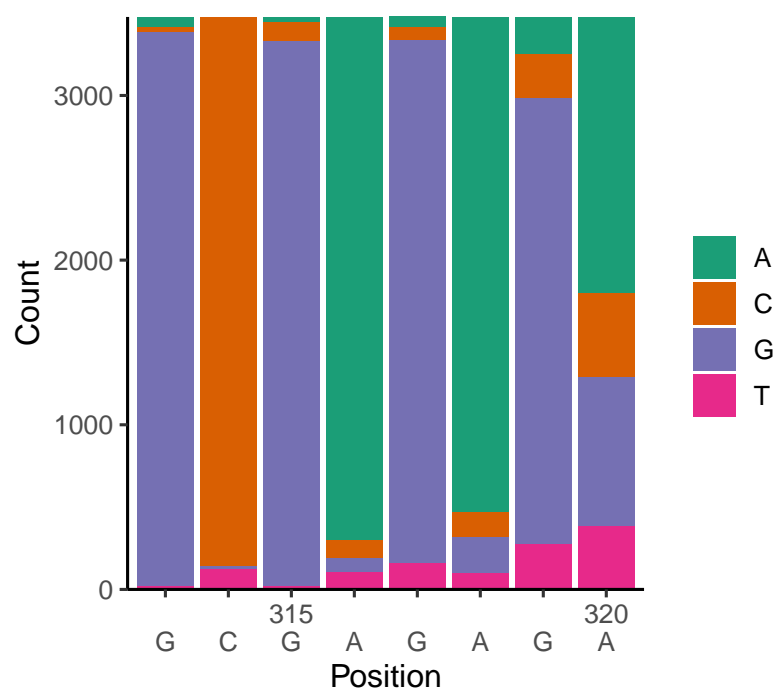


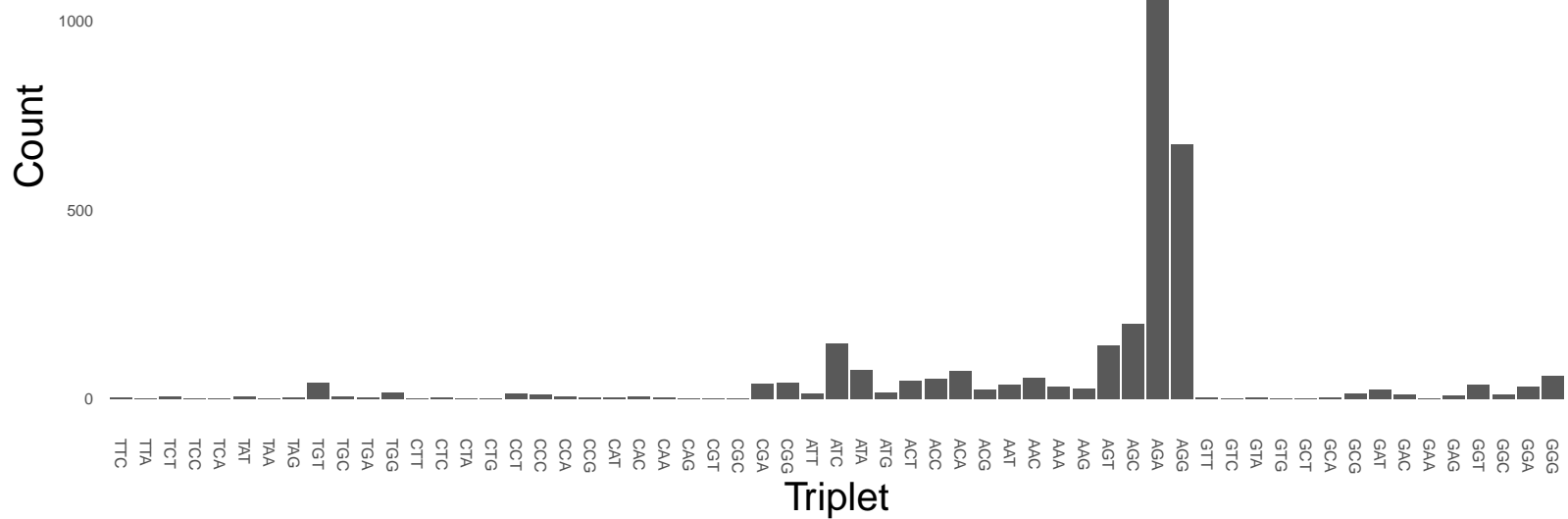
# Gene IGHV7-4-1\*02\_A18G



# Gene IGHV7-4-1\*02\_A18G

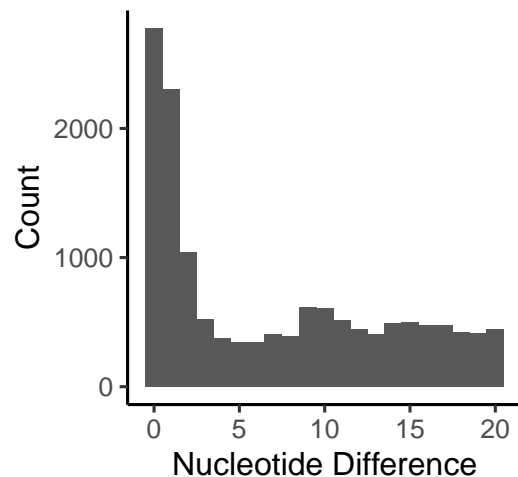


IGHV7-4-1\*02\_A18G- Final 3 nucleotides as a triplet



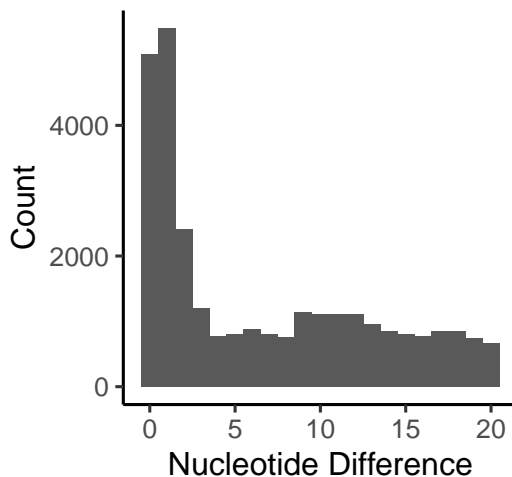
### IGHV1-2\*02

17234 sequences assigned  
2775 (16.1%) exact matches, in which:  
2371 unique CDR3  
7 unique J



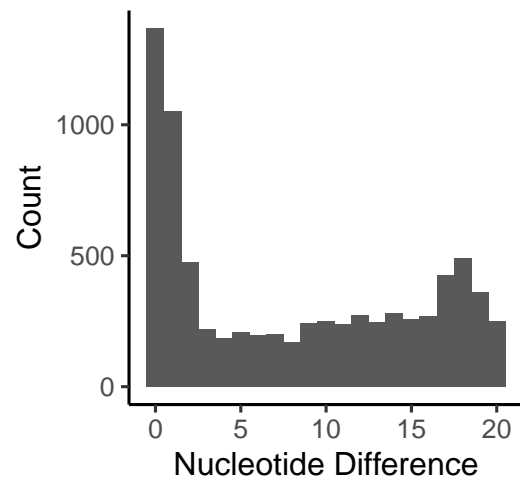
### IGHV1-18\*01

33926 sequences assigned  
5084 (15%) exact matches, in which:  
4017 unique CDR3  
7 unique J



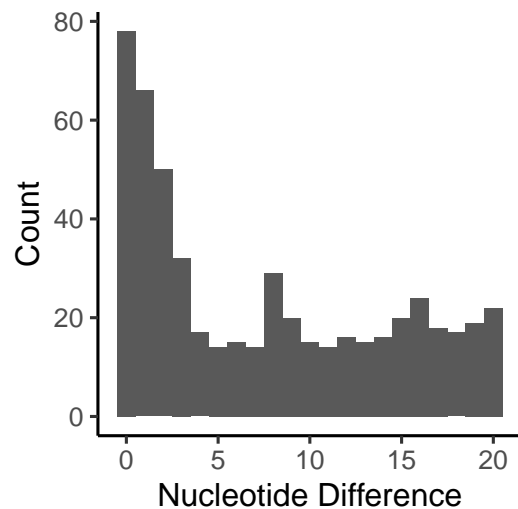
### IGHV1-46\*01

9629 sequences assigned  
1368 (14.2%) exact matches, in which:  
1183 unique CDR3  
7 unique J



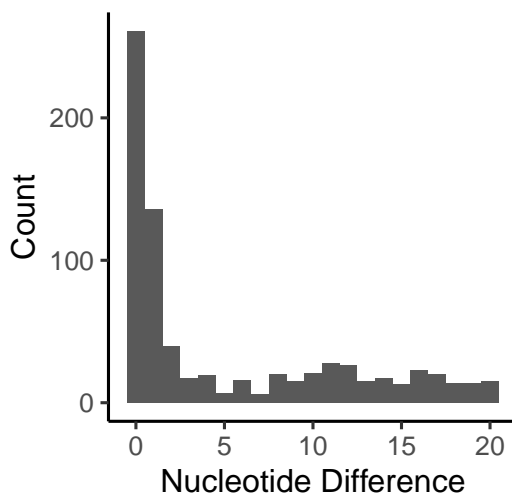
### IGHV1-3\*03

660 sequences assigned  
78 (11.8%) exact matches, in which:  
71 unique CDR3  
6 unique J



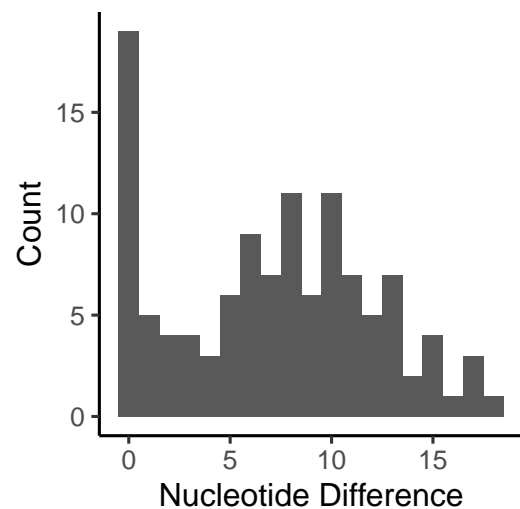
### IGHV1-24\*01

790 sequences assigned  
261 (33%) exact matches, in which:  
232 unique CDR3  
7 unique J



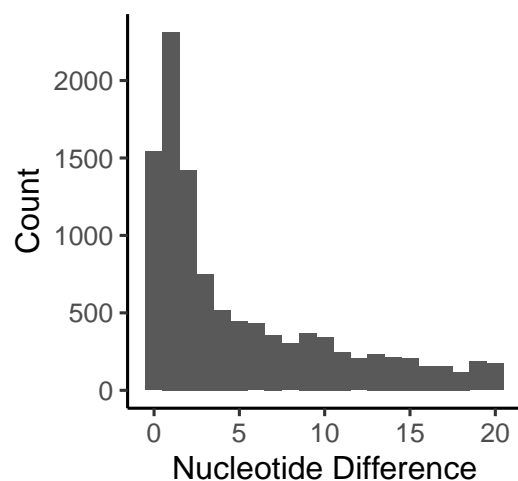
### IGHV1-58\*02

119 sequences assigned  
19 (16%) exact matches, in which:  
19 unique CDR3  
4 unique J



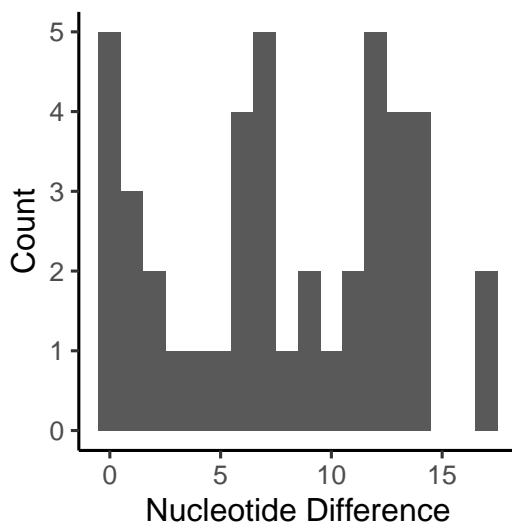
### IGHV1-8\*02

11678 sequences assigned  
1541 (13.2%) exact matches, in which:  
1286 unique CDR3  
7 unique J



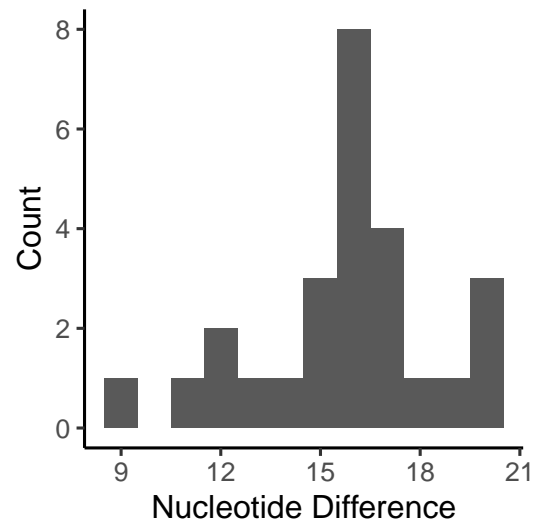
### IGHV1-45\*02

57 sequences assigned  
5 (8.8%) exact matches, in which:  
3 unique CDR3  
2 unique J



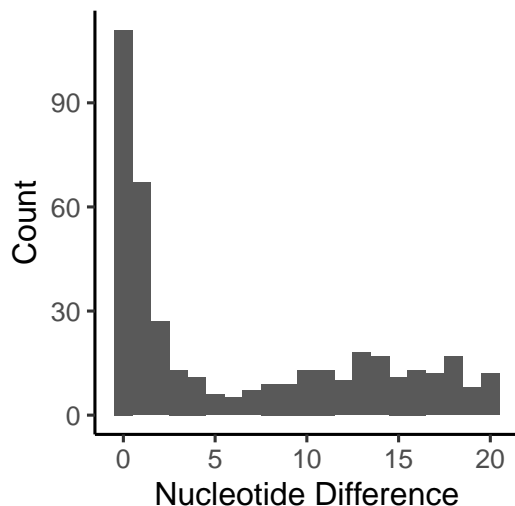
### IGHV1-58\*01\_03

40 sequences assigned  
No exact matches.



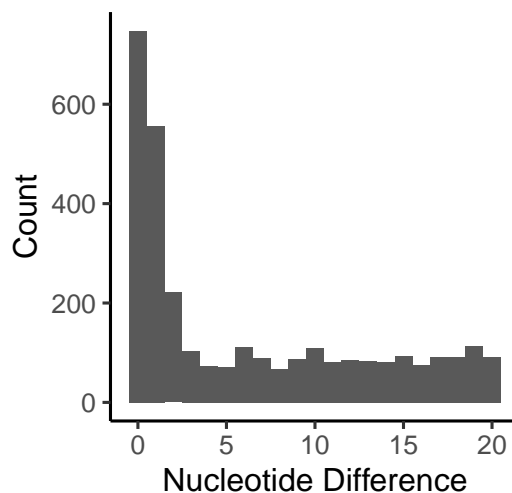
### IGHV1-69-2\*01

511 sequences assigned  
111 (21.7%) exact matches, in which:  
96 unique CDR3  
7 unique J



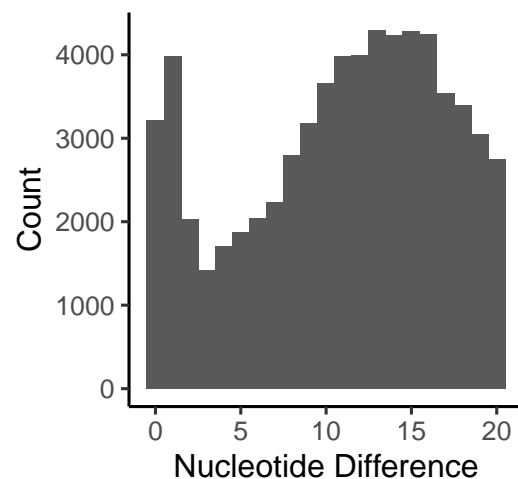
### IGHV1-69\*06\_14

3830 sequences assigned  
748 (19.5%) exact matches, in which:  
668 unique CDR3  
7 unique J



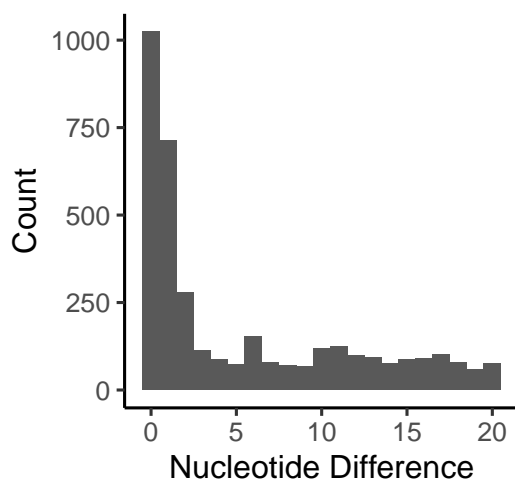
### IGHV3-7\*01

80586 sequences assigned  
3217 (4%) exact matches, in which:  
2693 unique CDR3  
7 unique J



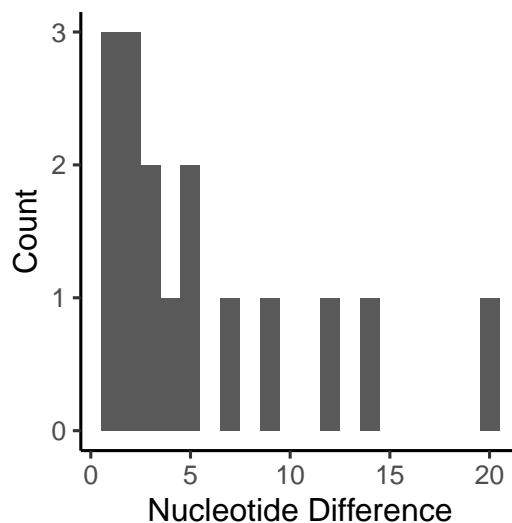
### IGHV1-69\*05

4444 sequences assigned  
1024 (23%) exact matches, in which:  
901 unique CDR3  
7 unique J



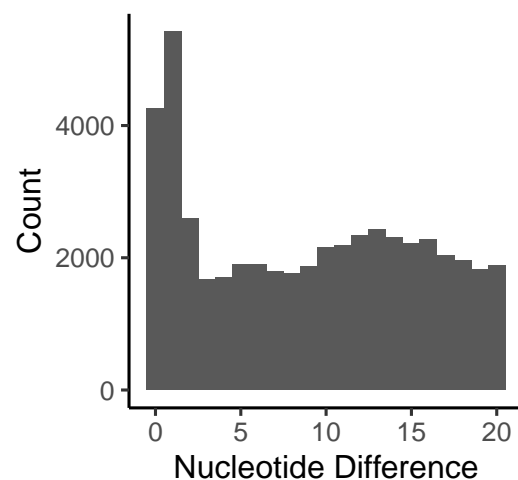
### IGHV2-5\*02

18 sequences assigned  
No exact matches.



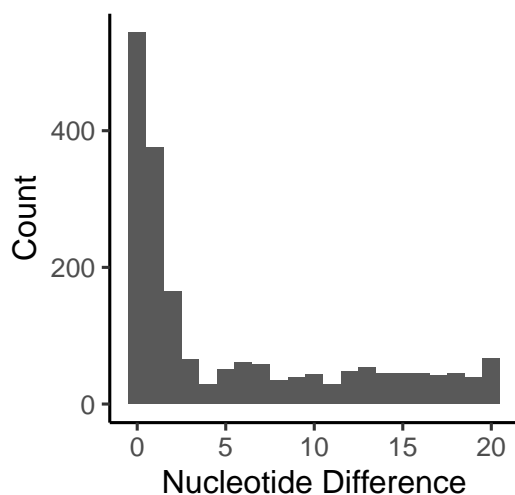
### IGHV3-9\*01

61632 sequences assigned  
4260 (6.9%) exact matches, in which:  
3337 unique CDR3  
7 unique J



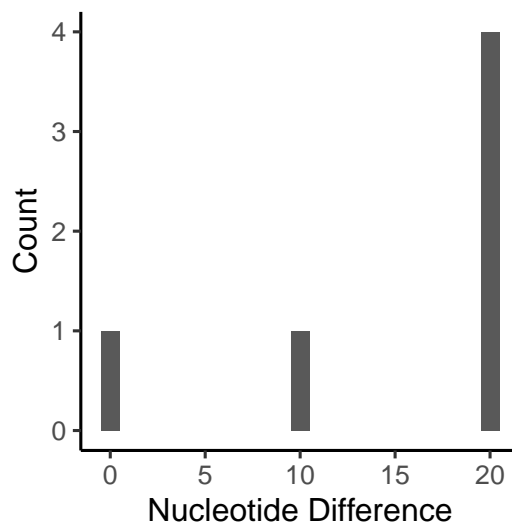
### IGHV1-69\*10

2320 sequences assigned  
544 (23.4%) exact matches, in which:  
472 unique CDR3  
7 unique J



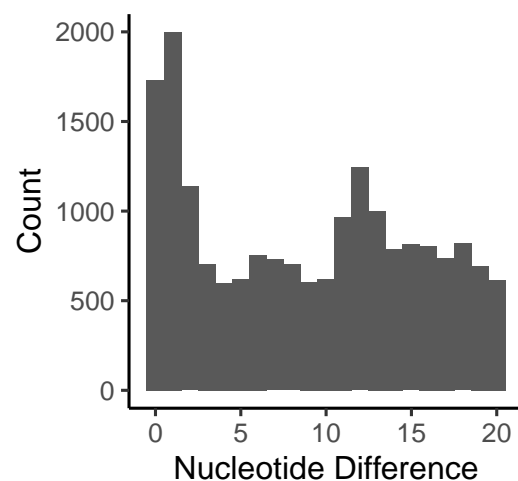
### IGHV2-70\*11\_15

9 sequences assigned  
1 (11.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



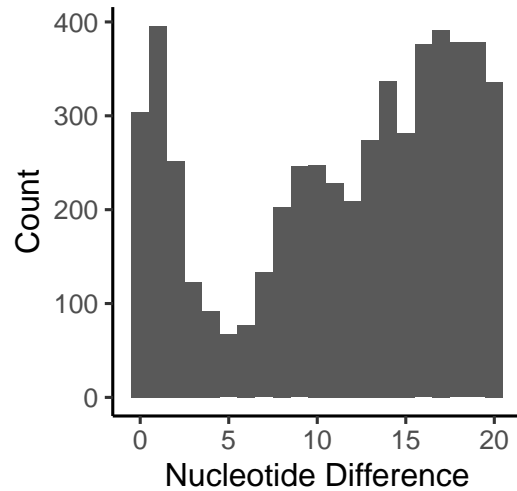
### IGHV3-11\*04

23826 sequences assigned  
1732 (7.3%) exact matches, in which:  
1469 unique CDR3  
7 unique J



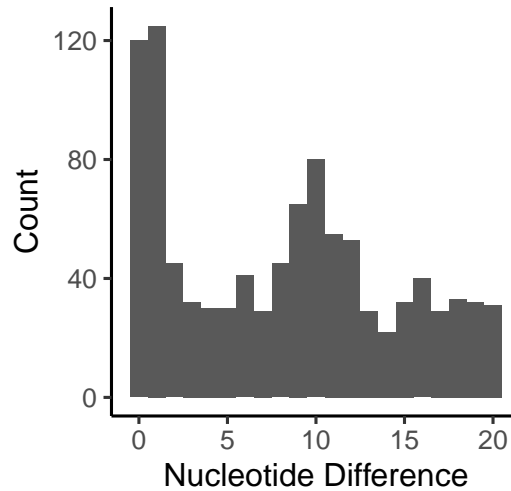
### IGHV3-13\*01

8583 sequences assigned  
304 (3.5%) exact matches, in which:  
240 unique CDR3  
6 unique J



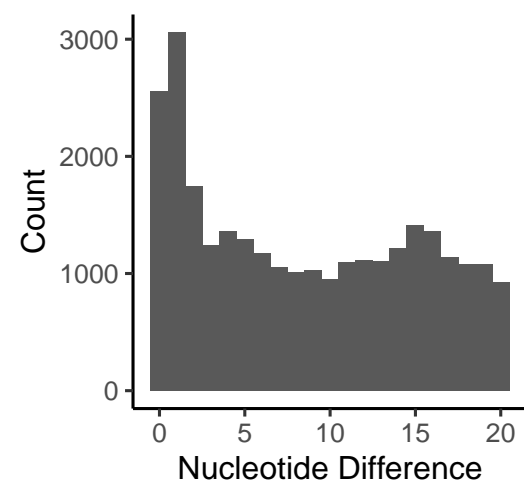
### IGHV3-20\*01\_02

1227 sequences assigned  
120 (9.8%) exact matches, in which:  
93 unique CDR3  
6 unique J



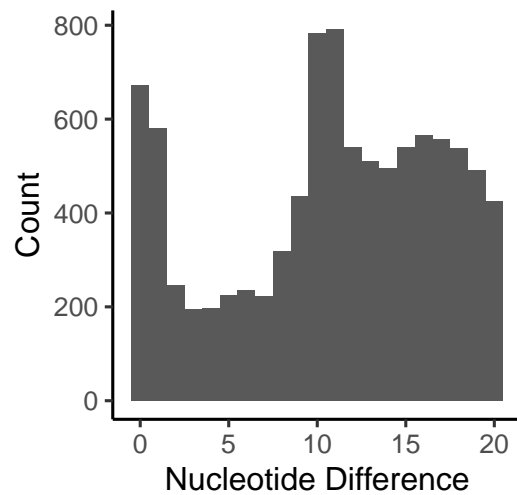
### IGHV3-21\*01\_02

34086 sequences assigned  
2554 (7.5%) exact matches, in which:  
2107 unique CDR3  
7 unique J



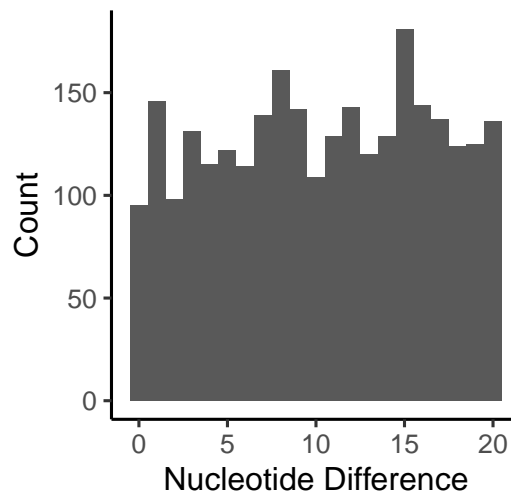
### IGHV3-15\*01\_02

13056 sequences assigned  
673 (5.2%) exact matches, in which:  
588 unique CDR3  
7 unique J



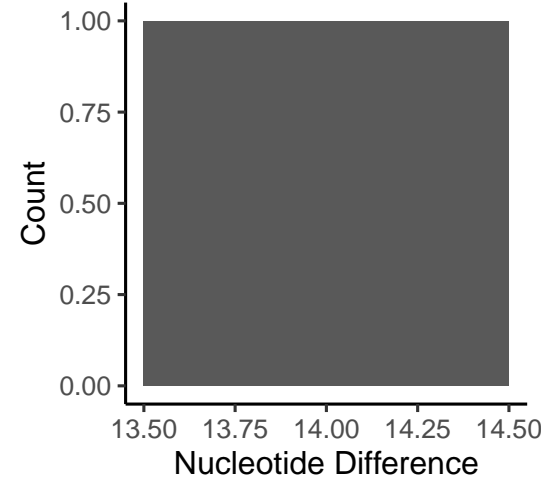
### IGHV3-20\*03\_04

3559 sequences assigned  
95 (2.7%) exact matches, in which:  
80 unique CDR3  
5 unique J



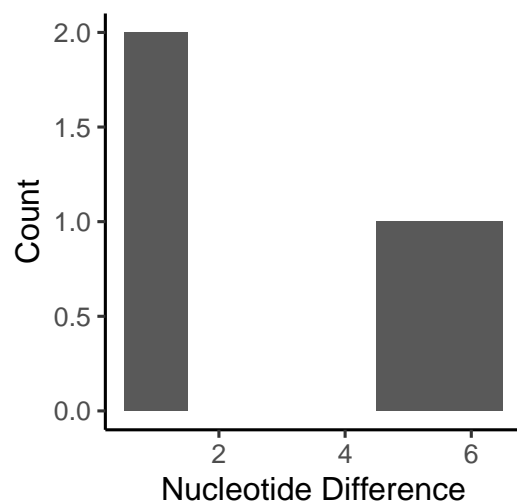
### IGHV3-22\*01\_02

3 sequences assigned  
No exact matches.



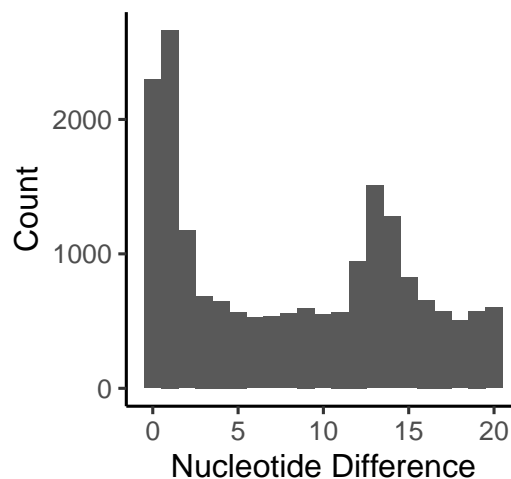
### IGHV3-19\*01

4 sequences assigned  
No exact matches.



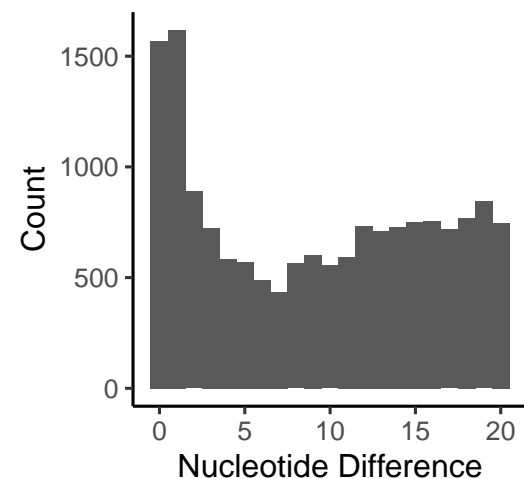
### IGHV3-21\*03

22185 sequences assigned  
2297 (10.4%) exact matches, in which:  
1729 unique CDR3  
7 unique J



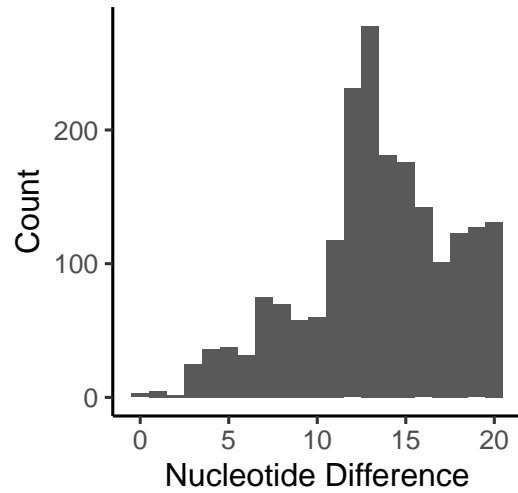
### IGHV3-33\*01

19630 sequences assigned  
1569 (8%) exact matches, in which:  
1215 unique CDR3  
7 unique J



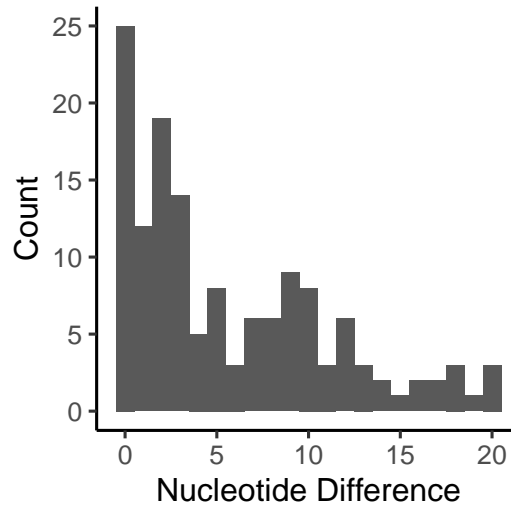
### IGHV3–33\*03

2839 sequences assigned  
3 (0.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



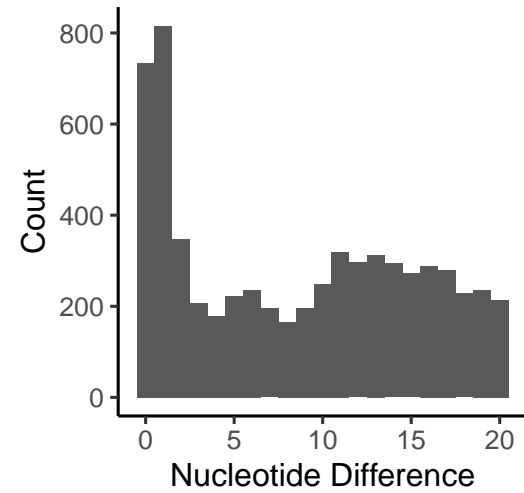
### IGHV3–38–3\*01

148 sequences assigned  
25 (16.9%) exact matches, in which:  
25 unique CDR3  
5 unique J



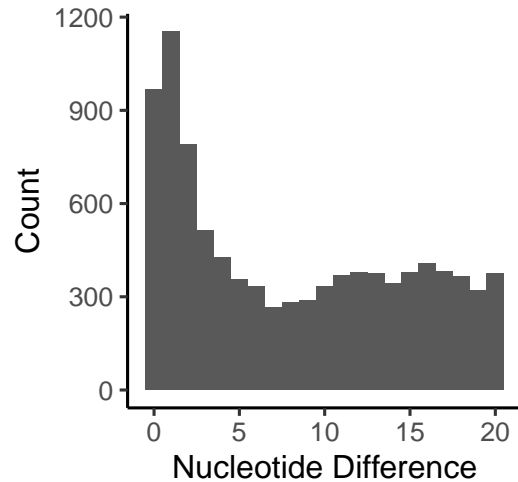
### IGHV3–43\*01

8511 sequences assigned  
734 (8.6%) exact matches, in which:  
595 unique CDR3  
7 unique J



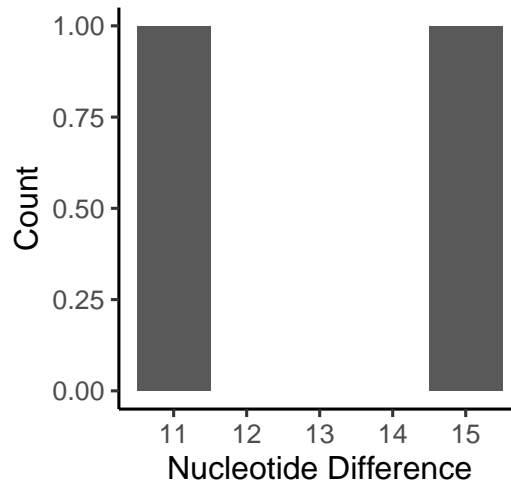
### IGHV3–33\*06

11356 sequences assigned  
967 (8.5%) exact matches, in which:  
712 unique CDR3  
7 unique J



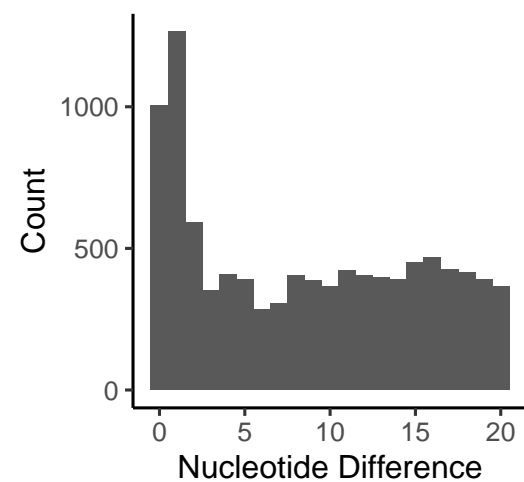
### IGHV3–38\*02

2 sequences assigned  
No exact matches.



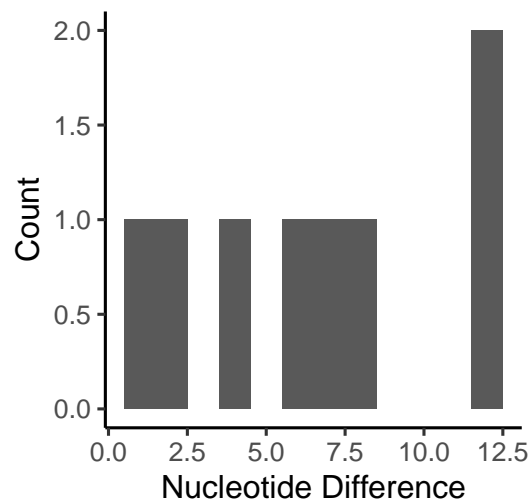
### IGHV3–48\*01

12302 sequences assigned  
1006 (8.2%) exact matches, in which:  
817 unique CDR3  
7 unique J



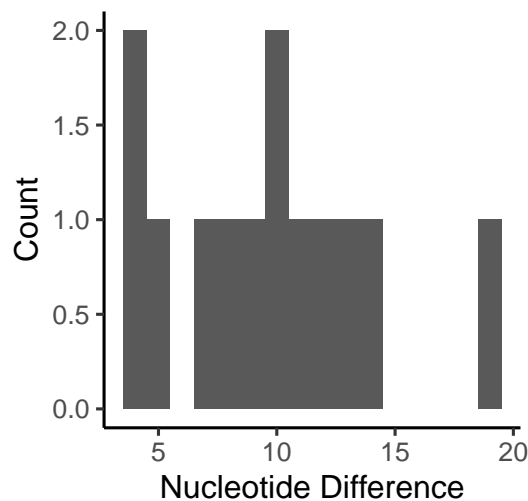
### IGHV3–35\*01

8 sequences assigned  
No exact matches.



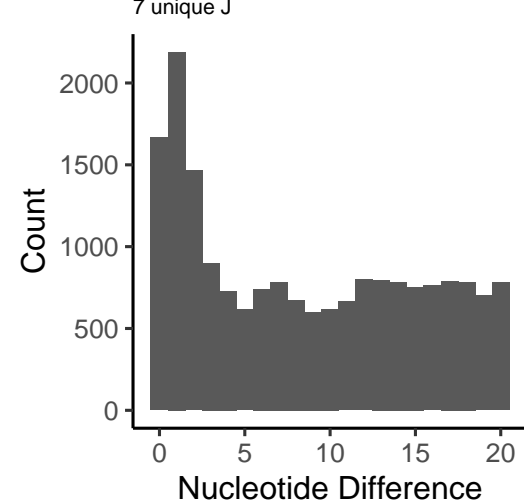
### IGHV3–38\*03

13 sequences assigned  
No exact matches.



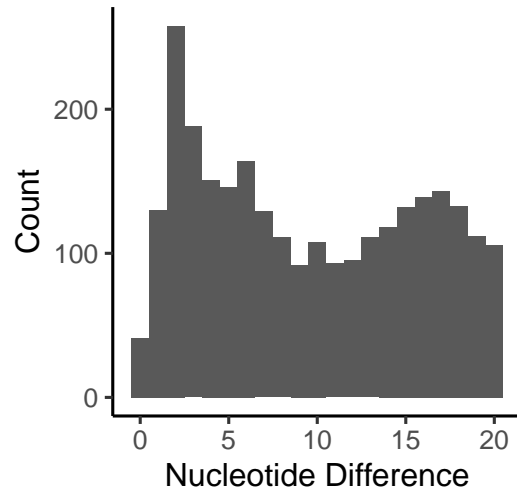
### IGHV3–48\*03

24593 sequences assigned  
1667 (6.8%) exact matches, in which:  
1348 unique CDR3  
7 unique J



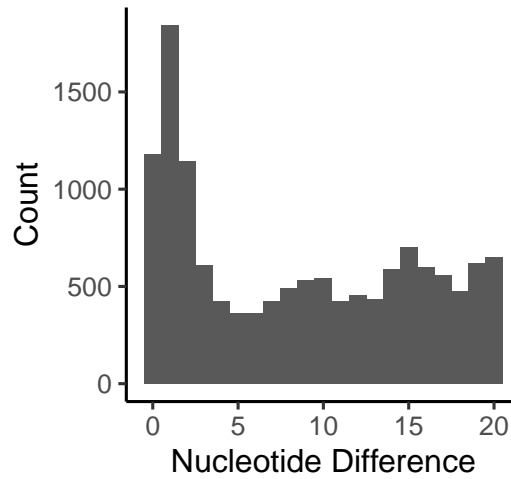
### IGHV3-48\*04

3764 sequences assigned  
41 (1.1%) exact matches, in which:  
37 unique CDR3  
7 unique J



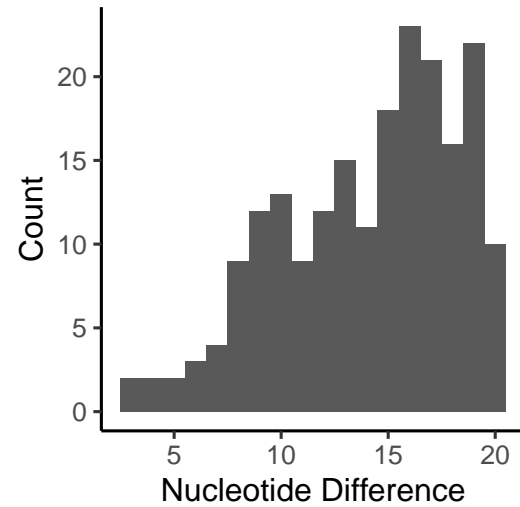
### IGHV3-53\*01\_02

19474 sequences assigned  
1180 (6.1%) exact matches, in which:  
947 unique CDR3  
7 unique J



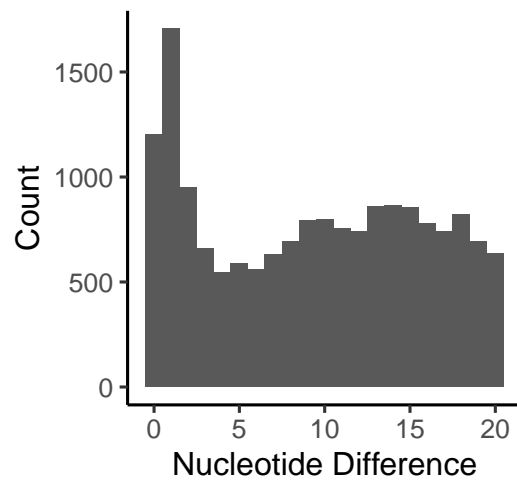
### IGHV3-66\*01

353 sequences assigned  
No exact matches.



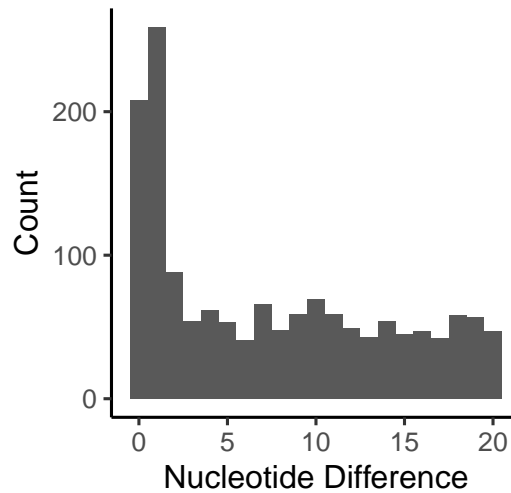
### IGHV3-49\*04

22629 sequences assigned  
1201 (5.3%) exact matches, in which:  
953 unique CDR3  
7 unique J



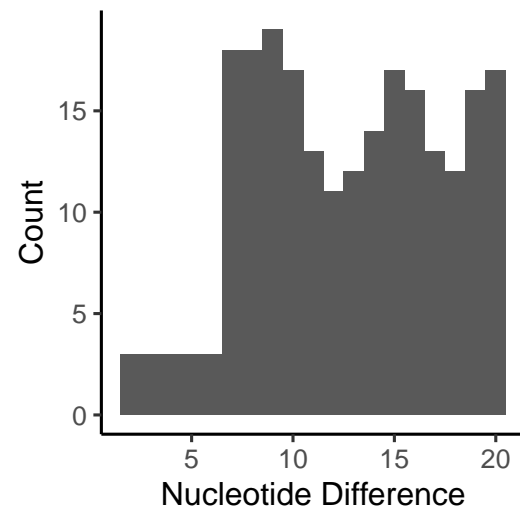
### IGHV3-64\*01

2191 sequences assigned  
208 (9.5%) exact matches, in which:  
167 unique CDR3  
7 unique J



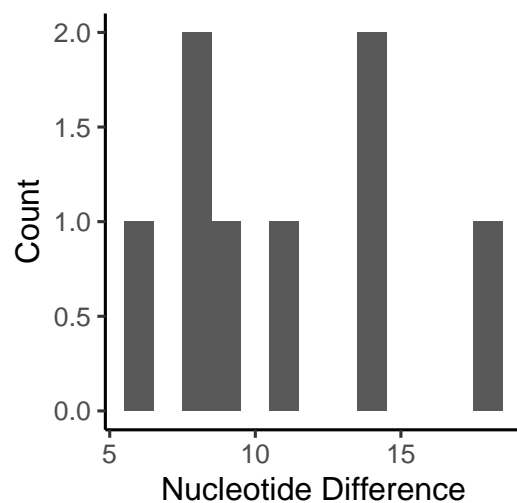
### IGHV3-66\*02

321 sequences assigned  
No exact matches.



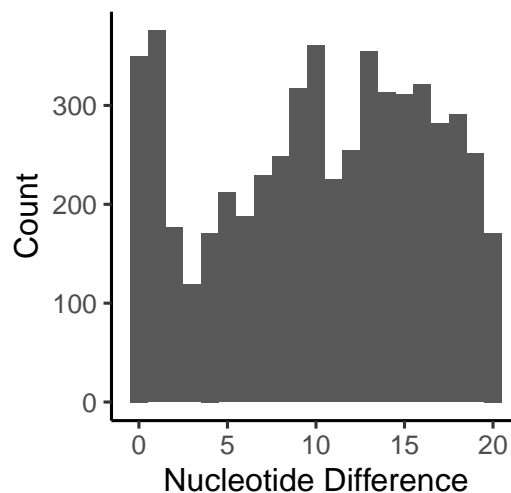
### IGHV3-52\*01\_03

9 sequences assigned  
No exact matches.



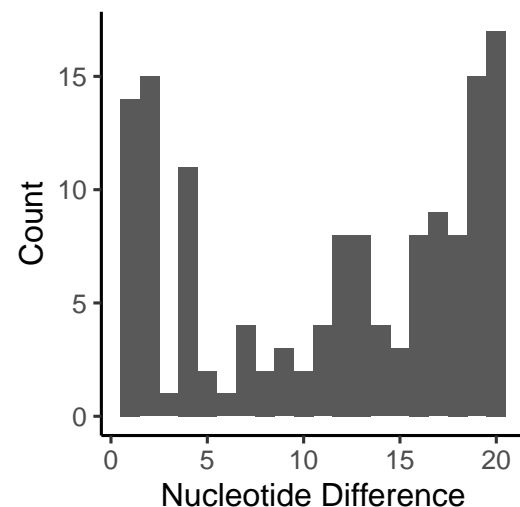
### IGHV3-64\*02\_07

6735 sequences assigned  
350 (5.2%) exact matches, in which:  
286 unique CDR3  
7 unique J



### IGHV3-66\*03

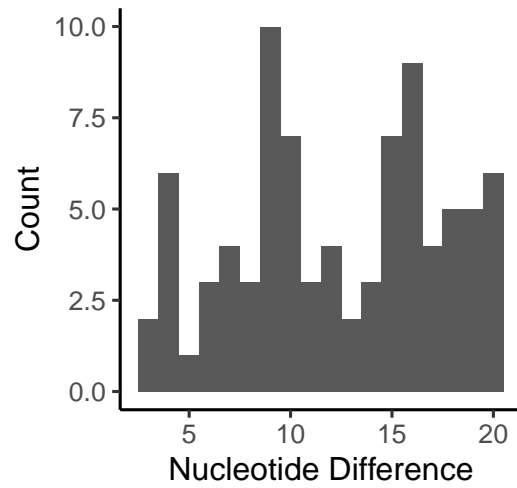
300 sequences assigned  
No exact matches.





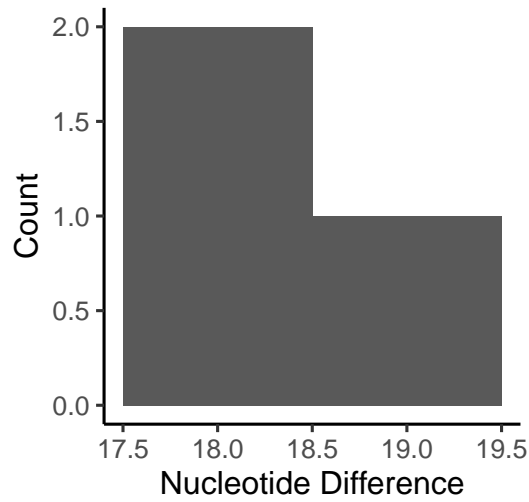
### IGHV3-66\*04

124 sequences assigned  
No exact matches.



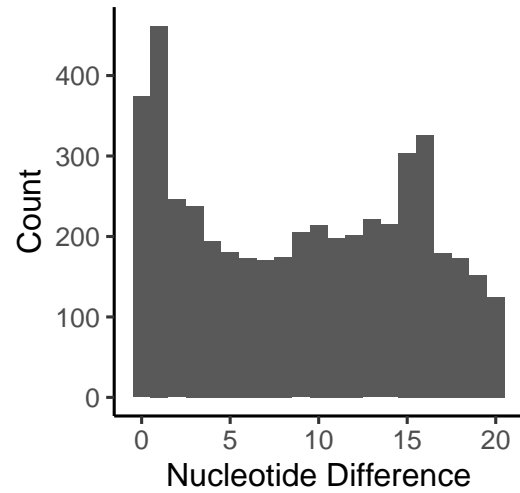
### IGHV3-71\*03

7 sequences assigned  
No exact matches.



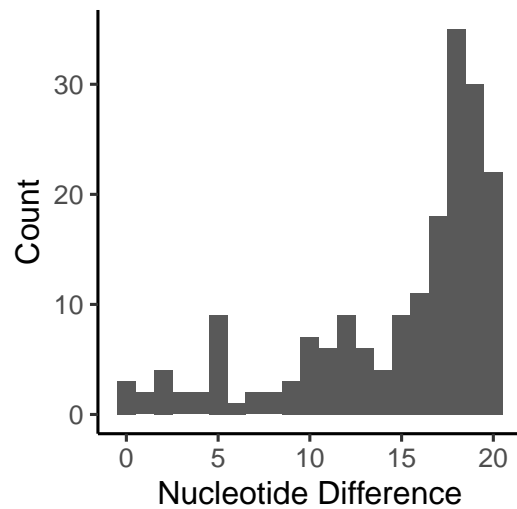
### IGHV3-73\*01\_02

6696 sequences assigned  
374 (5.6%) exact matches, in which:  
312 unique CDR3  
7 unique J



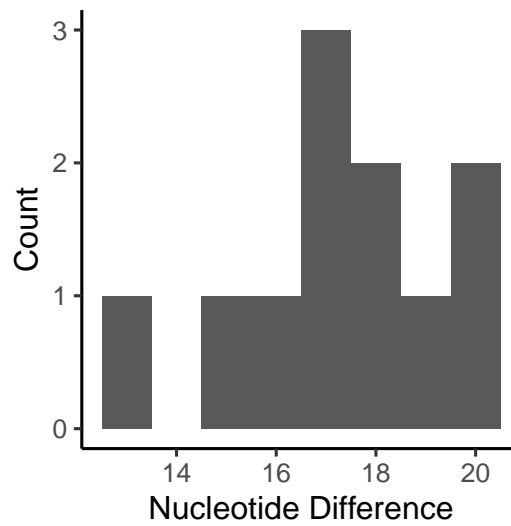
### IGHV3-69-1\*01

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



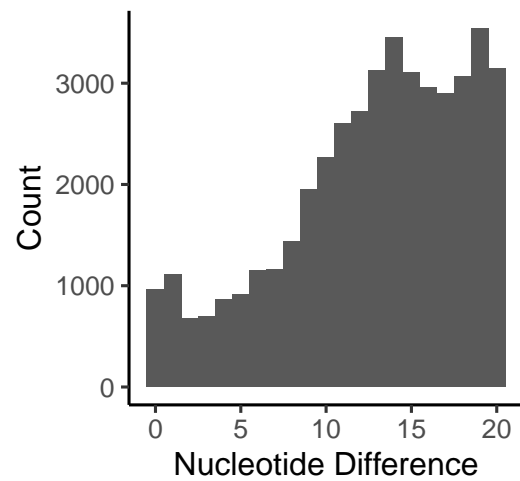
### IGHV3-71\*01\_04

70 sequences assigned  
No exact matches.



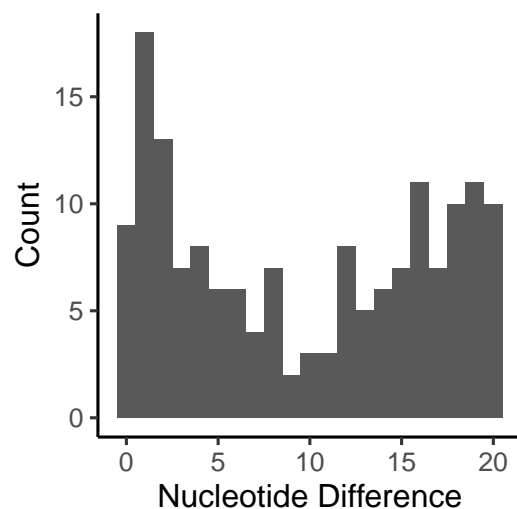
### IGHV3-74\*01\_02

65365 sequences assigned  
961 (1.5%) exact matches, in which:  
786 unique CDR3  
7 unique J



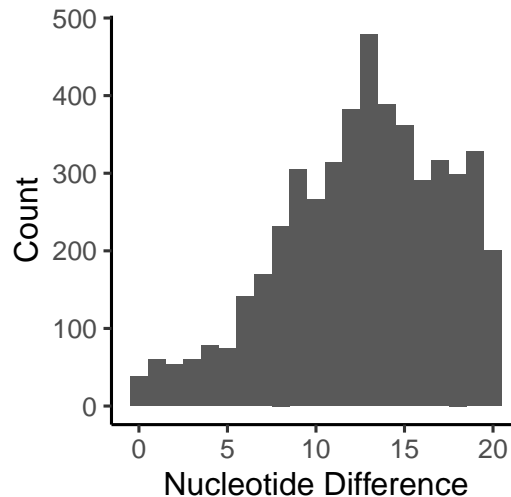
### IGHV3-69-1\*02

329 sequences assigned  
9 (2.7%) exact matches, in which:  
9 unique CDR3  
4 unique J



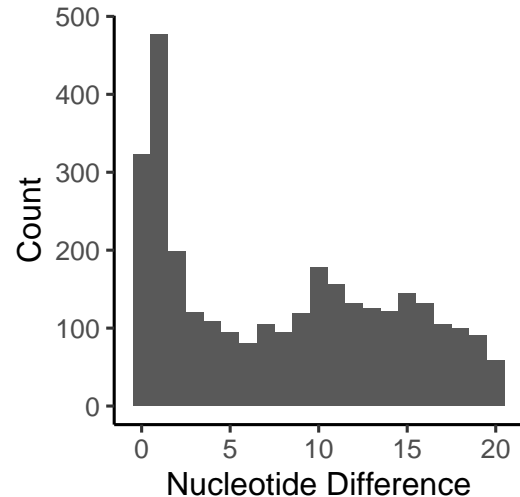
### IGHV3-72\*01

6030 sequences assigned  
38 (0.6%) exact matches, in which:  
33 unique CDR3  
4 unique J



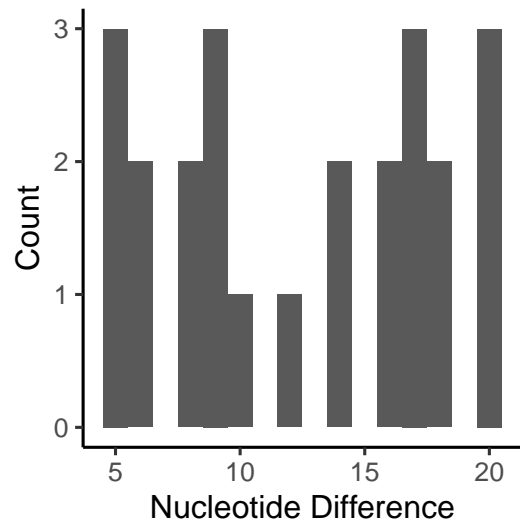
### IGHV3-43D\*04

3597 sequences assigned  
323 (9%) exact matches, in which:  
259 unique CDR3  
7 unique J



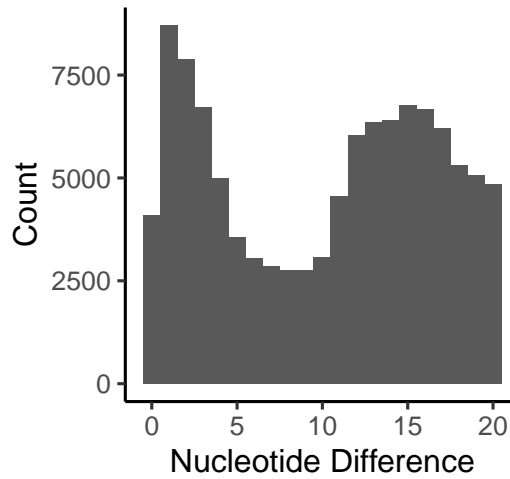
### IGHV3-64D\*06

33 sequences assigned  
No exact matches.



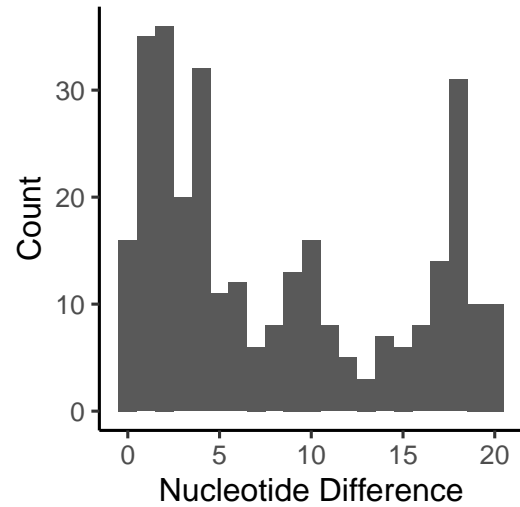
### IGHV4-4\*07

150775 sequences assigned  
4091 (2.7%) exact matches, in which:  
3061 unique CDR3  
7 unique J



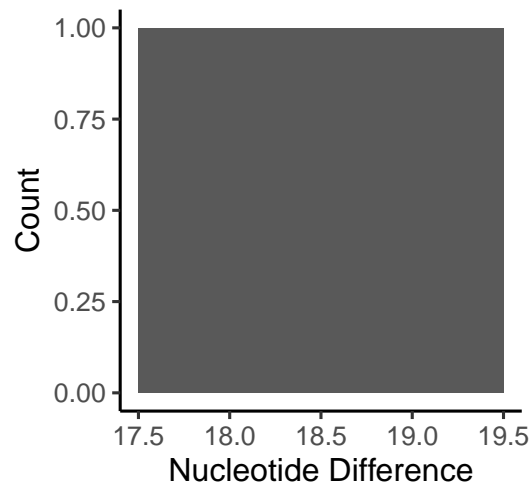
### IGHV4-28\*06

342 sequences assigned  
16 (4.7%) exact matches, in which:  
13 unique CDR3  
3 unique J



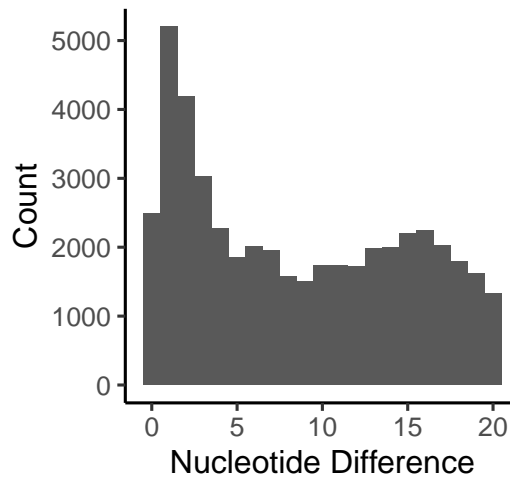
### IGHV3-64D\*08

3 sequences assigned  
No exact matches.



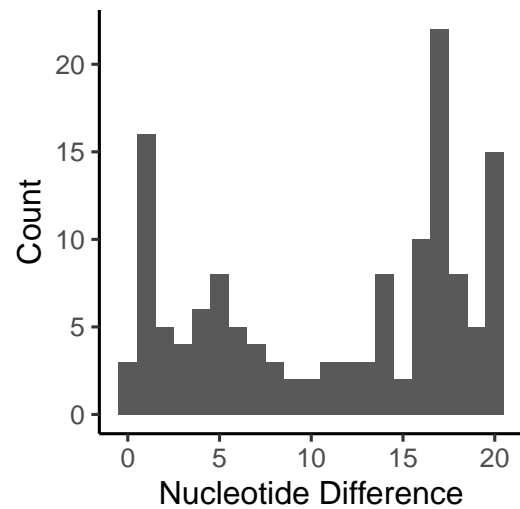
### IGHV4-4\*08

55856 sequences assigned  
2485 (4.4%) exact matches, in which:  
1916 unique CDR3  
7 unique J



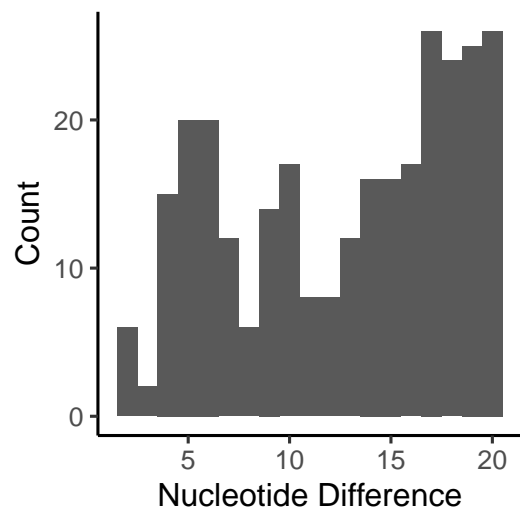
### IGHV4-28\*02\_05

227 sequences assigned  
3 (1.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



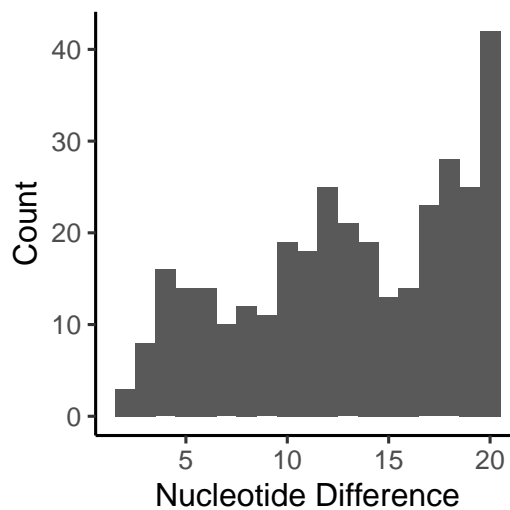
### IGHV3-NL1\*01

612 sequences assigned  
No exact matches.



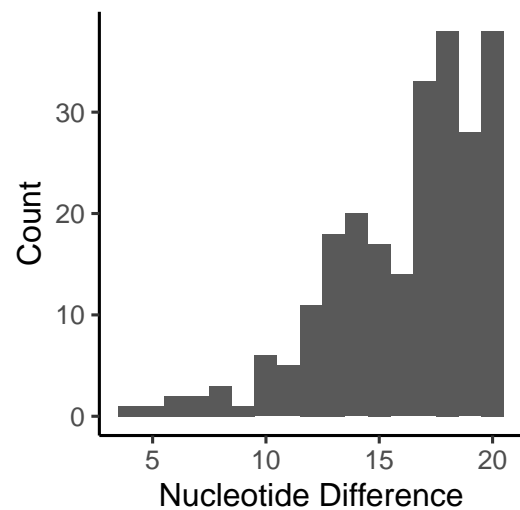
### IGHV4-28\*03

691 sequences assigned  
No exact matches.



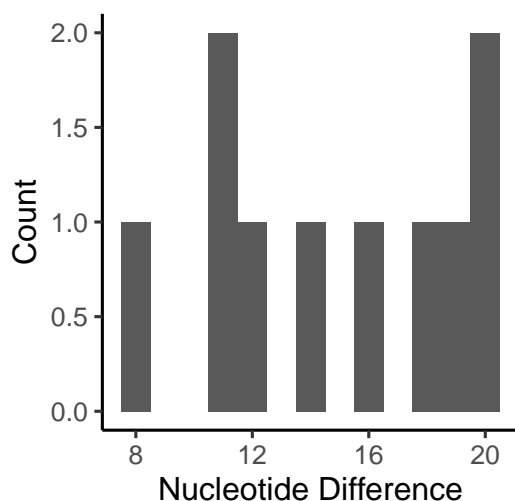
### IGHV4-30-4\*01

534 sequences assigned  
No exact matches.



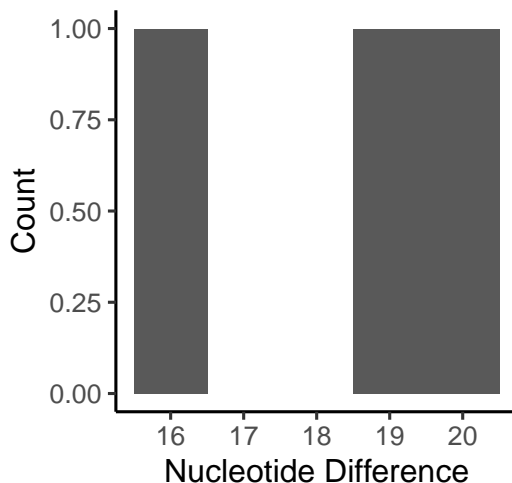
### IGHV4-30-2\*01

40 sequences assigned  
No exact matches.



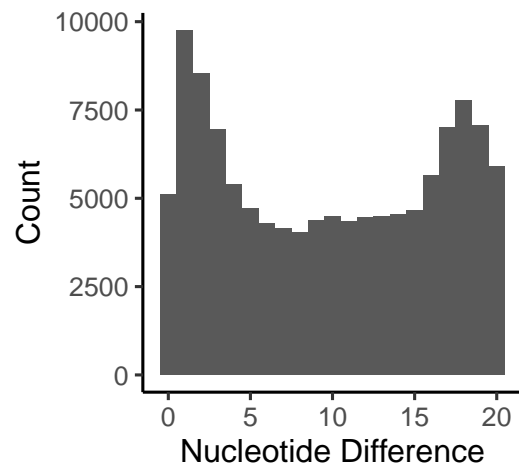
### IGHV4-30-2\*06

34 sequences assigned  
No exact matches.



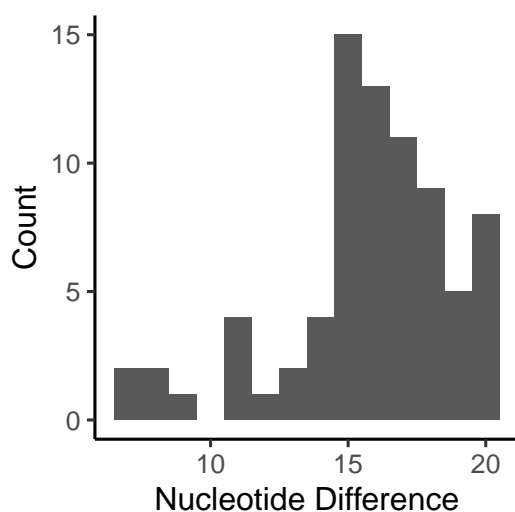
### IGHV4-34\*01\_02

161470 sequences assigned  
5119 (3.2%) exact matches, in which:  
3702 unique CDR3  
7 unique J



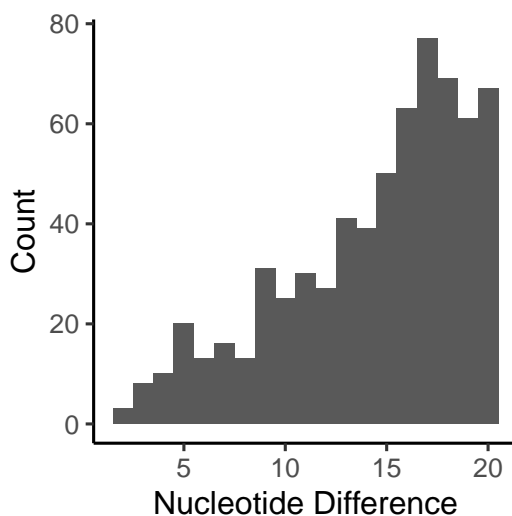
### IGHV4-30-2\*03

162 sequences assigned  
No exact matches.



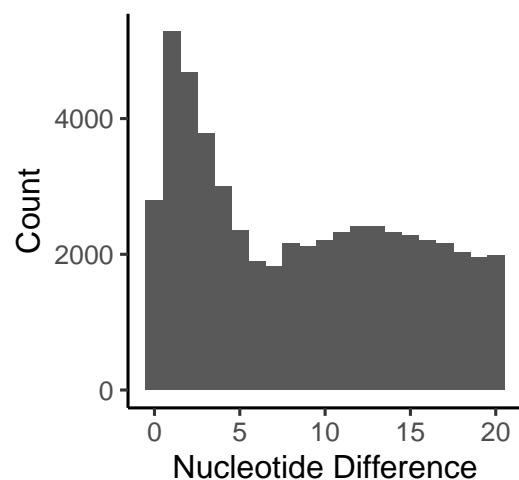
### IGHV4-30-4\*08

1064 sequences assigned  
No exact matches.



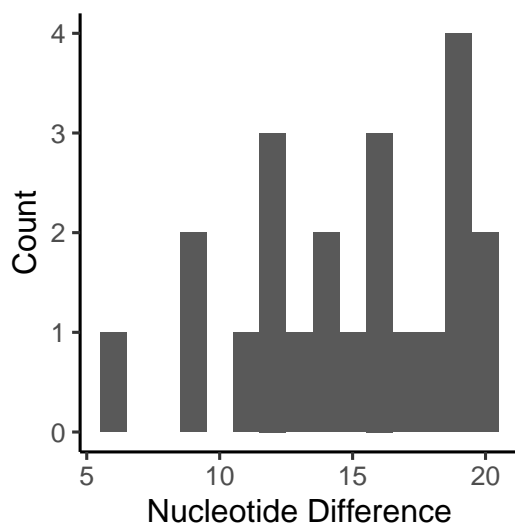
### IGHV4-38-2\*01

67757 sequences assigned  
2793 (4.1%) exact matches, in which:  
2257 unique CDR3  
7 unique J



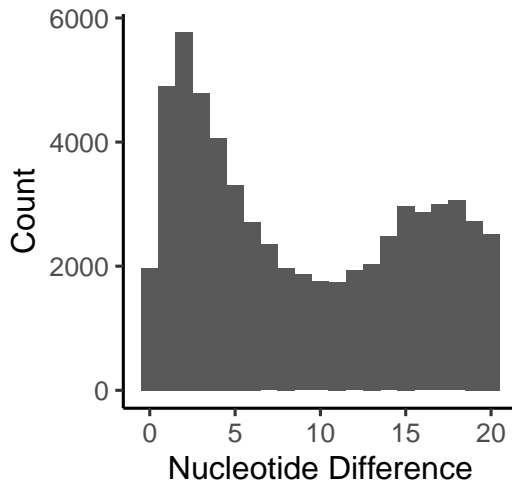
### IGHV4-30-2\*04

40 sequences assigned  
No exact matches.



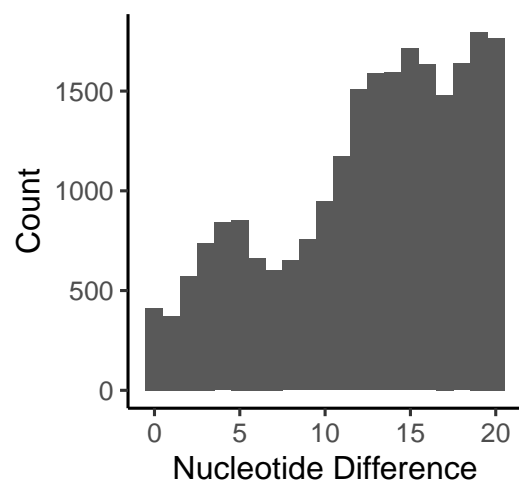
### IGHV4-31\*03\_04

82771 sequences assigned  
1966 (2.4%) exact matches, in which:  
1522 unique CDR3  
7 unique J



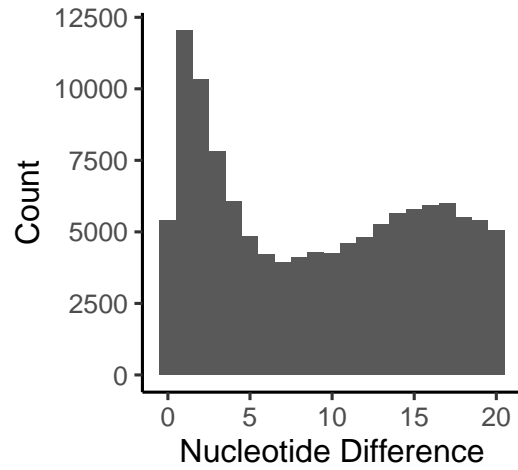
### IGHV4-38-2\*02

35092 sequences assigned  
413 (1.2%) exact matches, in which:  
362 unique CDR3  
7 unique J



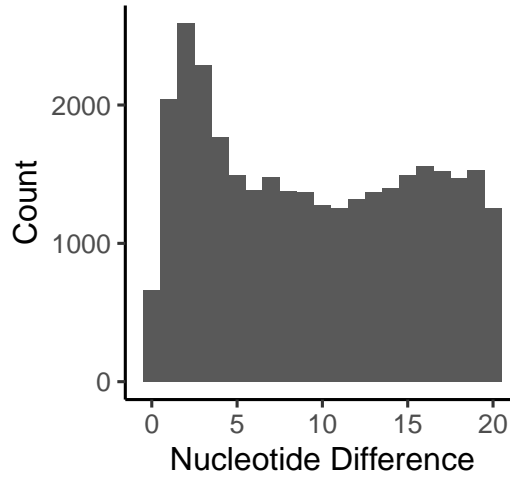
### IGHV4-39\*07

161775 sequences assigned  
5415 (3.3%) exact matches, in which:  
3901 unique CDR3  
7 unique J



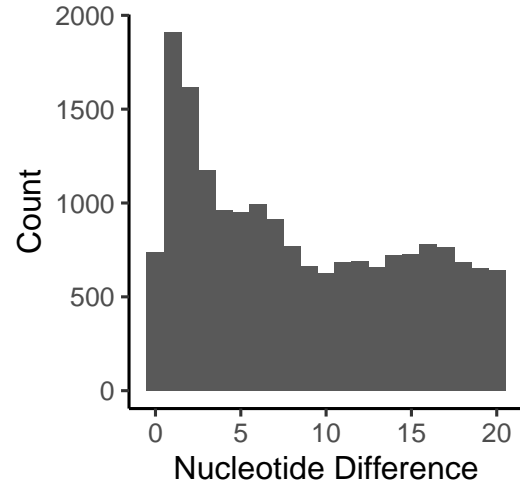
### IGHV4-59\*08

38372 sequences assigned  
664 (1.7%) exact matches, in which:  
603 unique CDR3  
7 unique J



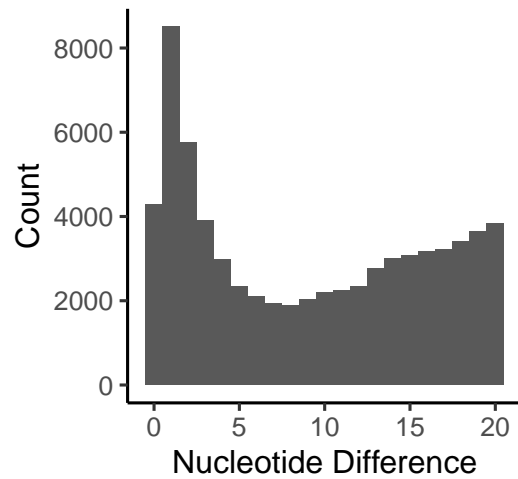
### IGHV4-59\*12

23030 sequences assigned  
738 (3.2%) exact matches, in which:  
678 unique CDR3  
7 unique J



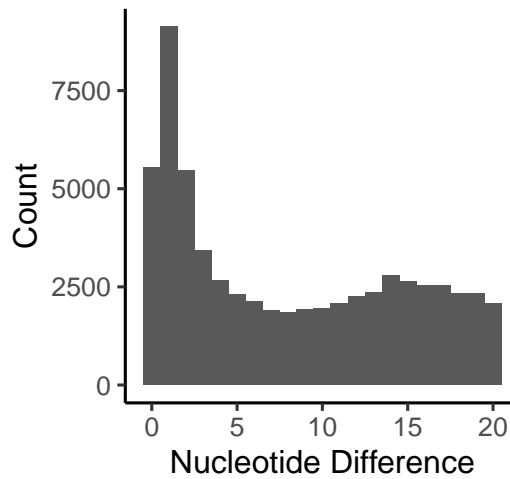
### IGHV4-39\*01\_05

99608 sequences assigned  
4295 (4.3%) exact matches, in which:  
2975 unique CDR3  
7 unique J



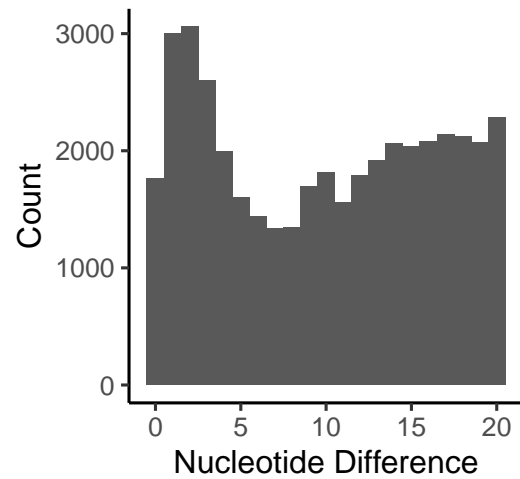
### IGHV4-59\*01\_07

79868 sequences assigned  
5545 (6.9%) exact matches, in which:  
4082 unique CDR3  
7 unique J



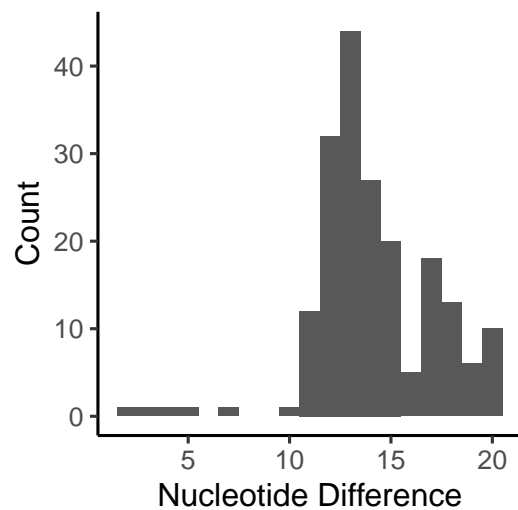
### IGHV4-61\*02

54449 sequences assigned  
1763 (3.2%) exact matches, in which:  
1418 unique CDR3  
7 unique J



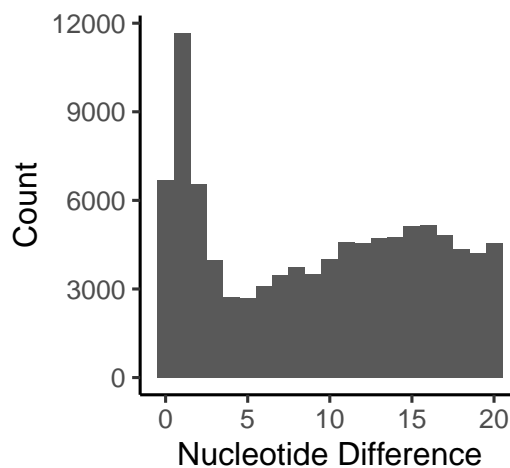
### IGHV4-55\*02\_04\_08

218 sequences assigned  
No exact matches.



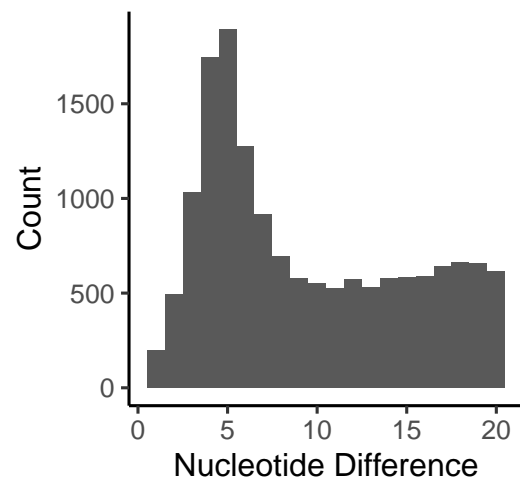
### IGHV4-59\*11

124158 sequences assigned  
6689 (5.4%) exact matches, in which:  
4845 unique CDR3  
7 unique J



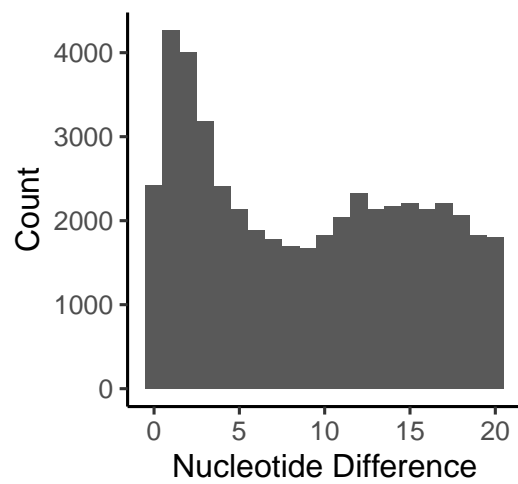
### IGHV4-61\*08

19187 sequences assigned  
No exact matches.



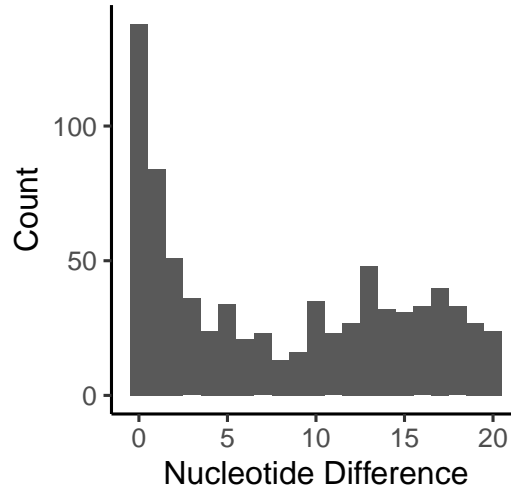
### IGHV4-61\*09

62099 sequences assigned  
2425 (3.9%) exact matches, in which:  
1909 unique CDR3  
7 unique J



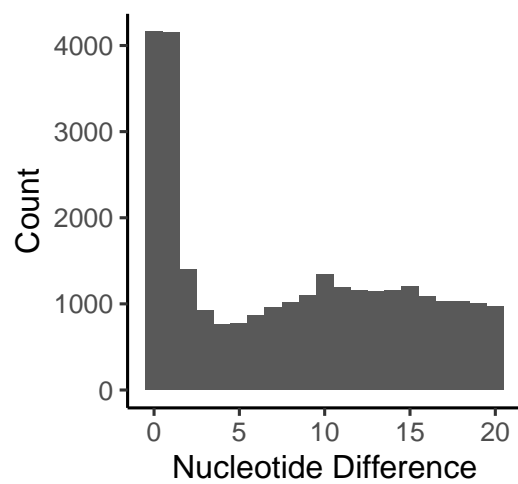
### IGHV7-4-1\*02

987 sequences assigned  
138 (14%) exact matches, in which:  
126 unique CDR3  
6 unique J



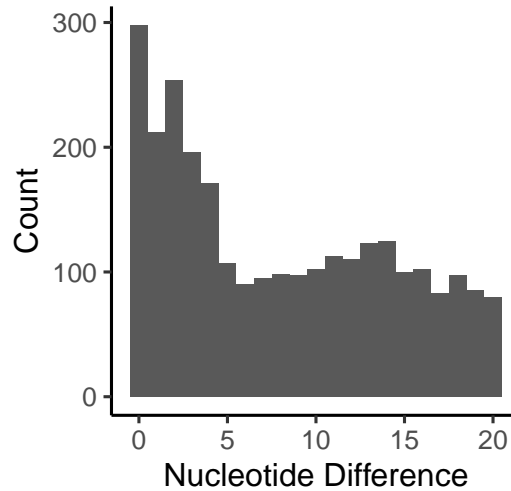
### IGHV5-51\*01\_03

34039 sequences assigned  
4160 (12.2%) exact matches, in which:  
3205 unique CDR3  
7 unique J



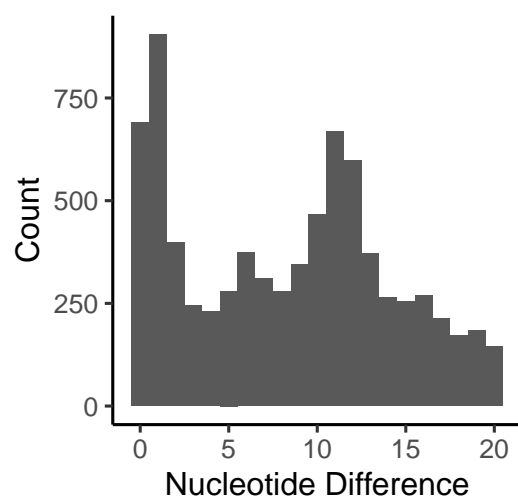
### IGHV7-4-1\*02\_A18G

3477 sequences assigned  
298 (8.6%) exact matches, in which:  
231 unique CDR3  
7 unique J

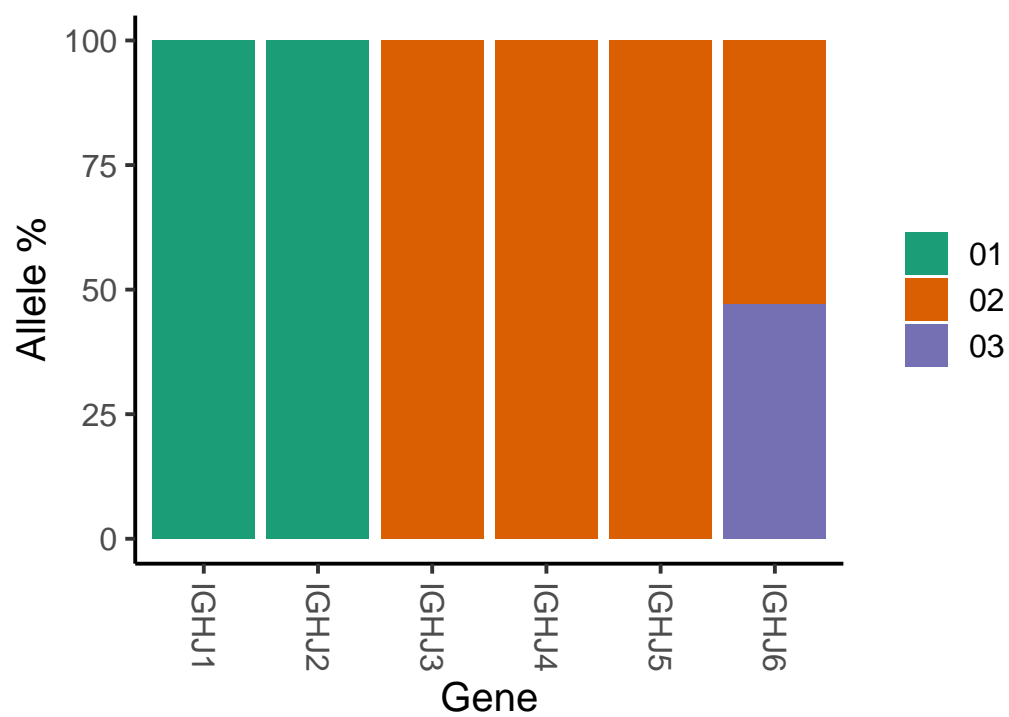


### IGHV6-1\*01\_02

8376 sequences assigned  
691 (8.2%) exact matches, in which:  
511 unique CDR3  
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage

