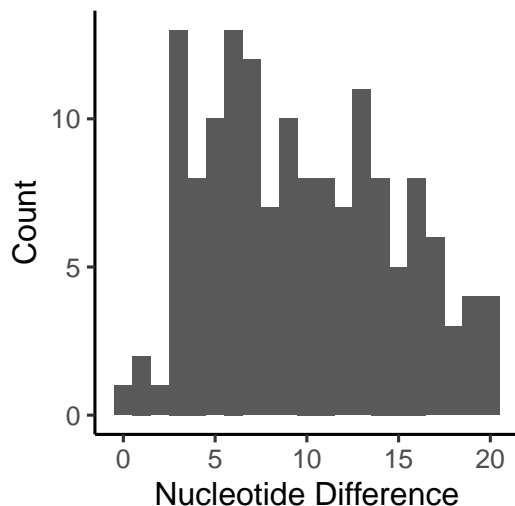


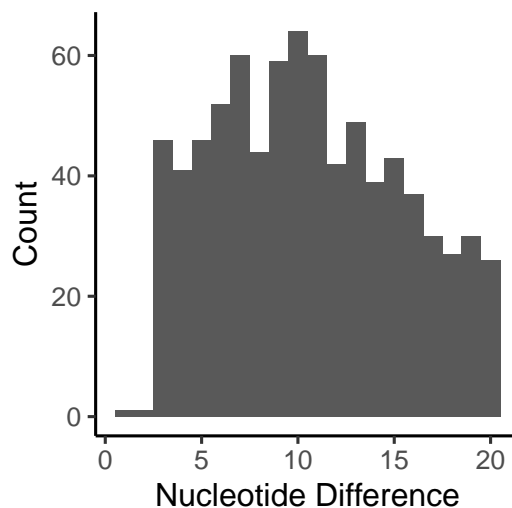
### IGHV1-2\*04

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



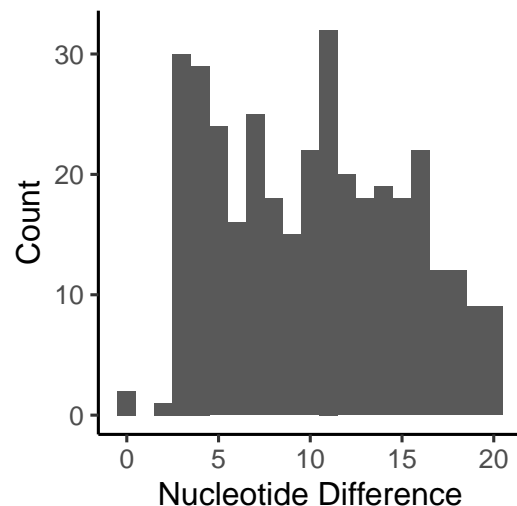
### IGHV1-18\*01

963 sequences assigned  
No exact matches.



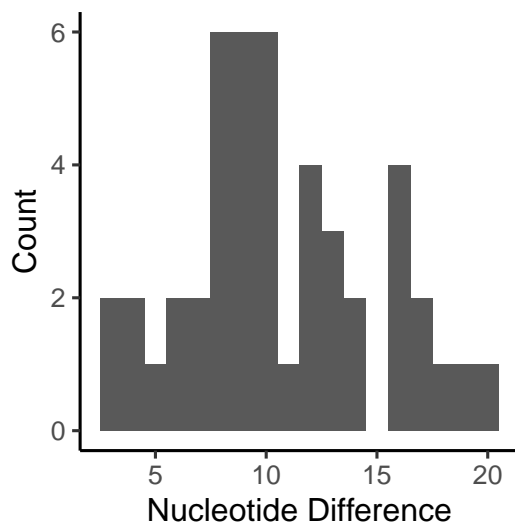
### IGHV1-46\*01

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



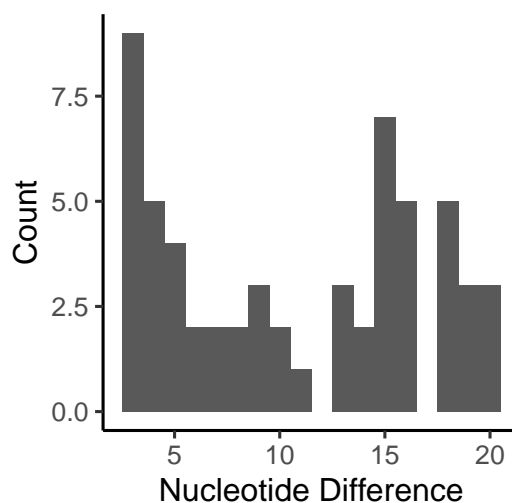
### IGHV1-3\*04

66 sequences assigned  
No exact matches.



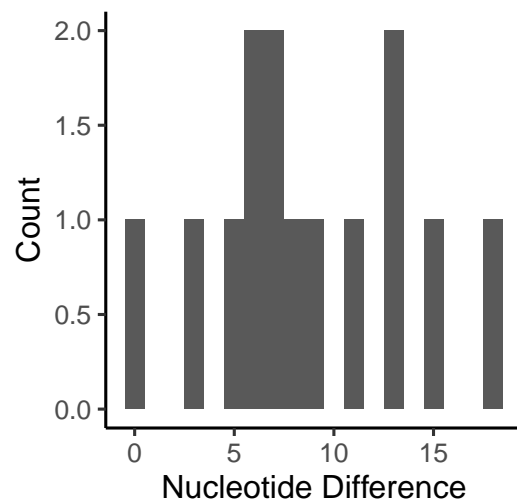
### IGHV1-24\*01

68 sequences assigned  
No exact matches.



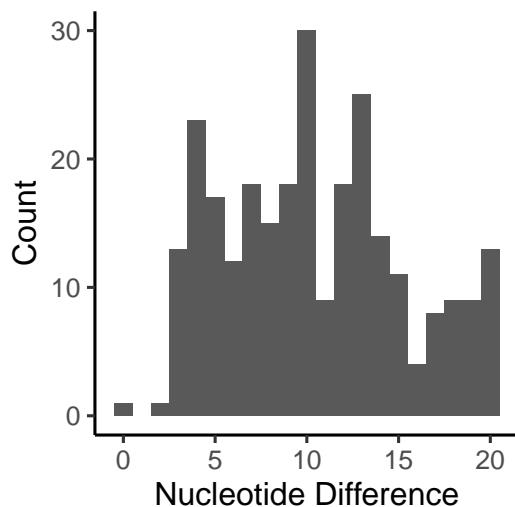
### IGHV1-58\*02

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



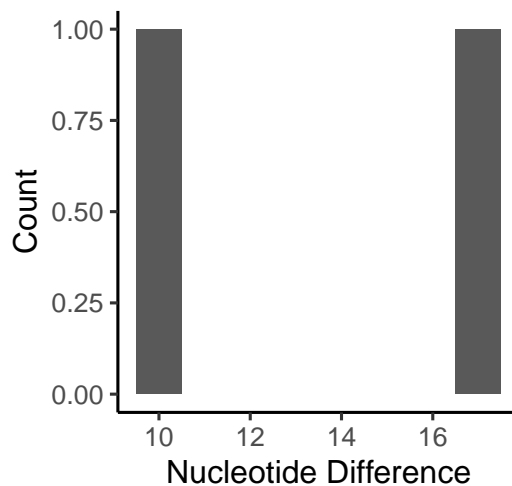
### IGHV1-3\*01\_05

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



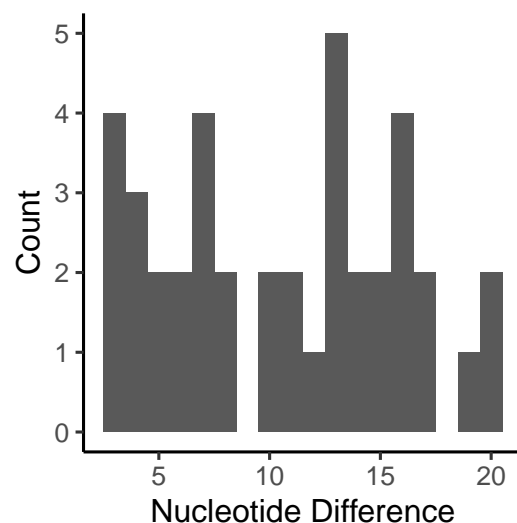
### IGHV1-45\*02

2 sequences assigned  
No exact matches.



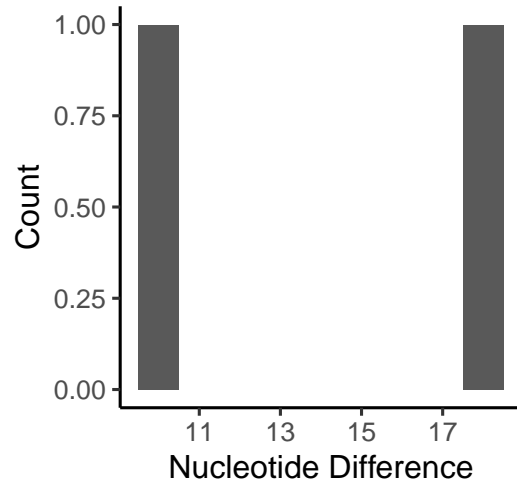
### IGHV1-58\*01\_03

50 sequences assigned  
No exact matches.



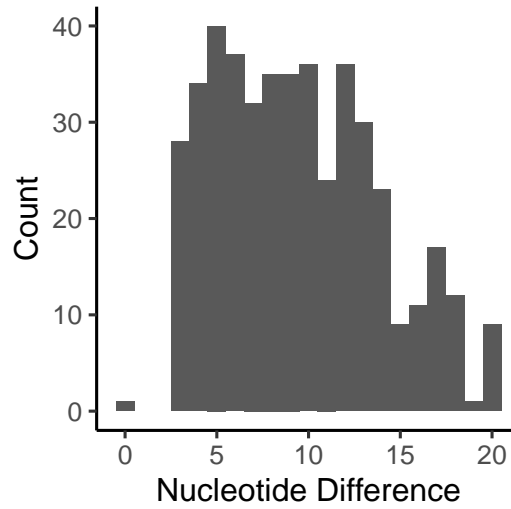
### IGHV1-69-2\*01

2 sequences assigned  
No exact matches.



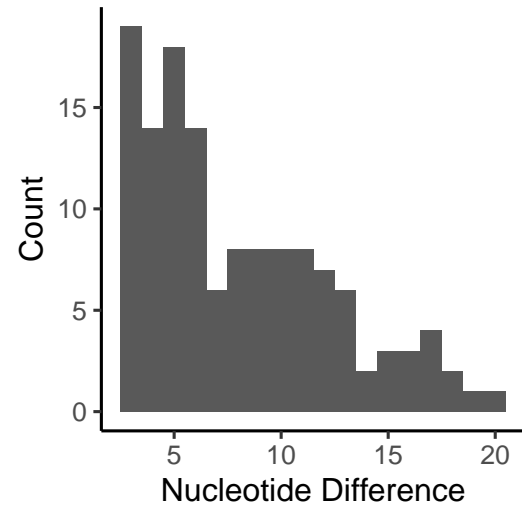
### IGHV2-5\*02

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



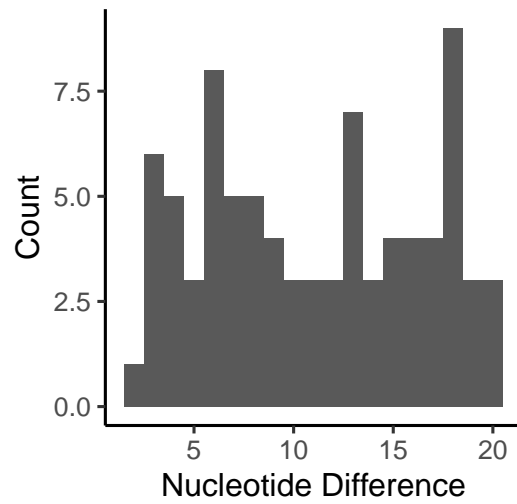
### IGHV2-70\*11\_15

140 sequences assigned  
No exact matches.



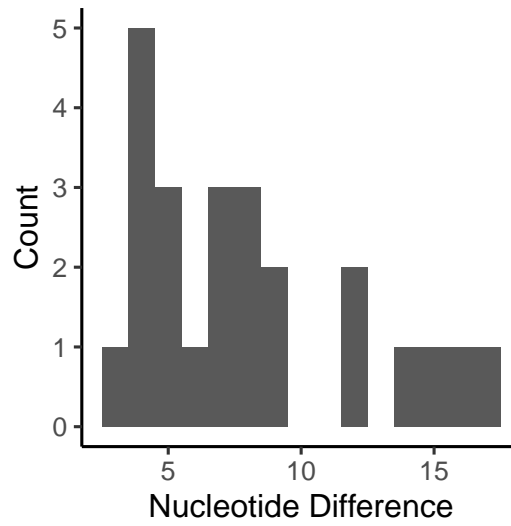
### IGHV1-69\*04\_09

137 sequences assigned  
No exact matches.



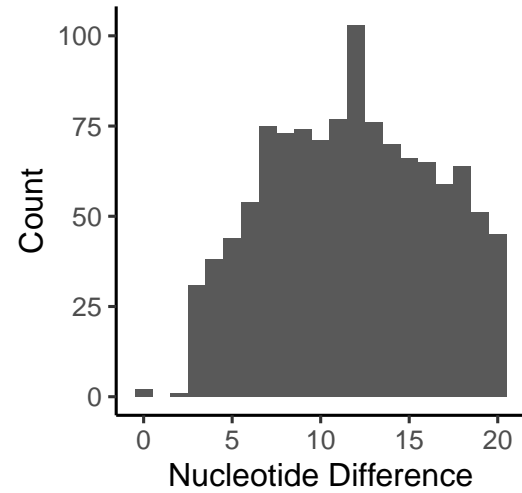
### IGHV2-26\*01

31 sequences assigned  
No exact matches.



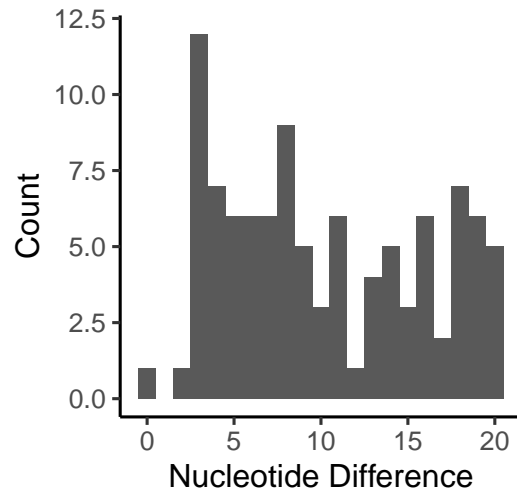
### IGHV3-7\*03

1373 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



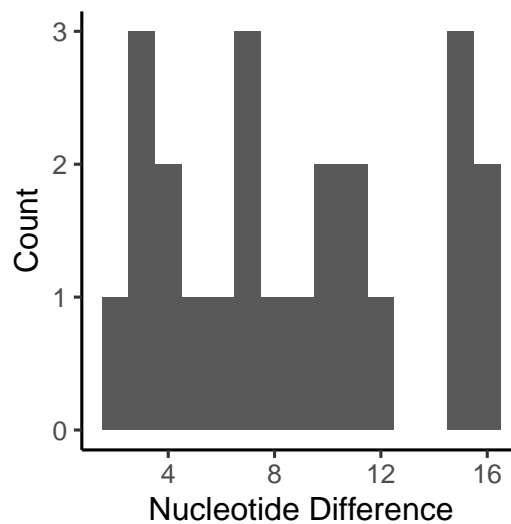
### IGHV1-69\*06\_14

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



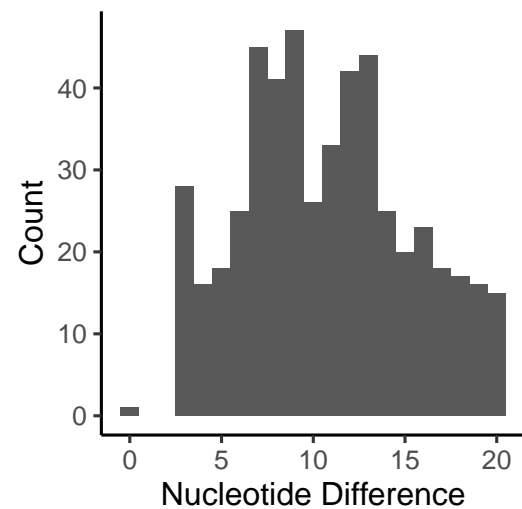
### IGHV2-70\*01

25 sequences assigned  
No exact matches.



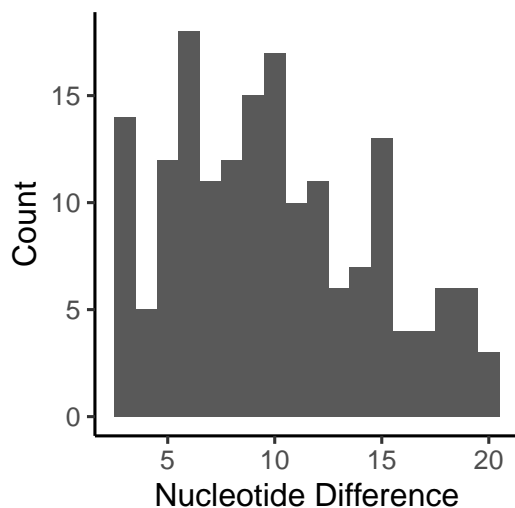
### IGHV3-7\*04

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



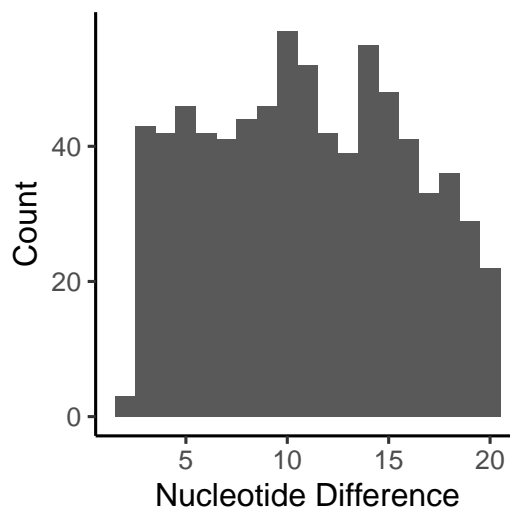
### IGHV3-11\*06

205 sequences assigned  
No exact matches.



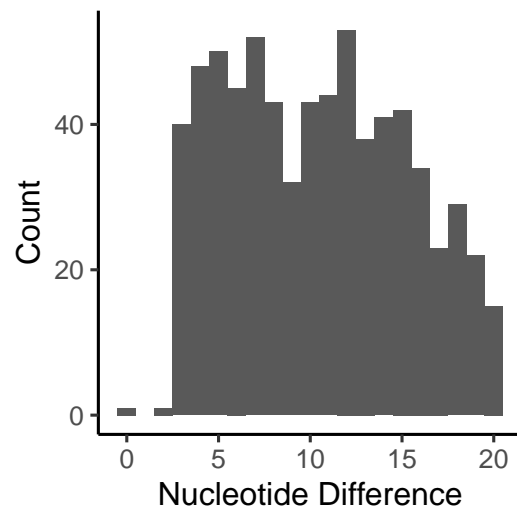
### IGHV3-15\*07

929 sequences assigned  
No exact matches.



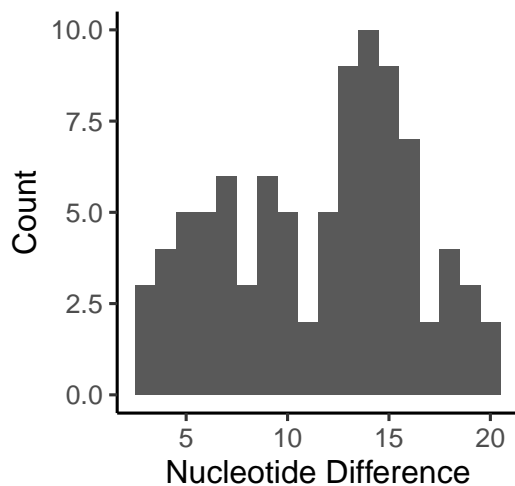
### IGHV3-30-3\*01

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



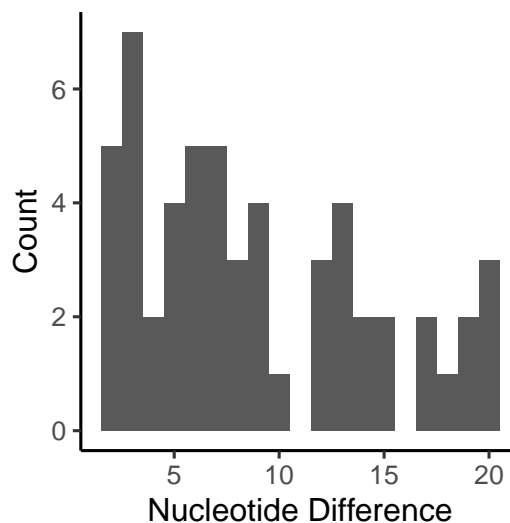
### IGHV3-13\*01

112 sequences assigned  
No exact matches.



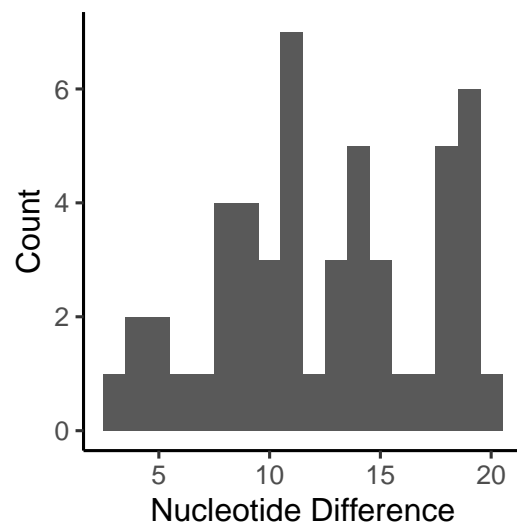
### IGHV3-20\*03\_04

61 sequences assigned  
No exact matches.



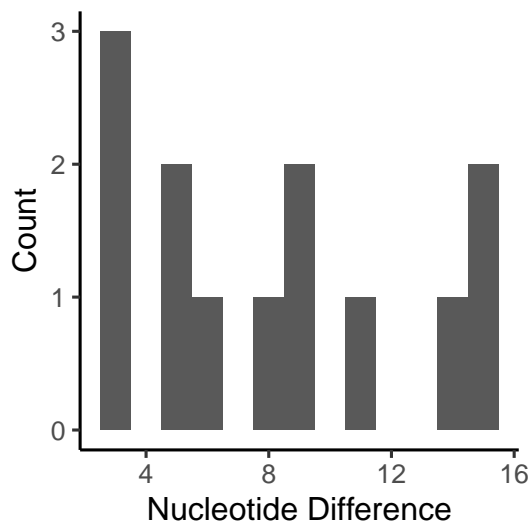
### IGHV3-30\*04

92 sequences assigned  
No exact matches.



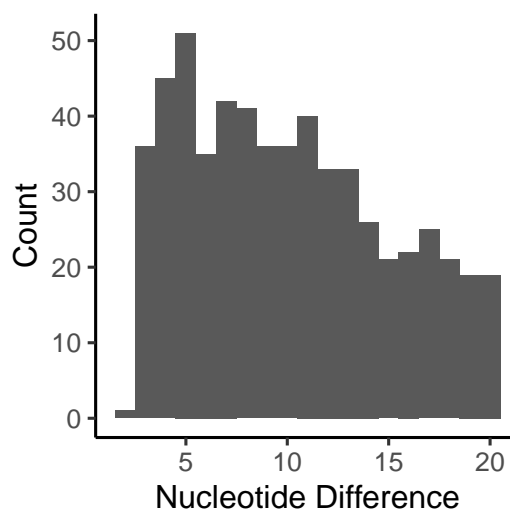
### IGHV3-13\*05

16 sequences assigned  
No exact matches.



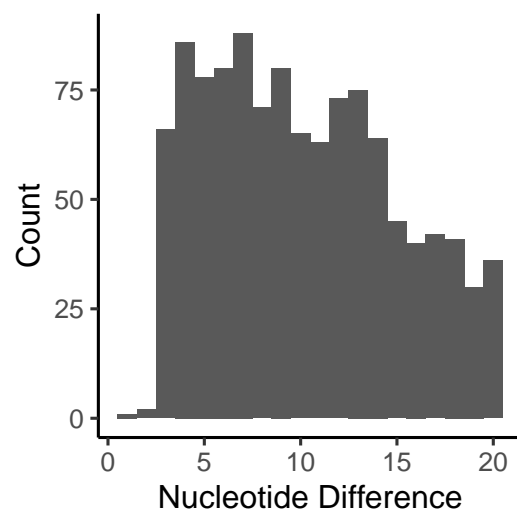
### IGHV3-21\*01\_02

633 sequences assigned  
No exact matches.



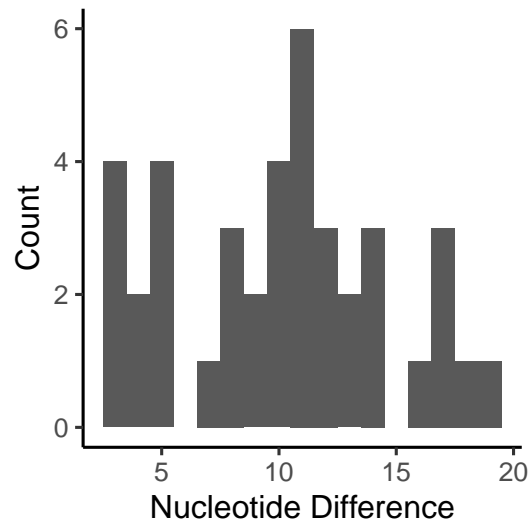
### IGHV3-33\*01

1343 sequences assigned  
No exact matches.



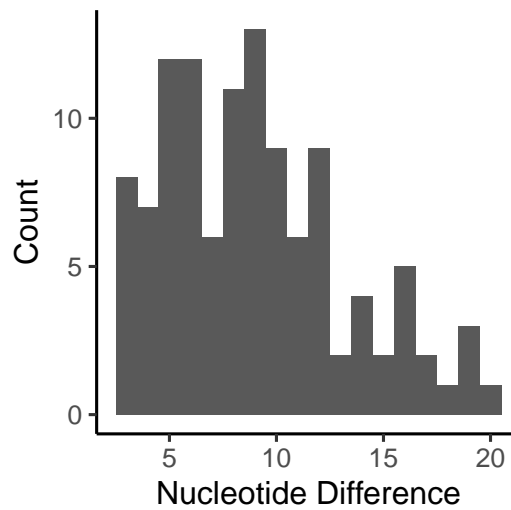
### IGHV3-43\*01

51 sequences assigned  
No exact matches.



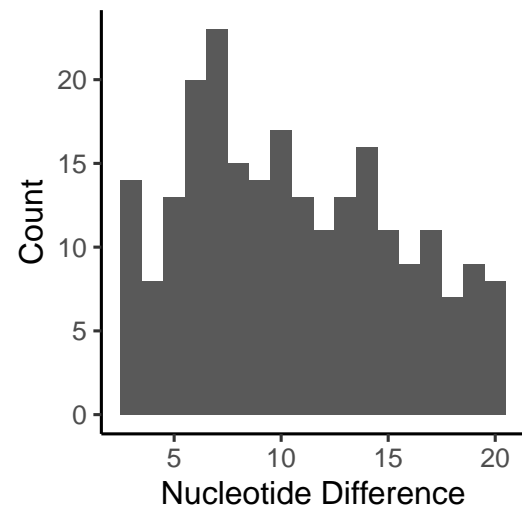
### IGHV3-49\*04

133 sequences assigned  
No exact matches.



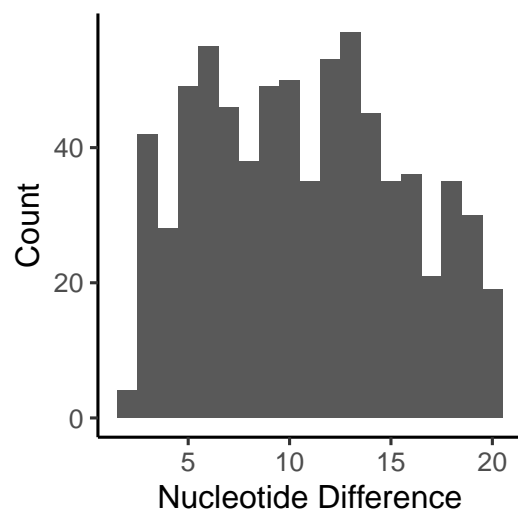
### IGHV3-53\*01\_02

281 sequences assigned  
No exact matches.



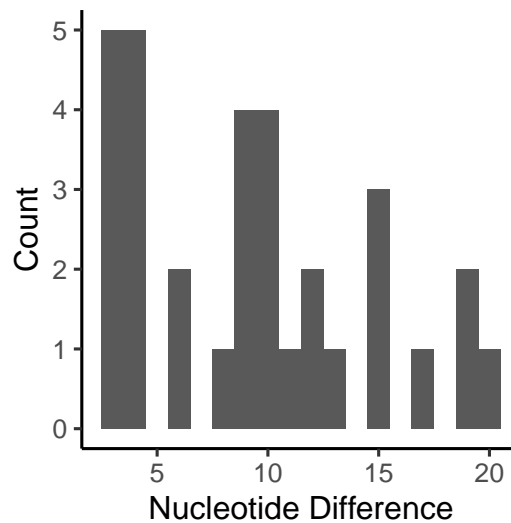
### IGHV3-48\*02

823 sequences assigned  
No exact matches.



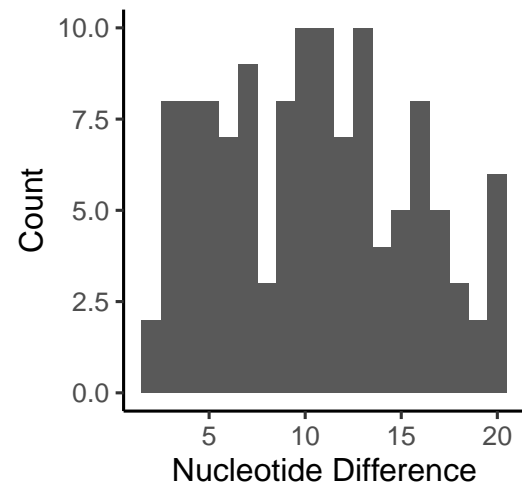
### IGHV3-49\*03\_05

35 sequences assigned  
No exact matches.



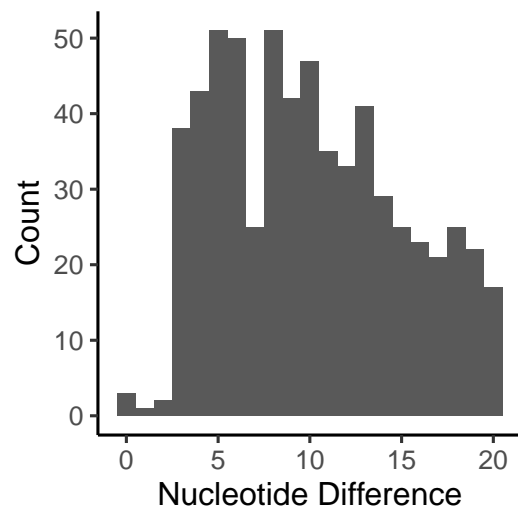
### IGHV3-64\*01

135 sequences assigned  
No exact matches.



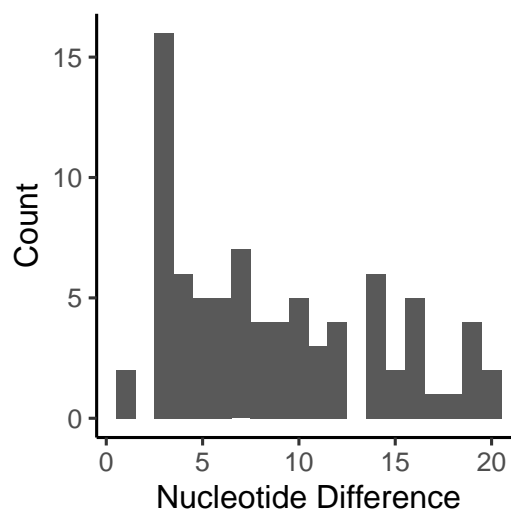
### IGHV3-48\*03

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



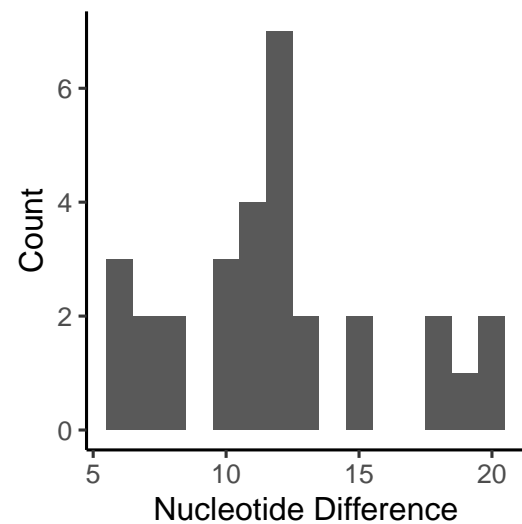
### IGHV3-53\*04

96 sequences assigned  
No exact matches.



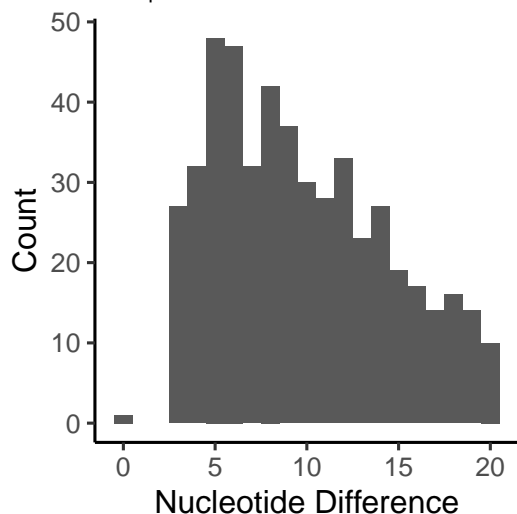
### IGHV3-64\*02\_07

35 sequences assigned  
No exact matches.



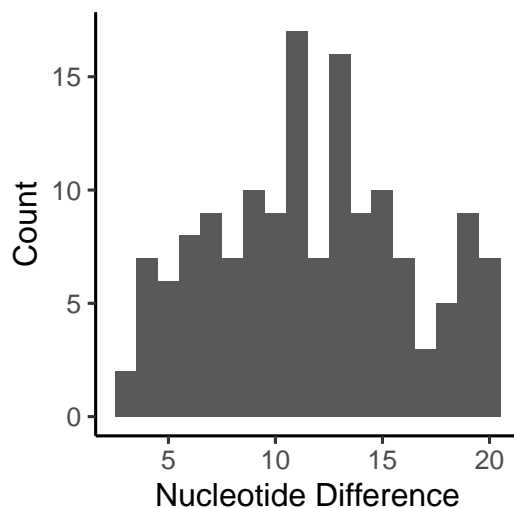
### IGHV3-66\*01

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



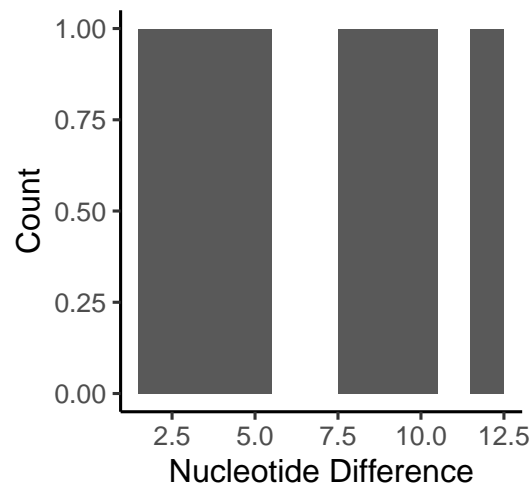
### IGHV3-73\*01\_02

159 sequences assigned  
No exact matches.



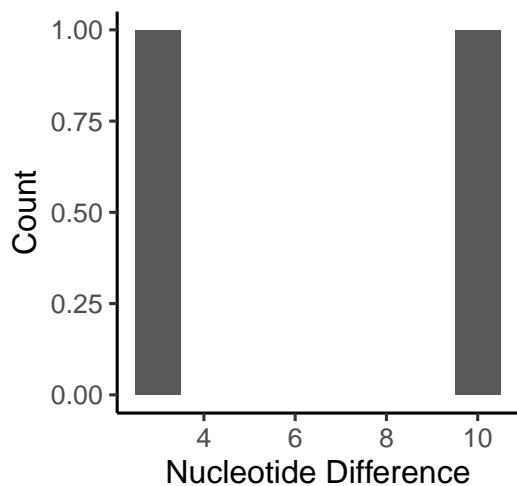
### IGHV3-43D\*04

11 sequences assigned  
No exact matches.



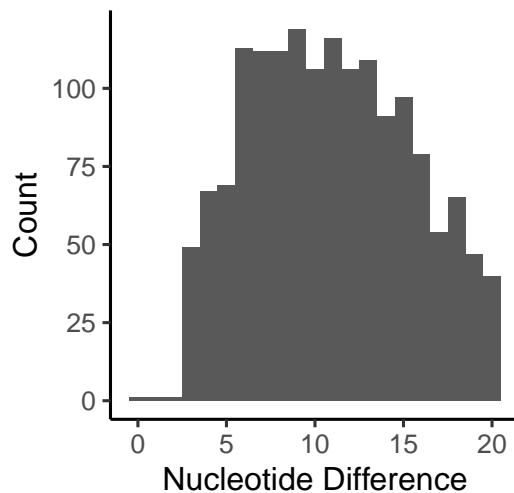
### IGHV3-69-1\*01

5 sequences assigned  
No exact matches.



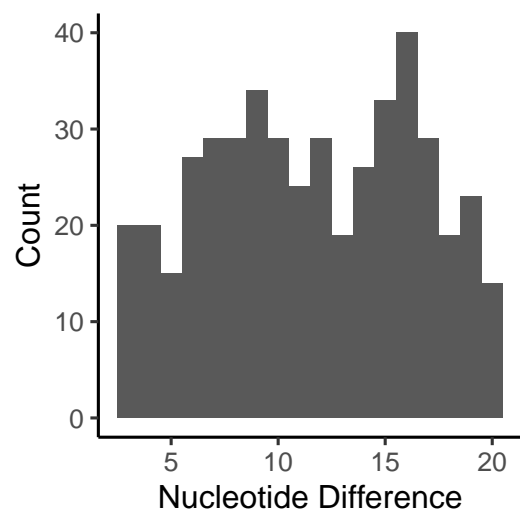
### IGHV3-74\*01\_02

1744 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



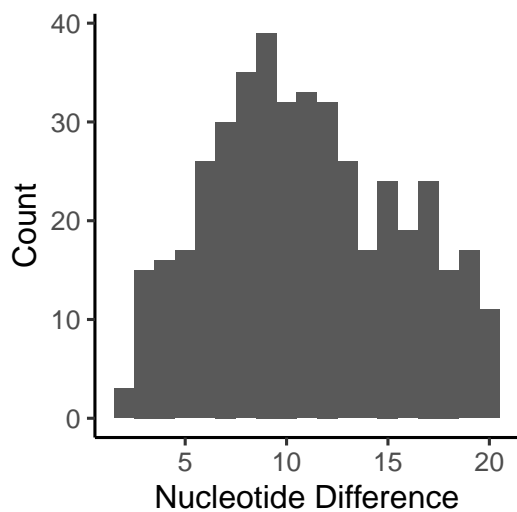
### IGHV3-64D\*06

539 sequences assigned  
No exact matches.



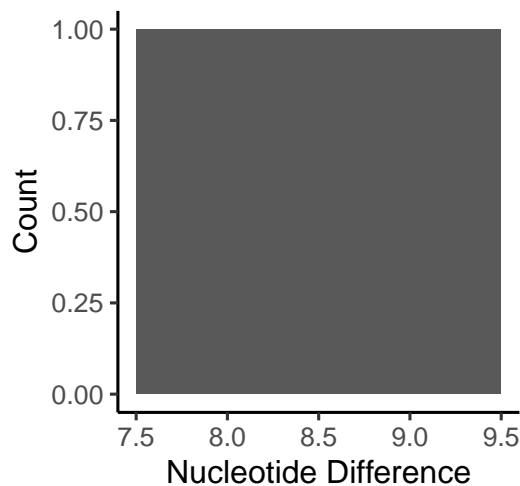
### IGHV3-72\*01

473 sequences assigned  
No exact matches.



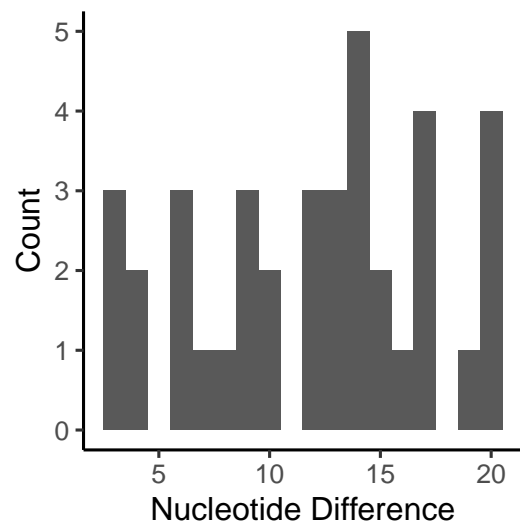
### IGHV3-43D\*03

2 sequences assigned  
No exact matches.



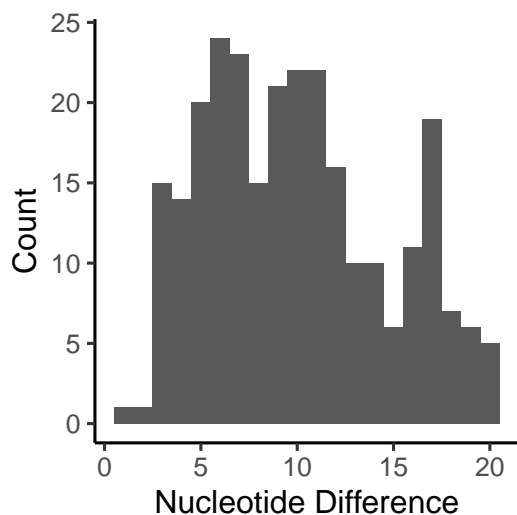
### IGHV4-28\*01\_07

44 sequences assigned  
No exact matches.



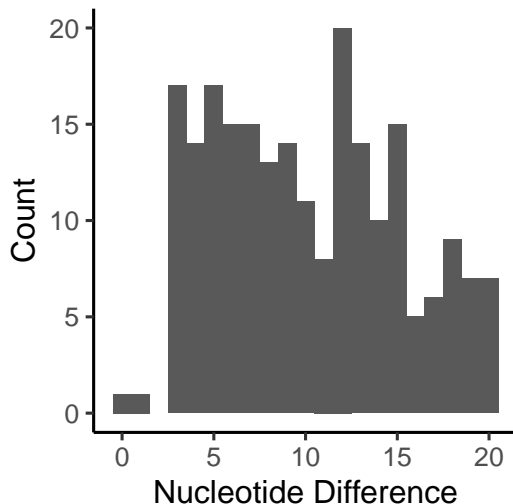
### IGHV4-30-2\*01

426 sequences assigned  
No exact matches.



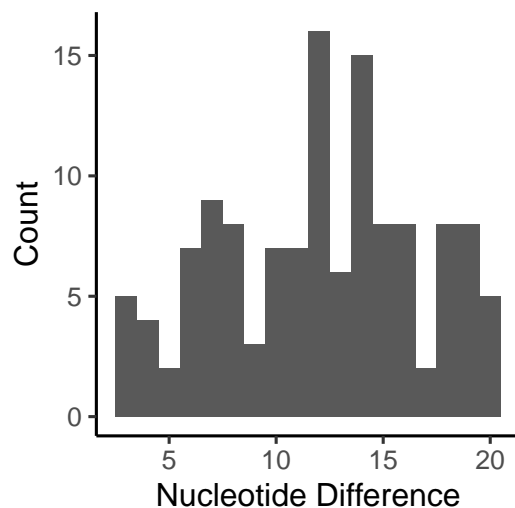
### IGHV4-31\*03\_04

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



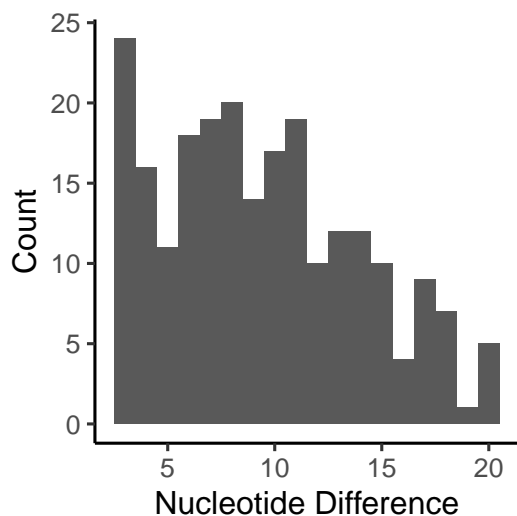
### IGHV4-38-2\*02

164 sequences assigned  
No exact matches.



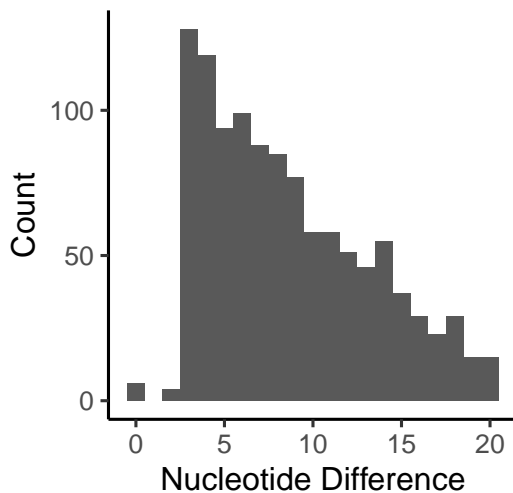
### IGHV4-30-4\*01

261 sequences assigned  
No exact matches.



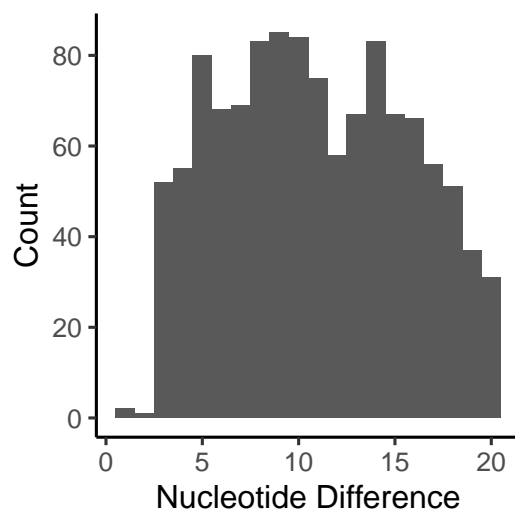
### IGHV4-34\*01\_02

1263 sequences assigned  
6 (0.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



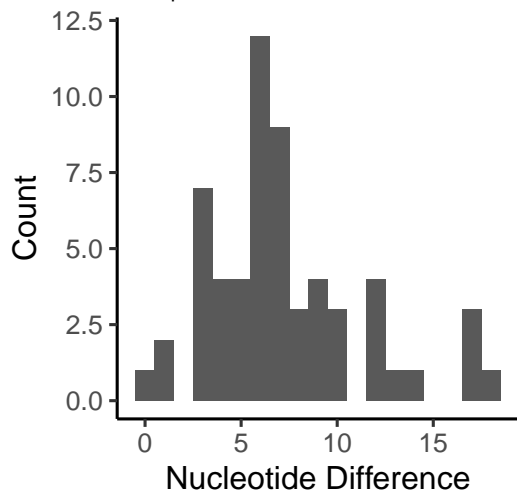
### IGHV4-39\*01\_05

1334 sequences assigned  
No exact matches.



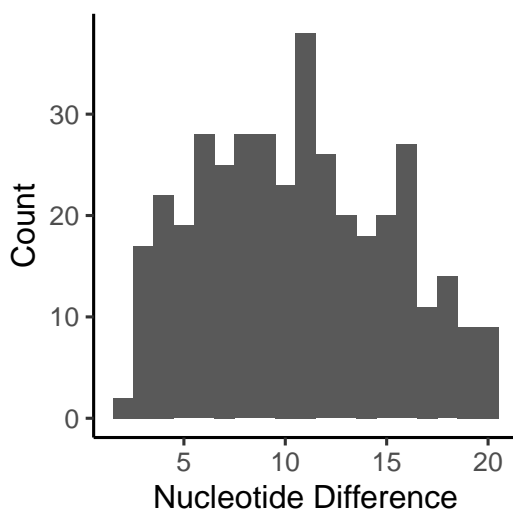
### IGHV4-31\*01

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



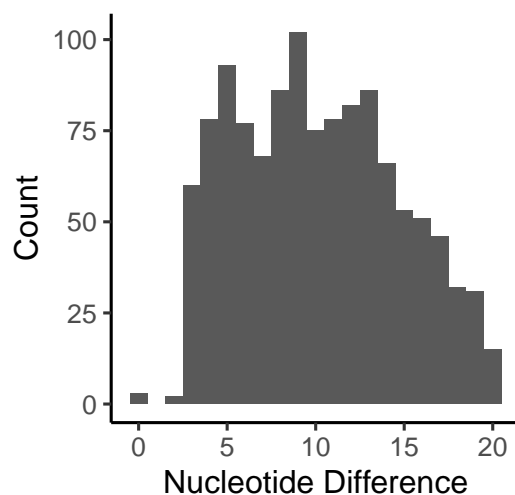
### IGHV4-38-2\*01

422 sequences assigned  
No exact matches.



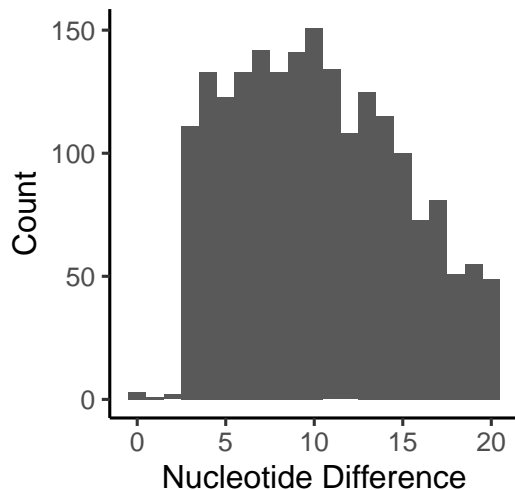
### IGHV4-59\*08

1367 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
2 unique J



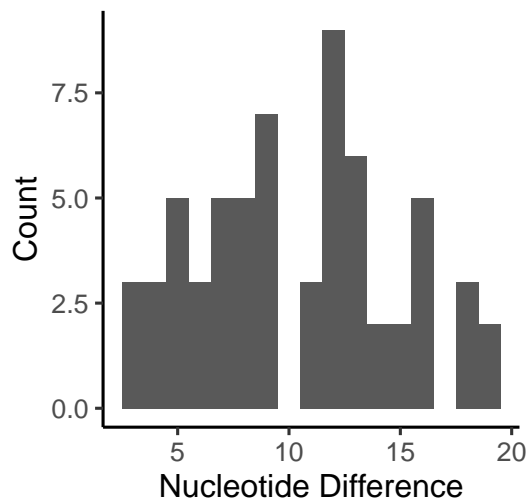
### IGHV4-59\*01\_07

2238 sequences assigned  
3 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



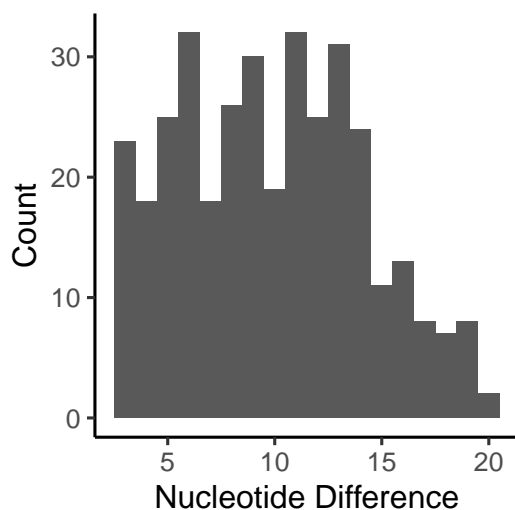
### IGHV5-10-1\*01\_03

75 sequences assigned  
No exact matches.



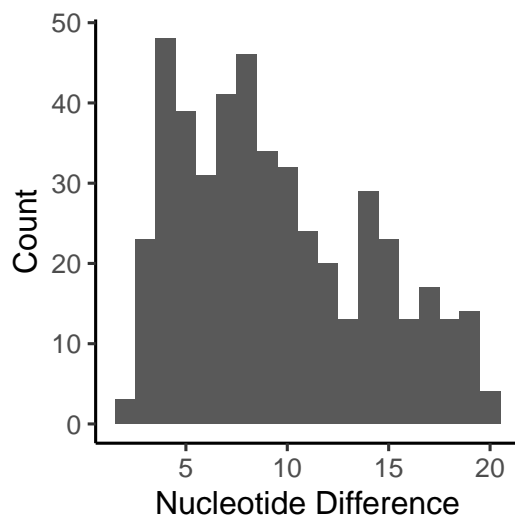
### IGHV4-61\*01

383 sequences assigned  
No exact matches.



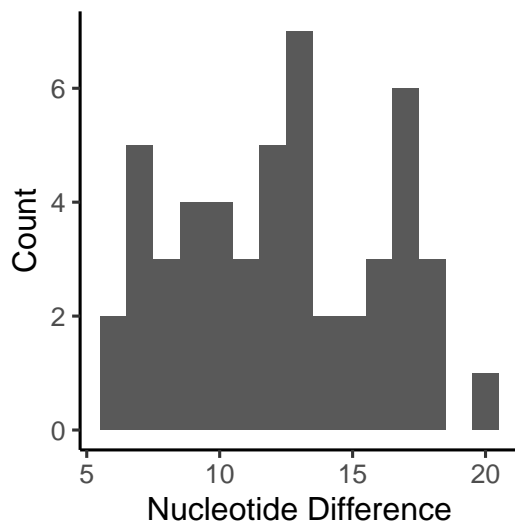
### IGHV5-51\*01\_03

516 sequences assigned  
No exact matches.



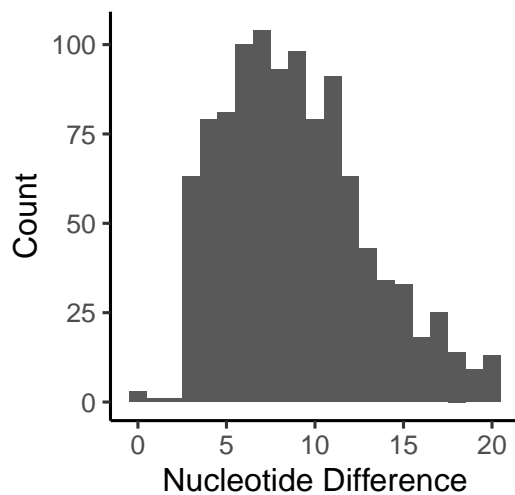
### IGHV4-61\*08

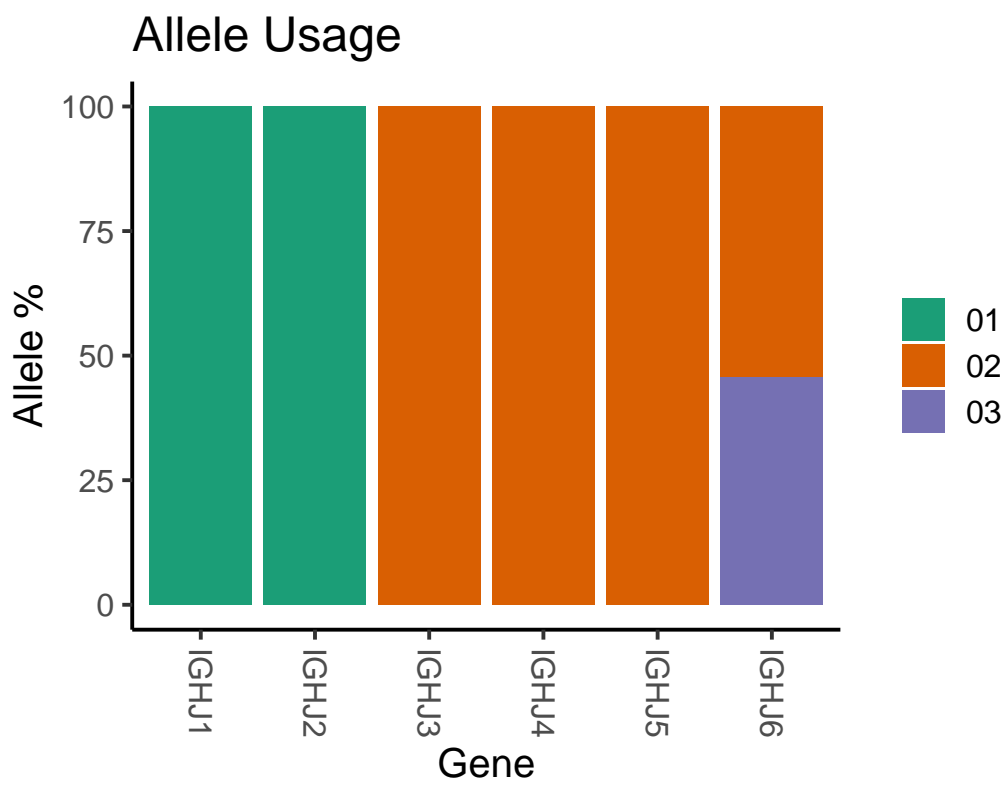
69 sequences assigned  
No exact matches.



### IGHV6-1\*01\_02

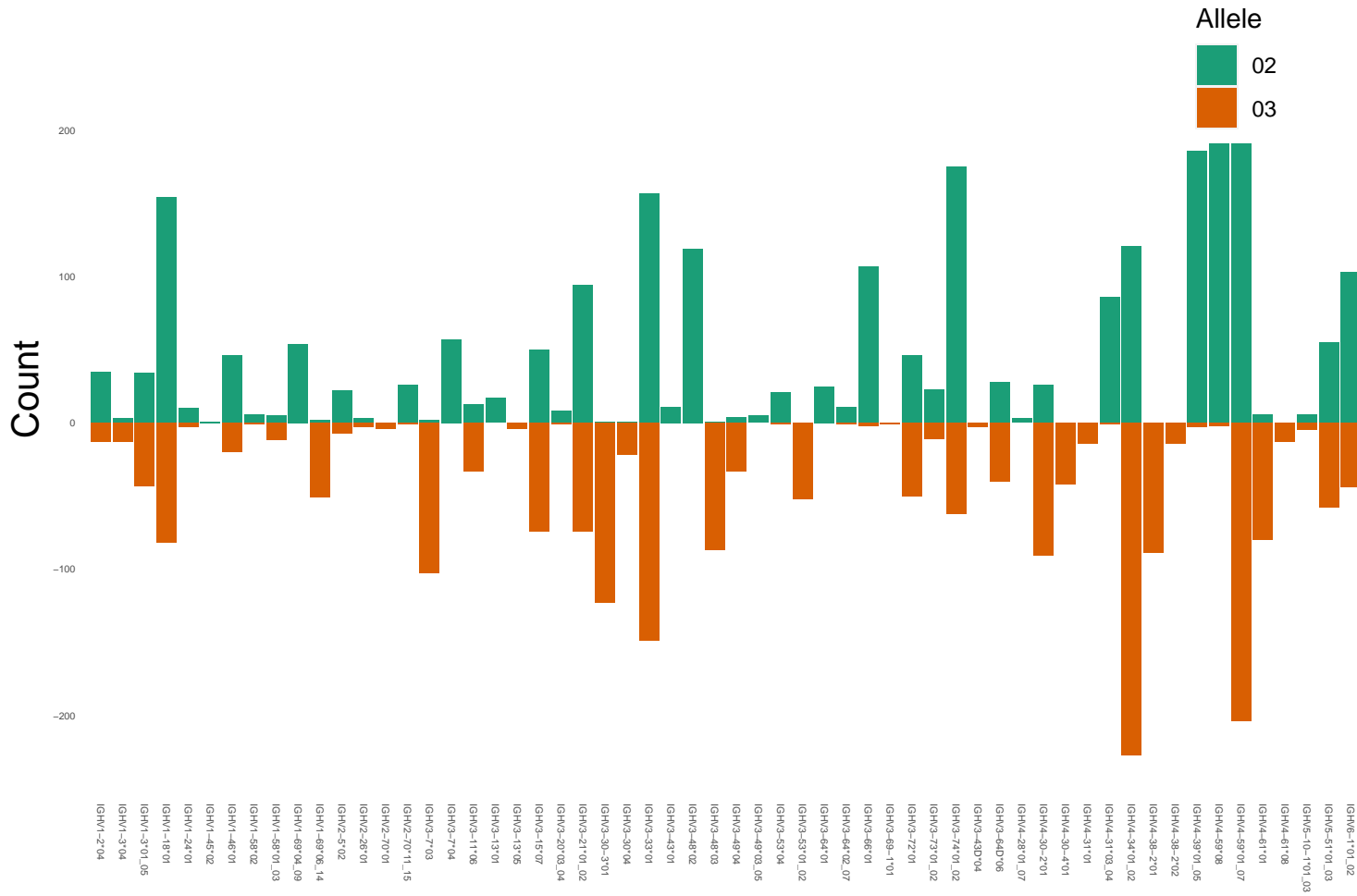
1095 sequences assigned  
3 (0.3%) exact matches, in which:  
3 unique CDR3  
2 unique J







Sequence Count by IGHJ6 allele usage



warning - no inferred sequences found.