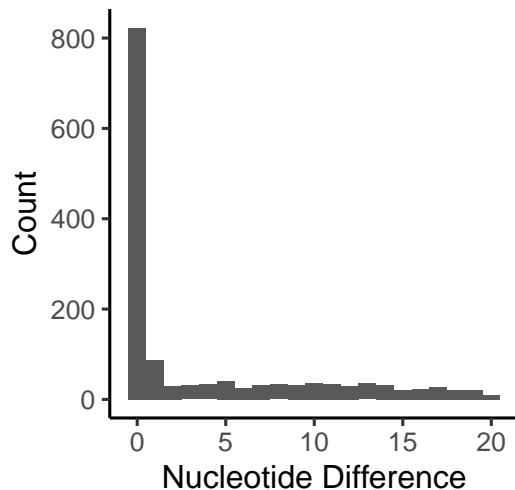


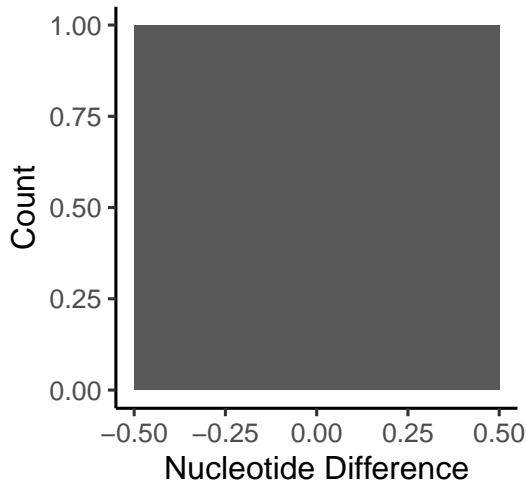
### IGHV1-2\*06

1598 sequences assigned  
823 (51.5%) exact matches, in which:  
821 unique CDR3  
6 unique J



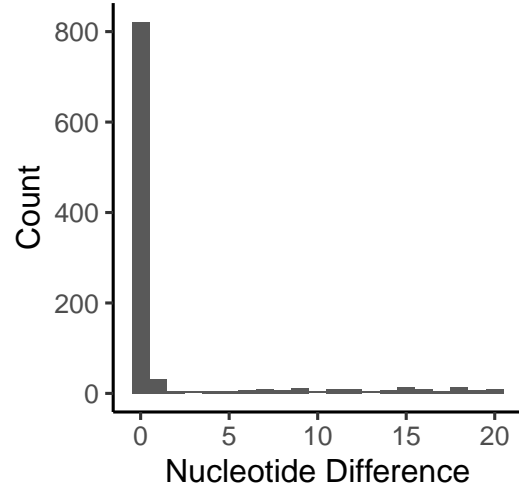
### IGHV1-8\*03

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



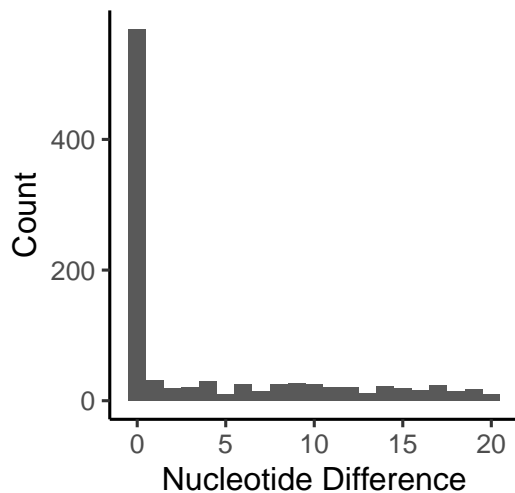
### IGHV1-24\*01

1055 sequences assigned  
822 (77.9%) exact matches, in which:  
820 unique CDR3  
7 unique J



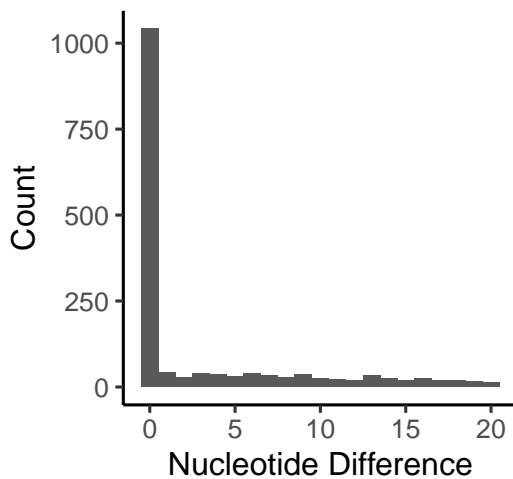
### IGHV1-3\*01\_05

1069 sequences assigned  
569 (53.2%) exact matches, in which:  
569 unique CDR3  
7 unique J



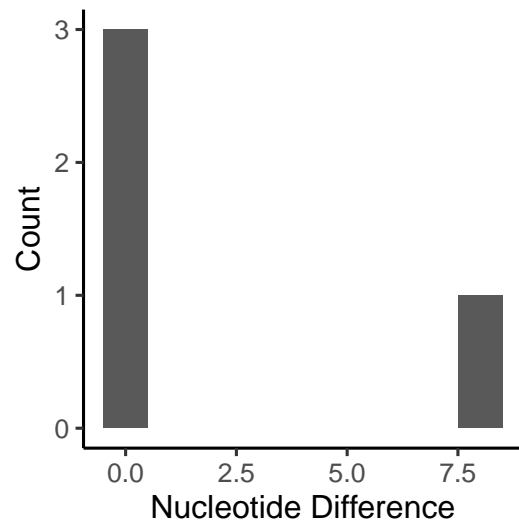
### IGHV1-18\*01

1730 sequences assigned  
1042 (60.2%) exact matches, in which:  
1040 unique CDR3  
7 unique J



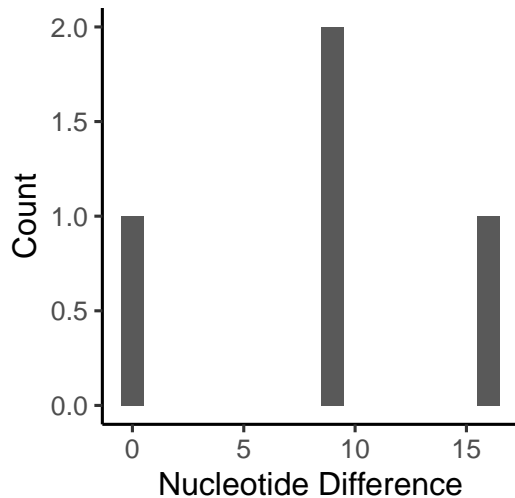
### IGHV1-45\*02

4 sequences assigned  
3 (75%) exact matches, in which:  
3 unique CDR3  
2 unique J



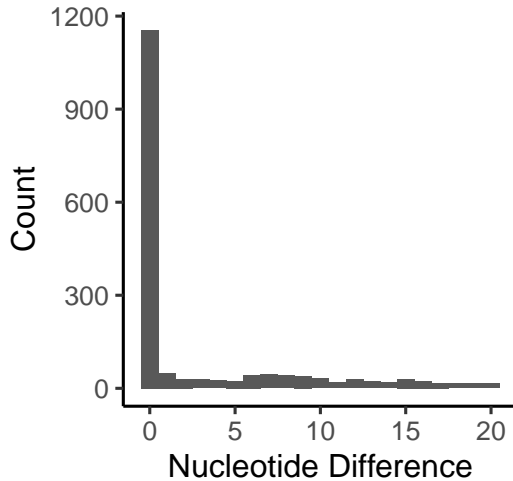
### IGHV1-8\*01

4 sequences assigned  
1 (25%) exact matches, in which:  
1 unique CDR3  
1 unique J



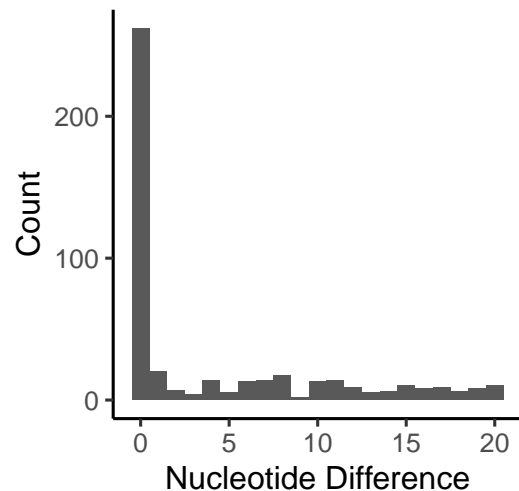
### IGHV1-18\*04

1869 sequences assigned  
1155 (61.8%) exact matches, in which:  
1151 unique CDR3  
7 unique J



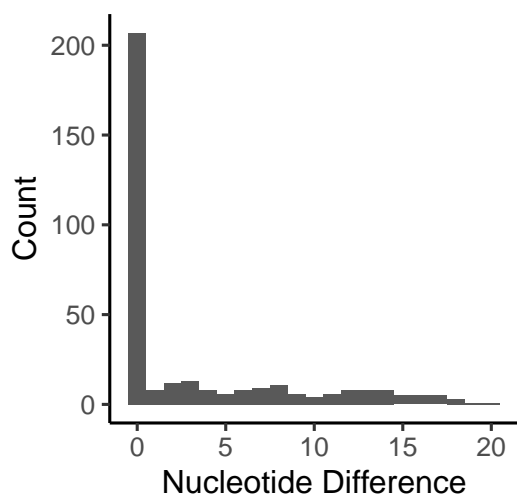
### IGHV1-46\*01

504 sequences assigned  
262 (52%) exact matches, in which:  
262 unique CDR3  
7 unique J



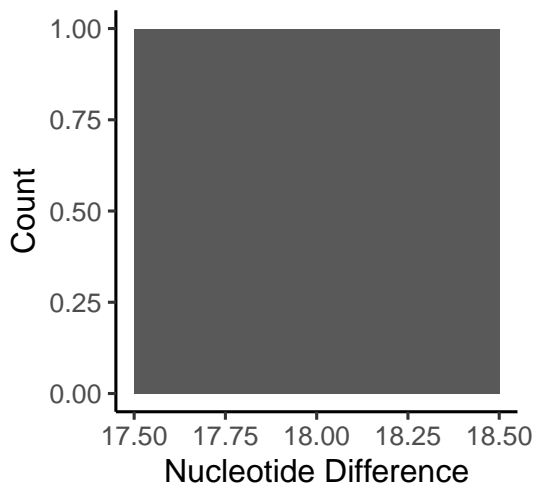
### IGHV1-46\*03

373 sequences assigned  
207 (55.5%) exact matches, in which:  
207 unique CDR3  
6 unique J



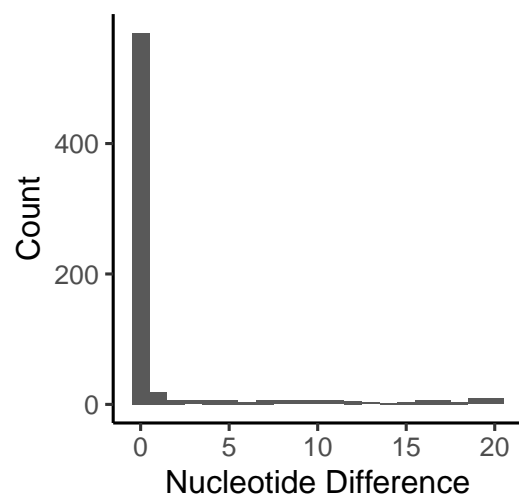
### IGHV1-69-2\*01

1 sequences assigned  
No exact matches.



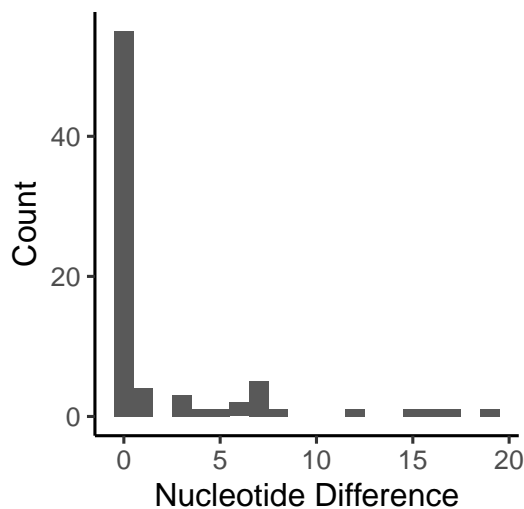
### IGHV1-69\*06\_14

779 sequences assigned  
570 (73.2%) exact matches, in which:  
570 unique CDR3  
7 unique J



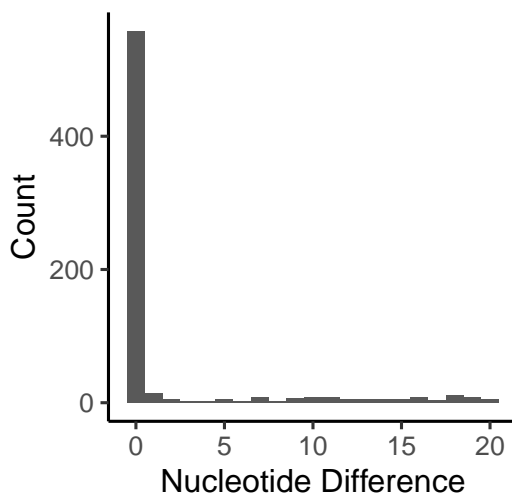
### IGHV1-58\*02

78 sequences assigned  
55 (70.5%) exact matches, in which:  
55 unique CDR3  
6 unique J



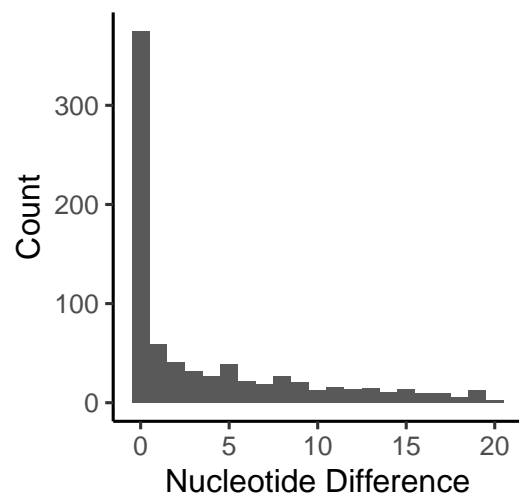
### IGHV1-69\*02

758 sequences assigned  
558 (73.6%) exact matches, in which:  
558 unique CDR3  
6 unique J



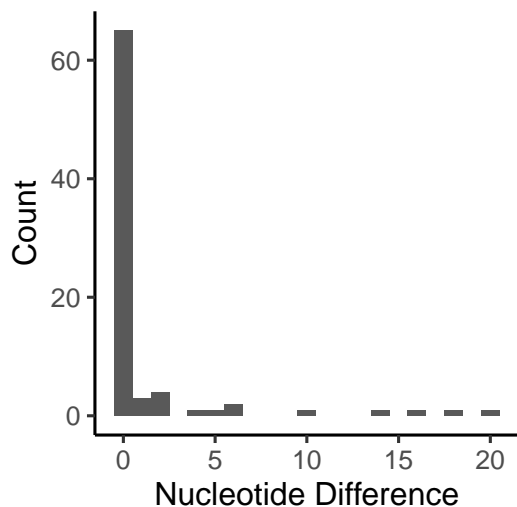
### IGHV2-5\*02

832 sequences assigned  
375 (45.1%) exact matches, in which:  
374 unique CDR3  
7 unique J



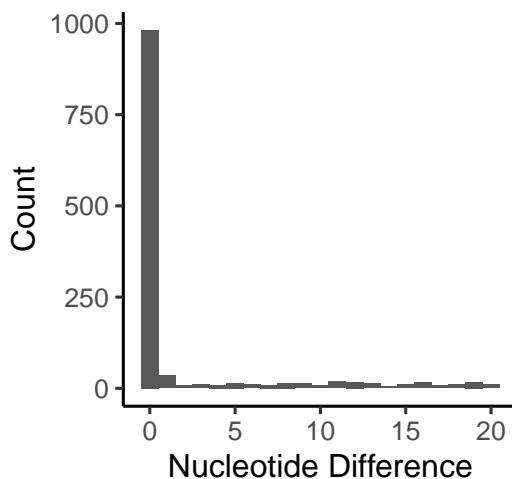
### IGHV1-58\*01\_03

90 sequences assigned  
65 (72.2%) exact matches, in which:  
65 unique CDR3  
6 unique J



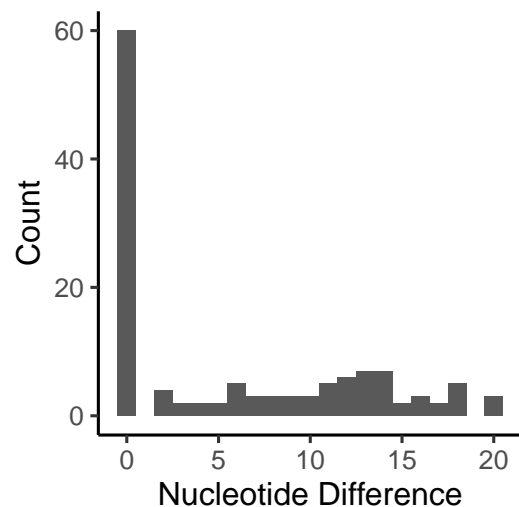
### IGHV1-69\*01\_12\_13

1359 sequences assigned  
982 (72.3%) exact matches, in which:  
982 unique CDR3  
7 unique J



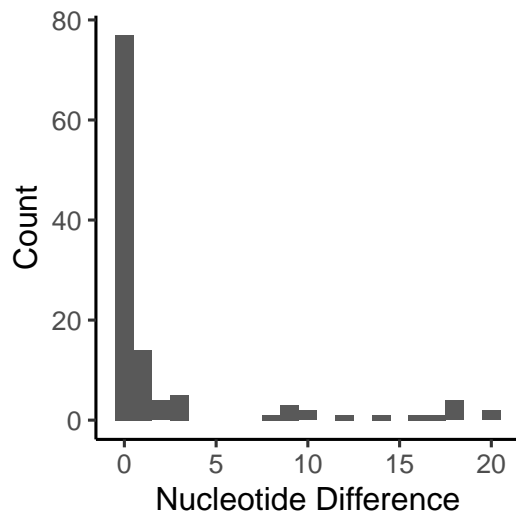
### IGHV2-26\*01

133 sequences assigned  
60 (45.1%) exact matches, in which:  
60 unique CDR3  
7 unique J



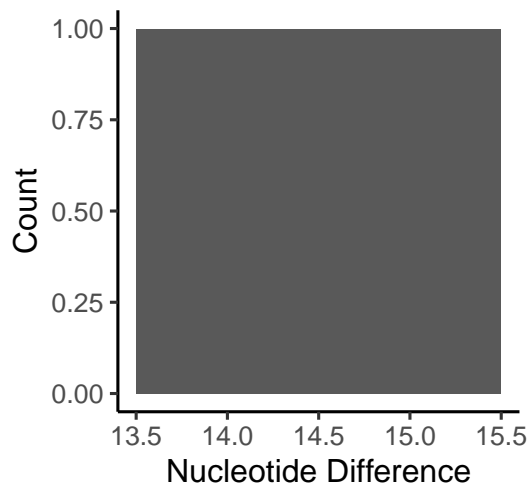
### IGHV2-70\*01

124 sequences assigned  
77 (62.1%) exact matches, in which:  
71 unique CDR3  
5 unique J



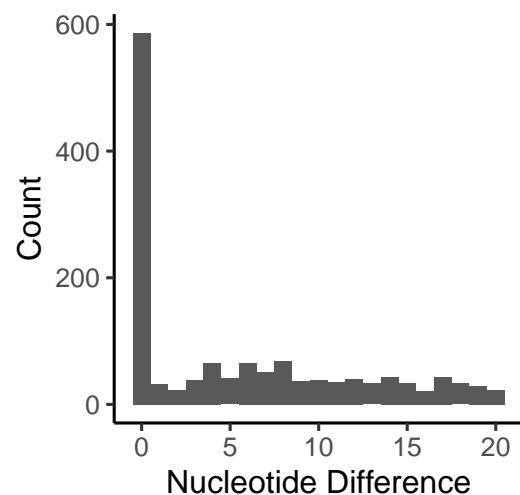
### IGHV3-9\*01

2 sequences assigned  
No exact matches.



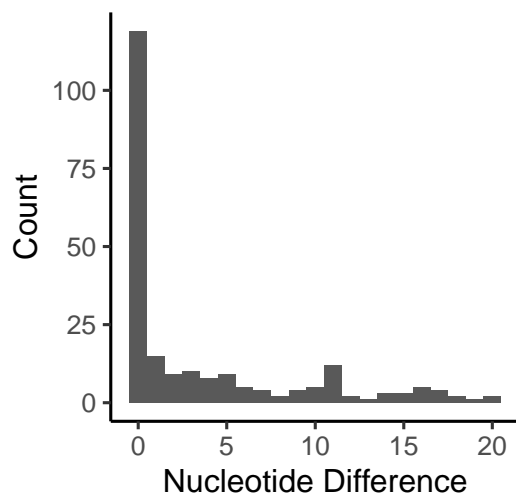
### IGHV3-15\*01\_02

1521 sequences assigned  
587 (38.6%) exact matches, in which:  
576 unique CDR3  
7 unique J



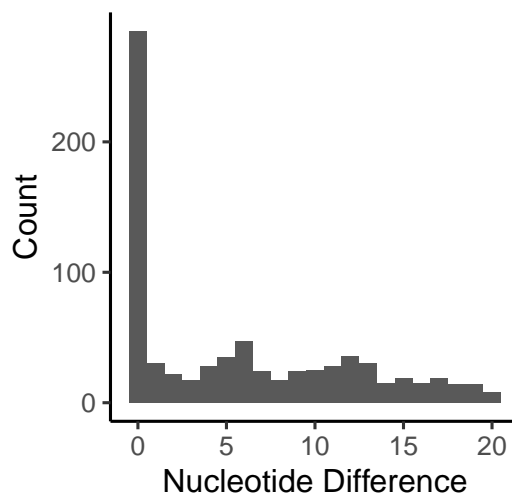
### IGHV2-70\*11\_15

235 sequences assigned  
119 (50.6%) exact matches, in which:  
119 unique CDR3  
6 unique J



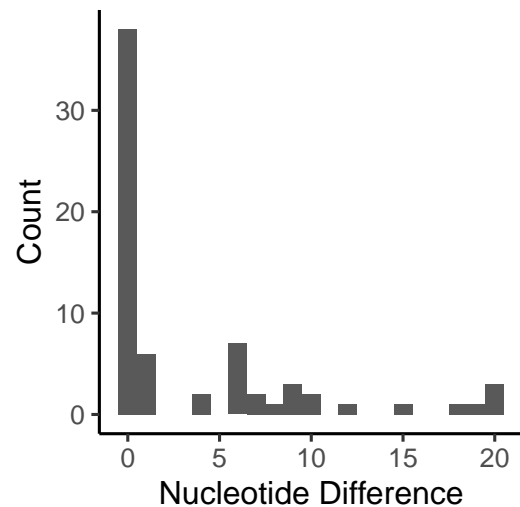
### IGHV3-11\*06

851 sequences assigned  
285 (33.5%) exact matches, in which:  
283 unique CDR3  
7 unique J



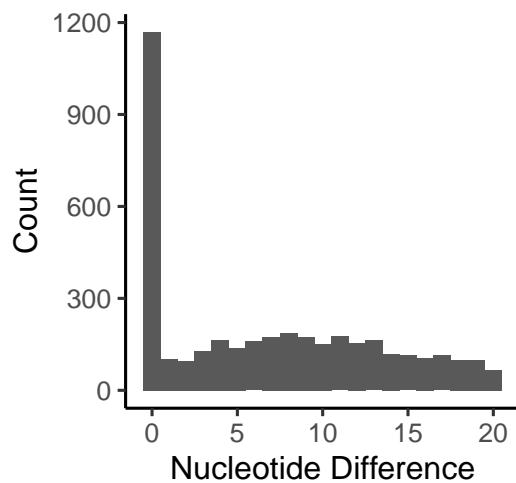
### IGHV3-20\*01\_02

69 sequences assigned  
38 (55.1%) exact matches, in which:  
37 unique CDR3  
5 unique J



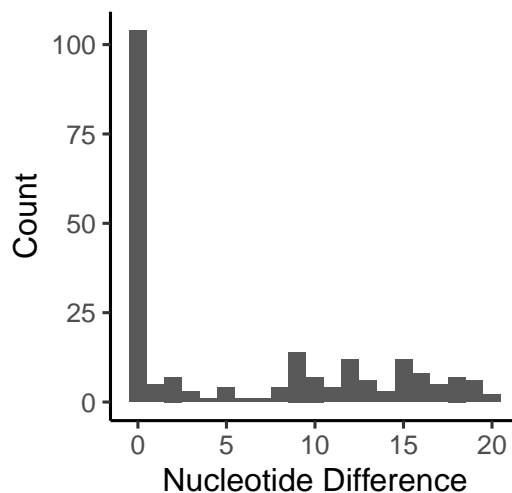
### IGHV3-7\*03

4152 sequences assigned  
1169 (28.2%) exact matches, in which:  
1141 unique CDR3  
7 unique J



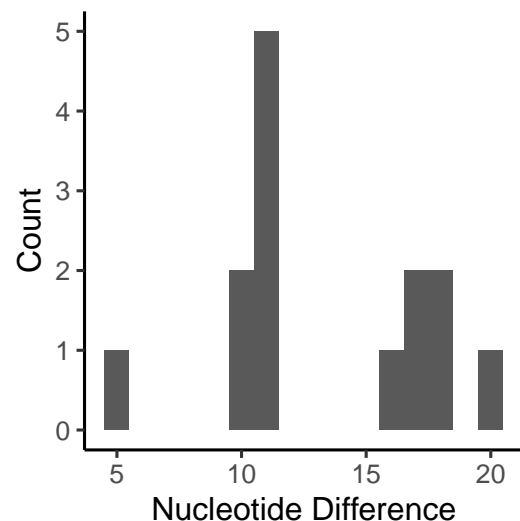
### IGHV3-13\*05

231 sequences assigned  
104 (45%) exact matches, in which:  
103 unique CDR3  
6 unique J



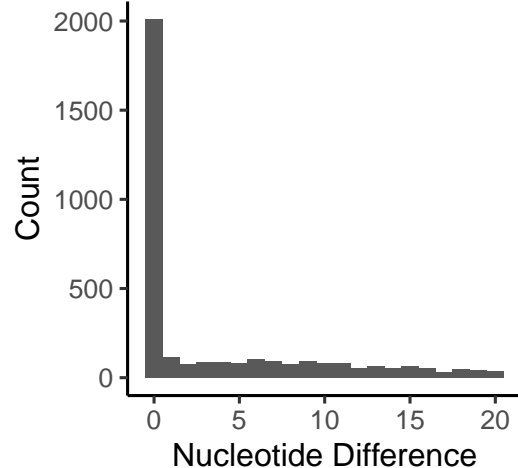
### IGHV3-20\*03\_04

20 sequences assigned  
No exact matches.



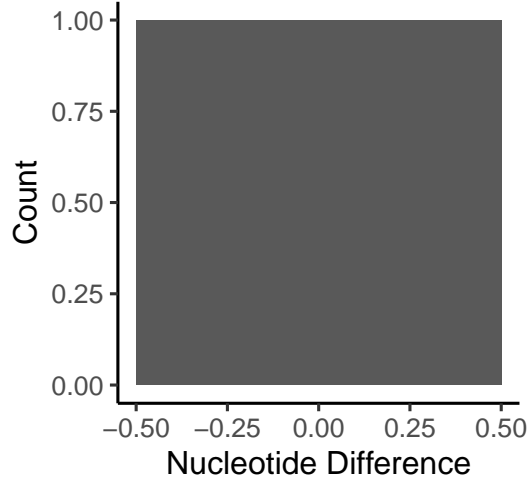
### IGHV3-21\*01\_02

3796 sequences assigned  
2009 (52.9%) exact matches, in which:  
1964 unique CDR3  
7 unique J



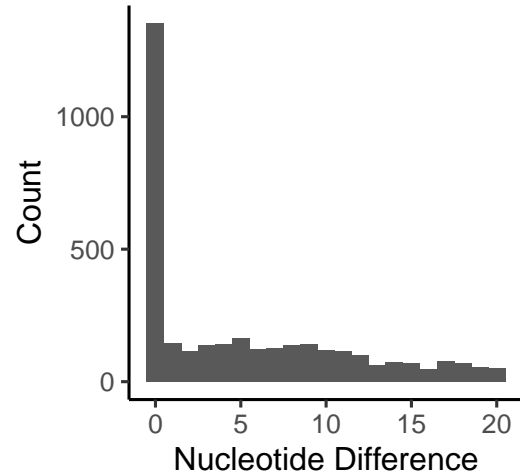
### IGHV3-38-3\*01

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



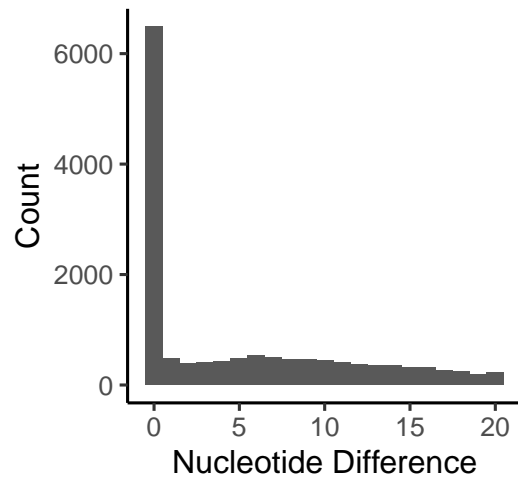
### IGHV3-48\*02

3741 sequences assigned  
1352 (36.1%) exact matches, in which:  
1326 unique CDR3  
7 unique J



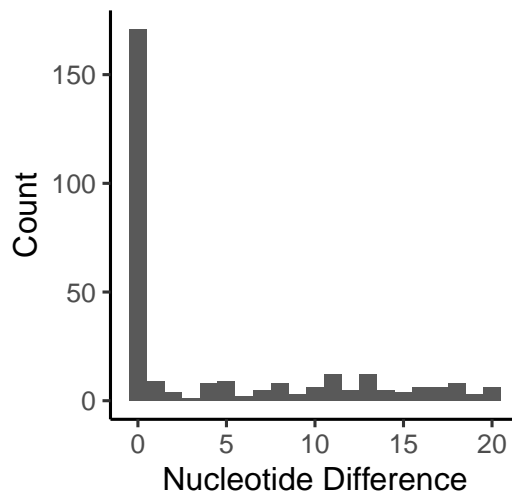
### IGHV3-23\*01\_04

15538 sequences assigned  
6487 (41.7%) exact matches, in which:  
6367 unique CDR3  
7 unique J



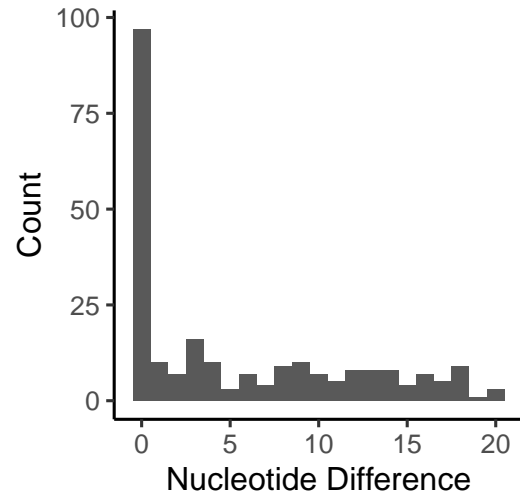
### IGHV3-43\*01

340 sequences assigned  
171 (50.3%) exact matches, in which:  
170 unique CDR3  
7 unique J



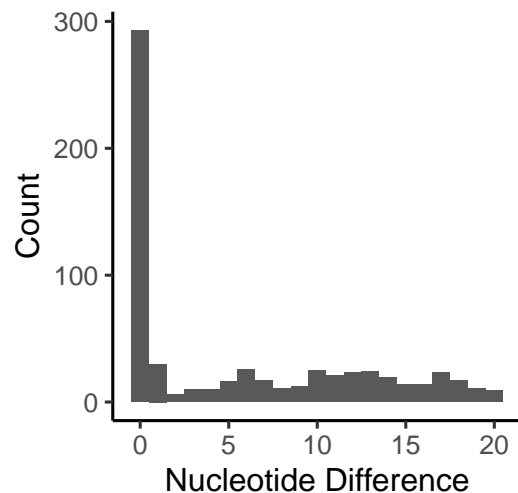
### IGHV3-49\*04

251 sequences assigned  
97 (38.6%) exact matches, in which:  
97 unique CDR3  
6 unique J



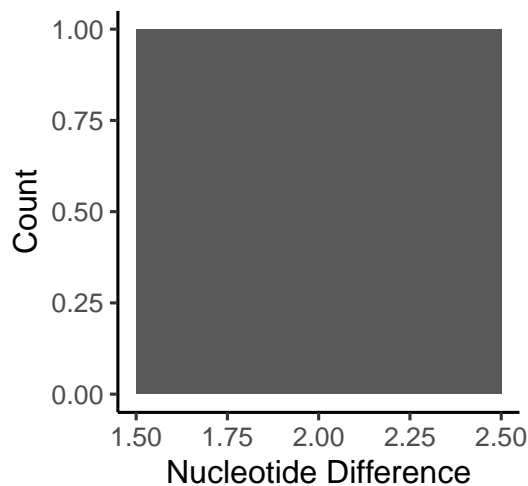
### IGHV3-33\*01

740 sequences assigned  
293 (39.6%) exact matches, in which:  
289 unique CDR3  
7 unique J



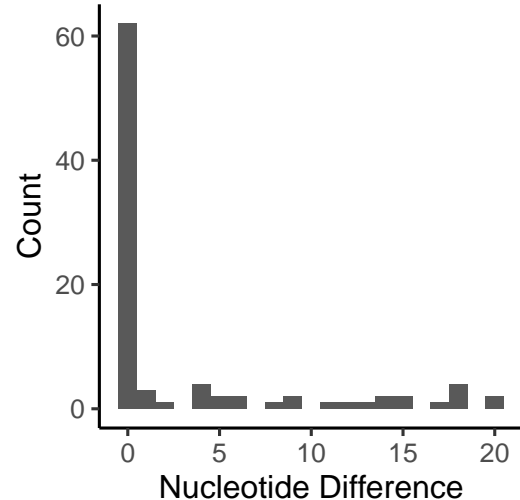
### IGHV3-47\*02

1 sequences assigned  
No exact matches.



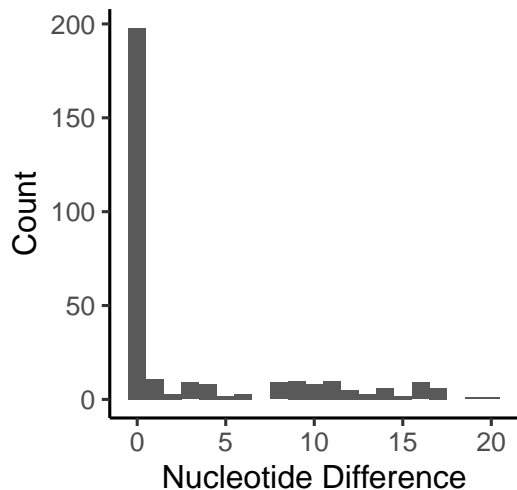
### IGHV3-49\*03\_05

106 sequences assigned  
62 (58.5%) exact matches, in which:  
61 unique CDR3  
6 unique J



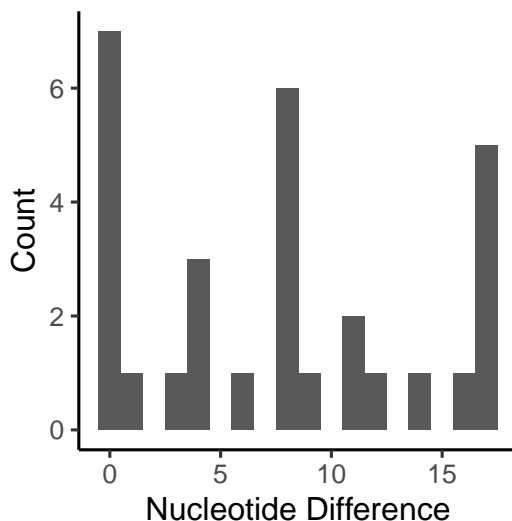
### IGHV3-53\*04

318 sequences assigned  
198 (62.3%) exact matches, in which:  
194 unique CDR3  
6 unique J



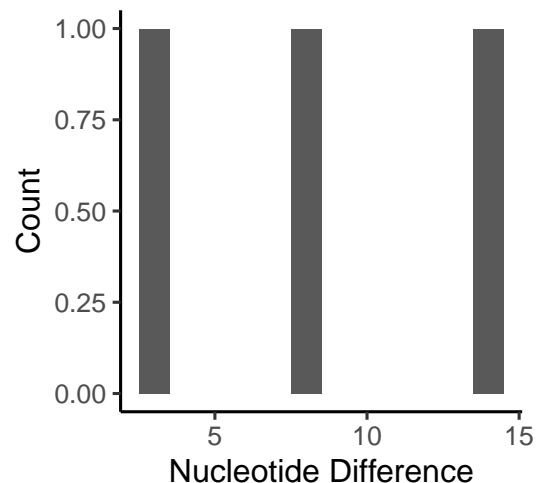
### IGHV3-64\*02\_07

40 sequences assigned  
7 (17.5%) exact matches, in which:  
7 unique CDR3  
3 unique J



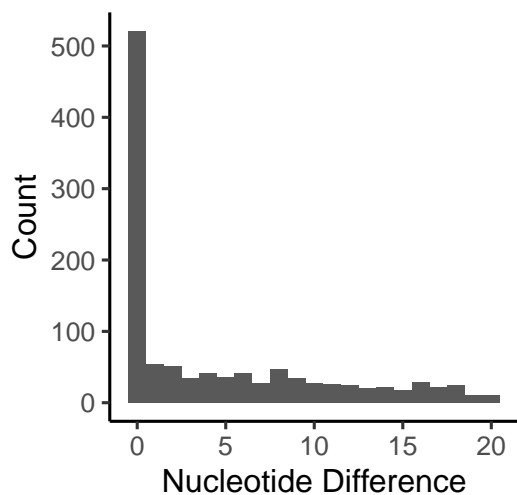
### IGHV3-69-1\*02

5 sequences assigned  
No exact matches.



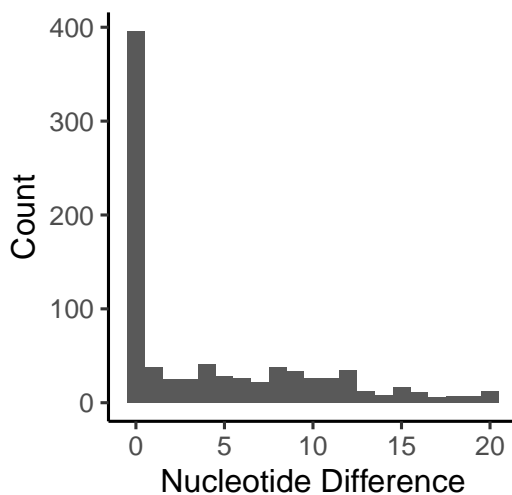
### IGHV3-53\*01\_02

1212 sequences assigned  
521 (43%) exact matches, in which:  
512 unique CDR3  
7 unique J



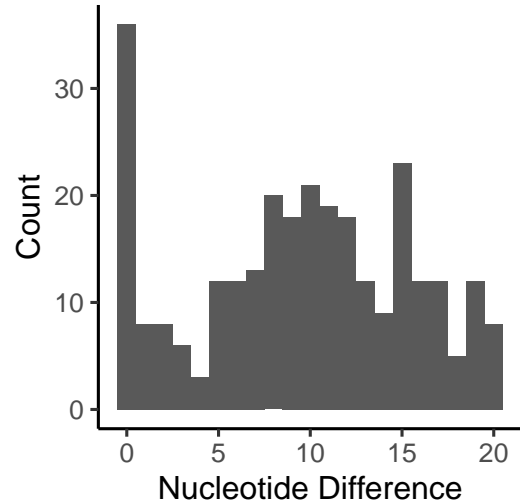
### IGHV3-66\*01

922 sequences assigned  
396 (43%) exact matches, in which:  
389 unique CDR3  
7 unique J



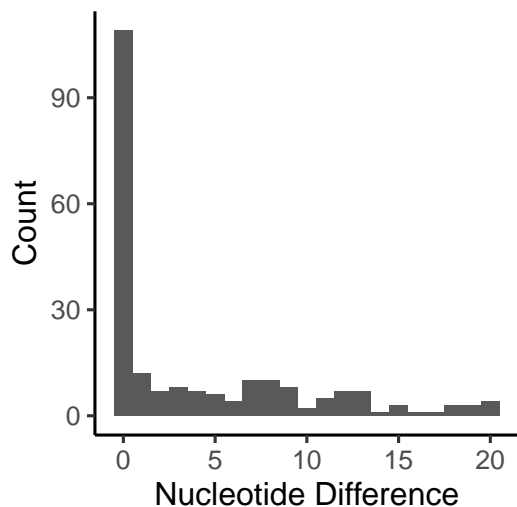
### IGHV3-72\*01

313 sequences assigned  
36 (11.5%) exact matches, in which:  
34 unique CDR3  
4 unique J



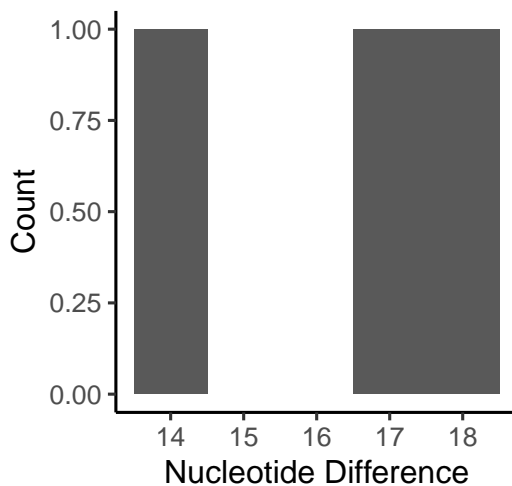
### IGHV3-64\*01

258 sequences assigned  
109 (42.2%) exact matches, in which:  
104 unique CDR3  
6 unique J



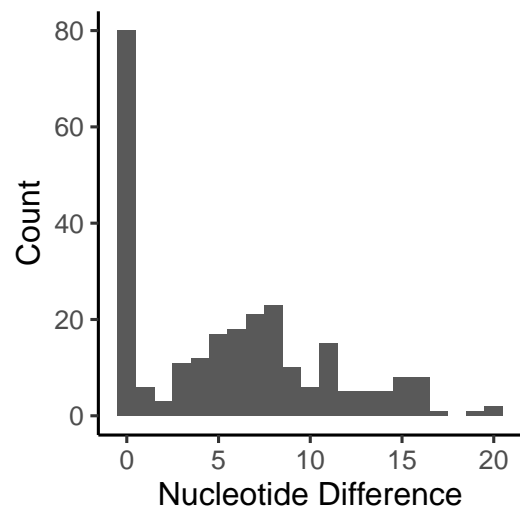
### IGHV3-69-1\*01

8 sequences assigned  
No exact matches.



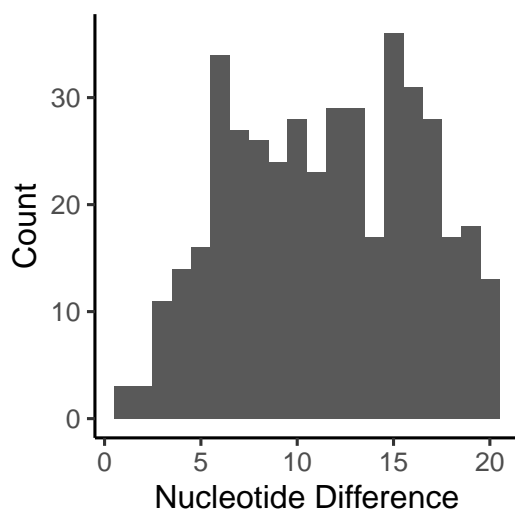
### IGHV3-73\*01\_02

281 sequences assigned  
80 (28.5%) exact matches, in which:  
79 unique CDR3  
6 unique J



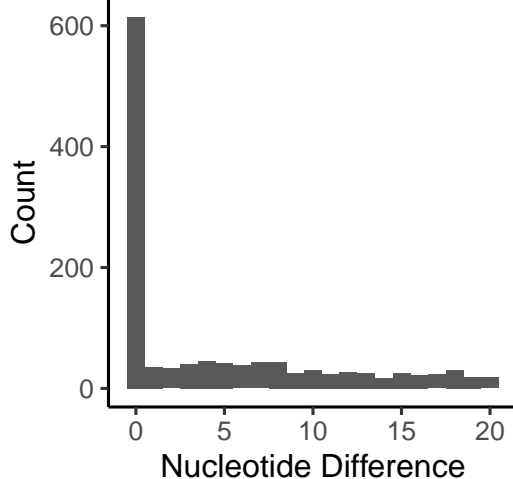
### IGHV3-74\*03

493 sequences assigned  
No exact matches.



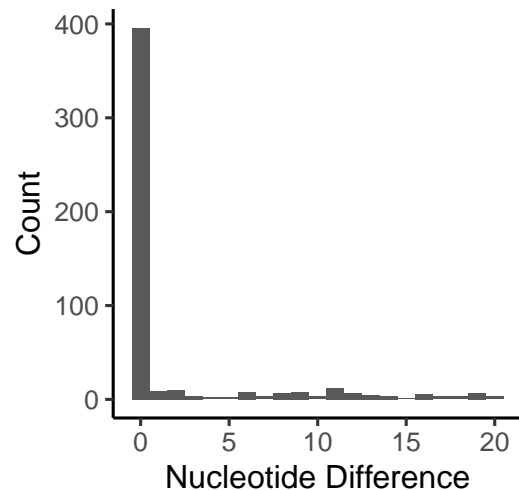
### IGHV3-64D\*06

1336 sequences assigned  
615 (46%) exact matches, in which:  
608 unique CDR3  
7 unique J



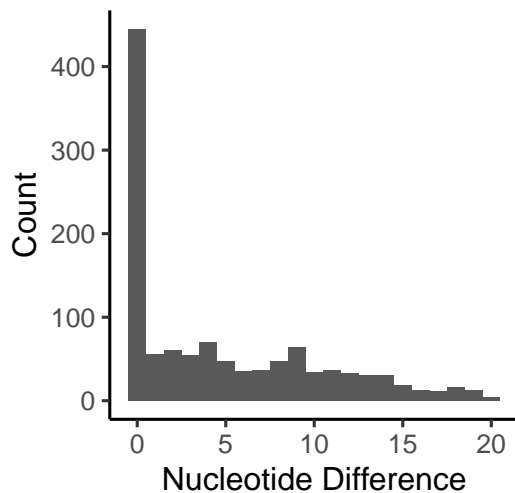
### IGHV4-30-2\*01

551 sequences assigned  
396 (71.9%) exact matches, in which:  
394 unique CDR3  
6 unique J



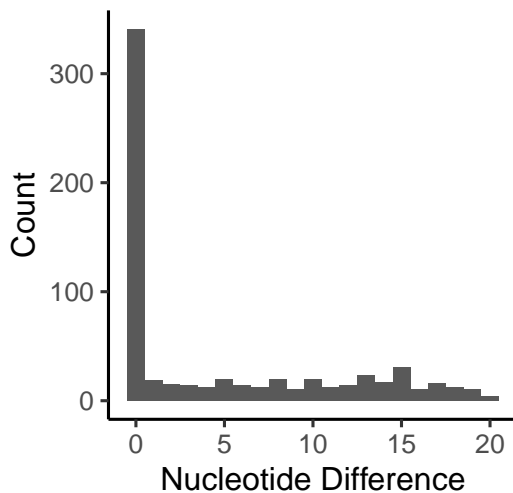
### IGHV3-74\*01\_02

1221 sequences assigned  
445 (36.4%) exact matches, in which:  
435 unique CDR3  
7 unique J



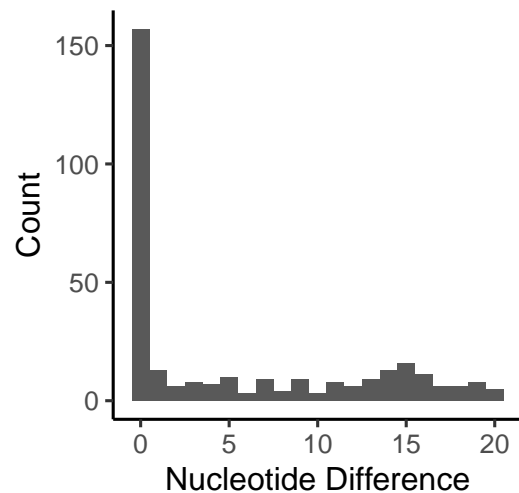
### IGHV4-4\*02\_03

750 sequences assigned  
341 (45.5%) exact matches, in which:  
338 unique CDR3  
6 unique J



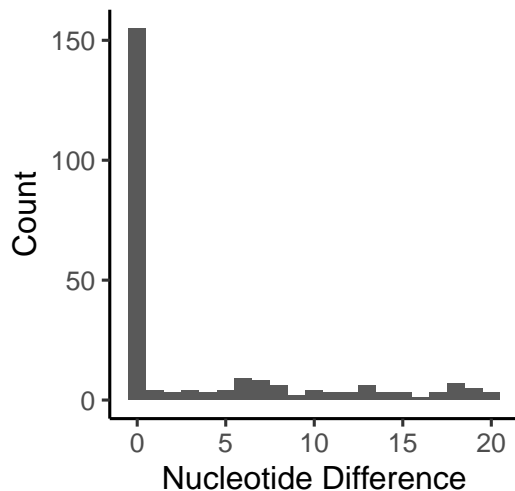
### IGHV4-30-4\*07

395 sequences assigned  
157 (39.7%) exact matches, in which:  
154 unique CDR3  
6 unique J



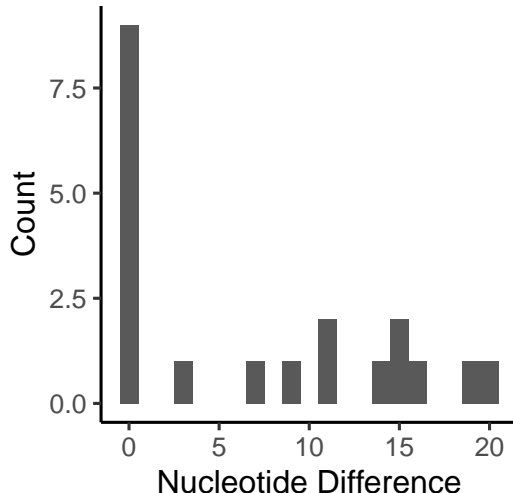
### IGHV3-43D\*03

256 sequences assigned  
155 (60.5%) exact matches, in which:  
150 unique CDR3  
7 unique J



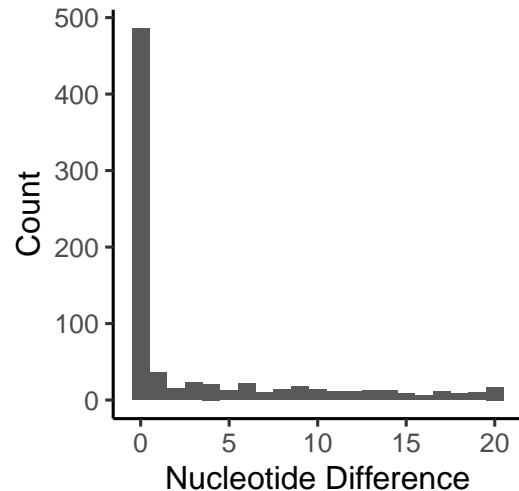
### IGHV4-28\*01\_07

20 sequences assigned  
9 (45%) exact matches, in which:  
9 unique CDR3  
4 unique J



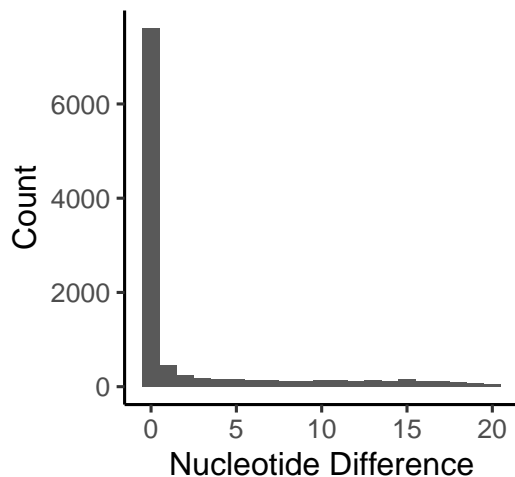
### IGHV4-31\*02

857 sequences assigned  
486 (56.7%) exact matches, in which:  
486 unique CDR3  
6 unique J



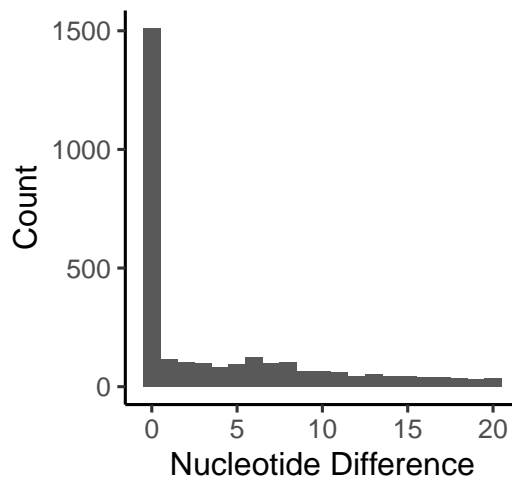
### IGHV4-34\*01\_02

11171 sequences assigned  
7603 (68.1%) exact matches, in which:  
7506 unique CDR3  
7 unique J



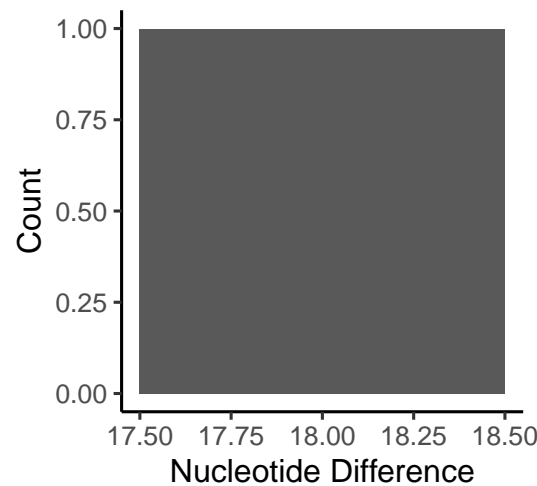
### IGHV4-59\*08

3123 sequences assigned  
1510 (48.4%) exact matches, in which:  
1493 unique CDR3  
7 unique J



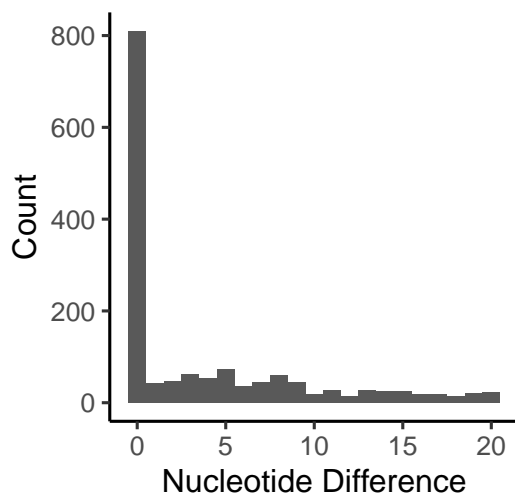
### IGHV4/OR15-8\*01

2 sequences assigned  
No exact matches.



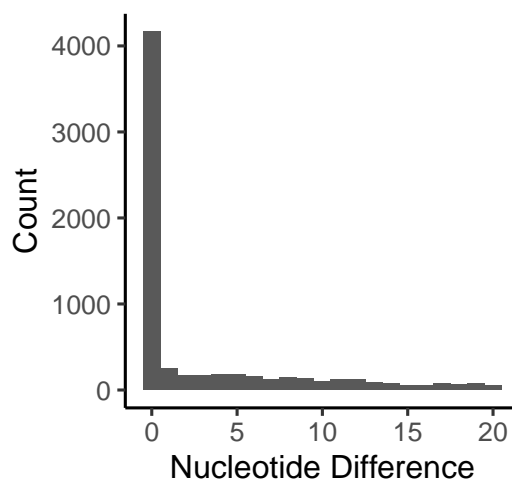
### IGHV4-38-2\*02

1634 sequences assigned  
810 (49.6%) exact matches, in which:  
799 unique CDR3  
6 unique J



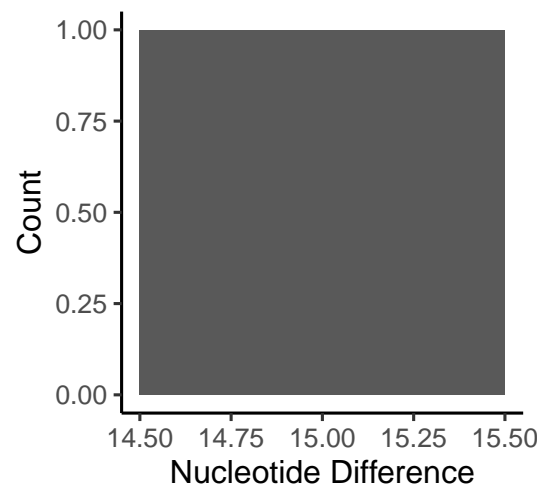
### IGHV4-59\*02\_G88A

7024 sequences assigned  
4165 (59.3%) exact matches, in which:  
4097 unique CDR3  
7 unique J



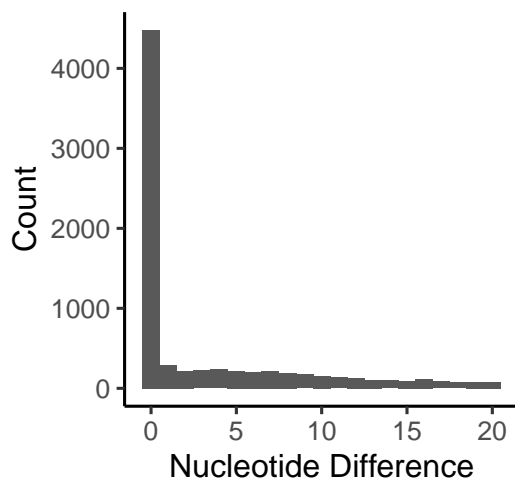
### IGHV4/OR15-8\*02

7 sequences assigned  
No exact matches.



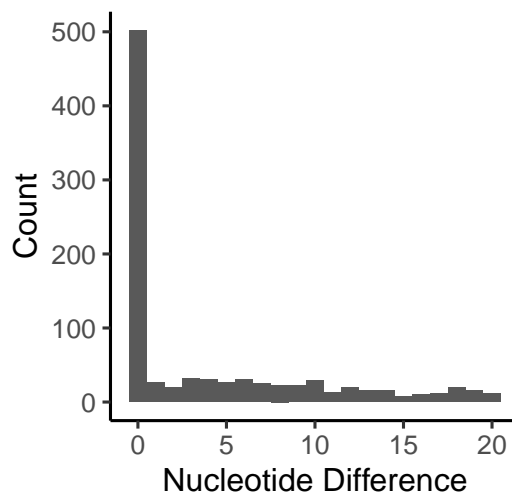
### IGHV4-39\*02\_C258G

8423 sequences assigned  
4479 (53.2%) exact matches, in which:  
4417 unique CDR3  
7 unique J



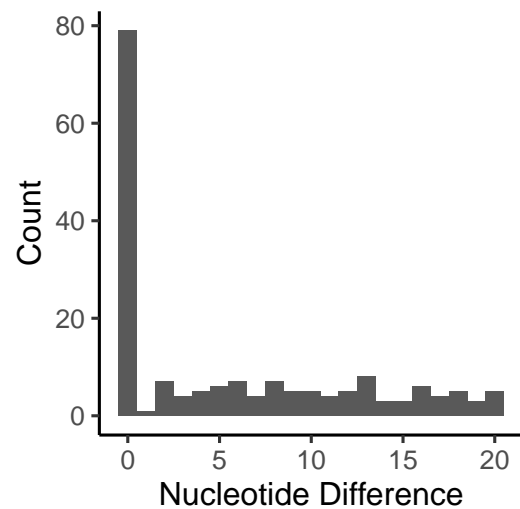
### IGHV4-61\*01

996 sequences assigned  
502 (50.4%) exact matches, in which:  
499 unique CDR3  
6 unique J



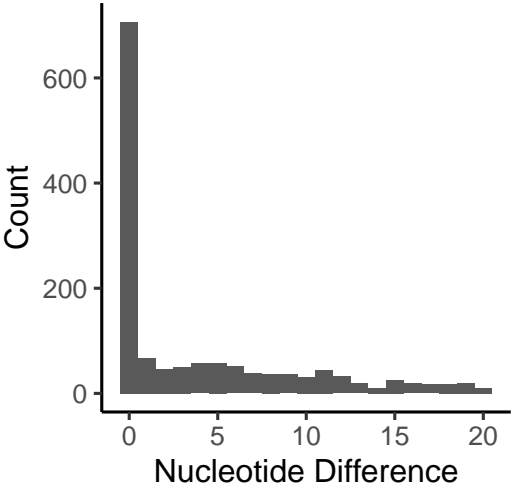
### IGHV5-10-1\*01\_03

203 sequences assigned  
79 (38.9%) exact matches, in which:  
79 unique CDR3  
7 unique J



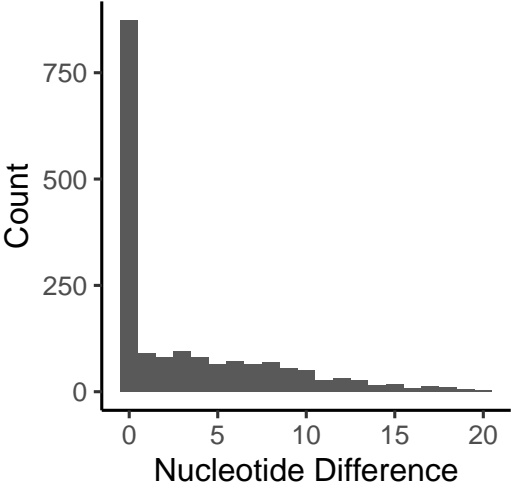
IGHV5–51\*07\_A128G

1466 sequences assigned  
707 (48.2%) exact matches, in which:  
707 unique CDR3  
7 unique J



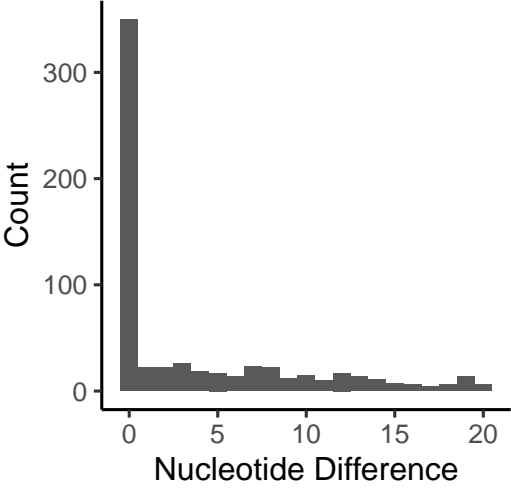
IGHV6–1\*01\_02

1833 sequences assigned  
874 (47.7%) exact matches, in which:  
870 unique CDR3  
7 unique J



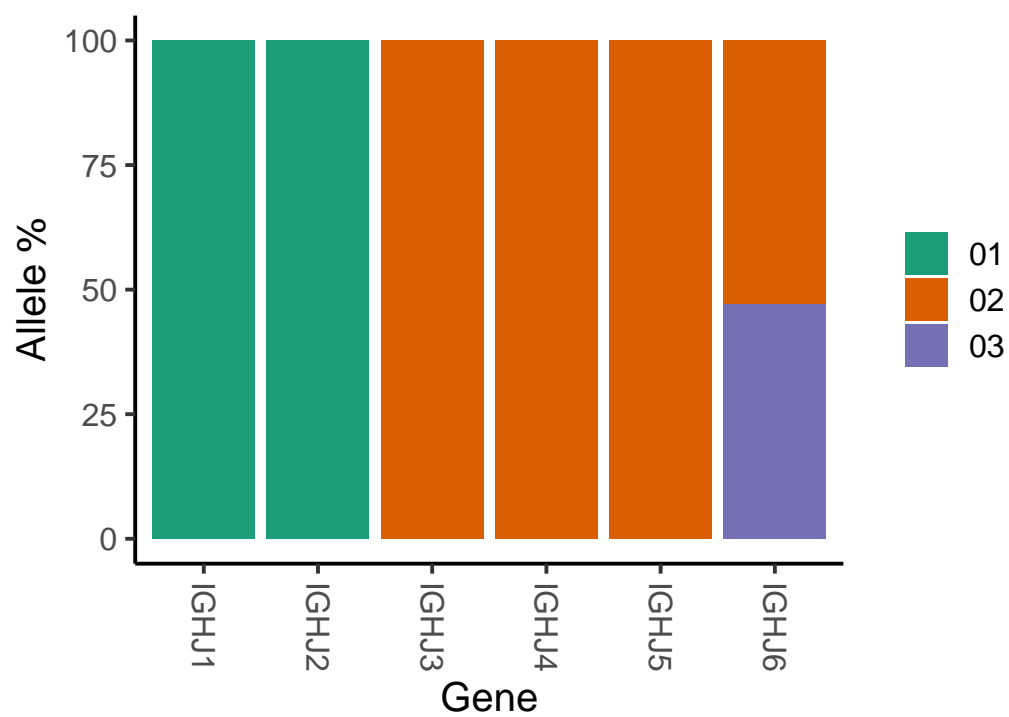
IGHV7–4–1\*02

708 sequences assigned  
350 (49.4%) exact matches, in which:  
350 unique CDR3  
7 unique J

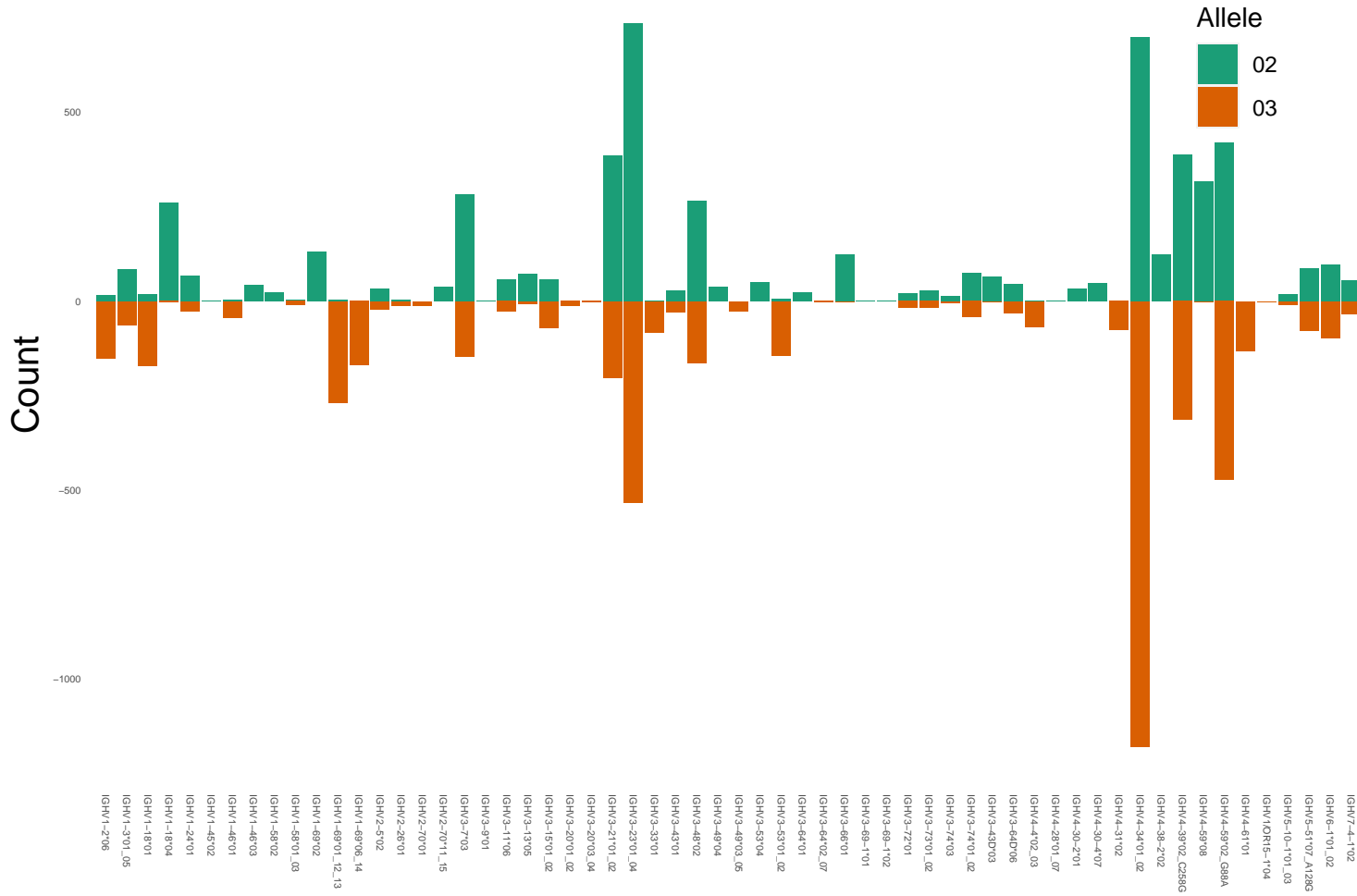




Allele Usage



Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.