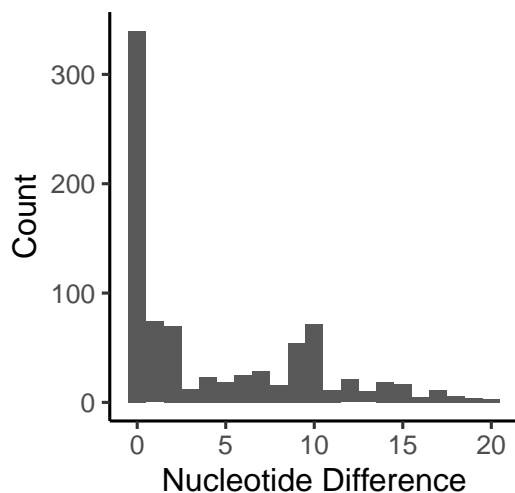


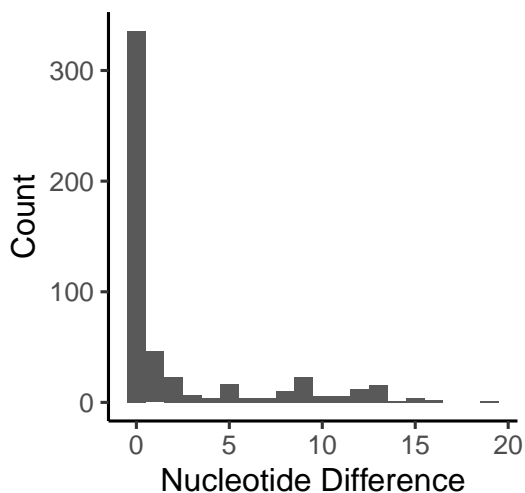
## IGHV1-2\*02

1050 sequences assigned  
340 (32.4%) exact matches, in which:  
328 unique CDR3  
6 unique J



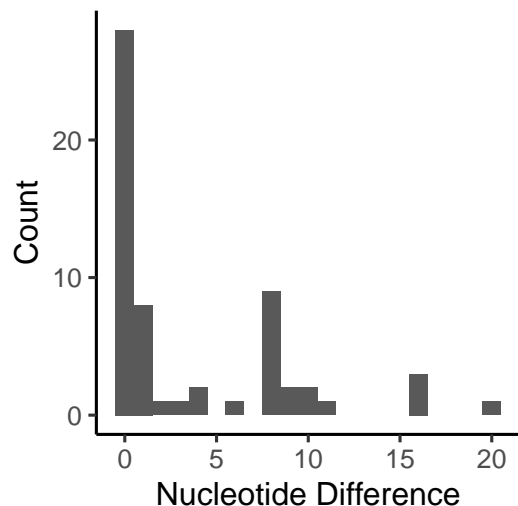
## IGHV1-8\*01

1047 sequences assigned  
336 (32.1%) exact matches, in which:  
323 unique CDR3  
6 unique J



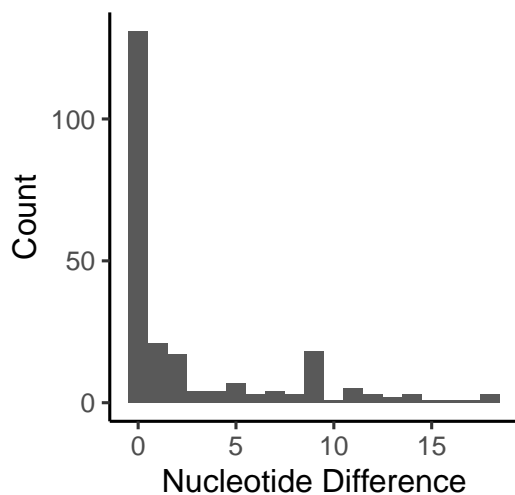
## IGHV1-24\*01

60 sequences assigned  
28 (46.7%) exact matches, in which:  
26 unique CDR3  
5 unique J



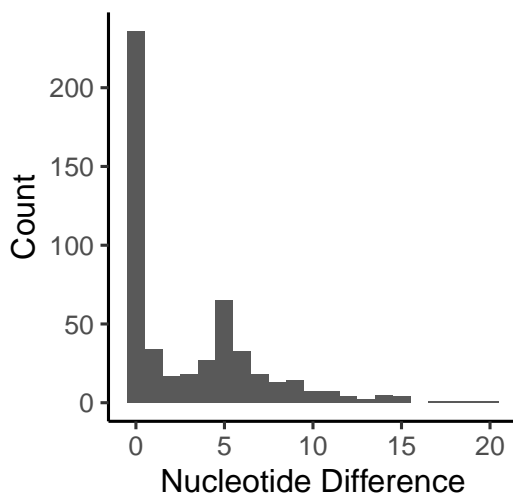
## IGHV1-2\*04

234 sequences assigned  
131 (56%) exact matches, in which:  
127 unique CDR3  
6 unique J



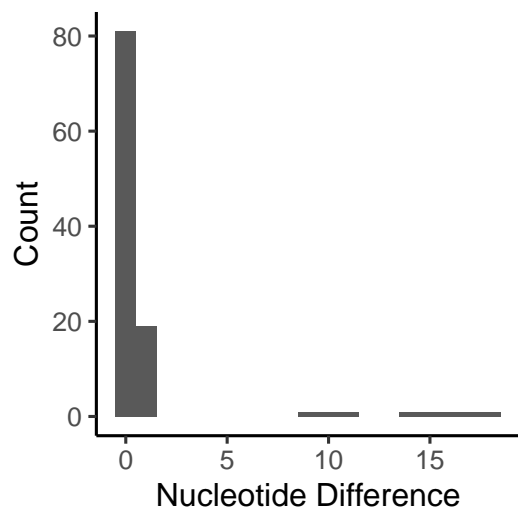
## IGHV1-8\*02

516 sequences assigned  
236 (45.7%) exact matches, in which:  
232 unique CDR3  
6 unique J



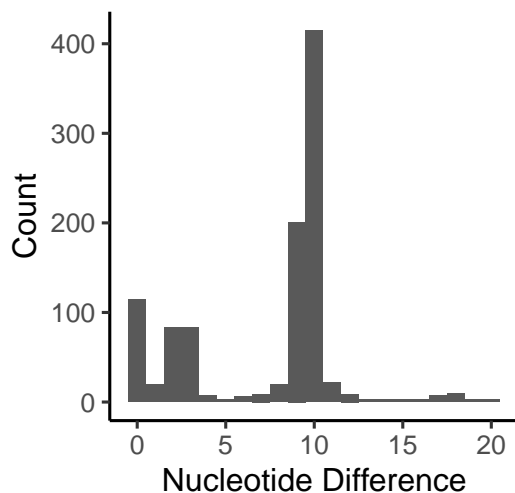
## IGHV1-24\*01\_G278T

114 sequences assigned  
81 (71.1%) exact matches, in which:  
71 unique CDR3  
6 unique J



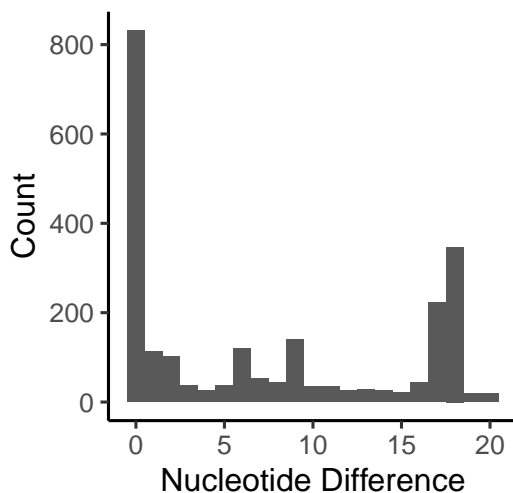
## IGHV1-3\*01\_05

1096 sequences assigned  
114 (10.4%) exact matches, in which:  
104 unique CDR3  
6 unique J



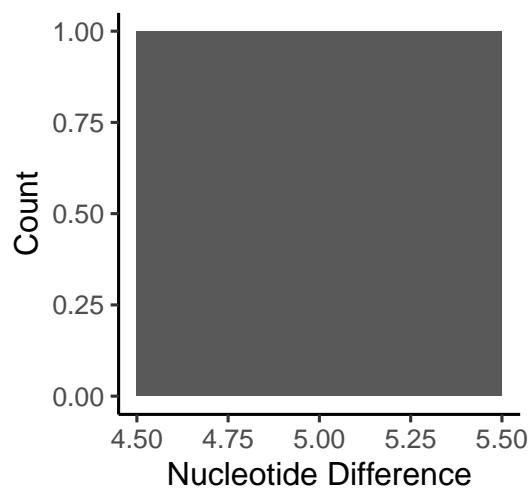
## IGHV1-18\*01

2418 sequences assigned  
832 (34.4%) exact matches, in which:  
790 unique CDR3  
6 unique J



## IGHV1-38-4\*01

1 sequences assigned  
No exact matches.



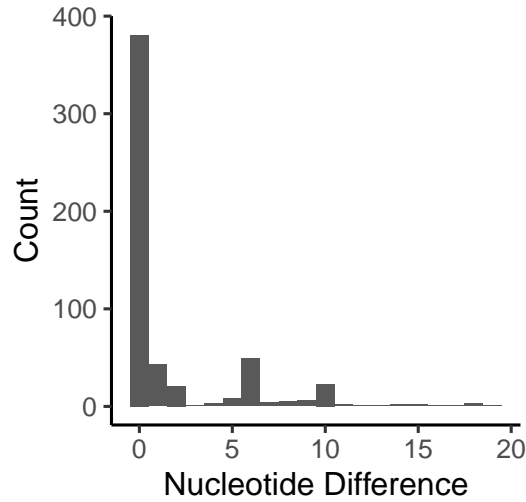
### IGHV1-45\*02

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



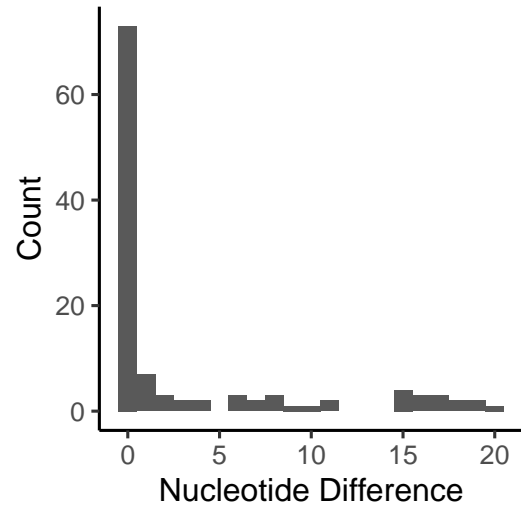
### IGHV1-69\*10

566 sequences assigned  
381 (67.3%) exact matches, in which:  
373 unique CDR3  
6 unique J



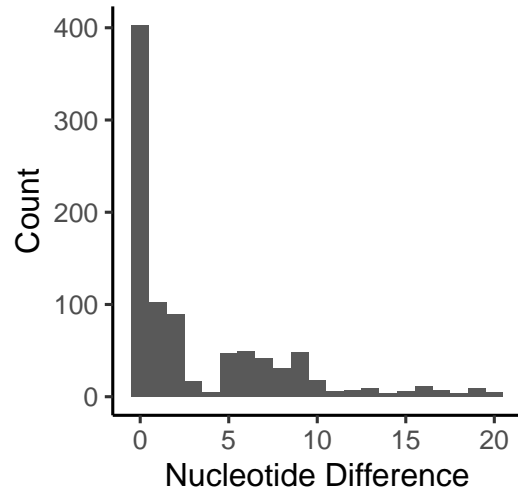
### IGHV2-5\*01

115 sequences assigned  
73 (63.5%) exact matches, in which:  
68 unique CDR3  
5 unique J



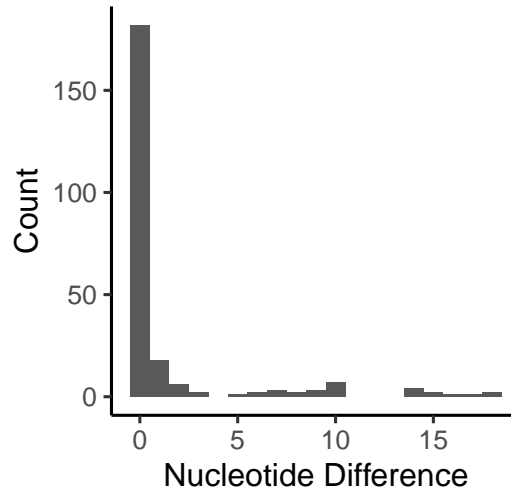
### IGHV1-46\*01

969 sequences assigned  
403 (41.6%) exact matches, in which:  
388 unique CDR3  
6 unique J



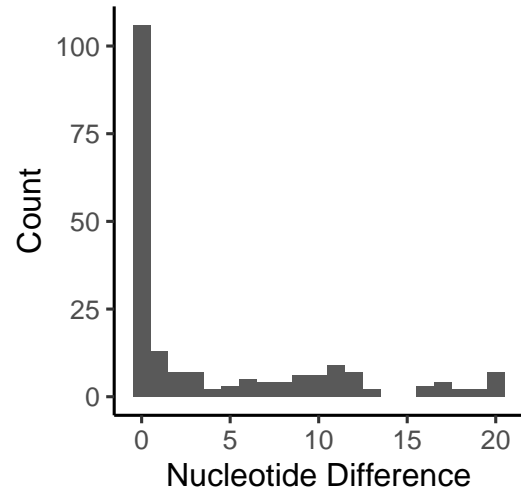
### IGHV1-69\*04\_09\_G112A

240 sequences assigned  
182 (75.8%) exact matches, in which:  
180 unique CDR3  
6 unique J



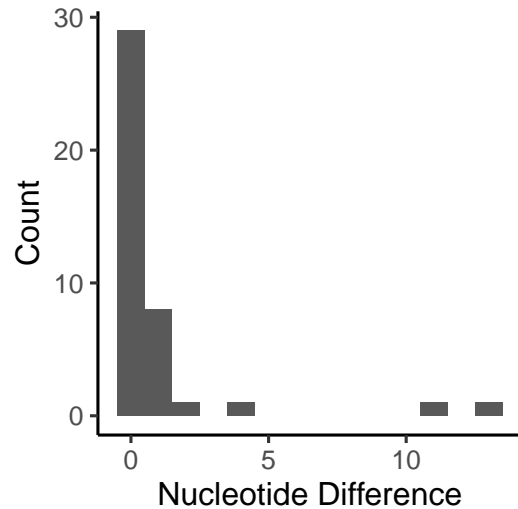
### IGHV2-5\*02

218 sequences assigned  
106 (48.6%) exact matches, in which:  
100 unique CDR3  
6 unique J



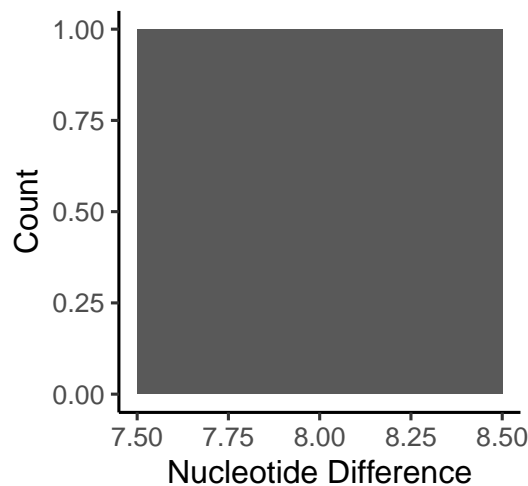
### IGHV1-58\*02

41 sequences assigned  
29 (70.7%) exact matches, in which:  
27 unique CDR3  
5 unique J



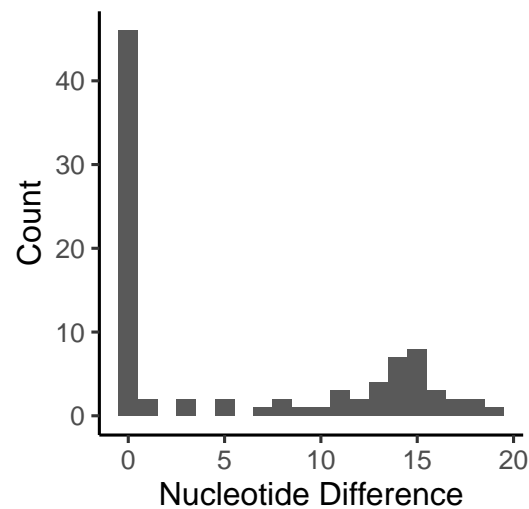
### IGHV1-NL1\*01

1 sequences assigned  
No exact matches.



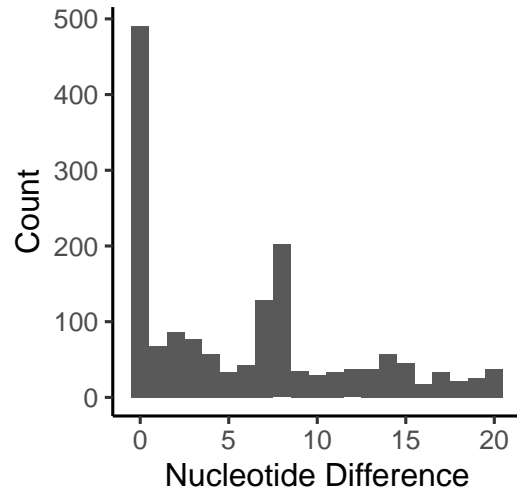
### IGHV2-26\*01

585 sequences assigned  
46 (7.9%) exact matches, in which:  
44 unique CDR3  
5 unique J



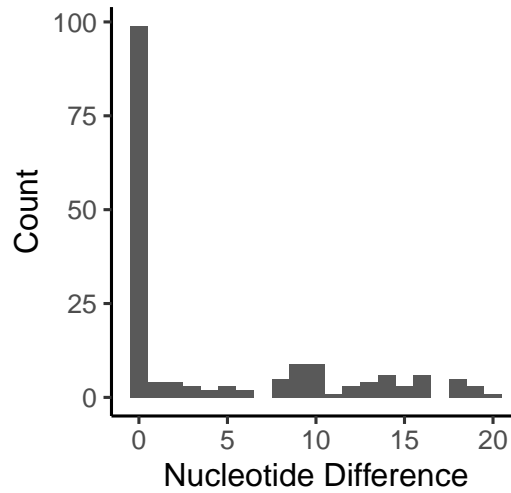
### IGHV3-7\*01

2817 sequences assigned  
491 (17.4%) exact matches, in which:  
312 unique CDR3  
6 unique J



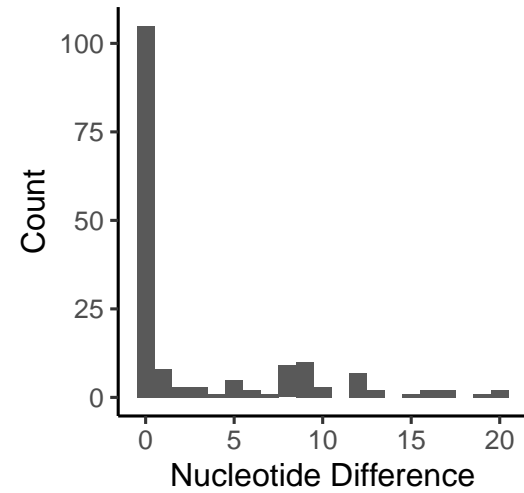
### IGHV3-13\*01

181 sequences assigned  
99 (54.7%) exact matches, in which:  
61 unique CDR3  
6 unique J



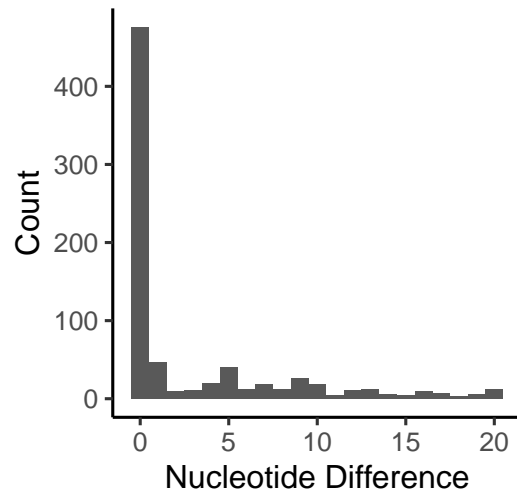
### IGHV3-20\*03\_04\_A104G

171 sequences assigned  
105 (61.4%) exact matches, in which:  
67 unique CDR3  
4 unique J



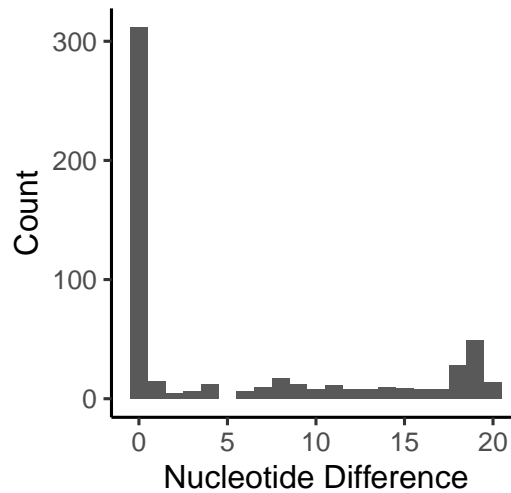
### IGHV3-9\*01

1146 sequences assigned  
476 (41.5%) exact matches, in which:  
283 unique CDR3  
6 unique J



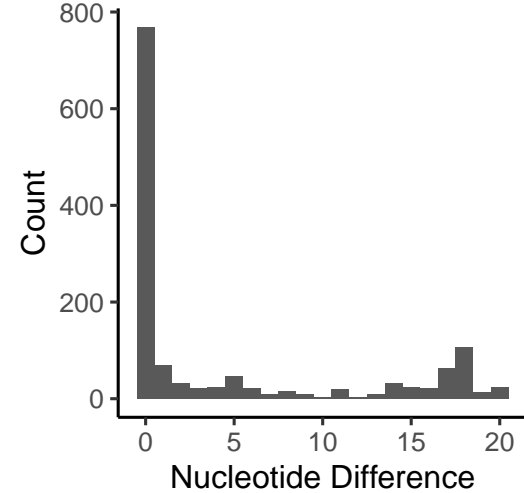
### IGHV3-15\*01\_02

602 sequences assigned  
312 (51.8%) exact matches, in which:  
207 unique CDR3  
6 unique J



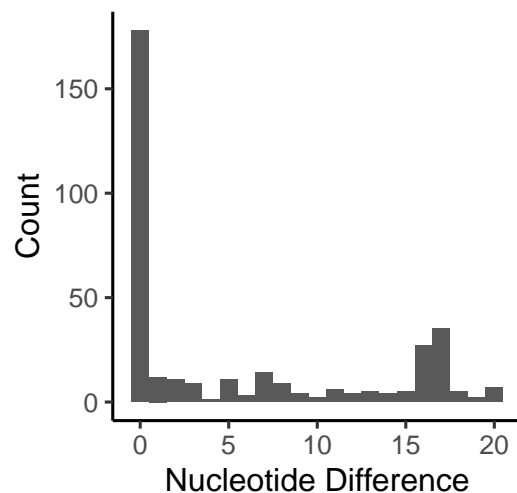
### IGHV3-21\*01\_02

1437 sequences assigned  
769 (53.5%) exact matches, in which:  
489 unique CDR3  
6 unique J



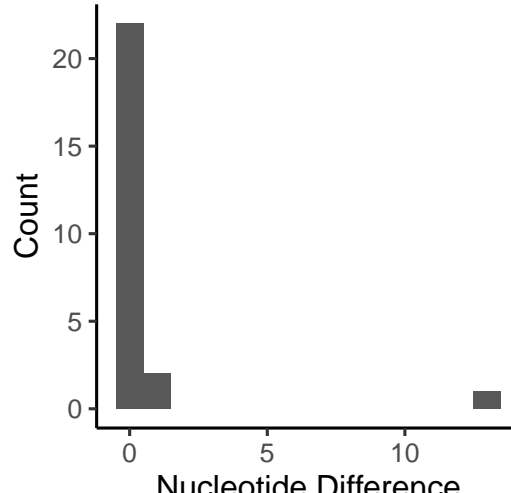
### IGHV3-11\*01

576 sequences assigned  
178 (30.9%) exact matches, in which:  
111 unique CDR3  
6 unique J



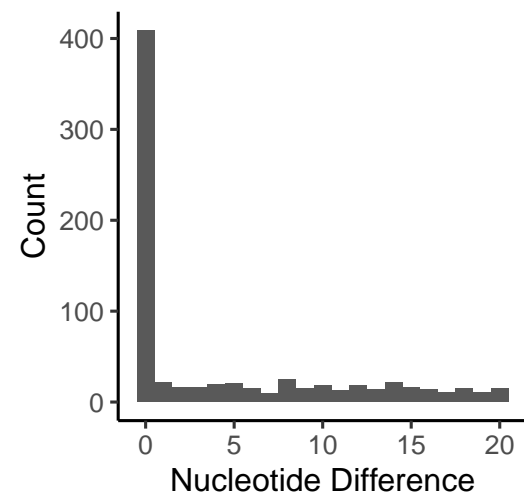
### IGHV3-20\*01\_02

25 sequences assigned  
22 (88%) exact matches, in which:  
13 unique CDR3  
4 unique J



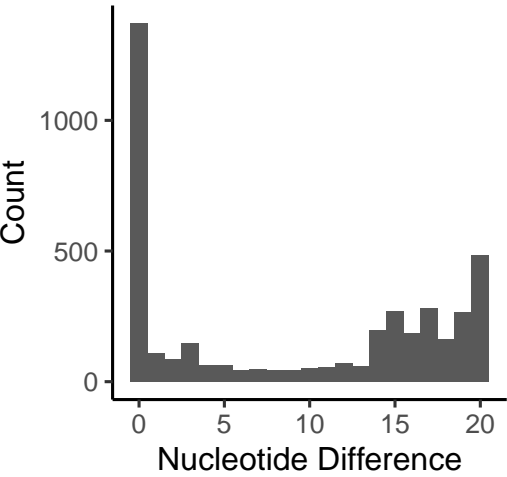
### IGHV3-23\*03

845 sequences assigned  
409 (48.4%) exact matches, in which:  
267 unique CDR3  
6 unique J



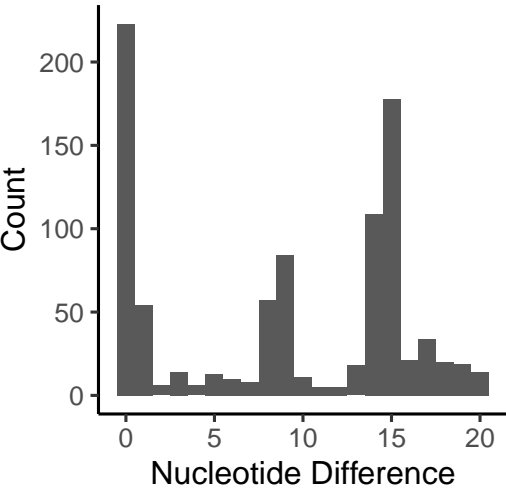
IGHV3-23\*01\_04

5725 sequences assigned  
1371 (23.9%) exact matches, in which:  
861 unique CDR3  
6 unique J



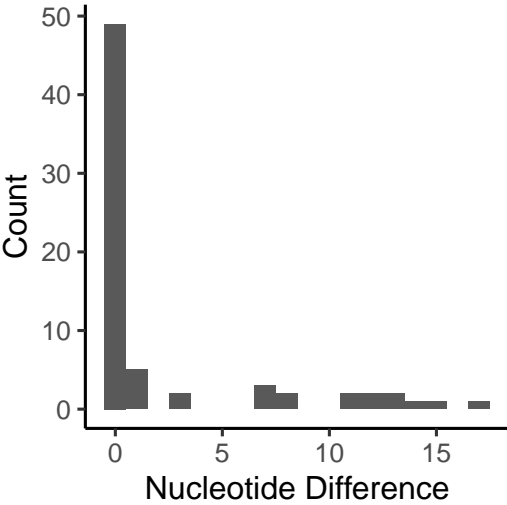
IGHV3-33\*01

1009 sequences assigned  
223 (22.1%) exact matches, in which:  
151 unique CDR3  
5 unique J



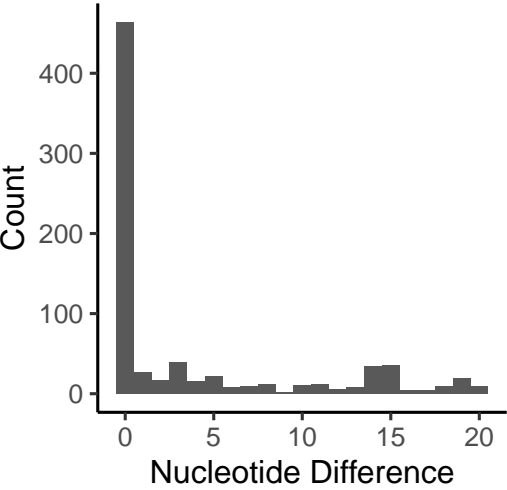
IGHV3-43\*01

81 sequences assigned  
49 (60.5%) exact matches, in which:  
31 unique CDR3  
5 unique J



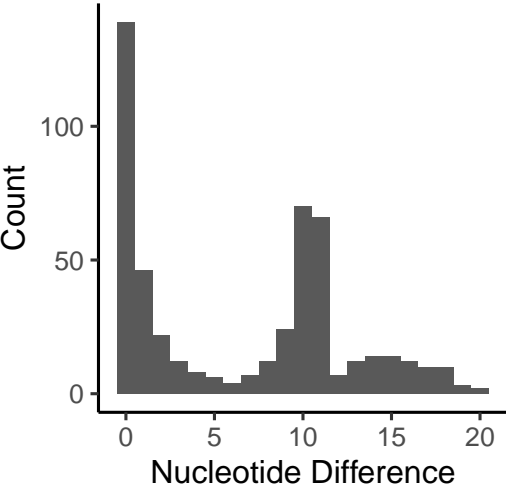
IGHV3-30-3\*01

839 sequences assigned  
464 (55.3%) exact matches, in which:  
303 unique CDR3  
6 unique J



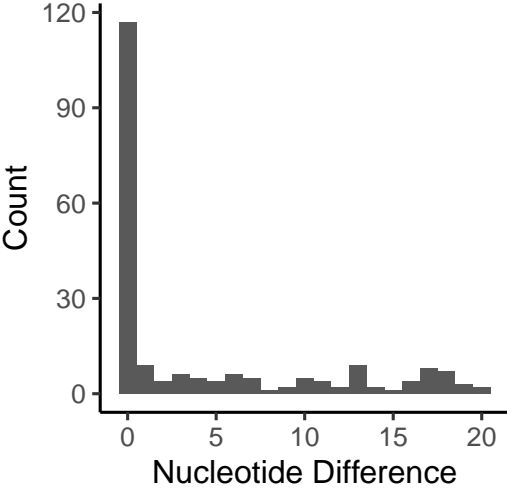
IGHV3-33\*06

515 sequences assigned  
139 (27%) exact matches, in which:  
92 unique CDR3  
5 unique J



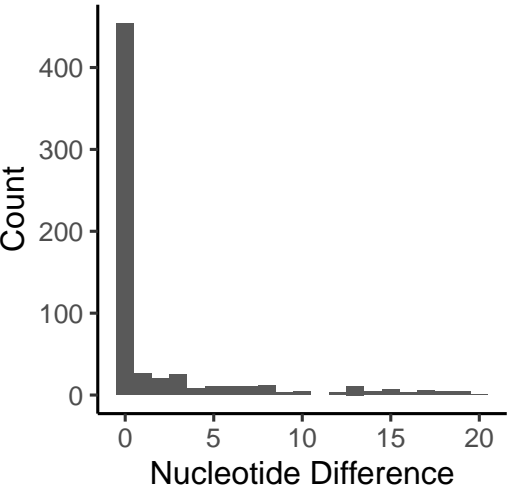
IGHV3-48\*02

486 sequences assigned  
117 (24.1%) exact matches, in which:  
77 unique CDR3  
6 unique J



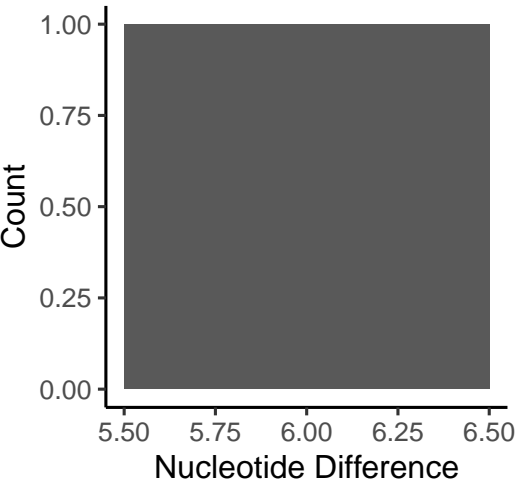
IGHV3-30\*04\_C203T

937 sequences assigned  
454 (48.5%) exact matches, in which:  
297 unique CDR3  
5 unique J



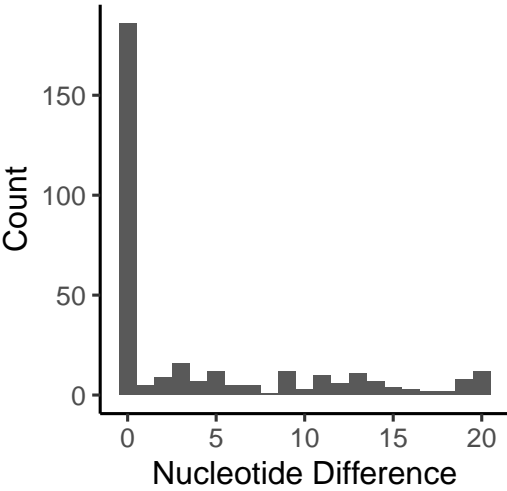
IGHV3-38-3\*01

1 sequences assigned  
No exact matches.



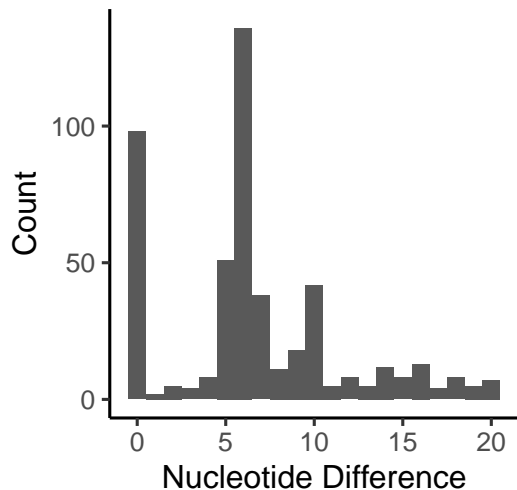
IGHV3-48\*04

413 sequences assigned  
186 (45%) exact matches, in which:  
120 unique CDR3  
6 unique J



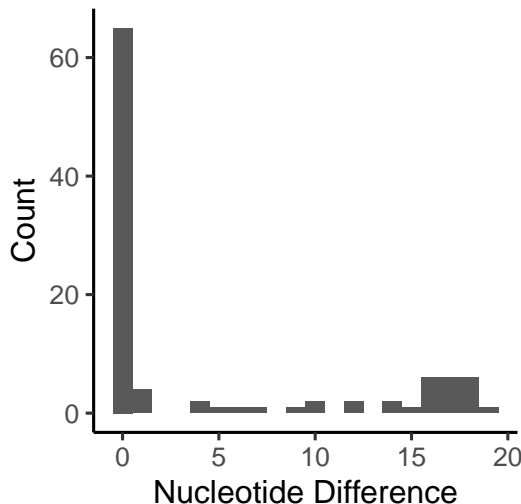
### IGHV3-49\*03\_05

504 sequences assigned  
98 (19.4%) exact matches, in which:  
70 unique CDR3  
5 unique J



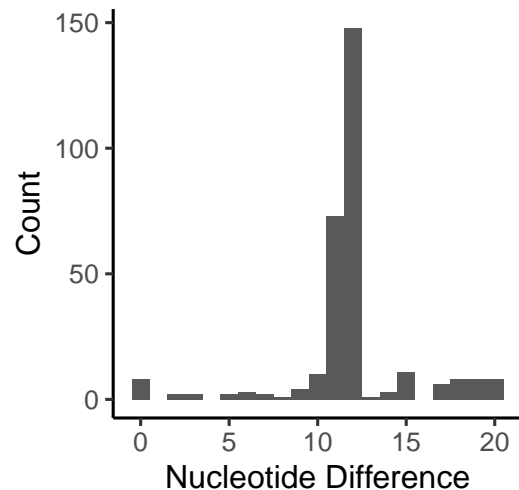
### IGHV3-64\*01

144 sequences assigned  
65 (45.1%) exact matches, in which:  
45 unique CDR3  
6 unique J



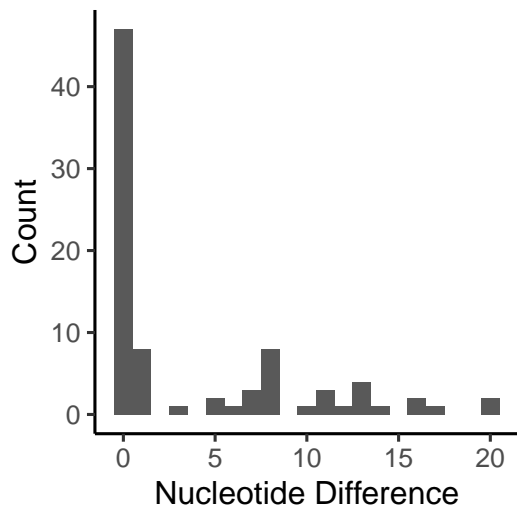
### IGHV3-72\*01

334 sequences assigned  
8 (2.4%) exact matches, in which:  
7 unique CDR3  
4 unique J



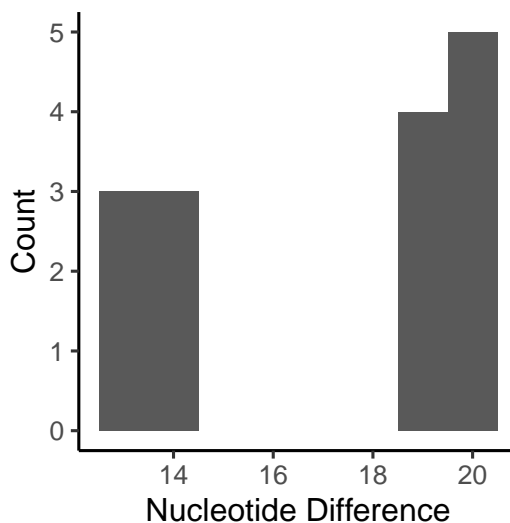
### IGHV3-53\*04

99 sequences assigned  
47 (47.5%) exact matches, in which:  
31 unique CDR3  
6 unique J



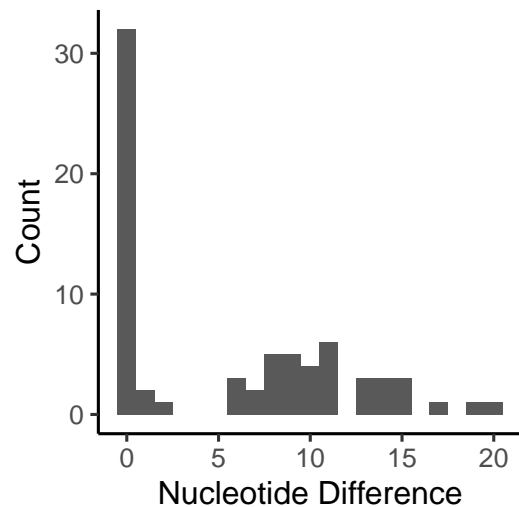
### IGHV3-64\*02\_07

33 sequences assigned  
No exact matches.



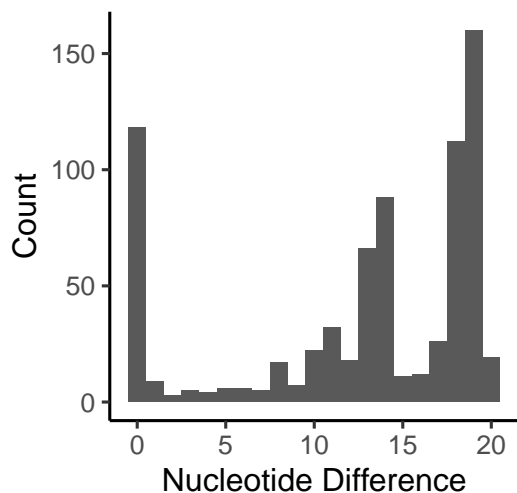
### IGHV3-73\*01\_02

75 sequences assigned  
32 (42.7%) exact matches, in which:  
21 unique CDR3  
3 unique J



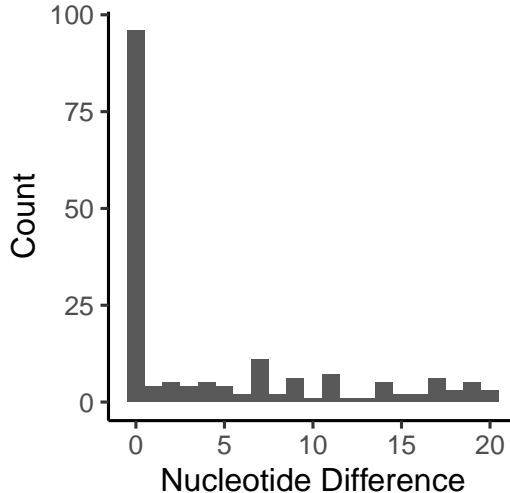
### IGHV3-53\*01\_02

840 sequences assigned  
118 (14%) exact matches, in which:  
76 unique CDR3  
6 unique J



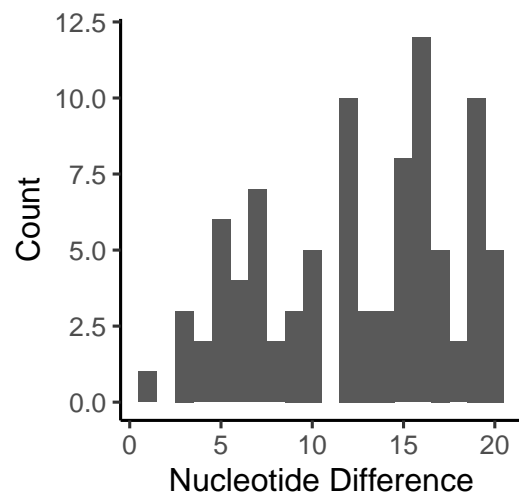
### IGHV3-66\*02

187 sequences assigned  
96 (51.3%) exact matches, in which:  
58 unique CDR3  
5 unique J



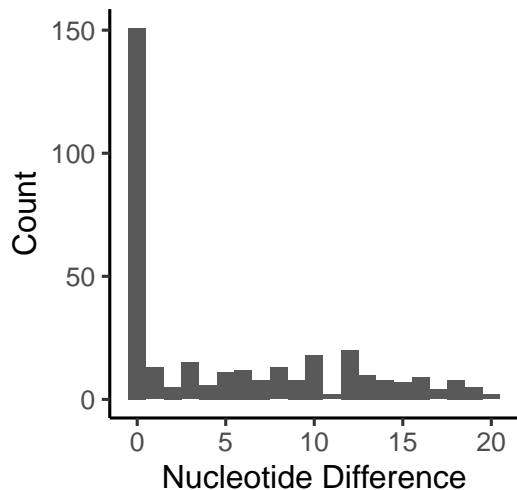
### IGHV3-74\*03

116 sequences assigned  
No exact matches.



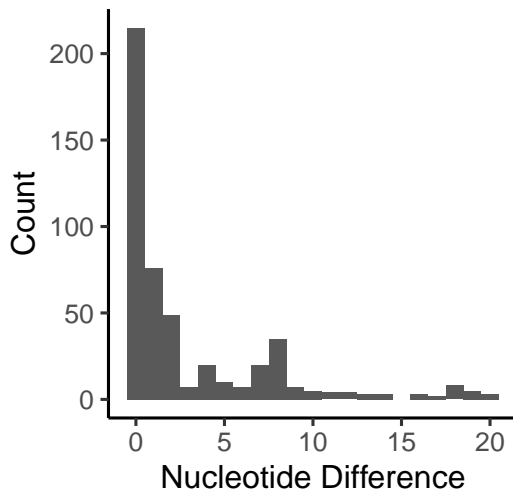
### IGHV3-74\*01\_02

363 sequences assigned  
151 (41.6%) exact matches, in which:  
86 unique CDR3  
5 unique J



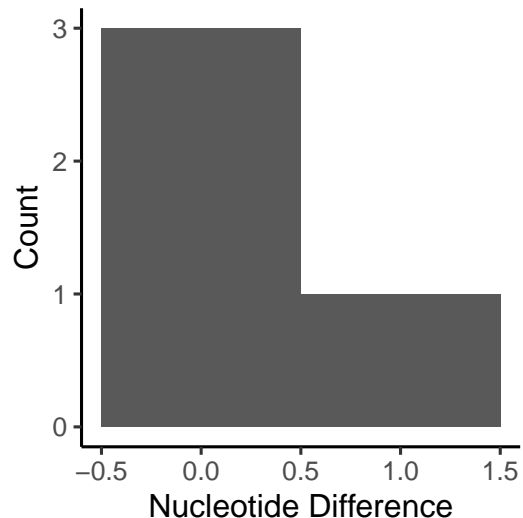
### IGHV4-4\*07

553 sequences assigned  
215 (38.9%) exact matches, in which:  
208 unique CDR3  
6 unique J



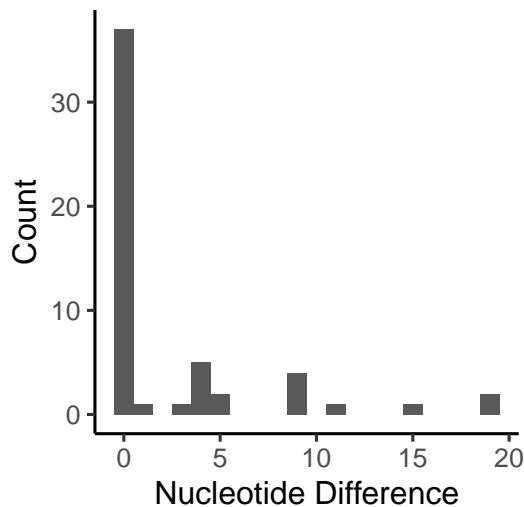
### IGHV4-28\*01\_07

5 sequences assigned  
3 (60%) exact matches, in which:  
2 unique CDR3  
2 unique J



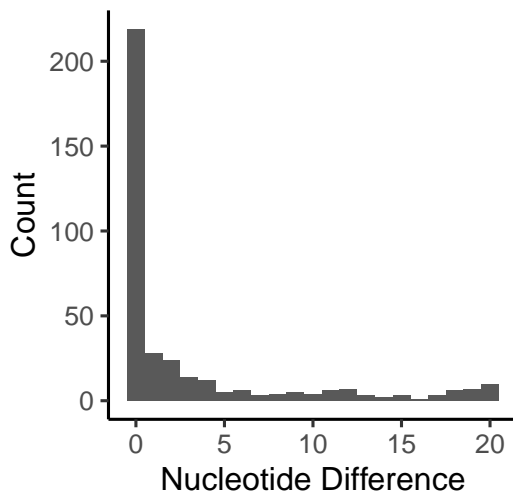
### IGHV3-43D\*03

54 sequences assigned  
37 (68.5%) exact matches, in which:  
23 unique CDR3  
3 unique J



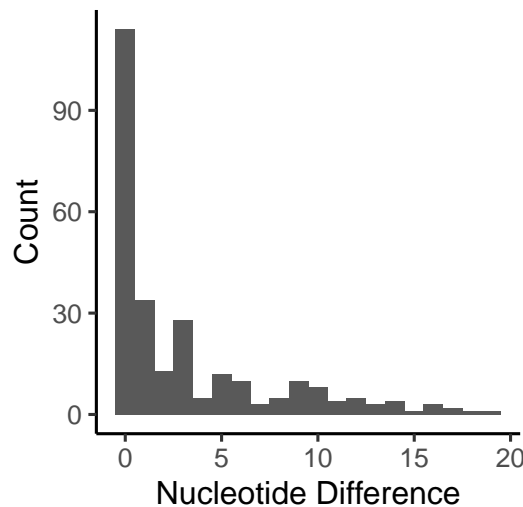
### IGHV4-4\*02\_03

416 sequences assigned  
219 (52.6%) exact matches, in which:  
184 unique CDR3  
6 unique J



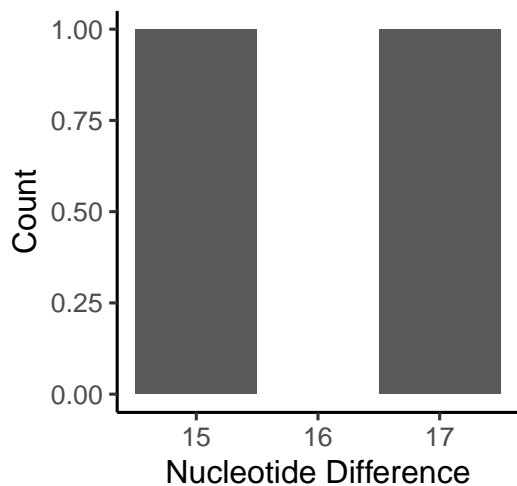
### IGHV4-30-4\*01

283 sequences assigned  
114 (40.3%) exact matches, in which:  
112 unique CDR3  
6 unique J



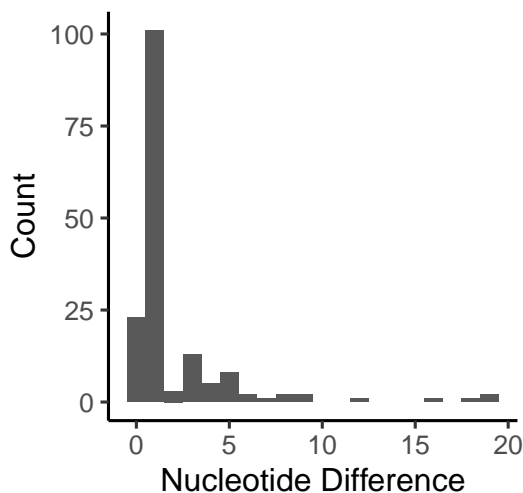
### IGHV3-NL1\*01

2 sequences assigned  
No exact matches.



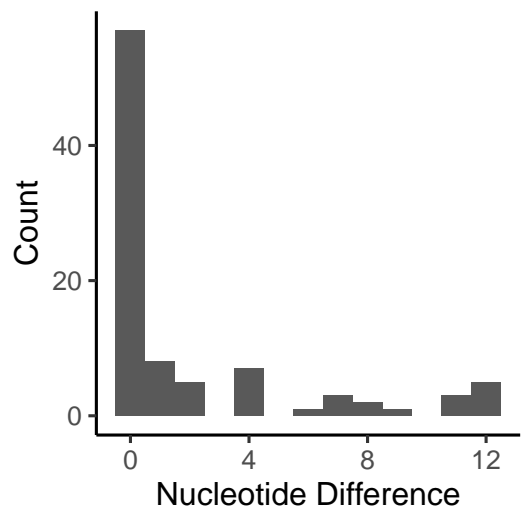
### IGHV4-4\*07\_G291A

172 sequences assigned  
23 (13.4%) exact matches, in which:  
23 unique CDR3  
5 unique J



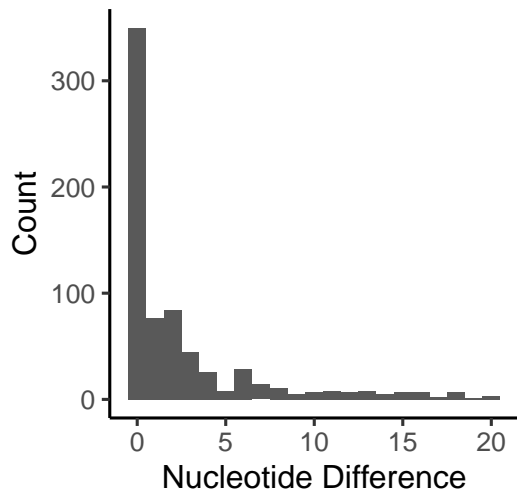
### IGHV4-30-2\*01

93 sequences assigned  
57 (61.3%) exact matches, in which:  
42 unique CDR3  
6 unique J



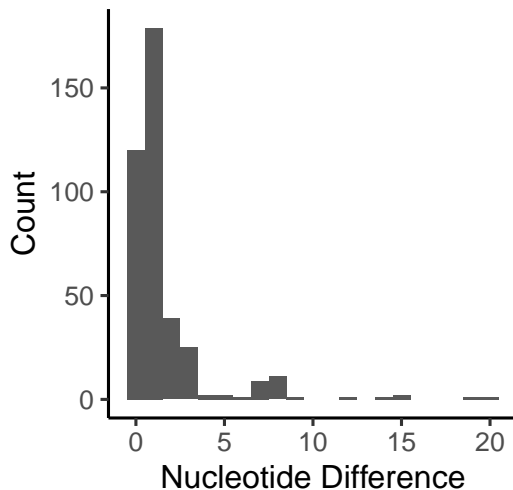
### IGHV4-31\*02

828 sequences assigned  
350 (42.3%) exact matches, in which:  
333 unique CDR3  
6 unique J



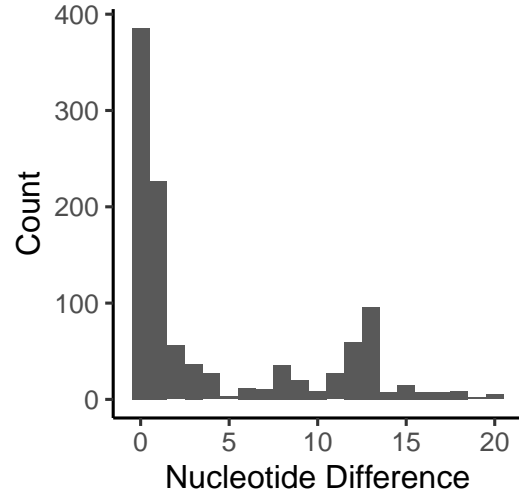
### IGHV4-34\*01\_02\_T300C

413 sequences assigned  
120 (29.1%) exact matches, in which:  
120 unique CDR3  
6 unique J



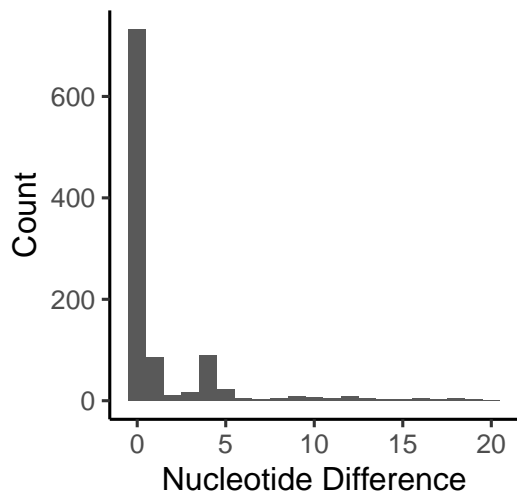
### IGHV4-39\*07

1319 sequences assigned  
386 (29.3%) exact matches, in which:  
358 unique CDR3  
6 unique J



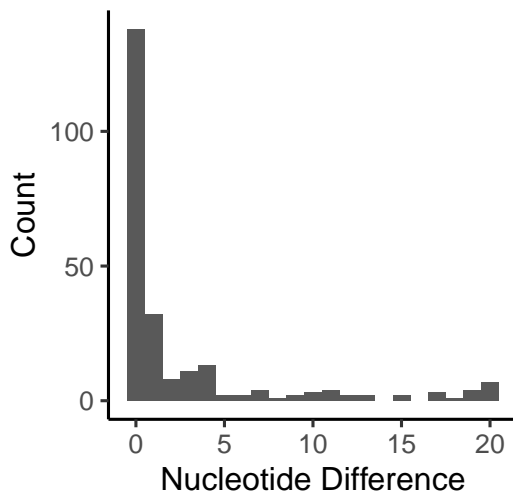
### IGHV4-34\*01\_02

1084 sequences assigned  
733 (67.6%) exact matches, in which:  
561 unique CDR3  
6 unique J



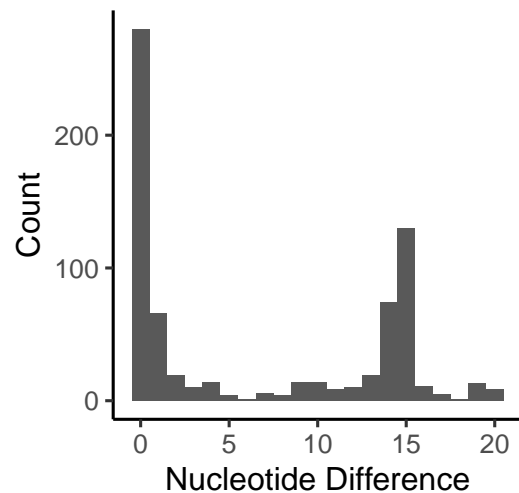
### IGHV4-38-2\*02

278 sequences assigned  
138 (49.6%) exact matches, in which:  
133 unique CDR3  
6 unique J



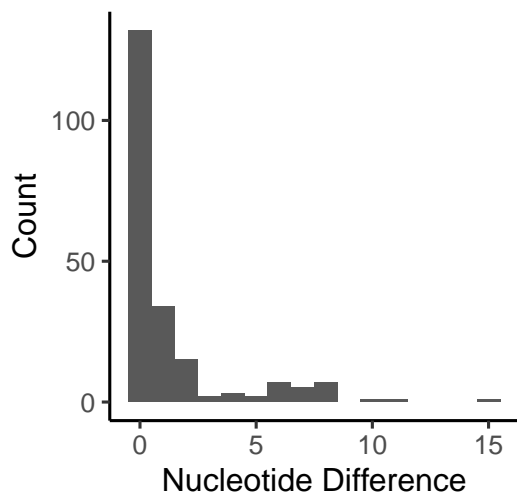
### IGHV4-39\*02\_C258G

777 sequences assigned  
280 (36%) exact matches, in which:  
257 unique CDR3  
6 unique J



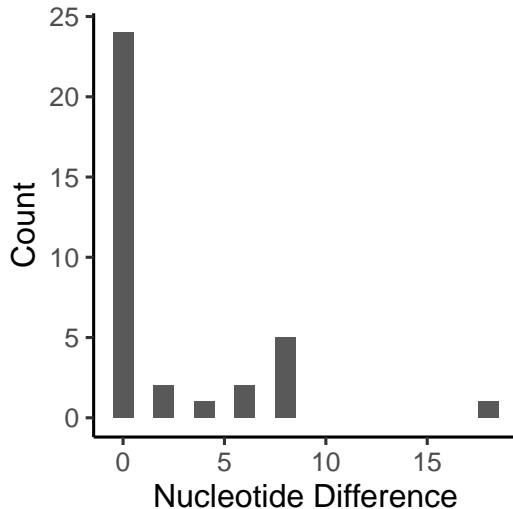
### IGHV4-34\*01\_02\_G291A

212 sequences assigned  
132 (62.3%) exact matches, in which:  
127 unique CDR3  
6 unique J



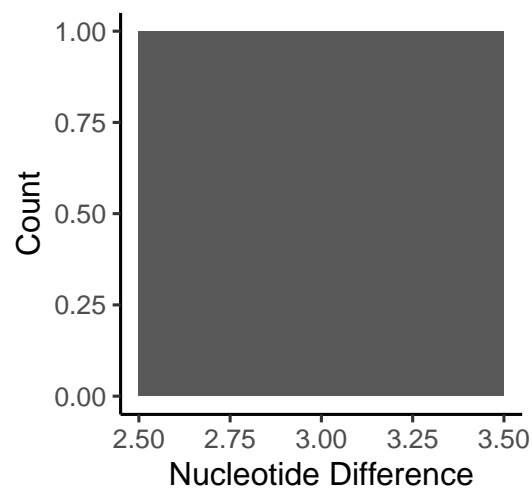
### IGHV4-38-2\*02\_A291G\_C258T

35 sequences assigned  
24 (68.6%) exact matches, in which:  
24 unique CDR3  
4 unique J



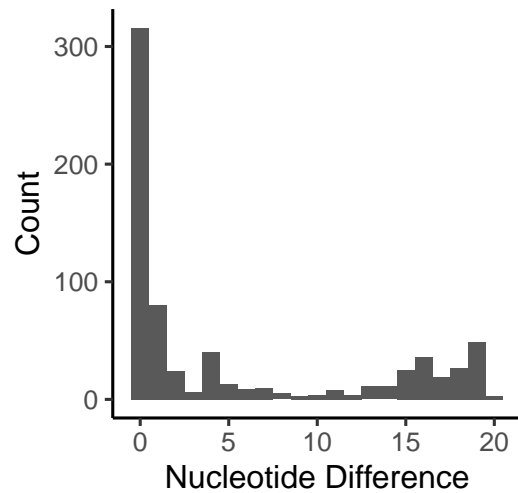
### IGHV4-55\*09

1 sequences assigned  
No exact matches.



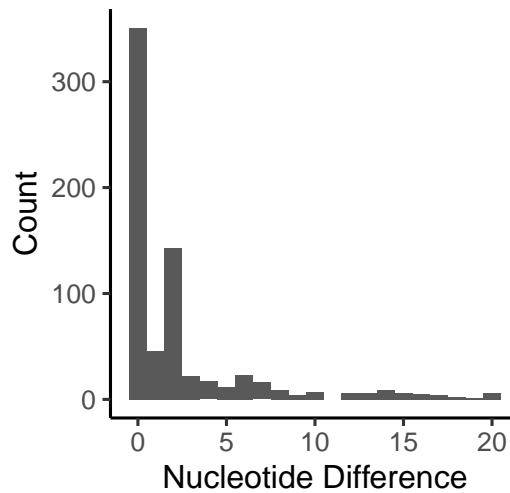
### IGHV4–59\*08

853 sequences assigned  
316 (37%) exact matches, in which:  
305 unique CDR3  
6 unique J



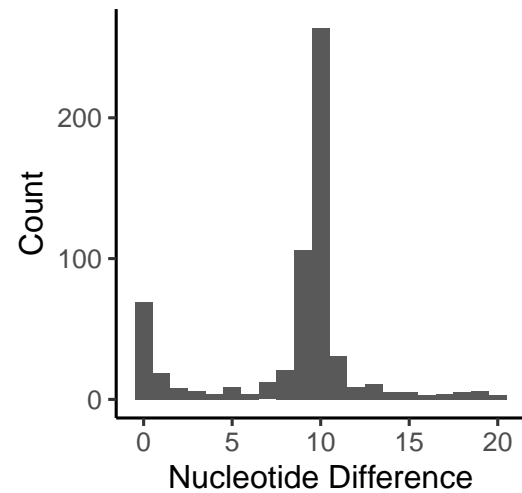
### IGHV4–61\*02

739 sequences assigned  
351 (47.5%) exact matches, in which:  
340 unique CDR3  
6 unique J



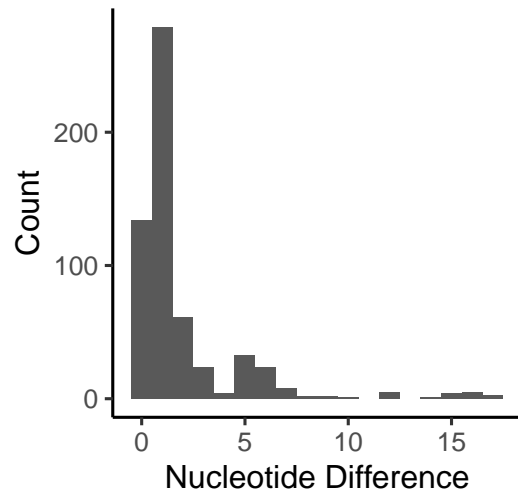
### IGHV6–1\*01\_02

620 sequences assigned  
69 (11.1%) exact matches, in which:  
63 unique CDR3  
6 unique J



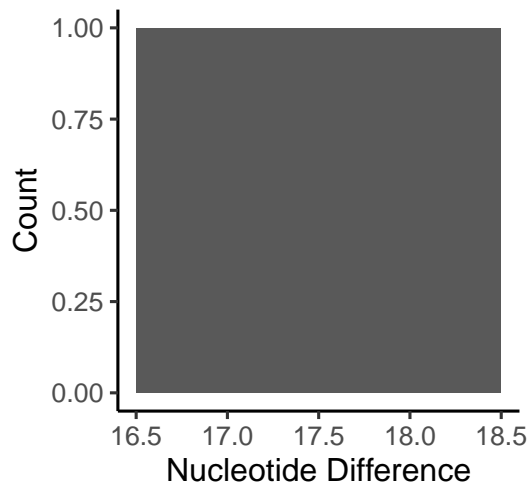
### IGHV4–59\*12

608 sequences assigned  
134 (22%) exact matches, in which:  
134 unique CDR3  
6 unique J



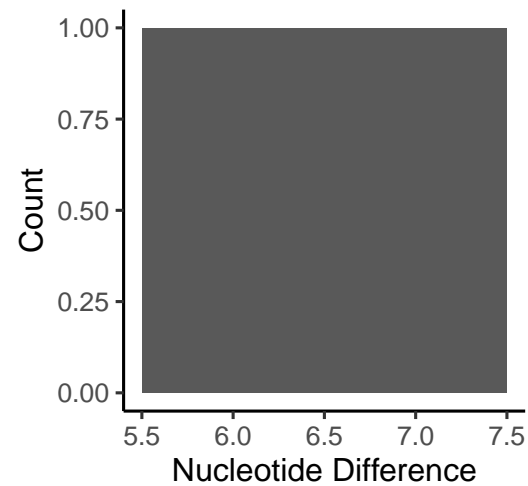
### IGHV4/OR15–8\*02

3 sequences assigned  
No exact matches.



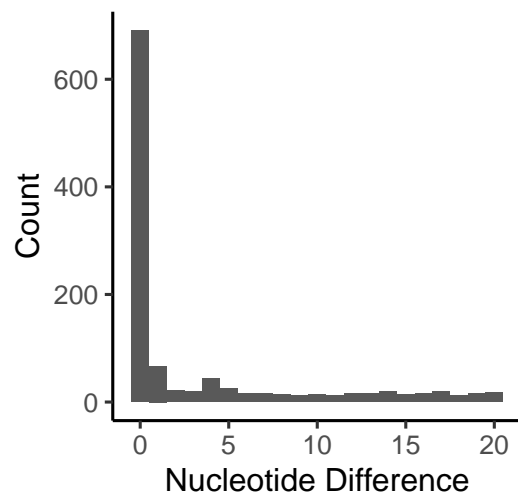
### IGHV7–40\*03

2 sequences assigned  
No exact matches.



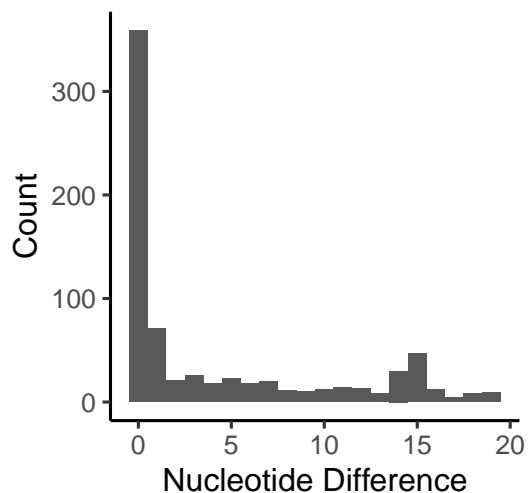
### IGHV4–59\*02\_G88A

1453 sequences assigned  
691 (47.6%) exact matches, in which:  
644 unique CDR3  
6 unique J



### IGHV5–51\*07\_A128G

764 sequences assigned  
359 (47%) exact matches, in which:  
215 unique CDR3  
6 unique J







Warning – no inferred sequences found.