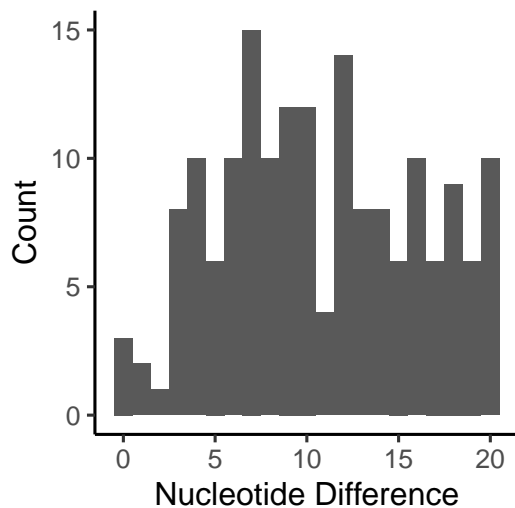


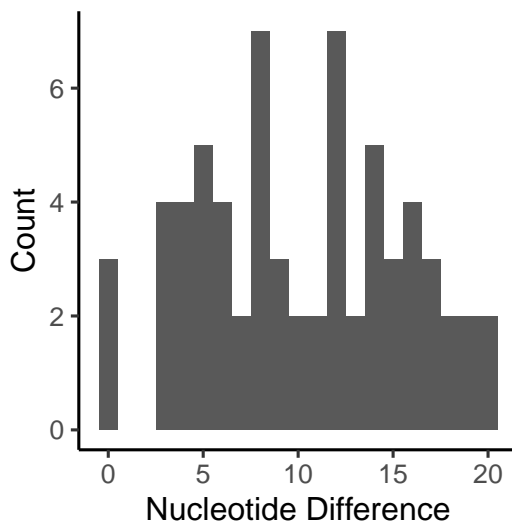
### IGHV1-2\*02

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



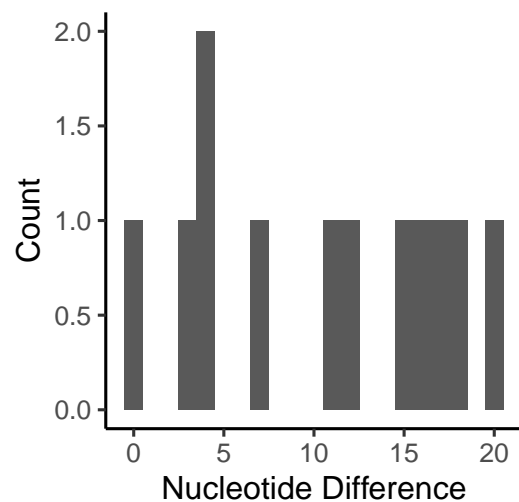
### IGHV1-3\*01\_05

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



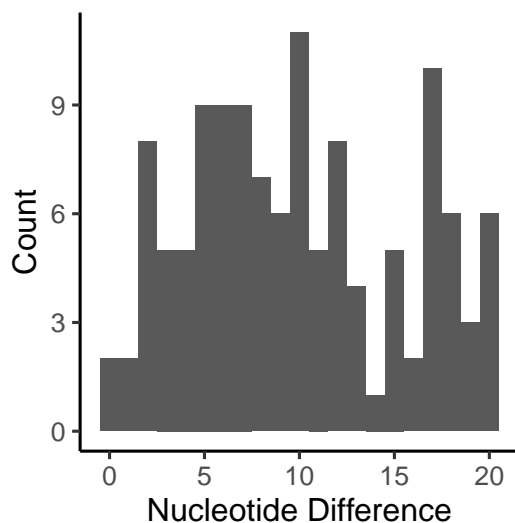
### IGHV1-24\*01

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



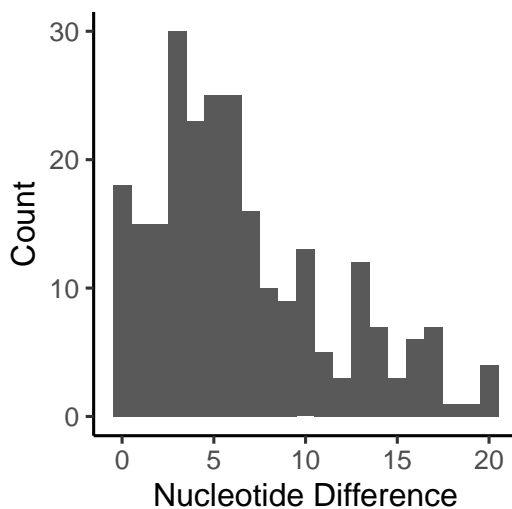
### IGHV1-2\*06

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



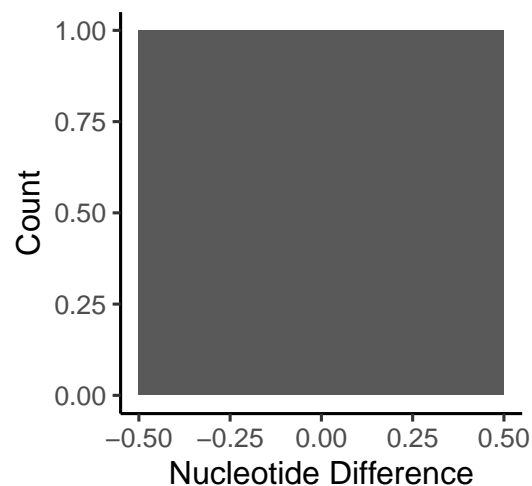
### IGHV1-8\*01

280 sequences assigned  
18 (6.4%) exact matches, in which:  
18 unique CDR3  
5 unique J



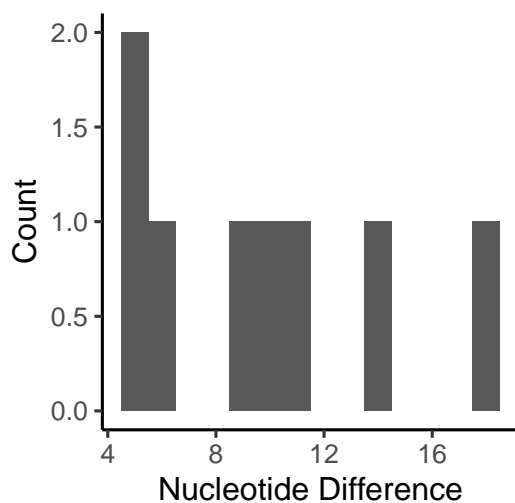
### IGHV1-45\*02

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



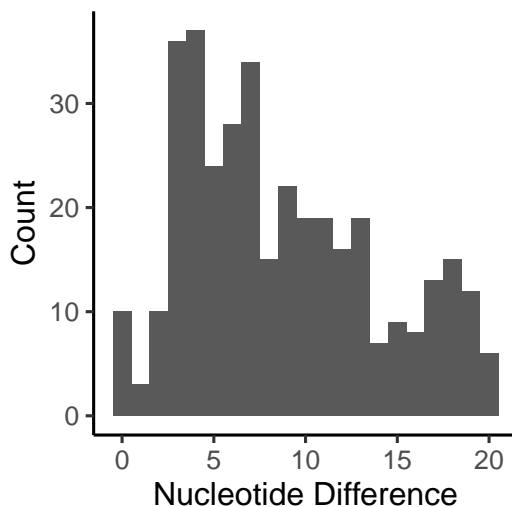
### IGHV1-3\*04

10 sequences assigned  
No exact matches.



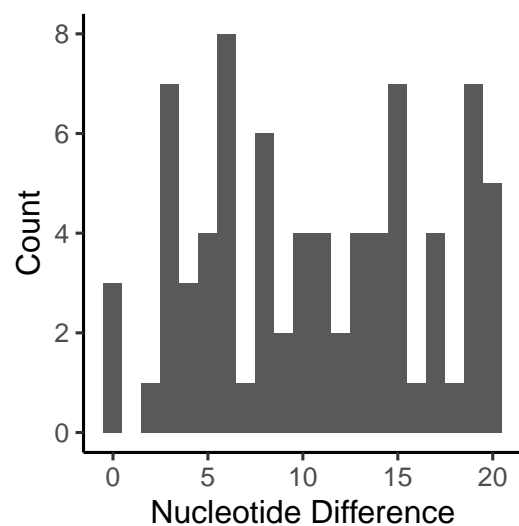
### IGHV1-18\*01

442 sequences assigned  
10 (2.3%) exact matches, in which:  
10 unique CDR3  
3 unique J



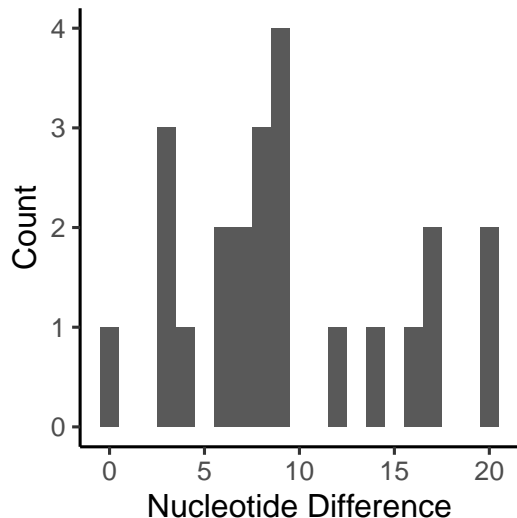
### IGHV1-46\*01

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



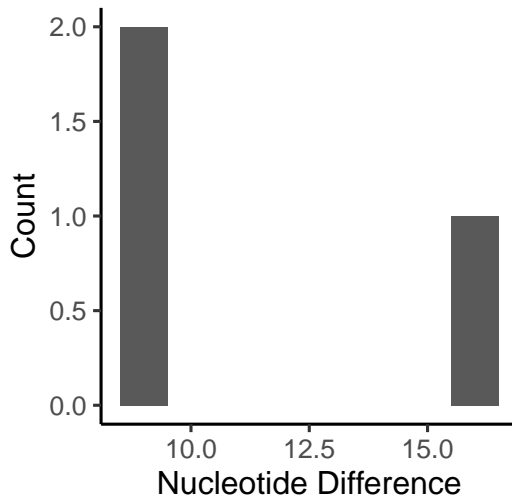
### IGHV1-46\*03

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



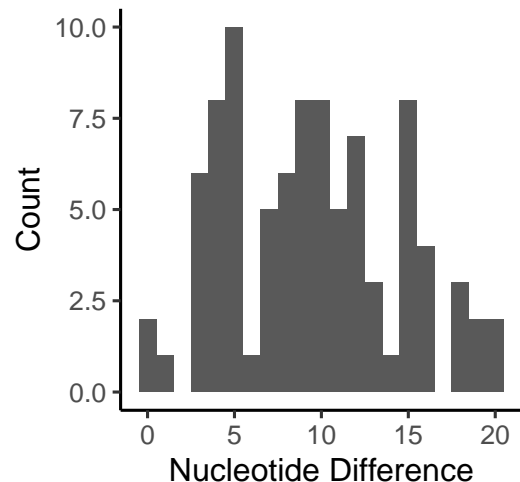
### IGHV1-69\*02

8 sequences assigned  
No exact matches.



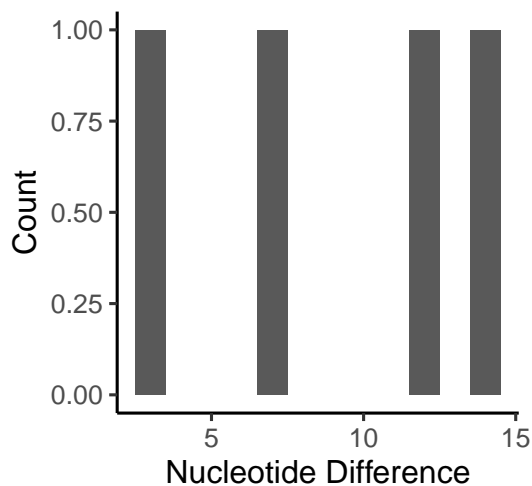
### IGHV2-5\*02

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



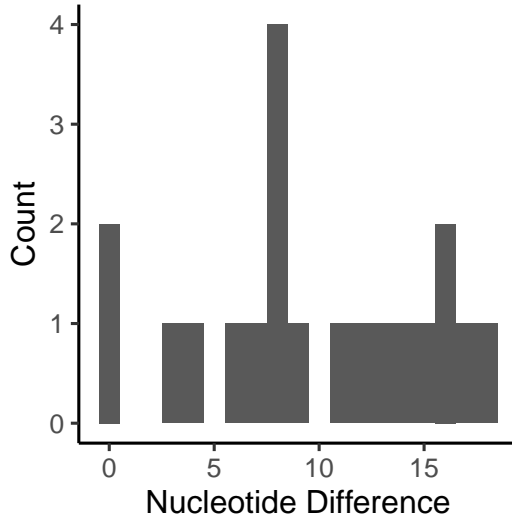
### IGHV1-58\*02

4 sequences assigned  
No exact matches.



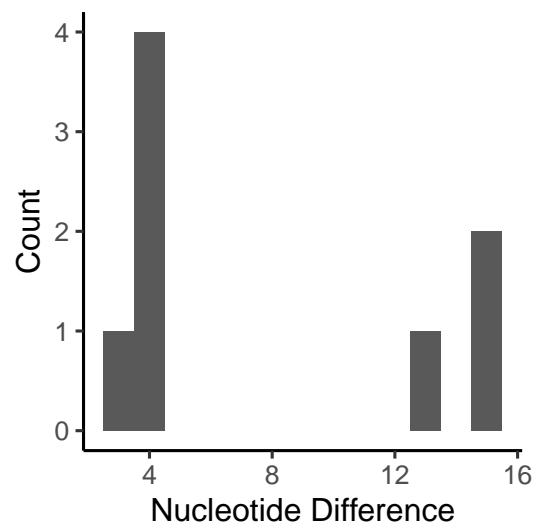
### IGHV1-69\*04\_09

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



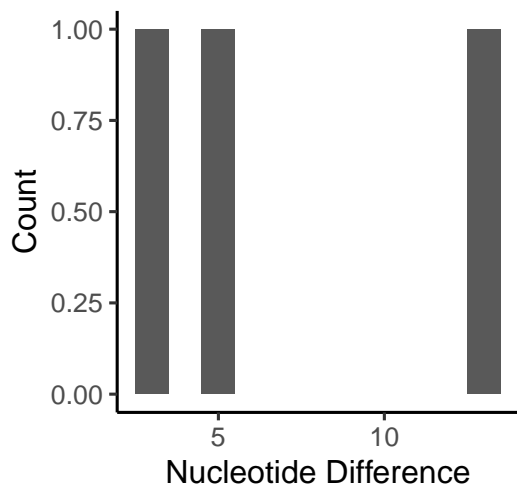
### IGHV2-26\*01

10 sequences assigned  
No exact matches.



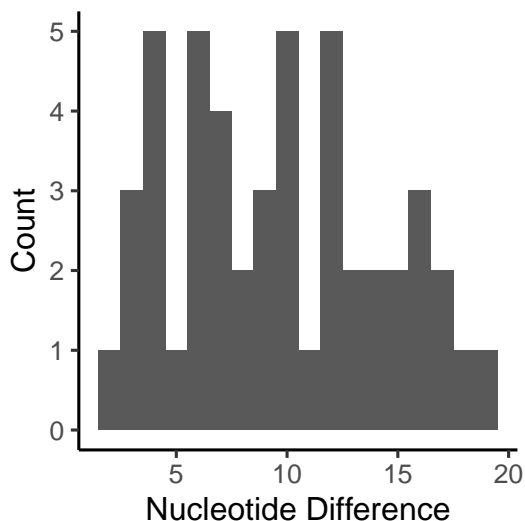
### IGHV1-58\*01\_03

3 sequences assigned  
No exact matches.



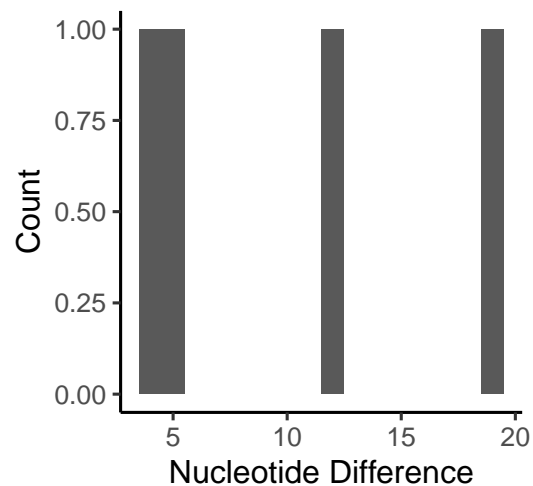
### IGHV2-5\*01

63 sequences assigned  
No exact matches.



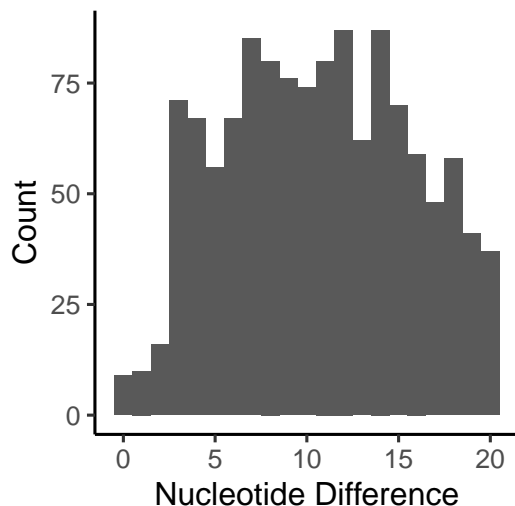
### IGHV2-70\*01

5 sequences assigned  
No exact matches.



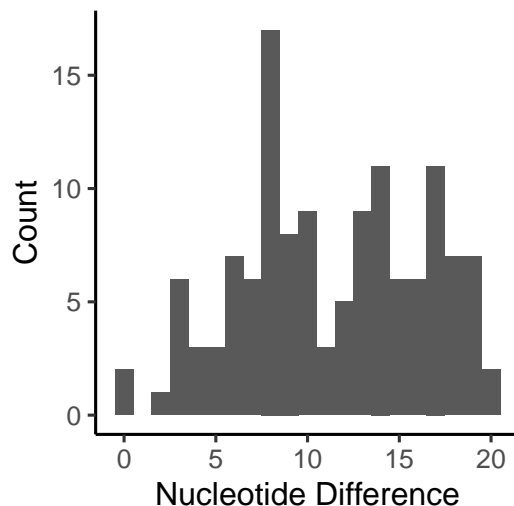
### IGHV3-7\*01

1421 sequences assigned  
9 (0.6%) exact matches, in which:  
7 unique CDR3  
4 unique J



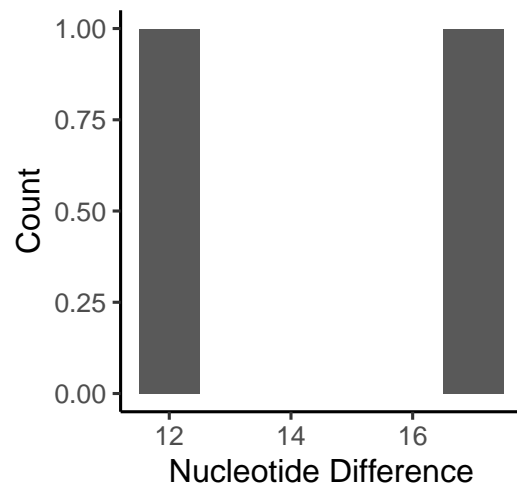
### IGHV3-13\*01

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



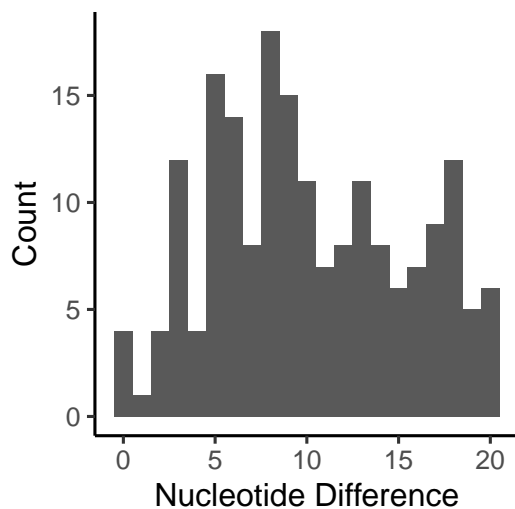
### IGHV3-20\*03\_04

4 sequences assigned  
No exact matches.



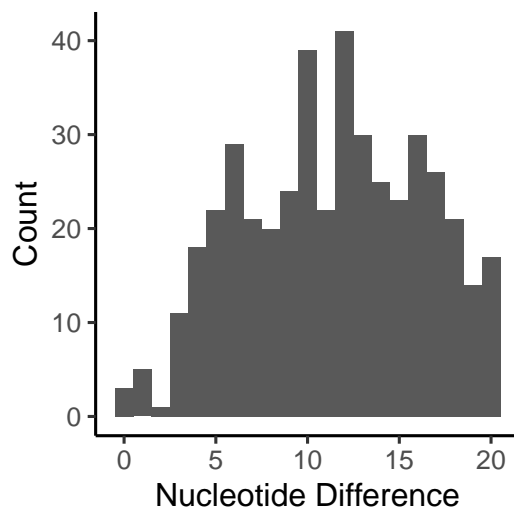
### IGHV3-9\*01

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



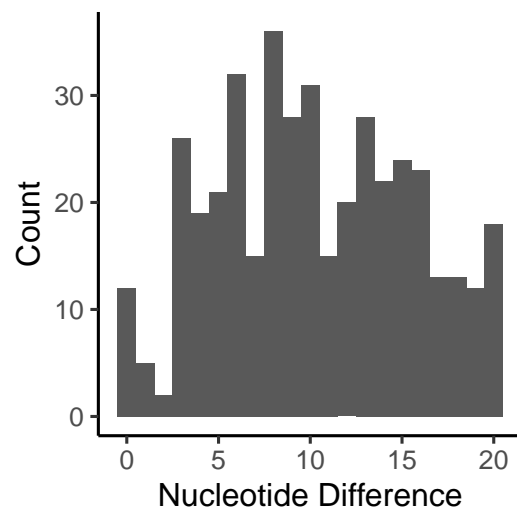
### IGHV3-15\*01\_02

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



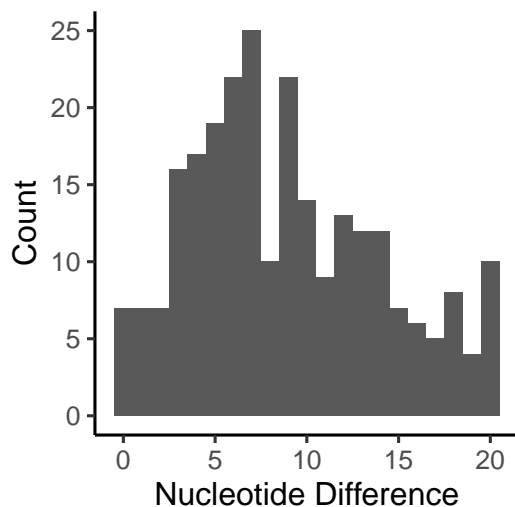
### IGHV3-21\*01\_02

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



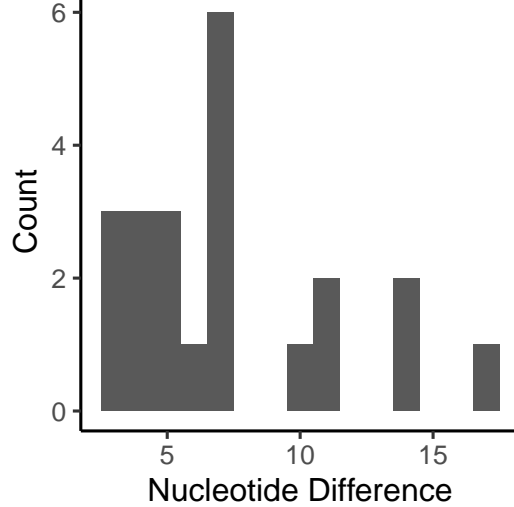
### IGHV3-11\*01

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



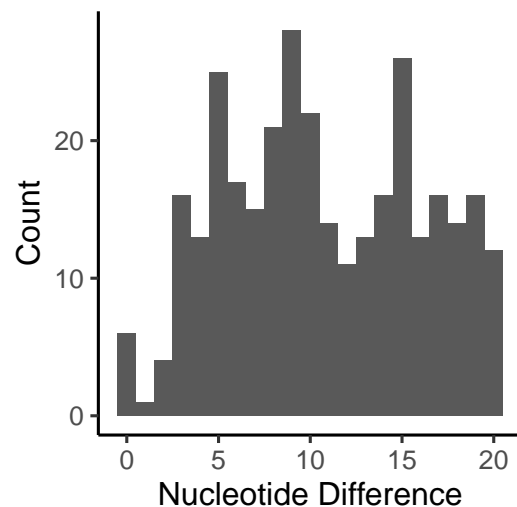
### IGHV3-20\*01\_02

22 sequences assigned  
No exact matches.



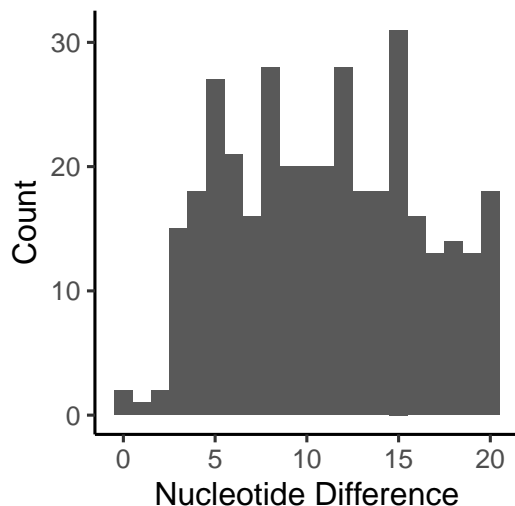
### IGHV3-30-3\*01

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



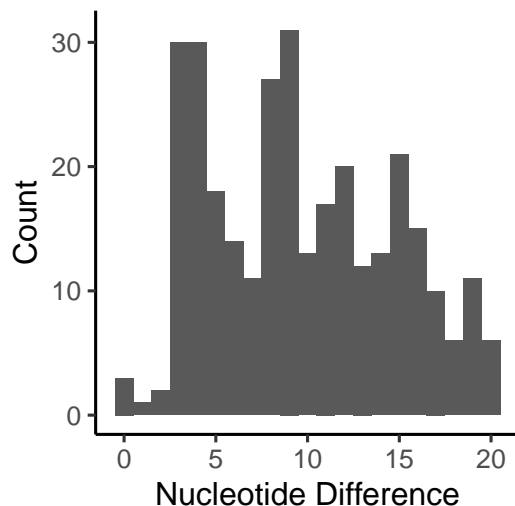
### IGHV3-33\*01

457 sequences assigned  
2 (0.4%) exact matches, in which:  
2 unique CDR3  
1 unique J



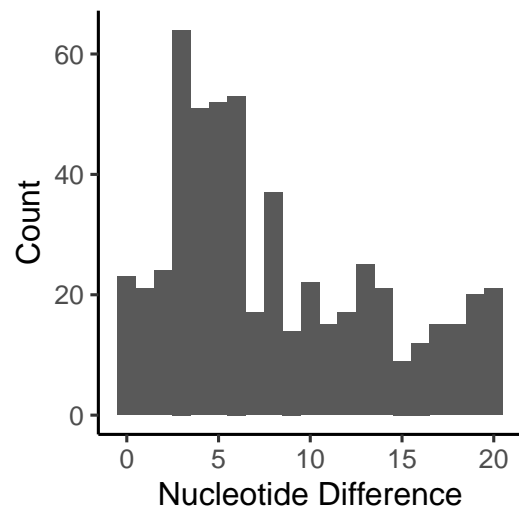
### IGHV3-48\*02

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



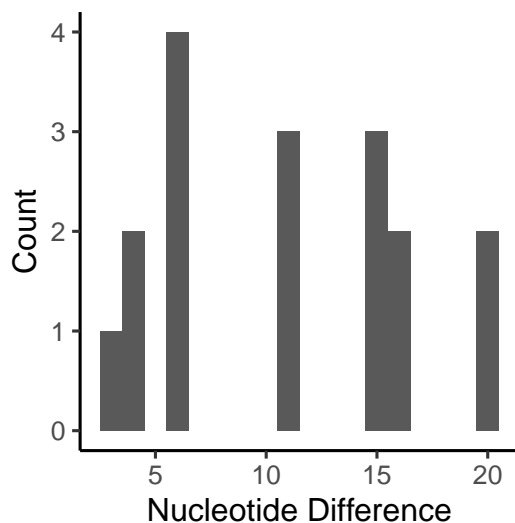
### IGHV3-53\*01\_02

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



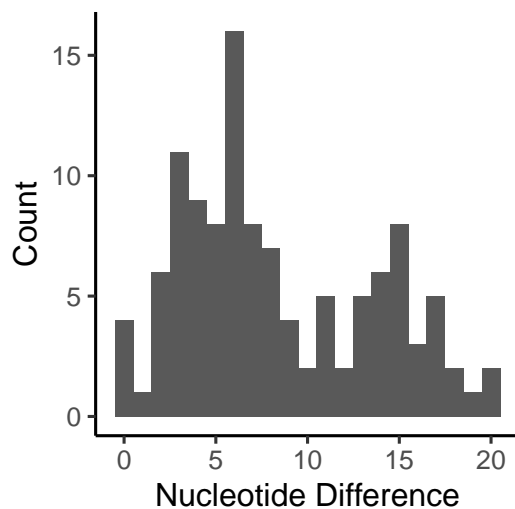
### IGHV3-43\*01

27 sequences assigned  
No exact matches.



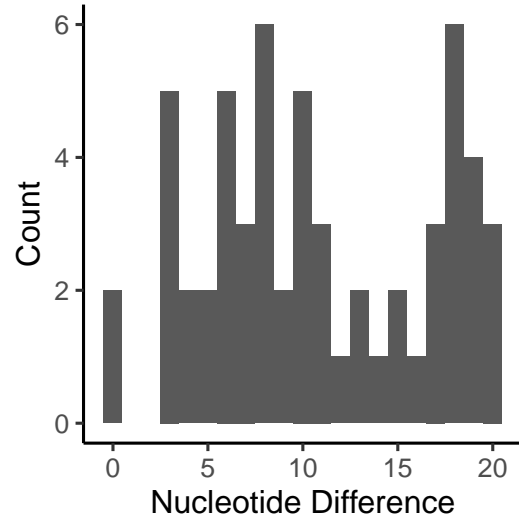
### IGHV3-49\*03\_05

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



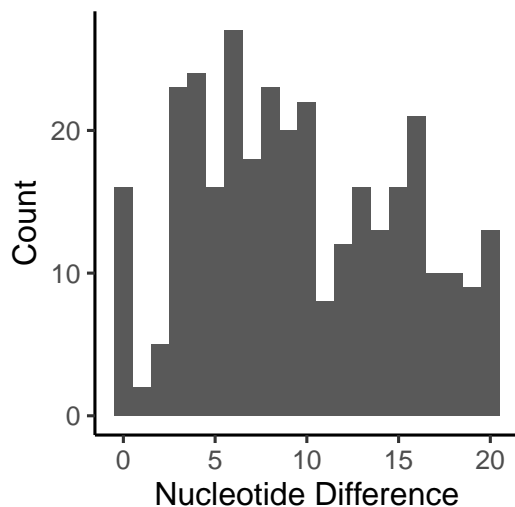
### IGHV3-64\*01

59 sequences assigned  
2 (3.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



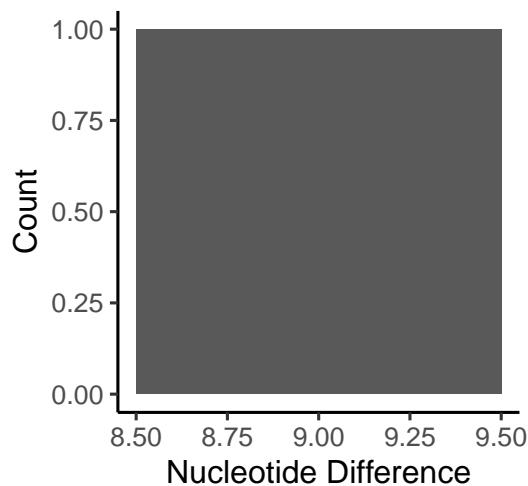
### IGHV3-48\*01

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



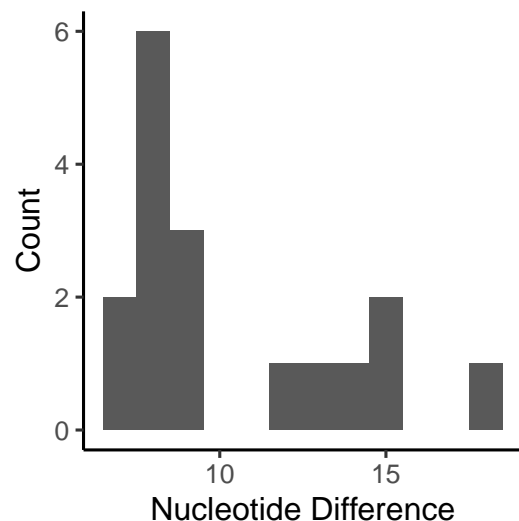
### IGHV3-52\*01\_03

1 sequences assigned  
No exact matches.



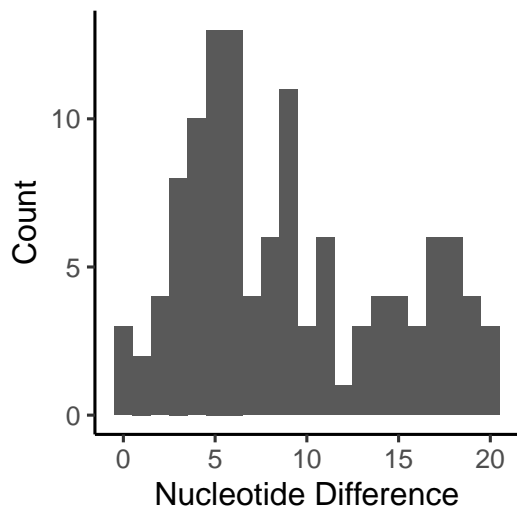
### IGHV3-64\*02\_07

19 sequences assigned  
No exact matches.



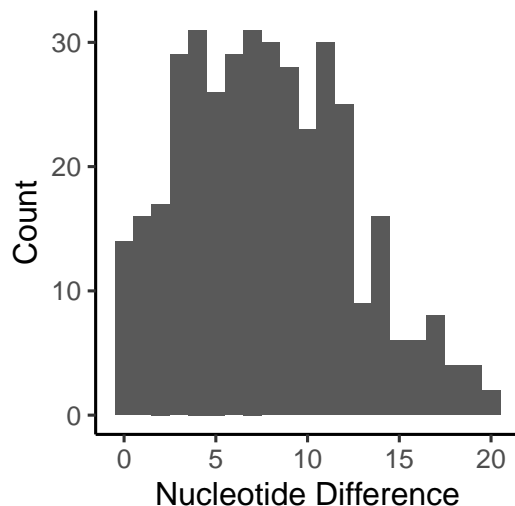
### IGHV3-66\*02

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



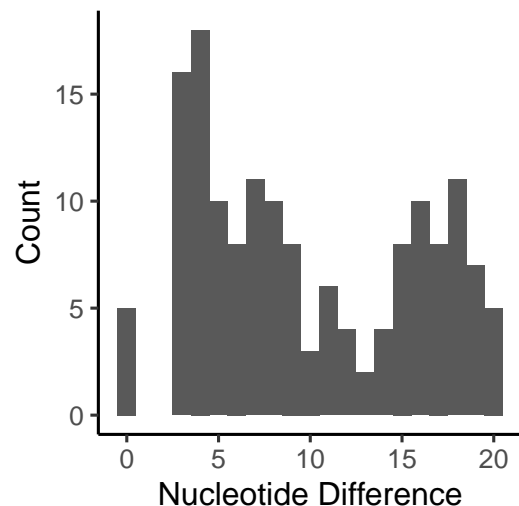
### IGHV3-72\*01

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



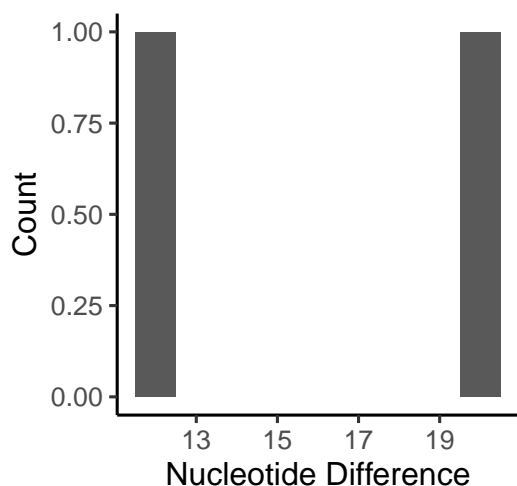
### IGHV4-4\*07

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



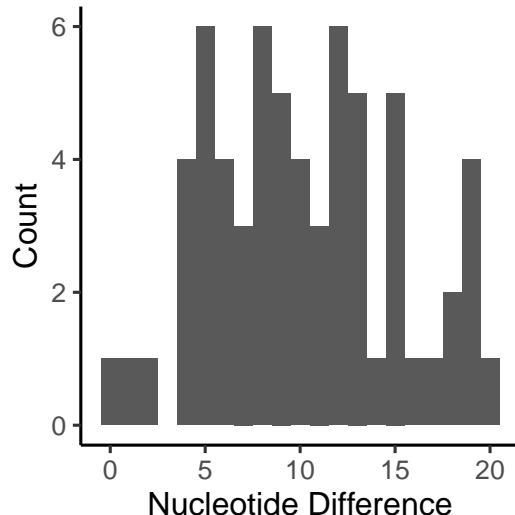
### IGHV3-69-1\*01

2 sequences assigned  
No exact matches.



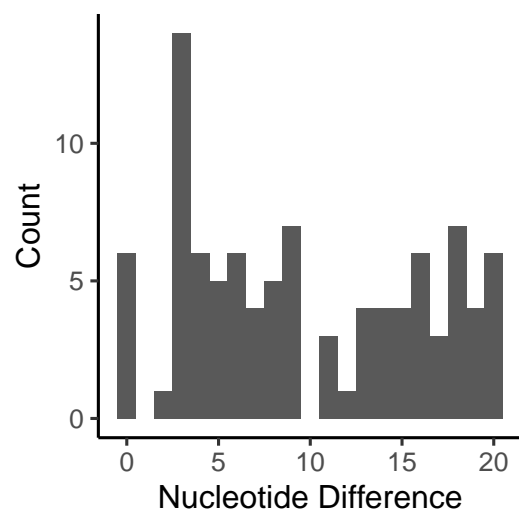
### IGHV3-73\*01\_02

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



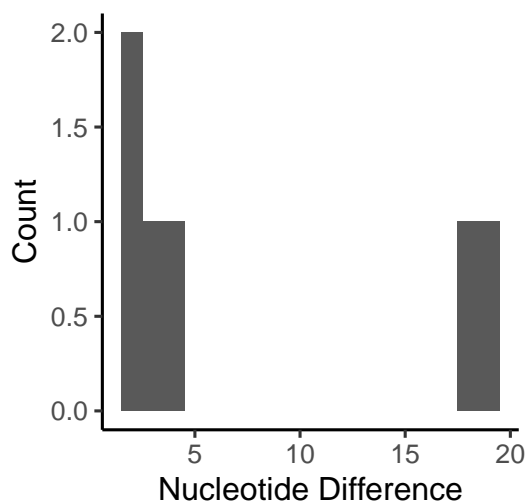
### IGHV4-30-4\*01

138 sequences assigned  
6 (4.3%) exact matches, in which:  
6 unique CDR3  
4 unique J



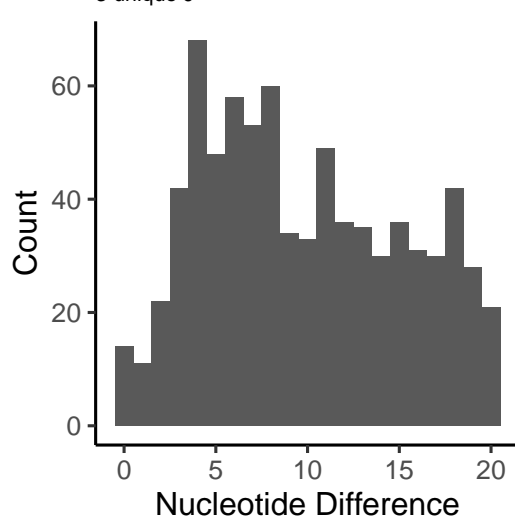
### IGHV3-69-1\*02

10 sequences assigned  
No exact matches.



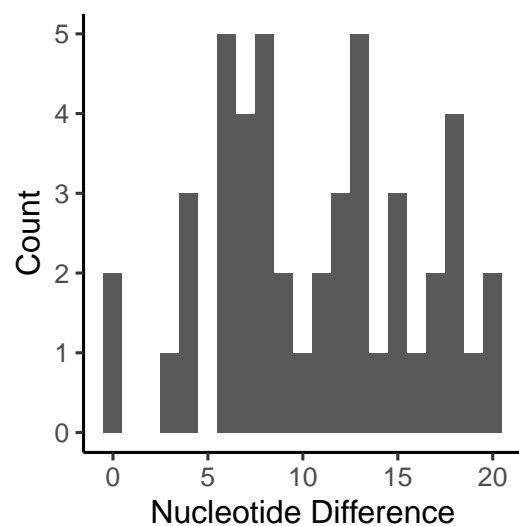
### IGHV3-74\*01\_02

886 sequences assigned  
14 (1.6%) exact matches, in which:  
10 unique CDR3  
3 unique J



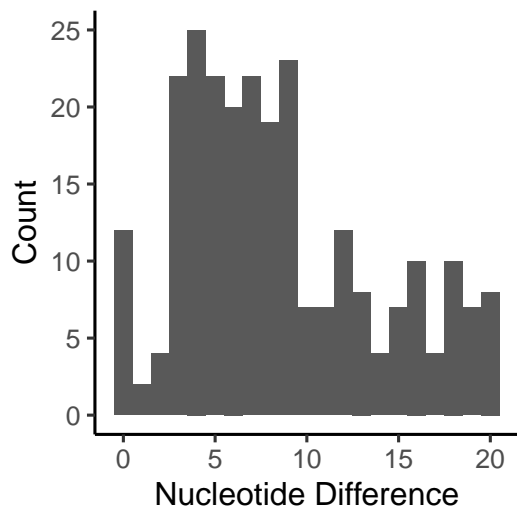
### IGHV4-30-2\*01

63 sequences assigned  
2 (3.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



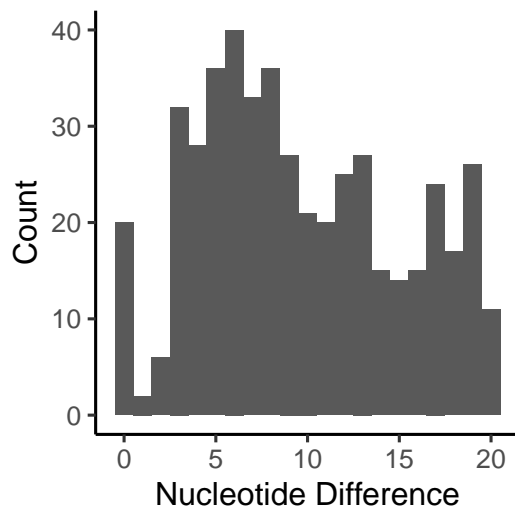
### IGHV4-31\*03\_04

314 sequences assigned  
12 (3.8%) exact matches, in which:  
10 unique CDR3  
5 unique J



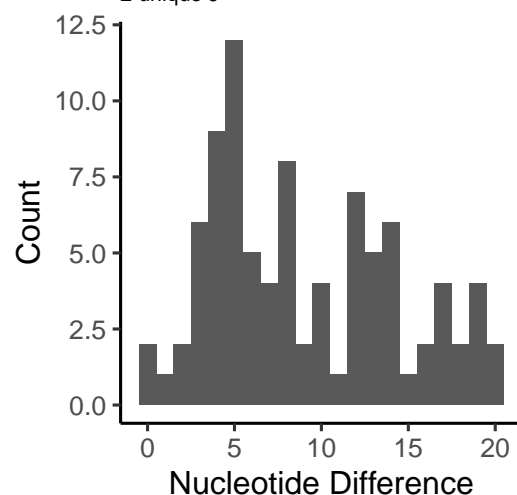
### IGHV4-59\*01\_07

594 sequences assigned  
20 (3.4%) exact matches, in which:  
16 unique CDR3  
5 unique J



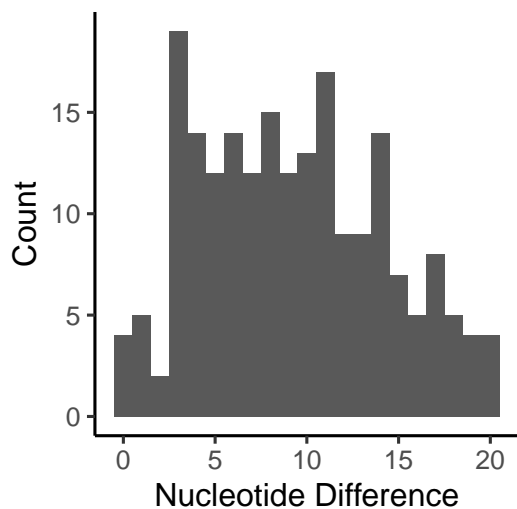
### IGHV5-51\*01\_03

113 sequences assigned  
2 (1.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



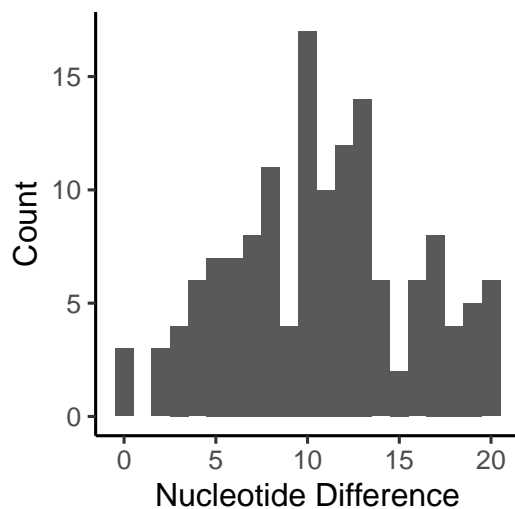
### IGHV4-34\*01\_02

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



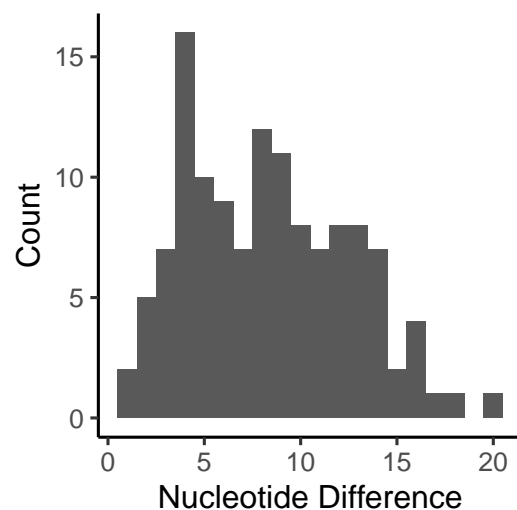
### IGHV4-61\*01

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



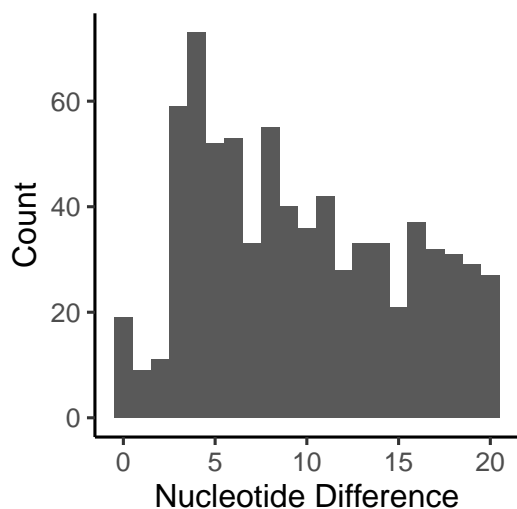
### IGHV6-1\*01\_02

139 sequences assigned  
No exact matches.



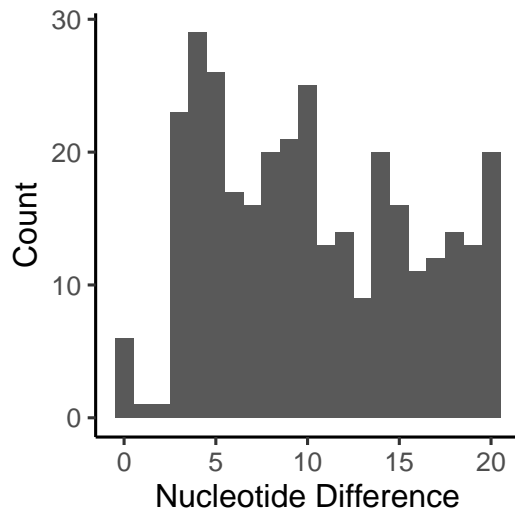
### IGHV4-39\*01\_05

937 sequences assigned  
19 (2%) exact matches, in which:  
18 unique CDR3  
4 unique J



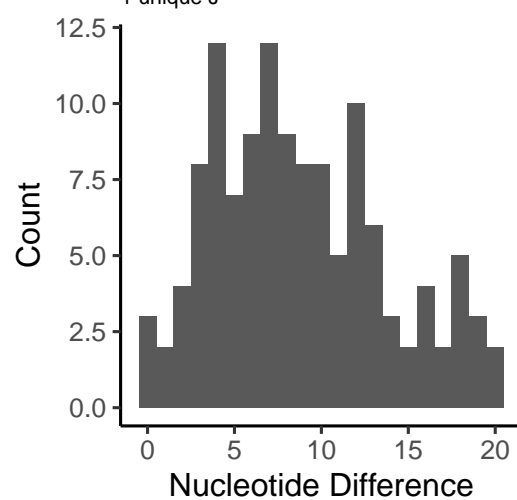
### IGHV4-61\*02

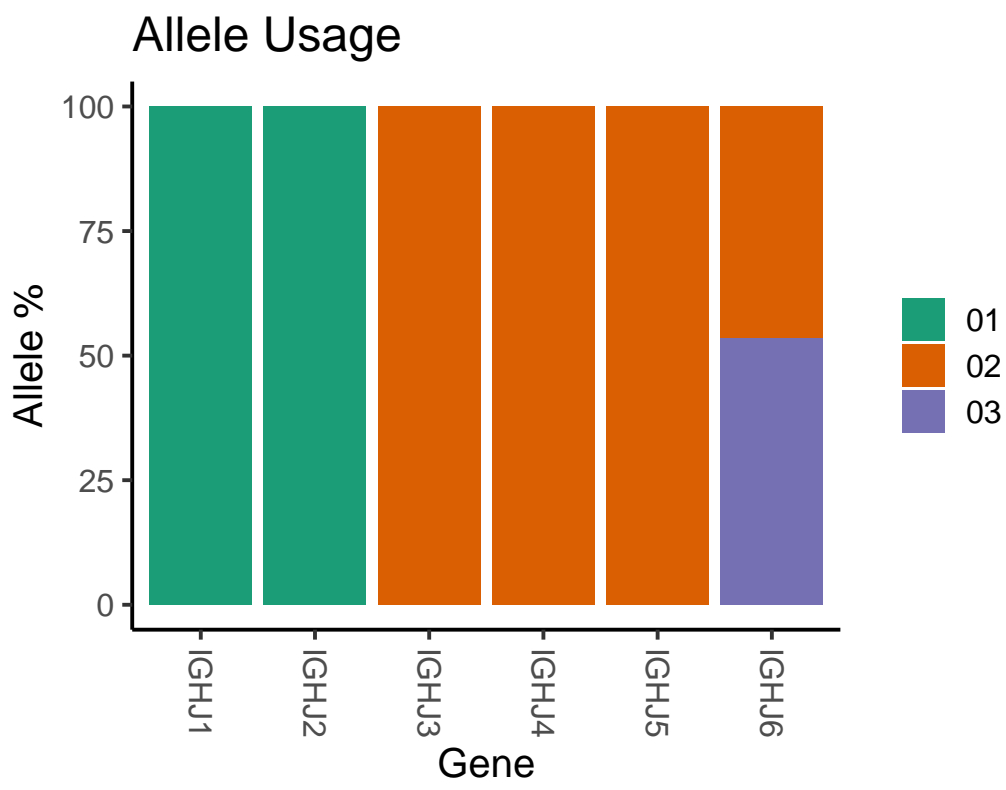
416 sequences assigned  
6 (1.4%) exact matches, in which:  
6 unique CDR3  
4 unique J



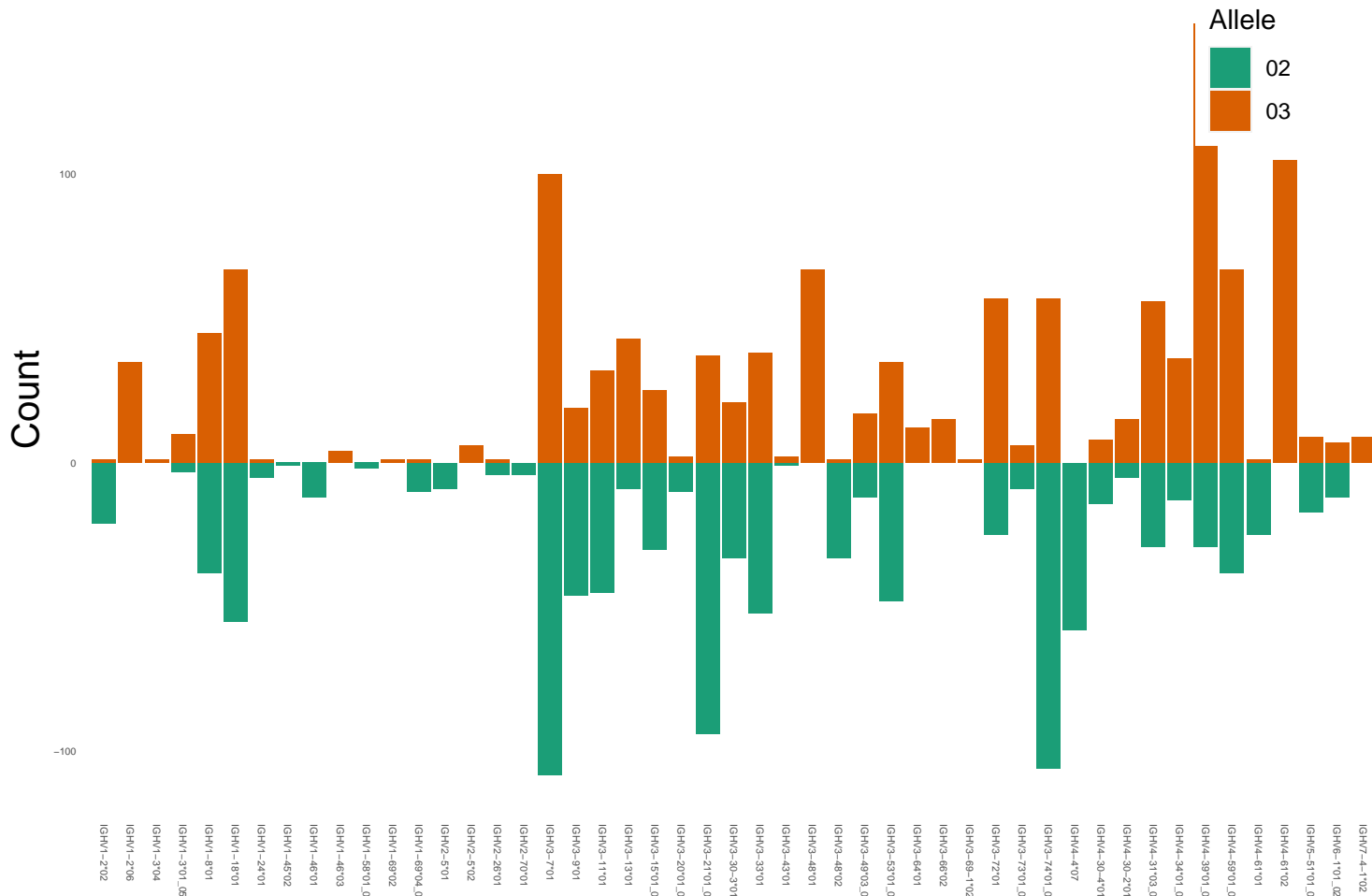
### IGHV7-4-1\*02

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





Sequence Count by IGHJ6 allele usage





Warning - no inferred sequences found.