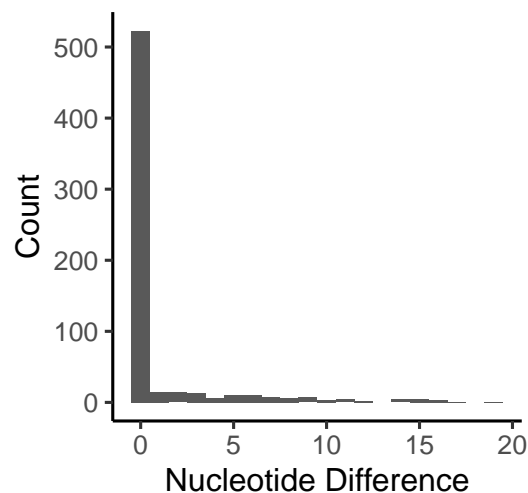


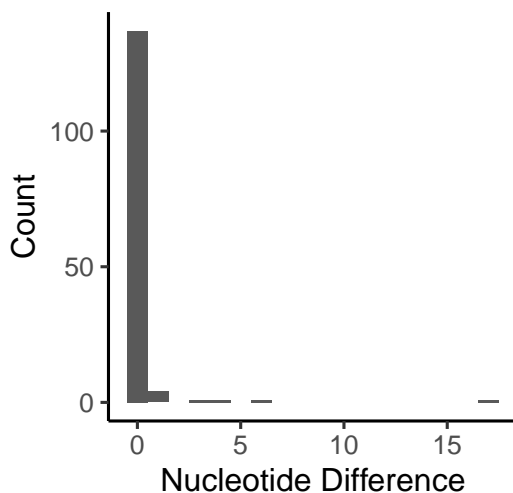
### IGHV1-2\*02

641 sequences assigned  
523 (81.6%) exact matches, in which:  
518 unique CDR3  
6 unique J



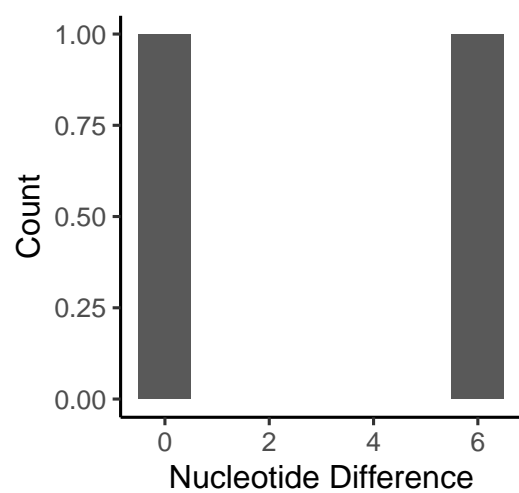
### IGHV1-24\*01

145 sequences assigned  
137 (94.5%) exact matches, in which:  
136 unique CDR3  
6 unique J



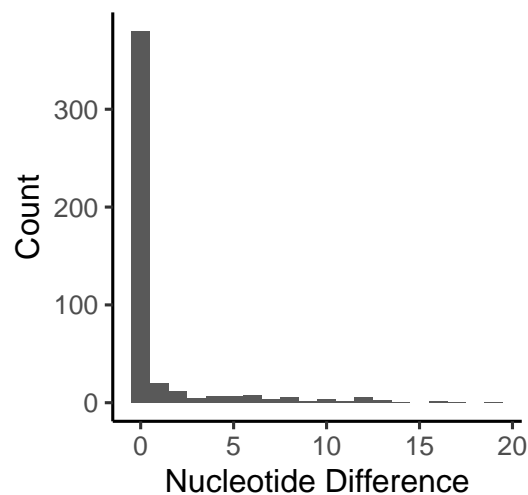
### IGHV1-69-2\*01

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



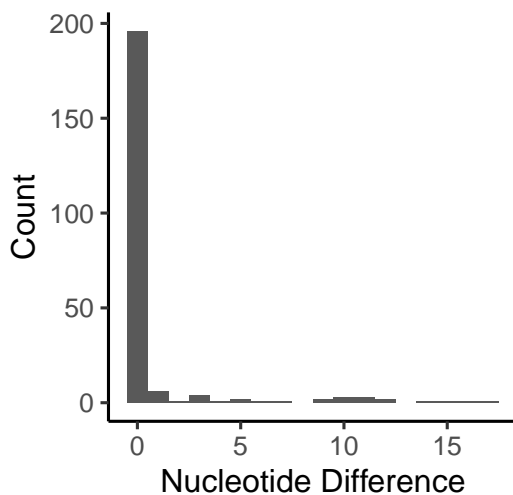
### IGHV1-8\*01

471 sequences assigned  
380 (80.7%) exact matches, in which:  
378 unique CDR3  
6 unique J



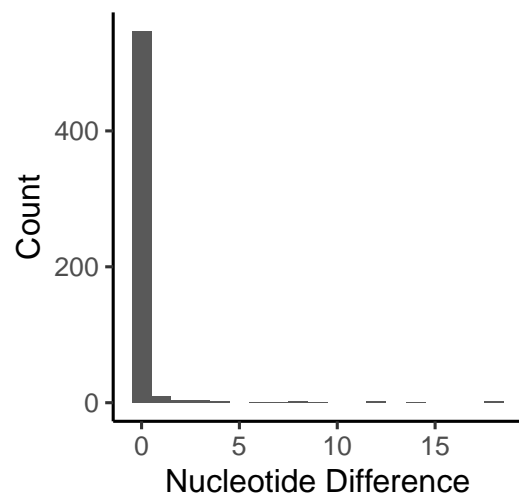
### IGHV1-46\*01

228 sequences assigned  
196 (86%) exact matches, in which:  
196 unique CDR3  
6 unique J



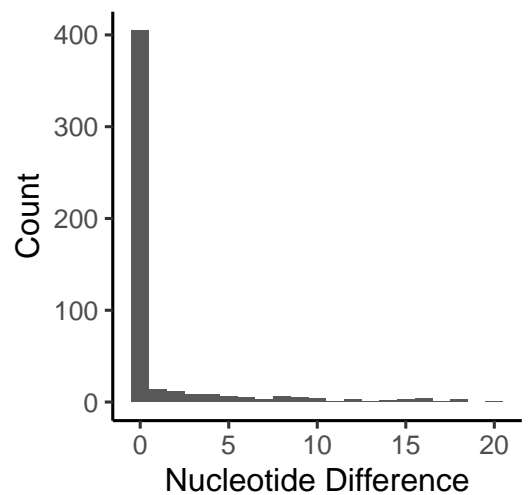
### IGHV1-69\*01\_12\_13

576 sequences assigned  
547 (95%) exact matches, in which:  
544 unique CDR3  
6 unique J



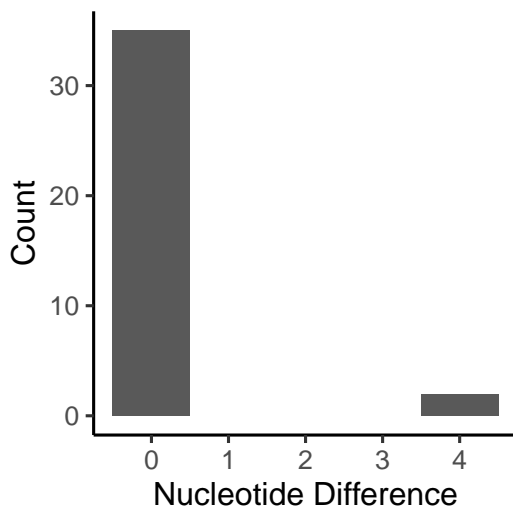
### IGHV1-18\*01

499 sequences assigned  
405 (81.2%) exact matches, in which:  
402 unique CDR3  
6 unique J



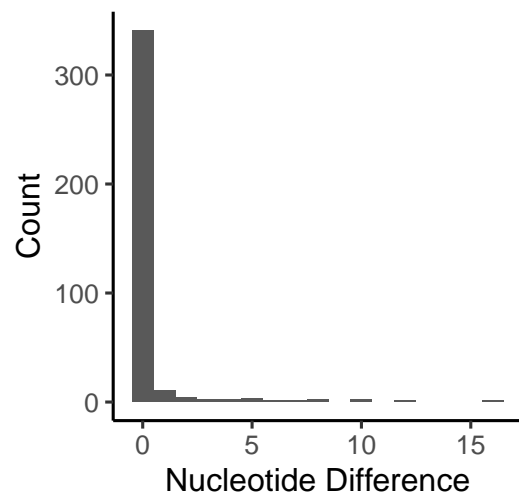
### IGHV1-58\*01\_03

38 sequences assigned  
35 (92.1%) exact matches, in which:  
35 unique CDR3  
4 unique J



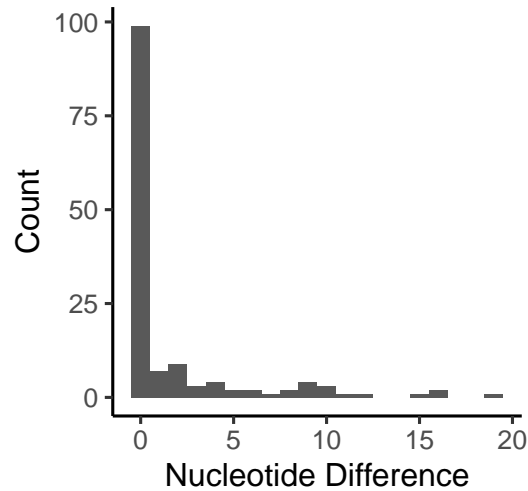
### IGHV1-69\*06\_14

374 sequences assigned  
341 (91.2%) exact matches, in which:  
340 unique CDR3  
6 unique J



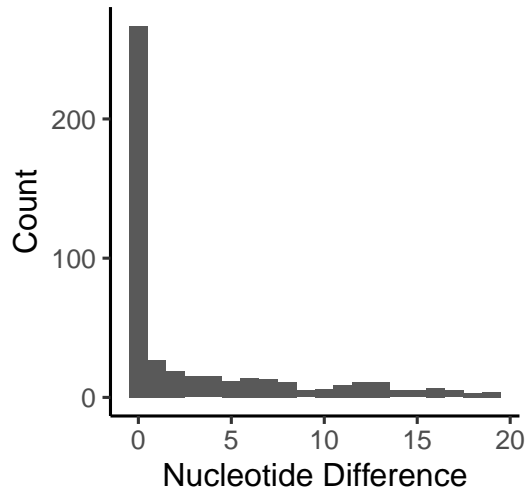
### IGHV2-5\*01

152 sequences assigned  
99 (65.1%) exact matches, in which:  
99 unique CDR3  
6 unique J



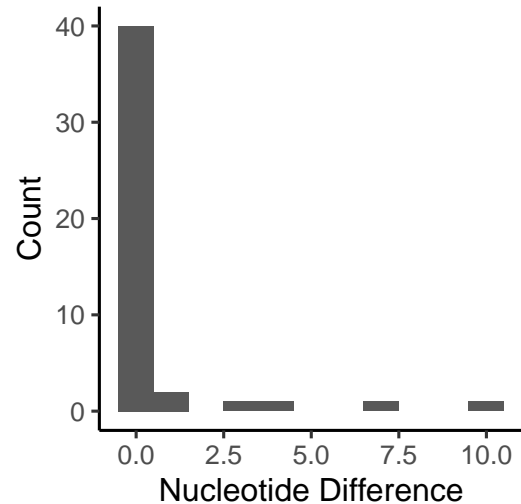
### IGHV3-7\*01

468 sequences assigned  
267 (57.1%) exact matches, in which:  
260 unique CDR3  
6 unique J



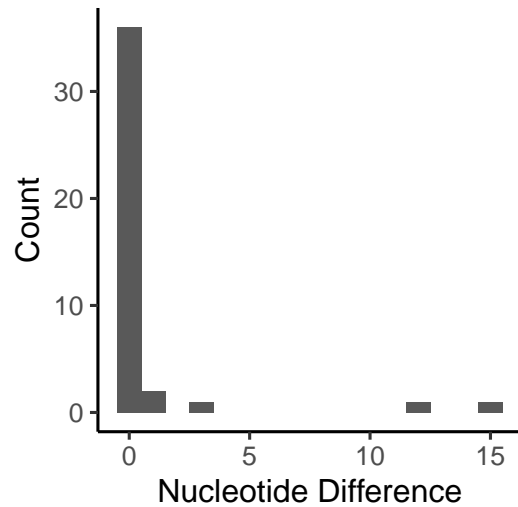
### IGHV3-13\*01

46 sequences assigned  
40 (87%) exact matches, in which:  
39 unique CDR3  
5 unique J



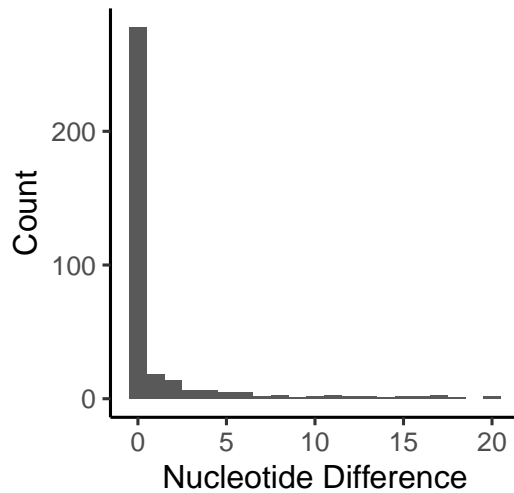
### IGHV2-26\*01

43 sequences assigned  
36 (83.7%) exact matches, in which:  
36 unique CDR3  
5 unique J



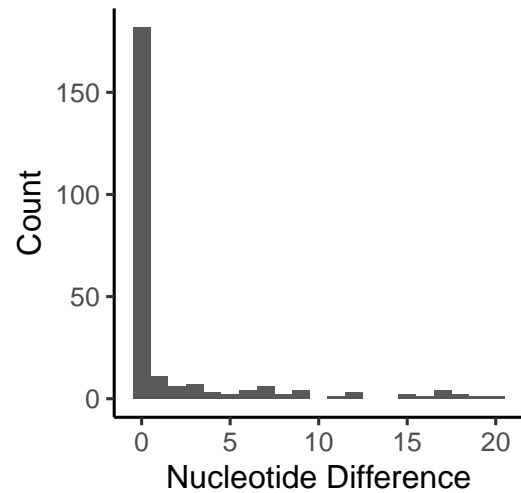
### IGHV3-9\*01

362 sequences assigned  
278 (76.8%) exact matches, in which:  
272 unique CDR3  
6 unique J



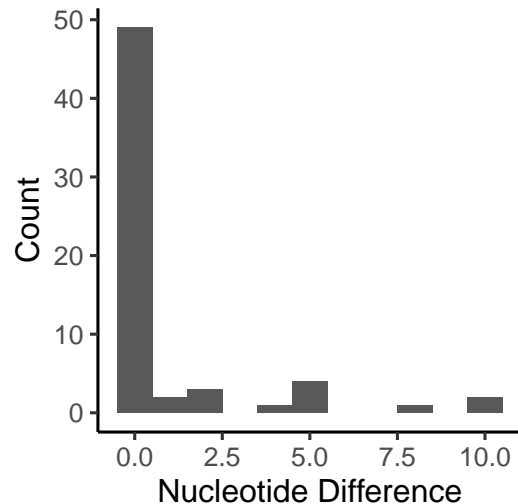
### IGHV3-15\*01\_02

246 sequences assigned  
182 (74%) exact matches, in which:  
179 unique CDR3  
6 unique J



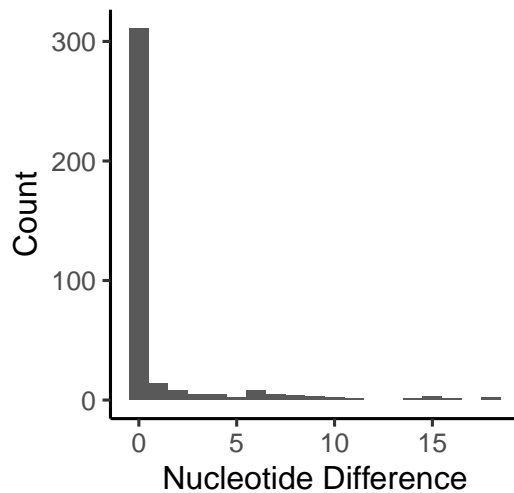
### IGHV2-70\*01

62 sequences assigned  
49 (79%) exact matches, in which:  
48 unique CDR3  
5 unique J



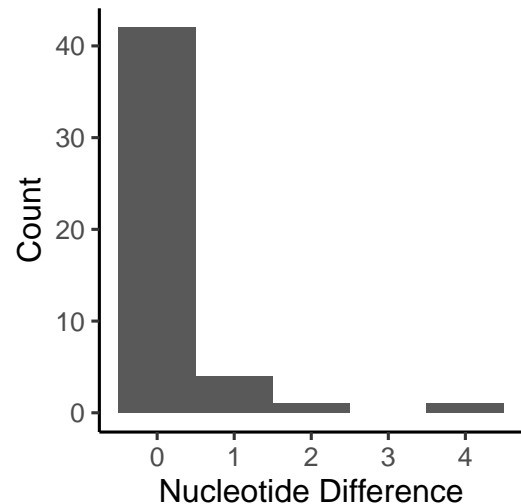
### IGHV3-11\*01

376 sequences assigned  
311 (82.7%) exact matches, in which:  
306 unique CDR3  
6 unique J



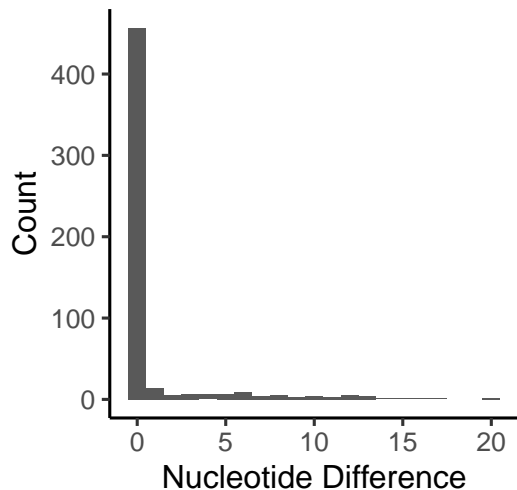
### IGHV3-20\*01\_02

50 sequences assigned  
42 (84%) exact matches, in which:  
42 unique CDR3  
5 unique J



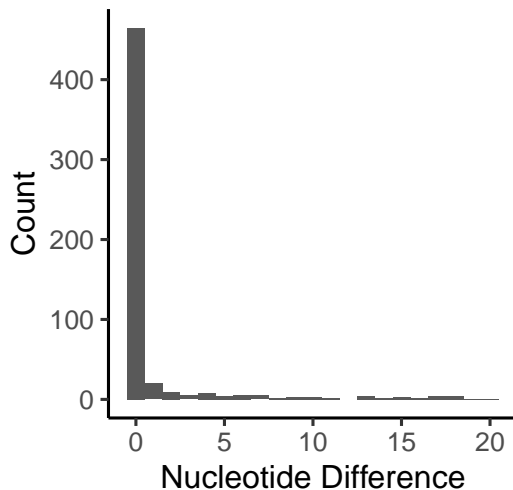
### IGHV3-21\*01\_02

544 sequences assigned  
457 (84%) exact matches, in which:  
447 unique CDR3  
6 unique J



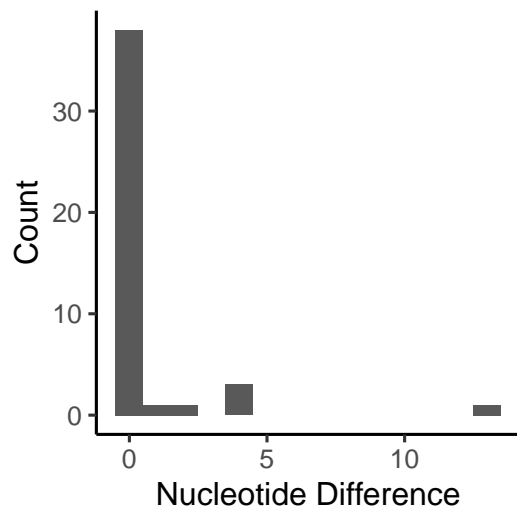
### IGHV3-33\*01

561 sequences assigned  
465 (82.9%) exact matches, in which:  
455 unique CDR3  
6 unique J



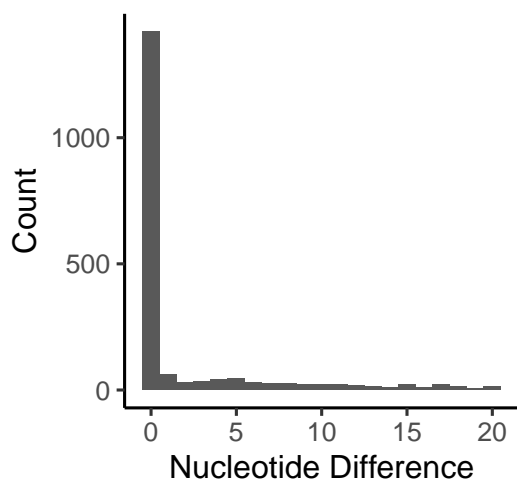
### IGHV3-49\*03\_05

45 sequences assigned  
38 (84.4%) exact matches, in which:  
37 unique CDR3  
4 unique J



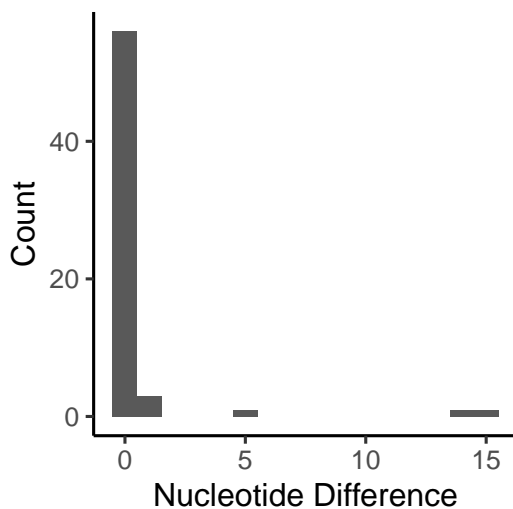
### IGHV3-23\*01\_04

1920 sequences assigned  
1420 (74%) exact matches, in which:  
1376 unique CDR3  
6 unique J



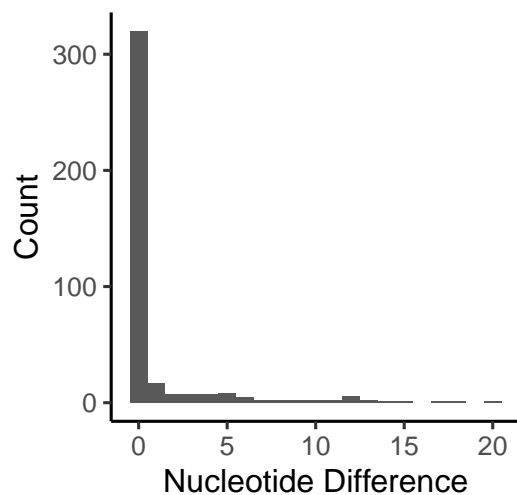
### IGHV3-43\*01

62 sequences assigned  
56 (90.3%) exact matches, in which:  
56 unique CDR3  
6 unique J



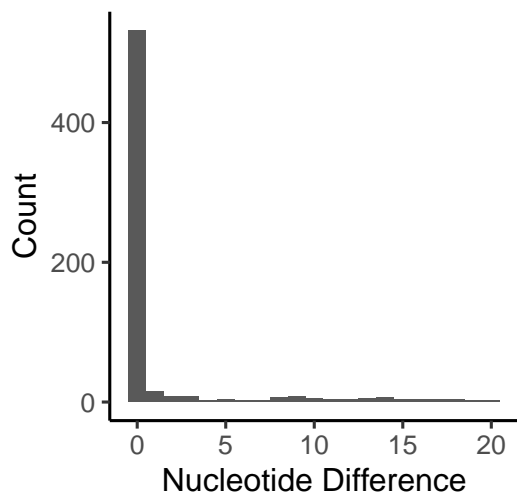
### IGHV3-53\*01\_02

394 sequences assigned  
320 (81.2%) exact matches, in which:  
311 unique CDR3  
6 unique J



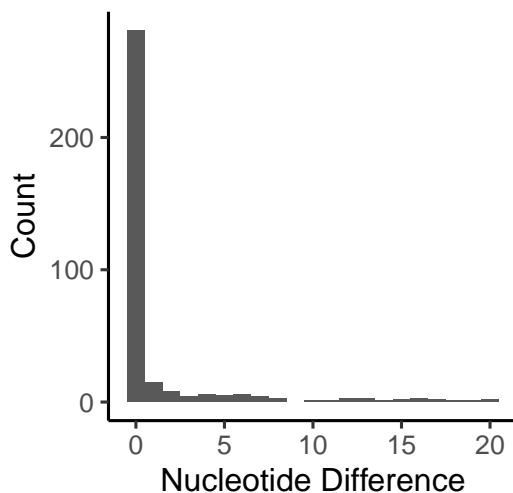
### IGHV3-30-3\*01

641 sequences assigned  
532 (83%) exact matches, in which:  
524 unique CDR3  
6 unique J



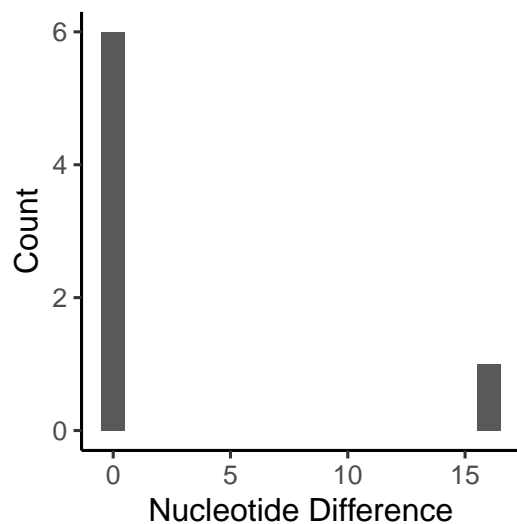
### IGHV3-48\*02

361 sequences assigned  
281 (77.8%) exact matches, in which:  
276 unique CDR3  
6 unique J



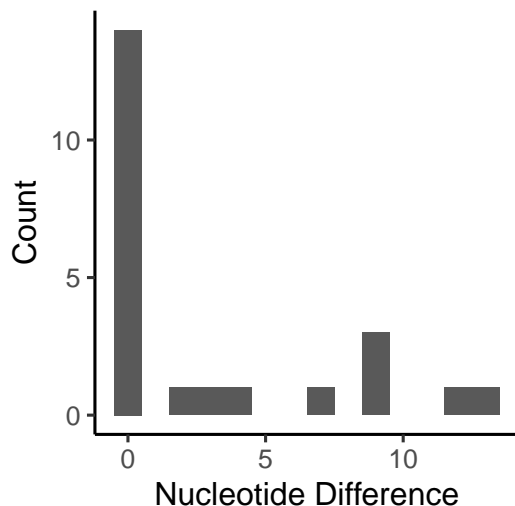
### IGHV3-64\*02\_07

7 sequences assigned  
6 (85.7%) exact matches, in which:  
6 unique CDR3  
3 unique J



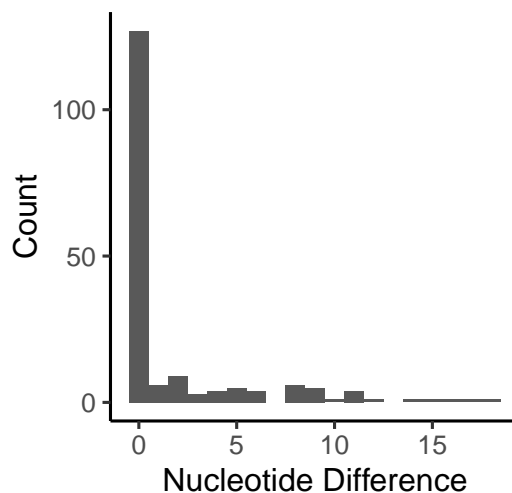
### IGHV3-72\*01

24 sequences assigned  
14 (58.3%) exact matches, in which:  
14 unique CDR3  
3 unique J



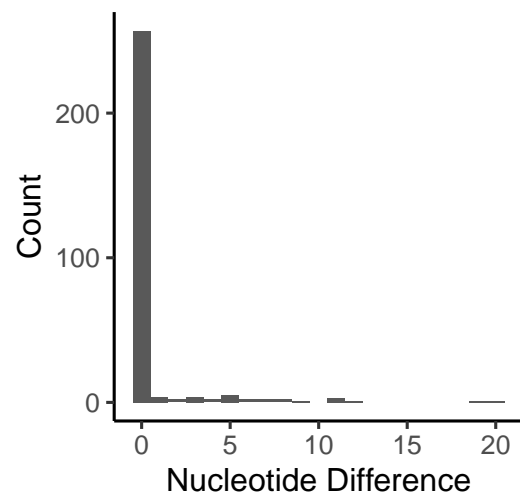
### IGHV3-74\*01\_02

183 sequences assigned  
127 (69.4%) exact matches, in which:  
116 unique CDR3  
5 unique J



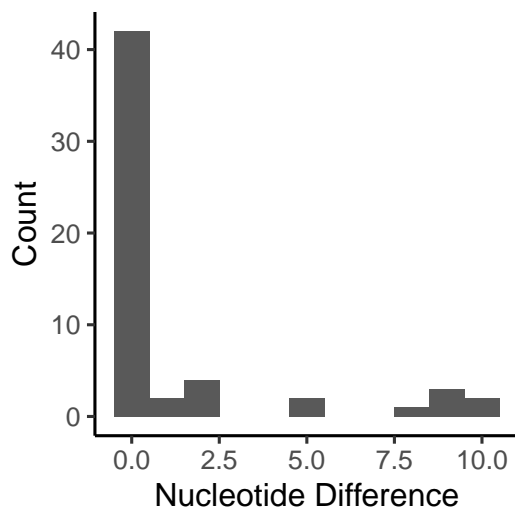
### IGHV4-30-4\*01

291 sequences assigned  
257 (88.3%) exact matches, in which:  
250 unique CDR3  
6 unique J



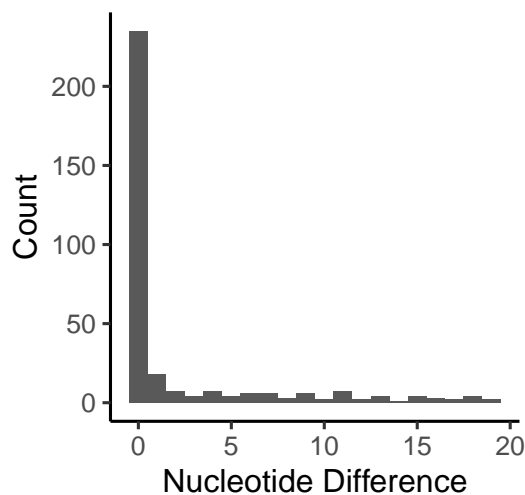
### IGHV3-73\*01\_02

56 sequences assigned  
42 (75%) exact matches, in which:  
42 unique CDR3  
5 unique J



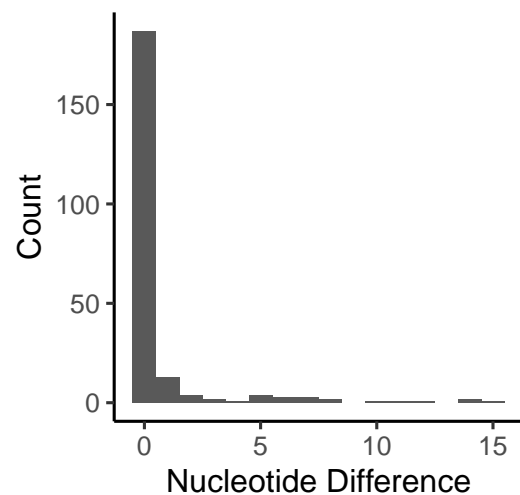
### IGHV4-4\*07

328 sequences assigned  
235 (71.6%) exact matches, in which:  
229 unique CDR3  
6 unique J



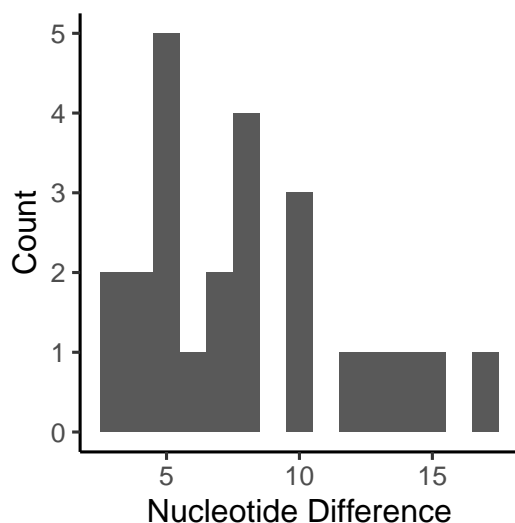
### IGHV4-30-2\*01

230 sequences assigned  
187 (81.3%) exact matches, in which:  
181 unique CDR3  
6 unique J



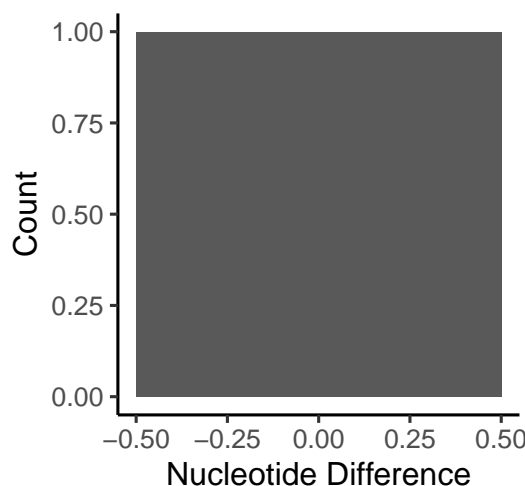
### IGHV3-74\*03

26 sequences assigned  
No exact matches.



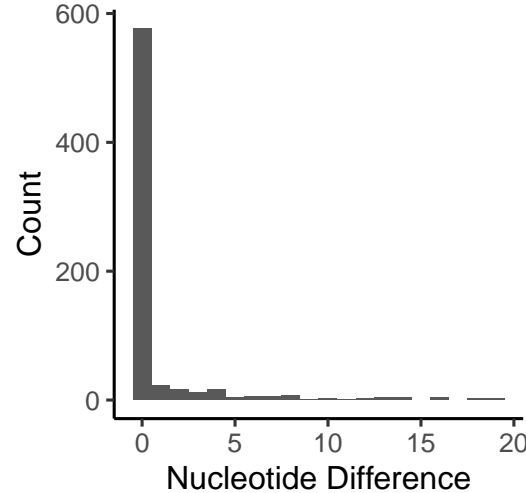
### IGHV4-28\*01\_07

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



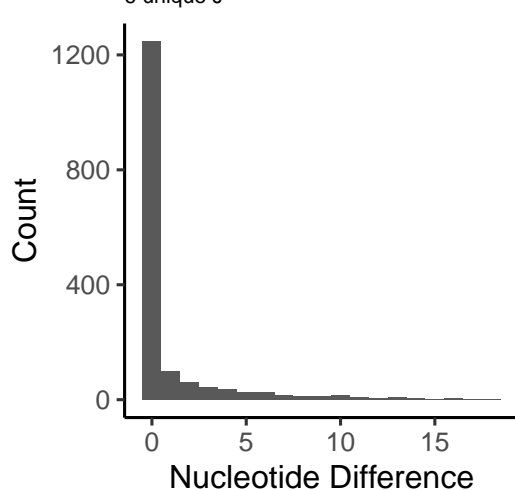
### IGHV4-31\*02

705 sequences assigned  
577 (81.8%) exact matches, in which:  
571 unique CDR3  
6 unique J



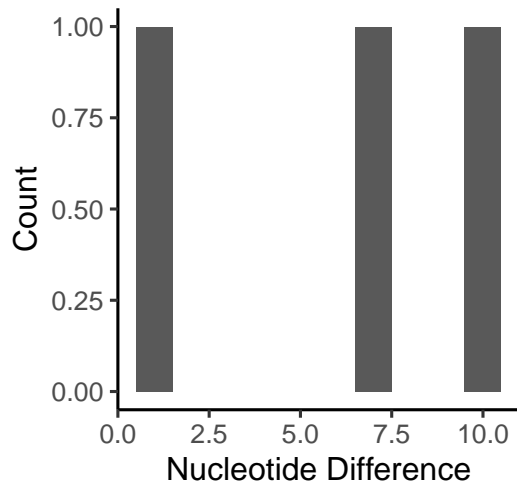
### IGHV4-34\*01\_02

1642 sequences assigned  
1247 (75.9%) exact matches, in which:  
1214 unique CDR3  
6 unique J



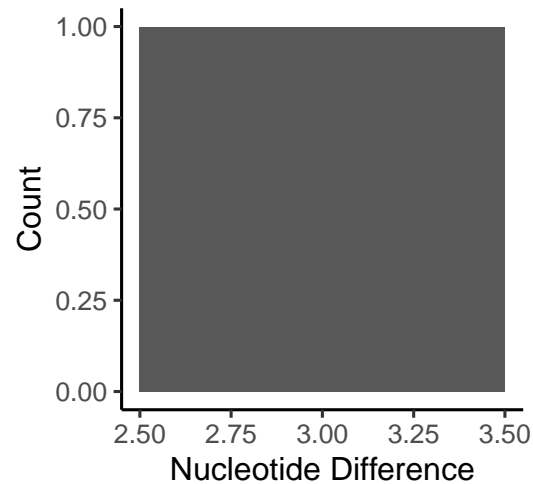
### IGHV4-59\*11

5 sequences assigned  
No exact matches.



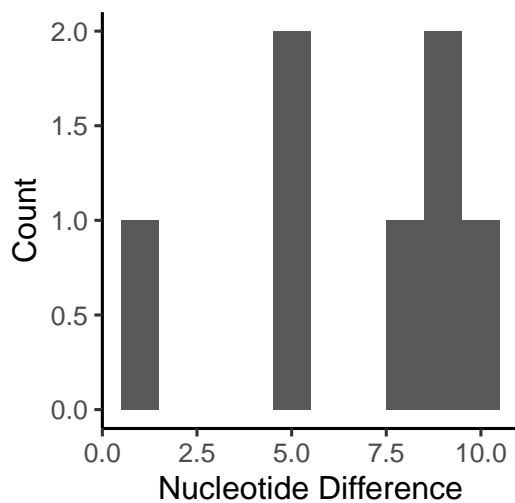
### IGHV4/OR15-8\*01

1 sequences assigned  
No exact matches.



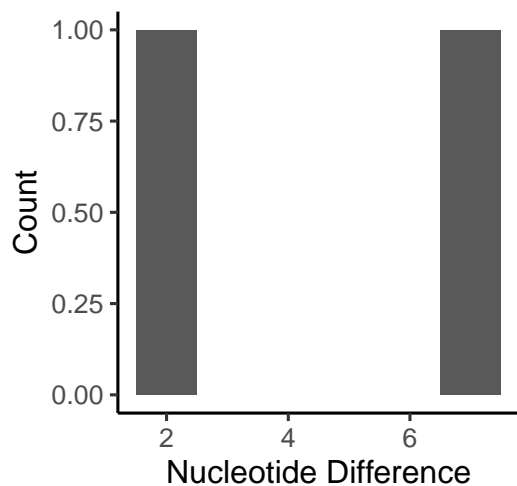
### IGHV4-39\*02

9 sequences assigned  
No exact matches.



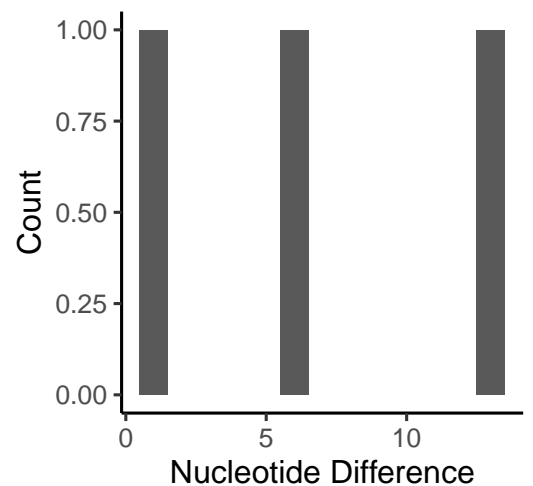
### IGHV4-59\*12

3 sequences assigned  
No exact matches.



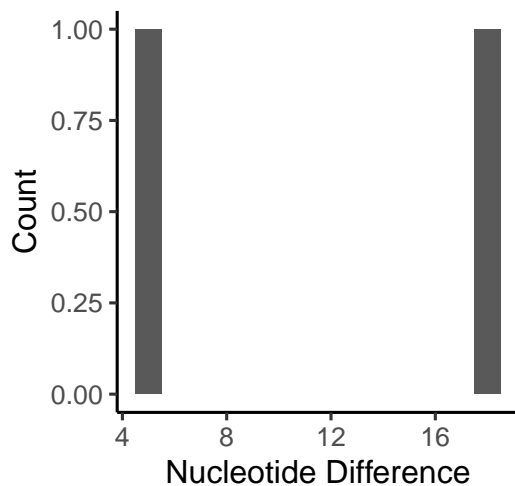
### IGHV5-51\*06

3 sequences assigned  
No exact matches.



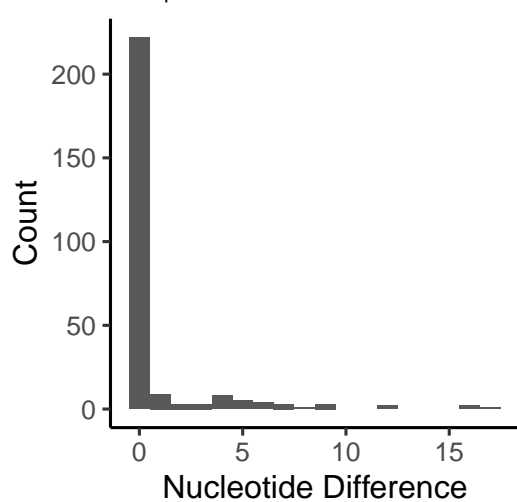
### IGHV4-59\*02

2 sequences assigned  
No exact matches.



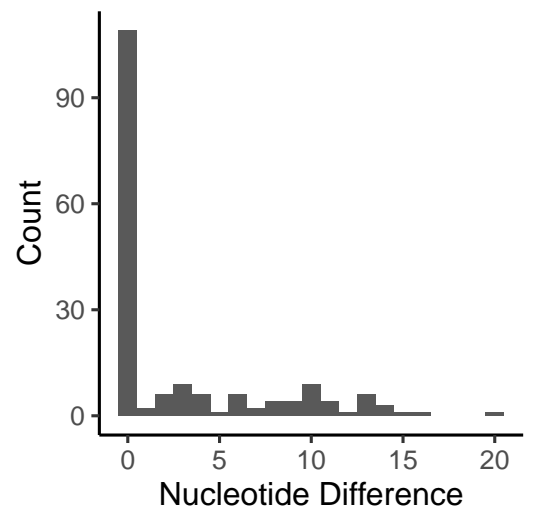
### IGHV4-61\*01

270 sequences assigned  
222 (82.2%) exact matches, in which:  
220 unique CDR3  
6 unique J



### IGHV6-1\*01\_02

175 sequences assigned  
109 (62.3%) exact matches, in which:  
107 unique CDR3  
6 unique J



Allele Usage

