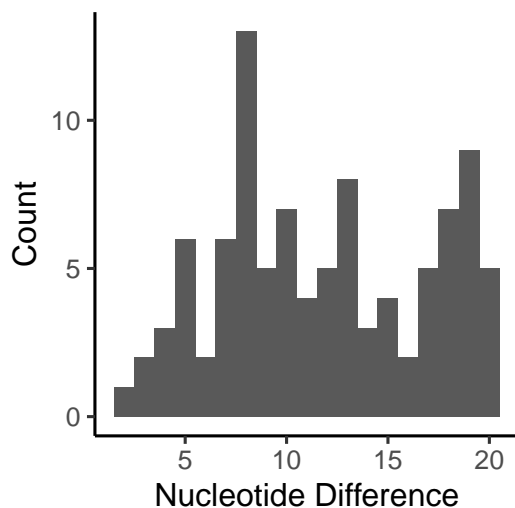


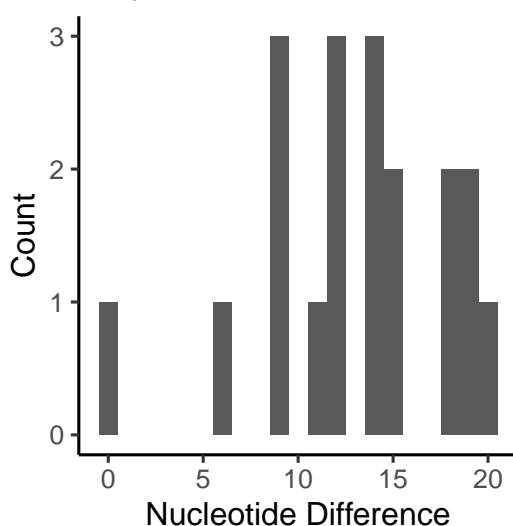
### IGHV1-2\*06

127 sequences assigned  
No exact matches.



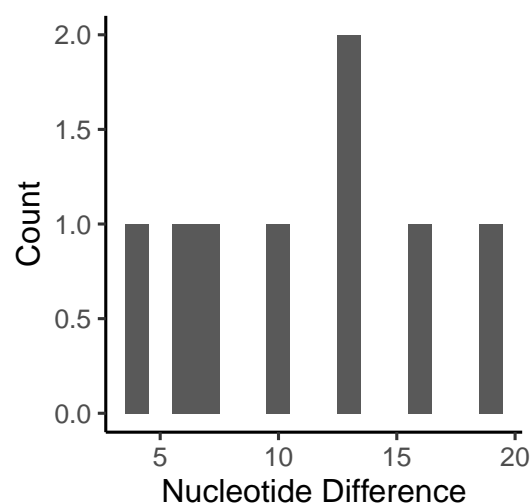
### IGHV1-24\*01

34 sequences assigned  
1 (2.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



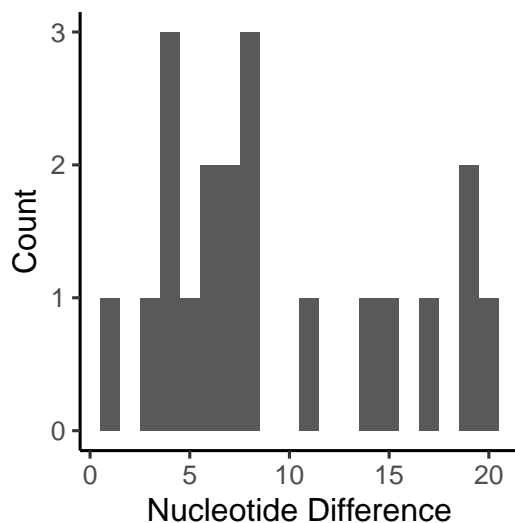
### IGHV1-69\*10

14 sequences assigned  
No exact matches.



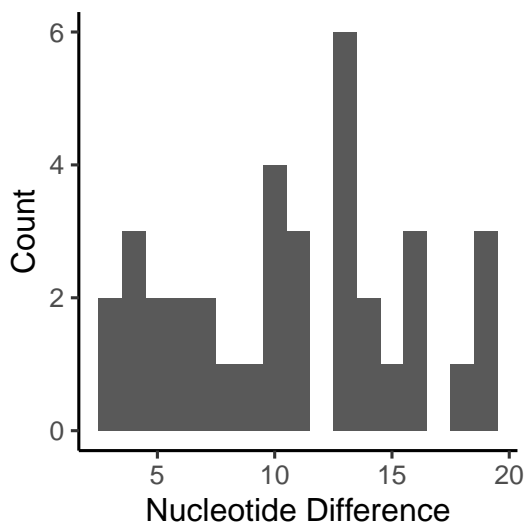
### IGHV1-8\*01

30 sequences assigned  
No exact matches.



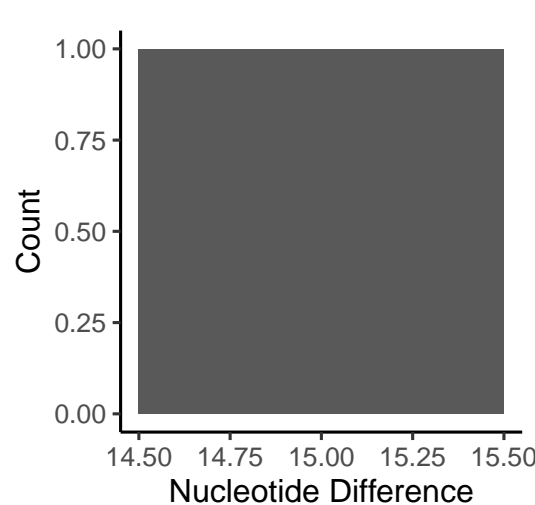
### IGHV1-46\*01

50 sequences assigned  
No exact matches.



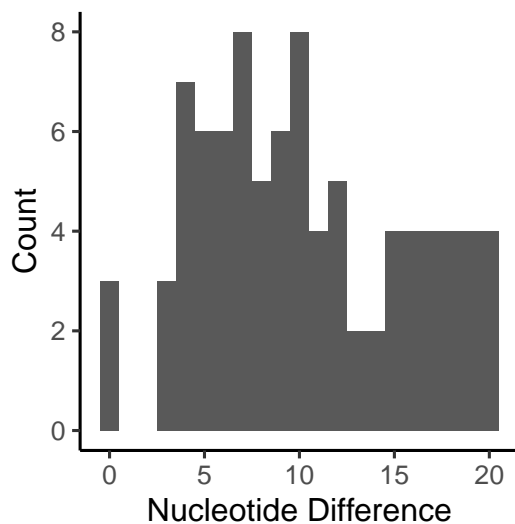
### IGHV1-69\*17

3 sequences assigned  
No exact matches.



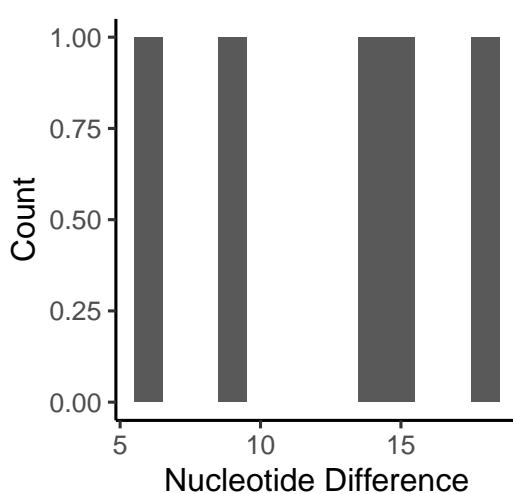
### IGHV1-18\*01

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



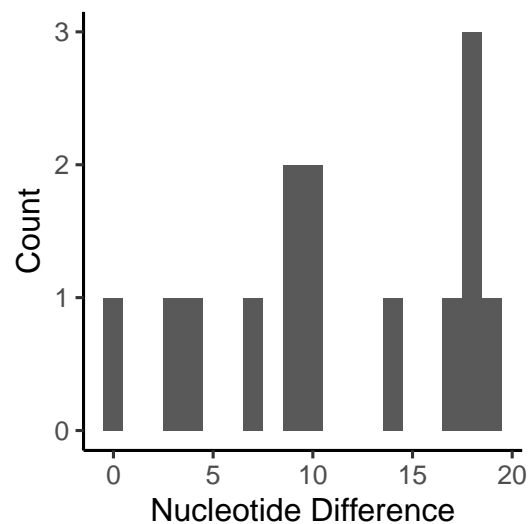
### IGHV1-58\*02

5 sequences assigned  
No exact matches.



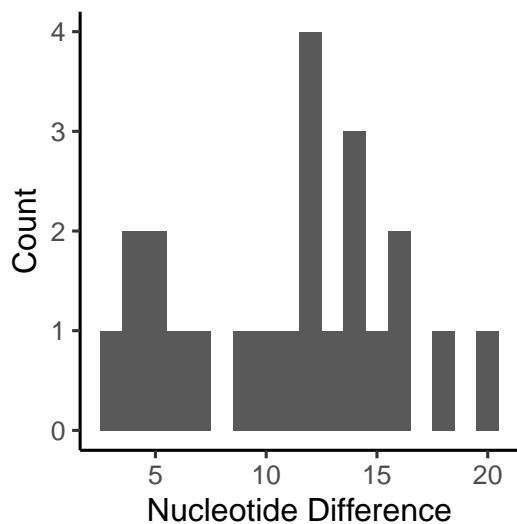
### IGHV1-69\*04\_09

34 sequences assigned  
1 (2.9%) exact matches, in which:  
1 unique CDR3  
0 unique J



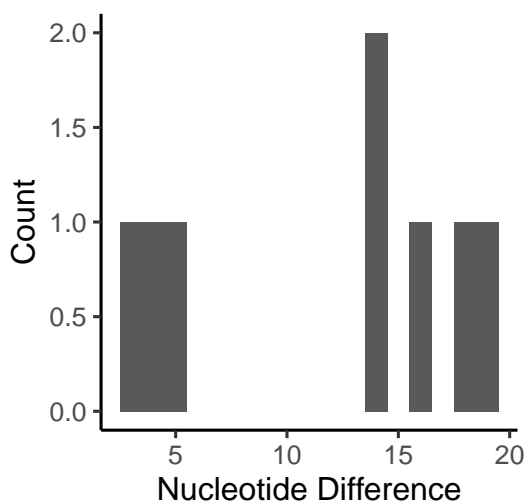
### IGHV2-5\*01

30 sequences assigned  
No exact matches.



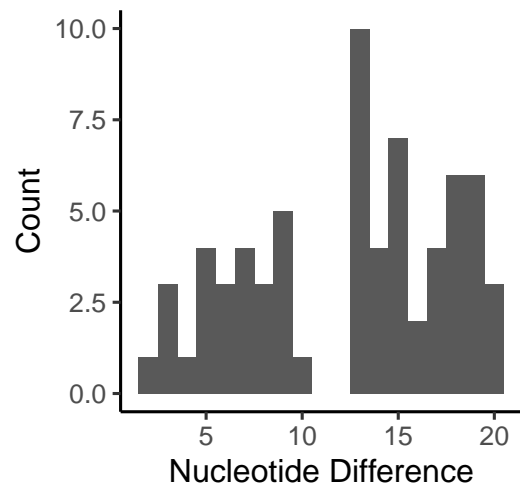
### IGHV2-70\*11\_15

10 sequences assigned  
No exact matches.



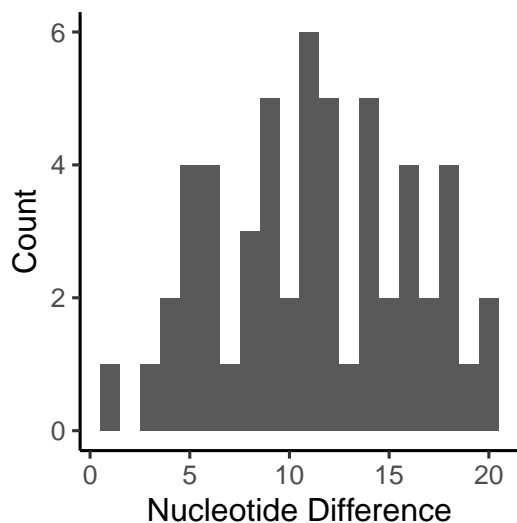
### IGHV3-7\*05

92 sequences assigned  
No exact matches.



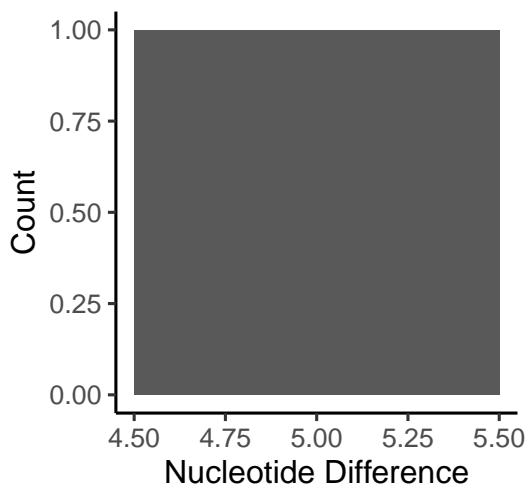
### IGHV2-5\*02

73 sequences assigned  
No exact matches.



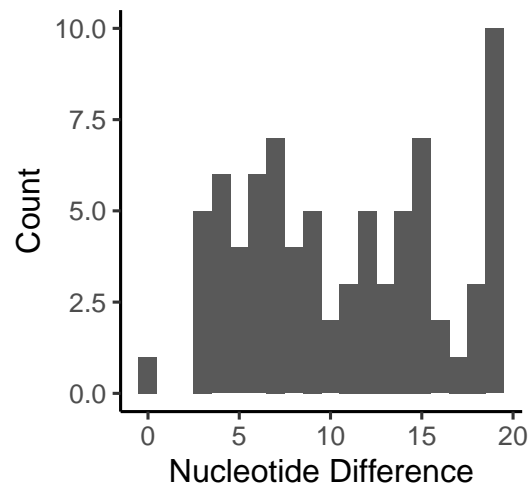
### IGHV2-70\*16\_17

2 sequences assigned  
No exact matches.



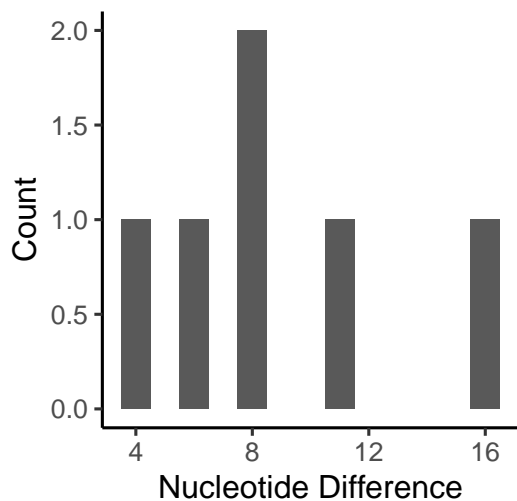
### IGHV3-9\*01

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



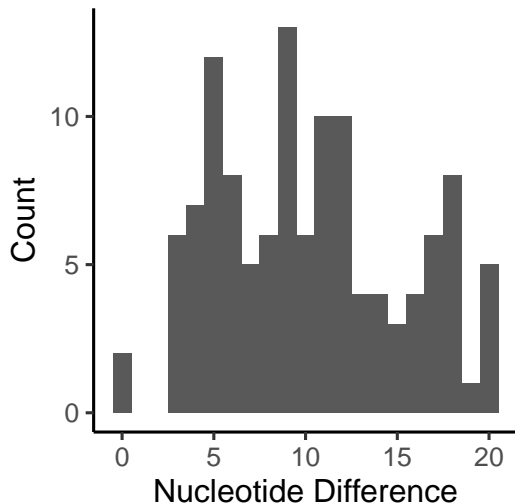
### IGHV2-26\*01

10 sequences assigned  
No exact matches.



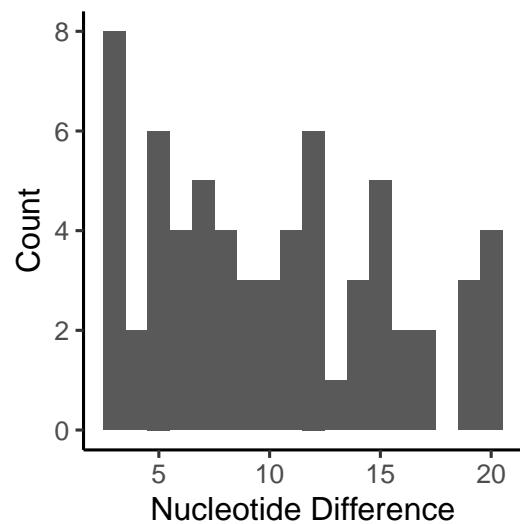
### IGHV3-7\*01

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



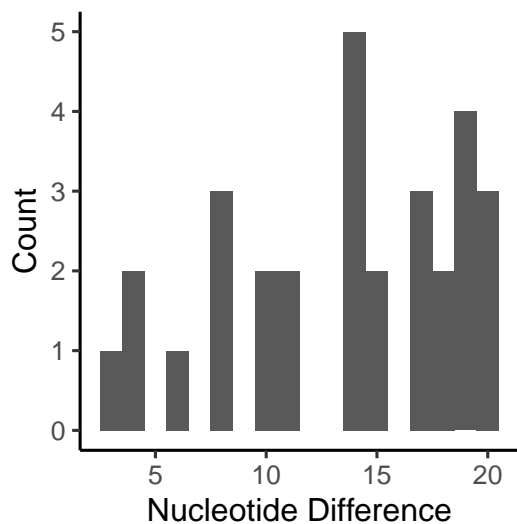
### IGHV3-11\*01

91 sequences assigned  
No exact matches.



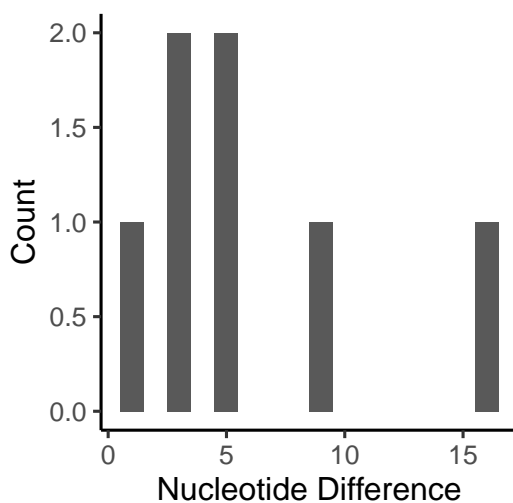
### IGHV3-11\*06

37 sequences assigned  
No exact matches.



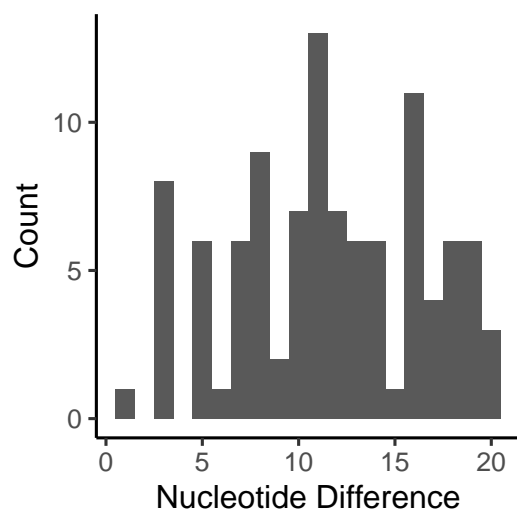
### IGHV3-20\*01\_02

7 sequences assigned  
No exact matches.



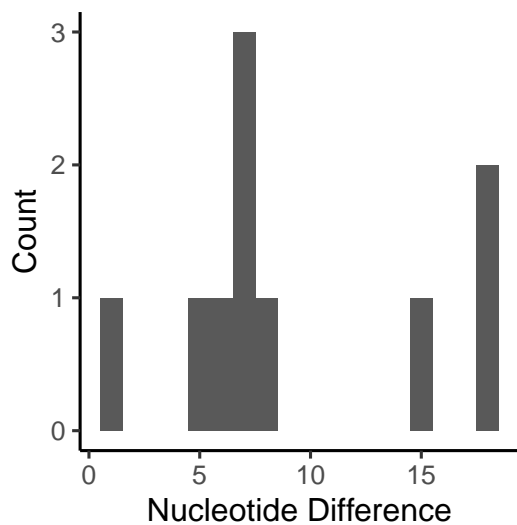
### IGHV3-21\*01\_02

144 sequences assigned  
No exact matches.



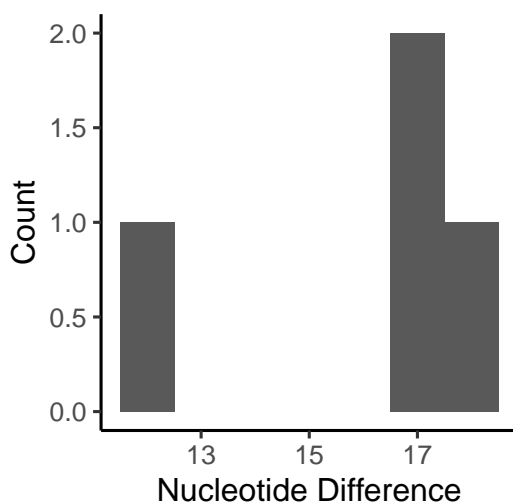
### IGHV3-13\*01

14 sequences assigned  
No exact matches.



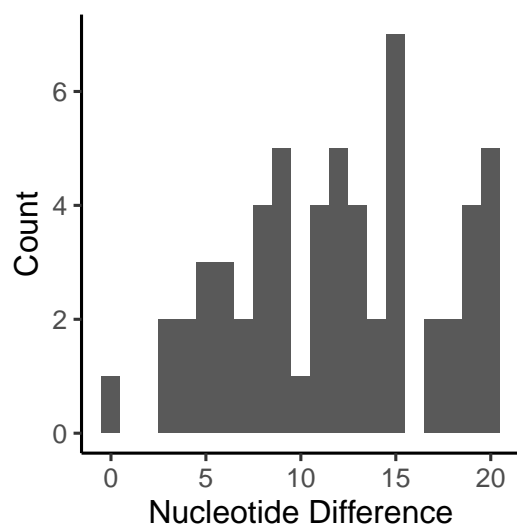
### IGHV3-20\*03\_04

9 sequences assigned  
No exact matches.



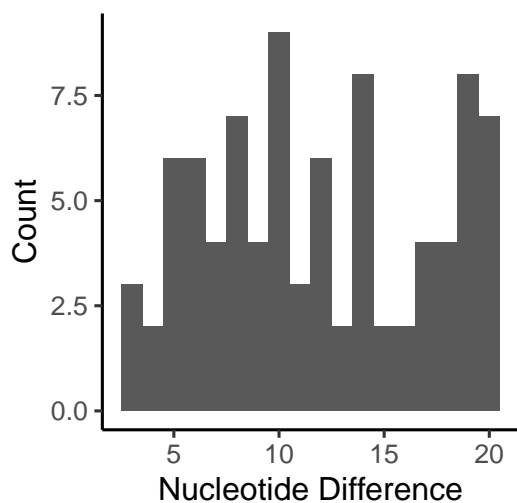
### IGHV3-30-3\*01

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



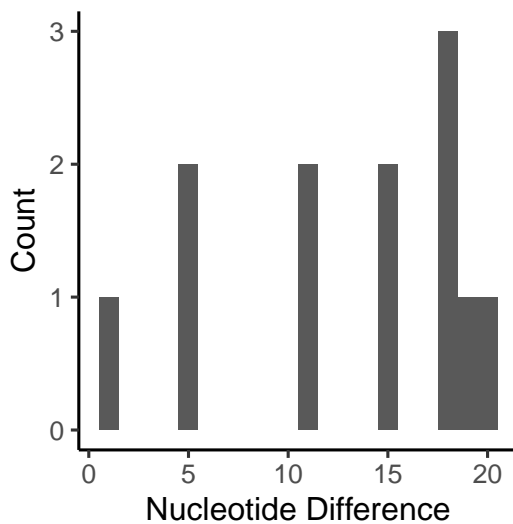
### IGHV3-15\*01\_02

120 sequences assigned  
No exact matches.



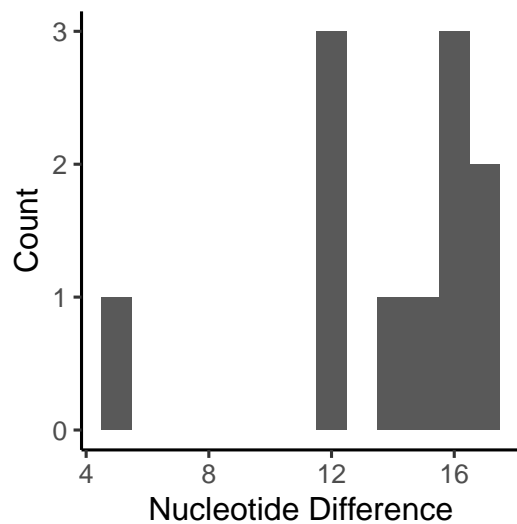
### IGHV3-21\*06

30 sequences assigned  
No exact matches.



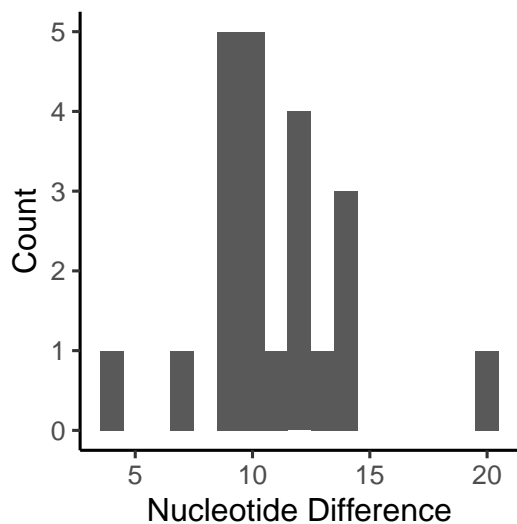
### IGHV3-30\*03

25 sequences assigned  
No exact matches.



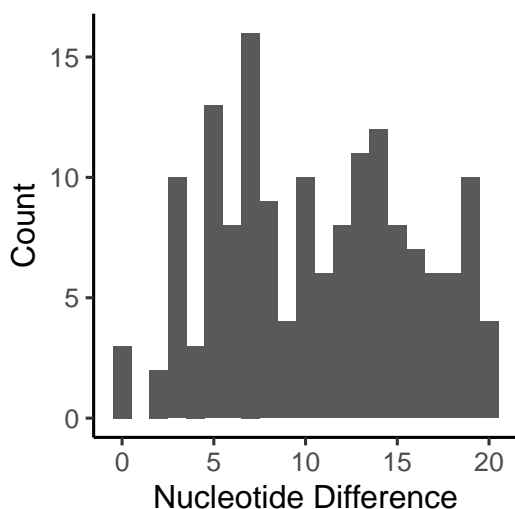
### IGHV3-33\*01

30 sequences assigned  
No exact matches.



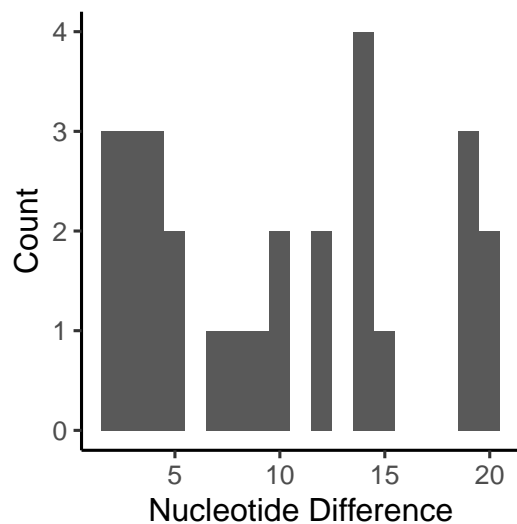
### IGHV3-48\*04

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



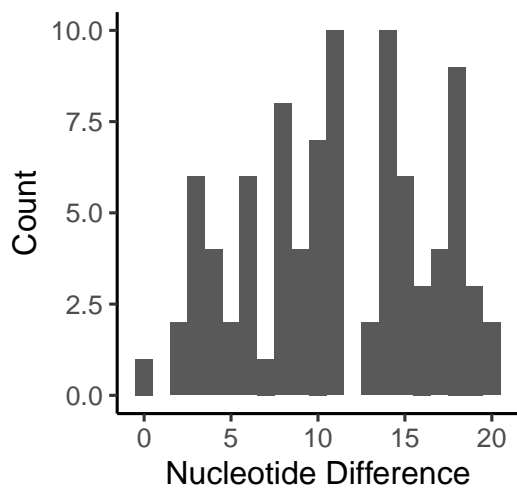
### IGHV3-64\*01

35 sequences assigned  
No exact matches.



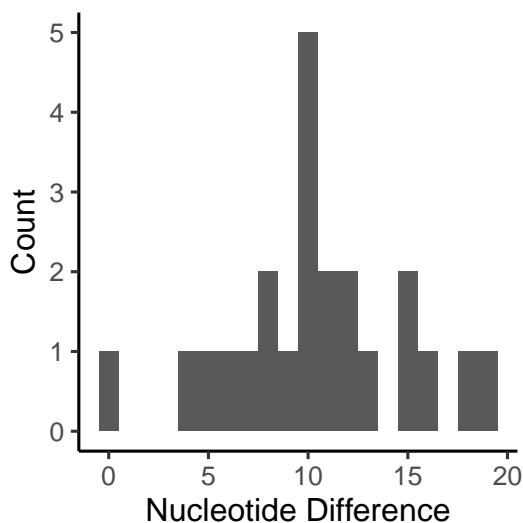
### IGHV3-33\*06

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



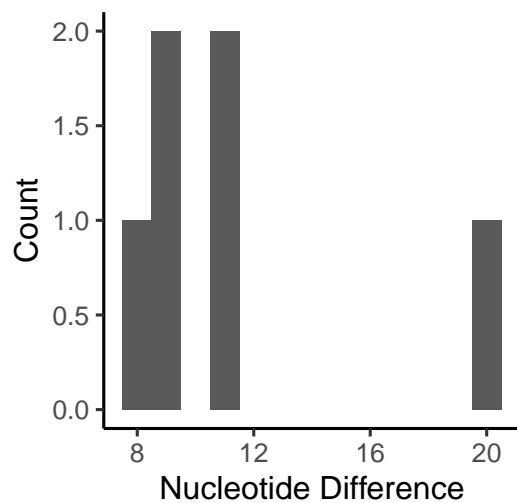
### IGHV3-49\*03\_05

37 sequences assigned  
1 (2.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



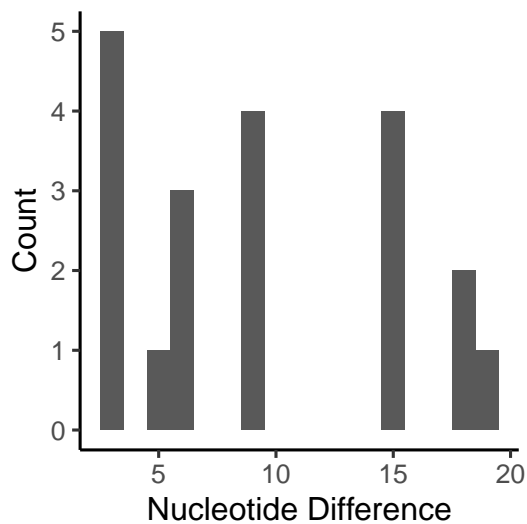
### IGHV3-64\*02\_07

7 sequences assigned  
No exact matches.



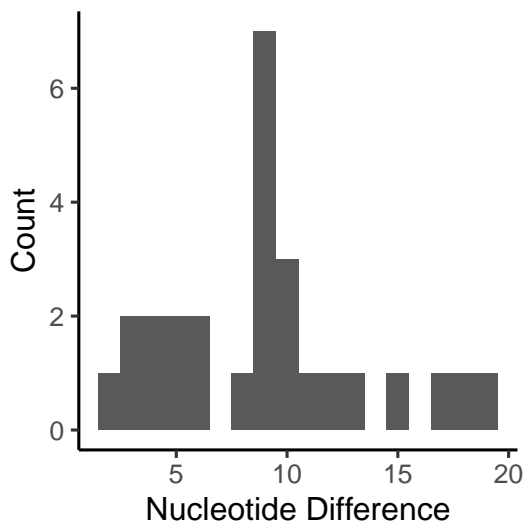
### IGHV3-43\*01

33 sequences assigned  
No exact matches.



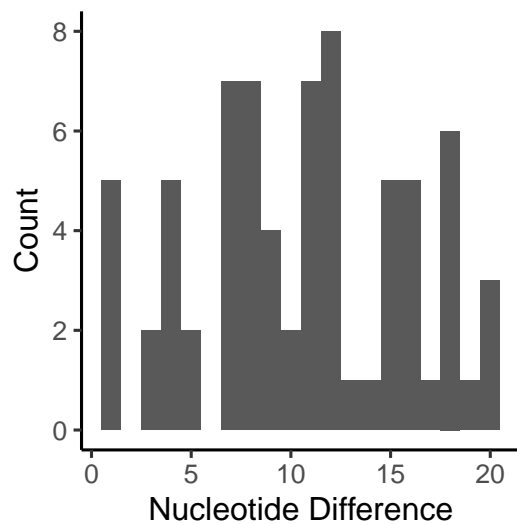
### IGHV3-53\*04

39 sequences assigned  
No exact matches.



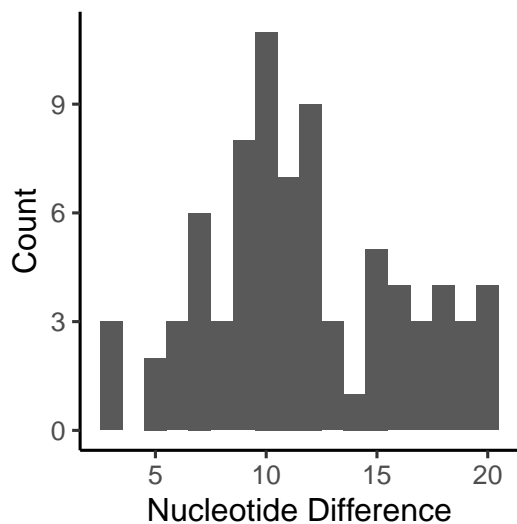
### IGHV3-66\*01

99 sequences assigned  
No exact matches.



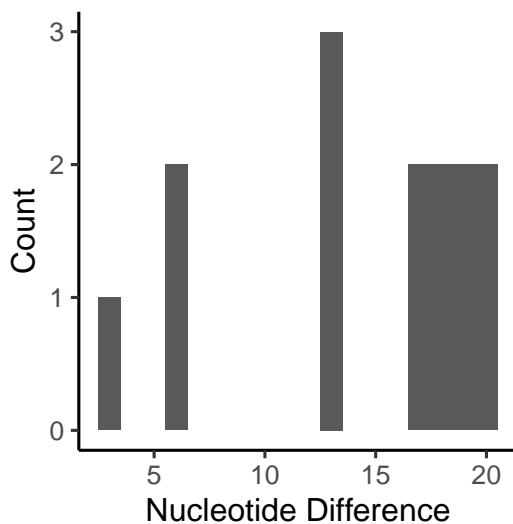
### IGHV3-72\*01

93 sequences assigned  
No exact matches.



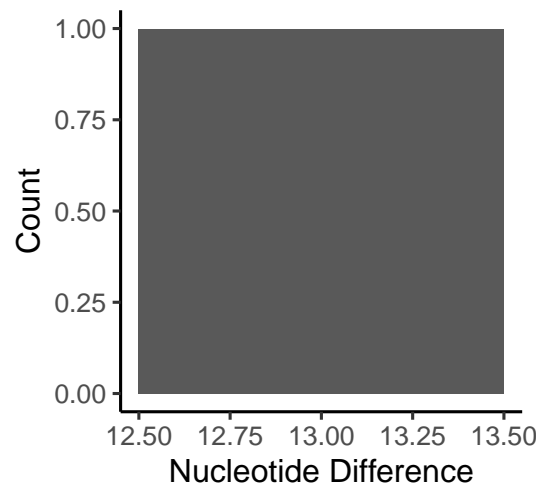
### IGHV3-43D\*03

26 sequences assigned  
No exact matches.



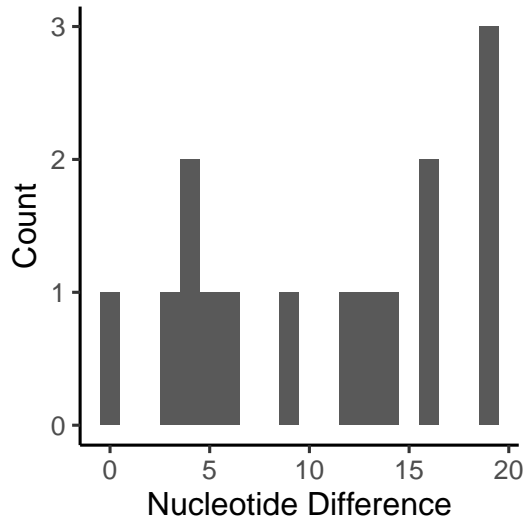
### IGHV4-28\*02\_05

1 sequences assigned  
No exact matches.



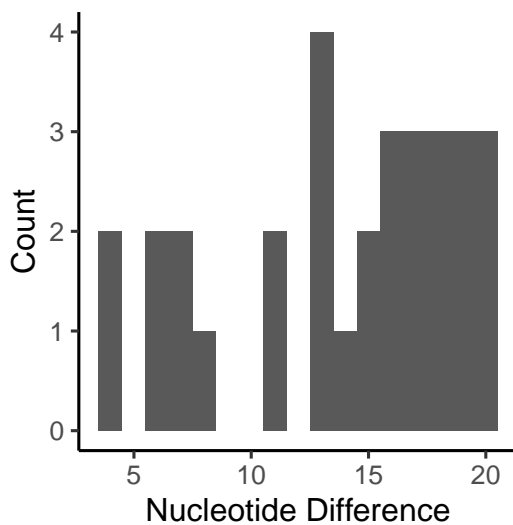
### IGHV3-73\*01\_02

17 sequences assigned  
1 (5.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



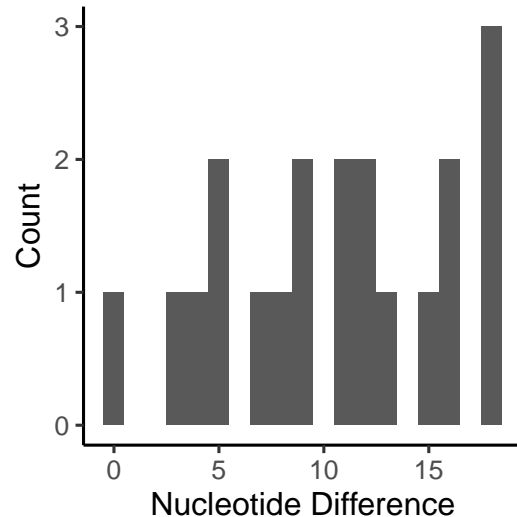
### IGHV3-64D\*06

55 sequences assigned  
No exact matches.



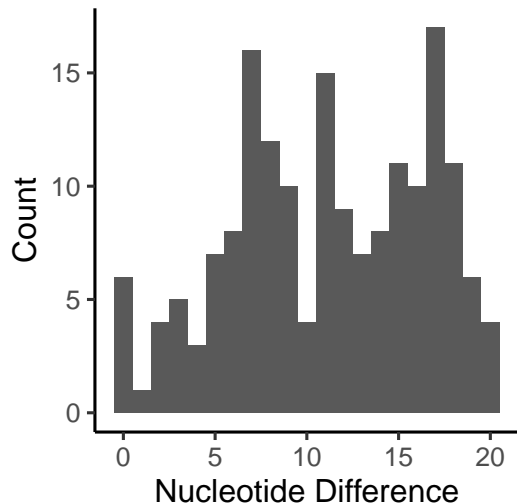
### IGHV4-30-4\*01

35 sequences assigned  
1 (2.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



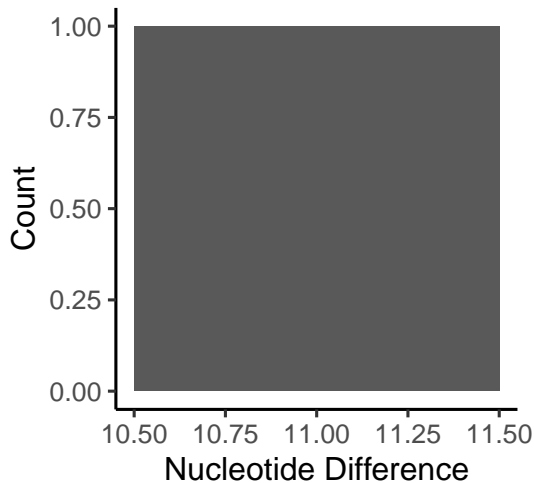
### IGHV3-74\*01\_02

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



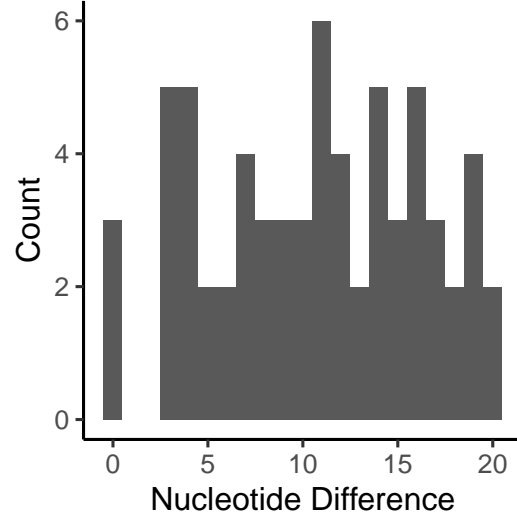
### IGHV4-28\*01\_07

1 sequences assigned  
No exact matches.



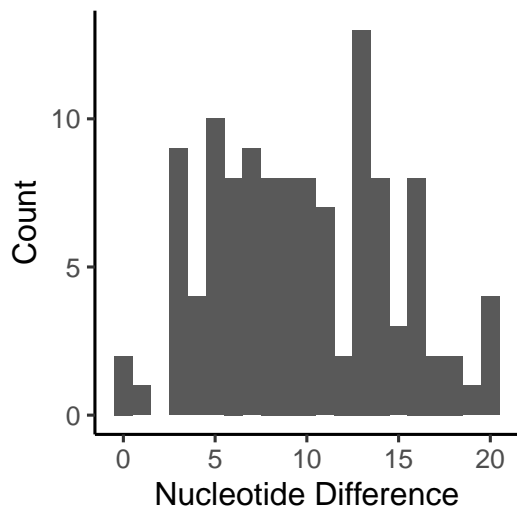
### IGHV4-31\*03\_04

146 sequences assigned  
3 (2.1%) exact matches, in which:  
3 unique CDR3  
3 unique J



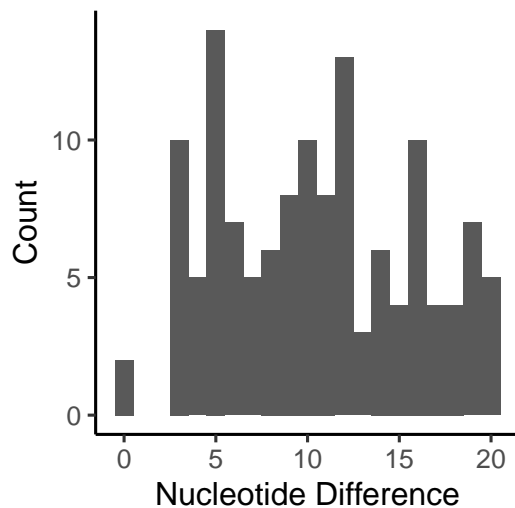
### IGHV4-34\*01\_02

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



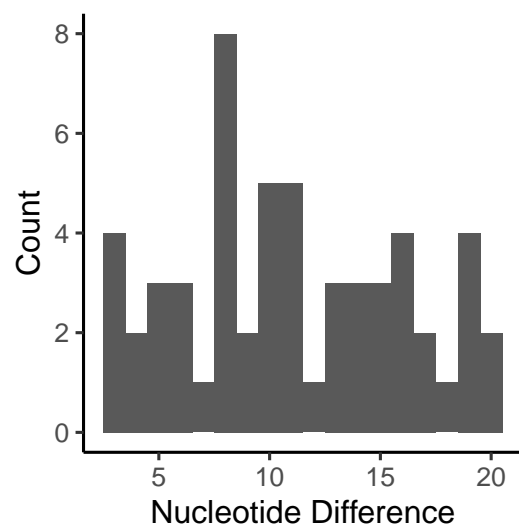
### IGHV4-59\*08

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



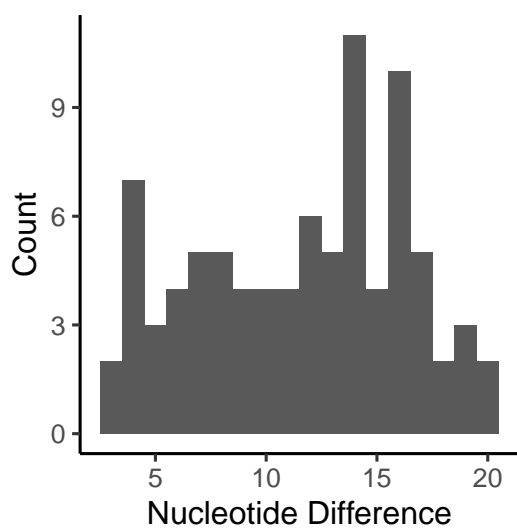
### IGHV5-51\*01\_03

75 sequences assigned  
No exact matches.



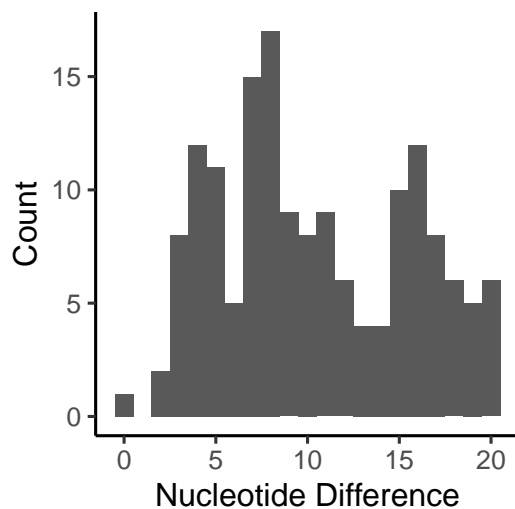
### IGHV4-38-2\*02

109 sequences assigned  
No exact matches.



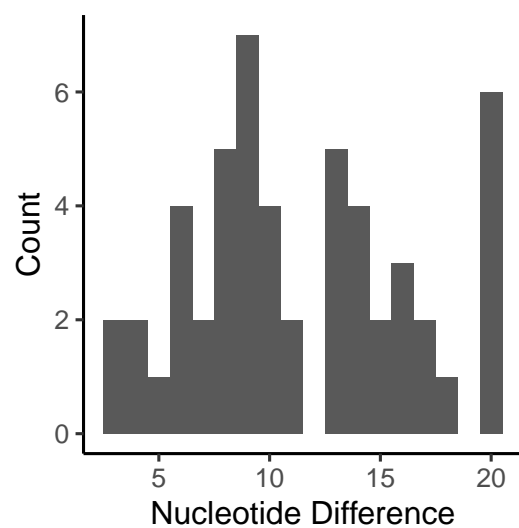
### IGHV4-59\*01\_07

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



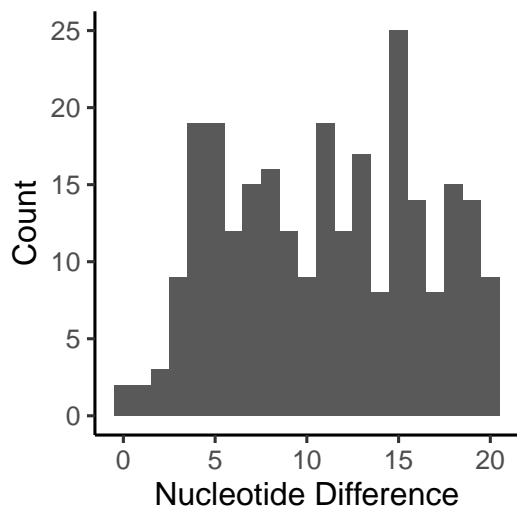
### IGHV6-1\*01\_02

67 sequences assigned  
No exact matches.



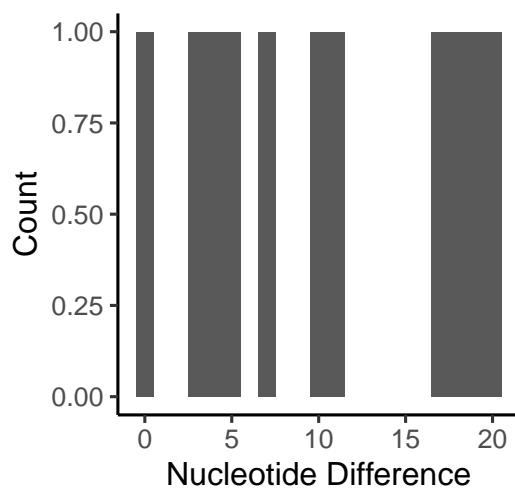
### IGHV4-39\*07

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



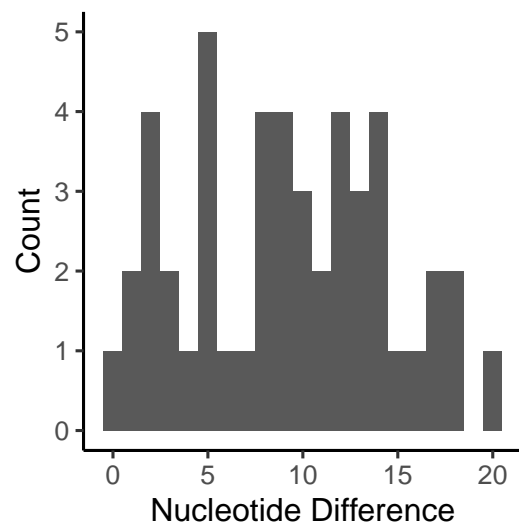
### IGHV5-10-1\*01\_03

17 sequences assigned  
1 (5.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



### IGHV7-4-1\*02

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



Allele Usage

