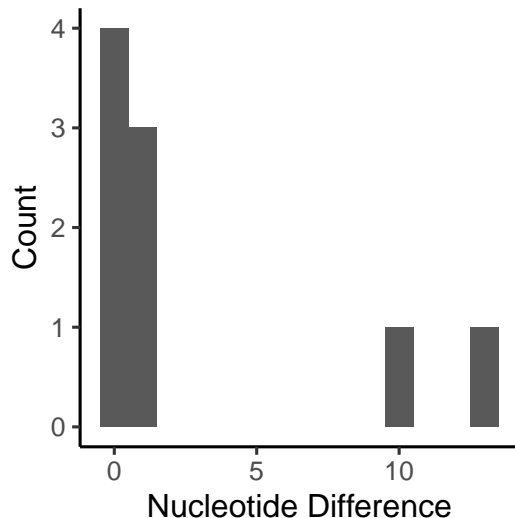


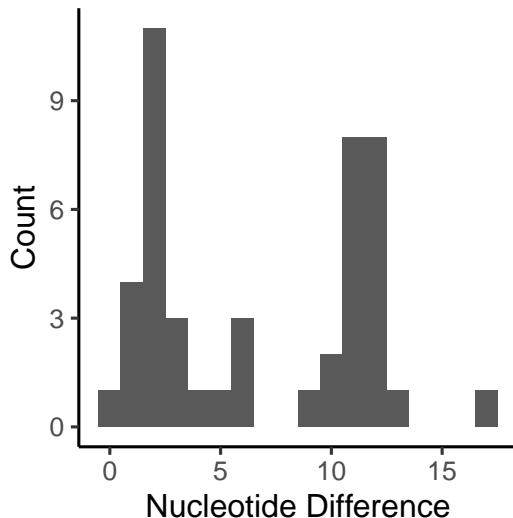
### IGHV1-124\*01\_S6748

9 sequences assigned  
4 (44.4%) exact matches, in which:  
3 unique CDR3  
1 unique J



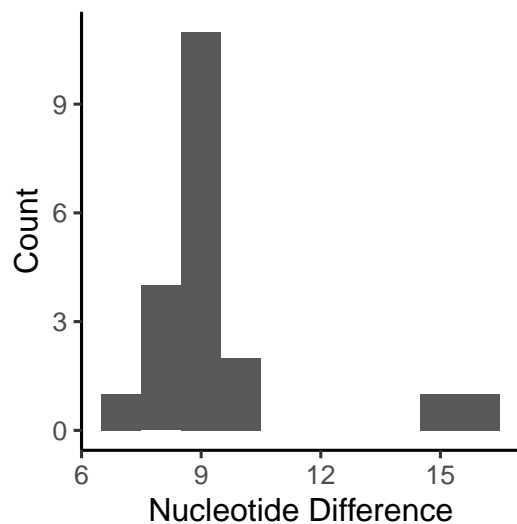
### IGHV2-7\*02\_S1732

45 sequences assigned  
1 (2.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



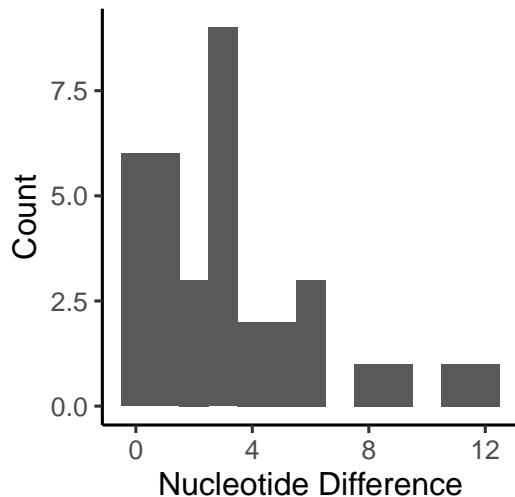
### IGHV2-NL\_1\*01\_S5431

20 sequences assigned  
No exact matches.



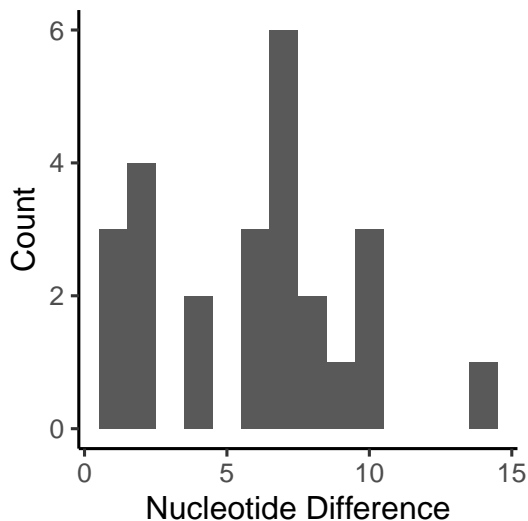
### IGHV1-138\*01\_S2054

35 sequences assigned  
6 (17.1%) exact matches, in which:  
4 unique CDR3  
1 unique J



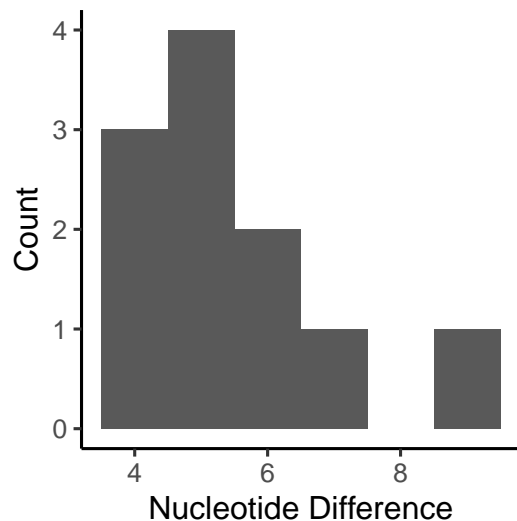
### IGHV2-69\*01\_S8735

64 sequences assigned  
No exact matches.



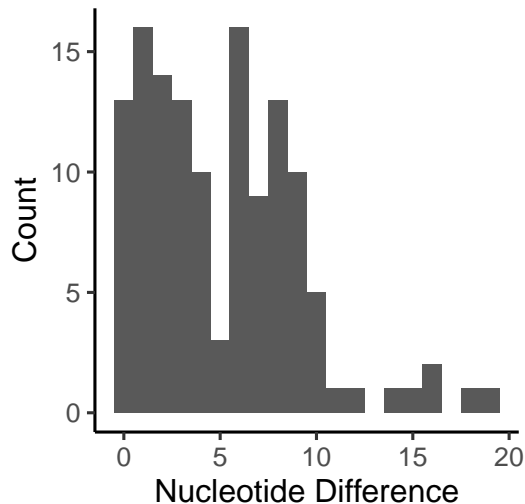
### IGHV3-52\*01\_S8160

11 sequences assigned  
No exact matches.



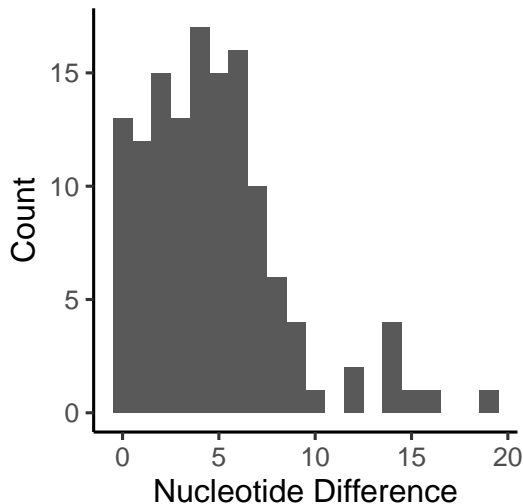
### IGHV1-NL\_1\*01\_S2052

131 sequences assigned  
13 (9.9%) exact matches, in which:  
10 unique CDR3  
1 unique J



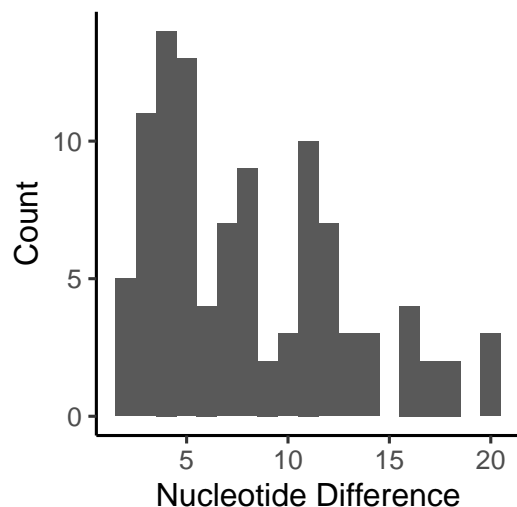
### IGHV2-118\*01\_S3831

148 sequences assigned  
13 (8.8%) exact matches, in which:  
6 unique CDR3  
1 unique J



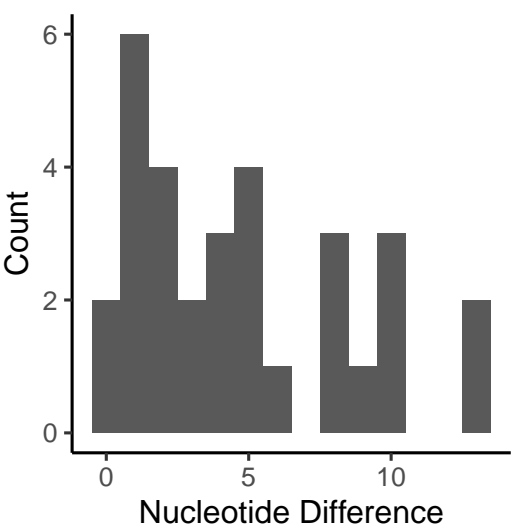
### IGHV3-88\*01\_S4297

107 sequences assigned  
No exact matches.



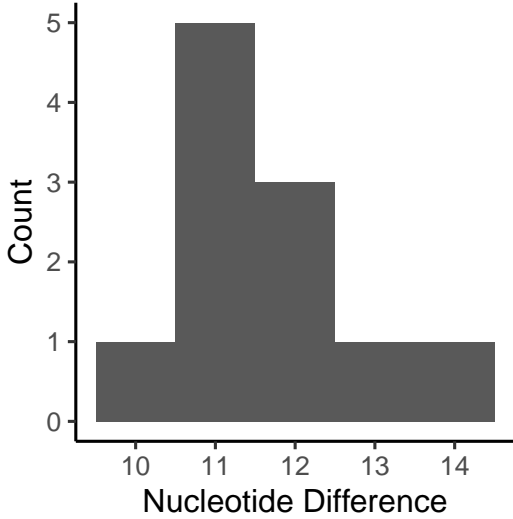
IGHV3-122\*01\_S6138

32 sequences assigned  
2 (6.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



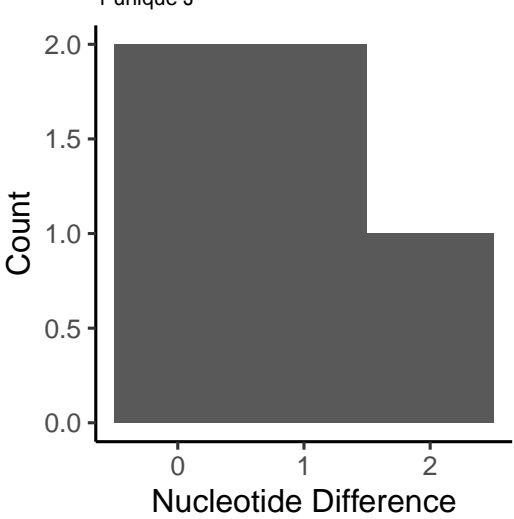
IGHV3-128\*02\_S3121

18 sequences assigned  
No exact matches.



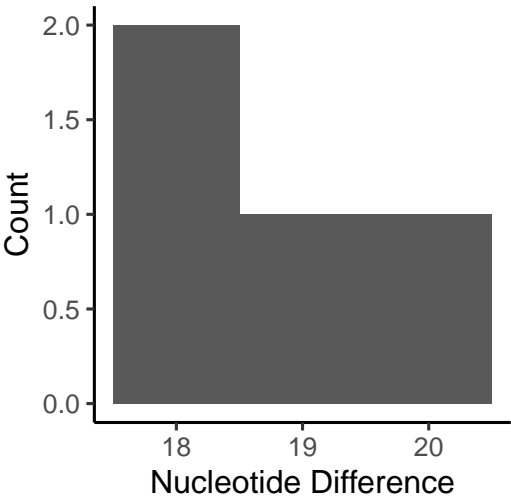
IGHV3-177\*01\_S5369

5 sequences assigned  
2 (40%) exact matches, in which:  
1 unique CDR3  
1 unique J



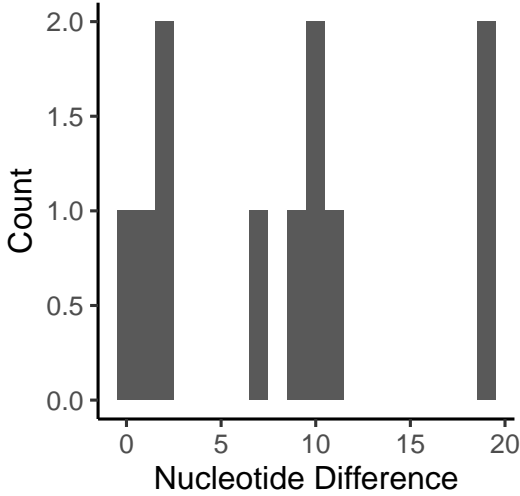
IGHV3-127\*01\_S7059

5 sequences assigned  
No exact matches.



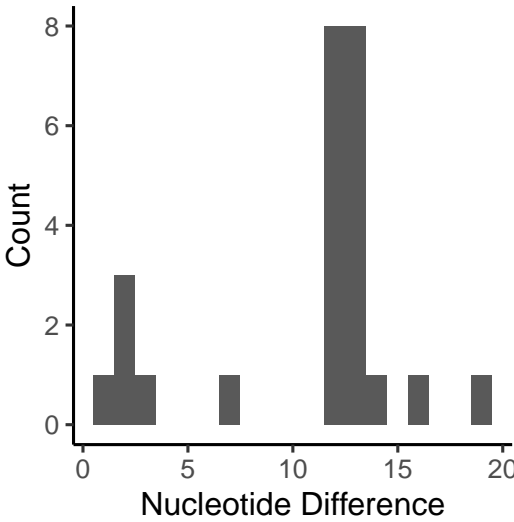
IGHV3-152\*01\_S5891

11 sequences assigned  
1 (9.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



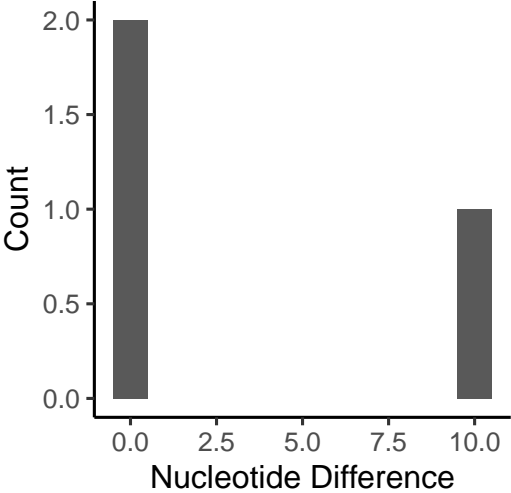
IGHV3-NL\_1\*01\_S4549

25 sequences assigned  
No exact matches.



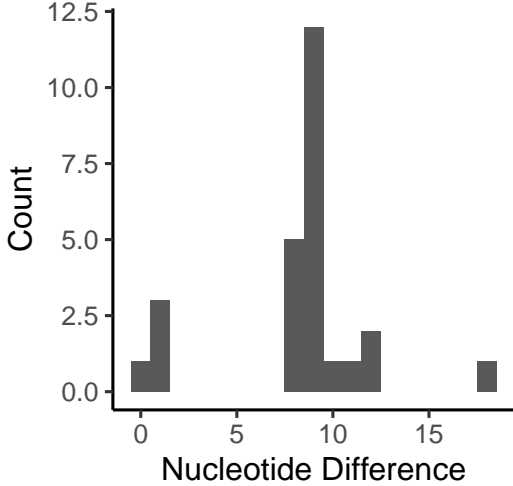
IGHV3-128\*02\_S2995

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
1 unique J



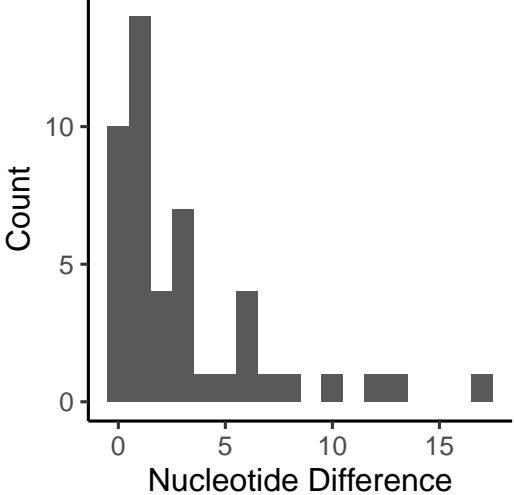
IGHV3-175\*01\_S1614

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



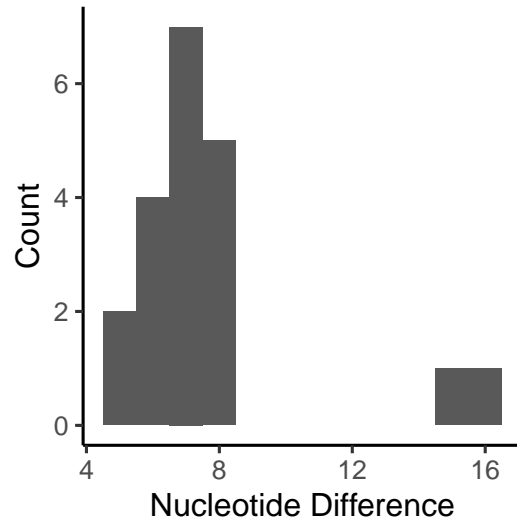
IGHV3-NL\_1\*01\_S9854

47 sequences assigned  
10 (21.3%) exact matches, in which:  
6 unique CDR3  
1 unique J



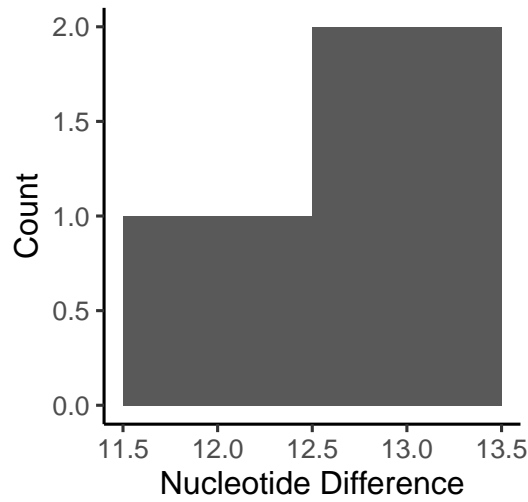
### IGHV3–NL\_11\*01\_S5714

21 sequences assigned  
No exact matches.



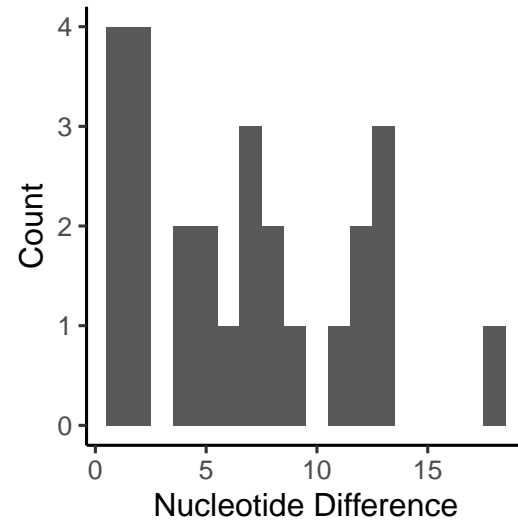
### IGHV3–NL\_4\*01\_S6405

3 sequences assigned  
No exact matches.



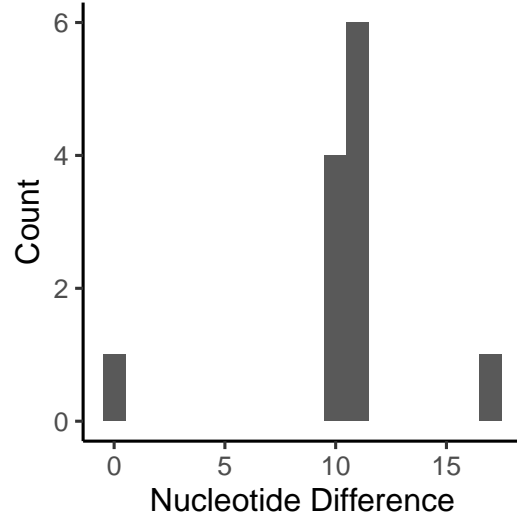
### IGHV4–117\*01\_S0312

26 sequences assigned  
No exact matches.



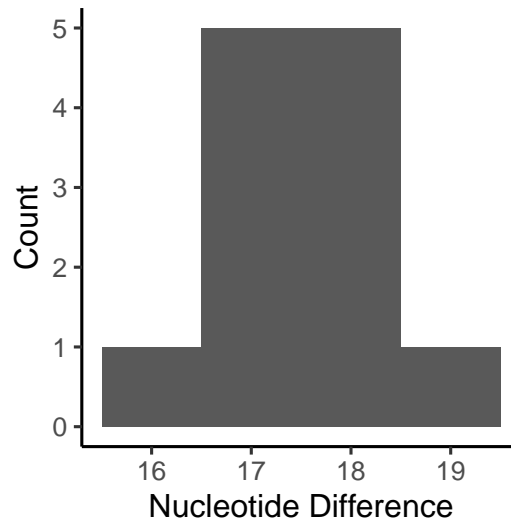
### IGHV3–NL\_14\*01\_S9303

12 sequences assigned  
1 (8.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



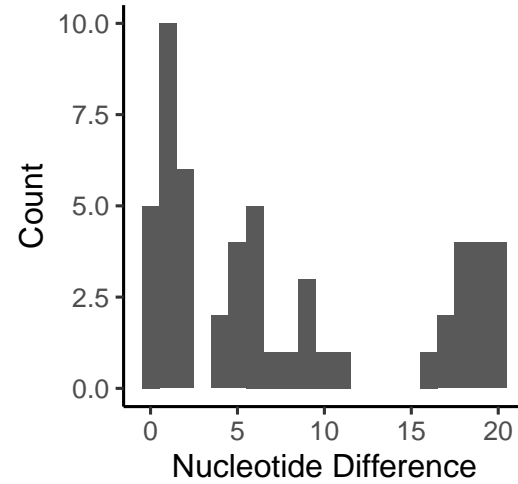
### IGHV3–NL\_7\*01\_S0199

81 sequences assigned  
No exact matches.



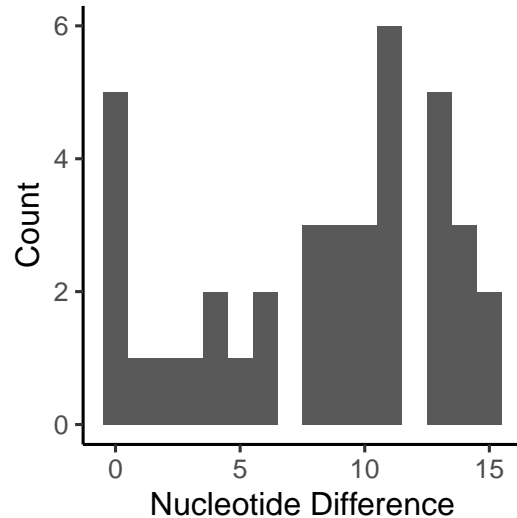
### IGHV4–117\*01\_S0992

59 sequences assigned  
5 (8.5%) exact matches, in which:  
5 unique CDR3  
1 unique J



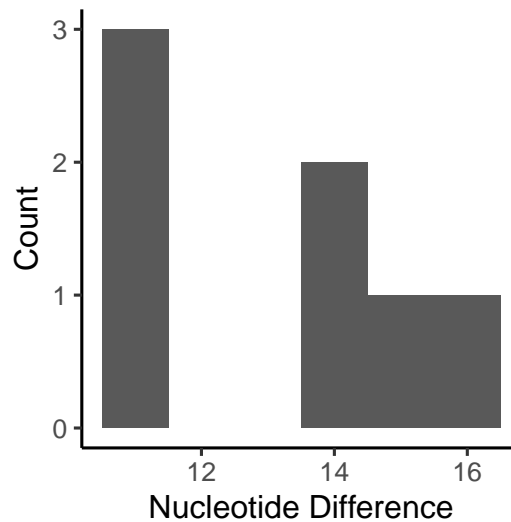
### IGHV3–NL\_17\*01\_S9589

38 sequences assigned  
5 (13.2%) exact matches, in which:  
3 unique CDR3  
1 unique J



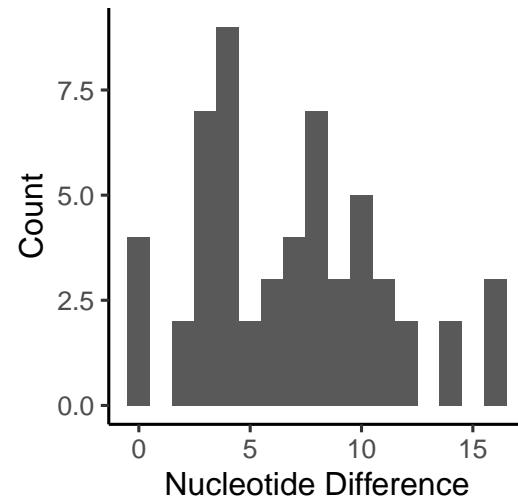
### IGHV3–NL\_9\*01\_S6098

8 sequences assigned  
No exact matches.



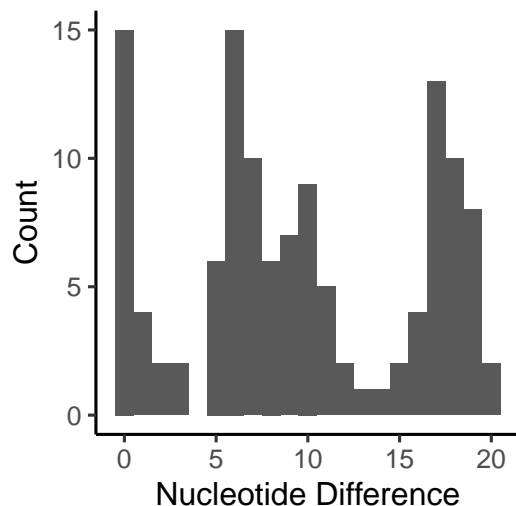
### IGHV4–117\*01\_S4901

62 sequences assigned  
4 (6.5%) exact matches, in which:  
2 unique CDR3  
1 unique J



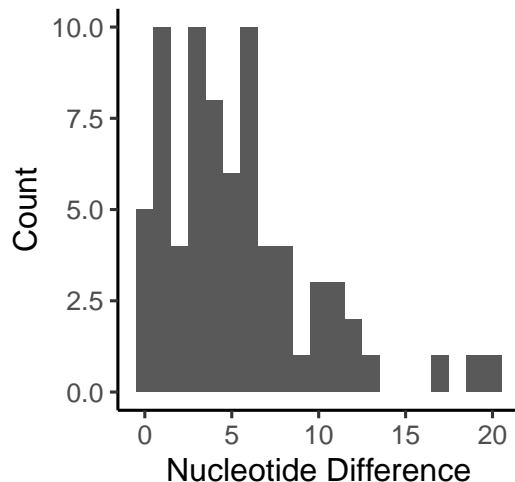
## IGHV4-144\*01\_S3008

158 sequences assigned  
15 (9.5%) exact matches, in which:  
11 unique CDR3  
1 unique J



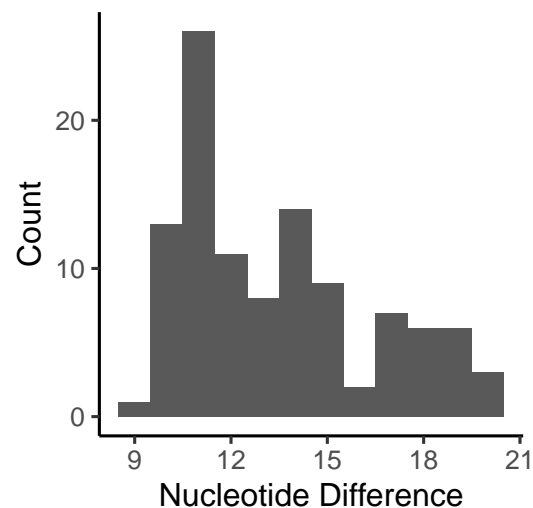
## IGHV4-NL\_1\*02\_S3654

81 sequences assigned  
5 (6.2%) exact matches, in which:  
4 unique CDR3  
1 unique J



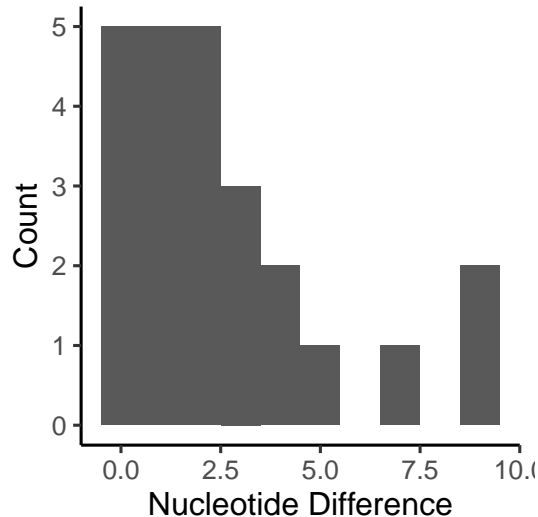
## IGHV4-NL\_13\*01\_S9744

115 sequences assigned  
No exact matches.



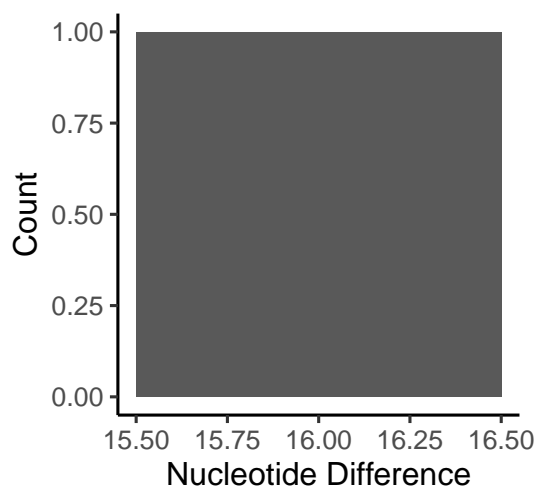
## IGHV4-150\*01\_S0749

24 sequences assigned  
5 (20.8%) exact matches, in which:  
3 unique CDR3  
1 unique J



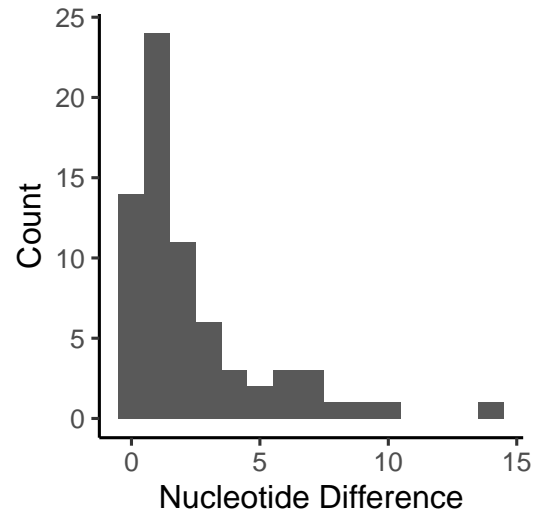
## IGHV4-NL\_12\*01\_S8068

1 sequences assigned  
No exact matches.



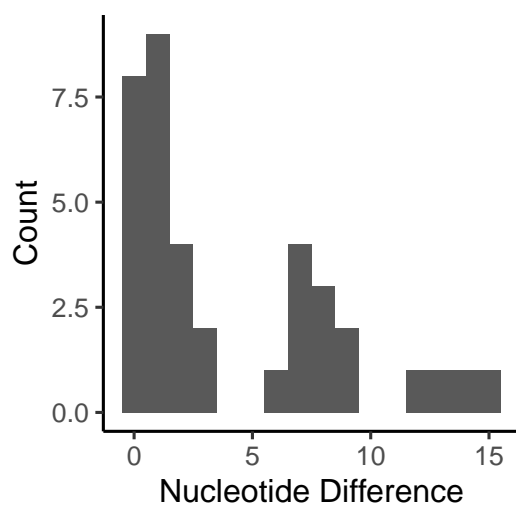
## IGHV4-NL\_17\*01\_S2469

70 sequences assigned  
14 (20%) exact matches, in which:  
10 unique CDR3  
1 unique J



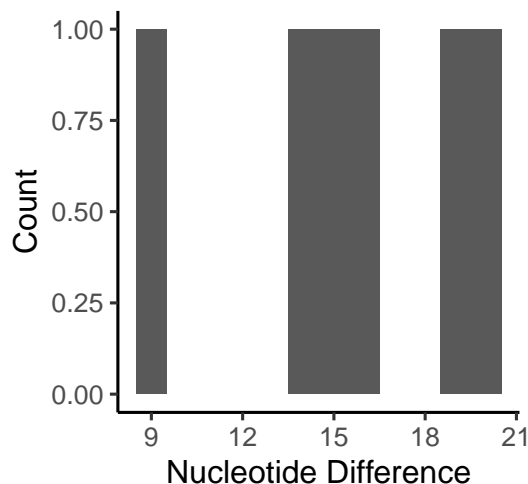
## IGHV4-NL\_1\*01\_S8720

37 sequences assigned  
8 (21.6%) exact matches, in which:  
5 unique CDR3  
1 unique J



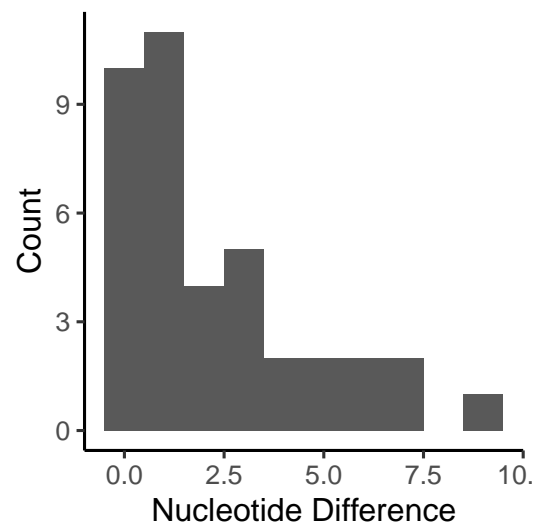
## IGHV4-NL\_13\*01\_S9624

8 sequences assigned  
No exact matches.



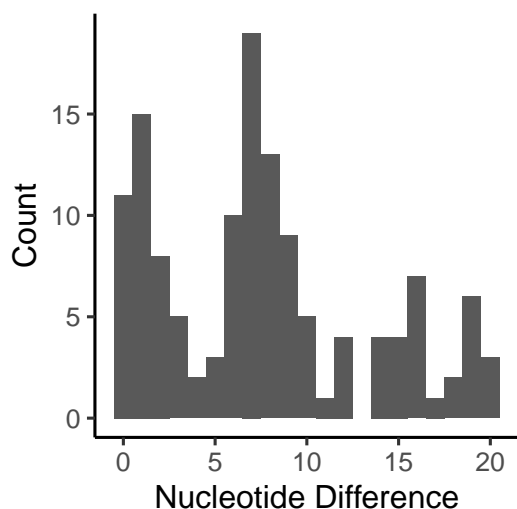
## IGHV4-NL\_17\*01\_S4839

40 sequences assigned  
10 (25%) exact matches, in which:  
6 unique CDR3  
1 unique J



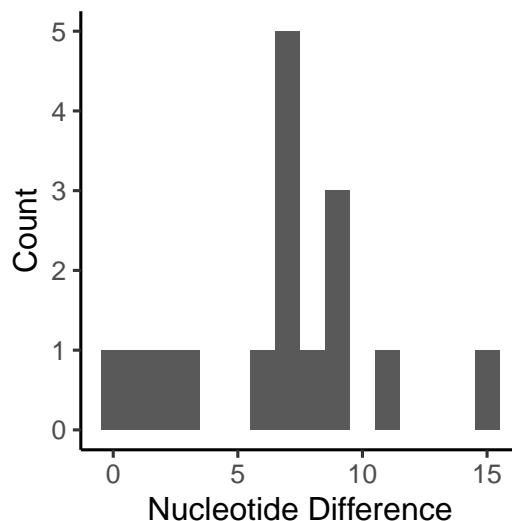
### IGHV4–NL\_21\*01\_S0138

158 sequences assigned  
11 (7%) exact matches, in which:  
9 unique CDR3  
1 unique J



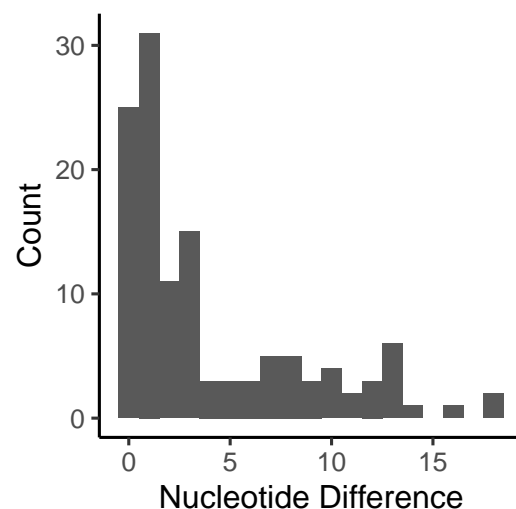
### IGHV4–NL\_23\*01\_S7678

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



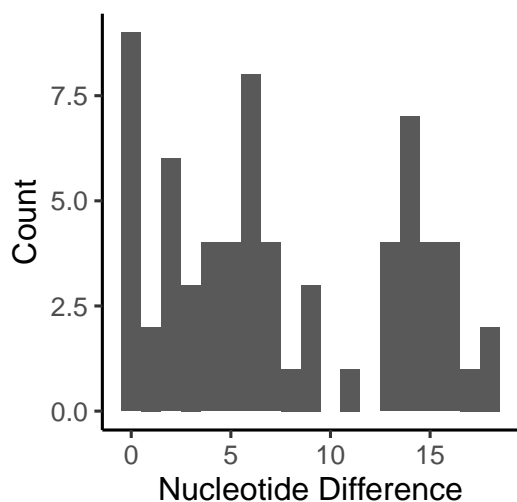
### IGHV4–NL\_36\*01\_S8200

126 sequences assigned  
25 (19.8%) exact matches, in which:  
20 unique CDR3  
1 unique J



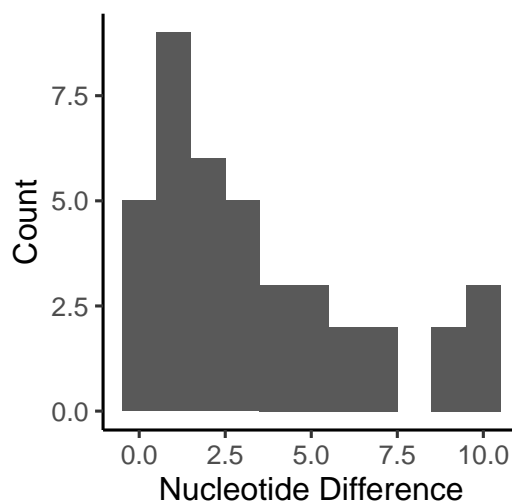
### IGHV4–NL\_21\*01\_S3257

85 sequences assigned  
9 (10.6%) exact matches, in which:  
5 unique CDR3  
1 unique J



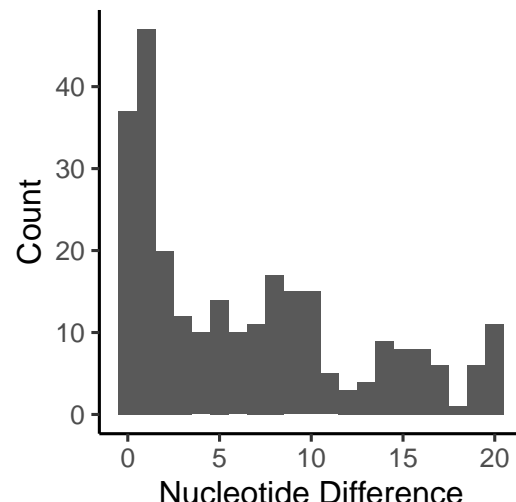
### IGHV4–NL\_24\*01\_S9400

40 sequences assigned  
5 (12.5%) exact matches, in which:  
5 unique CDR3  
1 unique J



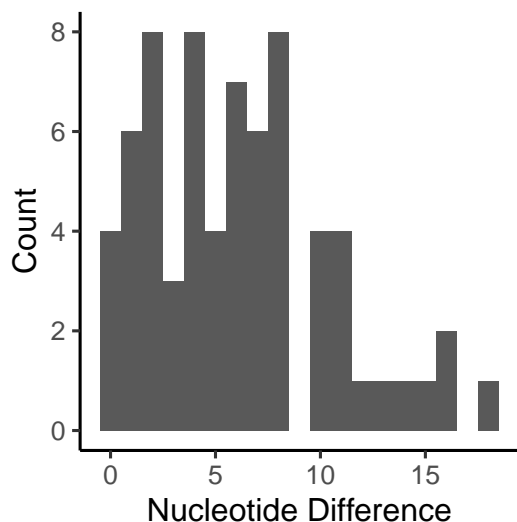
### IGHV4–NL\_38\*01\_S5467

295 sequences assigned  
37 (12.5%) exact matches, in which:  
24 unique CDR3  
1 unique J



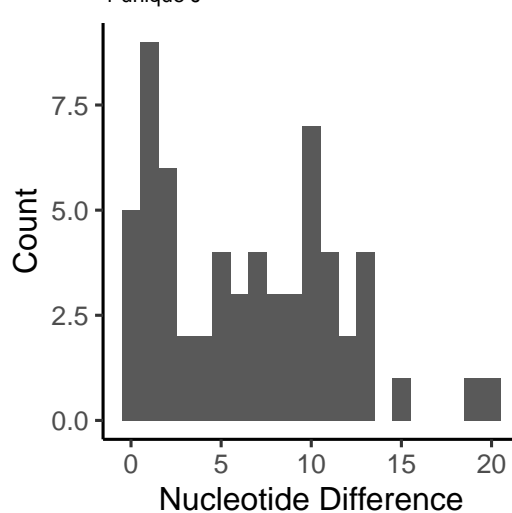
### IGHV4–NL\_22\*01\_S6977

107 sequences assigned  
4 (3.7%) exact matches, in which:  
4 unique CDR3  
1 unique J



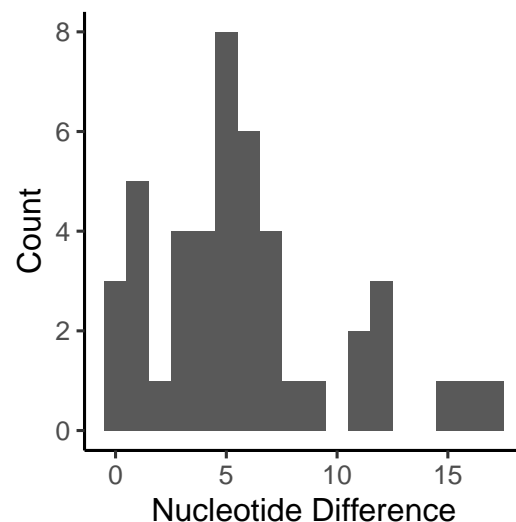
### IGHV4–NL\_33\*01\_S4467

92 sequences assigned  
5 (5.4%) exact matches, in which:  
5 unique CDR3  
1 unique J



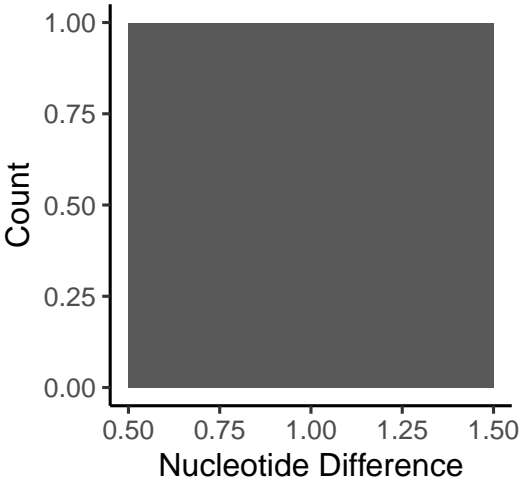
### IGHV4–NL\_38\*01\_S6954

53 sequences assigned  
3 (5.7%) exact matches, in which:  
3 unique CDR3  
1 unique J



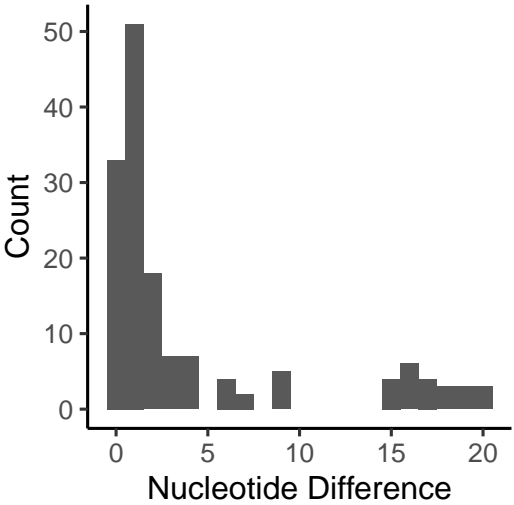
IGHV4–NL\_40\*01\_S692

1 sequences assigned  
No exact matches.



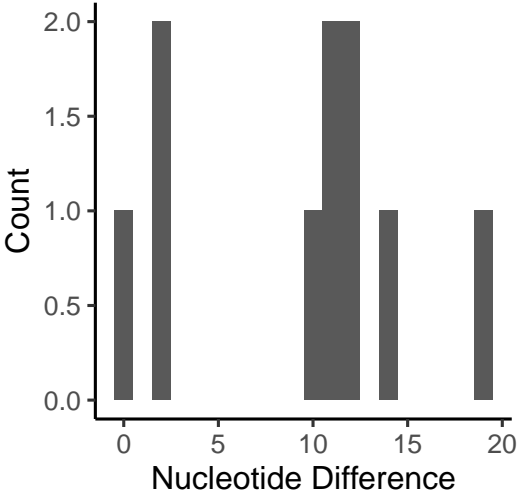
IGHV5–15\*01\_S9061

177 sequences assigned  
33 (18.6%) exact matches, in which:  
20 unique CDR3  
1 unique J



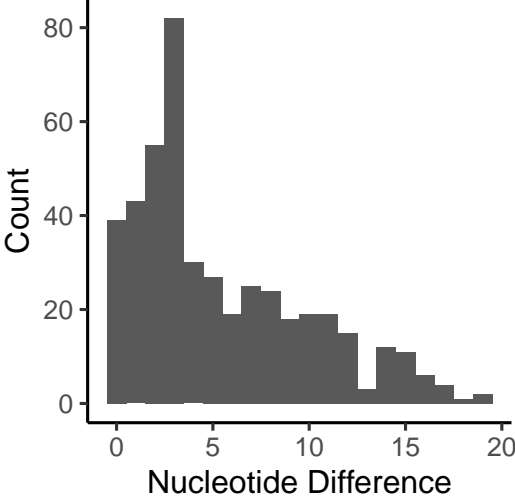
IGHV4–NL\_5\*01\_S7147

11 sequences assigned  
1 (9.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



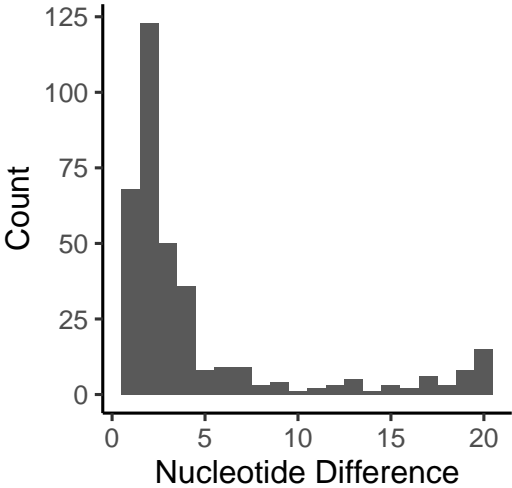
IGHV5–157\*01\_S6479

467 sequences assigned  
39 (8.4%) exact matches, in which:  
20 unique CDR3  
1 unique J

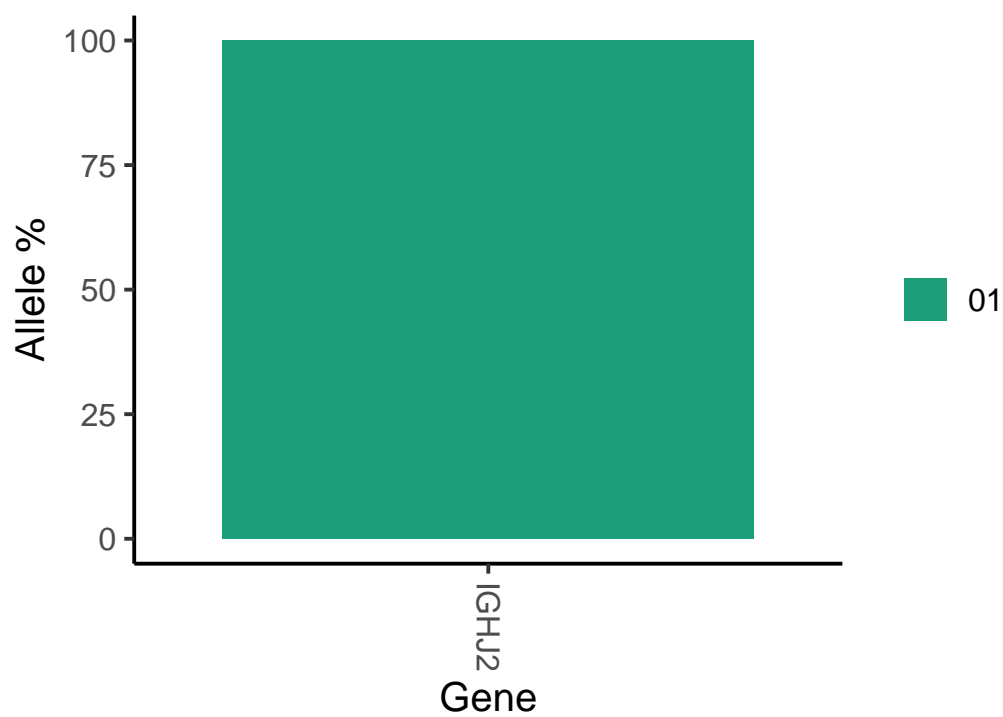


IGHV5–15\*01\_S3383

491 sequences assigned  
No exact matches.



# Allele Usage



Warning – no inferred sequences found.