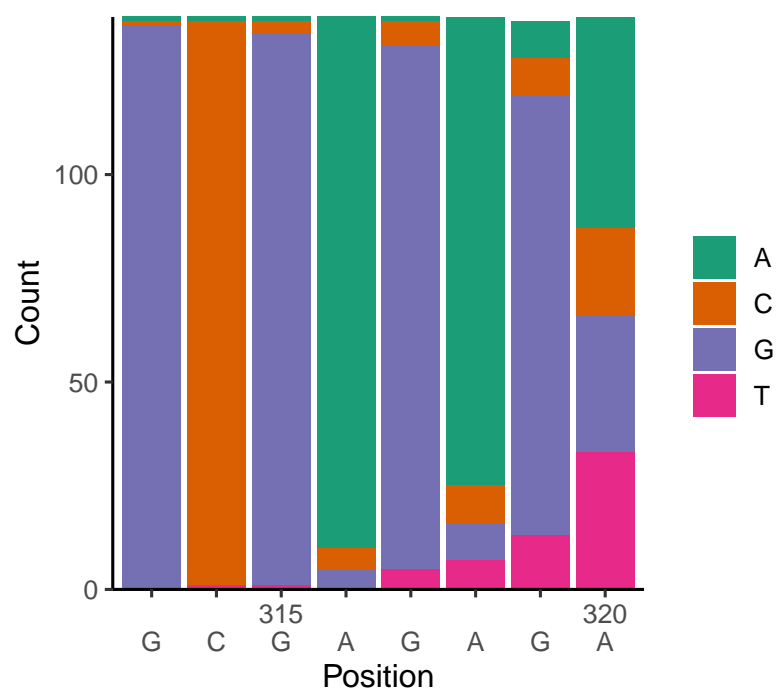
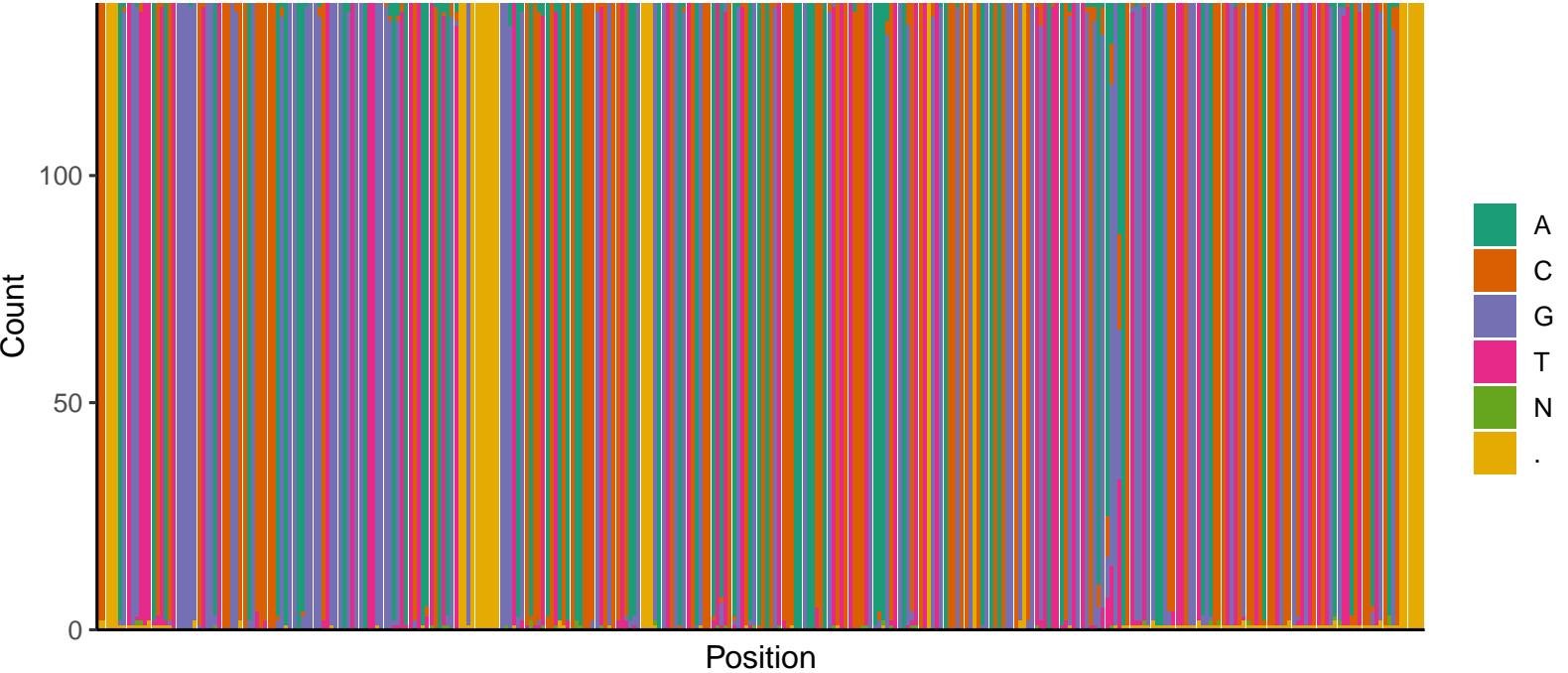


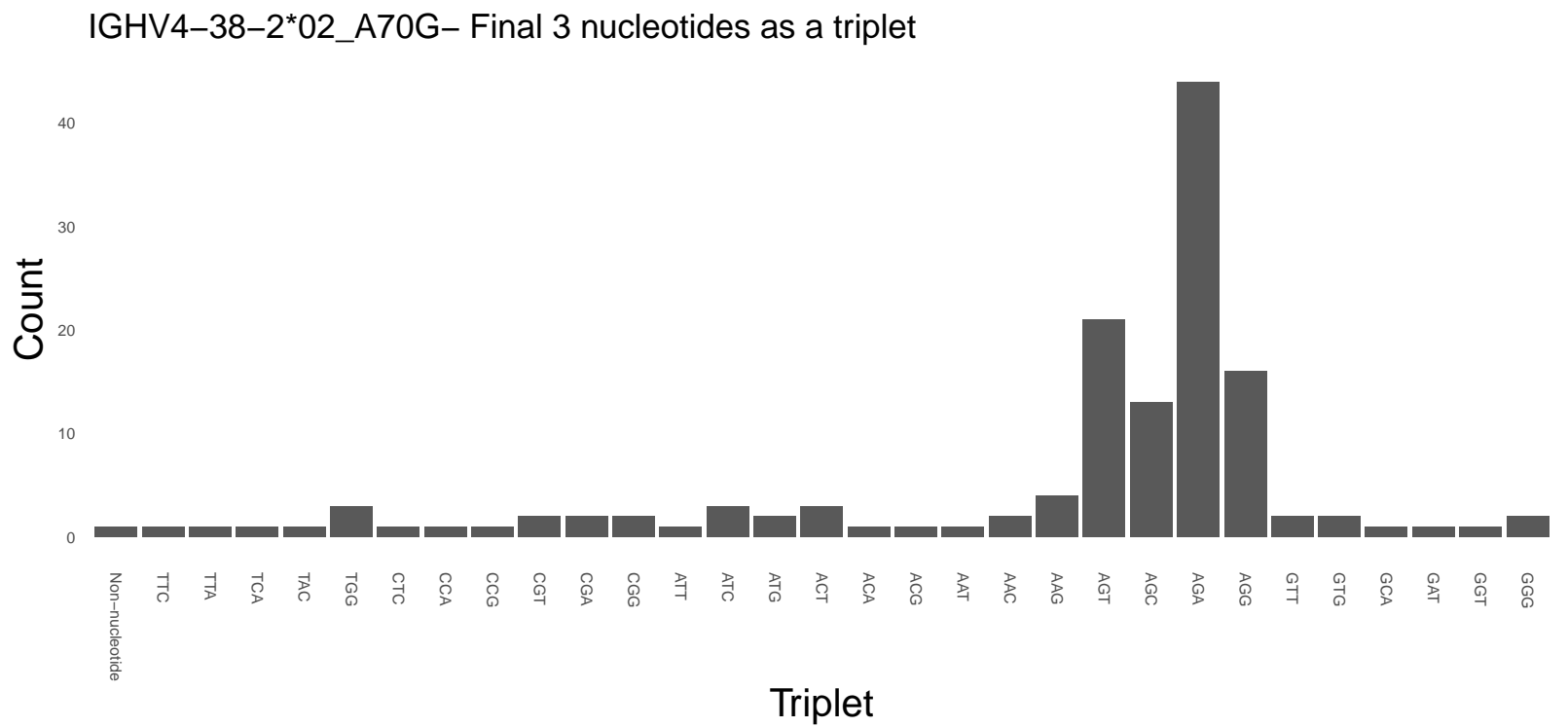
# Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

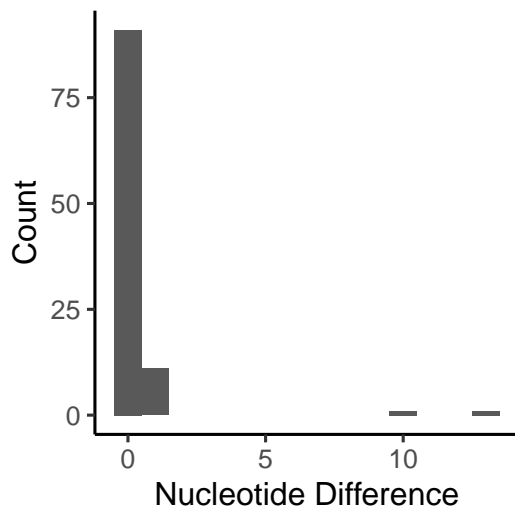


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



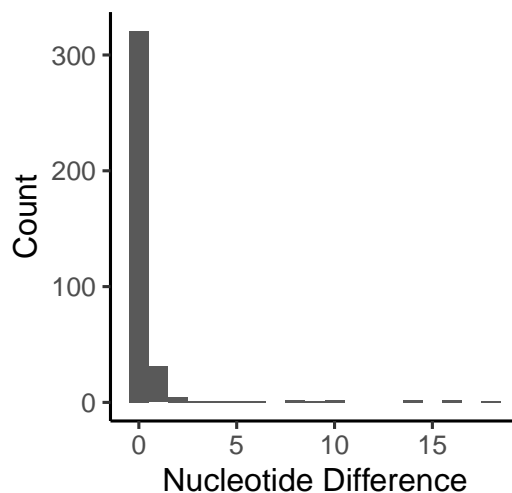
### IGHV1-2\*04

106 sequences assigned  
91 (85.8%) exact matches, in which:  
89 unique CDR3  
6 unique J



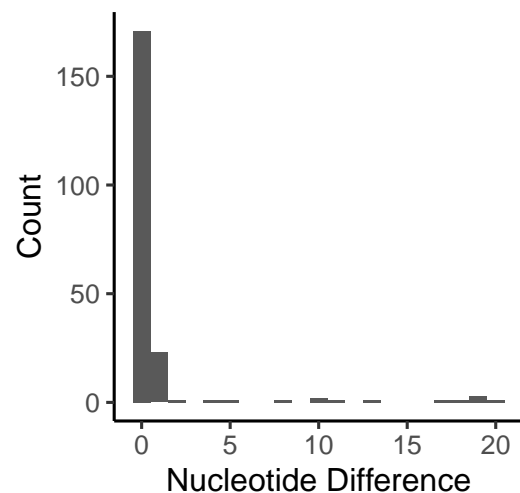
### IGHV1-8\*01

372 sequences assigned  
321 (86.3%) exact matches, in which:  
315 unique CDR3  
7 unique J



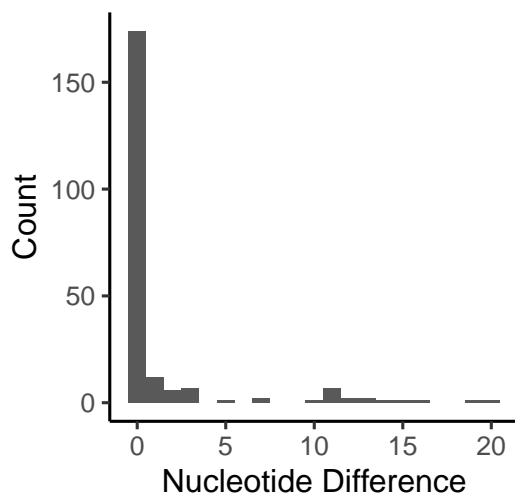
### IGHV1-46\*01

211 sequences assigned  
171 (81%) exact matches, in which:  
168 unique CDR3  
7 unique J



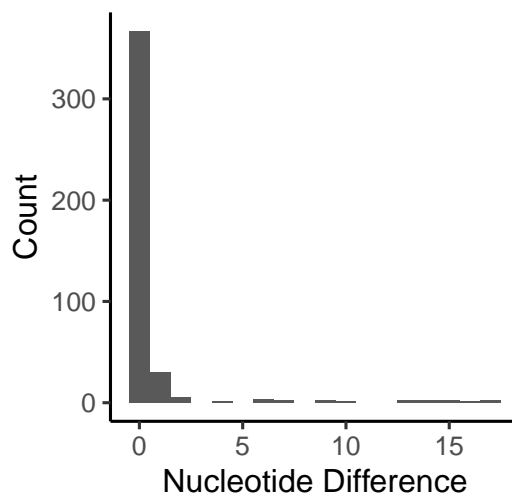
### IGHV1-2\*06

225 sequences assigned  
174 (77.3%) exact matches, in which:  
167 unique CDR3  
7 unique J



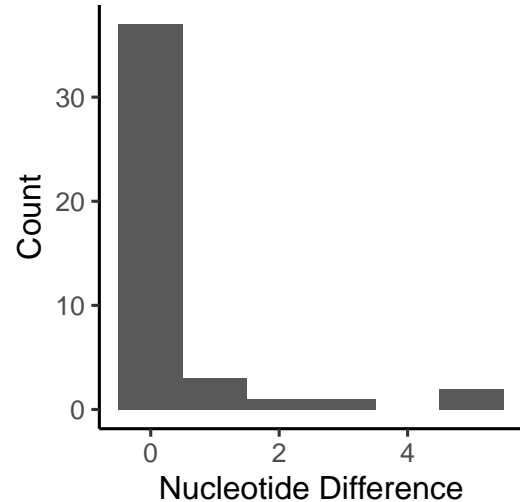
### IGHV1-18\*01

430 sequences assigned  
367 (85.3%) exact matches, in which:  
362 unique CDR3  
7 unique J



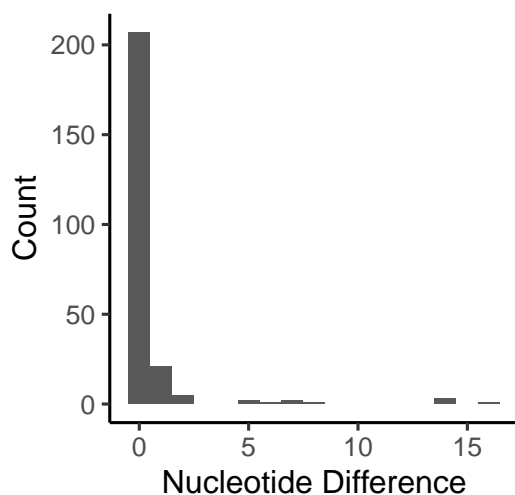
### IGHV1-58\*01

44 sequences assigned  
37 (84.1%) exact matches, in which:  
36 unique CDR3  
7 unique J



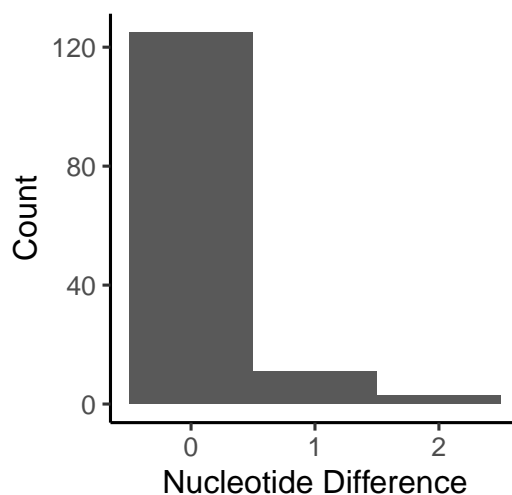
### IGHV1-3\*01

248 sequences assigned  
207 (83.5%) exact matches, in which:  
205 unique CDR3  
7 unique J



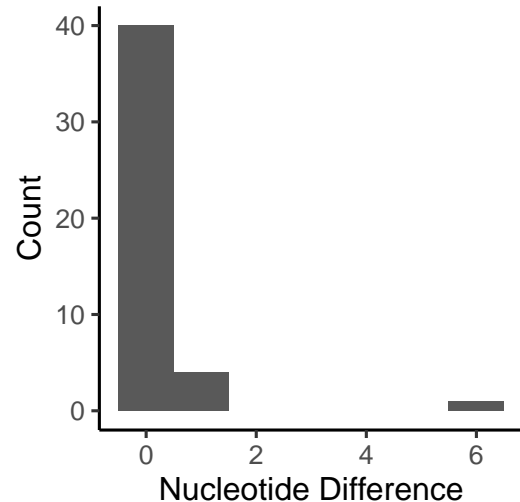
### IGHV1-24\*01

140 sequences assigned  
125 (89.3%) exact matches, in which:  
124 unique CDR3  
7 unique J



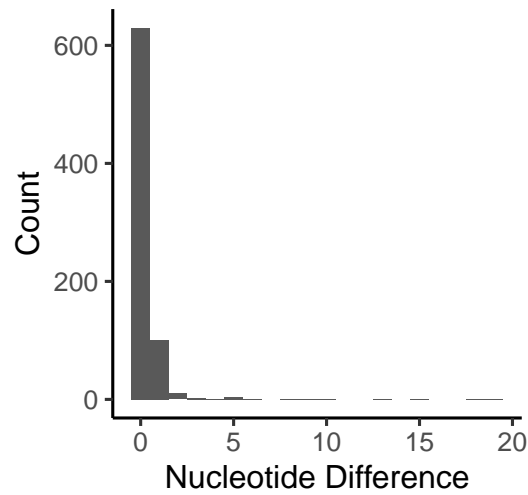
### IGHV1-69-2\*01

49 sequences assigned  
40 (81.6%) exact matches, in which:  
40 unique CDR3  
5 unique J



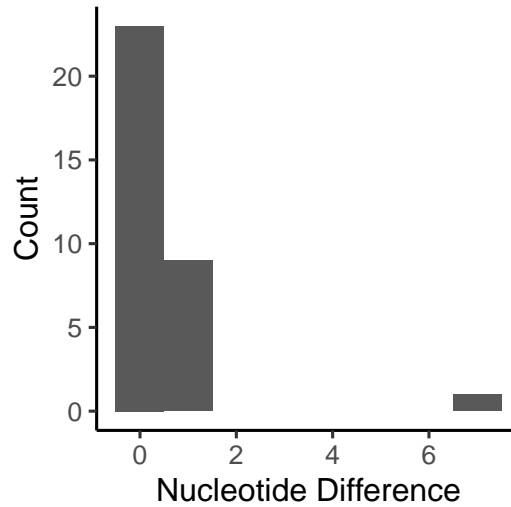
### IGHV1–69\*06

765 sequences assigned  
630 (82.4%) exact matches, in which:  
619 unique CDR3  
7 unique J



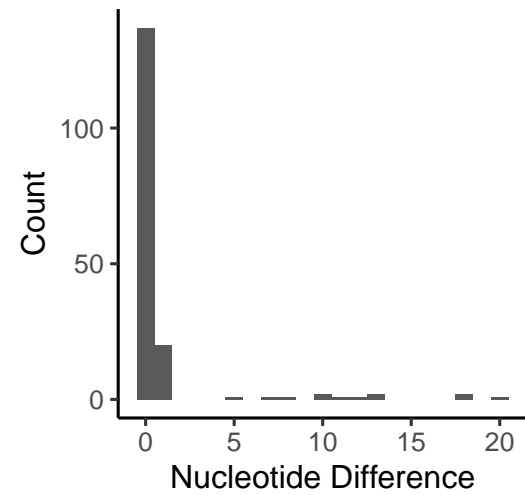
### IGHV2–70\*01

33 sequences assigned  
23 (69.7%) exact matches, in which:  
23 unique CDR3  
6 unique J



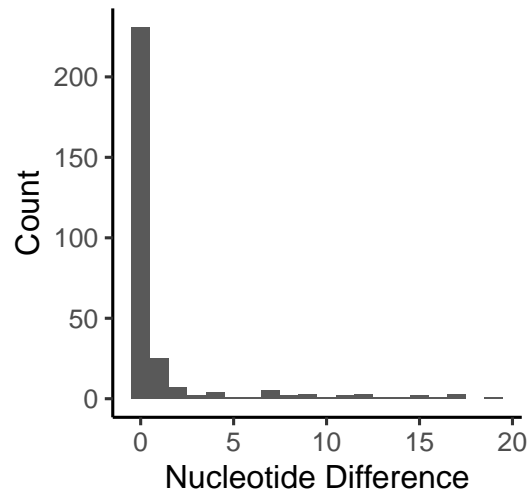
### IGHV3–11\*01

178 sequences assigned  
137 (77%) exact matches, in which:  
135 unique CDR3  
6 unique J



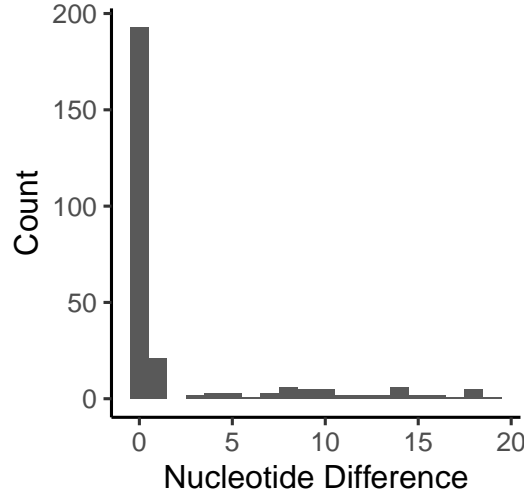
### IGHV2–5\*02

305 sequences assigned  
231 (75.7%) exact matches, in which:  
230 unique CDR3  
7 unique J



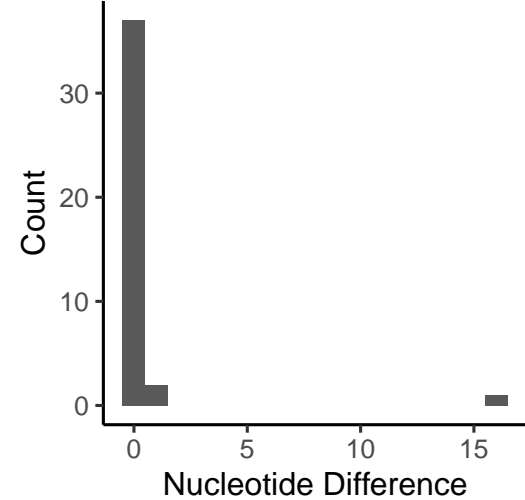
### IGHV3–7\*01

279 sequences assigned  
193 (69.2%) exact matches, in which:  
190 unique CDR3  
7 unique J



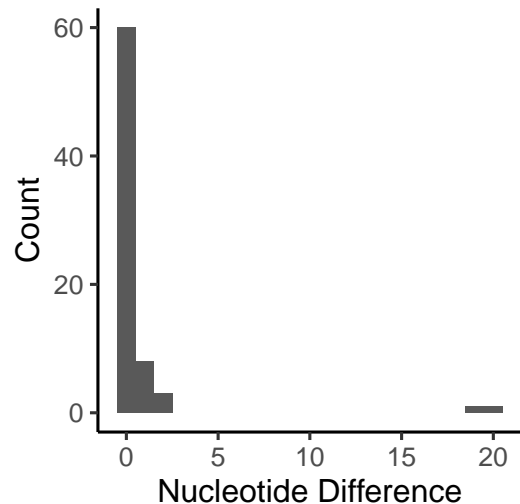
### IGHV3–13\*01

41 sequences assigned  
37 (90.2%) exact matches, in which:  
36 unique CDR3  
6 unique J



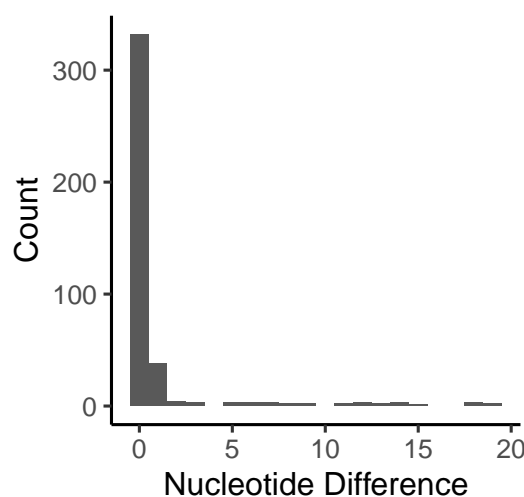
### IGHV2–26\*01

74 sequences assigned  
60 (81.1%) exact matches, in which:  
59 unique CDR3  
6 unique J



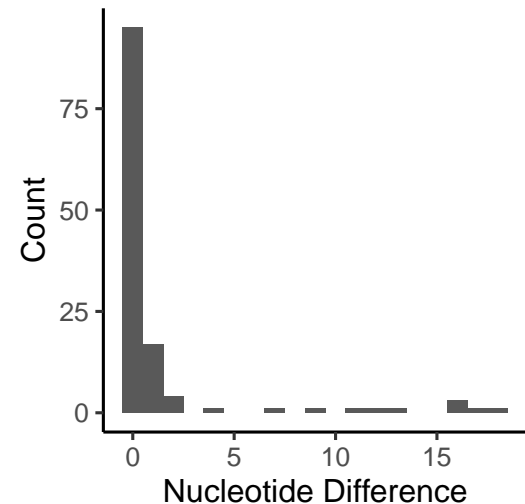
### IGHV3–9\*01

415 sequences assigned  
332 (80%) exact matches, in which:  
316 unique CDR3  
7 unique J



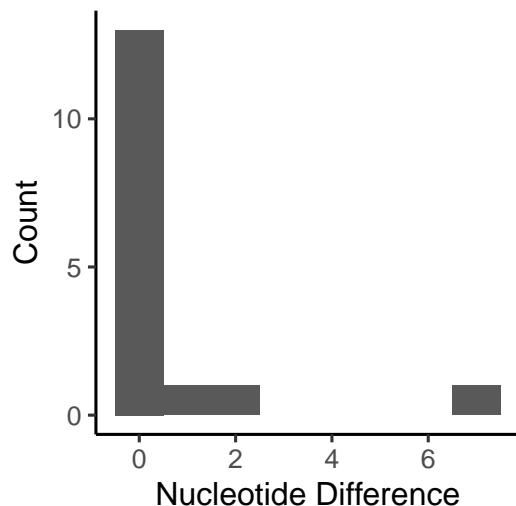
### IGHV3–15\*01

131 sequences assigned  
95 (72.5%) exact matches, in which:  
95 unique CDR3  
6 unique J



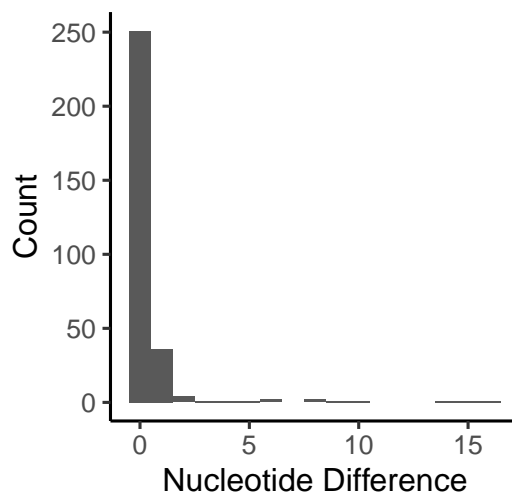
### IGHV3-20\*01

17 sequences assigned  
13 (76.5%) exact matches, in which:  
13 unique CDR3  
6 unique J



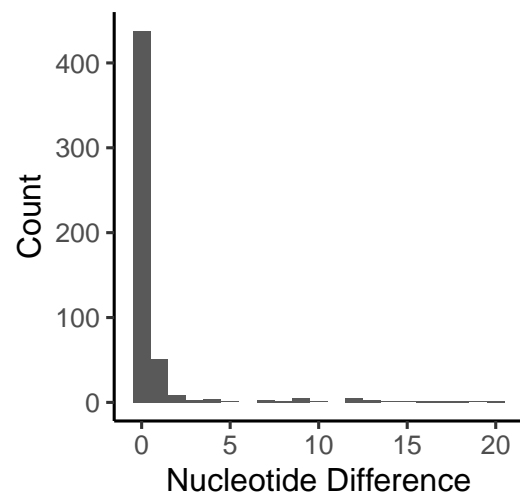
### IGHV3-30-3\*01

307 sequences assigned  
251 (81.8%) exact matches, in which:  
244 unique CDR3  
6 unique J



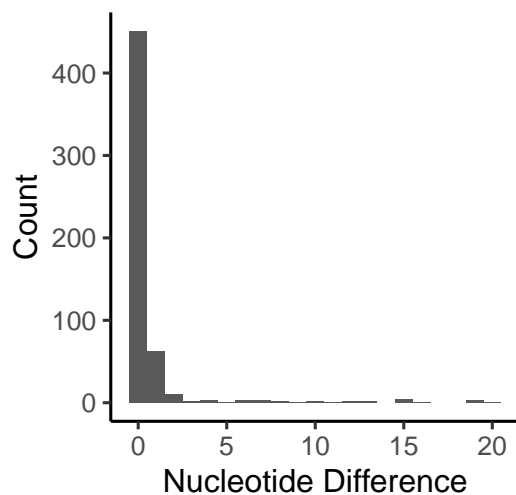
### IGHV3-48\*03

548 sequences assigned  
438 (79.9%) exact matches, in which:  
431 unique CDR3  
7 unique J



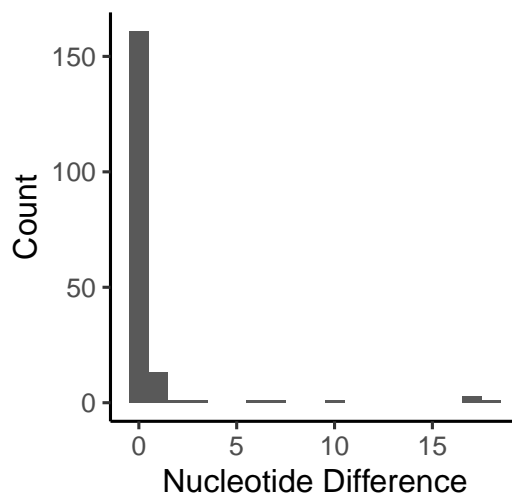
### IGHV3-21\*01

568 sequences assigned  
451 (79.4%) exact matches, in which:  
440 unique CDR3  
7 unique J



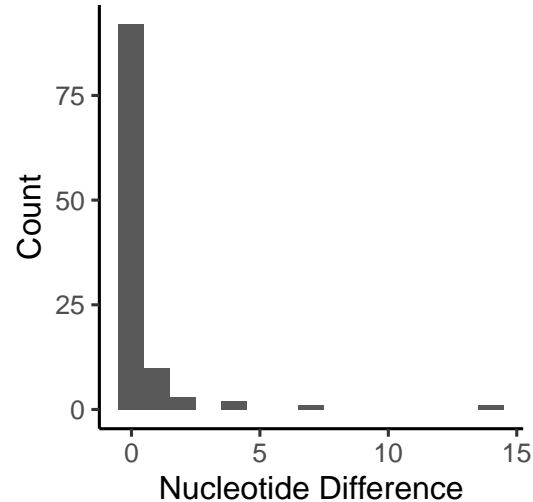
### IGHV3-33\*01

193 sequences assigned  
161 (83.4%) exact matches, in which:  
155 unique CDR3  
7 unique J



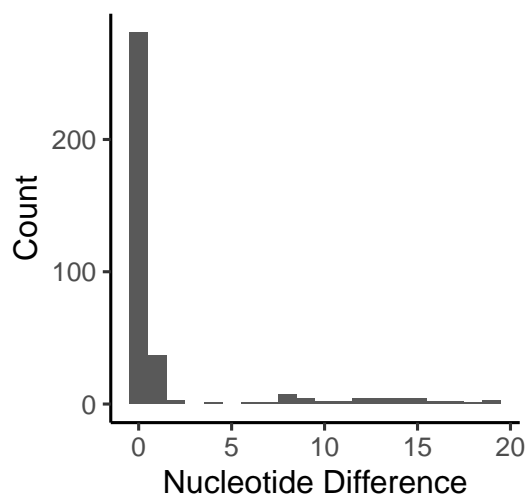
### IGHV3-49\*04

119 sequences assigned  
92 (77.3%) exact matches, in which:  
90 unique CDR3  
7 unique J



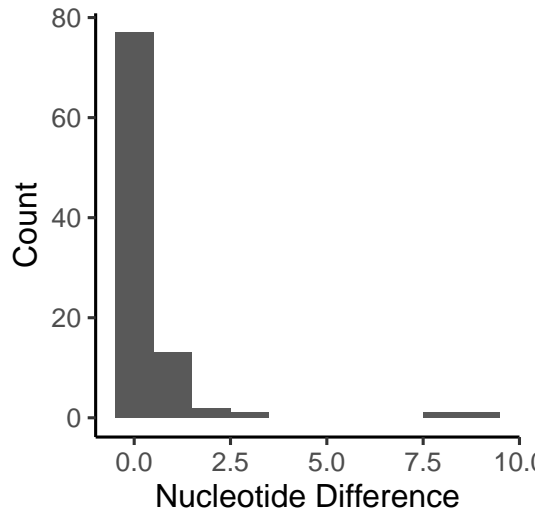
### IGHV3-23\*04

385 sequences assigned  
281 (73%) exact matches, in which:  
269 unique CDR3  
6 unique J



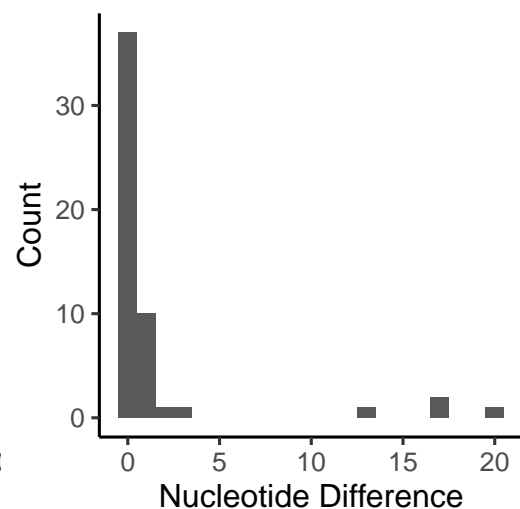
### IGHV3-43\*02

101 sequences assigned  
77 (76.2%) exact matches, in which:  
76 unique CDR3  
6 unique J



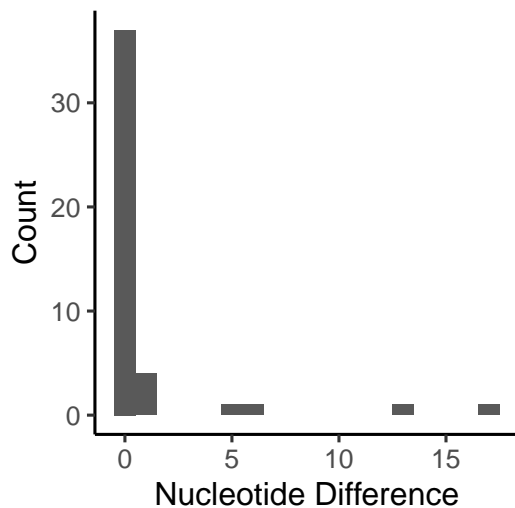
### IGHV3-53\*02

55 sequences assigned  
37 (67.3%) exact matches, in which:  
35 unique CDR3  
5 unique J



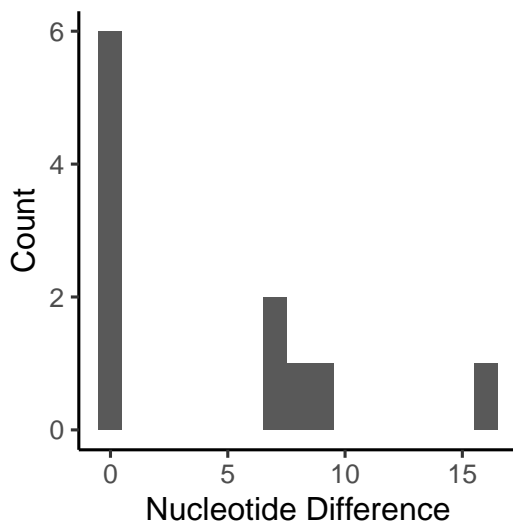
### IGHV3-53\*04

46 sequences assigned  
37 (80.4%) exact matches, in which:  
37 unique CDR3  
4 unique J



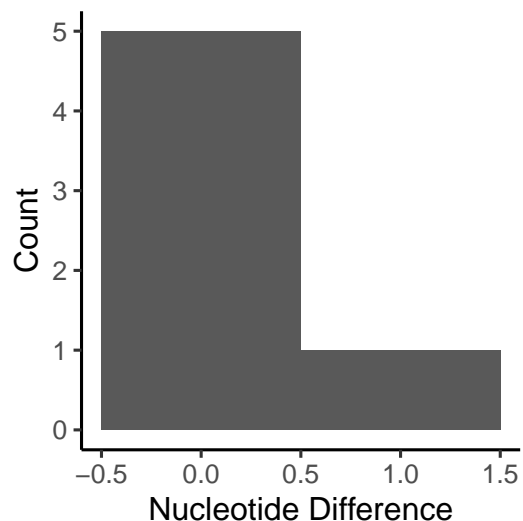
### IGHV3-72\*01

14 sequences assigned  
6 (42.9%) exact matches, in which:  
6 unique CDR3  
3 unique J



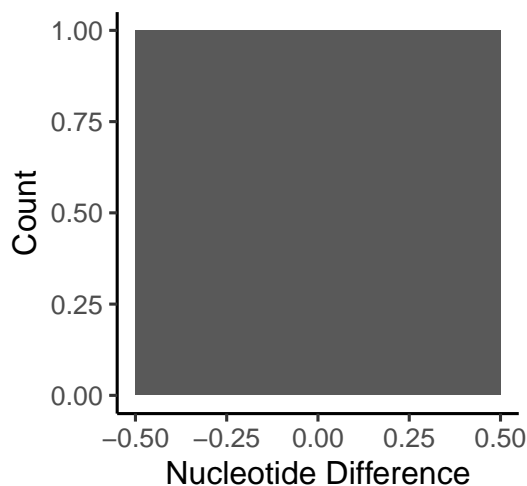
### IGHV3-43D\*04

7 sequences assigned  
5 (71.4%) exact matches, in which:  
5 unique CDR3  
3 unique J



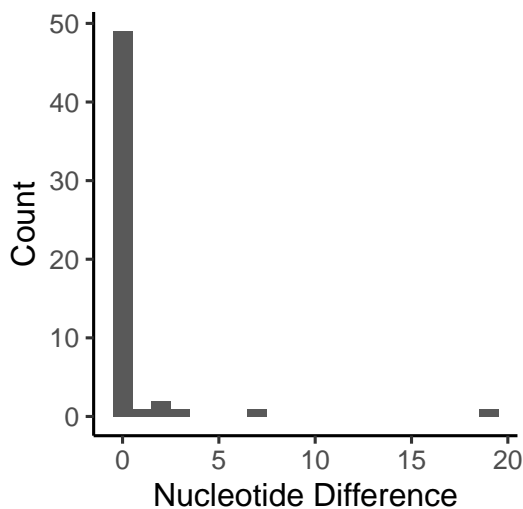
### IGHV3-64\*02

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



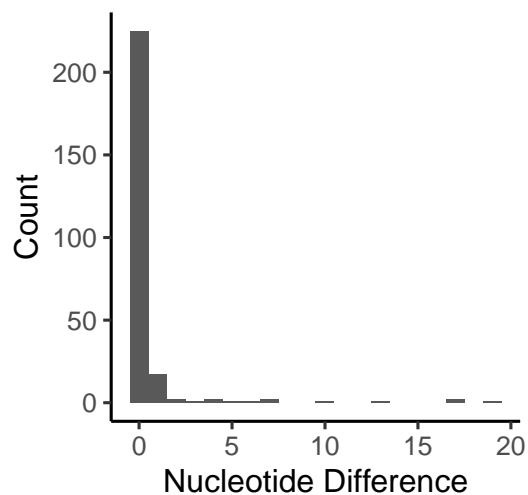
### IGHV3-73\*02

60 sequences assigned  
49 (81.7%) exact matches, in which:  
47 unique CDR3  
7 unique J



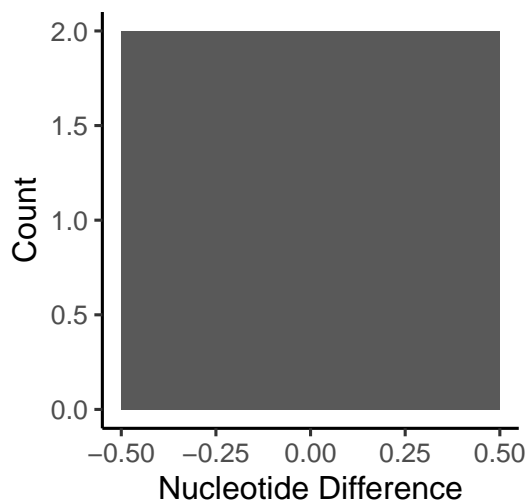
### IGHV4-4\*02

262 sequences assigned  
225 (85.9%) exact matches, in which:  
225 unique CDR3  
7 unique J



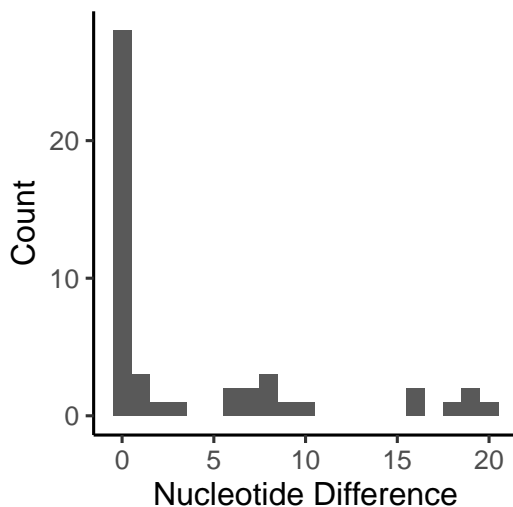
### IGHV3-66\*03

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



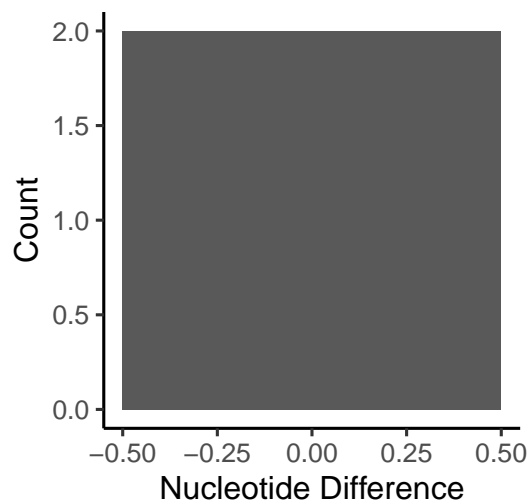
### IGHV3-74\*01

53 sequences assigned  
28 (52.8%) exact matches, in which:  
28 unique CDR3  
5 unique J



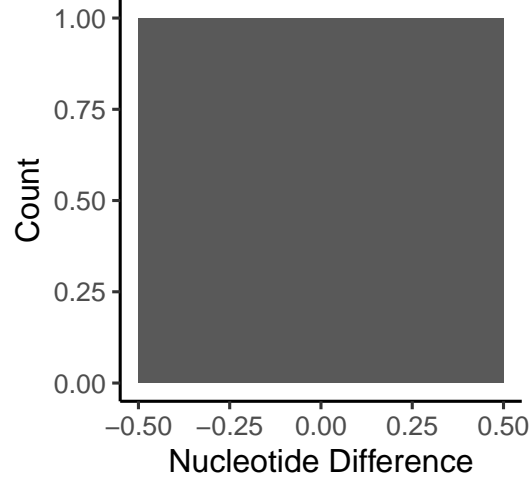
### IGHV4-28\*01

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



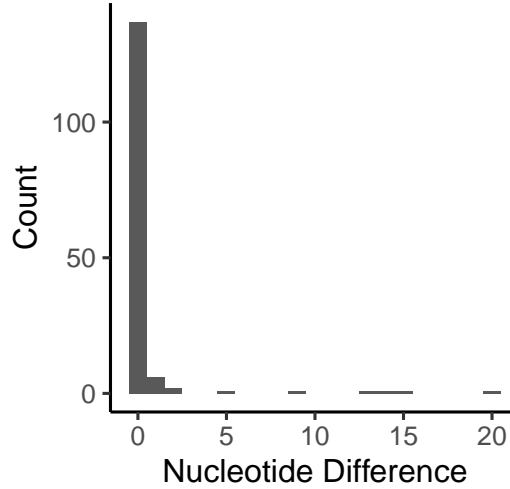
### IGHV4-28\*02

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



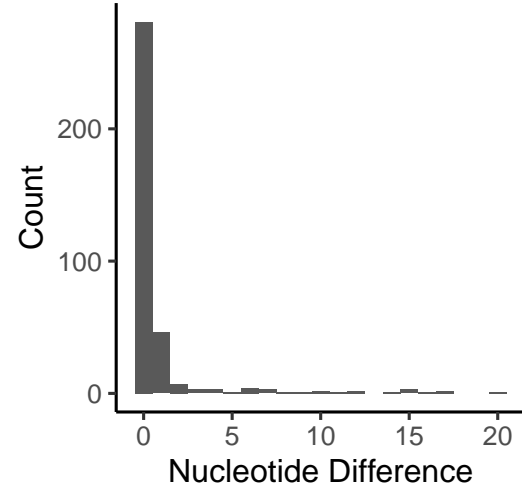
### IGHV4-31\*03

153 sequences assigned  
137 (89.5%) exact matches, in which:  
134 unique CDR3  
6 unique J



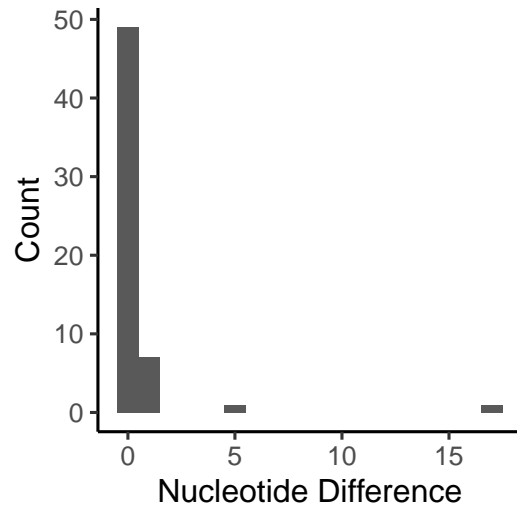
### IGHV4-39\*01

374 sequences assigned  
281 (75.1%) exact matches, in which:  
276 unique CDR3  
6 unique J



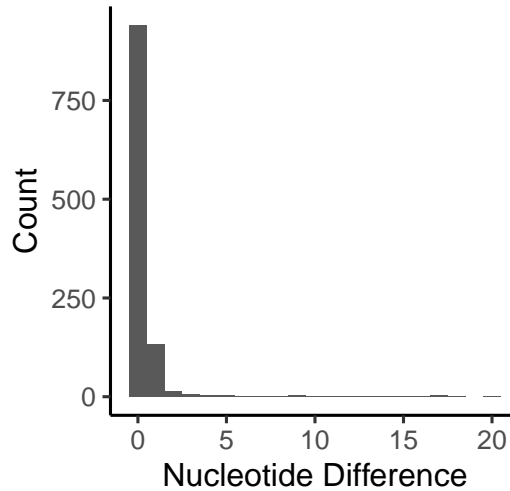
### IGHV4-30-2\*01

58 sequences assigned  
49 (84.5%) exact matches, in which:  
48 unique CDR3  
5 unique J



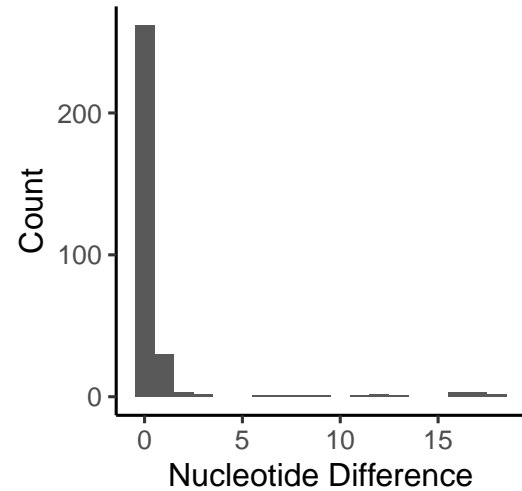
### IGHV4-34\*01

1148 sequences assigned  
941 (82%) exact matches, in which:  
906 unique CDR3  
7 unique J



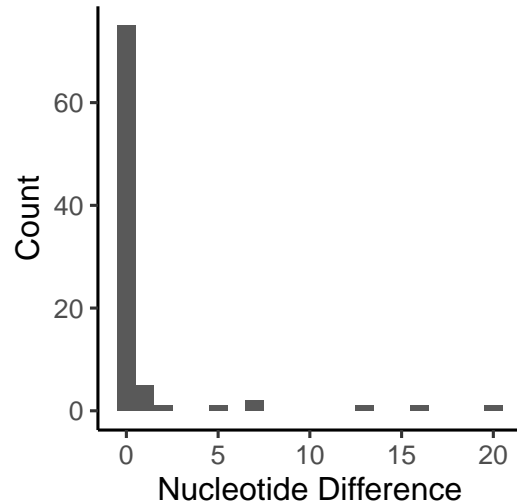
### IGHV4-59\*01

319 sequences assigned  
262 (82.1%) exact matches, in which:  
261 unique CDR3  
7 unique J



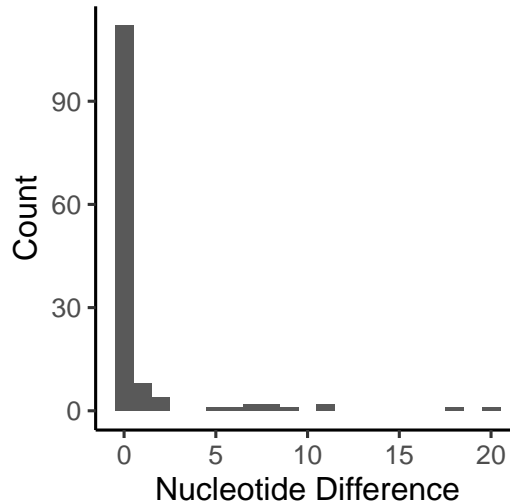
### IGHV4-30-4\*01

92 sequences assigned  
75 (81.5%) exact matches, in which:  
74 unique CDR3  
5 unique J



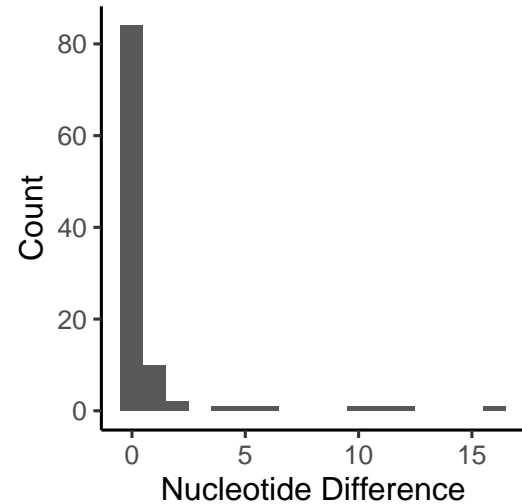
### IGHV4-38-2\*02\_A70G

138 sequences assigned  
112 (81.2%) exact matches, in which:  
107 unique CDR3  
6 unique J



### IGHV4-61\*01

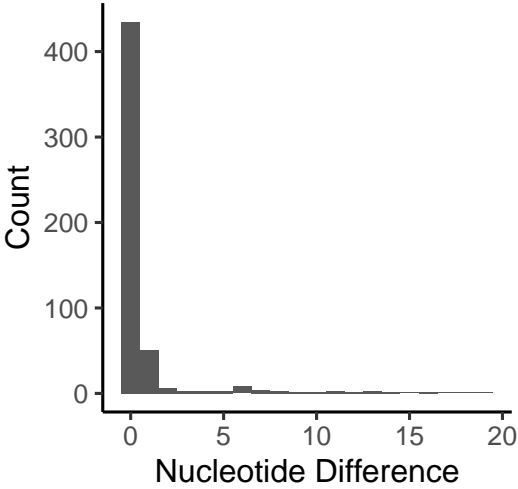
110 sequences assigned  
84 (76.4%) exact matches, in which:  
83 unique CDR3  
6 unique J





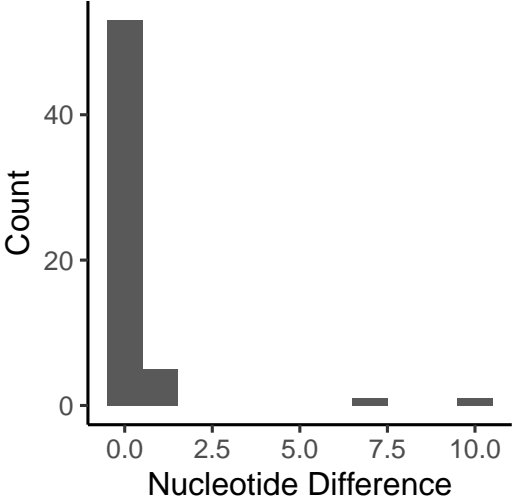
IGHV5–51\*01

549 sequences assigned  
435 (79.2%) exact matches, in which:  
426 unique CDR3  
7 unique J



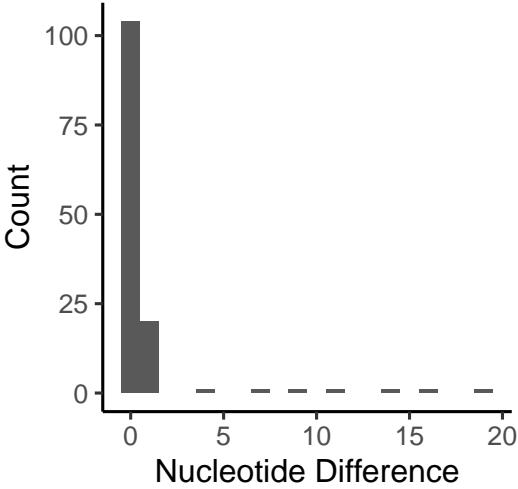
IGHV6–1\*01

60 sequences assigned  
53 (88.3%) exact matches, in which:  
53 unique CDR3  
7 unique J

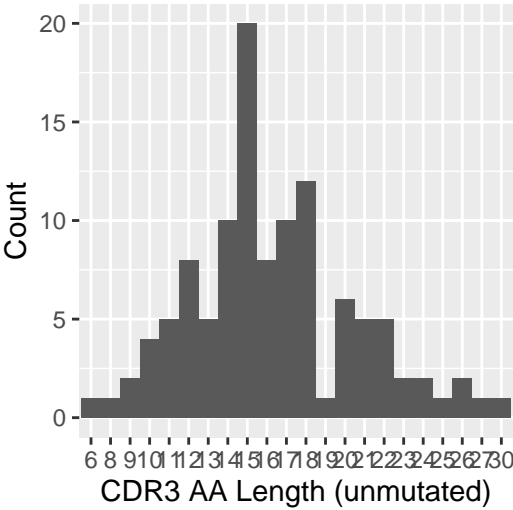


IGHV7–4–1\*02

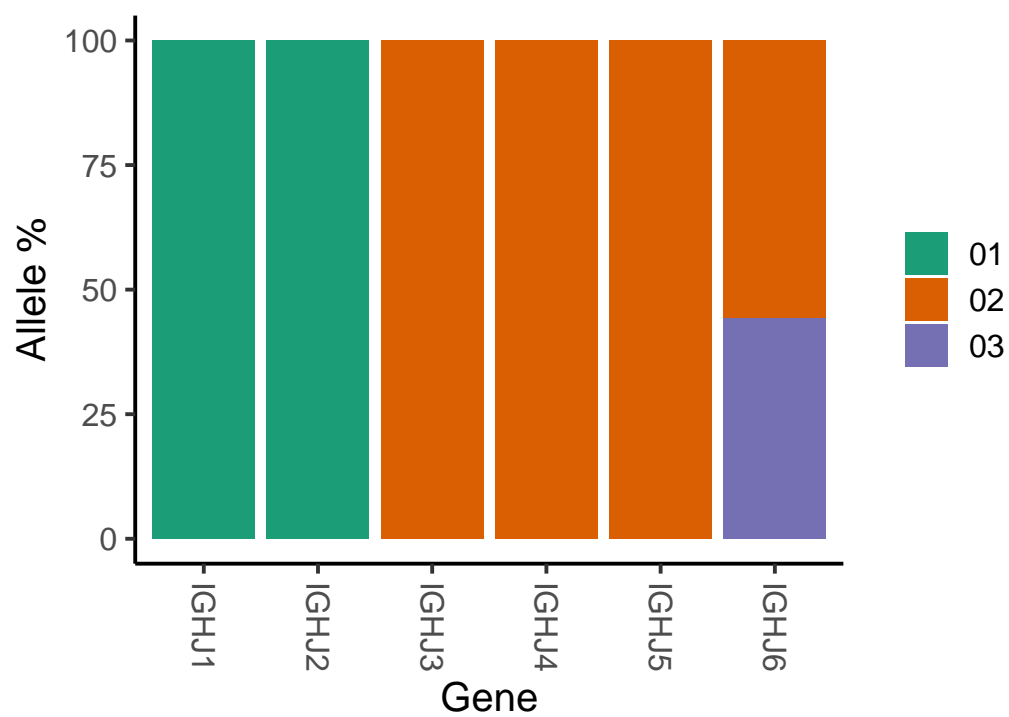
139 sequences assigned  
104 (74.8%) exact matches, in which:  
103 unique CDR3  
6 unique J



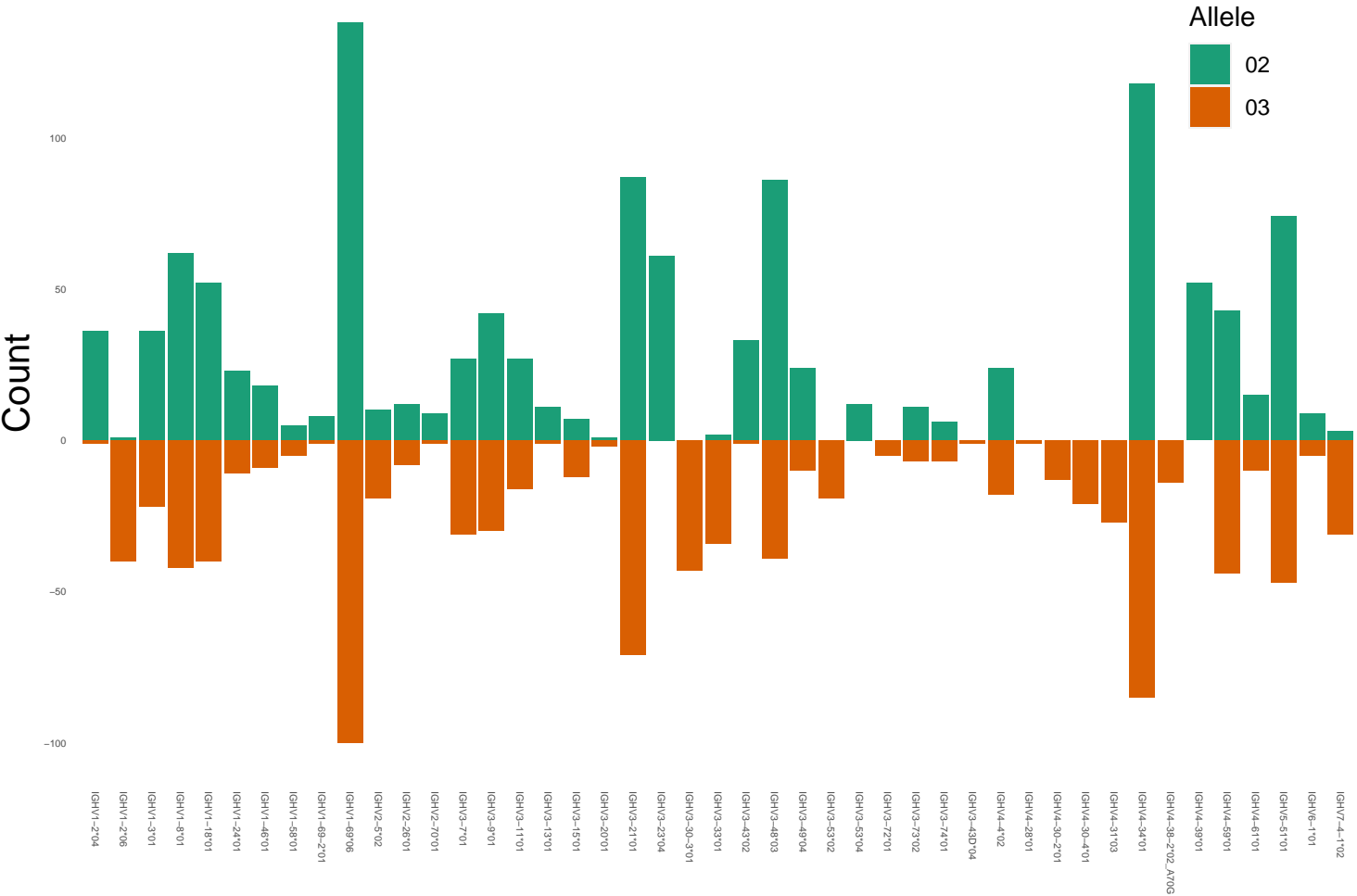
IGHV4-38-2\*02\_A70G



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]