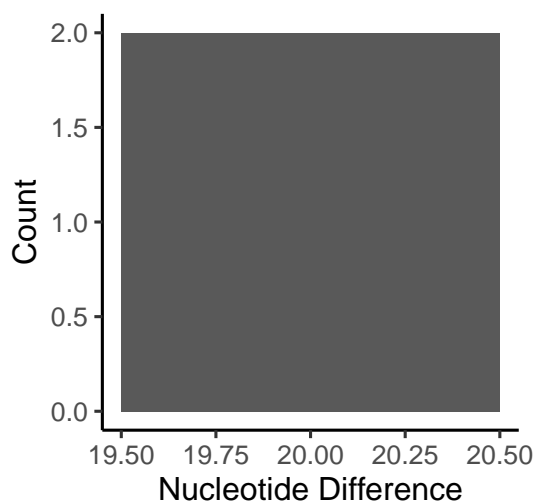


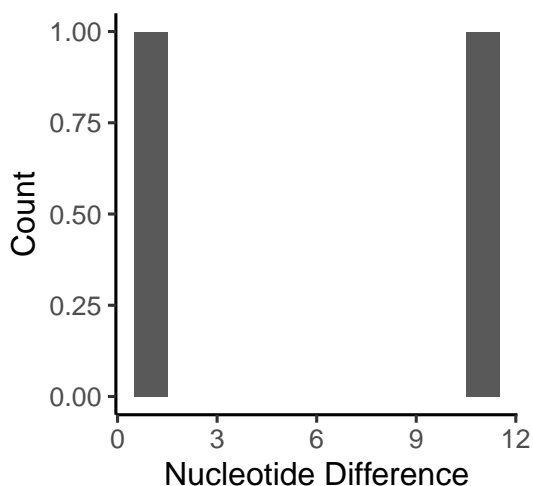
### IGHV1-170\*01\_S3055

4 sequences assigned  
No exact matches.



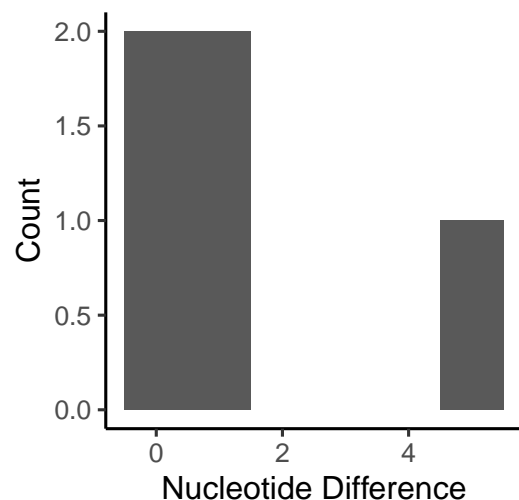
### IGHV2-173\*01\_S2781

2 sequences assigned  
No exact matches.



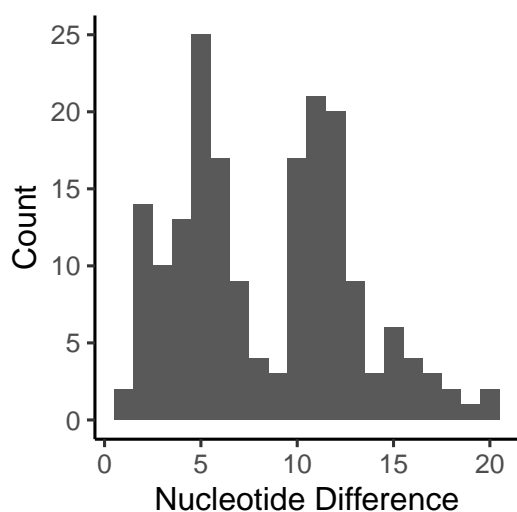
### IGHV3-9\*01\_S0778

6 sequences assigned  
2 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



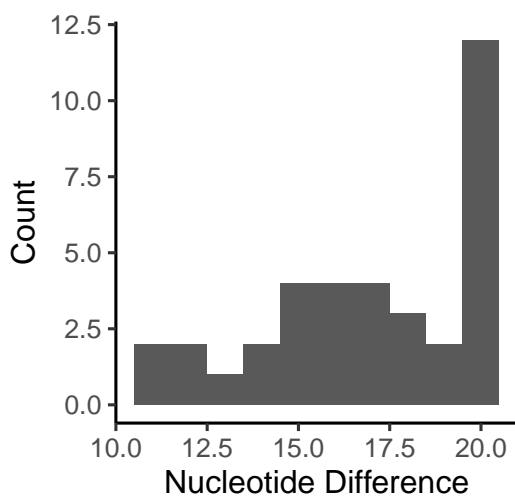
### IGHV2-69\*01\_S8735

189 sequences assigned  
No exact matches.



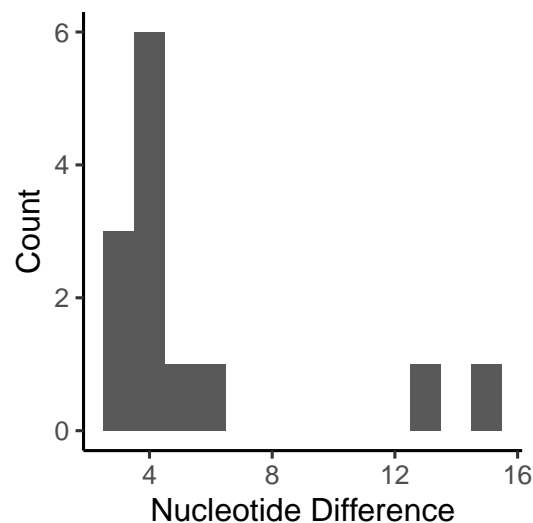
### IGHV2-NL\_1\*01\_S5779

474 sequences assigned  
No exact matches.



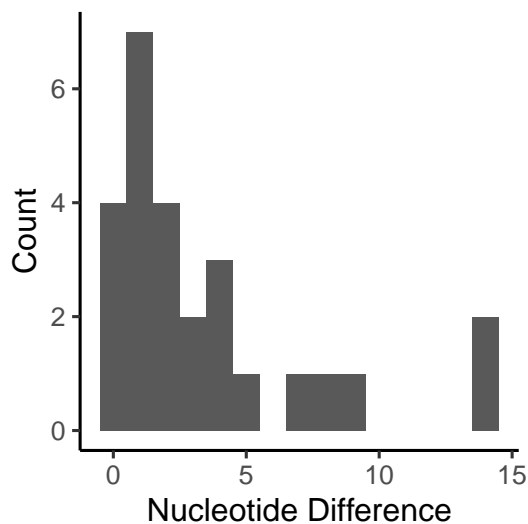
### IGHV3-53\*01\_S5688

14 sequences assigned  
No exact matches.



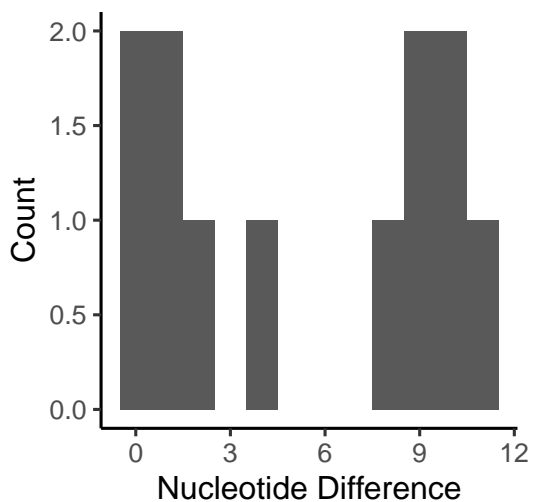
### IGHV2-118\*01\_S6364

26 sequences assigned  
4 (15.4%) exact matches, in which:  
4 unique CDR3  
1 unique J



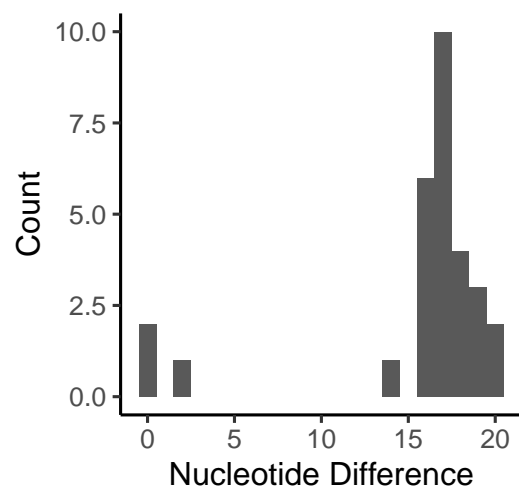
### IGHV2-NL\_2\*01\_S8873

13 sequences assigned  
2 (15.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



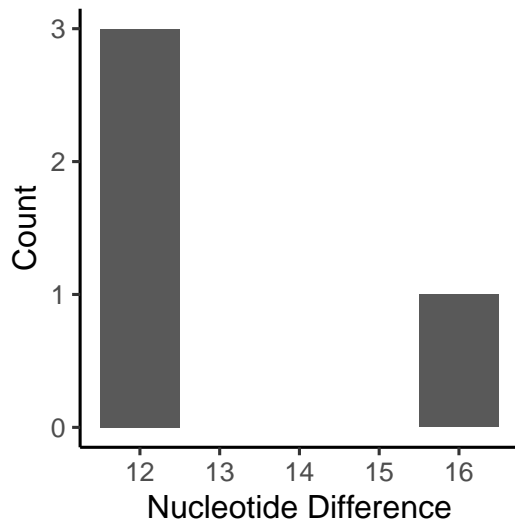
### IGHV3-76\*02\_S4190

34 sequences assigned  
2 (5.9%) exact matches, in which:  
1 unique CDR3  
0 unique J



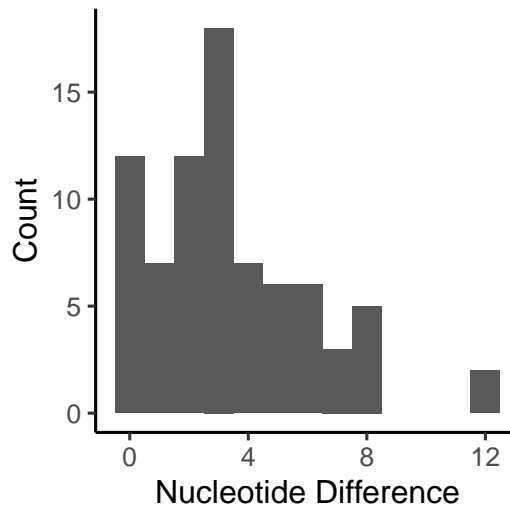
### IGHV3-88\*02\_S9033

4 sequences assigned  
No exact matches.



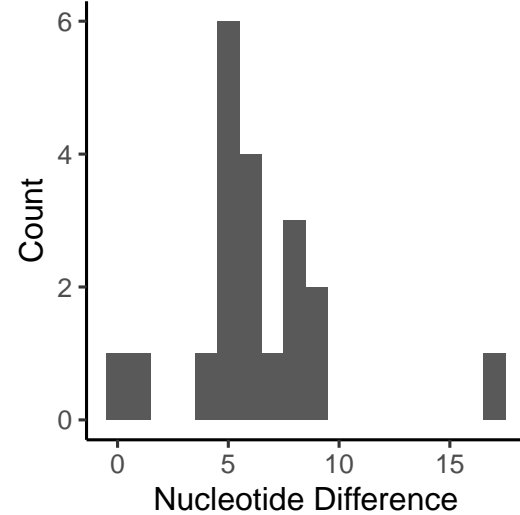
### IGHV3-122\*01\_S5299

80 sequences assigned  
12 (15%) exact matches, in which:  
8 unique CDR3  
1 unique J



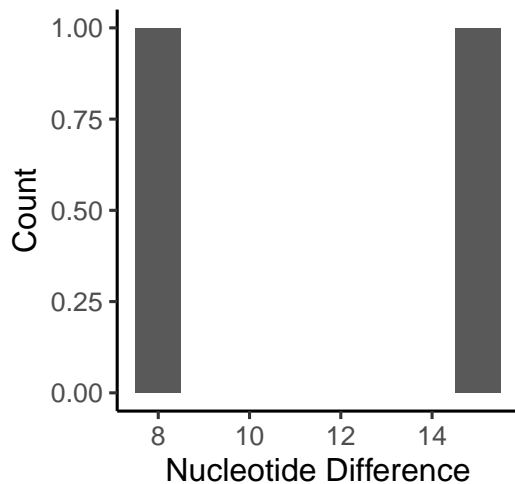
### IGHV3-177\*01\_S5369

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



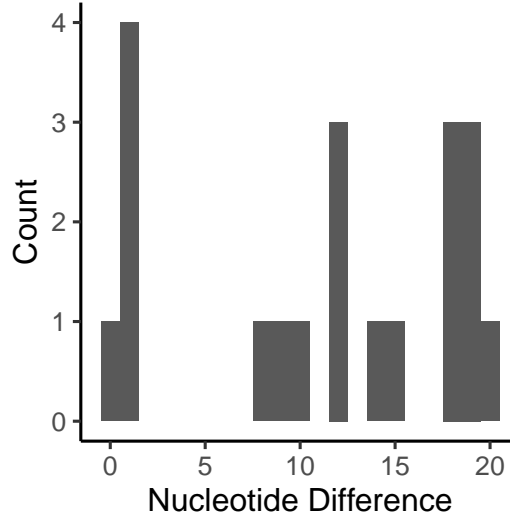
### IGHV3-100\*01\_S4205

2 sequences assigned  
No exact matches.



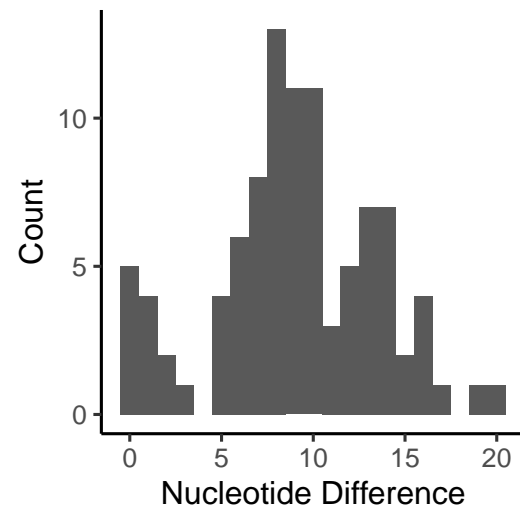
### IGHV3-127\*01\_S5510

23 sequences assigned  
1 (4.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



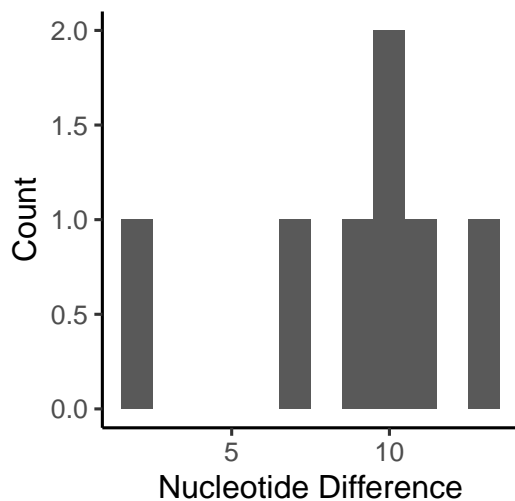
### IGHV3-187\*01\_S1387

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



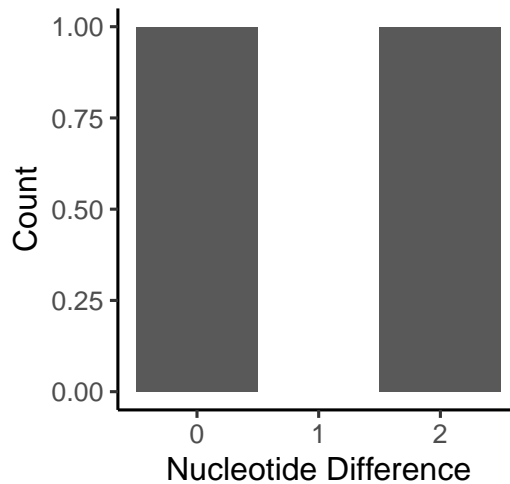
### IGHV3-100\*01\_S4375

9 sequences assigned  
No exact matches.



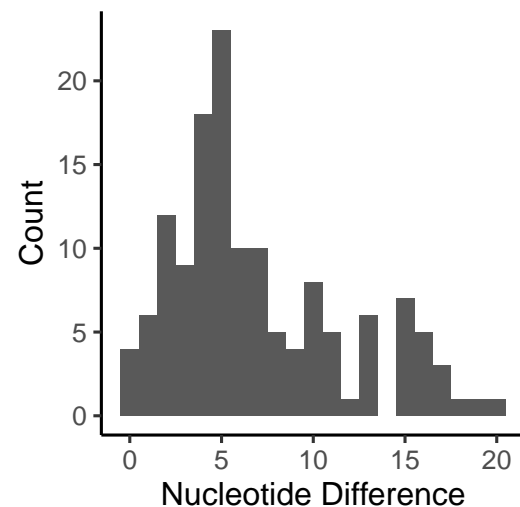
### IGHV3-141\*02\_S6589

2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J



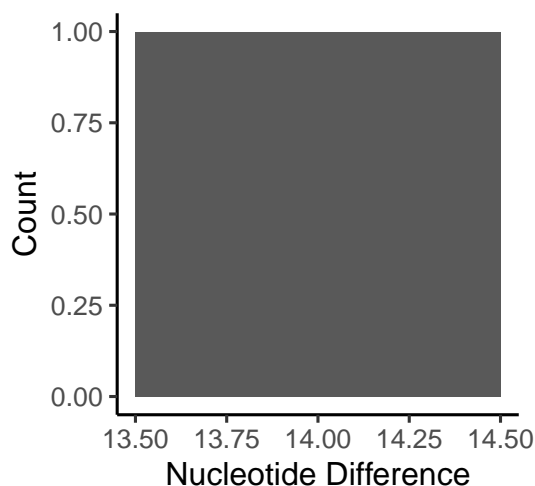
### IGHV3-NL\_1\*01\_S4331

142 sequences assigned  
4 (2.8%) exact matches, in which:  
4 unique CDR3  
1 unique J



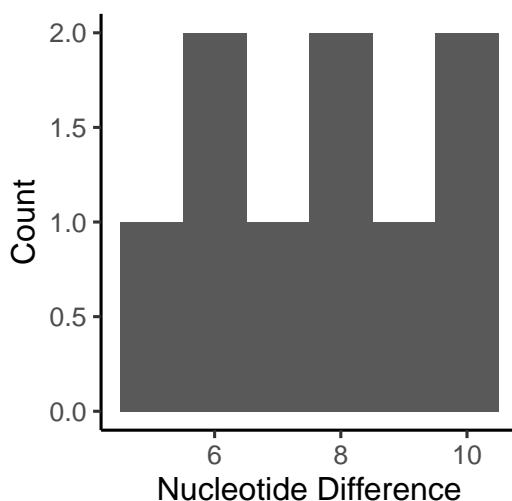
### IGHV3–NL\_10\*02\_S2212

1 sequences assigned  
No exact matches.



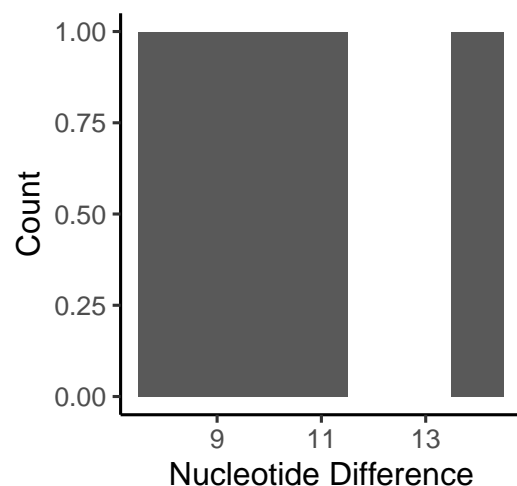
### IGHV3–NL\_14\*01\_S1995

10 sequences assigned  
No exact matches.



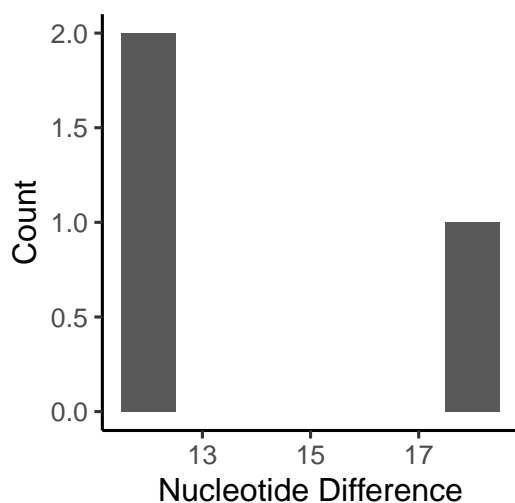
### IGHV3–NL\_8\*01\_S7474

5 sequences assigned  
No exact matches.



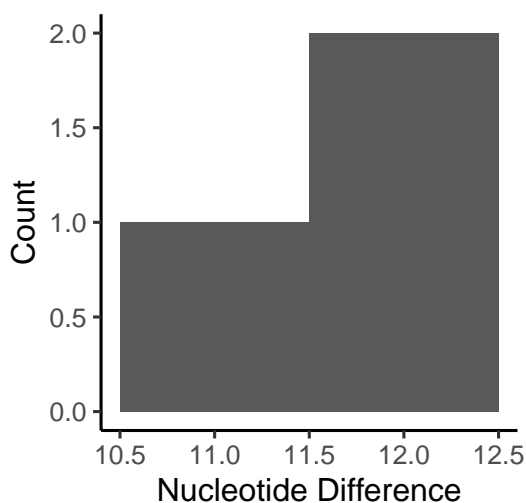
### IGHV3–NL\_11\*01\_S4619

4 sequences assigned  
No exact matches.



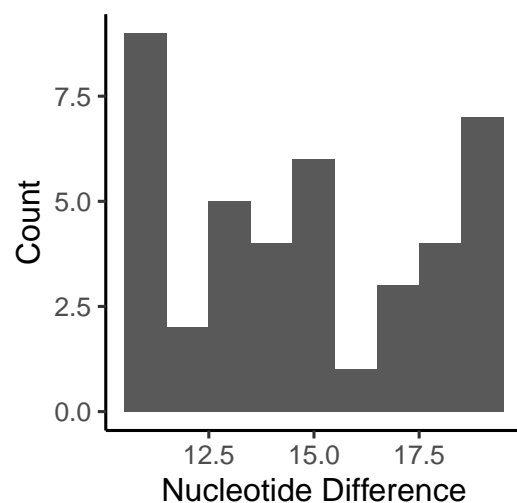
### IGHV3–NL\_15\*01\_S0604

3 sequences assigned  
No exact matches.



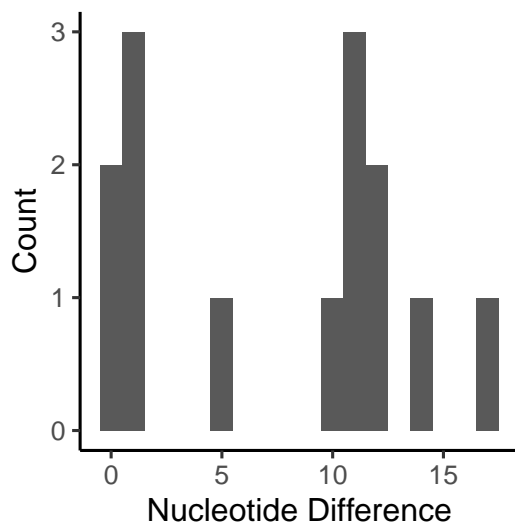
### IGHV3–NL\_9\*01\_S6098

48 sequences assigned  
No exact matches.



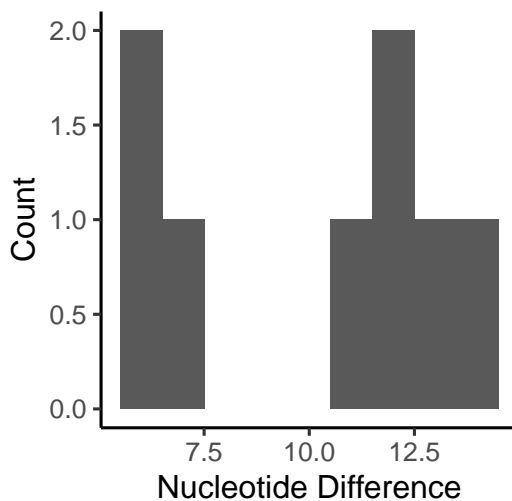
### IGHV3–NL\_11\*01\_S5714

14 sequences assigned  
2 (14.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



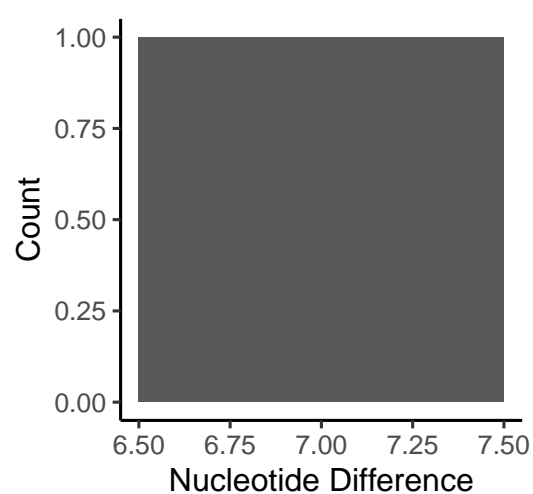
### IGHV3–NL\_4\*01\_S6405

8 sequences assigned  
No exact matches.



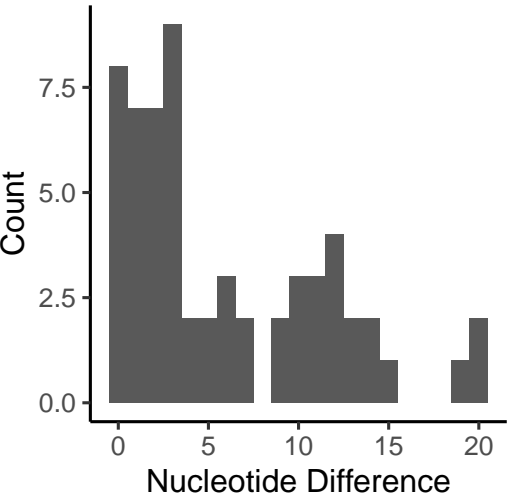
### IGHV4–93\*01\_S5203

4 sequences assigned  
No exact matches.



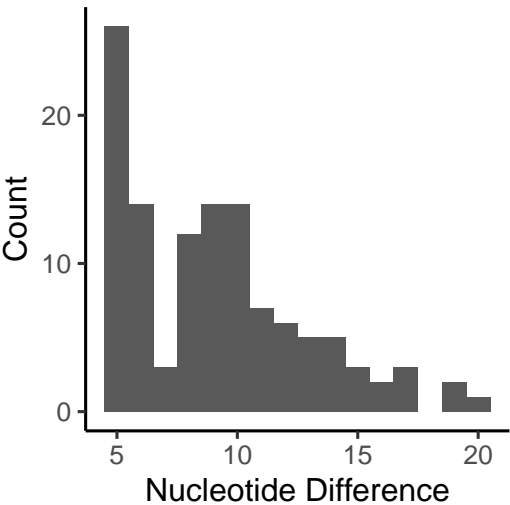
IGHV4-144\*01\_S3008

73 sequences assigned  
8 (11%) exact matches, in which:  
5 unique CDR3  
1 unique J



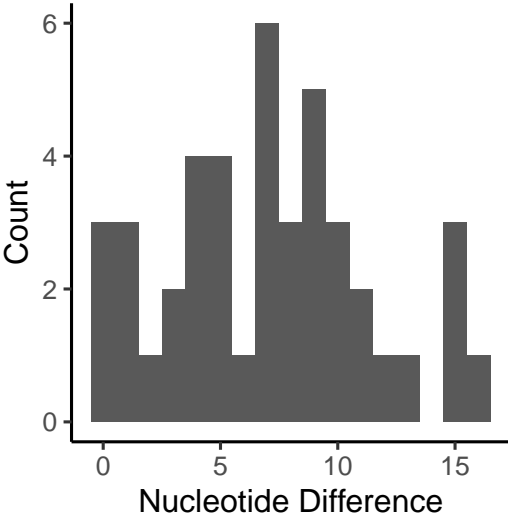
IGHV4-174\*01

129 sequences assigned  
No exact matches.



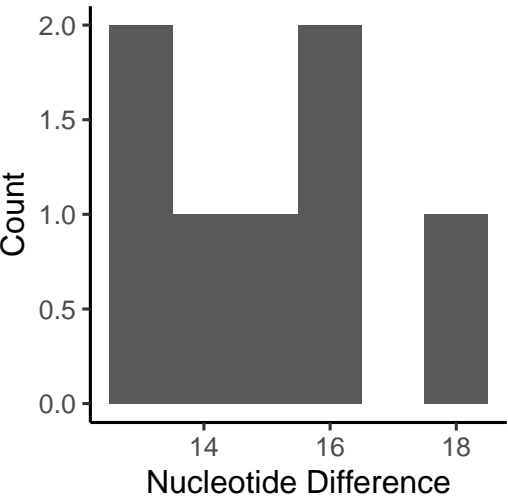
IGHV4-NL\_1\*01\_S1593

47 sequences assigned  
3 (6.4%) exact matches, in which:  
2 unique CDR3  
1 unique J



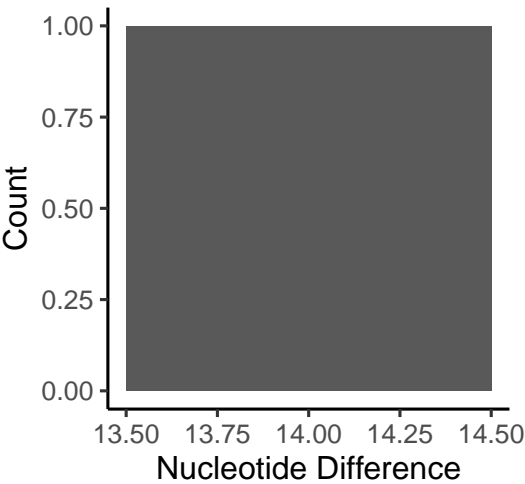
IGHV4-149\*01\_S1992

9 sequences assigned  
No exact matches.



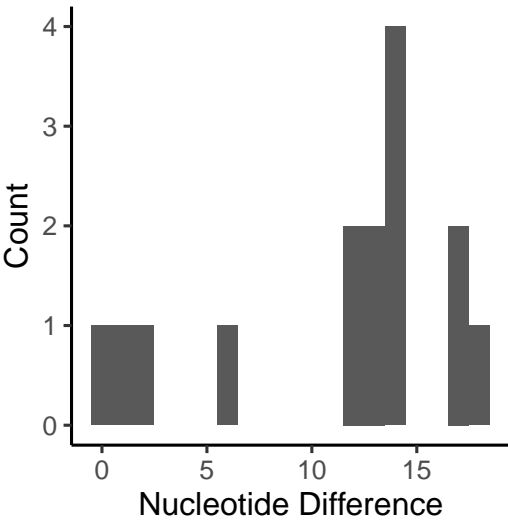
IGHV4-174\*02

1 sequences assigned  
No exact matches.



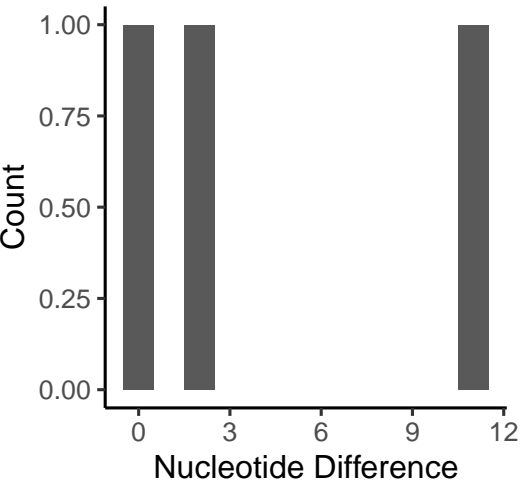
IGHV4-NL\_20\*01\_S2908

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



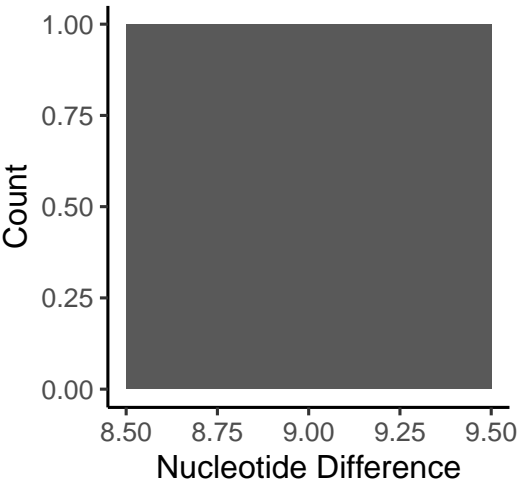
IGHV4-150\*01\_S0749

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



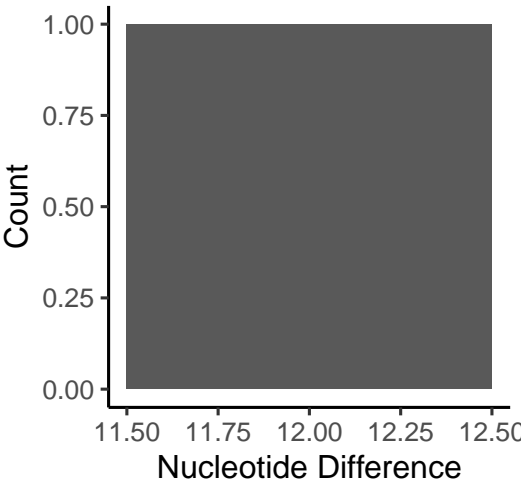
IGHV4-174\*02\_S5400

1 sequences assigned  
No exact matches.



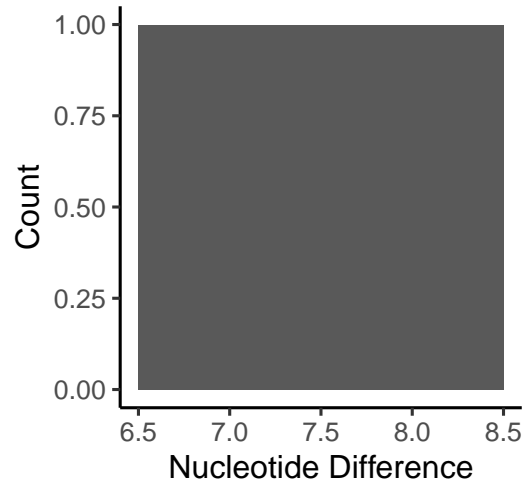
IGHV4-NL\_21\*01\_S0138

2 sequences assigned  
No exact matches.



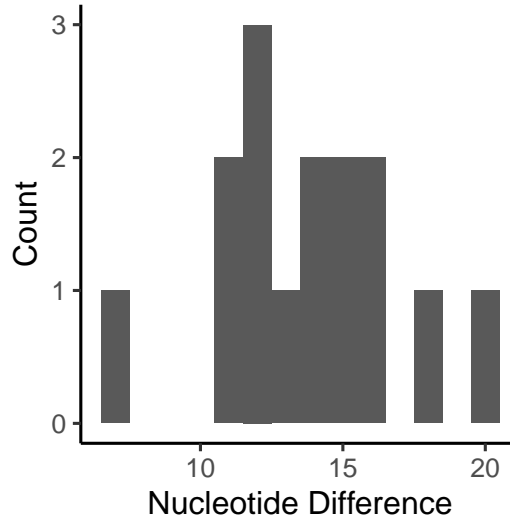
### IGHV4-NL\_21\*01\_S0142

2 sequences assigned  
No exact matches.



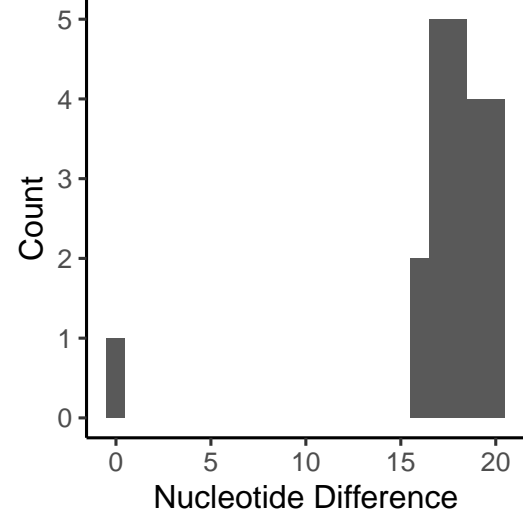
### IGHV4-NL\_25\*01\_S2780

20 sequences assigned  
No exact matches.



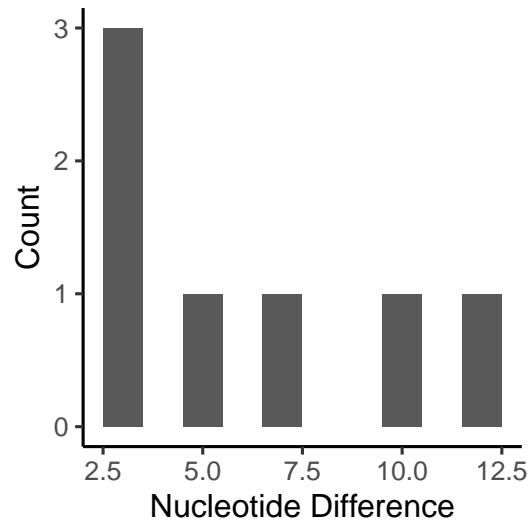
### IGHV4-NL\_33\*01\_S5330

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



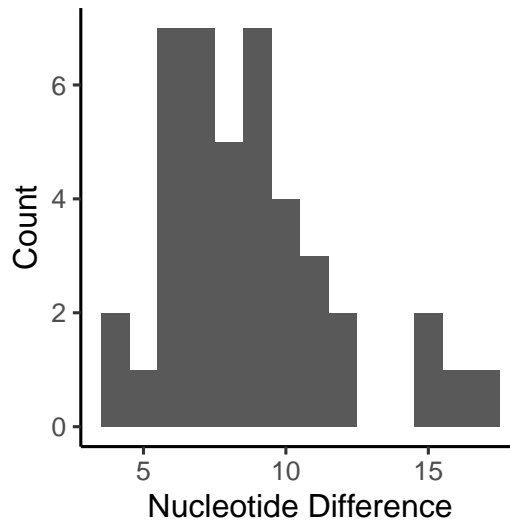
### IGHV4-NL\_21\*01\_S6468

11 sequences assigned  
No exact matches.



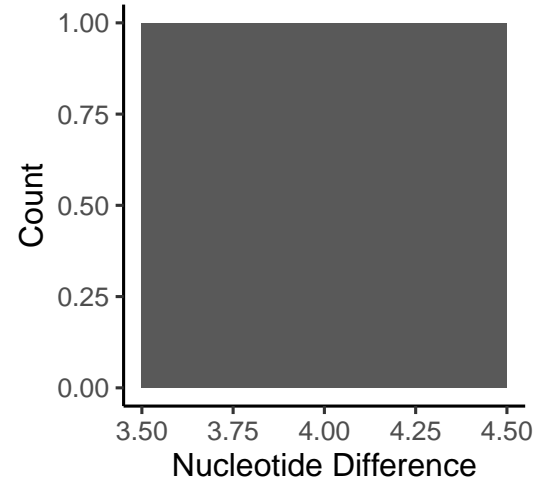
### IGHV4-NL\_27\*01\_S2979

42 sequences assigned  
No exact matches.



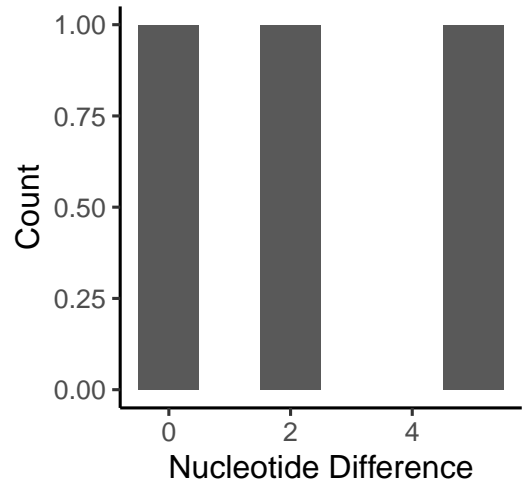
### IGHV4-NL\_36\*01\_S5319

1 sequences assigned  
No exact matches.



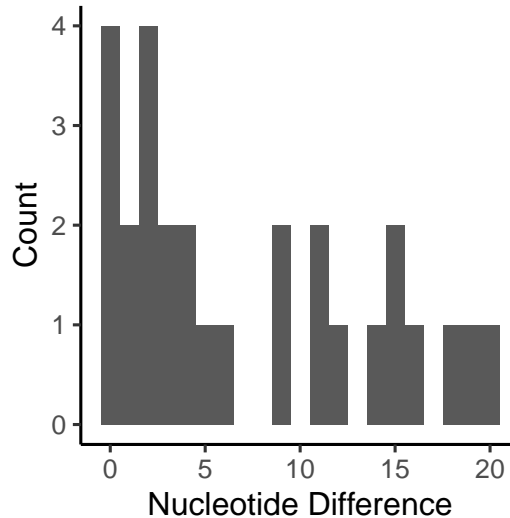
### IGHV4-NL\_24\*01\_S7595

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



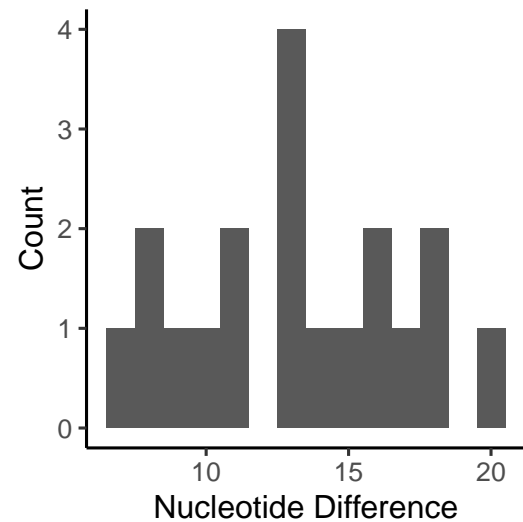
### IGHV4-NL\_27\*01\_S7871

34 sequences assigned  
4 (11.8%) exact matches, in which:  
4 unique CDR3  
1 unique J



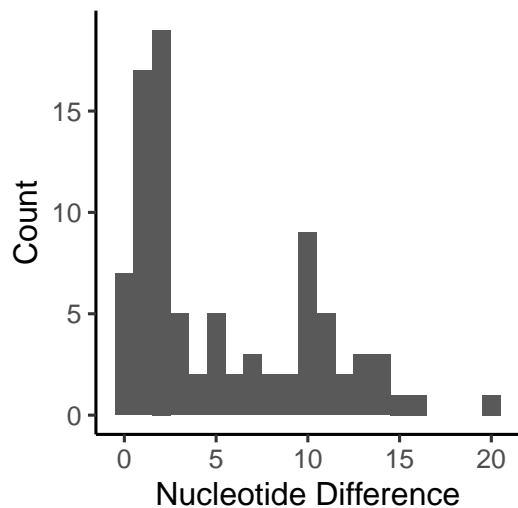
### IGHV4-NL\_43\*01\_S4510

19 sequences assigned  
No exact matches.



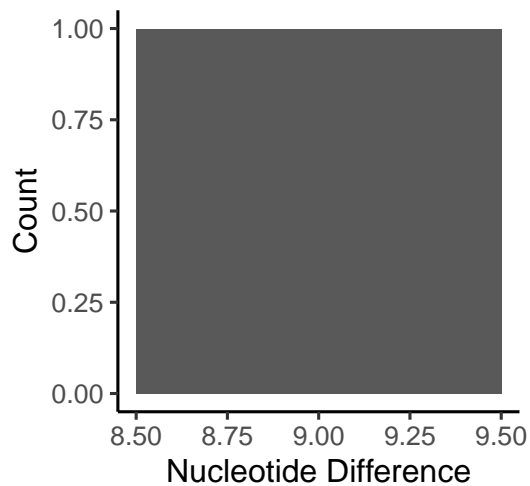
### IGHV4–NL\_5\*01\_S1492

90 sequences assigned  
7 (7.8%) exact matches, in which:  
6 unique CDR3  
1 unique J



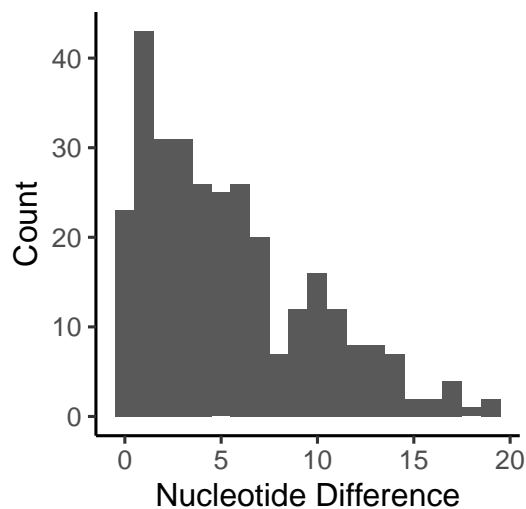
### IGHV5–157\*02\_S7648

21 sequences assigned  
No exact matches.



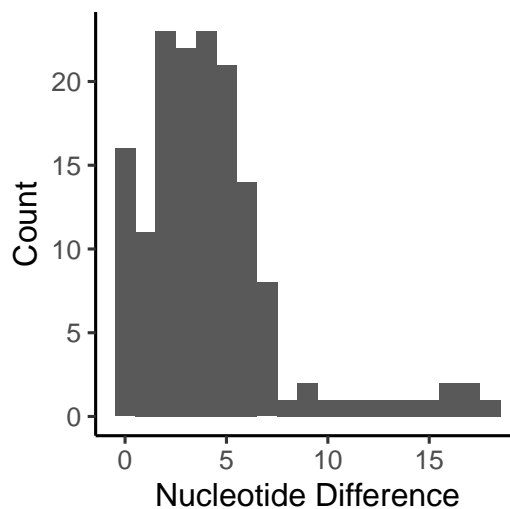
### IGHV5–15\*01\_S5299

325 sequences assigned  
23 (7.1%) exact matches, in which:  
16 unique CDR3  
1 unique J



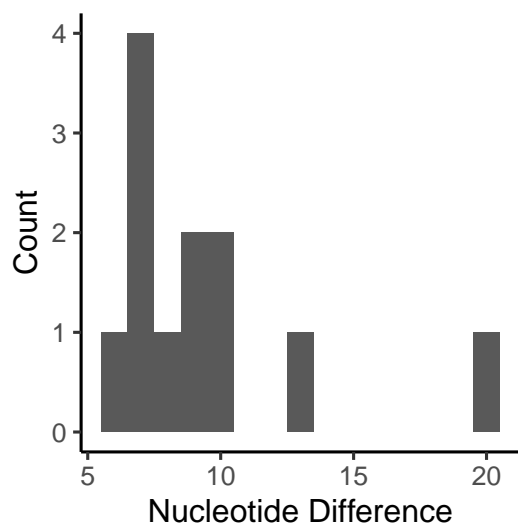
### IGHV7–86\*01\_S0772

162 sequences assigned  
16 (9.9%) exact matches, in which:  
12 unique CDR3  
1 unique J



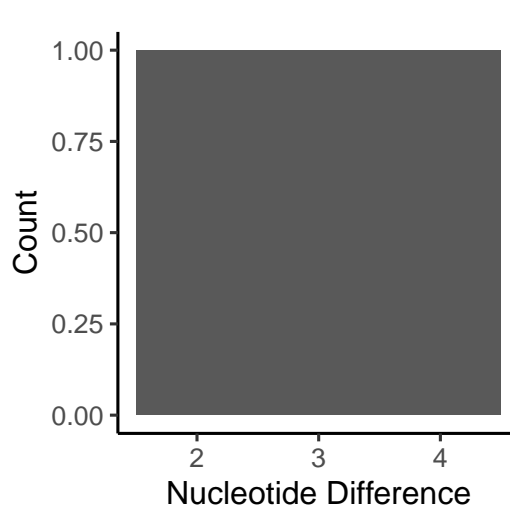
### IGHV5–157\*02\_S3096

12 sequences assigned  
No exact matches.

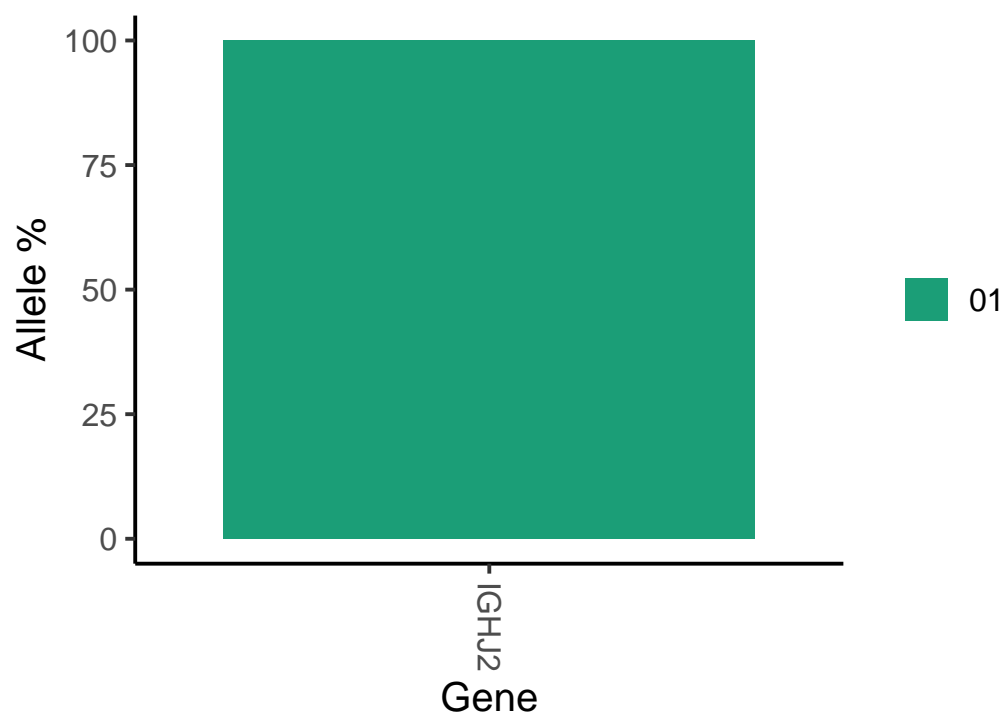


### IGHV7–135\*02\_S1424

3 sequences assigned  
No exact matches.



# Allele Usage



Warning – no inferred sequences found.