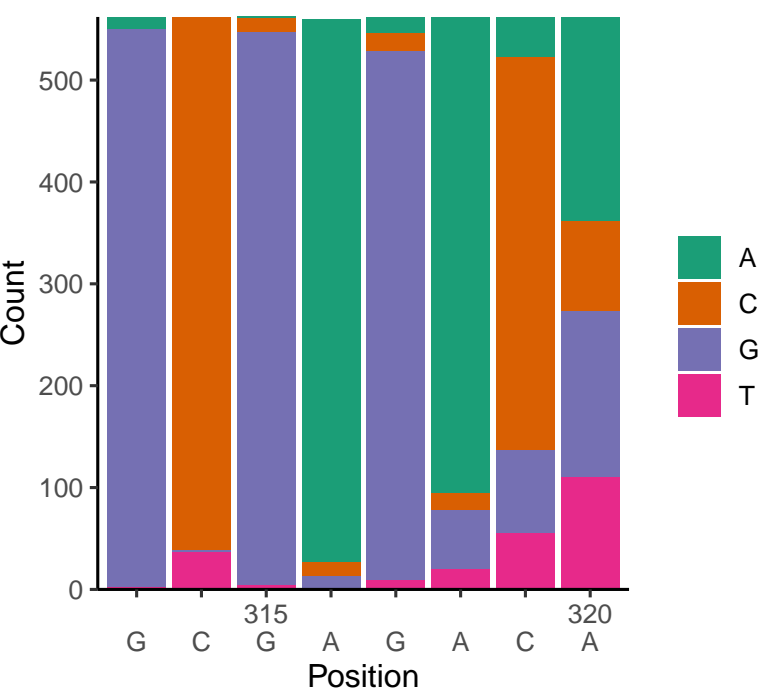
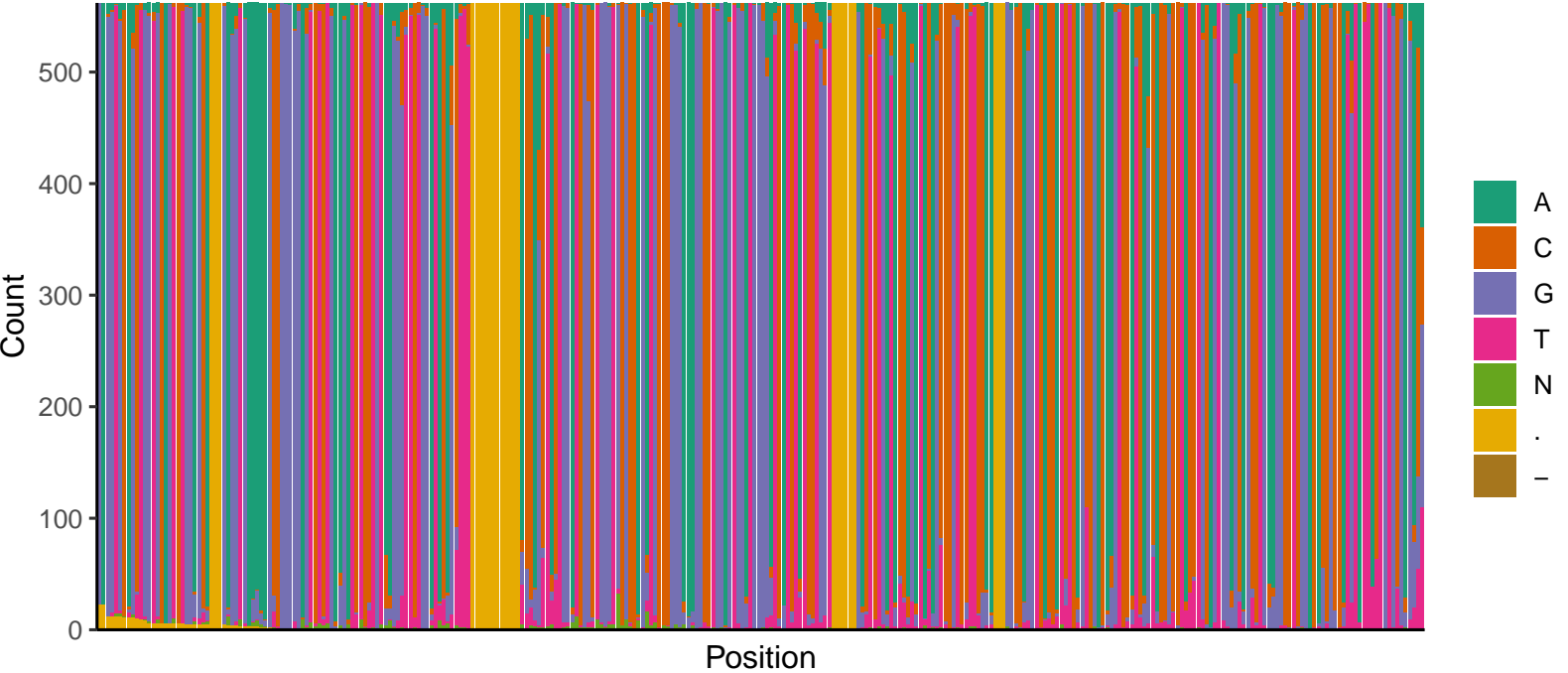


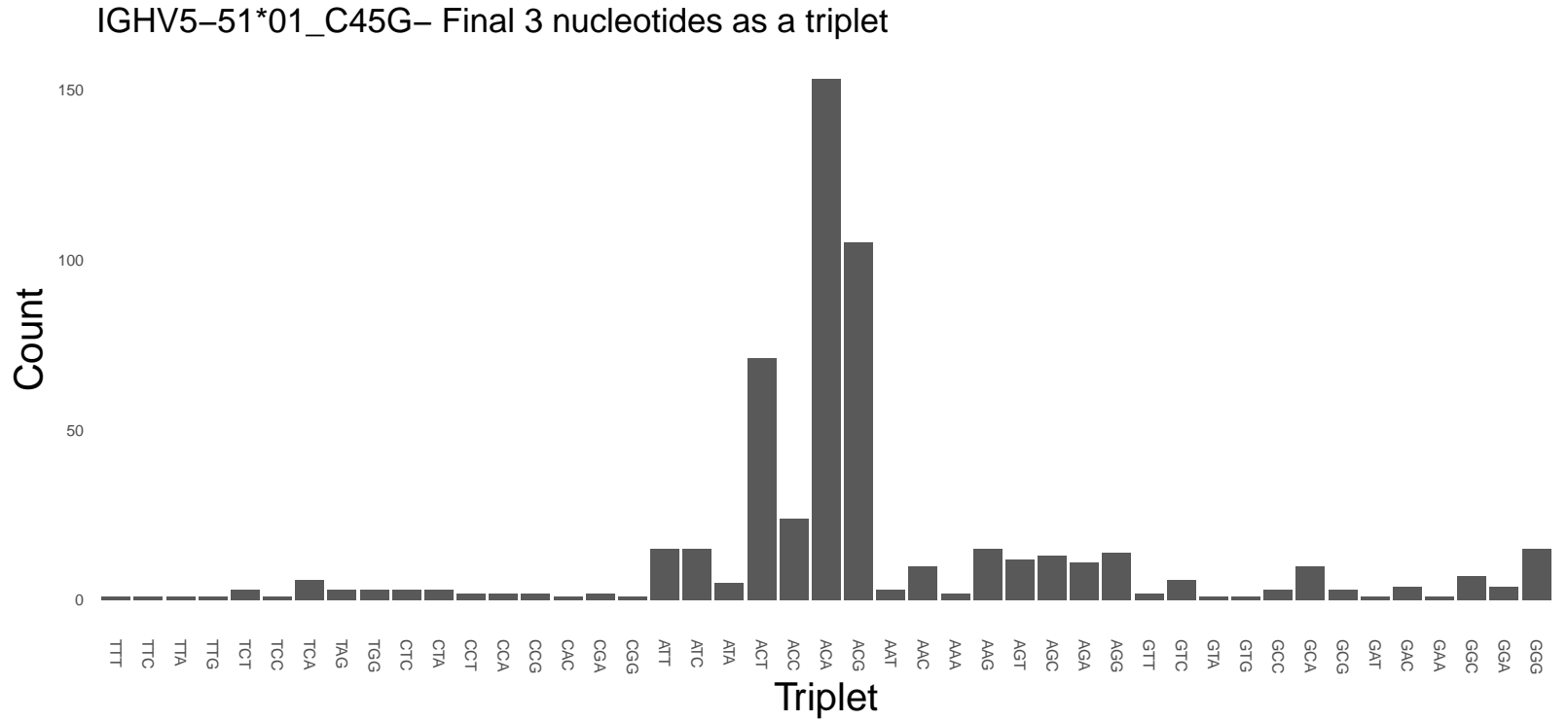
Gene IGHV5-51\*01\_C45G



Gene IGHV5-51\*01\_C45G

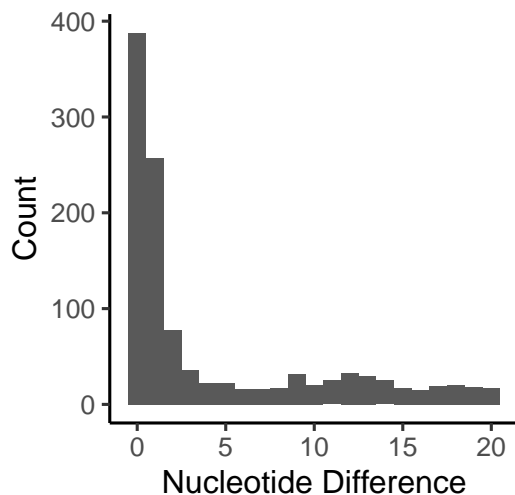


IGHV5-51\*01\_C45G- Final 3 nucleotides as a triplet



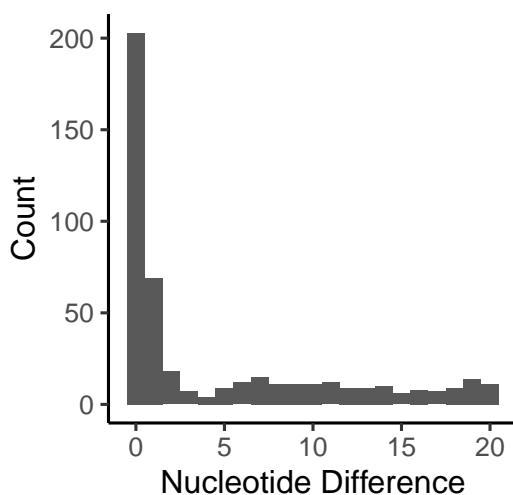
### IGHV1-2\*02

1440 sequences assigned  
388 (26.9%) exact matches, in which:  
387 unique CDR3  
6 unique J



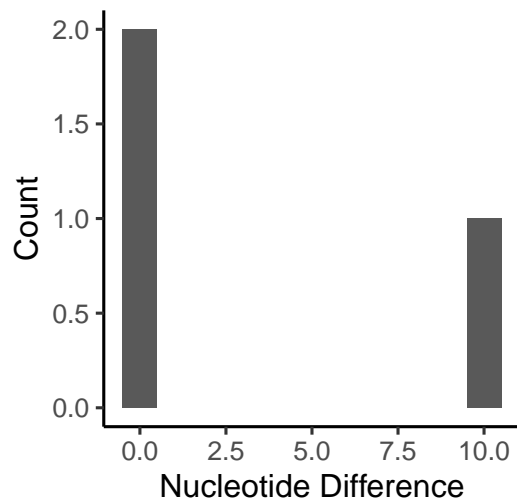
### IGHV1-18\*01

724 sequences assigned  
203 (28%) exact matches, in which:  
203 unique CDR3  
6 unique J



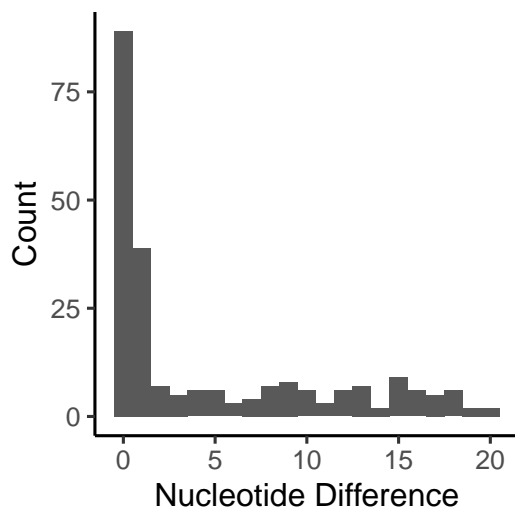
### IGHV1-45\*02

17 sequences assigned  
2 (11.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



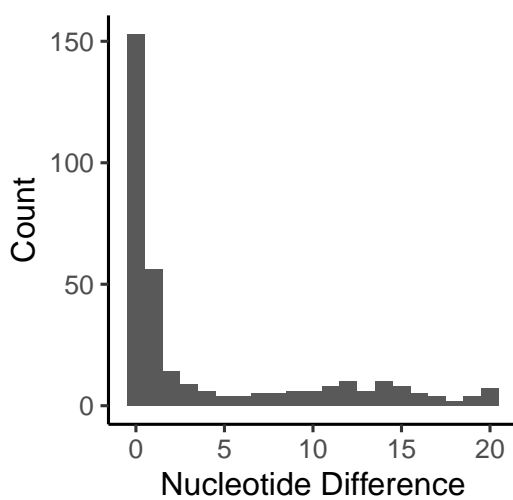
### IGHV1-3\*01

336 sequences assigned  
89 (26.5%) exact matches, in which:  
89 unique CDR3  
5 unique J



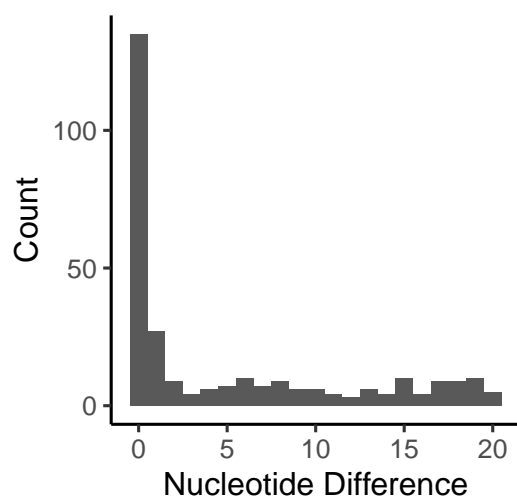
### IGHV1-18\*04

461 sequences assigned  
153 (33.2%) exact matches, in which:  
152 unique CDR3  
5 unique J



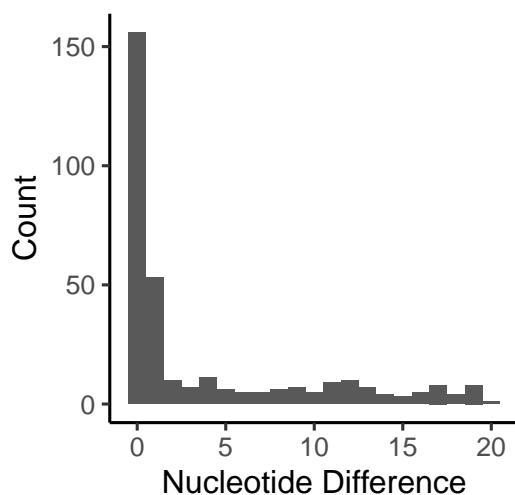
### IGHV1-46\*01

406 sequences assigned  
135 (33.3%) exact matches, in which:  
135 unique CDR3  
6 unique J



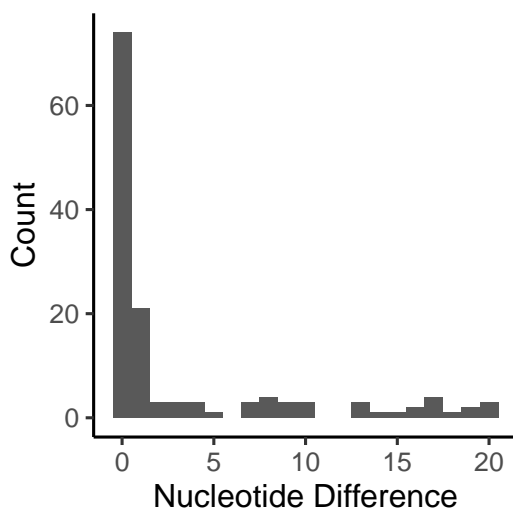
### IGHV1-8\*01

375 sequences assigned  
156 (41.6%) exact matches, in which:  
156 unique CDR3  
6 unique J



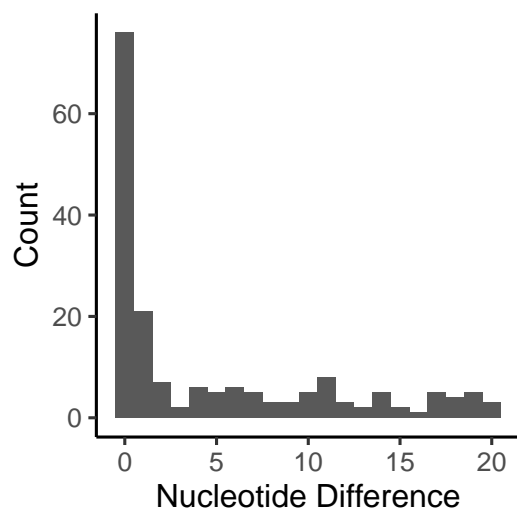
### IGHV1-24\*01

183 sequences assigned  
74 (40.4%) exact matches, in which:  
74 unique CDR3  
6 unique J



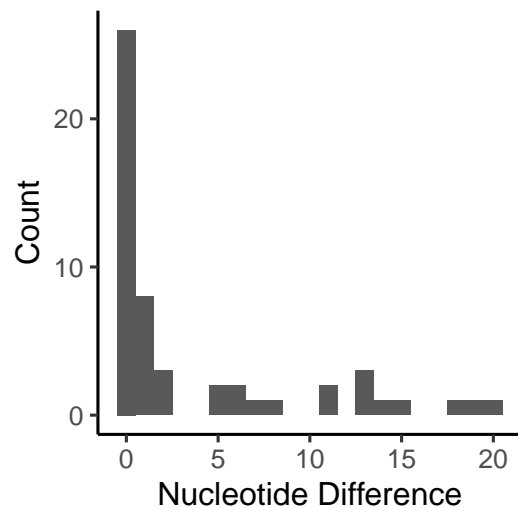
### IGHV1-46\*03

208 sequences assigned  
76 (36.5%) exact matches, in which:  
76 unique CDR3  
6 unique J



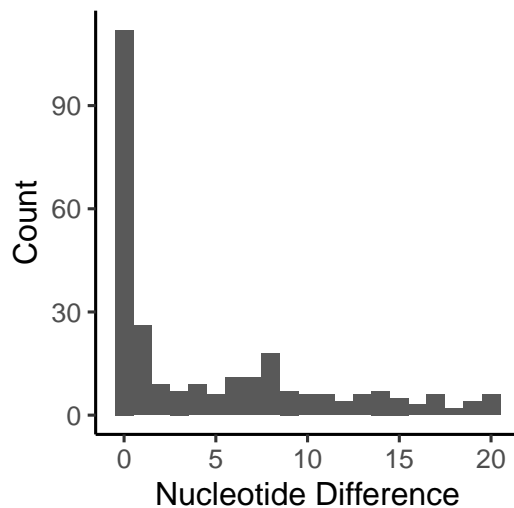
### IGHV1-58\*01

63 sequences assigned  
26 (41.3%) exact matches, in which:  
26 unique CDR3  
6 unique J



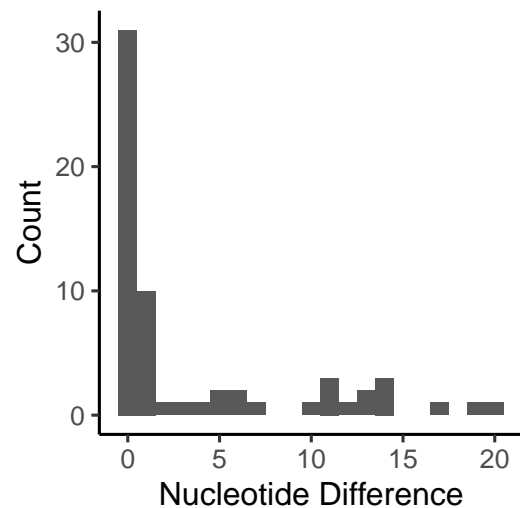
### IGHV2-5\*01

303 sequences assigned  
112 (37%) exact matches, in which:  
112 unique CDR3  
6 unique J



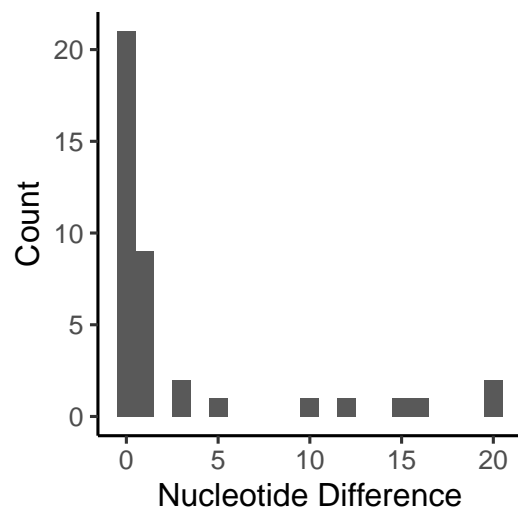
### IGHV2-70\*01

74 sequences assigned  
31 (41.9%) exact matches, in which:  
31 unique CDR3  
5 unique J



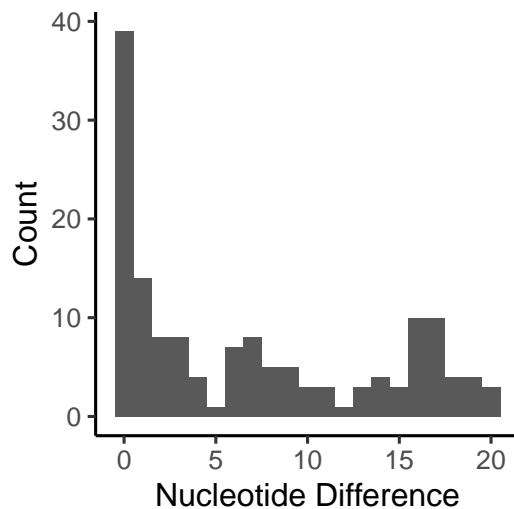
### IGHV1-58\*02

45 sequences assigned  
21 (46.7%) exact matches, in which:  
21 unique CDR3  
5 unique J



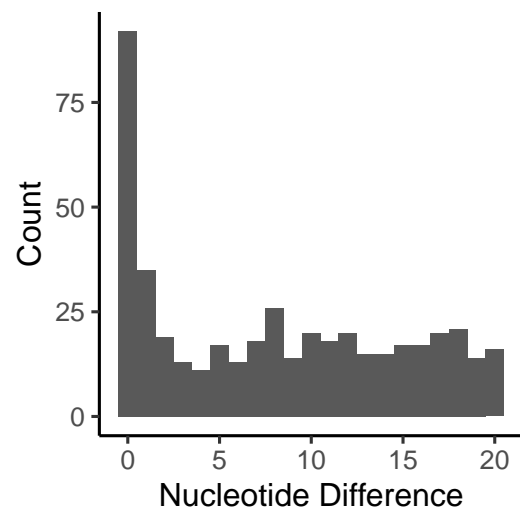
### IGHV2-5\*02

215 sequences assigned  
39 (18.1%) exact matches, in which:  
39 unique CDR3  
5 unique J



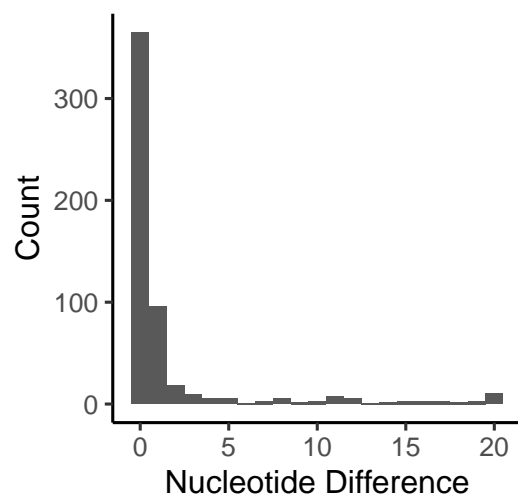
### IGHV3-7\*01

573 sequences assigned  
92 (16.1%) exact matches, in which:  
92 unique CDR3  
6 unique J



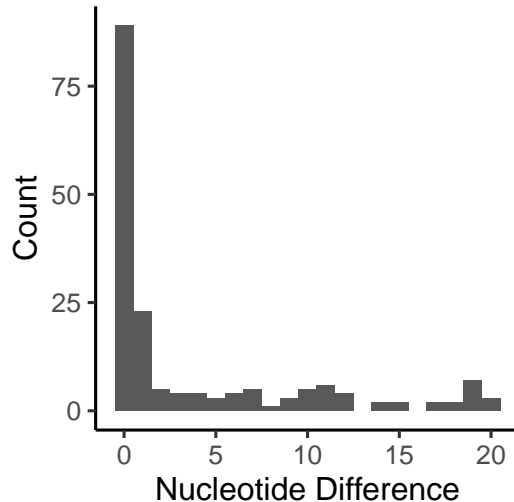
### IGHV1-69\*10

731 sequences assigned  
365 (49.9%) exact matches, in which:  
364 unique CDR3  
6 unique J



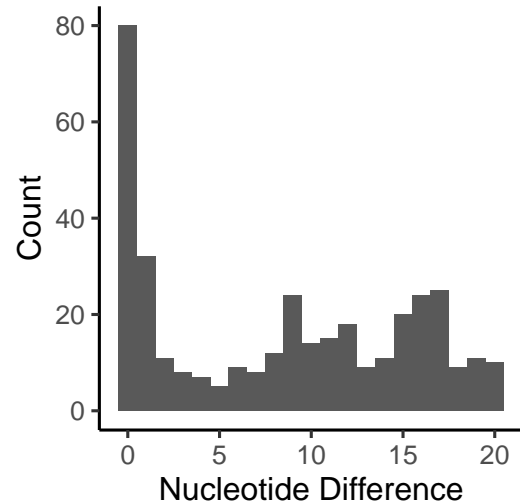
### IGHV2-26\*01

215 sequences assigned  
89 (41.4%) exact matches, in which:  
89 unique CDR3  
5 unique J



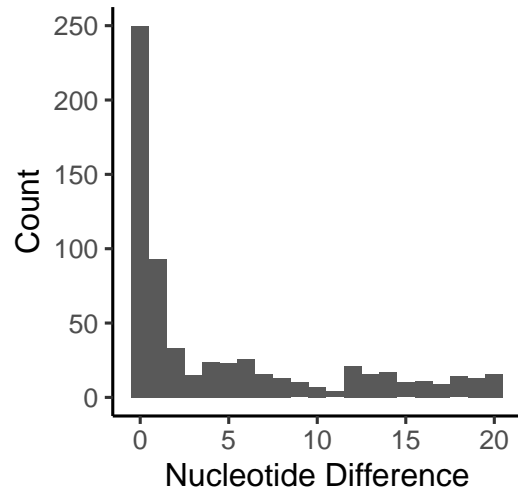
### IGHV3-7\*03

489 sequences assigned  
80 (16.4%) exact matches, in which:  
80 unique CDR3  
5 unique J



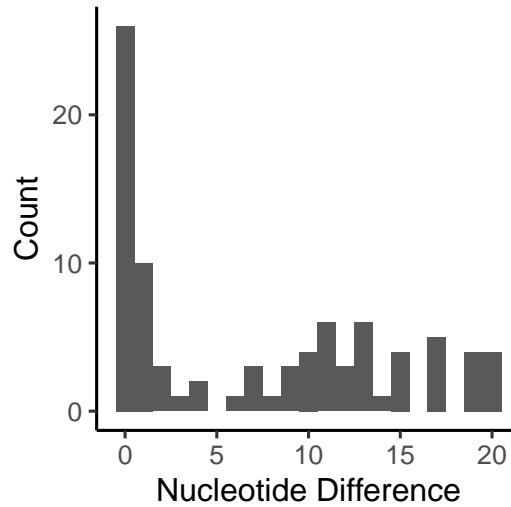
### IGHV3-9\*01

842 sequences assigned  
250 (29.7%) exact matches, in which:  
250 unique CDR3  
6 unique J



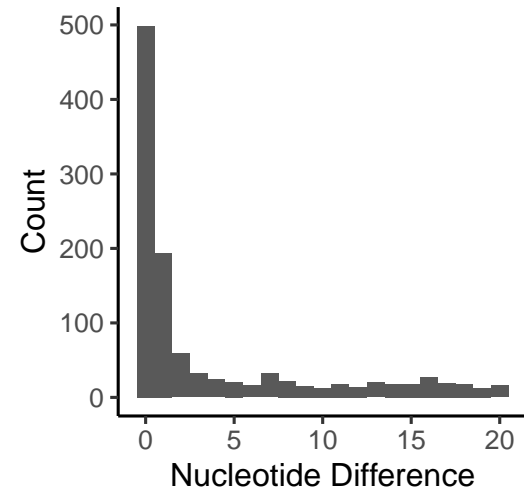
### IGHV3-13\*01

110 sequences assigned  
26 (23.6%) exact matches, in which:  
26 unique CDR3  
5 unique J



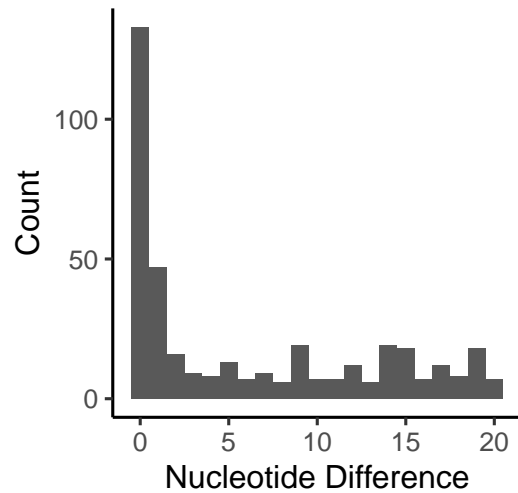
### IGHV3-21\*01

1421 sequences assigned  
499 (35.1%) exact matches, in which:  
499 unique CDR3  
6 unique J



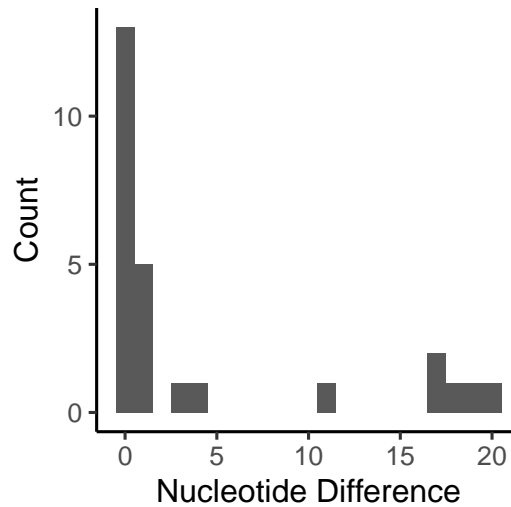
### IGHV3-11\*01

498 sequences assigned  
133 (26.7%) exact matches, in which:  
132 unique CDR3  
6 unique J



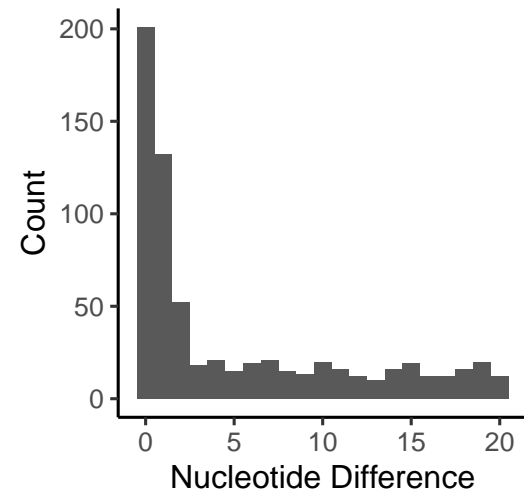
### IGHV3-13\*05

27 sequences assigned  
13 (48.1%) exact matches, in which:  
13 unique CDR3  
4 unique J



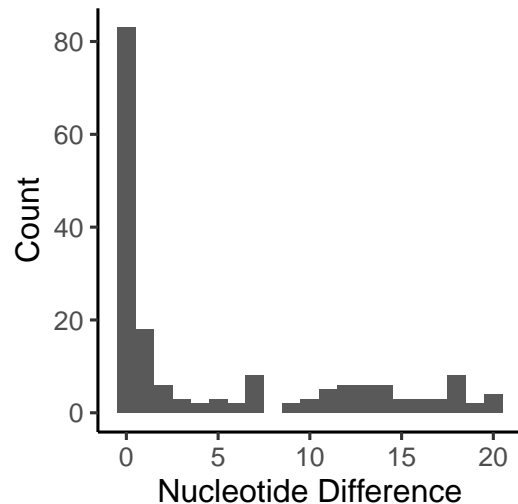
### IGHV3-30\*01

841 sequences assigned  
201 (23.9%) exact matches, in which:  
201 unique CDR3  
6 unique J



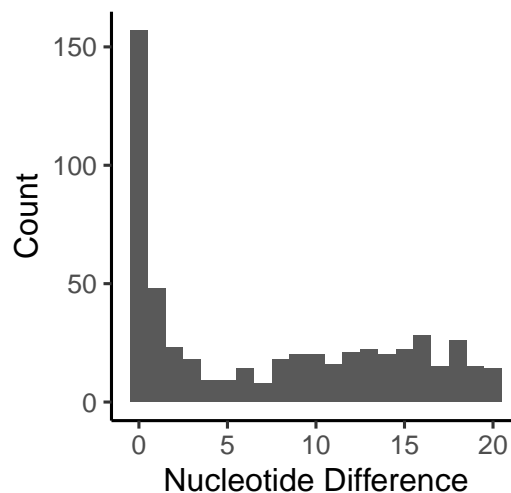
### IGHV3-11\*06

399 sequences assigned  
83 (20.8%) exact matches, in which:  
83 unique CDR3  
6 unique J



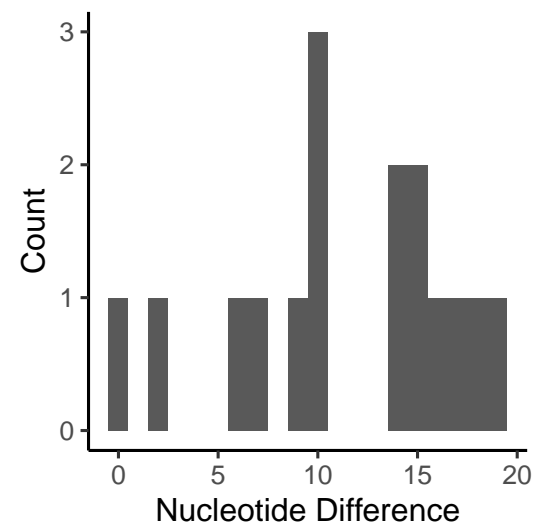
### IGHV3-15\*01

734 sequences assigned  
157 (21.4%) exact matches, in which:  
156 unique CDR3  
6 unique J



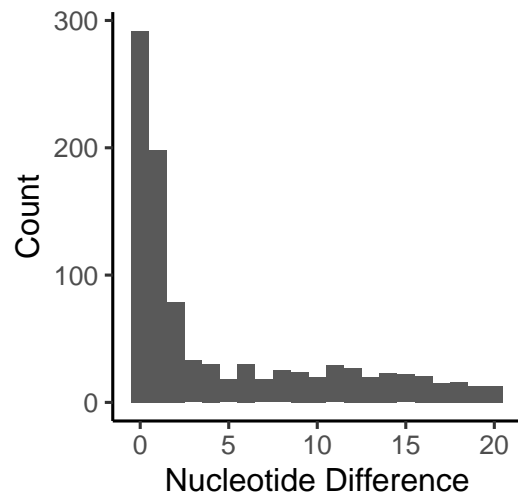
### IGHV3-30-3\*03

47 sequences assigned  
1 (2.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



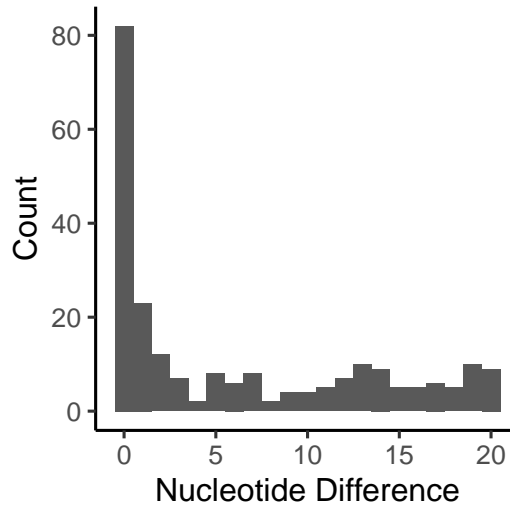
### IGHV3-33\*01

1161 sequences assigned  
292 (25.2%) exact matches, in which:  
292 unique CDR3  
6 unique J



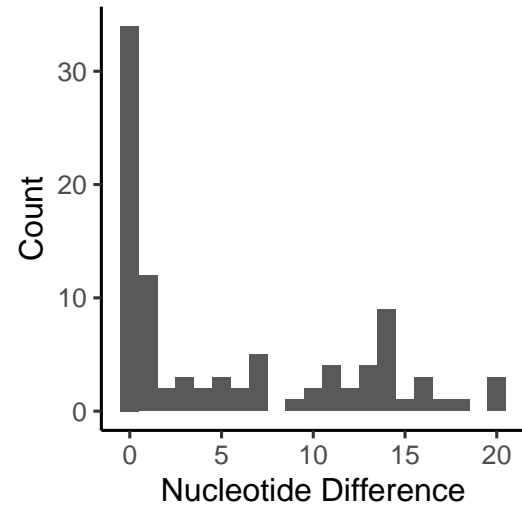
### IGHV3-48\*02

316 sequences assigned  
82 (25.9%) exact matches, in which:  
82 unique CDR3  
5 unique J



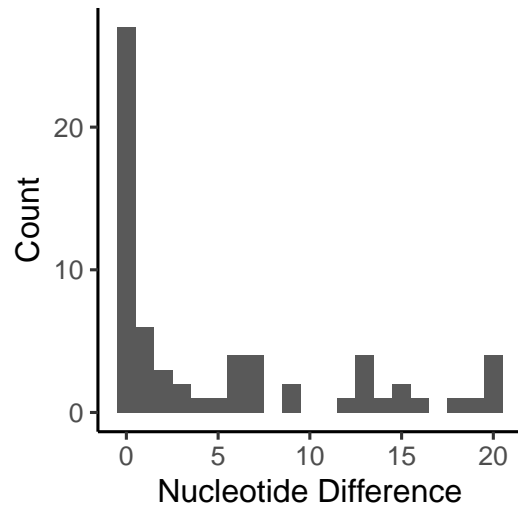
### IGHV3-49\*05

124 sequences assigned  
34 (27.4%) exact matches, in which:  
34 unique CDR3  
5 unique J



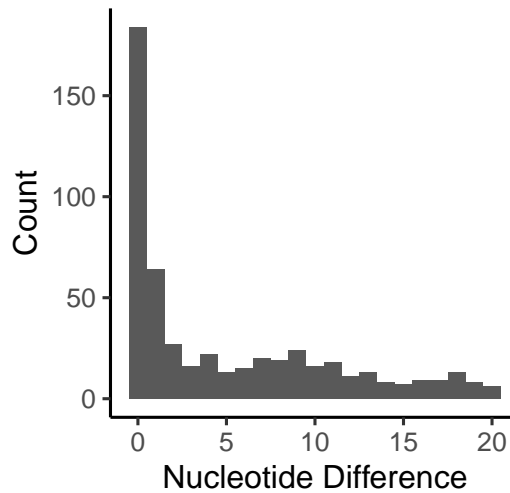
### IGHV3-43\*01

92 sequences assigned  
27 (29.3%) exact matches, in which:  
27 unique CDR3  
3 unique J



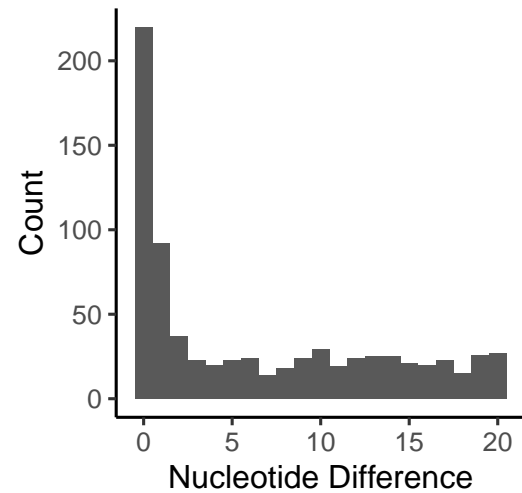
### IGHV3-48\*03

654 sequences assigned  
184 (28.1%) exact matches, in which:  
184 unique CDR3  
6 unique J



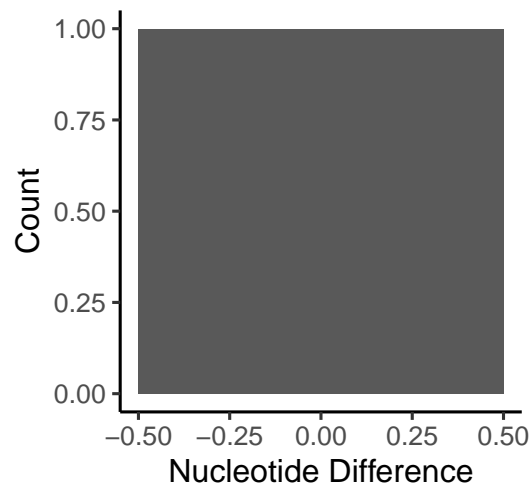
### IGHV3-53\*01

962 sequences assigned  
220 (22.9%) exact matches, in which:  
218 unique CDR3  
6 unique J



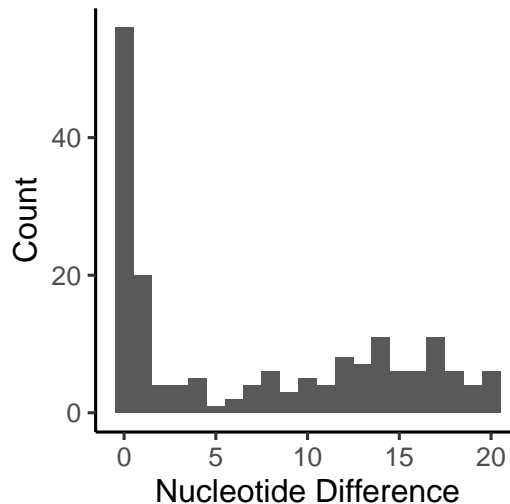
### IGHV3-47\*02

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



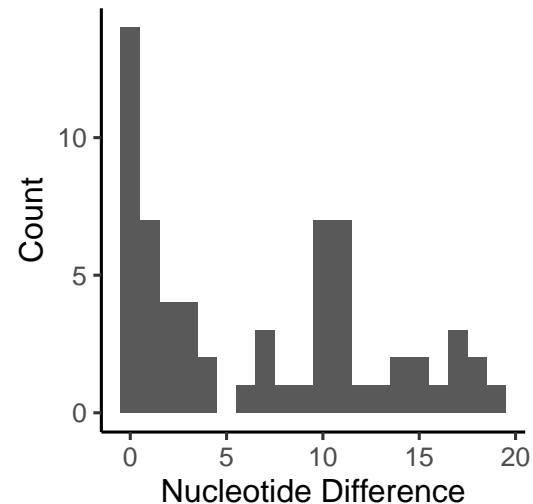
### IGHV3-49\*04

258 sequences assigned  
56 (21.7%) exact matches, in which:  
56 unique CDR3  
6 unique J



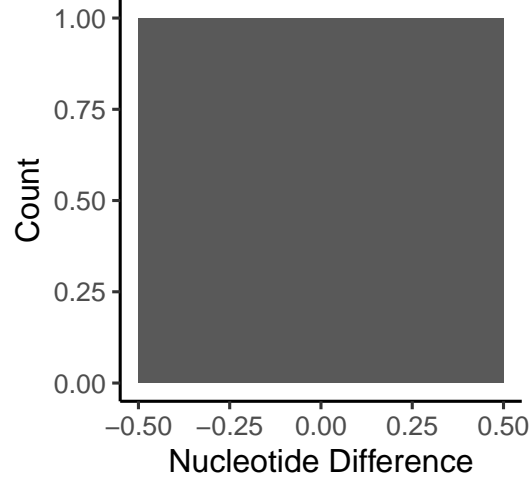
### IGHV3-64\*01

81 sequences assigned  
14 (17.3%) exact matches, in which:  
14 unique CDR3  
3 unique J



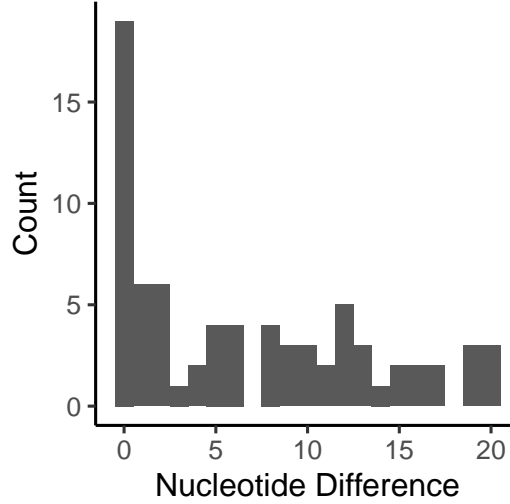
### IGHV3-66\*03

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



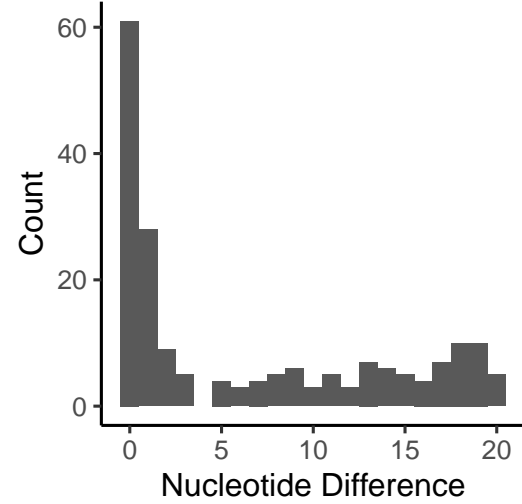
### IGHV3-73\*02

90 sequences assigned  
19 (21.1%) exact matches, in which:  
19 unique CDR3  
3 unique J



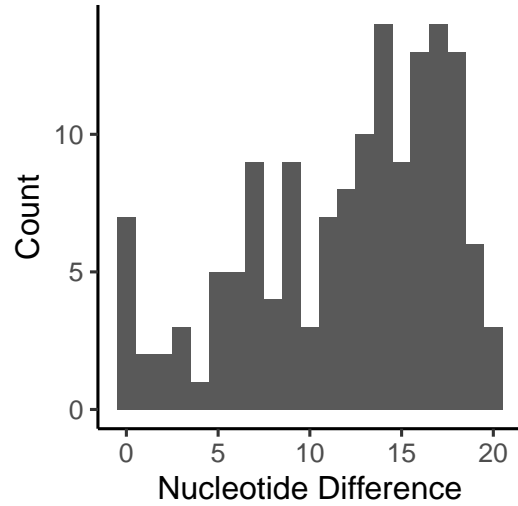
### IGHV4-4\*02

286 sequences assigned  
61 (21.3%) exact matches, in which:  
61 unique CDR3  
5 unique J



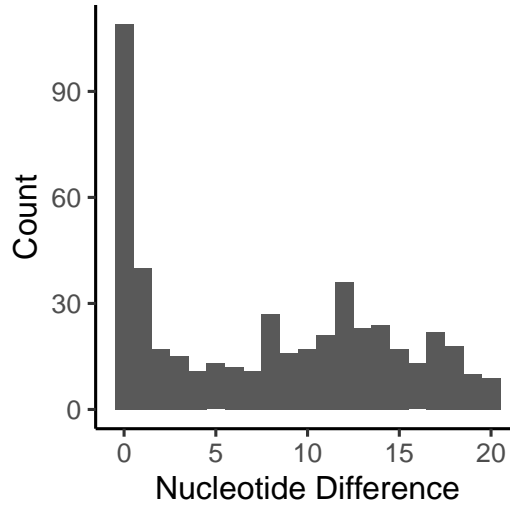
### IGHV3-72\*01

194 sequences assigned  
7 (3.6%) exact matches, in which:  
7 unique CDR3  
4 unique J



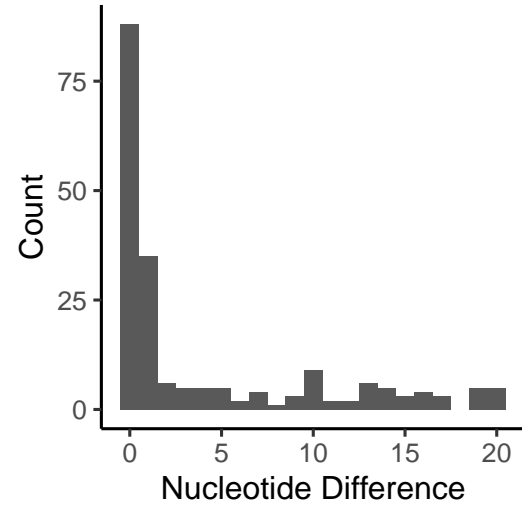
### IGHV3-74\*01

579 sequences assigned  
109 (18.8%) exact matches, in which:  
109 unique CDR3  
5 unique J



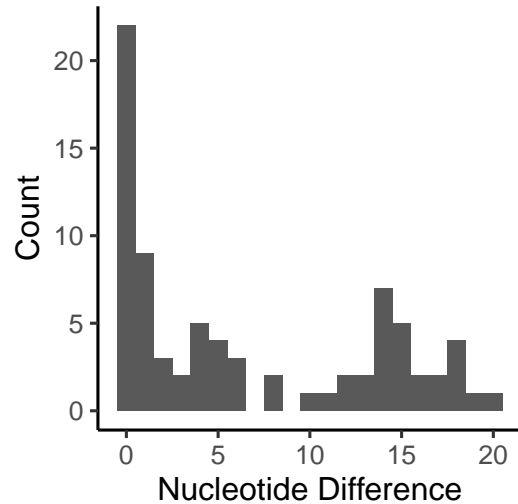
### IGHV4-4\*07

262 sequences assigned  
88 (33.6%) exact matches, in which:  
88 unique CDR3  
6 unique J



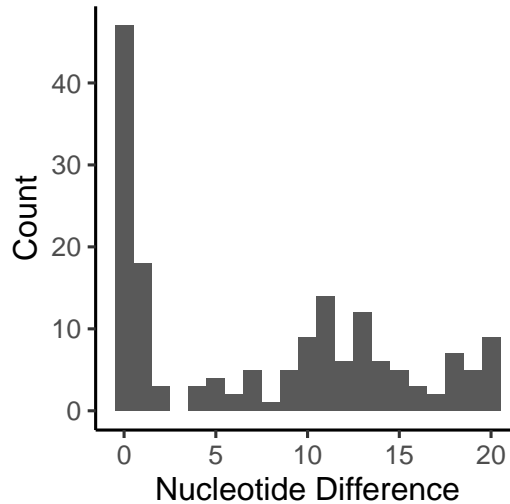
### IGHV3-73\*01

94 sequences assigned  
22 (23.4%) exact matches, in which:  
22 unique CDR3  
5 unique J



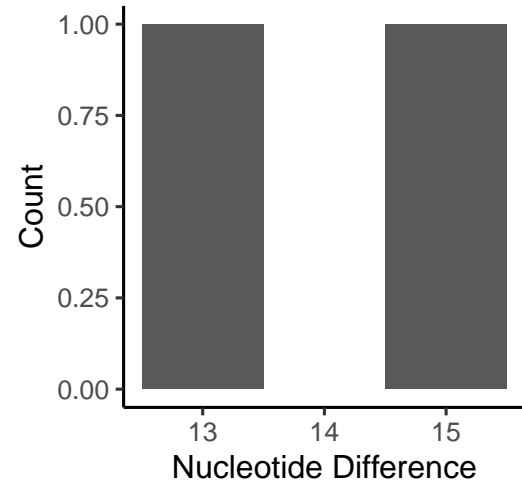
### IGHV3-64D\*06

276 sequences assigned  
47 (17%) exact matches, in which:  
47 unique CDR3  
4 unique J



### IGHV4-28\*07

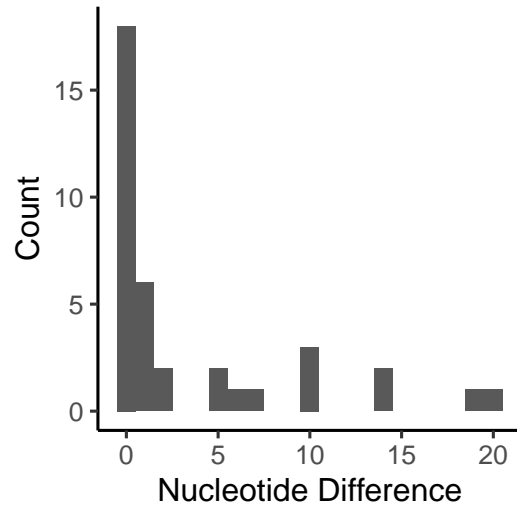
2 sequences assigned  
No exact matches.





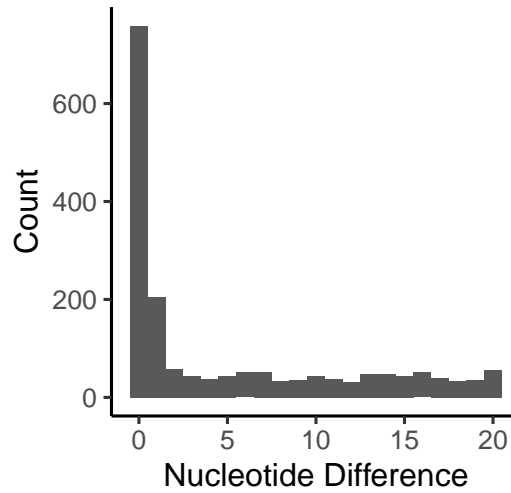
### IGHV4-31\*01

38 sequences assigned  
18 (47.4%) exact matches, in which:  
18 unique CDR3  
6 unique J



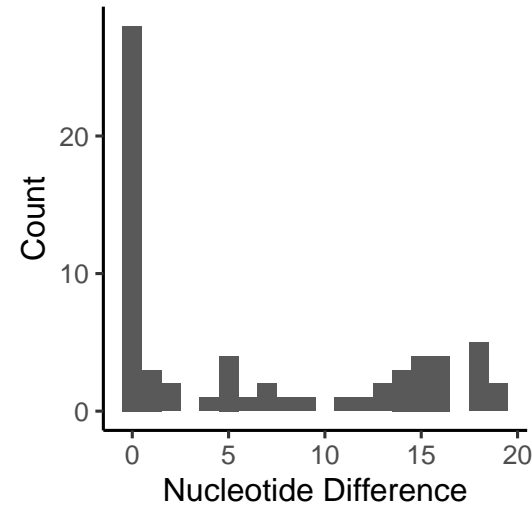
### IGHV4-39\*01

2327 sequences assigned  
759 (32.6%) exact matches, in which:  
758 unique CDR3  
6 unique J



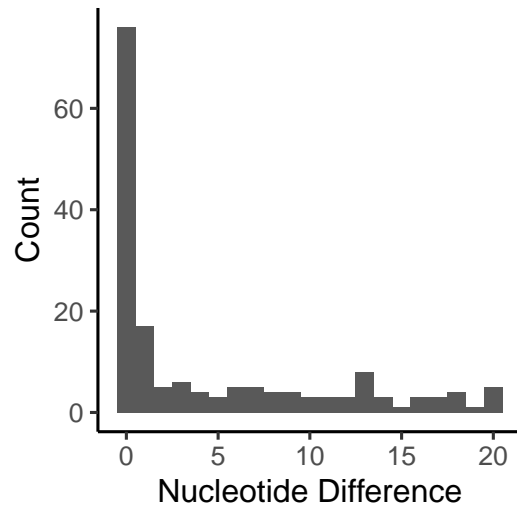
### IGHV4-61\*01

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



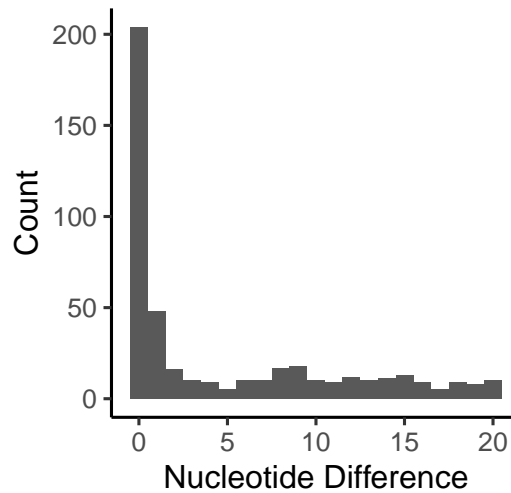
### IGHV4-31\*03

238 sequences assigned  
76 (31.9%) exact matches, in which:  
76 unique CDR3  
5 unique J



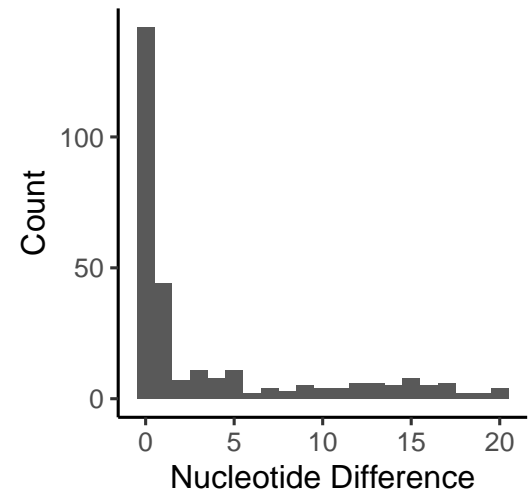
### IGHV4-59\*01

598 sequences assigned  
204 (34.1%) exact matches, in which:  
202 unique CDR3  
6 unique J



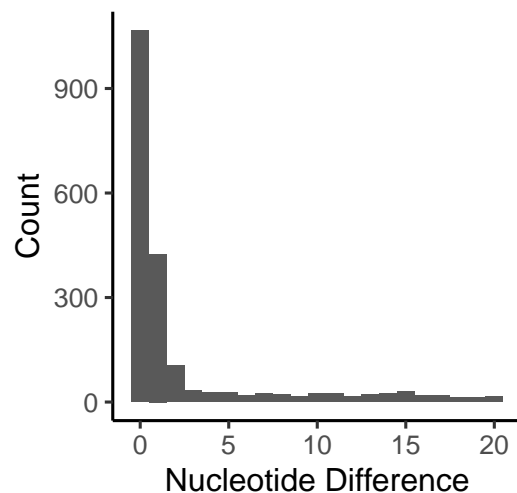
### IGHV5-10-1\*03

387 sequences assigned  
142 (36.7%) exact matches, in which:  
142 unique CDR3  
4 unique J



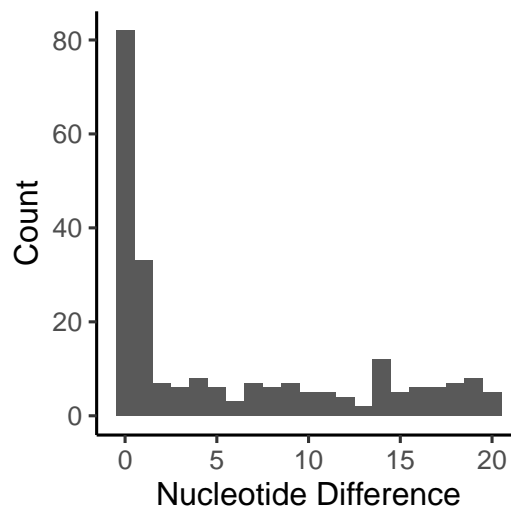
### IGHV4-34\*01

2287 sequences assigned  
1067 (46.7%) exact matches, in which:  
1065 unique CDR3  
6 unique J



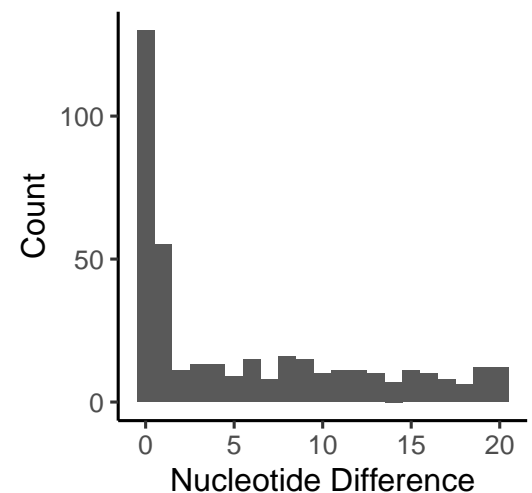
### IGHV4-59\*08

278 sequences assigned  
82 (29.5%) exact matches, in which:  
82 unique CDR3  
6 unique J



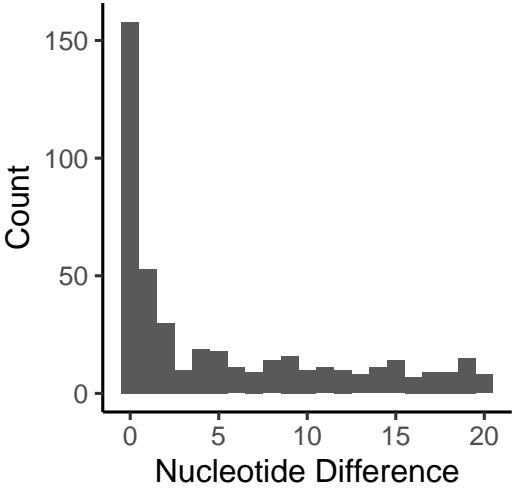
### IGHV5-51\*01

491 sequences assigned  
130 (26.5%) exact matches, in which:  
130 unique CDR3  
6 unique J



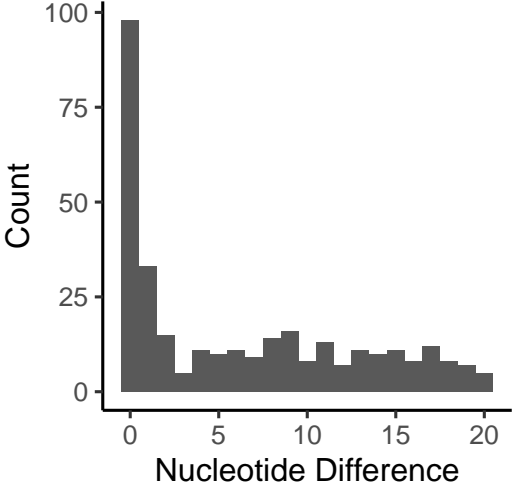
IGHV5–51\*01\_C45G

562 sequences assigned  
158 (28.1%) exact matches, in which:  
158 unique CDR3  
6 unique J



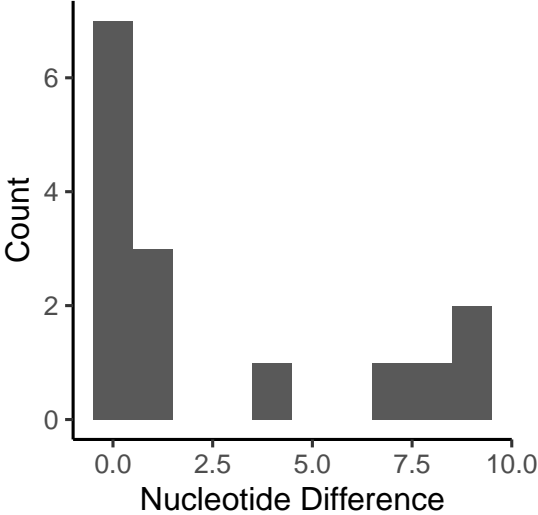
IGHV6–1\*01

372 sequences assigned  
98 (26.3%) exact matches, in which:  
98 unique CDR3  
5 unique J



IGHV7–4–1\*01

25 sequences assigned  
7 (28%) exact matches, in which:  
7 unique CDR3  
2 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.

Warning – no inferred sequences found.

Warning – no inferred sequences found.