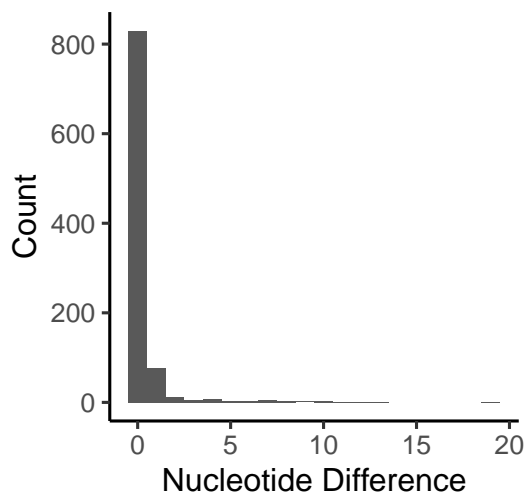


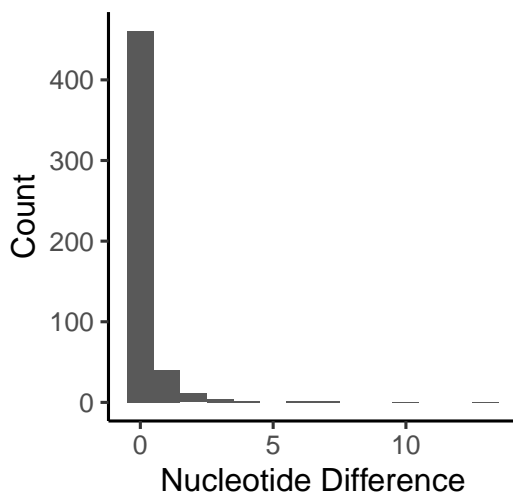
### IGHV1-2\*02

961 sequences assigned  
830 (86.4%) exact matches, in which:  
797 unique CDR3  
6 unique J



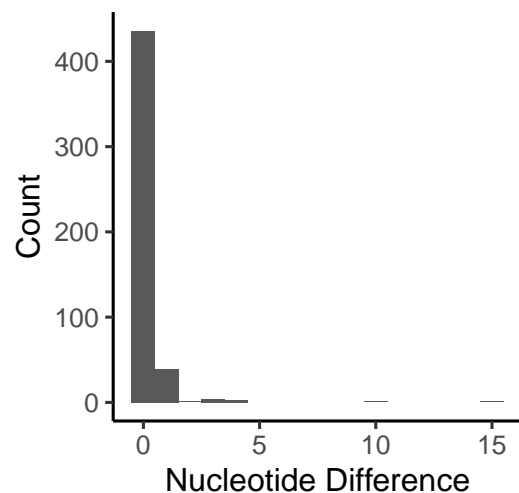
### IGHV1-8\*01

524 sequences assigned  
461 (88%) exact matches, in which:  
440 unique CDR3  
6 unique J



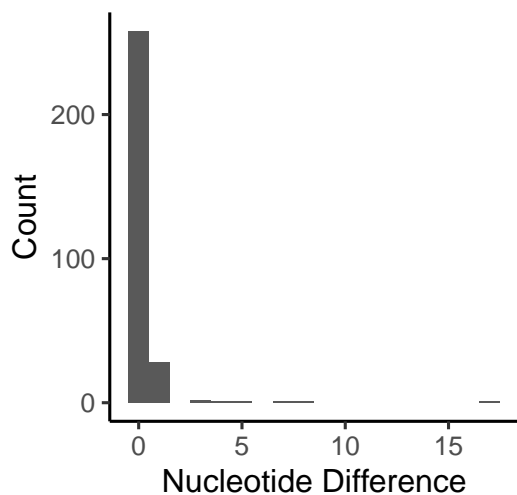
### IGHV1-24\*01

486 sequences assigned  
436 (89.7%) exact matches, in which:  
418 unique CDR3  
6 unique J



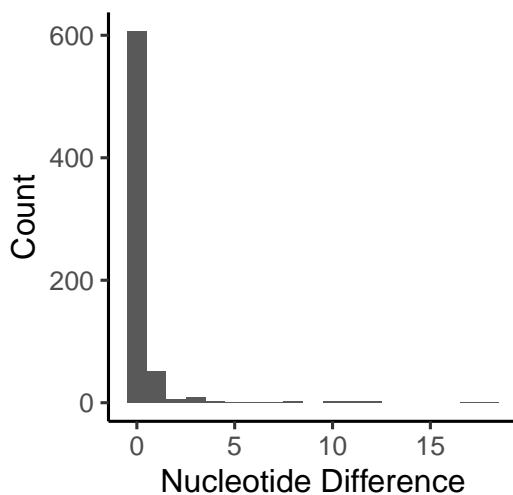
### IGHV1-2\*04

293 sequences assigned  
258 (88.1%) exact matches, in which:  
247 unique CDR3  
6 unique J



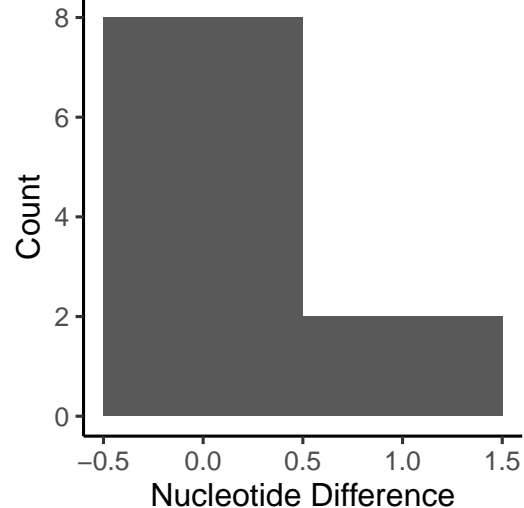
### IGHV1-18\*01

691 sequences assigned  
607 (87.8%) exact matches, in which:  
591 unique CDR3  
6 unique J



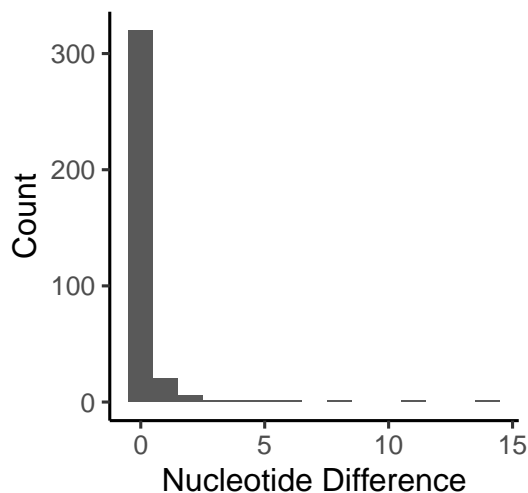
### IGHV1-45\*02

10 sequences assigned  
8 (80%) exact matches, in which:  
8 unique CDR3  
3 unique J



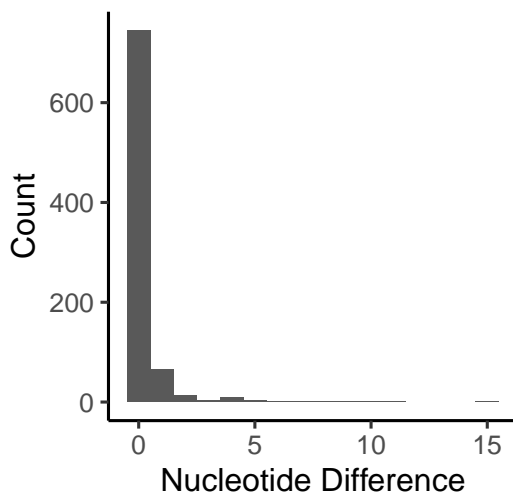
### IGHV1-3\*01

354 sequences assigned  
320 (90.4%) exact matches, in which:  
315 unique CDR3  
6 unique J



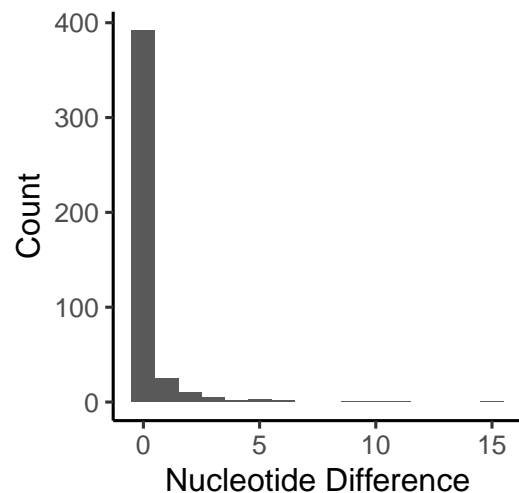
### IGHV1-18\*04

849 sequences assigned  
745 (87.8%) exact matches, in which:  
726 unique CDR3  
6 unique J



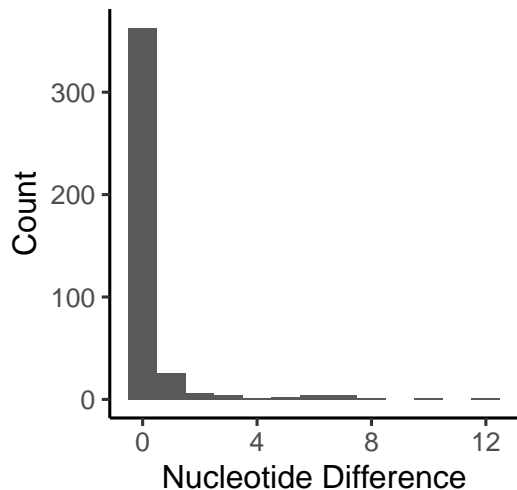
### IGHV1-46\*01

446 sequences assigned  
392 (87.9%) exact matches, in which:  
375 unique CDR3  
6 unique J



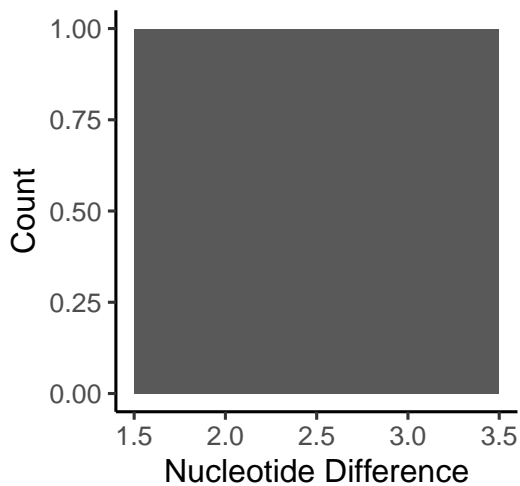
### IGHV1-46\*03

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



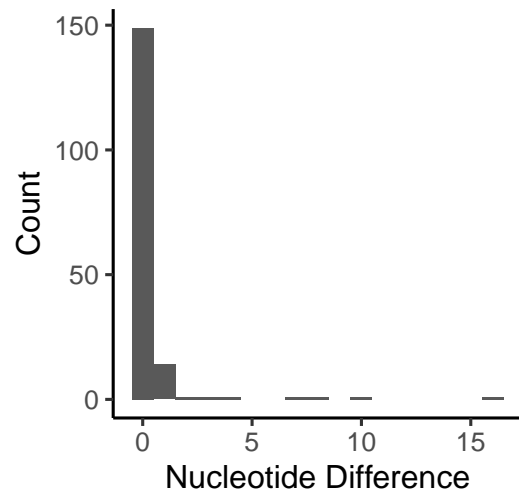
### IGHV1-NL1\*01

2 sequences assigned  
No exact matches.



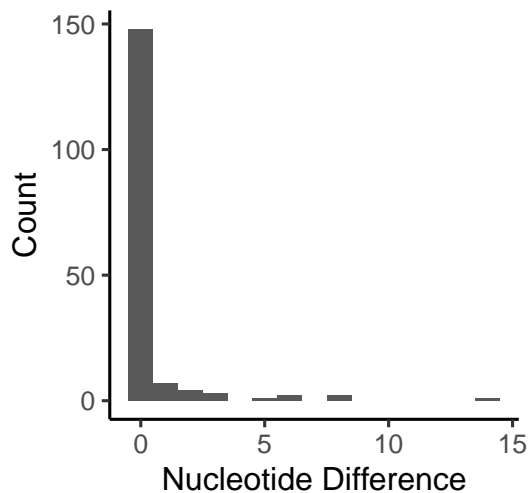
### IGHV2-70\*01

170 sequences assigned  
149 (87.6%) exact matches, in which:  
146 unique CDR3  
6 unique J



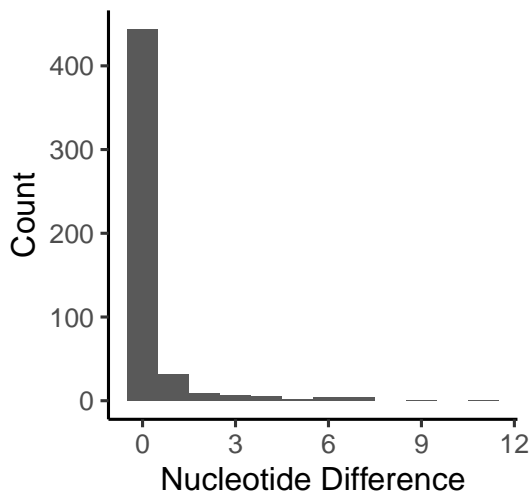
### IGHV1-58\*01

171 sequences assigned  
148 (86.5%) exact matches, in which:  
139 unique CDR3  
6 unique J



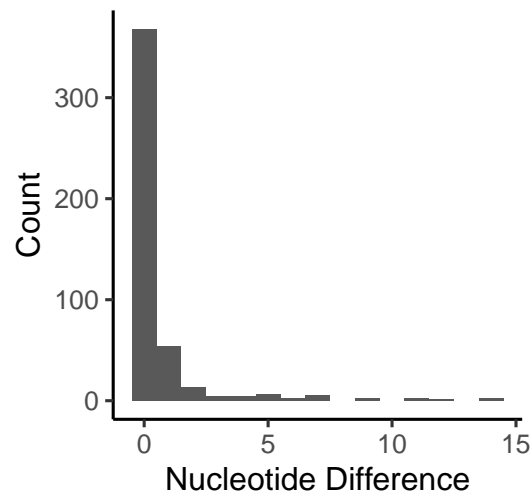
### IGHV2-5\*01

509 sequences assigned  
444 (87.2%) exact matches, in which:  
438 unique CDR3  
6 unique J



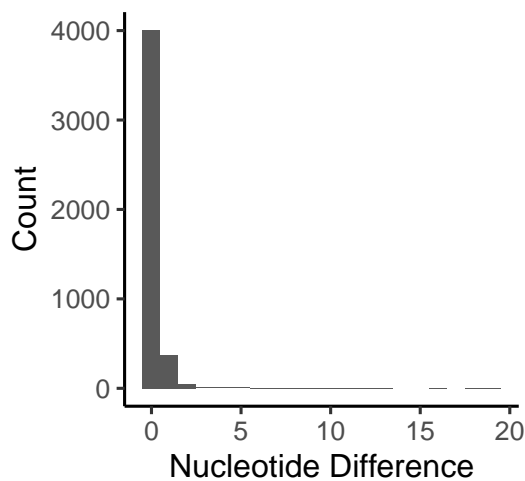
### IGHV3-7\*01

463 sequences assigned  
368 (79.5%) exact matches, in which:  
353 unique CDR3  
6 unique J



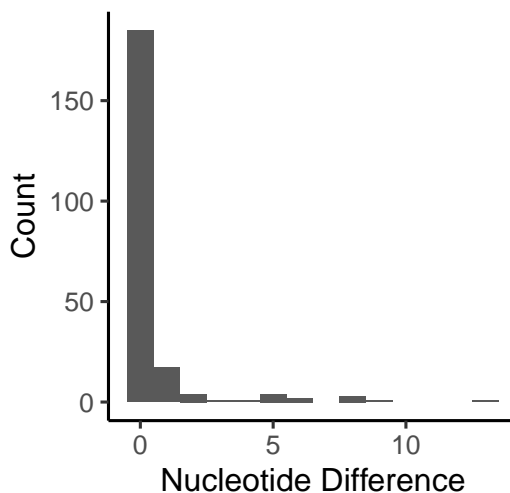
### IGHV1-69\*01

4486 sequences assigned  
4006 (89.3%) exact matches, in which:  
3826 unique CDR3  
6 unique J



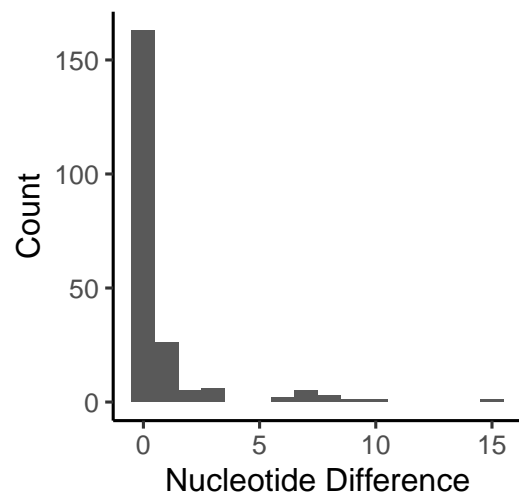
### IGHV2-26\*01

219 sequences assigned  
185 (84.5%) exact matches, in which:  
180 unique CDR3  
6 unique J



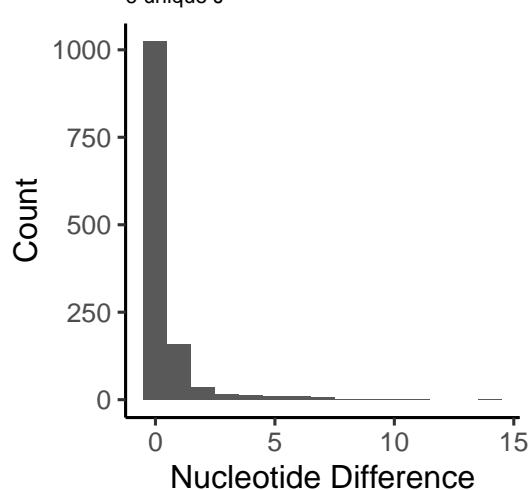
### IGHV3-7\*05

213 sequences assigned  
163 (76.5%) exact matches, in which:  
158 unique CDR3  
6 unique J



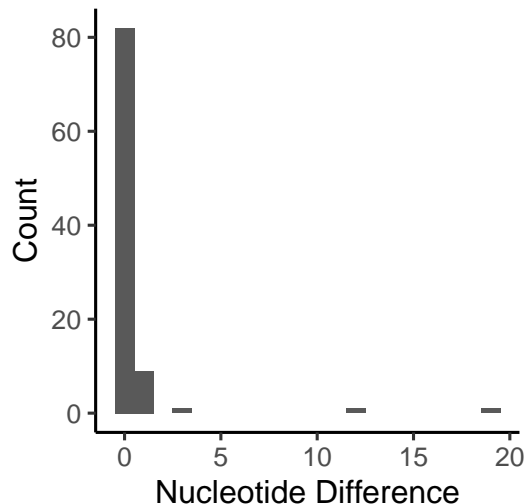
### IGHV3-9\*01

1277 sequences assigned  
1024 (80.2%) exact matches, in which:  
965 unique CDR3  
6 unique J



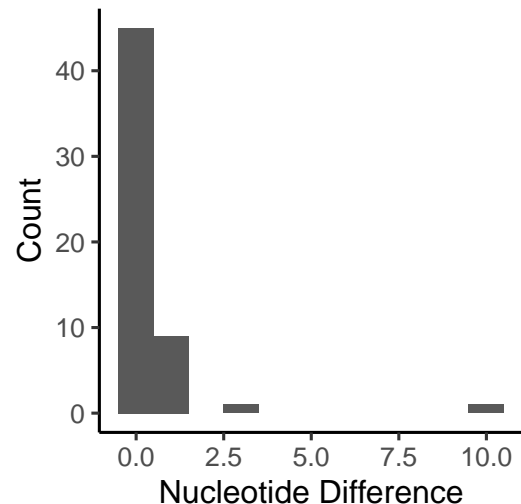
### IGHV3-13\*01

95 sequences assigned  
82 (86.3%) exact matches, in which:  
80 unique CDR3  
6 unique J



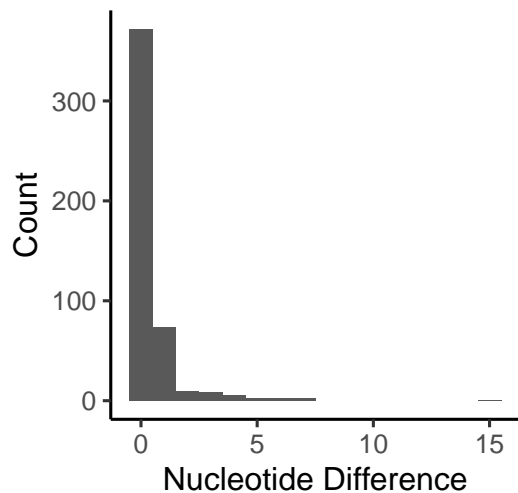
### IGHV3-20\*01

56 sequences assigned  
45 (80.4%) exact matches, in which:  
42 unique CDR3  
5 unique J



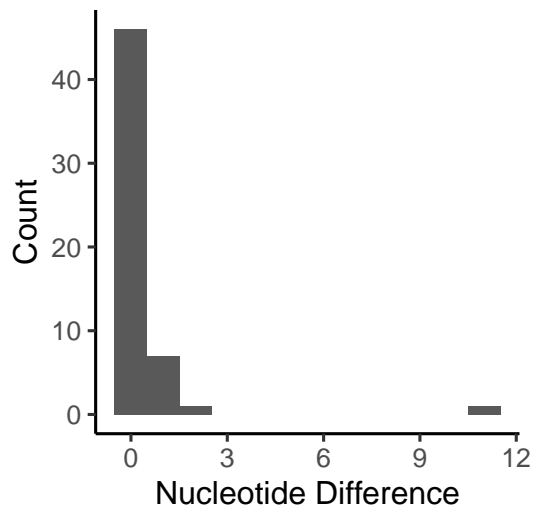
### IGHV3-11\*01

481 sequences assigned  
372 (77.3%) exact matches, in which:  
356 unique CDR3  
6 unique J



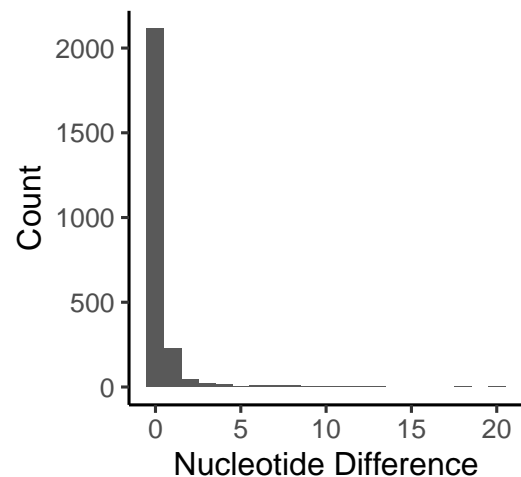
### IGHV3-13\*05

55 sequences assigned  
46 (83.6%) exact matches, in which:  
44 unique CDR3  
4 unique J



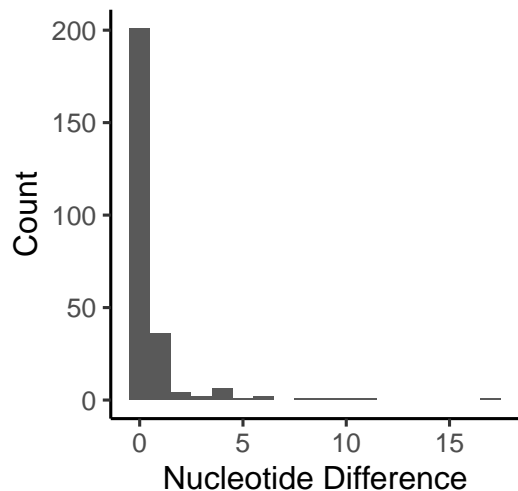
### IGHV3-21\*01

2464 sequences assigned  
2114 (85.8%) exact matches, in which:  
2006 unique CDR3  
6 unique J



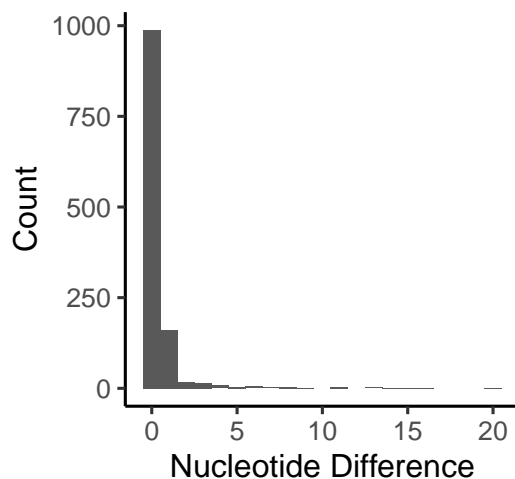
### IGHV3-11\*06

257 sequences assigned  
201 (78.2%) exact matches, in which:  
193 unique CDR3  
6 unique J



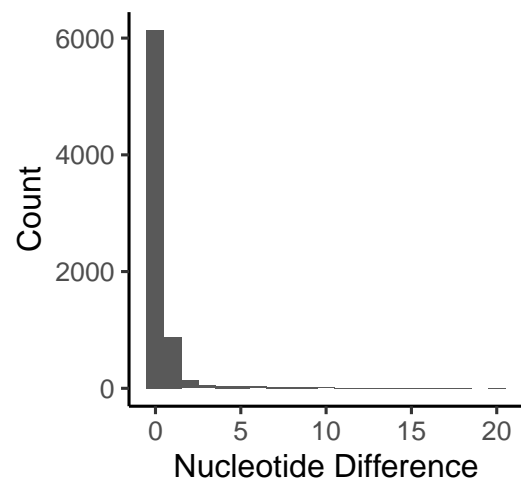
### IGHV3-15\*01

1217 sequences assigned  
988 (81.2%) exact matches, in which:  
959 unique CDR3  
6 unique J



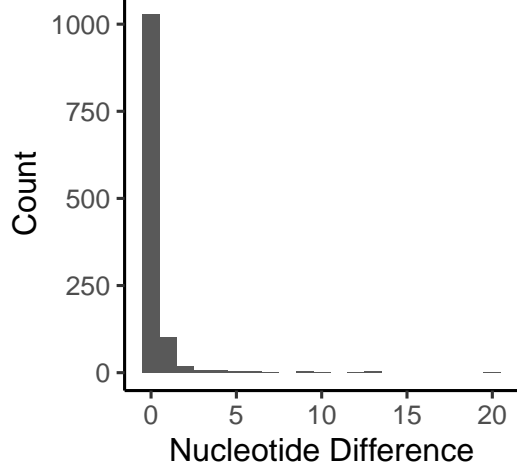
### IGHV3-23\*01

7444 sequences assigned  
6138 (82.5%) exact matches, in which:  
5755 unique CDR3  
6 unique J



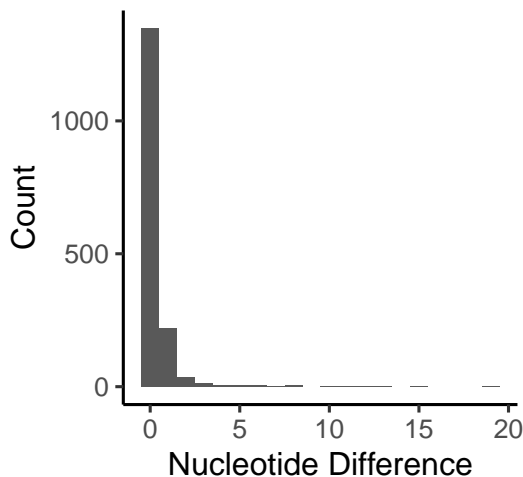
### IGHV3–30\*01

1180 sequences assigned  
1028 (87.1%) exact matches, in which:  
979 unique CDR3  
6 unique J



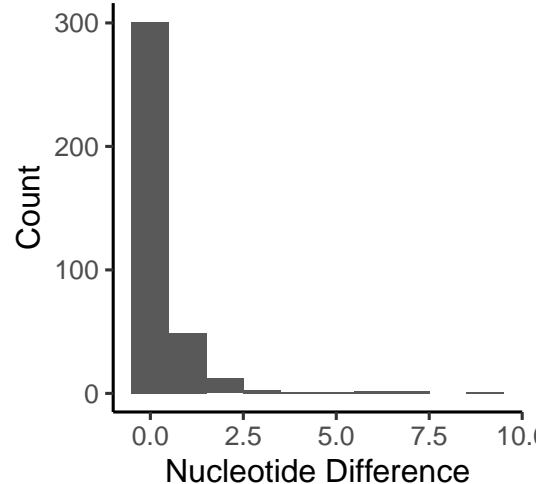
### IGHV3–33\*01

1649 sequences assigned  
1348 (81.7%) exact matches, in which:  
1274 unique CDR3  
6 unique J



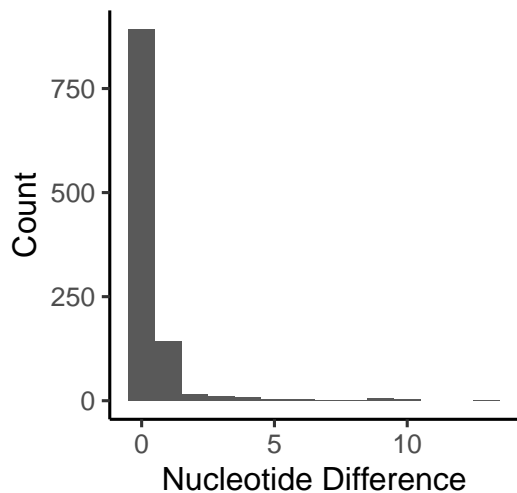
### IGHV3–49\*05

372 sequences assigned  
301 (80.9%) exact matches, in which:  
281 unique CDR3  
6 unique J



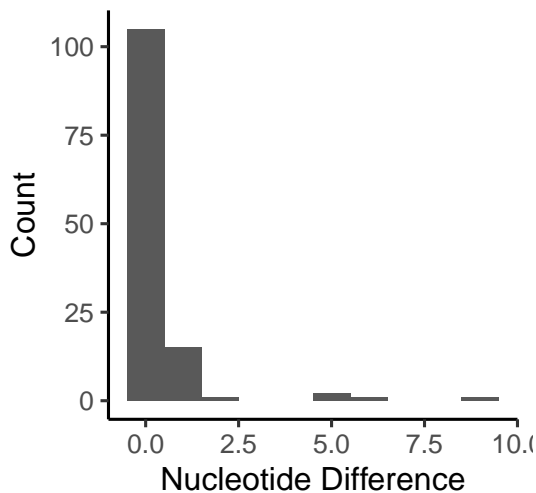
### IGHV3–30–3\*01

1091 sequences assigned  
893 (81.9%) exact matches, in which:  
850 unique CDR3  
6 unique J



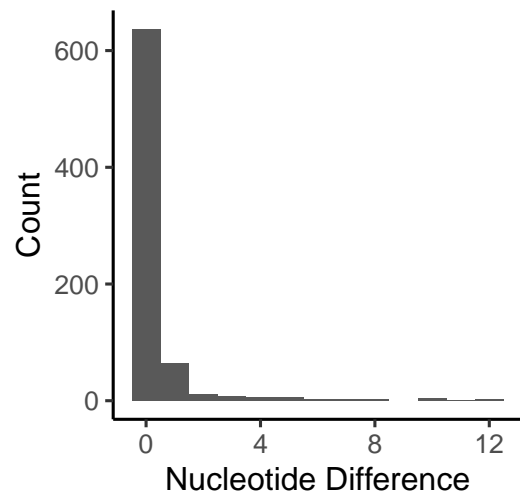
### IGHV3–43\*01

127 sequences assigned  
105 (82.7%) exact matches, in which:  
102 unique CDR3  
6 unique J



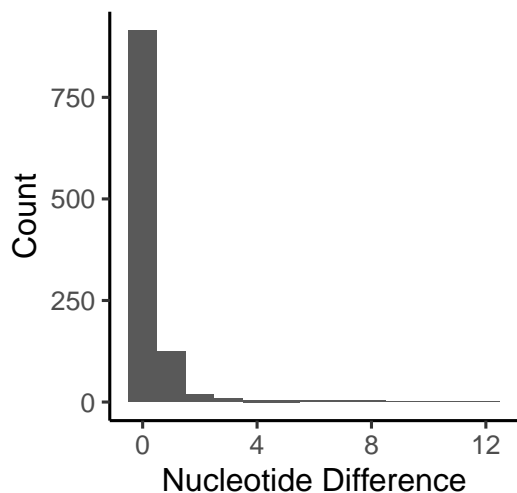
### IGHV3–53\*01

745 sequences assigned  
637 (85.5%) exact matches, in which:  
607 unique CDR3  
6 unique J



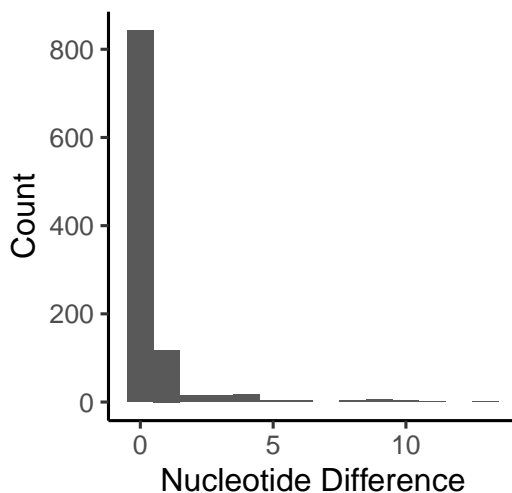
### IGHV3–30\*18

1092 sequences assigned  
915 (83.8%) exact matches, in which:  
875 unique CDR3  
6 unique J



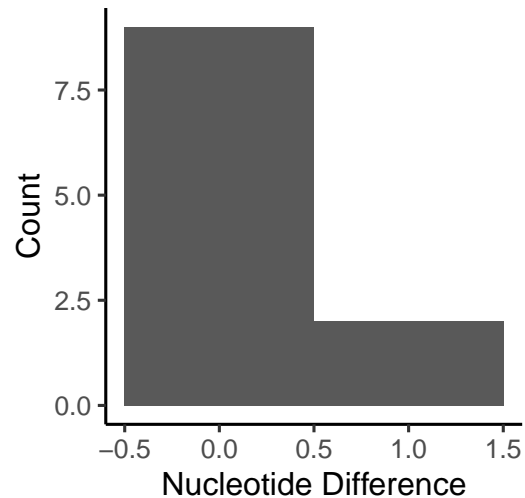
### IGHV3–48\*02

1032 sequences assigned  
843 (81.7%) exact matches, in which:  
803 unique CDR3  
6 unique J



### IGHV3–64\*02

11 sequences assigned  
9 (81.8%) exact matches, in which:  
8 unique CDR3  
3 unique J



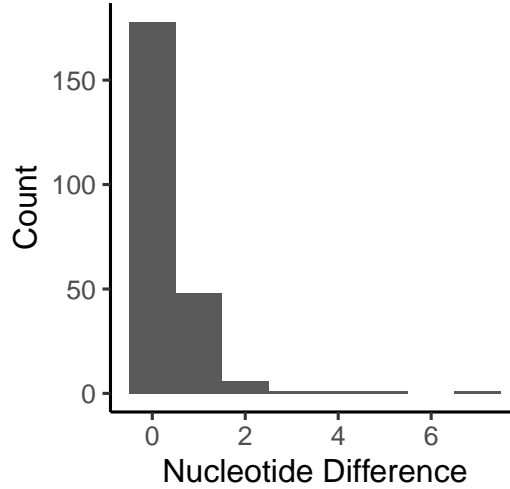
### IGHV3–66\*03

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



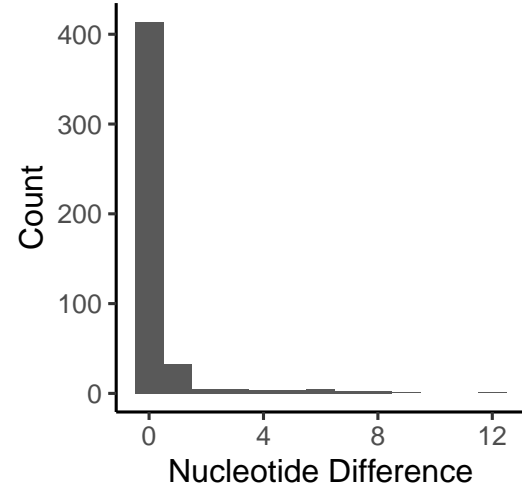
### IGHV3–73\*02

237 sequences assigned  
178 (75.1%) exact matches, in which:  
157 unique CDR3  
5 unique J



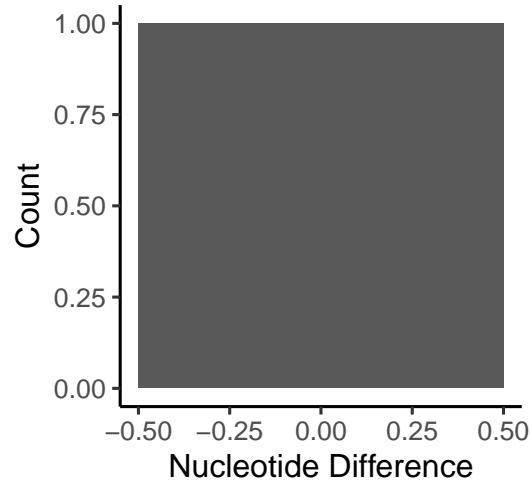
### IGHV4–4\*02

478 sequences assigned  
414 (86.6%) exact matches, in which:  
401 unique CDR3  
6 unique J



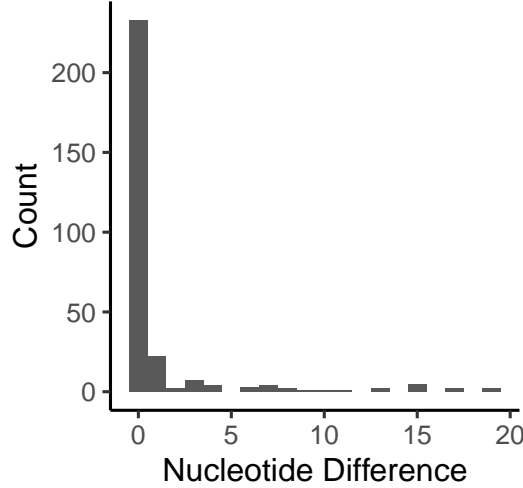
### IGHV3–66\*04

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



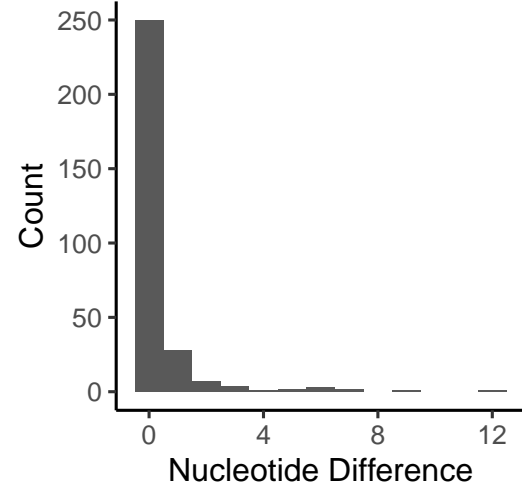
### IGHV3–74\*01

297 sequences assigned  
233 (78.5%) exact matches, in which:  
223 unique CDR3  
6 unique J



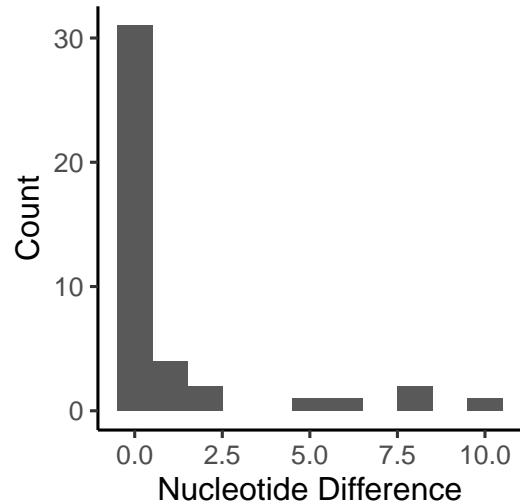
### IGHV4–4\*07

301 sequences assigned  
250 (83.1%) exact matches, in which:  
240 unique CDR3  
6 unique J



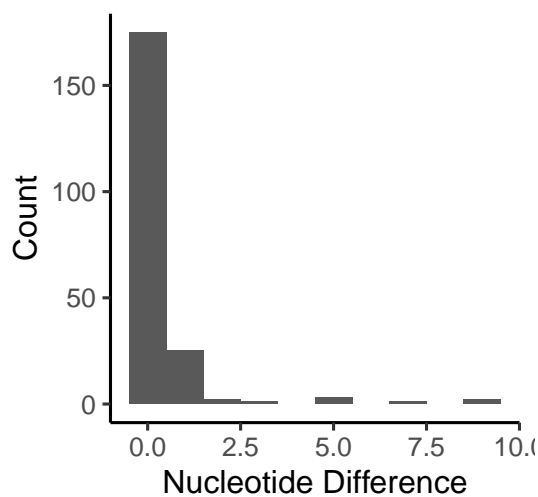
### IGHV3–72\*01

42 sequences assigned  
31 (73.8%) exact matches, in which:  
31 unique CDR3  
4 unique J



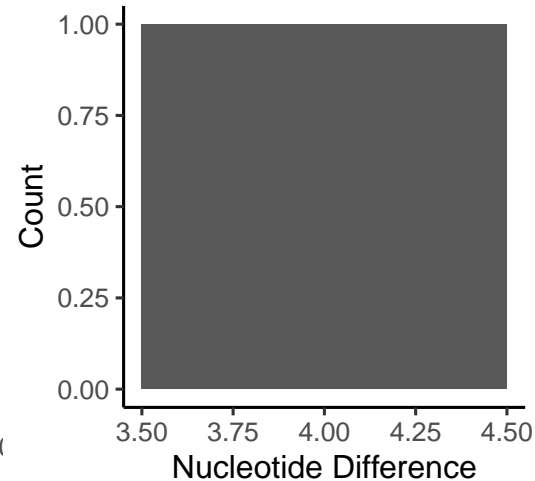
### IGHV3–64D\*08

209 sequences assigned  
175 (83.7%) exact matches, in which:  
165 unique CDR3  
6 unique J



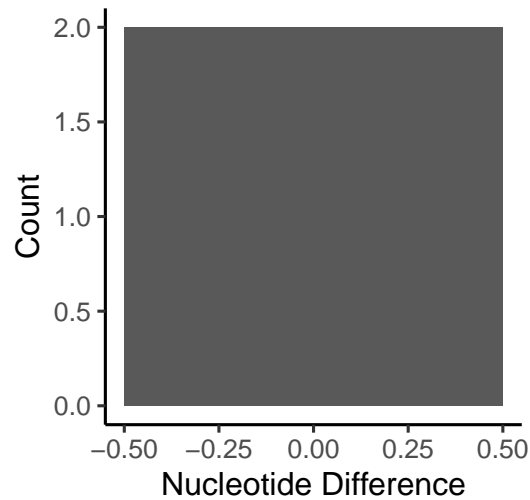
### IGHV4–28\*01

1 sequences assigned  
No exact matches.



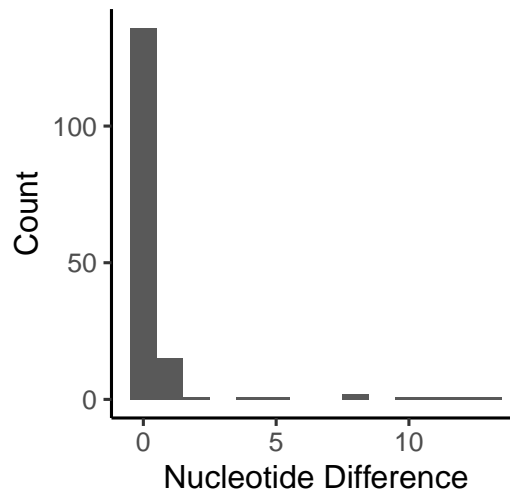
### IGHV4-28\*02

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



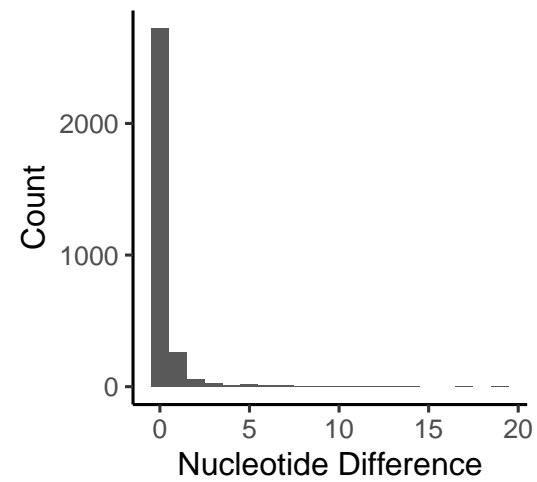
### IGHV4-30-2\*01

160 sequences assigned  
136 (85%) exact matches, in which:  
131 unique CDR3  
6 unique J



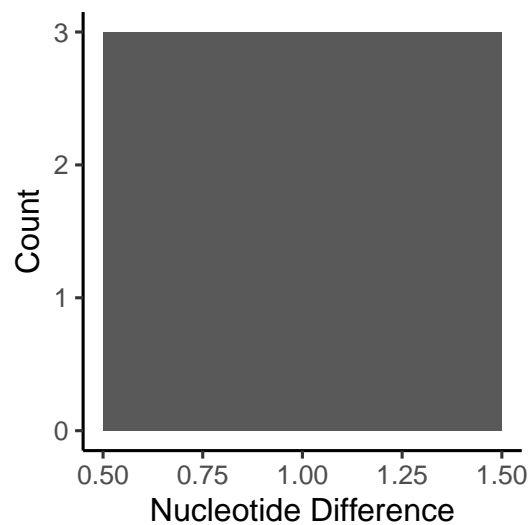
### IGHV4-34\*01

3153 sequences assigned  
2722 (86.3%) exact matches, in which:  
2592 unique CDR3  
6 unique J



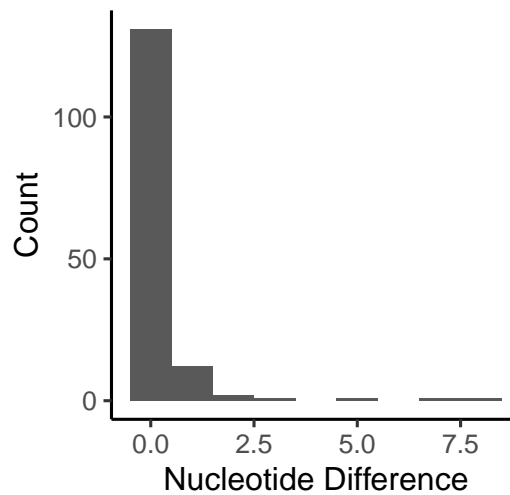
### IGHV4-28\*04

3 sequences assigned  
No exact matches.



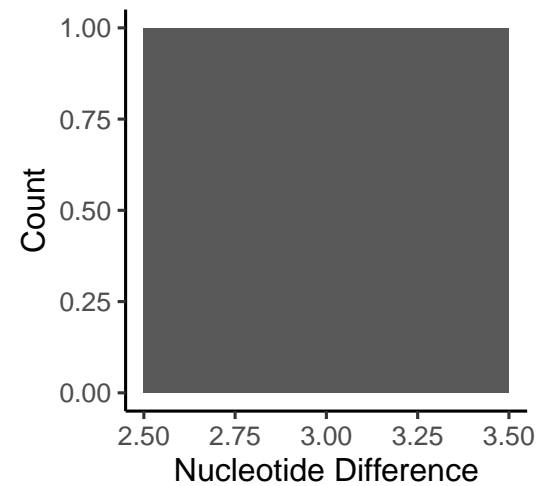
### IGHV4-31\*01

149 sequences assigned  
131 (87.9%) exact matches, in which:  
128 unique CDR3  
6 unique J



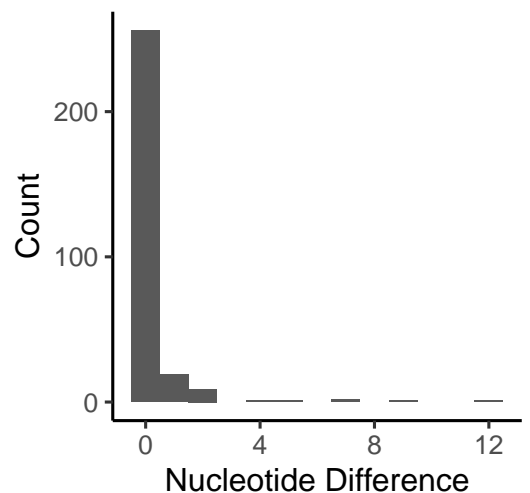
### IGHV4-38-2\*02

1 sequences assigned  
No exact matches.



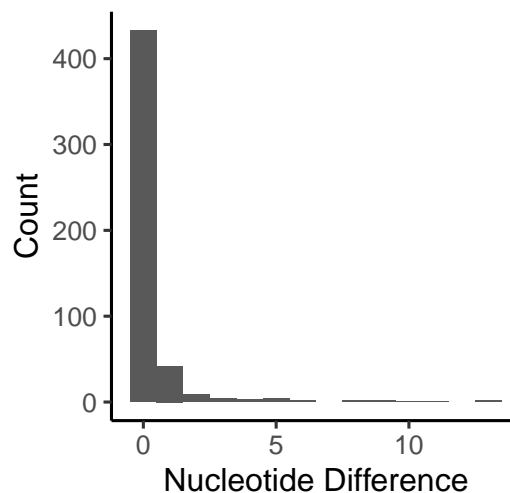
### IGHV4-30-4\*01

290 sequences assigned  
256 (88.3%) exact matches, in which:  
249 unique CDR3  
6 unique J



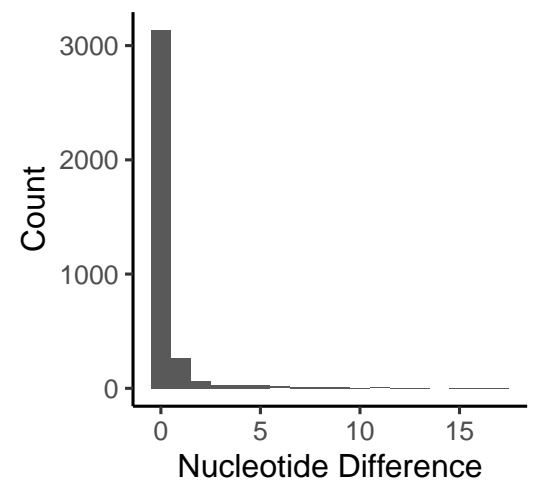
### IGHV4-31\*03

505 sequences assigned  
433 (85.7%) exact matches, in which:  
418 unique CDR3  
6 unique J



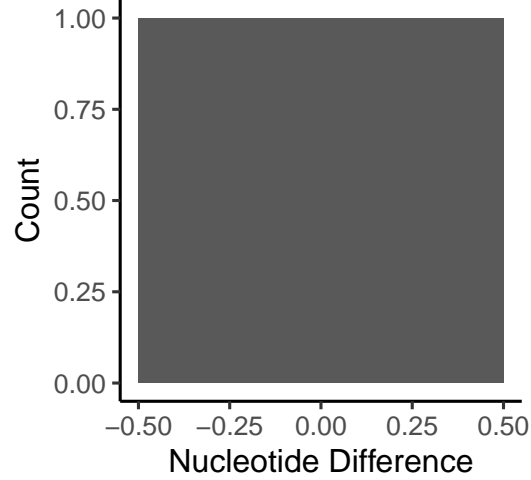
### IGHV4-39\*01

3624 sequences assigned  
3136 (86.5%) exact matches, in which:  
2973 unique CDR3  
6 unique J



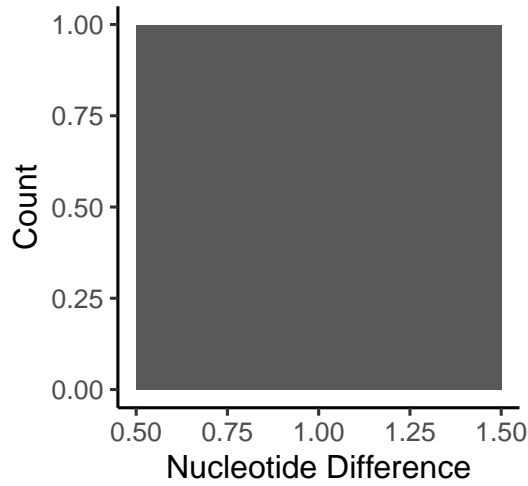
### IGHV4–55\*08

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



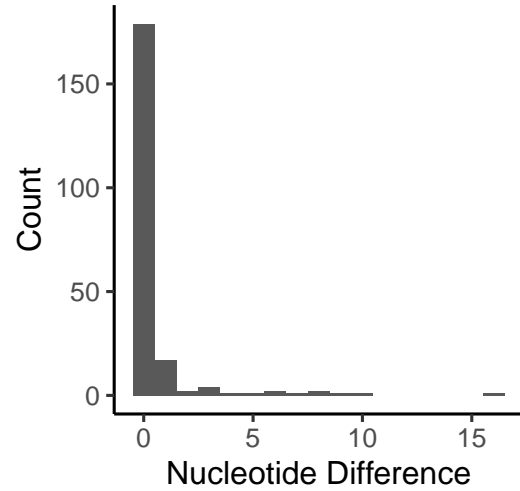
### IGHV1/OR15–1\*03

1 sequences assigned  
No exact matches.



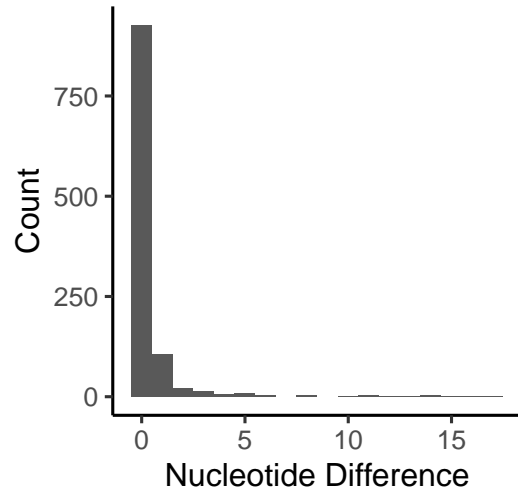
### IGHV6–1\*01

213 sequences assigned  
179 (84%) exact matches, in which:  
168 unique CDR3  
6 unique J



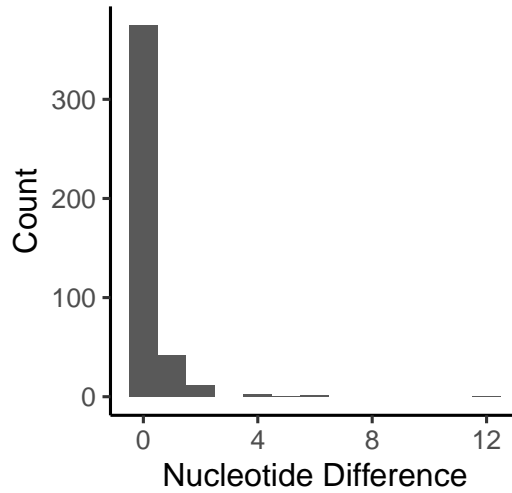
### IGHV4–59\*01

1106 sequences assigned  
927 (83.8%) exact matches, in which:  
907 unique CDR3  
6 unique J



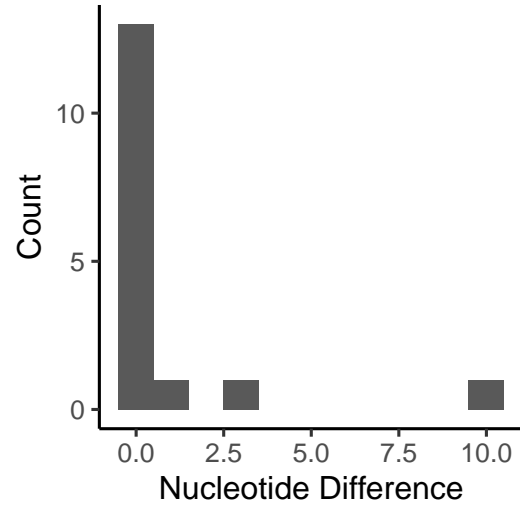
### IGHV5–10–1\*03

436 sequences assigned  
375 (86%) exact matches, in which:  
363 unique CDR3  
5 unique J



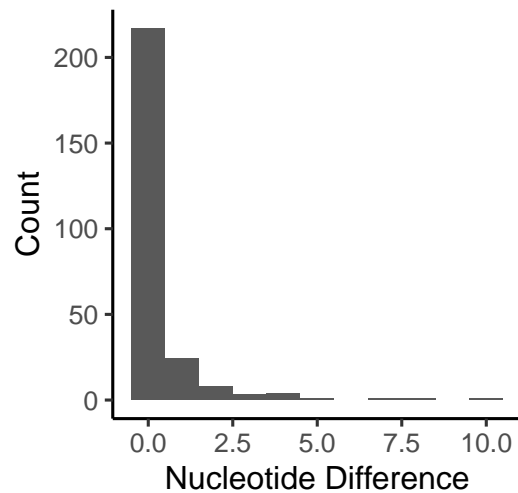
### IGHV7–4–1\*01

16 sequences assigned  
13 (81.2%) exact matches, in which:  
12 unique CDR3  
3 unique J



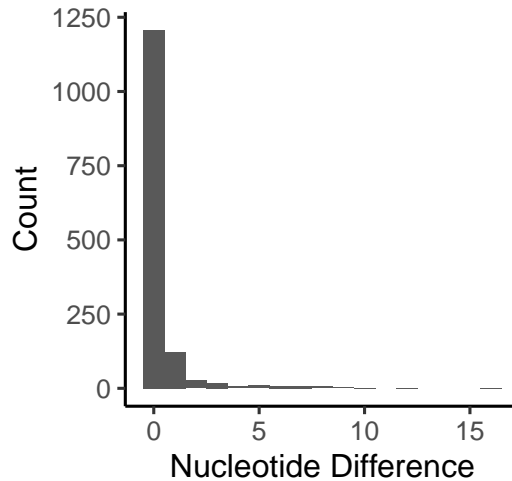
### IGHV4–61\*01

262 sequences assigned  
217 (82.8%) exact matches, in which:  
213 unique CDR3  
6 unique J



### IGHV5–51\*01

1421 sequences assigned  
1207 (84.9%) exact matches, in which:  
1166 unique CDR3  
6 unique J







Warning – no inferred sequences found.