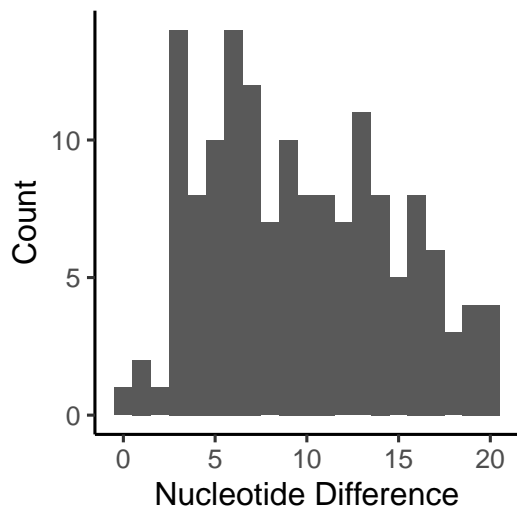


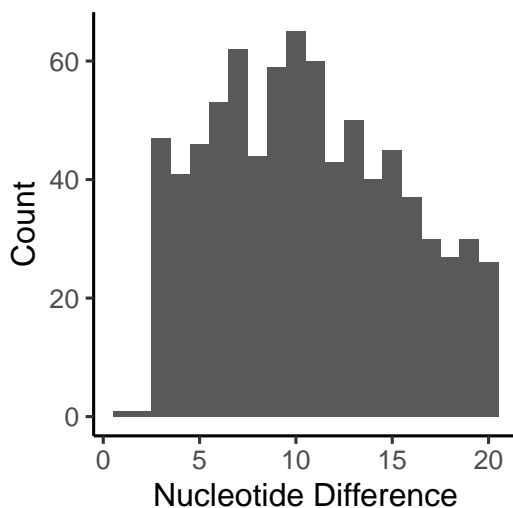
### IGHV1-2\*04

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



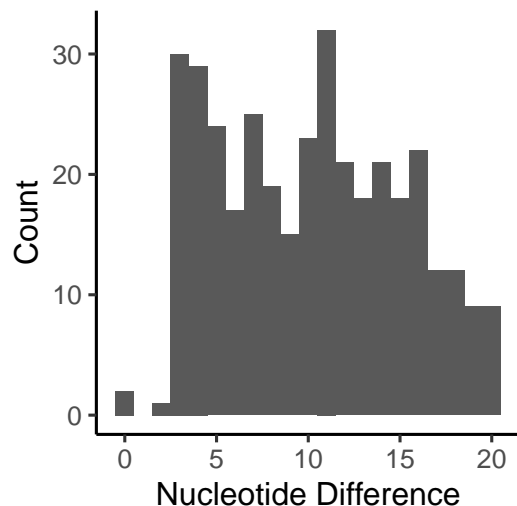
### IGHV1-18\*01

974 sequences assigned  
No exact matches.



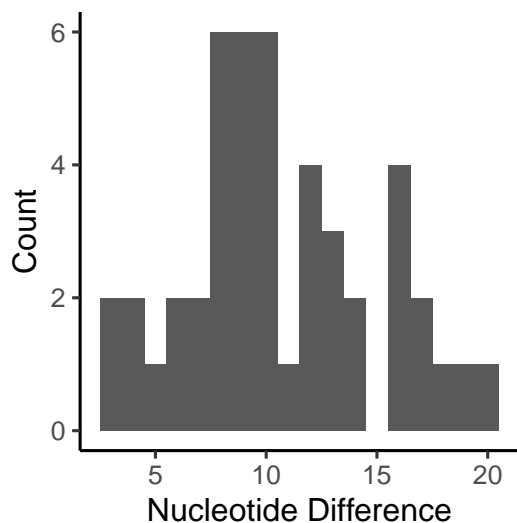
### IGHV1-46\*01

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



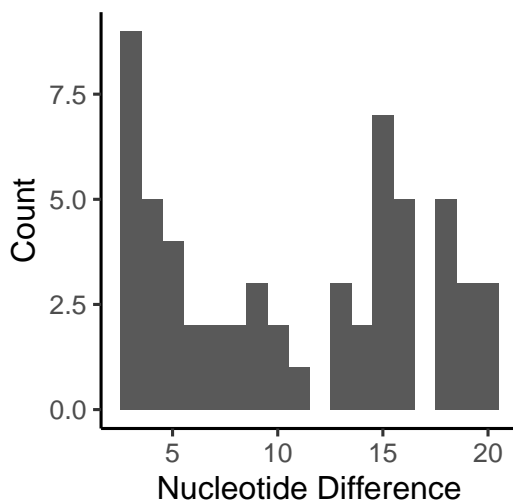
### IGHV1-3\*04

66 sequences assigned  
No exact matches.



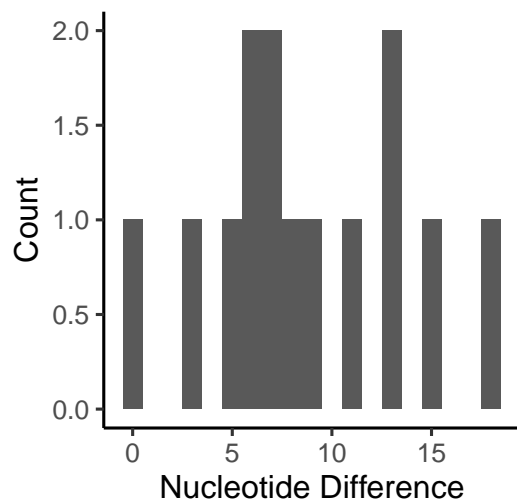
### IGHV1-24\*01

68 sequences assigned  
No exact matches.



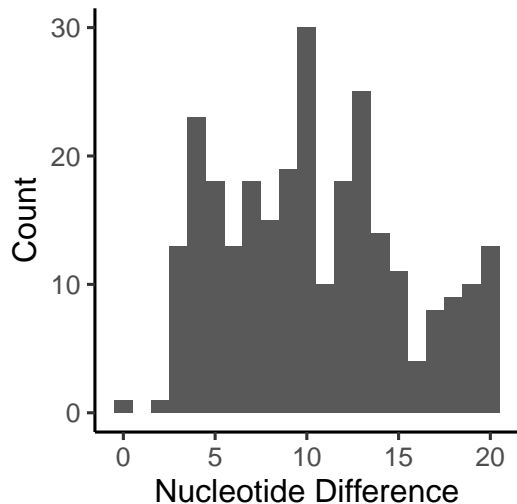
### IGHV1-58\*02

21 sequences assigned  
1 (4.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



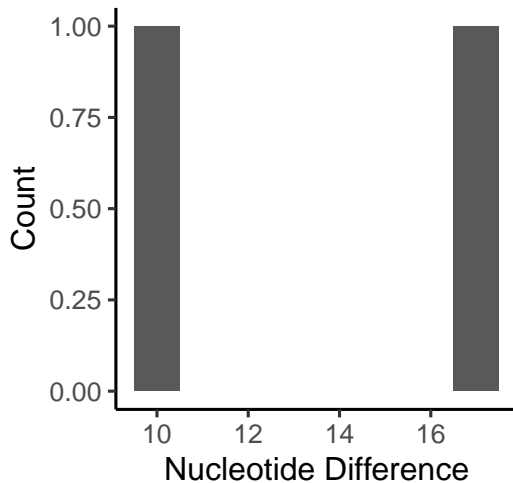
### IGHV1-3\*01\_05

330 sequences assigned  
1 (0.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



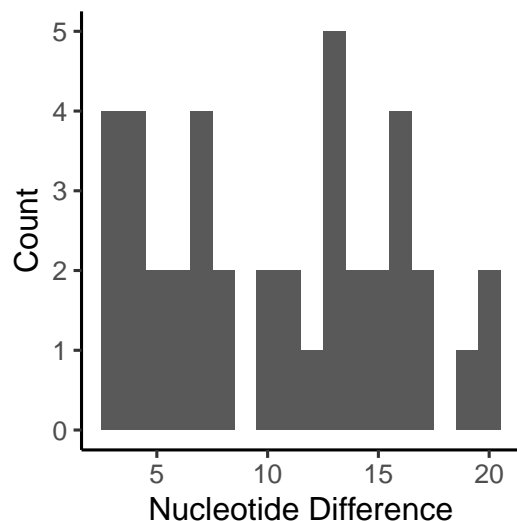
### IGHV1-45\*02

2 sequences assigned  
No exact matches.



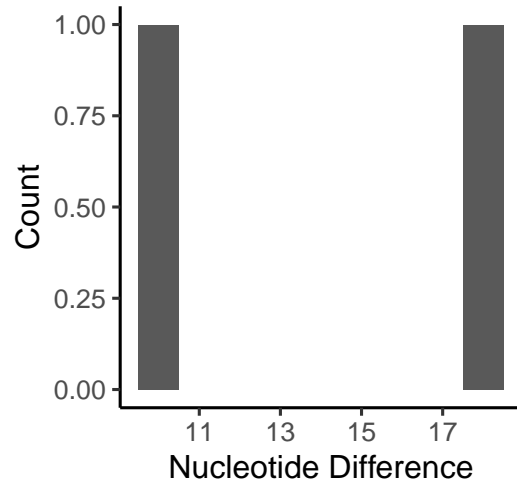
### IGHV1-58\*01\_03

51 sequences assigned  
No exact matches.



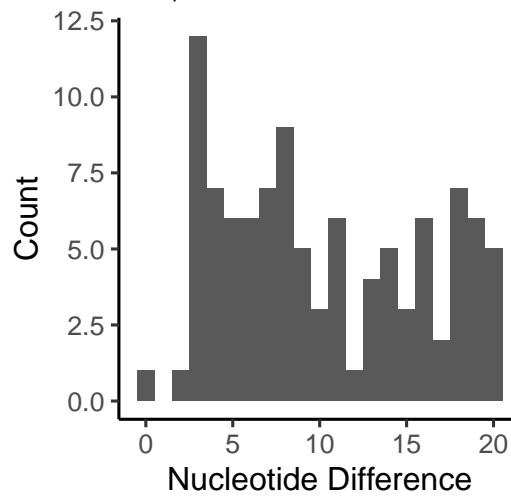
### IGHV1-69-2\*01

2 sequences assigned  
No exact matches.



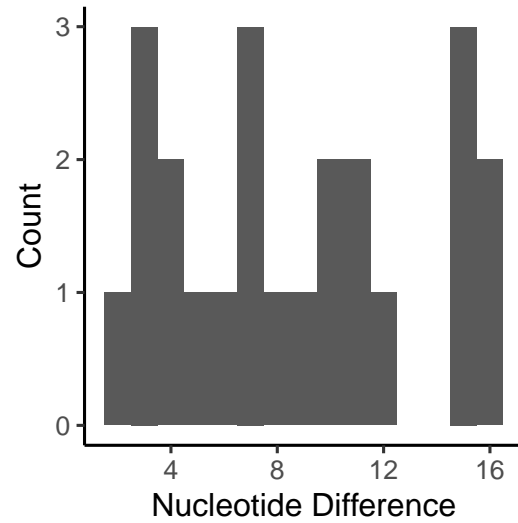
### IGHV1-69\*06\_14

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



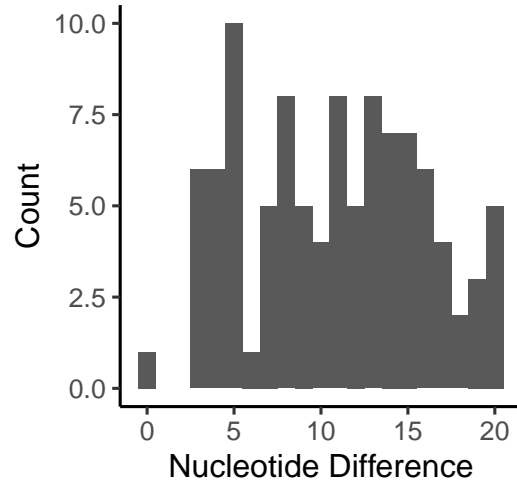
### IGHV2-70\*01

25 sequences assigned  
No exact matches.



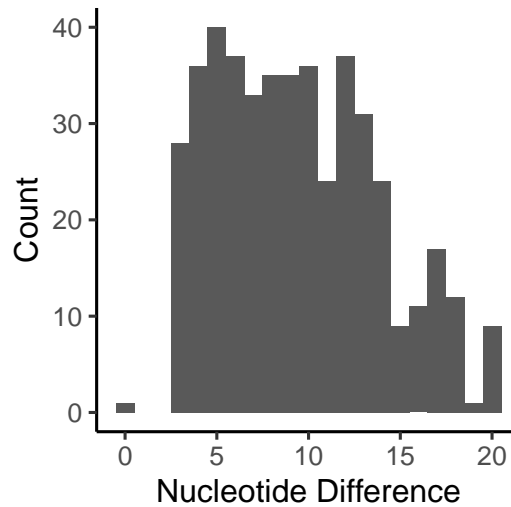
### IGHV1-69\*01\_12\_13

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



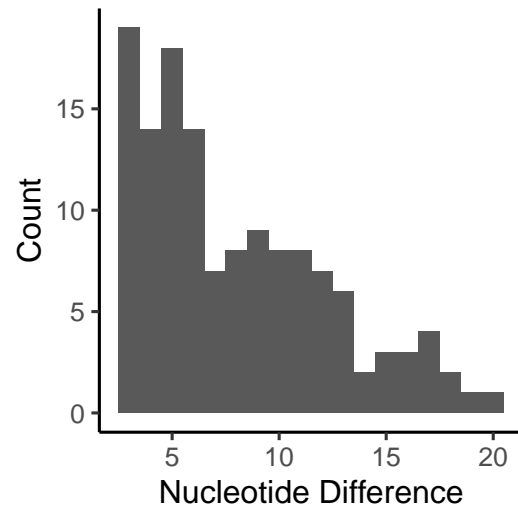
### IGHV2-5\*02

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



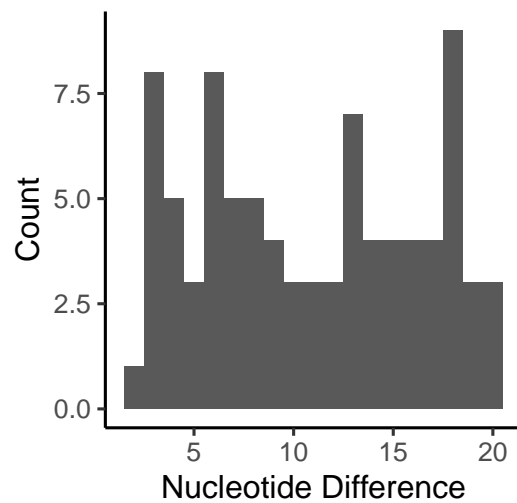
### IGHV2-70\*11\_15

142 sequences assigned  
No exact matches.



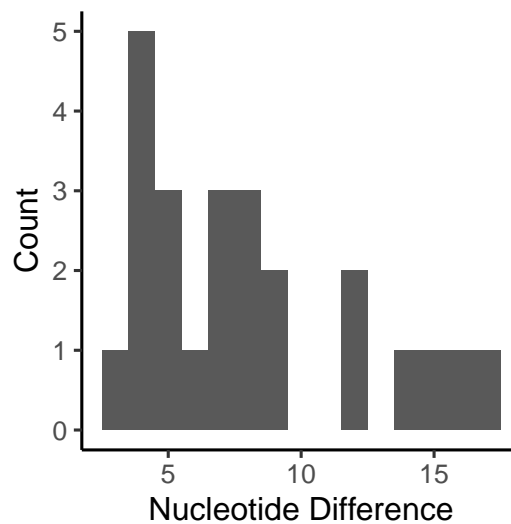
### IGHV1-69\*04\_09

141 sequences assigned  
No exact matches.



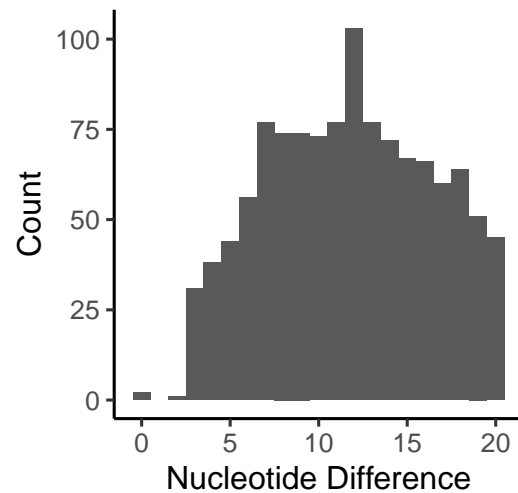
### IGHV2-26\*01

31 sequences assigned  
No exact matches.



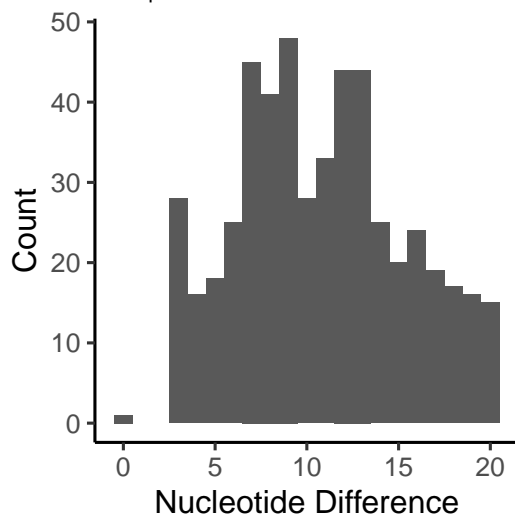
### IGHV3-7\*03

1387 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



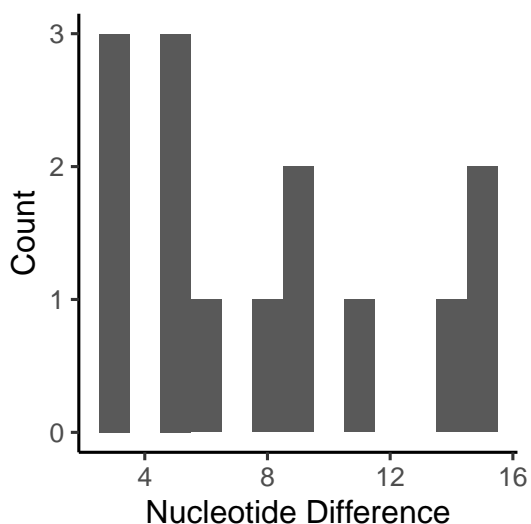
### IGHV3-7\*04

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



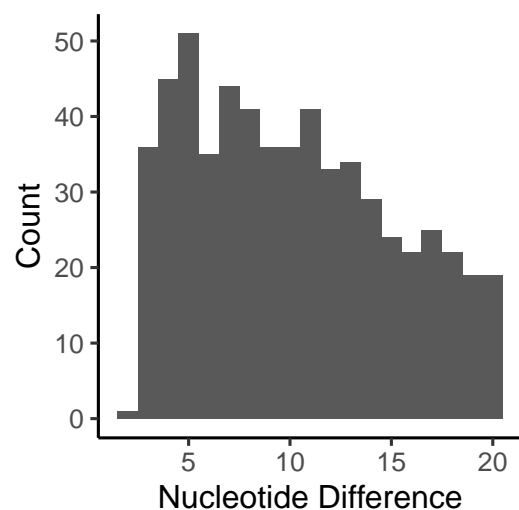
### IGHV3-13\*05

17 sequences assigned  
No exact matches.



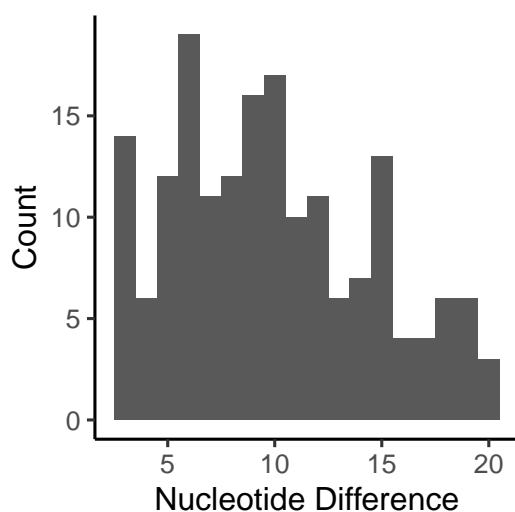
### IGHV3-21\*01\_02

644 sequences assigned  
No exact matches.



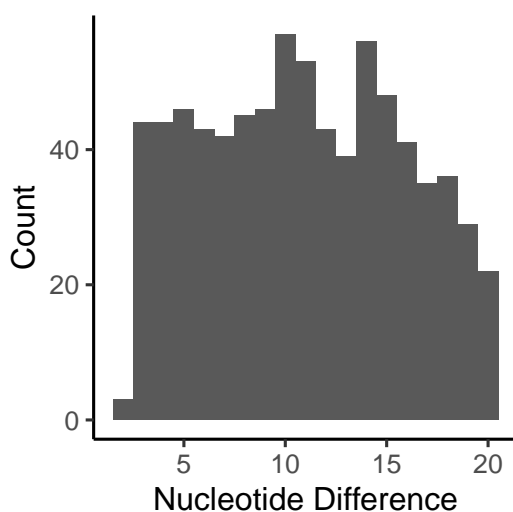
### IGHV3-11\*06

208 sequences assigned  
No exact matches.



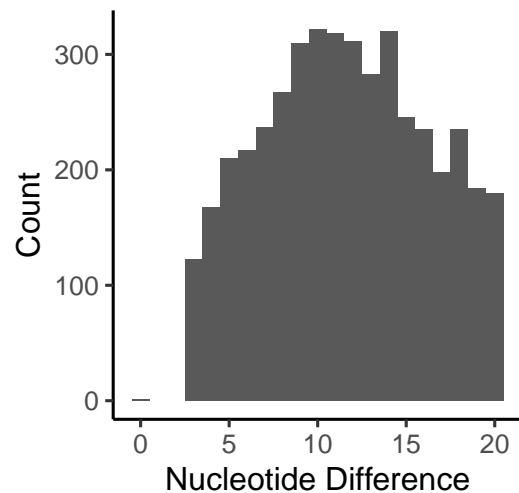
### IGHV3-15\*07

941 sequences assigned  
No exact matches.



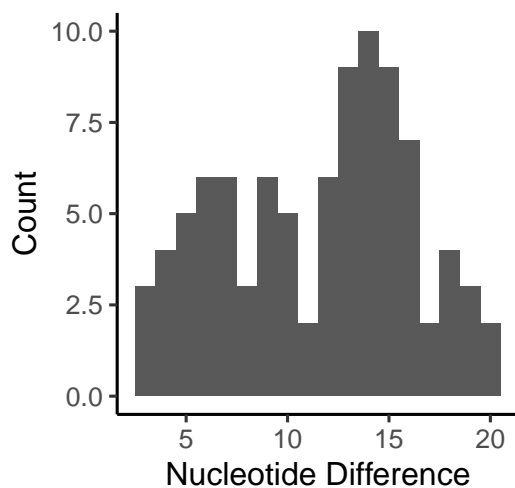
### IGHV3-23\*01\_04

5257 sequences assigned  
1 (0%) exact matches, in which:  
1 unique CDR3  
1 unique J



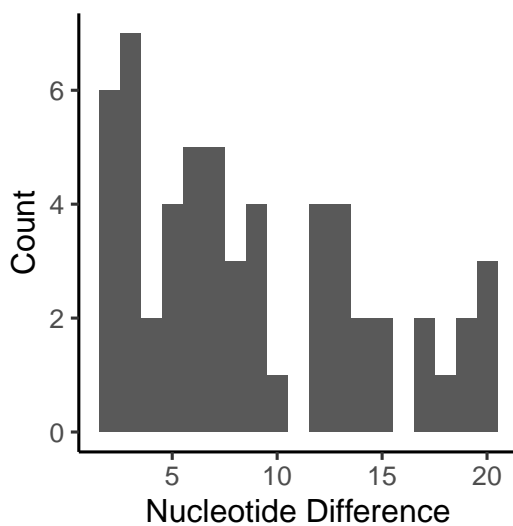
### IGHV3-13\*01

114 sequences assigned  
No exact matches.



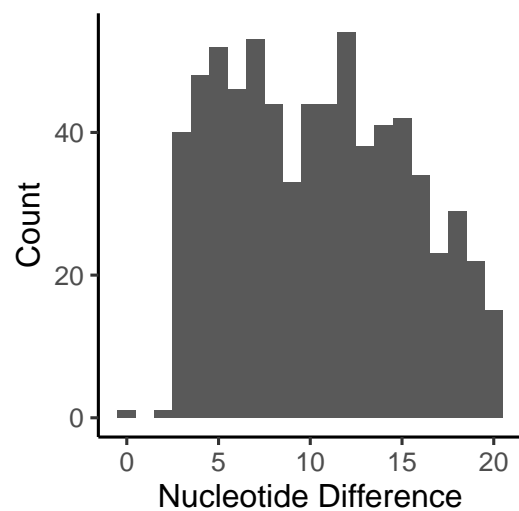
### IGHV3-20\*03\_04

63 sequences assigned  
No exact matches.



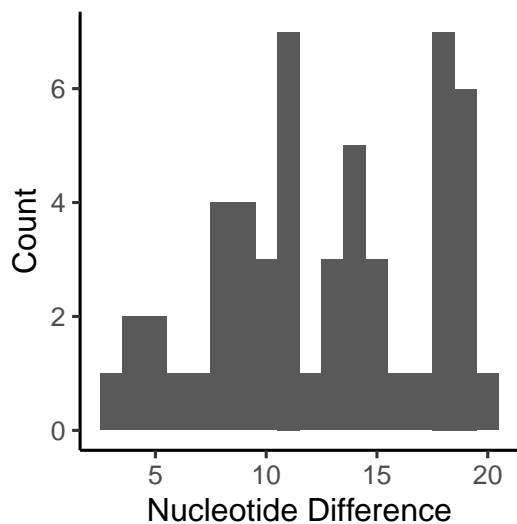
### IGHV3-30-3\*01

835 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



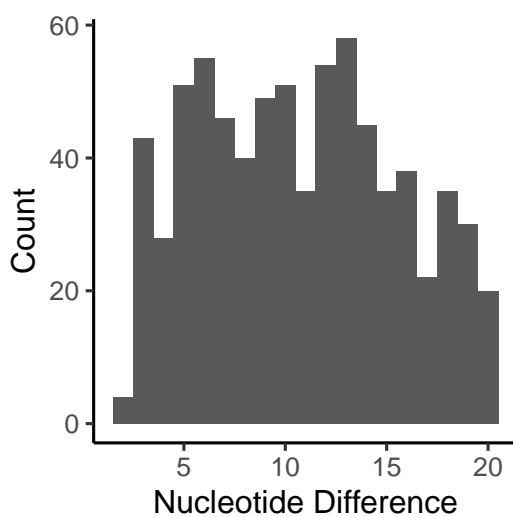
### IGHV3-30\*04

94 sequences assigned  
No exact matches.



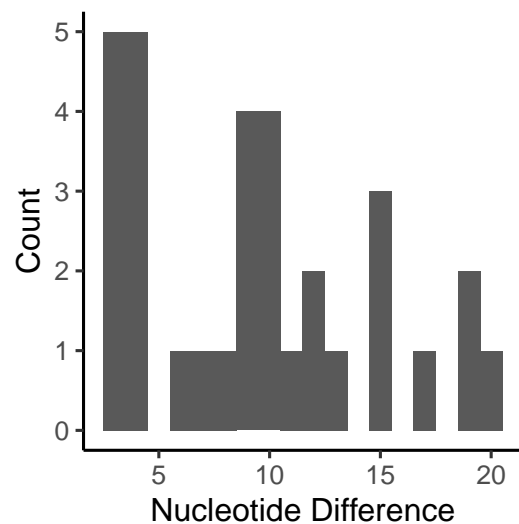
### IGHV3-48\*02

838 sequences assigned  
No exact matches.



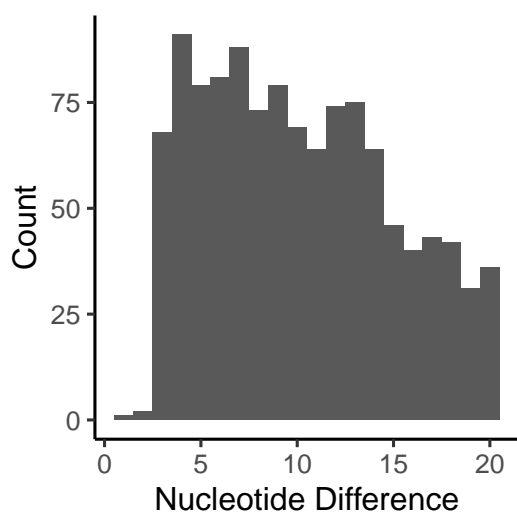
### IGHV3-49\*03\_05

35 sequences assigned  
No exact matches.



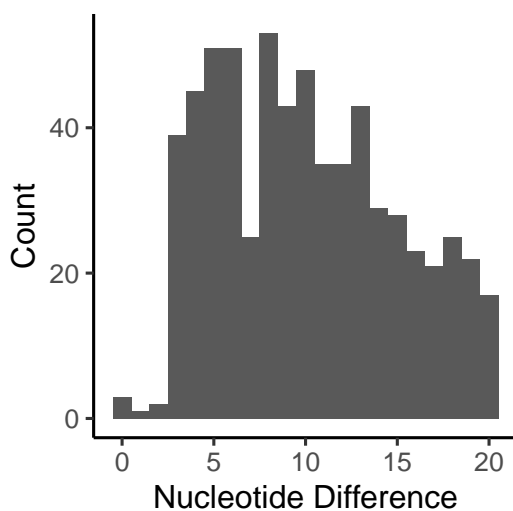
### IGHV3-33\*01

1363 sequences assigned  
No exact matches.



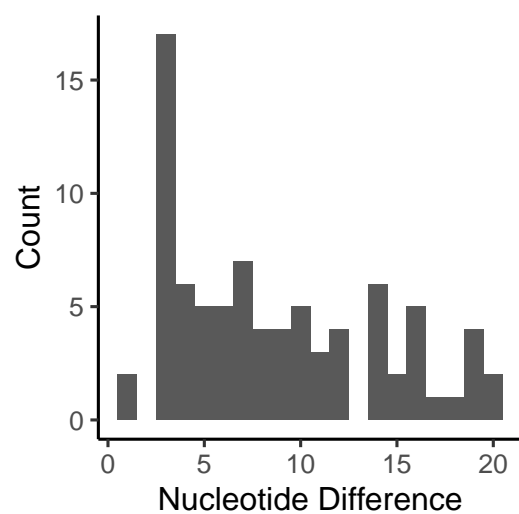
### IGHV3-48\*03

741 sequences assigned  
3 (0.4%) exact matches, in which:  
3 unique CDR3  
1 unique J



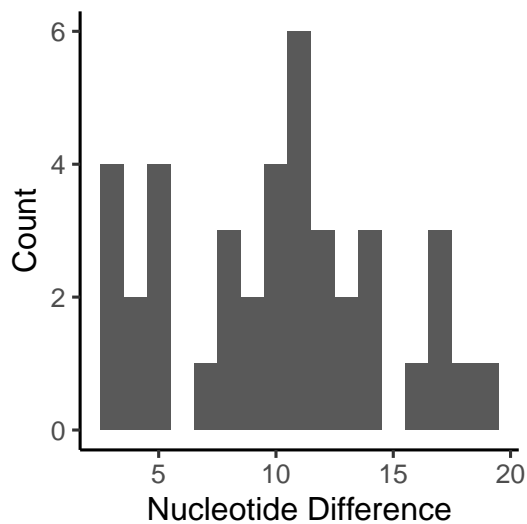
### IGHV3-53\*04

98 sequences assigned  
No exact matches.



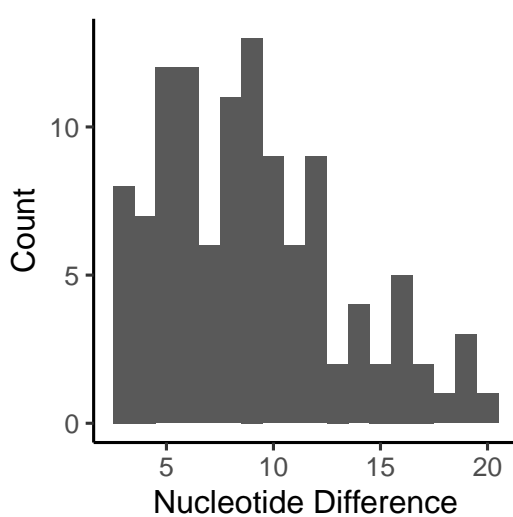
### IGHV3-43\*01

51 sequences assigned  
No exact matches.



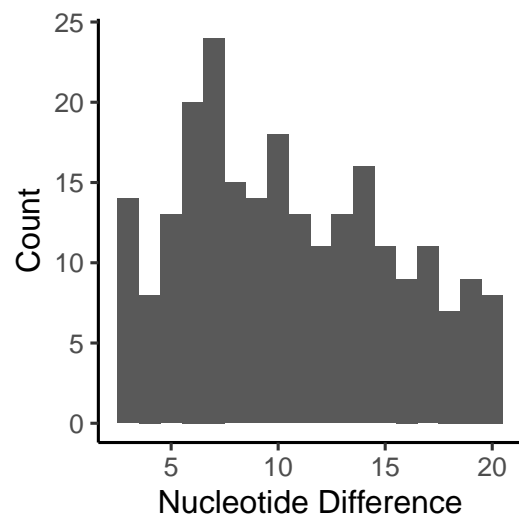
### IGHV3-49\*04

133 sequences assigned  
No exact matches.



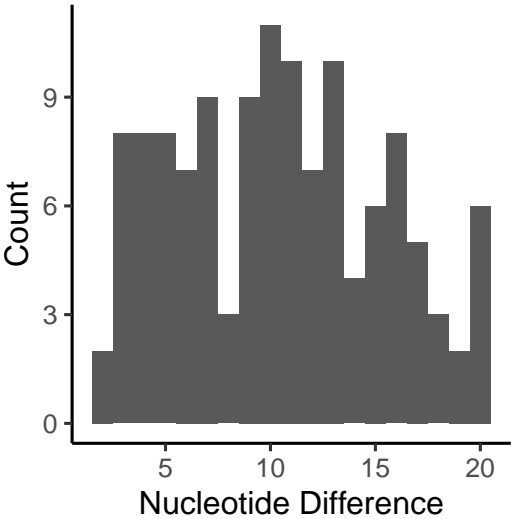
### IGHV3-53\*01\_02

283 sequences assigned  
No exact matches.



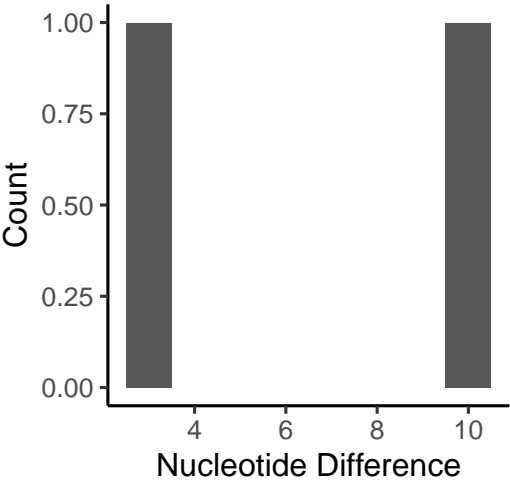
IGHV3-64\*01

138 sequences assigned  
No exact matches.



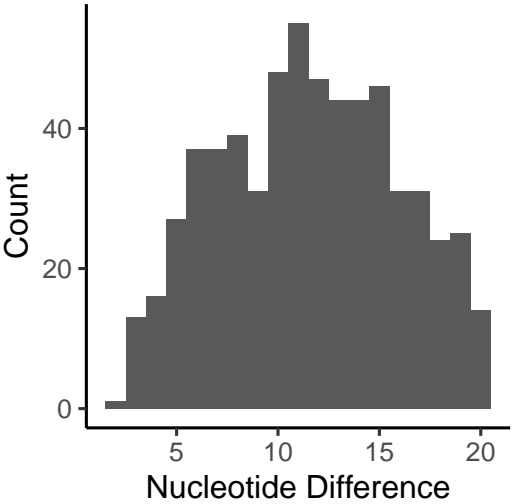
IGHV3-69-1\*01

5 sequences assigned  
No exact matches.



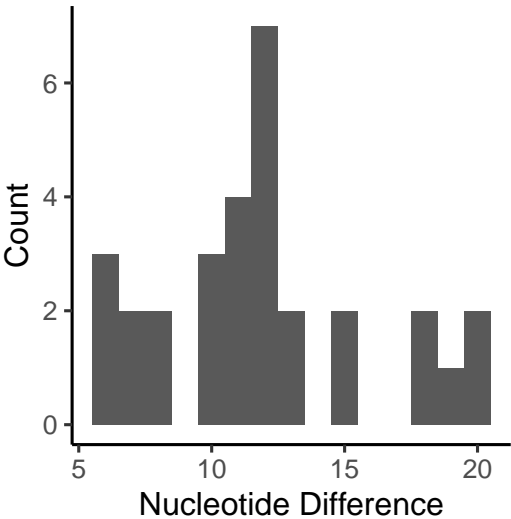
IGHV3-74\*03

687 sequences assigned  
No exact matches.



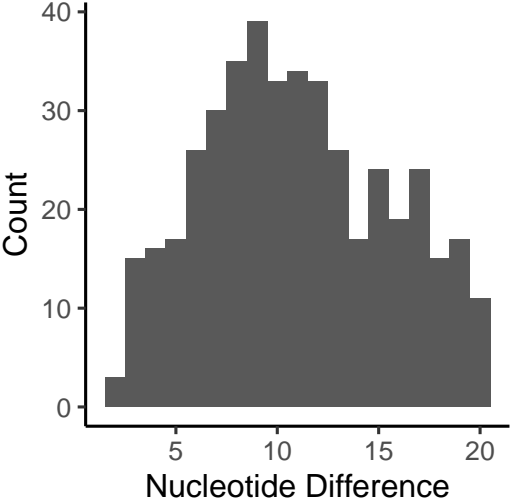
IGHV3-64\*02\_07

35 sequences assigned  
No exact matches.



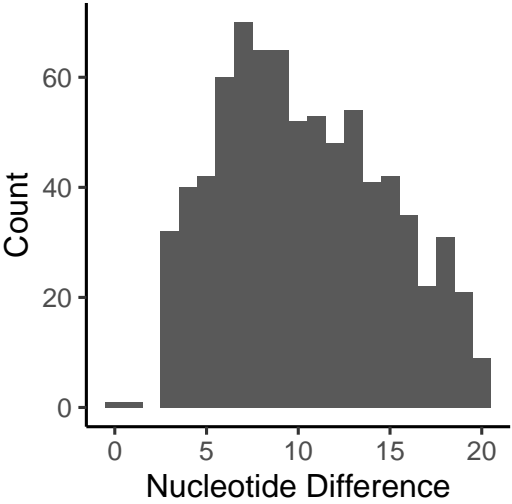
IGHV3-72\*01

476 sequences assigned  
No exact matches.



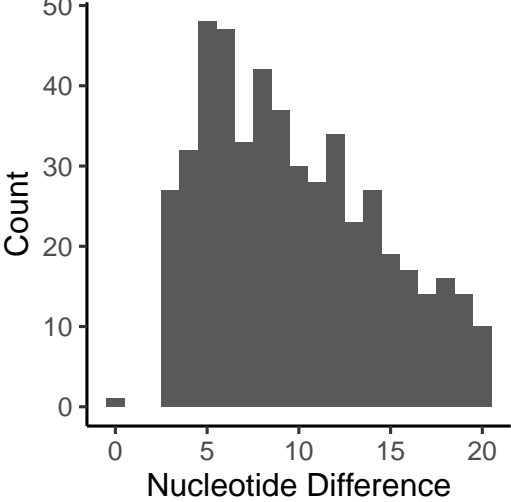
IGHV3-74\*01\_02

861 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



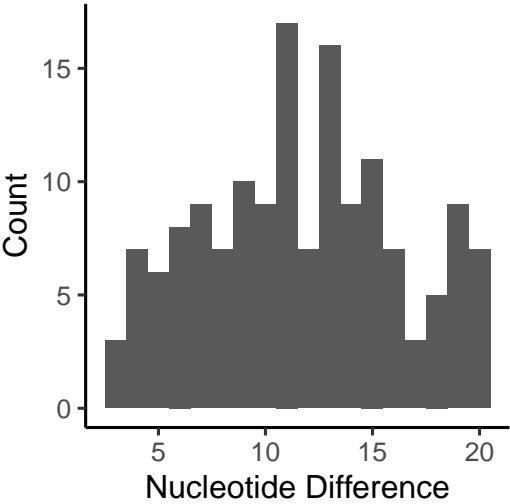
IGHV3-66\*01

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



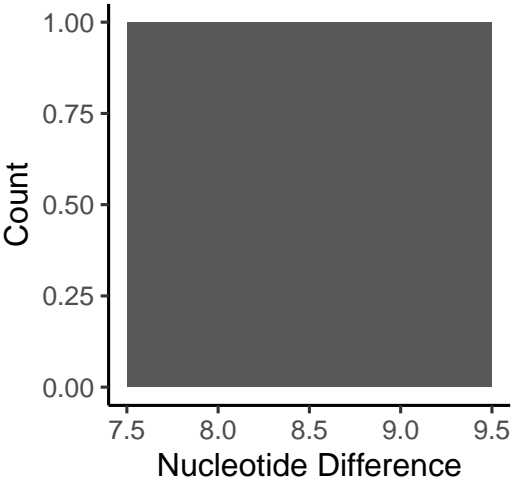
IGHV3-73\*01\_02

161 sequences assigned  
No exact matches.



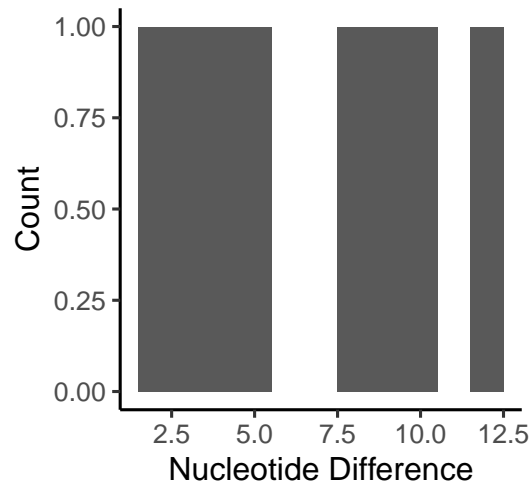
IGHV3-43D\*03

2 sequences assigned  
No exact matches.



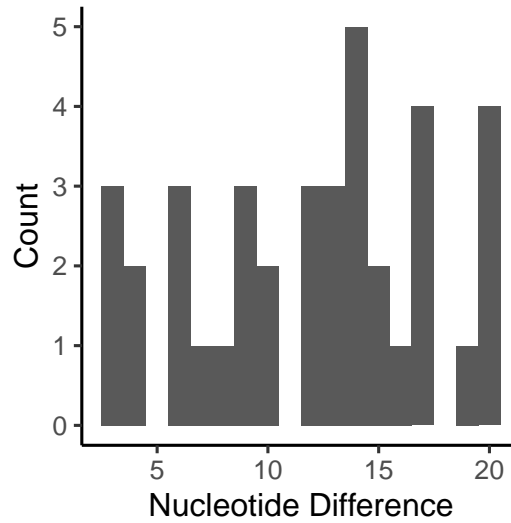
### IGHV3-43D\*04

11 sequences assigned  
No exact matches.



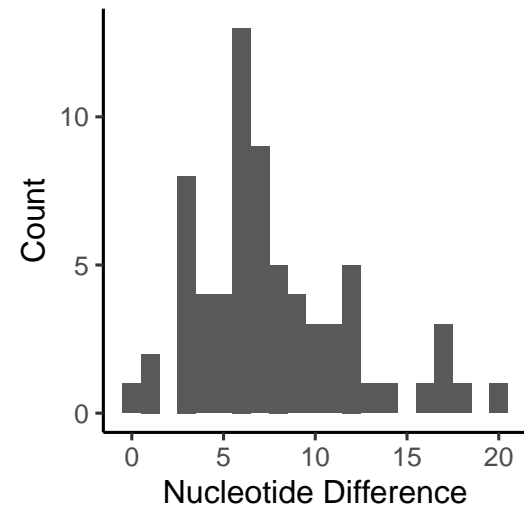
### IGHV4-28\*01\_07

44 sequences assigned  
No exact matches.



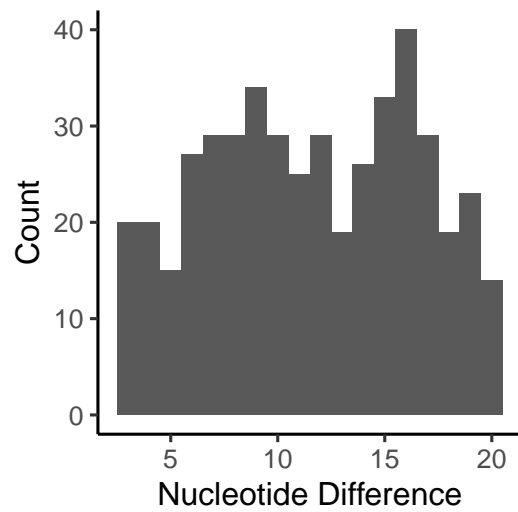
### IGHV4-31\*01

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



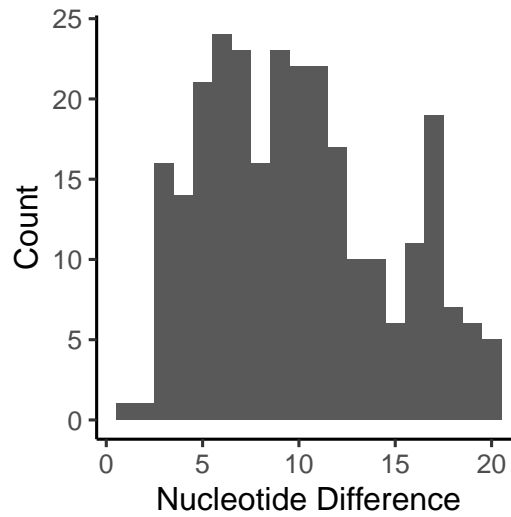
### IGHV3-64D\*06

542 sequences assigned  
No exact matches.



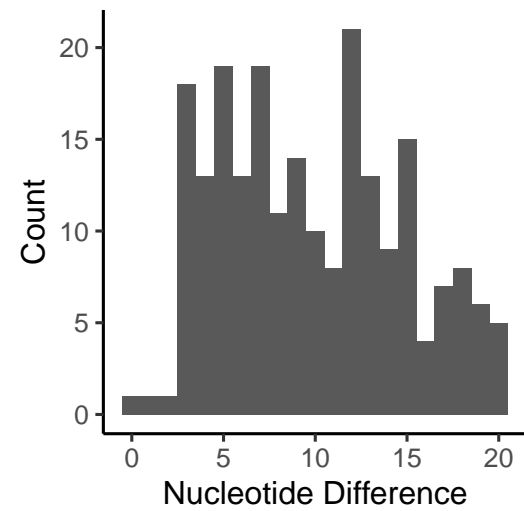
### IGHV4-30-2\*01

432 sequences assigned  
No exact matches.



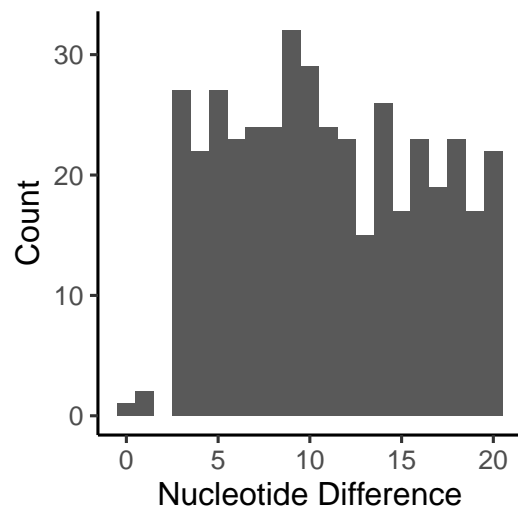
### IGHV4-31\*02

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



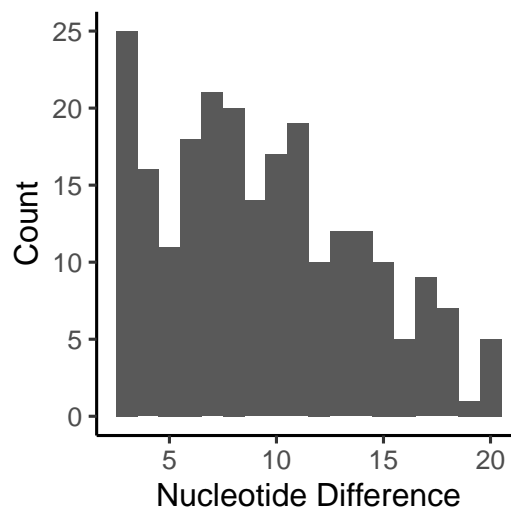
### IGHV4-4\*02\_03

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



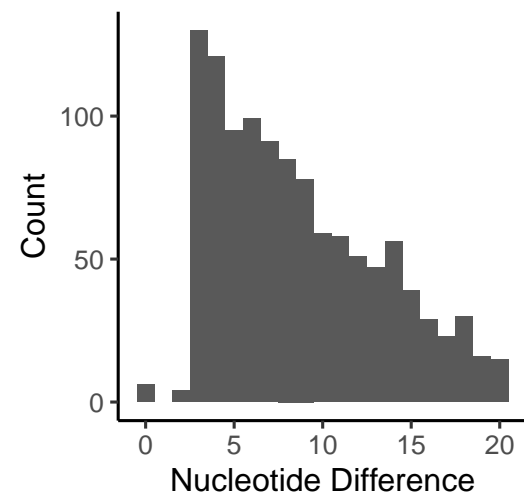
### IGHV4-30-4\*01

266 sequences assigned  
No exact matches.



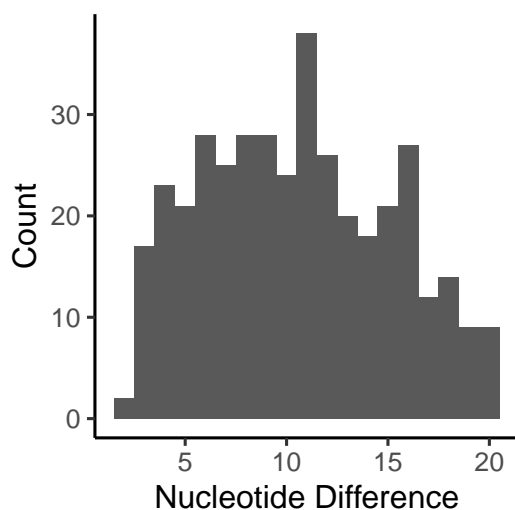
### IGHV4-34\*01\_02

1279 sequences assigned  
6 (0.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



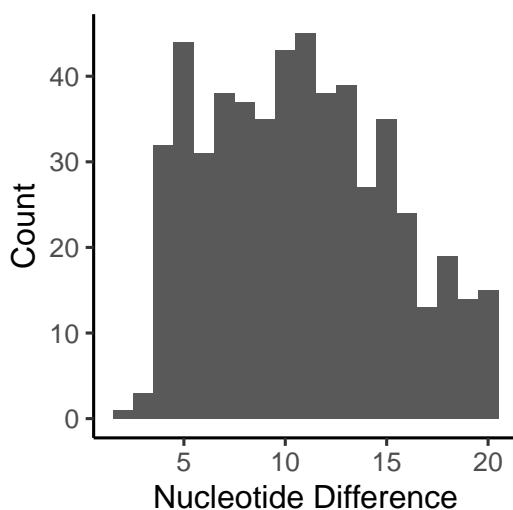
### IGHV4-38-2\*01

428 sequences assigned  
No exact matches.



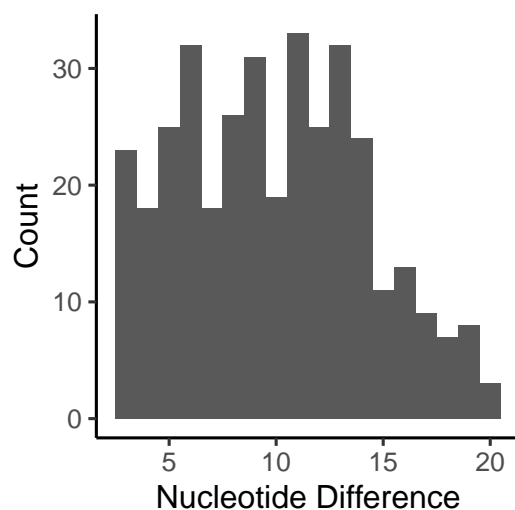
### IGHV4-59\*02

623 sequences assigned  
No exact matches.



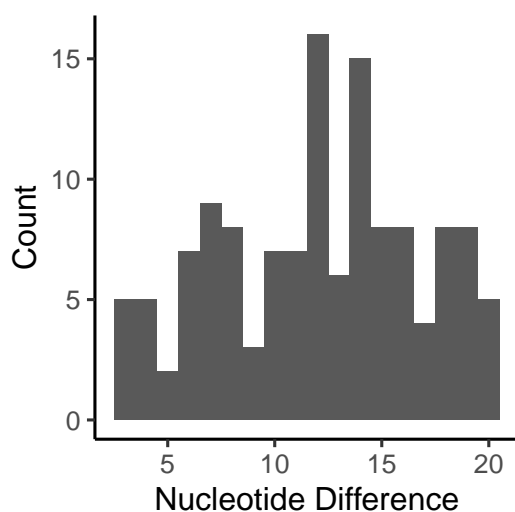
### IGHV4-61\*01

389 sequences assigned  
No exact matches.



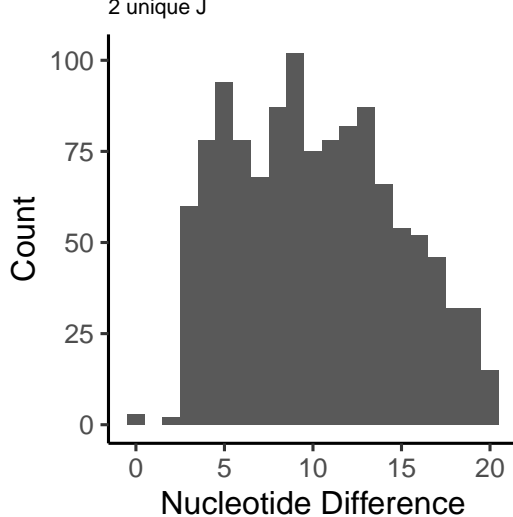
### IGHV4-38-2\*02

167 sequences assigned  
No exact matches.



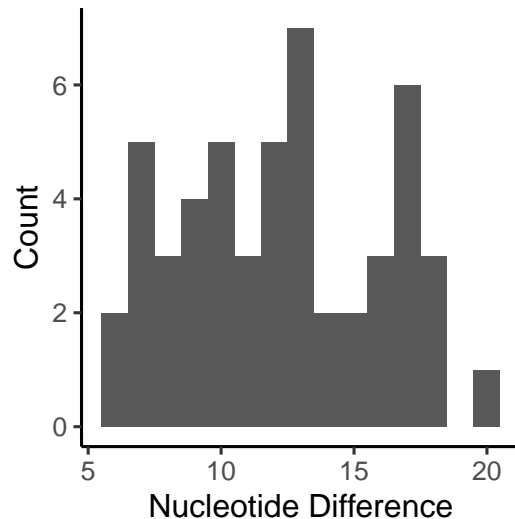
### IGHV4-59\*08

1374 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
2 unique J



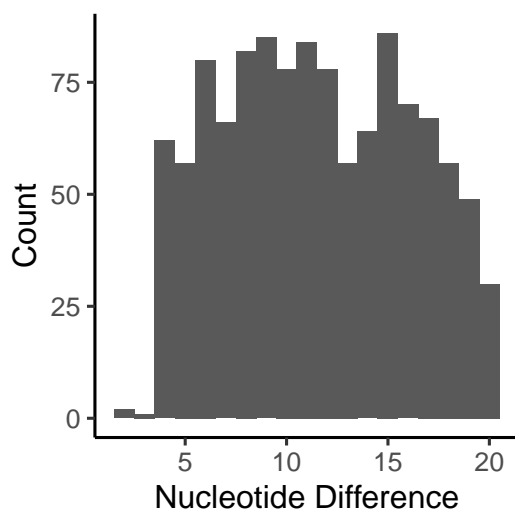
### IGHV4-61\*08

70 sequences assigned  
No exact matches.



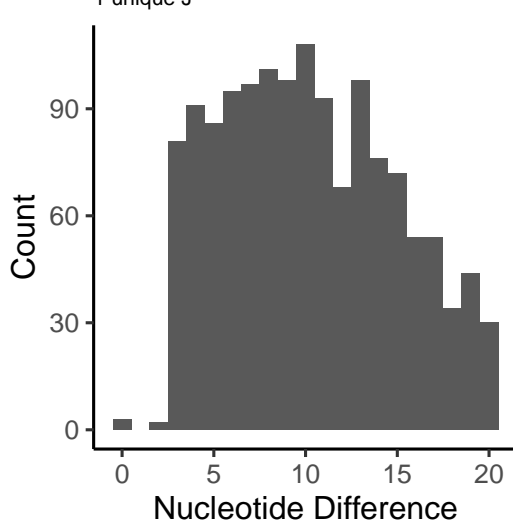
### IGHV4-39\*02

1351 sequences assigned  
No exact matches.



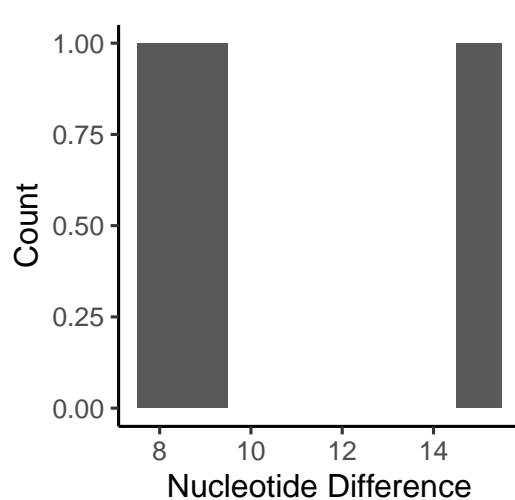
### IGHV4-59\*01\_07

1539 sequences assigned  
3 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



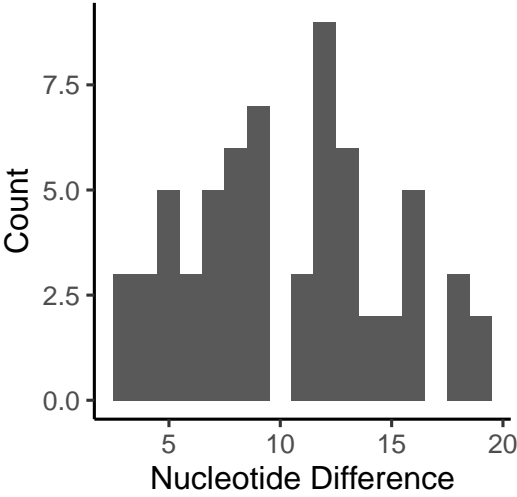
### IGHV4/OR15-8\*01

3 sequences assigned  
No exact matches.



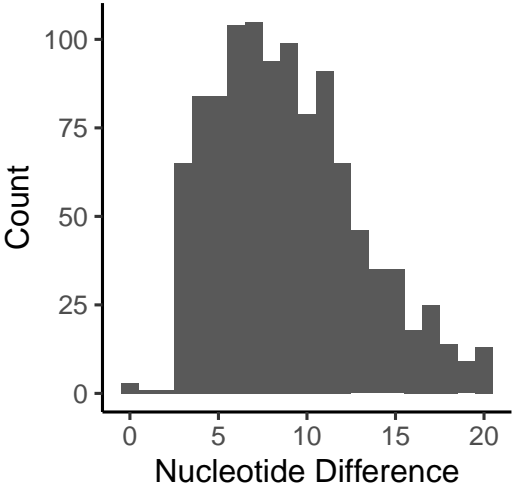
IGHV5-10-1\*01\_03

76 sequences assigned  
No exact matches.



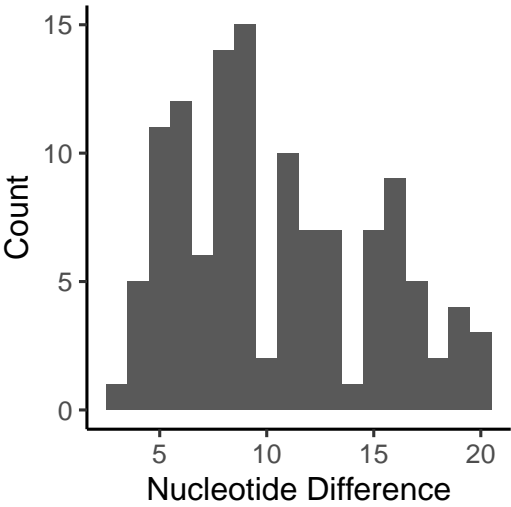
IGHV6-1\*01\_02

1120 sequences assigned  
3 (0.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



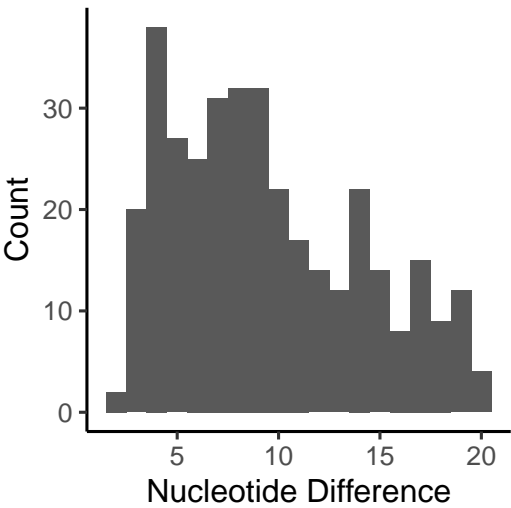
IGHV5-51\*07

129 sequences assigned  
No exact matches.



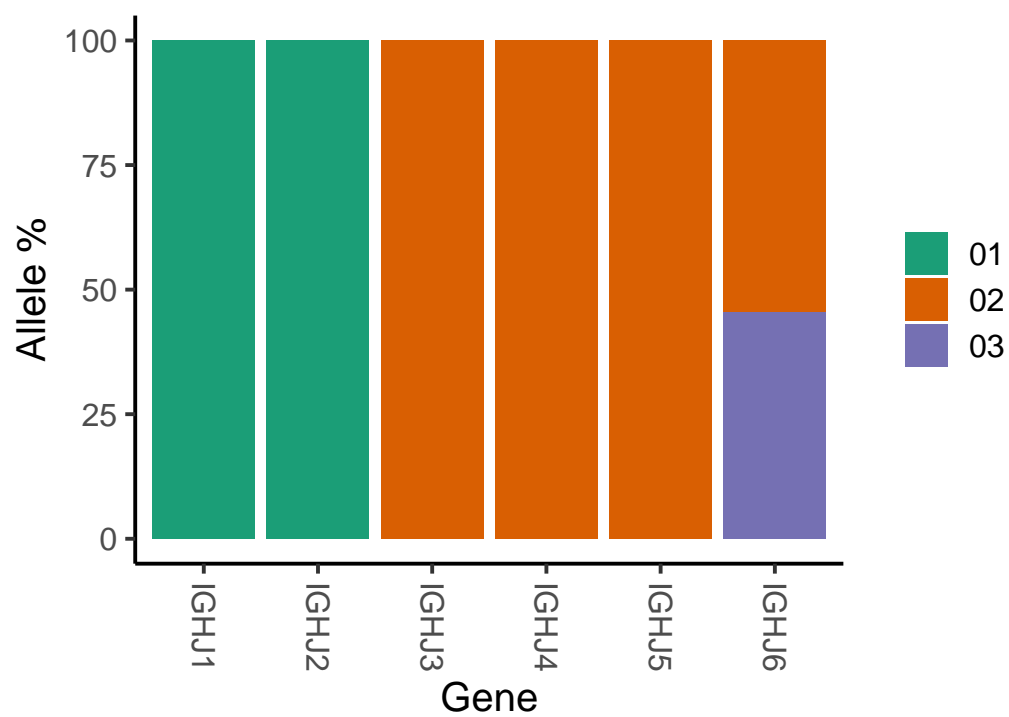
IGHV5-51\*01\_03

398 sequences assigned  
No exact matches.

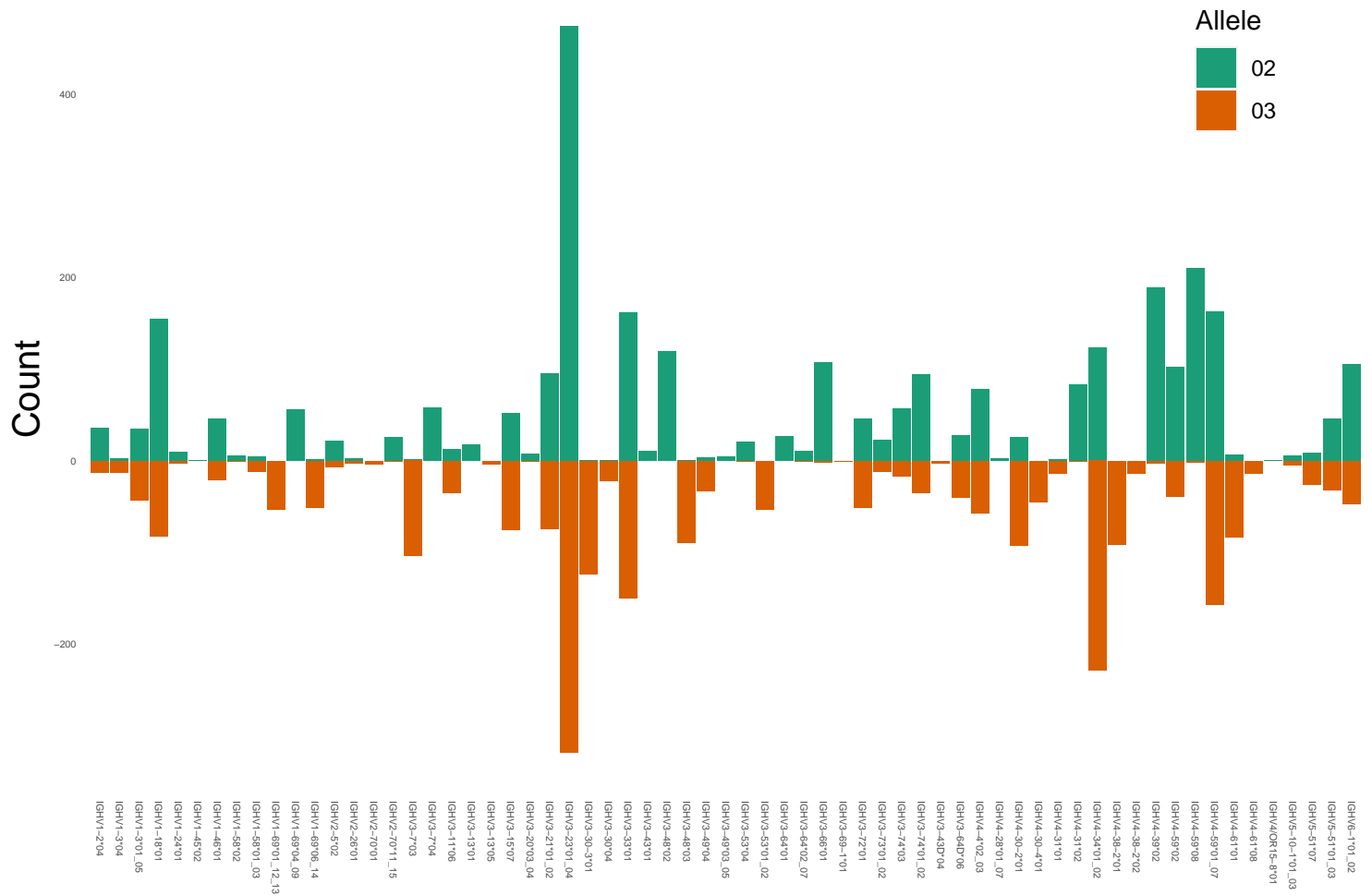




Allele Usage



## Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.