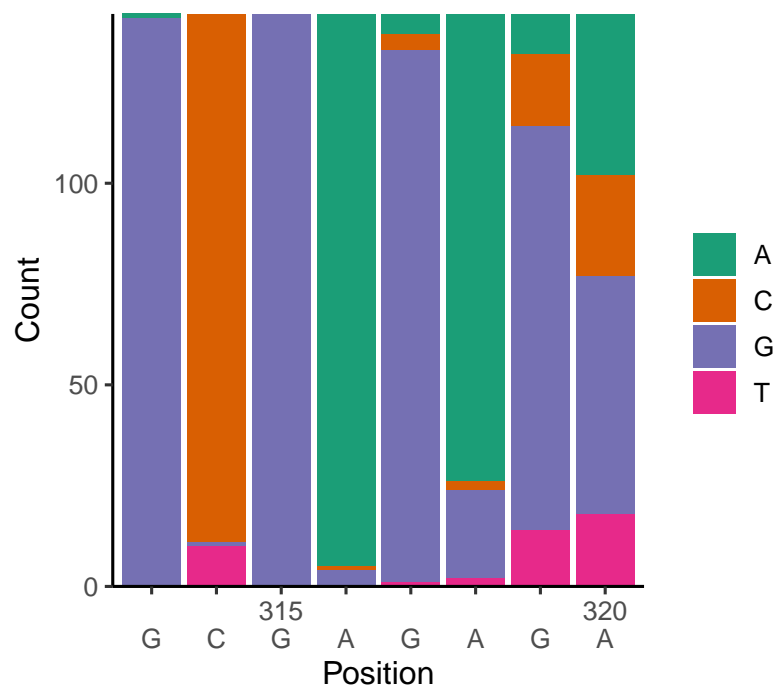
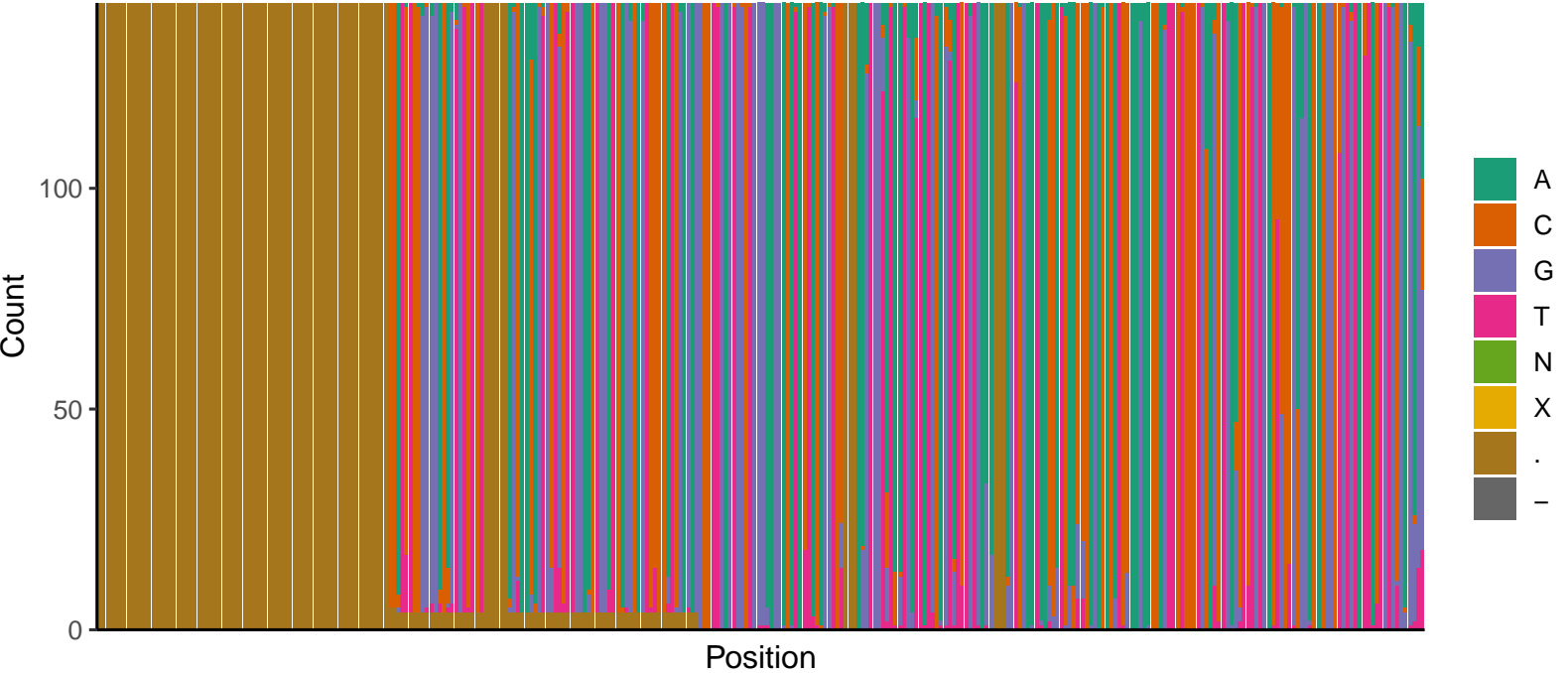


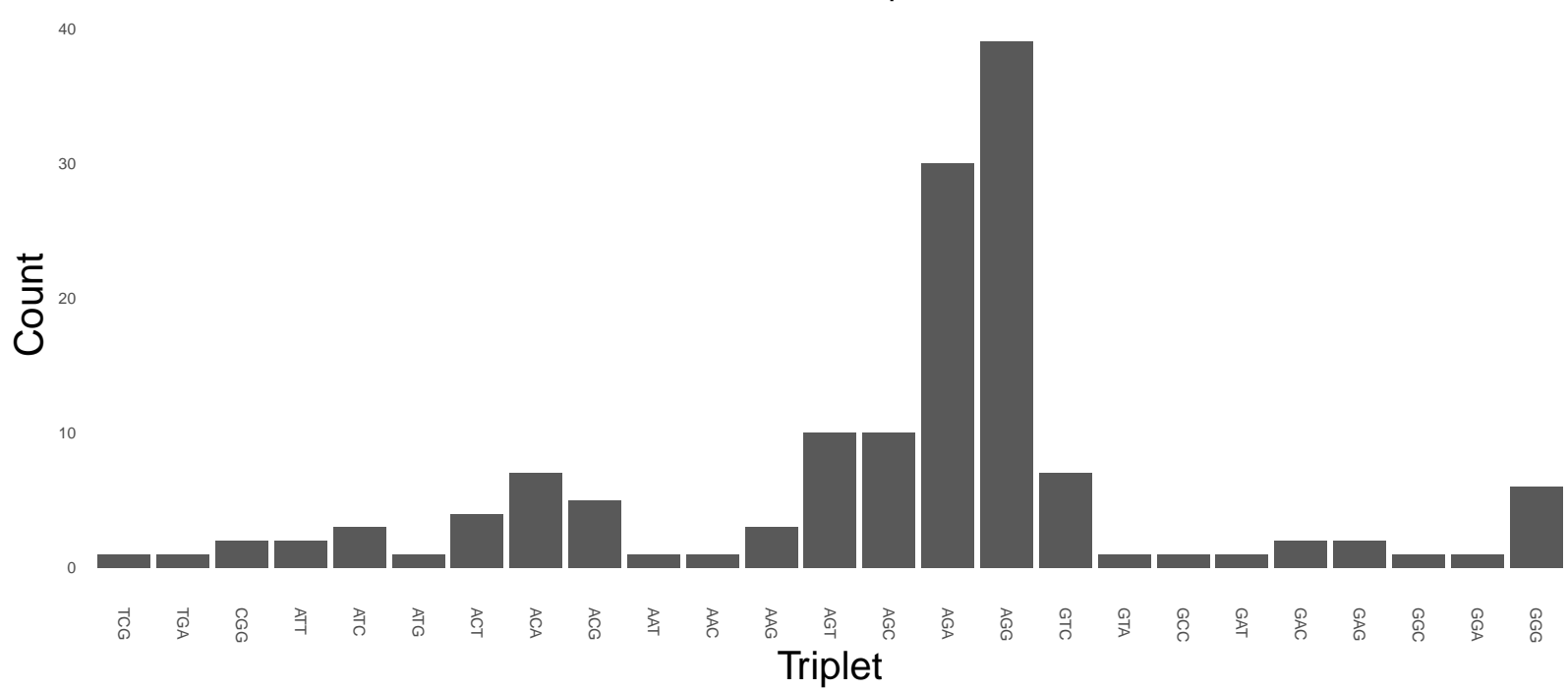
# Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

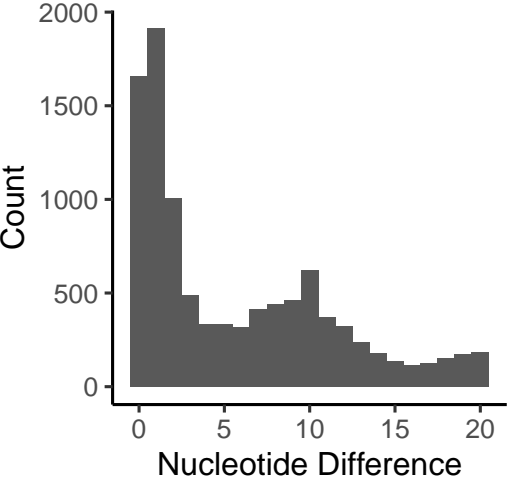


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



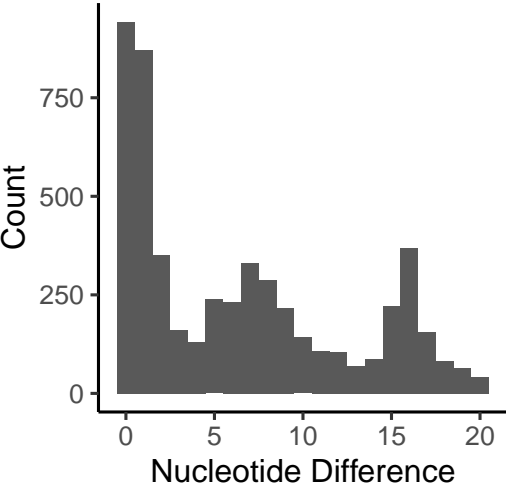
IGHV1-2\*02

12513 sequences assigned  
1656 (13.2%) exact matches, in which:  
1386 unique CDR3  
6 unique J



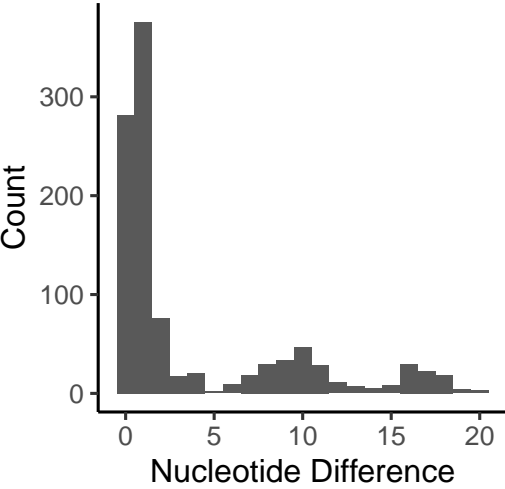
IGHV1-8\*01

5841 sequences assigned  
943 (16.1%) exact matches, in which:  
846 unique CDR3  
6 unique J



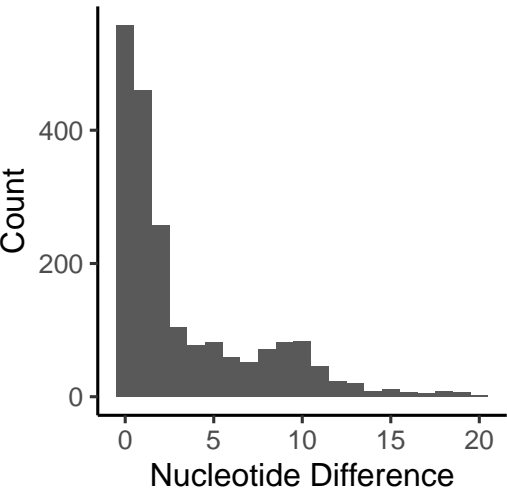
IGHV1-24\*01

1198 sequences assigned  
282 (23.5%) exact matches, in which:  
212 unique CDR3  
6 unique J



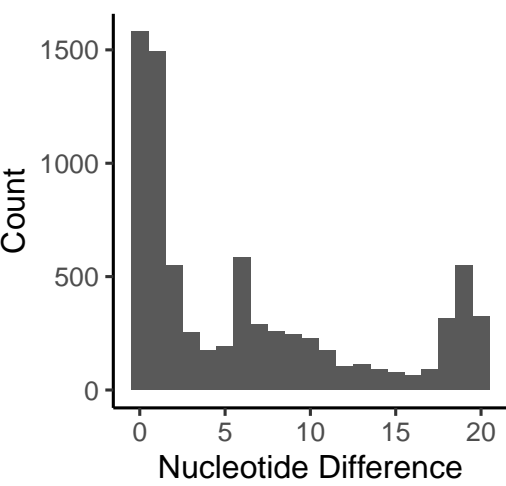
IGHV1-2\*04

2036 sequences assigned  
558 (27.4%) exact matches, in which:  
488 unique CDR3  
6 unique J



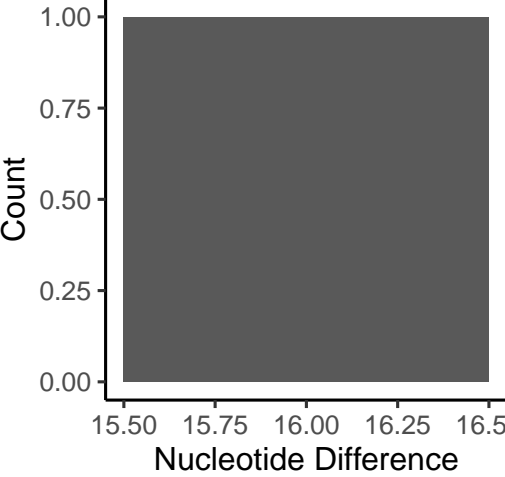
IGHV1-18\*01

9319 sequences assigned  
1580 (17%) exact matches, in which:  
1343 unique CDR3  
6 unique J



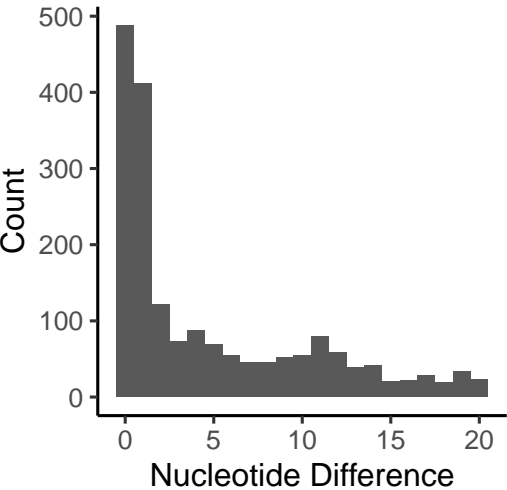
IGHV1-45\*02

1 sequences assigned  
No exact matches.



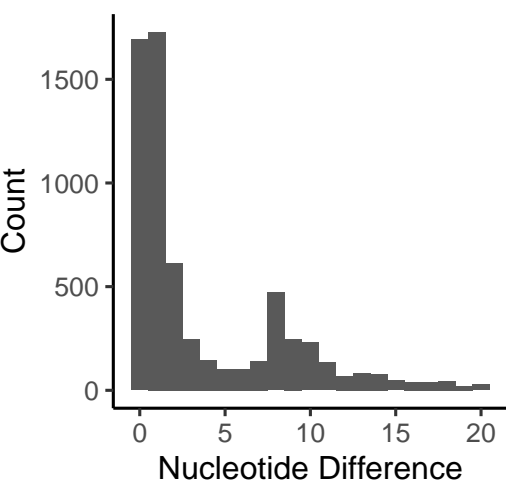
IGHV1-3\*01\_05

2121 sequences assigned  
488 (23%) exact matches, in which:  
406 unique CDR3  
6 unique J



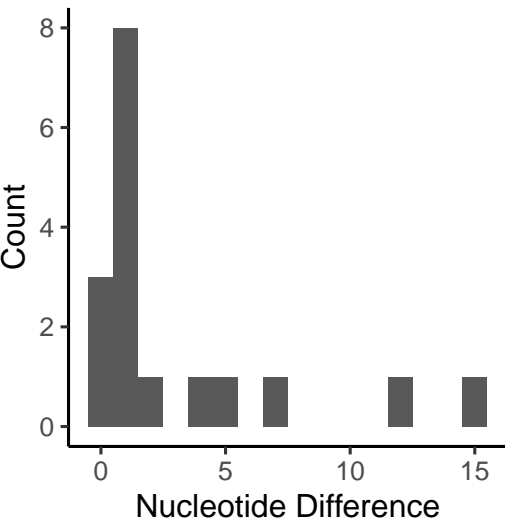
IGHV1-18\*04

6542 sequences assigned  
1692 (25.9%) exact matches, in which:  
1413 unique CDR3  
6 unique J



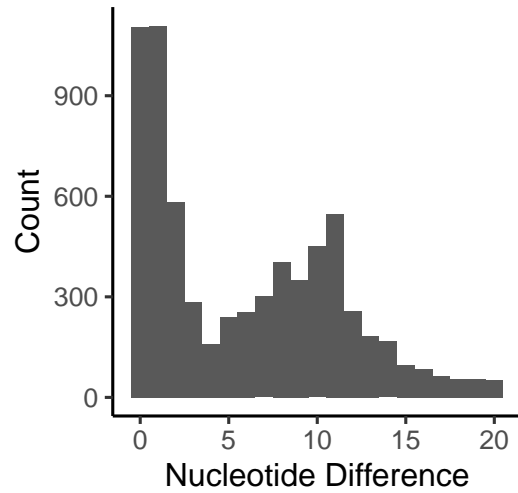
IGHV1-45\*03

17 sequences assigned  
3 (17.6%) exact matches, in which:  
3 unique CDR3  
2 unique J



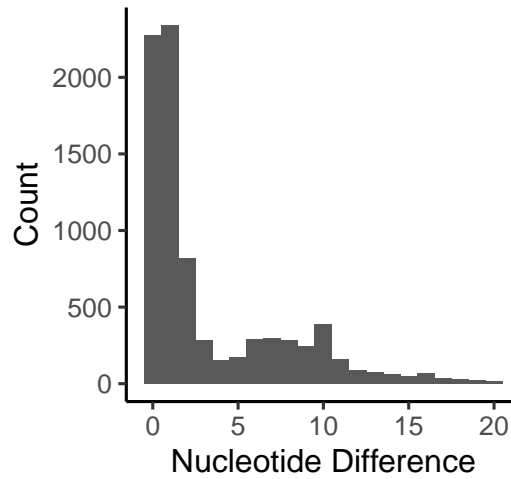
### IGHV1-46\*01

7204 sequences assigned  
1105 (15.3%) exact matches, in which:  
985 unique CDR3  
6 unique J



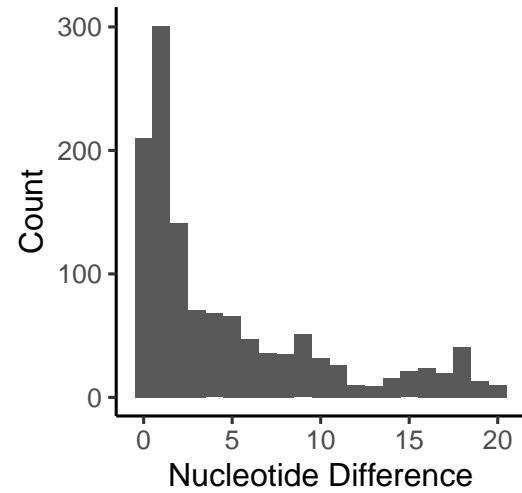
### IGHV1-69\*01\_12\_13

8769 sequences assigned  
2274 (25.9%) exact matches, in which:  
1960 unique CDR3  
6 unique J



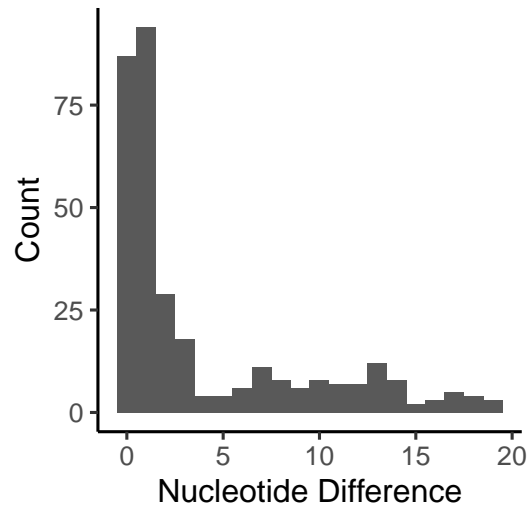
### IGHV2-5\*02

1388 sequences assigned  
210 (15.1%) exact matches, in which:  
170 unique CDR3  
6 unique J



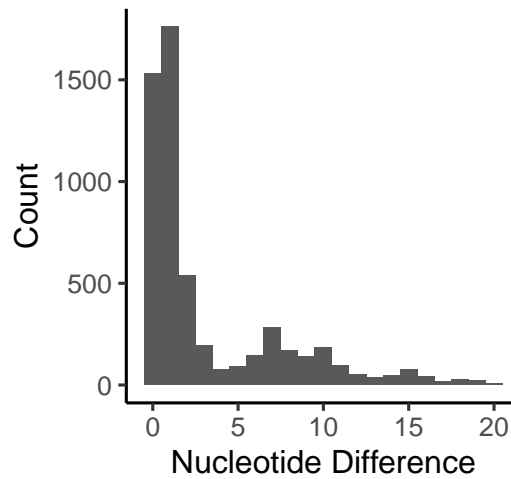
### IGHV1-58\*02

328 sequences assigned  
87 (26.5%) exact matches, in which:  
79 unique CDR3  
6 unique J



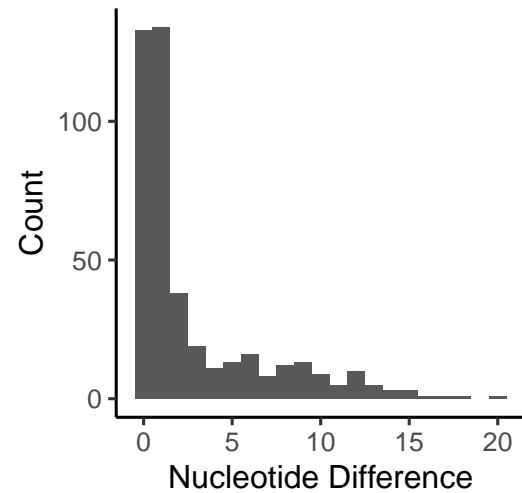
### IGHV1-69\*04\_09

5682 sequences assigned  
1532 (27%) exact matches, in which:  
1311 unique CDR3  
6 unique J



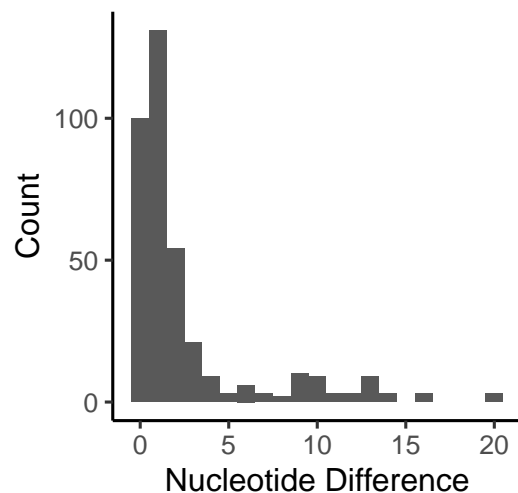
### IGHV2-26\*01

445 sequences assigned  
133 (29.9%) exact matches, in which:  
110 unique CDR3  
6 unique J



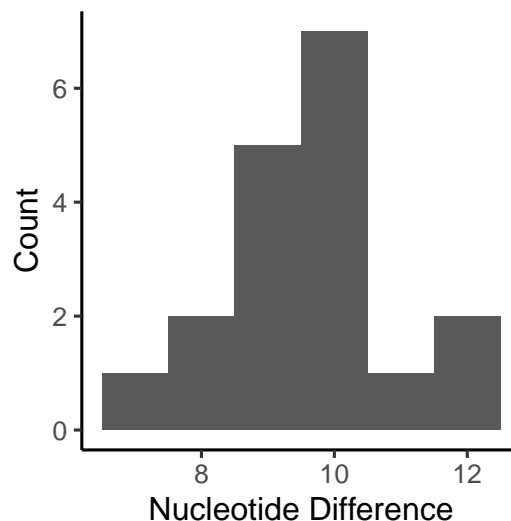
### IGHV1-58\*01\_03

383 sequences assigned  
100 (26.1%) exact matches, in which:  
86 unique CDR3  
5 unique J



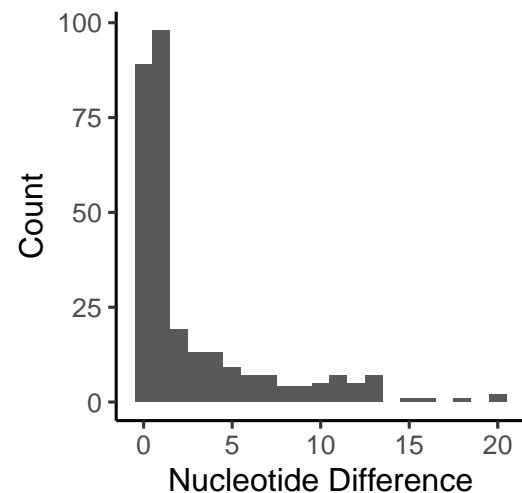
### IGHV1-NL1\*01

18 sequences assigned  
No exact matches.



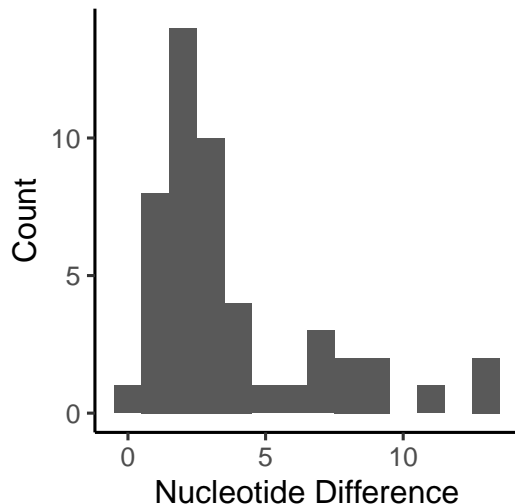
### IGHV2-70\*01

294 sequences assigned  
89 (30.3%) exact matches, in which:  
69 unique CDR3  
5 unique J



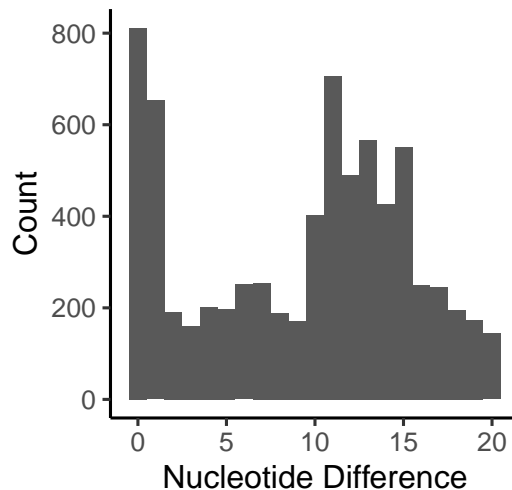
## IGHV2-70\*12

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



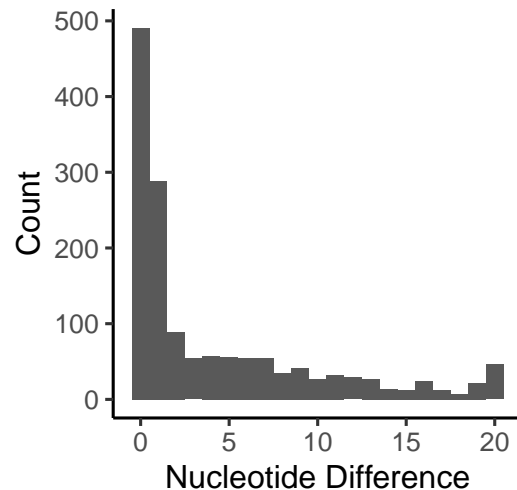
## IGHV3-7\*01

8005 sequences assigned  
812 (10.1%) exact matches, in which:  
577 unique CDR3  
6 unique J



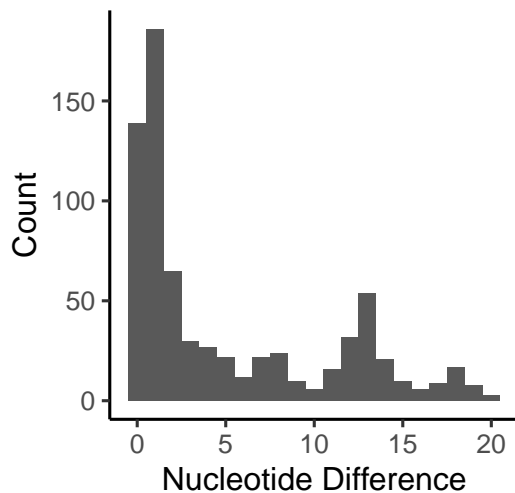
## IGHV3-11\*01

1916 sequences assigned  
491 (25.6%) exact matches, in which:  
338 unique CDR3  
6 unique J



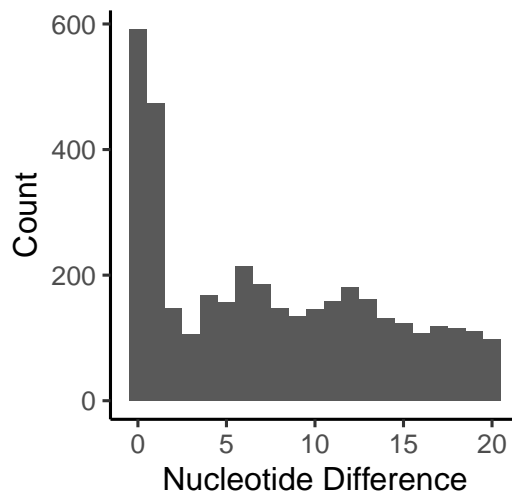
## IGHV2-70\*11\_15

738 sequences assigned  
139 (18.8%) exact matches, in which:  
109 unique CDR3  
4 unique J



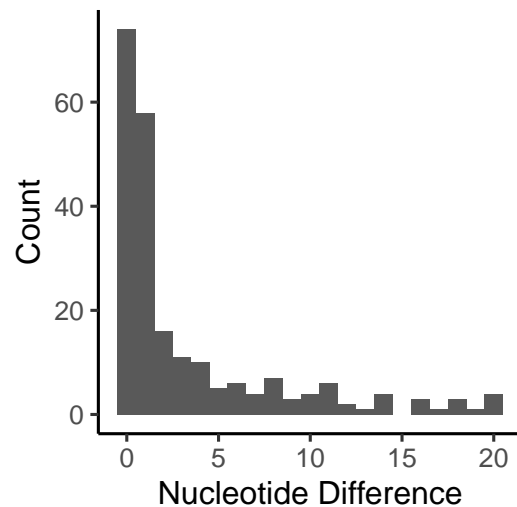
## IGHV3-7\*03

4899 sequences assigned  
592 (12.1%) exact matches, in which:  
416 unique CDR3  
6 unique J



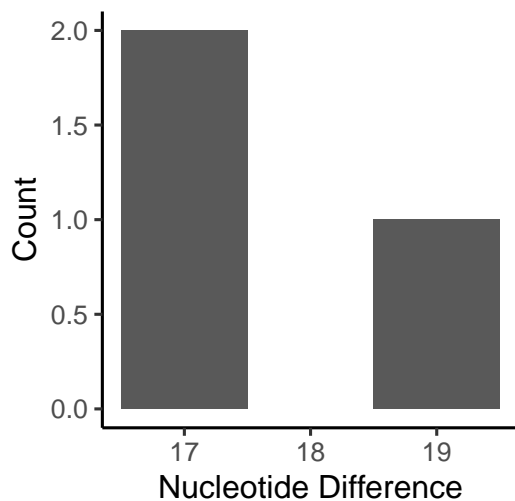
## IGHV3-11\*04

226 sequences assigned  
74 (32.7%) exact matches, in which:  
71 unique CDR3  
6 unique J



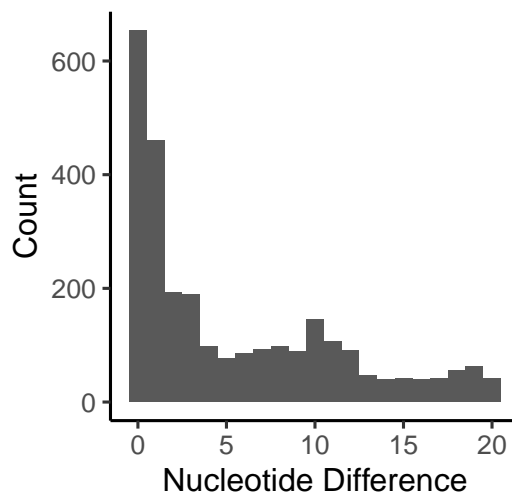
## IGHV2-70D\*14

5 sequences assigned  
No exact matches.



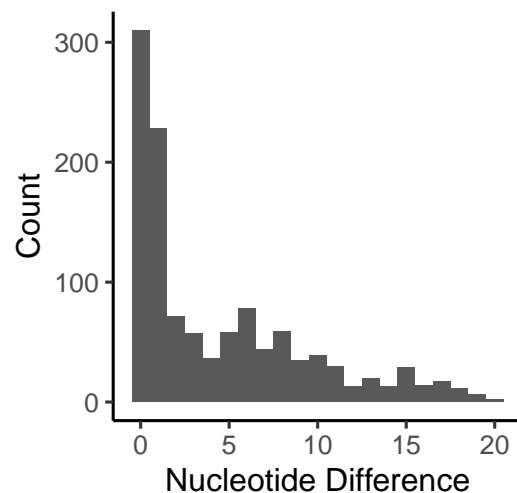
## IGHV3-9\*01

3034 sequences assigned  
654 (21.6%) exact matches, in which:  
395 unique CDR3  
6 unique J



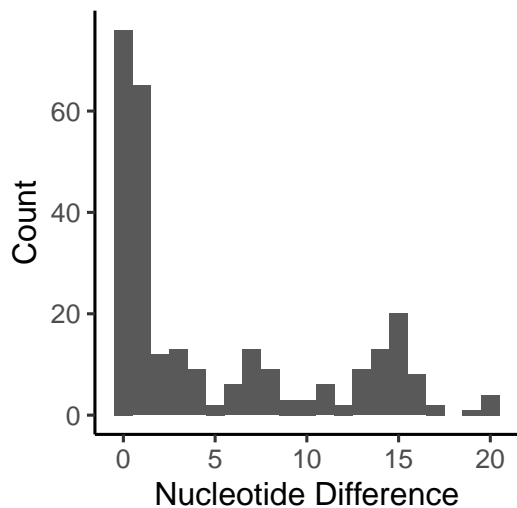
## IGHV3-11\*06

1207 sequences assigned  
310 (25.7%) exact matches, in which:  
213 unique CDR3  
6 unique J



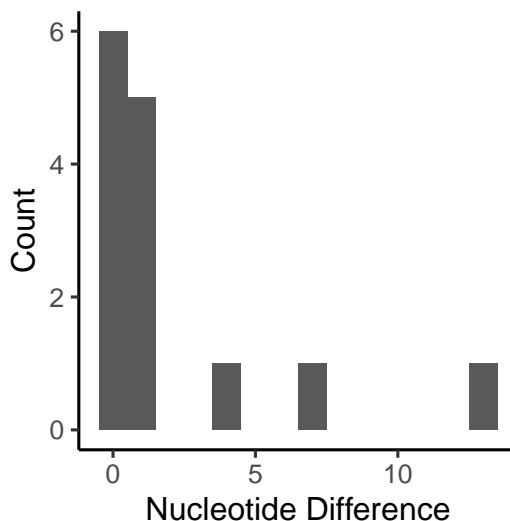
### IGHV3-13\*01

277 sequences assigned  
76 (27.4%) exact matches, in which:  
44 unique CDR3  
5 unique J



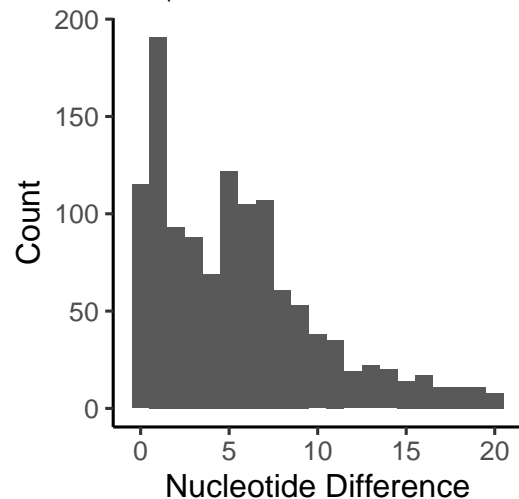
### IGHV3-19\*01

14 sequences assigned  
6 (42.9%) exact matches, in which:  
4 unique CDR3  
3 unique J



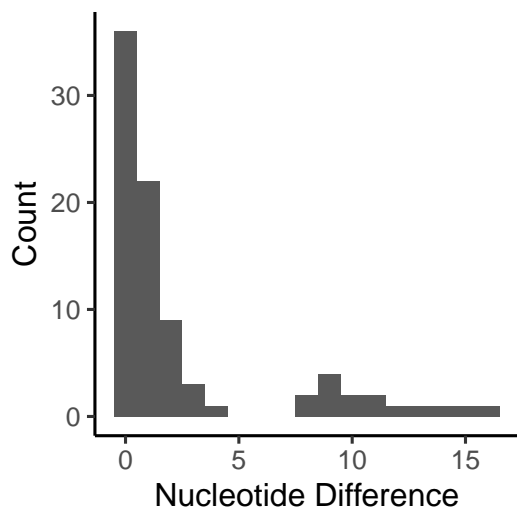
### IGHV3-21\*04

1346 sequences assigned  
115 (8.5%) exact matches, in which:  
107 unique CDR3  
6 unique J



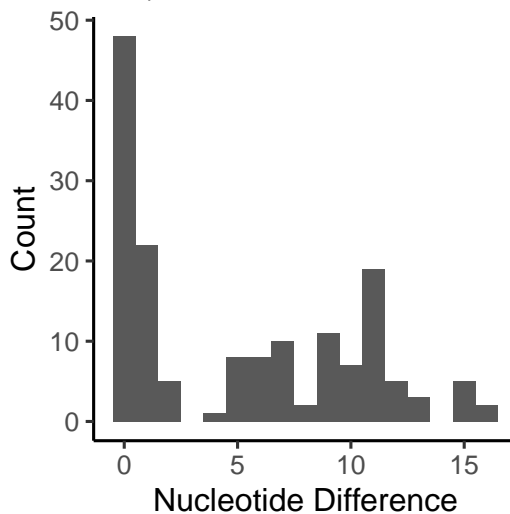
### IGHV3-13\*05

86 sequences assigned  
36 (41.9%) exact matches, in which:  
18 unique CDR3  
5 unique J



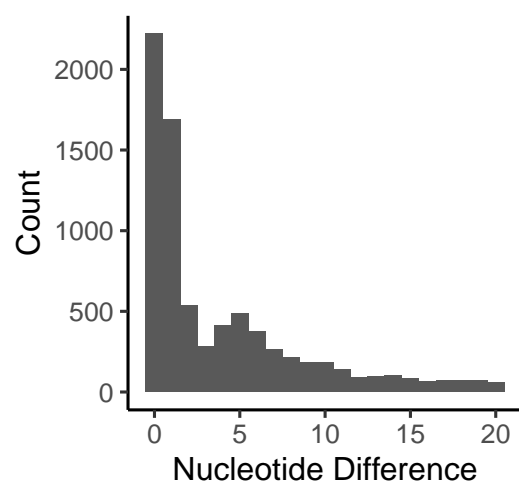
### IGHV3-20\*01\_02

157 sequences assigned  
48 (30.6%) exact matches, in which:  
29 unique CDR3  
4 unique J



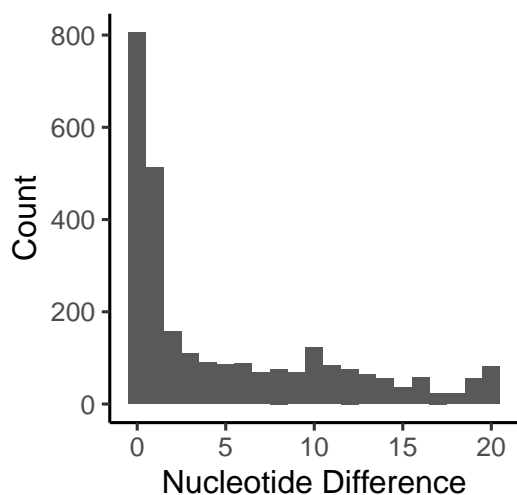
### IGHV3-21\*01\_02

8186 sequences assigned  
2221 (27.1%) exact matches, in which:  
1404 unique CDR3  
6 unique J



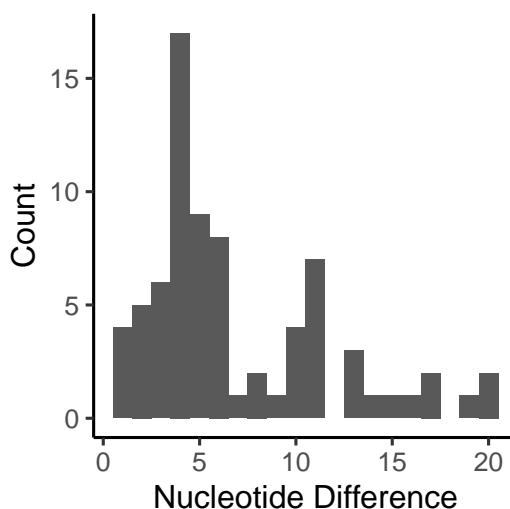
### IGHV3-15\*01\_02

4505 sequences assigned  
806 (17.9%) exact matches, in which:  
476 unique CDR3  
6 unique J



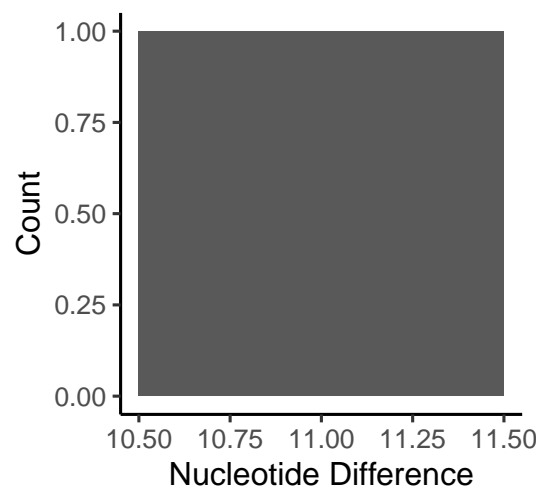
### IGHV3-20\*03\_04

81 sequences assigned  
No exact matches.



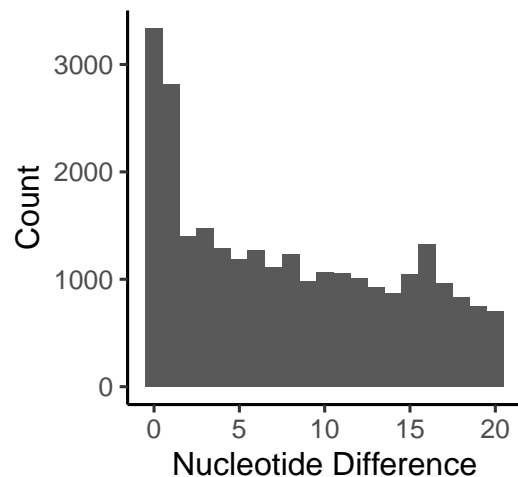
### IGHV3-22\*01\_02

2 sequences assigned  
No exact matches.



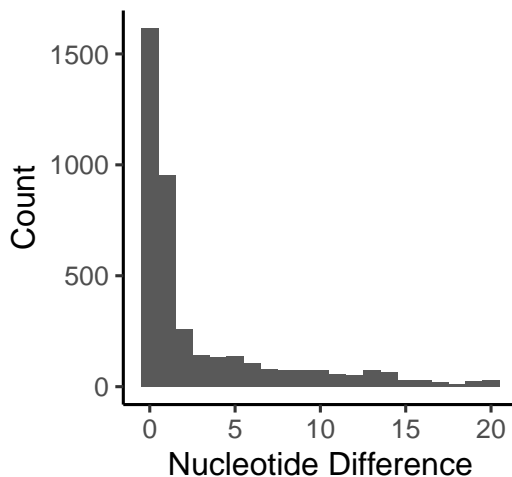
### IGHV3-23\*01\_04

34572 sequences assigned  
3336 (9.6%) exact matches, in which:  
1970 unique CDR3  
6 unique J



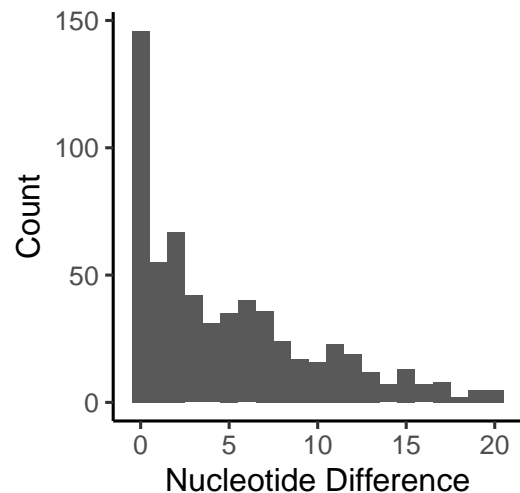
### IGHV3-30\*04

4339 sequences assigned  
1615 (37.2%) exact matches, in which:  
1069 unique CDR3  
6 unique J



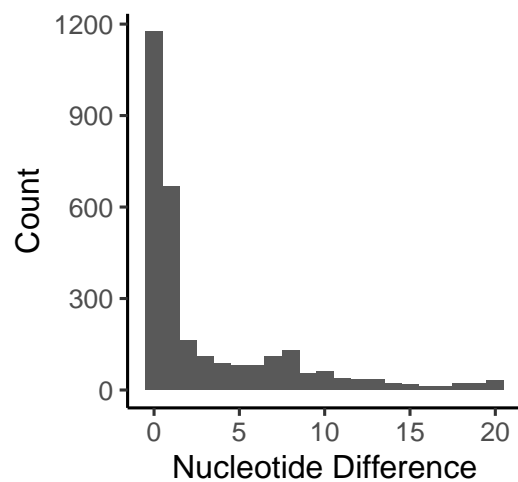
### IGHV3-33\*08

646 sequences assigned  
146 (22.6%) exact matches, in which:  
121 unique CDR3  
5 unique J



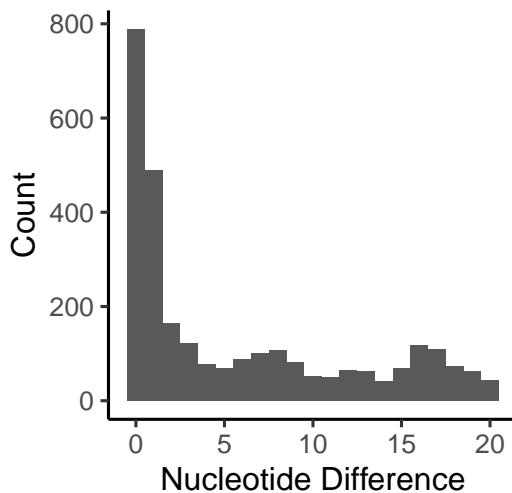
### IGHV3-30-3\*01

3109 sequences assigned  
1175 (37.8%) exact matches, in which:  
775 unique CDR3  
6 unique J



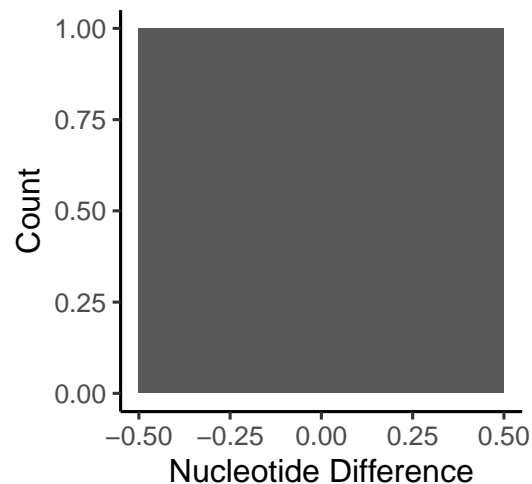
### IGHV3-30\*18

3418 sequences assigned  
789 (23.1%) exact matches, in which:  
465 unique CDR3  
6 unique J



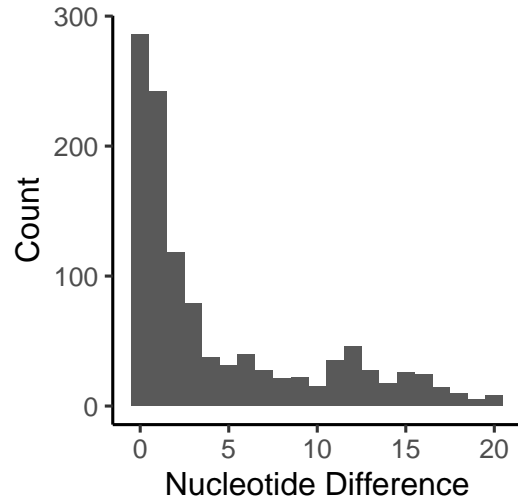
### IGHV3-35\*01

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



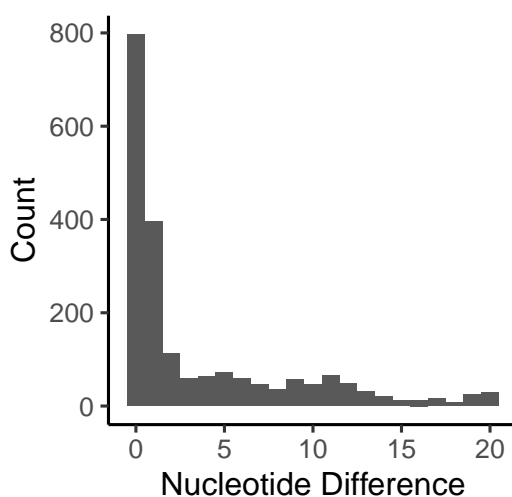
### IGHV3-30\*03

1556 sequences assigned  
286 (18.4%) exact matches, in which:  
263 unique CDR3  
6 unique J



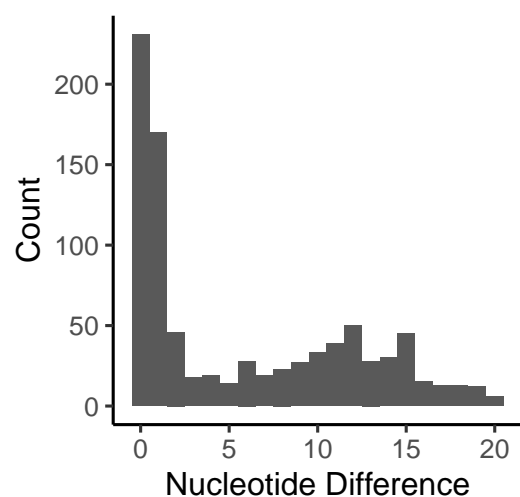
### IGHV3-33\*01

2166 sequences assigned  
797 (36.8%) exact matches, in which:  
552 unique CDR3  
5 unique J



### IGHV3-43\*02

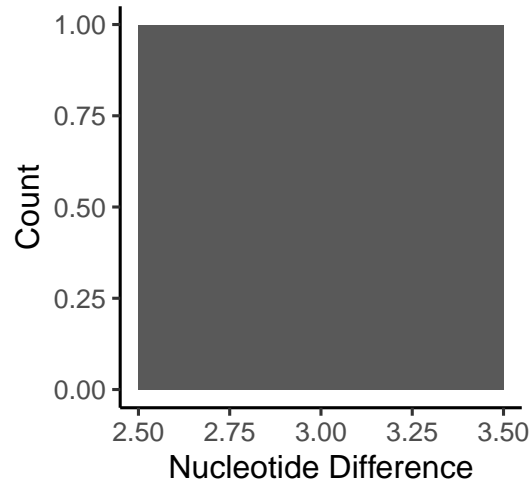
977 sequences assigned  
231 (23.6%) exact matches, in which:  
137 unique CDR3  
6 unique J





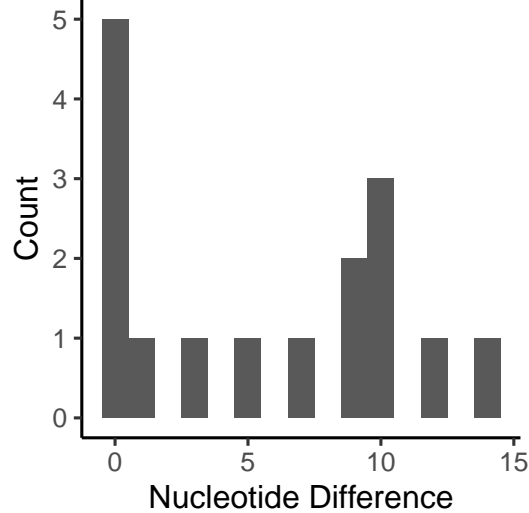
### IGHV3-47\*01

1 sequences assigned  
No exact matches.



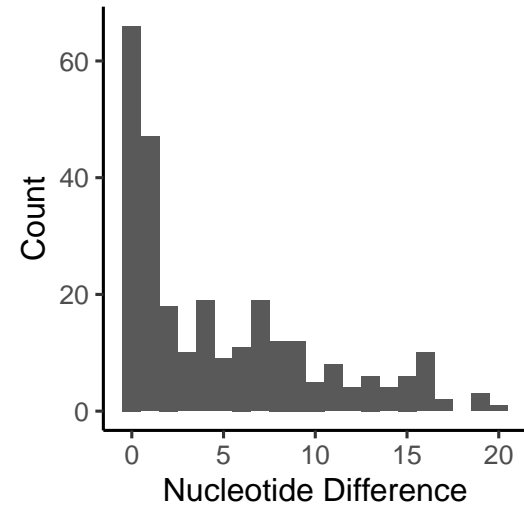
### IGHV3-52\*01\_03

16 sequences assigned  
5 (31.2%) exact matches, in which:  
5 unique CDR3  
2 unique J



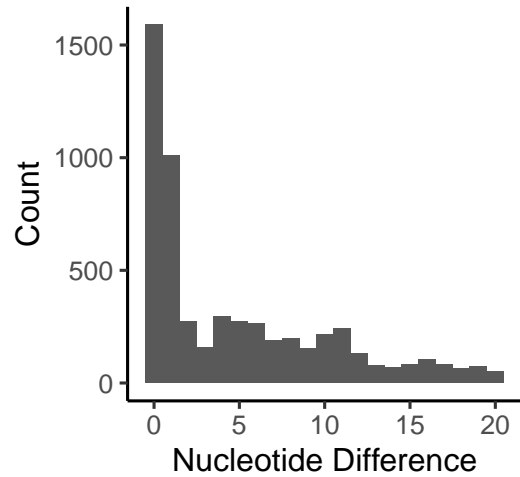
### IGHV3-64\*01

310 sequences assigned  
66 (21.3%) exact matches, in which:  
45 unique CDR3  
5 unique J



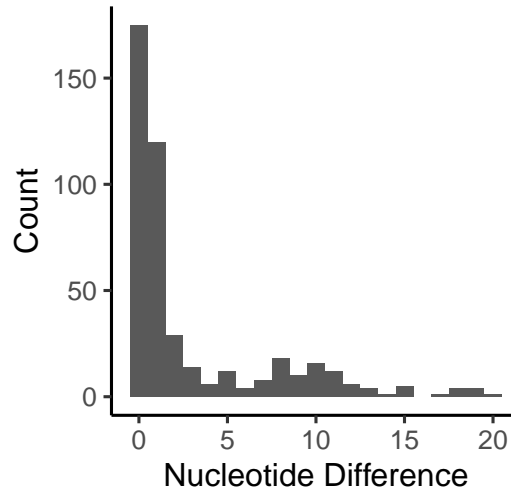
### IGHV3-48\*03

8784 sequences assigned  
1590 (18.1%) exact matches, in which:  
974 unique CDR3  
6 unique J



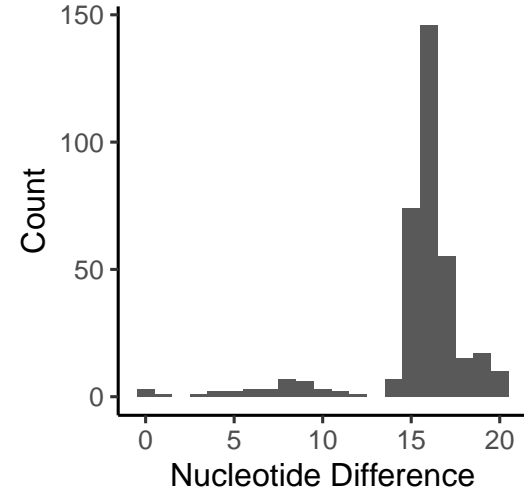
### IGHV3-53\*04

479 sequences assigned  
175 (36.5%) exact matches, in which:  
122 unique CDR3  
6 unique J



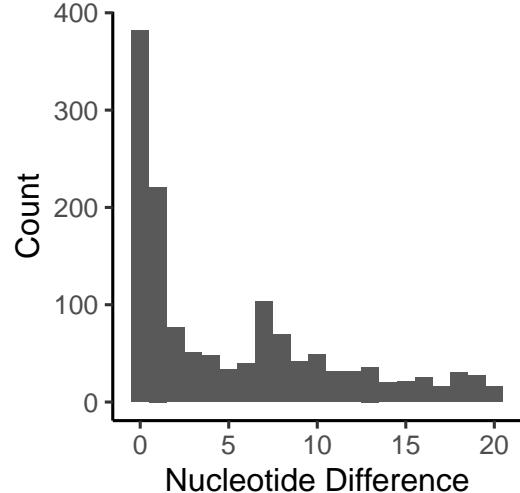
### IGHV3-64\*02\_07

397 sequences assigned  
3 (0.8%) exact matches, in which:  
3 unique CDR3  
2 unique J



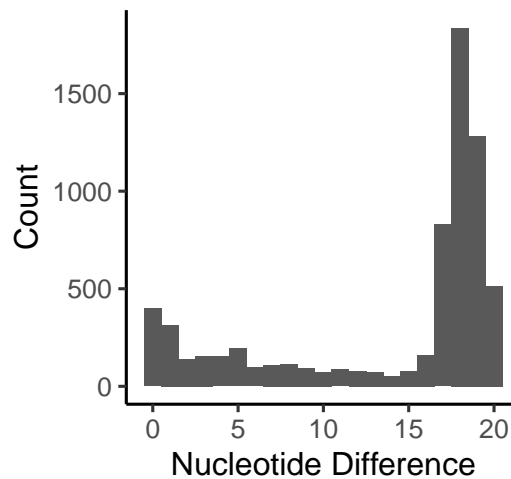
### IGHV3-49\*04

1489 sequences assigned  
382 (25.7%) exact matches, in which:  
232 unique CDR3  
6 unique J



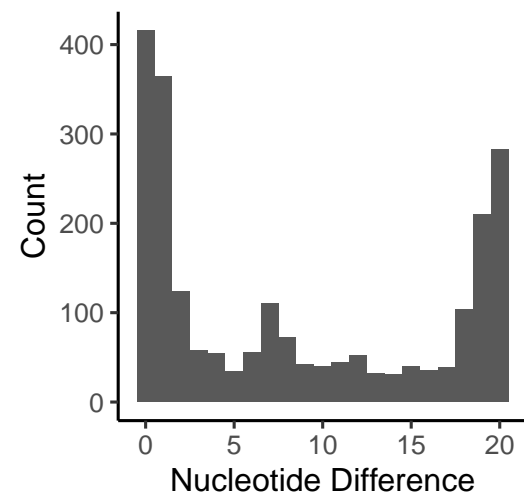
### IGHV3-53\*01\_02

7997 sequences assigned  
398 (5%) exact matches, in which:  
260 unique CDR3  
6 unique J



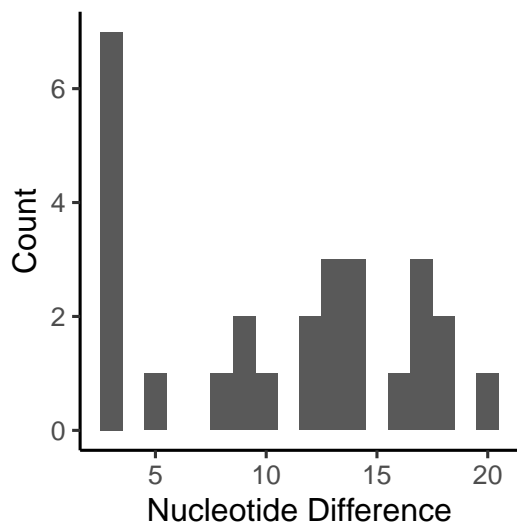
### IGHV3-66\*01

3185 sequences assigned  
416 (13.1%) exact matches, in which:  
270 unique CDR3  
6 unique J



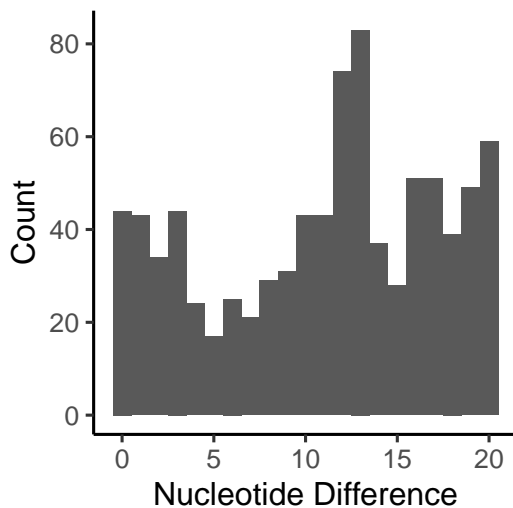
### IGHV3-69-1\*01

75 sequences assigned  
No exact matches.



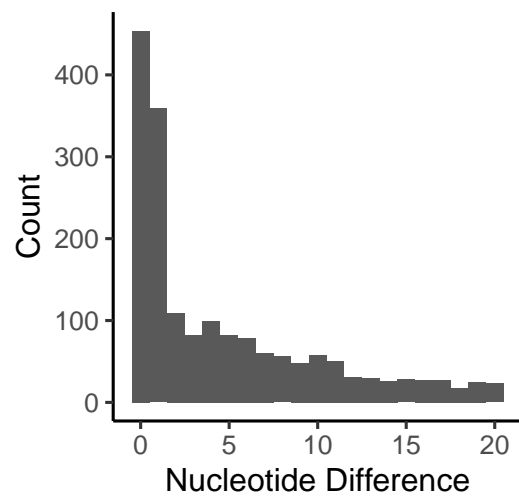
### IGHV3-72\*01

2819 sequences assigned  
44 (1.6%) exact matches, in which:  
29 unique CDR3  
4 unique J



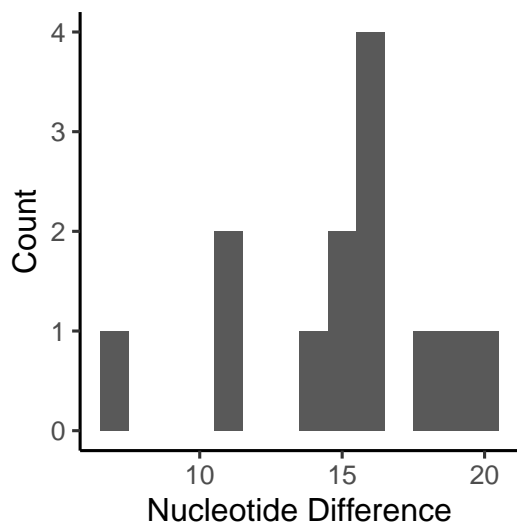
### IGHV3-74\*01\_02

2305 sequences assigned  
454 (19.7%) exact matches, in which:  
261 unique CDR3  
6 unique J



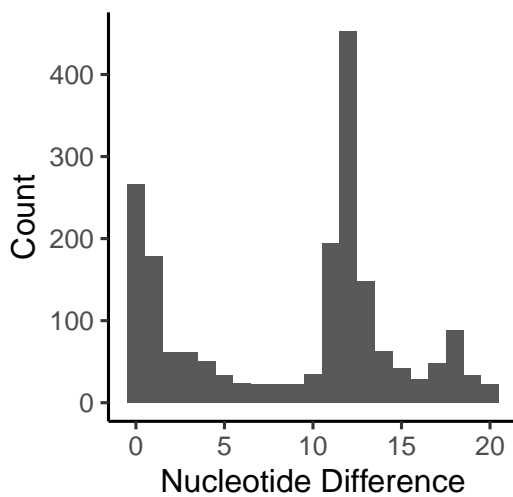
### IGHV3-69-1\*02

42 sequences assigned  
No exact matches.



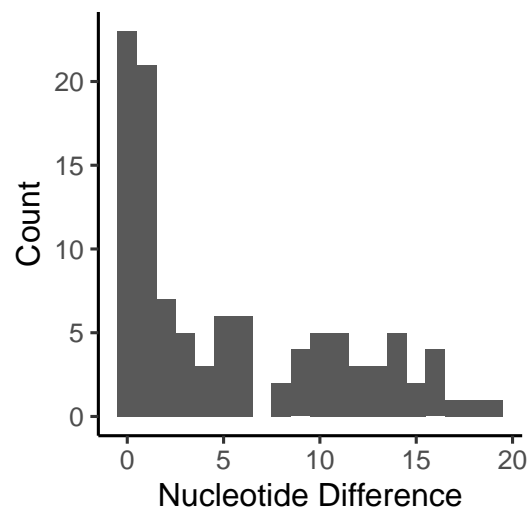
### IGHV3-73\*01\_02

2534 sequences assigned  
266 (10.5%) exact matches, in which:  
167 unique CDR3  
6 unique J



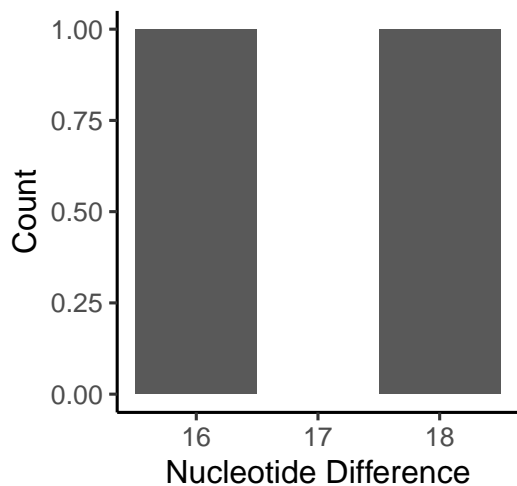
### IGHV3-43D\*04

114 sequences assigned  
23 (20.2%) exact matches, in which:  
15 unique CDR3  
4 unique J



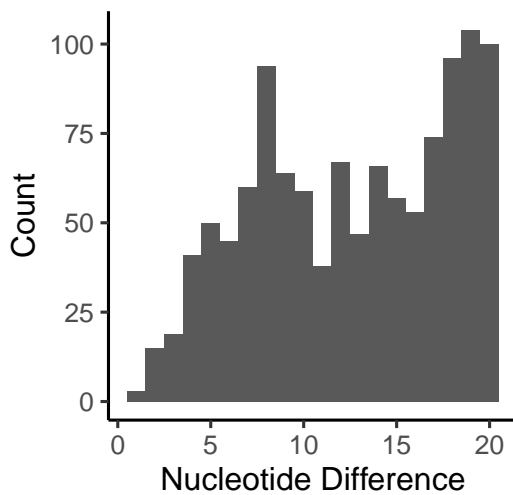
### IGHV3-71\*03

2 sequences assigned  
No exact matches.



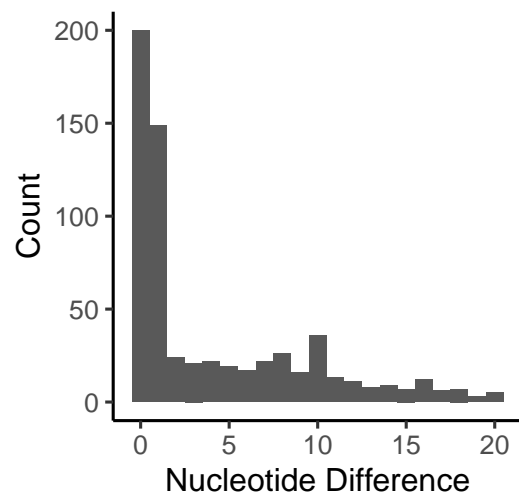
### IGHV3-74\*03

2413 sequences assigned  
No exact matches.



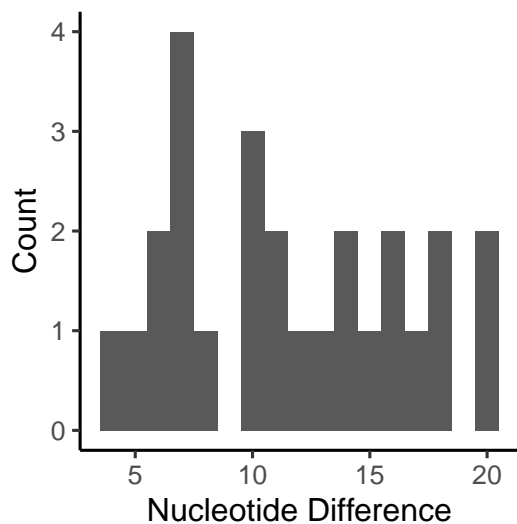
### IGHV3-64D\*06

946 sequences assigned  
200 (21.1%) exact matches, in which:  
87 unique CDR3  
6 unique J



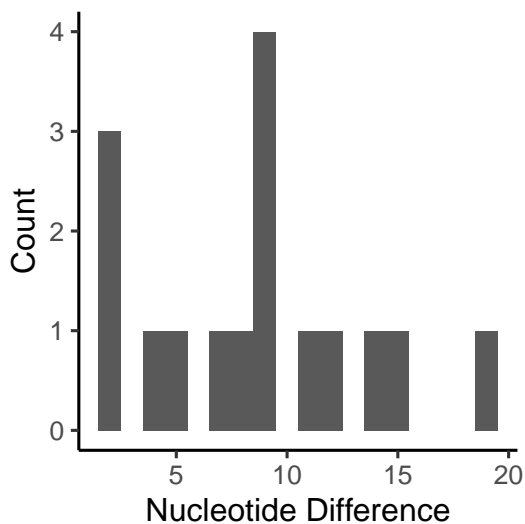
### IGHV3–NL1\*01

47 sequences assigned  
No exact matches.



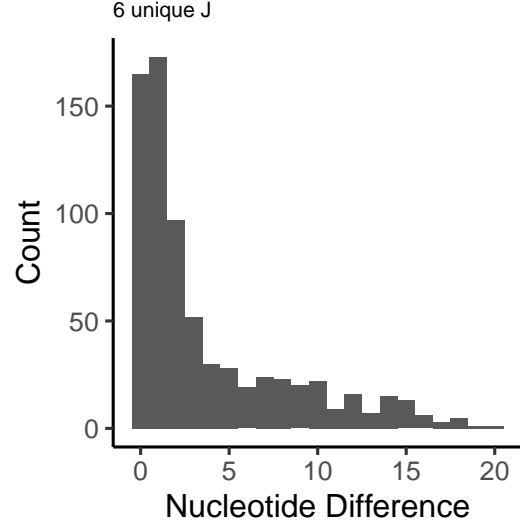
### IGHV4–28\*03

19 sequences assigned  
No exact matches.



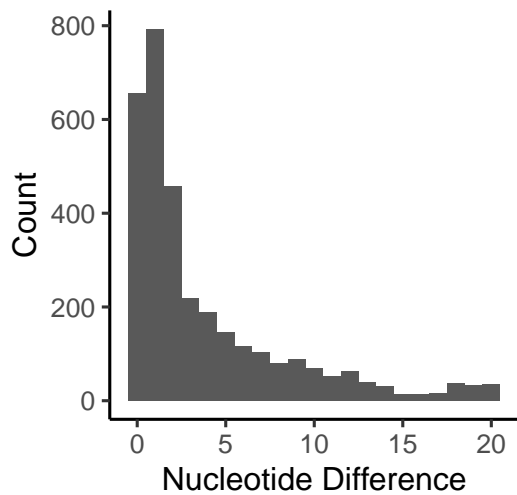
### IGHV4–30–2\*01

737 sequences assigned  
165 (22.4%) exact matches, in which:  
94 unique CDR3  
6 unique J



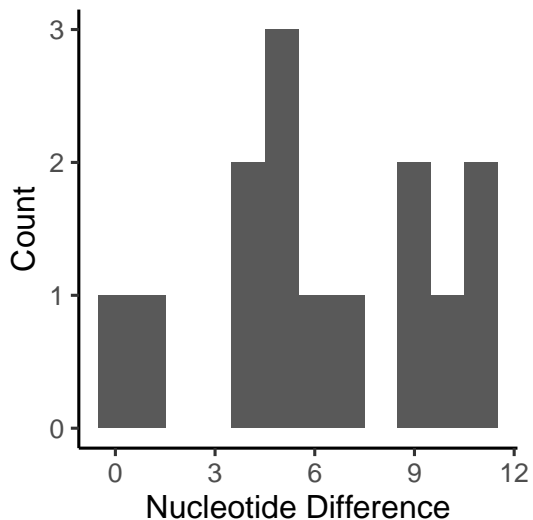
### IGHV4–4\*07

3832 sequences assigned  
656 (17.1%) exact matches, in which:  
537 unique CDR3  
6 unique J



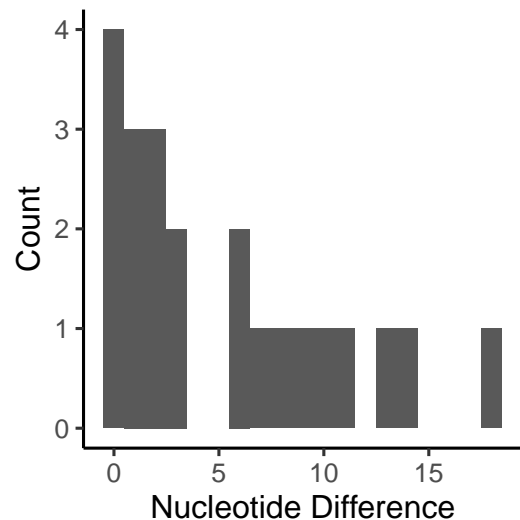
### IGHV4–28\*01\_07

19 sequences assigned  
1 (5.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



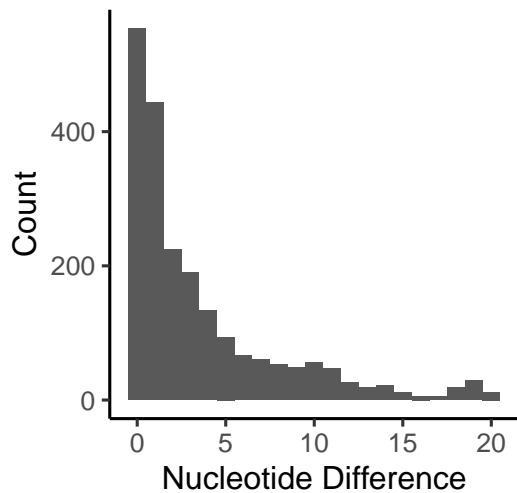
### IGHV4–30–2\*02

22 sequences assigned  
4 (18.2%) exact matches, in which:  
4 unique CDR3  
3 unique J



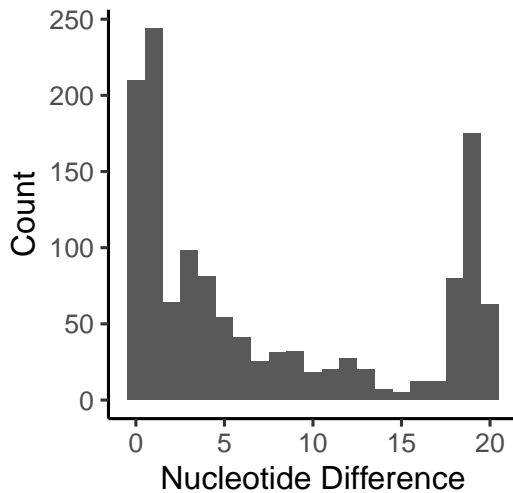
### IGHV4–4\*02\_03

5340 sequences assigned  
554 (10.4%) exact matches, in which:  
433 unique CDR3  
6 unique J



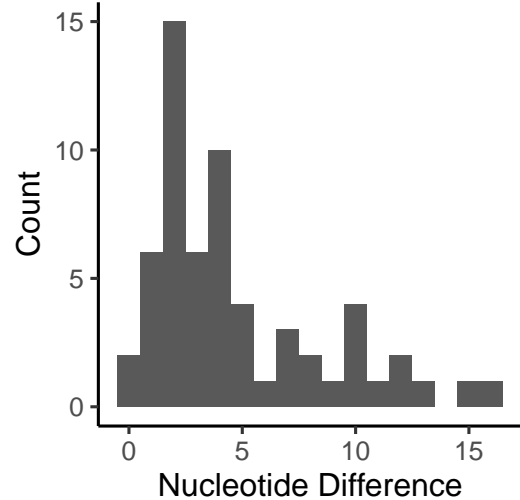
### IGHV4–30–4\*01

1443 sequences assigned  
210 (14.6%) exact matches, in which:  
165 unique CDR3  
5 unique J



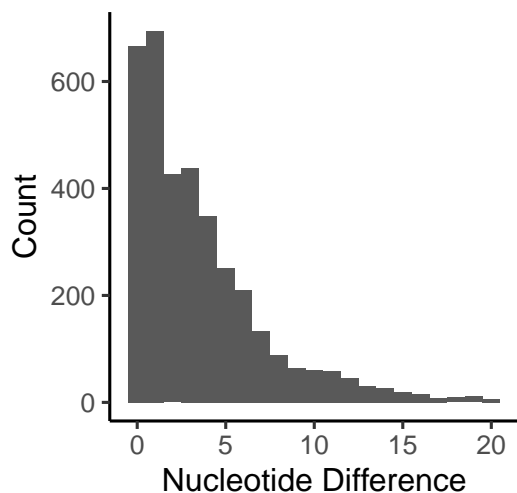
### IGHV4–30–2\*05

61 sequences assigned  
2 (3.3%) exact matches, in which:  
2 unique CDR3  
2 unique J



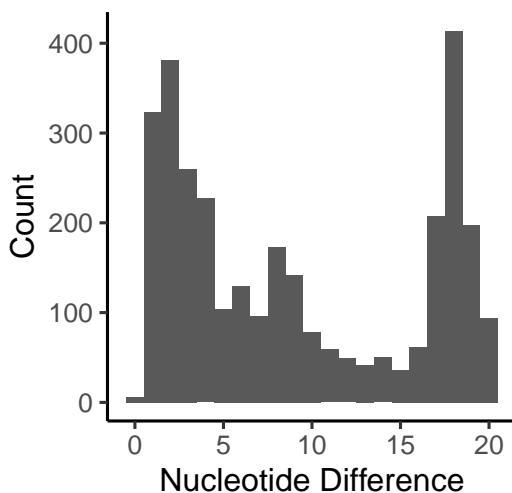
### IGHV4-31\*02

3783 sequences assigned  
667 (17.6%) exact matches, in which:  
559 unique CDR3  
6 unique J



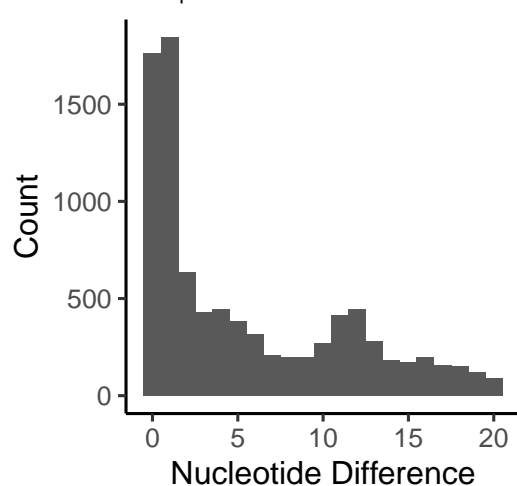
### IGHV4-39\*07

3752 sequences assigned  
6 (0.2%) exact matches, in which:  
6 unique CDR3  
3 unique J



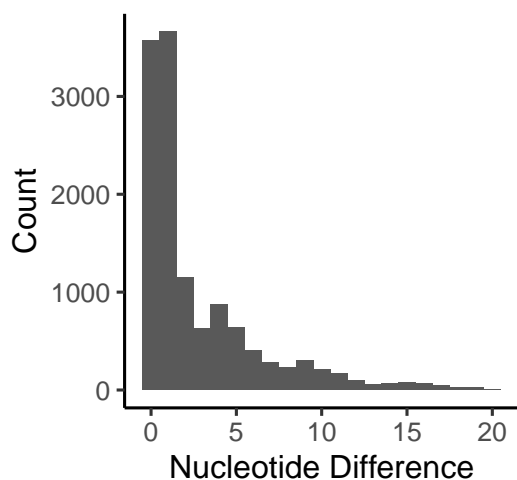
### IGHV4-59\*01\_07

15887 sequences assigned  
1762 (11.1%) exact matches, in which:  
1423 unique CDR3  
6 unique J



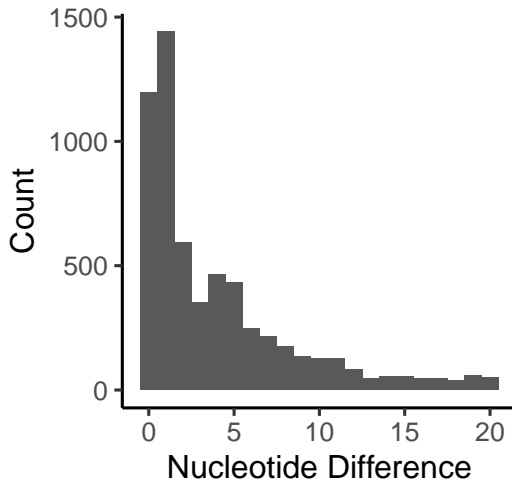
### IGHV4-34\*01\_02

13817 sequences assigned  
3574 (25.9%) exact matches, in which:  
2536 unique CDR3  
6 unique J



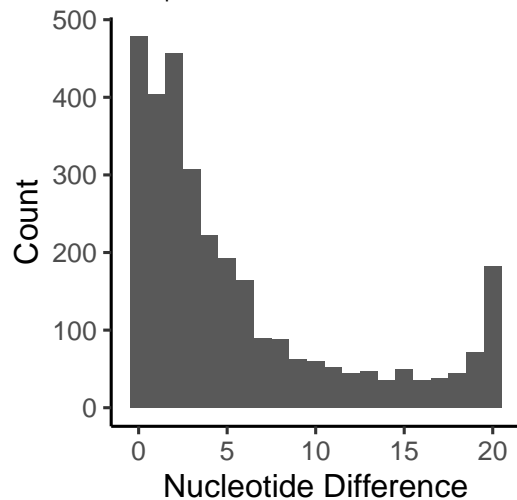
### IGHV4-59\*08

11165 sequences assigned  
1195 (10.7%) exact matches, in which:  
947 unique CDR3  
6 unique J



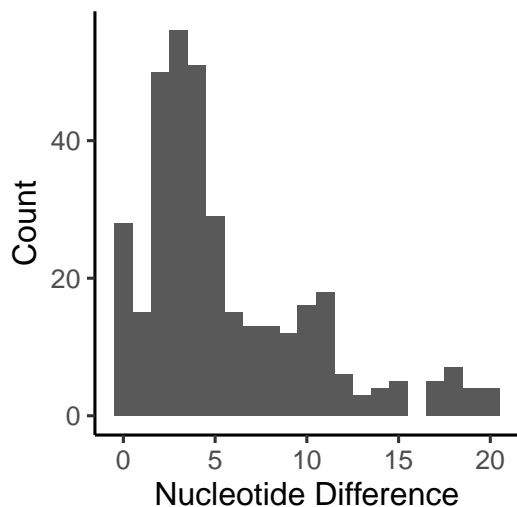
### IGHV4-61\*01

4751 sequences assigned  
479 (10.1%) exact matches, in which:  
438 unique CDR3  
6 unique J



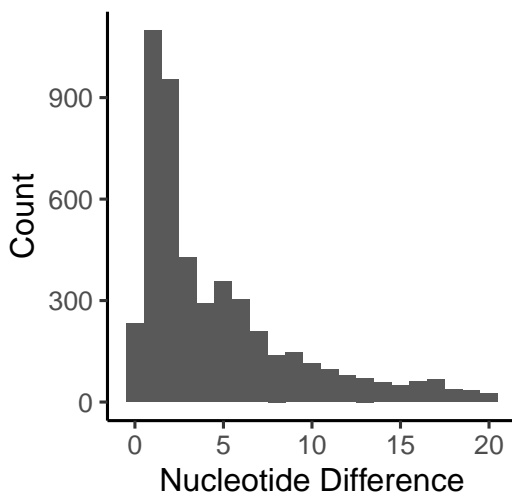
### IGHV4-38-2\*02

551 sequences assigned  
28 (5.1%) exact matches, in which:  
28 unique CDR3  
5 unique J



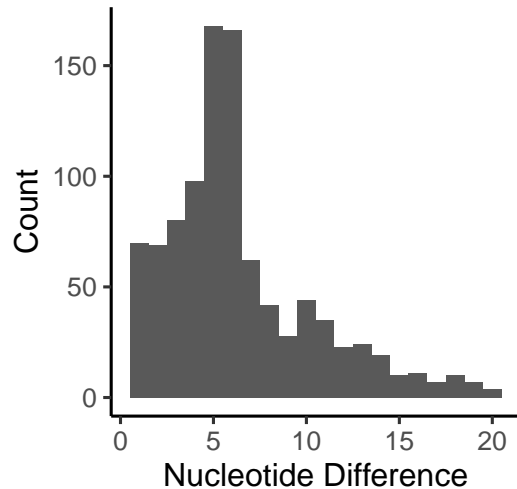
### IGHV4-59\*12

6700 sequences assigned  
233 (3.5%) exact matches, in which:  
220 unique CDR3  
6 unique J



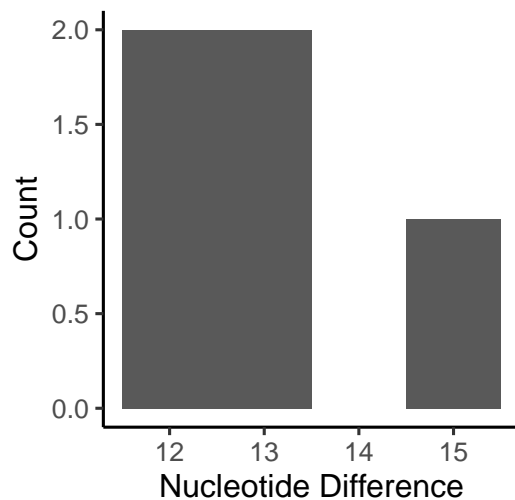
### IGHV4-61\*08

1836 sequences assigned  
No exact matches.



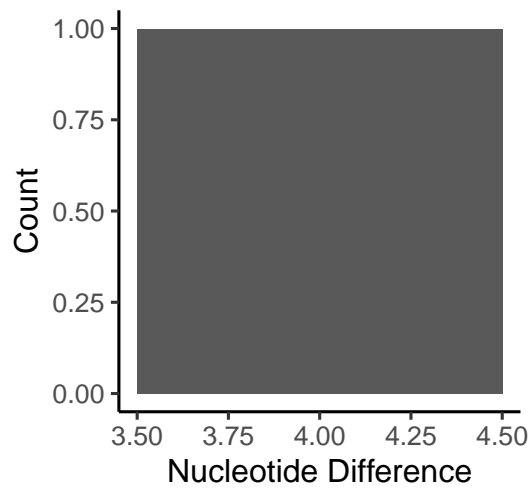
### IGHV1/OR15-1\*04

5 sequences assigned  
No exact matches.



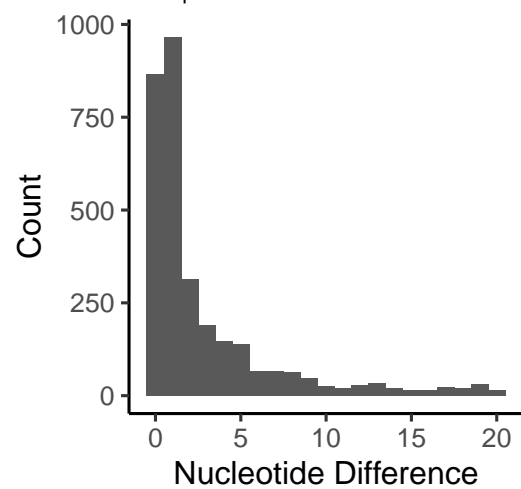
### IGHV1/OR15-4\*01

1 sequences assigned  
No exact matches.



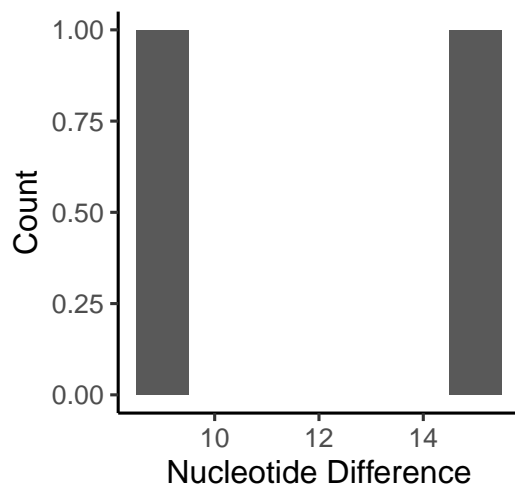
### IGHV5-10-1\*01\_03

3121 sequences assigned  
865 (27.7%) exact matches, in which:  
544 unique CDR3  
6 unique J



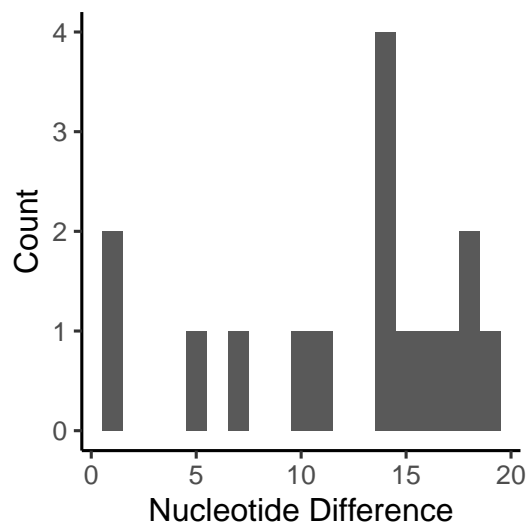
### IGHV1/OR15-2\*02\_03

2 sequences assigned  
No exact matches.



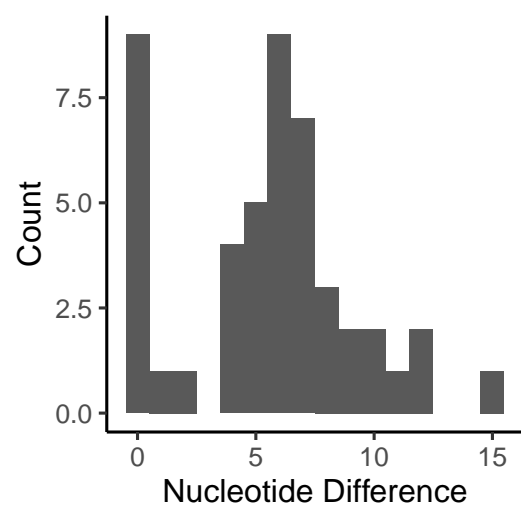
### IGHV4/OR15-8\*01

31 sequences assigned  
No exact matches.



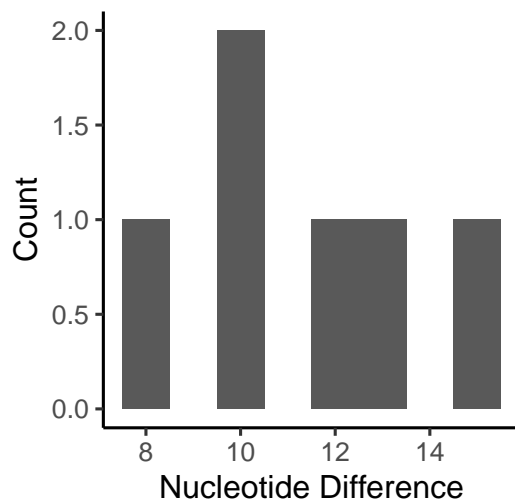
### IGHV5-51\*04

49 sequences assigned  
9 (18.4%) exact matches, in which:  
9 unique CDR3  
5 unique J



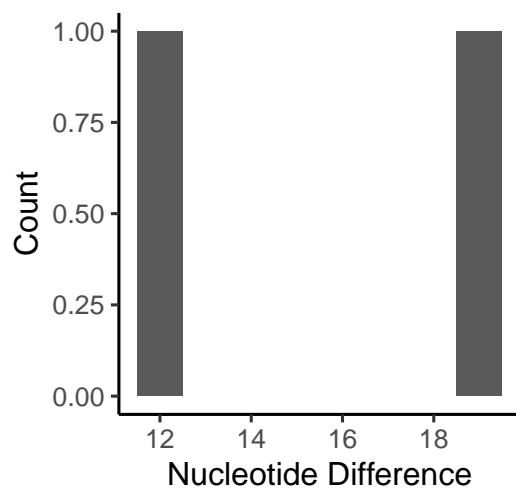
### IGHV1/OR15-3\*02

7 sequences assigned  
No exact matches.



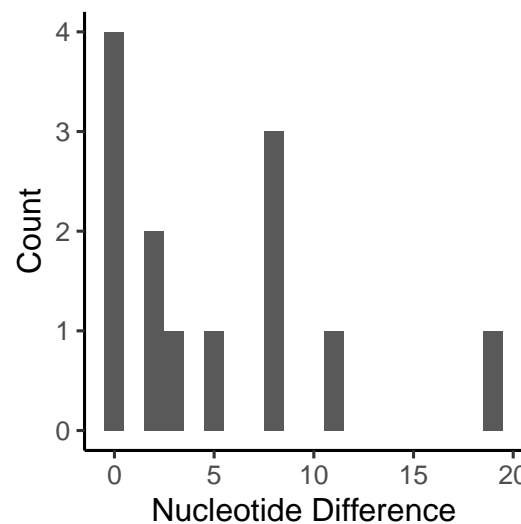
### IGHV1/OR15-9\*01

2 sequences assigned  
No exact matches.



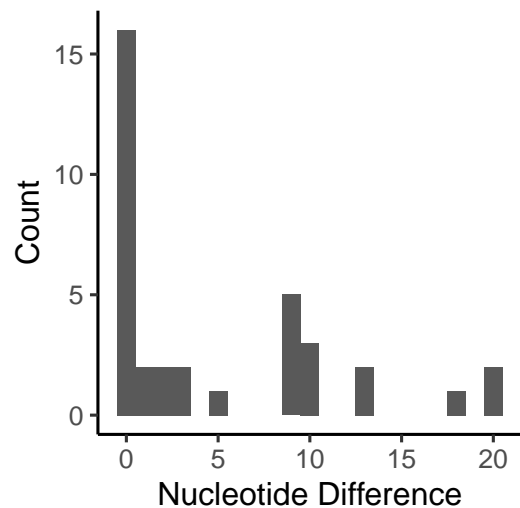
### IGHV5-51\*06

14 sequences assigned  
4 (28.6%) exact matches, in which:  
4 unique CDR3  
3 unique J



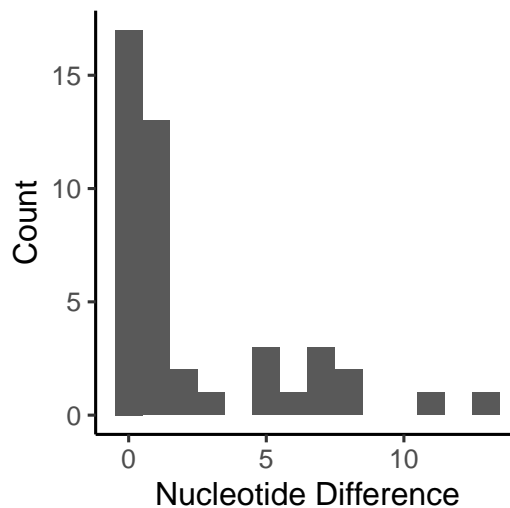
## IGHV5-51\*07

38 sequences assigned  
16 (42.1%) exact matches, in which:  
13 unique CDR3  
4 unique J



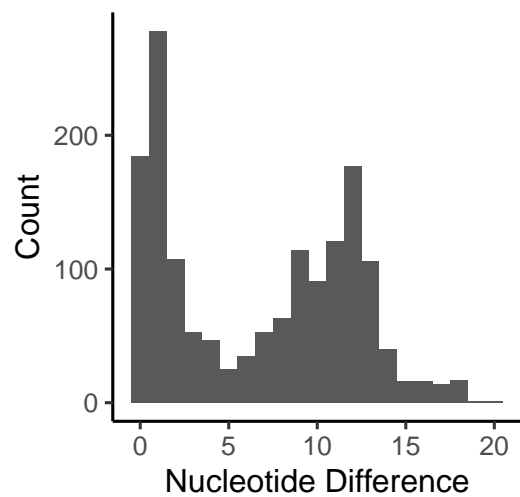
## IGHV7-4-1\*01

44 sequences assigned  
17 (38.6%) exact matches, in which:  
14 unique CDR3  
4 unique J



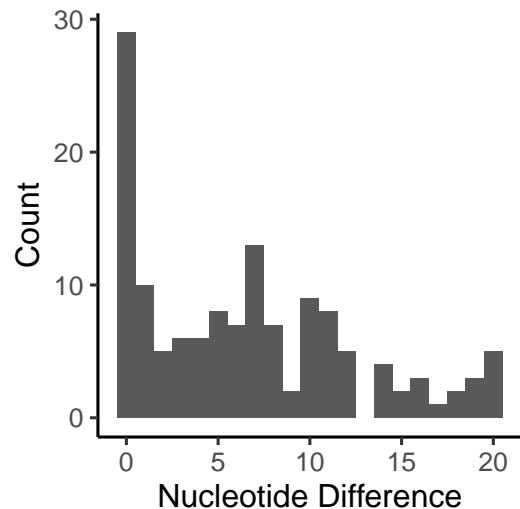
## IGHV6-1\*01\_02

1583 sequences assigned  
184 (11.6%) exact matches, in which:  
144 unique CDR3  
6 unique J



## IGHV6-1\*01\_02\_A315G

142 sequences assigned  
29 (20.4%) exact matches, in which:  
29 unique CDR3  
4 unique J



IGHV6-1\*01\_02\_A315G

