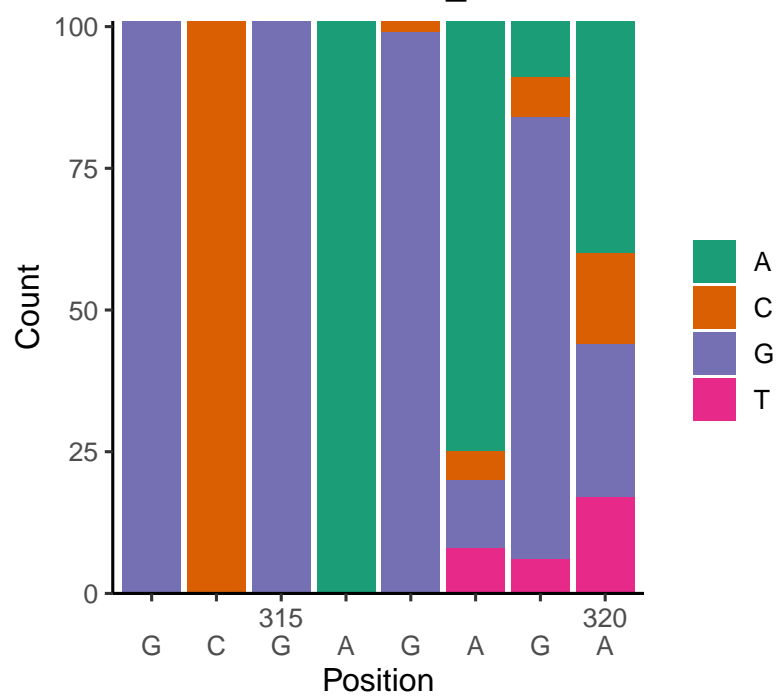
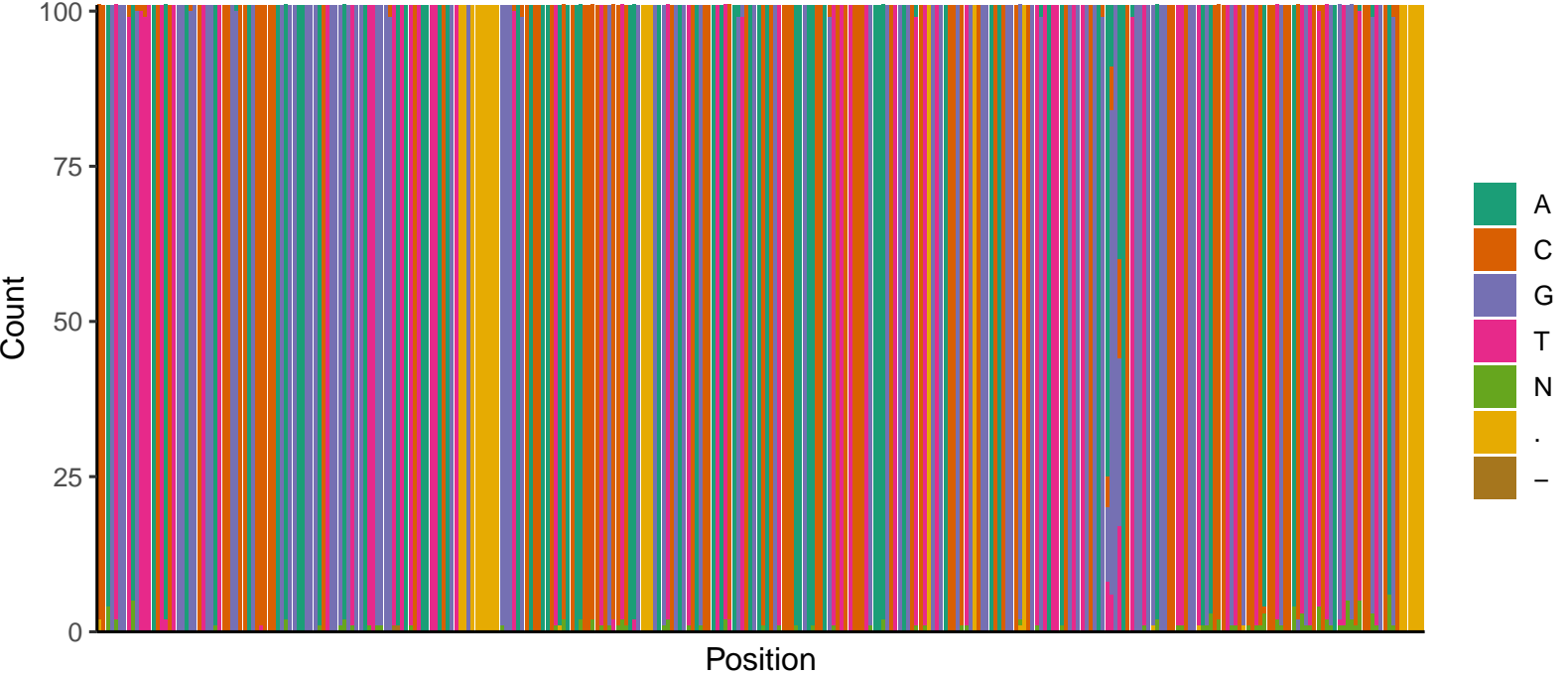


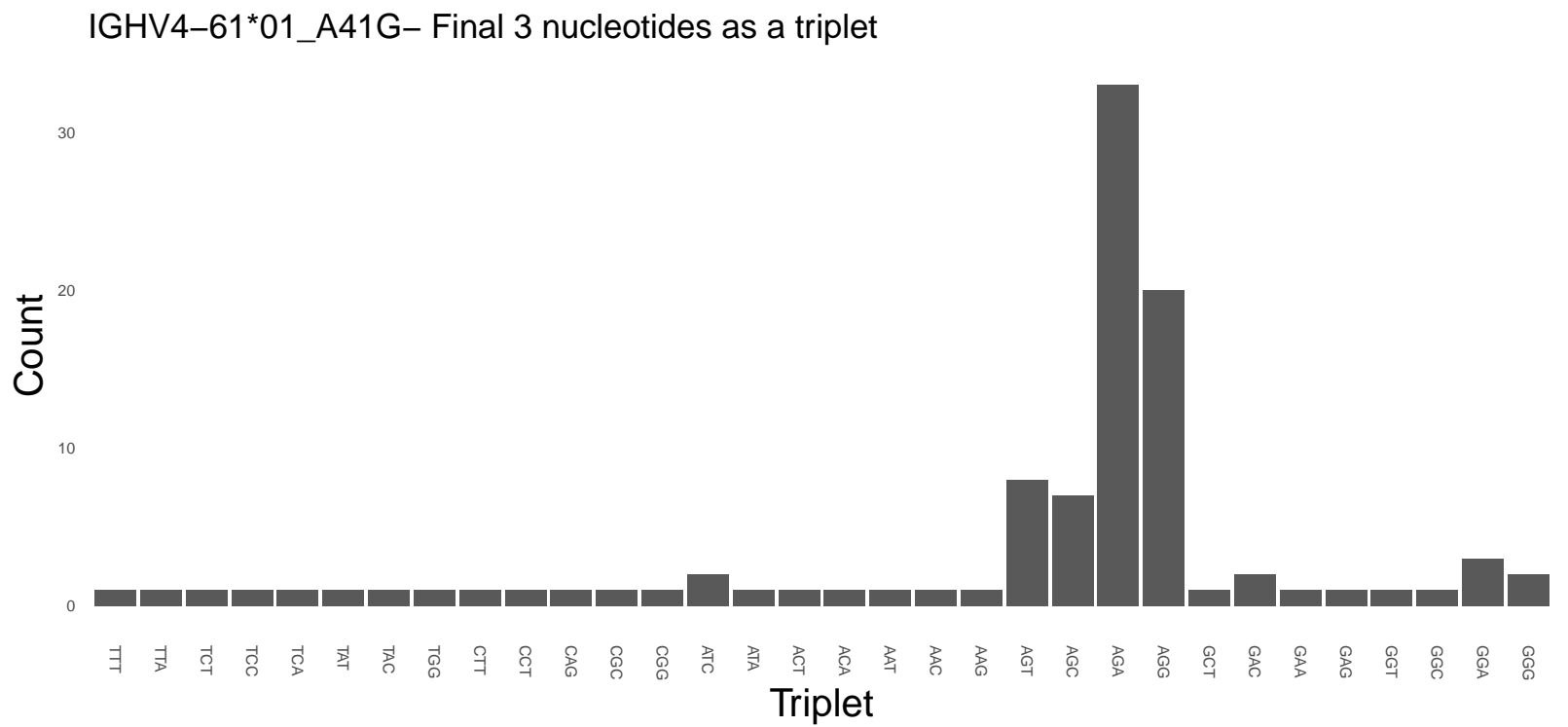
# Gene IGHV4-61\*01\_A41G



Gene IGHV4-61\*01\_A41G

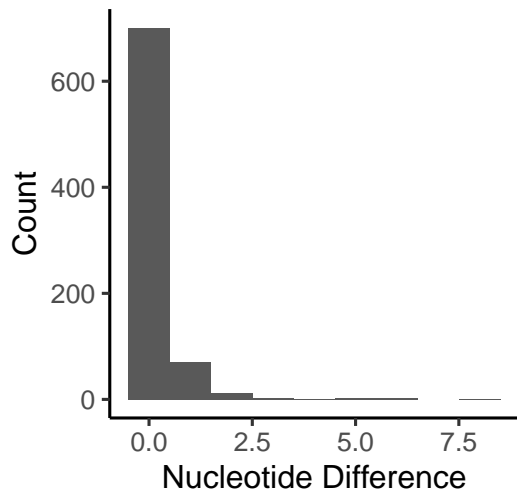


IGHV4-61\*01\_A41G- Final 3 nucleotides as a triplet



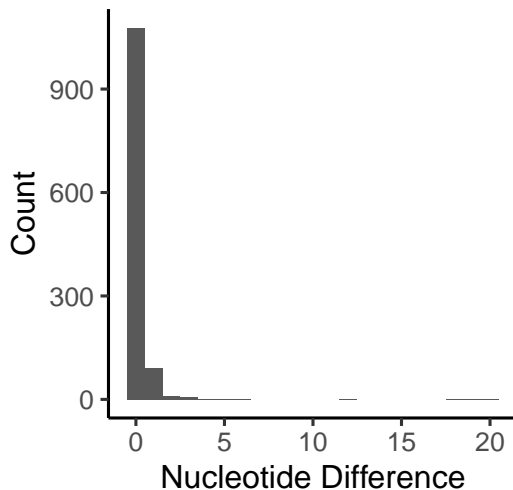
### IGHV1-2\*02

793 sequences assigned  
701 (88.4%) exact matches, in which:  
664 unique CDR3  
6 unique J



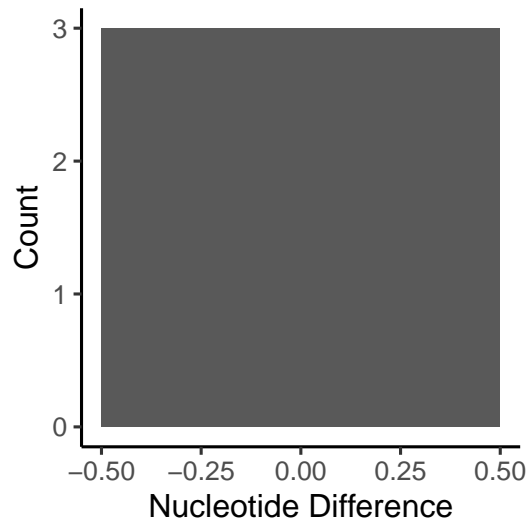
### IGHV1-8\*01

1196 sequences assigned  
1078 (90.1%) exact matches, in which:  
1034 unique CDR3  
7 unique J



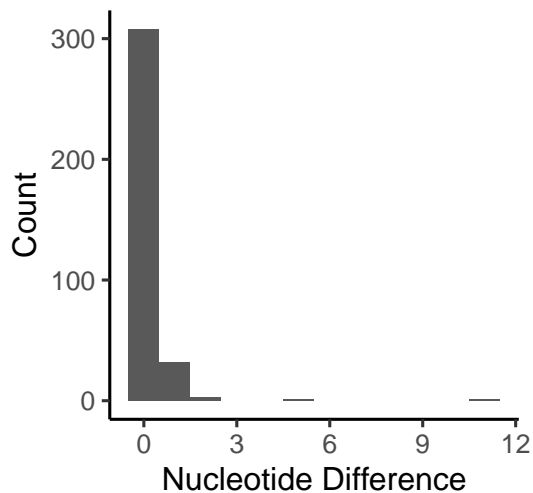
### IGHV1-45\*02

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



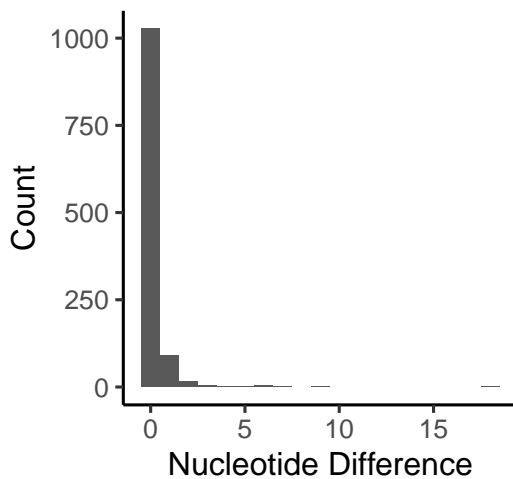
### IGHV1-2\*04

345 sequences assigned  
308 (89.3%) exact matches, in which:  
293 unique CDR3  
6 unique J



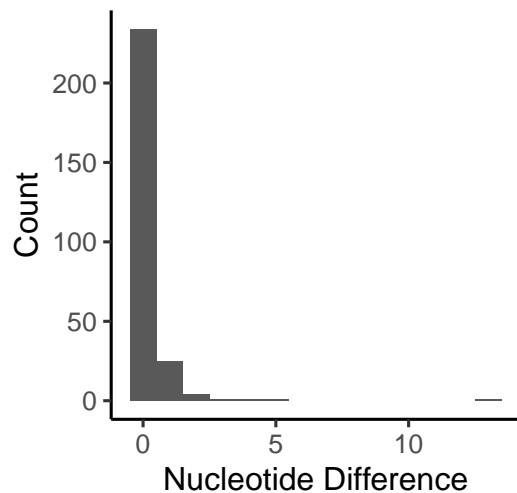
### IGHV1-18\*01

1149 sequences assigned  
1027 (89.4%) exact matches, in which:  
997 unique CDR3  
7 unique J



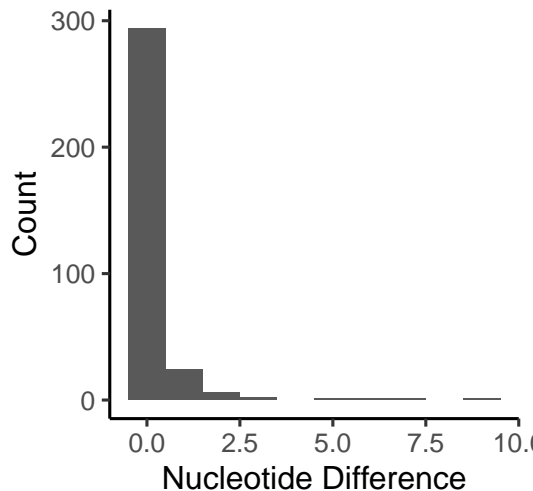
### IGHV1-46\*01

272 sequences assigned  
234 (86%) exact matches, in which:  
227 unique CDR3  
7 unique J



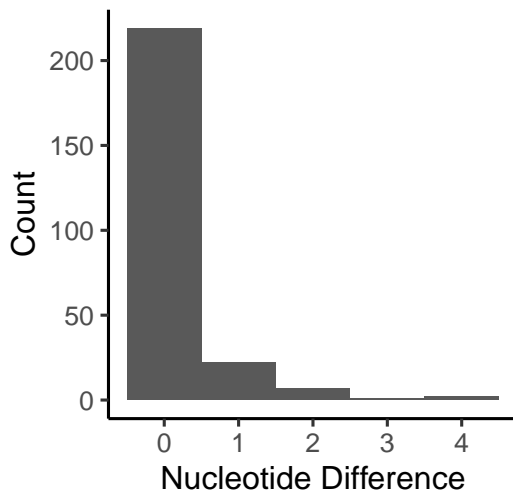
### IGHV1-3\*01

333 sequences assigned  
294 (88.3%) exact matches, in which:  
284 unique CDR3  
6 unique J



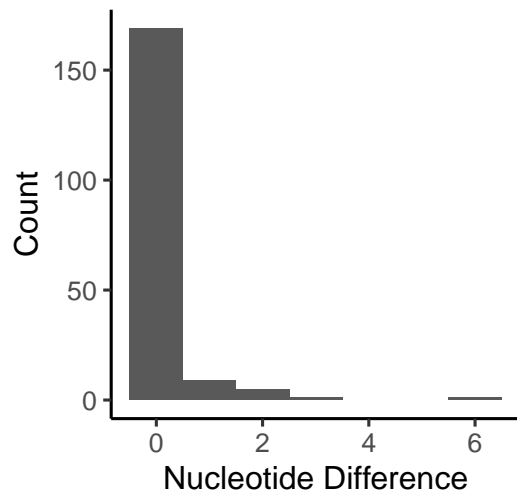
### IGHV1-24\*01

251 sequences assigned  
219 (87.3%) exact matches, in which:  
213 unique CDR3  
7 unique J



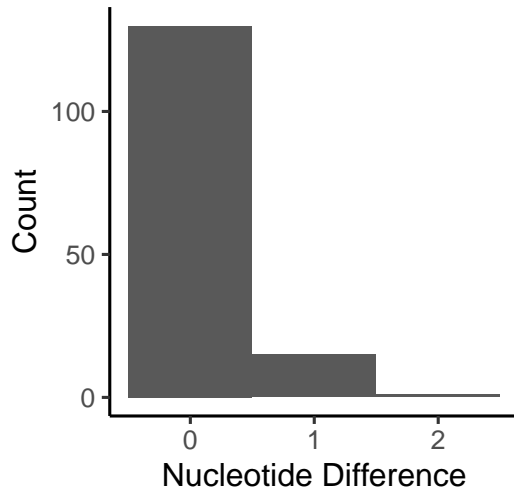
### IGHV1-46\*03

185 sequences assigned  
169 (91.4%) exact matches, in which:  
163 unique CDR3  
6 unique J



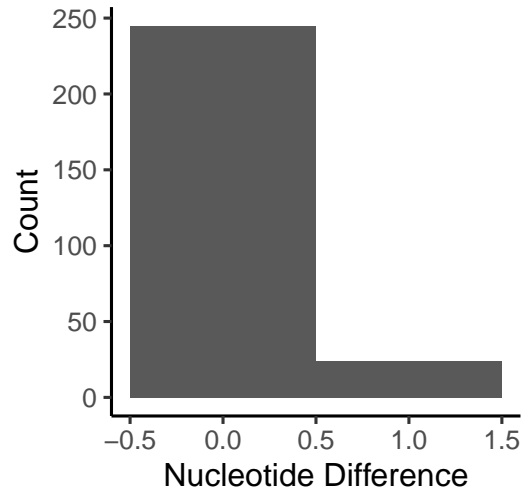
### IGHV1–58\*01

146 sequences assigned  
130 (89%) exact matches, in which:  
124 unique CDR3  
7 unique J



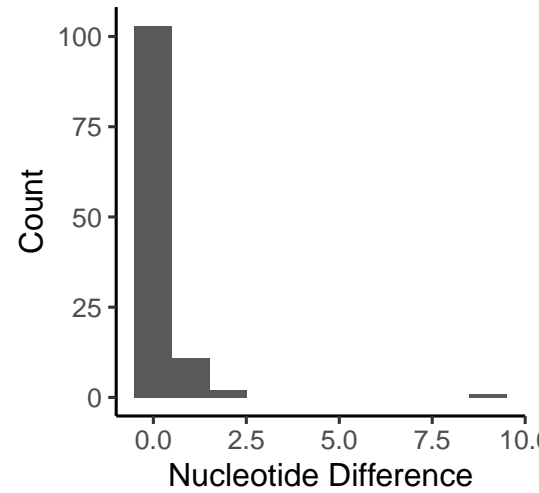
### IGHV2–5\*01

269 sequences assigned  
245 (91.1%) exact matches, in which:  
238 unique CDR3  
6 unique J



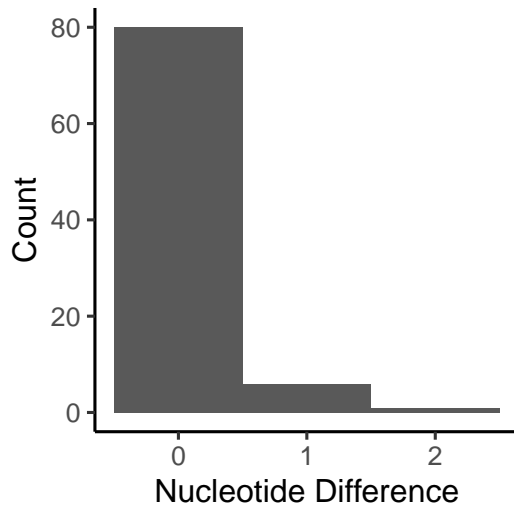
### IGHV2–70\*01

117 sequences assigned  
103 (88%) exact matches, in which:  
101 unique CDR3  
6 unique J



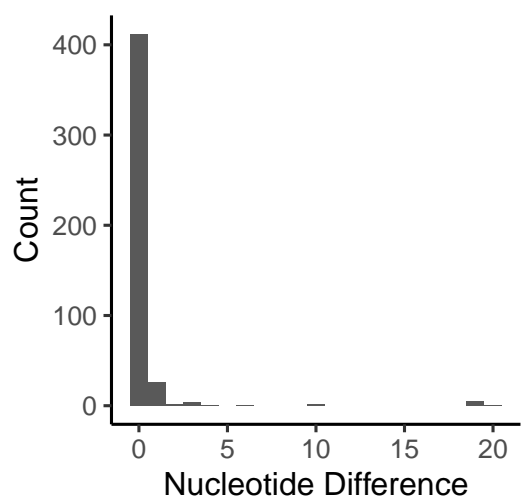
### IGHV1–69–2\*01

87 sequences assigned  
80 (92%) exact matches, in which:  
76 unique CDR3  
6 unique J



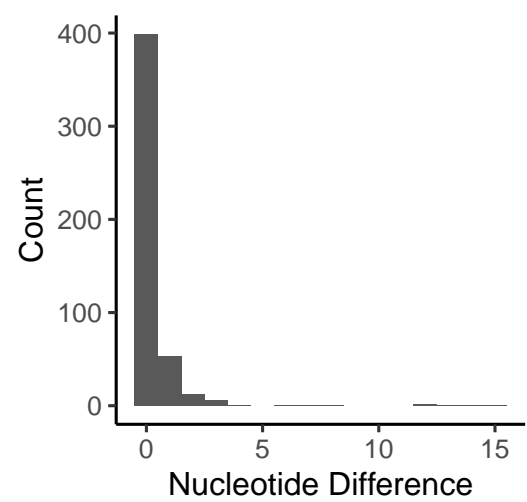
### IGHV2–5\*02

455 sequences assigned  
412 (90.5%) exact matches, in which:  
400 unique CDR3  
6 unique J



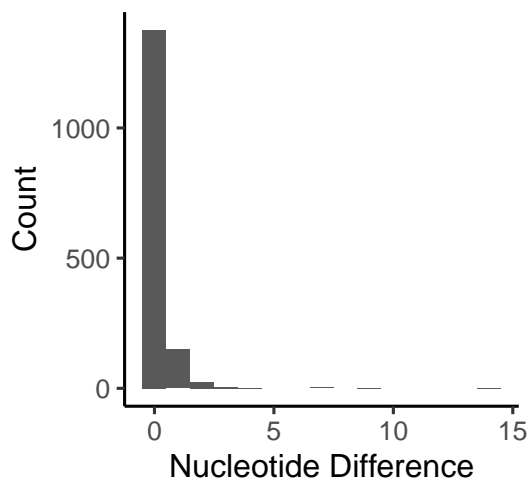
### IGHV3–7\*01

480 sequences assigned  
399 (83.1%) exact matches, in which:  
394 unique CDR3  
7 unique J



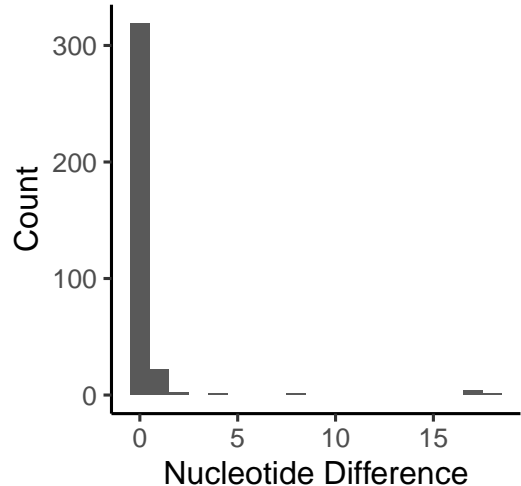
### IGHV1–69\*06

1562 sequences assigned  
1376 (88.1%) exact matches, in which:  
1318 unique CDR3  
7 unique J



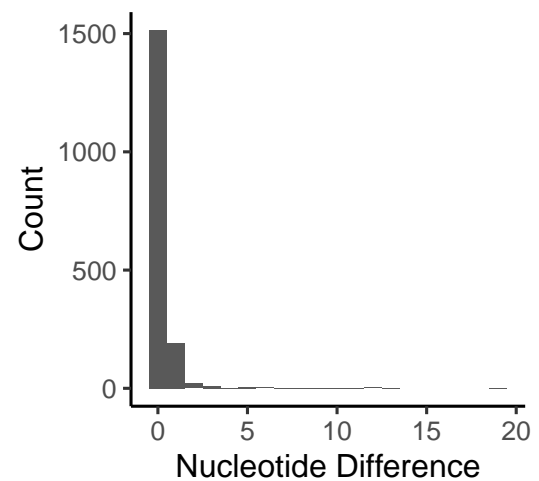
### IGHV2–26\*01

350 sequences assigned  
319 (91.1%) exact matches, in which:  
311 unique CDR3  
7 unique J



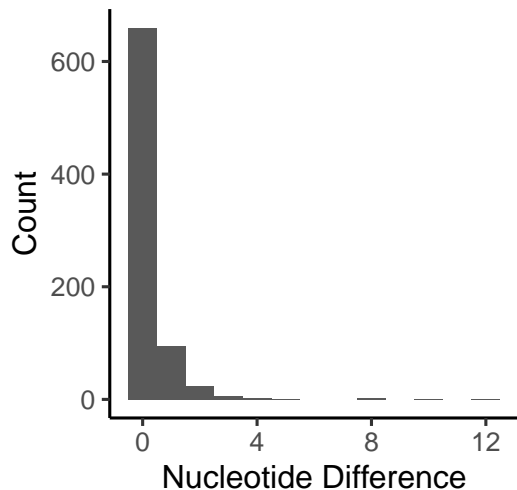
### IGHV3–9\*01

1764 sequences assigned  
1515 (85.9%) exact matches, in which:  
1459 unique CDR3  
7 unique J



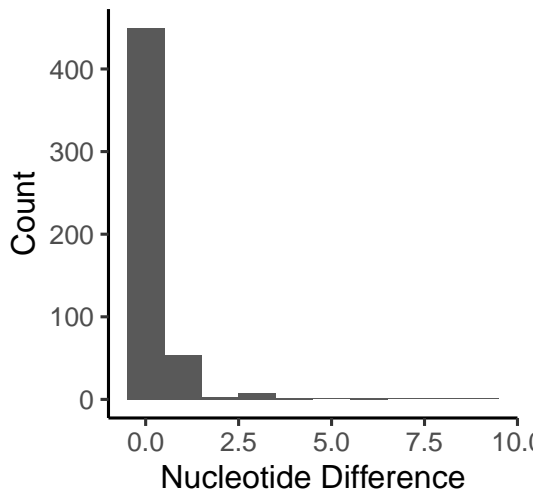
### IGHV3–11\*01

795 sequences assigned  
660 (83%) exact matches, in which:  
648 unique CDR3  
7 unique J



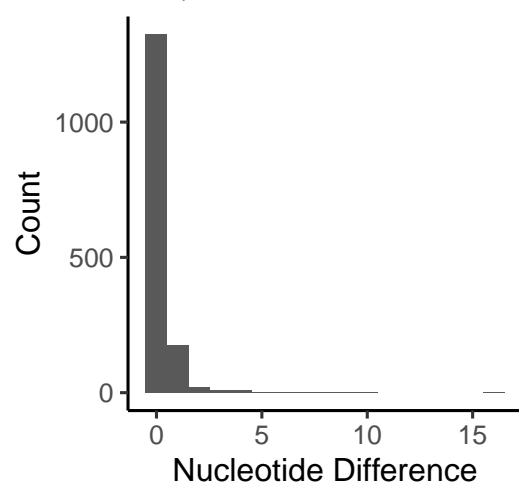
### IGHV3–15\*07

523 sequences assigned  
450 (86%) exact matches, in which:  
435 unique CDR3  
6 unique J



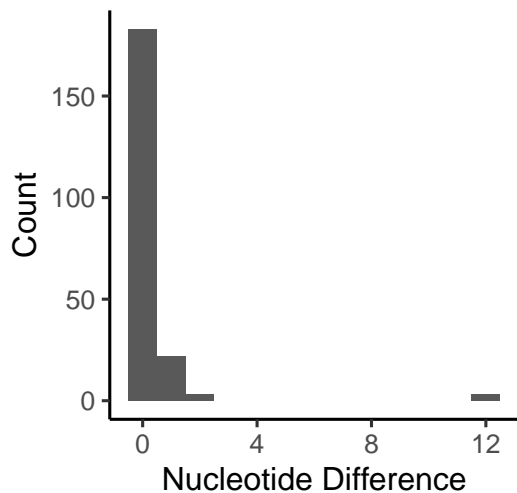
### IGHV3–21\*01

1553 sequences assigned  
1324 (85.3%) exact matches, in which:  
1283 unique CDR3  
7 unique J



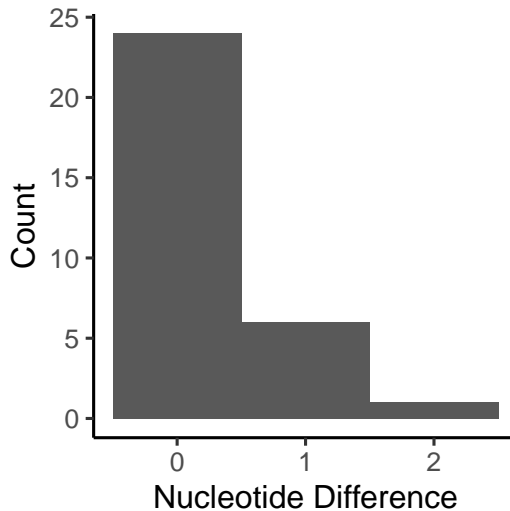
### IGHV3–13\*01

211 sequences assigned  
183 (86.7%) exact matches, in which:  
177 unique CDR3  
6 unique J



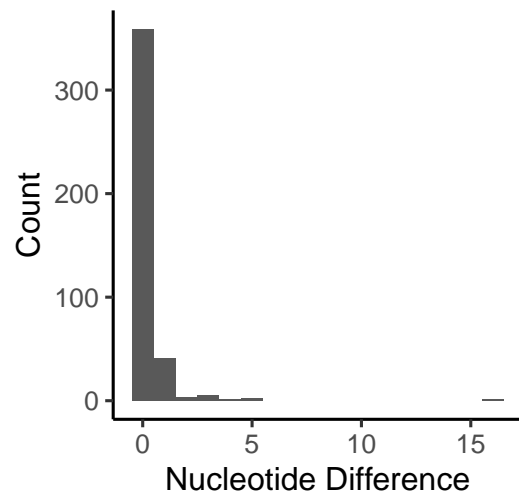
### IGHV3–20\*01

31 sequences assigned  
24 (77.4%) exact matches, in which:  
24 unique CDR3  
5 unique J



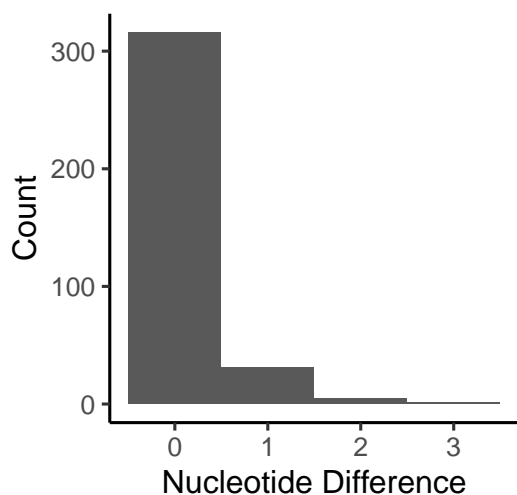
### IGHV3–30\*01

412 sequences assigned  
359 (87.1%) exact matches, in which:  
352 unique CDR3  
7 unique J



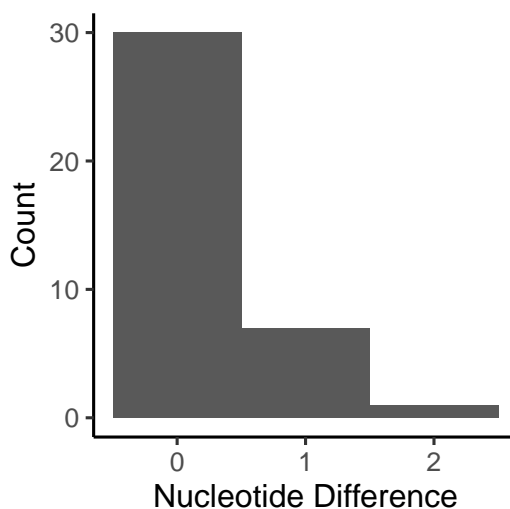
### IGHV3–15\*01

353 sequences assigned  
316 (89.5%) exact matches, in which:  
312 unique CDR3  
6 unique J



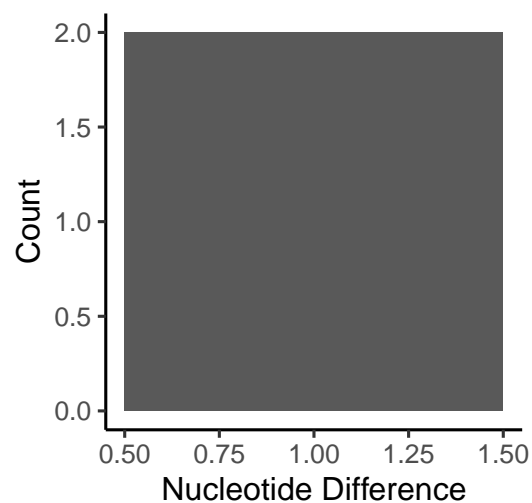
### IGHV3–20\*04

38 sequences assigned  
30 (78.9%) exact matches, in which:  
30 unique CDR3  
3 unique J



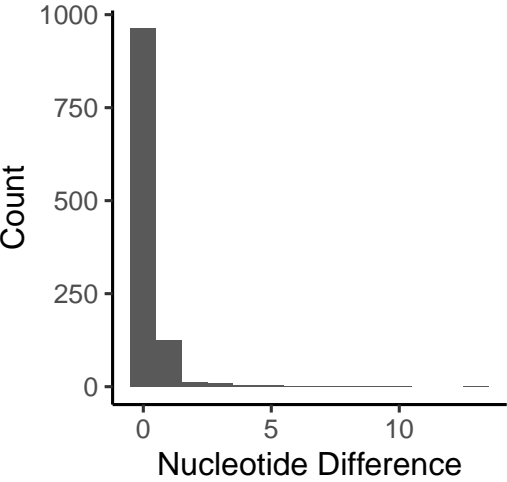
### IGHV3–30–3\*03

2 sequences assigned  
No exact matches.



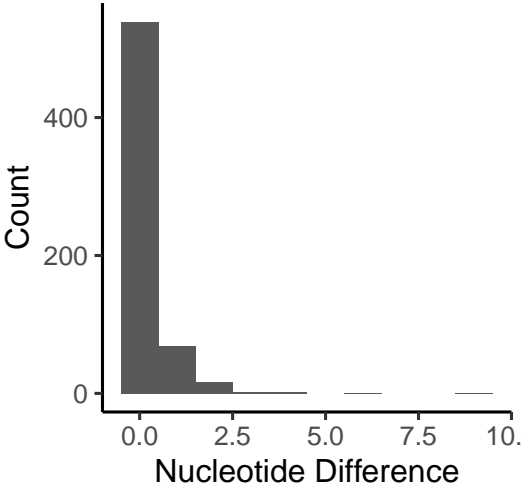
IGHV3-33\*01

1128 sequences assigned  
963 (85.4%) exact matches, in which:  
937 unique CDR3  
7 unique J



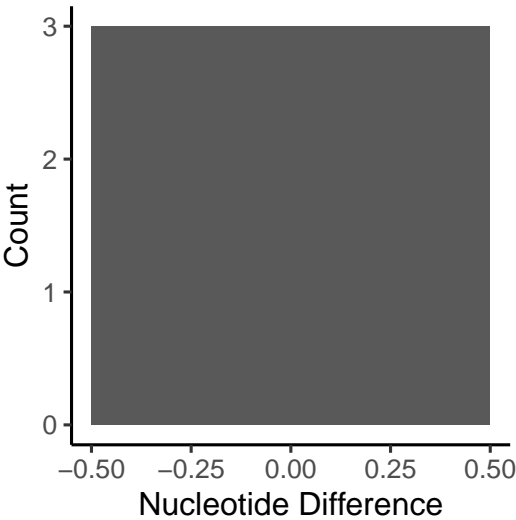
IGHV3-48\*03

643 sequences assigned  
539 (83.8%) exact matches, in which:  
529 unique CDR3  
6 unique J



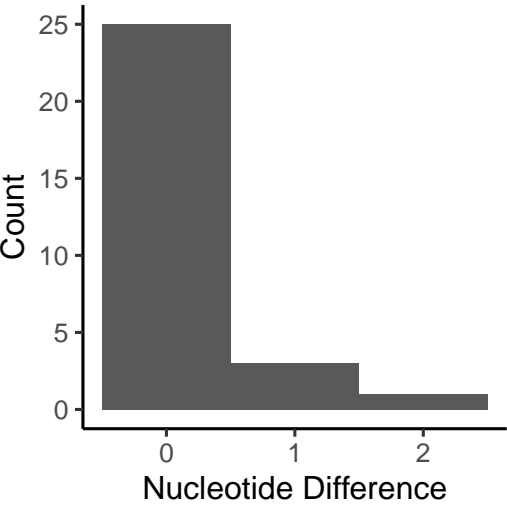
IGHV3-52\*02

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



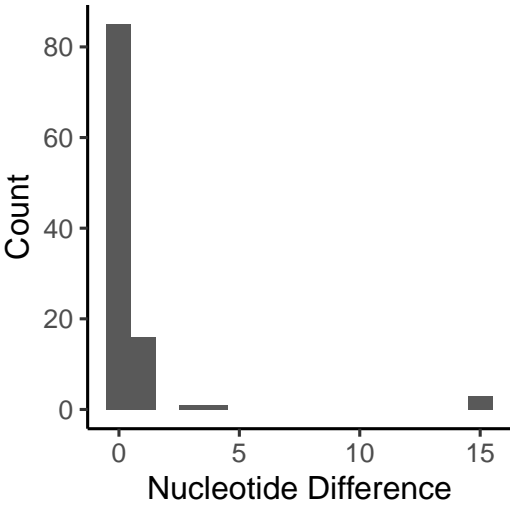
IGHV3-43\*01

29 sequences assigned  
25 (86.2%) exact matches, in which:  
25 unique CDR3  
5 unique J



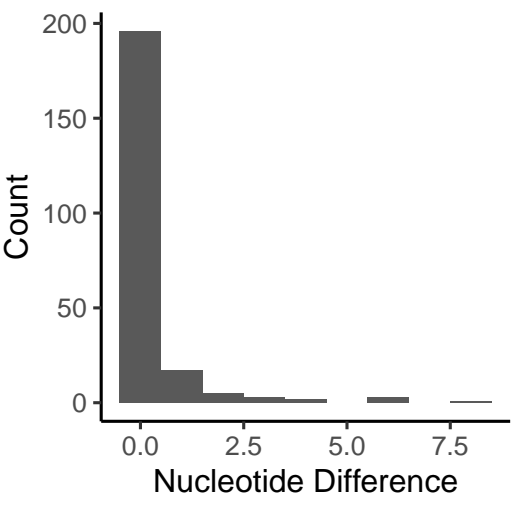
IGHV3-49\*03

106 sequences assigned  
85 (80.2%) exact matches, in which:  
85 unique CDR3  
6 unique J



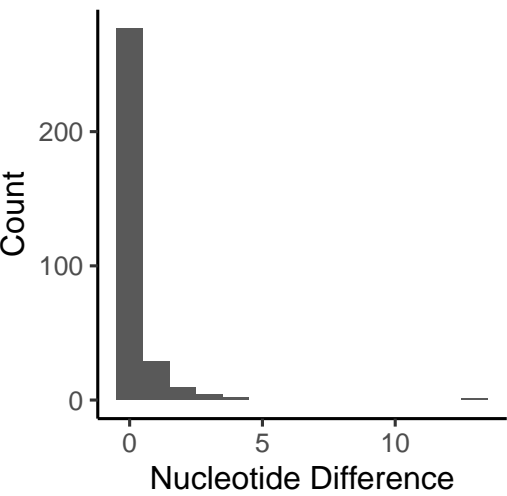
IGHV3-53\*02

227 sequences assigned  
196 (86.3%) exact matches, in which:  
192 unique CDR3  
7 unique J



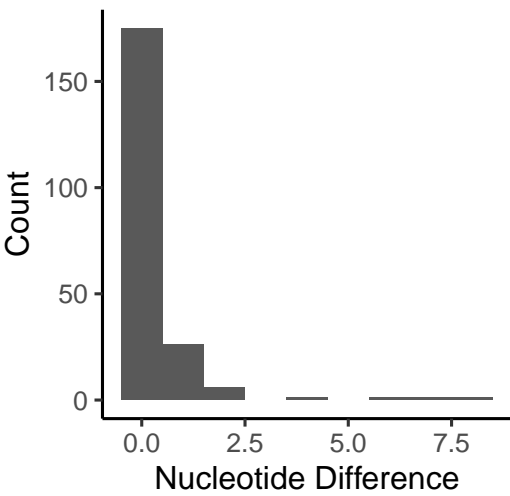
IGHV3-48\*01

322 sequences assigned  
277 (86%) exact matches, in which:  
271 unique CDR3  
6 unique J



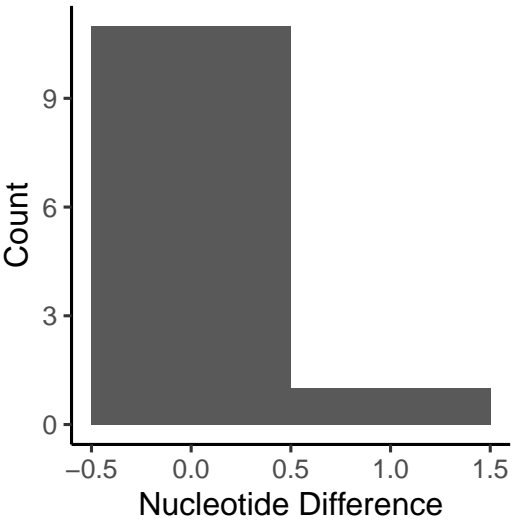
IGHV3-49\*04

211 sequences assigned  
175 (82.9%) exact matches, in which:  
167 unique CDR3  
7 unique J



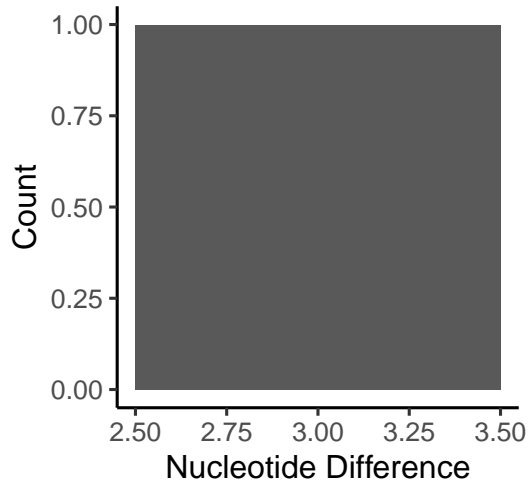
IGHV3-64\*02

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



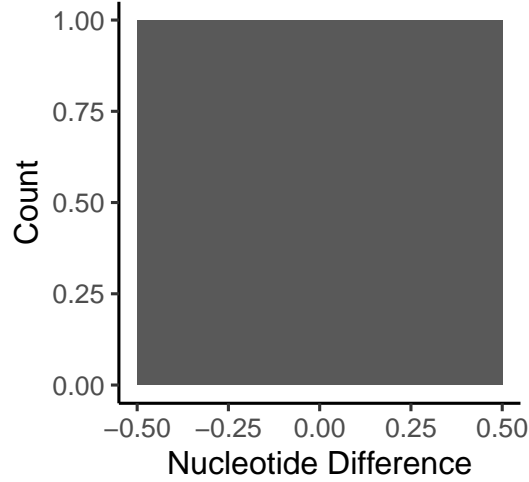
### IGHV3-64\*04

1 sequences assigned  
No exact matches.



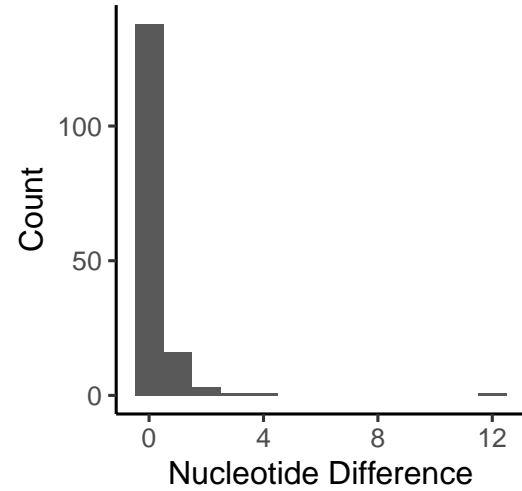
### IGHV3-69-1\*01

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



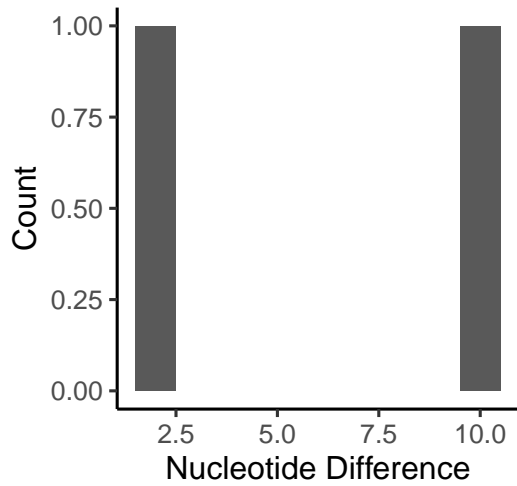
### IGHV3-73\*02

160 sequences assigned  
138 (86.2%) exact matches, in which:  
131 unique CDR3  
7 unique J



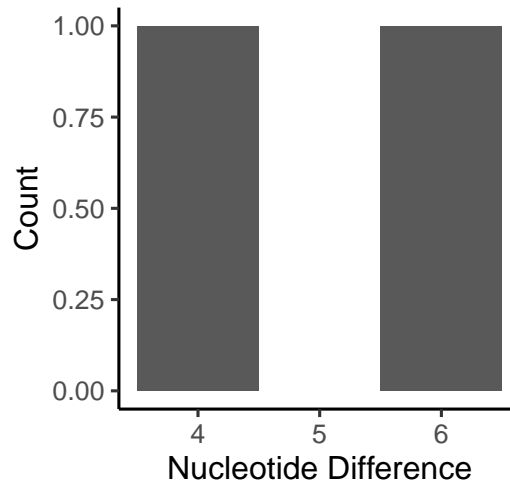
### IGHV3-66\*01

2 sequences assigned  
No exact matches.



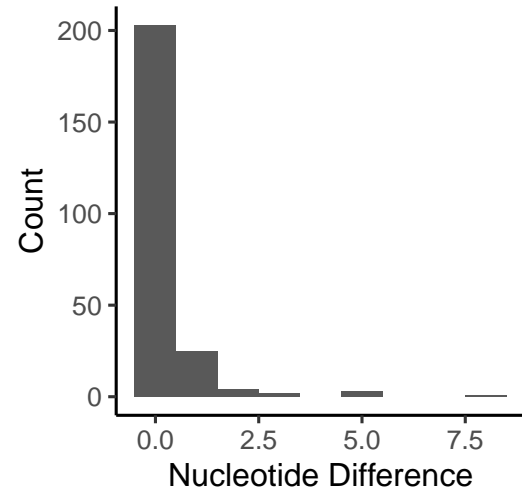
### IGHV3-69-1\*02

2 sequences assigned  
No exact matches.



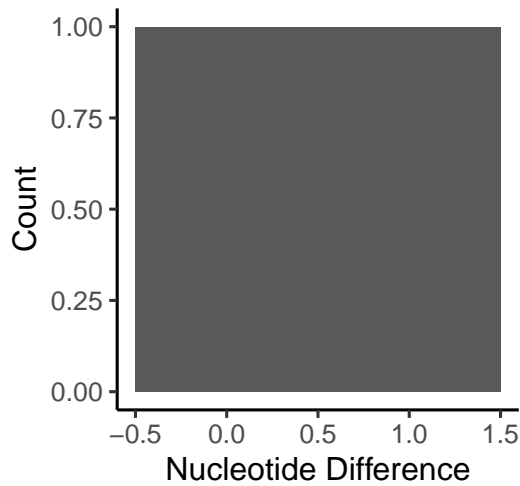
### IGHV3-74\*01

238 sequences assigned  
203 (85.3%) exact matches, in which:  
199 unique CDR3  
7 unique J



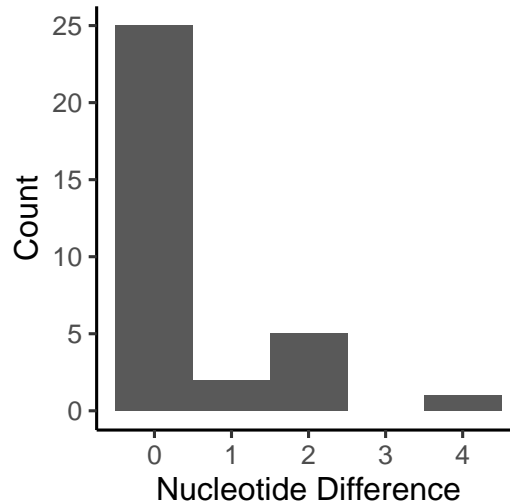
### IGHV3-66\*04

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



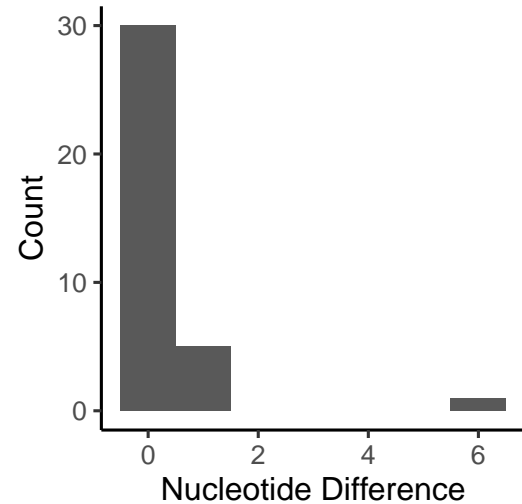
### IGHV3-72\*01

33 sequences assigned  
25 (75.8%) exact matches, in which:  
25 unique CDR3  
4 unique J



### IGHV3-43D\*04

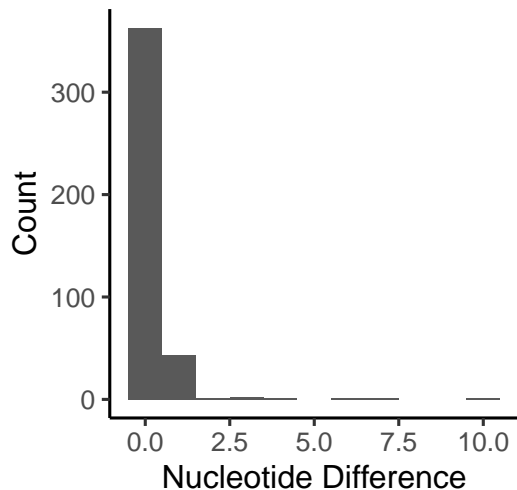
36 sequences assigned  
30 (83.3%) exact matches, in which:  
29 unique CDR3  
5 unique J





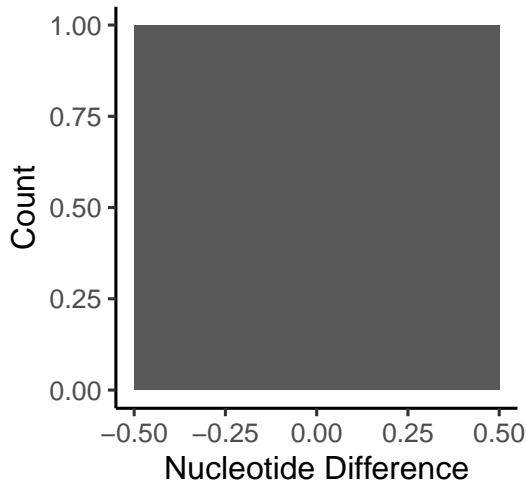
### IGHV4-4\*02

413 sequences assigned  
363 (87.9%) exact matches, in which:  
355 unique CDR3  
6 unique J



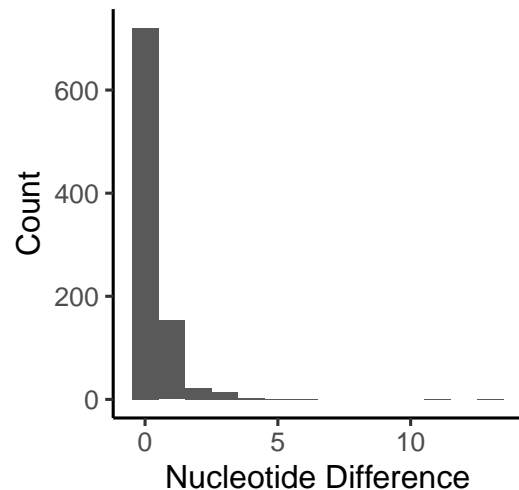
### IGHV4-28\*02

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



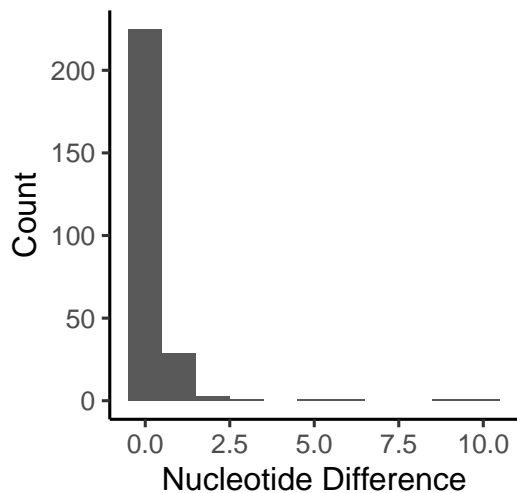
### IGHV4-31\*03

923 sequences assigned  
721 (78.1%) exact matches, in which:  
711 unique CDR3  
6 unique J



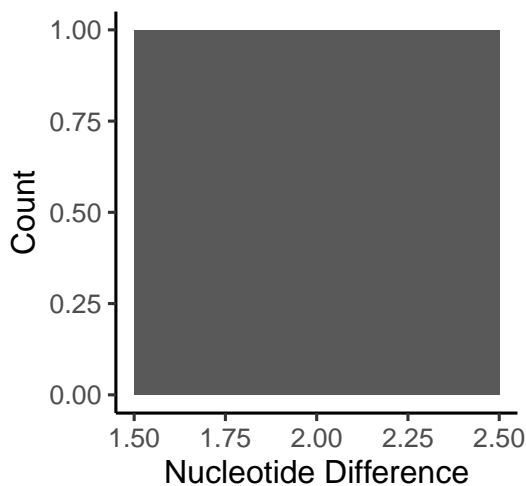
### IGHV4-4\*07

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



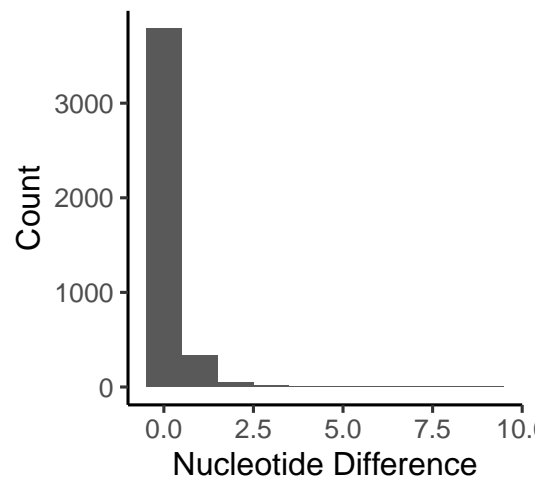
### IGHV4-28\*03

1 sequences assigned  
No exact matches.



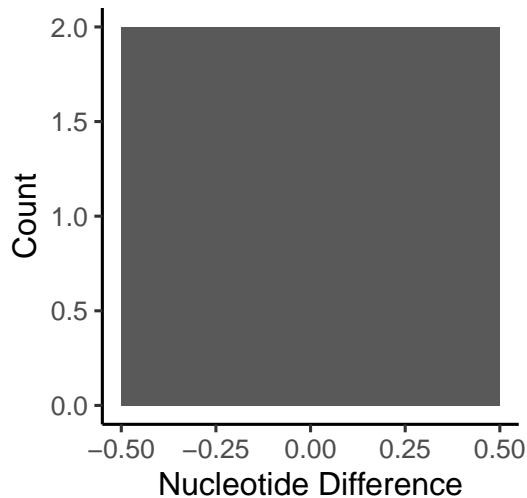
### IGHV4-34\*01

4200 sequences assigned  
3787 (90.2%) exact matches, in which:  
3602 unique CDR3  
7 unique J



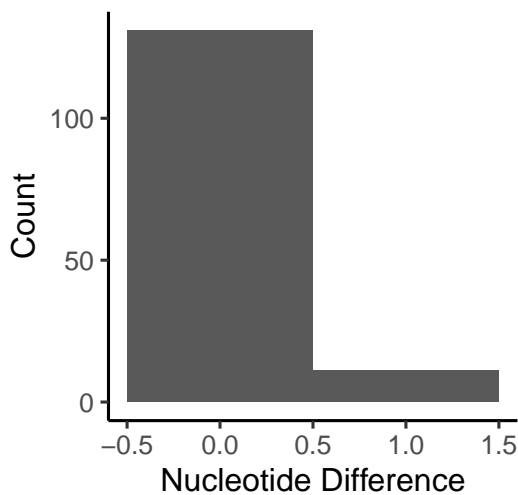
### IGHV4-28\*01

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



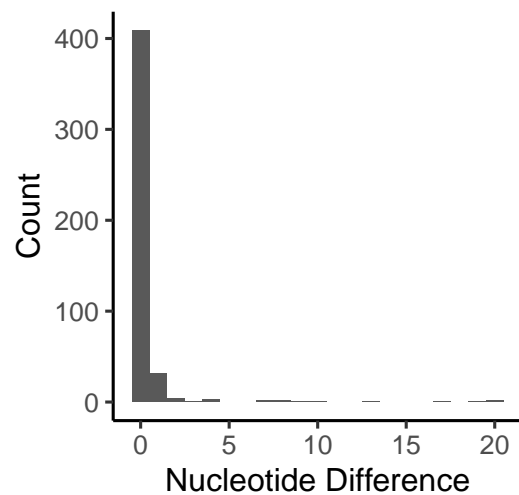
### IGHV4-30-2\*01

142 sequences assigned  
131 (92.3%) exact matches, in which:  
124 unique CDR3  
5 unique J



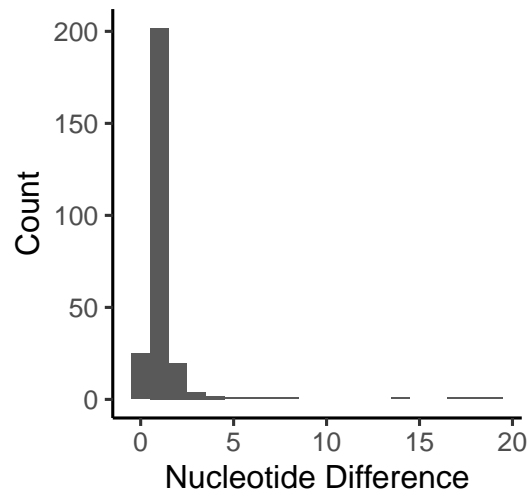
### IGHV4-38-2\*01

463 sequences assigned  
409 (88.3%) exact matches, in which:  
393 unique CDR3  
7 unique J



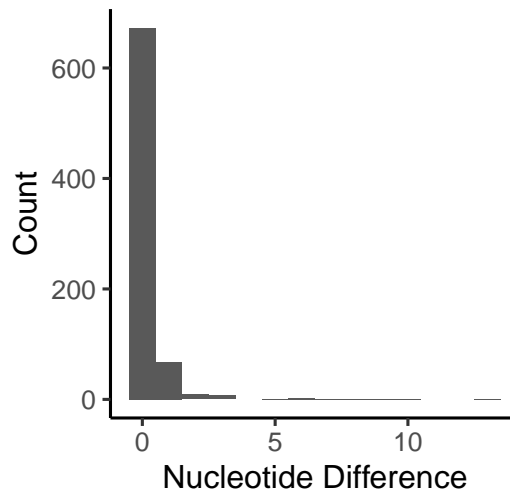
### IGHV4-38-2\*02

261 sequences assigned  
25 (9.6%) exact matches, in which:  
25 unique CDR3  
4 unique J



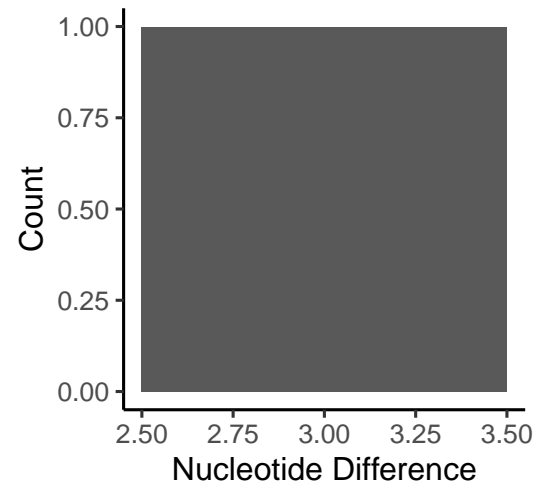
### IGHV4-59\*01

765 sequences assigned  
673 (88%) exact matches, in which:  
660 unique CDR3  
7 unique J



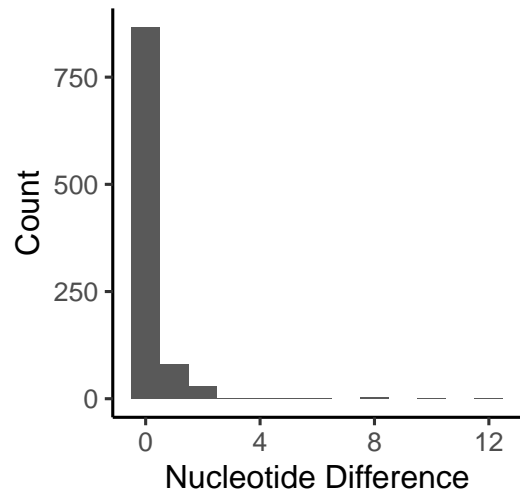
### IGHV5-10-1\*02

1 sequences assigned  
No exact matches.



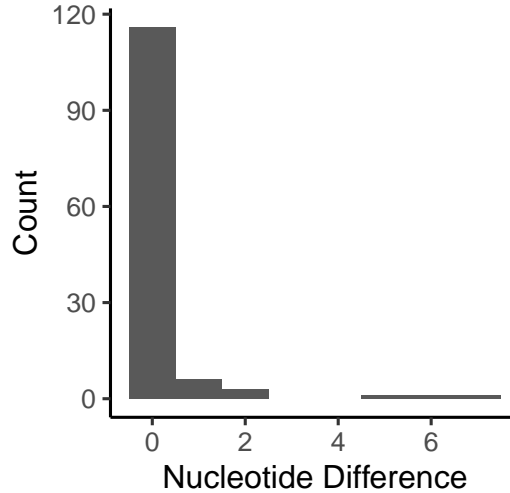
### IGHV4-39\*01

989 sequences assigned  
867 (87.7%) exact matches, in which:  
826 unique CDR3  
7 unique J



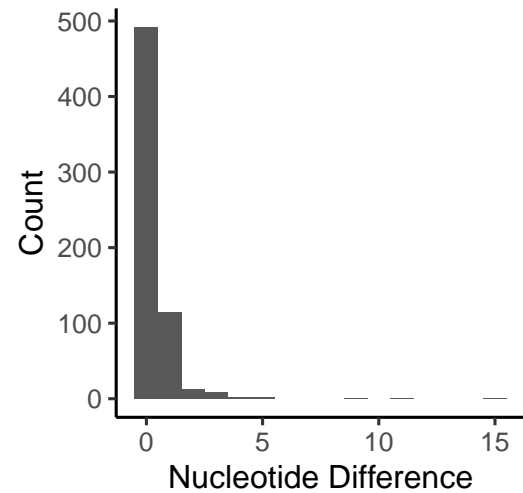
### IGHV4-61\*01

132 sequences assigned  
116 (87.9%) exact matches, in which:  
116 unique CDR3  
7 unique J



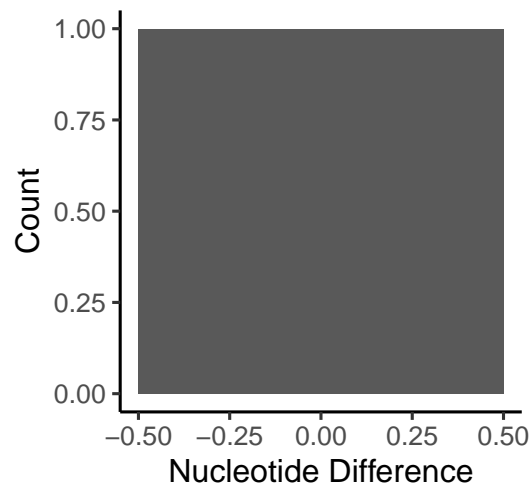
### IGHV5-51\*01

635 sequences assigned  
492 (77.5%) exact matches, in which:  
473 unique CDR3  
7 unique J



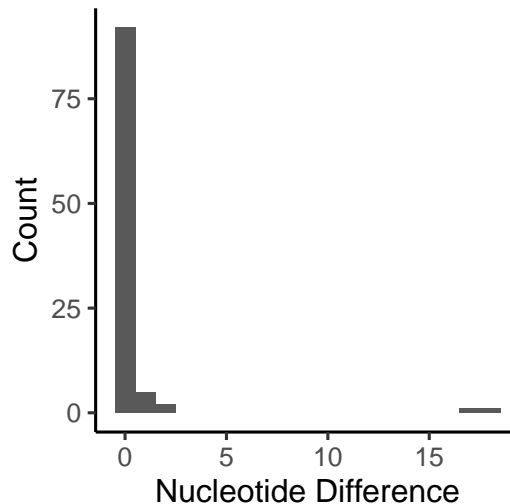
### IGHV4-55\*08

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



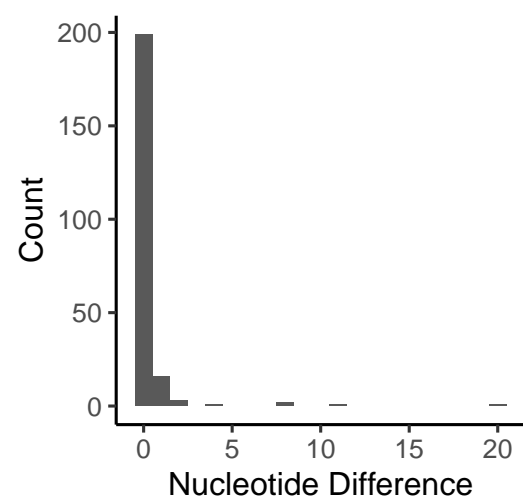
### IGHV4-61\*01\_A41G

101 sequences assigned  
92 (91.1%) exact matches, in which:  
92 unique CDR3  
6 unique J



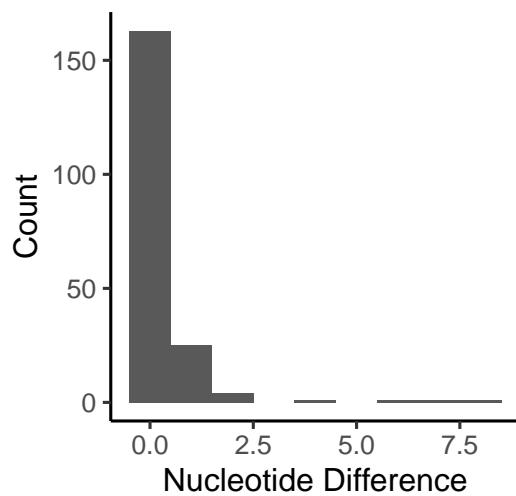
### IGHV5-51\*03

224 sequences assigned  
199 (88.8%) exact matches, in which:  
198 unique CDR3  
6 unique J



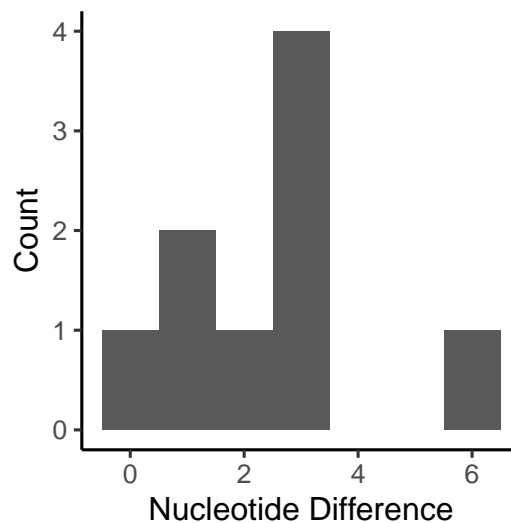
## IGHV6-1\*01

196 sequences assigned  
163 (83.2%) exact matches, in which:  
156 unique CDR3  
7 unique J



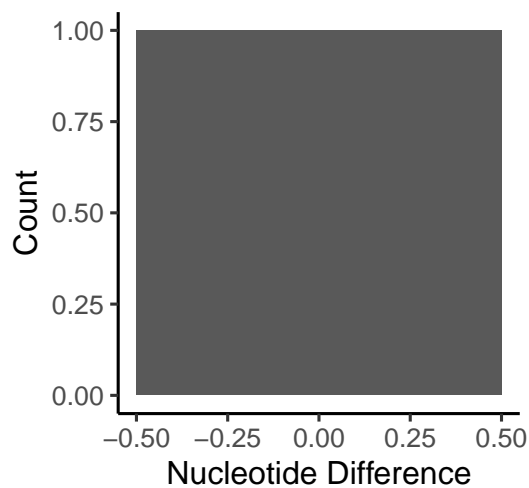
## IGHV7-4-1\*01

9 sequences assigned  
1 (11.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



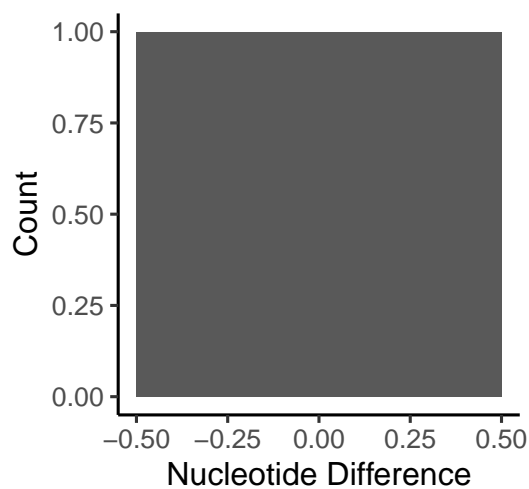
## IGHV3/OR16-9\*01

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

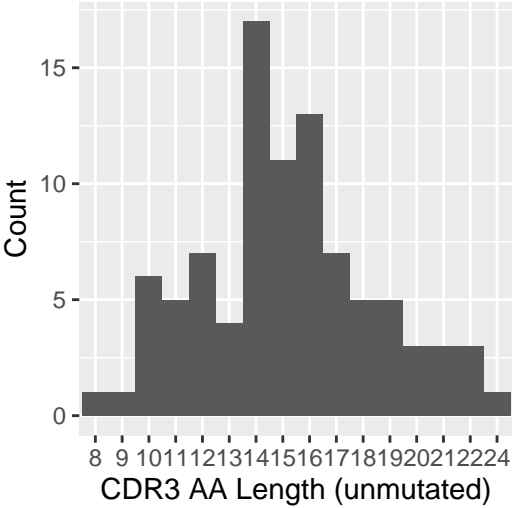


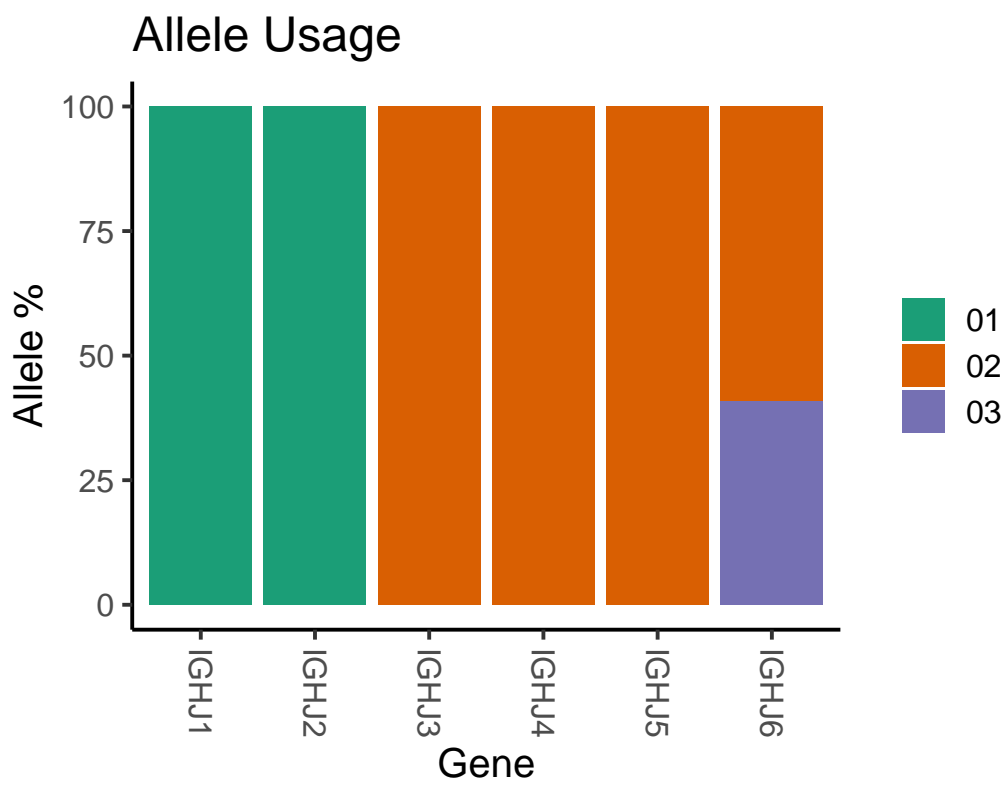
## IGHV3/OR16-12\*01

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

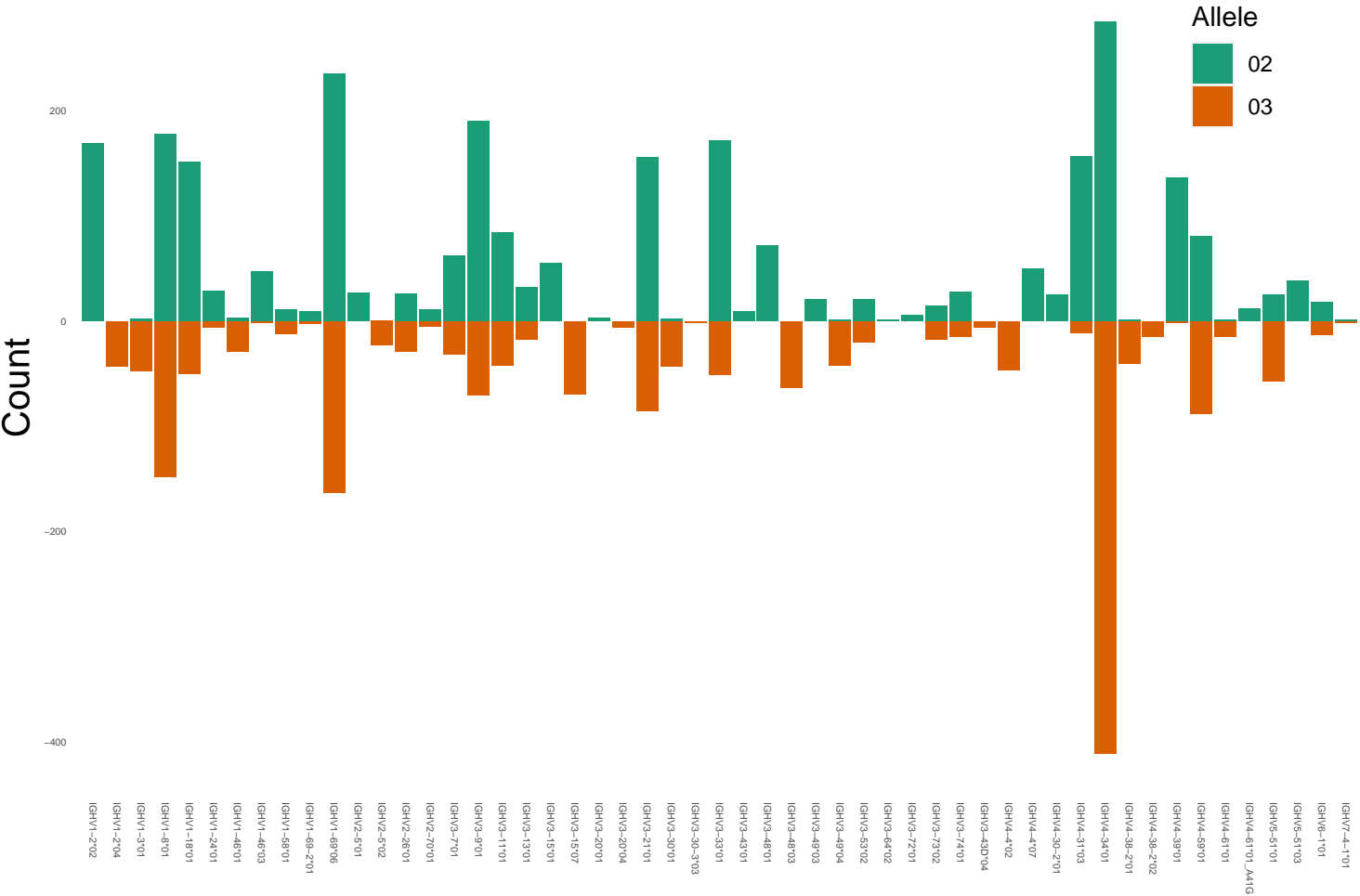


IGHV4-61\*01\_A41G





Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.