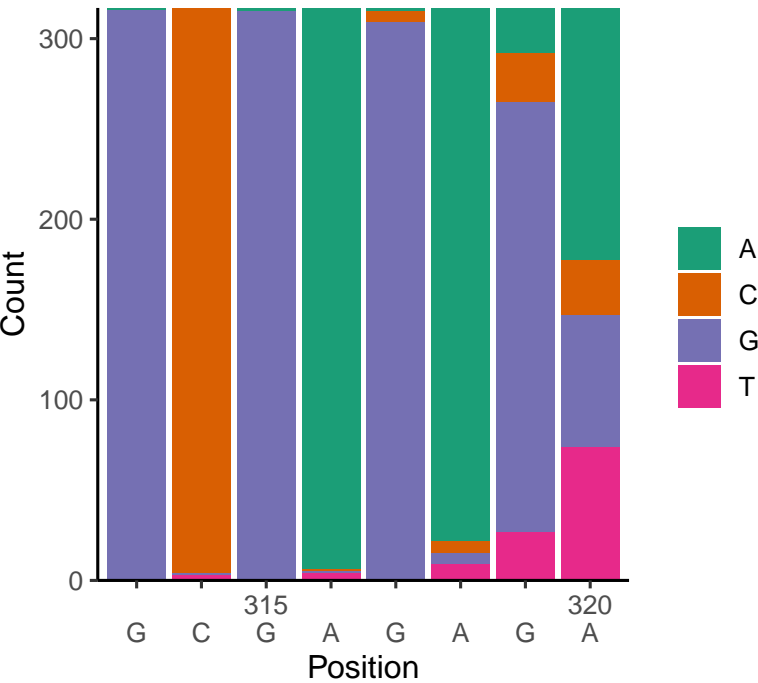
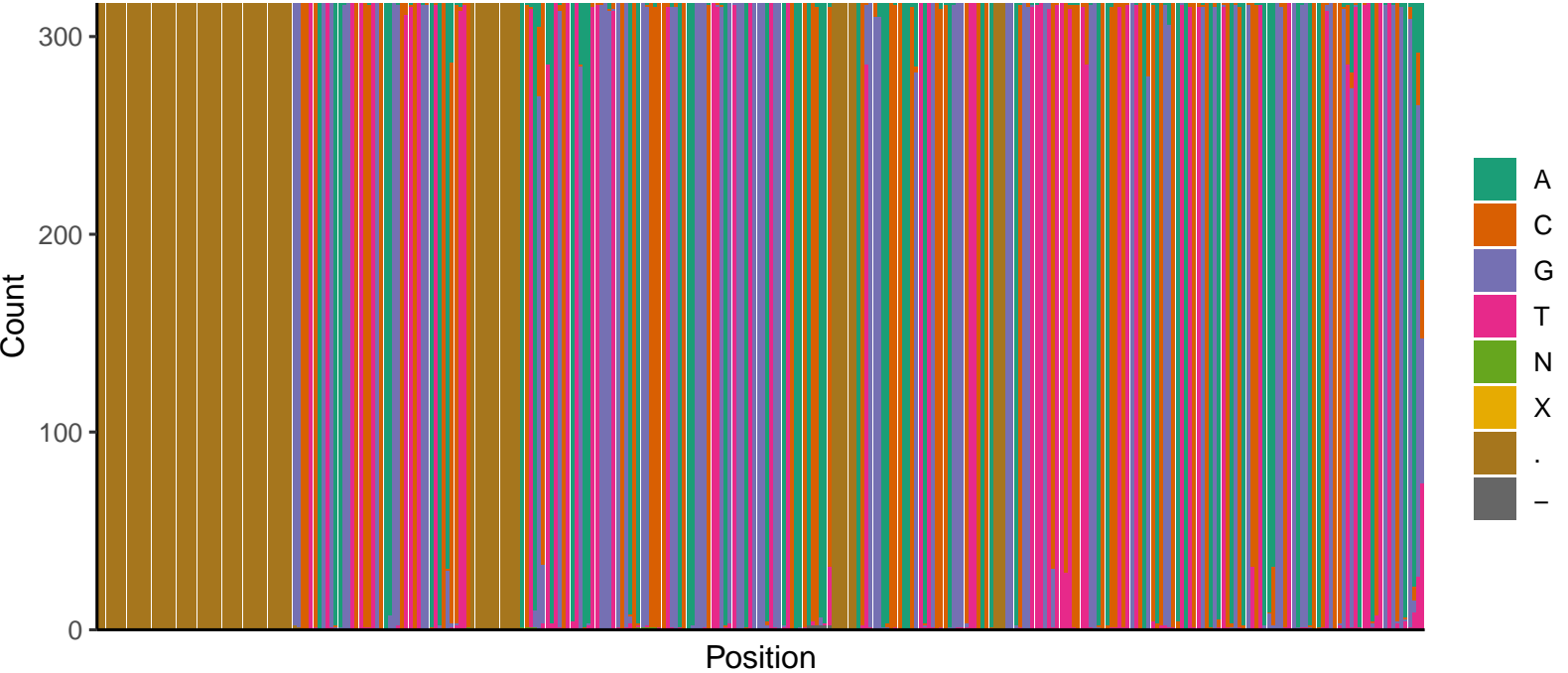


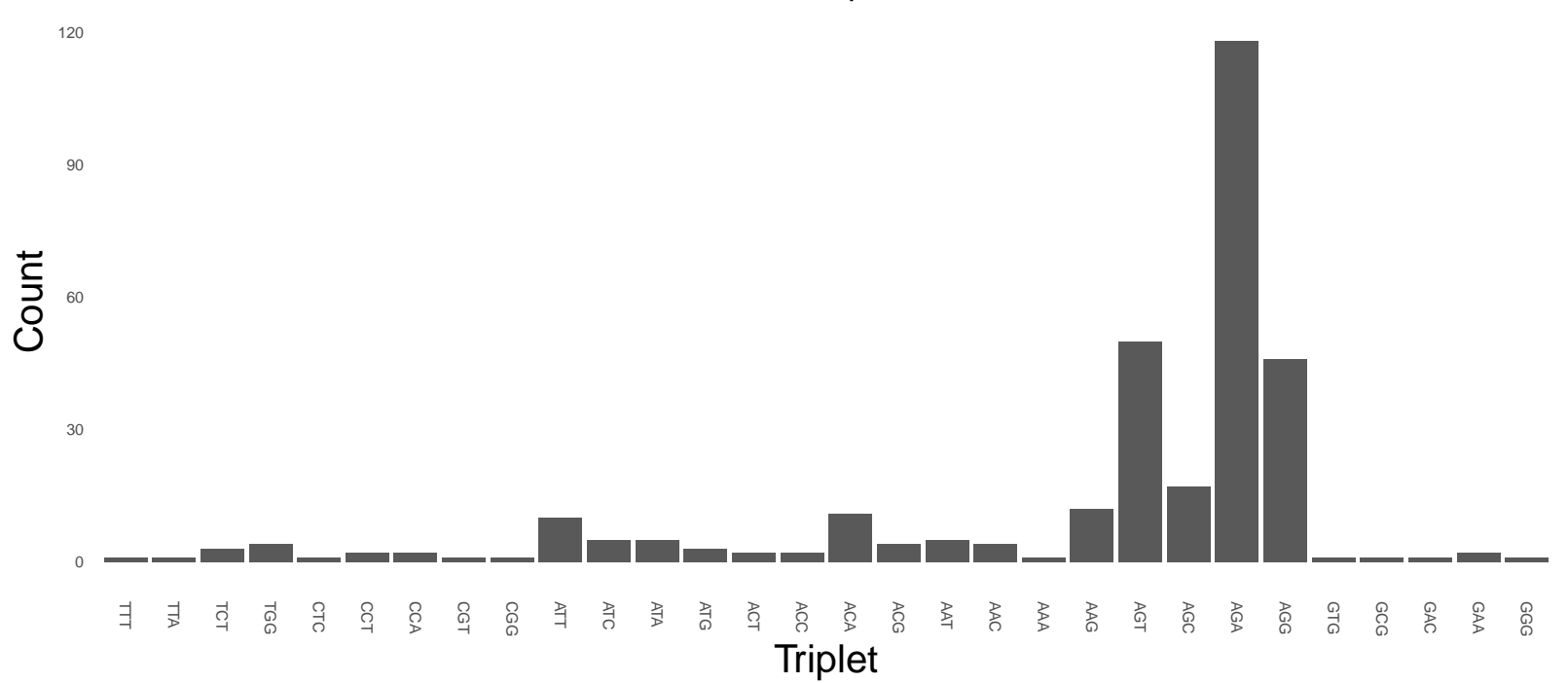
Gene IGHV7-4-1\*02\_T63C



Gene IGHV7-4-1\*02\_T63C

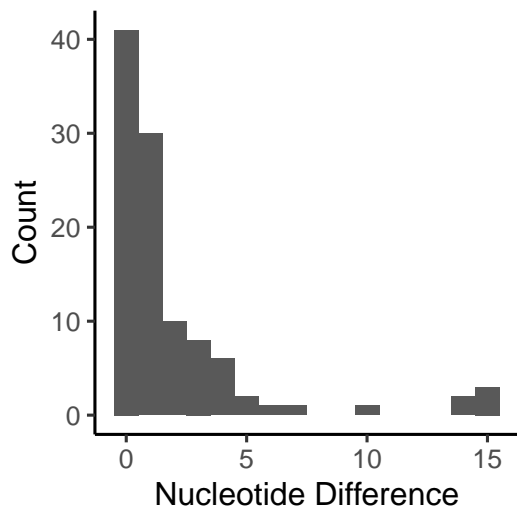


IGHV7-4-1\*02\_T63C- Final 3 nucleotides as a triplet



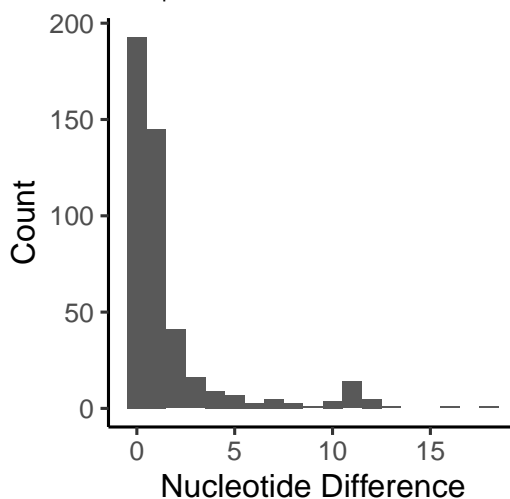
### IGHV1-2\*04

105 sequences assigned  
41 (39%) exact matches, in which:  
37 unique CDR3  
6 unique J



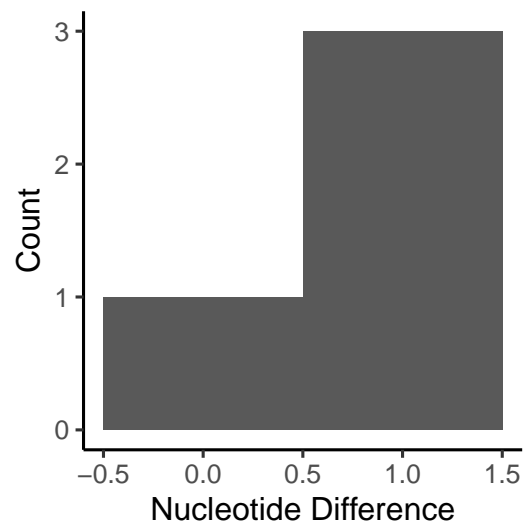
### IGHV1-18\*01

450 sequences assigned  
193 (42.9%) exact matches, in which:  
182 unique CDR3  
6 unique J



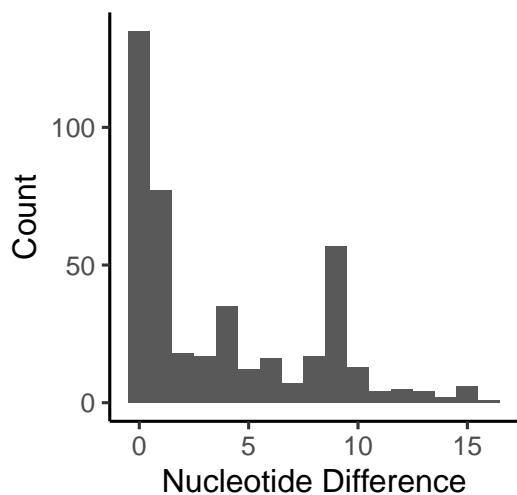
### IGHV1-45\*02

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



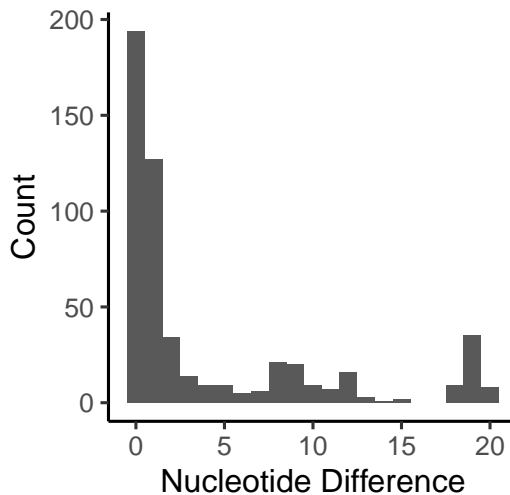
### IGHV1-3\*01\_05

426 sequences assigned  
135 (31.7%) exact matches, in which:  
124 unique CDR3  
7 unique J



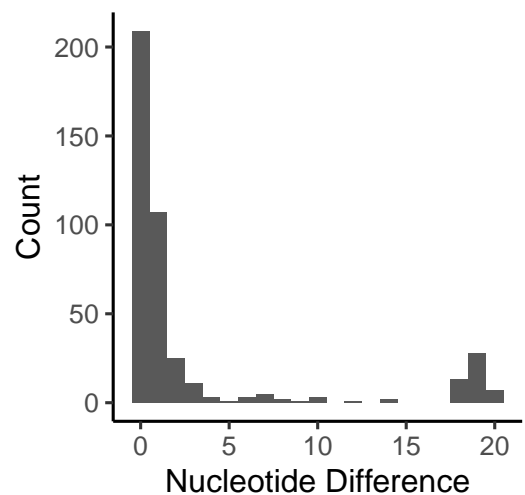
### IGHV1-18\*04

540 sequences assigned  
194 (35.9%) exact matches, in which:  
183 unique CDR3  
6 unique J



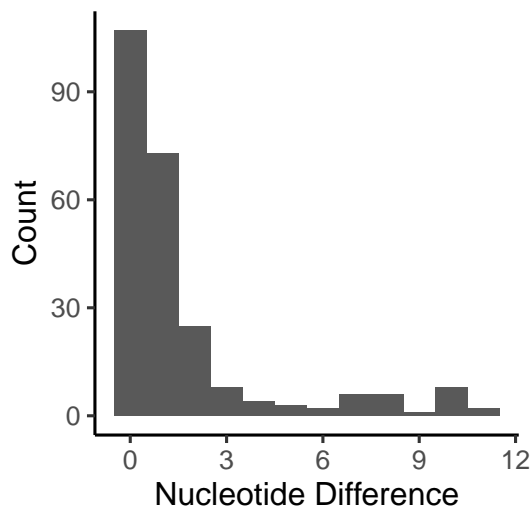
### IGHV1-46\*01

506 sequences assigned  
209 (41.3%) exact matches, in which:  
199 unique CDR3  
7 unique J



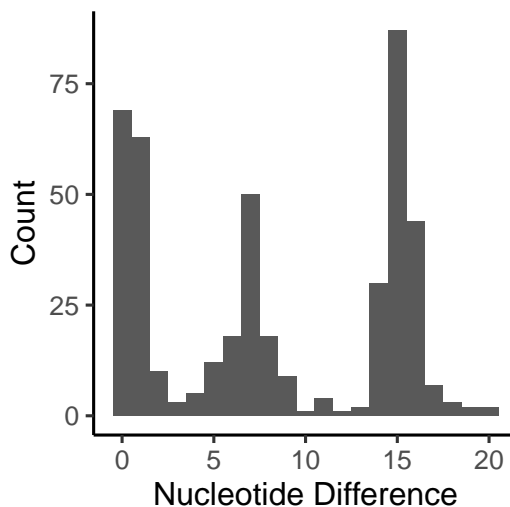
### IGHV1-8\*01

245 sequences assigned  
107 (43.7%) exact matches, in which:  
102 unique CDR3  
7 unique J



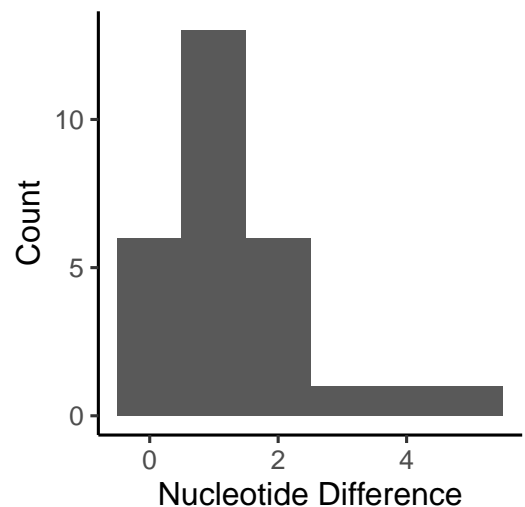
### IGHV1-24\*01

441 sequences assigned  
69 (15.6%) exact matches, in which:  
64 unique CDR3  
7 unique J



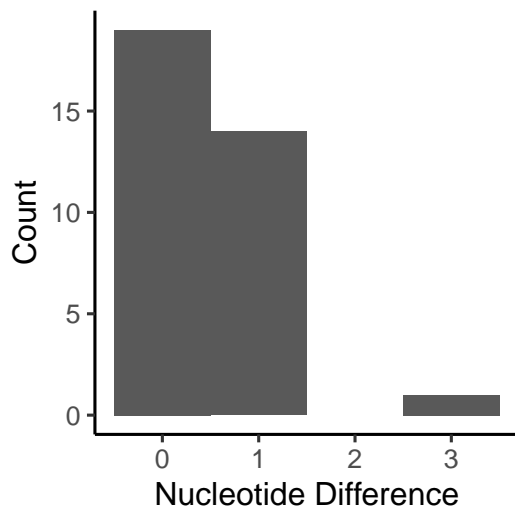
### IGHV1-58\*02

28 sequences assigned  
6 (21.4%) exact matches, in which:  
6 unique CDR3  
3 unique J



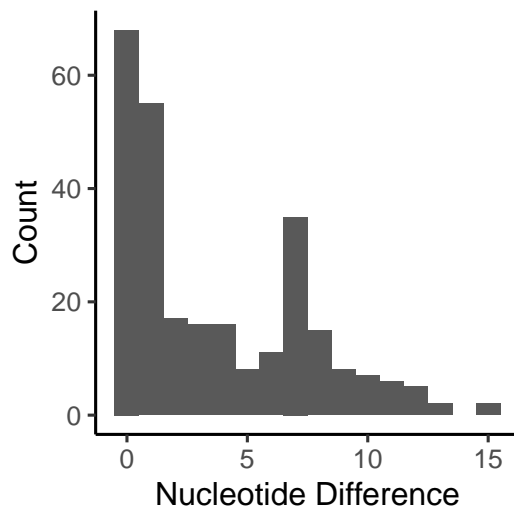
### IGHV1-58\*01\_03

34 sequences assigned  
19 (55.9%) exact matches, in which:  
18 unique CDR3  
4 unique J



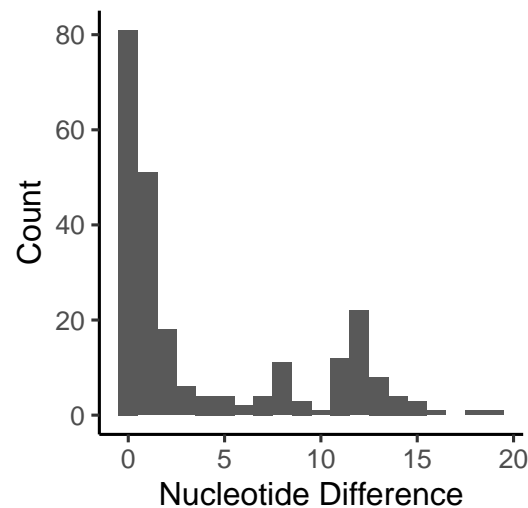
### IGHV2-5\*02

271 sequences assigned  
68 (25.1%) exact matches, in which:  
66 unique CDR3  
6 unique J



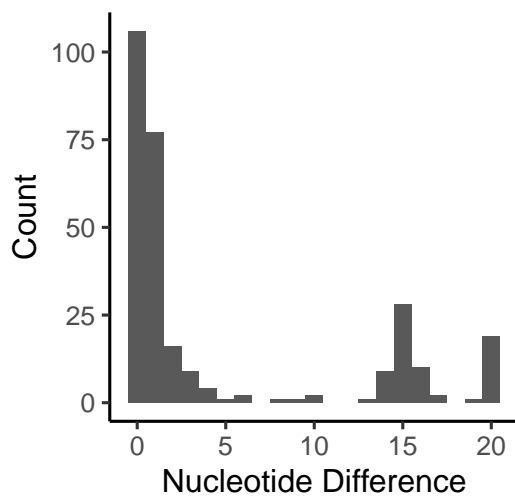
### IGHV3-7\*01

242 sequences assigned  
81 (33.5%) exact matches, in which:  
72 unique CDR3  
6 unique J



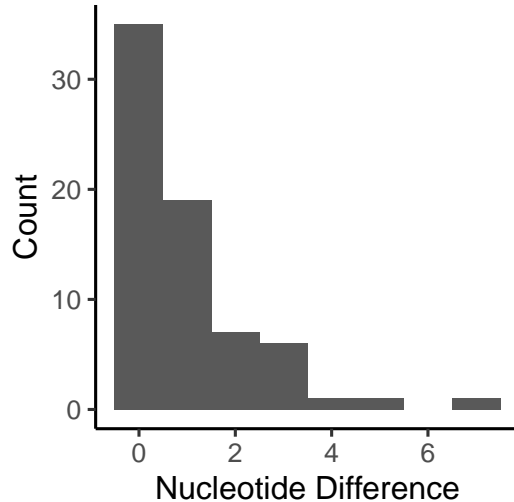
### IGHV1-69\*10

356 sequences assigned  
106 (29.8%) exact matches, in which:  
98 unique CDR3  
5 unique J



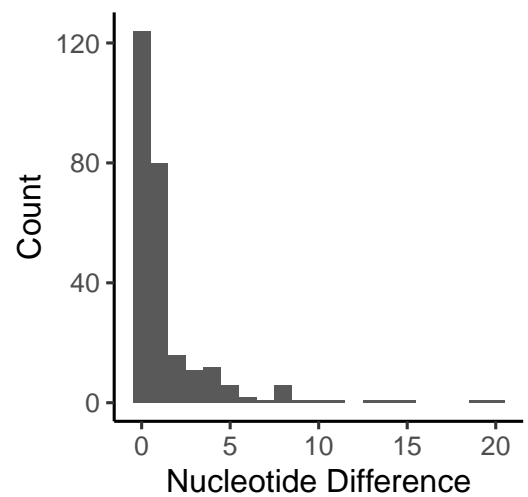
### IGHV2-26\*01

70 sequences assigned  
35 (50%) exact matches, in which:  
34 unique CDR3  
6 unique J



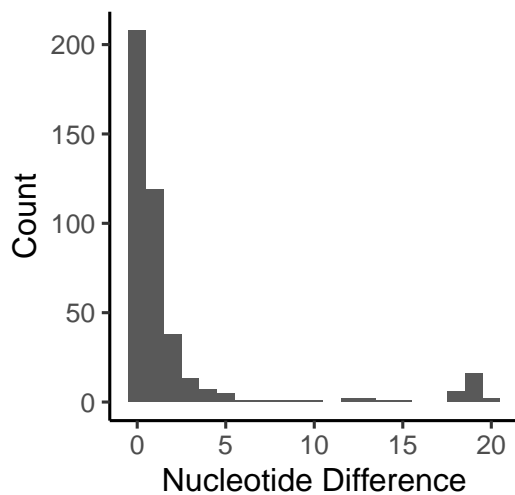
### IGHV3-7\*03

268 sequences assigned  
124 (46.3%) exact matches, in which:  
111 unique CDR3  
6 unique J



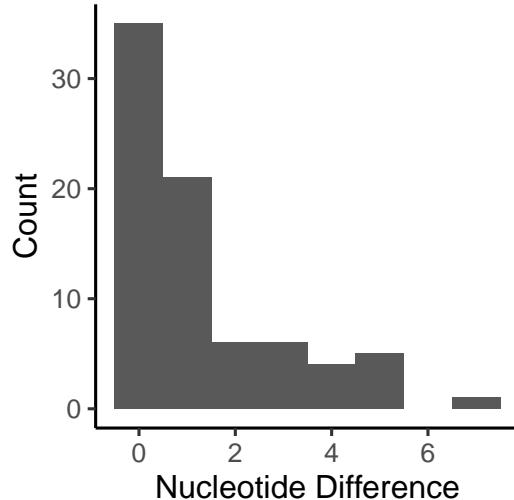
### IGHV1-69\*01\_12\_13

444 sequences assigned  
208 (46.8%) exact matches, in which:  
193 unique CDR3  
6 unique J



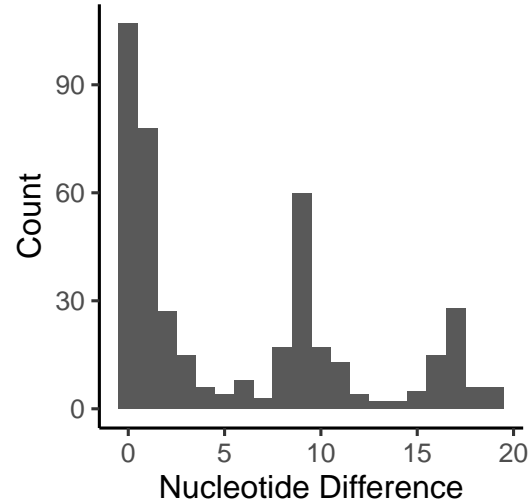
### IGHV2-70\*01

78 sequences assigned  
35 (44.9%) exact matches, in which:  
32 unique CDR3  
4 unique J



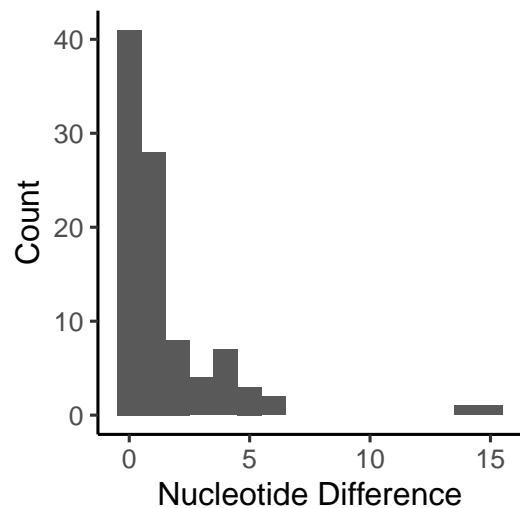
### IGHV3-9\*01

425 sequences assigned  
107 (25.2%) exact matches, in which:  
101 unique CDR3  
6 unique J



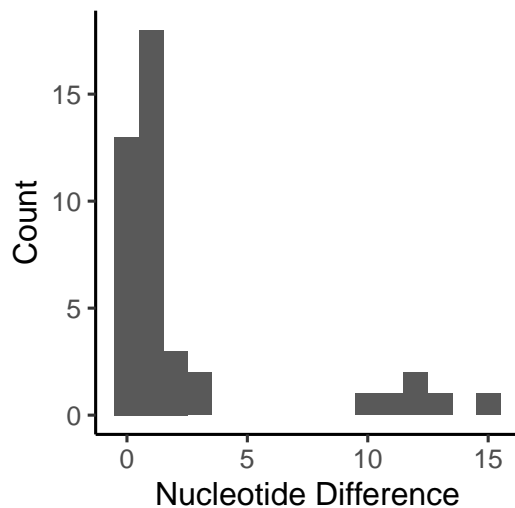
### IGHV3-11\*01

95 sequences assigned  
41 (43.2%) exact matches, in which:  
40 unique CDR3  
5 unique J



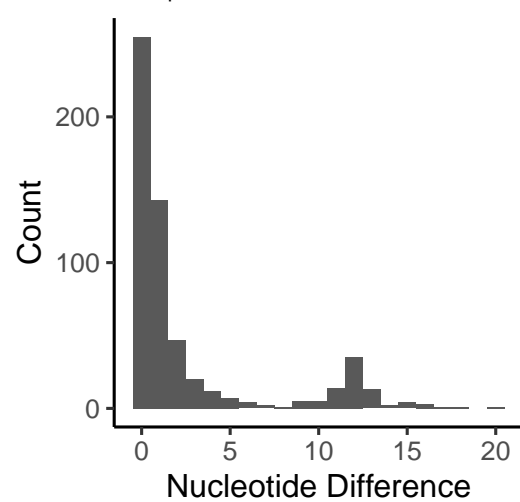
### IGHV3-13\*05

42 sequences assigned  
13 (31%) exact matches, in which:  
12 unique CDR3  
4 unique J



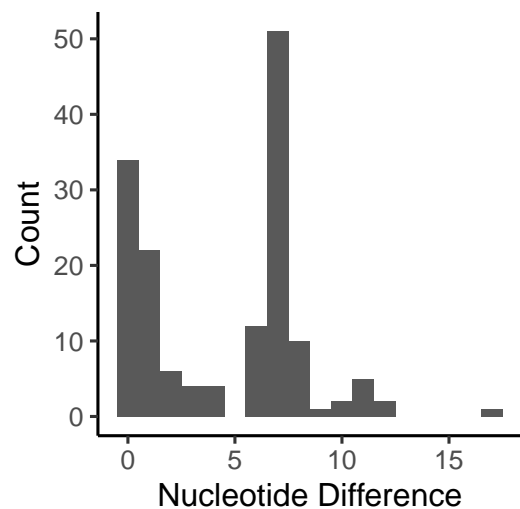
### IGHV3-21\*01\_02

613 sequences assigned  
255 (41.6%) exact matches, in which:  
237 unique CDR3  
6 unique J



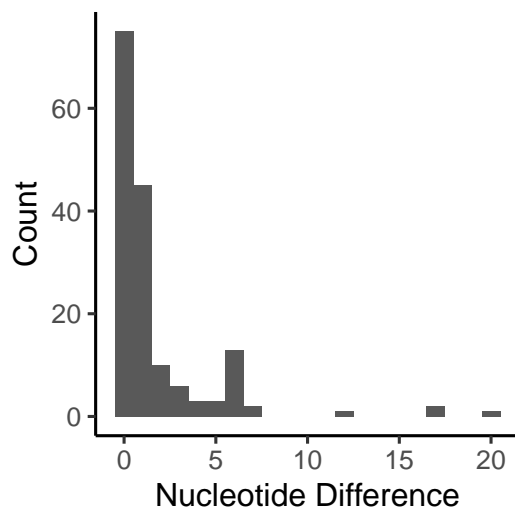
### IGHV3-11\*06

154 sequences assigned  
34 (22.1%) exact matches, in which:  
33 unique CDR3  
4 unique J



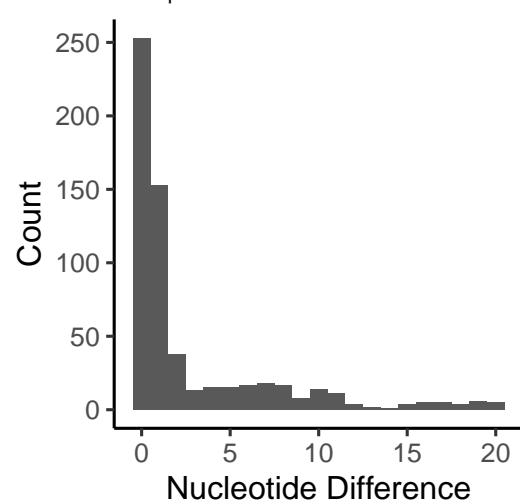
### IGHV3-15\*01\_02

161 sequences assigned  
75 (46.6%) exact matches, in which:  
72 unique CDR3  
6 unique J



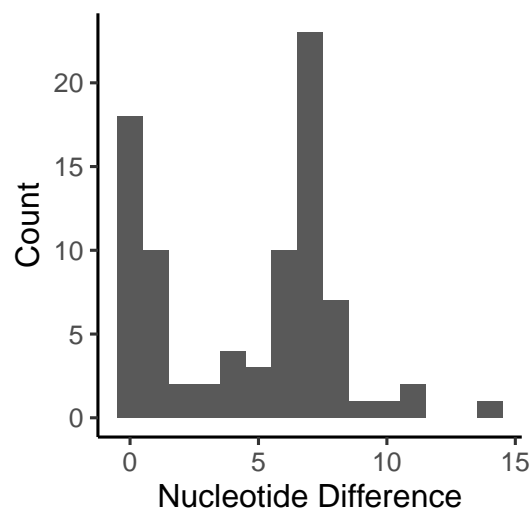
### IGHV3-23\*01\_04

686 sequences assigned  
253 (36.9%) exact matches, in which:  
242 unique CDR3  
7 unique J



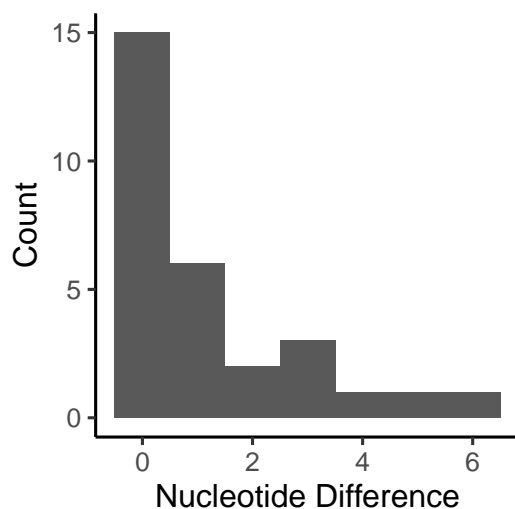
### IGHV3-13\*01

84 sequences assigned  
18 (21.4%) exact matches, in which:  
16 unique CDR3  
3 unique J



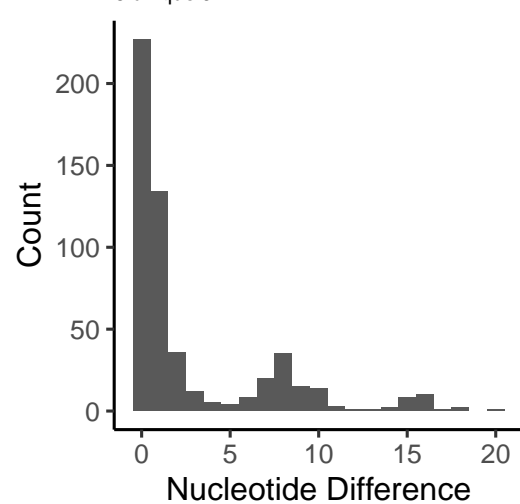
### IGHV3-20\*01\_02

113 sequences assigned  
15 (13.3%) exact matches, in which:  
13 unique CDR3  
4 unique J



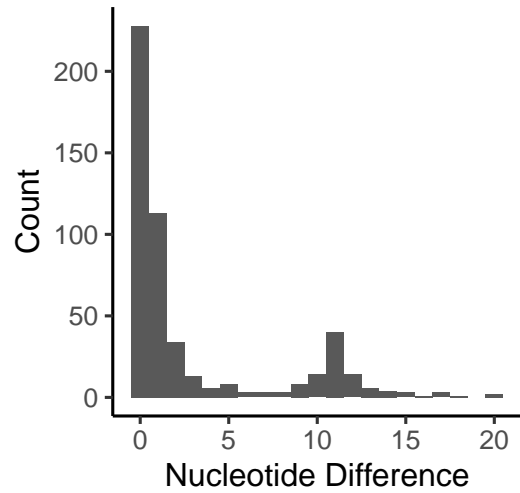
### IGHV3-30-3\*01

559 sequences assigned  
227 (40.6%) exact matches, in which:  
212 unique CDR3  
6 unique J



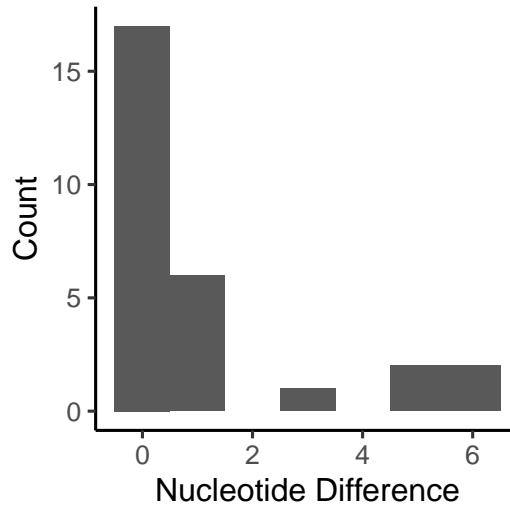
### IGHV3-30\*04

530 sequences assigned  
228 (43%) exact matches, in which:  
212 unique CDR3  
6 unique J



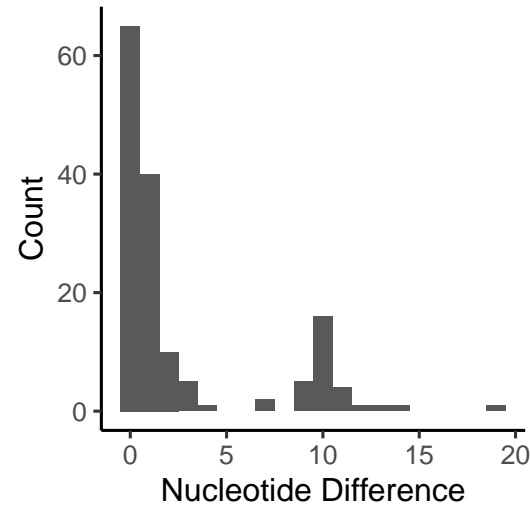
### IGHV3-43\*01

28 sequences assigned  
17 (60.7%) exact matches, in which:  
15 unique CDR3  
4 unique J



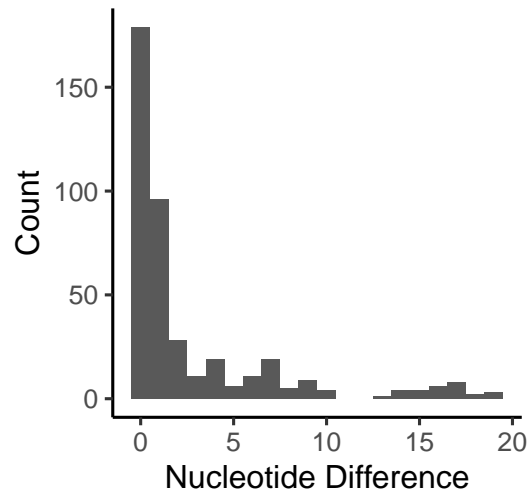
### IGHV3-49\*03\_05

154 sequences assigned  
65 (42.2%) exact matches, in which:  
60 unique CDR3  
5 unique J



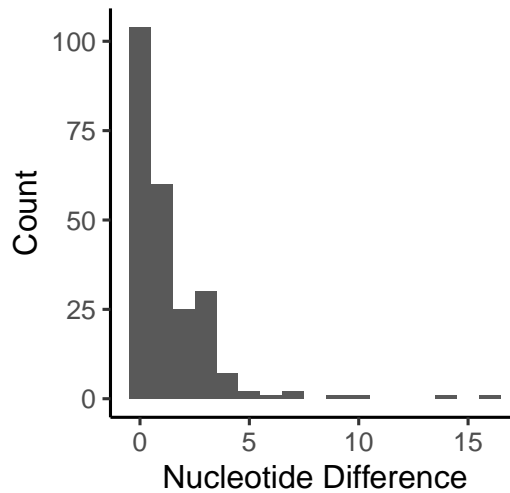
### IGHV3-30\*18

417 sequences assigned  
179 (42.9%) exact matches, in which:  
175 unique CDR3  
5 unique J



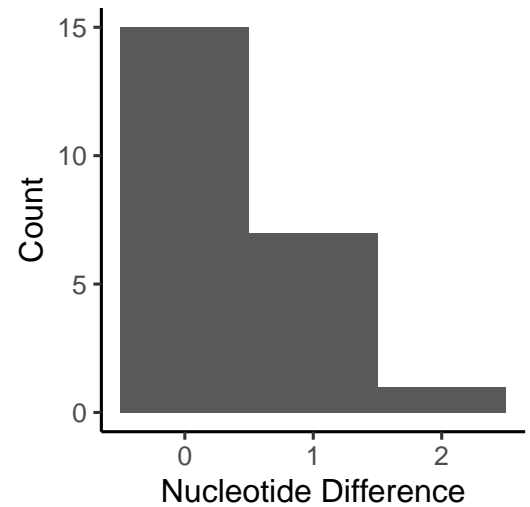
### IGHV3-48\*02

236 sequences assigned  
104 (44.1%) exact matches, in which:  
92 unique CDR3  
4 unique J



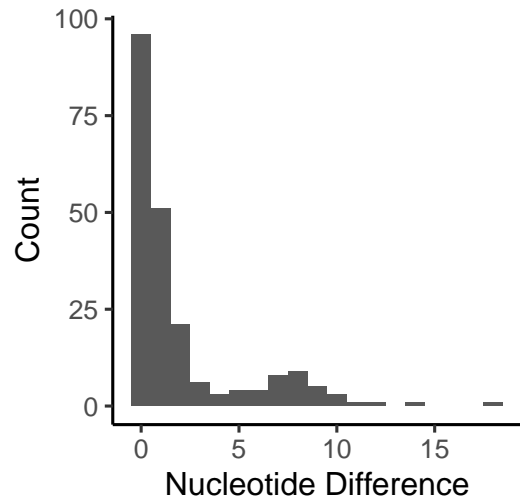
### IGHV3-53\*04

23 sequences assigned  
15 (65.2%) exact matches, in which:  
14 unique CDR3  
5 unique J



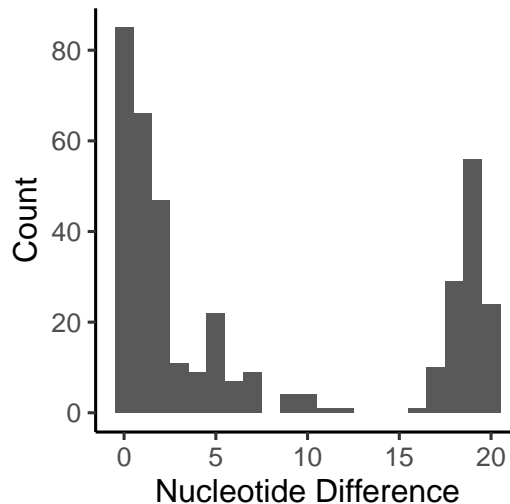
### IGHV3-33\*01

214 sequences assigned  
96 (44.9%) exact matches, in which:  
86 unique CDR3  
5 unique J



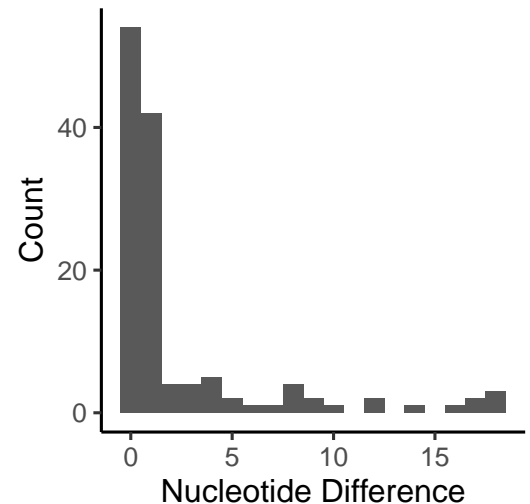
### IGHV3-48\*04

405 sequences assigned  
85 (21%) exact matches, in which:  
78 unique CDR3  
6 unique J



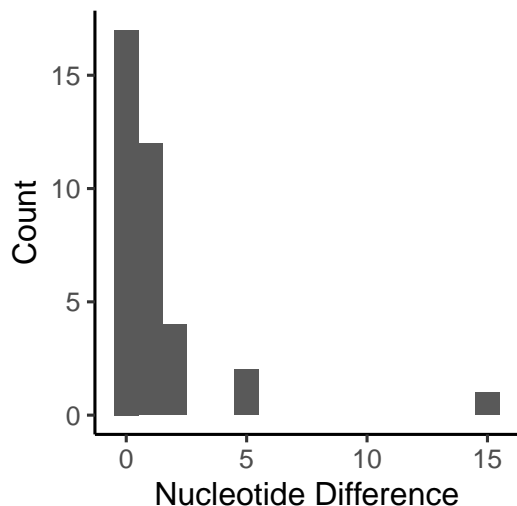
### IGHV3-53\*01\_02

321 sequences assigned  
54 (16.8%) exact matches, in which:  
50 unique CDR3  
5 unique J



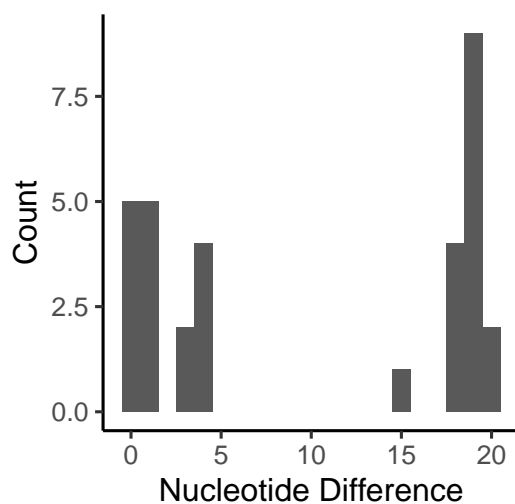
### IGHV3-64\*01

37 sequences assigned  
17 (45.9%) exact matches, in which:  
17 unique CDR3  
5 unique J



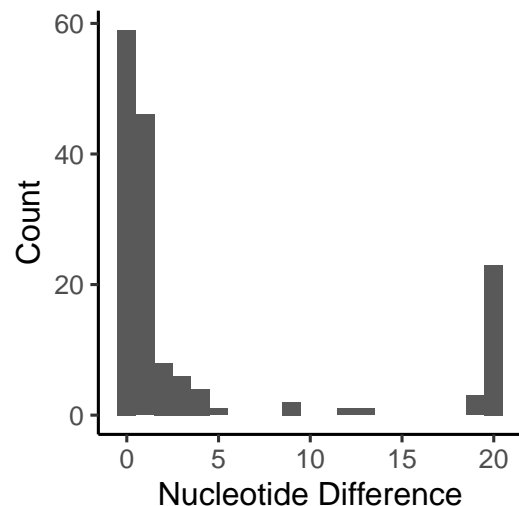
### IGHV3-72\*01

33 sequences assigned  
5 (15.2%) exact matches, in which:  
5 unique CDR3  
3 unique J



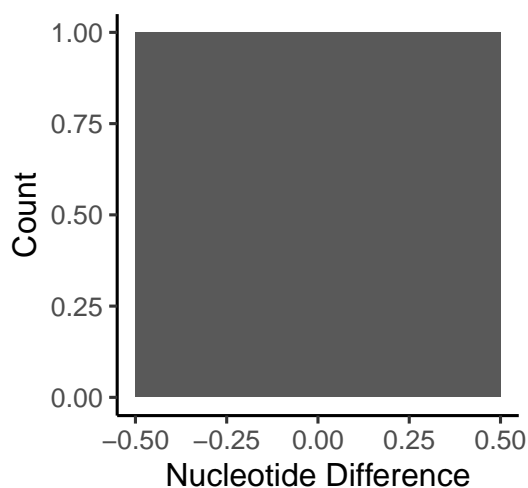
### IGHV3-74\*01\_02

231 sequences assigned  
59 (25.5%) exact matches, in which:  
54 unique CDR3  
6 unique J



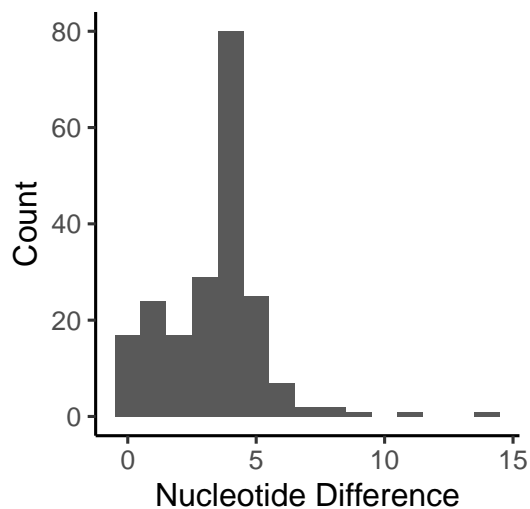
### IGHV3-66\*01

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



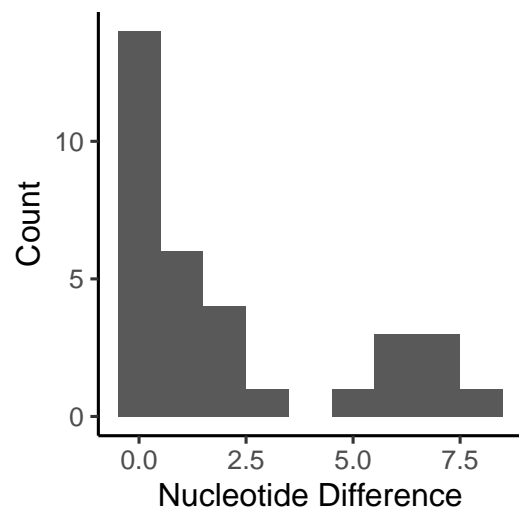
### IGHV3-73\*01\_02

206 sequences assigned  
17 (8.3%) exact matches, in which:  
16 unique CDR3  
4 unique J



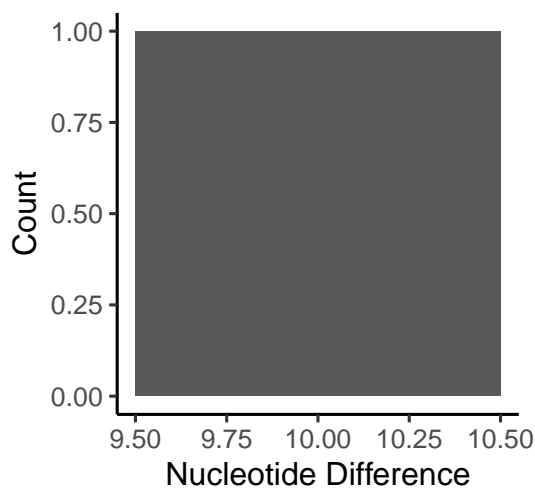
### IGHV3-43D\*03

33 sequences assigned  
14 (42.4%) exact matches, in which:  
13 unique CDR3  
4 unique J



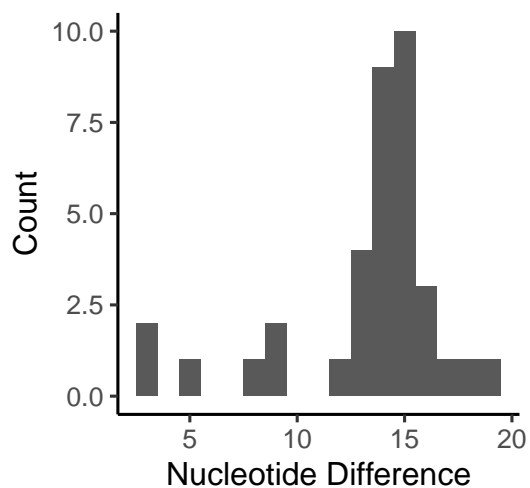
### IGHV3-69-1\*01

22 sequences assigned  
No exact matches.



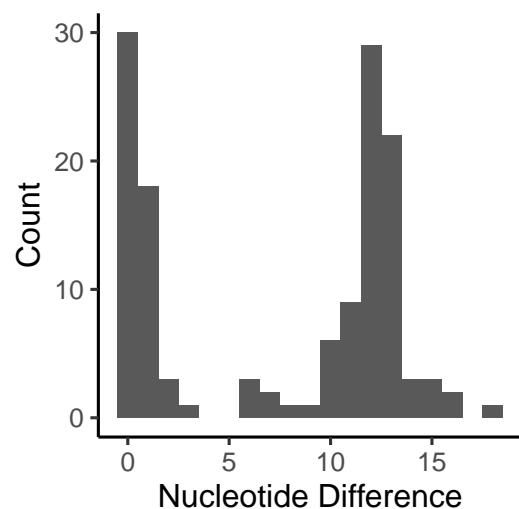
### IGHV3-74\*03

156 sequences assigned  
No exact matches.



### IGHV3-64D\*06

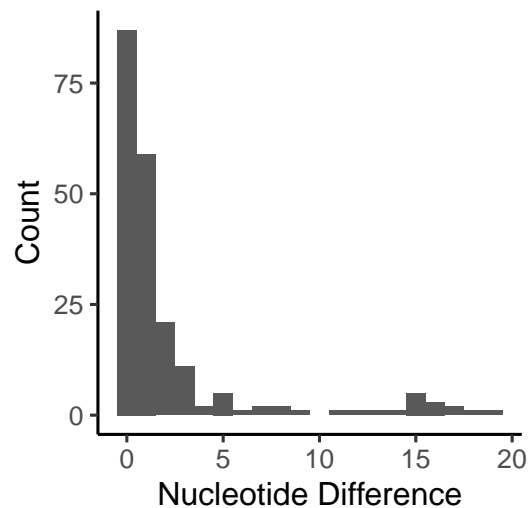
134 sequences assigned  
30 (22.4%) exact matches, in which:  
28 unique CDR3  
4 unique J





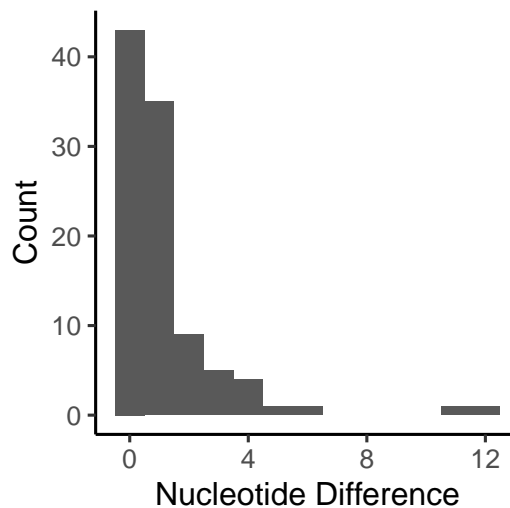
### IGHV4-4\*02\_03

207 sequences assigned  
87 (42%) exact matches, in which:  
83 unique CDR3  
7 unique J



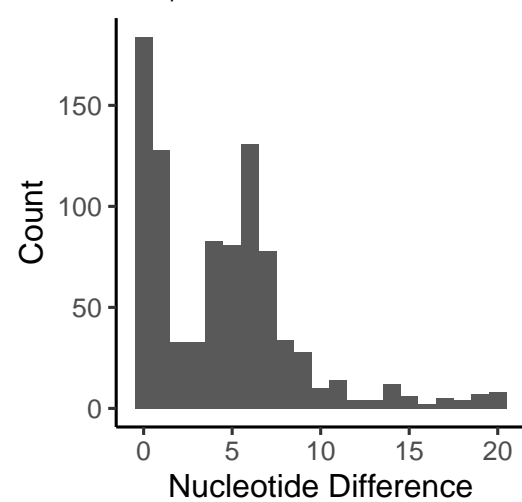
### IGHV4-31\*02

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



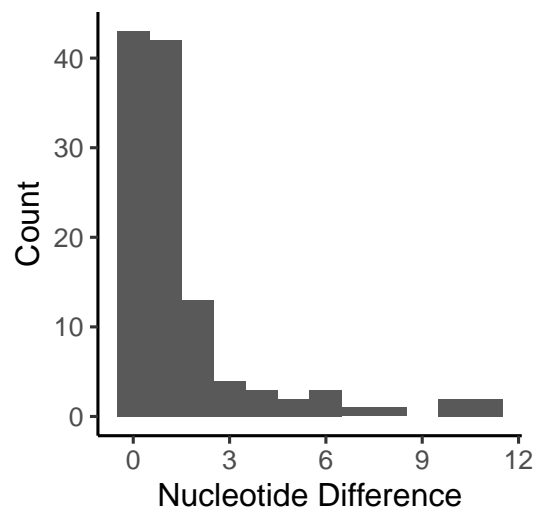
### IGHV4-39\*07

956 sequences assigned  
184 (19.2%) exact matches, in which:  
175 unique CDR3  
7 unique J



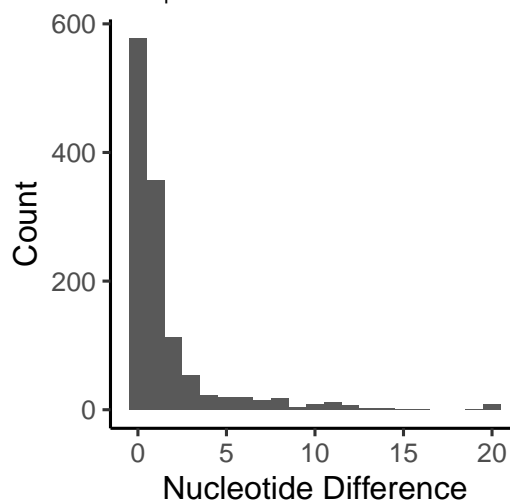
### IGHV4-30-4\*01

116 sequences assigned  
43 (37.1%) exact matches, in which:  
41 unique CDR3  
5 unique J



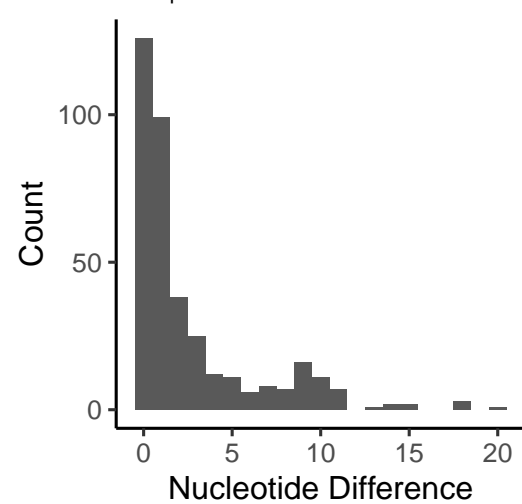
### IGHV4-34\*01\_02

1274 sequences assigned  
578 (45.4%) exact matches, in which:  
534 unique CDR3  
7 unique J



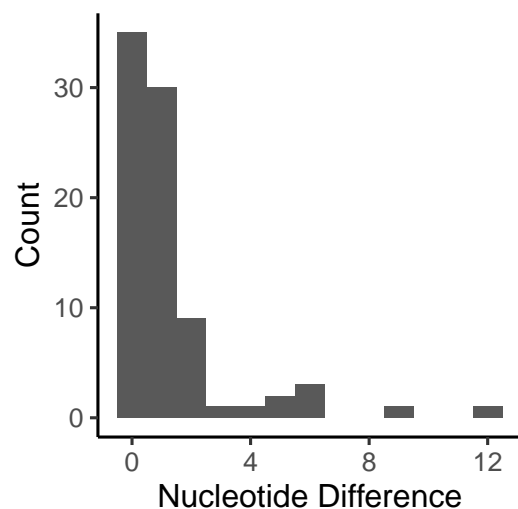
### IGHV4-59\*08

715 sequences assigned  
126 (17.6%) exact matches, in which:  
112 unique CDR3  
6 unique J



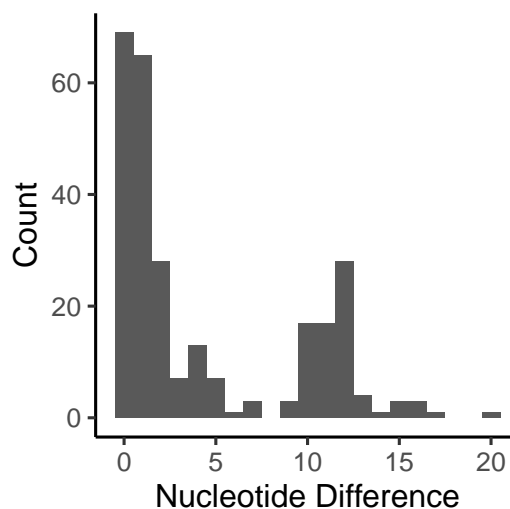
### IGHV4-30-2\*01

83 sequences assigned  
35 (42.2%) exact matches, in which:  
31 unique CDR3  
5 unique J



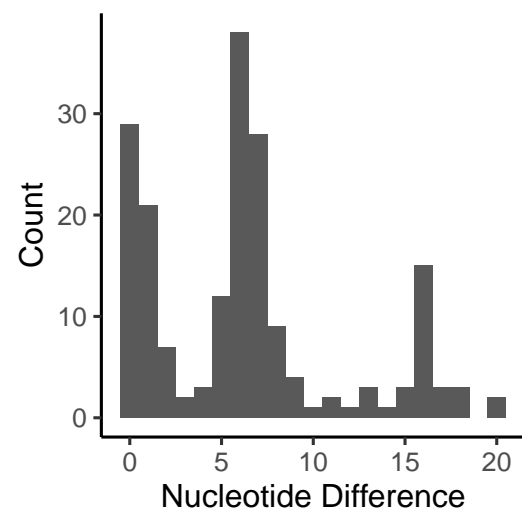
### IGHV4-38-2\*02

272 sequences assigned  
69 (25.4%) exact matches, in which:  
65 unique CDR3  
6 unique J



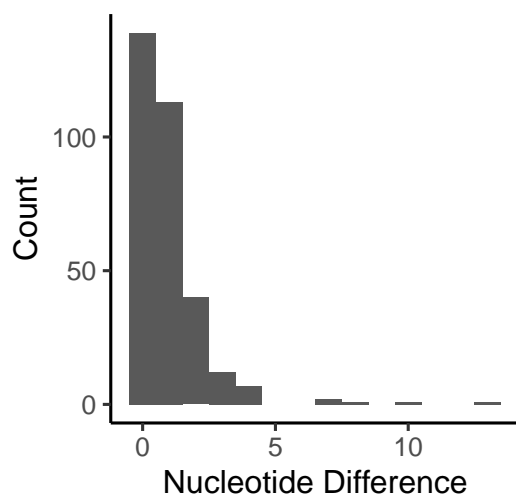
### IGHV4-61\*01

203 sequences assigned  
29 (14.3%) exact matches, in which:  
28 unique CDR3  
6 unique J



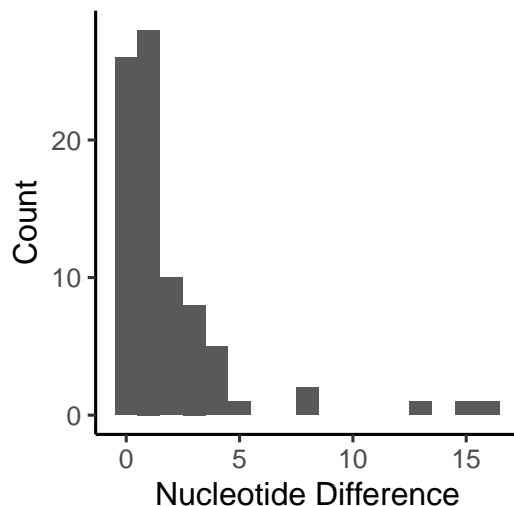
### IGHV5-10-1\*01\_03

316 sequences assigned  
139 (44%) exact matches, in which:  
127 unique CDR3  
5 unique J



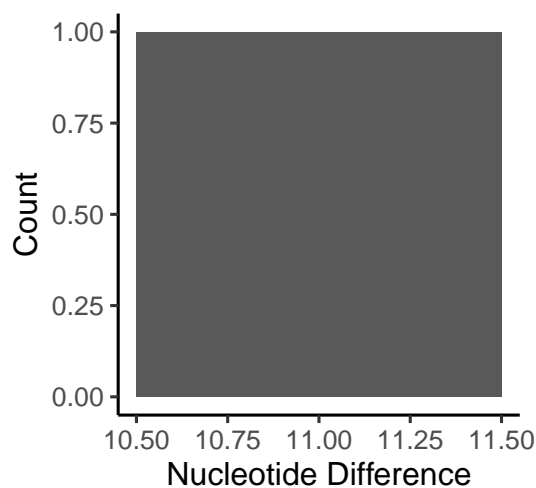
### IGHV6-1\*01\_02

96 sequences assigned  
26 (27.1%) exact matches, in which:  
24 unique CDR3  
5 unique J



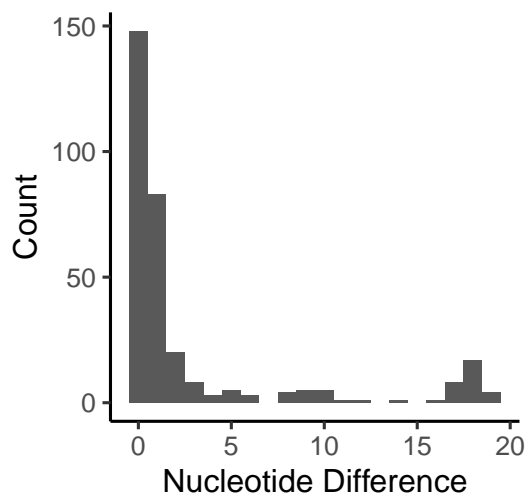
### IGHV5-51\*04

3 sequences assigned  
No exact matches.



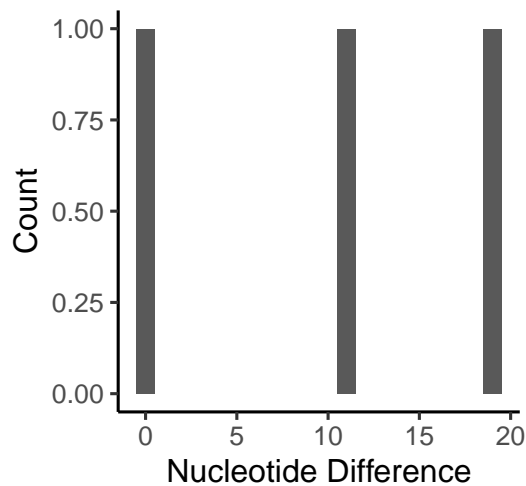
### IGHV7-4-1\*02\_T63C

317 sequences assigned  
148 (46.7%) exact matches, in which:  
140 unique CDR3  
7 unique J

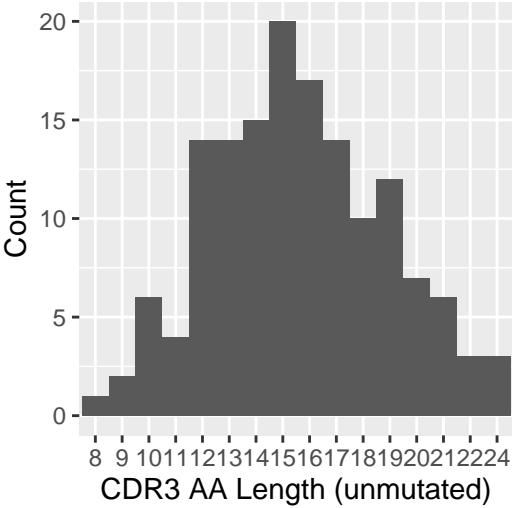


### IGHV5-51\*06

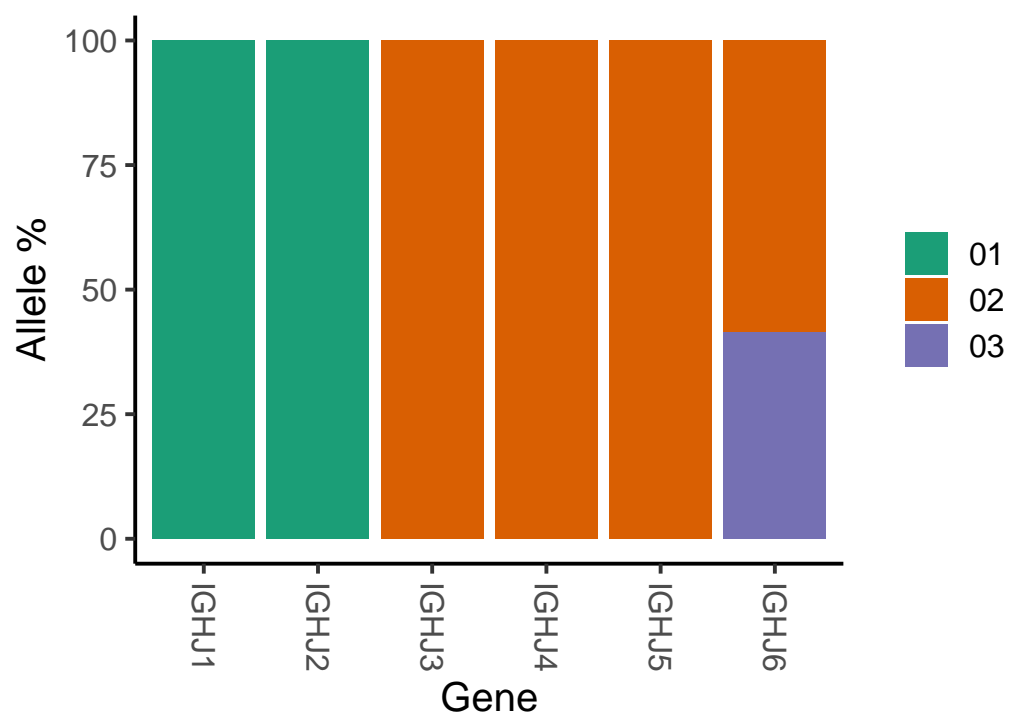
3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



IGHV7-4-1\*02\_T63C



Allele Usage



Sequence Count by IGHJ6 allele usage

