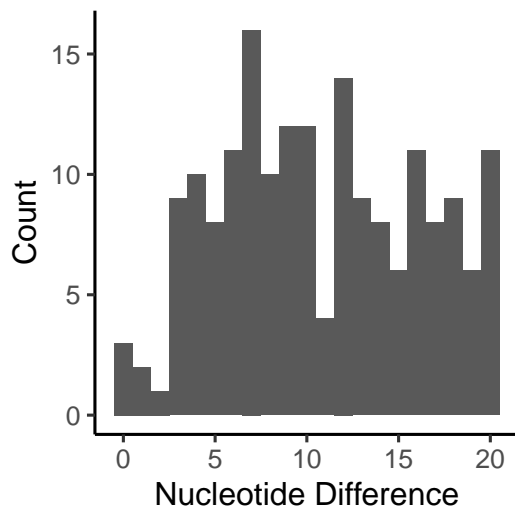


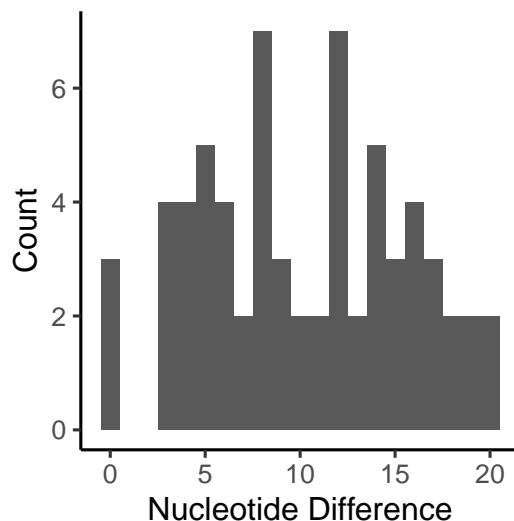
### IGHV1-2\*02

209 sequences assigned  
3 (1.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



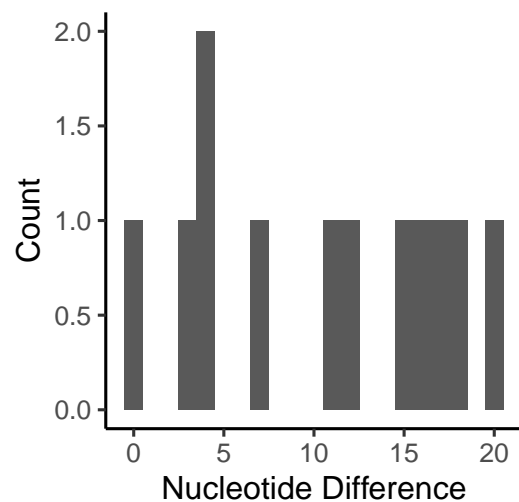
### IGHV1-3\*01\_05

76 sequences assigned  
3 (3.9%) exact matches, in which:  
3 unique CDR3  
2 unique J



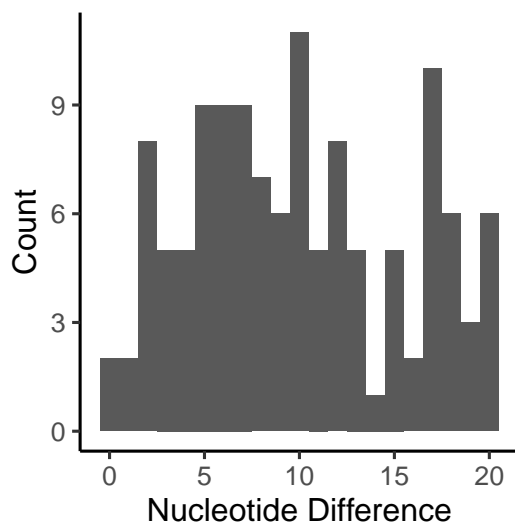
### IGHV1-24\*01

15 sequences assigned  
1 (6.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



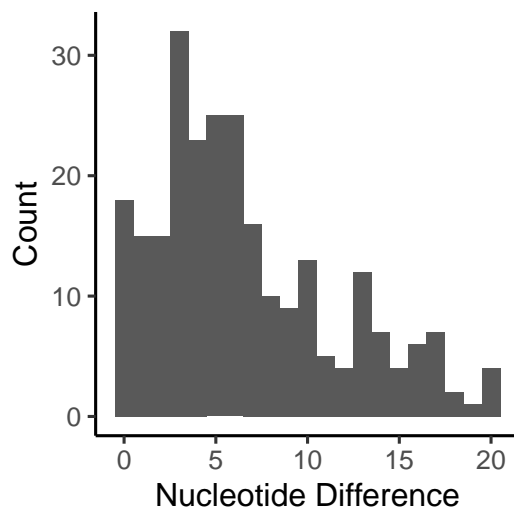
### IGHV1-2\*06

187 sequences assigned  
2 (1.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



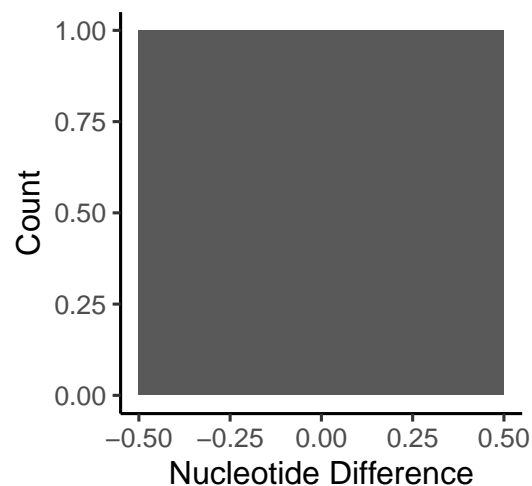
### IGHV1-8\*01

285 sequences assigned  
18 (6.3%) exact matches, in which:  
18 unique CDR3  
5 unique J



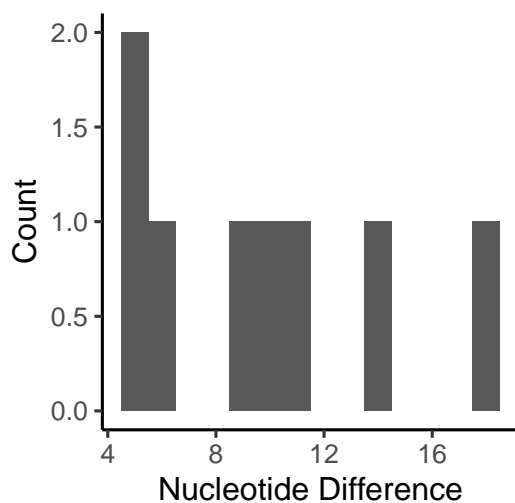
### IGHV1-45\*02

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



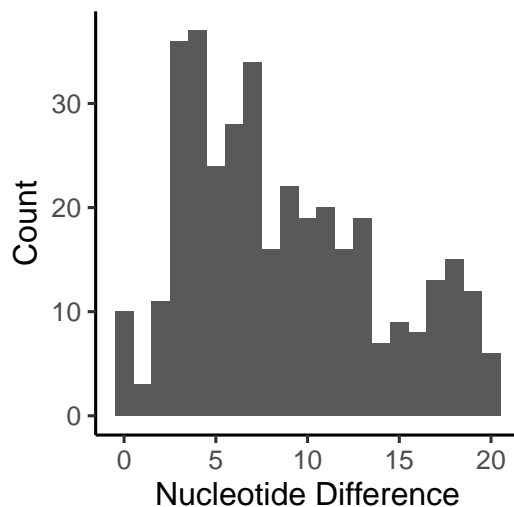
### IGHV1-3\*04

10 sequences assigned  
No exact matches.



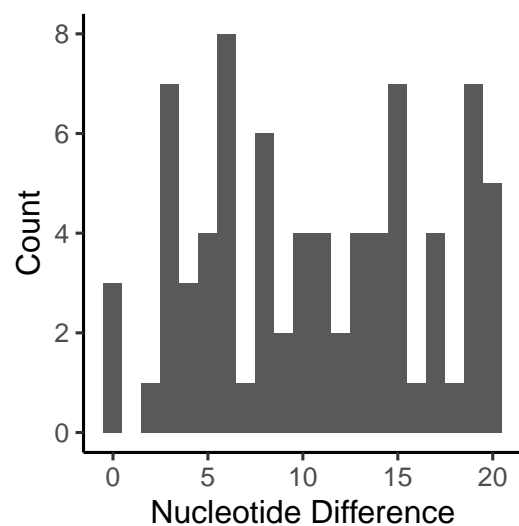
### IGHV1-18\*01

448 sequences assigned  
10 (2.2%) exact matches, in which:  
10 unique CDR3  
3 unique J



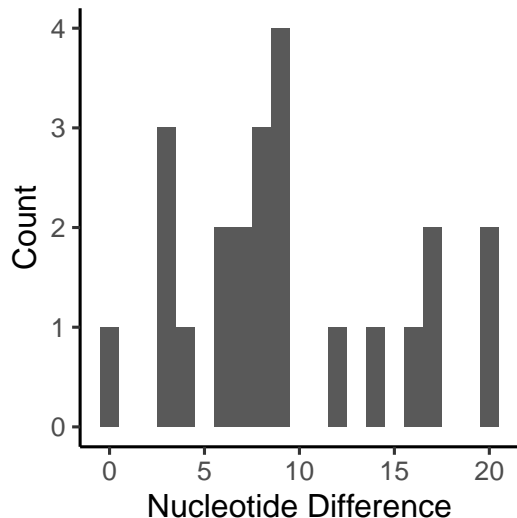
### IGHV1-46\*01

109 sequences assigned  
3 (2.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



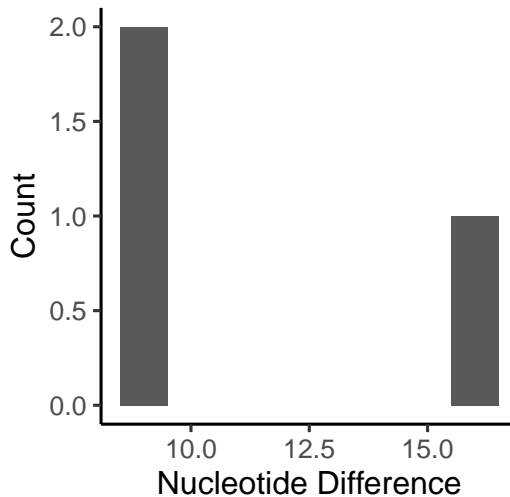
### IGHV1-46\*03

28 sequences assigned  
1 (3.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



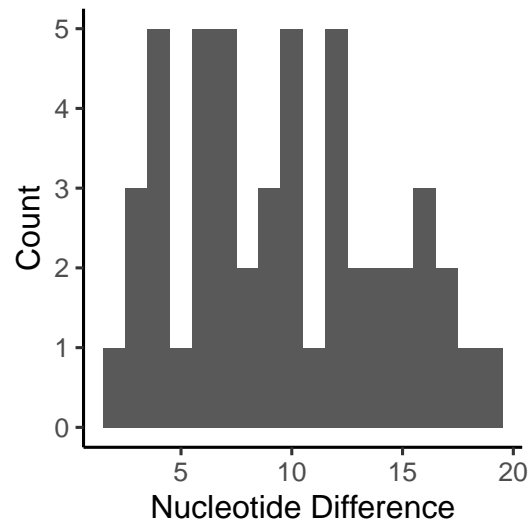
### IGHV1-69\*02

8 sequences assigned  
No exact matches.



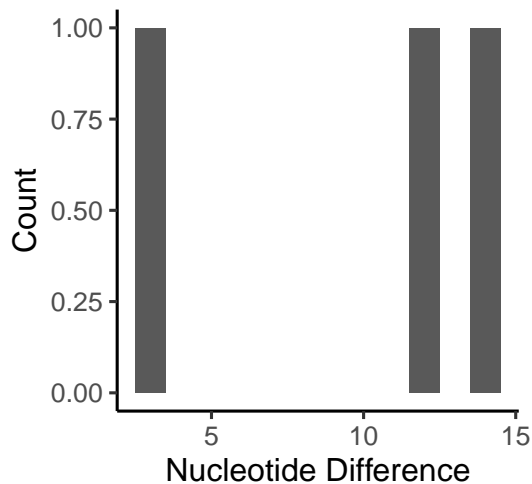
### IGHV2-5\*01

64 sequences assigned  
No exact matches.



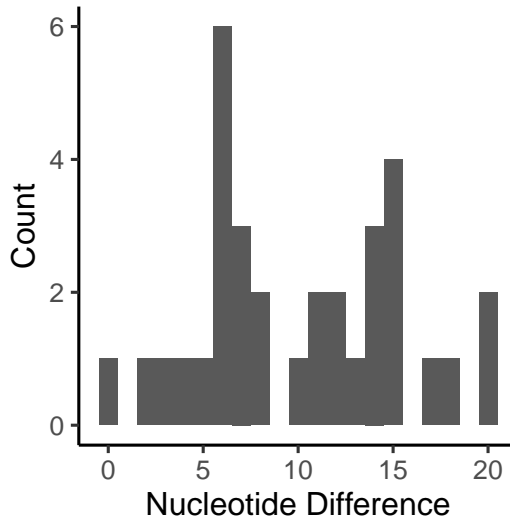
### IGHV1-58\*02

3 sequences assigned  
No exact matches.



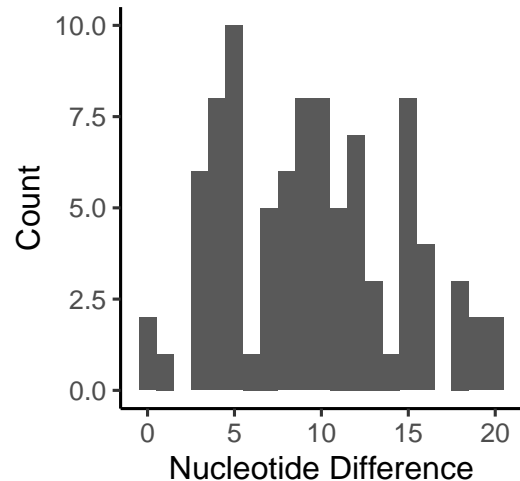
### IGHV1-69\*01\_12\_13

45 sequences assigned  
1 (2.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



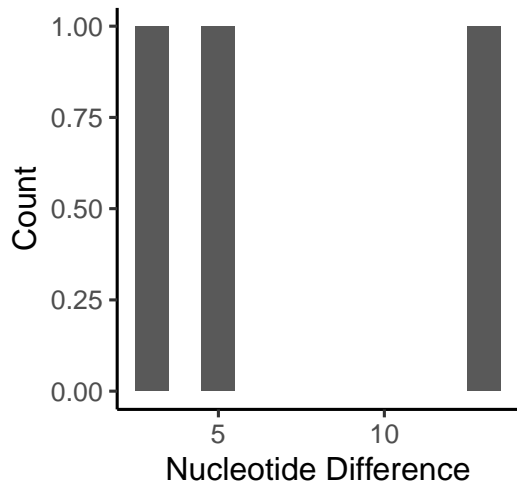
### IGHV2-5\*02

97 sequences assigned  
2 (2.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



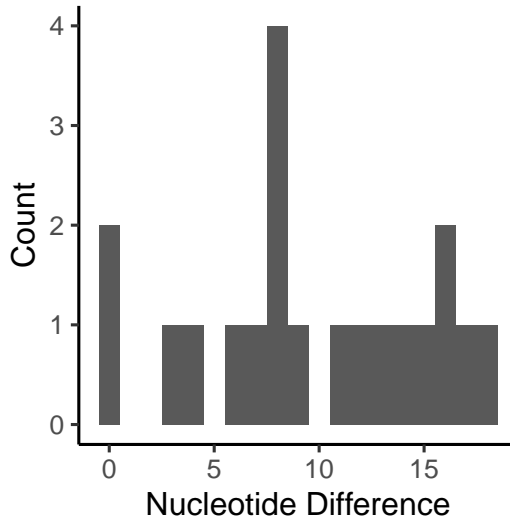
### IGHV1-58\*01\_03

3 sequences assigned  
No exact matches.



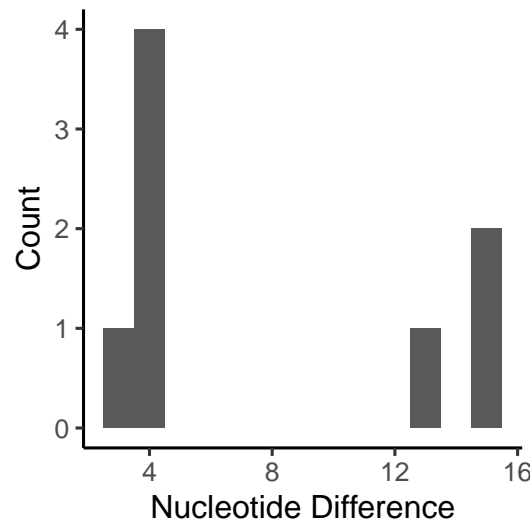
### IGHV1-69\*04\_09

27 sequences assigned  
2 (7.4%) exact matches, in which:  
2 unique CDR3  
1 unique J



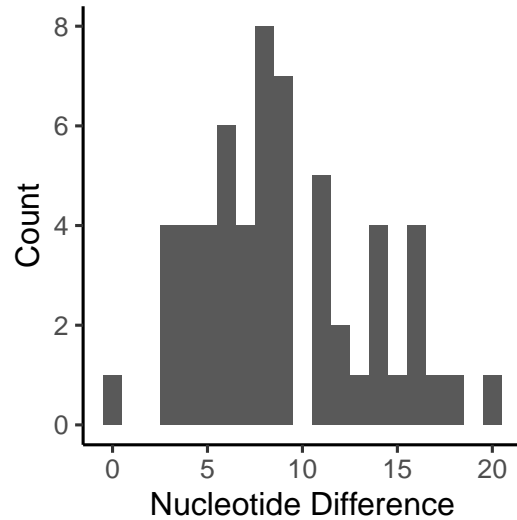
### IGHV2-26\*01

10 sequences assigned  
No exact matches.



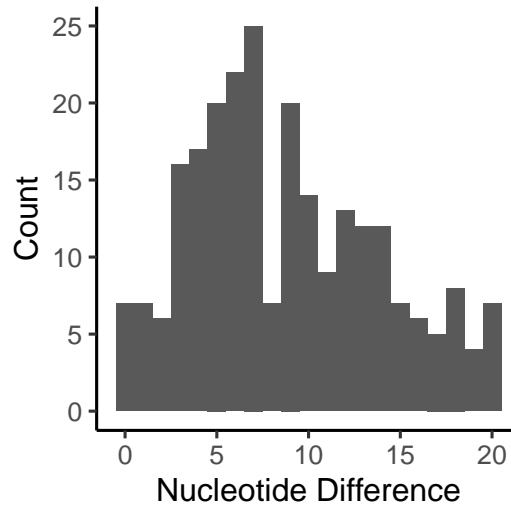
### IGHV2-70\*04

63 sequences assigned  
1 (1.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



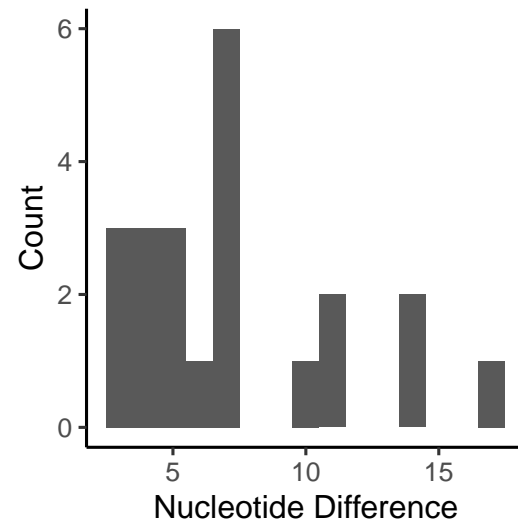
### IGHV3-11\*01

304 sequences assigned  
7 (2.3%) exact matches, in which:  
6 unique CDR3  
3 unique J



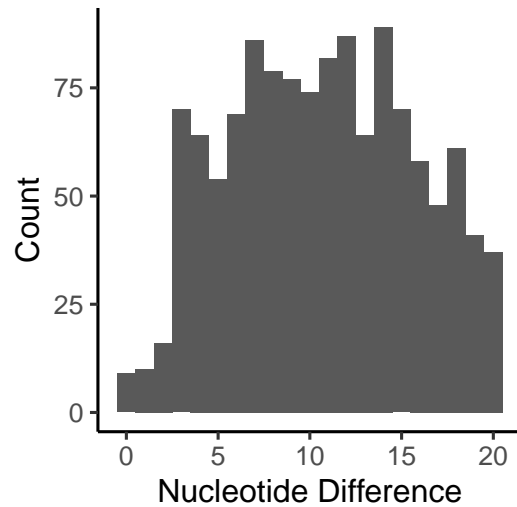
### IGHV3-20\*01\_02

22 sequences assigned  
No exact matches.



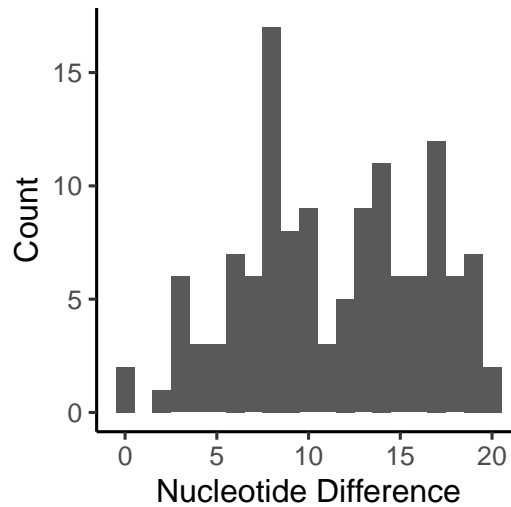
### IGHV3-7\*01

1428 sequences assigned  
9 (0.6%) exact matches, in which:  
7 unique CDR3  
4 unique J



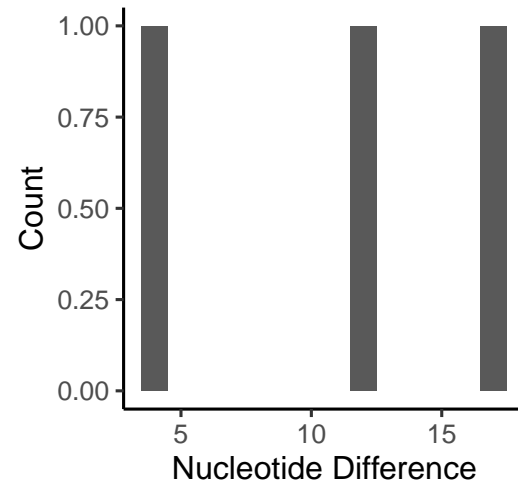
### IGHV3-13\*01

144 sequences assigned  
2 (1.4%) exact matches, in which:  
2 unique CDR3  
2 unique J



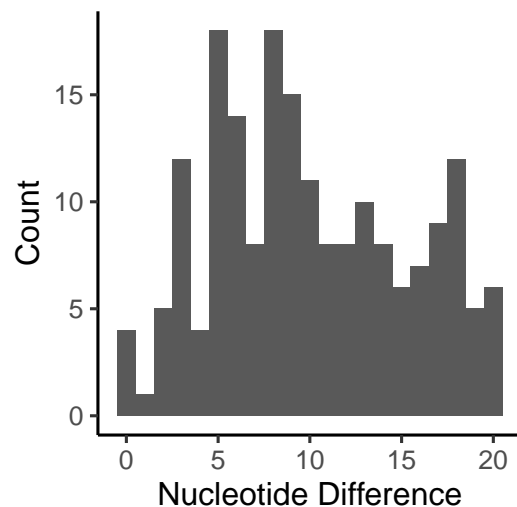
### IGHV3-20\*03\_04

5 sequences assigned  
No exact matches.



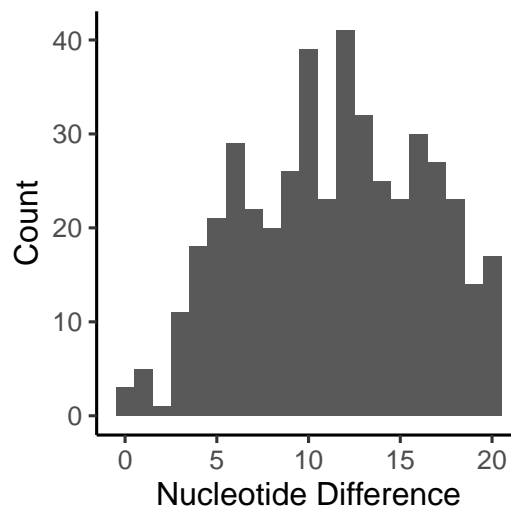
### IGHV3-9\*01

246 sequences assigned  
4 (1.6%) exact matches, in which:  
4 unique CDR3  
3 unique J



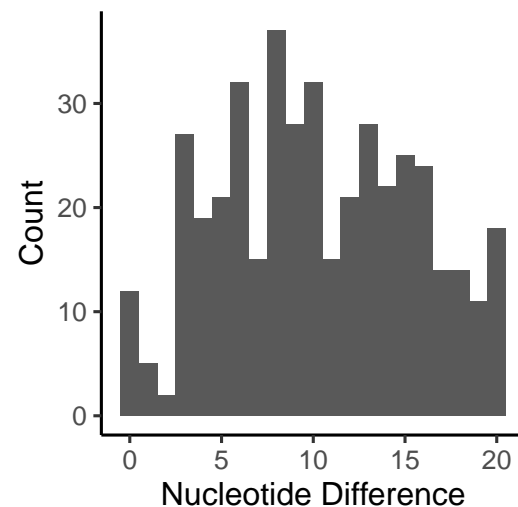
### IGHV3-15\*01\_02

530 sequences assigned  
3 (0.6%) exact matches, in which:  
3 unique CDR3  
3 unique J



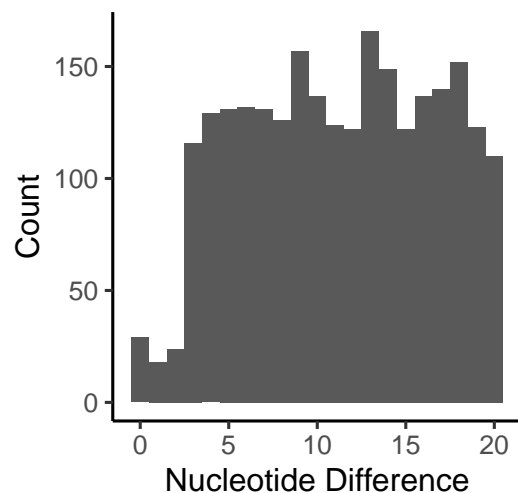
### IGHV3-21\*01\_02

500 sequences assigned  
12 (2.4%) exact matches, in which:  
10 unique CDR3  
3 unique J



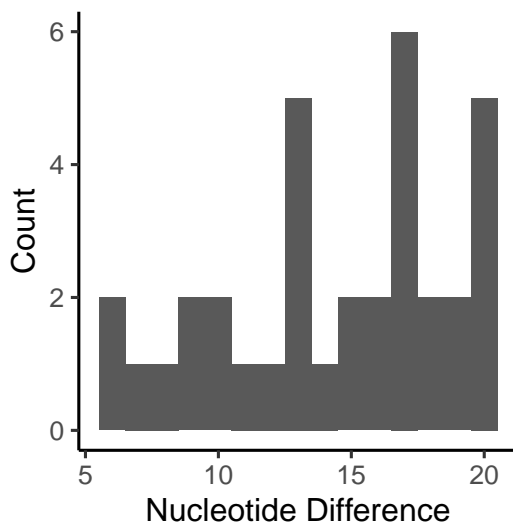
### IGHV3–23\*01\_04

3236 sequences assigned  
29 (0.9%) exact matches, in which:  
26 unique CDR3  
5 unique J



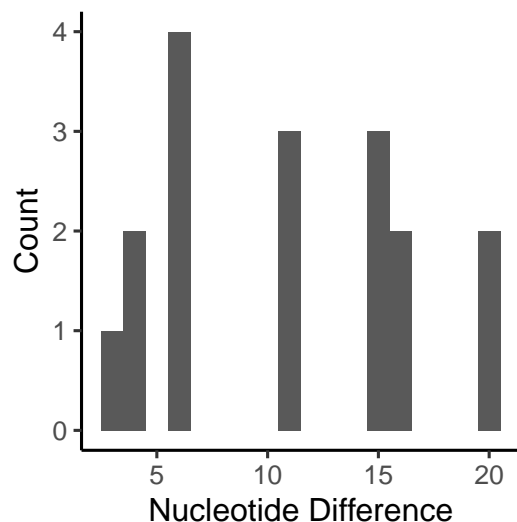
### IGHV3–30\*04

49 sequences assigned  
No exact matches.



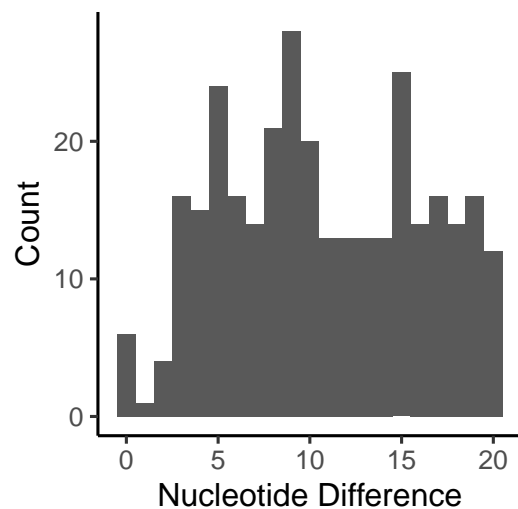
### IGHV3–43\*01

27 sequences assigned  
No exact matches.



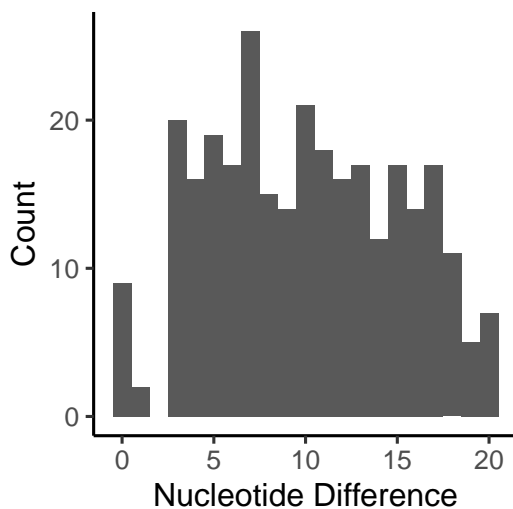
### IGHV3–30–3\*01

409 sequences assigned  
6 (1.5%) exact matches, in which:  
6 unique CDR3  
3 unique J



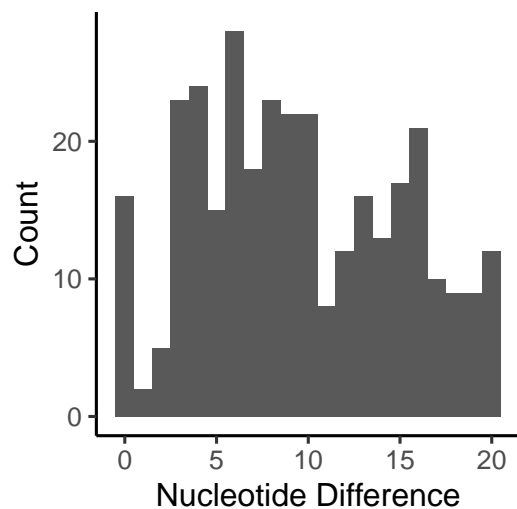
### IGHV3–30\*18

351 sequences assigned  
9 (2.6%) exact matches, in which:  
8 unique CDR3  
3 unique J



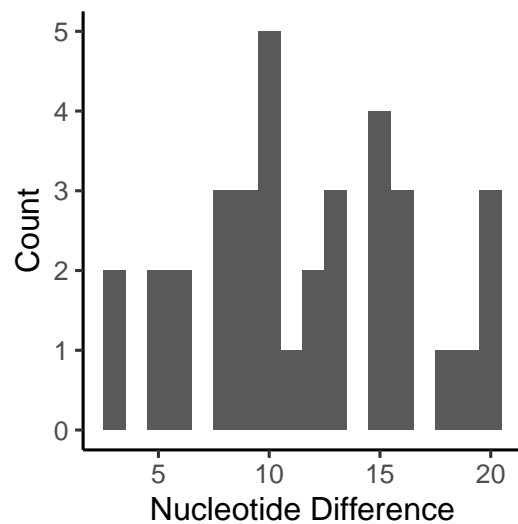
### IGHV3–48\*01

375 sequences assigned  
16 (4.3%) exact matches, in which:  
9 unique CDR3  
3 unique J



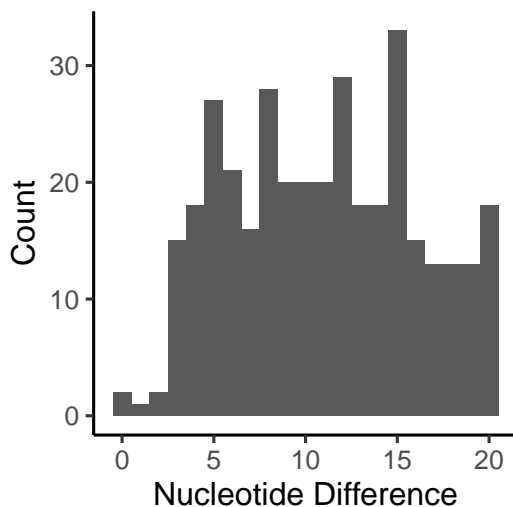
### IGHV3–30\*03

57 sequences assigned  
No exact matches.



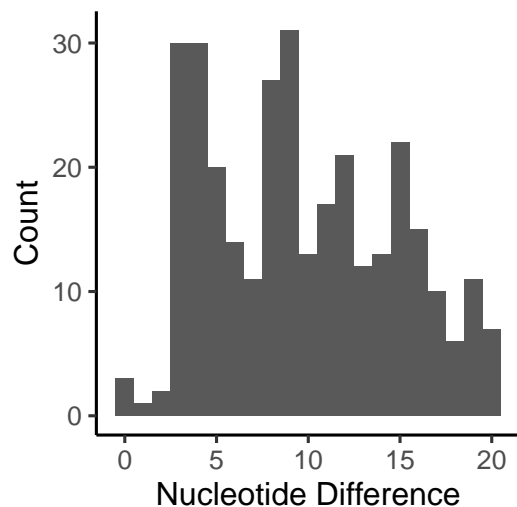
### IGHV3–33\*01

438 sequences assigned  
2 (0.5%) exact matches, in which:  
2 unique CDR3  
1 unique J



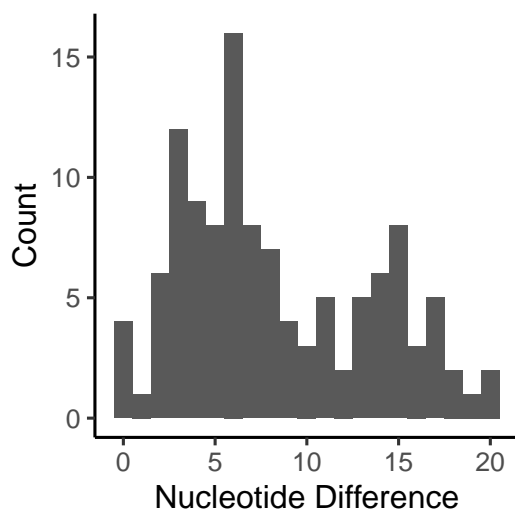
### IGHV3–48\*02

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



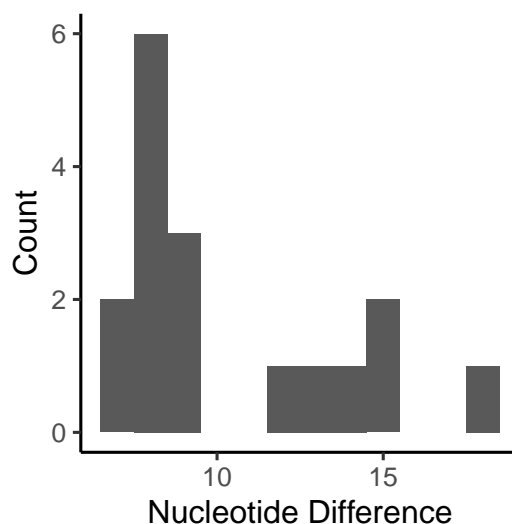
### IGHV3-49\*03\_05

140 sequences assigned  
4 (2.9%) exact matches, in which:  
4 unique CDR3  
2 unique J



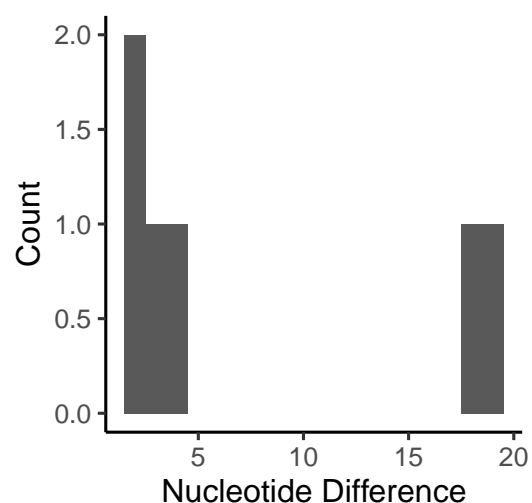
### IGHV3-64\*02\_07

19 sequences assigned  
No exact matches.



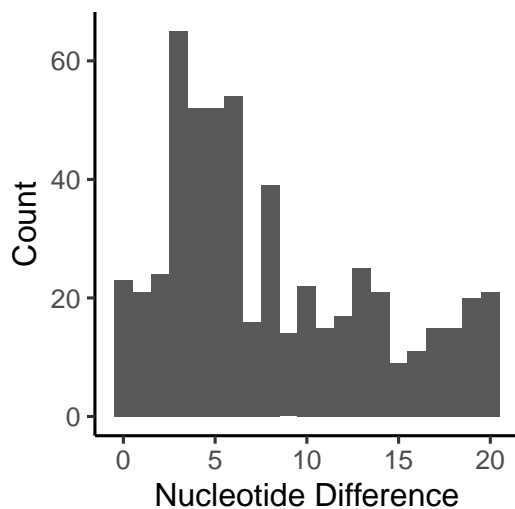
### IGHV3-69-1\*02

10 sequences assigned  
No exact matches.



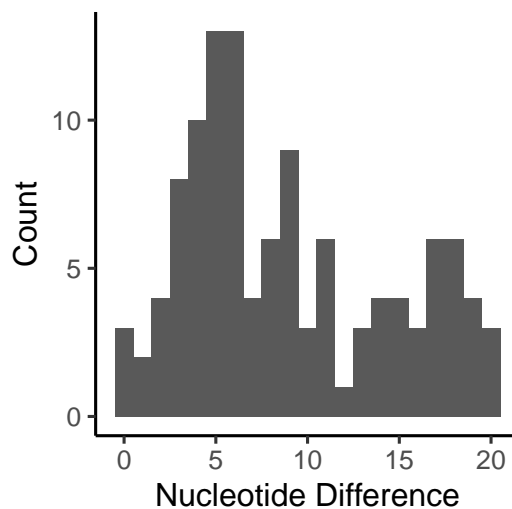
### IGHV3-53\*01\_02

636 sequences assigned  
23 (3.6%) exact matches, in which:  
18 unique CDR3  
6 unique J



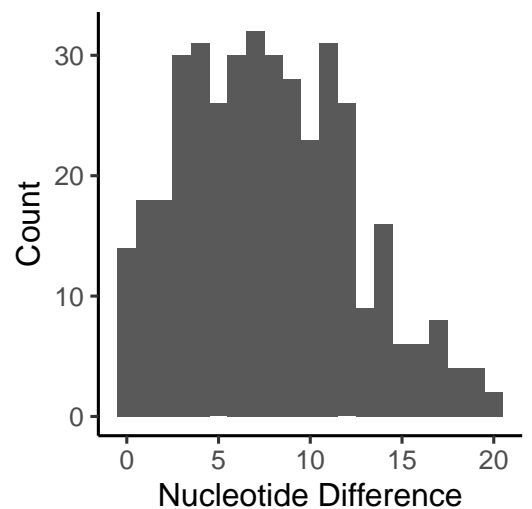
### IGHV3-66\*02

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



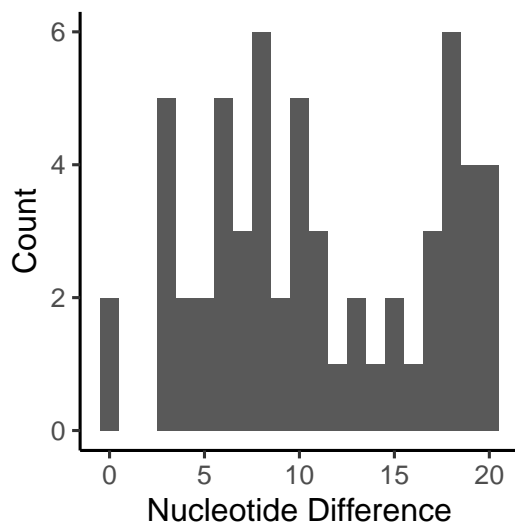
### IGHV3-72\*01

404 sequences assigned  
14 (3.5%) exact matches, in which:  
10 unique CDR3  
4 unique J



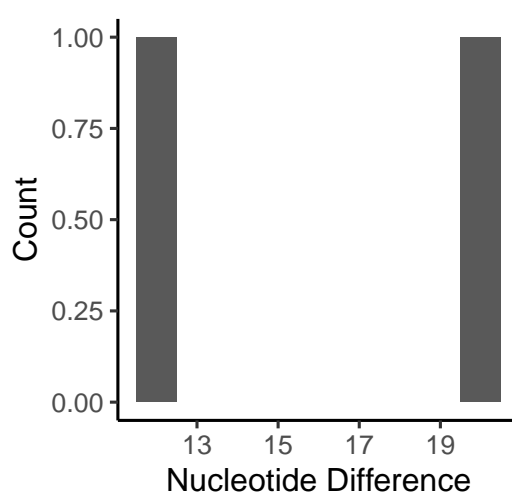
### IGHV3-64\*01

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



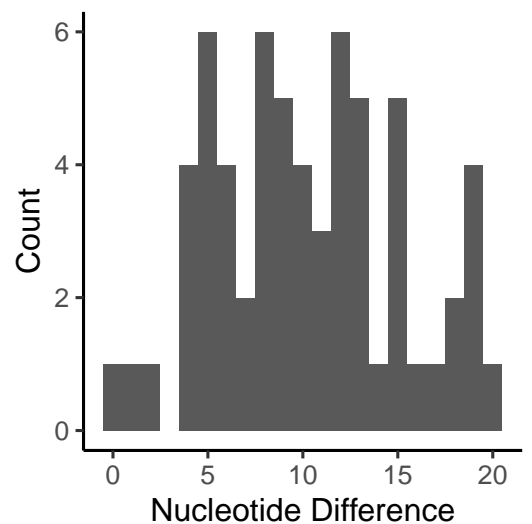
### IGHV3-69-1\*01

2 sequences assigned  
No exact matches.



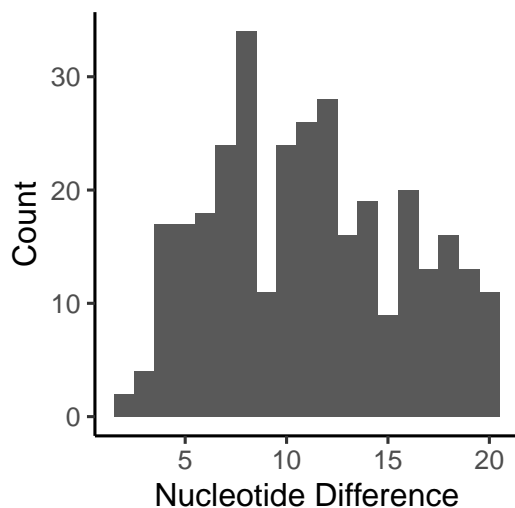
### IGHV3-73\*01\_02

71 sequences assigned  
1 (1.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



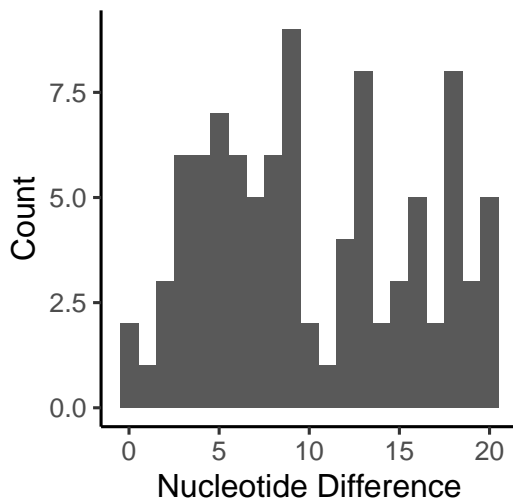
### IGHV3-74\*03

371 sequences assigned  
No exact matches.



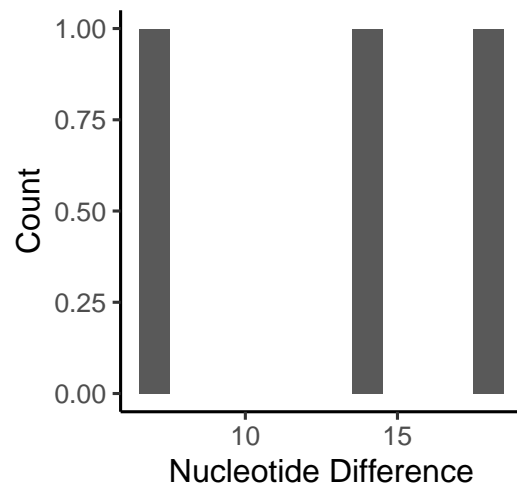
### IGHV4-4\*02\_03

163 sequences assigned  
2 (1.2%) exact matches, in which:  
2 unique CDR3  
2 unique J



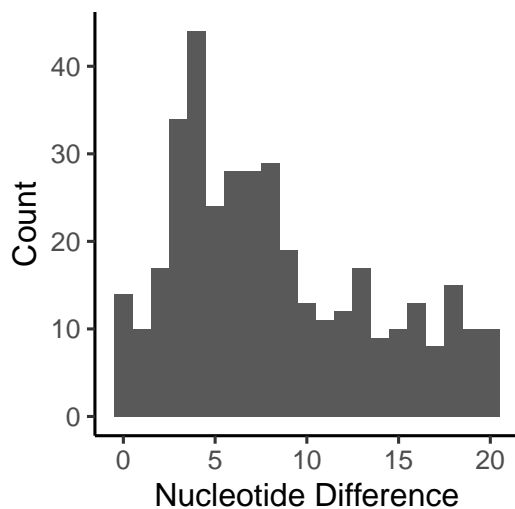
### IGHV4-30-2\*06

7 sequences assigned  
No exact matches.



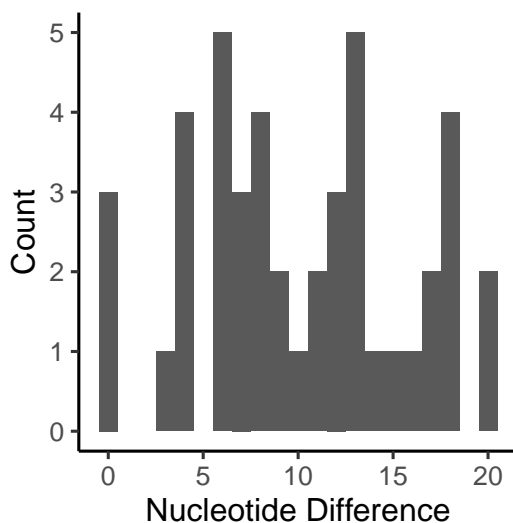
### IGHV3-74\*01\_02

425 sequences assigned  
14 (3.3%) exact matches, in which:  
10 unique CDR3  
3 unique J



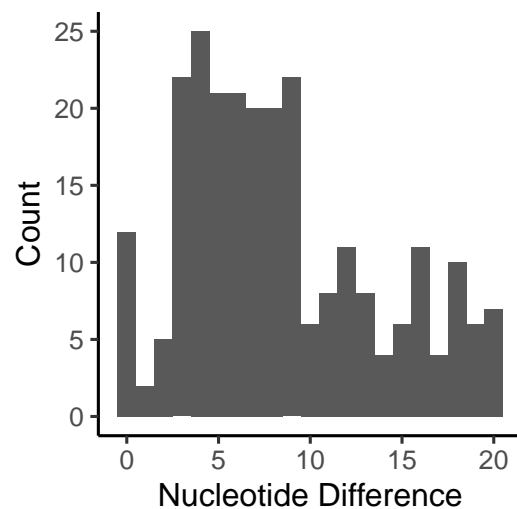
### IGHV4-30-2\*01

55 sequences assigned  
3 (5.5%) exact matches, in which:  
2 unique CDR3  
1 unique J



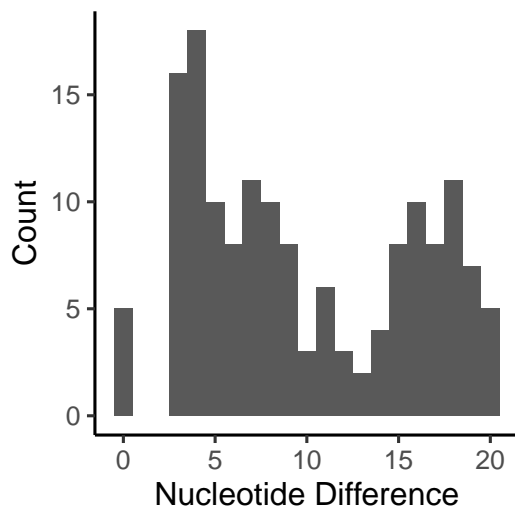
### IGHV4-31\*02

309 sequences assigned  
12 (3.9%) exact matches, in which:  
10 unique CDR3  
5 unique J



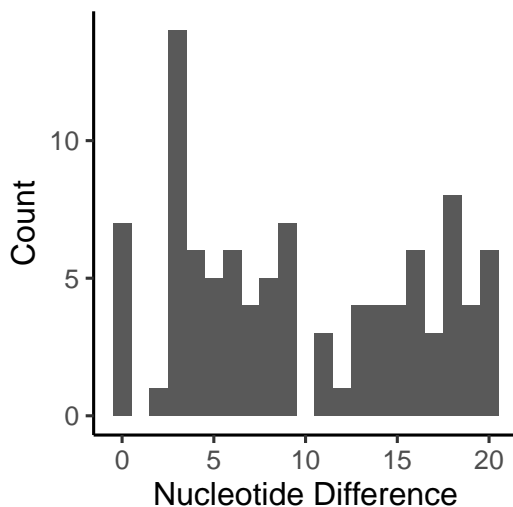
### IGHV4-4\*07

201 sequences assigned  
5 (2.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



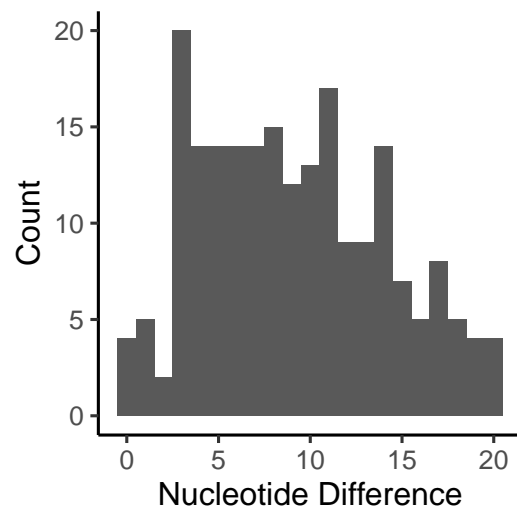
### IGHV4-30-4\*01

143 sequences assigned  
7 (4.9%) exact matches, in which:  
6 unique CDR3  
4 unique J



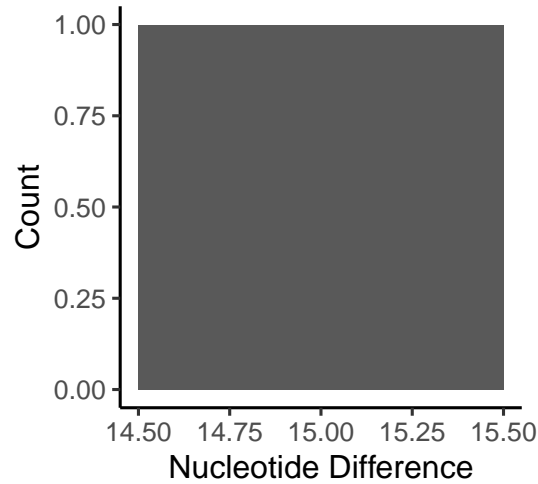
### IGHV4-34\*01\_02

260 sequences assigned  
4 (1.5%) exact matches, in which:  
3 unique CDR3  
3 unique J



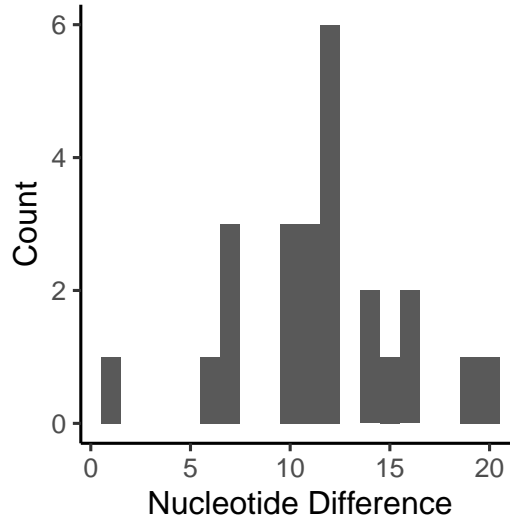
### IGHV4-38-2\*02

1 sequences assigned  
No exact matches.



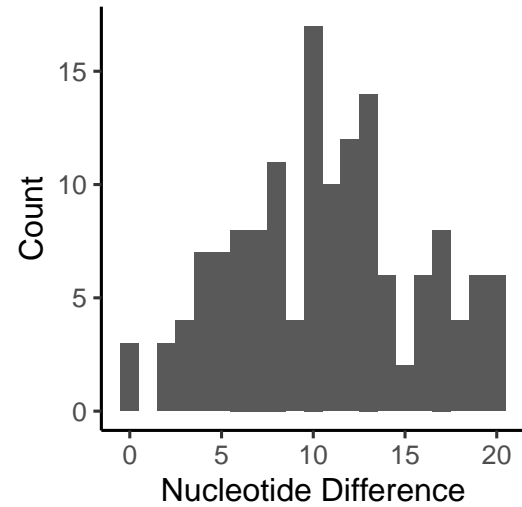
### IGHV4-59\*02

37 sequences assigned  
No exact matches.



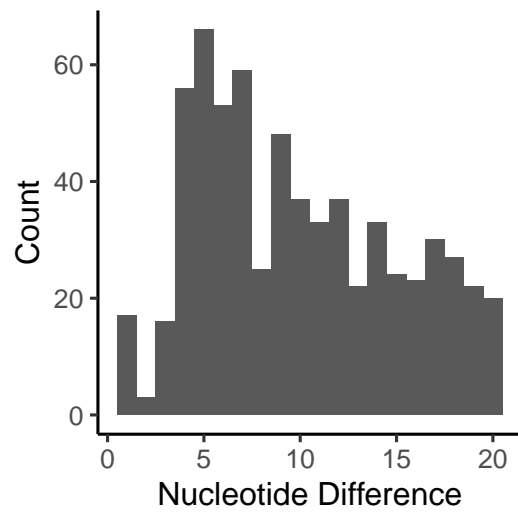
### IGHV4-61\*01

179 sequences assigned  
3 (1.7%) exact matches, in which:  
3 unique CDR3  
1 unique J



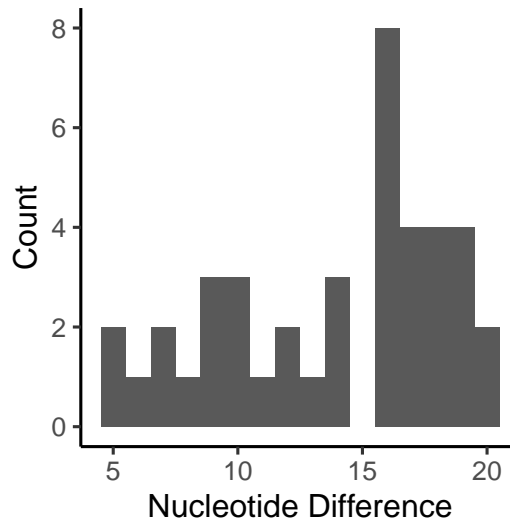
### IGHV4-39\*02

818 sequences assigned  
No exact matches.



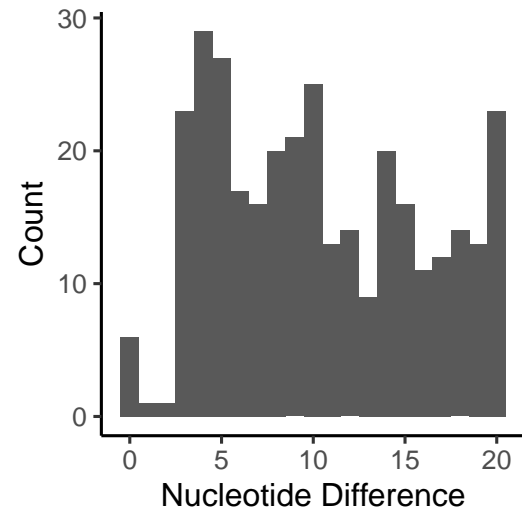
### IGHV4-59\*11

56 sequences assigned  
No exact matches.



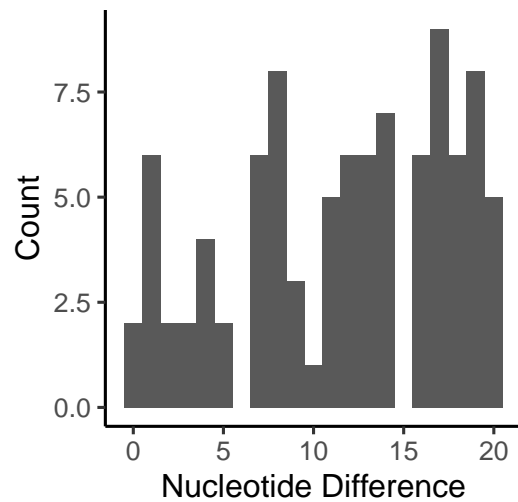
### IGHV4-61\*02

420 sequences assigned  
6 (1.4%) exact matches, in which:  
6 unique CDR3  
4 unique J



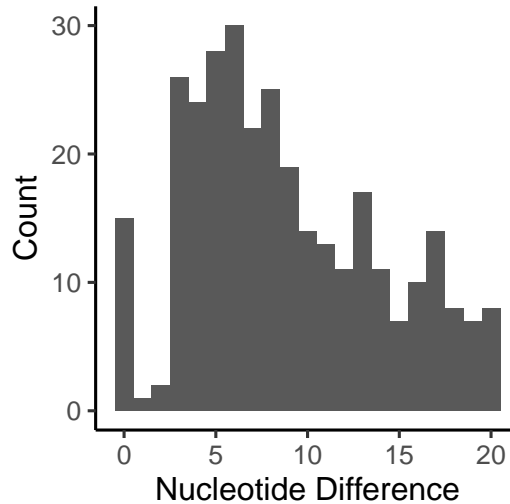
### IGHV4-39\*01\_05

126 sequences assigned  
2 (1.6%) exact matches, in which:  
2 unique CDR3  
2 unique J



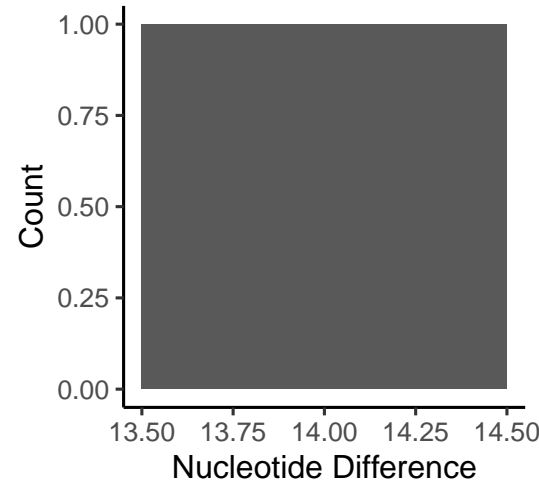
### IGHV4-59\*01\_07

375 sequences assigned  
15 (4%) exact matches, in which:  
12 unique CDR3  
5 unique J



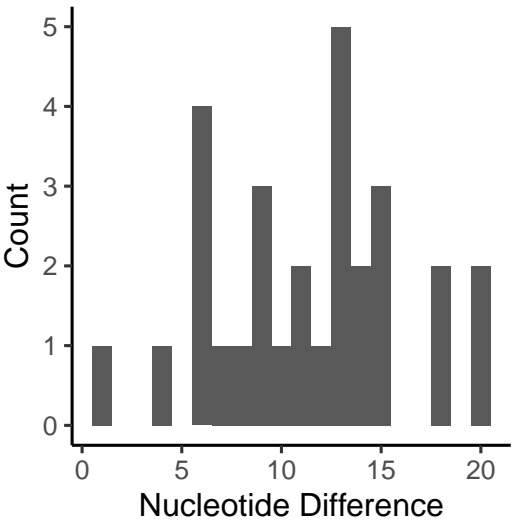
### IGHV4/OR15-8\*02

3 sequences assigned  
No exact matches.



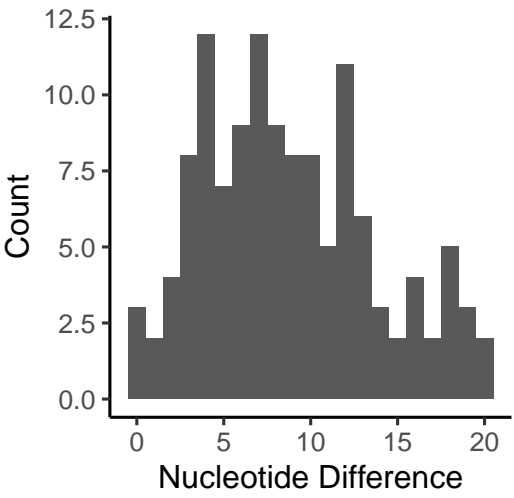
IGHV5-51\*07

34 sequences assigned  
No exact matches.



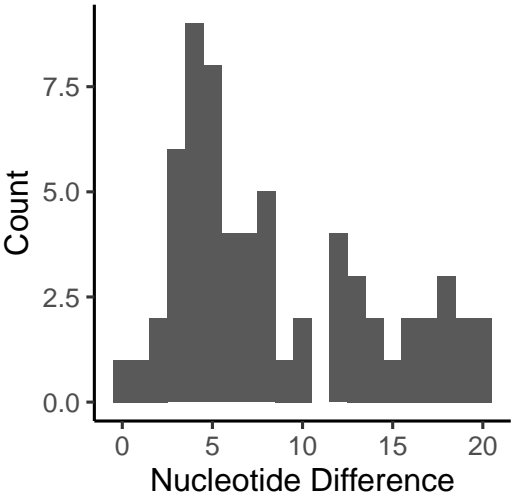
IGHV7-4-1\*02

133 sequences assigned  
3 (2.3%) exact matches, in which:  
3 unique CDR3  
1 unique J



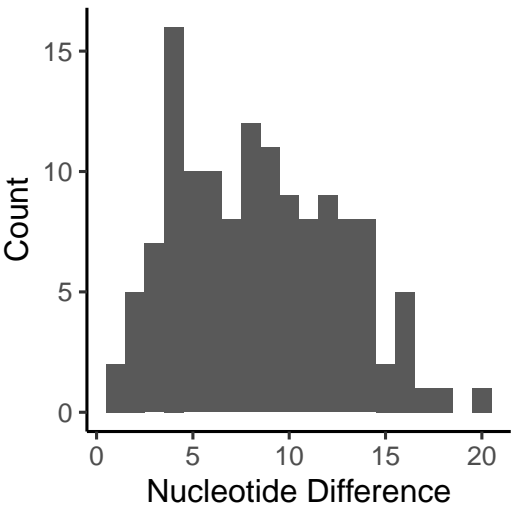
IGHV5-51\*01\_03

84 sequences assigned  
1 (1.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



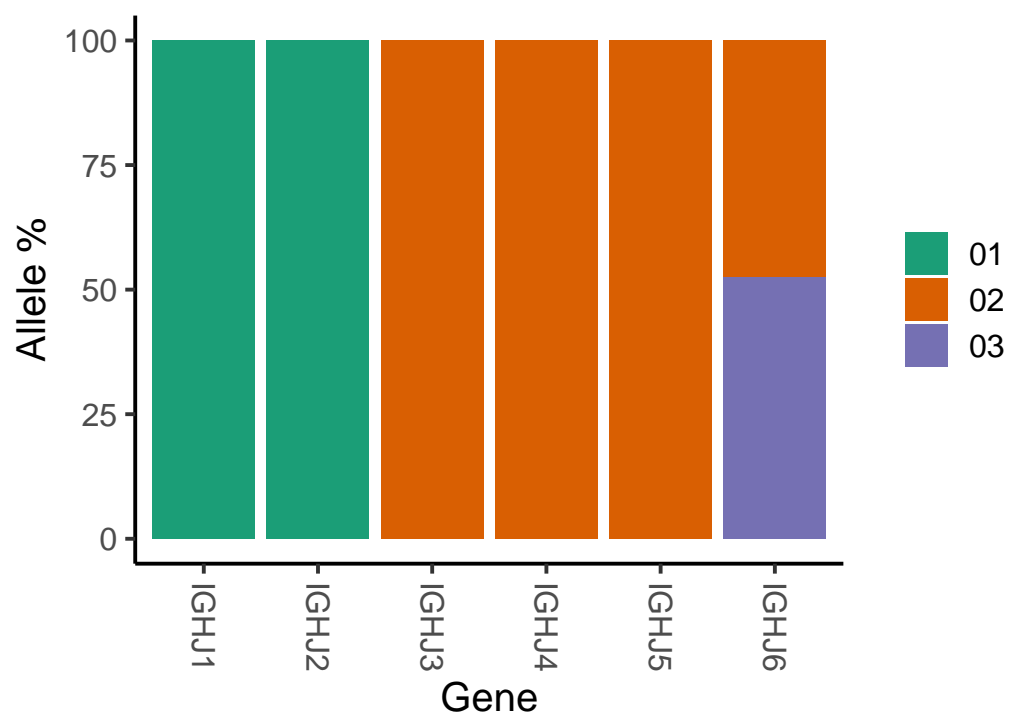
IGHV6-1\*01\_02

147 sequences assigned  
No exact matches.

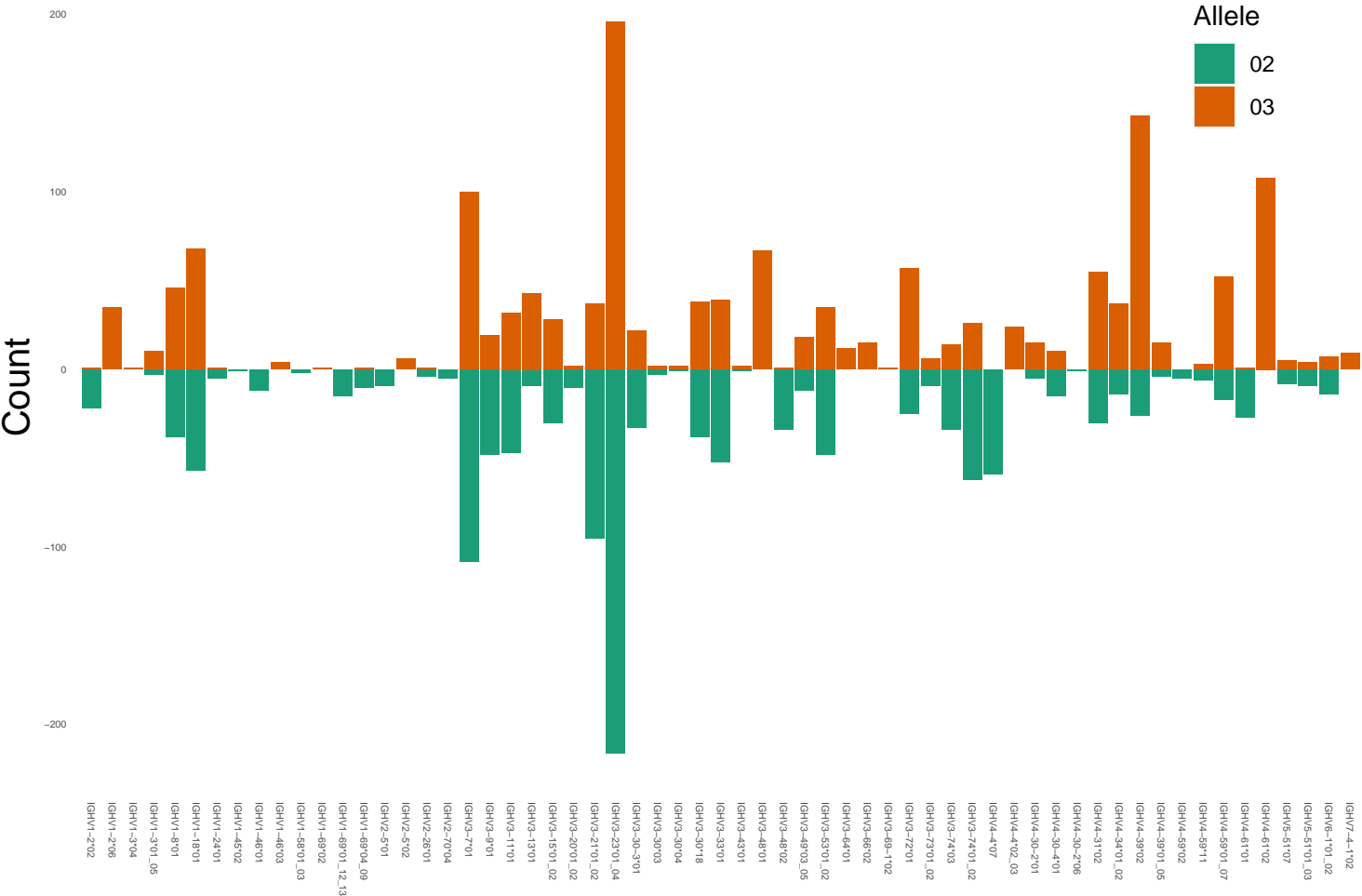




Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.