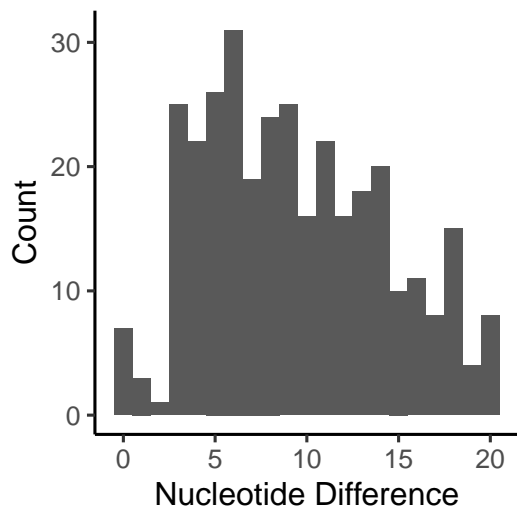


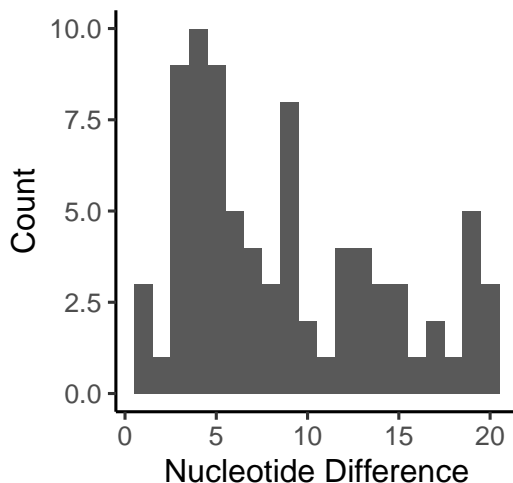
### IGHV1-2\*02

377 sequences assigned  
7 (1.9%) exact matches, in which:  
7 unique CDR3  
4 unique J



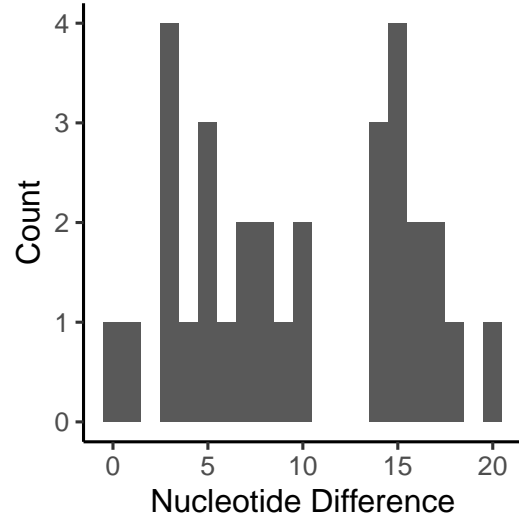
### IGHV1-3\*01\_05

95 sequences assigned  
No exact matches.



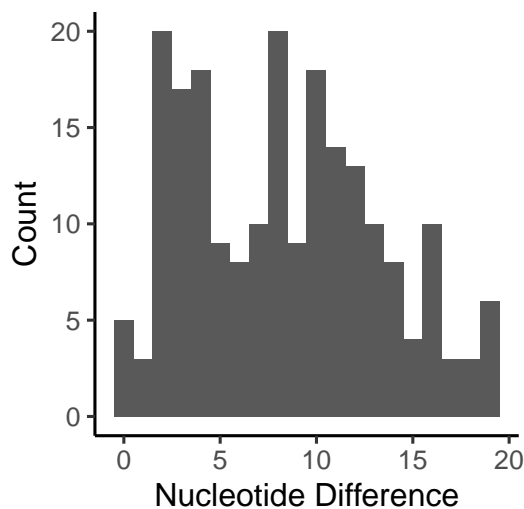
### IGHV1-24\*01

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



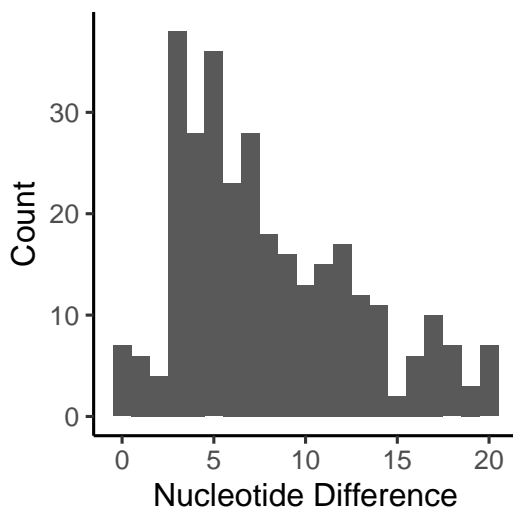
### IGHV1-2\*06

229 sequences assigned  
5 (2.2%) exact matches, in which:  
5 unique CDR3  
3 unique J



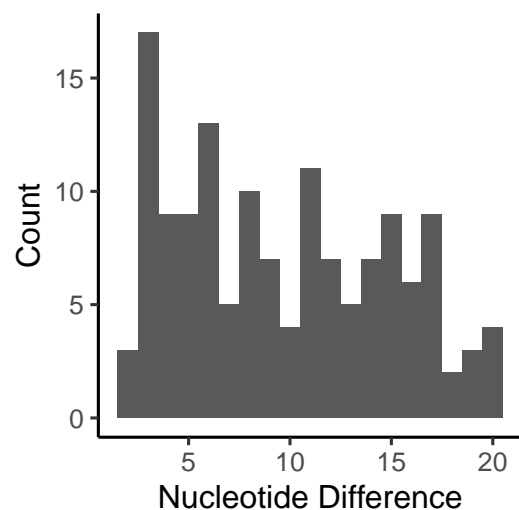
### IGHV1-8\*01

324 sequences assigned  
7 (2.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



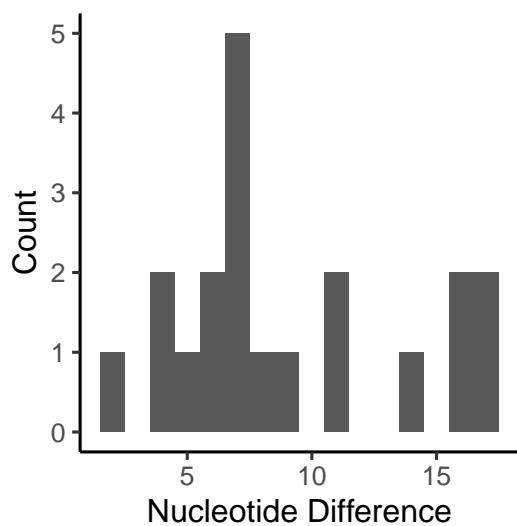
### IGHV1-46\*01

161 sequences assigned  
No exact matches.



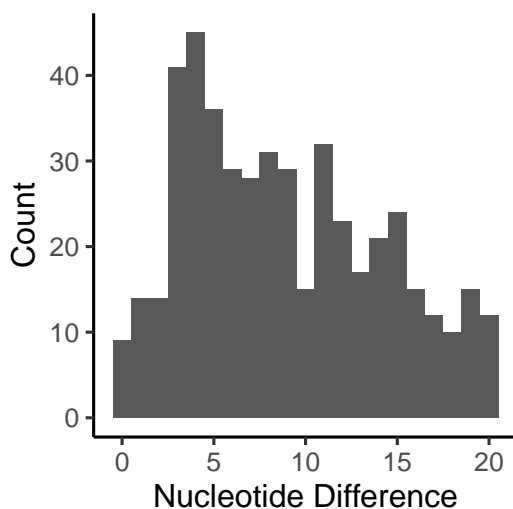
### IGHV1-3\*04

24 sequences assigned  
No exact matches.



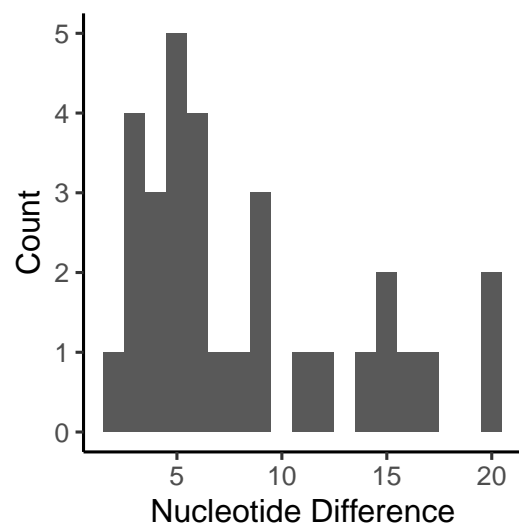
### IGHV1-18\*01

544 sequences assigned  
9 (1.7%) exact matches, in which:  
9 unique CDR3  
4 unique J



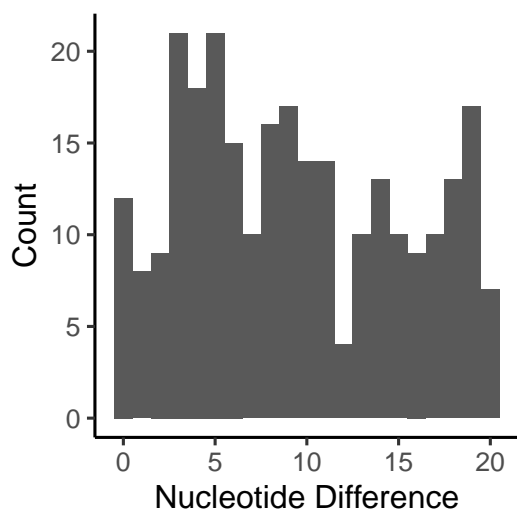
### IGHV1-58\*01\_03

35 sequences assigned  
No exact matches.



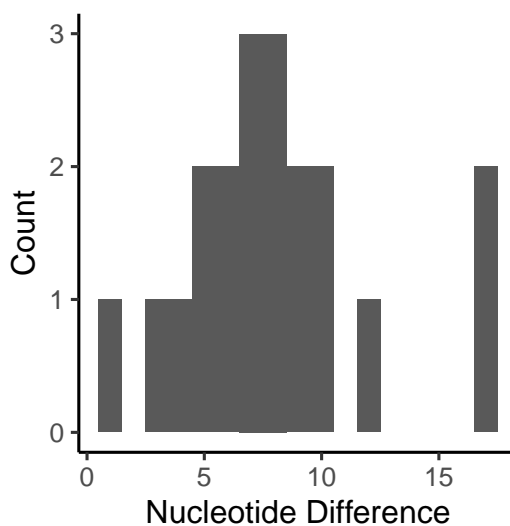
### IGHV1-69\*01\_12\_13

339 sequences assigned  
12 (3.5%) exact matches, in which:  
11 unique CDR3  
2 unique J



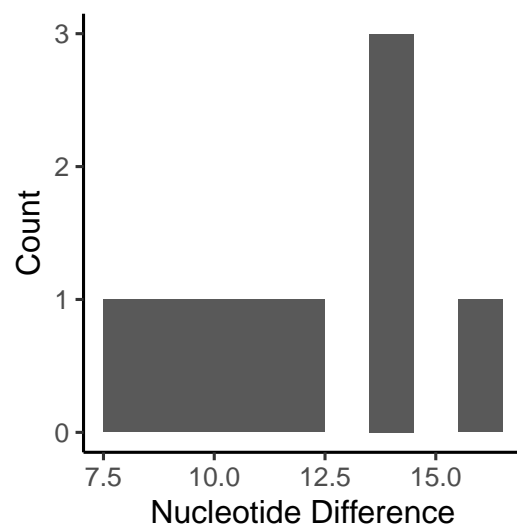
### IGHV2-26\*01

21 sequences assigned  
No exact matches.



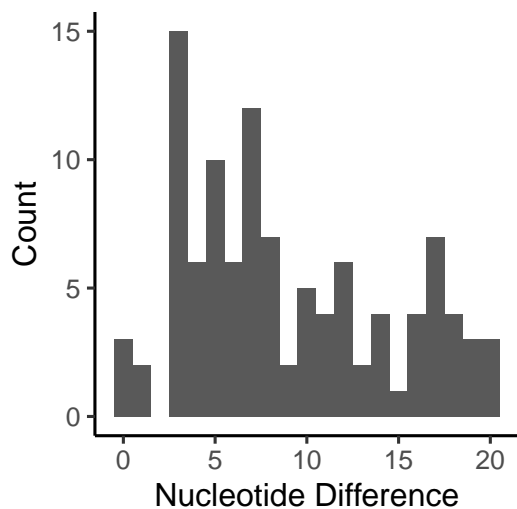
### IGHV2-70\*20

9 sequences assigned  
No exact matches.



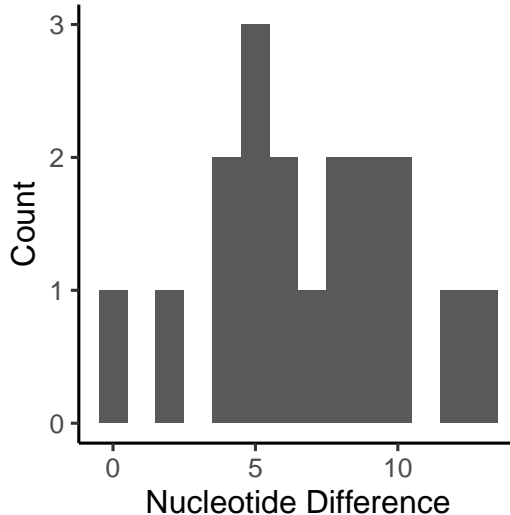
### IGHV2-5\*01

119 sequences assigned  
3 (2.5%) exact matches, in which:  
3 unique CDR3  
1 unique J



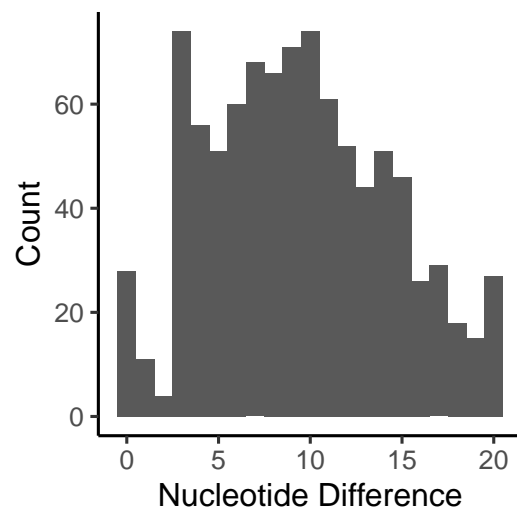
### IGHV2-70\*01

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



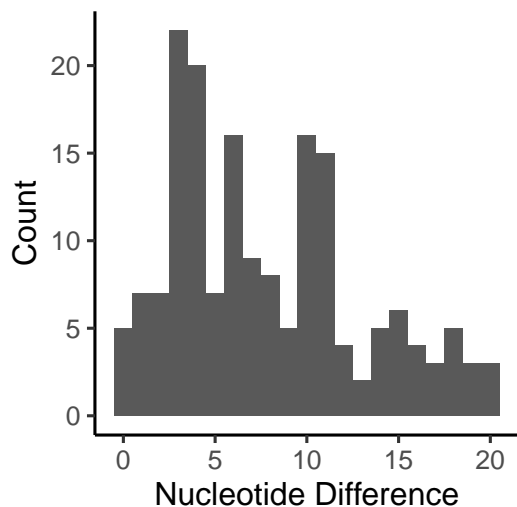
### IGHV3-7\*01

1033 sequences assigned  
28 (2.7%) exact matches, in which:  
18 unique CDR3  
3 unique J



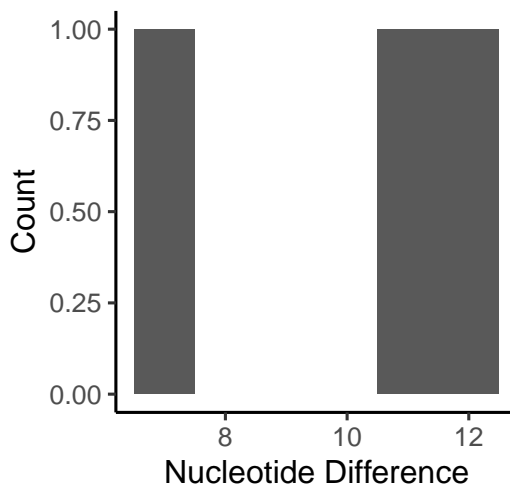
### IGHV2-5\*02

198 sequences assigned  
5 (2.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



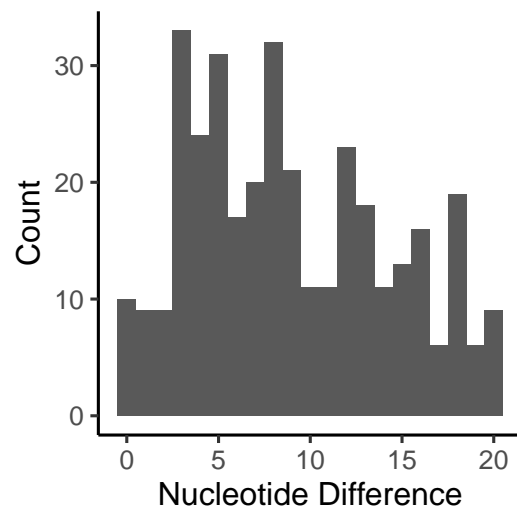
### IGHV2-70\*13

4 sequences assigned  
No exact matches.



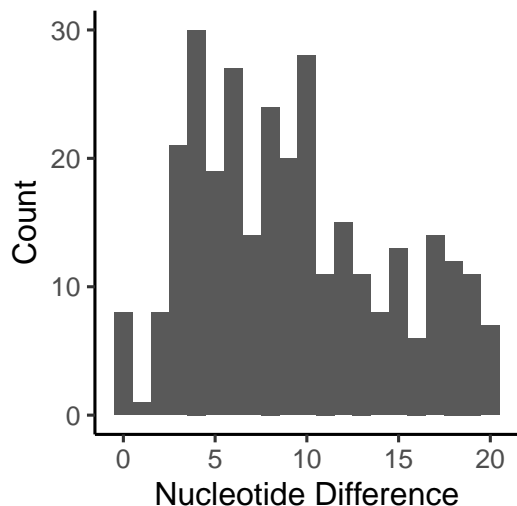
### IGHV3-9\*01

398 sequences assigned  
10 (2.5%) exact matches, in which:  
7 unique CDR3  
2 unique J



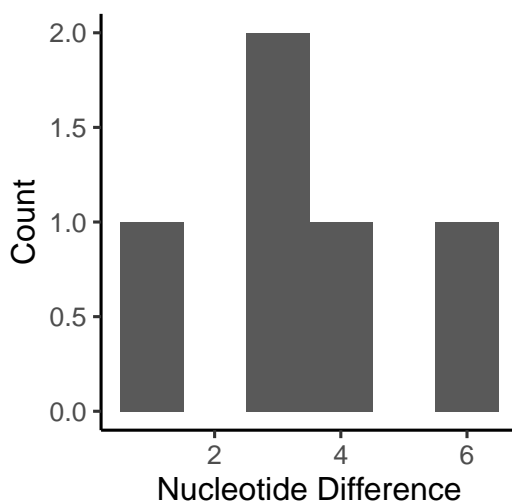
### IGHV3-11\*01

358 sequences assigned  
8 (2.2%) exact matches, in which:  
6 unique CDR3  
2 unique J



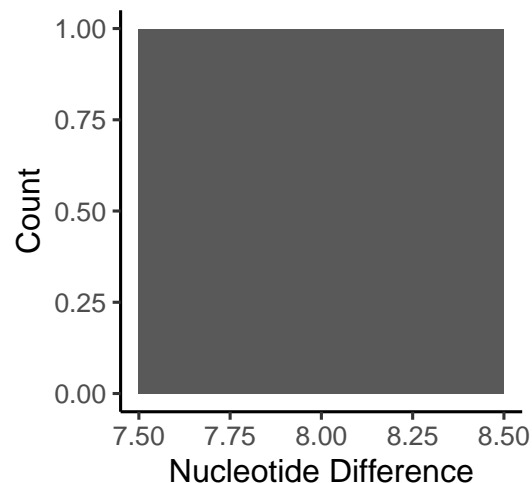
### IGHV3-20\*01\_02

5 sequences assigned  
No exact matches.



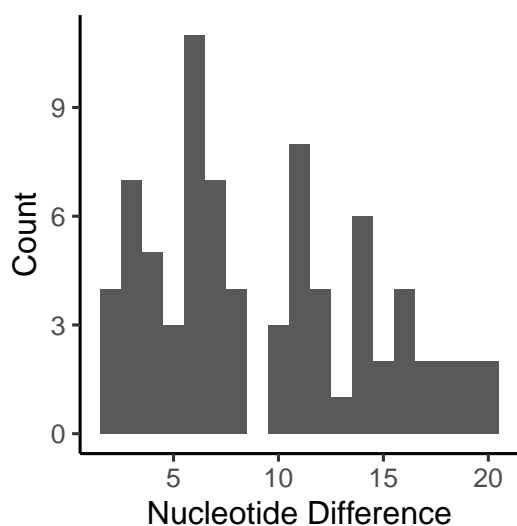
### IGHV3-22\*01\_02

1 sequences assigned  
No exact matches.



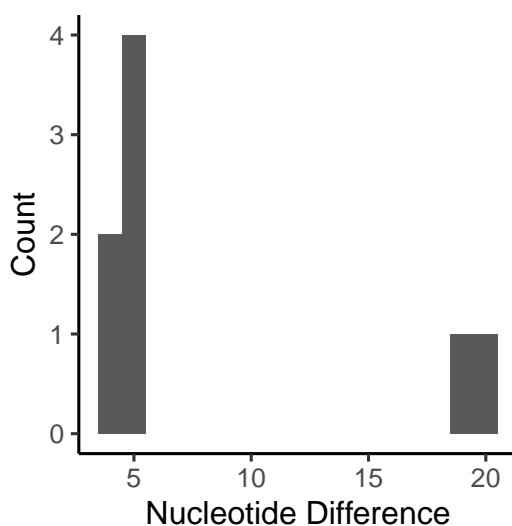
### IGHV3-13\*01

82 sequences assigned  
No exact matches.



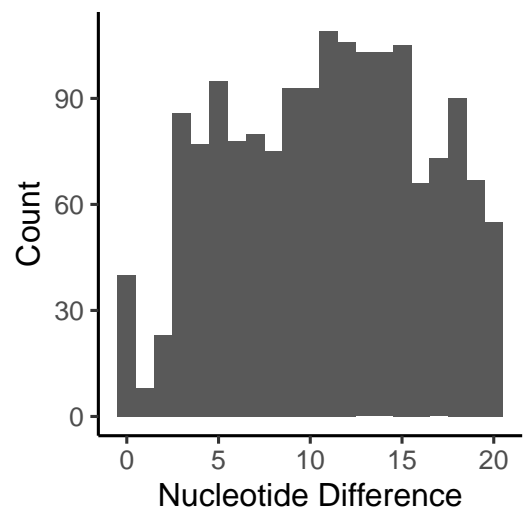
### IGHV3-20\*03\_04

8 sequences assigned  
No exact matches.



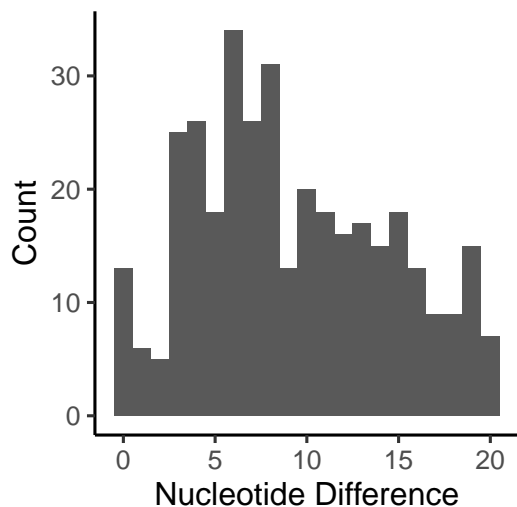
### IGHV3-23\*01\_04

1878 sequences assigned  
40 (2.1%) exact matches, in which:  
23 unique CDR3  
4 unique J



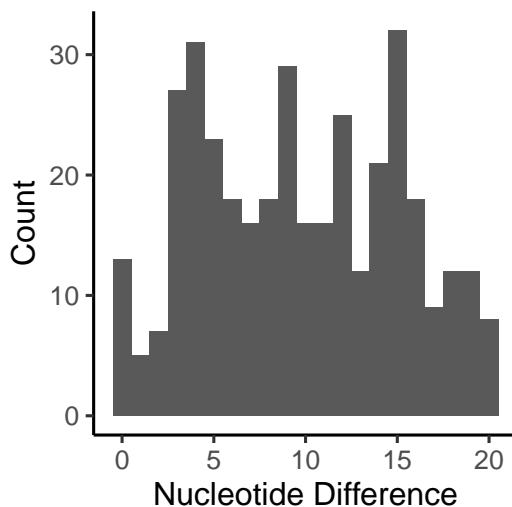
### IGHV3-15\*01\_02

459 sequences assigned  
13 (2.8%) exact matches, in which:  
8 unique CDR3  
4 unique J



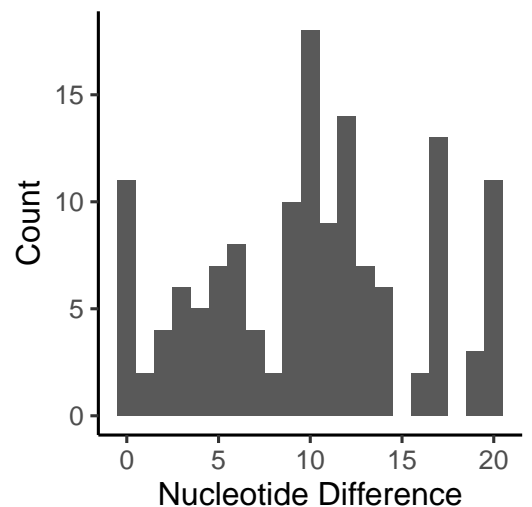
### IGHV3-21\*01\_02

414 sequences assigned  
13 (3.1%) exact matches, in which:  
8 unique CDR3  
4 unique J



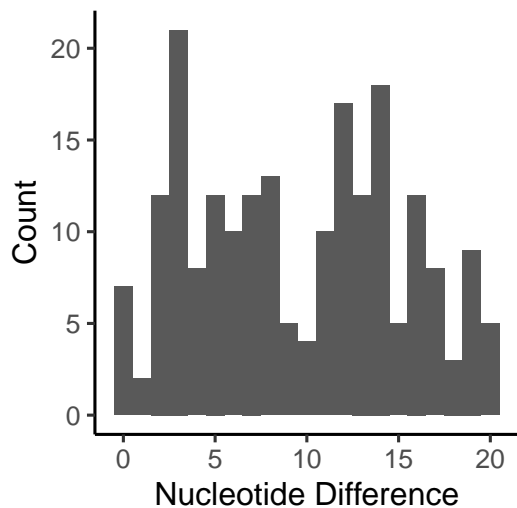
### IGHV3-33\*01

156 sequences assigned  
11 (7.1%) exact matches, in which:  
6 unique CDR3  
3 unique J



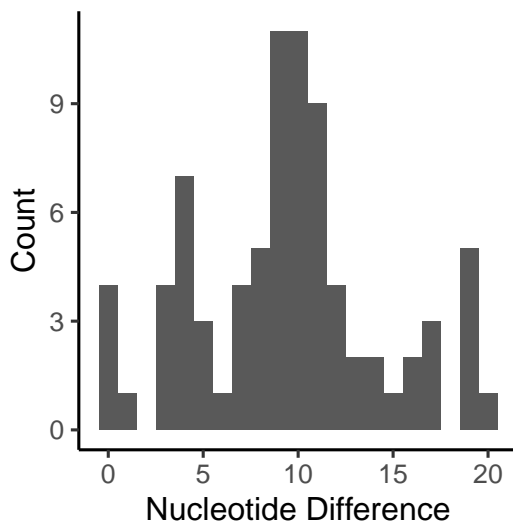
## IGHV3-33\*08

223 sequences assigned  
7 (3.1%) exact matches, in which:  
4 unique CDR3  
3 unique J



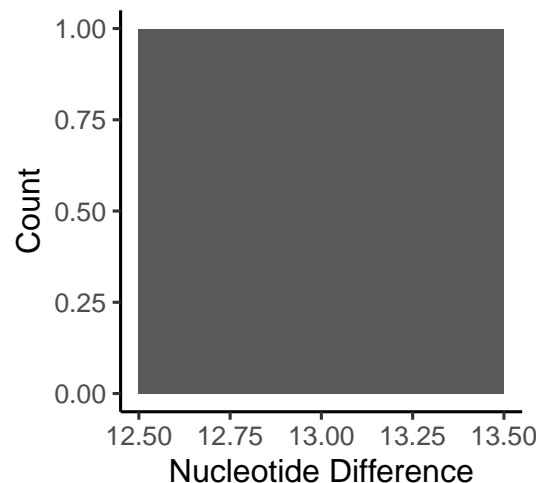
## IGHV3-49\*03\_05

94 sequences assigned  
4 (4.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



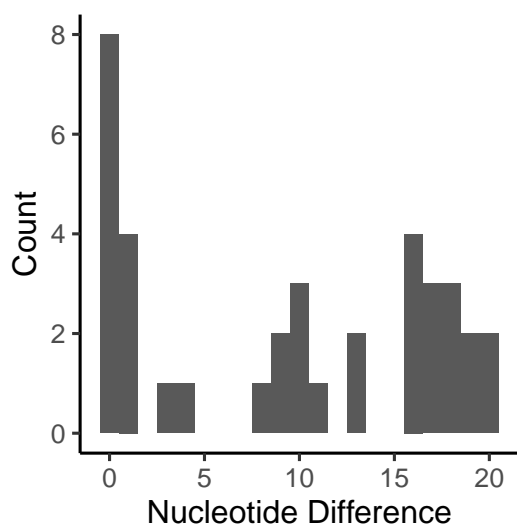
## IGHV3-66\*01

1 sequences assigned  
No exact matches.



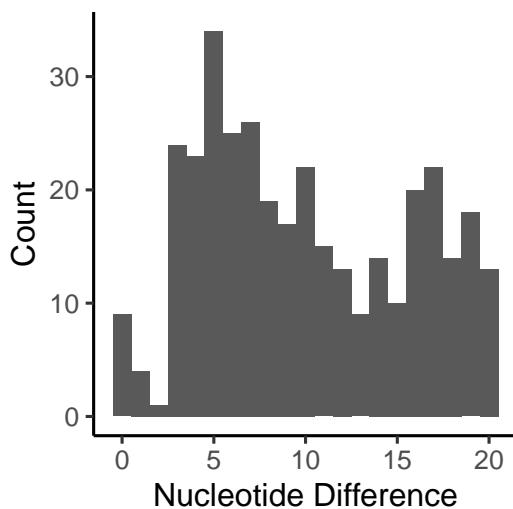
## IGHV3-43\*01

44 sequences assigned  
8 (18.2%) exact matches, in which:  
6 unique CDR3  
2 unique J



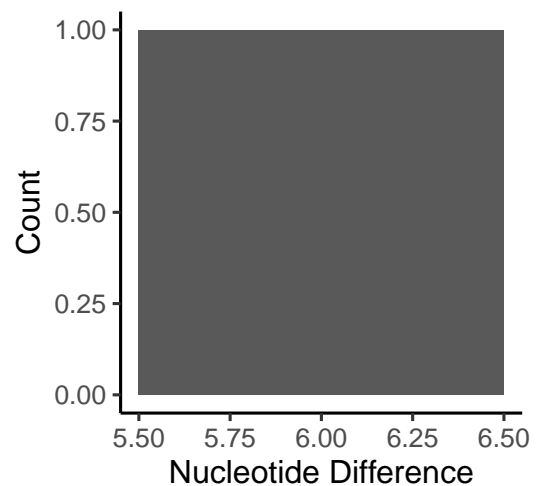
## IGHV3-53\*01\_02

408 sequences assigned  
9 (2.2%) exact matches, in which:  
6 unique CDR3  
3 unique J



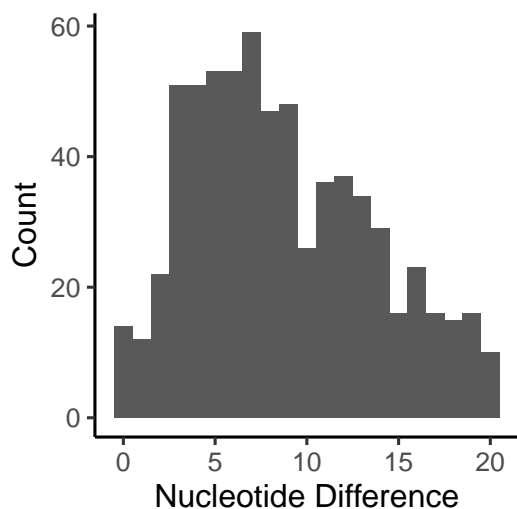
## IGHV3-66\*03

1 sequences assigned  
No exact matches.



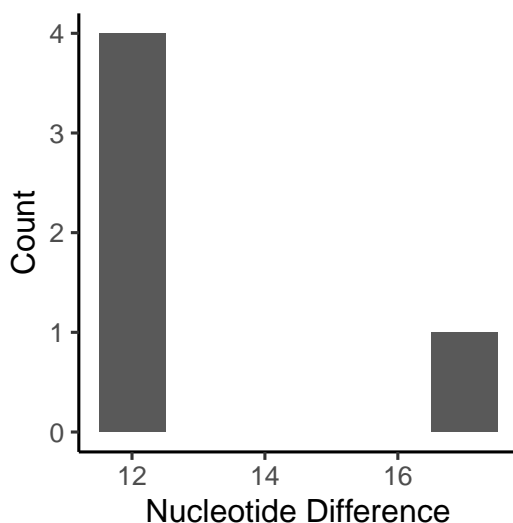
## IGHV3-48\*02

728 sequences assigned  
14 (1.9%) exact matches, in which:  
8 unique CDR3  
2 unique J



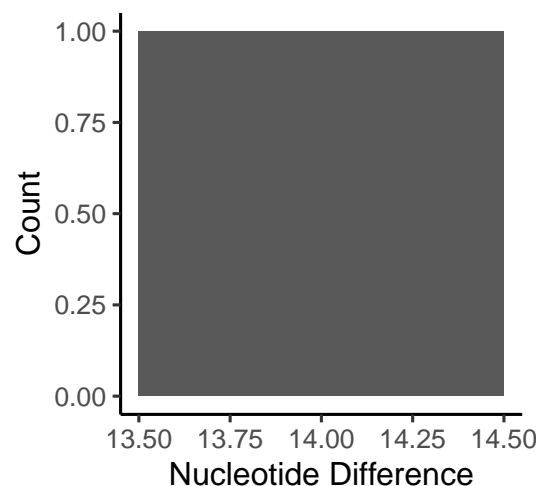
## IGHV3-64\*02\_07

5 sequences assigned  
No exact matches.



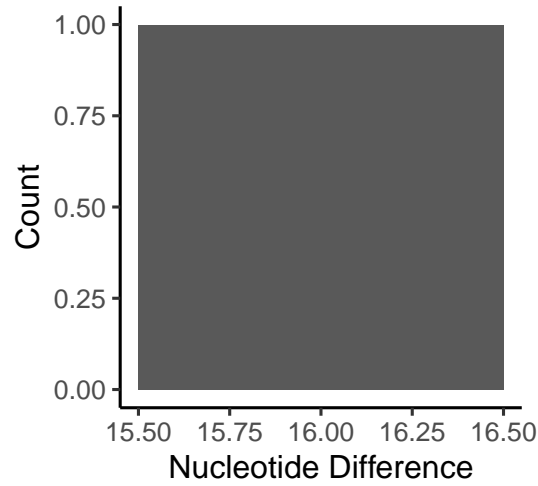
## IGHV3-66\*04

1 sequences assigned  
No exact matches.



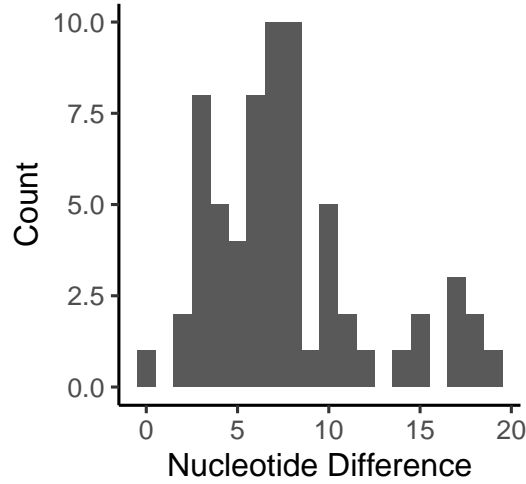
### IGHV3-69-1\*01

1 sequences assigned  
No exact matches.



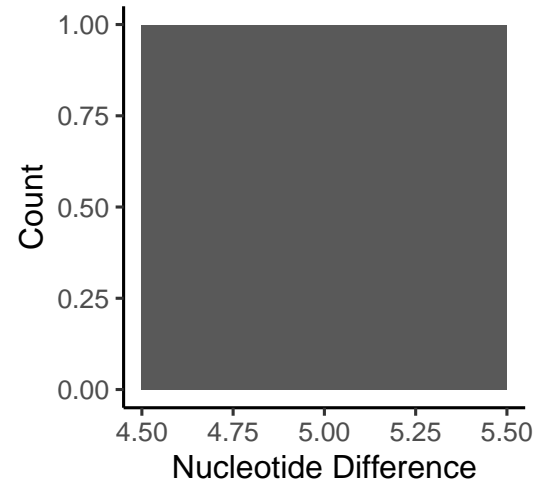
### IGHV3-73\*01\_02

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



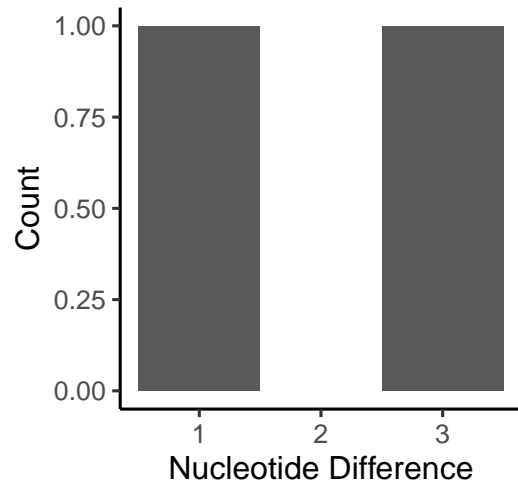
### IGHV3-64D\*09

1 sequences assigned  
No exact matches.



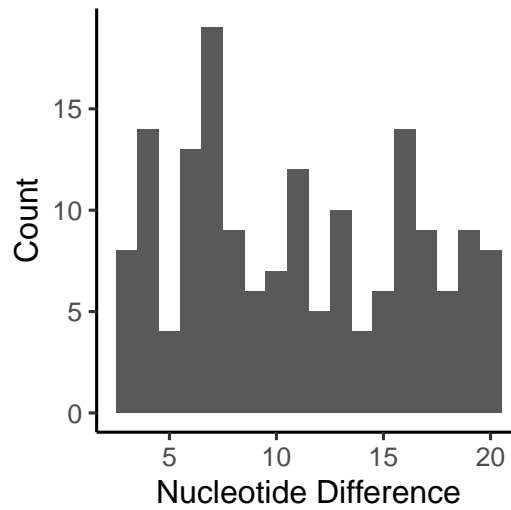
### IGHV3-69-1\*02

2 sequences assigned  
No exact matches.



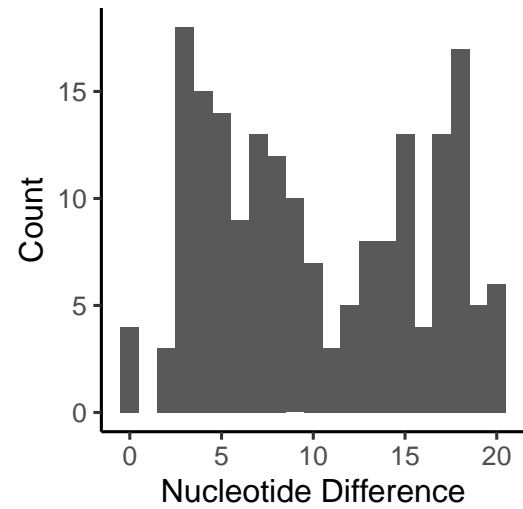
### IGHV3-74\*03

185 sequences assigned  
No exact matches.



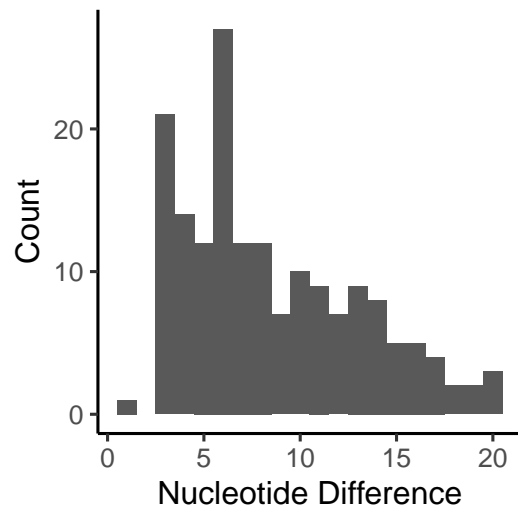
### IGHV4-4\*07

228 sequences assigned  
4 (1.8%) exact matches, in which:  
3 unique CDR3  
3 unique J



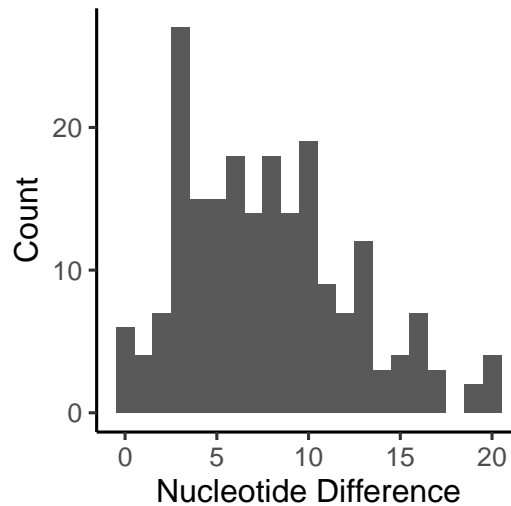
### IGHV3-72\*01

173 sequences assigned  
No exact matches.



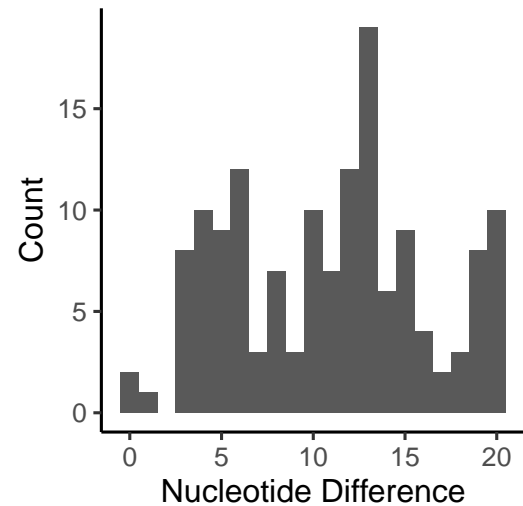
### IGHV3-74\*01\_02

229 sequences assigned  
6 (2.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



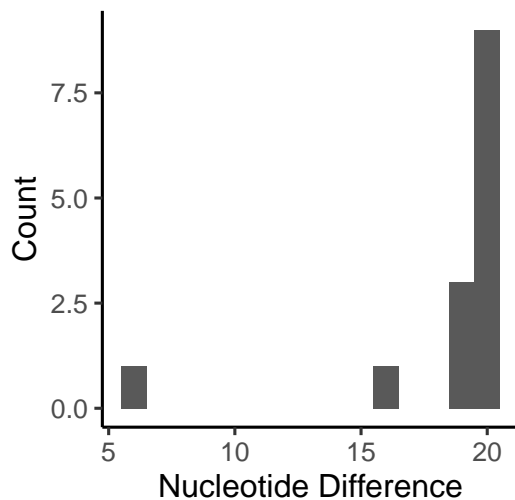
### IGHV4-4\*02\_03

171 sequences assigned  
2 (1.2%) exact matches, in which:  
2 unique CDR3  
1 unique J



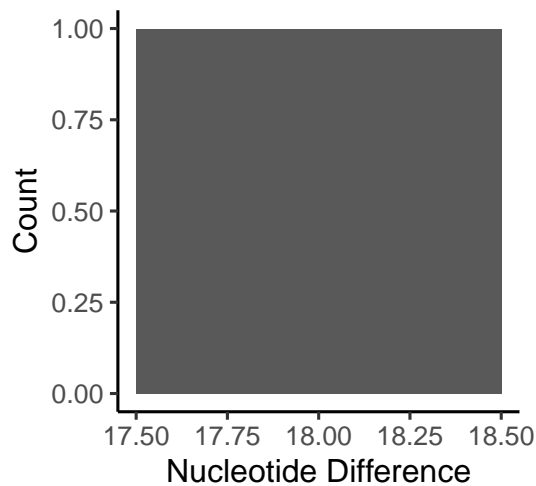
### IGHV4-28\*01\_07

16 sequences assigned  
No exact matches.



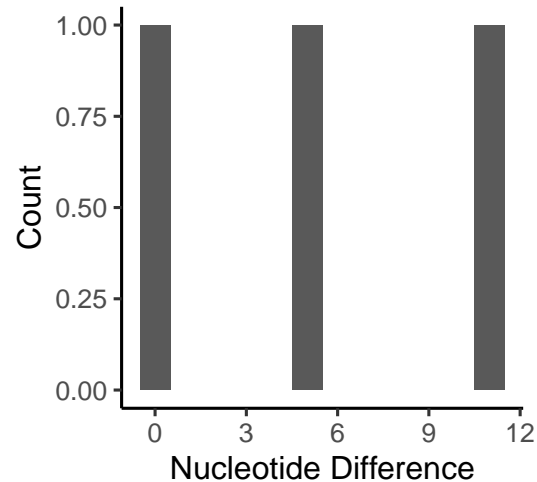
### IGHV4-30-2\*03

2 sequences assigned  
No exact matches.



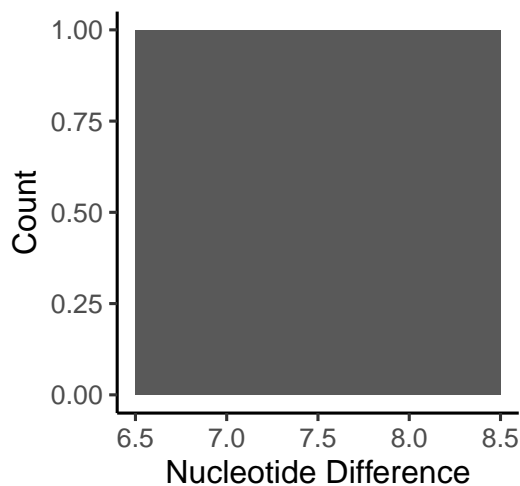
### IGHV4-38-2\*01

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



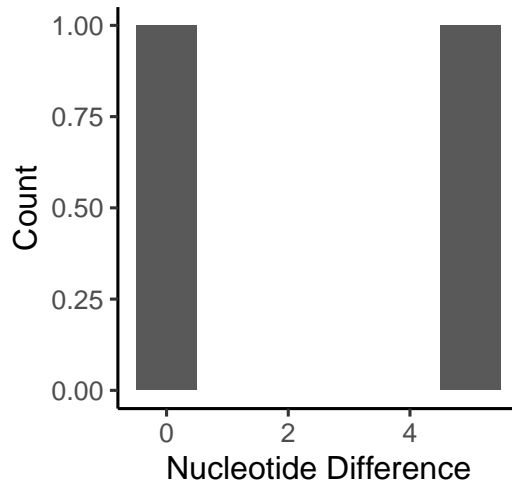
### IGHV4-28\*02\_05

2 sequences assigned  
No exact matches.



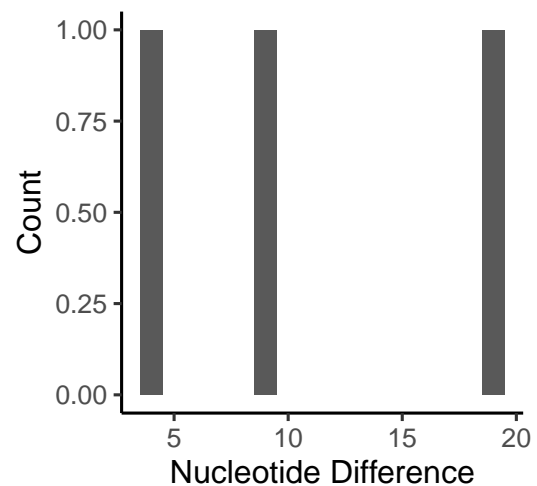
### IGHV4-31\*02

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



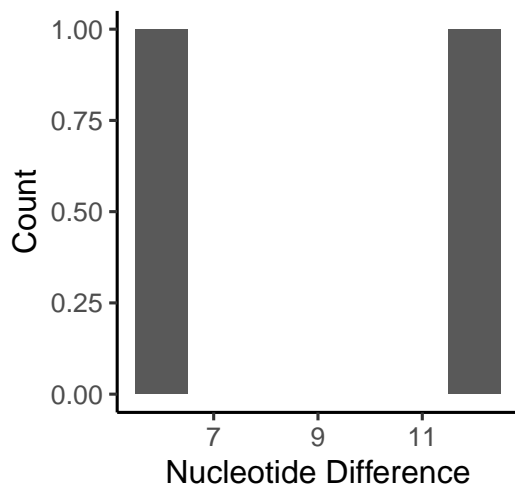
### IGHV4-38-2\*02

4 sequences assigned  
No exact matches.



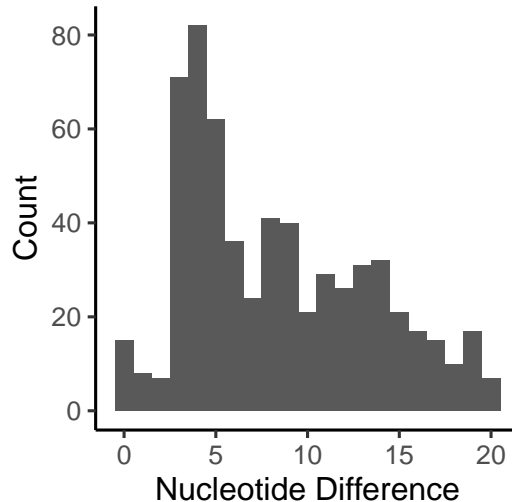
### IGHV4-30-2\*01

3 sequences assigned  
No exact matches.



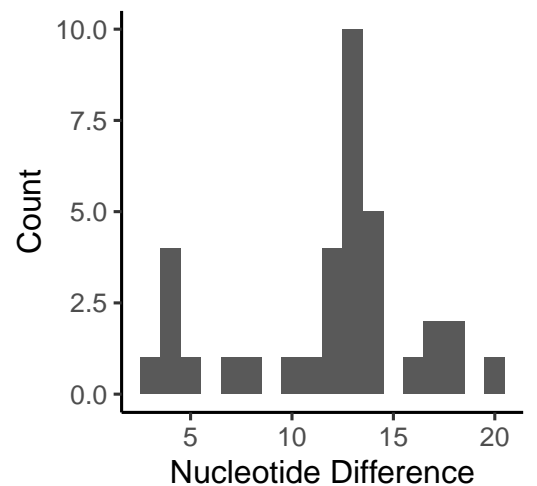
### IGHV4-34\*01\_02

693 sequences assigned  
15 (2.2%) exact matches, in which:  
9 unique CDR3  
3 unique J



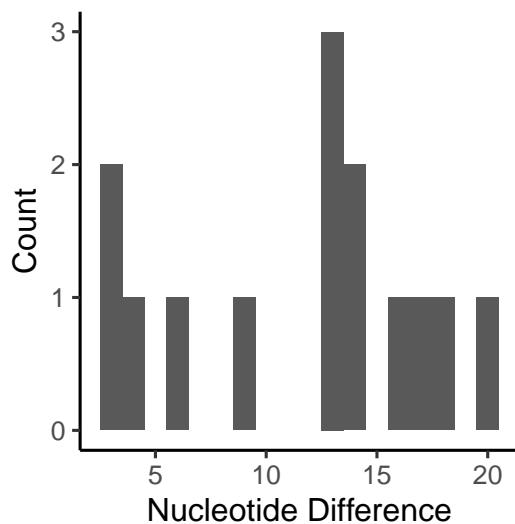
### IGHV4-39\*02

44 sequences assigned  
No exact matches.



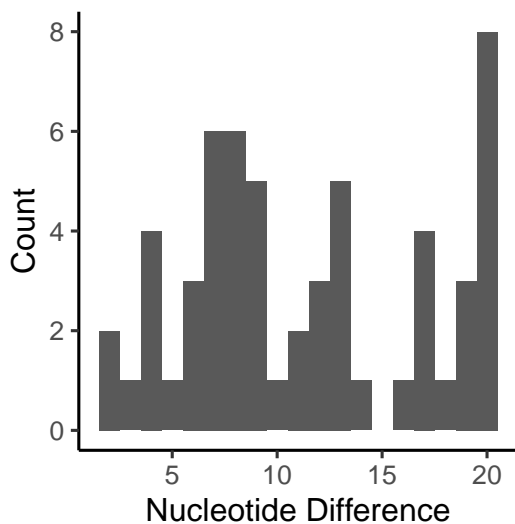
### IGHV4-39\*07

17 sequences assigned  
No exact matches.



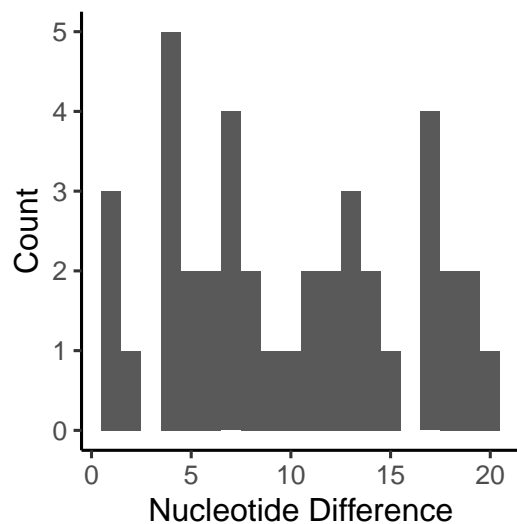
### IGHV4-59\*11

76 sequences assigned  
No exact matches.



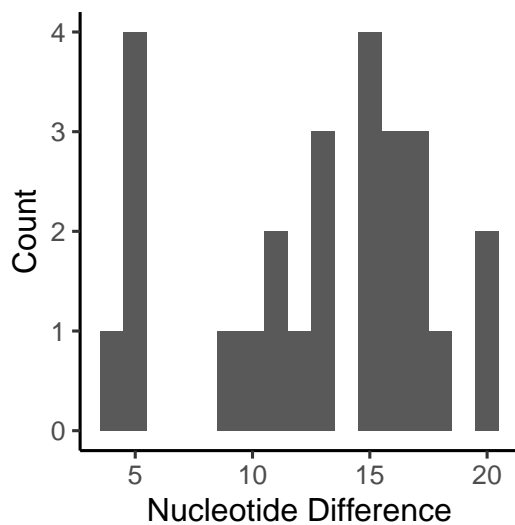
### IGHV5-51\*07

47 sequences assigned  
No exact matches.



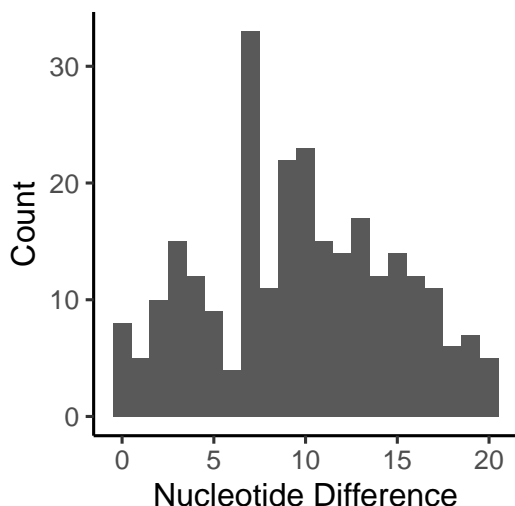
### IGHV4-59\*02

38 sequences assigned  
No exact matches.



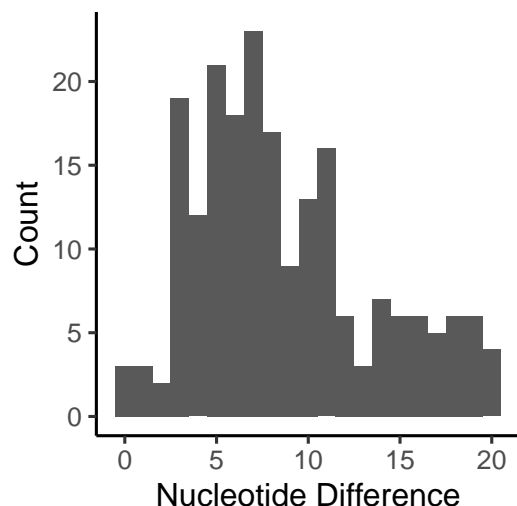
### IGHV4-61\*01

306 sequences assigned  
8 (2.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



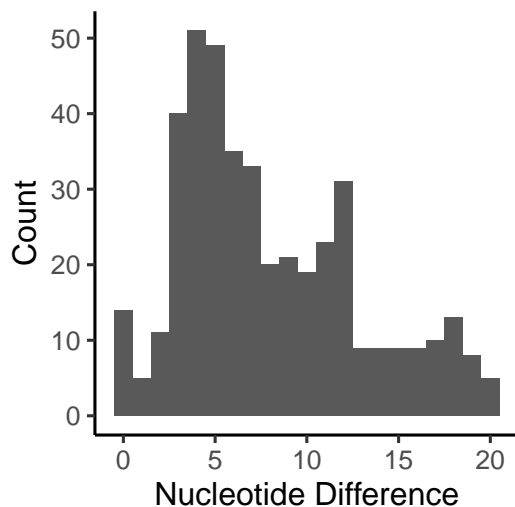
### IGHV5-51\*01\_03

228 sequences assigned  
3 (1.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



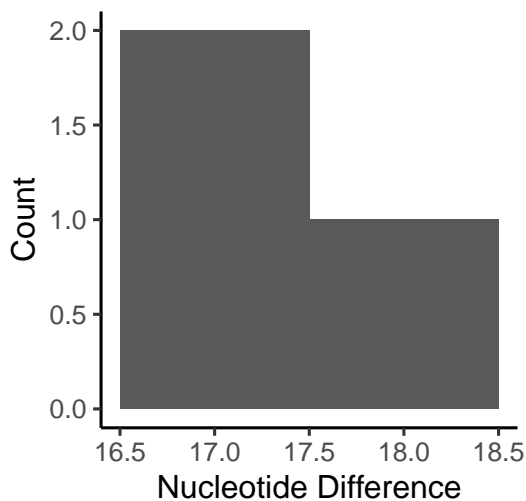
### IGHV4-59\*01\_07

463 sequences assigned  
14 (3%) exact matches, in which:  
11 unique CDR3  
4 unique J



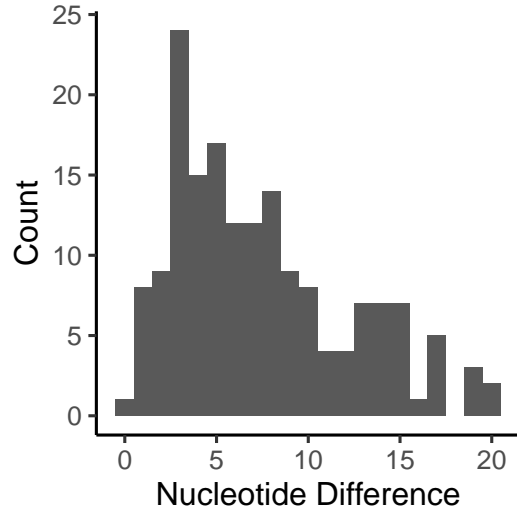
### IGHV4/OR15-8\*01

3 sequences assigned  
No exact matches.



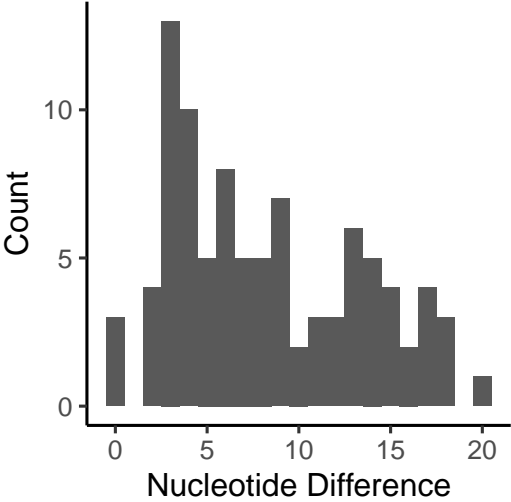
### IGHV6-1\*01\_02

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



# IGHV7-4-1\*02

103 sequences assigned  
3 (2.9%) exact matches, in which:  
3 unique CDR3  
1 unique J







[illegible]