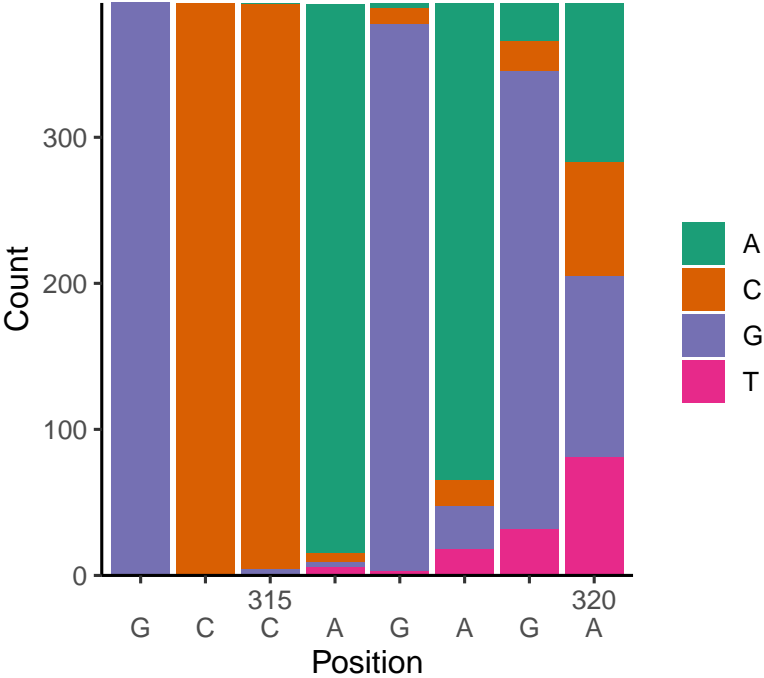


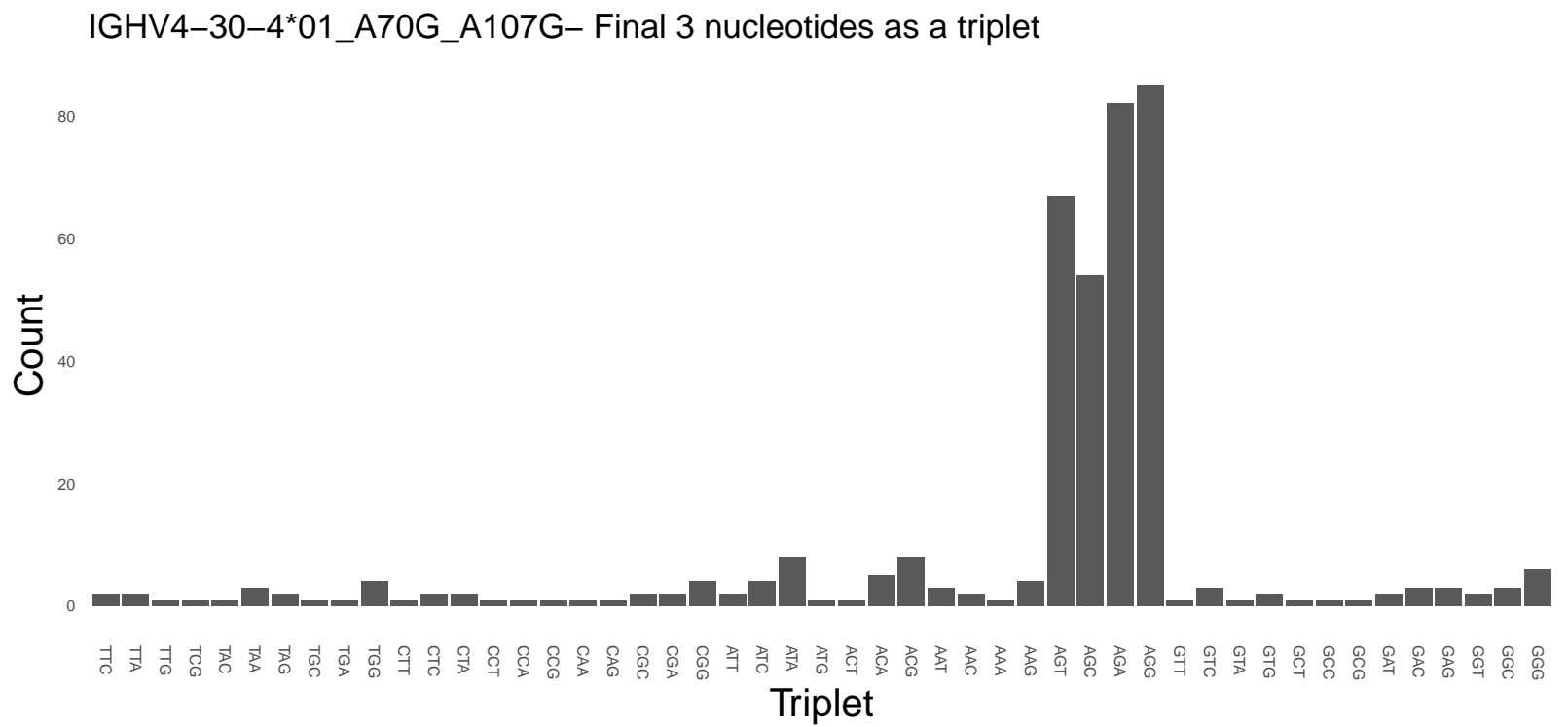
Gene IGHV4-30-4\*01\_A70G\_A107G



Gene IGHV4-30-4\*01\_A70G\_A107G

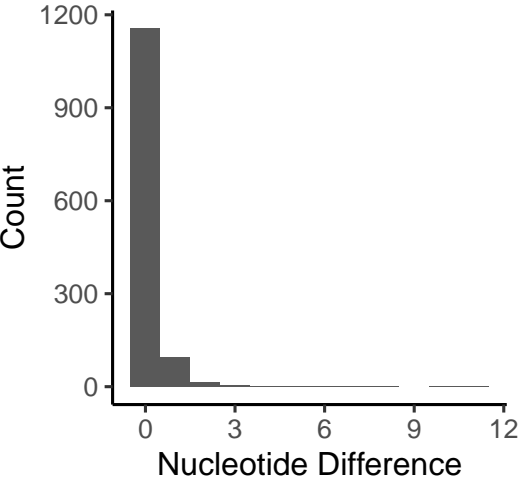


IGHV4-30-4\*01\_A70G\_A107G- Final 3 nucleotides as a triplet



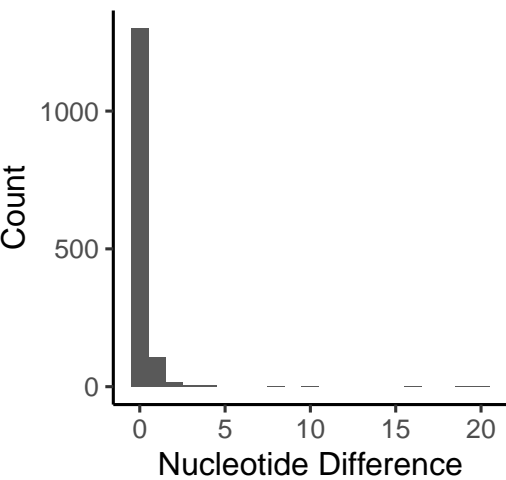
IGHV1-2\*02

1285 sequences assigned  
1156 (90%) exact matches, in which:  
1073 unique CDR3  
6 unique J



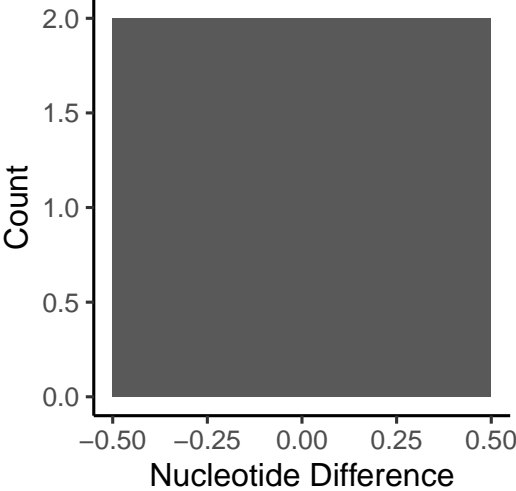
IGHV1-18\*04

1440 sequences assigned  
1300 (90.3%) exact matches, in which:  
1231 unique CDR3  
7 unique J



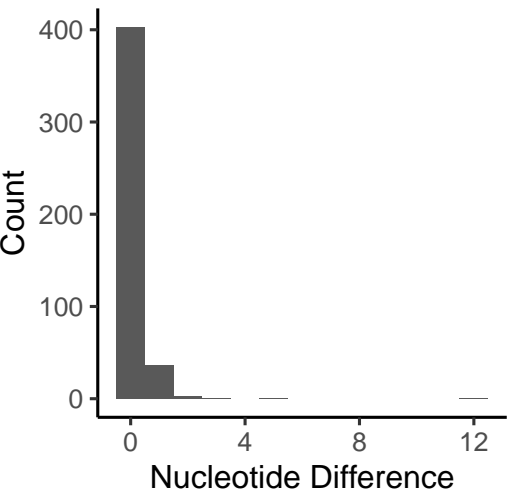
IGHV1-45\*03

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



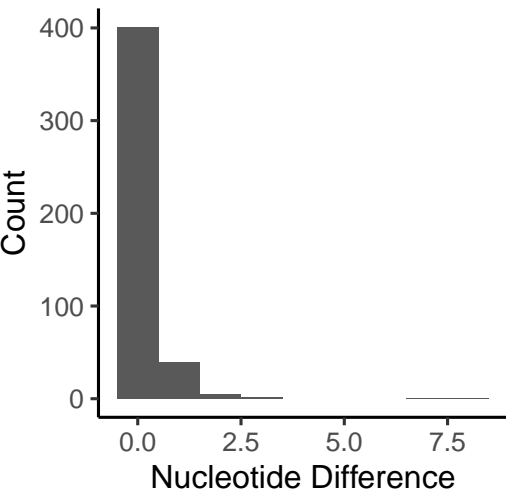
IGHV1-2\*04

446 sequences assigned  
403 (90.4%) exact matches, in which:  
384 unique CDR3  
6 unique J



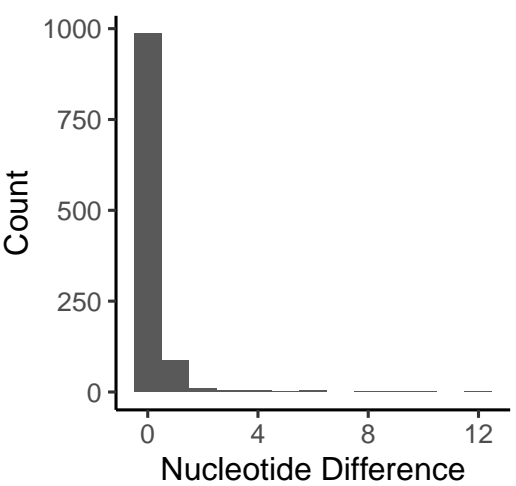
IGHV1-24\*01

449 sequences assigned  
401 (89.3%) exact matches, in which:  
378 unique CDR3  
7 unique J



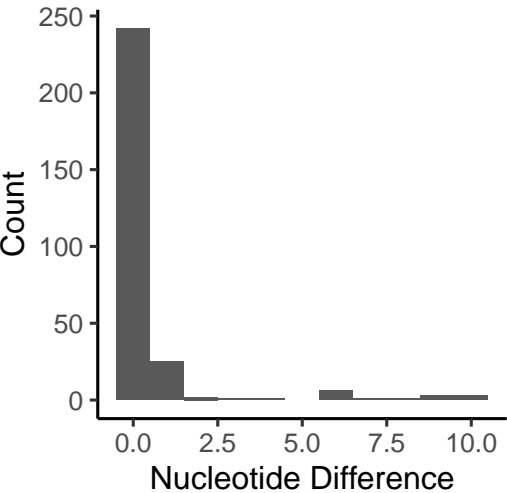
IGHV1-46\*01

1098 sequences assigned  
986 (89.8%) exact matches, in which:  
932 unique CDR3  
7 unique J



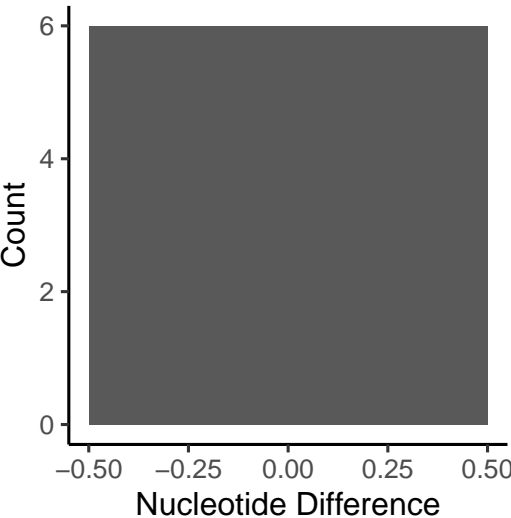
IGHV1-3\*01

285 sequences assigned  
242 (84.9%) exact matches, in which:  
237 unique CDR3  
6 unique J



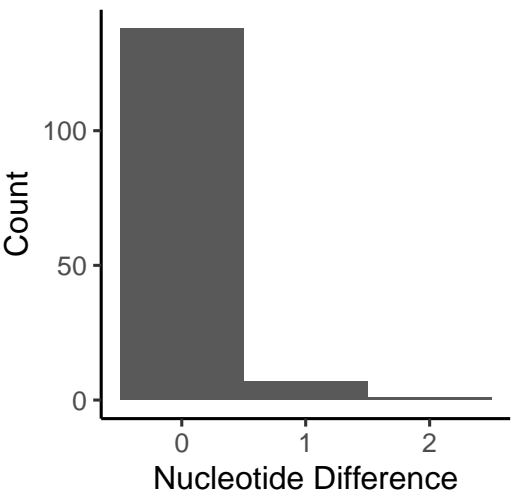
IGHV1-45\*02

6 sequences assigned  
6 (100%) exact matches, in which:  
5 unique CDR3  
3 unique J



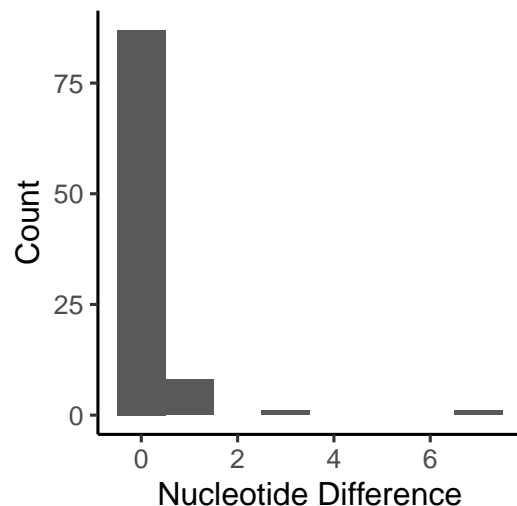
IGHV1-58\*01

146 sequences assigned  
138 (94.5%) exact matches, in which:  
129 unique CDR3  
5 unique J



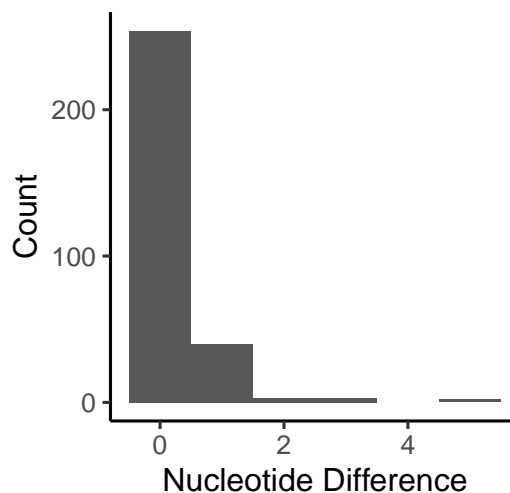
### IGHV1-58\*02

97 sequences assigned  
87 (89.7%) exact matches, in which:  
87 unique CDR3  
5 unique J



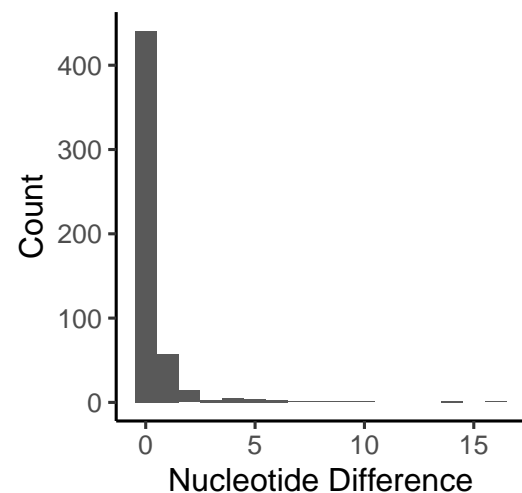
### IGHV2-26\*01

302 sequences assigned  
254 (84.1%) exact matches, in which:  
248 unique CDR3  
6 unique J



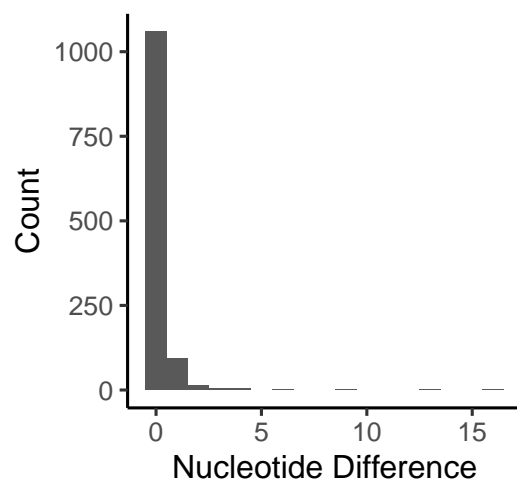
### IGHV3-7\*03

534 sequences assigned  
441 (82.6%) exact matches, in which:  
416 unique CDR3  
7 unique J



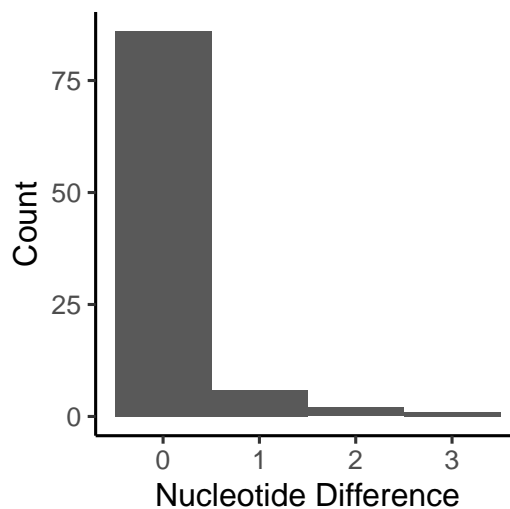
### IGHV1-69\*04

1177 sequences assigned  
1059 (90%) exact matches, in which:  
992 unique CDR3  
7 unique J



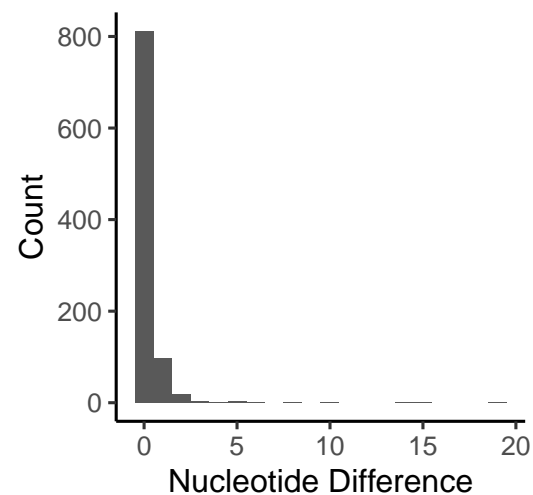
### IGHV2-70\*01

95 sequences assigned  
86 (90.5%) exact matches, in which:  
85 unique CDR3  
5 unique J



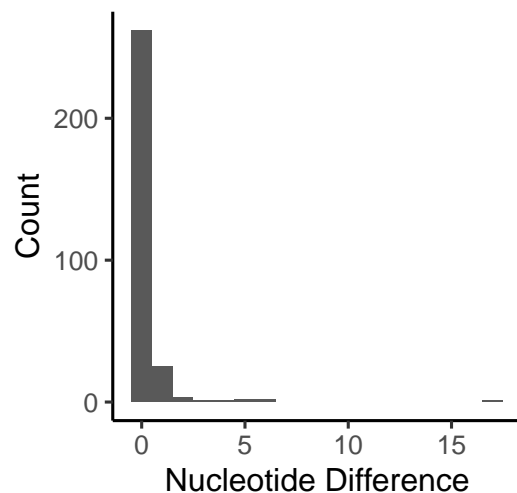
### IGHV3-11\*06

943 sequences assigned  
812 (86.1%) exact matches, in which:  
771 unique CDR3  
7 unique J



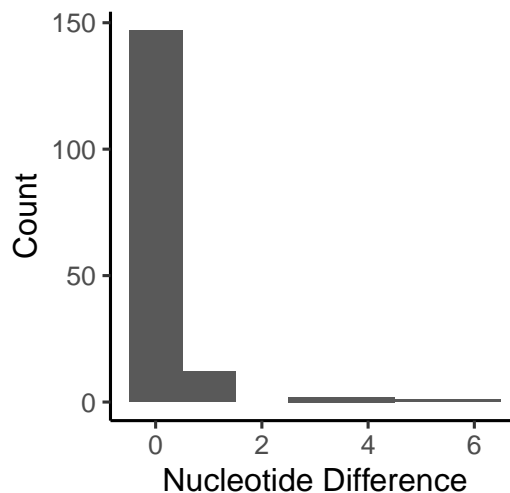
### IGHV2-5\*02

297 sequences assigned  
262 (88.2%) exact matches, in which:  
253 unique CDR3  
7 unique J



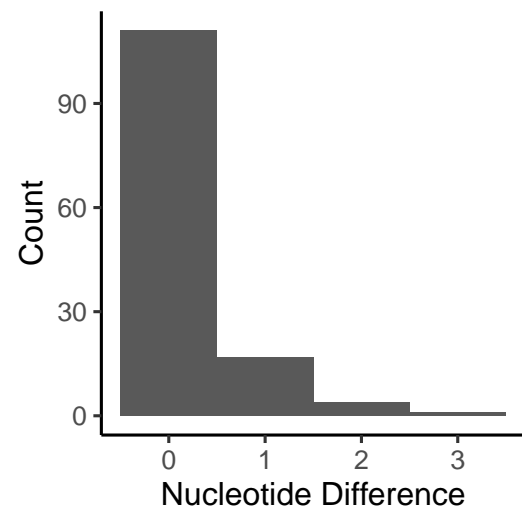
### IGHV2-70\*15

165 sequences assigned  
147 (89.1%) exact matches, in which:  
145 unique CDR3  
6 unique J



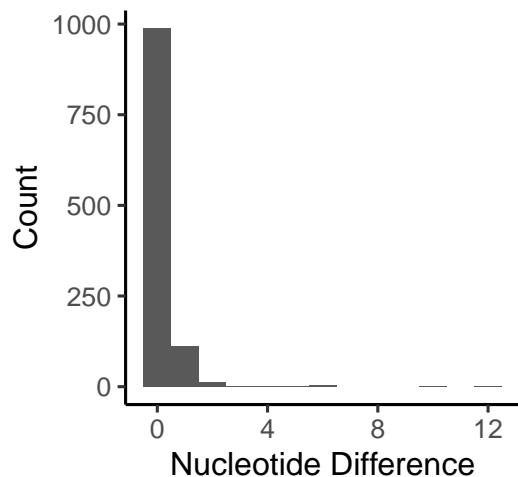
### IGHV3-13\*05

133 sequences assigned  
111 (83.5%) exact matches, in which:  
106 unique CDR3  
6 unique J



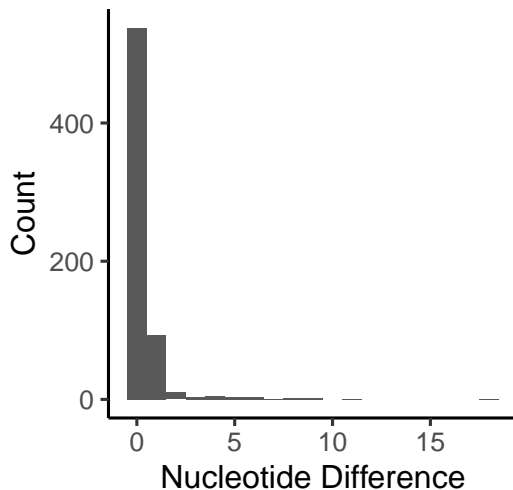
### IGHV3–15\*01

1126 sequences assigned  
988 (87.7%) exact matches, in which:  
943 unique CDR3  
7 unique J



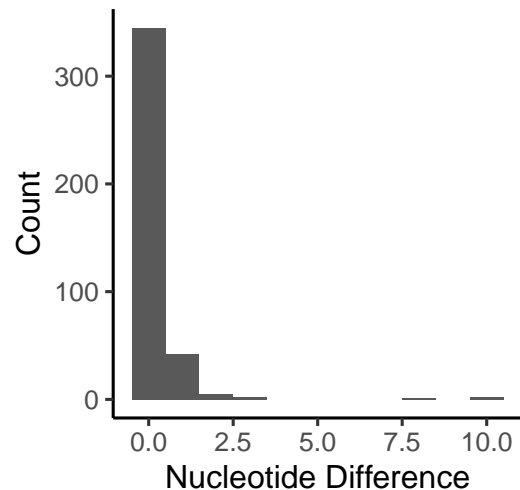
### IGHV3–33\*01

664 sequences assigned  
538 (81%) exact matches, in which:  
491 unique CDR3  
6 unique J



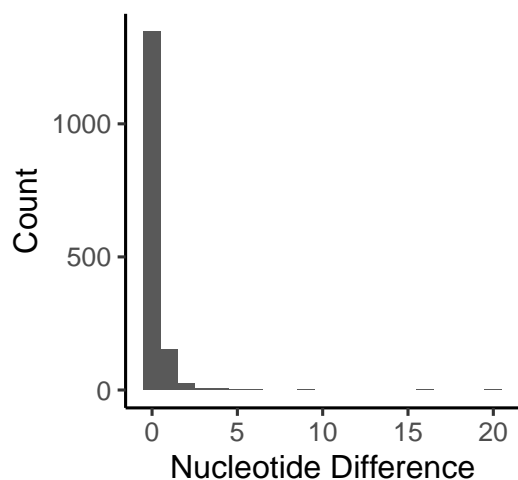
### IGHV3–43\*02

397 sequences assigned  
345 (86.9%) exact matches, in which:  
333 unique CDR3  
7 unique J



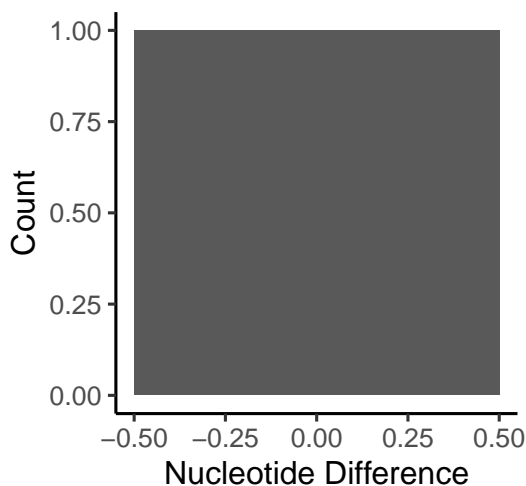
### IGHV3–21\*01

1539 sequences assigned  
1346 (87.5%) exact matches, in which:  
1263 unique CDR3  
7 unique J



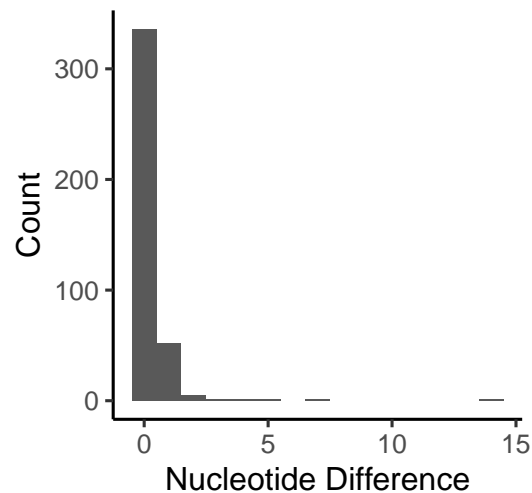
### IGHV3–35\*01

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



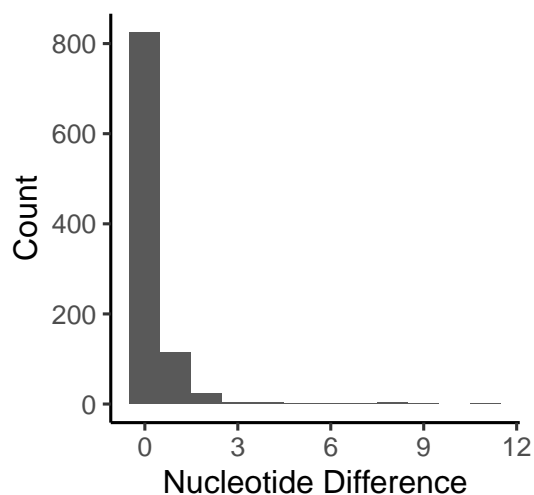
### IGHV3–48\*02

399 sequences assigned  
336 (84.2%) exact matches, in which:  
319 unique CDR3  
7 unique J



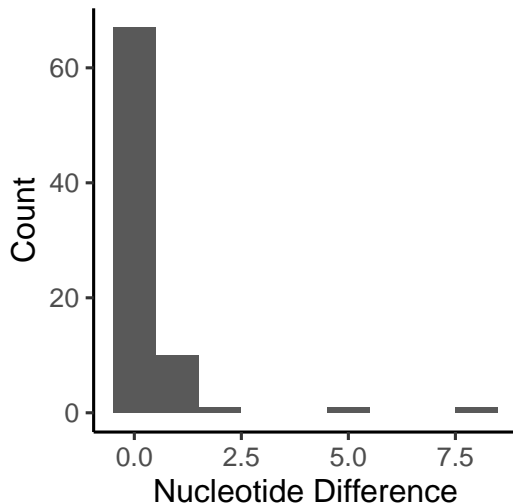
### IGHV3–30–3\*01

983 sequences assigned  
825 (83.9%) exact matches, in which:  
770 unique CDR3  
7 unique J



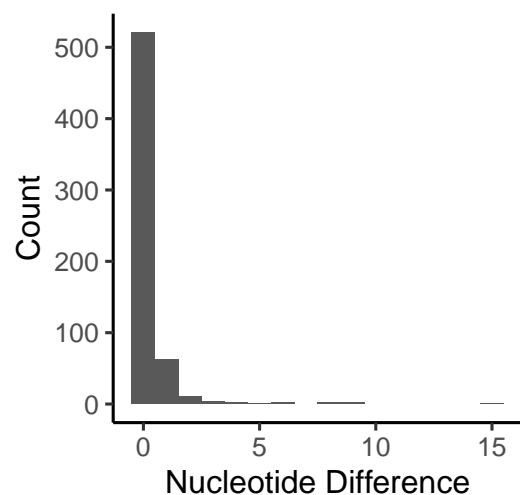
### IGHV3–43\*01

80 sequences assigned  
67 (83.8%) exact matches, in which:  
65 unique CDR3  
5 unique J



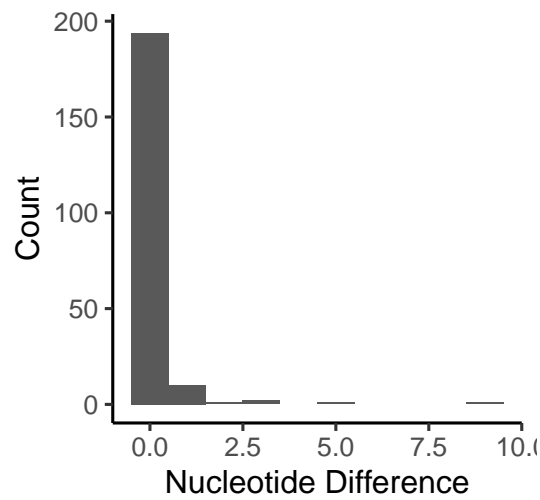
### IGHV3–48\*03

609 sequences assigned  
521 (85.6%) exact matches, in which:  
504 unique CDR3  
7 unique J



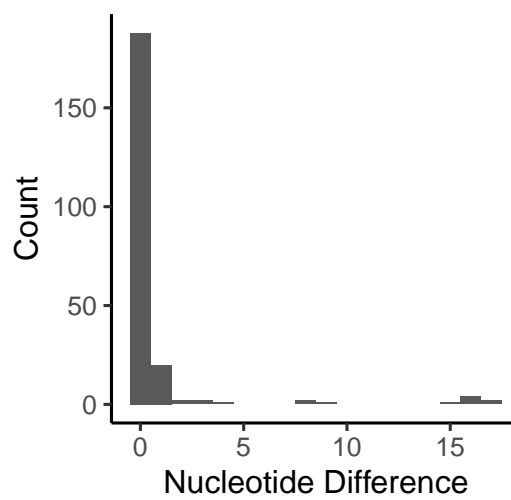
### IGHV3-49\*04

209 sequences assigned  
194 (92.8%) exact matches, in which:  
186 unique CDR3  
6 unique J



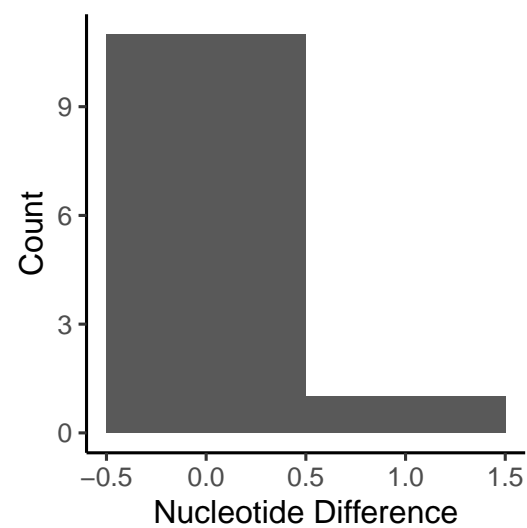
### IGHV3-53\*01

223 sequences assigned  
188 (84.3%) exact matches, in which:  
175 unique CDR3  
5 unique J



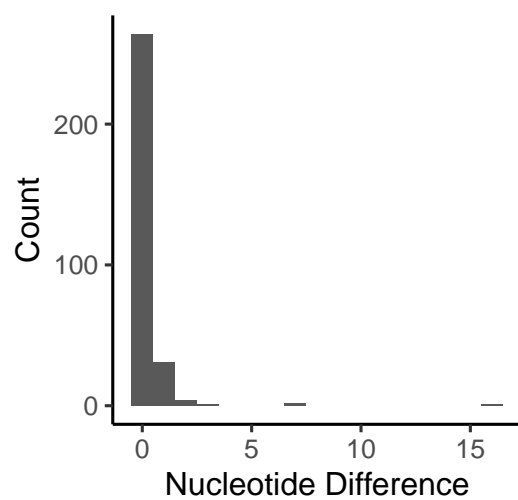
### IGHV3-64\*02

12 sequences assigned  
11 (91.7%) exact matches, in which:  
9 unique CDR3  
3 unique J



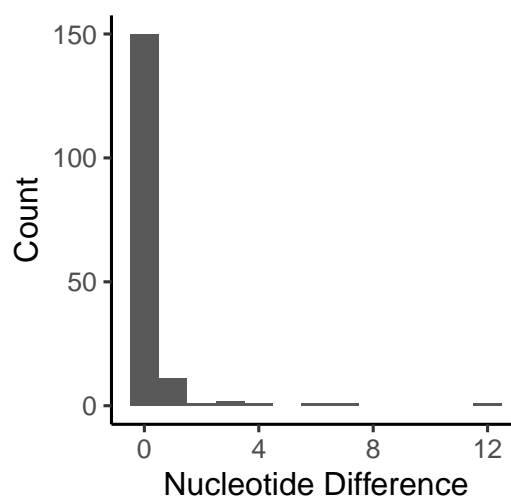
### IGHV3-49\*05

303 sequences assigned  
264 (87.1%) exact matches, in which:  
250 unique CDR3  
7 unique J



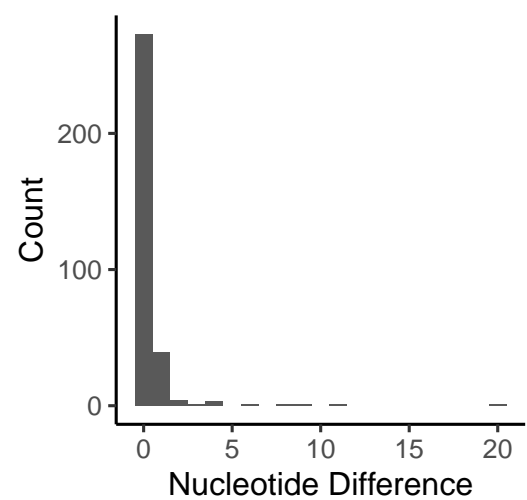
### IGHV3-53\*04

168 sequences assigned  
150 (89.3%) exact matches, in which:  
143 unique CDR3  
7 unique J



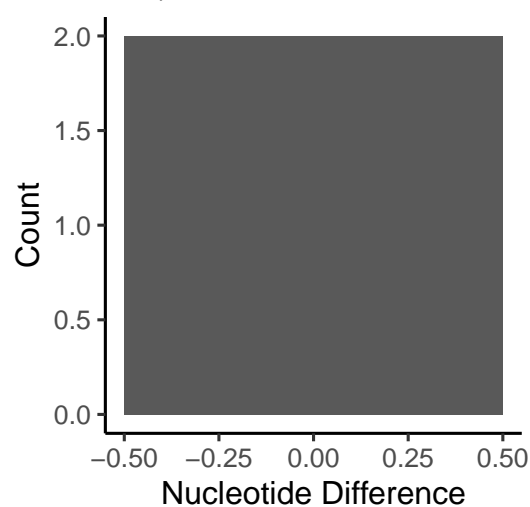
### IGHV3-66\*01

325 sequences assigned  
273 (84%) exact matches, in which:  
256 unique CDR3  
6 unique J



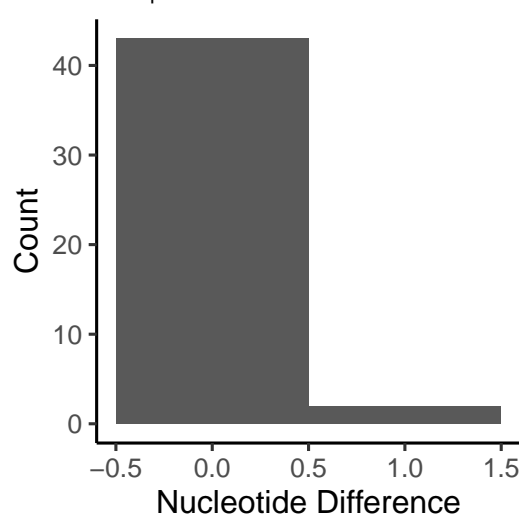
### IGHV3-52\*01

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



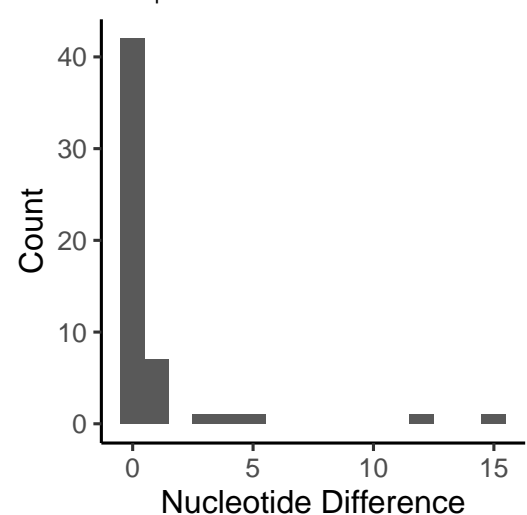
### IGHV3-64\*01

45 sequences assigned  
43 (95.6%) exact matches, in which:  
42 unique CDR3  
5 unique J



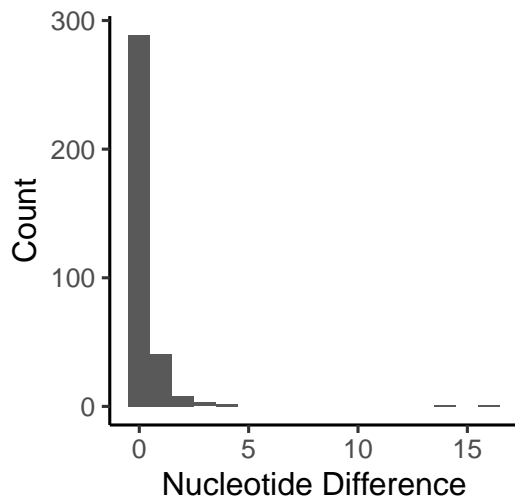
### IGHV3-72\*01

55 sequences assigned  
42 (76.4%) exact matches, in which:  
38 unique CDR3  
5 unique J



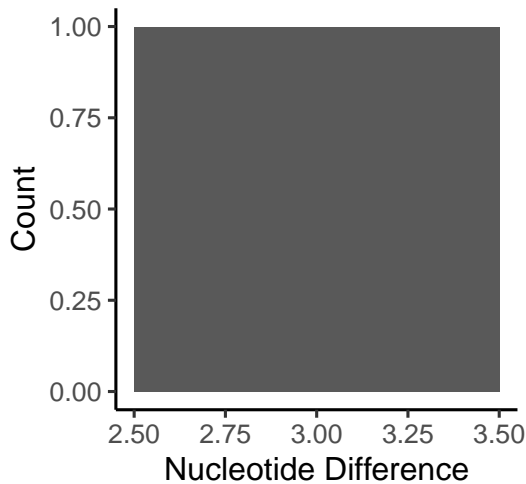
### IGHV3-73\*02

345 sequences assigned  
289 (83.8%) exact matches, in which:  
270 unique CDR3  
6 unique J



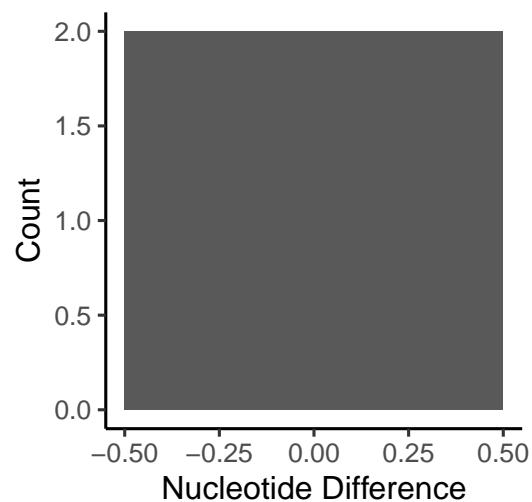
### IGHV3-NL1\*01

1 sequences assigned  
No exact matches.



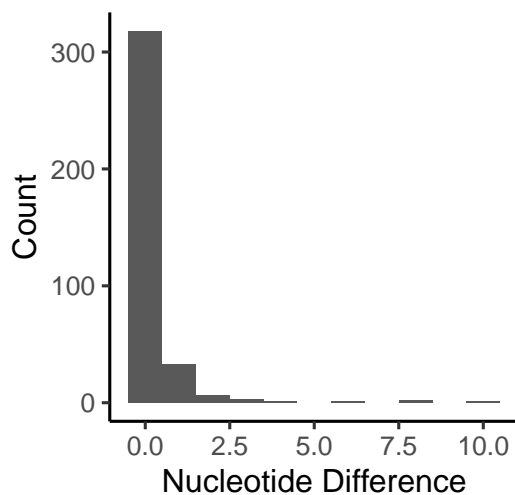
### IGHV4-28\*01

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



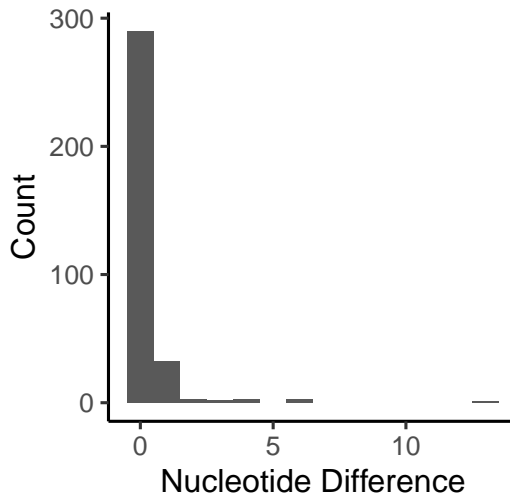
### IGHV3-74\*01

365 sequences assigned  
318 (87.1%) exact matches, in which:  
305 unique CDR3  
7 unique J



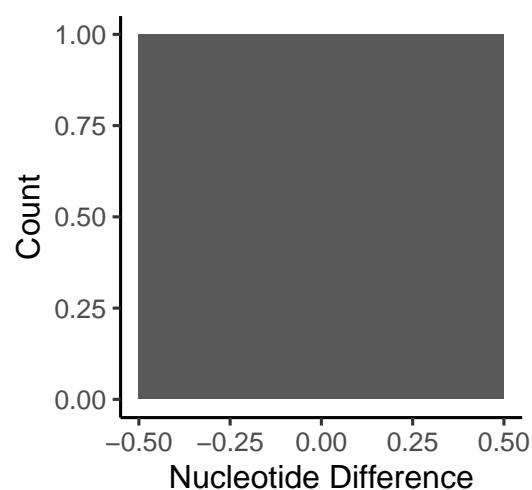
### IGHV4-4\*02

334 sequences assigned  
290 (86.8%) exact matches, in which:  
286 unique CDR3  
6 unique J



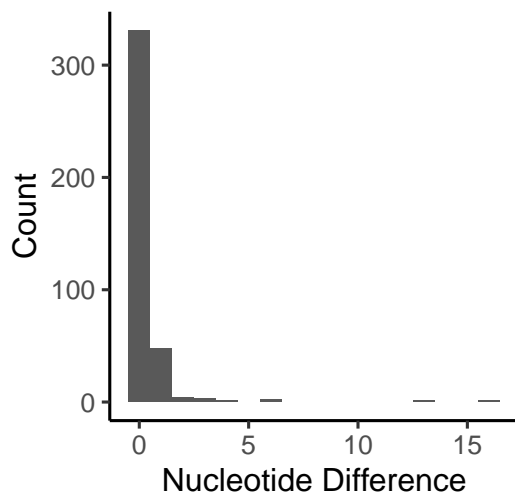
### IGHV4-28\*03

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



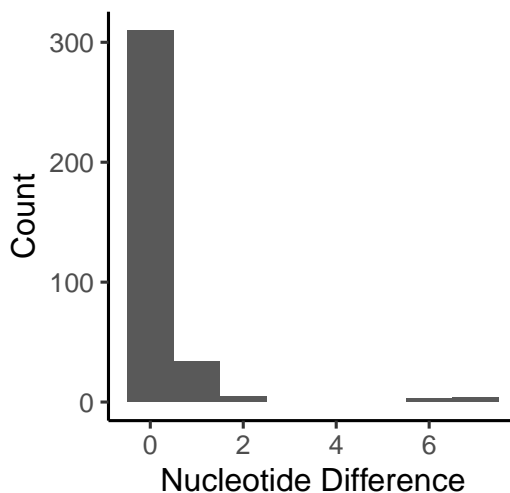
### IGHV3-64D\*06

391 sequences assigned  
331 (84.7%) exact matches, in which:  
309 unique CDR3  
7 unique J



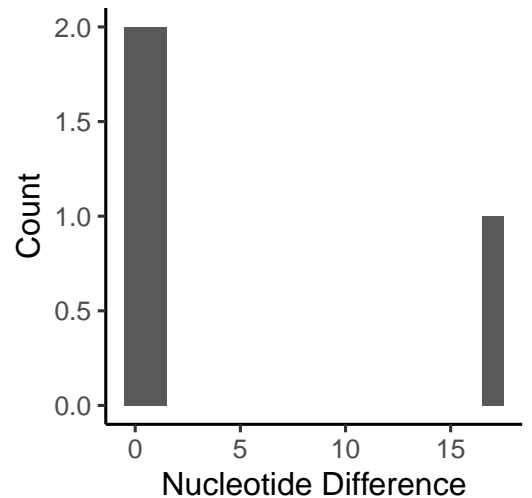
### IGHV4-4\*07

356 sequences assigned  
310 (87.1%) exact matches, in which:  
300 unique CDR3  
6 unique J



### IGHV4-28\*07

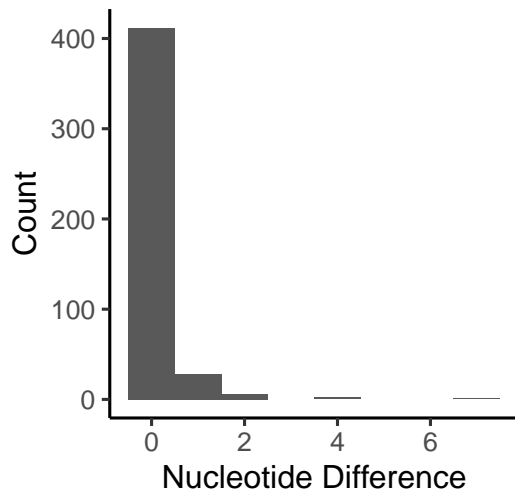
5 sequences assigned  
2 (40%) exact matches, in which:  
2 unique CDR3  
2 unique J





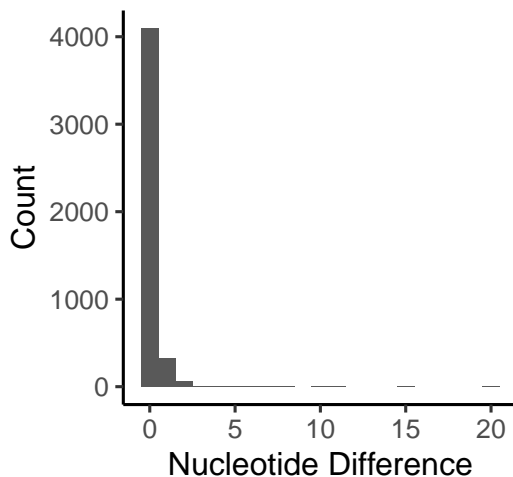
### IGHV4-30-2\*01

449 sequences assigned  
412 (91.8%) exact matches, in which:  
390 unique CDR3  
7 unique J



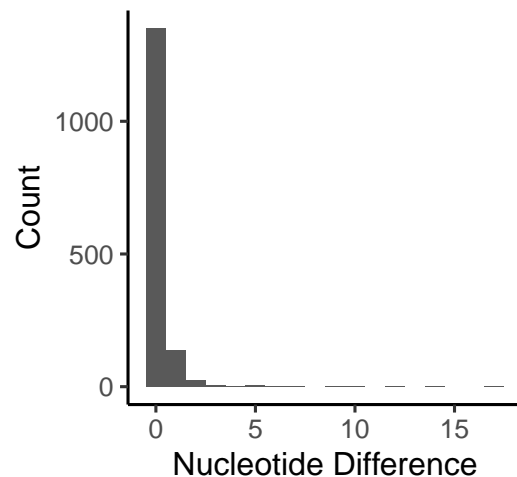
### IGHV4-34\*01

4519 sequences assigned  
4095 (90.6%) exact matches, in which:  
3743 unique CDR3  
7 unique J



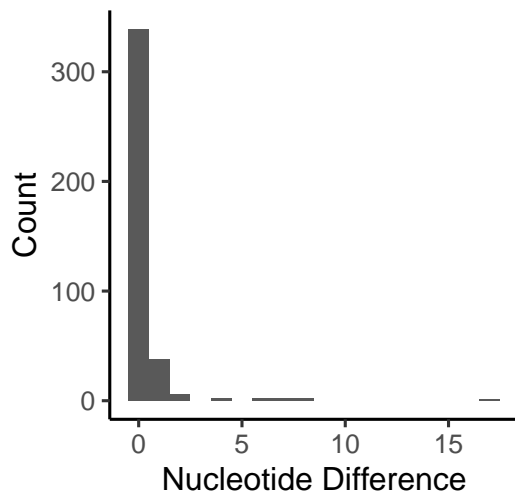
### IGHV4-59\*01

1537 sequences assigned  
1350 (87.8%) exact matches, in which:  
1312 unique CDR3  
7 unique J



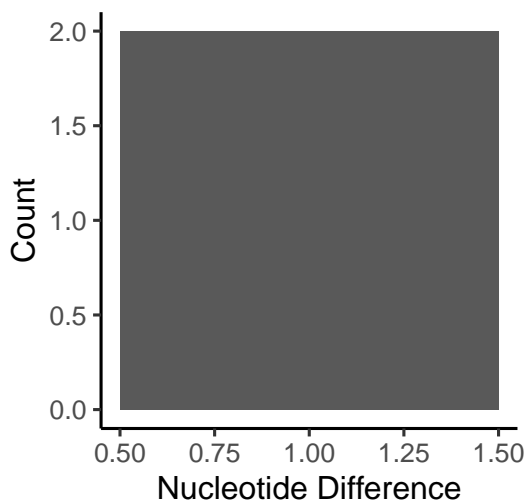
### IGHV4-30-4\*01\_A70G\_/\_

392 sequences assigned  
339 (86.5%) exact matches, in which:  
326 unique CDR3  
6 unique J



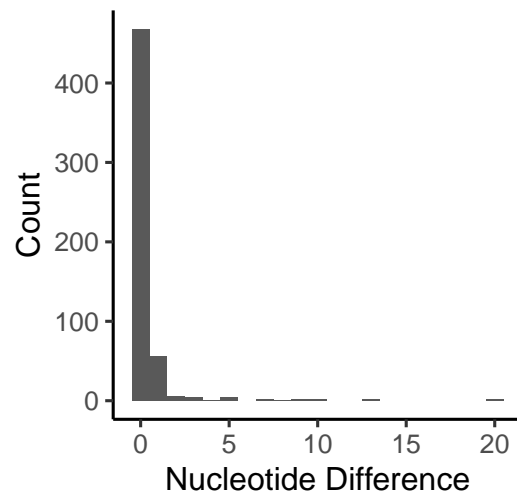
### IGHV4-38-2\*02

2 sequences assigned  
No exact matches.



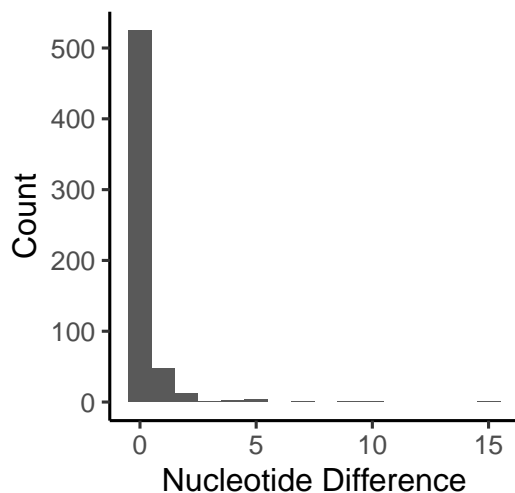
### IGHV4-59\*08

552 sequences assigned  
468 (84.8%) exact matches, in which:  
450 unique CDR3  
7 unique J



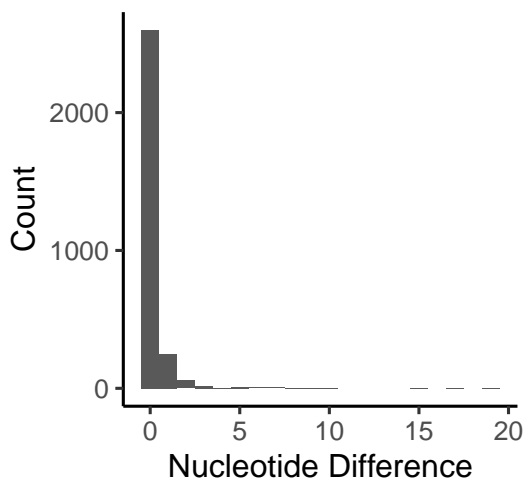
### IGHV4-31\*03

594 sequences assigned  
525 (88.4%) exact matches, in which:  
486 unique CDR3  
6 unique J



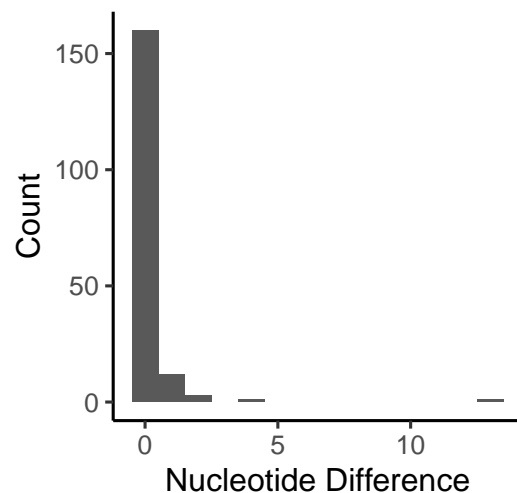
### IGHV4-39\*01

2971 sequences assigned  
2599 (87.5%) exact matches, in which:  
2415 unique CDR3  
7 unique J



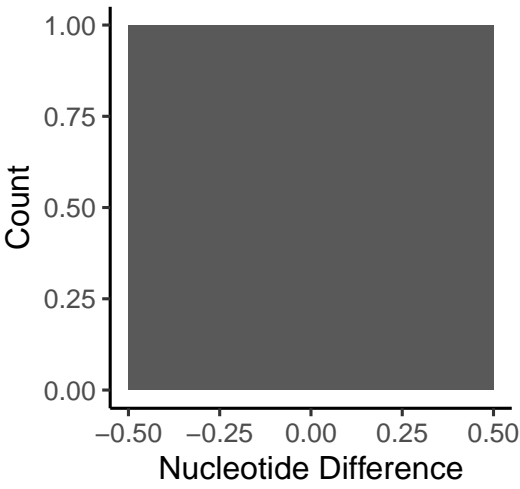
### IGHV4-61\*01

177 sequences assigned  
160 (90.4%) exact matches, in which:  
152 unique CDR3  
5 unique J



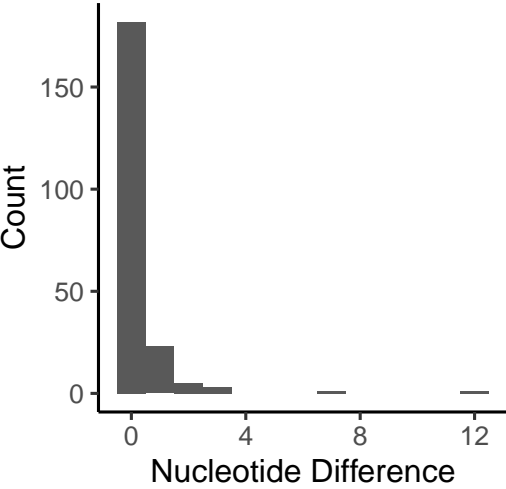
IGHV1/OR15-2\*01

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



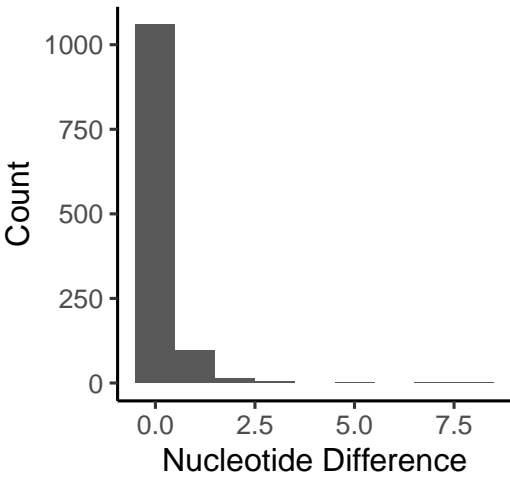
IGHV6-1\*01

215 sequences assigned  
182 (84.7%) exact matches, in which:  
175 unique CDR3  
7 unique J



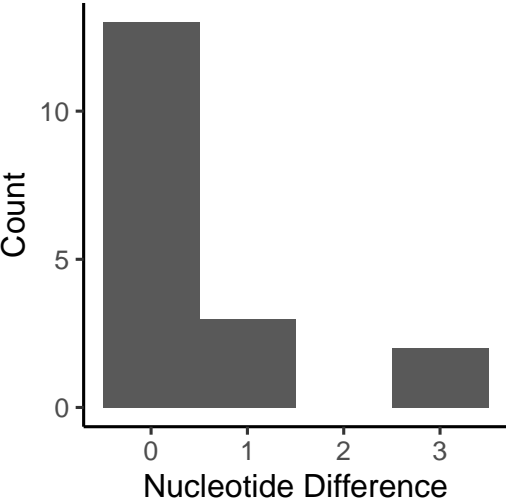
IGHV5-10-1\*03

1175 sequences assigned  
1059 (90.1%) exact matches, in which:  
1000 unique CDR3  
7 unique J



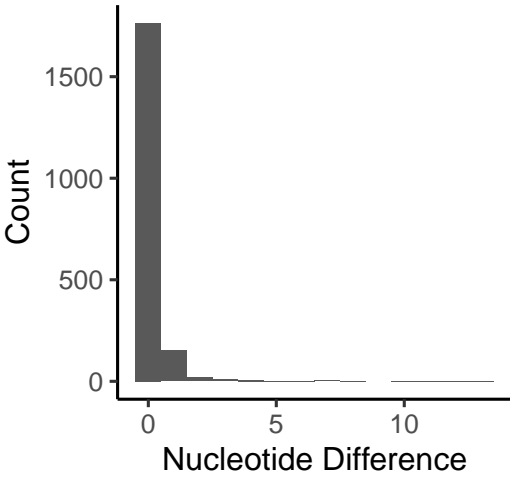
IGHV7-4-1\*01

18 sequences assigned  
13 (72.2%) exact matches, in which:  
13 unique CDR3  
4 unique J

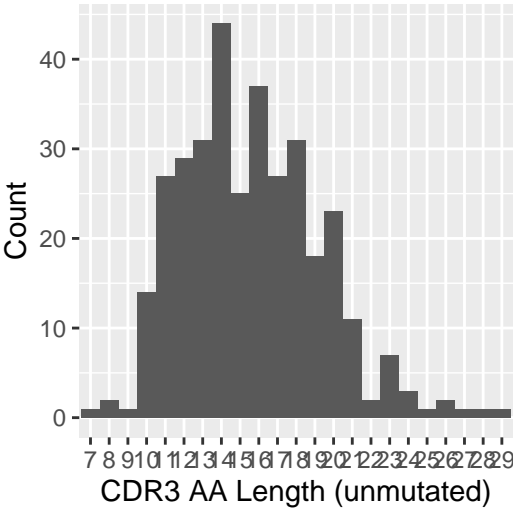


IGHV5-51\*01

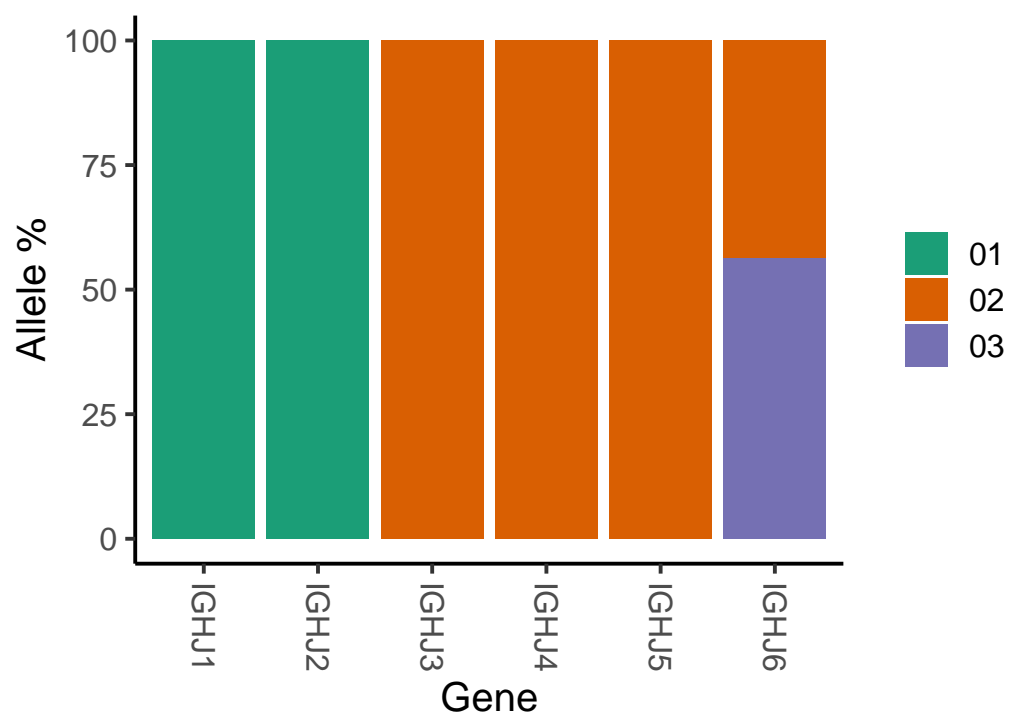
1972 sequences assigned  
1764 (89.5%) exact matches, in which:  
1650 unique CDR3  
7 unique J



IGHV4-30-4\*01\_A70G\_A107G



Allele Usage



## Sequence Count byIGHJ6 allele usage

