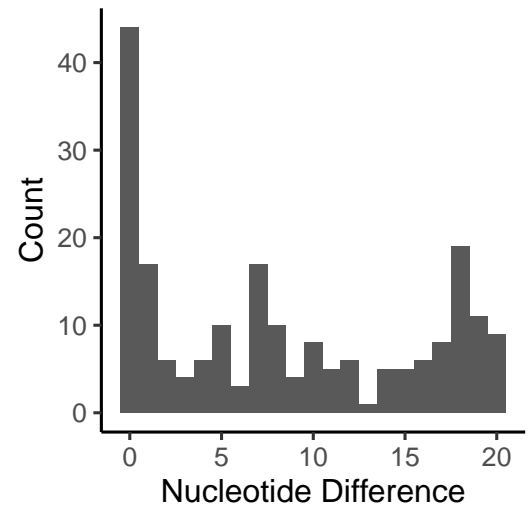
### IGHV3-43\*01

95 sequences assigned  
18 (18.9%) exact matches, in which:  
17 unique CDR3  
3 unique J



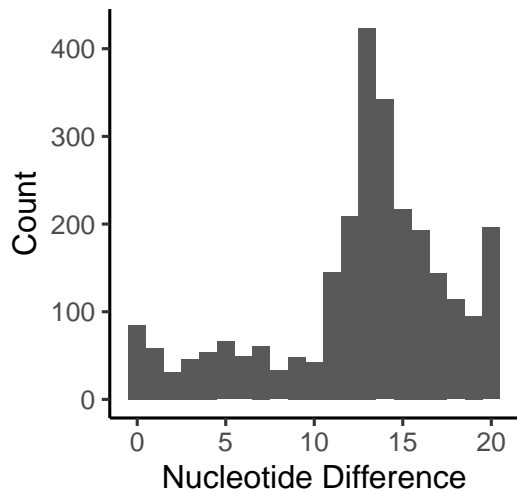
### IGHV3-49\*05

381 sequences assigned  
44 (11.5%) exact matches, in which:  
44 unique CDR3  
6 unique J



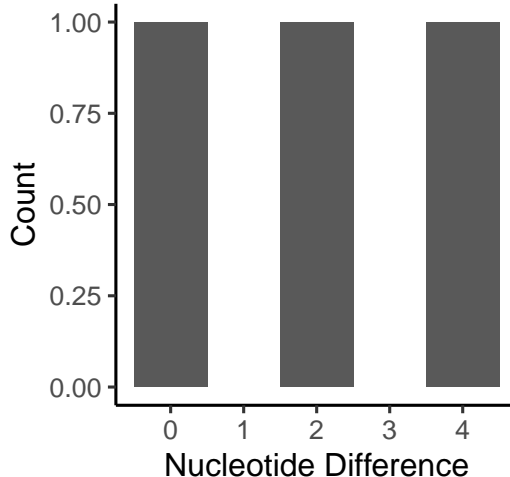
### IGHV3–53\*01

3531 sequences assigned  
85 (2.4%) exact matches, in which:  
80 unique CDR3  
6 unique J



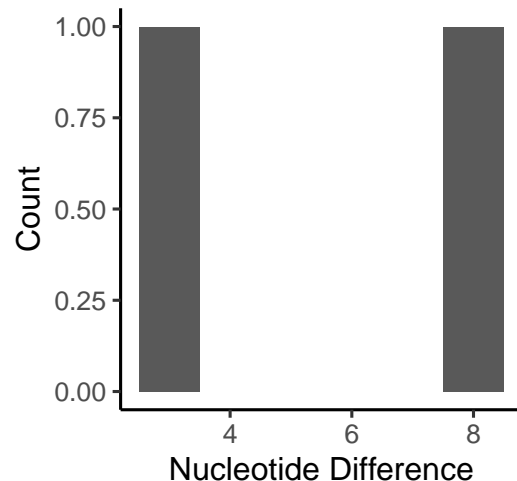
### IGHV3–66\*04

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



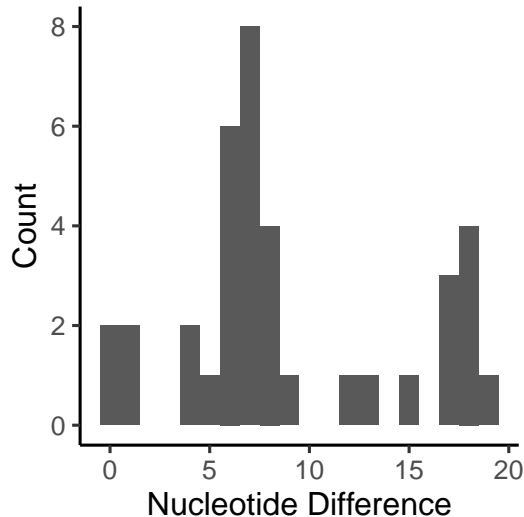
### IGHV3–71\*01

2 sequences assigned  
No exact matches.



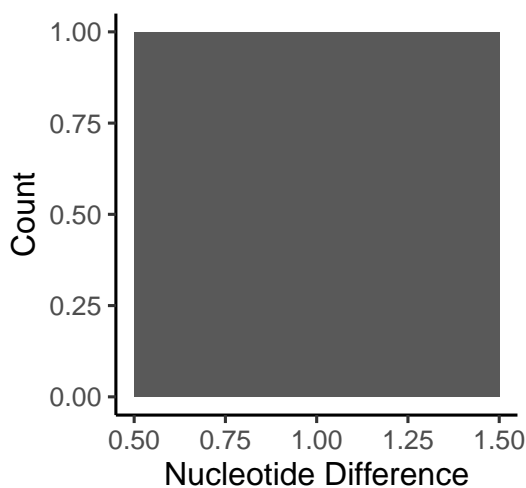
### IGHV3–64\*02

42 sequences assigned  
2 (4.8%) exact matches, in which:  
2 unique CDR3  
1 unique J



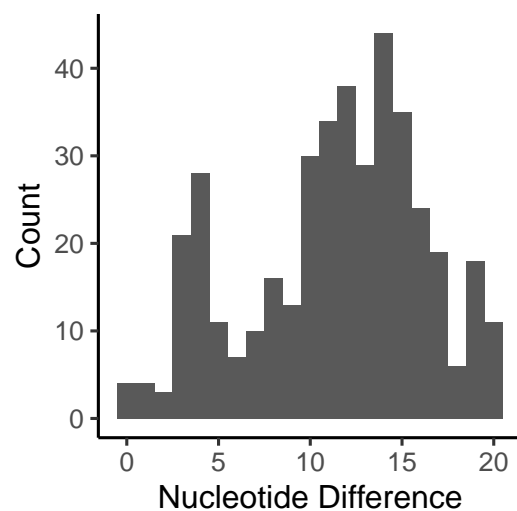
### IGHV3–69–1\*01

6 sequences assigned  
No exact matches.



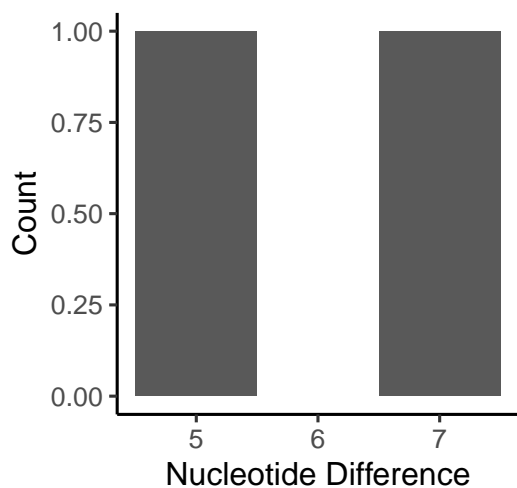
### IGHV3–72\*01

466 sequences assigned  
4 (0.9%) exact matches, in which:  
4 unique CDR3  
3 unique J



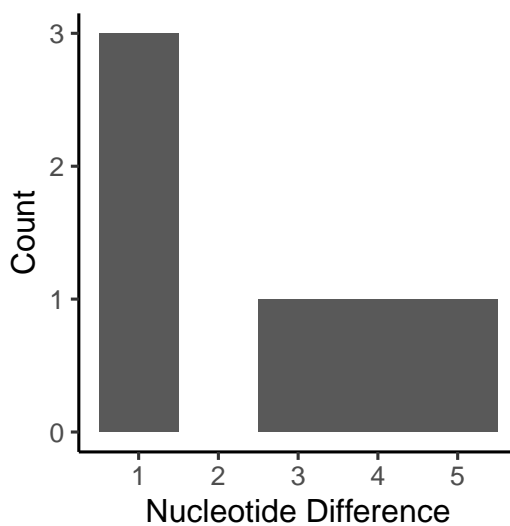
### IGHV3–66\*01

3 sequences assigned  
No exact matches.



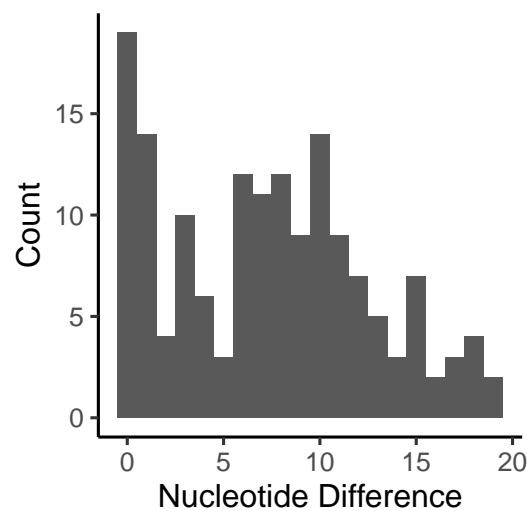
### IGHV3–69–1\*02

8 sequences assigned  
No exact matches.



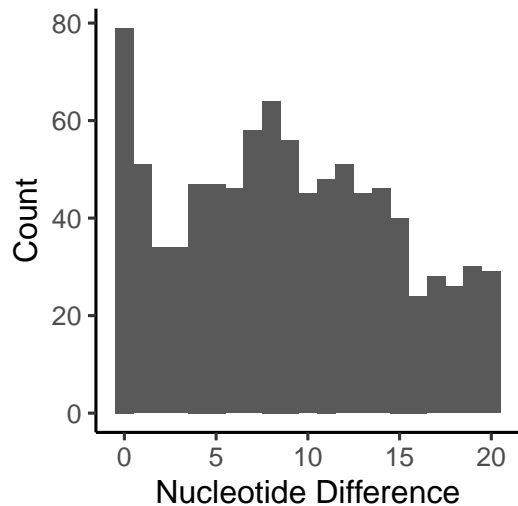
### IGHV3–73\*02

172 sequences assigned  
19 (11%) exact matches, in which:  
19 unique CDR3  
3 unique J



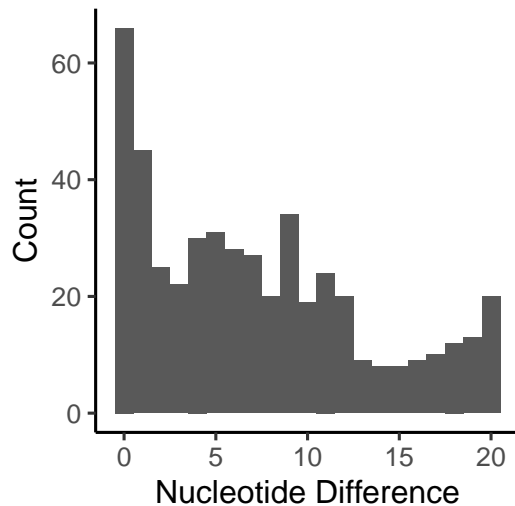
### IGHV3-74\*01

1167 sequences assigned  
79 (6.8%) exact matches, in which:  
72 unique CDR3  
6 unique J



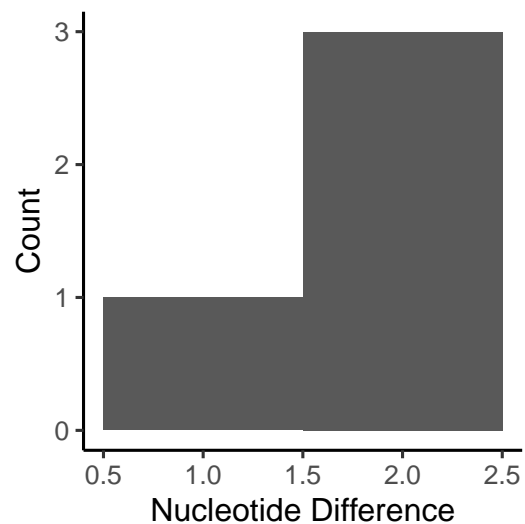
### IGHV4-4\*07

618 sequences assigned  
66 (10.7%) exact matches, in which:  
64 unique CDR3  
6 unique J



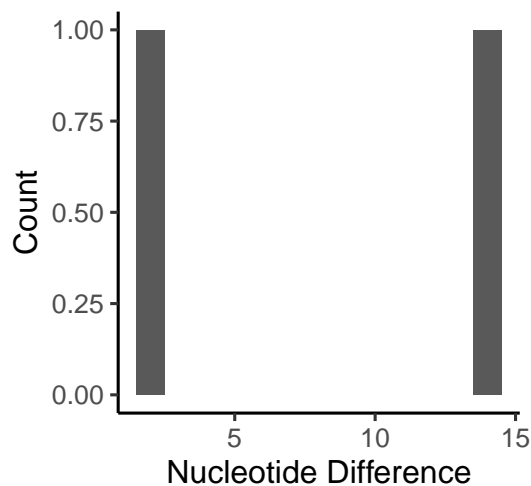
### IGHV4-28\*04

4 sequences assigned  
No exact matches.



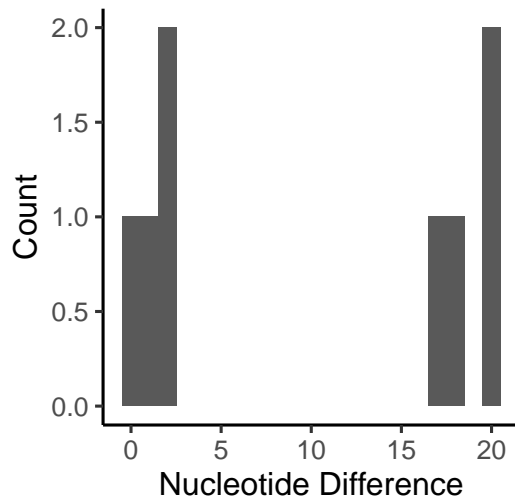
### IGHV3-43D\*04

5 sequences assigned  
No exact matches.



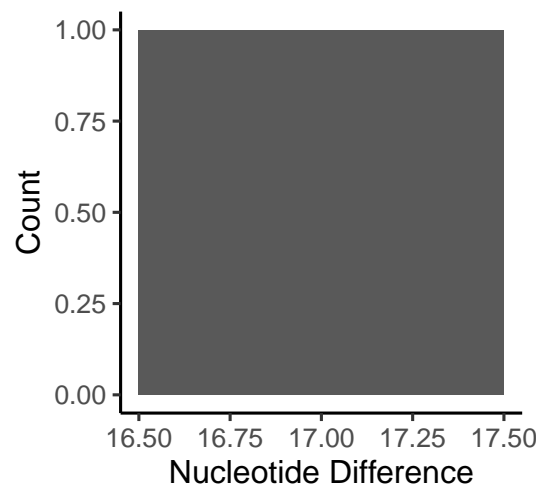
### IGHV4-28\*01

9 sequences assigned  
1 (11.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



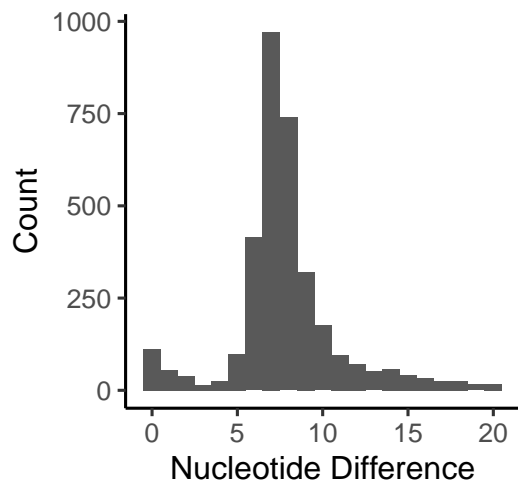
### IGHV4-30-4\*01

5 sequences assigned  
No exact matches.



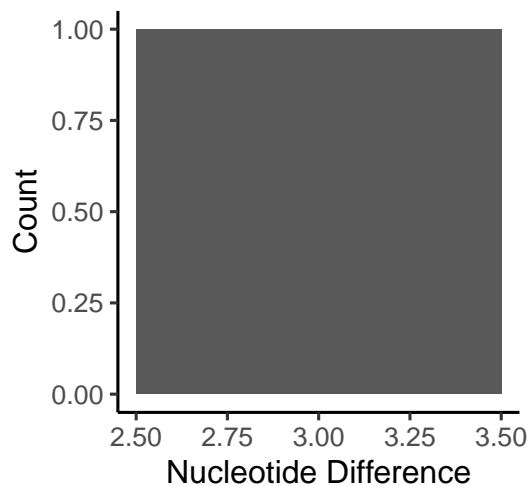
### IGHV4-4\*02

3595 sequences assigned  
112 (3.1%) exact matches, in which:  
93 unique CDR3  
5 unique J



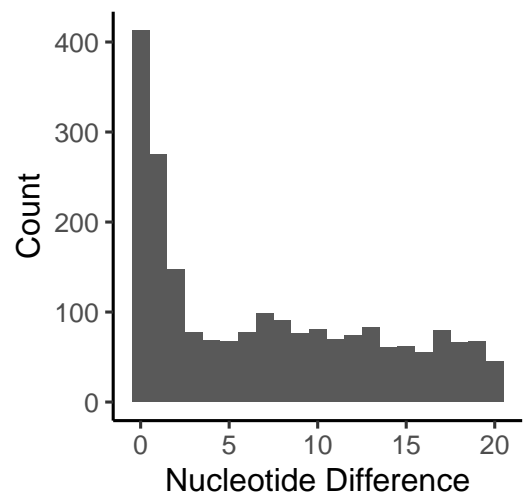
### IGHV4-28\*03

2 sequences assigned  
No exact matches.



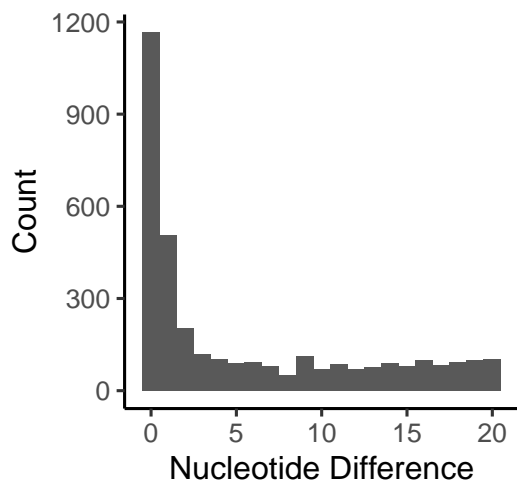
### IGHV4-31\*03

2717 sequences assigned  
413 (15.2%) exact matches, in which:  
375 unique CDR3  
6 unique J



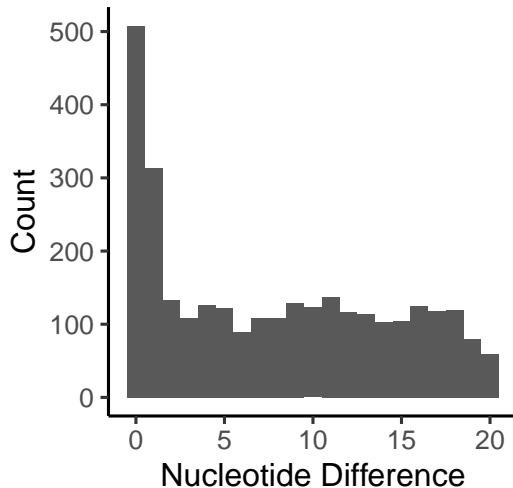
### IGHV4-34\*01

5166 sequences assigned  
1166 (22.6%) exact matches, in which:  
1148 unique CDR3  
6 unique J



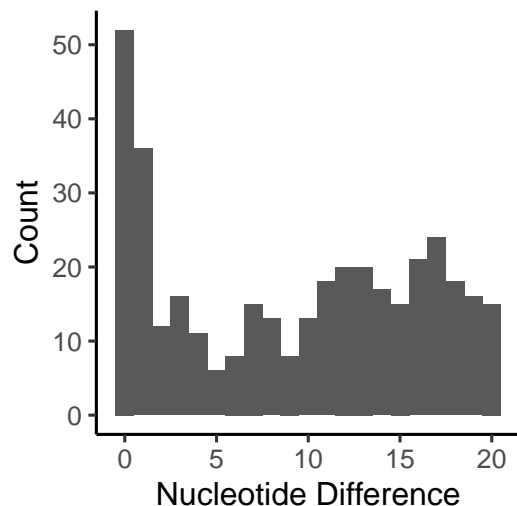
### IGHV4-39\*01

5013 sequences assigned  
508 (10.1%) exact matches, in which:  
487 unique CDR3  
6 unique J



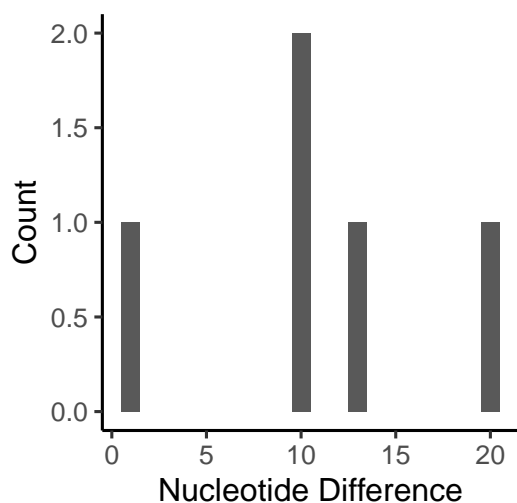
### IGHV4-61\*01

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



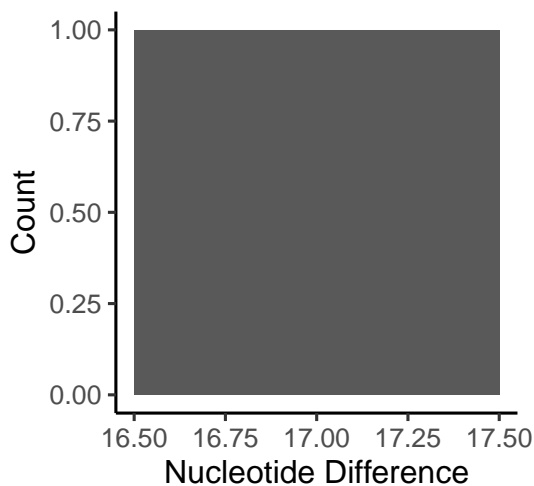
### IGHV4-38-2\*01

7 sequences assigned  
No exact matches.



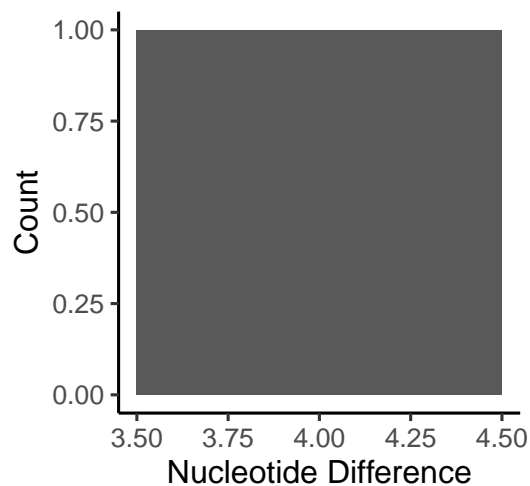
### IGHV4-55\*08

1 sequences assigned  
No exact matches.



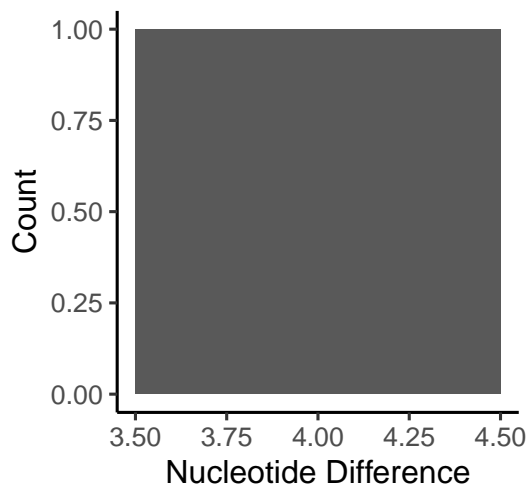
### IGHV4/OR15-8\*01

2 sequences assigned  
No exact matches.



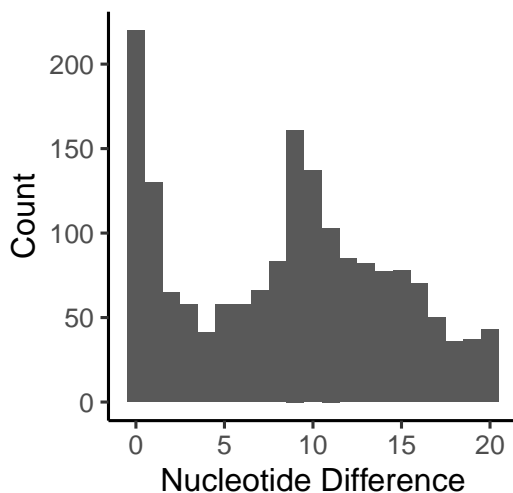
### IGHV4-38-2\*02

4 sequences assigned  
No exact matches.



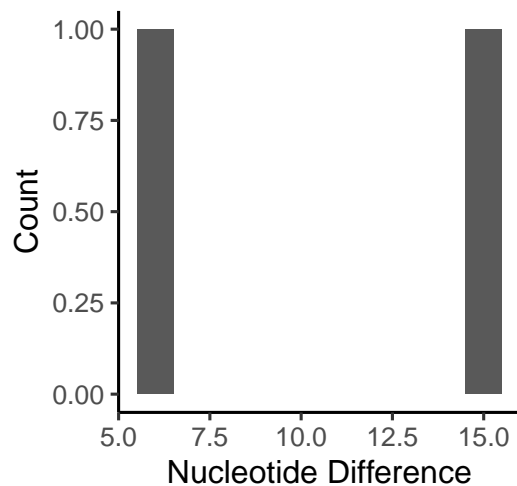
### IGHV4-59\*01

2039 sequences assigned  
220 (10.8%) exact matches, in which:  
202 unique CDR3  
6 unique J



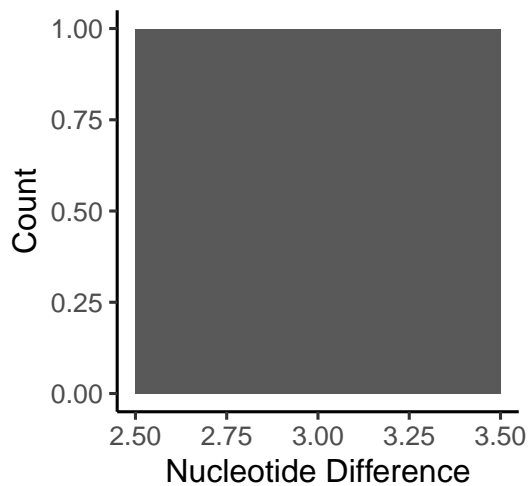
### IGHV4/OR15-8\*02

16 sequences assigned  
No exact matches.



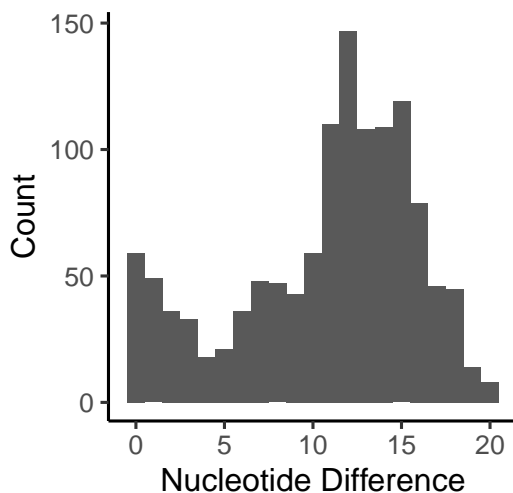
### IGHV1/OR15-9\*01

1 sequences assigned  
No exact matches.



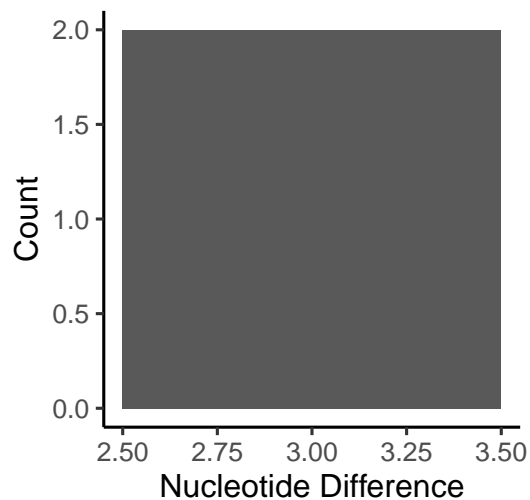
### IGHV6-1\*01

1308 sequences assigned  
59 (4.5%) exact matches, in which:  
54 unique CDR3  
5 unique J



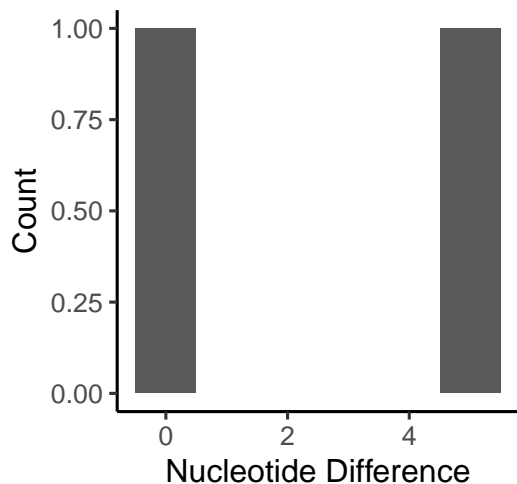
### IGHV7-4-1\*01

3 sequences assigned  
No exact matches.



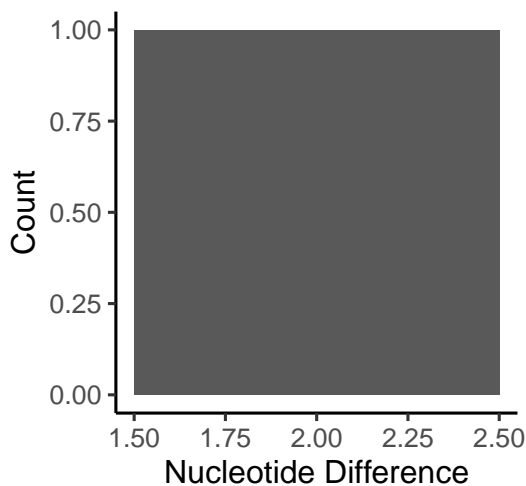
### IGHV5-10-1\*03

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



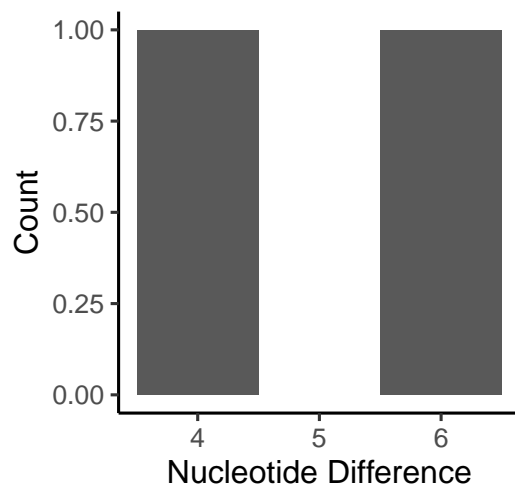
### IGHV3/OR16-6\*02

1 sequences assigned  
No exact matches.



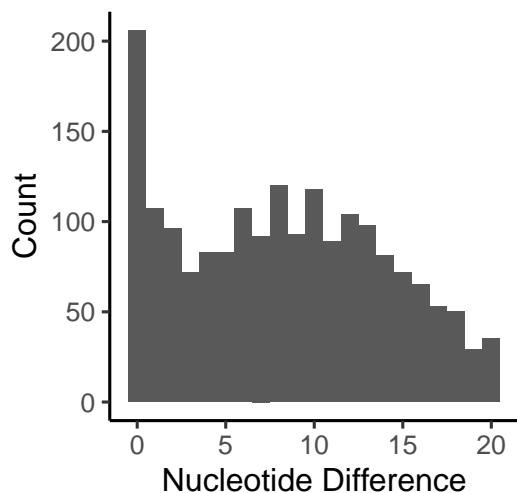
### IGHV7-81\*01

2 sequences assigned  
No exact matches.



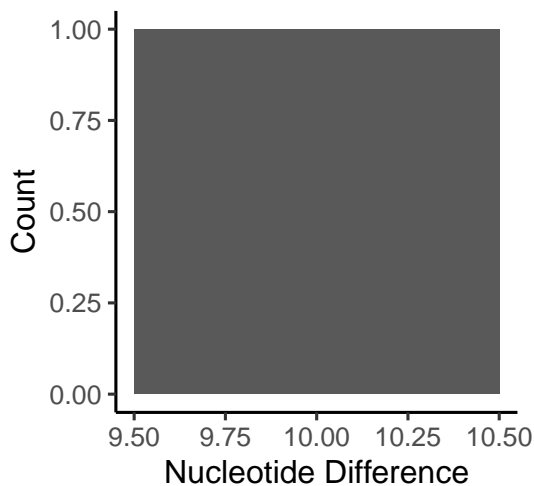
### IGHV5-51\*01

2149 sequences assigned  
206 (9.6%) exact matches, in which:  
198 unique CDR3  
5 unique J



### IGHV3/OR16-9\*01

1 sequences assigned  
No exact matches.







Warning – no inferred sequences found.