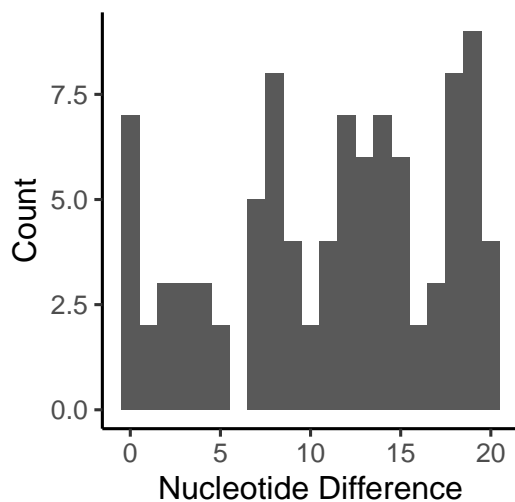


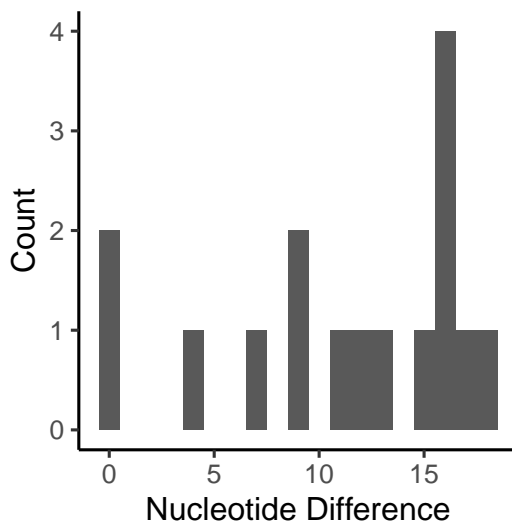
## IGHV1-2\*02

121 sequences assigned  
7 (5.8%) exact matches, in which:  
7 unique CDR3  
4 unique J



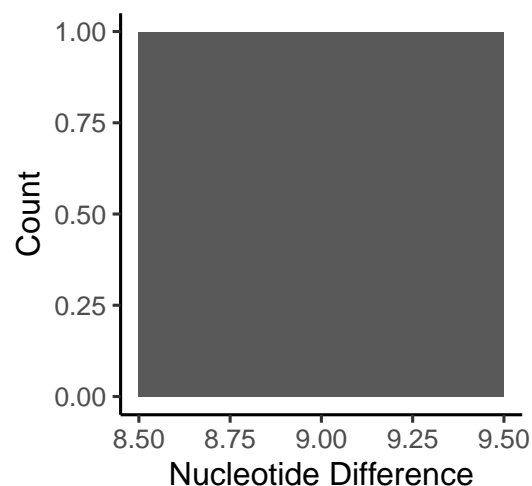
## IGHV1-24\*01

22 sequences assigned  
2 (9.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



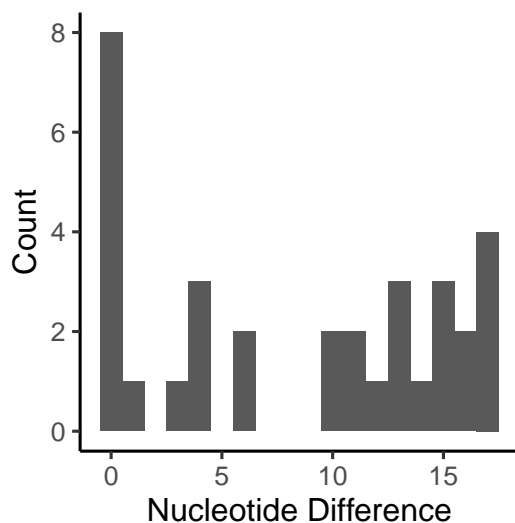
## IGHV1-58\*01

1 sequences assigned  
No exact matches.



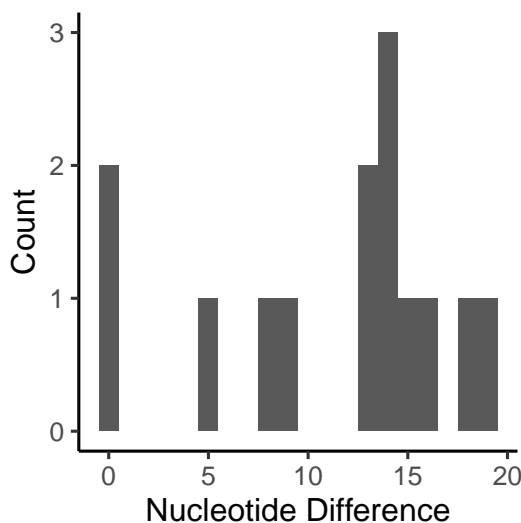
## IGHV1-8\*01

39 sequences assigned  
8 (20.5%) exact matches, in which:  
8 unique CDR3  
3 unique J



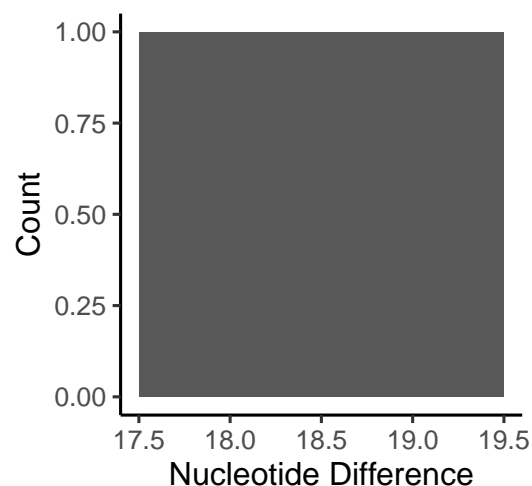
## IGHV1-46\*01

25 sequences assigned  
2 (8%) exact matches, in which:  
2 unique CDR3  
1 unique J



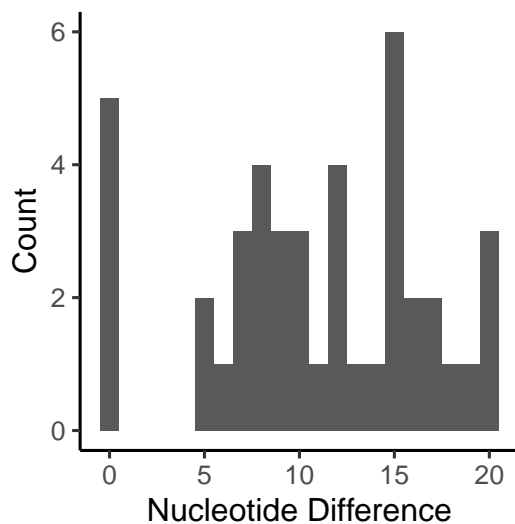
## IGHV1-58\*02

2 sequences assigned  
No exact matches.



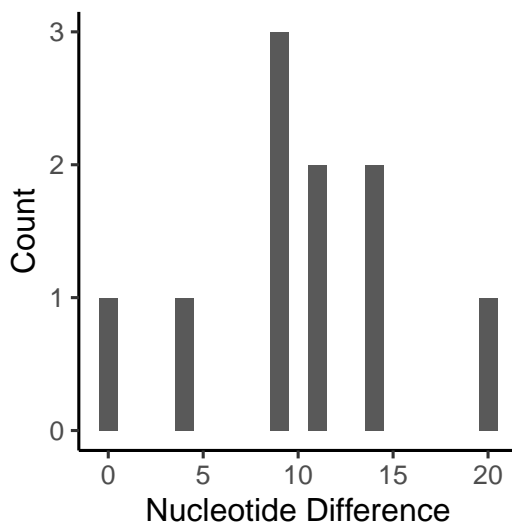
## IGHV1-18\*01

60 sequences assigned  
5 (8.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



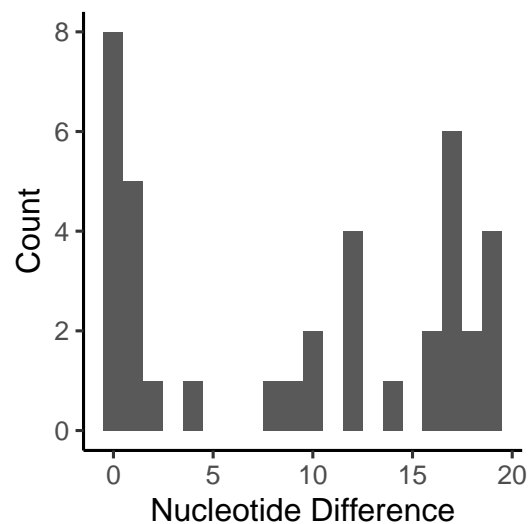
## IGHV1-46\*03

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



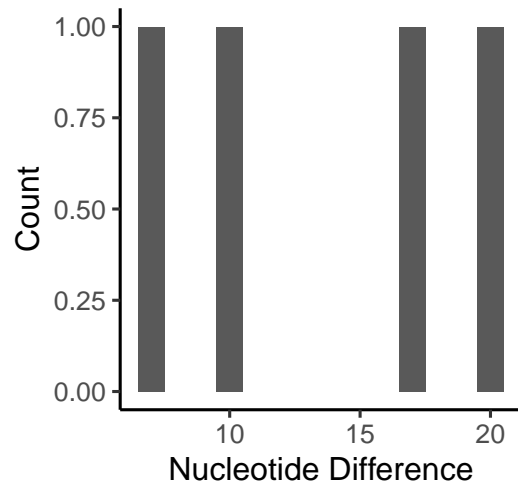
## IGHV1-69\*01

65 sequences assigned  
8 (12.3%) exact matches, in which:  
8 unique CDR3  
4 unique J



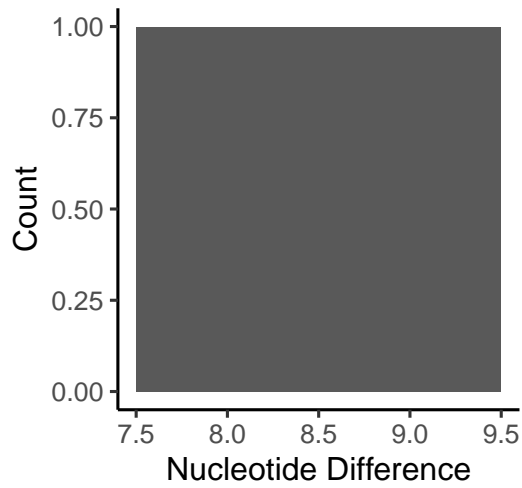
### IGHV1-69-2\*01

11 sequences assigned  
No exact matches.



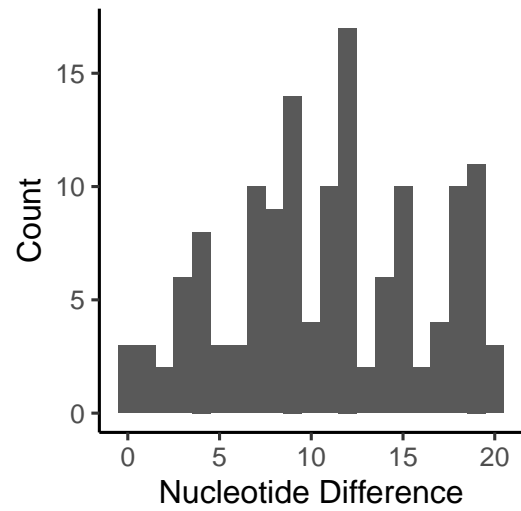
### IGHV2-5\*02

3 sequences assigned  
No exact matches.



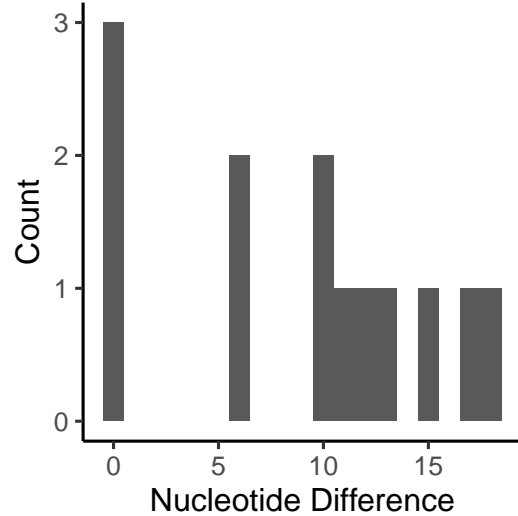
### IGHV3-7\*01

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



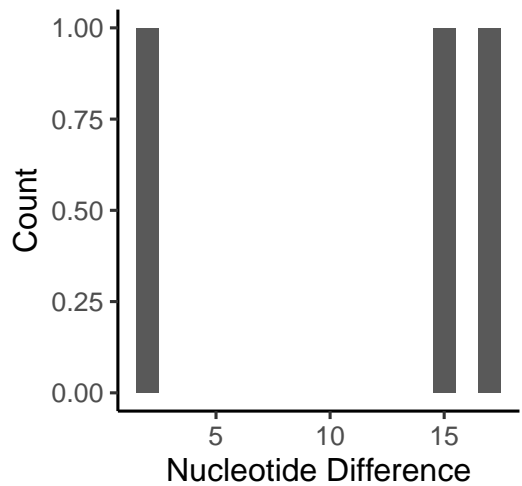
### IGHV1-69\*06

19 sequences assigned  
3 (15.8%) exact matches, in which:  
3 unique CDR3  
3 unique J



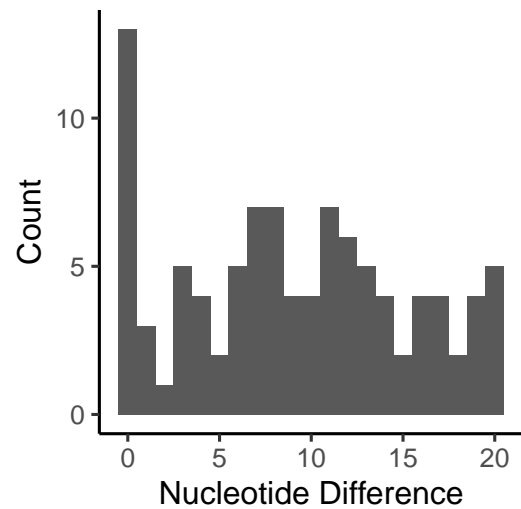
### IGHV2-26\*01

4 sequences assigned  
No exact matches.



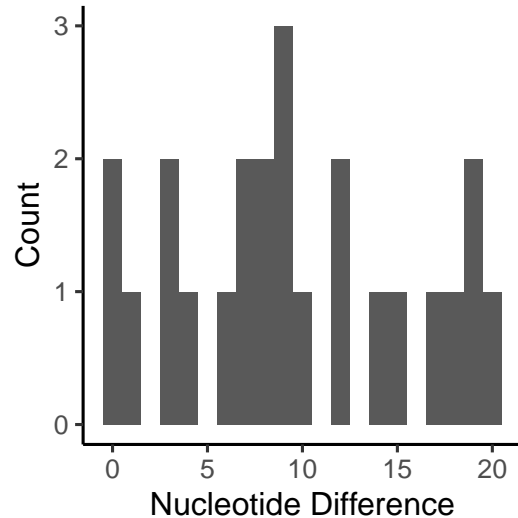
### IGHV3-9\*01

107 sequences assigned  
13 (12.1%) exact matches, in which:  
13 unique CDR3  
4 unique J



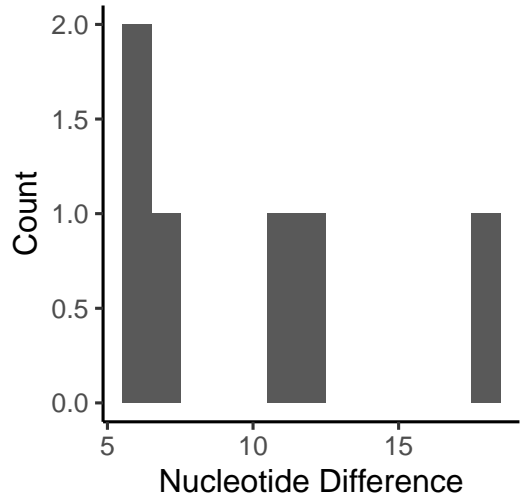
### IGHV2-5\*01

26 sequences assigned  
2 (7.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



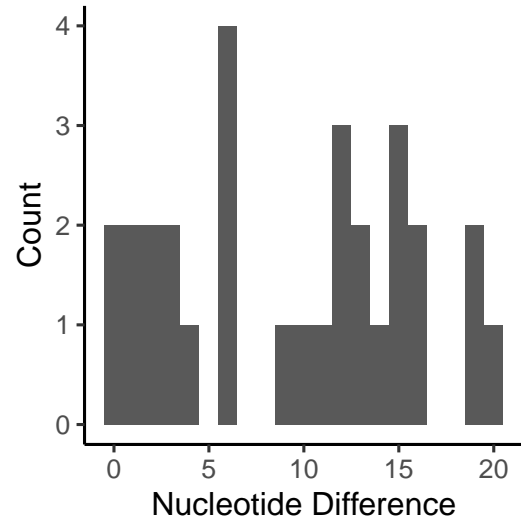
### IGHV2-70\*04

6 sequences assigned  
No exact matches.



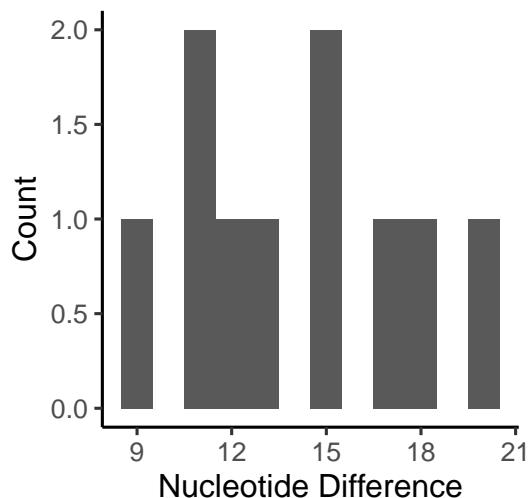
### IGHV3-11\*01

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



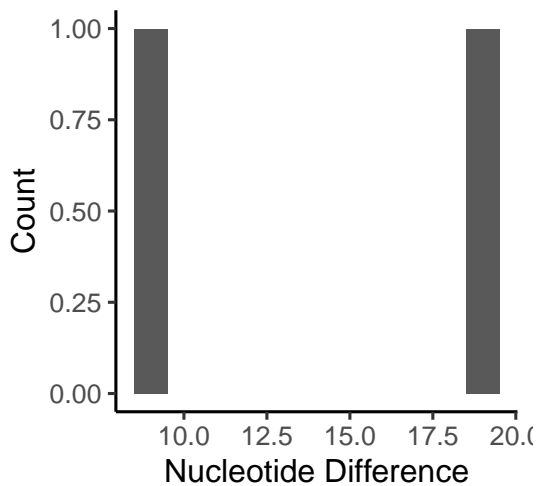
### IGHV3-13\*01

11 sequences assigned  
No exact matches.



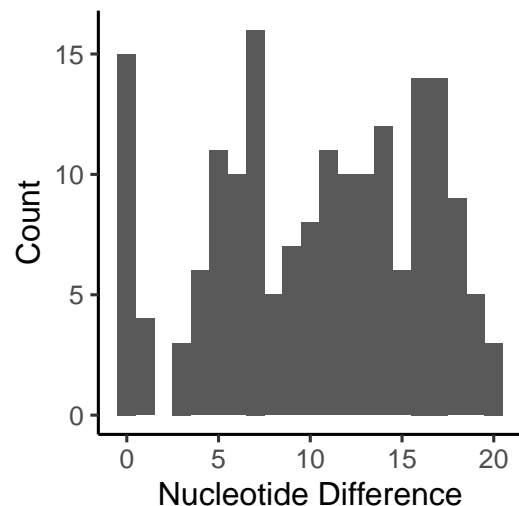
### IGHV3-20\*04

4 sequences assigned  
No exact matches.



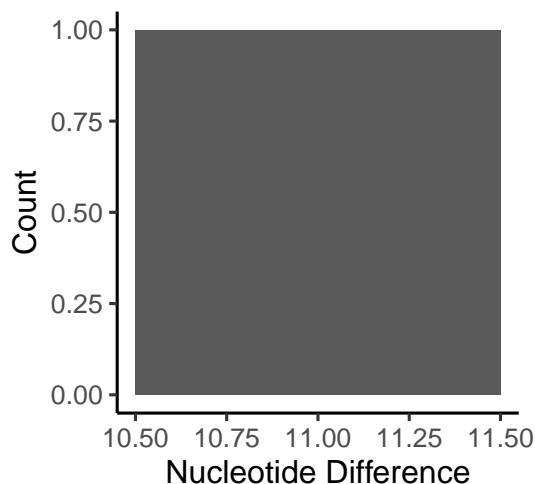
### IGHV3-23\*01

224 sequences assigned  
15 (6.7%) exact matches, in which:  
15 unique CDR3  
5 unique J



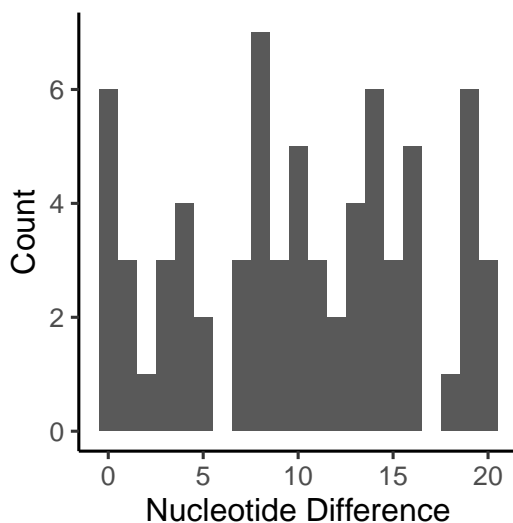
### IGHV3-13\*04

2 sequences assigned  
No exact matches.



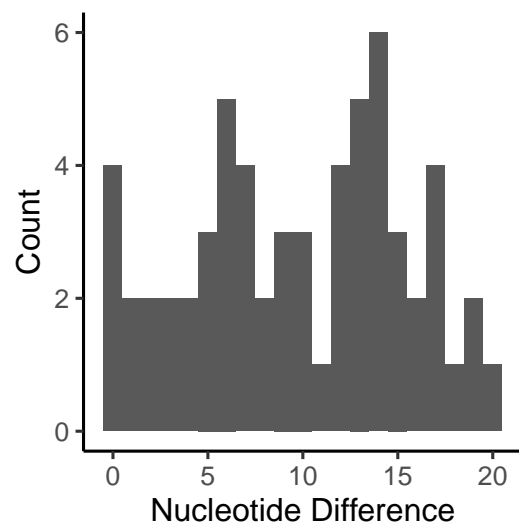
### IGHV3-21\*01

83 sequences assigned  
6 (7.2%) exact matches, in which:  
6 unique CDR3  
3 unique J



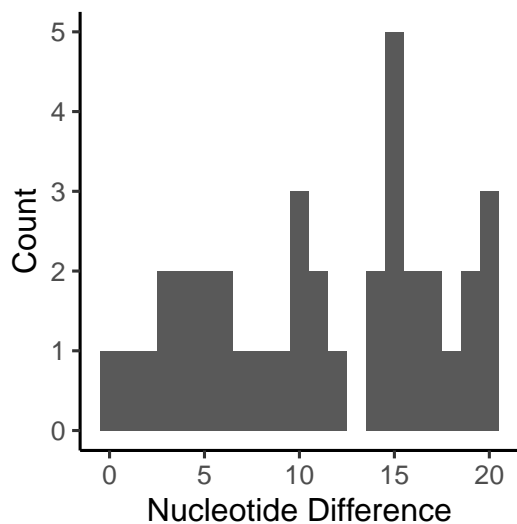
### IGHV3-30-3\*01

77 sequences assigned  
4 (5.2%) exact matches, in which:  
4 unique CDR3  
1 unique J



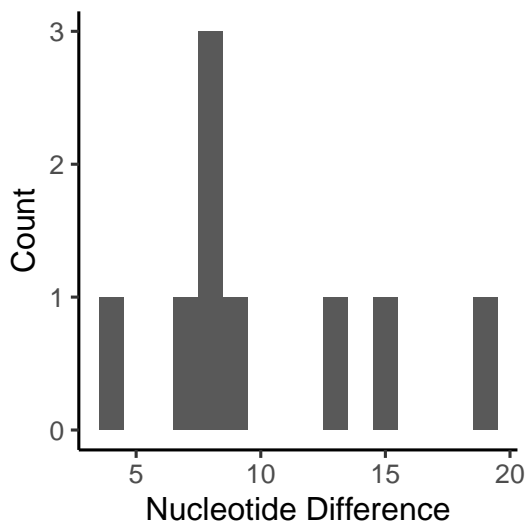
### IGHV3-15\*01

54 sequences assigned  
1 (1.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



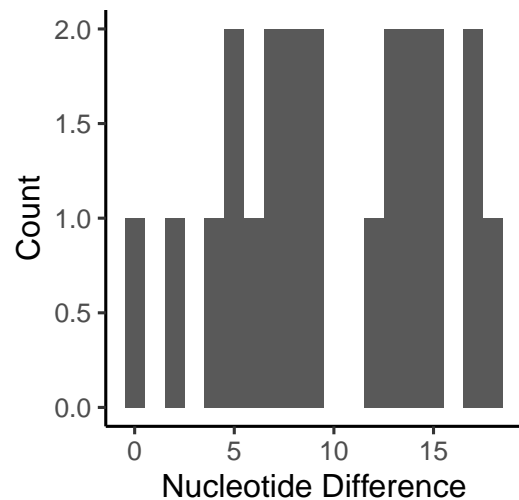
### IGHV3-21\*02

11 sequences assigned  
No exact matches.



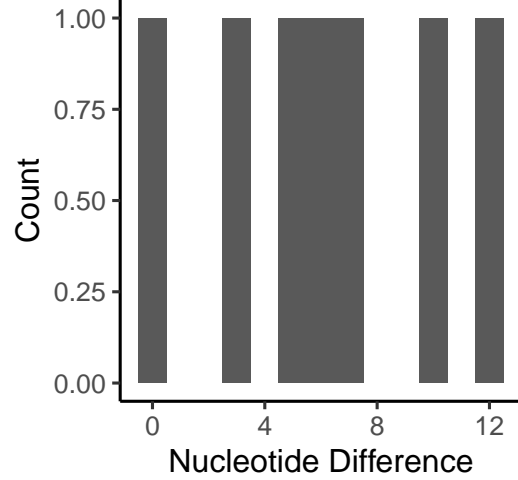
### IGHV3-30\*01

29 sequences assigned  
1 (3.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



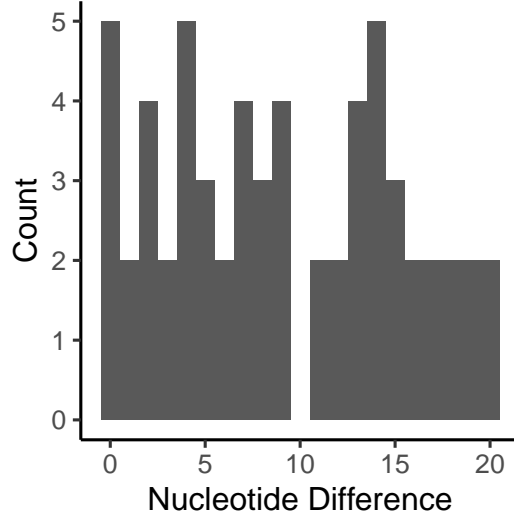
### IGHV3–30\*03

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



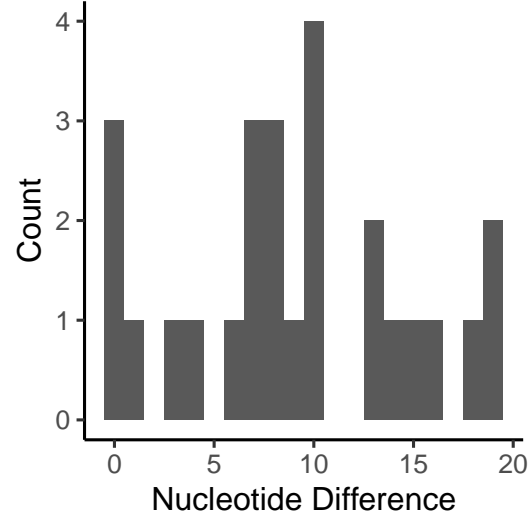
### IGHV3–33\*01

71 sequences assigned  
5 (7%) exact matches, in which:  
5 unique CDR3  
3 unique J



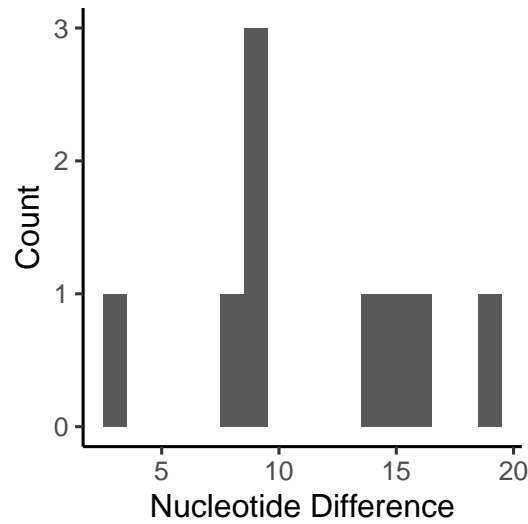
### IGHV3–48\*01

30 sequences assigned  
3 (10%) exact matches, in which:  
3 unique CDR3  
1 unique J



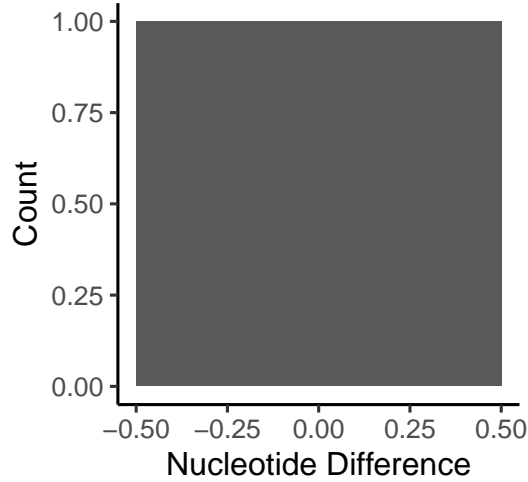
### IGHV3–30\*04

9 sequences assigned  
No exact matches.



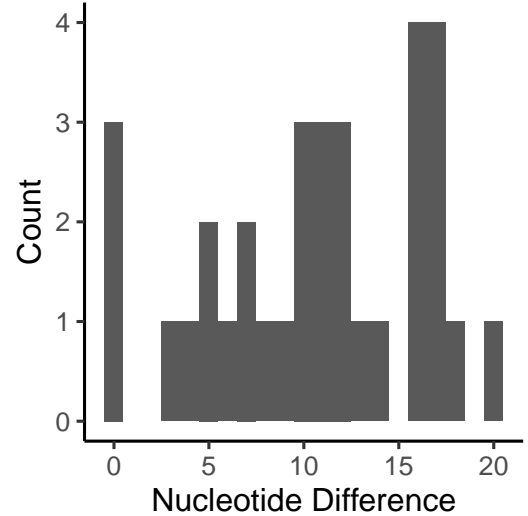
### IGHV3–35\*01

1 sequences assigned  
1 (100%) exact matches, in which:  
1 unique CDR3  
1 unique J



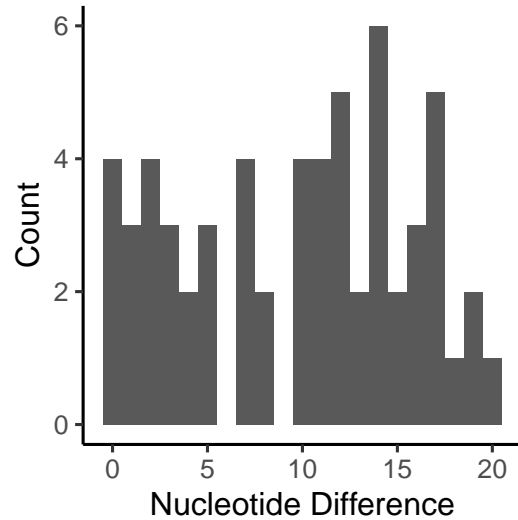
### IGHV3–48\*02

35 sequences assigned  
3 (8.6%) exact matches, in which:  
3 unique CDR3  
2 unique J



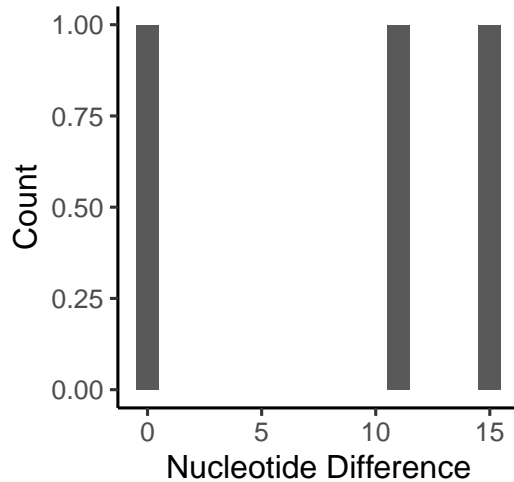
### IGHV3–30\*18

84 sequences assigned  
4 (4.8%) exact matches, in which:  
4 unique CDR3  
3 unique J



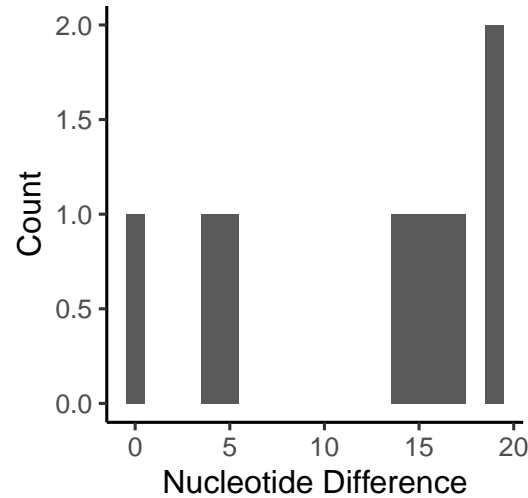
### IGHV3–43\*01

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



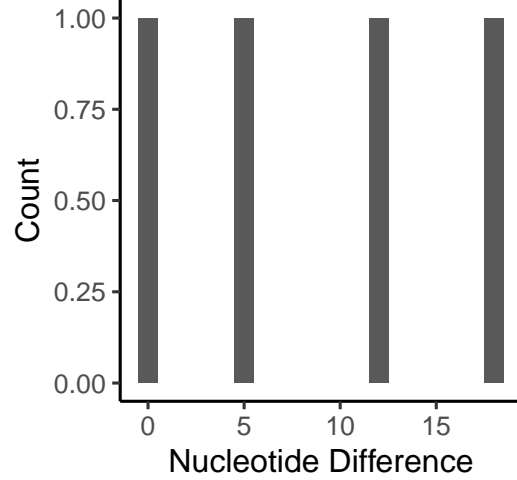
### IGHV3–49\*03

18 sequences assigned  
1 (5.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



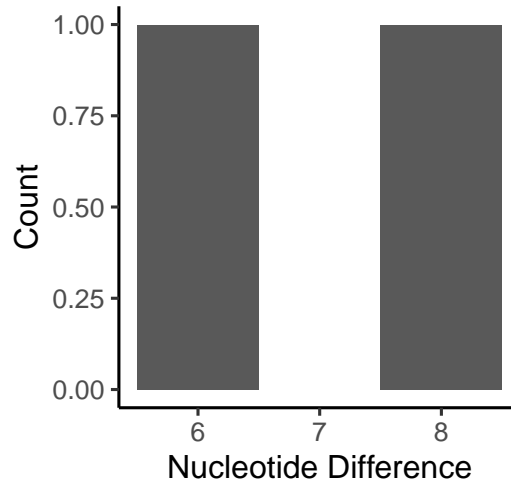
### IGHV3-49\*05

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



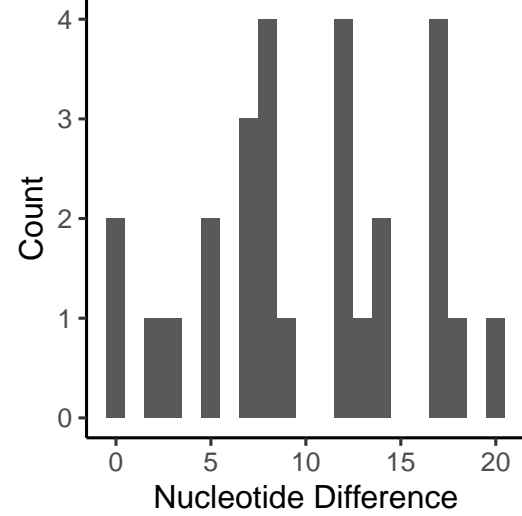
### IGHV3-64\*07

2 sequences assigned  
No exact matches.



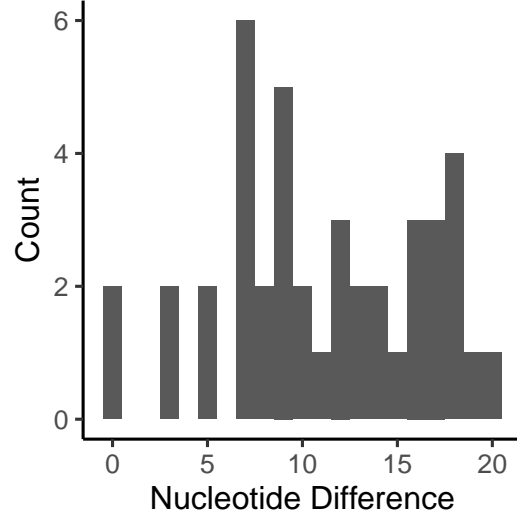
### IGHV3-74\*01

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



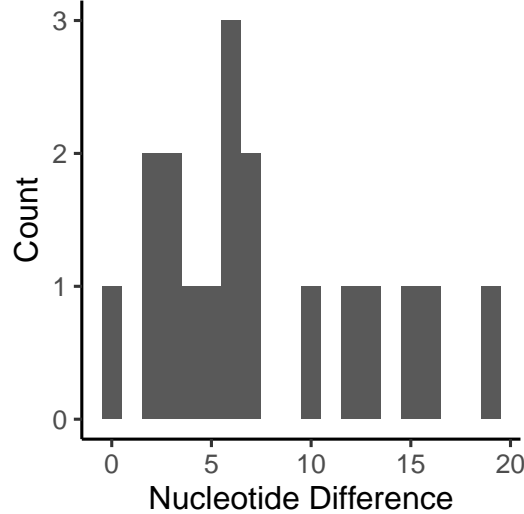
### IGHV3-53\*01

60 sequences assigned  
2 (3.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



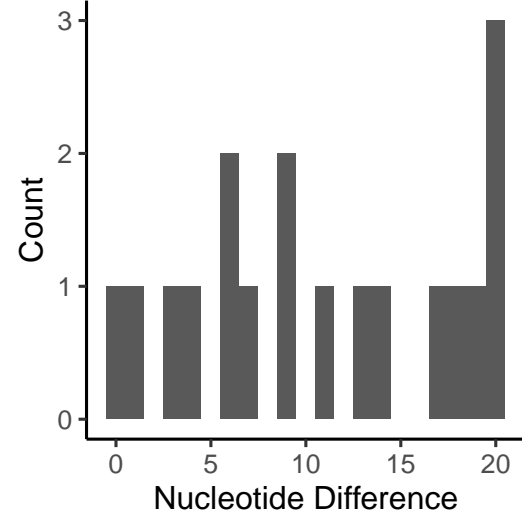
### IGHV3-72\*01

22 sequences assigned  
1 (4.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



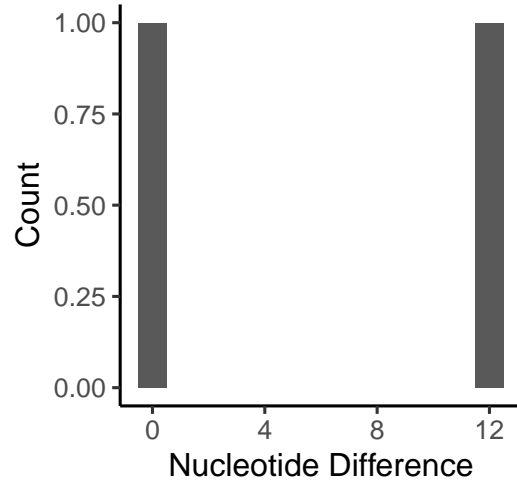
### IGHV4-4\*07

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



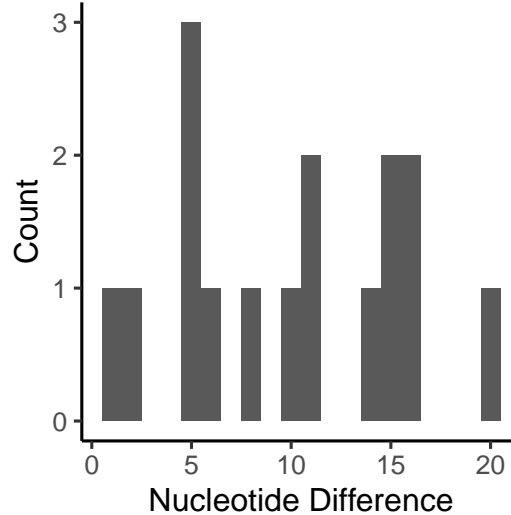
### IGHV3-64\*01

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



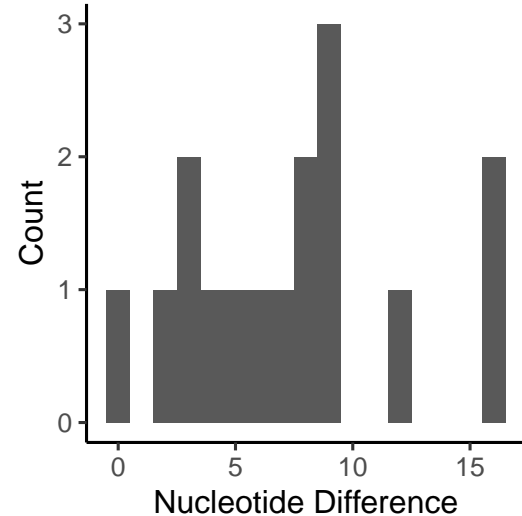
### IGHV3-73\*02

19 sequences assigned  
No exact matches.



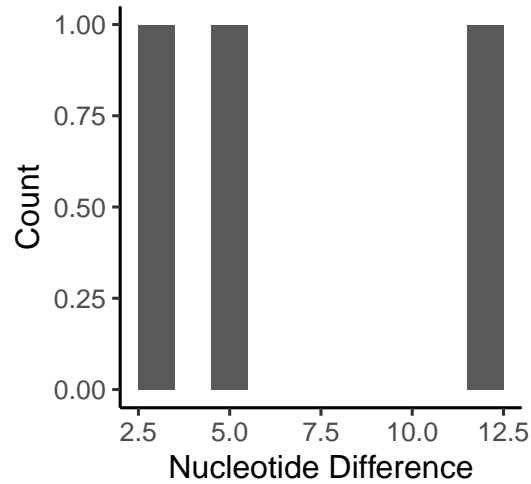
### IGHV4-30-4\*01

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



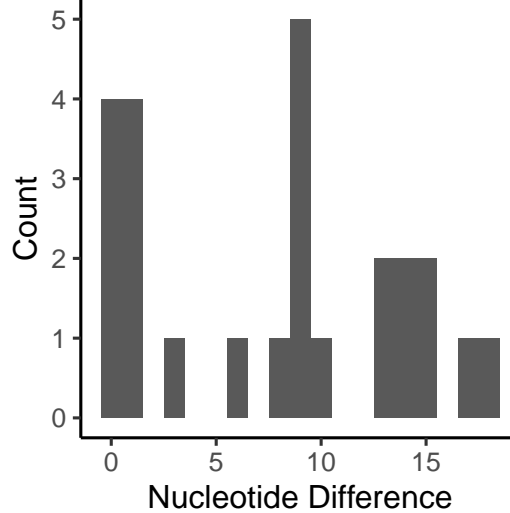
### IGHV4-30-2\*01

5 sequences assigned  
No exact matches.



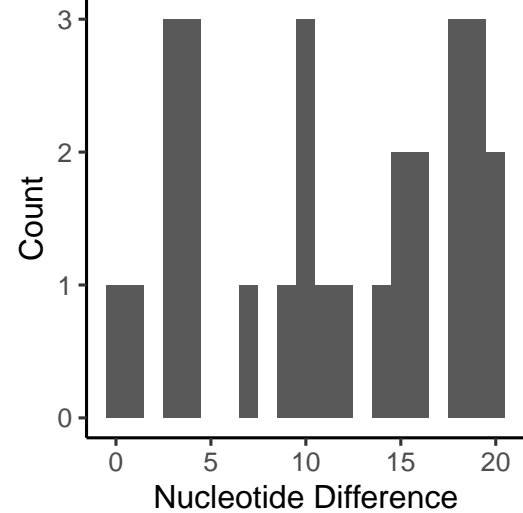
### IGHV4-34\*01

28 sequences assigned  
4 (14.3%) exact matches, in which:  
4 unique CDR3  
4 unique J



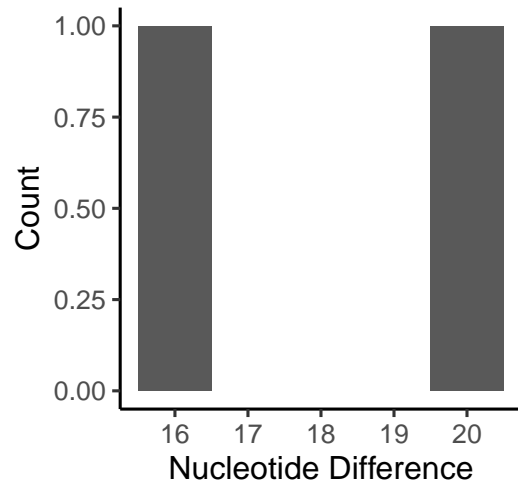
### IGHV4-59\*01

40 sequences assigned  
1 (2.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



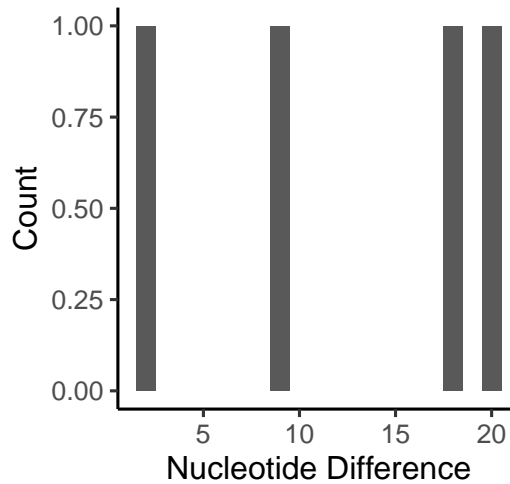
### IGHV4-30-4\*08

3 sequences assigned  
No exact matches.



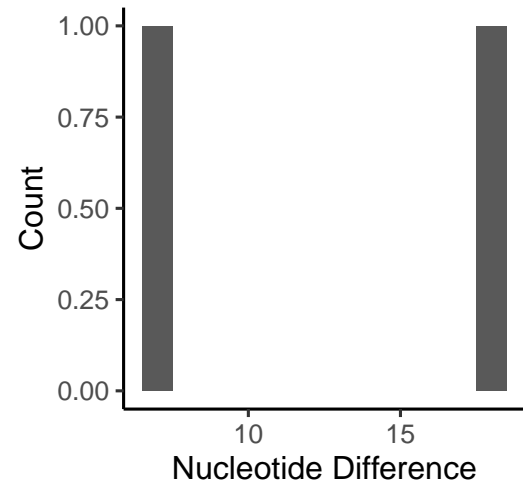
### IGHV4-34\*02

7 sequences assigned  
No exact matches.



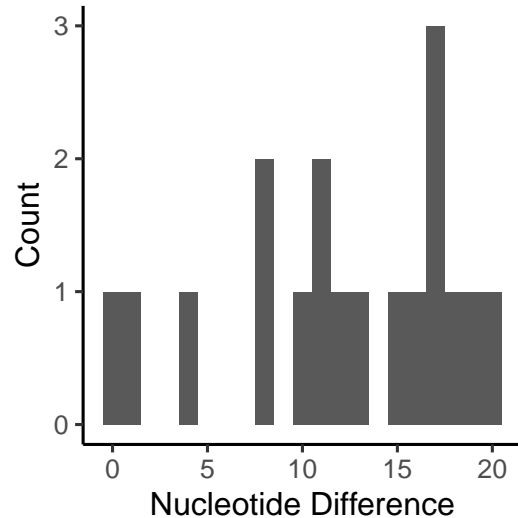
### IGHV4-61\*01

5 sequences assigned  
No exact matches.



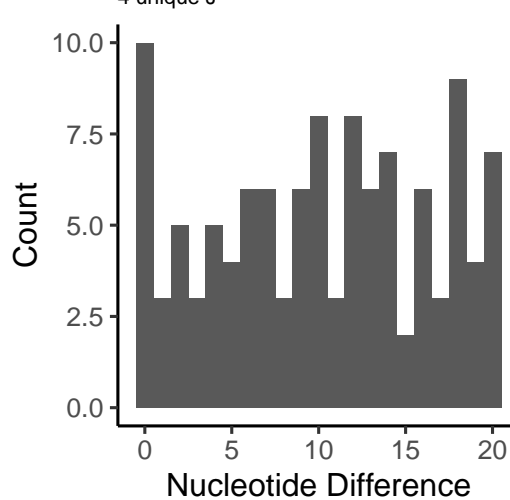
### IGHV4-31\*03

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



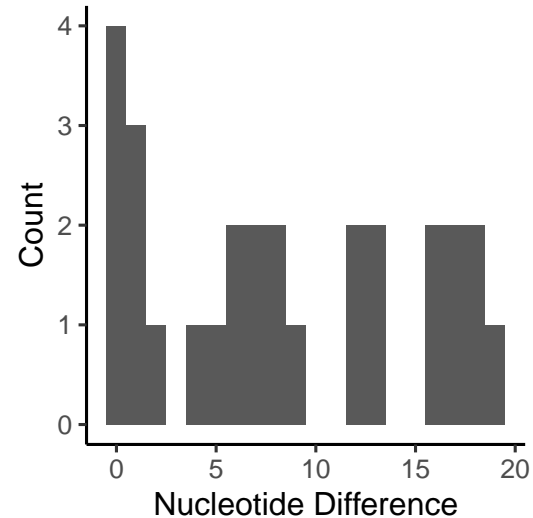
### IGHV4-39\*01

143 sequences assigned  
10 (7%) exact matches, in which:  
10 unique CDR3  
4 unique J



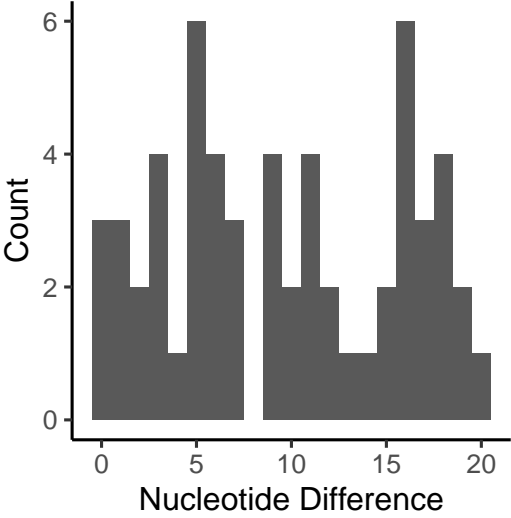
### IGHV4-61\*02

36 sequences assigned  
4 (11.1%) exact matches, in which:  
4 unique CDR3  
2 unique J



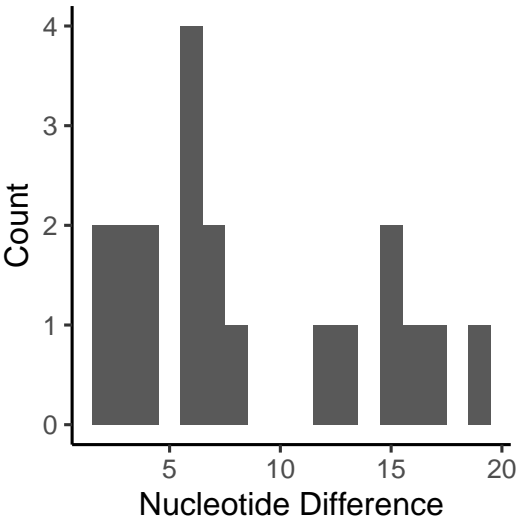
# IGHV5-51\*01

67 sequences assigned  
3 (4.5%) exact matches, in which:  
3 unique CDR3  
3 unique J



# IGHV6-1\*01

22 sequences assigned  
No exact matches.







Warning – no inferred sequences found.