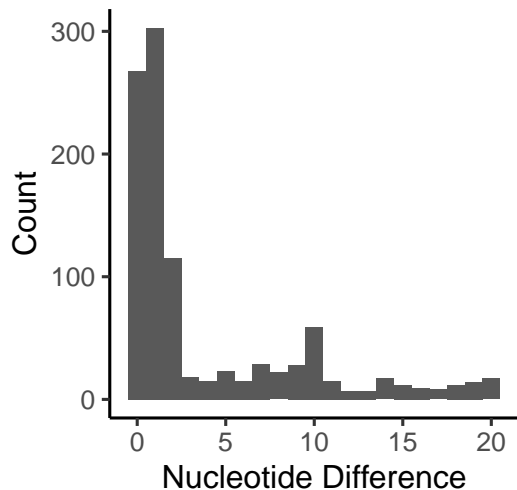


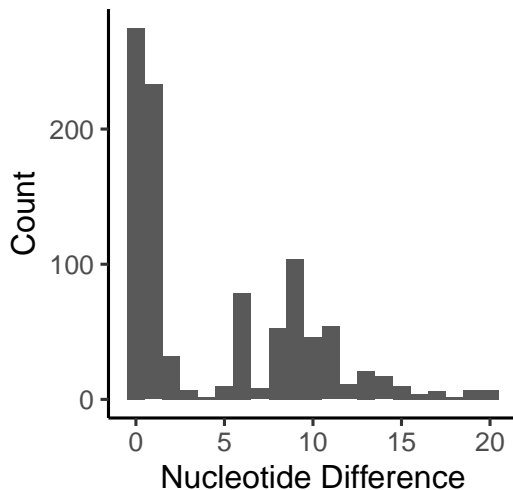
### IGHV1-2\*02

1761 sequences assigned  
268 (15.2%) exact matches, in which:  
216 unique CDR3  
7 unique J



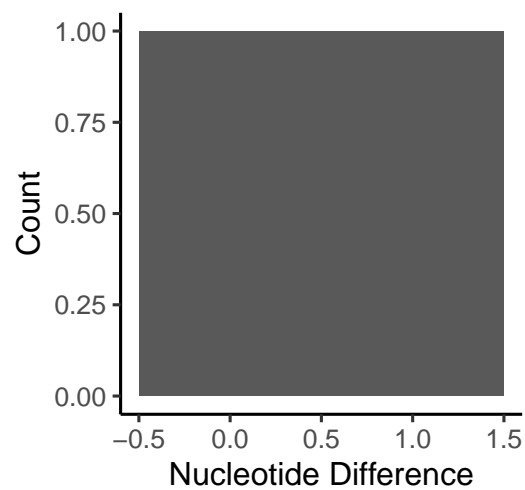
### IGHV1-18\*01

1216 sequences assigned  
275 (22.6%) exact matches, in which:  
210 unique CDR3  
6 unique J



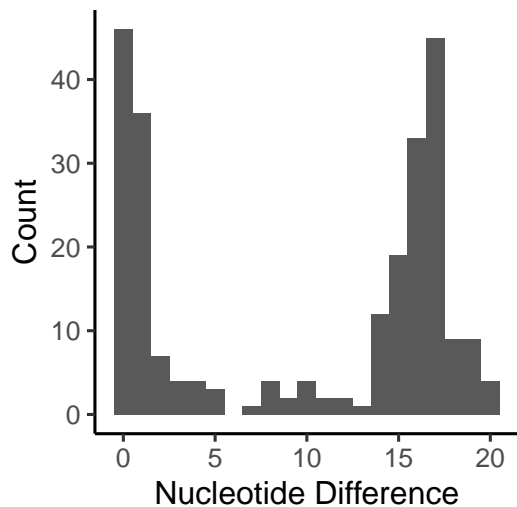
### IGHV1-45\*02

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



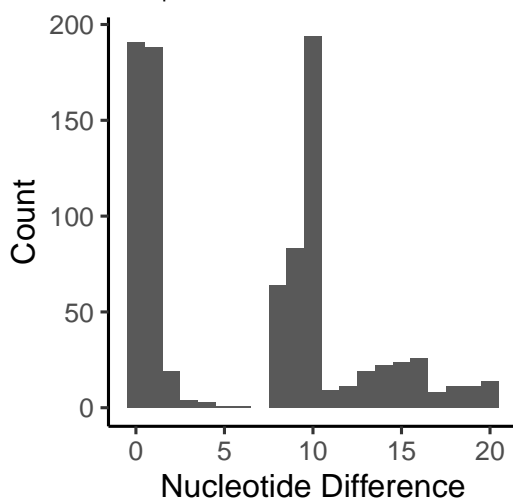
### IGHV1-3\*01\_05

373 sequences assigned  
46 (12.3%) exact matches, in which:  
36 unique CDR3  
5 unique J



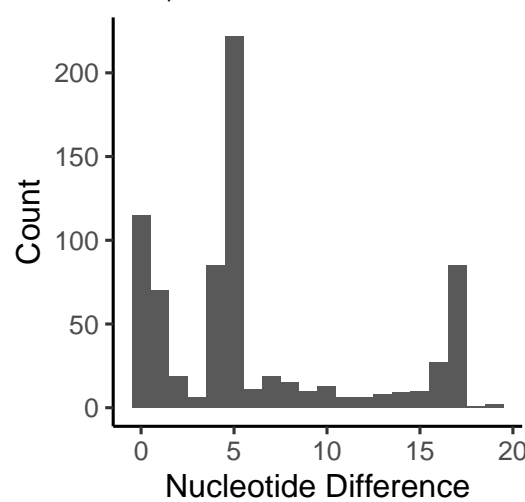
### IGHV1-18\*04

1216 sequences assigned  
191 (15.7%) exact matches, in which:  
153 unique CDR3  
6 unique J



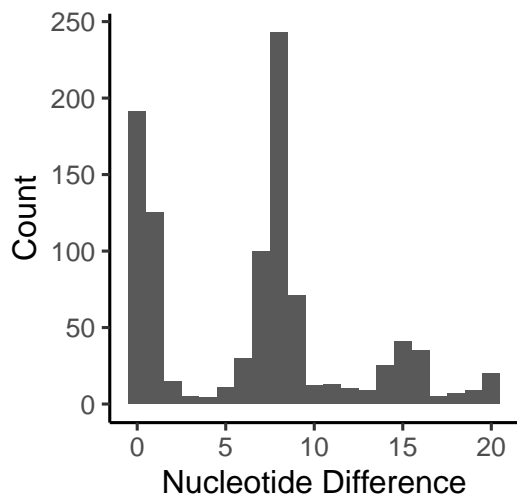
### IGHV1-46\*01

828 sequences assigned  
115 (13.9%) exact matches, in which:  
98 unique CDR3  
5 unique J



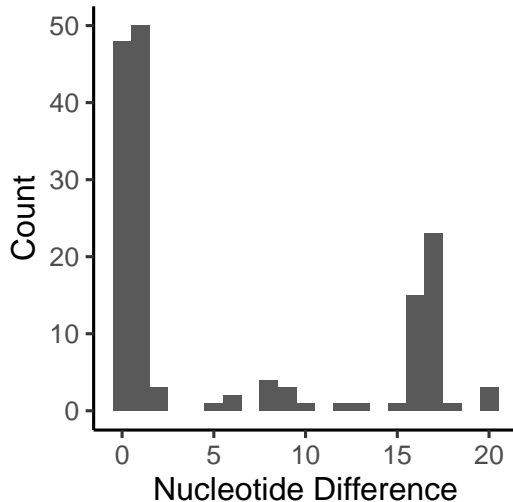
### IGHV1-8\*01

1086 sequences assigned  
191 (17.6%) exact matches, in which:  
160 unique CDR3  
5 unique J



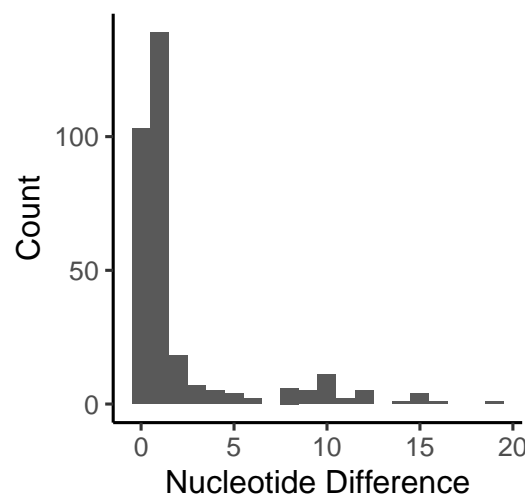
### IGHV1-24\*01

228 sequences assigned  
48 (21.1%) exact matches, in which:  
40 unique CDR3  
5 unique J



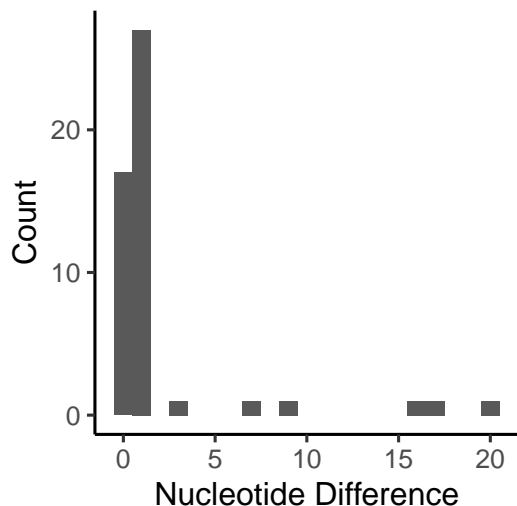
### IGHV1-46\*04

347 sequences assigned  
103 (29.7%) exact matches, in which:  
77 unique CDR3  
6 unique J



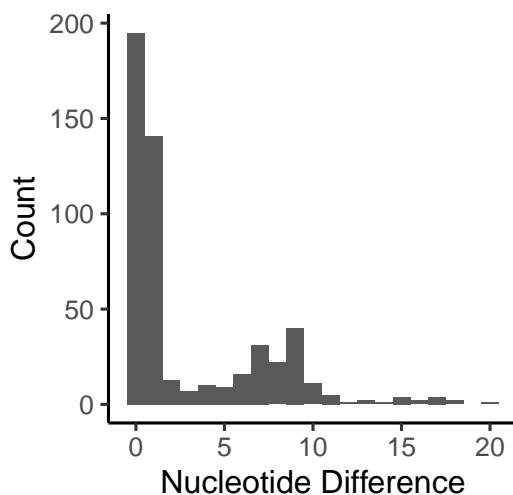
### IGHV1-58\*01\_03

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



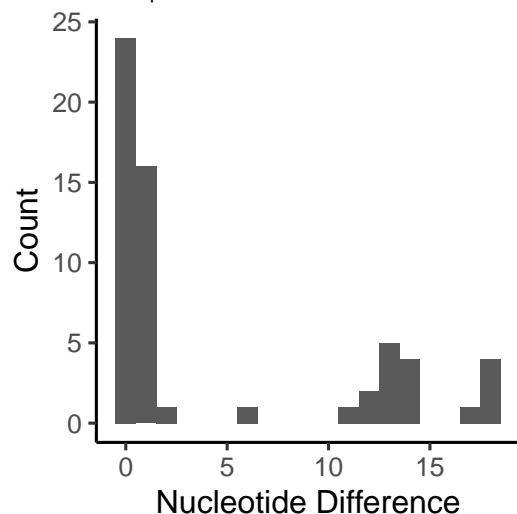
### IGHV1-69\*06\_14

591 sequences assigned  
195 (33%) exact matches, in which:  
174 unique CDR3  
6 unique J



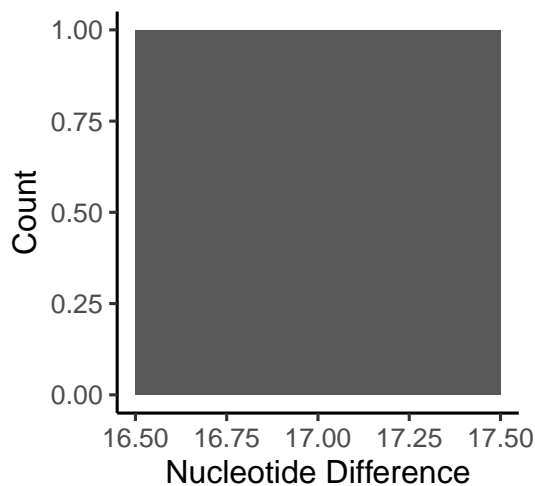
### IGHV2-70\*01

63 sequences assigned  
24 (38.1%) exact matches, in which:  
17 unique CDR3  
4 unique J



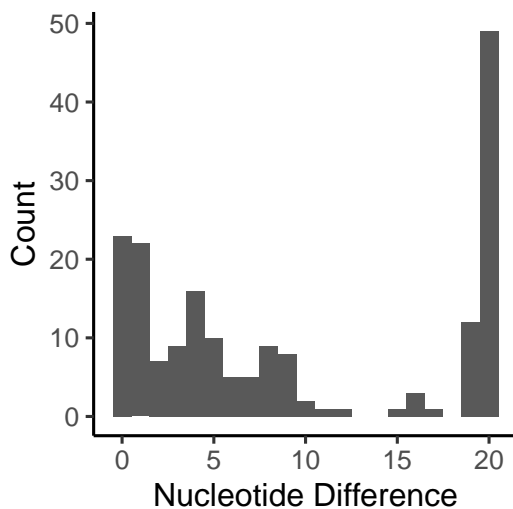
### IGHV1-69-2\*01

1 sequences assigned  
No exact matches.



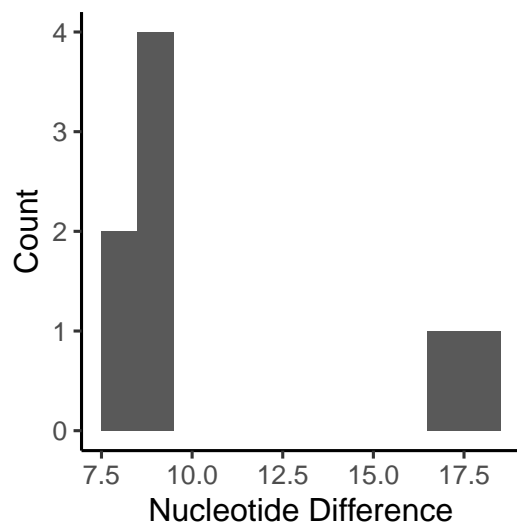
### IGHV2-5\*02

337 sequences assigned  
23 (6.8%) exact matches, in which:  
23 unique CDR3  
4 unique J



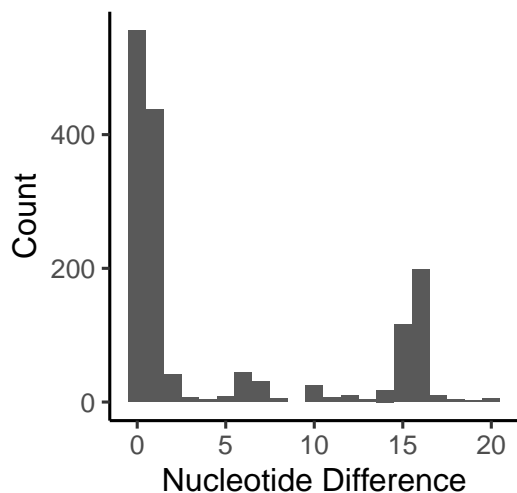
### IGHV2-70\*13

9 sequences assigned  
No exact matches.



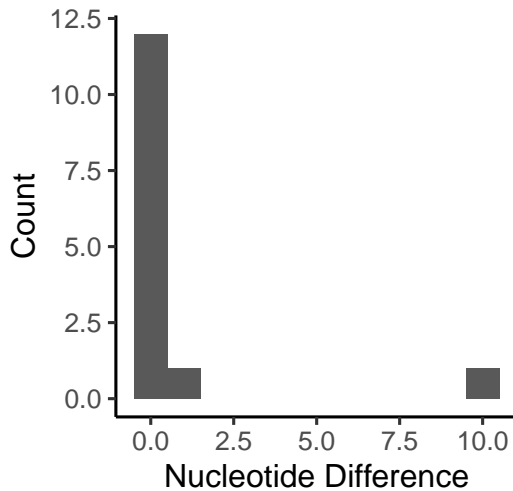
### IGHV1-69\*01\_12\_13

1643 sequences assigned  
556 (33.8%) exact matches, in which:  
468 unique CDR3  
7 unique J



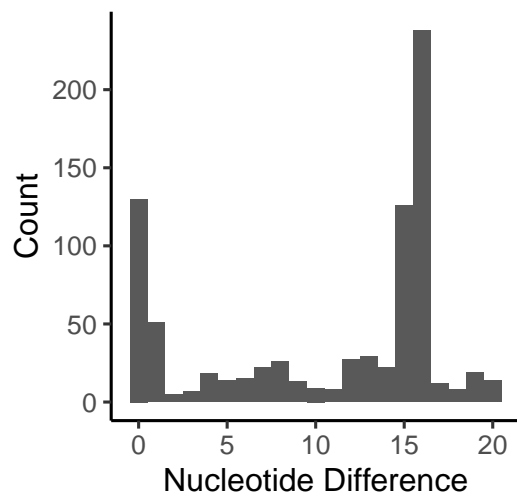
### IGHV2-26\*01

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



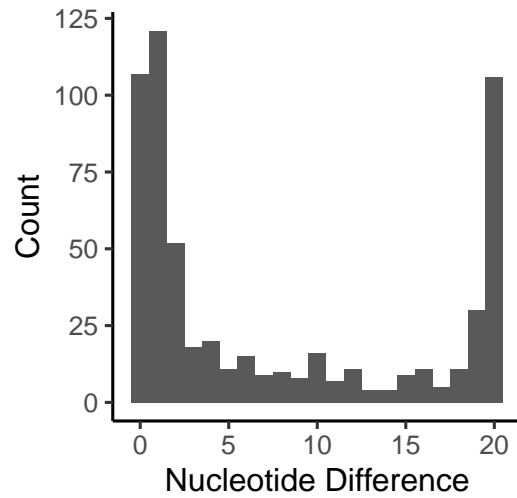
### IGHV3-7\*01

1069 sequences assigned  
130 (12.2%) exact matches, in which:  
82 unique CDR3  
7 unique J



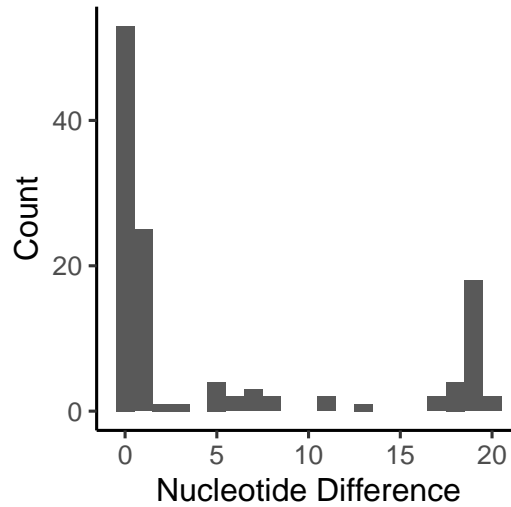
### IGHV3-7\*03

1054 sequences assigned  
107 (10.2%) exact matches, in which:  
50 unique CDR3  
5 unique J



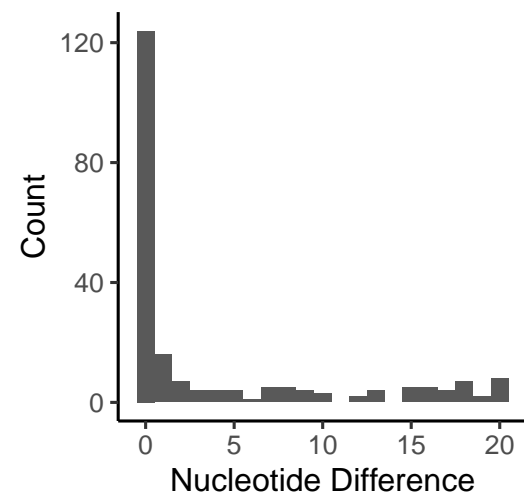
### IGHV3-11\*06

135 sequences assigned  
53 (39.3%) exact matches, in which:  
25 unique CDR3  
5 unique J



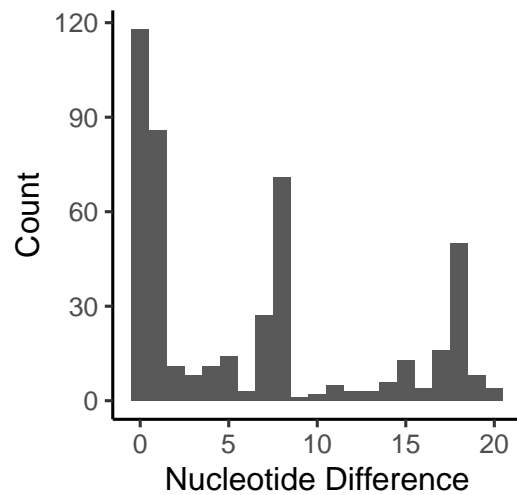
### IGHV3-15\*01\_02

277 sequences assigned  
124 (44.8%) exact matches, in which:  
64 unique CDR3  
5 unique J



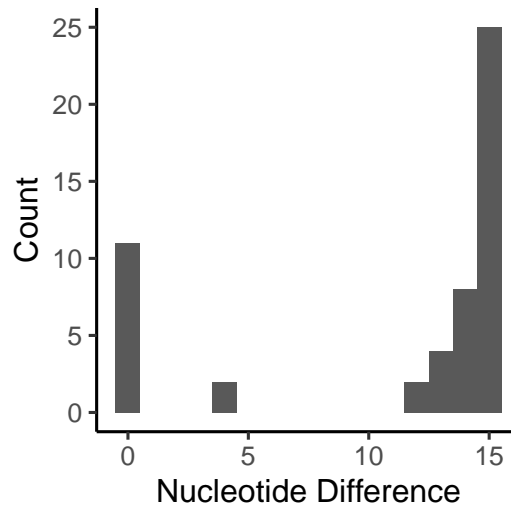
### IGHV3-9\*01

508 sequences assigned  
118 (23.2%) exact matches, in which:  
57 unique CDR3  
6 unique J



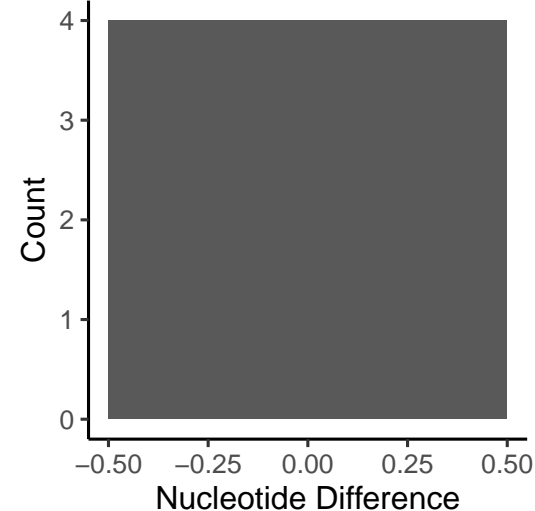
### IGHV3-13\*01

56 sequences assigned  
11 (19.6%) exact matches, in which:  
6 unique CDR3  
1 unique J



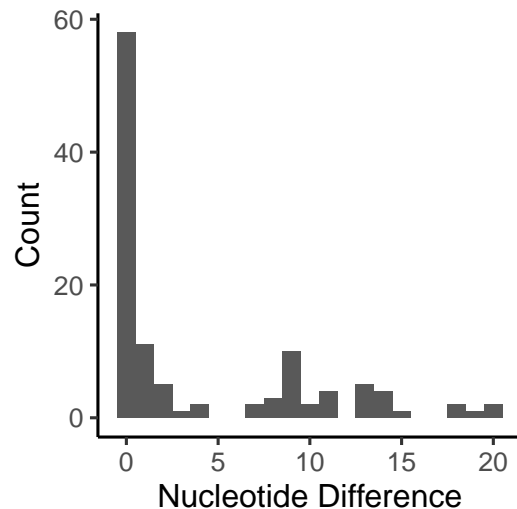
### IGHV3-20\*01\_02

4 sequences assigned  
4 (100%) exact matches, in which:  
2 unique CDR3  
2 unique J



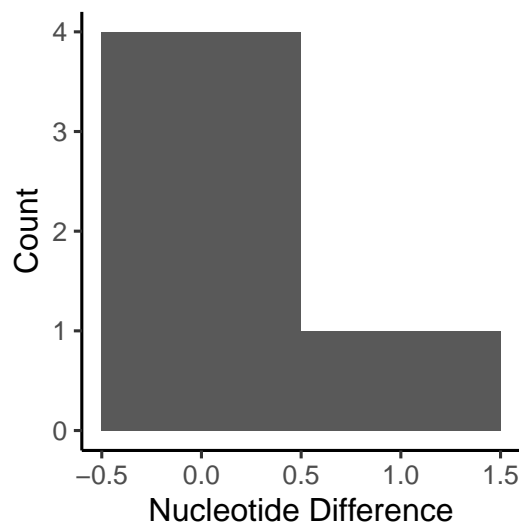
### IGHV3-11\*01

189 sequences assigned  
58 (30.7%) exact matches, in which:  
32 unique CDR3  
4 unique J



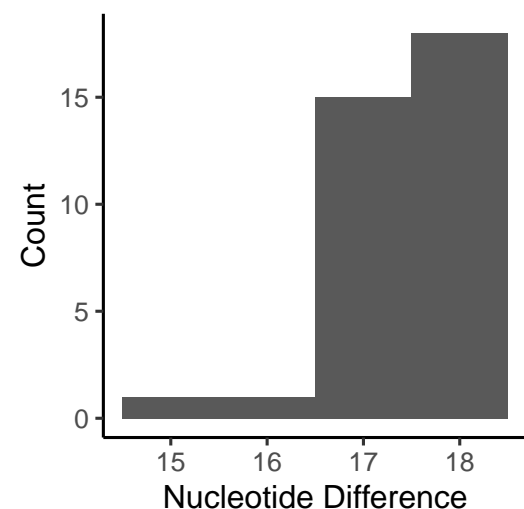
### IGHV3-13\*05

5 sequences assigned  
4 (80%) exact matches, in which:  
2 unique CDR3  
1 unique J



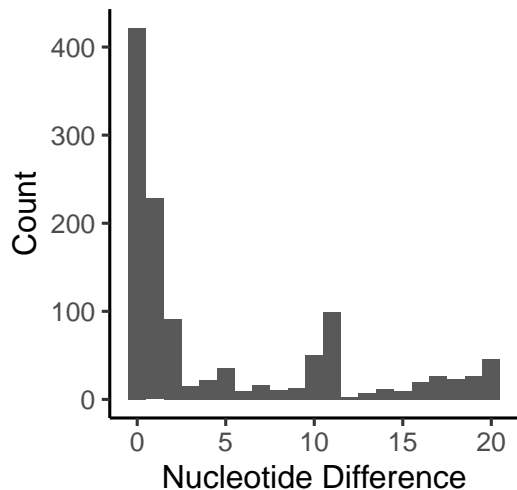
### IGHV3-20\*03\_04

40 sequences assigned  
No exact matches.



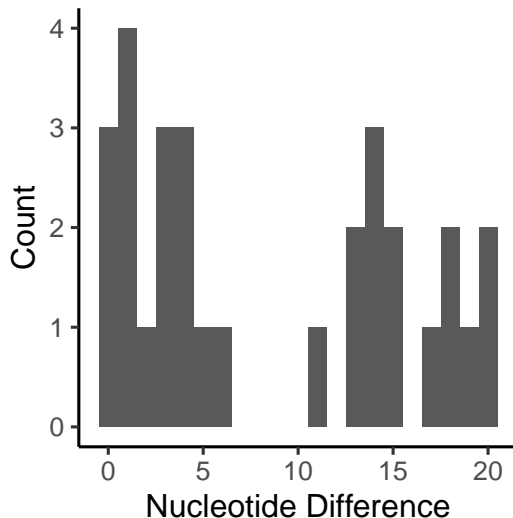
### IGHV3-21\*01\_02

1446 sequences assigned  
422 (29.2%) exact matches, in which:  
209 unique CDR3  
7 unique J



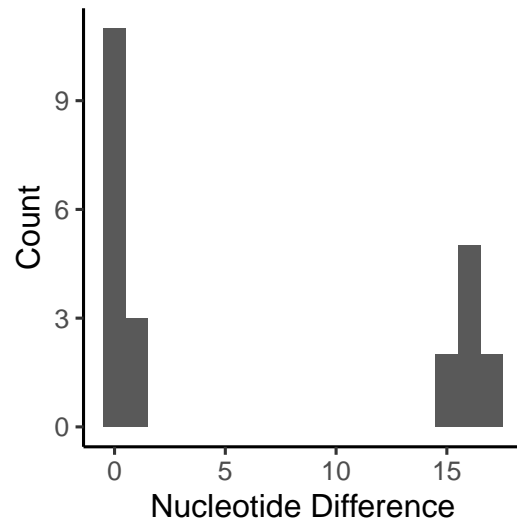
### IGHV3-30\*03

34 sequences assigned  
3 (8.8%) exact matches, in which:  
3 unique CDR3  
1 unique J



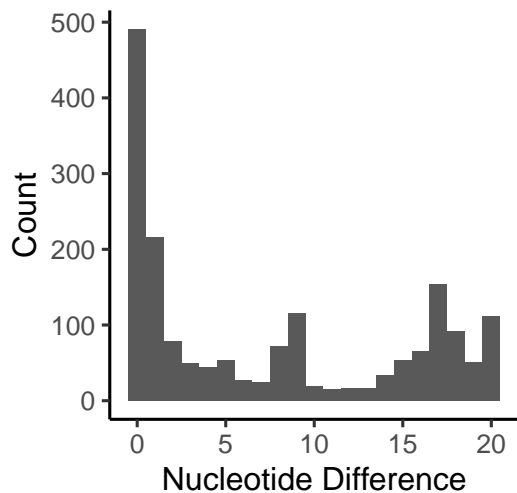
### IGHV3-43\*01

42 sequences assigned  
11 (26.2%) exact matches, in which:  
6 unique CDR3  
2 unique J



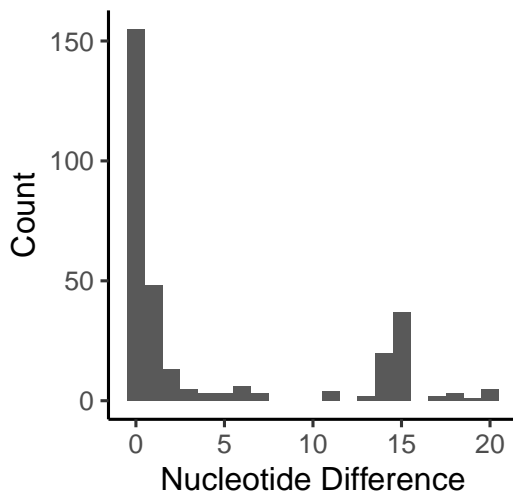
### IGHV3-23\*01\_04

2523 sequences assigned  
491 (19.5%) exact matches, in which:  
236 unique CDR3  
7 unique J



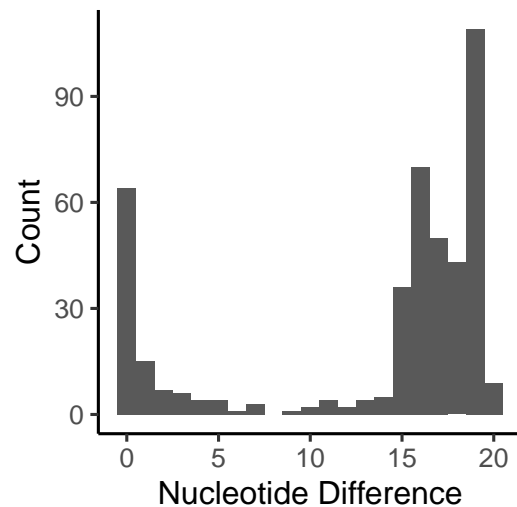
### IGHV3-33\*01

354 sequences assigned  
155 (43.8%) exact matches, in which:  
87 unique CDR3  
7 unique J



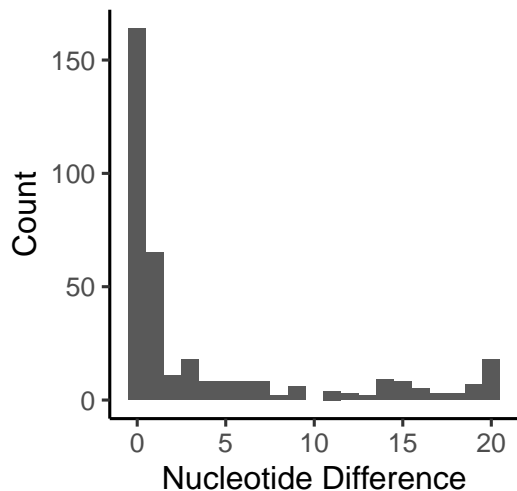
### IGHV3-48\*01

506 sequences assigned  
64 (12.6%) exact matches, in which:  
33 unique CDR3  
7 unique J



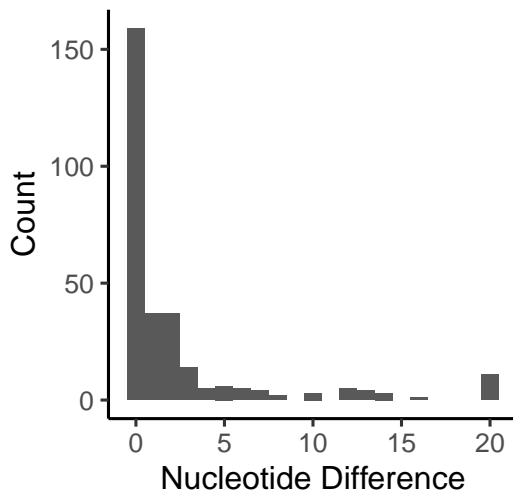
### IGHV3-30-3\*01

477 sequences assigned  
164 (34.4%) exact matches, in which:  
87 unique CDR3  
4 unique J



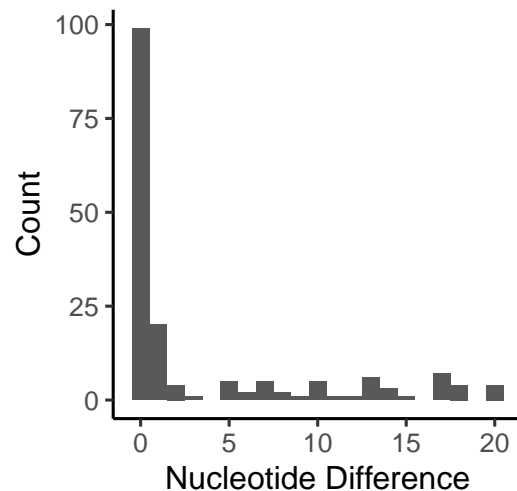
### IGHV3-33\*08

437 sequences assigned  
159 (36.4%) exact matches, in which:  
94 unique CDR3  
7 unique J



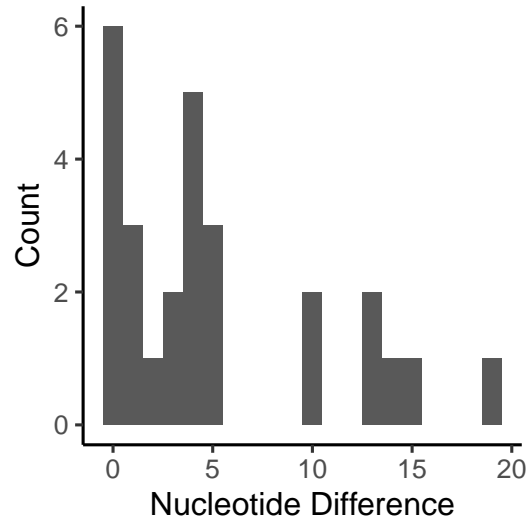
### IGHV3-48\*02

331 sequences assigned  
99 (29.9%) exact matches, in which:  
43 unique CDR3  
6 unique J



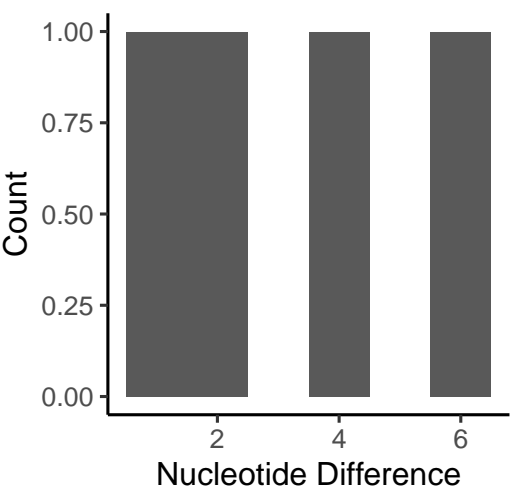
IGHV3-48\*04

50 sequences assigned  
6 (12%) exact matches, in which:  
5 unique CDR3  
5 unique J



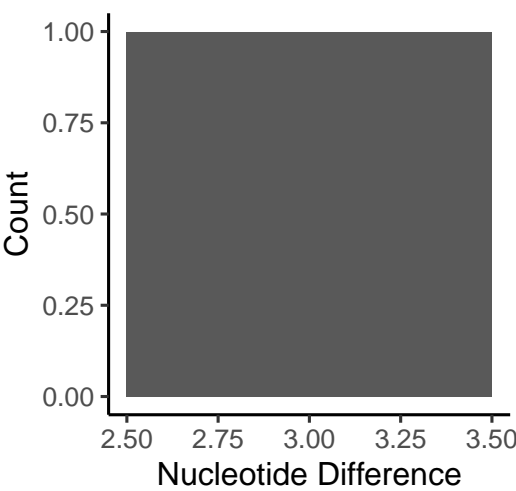
IGHV3-64\*04

4 sequences assigned  
No exact matches.



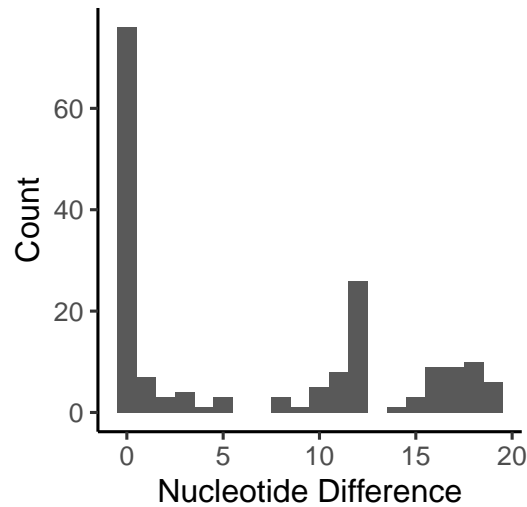
IGHV3-69-1\*02

1 sequences assigned  
No exact matches.



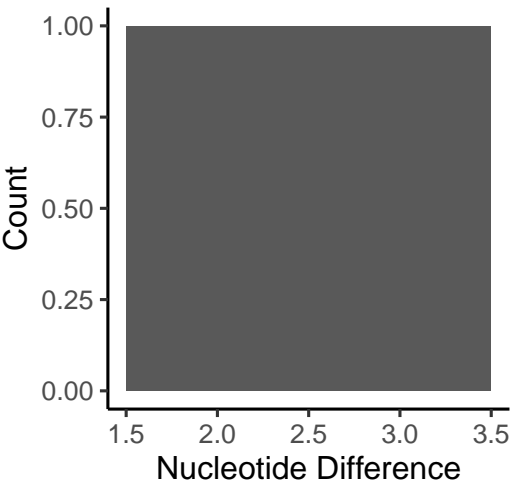
IGHV3-49\*03\_05

226 sequences assigned  
76 (33.6%) exact matches, in which:  
36 unique CDR3  
6 unique J



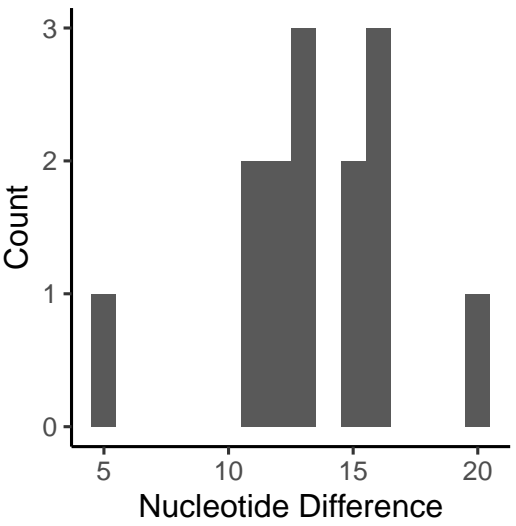
IGHV3-66\*03

2 sequences assigned  
No exact matches.



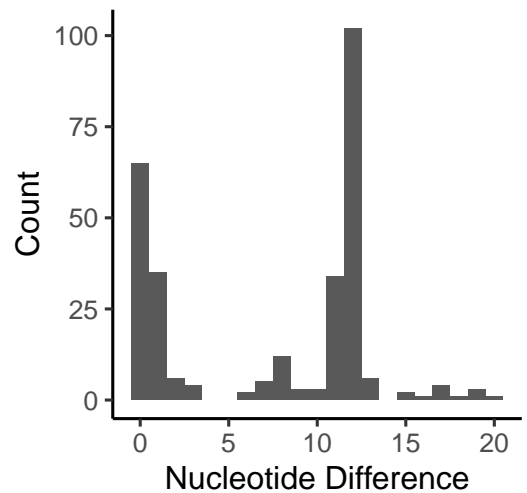
IGHV3-72\*01

143 sequences assigned  
No exact matches.



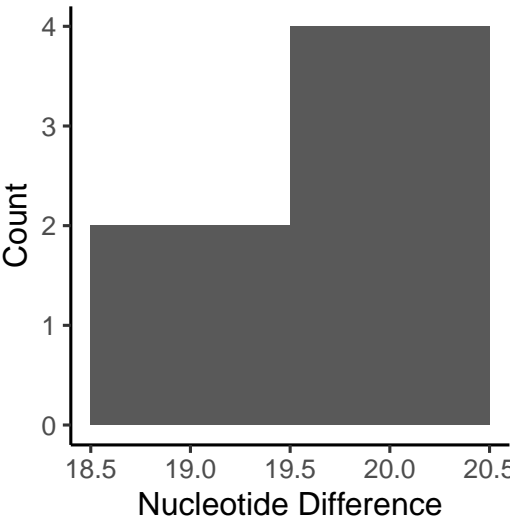
IGHV3-53\*01\_02

332 sequences assigned  
65 (19.6%) exact matches, in which:  
33 unique CDR3  
6 unique J



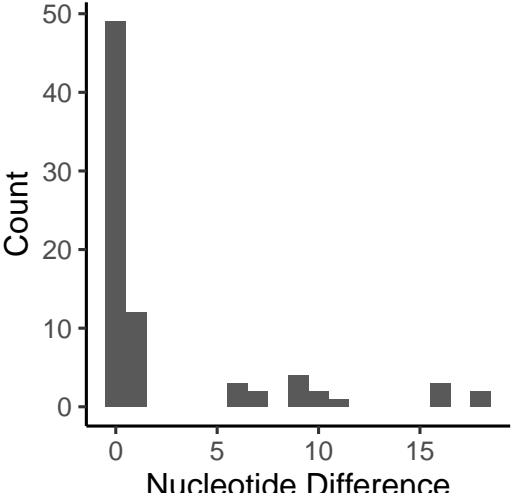
IGHV3-69-1\*01

7 sequences assigned  
No exact matches.



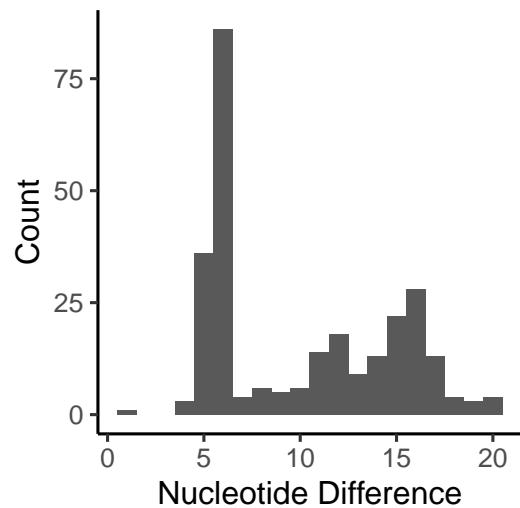
IGHV3-73\*01\_02

194 sequences assigned  
49 (25.3%) exact matches, in which:  
24 unique CDR3  
5 unique J



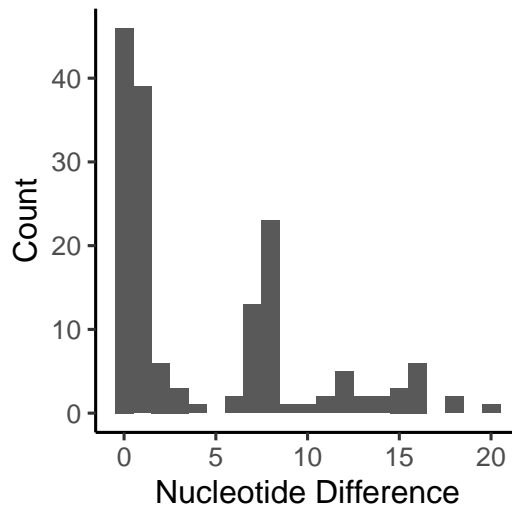
### IGHV3-74\*03

709 sequences assigned  
No exact matches.



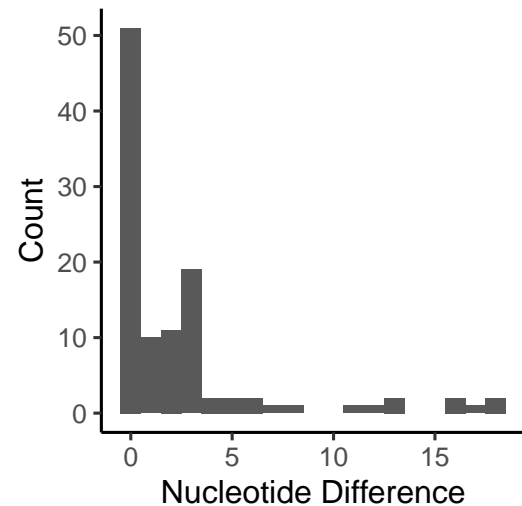
### IGHV4-4\*07

249 sequences assigned  
46 (18.5%) exact matches, in which:  
36 unique CDR3  
4 unique J



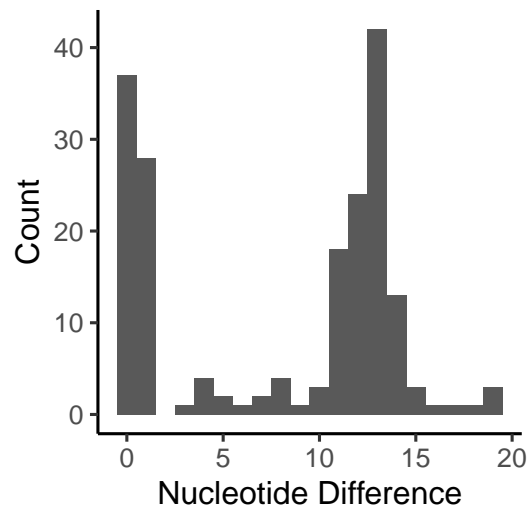
### IGHV4-31\*02

163 sequences assigned  
51 (31.3%) exact matches, in which:  
48 unique CDR3  
6 unique J



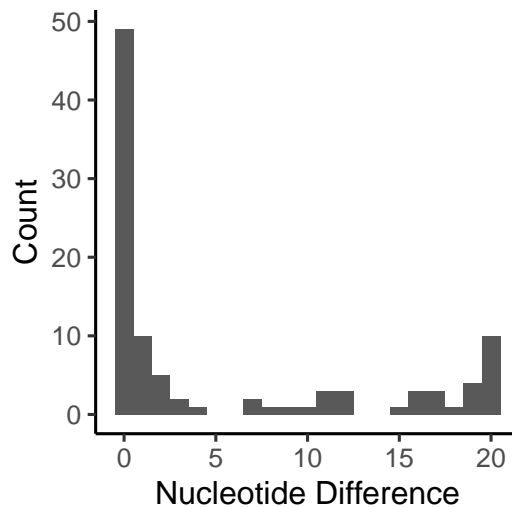
### IGHV3-74\*01\_02

227 sequences assigned  
37 (16.3%) exact matches, in which:  
20 unique CDR3  
5 unique J



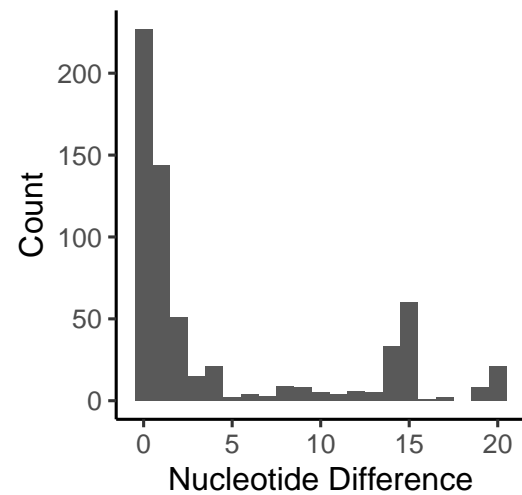
### IGHV4-4\*02\_03

133 sequences assigned  
49 (36.8%) exact matches, in which:  
31 unique CDR3  
6 unique J



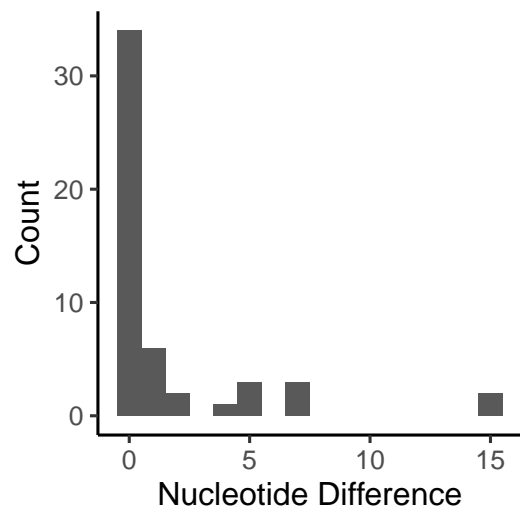
### IGHV4-34\*01\_02

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



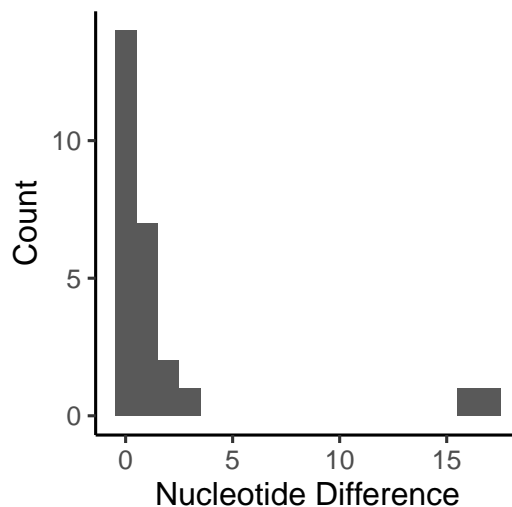
### IGHV3-64D\*06

68 sequences assigned  
34 (50%) exact matches, in which:  
14 unique CDR3  
4 unique J



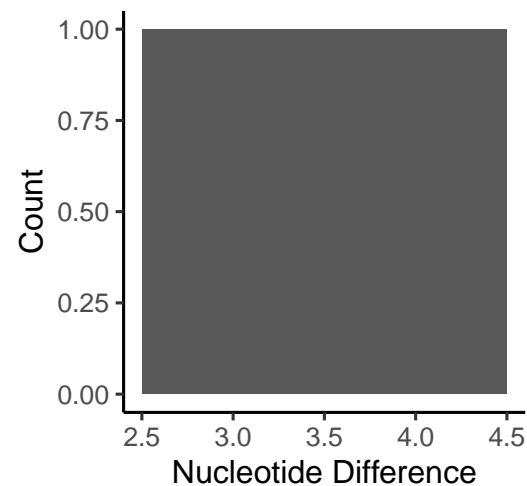
### IGHV4-30-2\*01

131 sequences assigned  
14 (10.7%) exact matches, in which:  
8 unique CDR3  
4 unique J



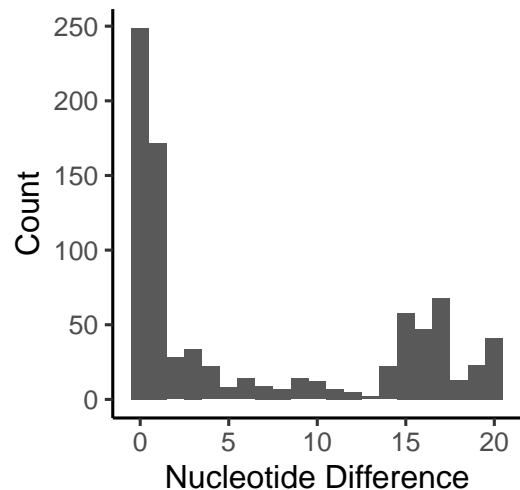
### IGHV4-38-2\*02

2 sequences assigned  
No exact matches.



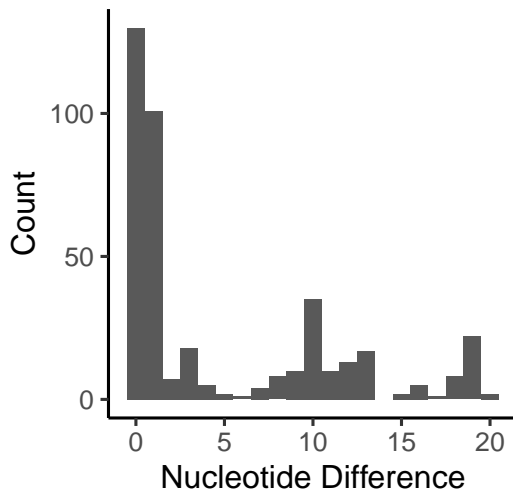
### IGHV4-39\*02\_C258G

1293 sequences assigned  
249 (19.3%) exact matches, in which:  
193 unique CDR3  
6 unique J



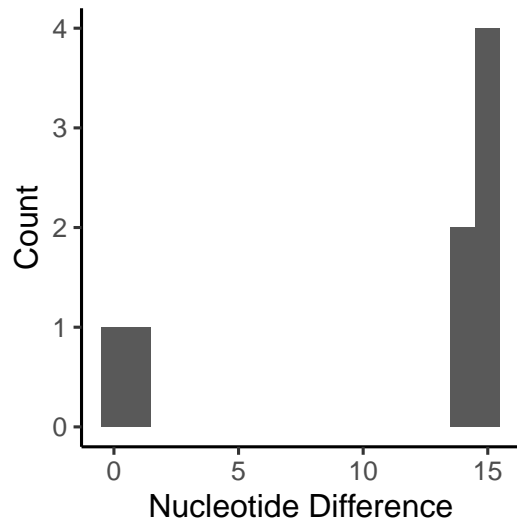
### IGHV5-10-1\*01\_03

435 sequences assigned  
130 (29.9%) exact matches, in which:  
72 unique CDR3  
5 unique J



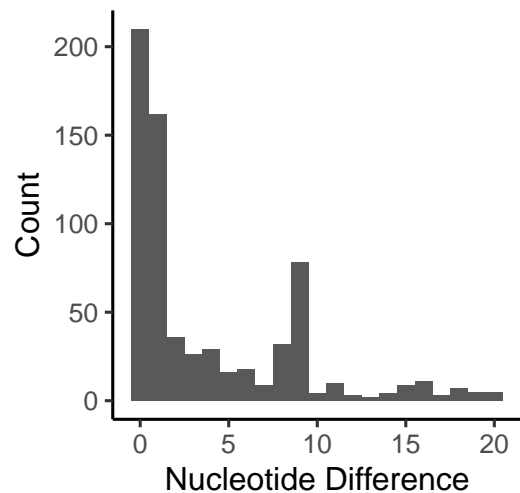
### IGHV7-4-1\*01

8 sequences assigned  
1 (12.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



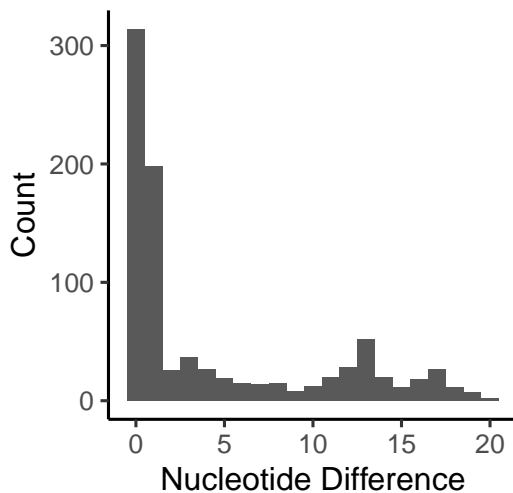
### IGHV4-59\*02\_G88A

901 sequences assigned  
210 (23.3%) exact matches, in which:  
169 unique CDR3  
6 unique J



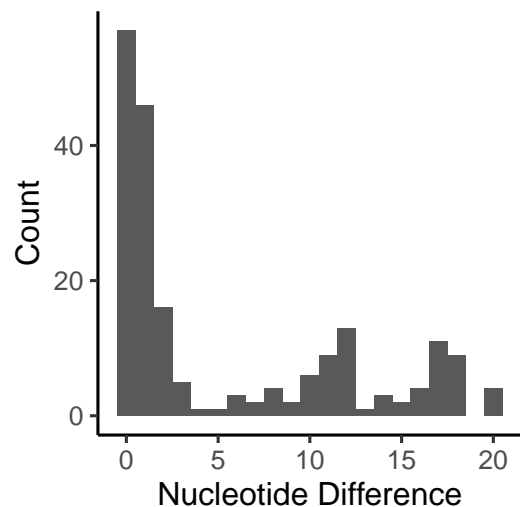
### IGHV5-51\*07\_A128G

990 sequences assigned  
314 (31.7%) exact matches, in which:  
168 unique CDR3  
6 unique J



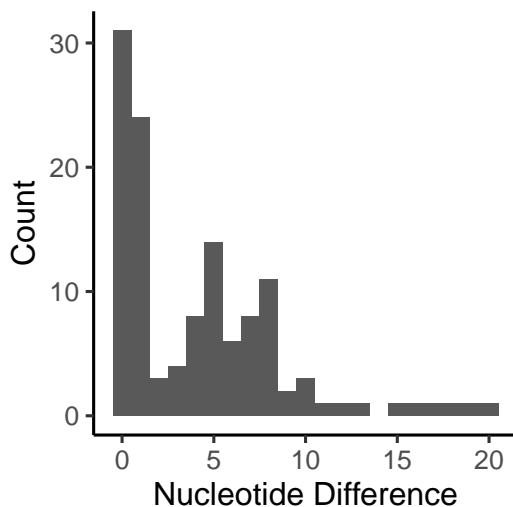
### IGHV4-61\*01

261 sequences assigned  
57 (21.8%) exact matches, in which:  
48 unique CDR3  
5 unique J

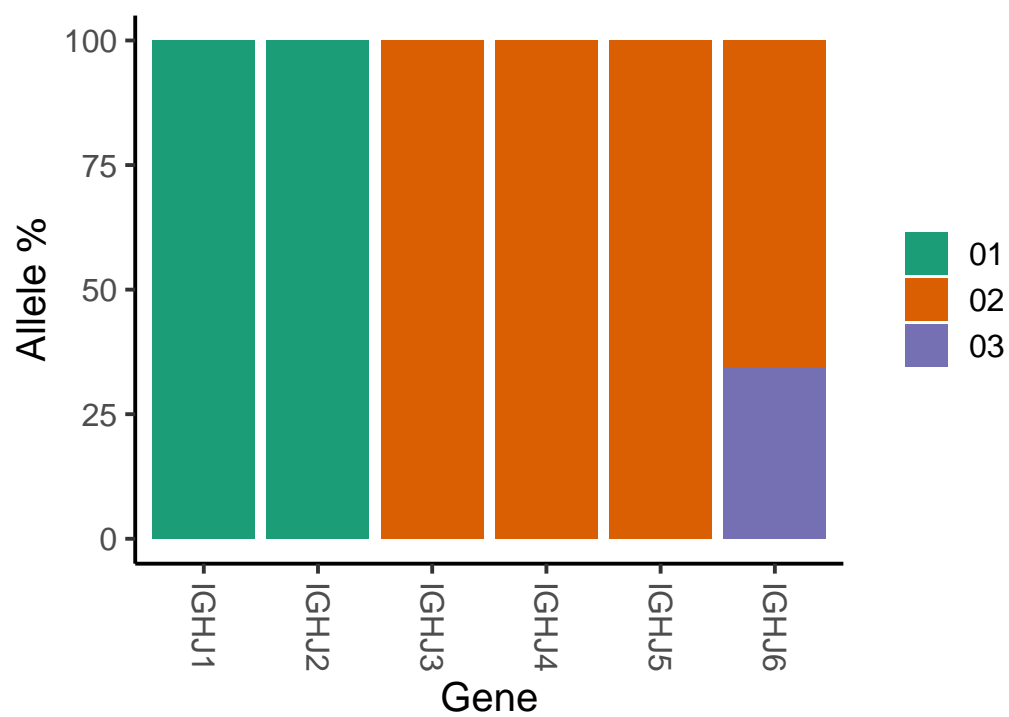


### IGHV6-1\*01\_02

130 sequences assigned  
31 (23.8%) exact matches, in which:  
25 unique CDR3  
6 unique J

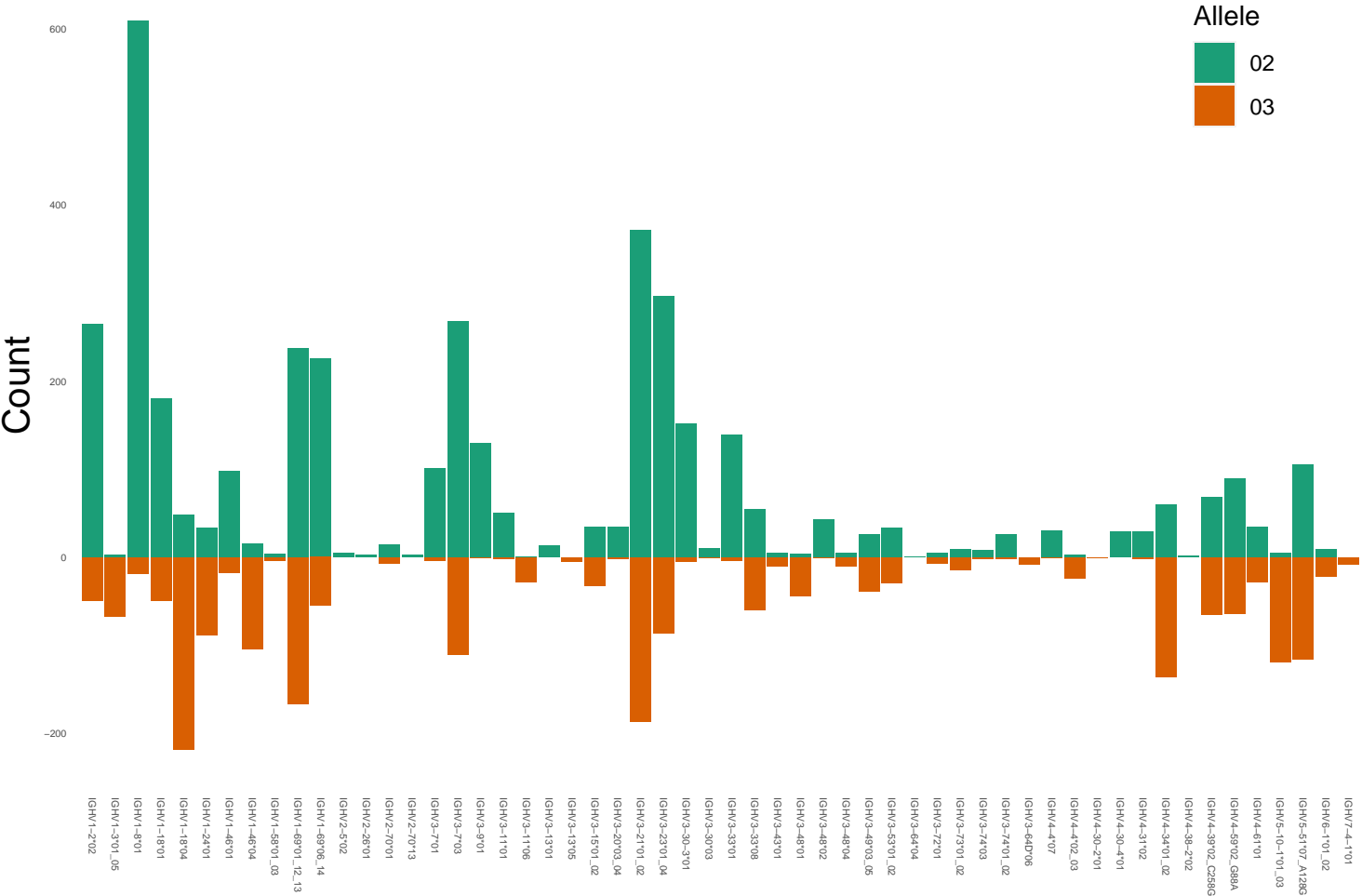


Allele Usage





Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.