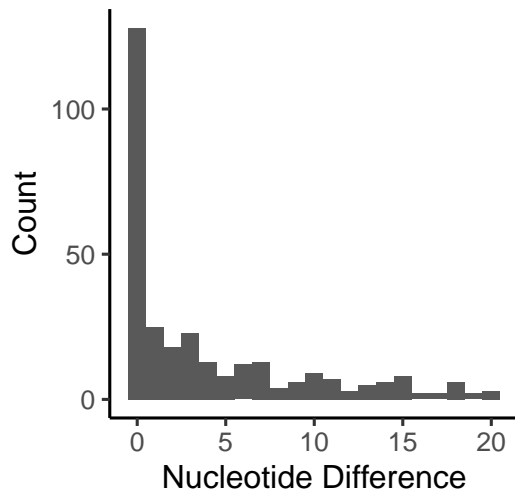


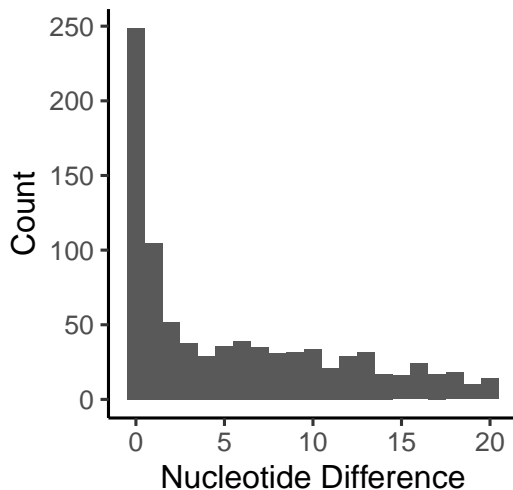
### IGHV1-2\*04

326 sequences assigned  
128 (39.3%) exact matches, in which:  
126 unique CDR3  
6 unique J



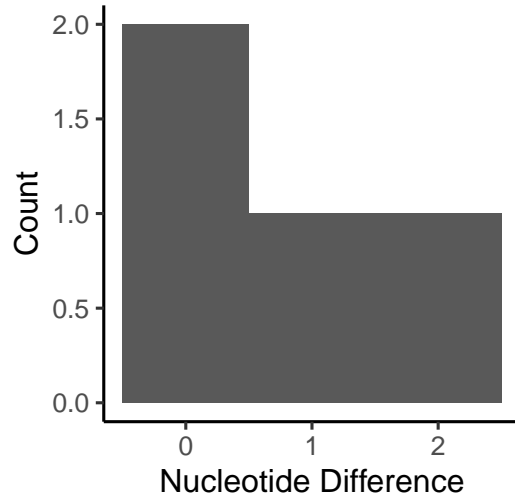
### IGHV1-18\*01

990 sequences assigned  
249 (25.2%) exact matches, in which:  
240 unique CDR3  
6 unique J



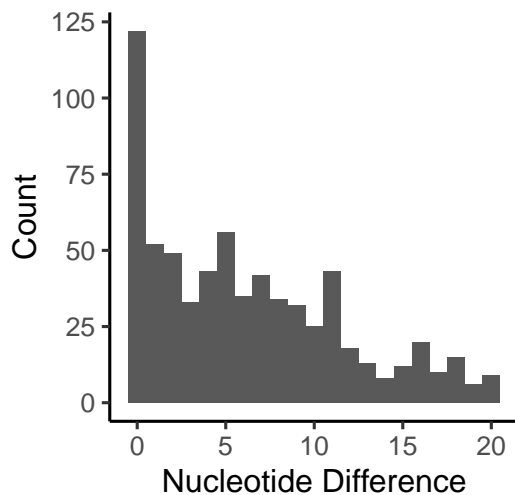
### IGHV1-45\*02

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



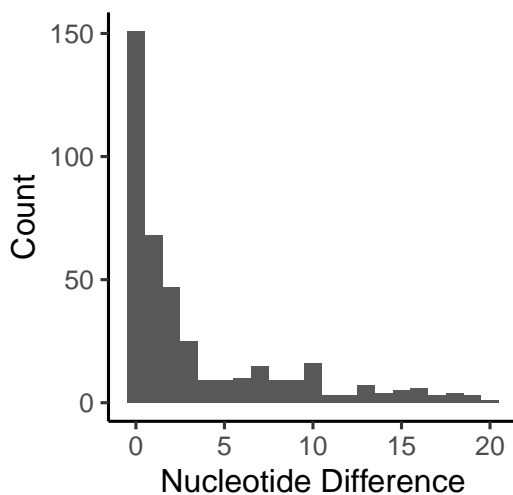
### IGHV1-3\*01\_05

760 sequences assigned  
122 (16.1%) exact matches, in which:  
118 unique CDR3  
5 unique J



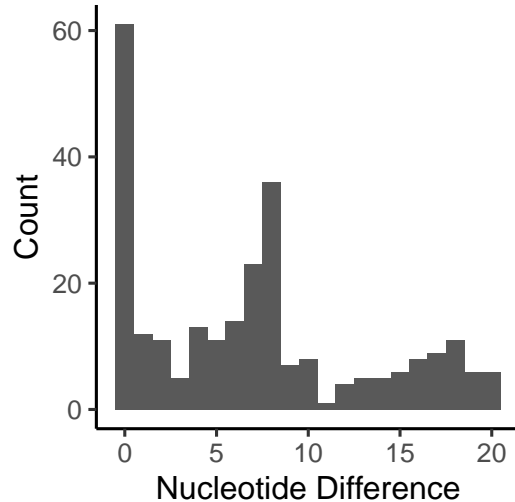
### IGHV1-24\*01

423 sequences assigned  
151 (35.7%) exact matches, in which:  
147 unique CDR3  
6 unique J



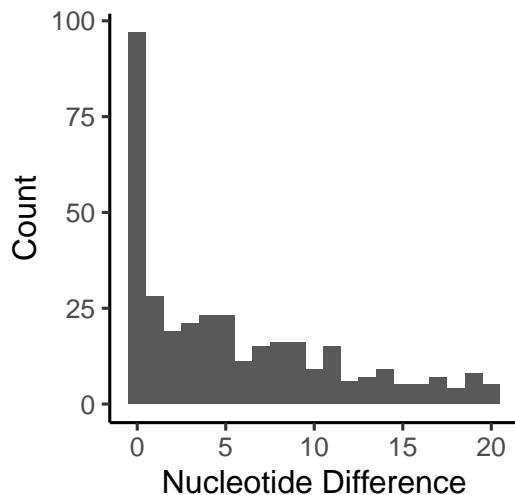
### IGHV1-46\*01

310 sequences assigned  
61 (19.7%) exact matches, in which:  
61 unique CDR3  
5 unique J



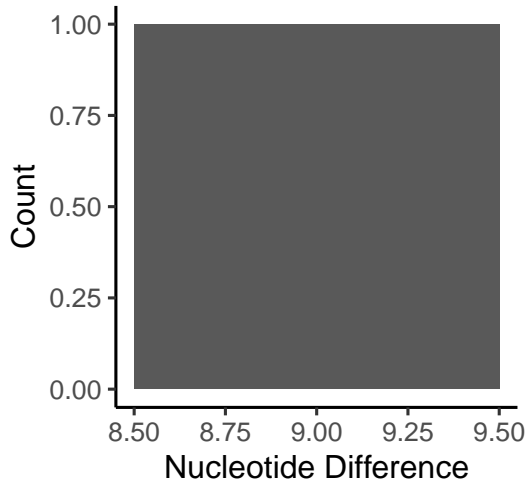
### IGHV1-8\*01

381 sequences assigned  
97 (25.5%) exact matches, in which:  
94 unique CDR3  
6 unique J



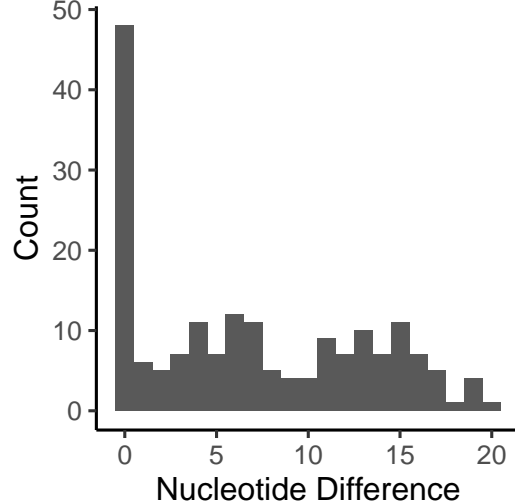
### IGHV1-45\*01

1 sequences assigned  
No exact matches.



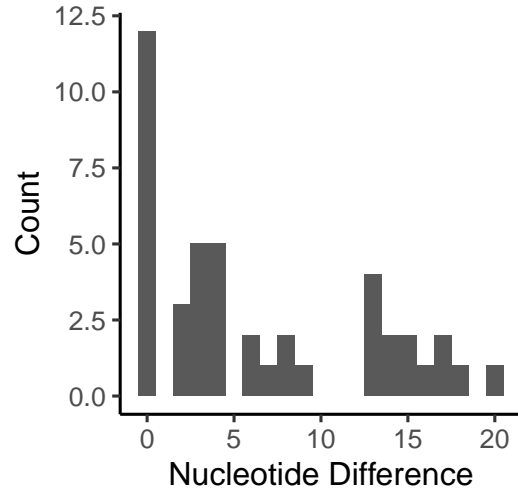
### IGHV1-46\*04

203 sequences assigned  
48 (23.6%) exact matches, in which:  
47 unique CDR3  
6 unique J



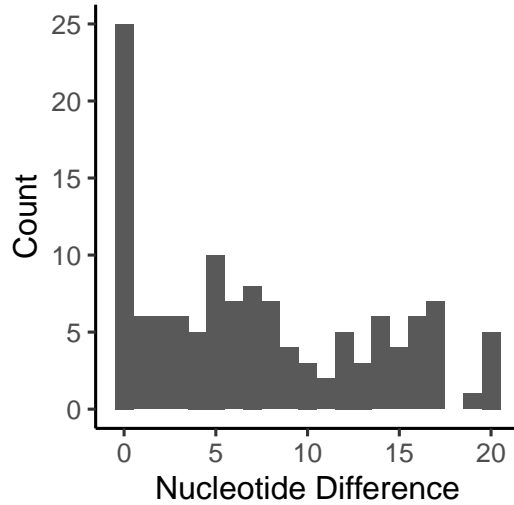
### IGHV1-58\*02

50 sequences assigned  
12 (24%) exact matches, in which:  
12 unique CDR3  
4 unique J



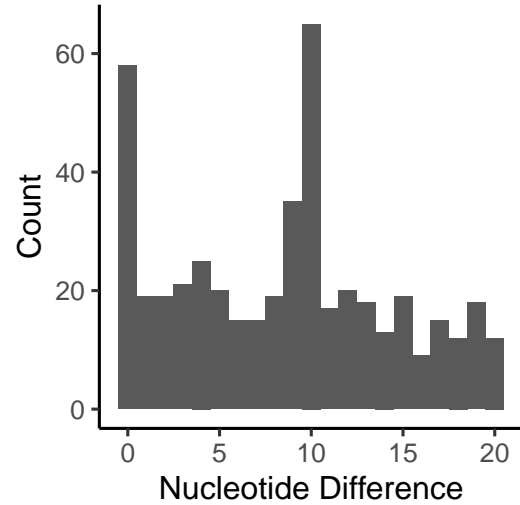
### IGHV2-5\*02

138 sequences assigned  
25 (18.1%) exact matches, in which:  
25 unique CDR3  
6 unique J



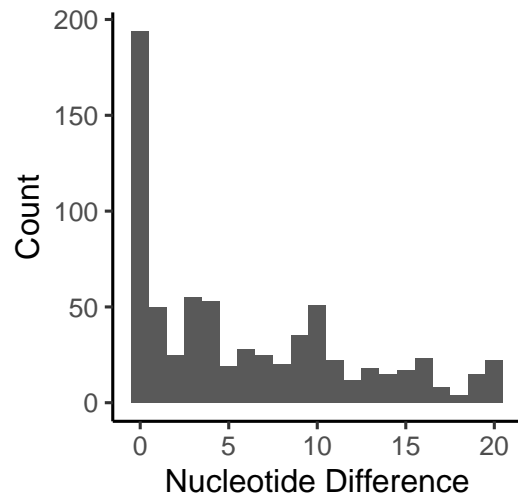
### IGHV3-7\*01

510 sequences assigned  
58 (11.4%) exact matches, in which:  
56 unique CDR3  
5 unique J



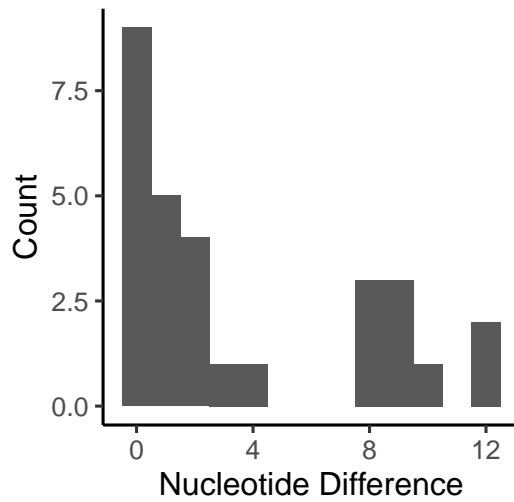
### IGHV1-69\*04\_09

806 sequences assigned  
194 (24.1%) exact matches, in which:  
189 unique CDR3  
6 unique J



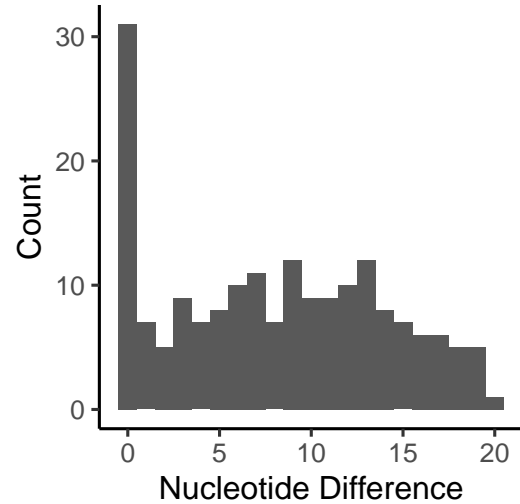
### IGHV2-26\*01

29 sequences assigned  
9 (31%) exact matches, in which:  
9 unique CDR3  
4 unique J



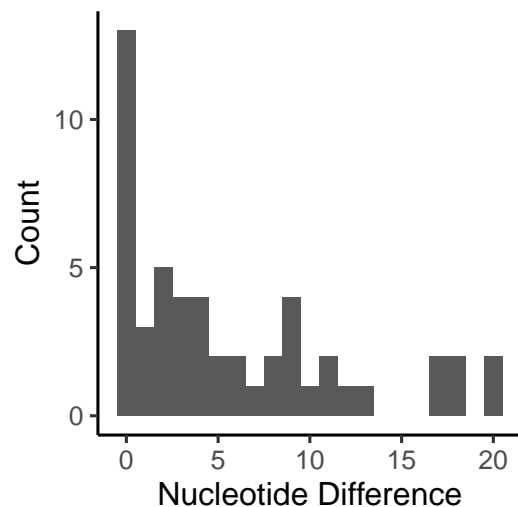
### IGHV3-7\*04

220 sequences assigned  
31 (14.1%) exact matches, in which:  
30 unique CDR3  
4 unique J



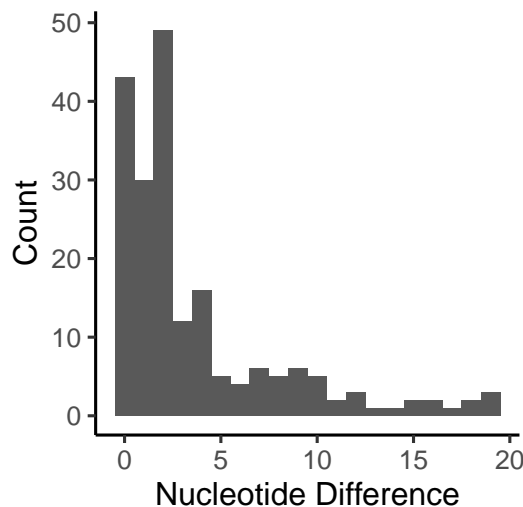
### IGHV2-5\*01

53 sequences assigned  
13 (24.5%) exact matches, in which:  
13 unique CDR3  
3 unique J



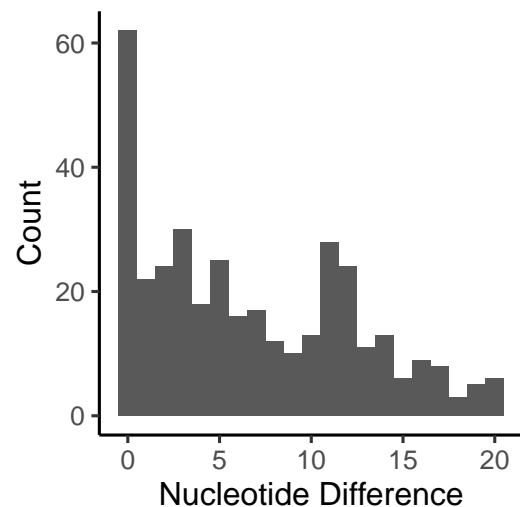
### IGHV2-70\*11\_15

203 sequences assigned  
43 (21.2%) exact matches, in which:  
42 unique CDR3  
5 unique J



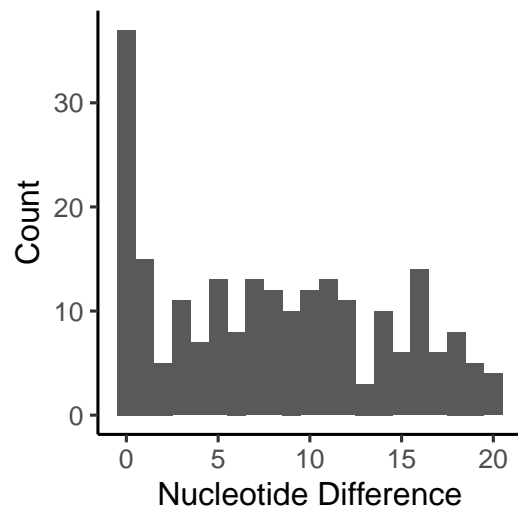
### IGHV3-9\*01

392 sequences assigned  
62 (15.8%) exact matches, in which:  
62 unique CDR3  
5 unique J



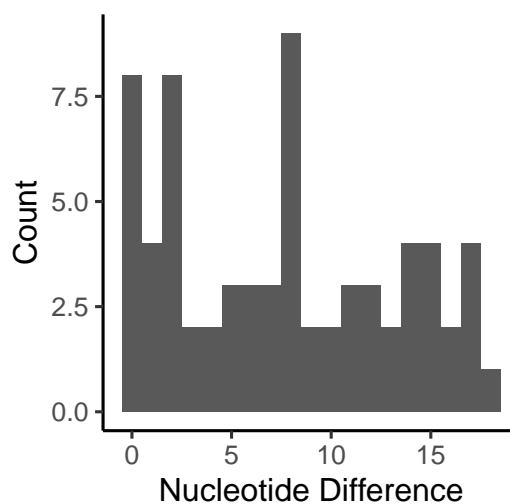
### IGHV3-11\*01

259 sequences assigned  
37 (14.3%) exact matches, in which:  
36 unique CDR3  
6 unique J



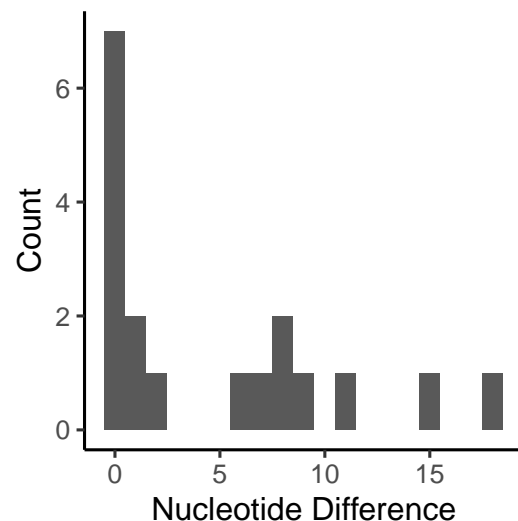
### IGHV3-13\*01\_G290A\_T3

77 sequences assigned  
8 (10.4%) exact matches, in which:  
7 unique CDR3  
4 unique J



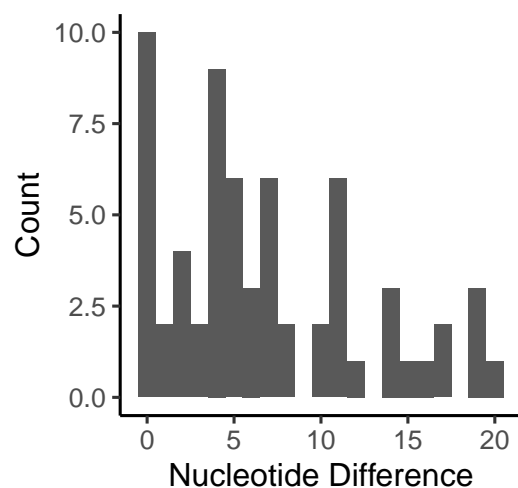
### IGHV3-20\*01\_02

18 sequences assigned  
7 (38.9%) exact matches, in which:  
7 unique CDR3  
4 unique J



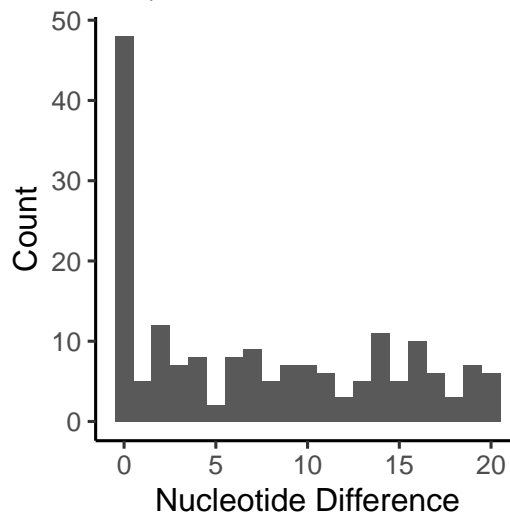
### IGHV3-11\*06

69 sequences assigned  
10 (14.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



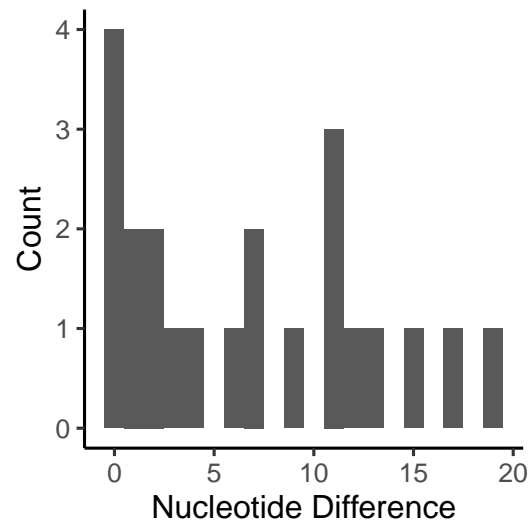
### IGHV3-15\*07

205 sequences assigned  
48 (23.4%) exact matches, in which:  
48 unique CDR3  
5 unique J



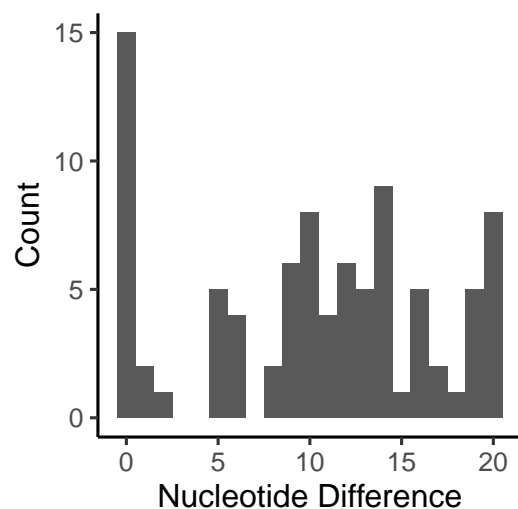
### IGHV3-20\*03\_04

29 sequences assigned  
4 (13.8%) exact matches, in which:  
4 unique CDR3  
2 unique J



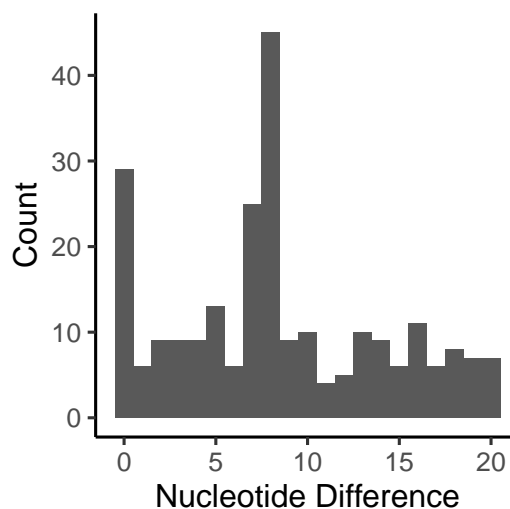
### IGHV3-13\*01

106 sequences assigned  
15 (14.2%) exact matches, in which:  
13 unique CDR3  
4 unique J



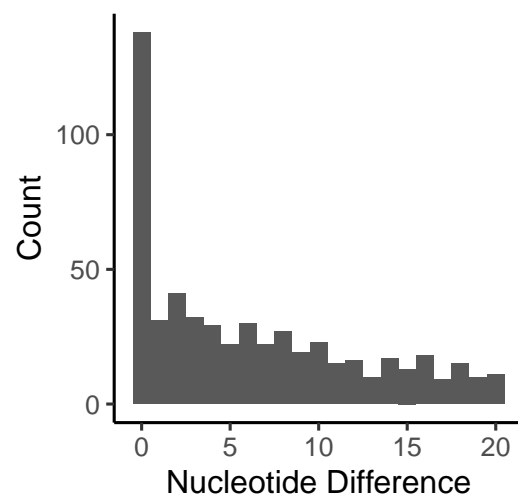
### IGHV3-15\*01\_02

308 sequences assigned  
29 (9.4%) exact matches, in which:  
29 unique CDR3  
3 unique J



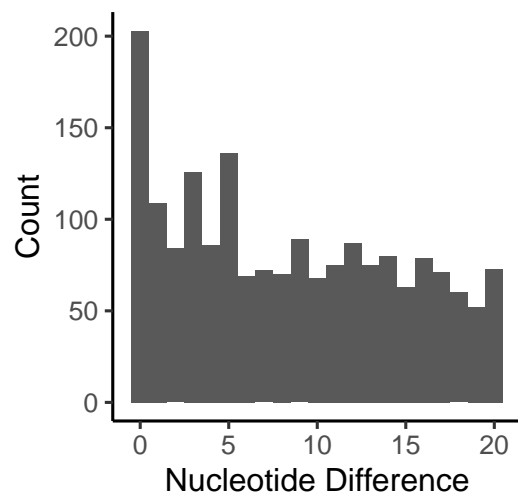
### IGHV3-21\*01\_02

683 sequences assigned  
138 (20.2%) exact matches, in which:  
134 unique CDR3  
5 unique J



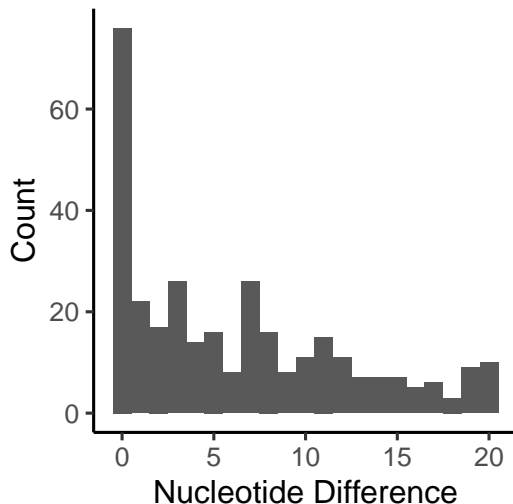
### IGHV3-23\*01\_04

2214 sequences assigned  
203 (9.2%) exact matches, in which:  
193 unique CDR3  
6 unique J



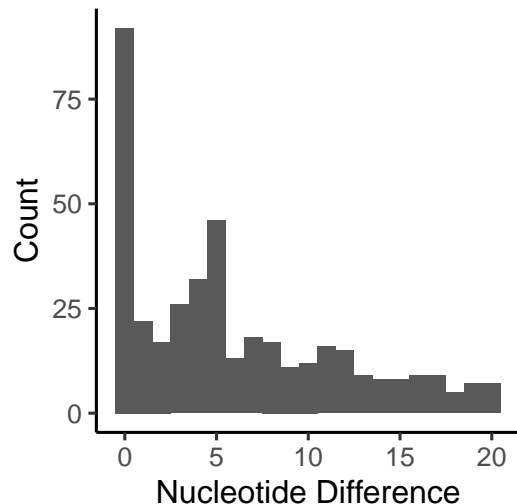
### IGHV3-30\*03

355 sequences assigned  
76 (21.4%) exact matches, in which:  
72 unique CDR3  
6 unique J



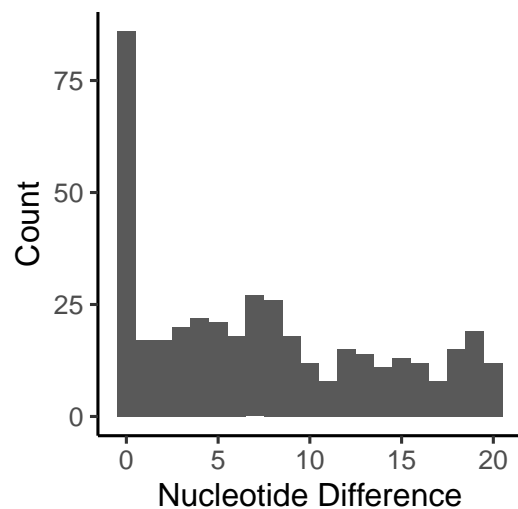
### IGHV3-33\*08

432 sequences assigned  
92 (21.3%) exact matches, in which:  
90 unique CDR3  
5 unique J



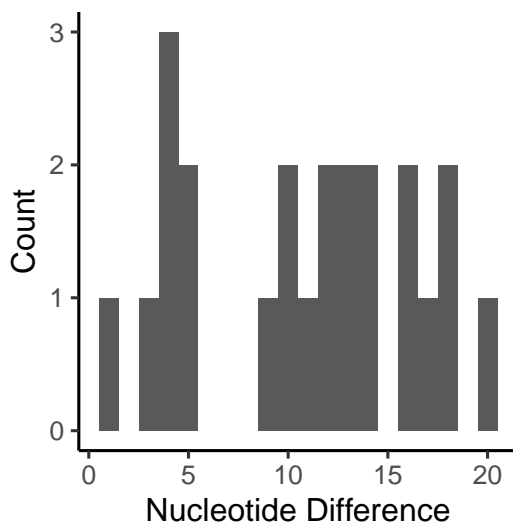
### IGHV3-30-3\*01

488 sequences assigned  
86 (17.6%) exact matches, in which:  
84 unique CDR3  
5 unique J



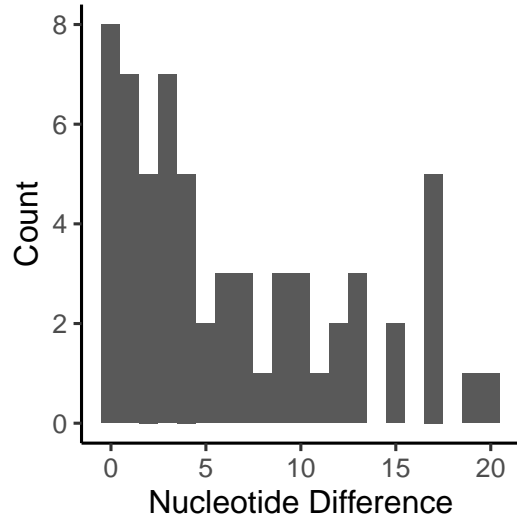
### IGHV3-30\*04

35 sequences assigned  
No exact matches.



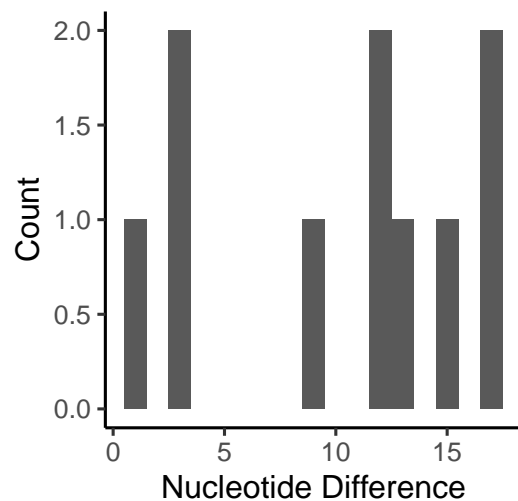
### IGHV3-43\*01

81 sequences assigned  
8 (9.9%) exact matches, in which:  
8 unique CDR3  
3 unique J



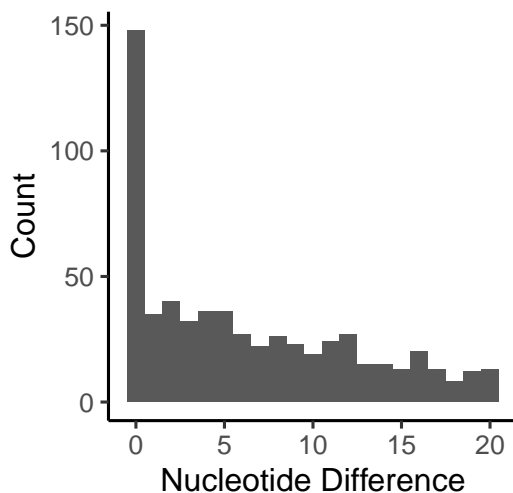
### IGHV3-30-5\*01

13 sequences assigned  
No exact matches.



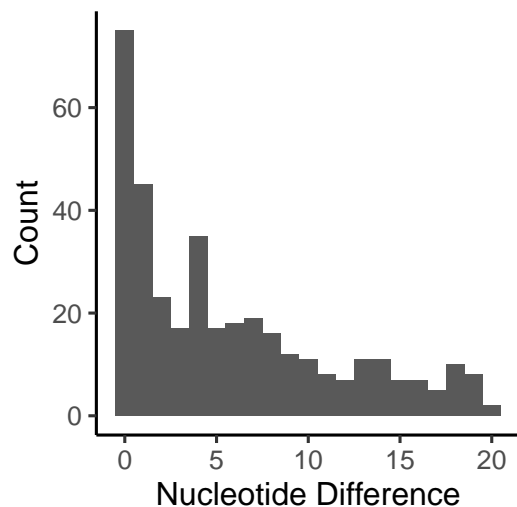
### IGHV3-33\*01

713 sequences assigned  
148 (20.8%) exact matches, in which:  
145 unique CDR3  
6 unique J



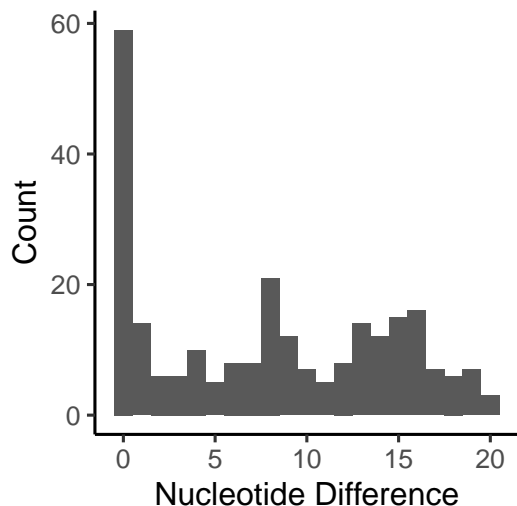
### IGHV3-48\*01

394 sequences assigned  
75 (19%) exact matches, in which:  
65 unique CDR3  
5 unique J



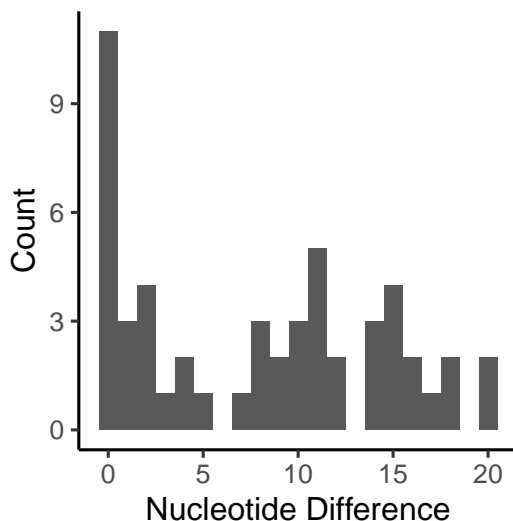
### IGHV3-48\*02

306 sequences assigned  
59 (19.3%) exact matches, in which:  
57 unique CDR3  
6 unique J



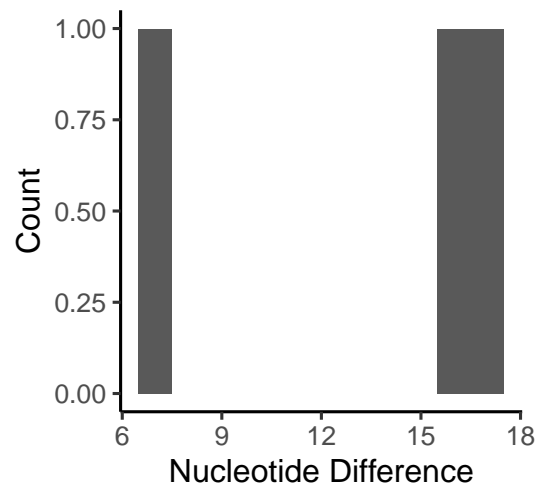
### IGHV3-64\*01

55 sequences assigned  
11 (20%) exact matches, in which:  
11 unique CDR3  
4 unique J



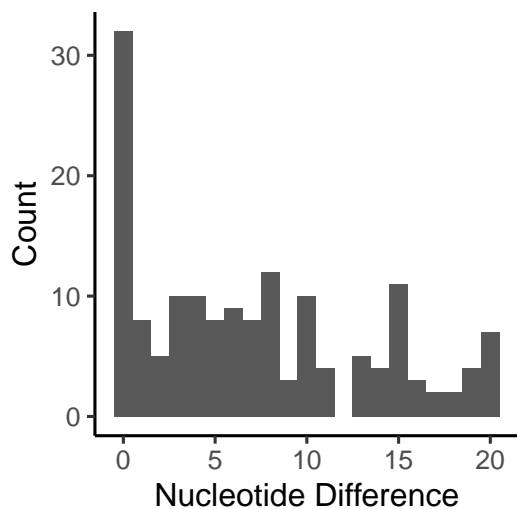
### IGHV3-69-1\*01

3 sequences assigned  
No exact matches.



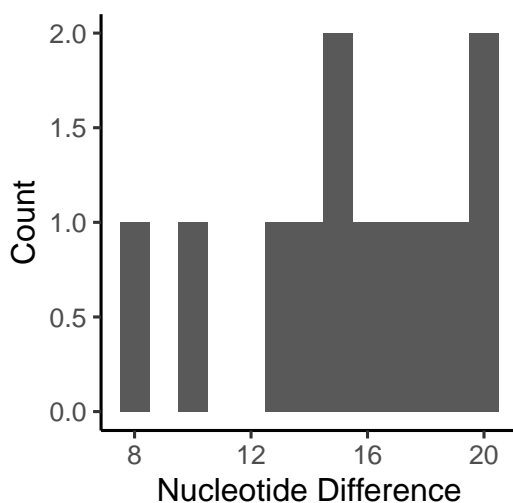
### IGHV3-49\*03\_05

185 sequences assigned  
32 (17.3%) exact matches, in which:  
32 unique CDR3  
5 unique J



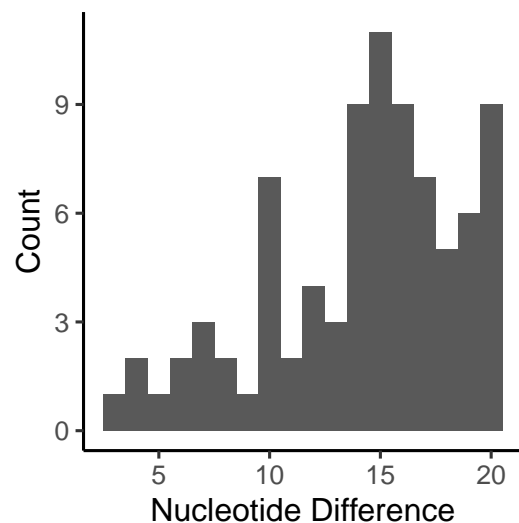
### IGHV3-64\*02\_07

14 sequences assigned  
No exact matches.



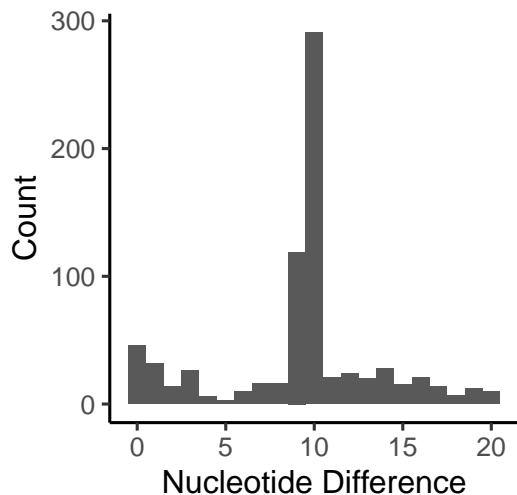
### IGHV3-72\*01

155 sequences assigned  
No exact matches.



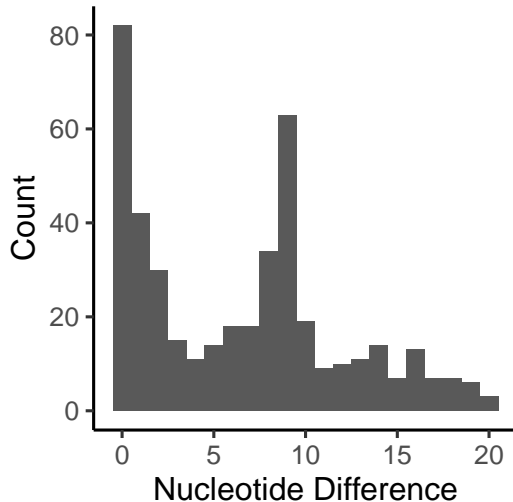
### IGHV3-53\*01\_02

841 sequences assigned  
46 (5.5%) exact matches, in which:  
41 unique CDR3  
6 unique J



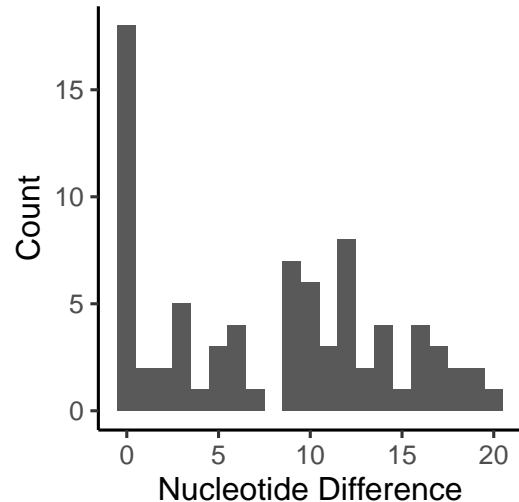
### IGHV3-66\*01

483 sequences assigned  
82 (17%) exact matches, in which:  
79 unique CDR3  
5 unique J



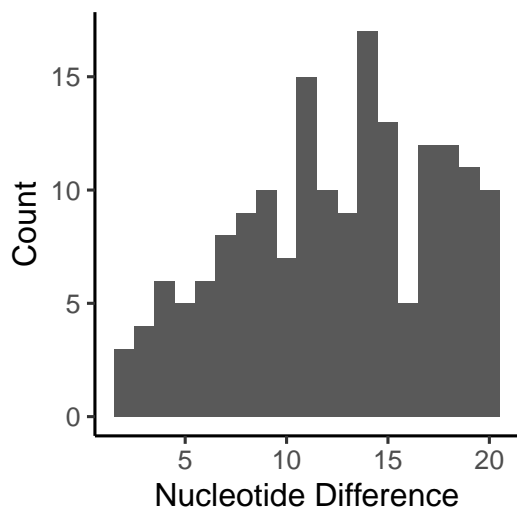
### IGHV3-73\*01\_02

89 sequences assigned  
18 (20.2%) exact matches, in which:  
18 unique CDR3  
4 unique J



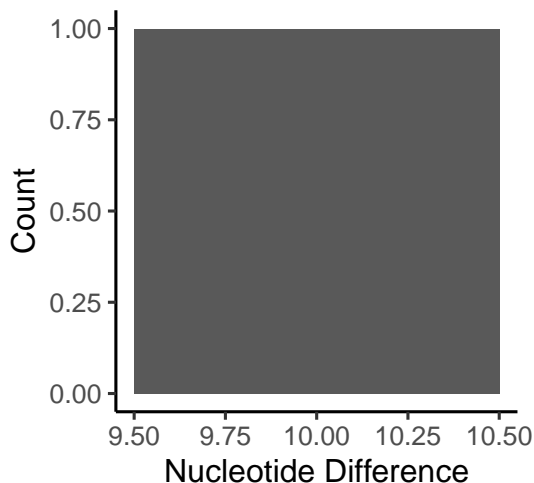
### IGHV3-74\*03

222 sequences assigned  
No exact matches.



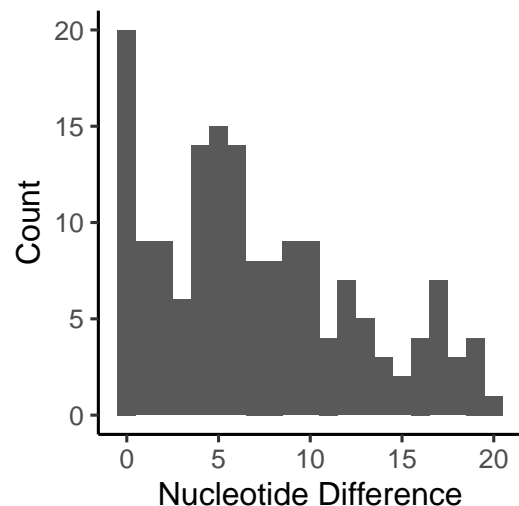
### IGHV3-NL1\*01

1 sequences assigned  
No exact matches.



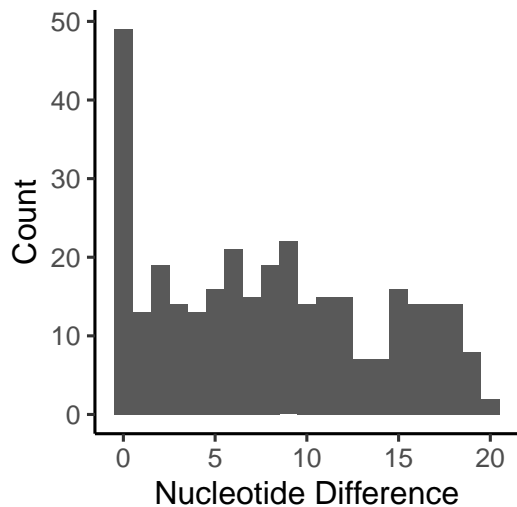
### IGHV4-30-4\*01

183 sequences assigned  
20 (10.9%) exact matches, in which:  
20 unique CDR3  
5 unique J



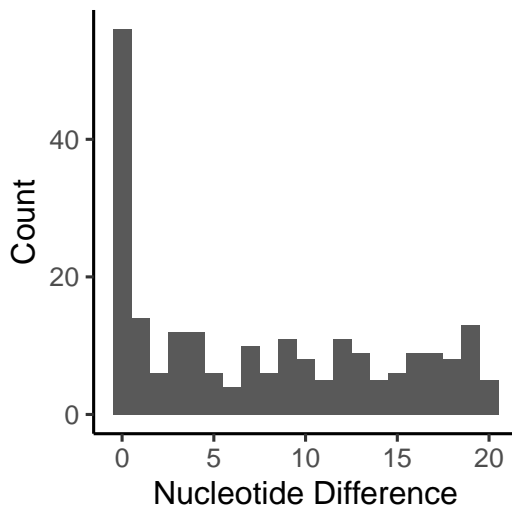
### IGHV3-74\*01\_02

371 sequences assigned  
49 (13.2%) exact matches, in which:  
49 unique CDR3  
6 unique J



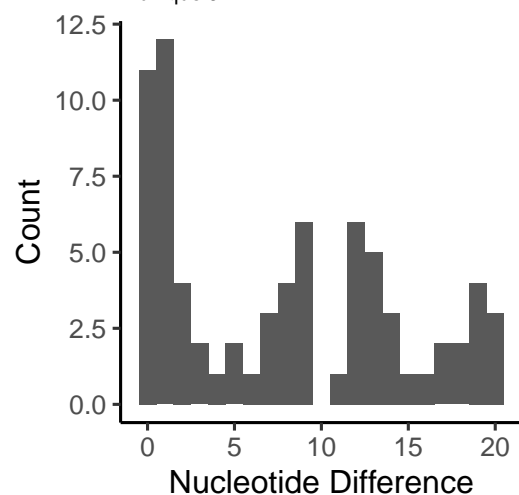
### IGHV4-4\*02\_03

276 sequences assigned  
56 (20.3%) exact matches, in which:  
53 unique CDR3  
5 unique J



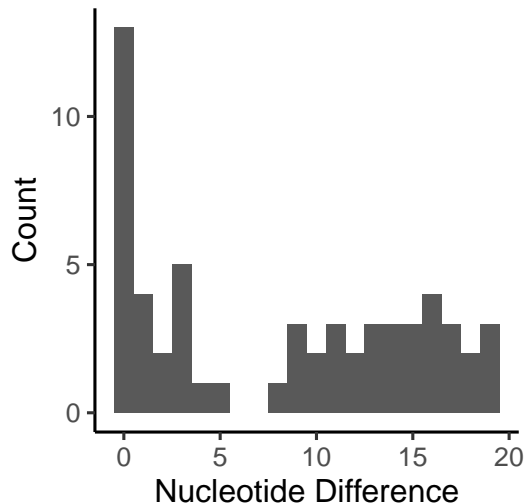
### IGHV4-30-2\*01

90 sequences assigned  
11 (12.2%) exact matches, in which:  
8 unique CDR3  
4 unique J



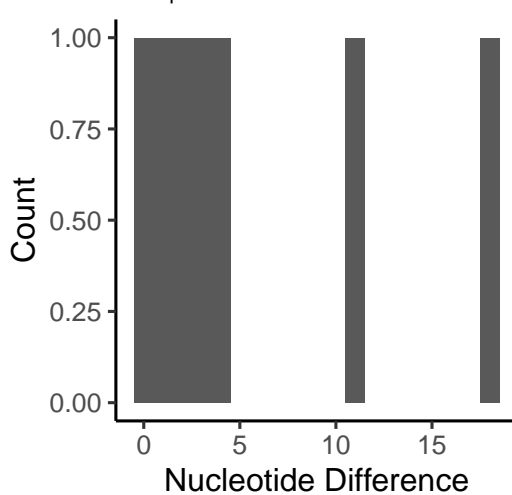
### IGHV3-64D\*06

74 sequences assigned  
13 (17.6%) exact matches, in which:  
13 unique CDR3  
4 unique J



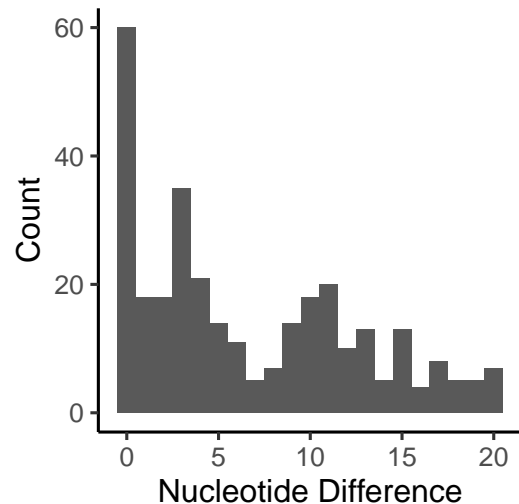
### IGHV4-28\*01\_07

7 sequences assigned  
1 (14.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



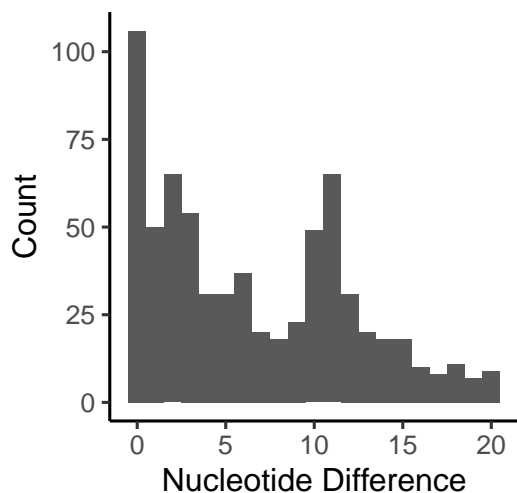
### IGHV4-31\*02

341 sequences assigned  
60 (17.6%) exact matches, in which:  
60 unique CDR3  
6 unique J



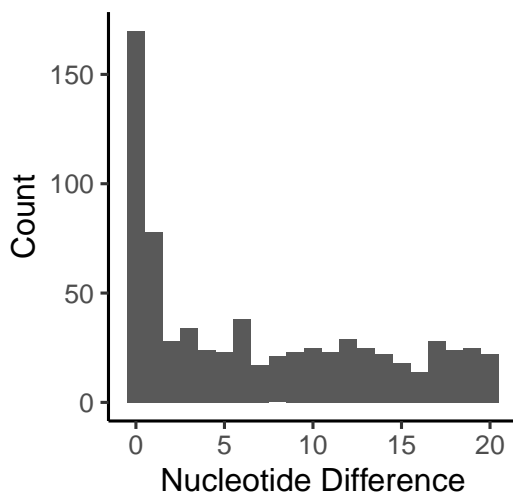
### IGHV4-34\*01\_02

757 sequences assigned  
106 (14%) exact matches, in which:  
101 unique CDR3  
6 unique J



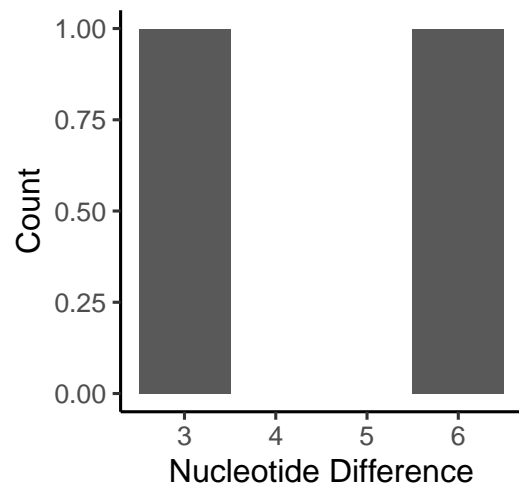
### IGHV4-59\*01\_07

873 sequences assigned  
170 (19.5%) exact matches, in which:  
163 unique CDR3  
6 unique J



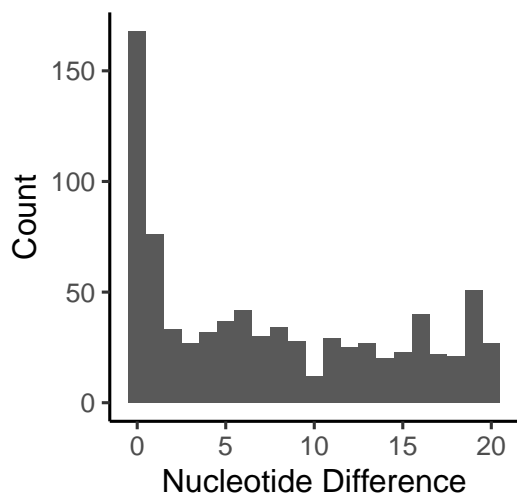
### IGHV4-61\*05

2 sequences assigned  
No exact matches.



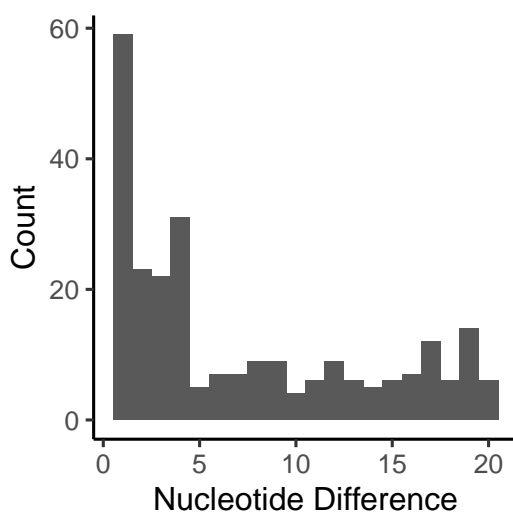
### IGHV4-39\*02\_C258G

1018 sequences assigned  
168 (16.5%) exact matches, in which:  
157 unique CDR3  
6 unique J



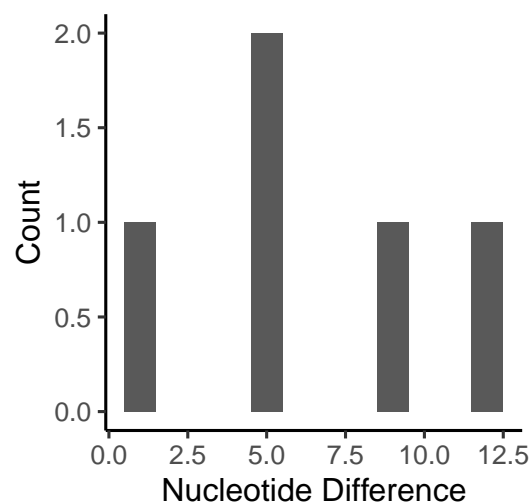
### IGHV4-59\*12

314 sequences assigned  
No exact matches.



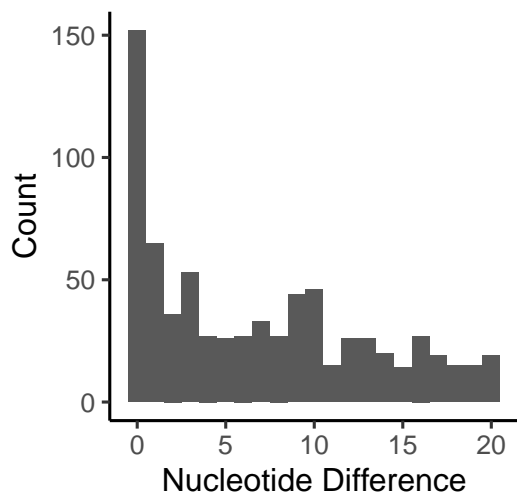
### IGHV4-61\*08

6 sequences assigned  
No exact matches.



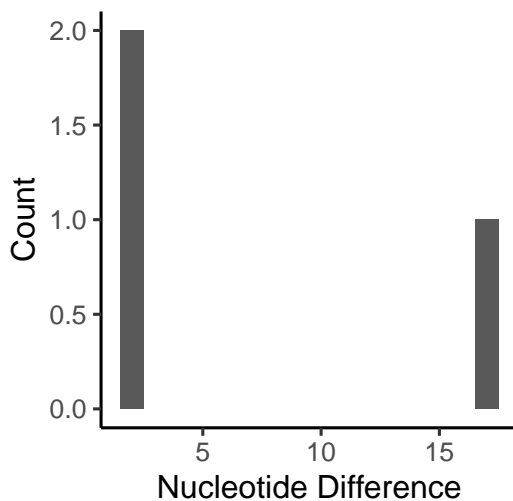
### IGHV4-59\*08

849 sequences assigned  
152 (17.9%) exact matches, in which:  
144 unique CDR3  
5 unique J



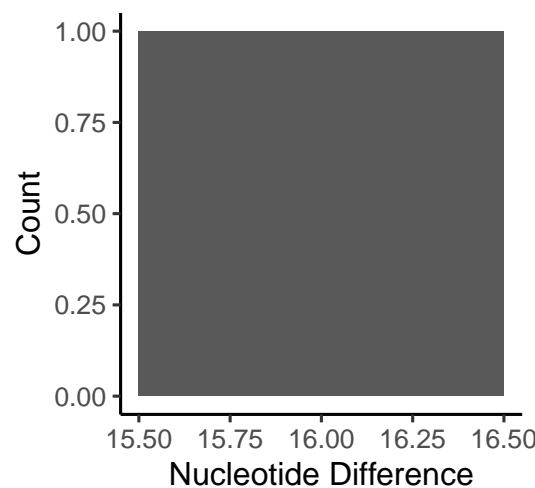
### IGHV4-61\*01

4 sequences assigned  
No exact matches.



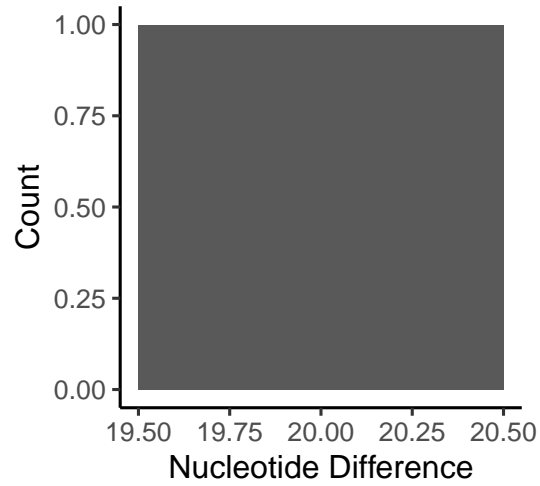
### IGHV1/OR15-2\*02\_03

2 sequences assigned  
No exact matches.



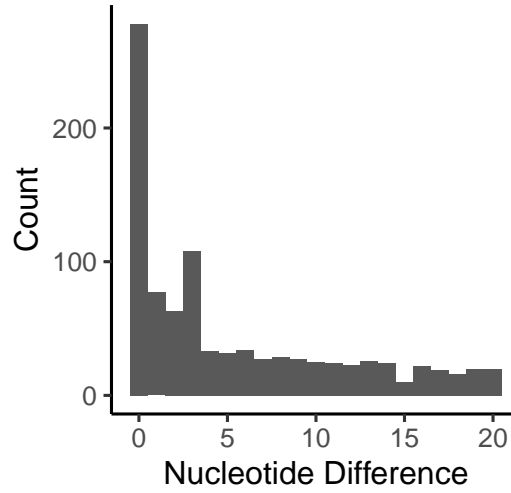
### IGHV4/OR15–8\*02

3 sequences assigned  
No exact matches.



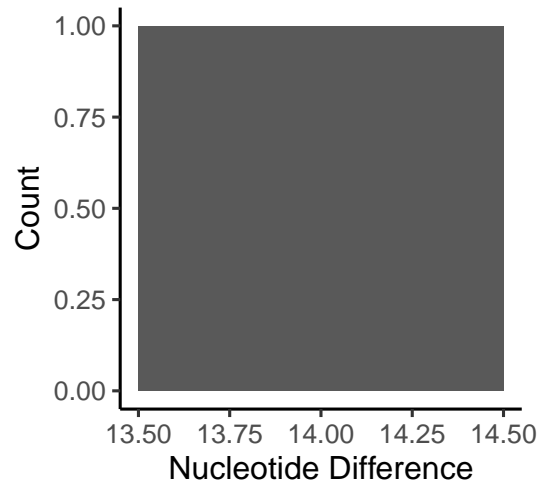
### IGHV5–51\*07\_A128G

1009 sequences assigned  
278 (27.6%) exact matches, in which:  
274 unique CDR3  
6 unique J



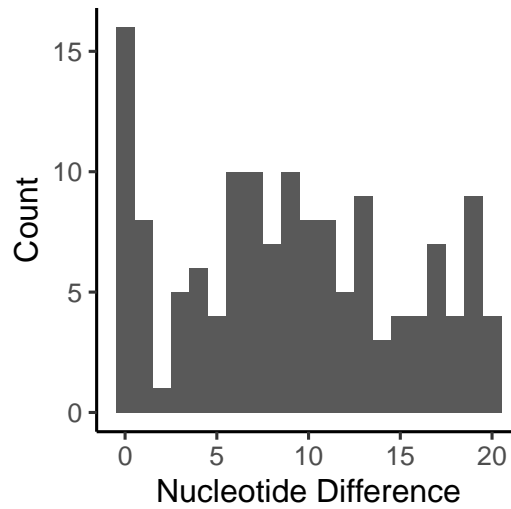
### IGHV4/OR15–8\*03

1 sequences assigned  
No exact matches.



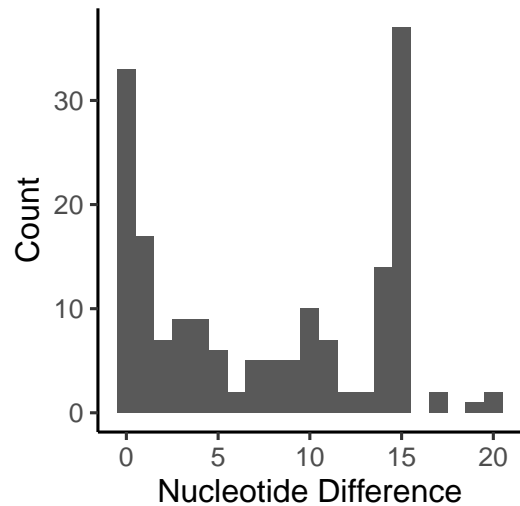
### IGHV6–1\*01\_02

158 sequences assigned  
16 (10.1%) exact matches, in which:  
16 unique CDR3  
4 unique J



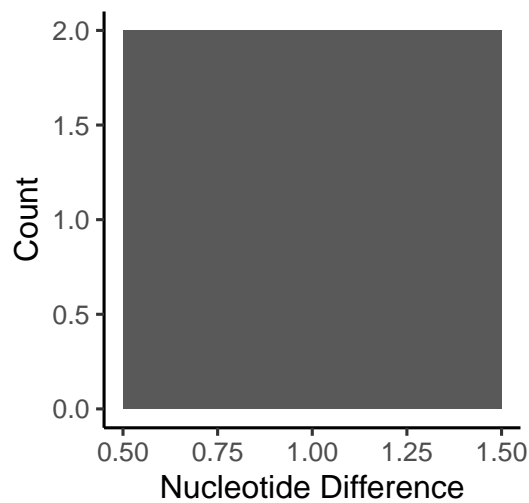
### IGHV5–10–1\*01\_03

210 sequences assigned  
33 (15.7%) exact matches, in which:  
32 unique CDR3  
5 unique J



### IGHV7–4–1\*01

2 sequences assigned  
No exact matches.







Warning – no inferred sequences found.