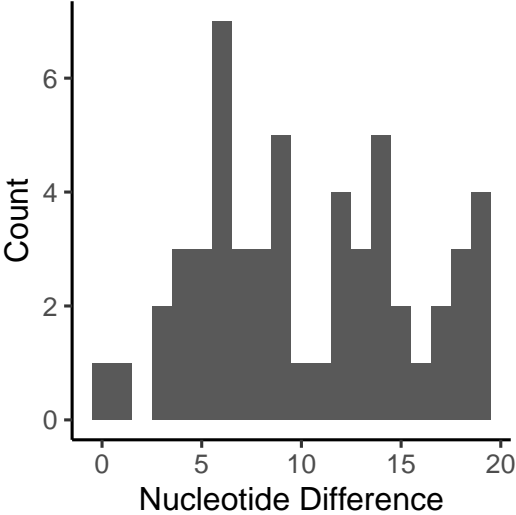


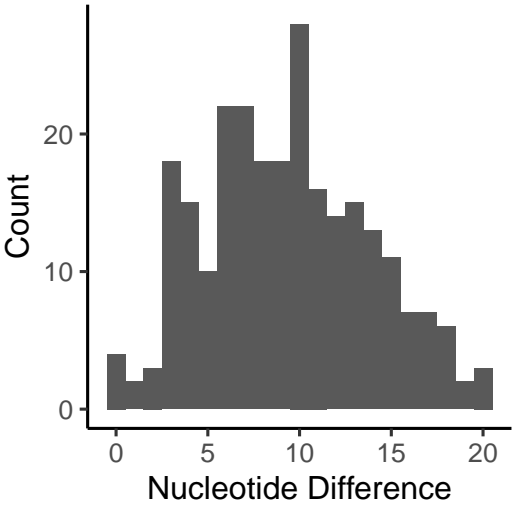
IGHV1-2\*04

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



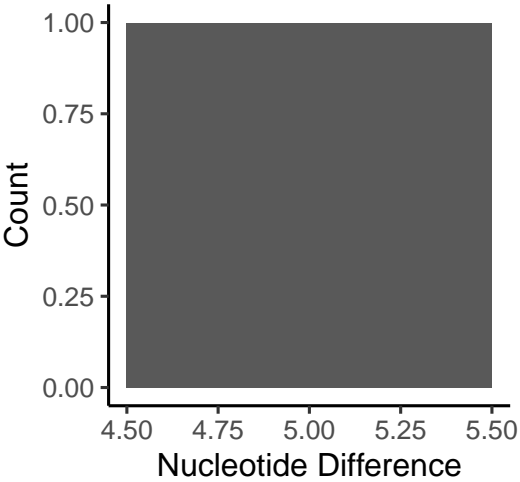
IGHV1-18\*01

313 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
1 unique J



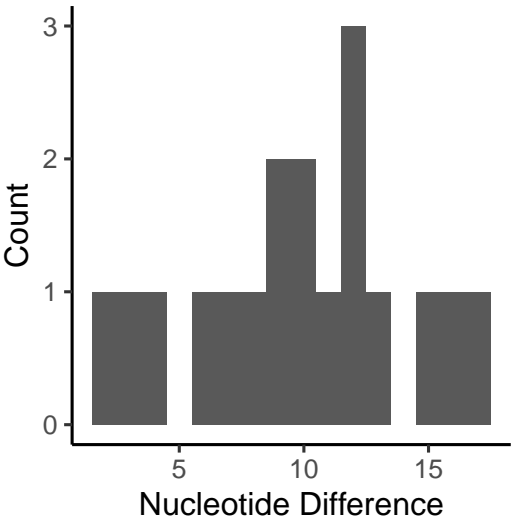
IGHV1-45\*02

5 sequences assigned  
No exact matches.



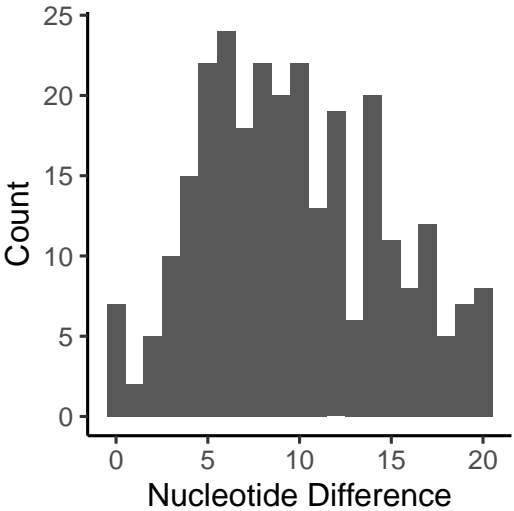
IGHV1-3\*04

20 sequences assigned  
No exact matches.



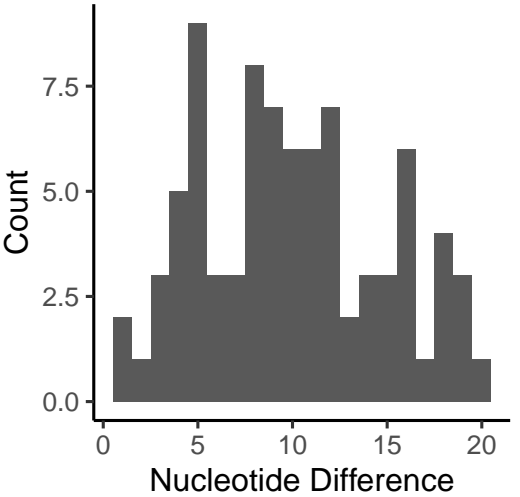
IGHV1-18\*04

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



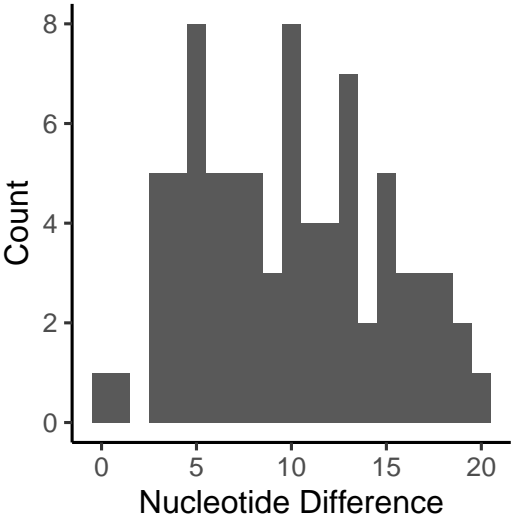
IGHV1-46\*01

101 sequences assigned  
No exact matches.



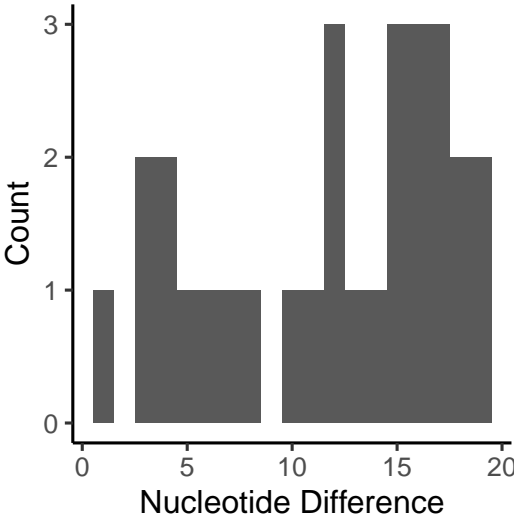
IGHV1-3\*01\_05

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



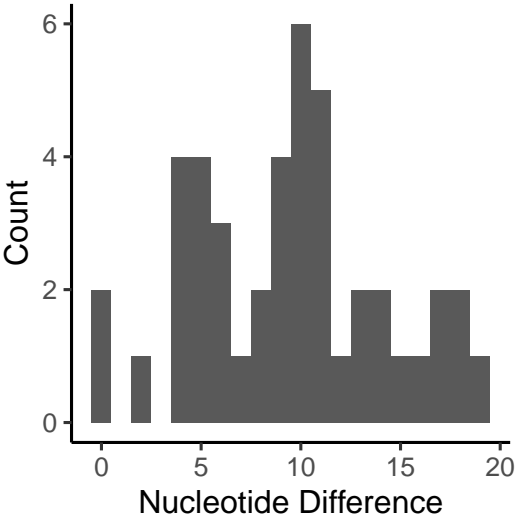
IGHV1-24\*01

38 sequences assigned  
No exact matches.



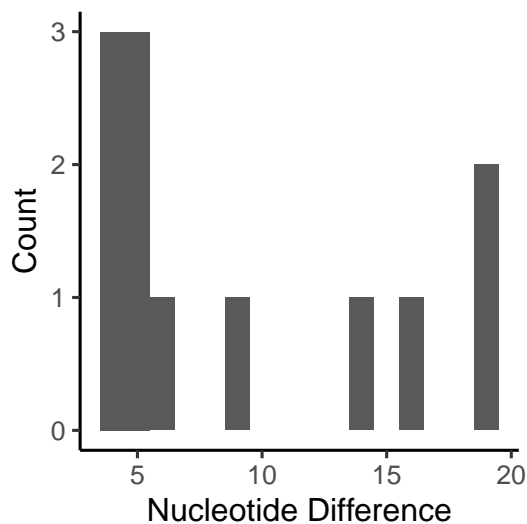
IGHV1-46\*04

53 sequences assigned  
2 (3.8%) exact matches, in which:  
2 unique CDR3  
1 unique J



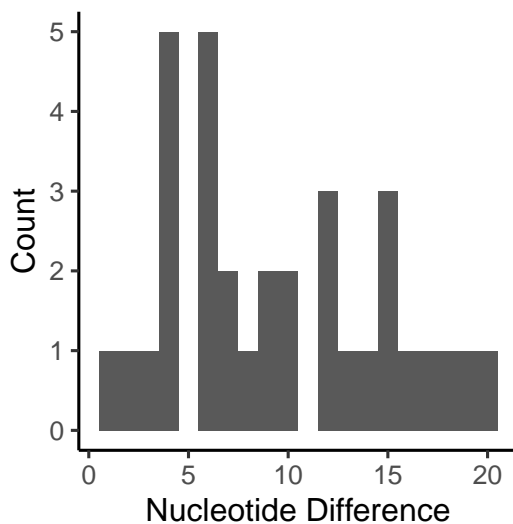
### IGHV1-58\*02

24 sequences assigned  
No exact matches.



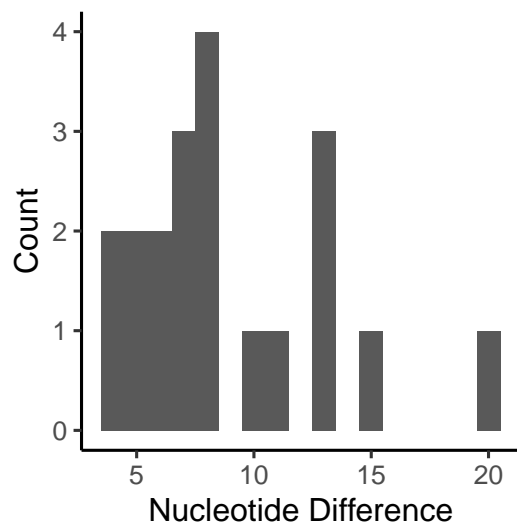
### IGHV1-69\*10

61 sequences assigned  
No exact matches.



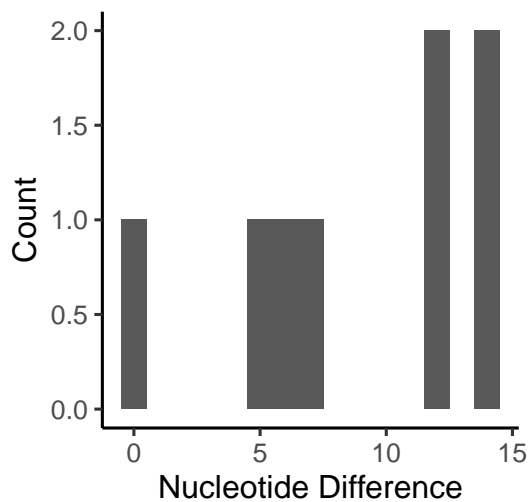
### IGHV2-70\*01

23 sequences assigned  
No exact matches.



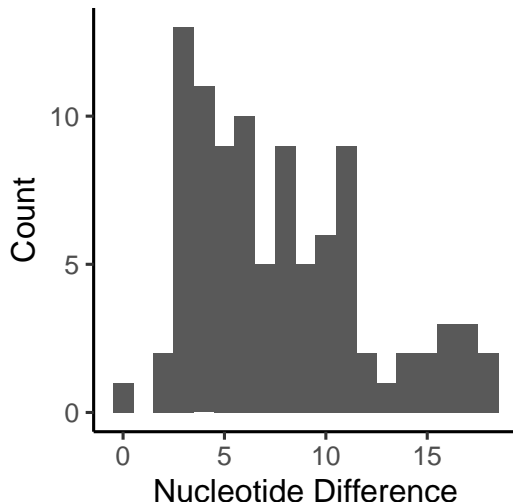
### IGHV1-58\*01\_03

42 sequences assigned  
1 (2.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



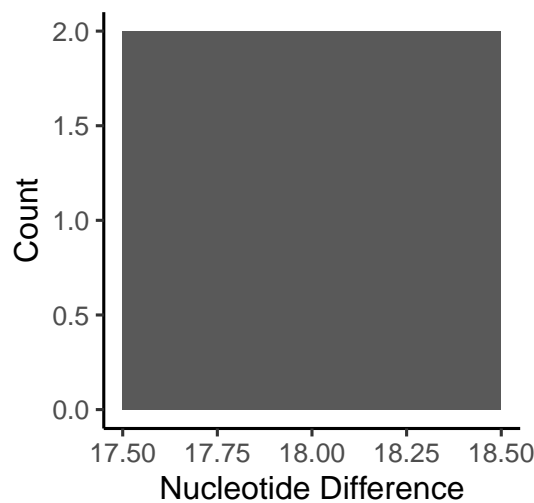
### IGHV2-5\*02

112 sequences assigned  
1 (0.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



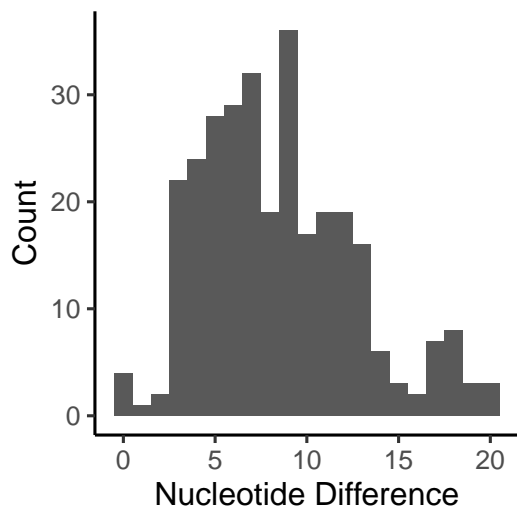
### IGHV2-70D\*04

2 sequences assigned  
No exact matches.



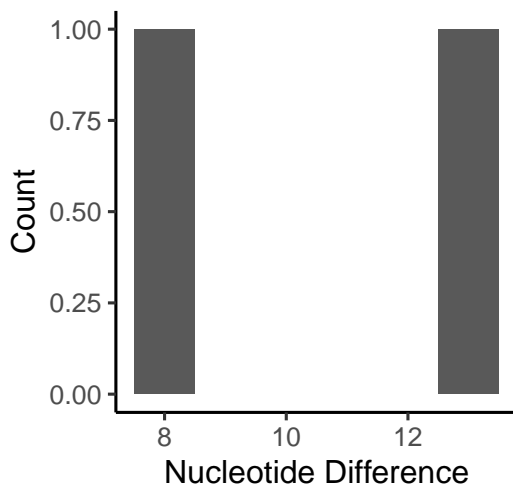
### IGHV1-69\*01\_12\_13

317 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
3 unique J



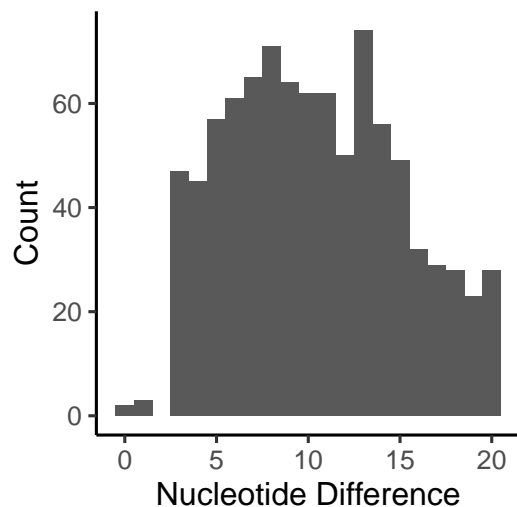
### IGHV2-26\*01

5 sequences assigned  
No exact matches.



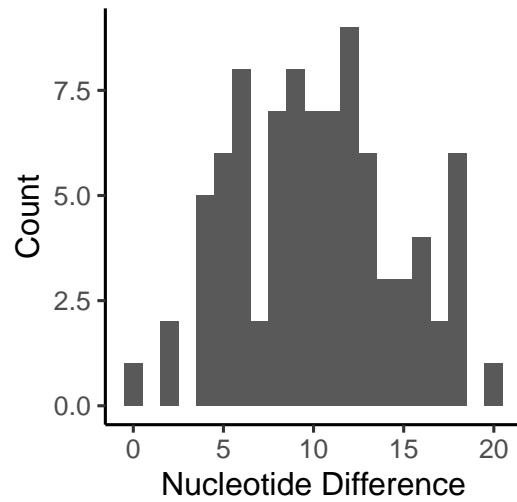
### IGHV3-7\*03

960 sequences assigned  
2 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



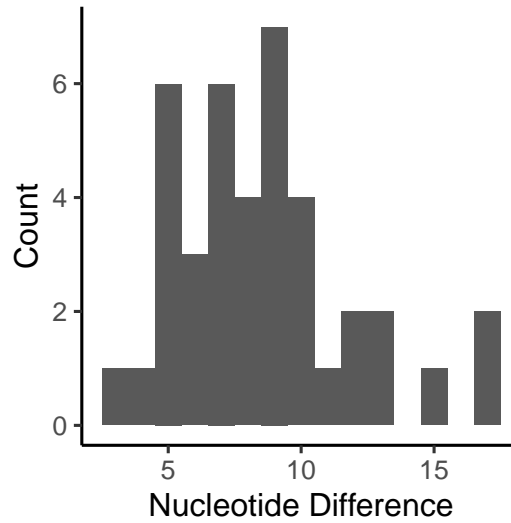
### IGHV3-11\*06

95 sequences assigned  
1 (1.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



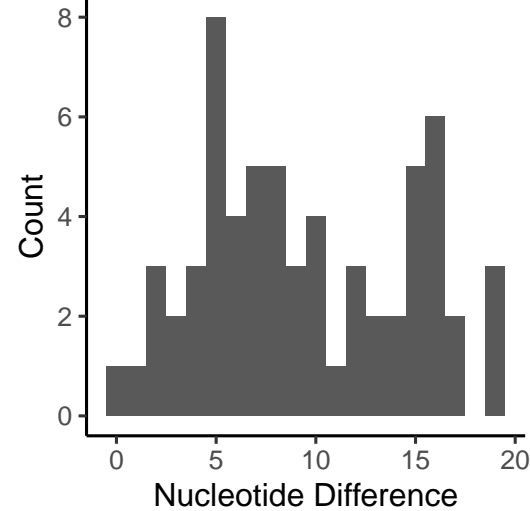
### IGHV3-13\*04

74 sequences assigned  
No exact matches.



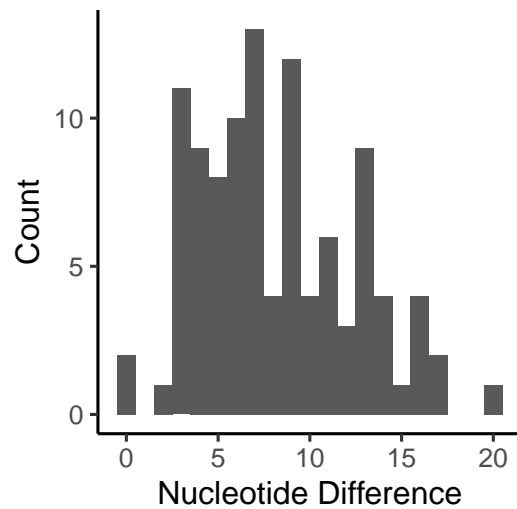
### IGHV3-20\*03\_04

68 sequences assigned  
1 (1.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



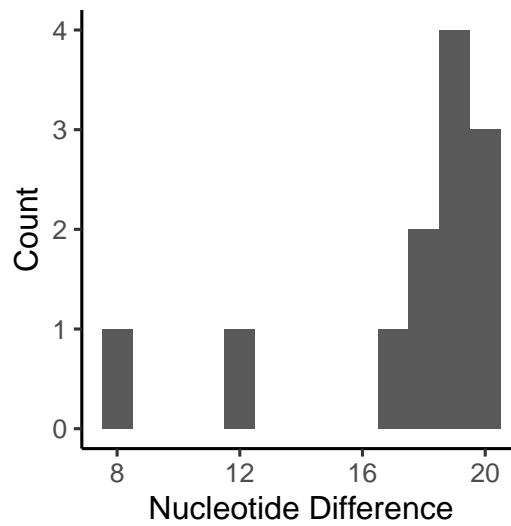
### IGHV3-11\*03\_05

116 sequences assigned  
2 (1.7%) exact matches, in which:  
2 unique CDR3  
1 unique J



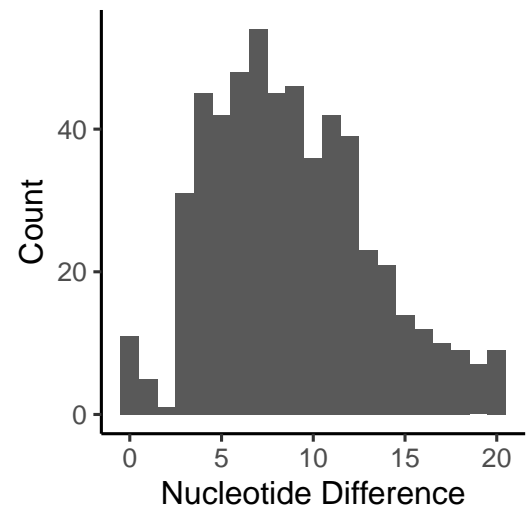
### IGHV3-13\*05

12 sequences assigned  
No exact matches.



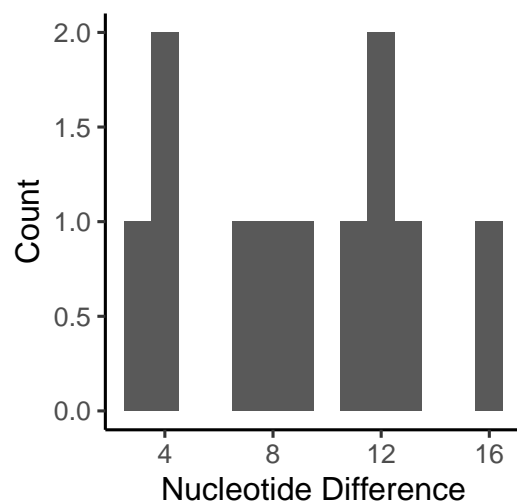
### IGHV3-21\*01\_02

590 sequences assigned  
11 (1.9%) exact matches, in which:  
6 unique CDR3  
4 unique J



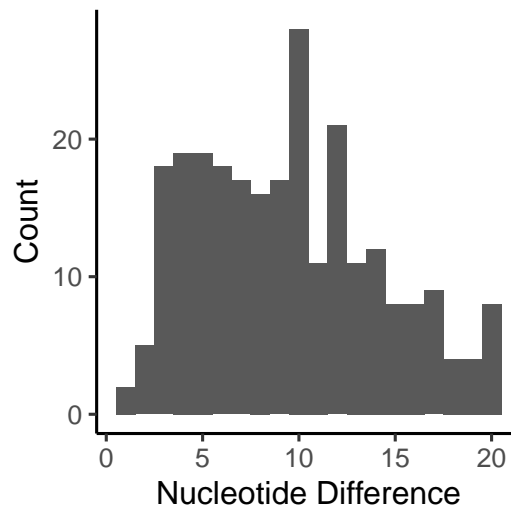
### IGHV3-13\*01

12 sequences assigned  
No exact matches.



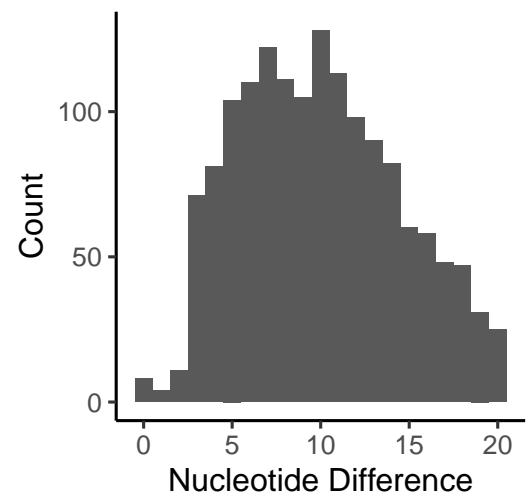
### IGHV3-15\*01\_02

292 sequences assigned  
No exact matches.



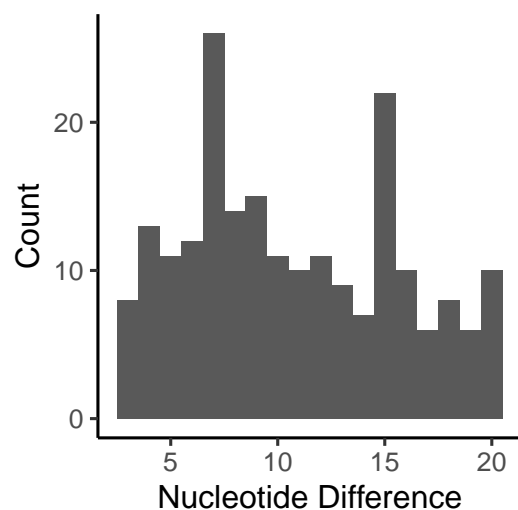
### IGHV3-23\*01\_04

1678 sequences assigned  
8 (0.5%) exact matches, in which:  
6 unique CDR3  
4 unique J



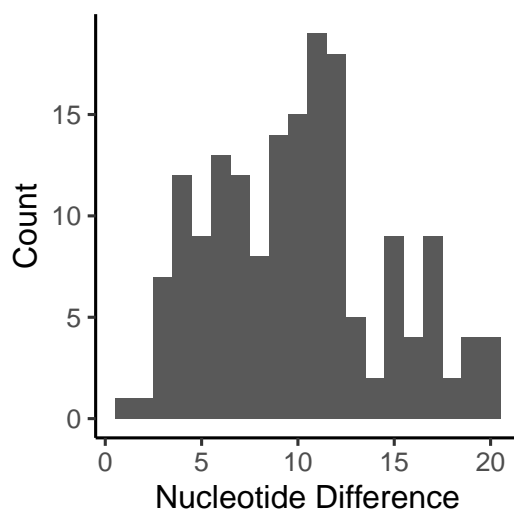
### IGHV3-30\*01

238 sequences assigned  
No exact matches.



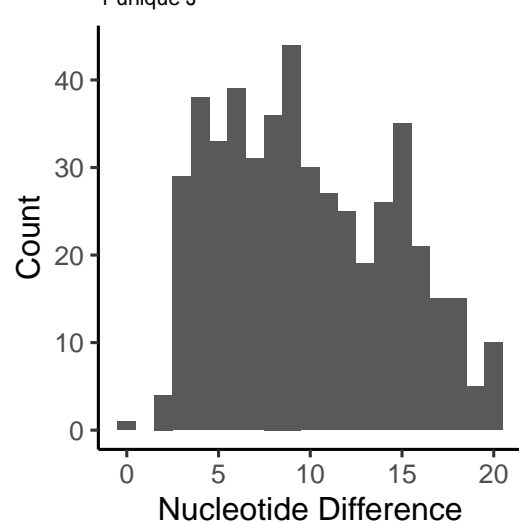
### IGHV3-33\*08

182 sequences assigned  
No exact matches.



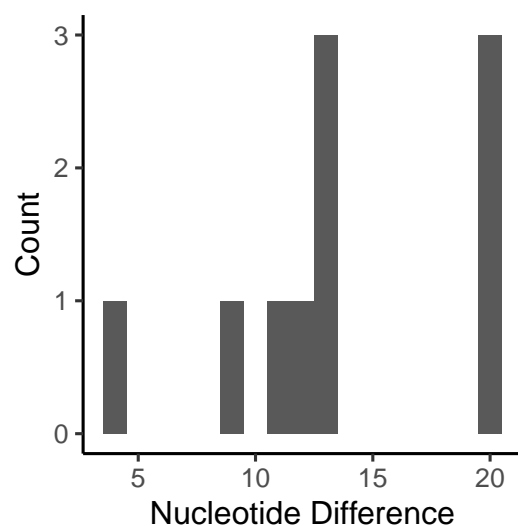
### IGHV3-48\*02

540 sequences assigned  
1 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



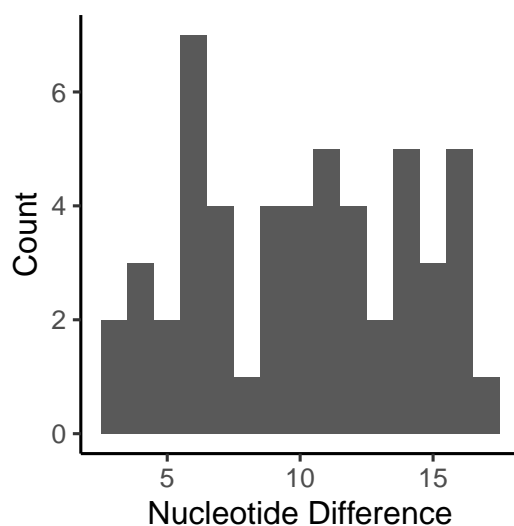
### IGHV3-30-3\*03

15 sequences assigned  
No exact matches.



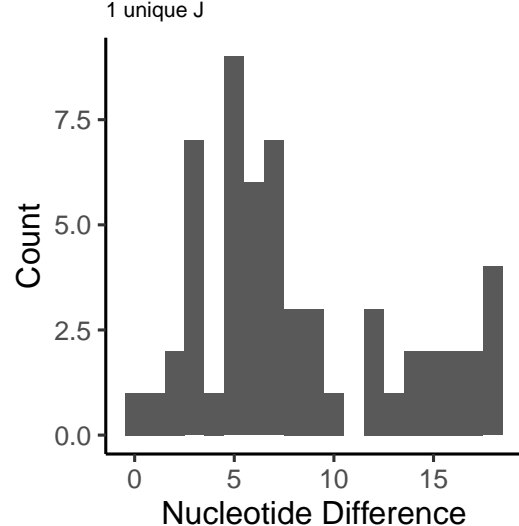
### IGHV3-43\*01

63 sequences assigned  
No exact matches.



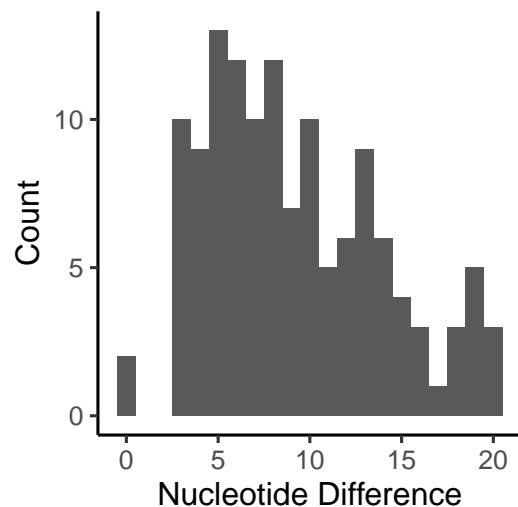
### IGHV3-49\*04

66 sequences assigned  
1 (1.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



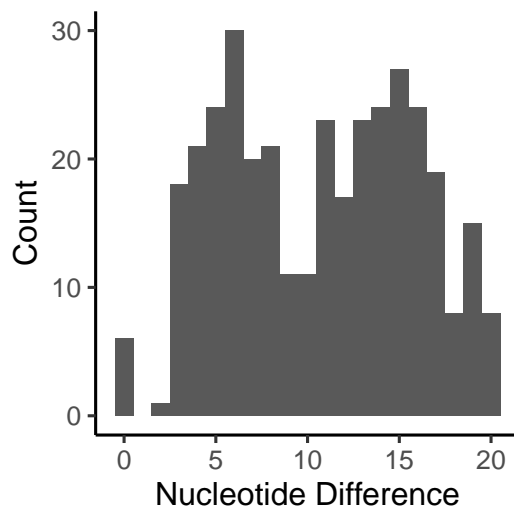
### IGHV3-33\*01

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



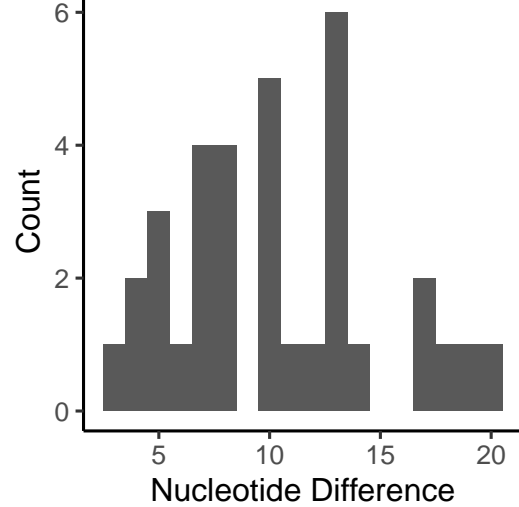
### IGHV3-48\*01

381 sequences assigned  
6 (1.6%) exact matches, in which:  
5 unique CDR3  
2 unique J



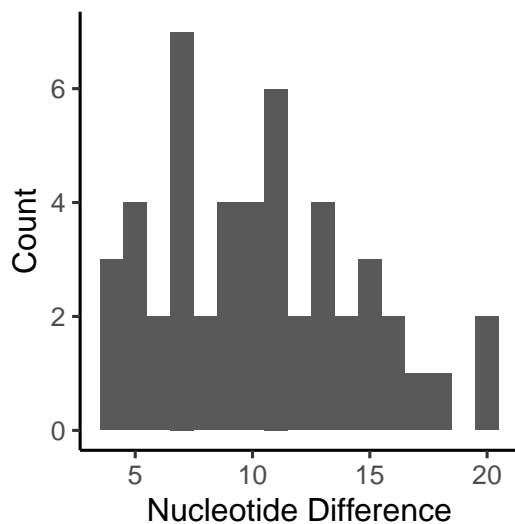
### IGHV3-49\*03\_05

34 sequences assigned  
No exact matches.



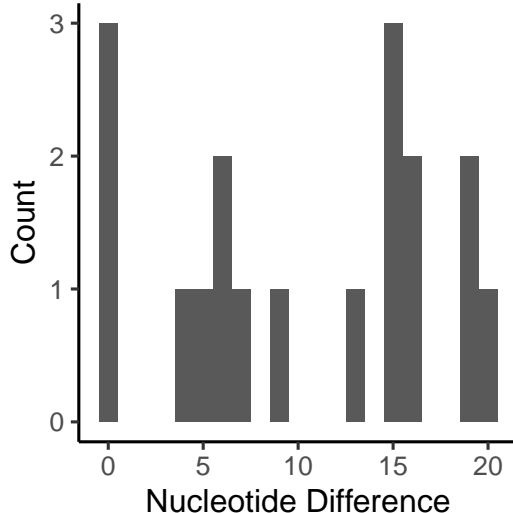
### IGHV3-53\*04

55 sequences assigned  
No exact matches.



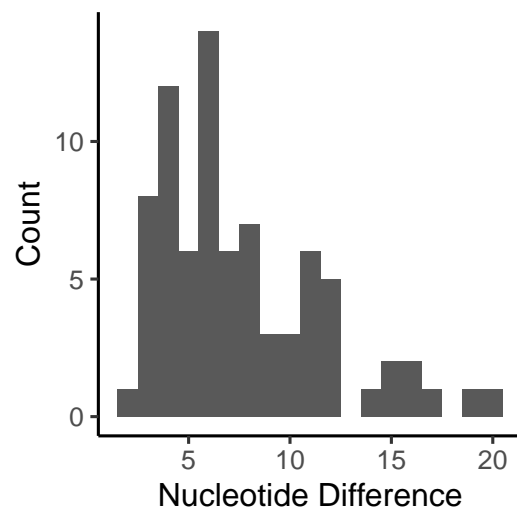
### IGHV3-64\*02\_07

18 sequences assigned  
3 (16.7%) exact matches, in which:  
2 unique CDR3  
1 unique J



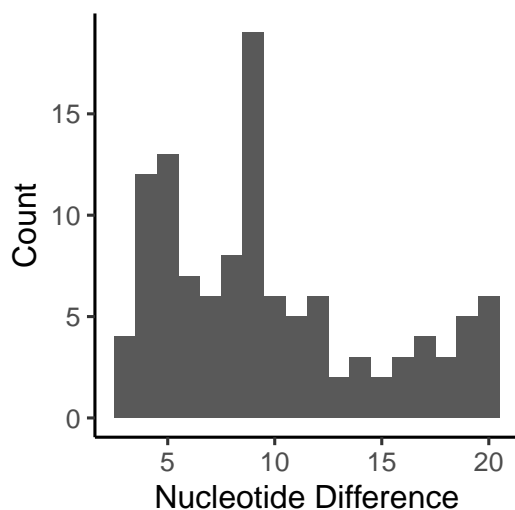
### IGHV3-73\*01\_02

80 sequences assigned  
No exact matches.



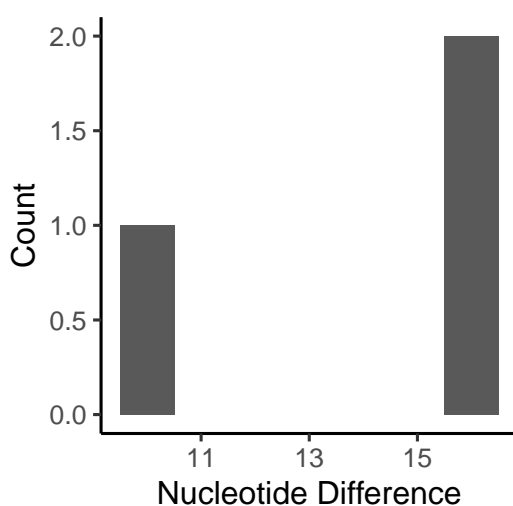
### IGHV3-53\*01\_02

119 sequences assigned  
No exact matches.



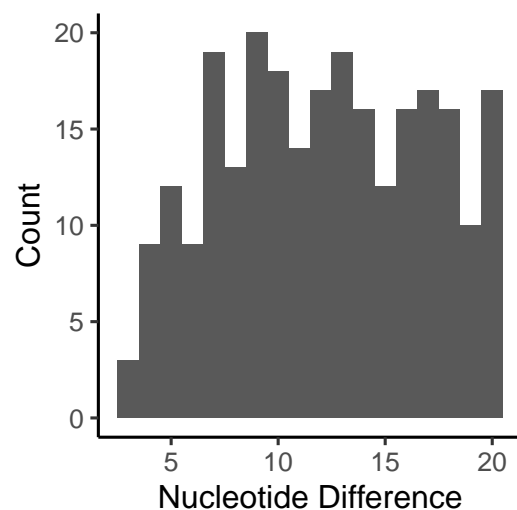
### IGHV3-69-1\*01

8 sequences assigned  
No exact matches.



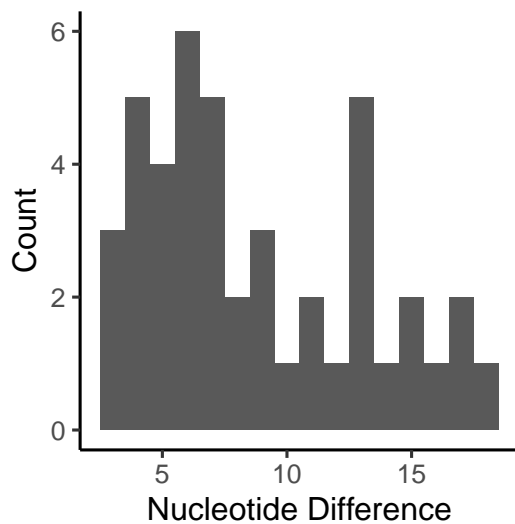
### IGHV3-74\*03

318 sequences assigned  
No exact matches.



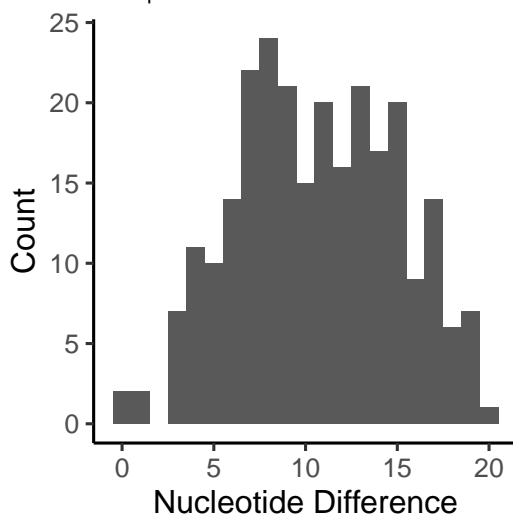
### IGHV3-64\*01

50 sequences assigned  
No exact matches.



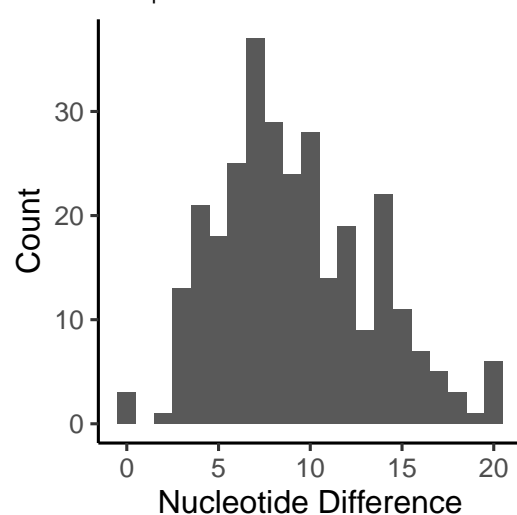
### IGHV3-72\*01

281 sequences assigned  
2 (0.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



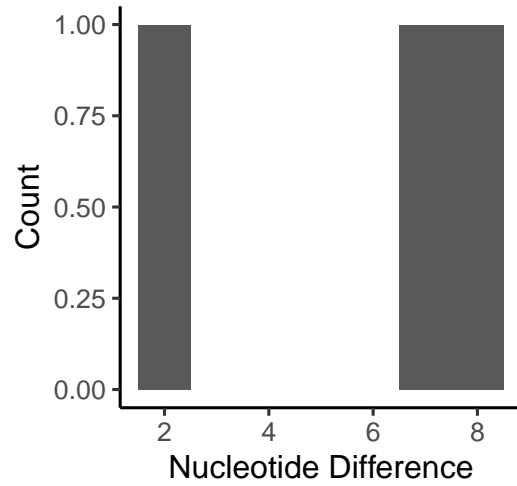
### IGHV3-74\*01\_02

320 sequences assigned  
3 (0.9%) exact matches, in which:  
2 unique CDR3  
2 unique J



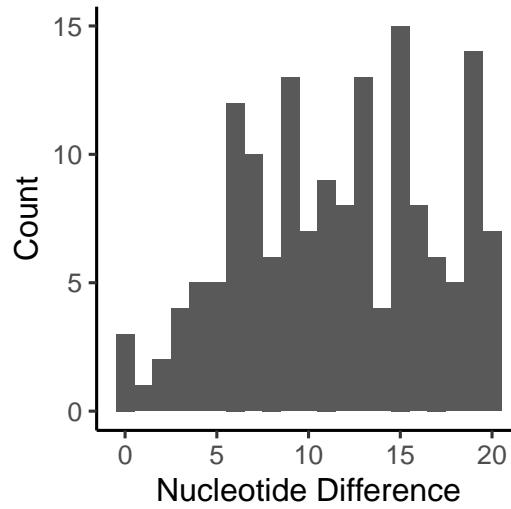
### IGHV3-43D\*04

3 sequences assigned  
No exact matches.



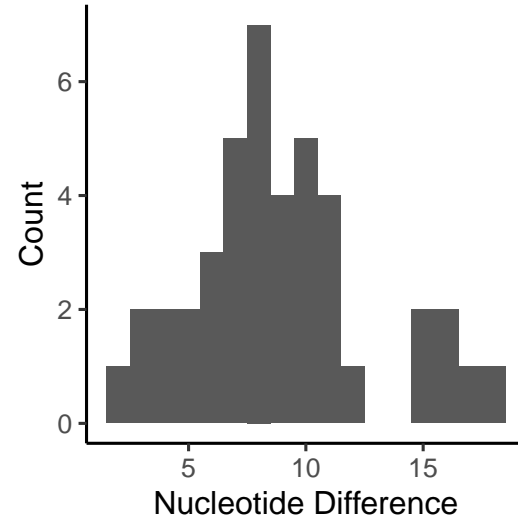
### IGHV4-4\*02\_03

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



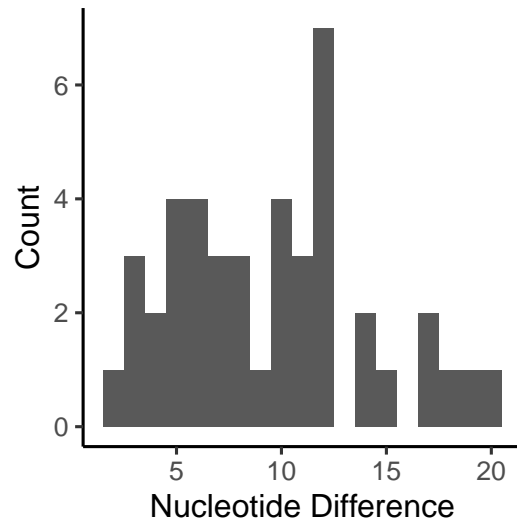
### IGHV4-31\*01

49 sequences assigned  
No exact matches.



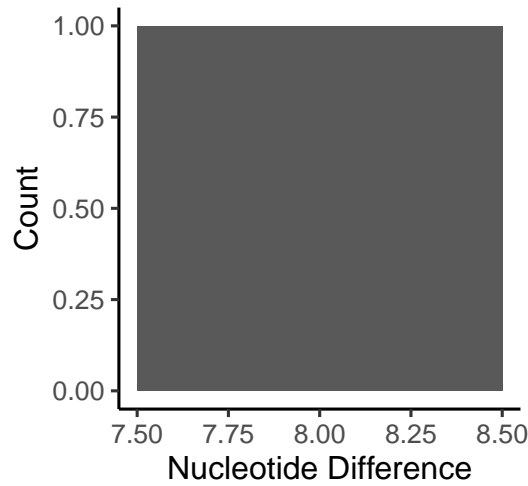
### IGHV3-64D\*06

49 sequences assigned  
No exact matches.



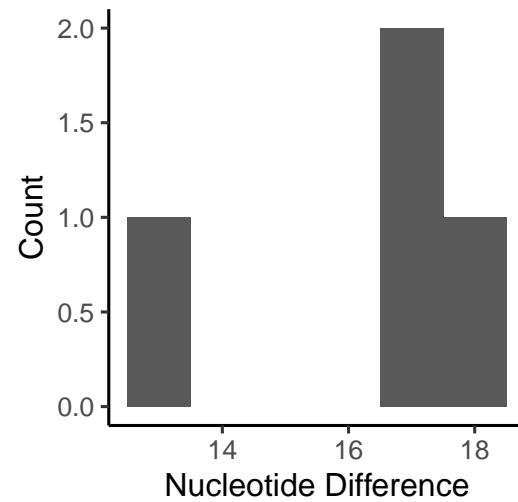
### IGHV4-28\*01\_07

2 sequences assigned  
No exact matches.



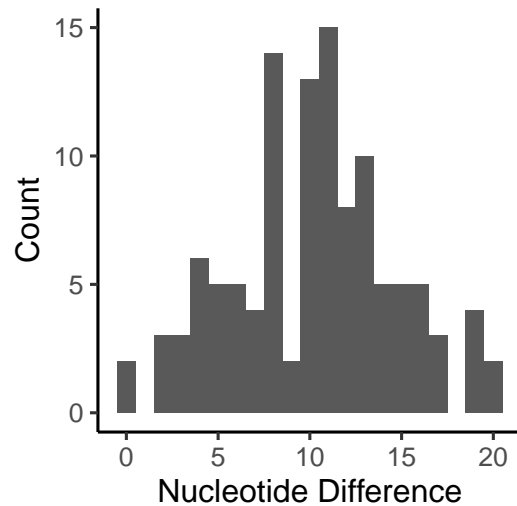
### IGHV4-31\*02

24 sequences assigned  
No exact matches.



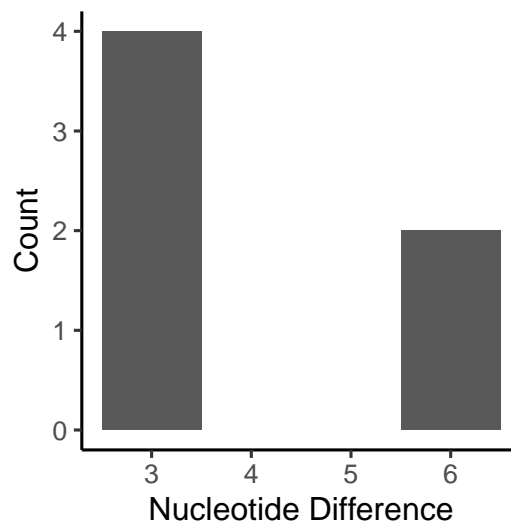
### IGHV3-64D\*09

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



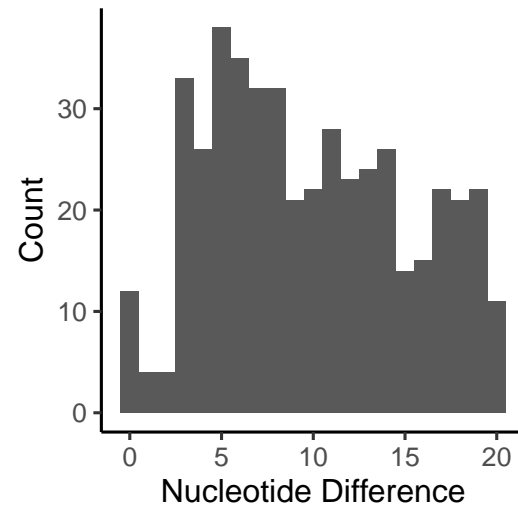
### IGHV4-28\*02\_05

6 sequences assigned  
No exact matches.



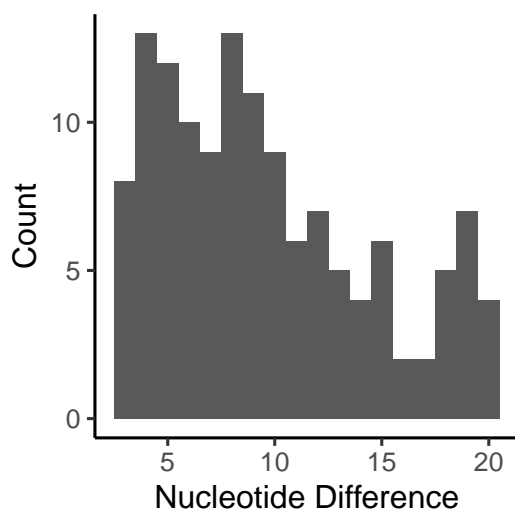
### IGHV4-34\*01\_02

540 sequences assigned  
12 (2.2%) exact matches, in which:  
9 unique CDR3  
5 unique J



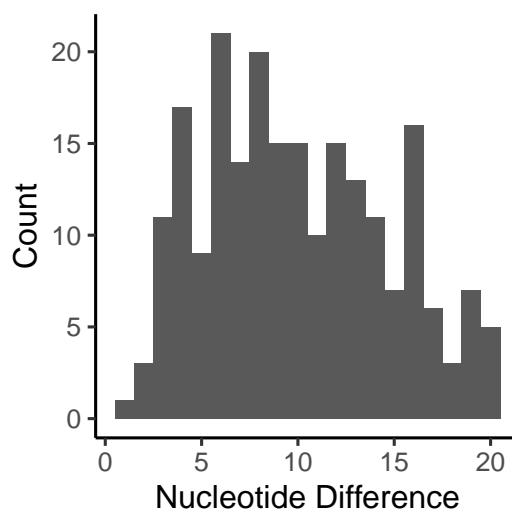
### IGHV4-38-2\*01

138 sequences assigned  
No exact matches.



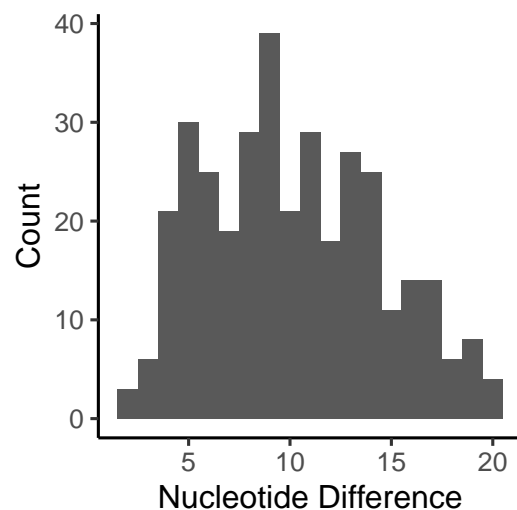
### IGHV4-39\*01\_05

260 sequences assigned  
No exact matches.



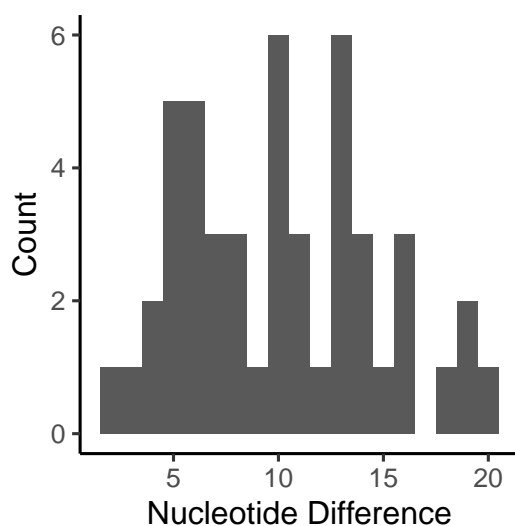
### IGHV4-59\*11

386 sequences assigned  
No exact matches.



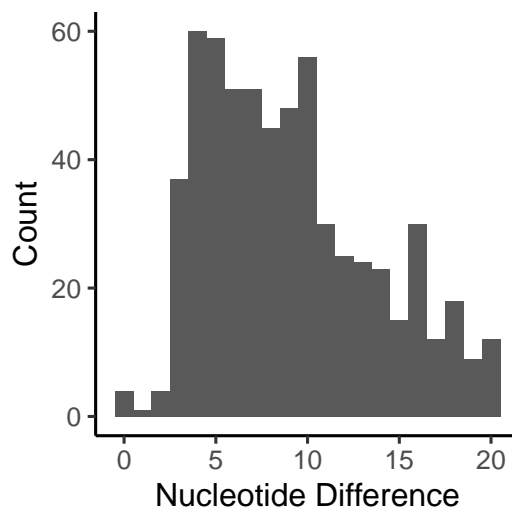
### IGHV4-38-2\*02

65 sequences assigned  
No exact matches.



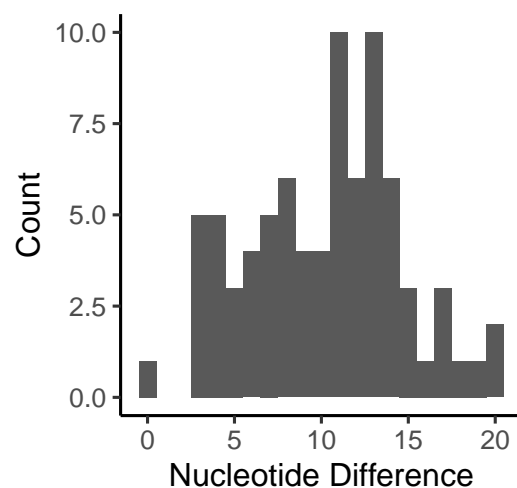
### IGHV4-59\*08

708 sequences assigned  
4 (0.6%) exact matches, in which:  
4 unique CDR3  
3 unique J



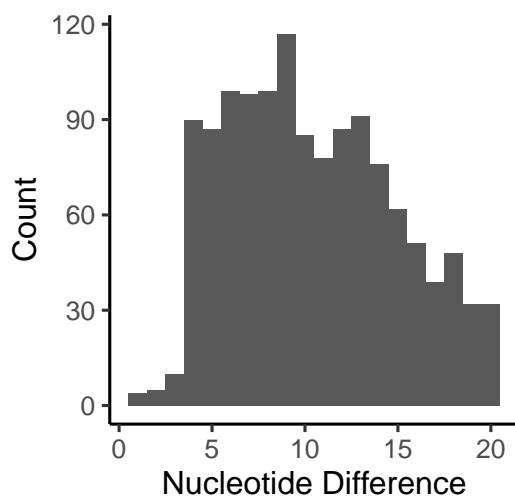
### IGHV4-61\*01

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



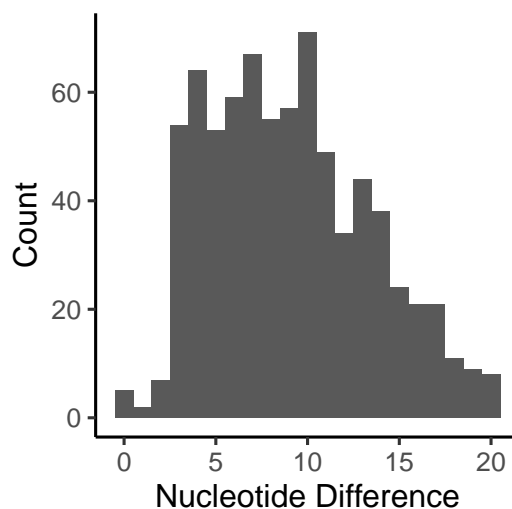
### IGHV4-39\*02

1483 sequences assigned  
No exact matches.



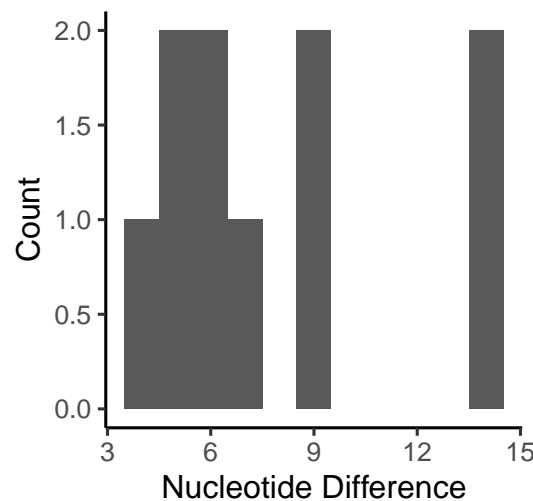
### IGHV4-59\*01\_07

831 sequences assigned  
5 (0.6%) exact matches, in which:  
5 unique CDR3  
2 unique J



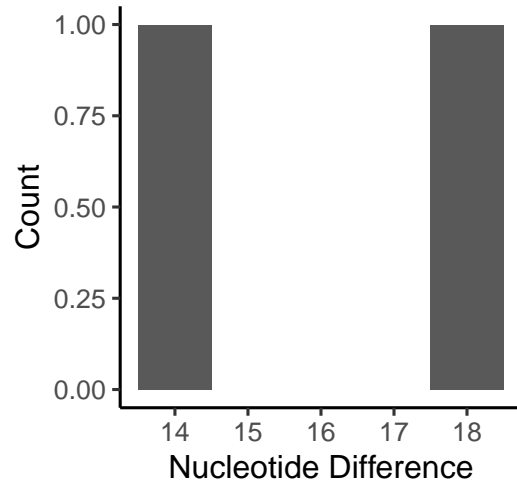
### IGHV4-61\*08

11 sequences assigned  
No exact matches.



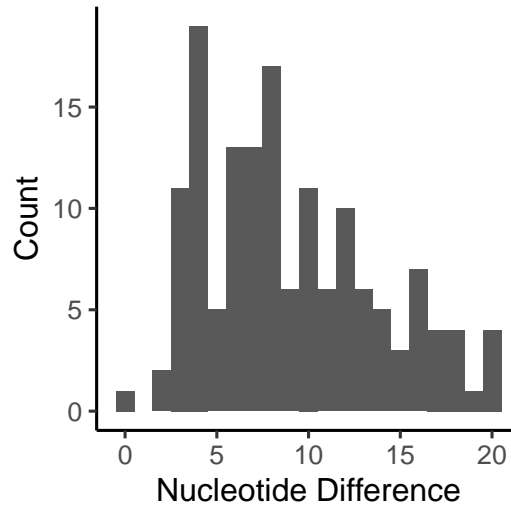
### IGHV4/OR15-8\*01

3 sequences assigned  
No exact matches.



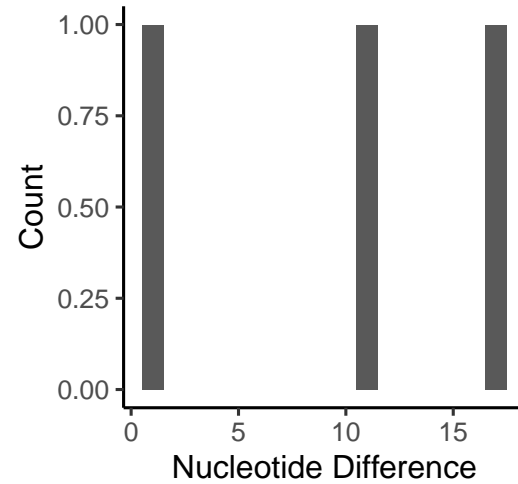
### IGHV5-51\*01\_03

168 sequences assigned  
1 (0.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



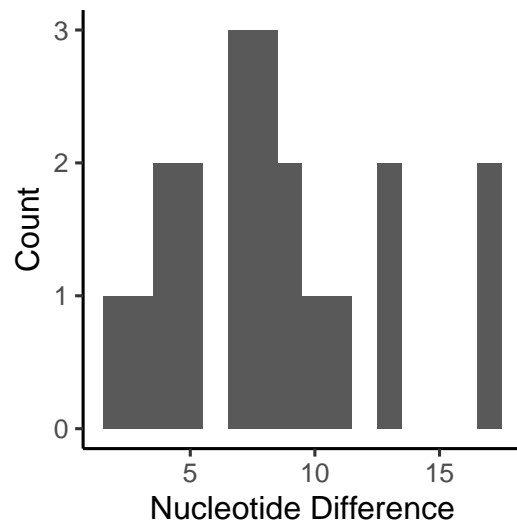
### IGHV7-4-1\*02

3 sequences assigned  
No exact matches.



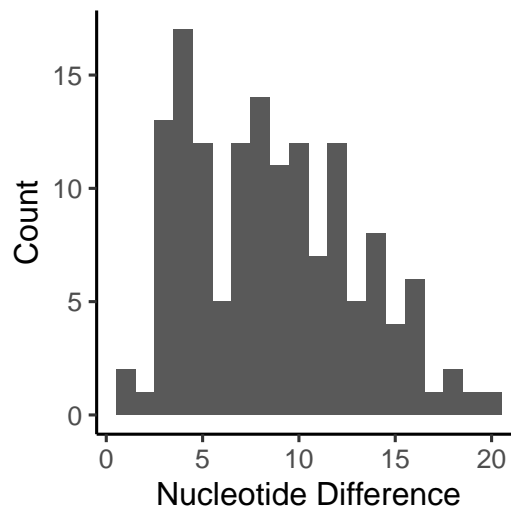
### IGHV5-10-1\*01\_03

27 sequences assigned  
No exact matches.



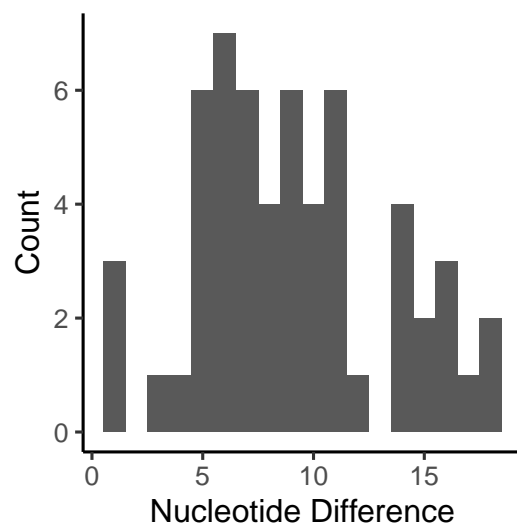
### IGHV6-1\*01\_02

156 sequences assigned  
No exact matches.



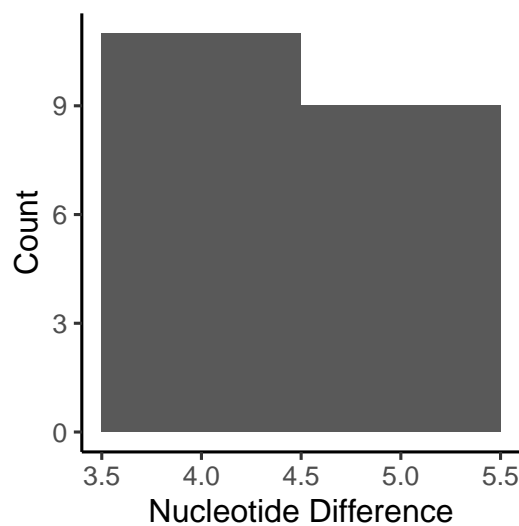
### IGHV5-51\*07

59 sequences assigned  
No exact matches.



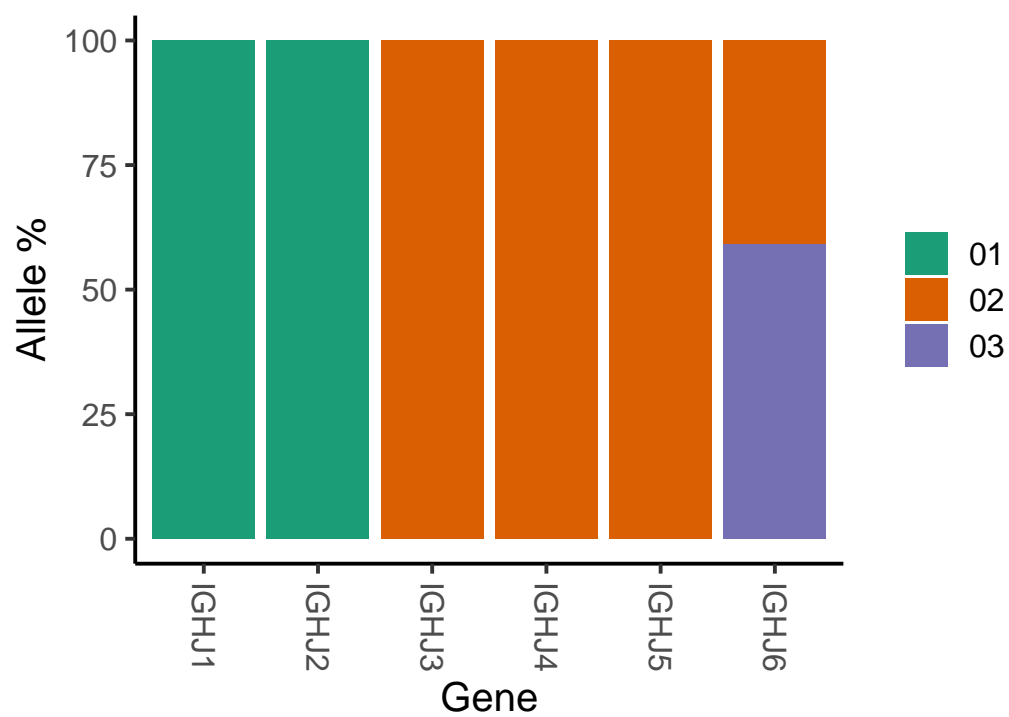
### IGHV7-4-1\*01

20 sequences assigned  
No exact matches.

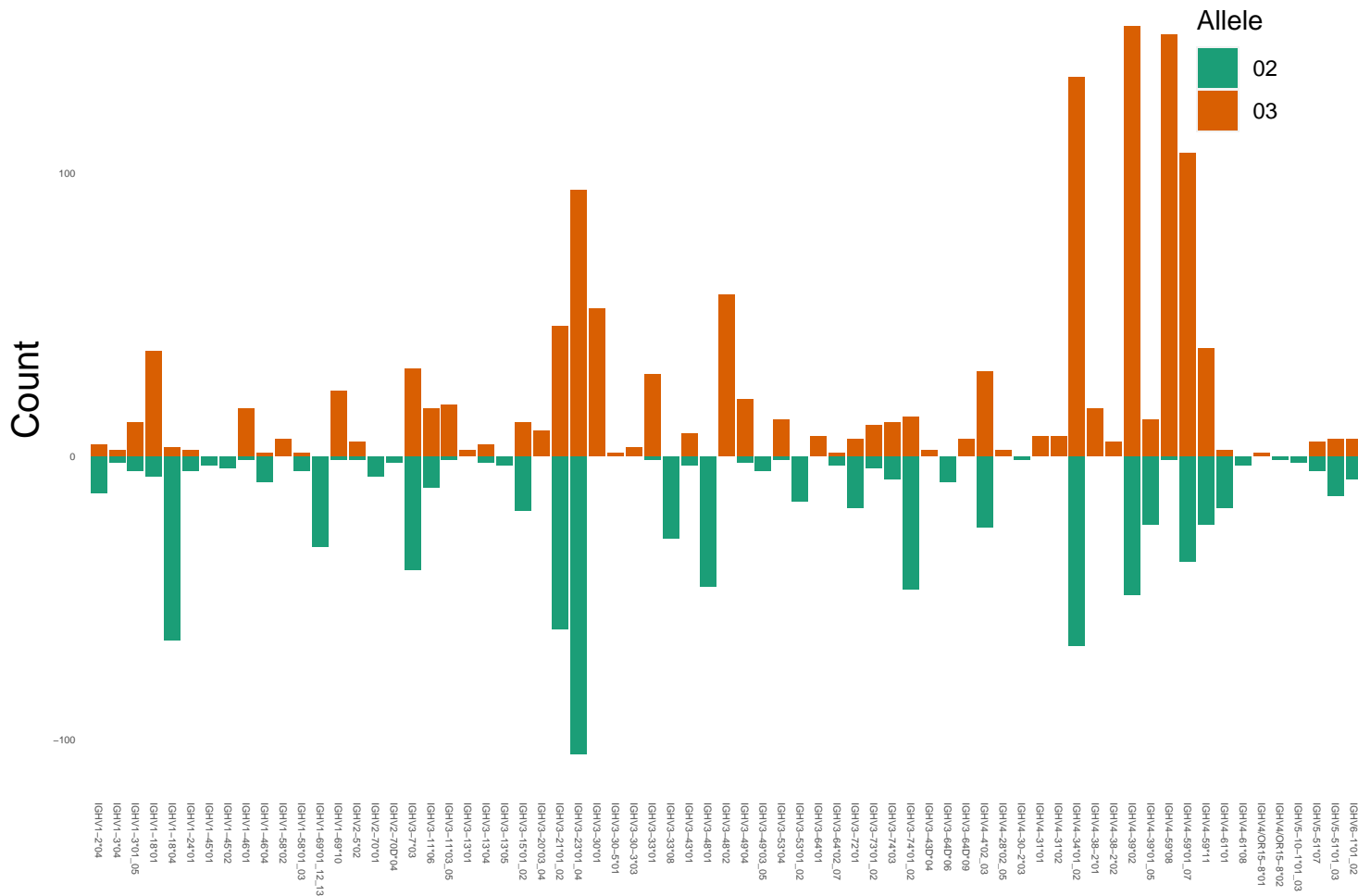




Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.