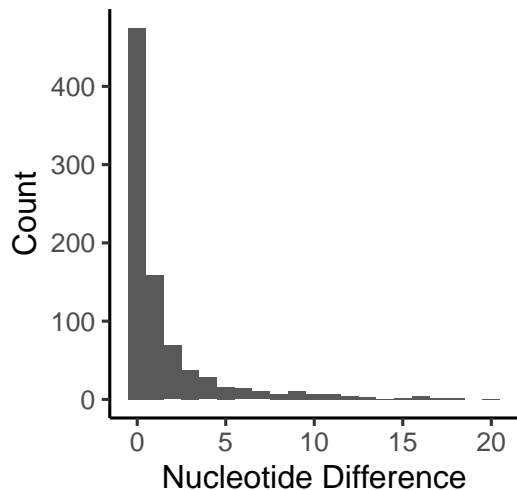


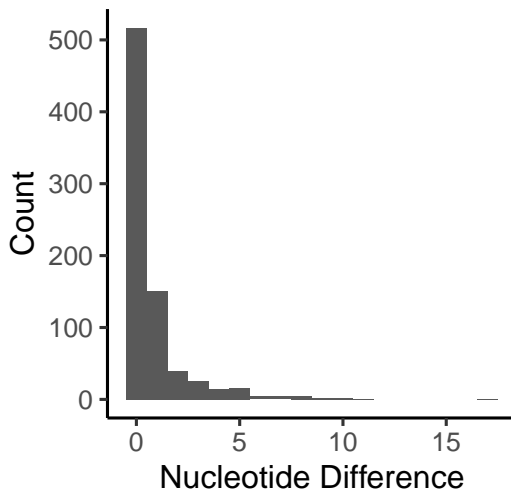
### IGHV1-2\*02

862 sequences assigned  
475 (55.1%) exact matches, in which:  
426 unique CDR3  
6 unique J



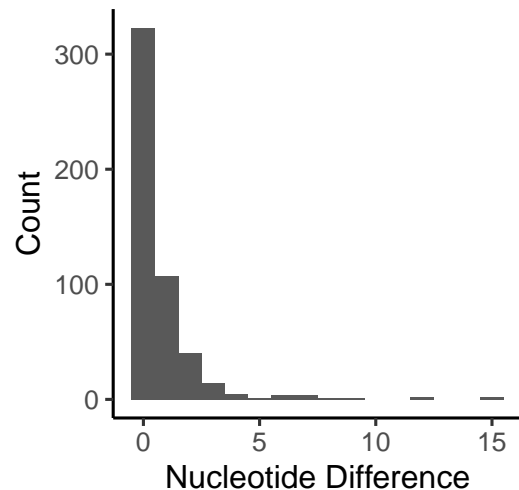
### IGHV1-8\*01

784 sequences assigned  
517 (65.9%) exact matches, in which:  
449 unique CDR3  
6 unique J



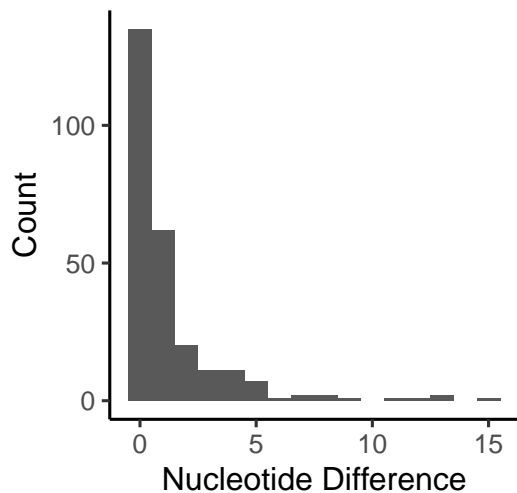
### IGHV1-24\*01

505 sequences assigned  
323 (64%) exact matches, in which:  
284 unique CDR3  
6 unique J



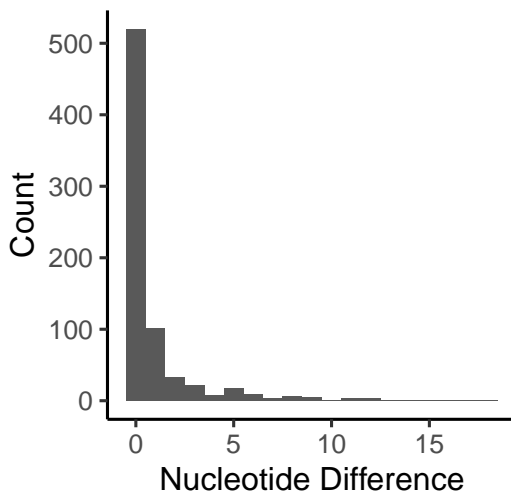
### IGHV1-2\*04

257 sequences assigned  
135 (52.5%) exact matches, in which:  
127 unique CDR3  
6 unique J



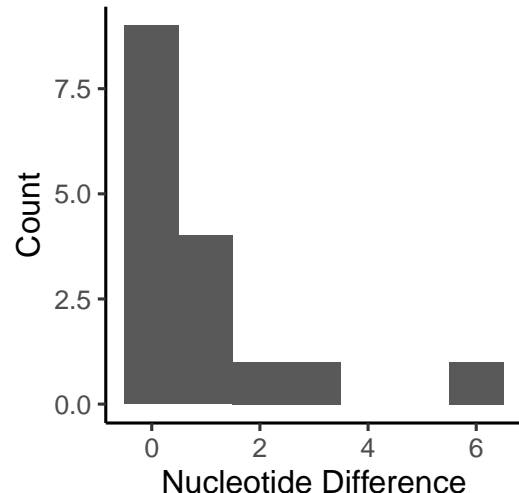
### IGHV1-18\*01

739 sequences assigned  
520 (70.4%) exact matches, in which:  
480 unique CDR3  
6 unique J



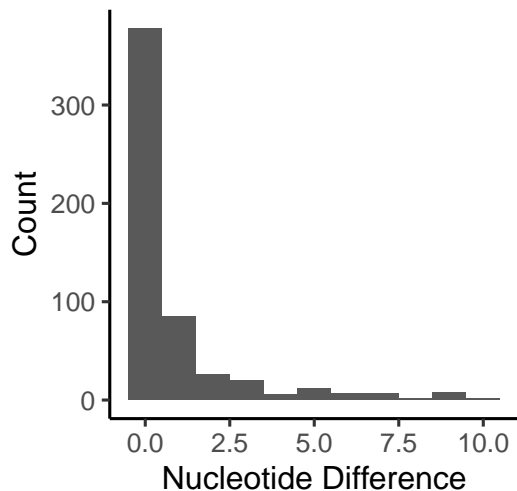
### IGHV1-45\*02

16 sequences assigned  
9 (56.2%) exact matches, in which:  
9 unique CDR3  
3 unique J



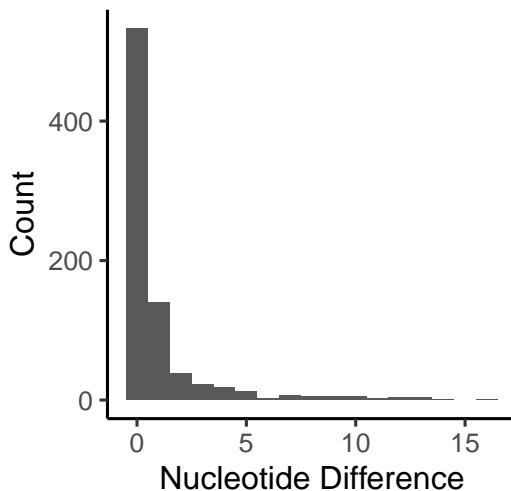
### IGHV1-3\*01

555 sequences assigned  
378 (68.1%) exact matches, in which:  
346 unique CDR3  
6 unique J



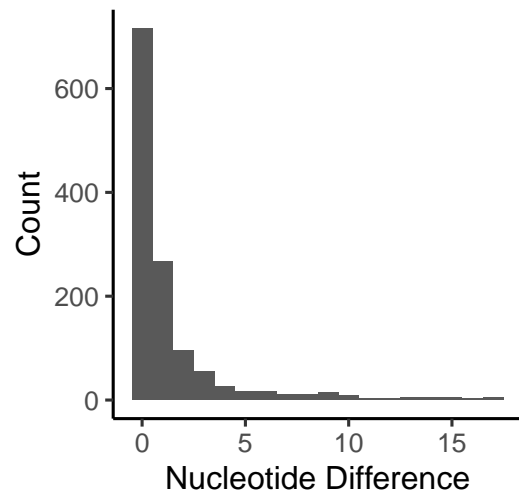
### IGHV1-18\*04

797 sequences assigned  
533 (66.9%) exact matches, in which:  
505 unique CDR3  
6 unique J



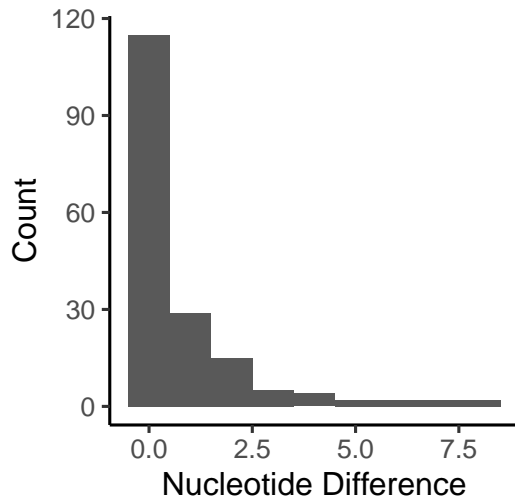
### IGHV1-46\*01

1263 sequences assigned  
716 (56.7%) exact matches, in which:  
648 unique CDR3  
6 unique J



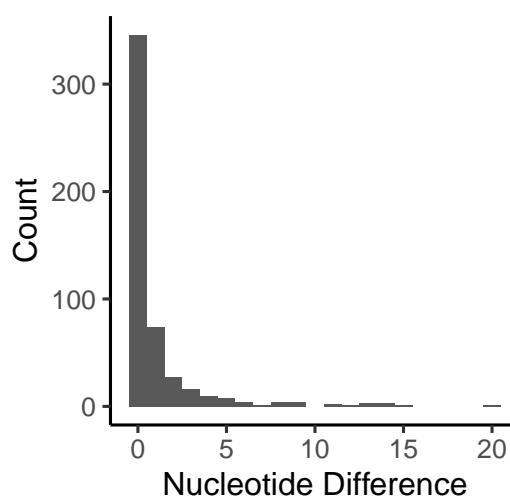
### IGHV1–58\*01

176 sequences assigned  
115 (65.3%) exact matches, in which:  
106 unique CDR3  
6 unique J



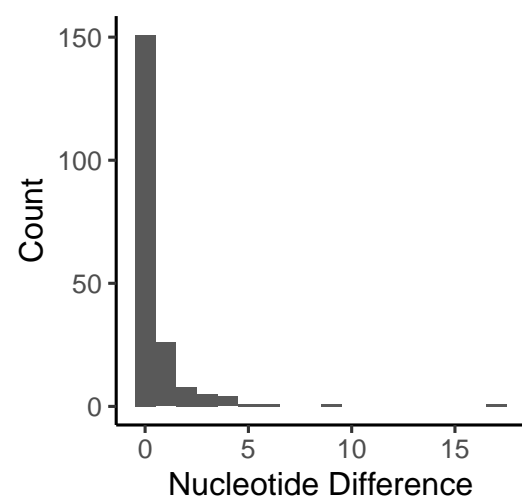
### IGHV2–5\*01

505 sequences assigned  
346 (68.5%) exact matches, in which:  
308 unique CDR3  
6 unique J



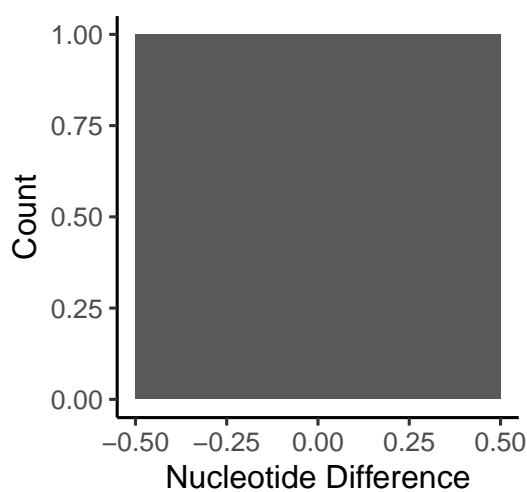
### IGHV2–70\*01

198 sequences assigned  
151 (76.3%) exact matches, in which:  
142 unique CDR3  
6 unique J



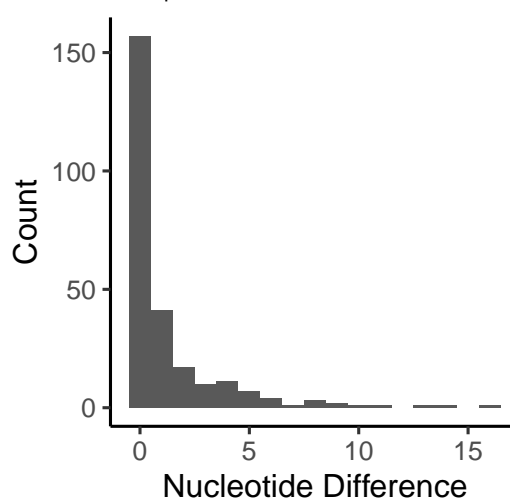
### IGHV1–68\*01

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



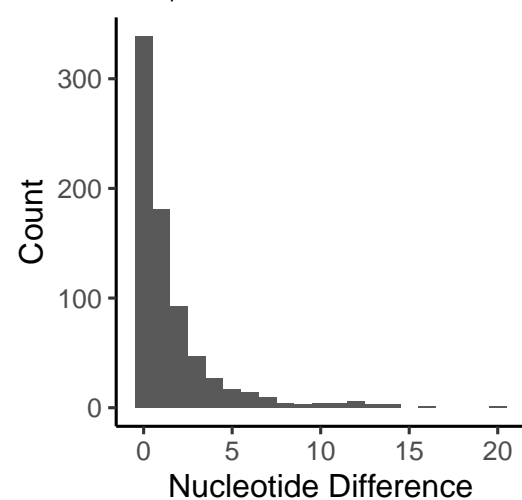
### IGHV2–5\*02

258 sequences assigned  
157 (60.9%) exact matches, in which:  
141 unique CDR3  
6 unique J



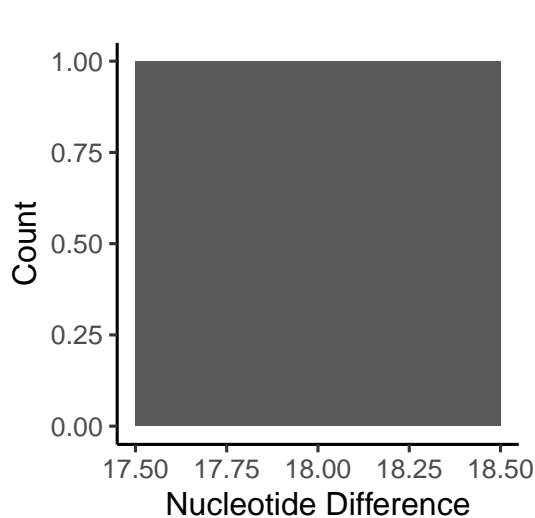
### IGHV3–7\*01

758 sequences assigned  
339 (44.7%) exact matches, in which:  
325 unique CDR3  
6 unique J



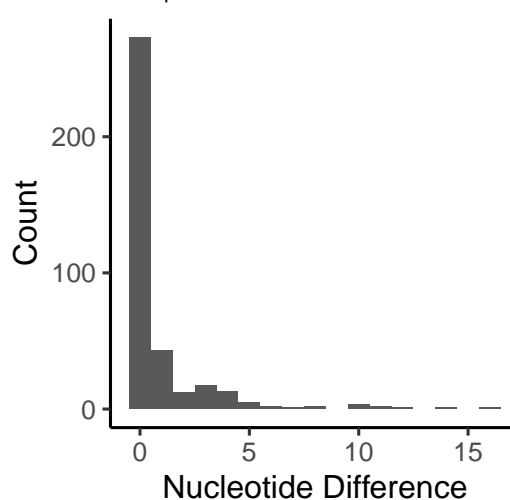
### IGHV1–NL1\*01

1 sequences assigned  
No exact matches.



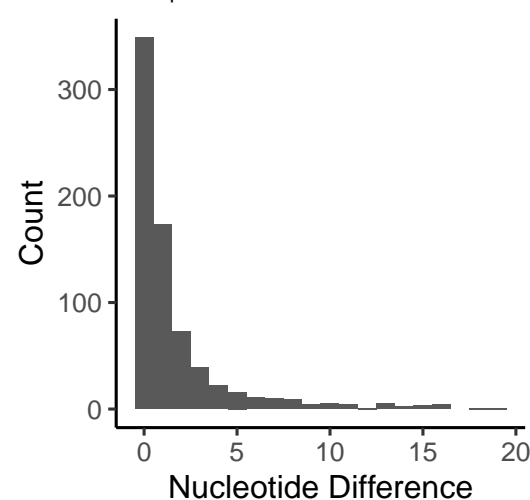
### IGHV2–26\*01

376 sequences assigned  
273 (72.6%) exact matches, in which:  
258 unique CDR3  
6 unique J



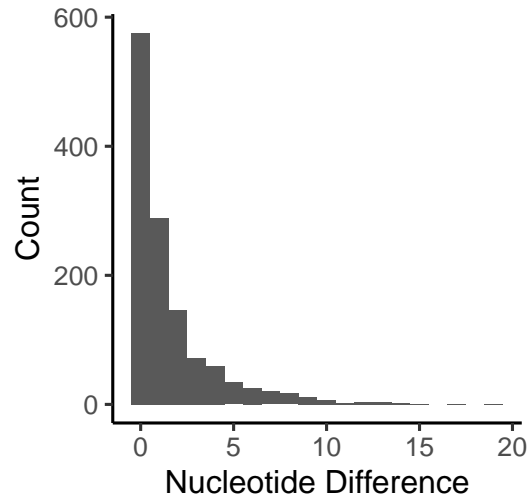
### IGHV3–7\*03

734 sequences assigned  
349 (47.5%) exact matches, in which:  
319 unique CDR3  
6 unique J



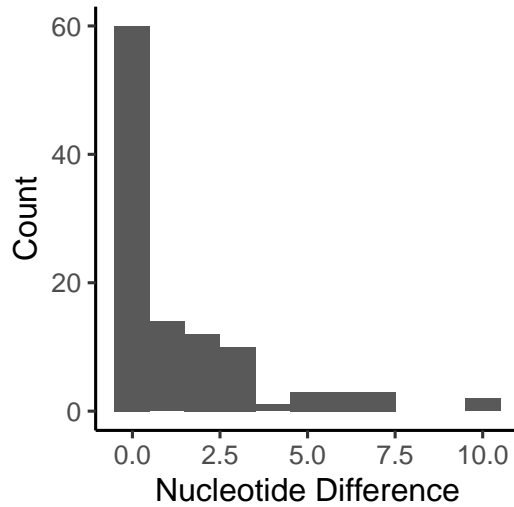
### IGHV3-9\*01

1274 sequences assigned  
576 (45.2%) exact matches, in which:  
522 unique CDR3  
6 unique J



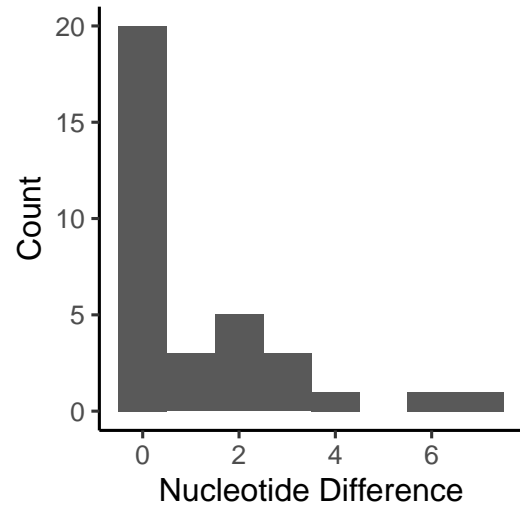
### IGHV3-13\*01

108 sequences assigned  
60 (55.6%) exact matches, in which:  
52 unique CDR3  
5 unique J



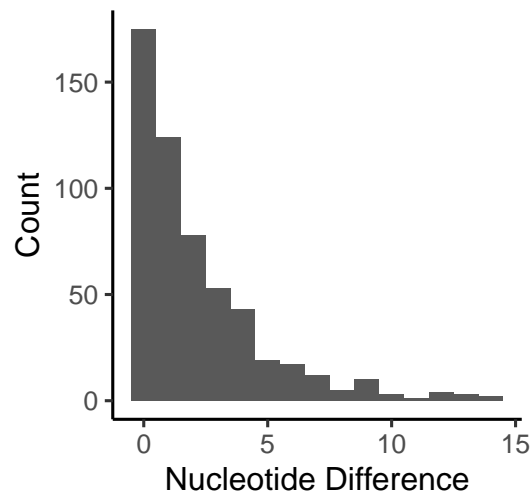
### IGHV3-20\*01

34 sequences assigned  
20 (58.8%) exact matches, in which:  
19 unique CDR3  
5 unique J



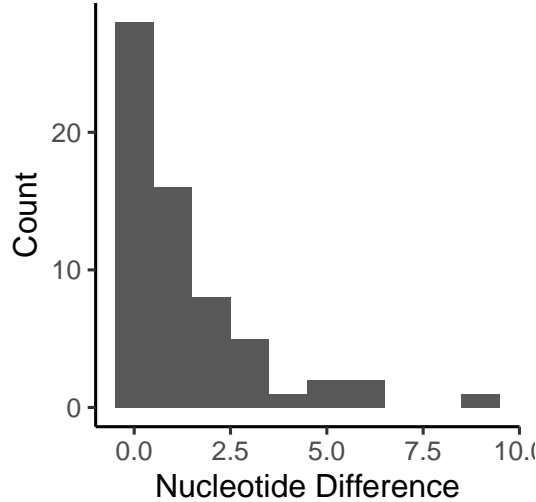
### IGHV3-11\*01

551 sequences assigned  
175 (31.8%) exact matches, in which:  
162 unique CDR3  
6 unique J



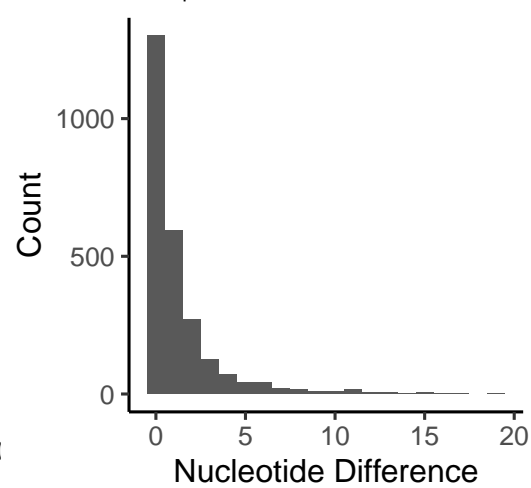
### IGHV3-13\*05

63 sequences assigned  
28 (44.4%) exact matches, in which:  
26 unique CDR3  
4 unique J



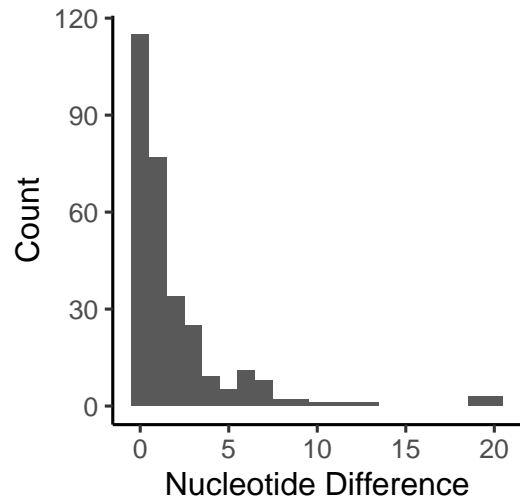
### IGHV3-21\*01

2539 sequences assigned  
1301 (51.2%) exact matches, in which:  
1158 unique CDR3  
6 unique J



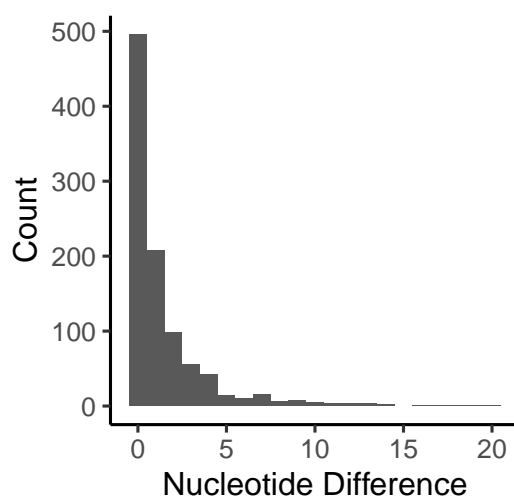
### IGHV3-11\*06

306 sequences assigned  
115 (37.6%) exact matches, in which:  
108 unique CDR3  
5 unique J



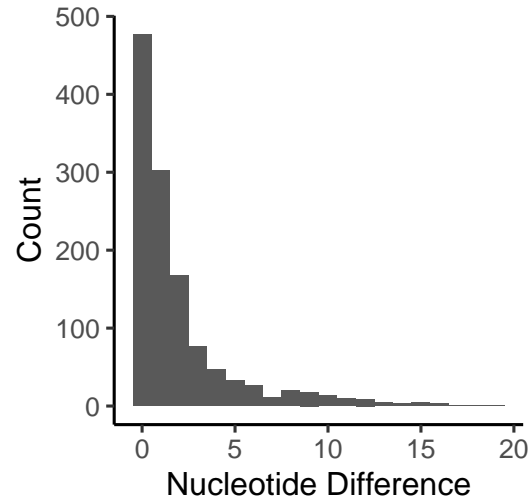
### IGHV3-15\*01

973 sequences assigned  
496 (51%) exact matches, in which:  
472 unique CDR3  
6 unique J



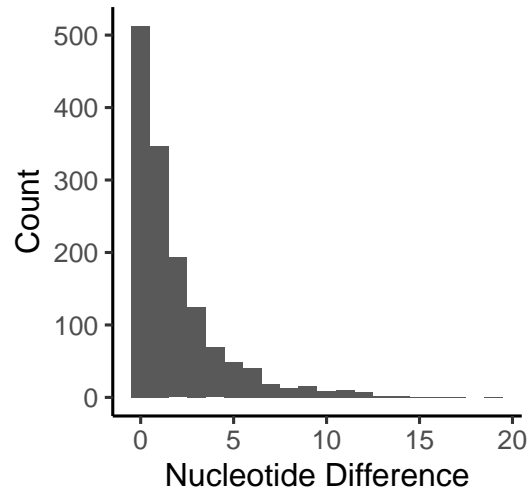
### IGHV3-30-3\*01

1229 sequences assigned  
477 (38.8%) exact matches, in which:  
458 unique CDR3  
6 unique J



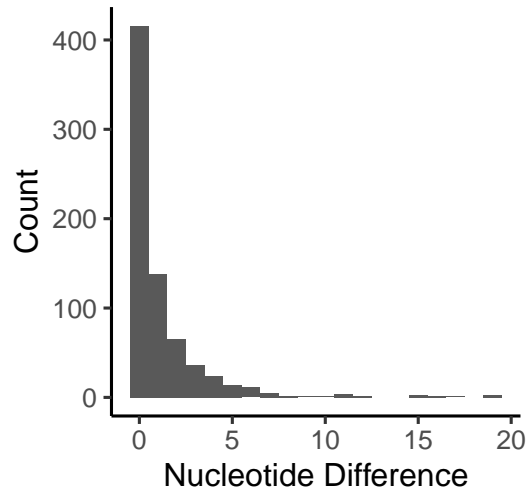
### IGHV3-33\*01

1422 sequences assigned  
513 (36.1%) exact matches, in which:  
475 unique CDR3  
6 unique J



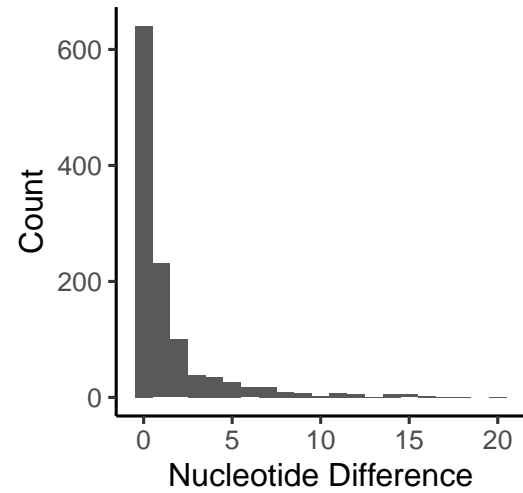
### IGHV3-48\*02

728 sequences assigned  
416 (57.1%) exact matches, in which:  
389 unique CDR3  
6 unique J



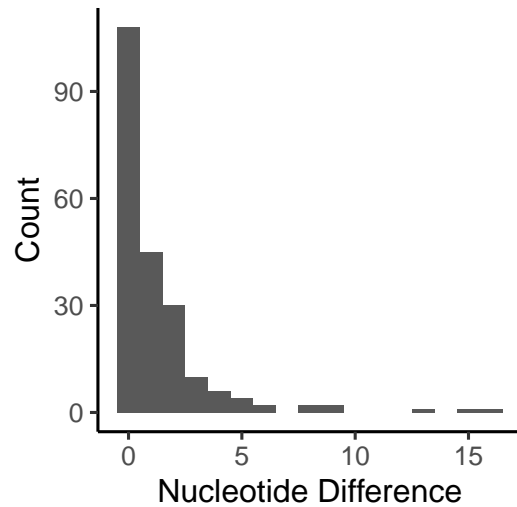
### IGHV3-53\*01

1157 sequences assigned  
641 (55.4%) exact matches, in which:  
579 unique CDR3  
6 unique J



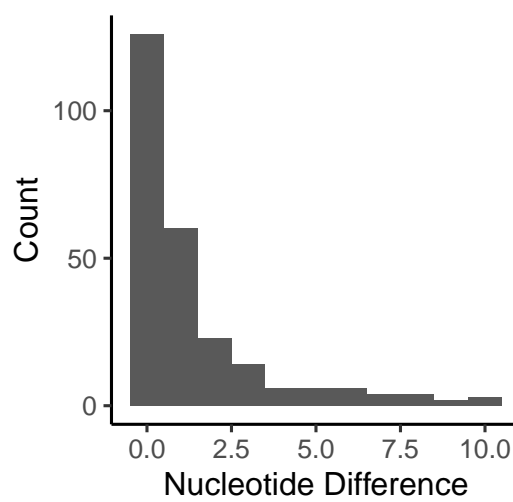
### IGHV3-43\*01

212 sequences assigned  
108 (50.9%) exact matches, in which:  
103 unique CDR3  
5 unique J



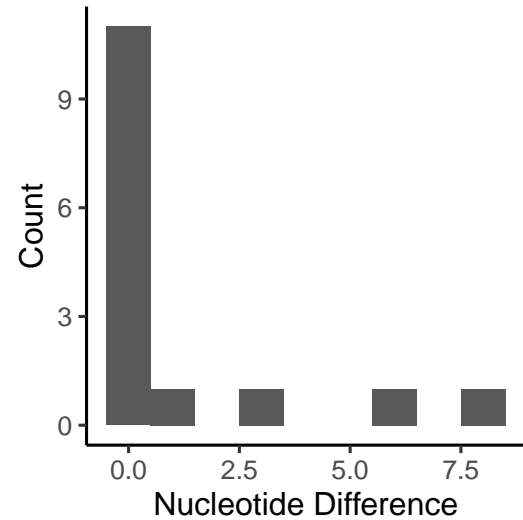
### IGHV3-49\*03

254 sequences assigned  
126 (49.6%) exact matches, in which:  
124 unique CDR3  
5 unique J



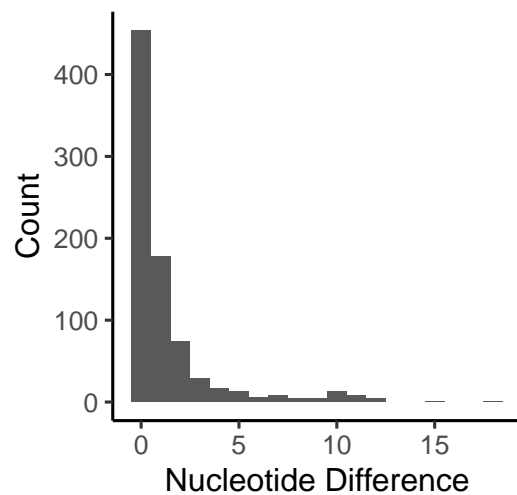
### IGHV3-64\*02

15 sequences assigned  
11 (73.3%) exact matches, in which:  
10 unique CDR3  
2 unique J



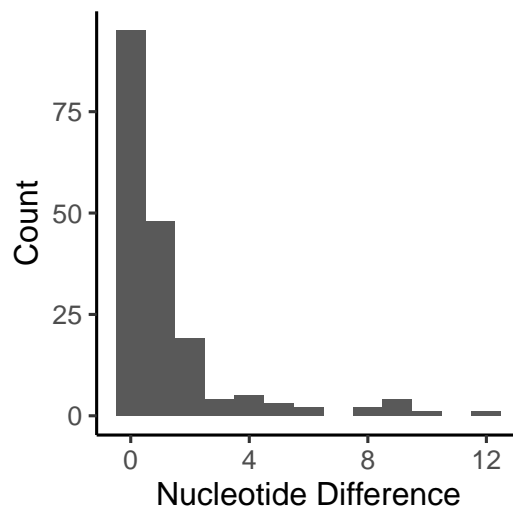
### IGHV3-48\*01

817 sequences assigned  
454 (55.6%) exact matches, in which:  
422 unique CDR3  
6 unique J



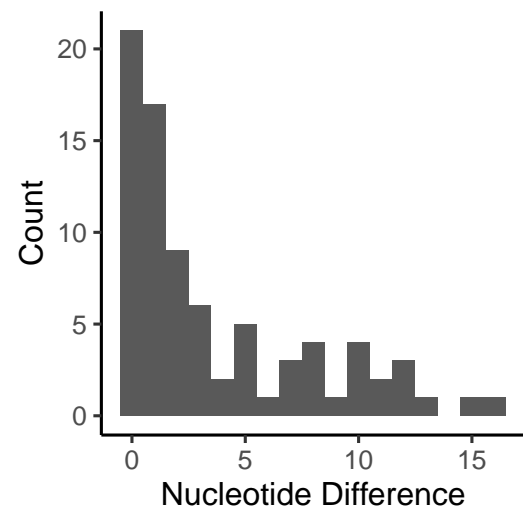
### IGHV3-49\*05

184 sequences assigned  
95 (51.6%) exact matches, in which:  
86 unique CDR3  
6 unique J



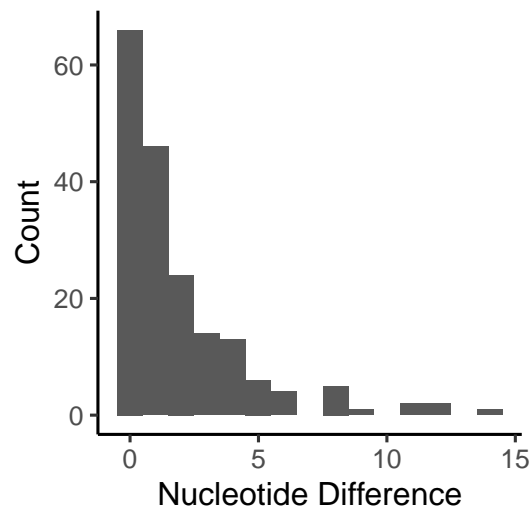
### IGHV3-72\*01

82 sequences assigned  
21 (25.6%) exact matches, in which:  
20 unique CDR3  
5 unique J



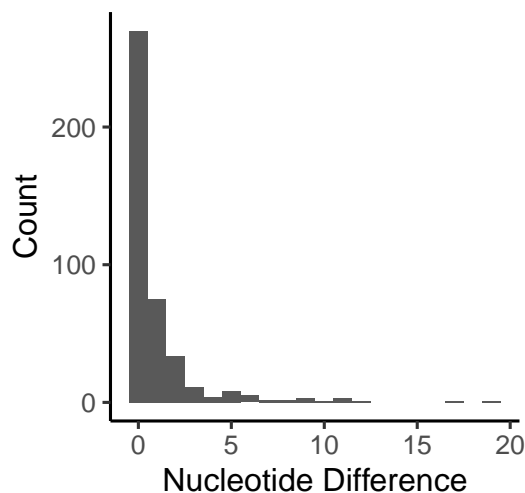
### IGHV3-73\*02

184 sequences assigned  
66 (35.9%) exact matches, in which:  
61 unique CDR3  
5 unique J



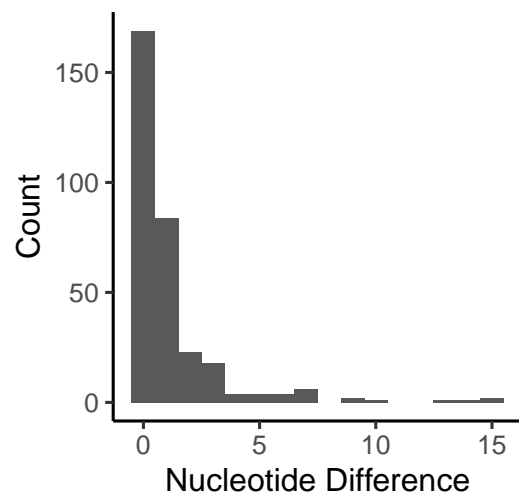
### IGHV4-4\*02

422 sequences assigned  
270 (64%) exact matches, in which:  
245 unique CDR3  
6 unique J



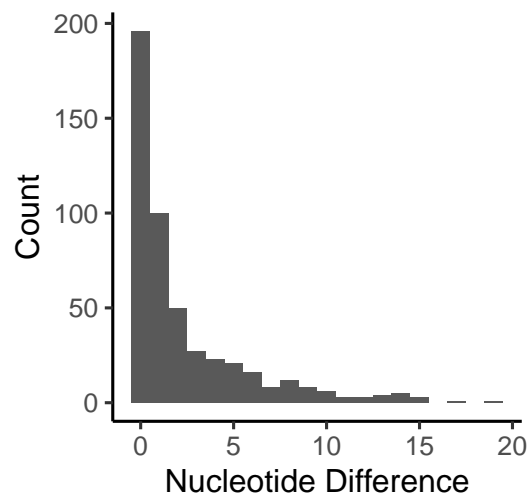
### IGHV4-30-2\*01

319 sequences assigned  
169 (53%) exact matches, in which:  
152 unique CDR3  
6 unique J



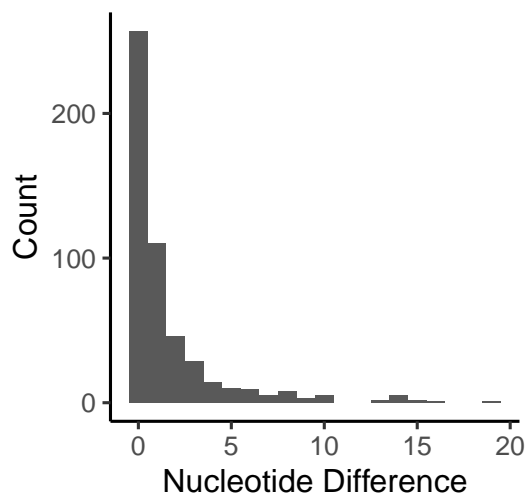
### IGHV3-74\*01

491 sequences assigned  
196 (39.9%) exact matches, in which:  
181 unique CDR3  
6 unique J



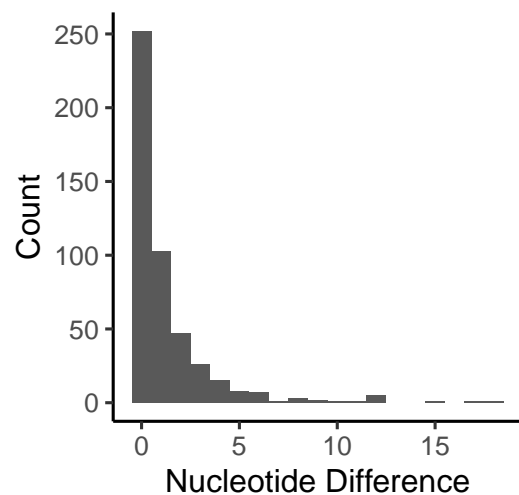
### IGHV4-4\*07

507 sequences assigned  
257 (50.7%) exact matches, in which:  
234 unique CDR3  
6 unique J



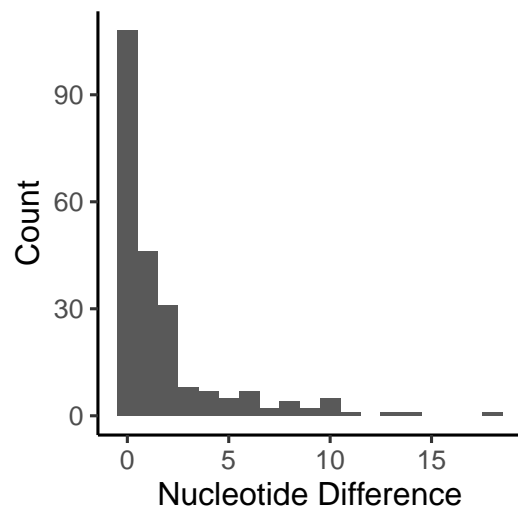
### IGHV4-30-4\*01

474 sequences assigned  
252 (53.2%) exact matches, in which:  
226 unique CDR3  
6 unique J



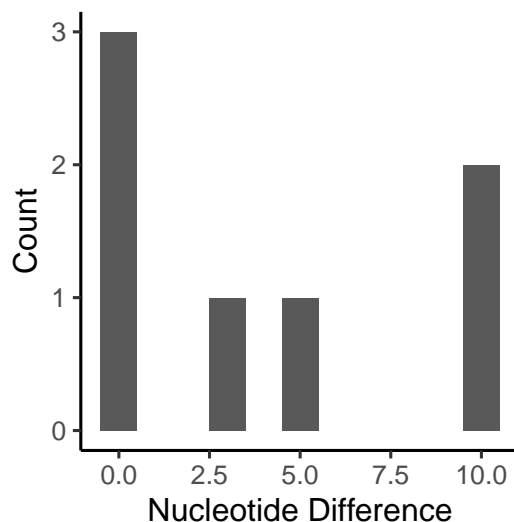
### IGHV3-64D\*06

231 sequences assigned  
108 (46.8%) exact matches, in which:  
98 unique CDR3  
5 unique J



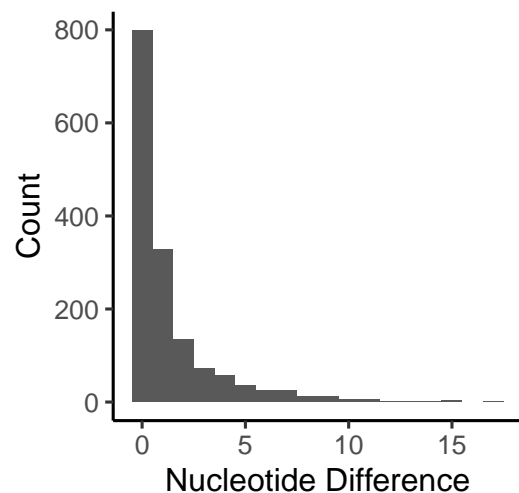
### IGHV4-28\*01

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



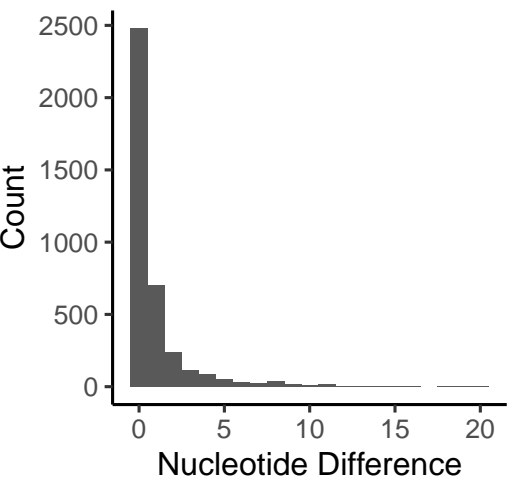
### IGHV4-31\*03

1522 sequences assigned  
799 (52.5%) exact matches, in which:  
722 unique CDR3  
6 unique J



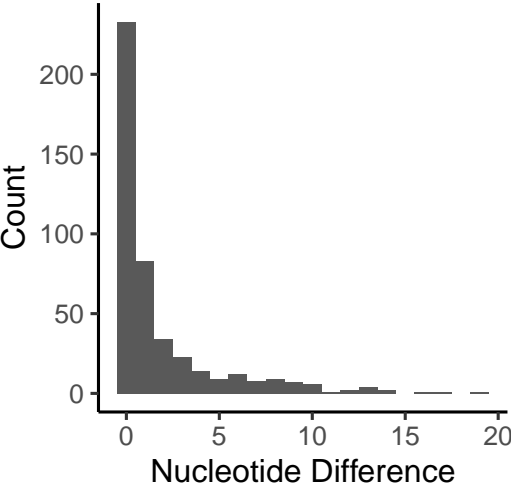
IGHV4-34\*01

3836 sequences assigned  
2479 (64.6%) exact matches, in which:  
2105 unique CDR3  
6 unique J



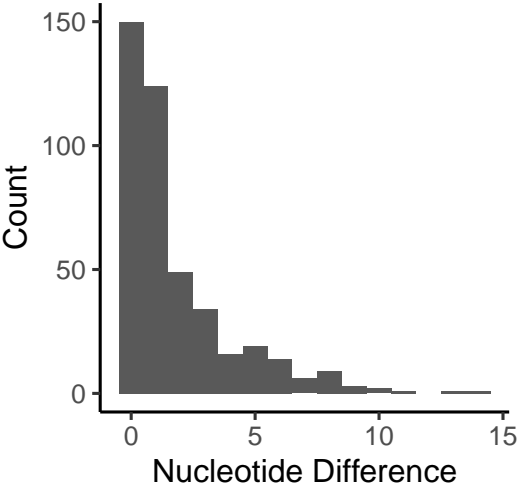
IGHV4-61\*01

450 sequences assigned  
233 (51.8%) exact matches, in which:  
219 unique CDR3  
6 unique J



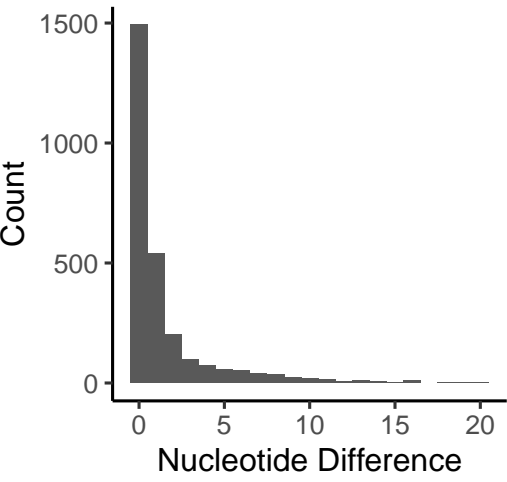
IGHV6-1\*01

429 sequences assigned  
150 (35%) exact matches, in which:  
137 unique CDR3  
5 unique J



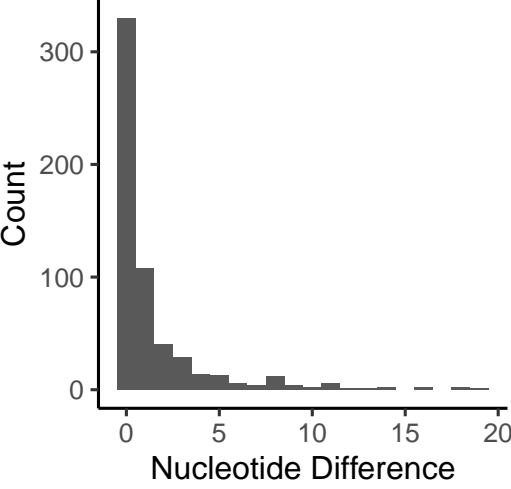
IGHV4-39\*01

2702 sequences assigned  
1493 (55.3%) exact matches, in which:  
1341 unique CDR3  
6 unique J



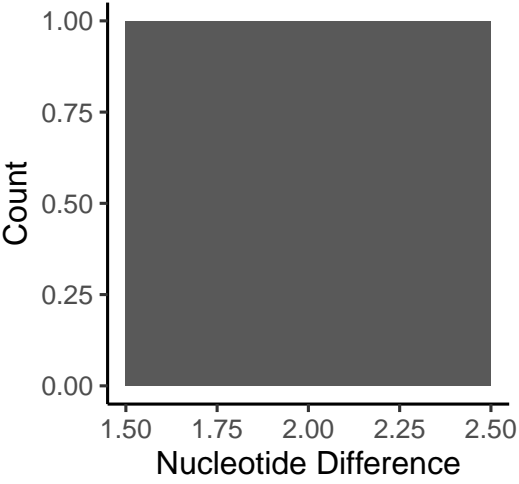
IGHV5-10-1\*03

578 sequences assigned  
330 (57.1%) exact matches, in which:  
299 unique CDR3  
6 unique J



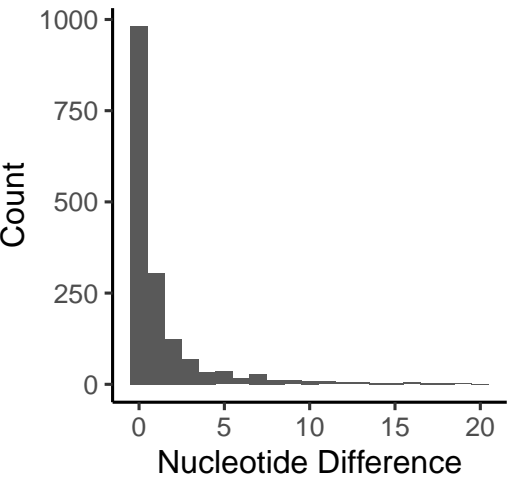
IGHV3/OR16-12\*01

1 sequences assigned  
No exact matches.



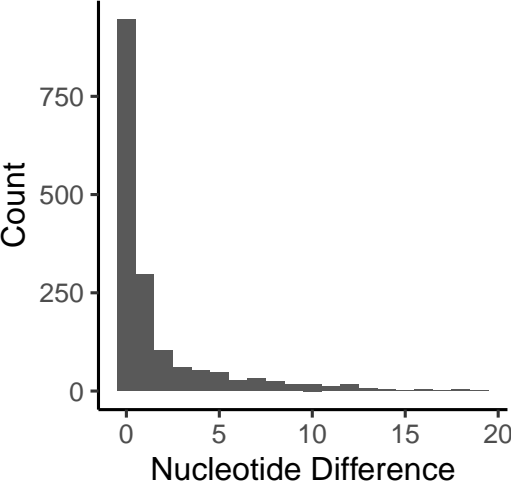
IGHV4-59\*01

1665 sequences assigned  
982 (59%) exact matches, in which:  
899 unique CDR3  
6 unique J



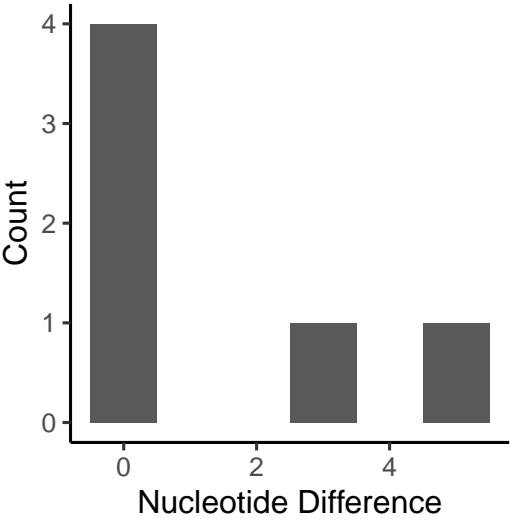
IGHV5-51\*01

1675 sequences assigned  
946 (56.5%) exact matches, in which:  
853 unique CDR3  
6 unique J



IGHV7-4-1\*01

6 sequences assigned  
4 (66.7%) exact matches, in which:  
4 unique CDR3  
3 unique J





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.