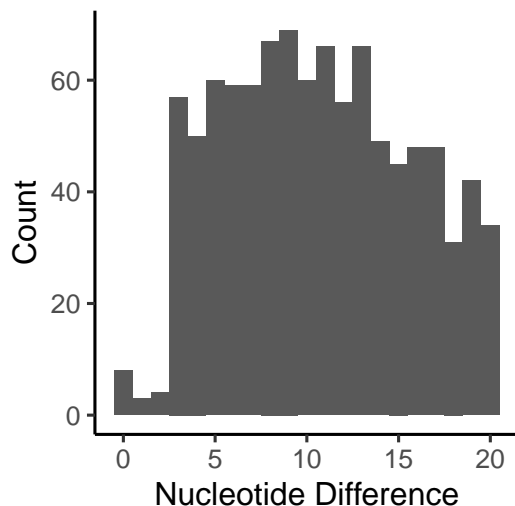


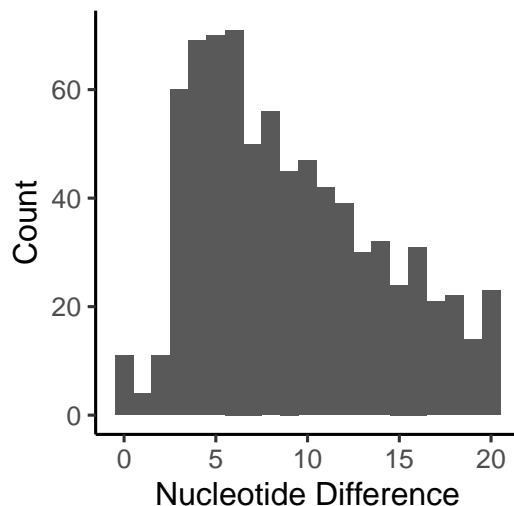
## IGHV1-2\*02

1203 sequences assigned  
8 (0.7%) exact matches, in which:  
8 unique CDR3  
3 unique J



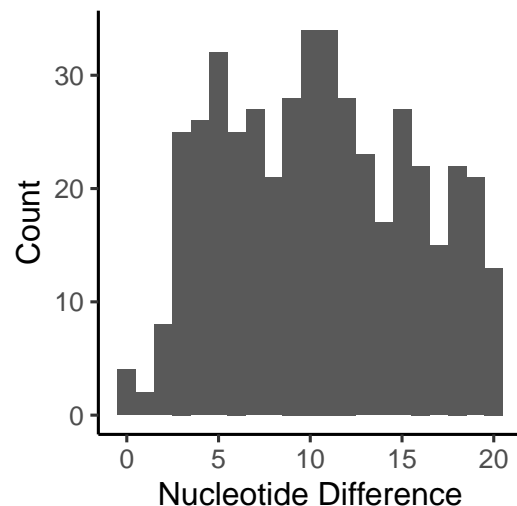
## IGHV1-8\*01

872 sequences assigned  
11 (1.3%) exact matches, in which:  
10 unique CDR3  
4 unique J



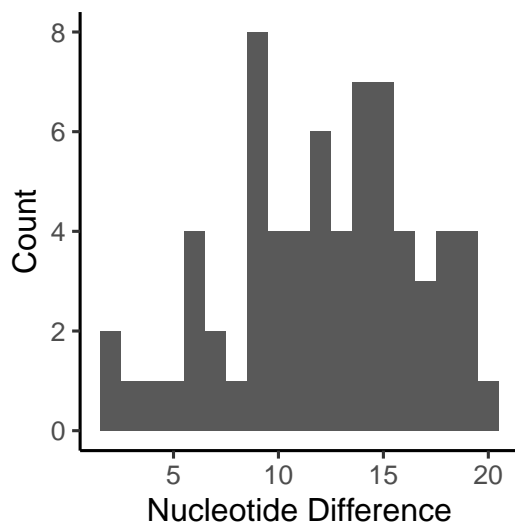
## IGHV1-46\*01

562 sequences assigned  
4 (0.7%) exact matches, in which:  
4 unique CDR3  
3 unique J



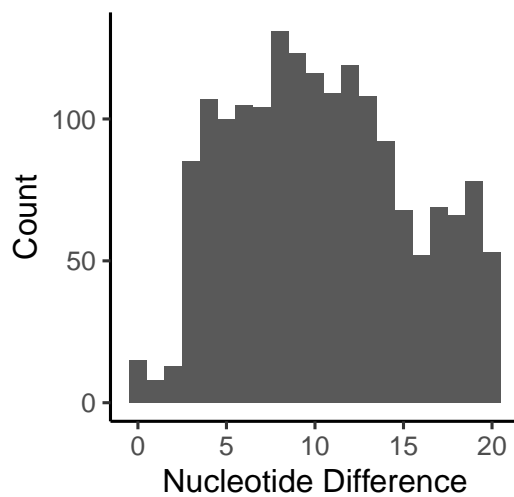
## IGHV1-3\*04

85 sequences assigned  
No exact matches.



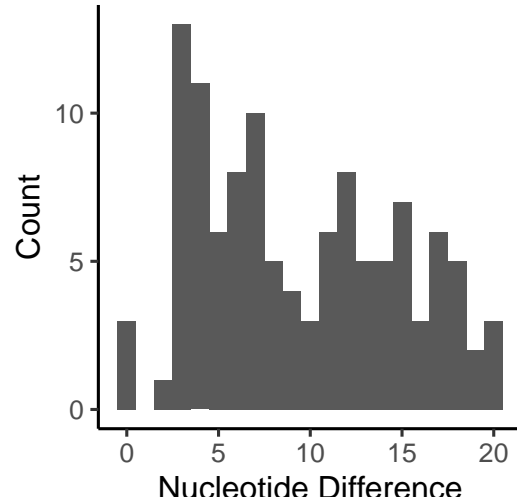
## IGHV1-18\*01

2152 sequences assigned  
15 (0.7%) exact matches, in which:  
15 unique CDR3  
4 unique J



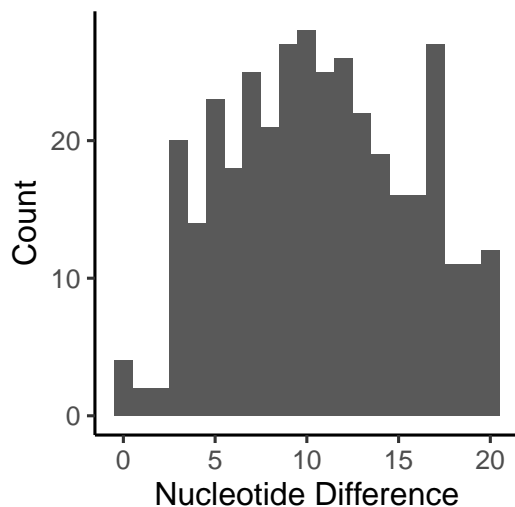
## IGHV1-58\*01\_03

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



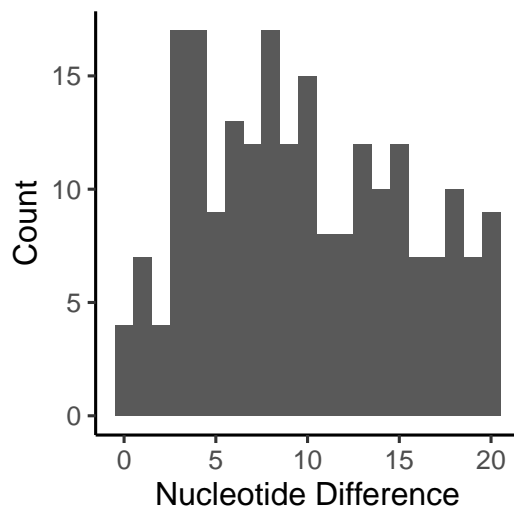
## IGHV1-3\*01\_05

426 sequences assigned  
4 (0.9%) exact matches, in which:  
4 unique CDR3  
3 unique J



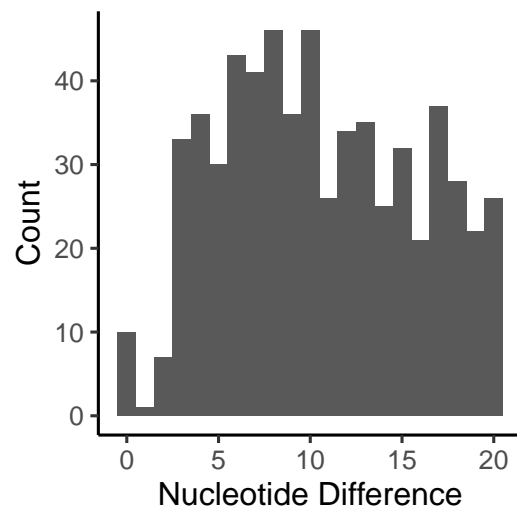
## IGHV1-24\*01

249 sequences assigned  
4 (1.6%) exact matches, in which:  
4 unique CDR3  
2 unique J



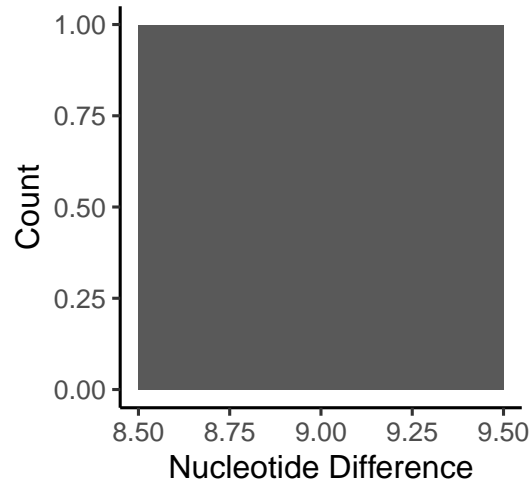
## IGHV1-69\*01\_12\_13

831 sequences assigned  
10 (1.2%) exact matches, in which:  
10 unique CDR3  
3 unique J



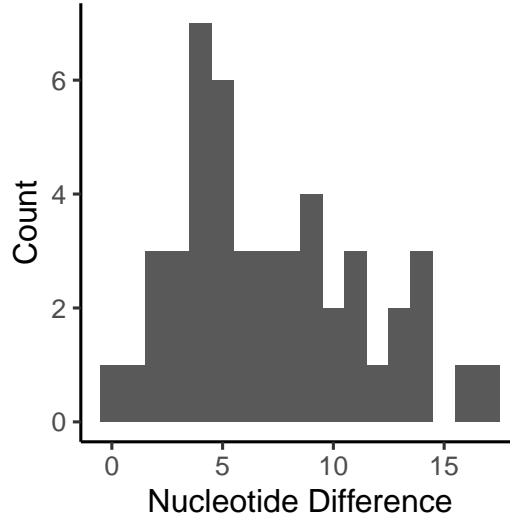
### IGHV1-NL1\*01

1 sequences assigned  
No exact matches.



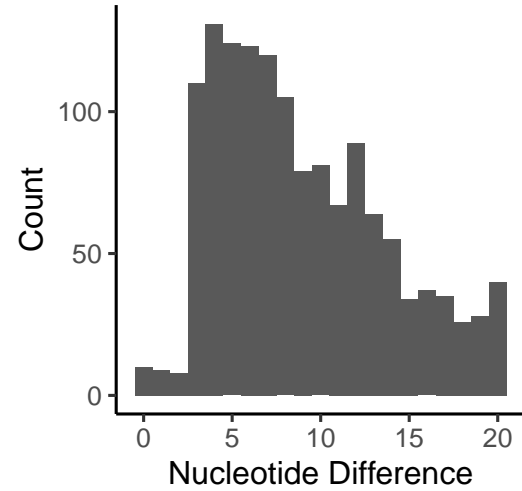
### IGHV2-26\*01

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



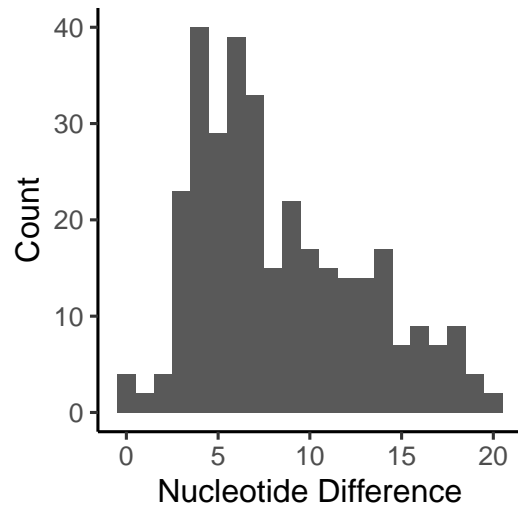
### IGHV3-9\*01

1573 sequences assigned  
10 (0.6%) exact matches, in which:  
7 unique CDR3  
3 unique J



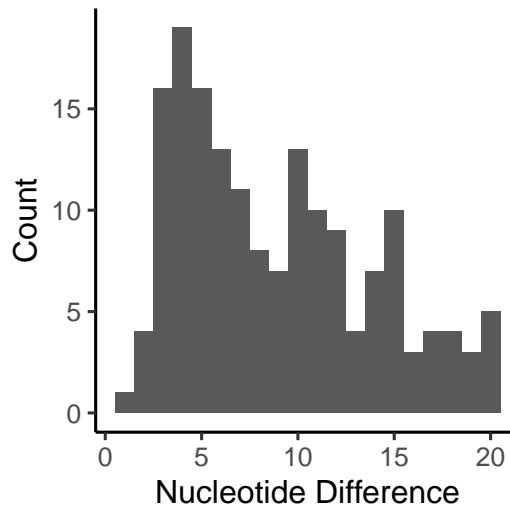
### IGHV2-5\*01

346 sequences assigned  
4 (1.2%) exact matches, in which:  
4 unique CDR3  
4 unique J



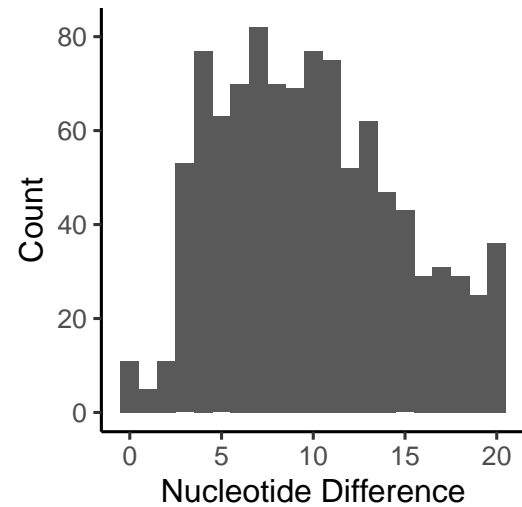
### IGHV2-70\*01

180 sequences assigned  
No exact matches.



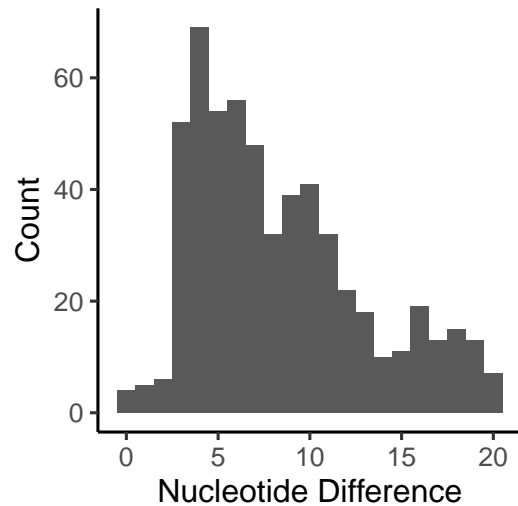
### IGHV3-11\*01

1213 sequences assigned  
11 (0.9%) exact matches, in which:  
10 unique CDR3  
5 unique J



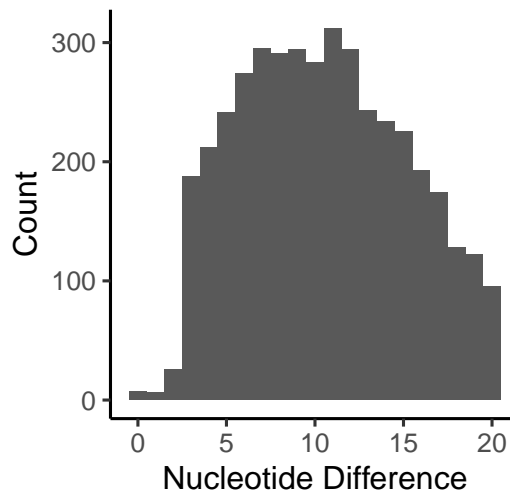
### IGHV2-5\*02

615 sequences assigned  
4 (0.7%) exact matches, in which:  
4 unique CDR3  
4 unique J



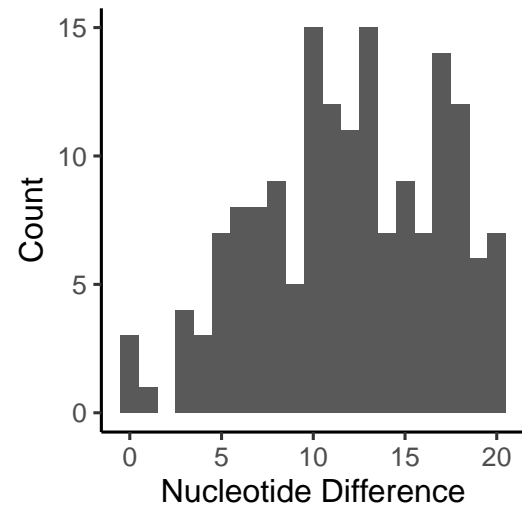
### IGHV3-7\*01

4605 sequences assigned  
7 (0.2%) exact matches, in which:  
4 unique CDR3  
2 unique J



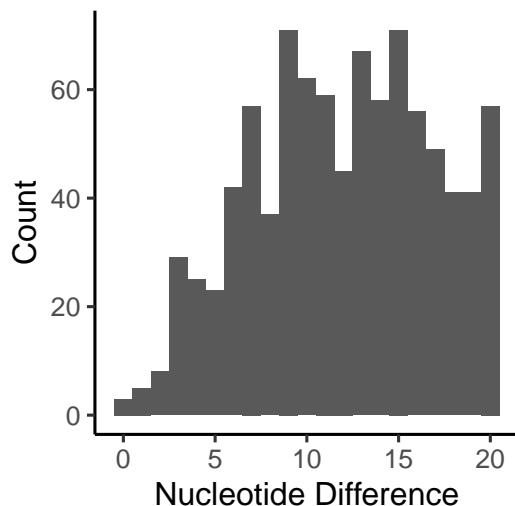
### IGHV3-13\*01

199 sequences assigned  
3 (1.5%) exact matches, in which:  
2 unique CDR3  
2 unique J



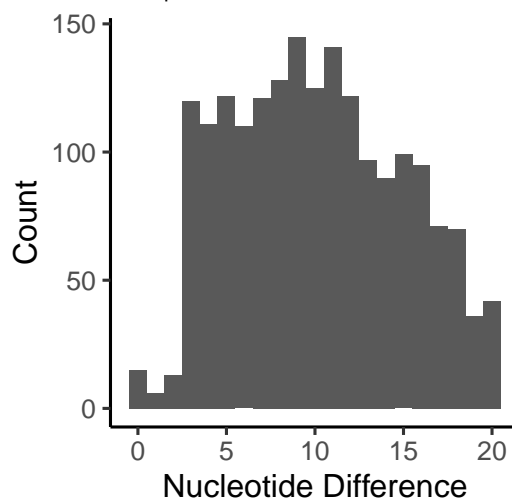
### IGHV3-15\*01\_02

1191 sequences assigned  
3 (0.3%) exact matches, in which:  
3 unique CDR3  
3 unique J



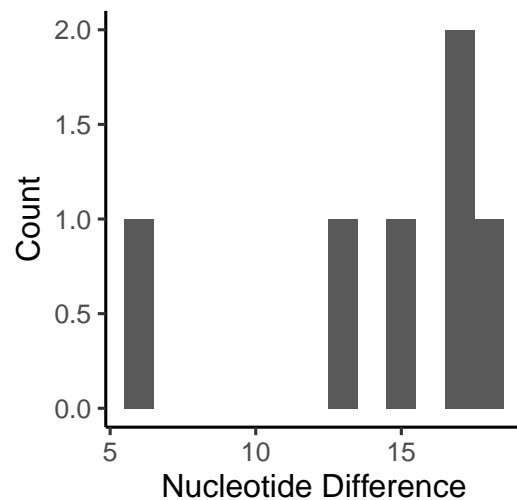
### IGHV3-21\*01\_02

2156 sequences assigned  
15 (0.7%) exact matches, in which:  
10 unique CDR3  
4 unique J



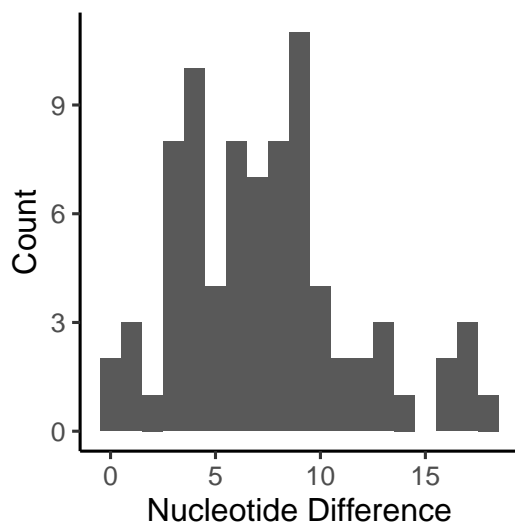
### IGHV3-30-3\*03

15 sequences assigned  
No exact matches.



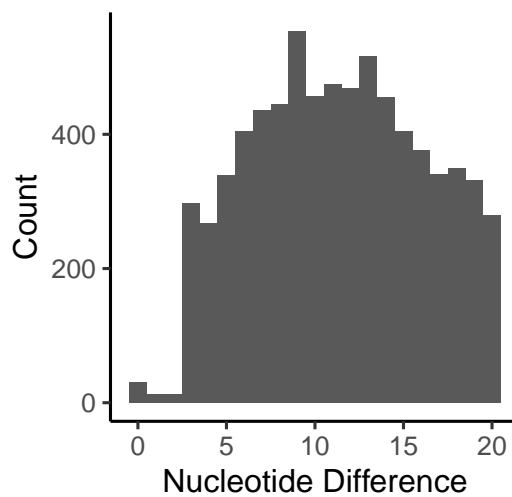
### IGHV3-20\*01\_02

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



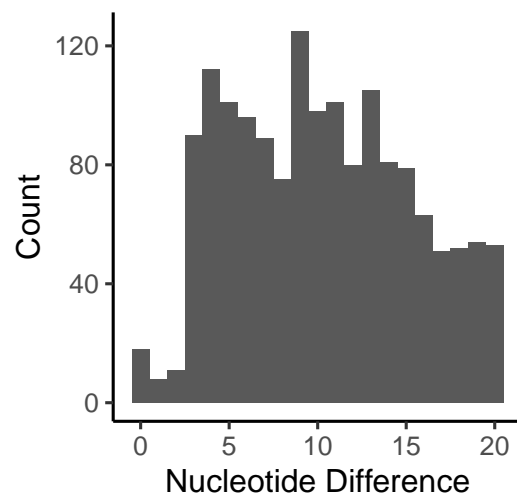
### IGHV3-23\*01\_04

8995 sequences assigned  
31 (0.3%) exact matches, in which:  
22 unique CDR3  
5 unique J



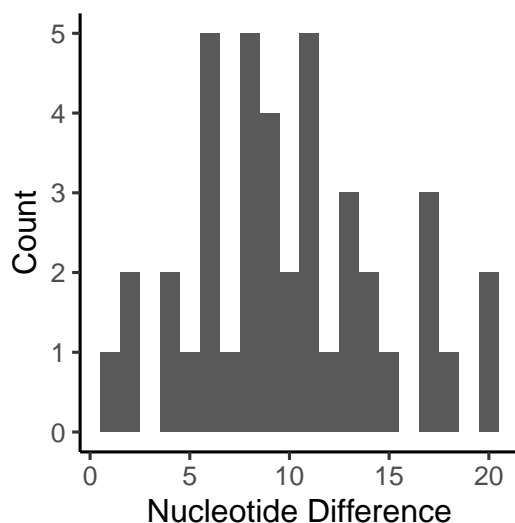
### IGHV3-33\*01

1836 sequences assigned  
18 (1%) exact matches, in which:  
12 unique CDR3  
3 unique J



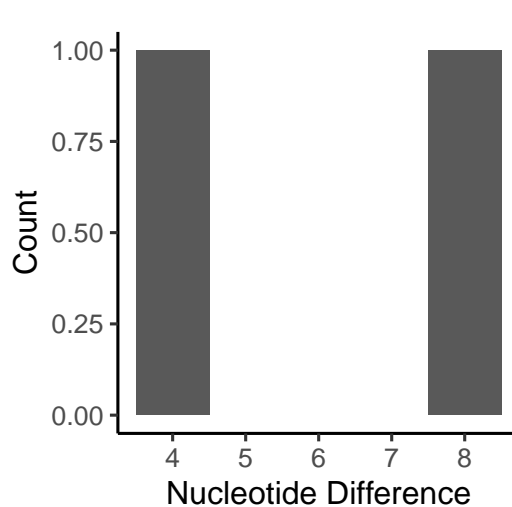
### IGHV3-20\*03\_04

49 sequences assigned  
No exact matches.



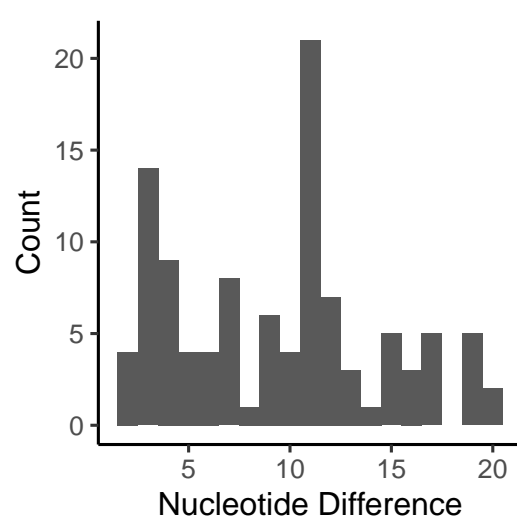
### IGHV3-30-3\*01

2 sequences assigned  
No exact matches.



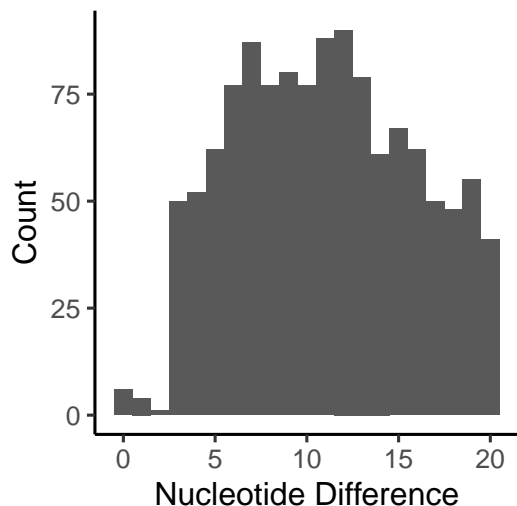
### IGHV3-43\*01

136 sequences assigned  
No exact matches.



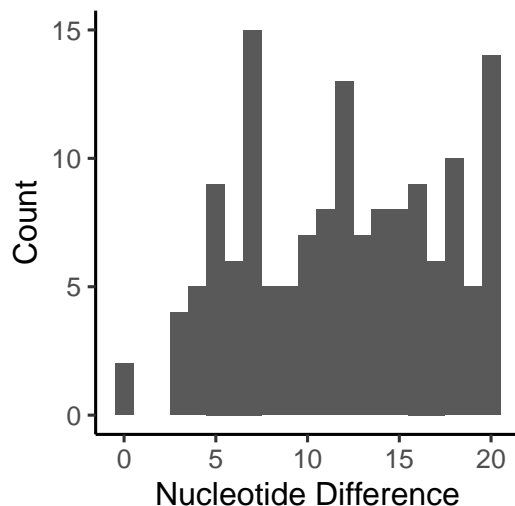
### IGHV3-48\*02

1507 sequences assigned  
6 (0.4%) exact matches, in which:  
5 unique CDR3  
2 unique J



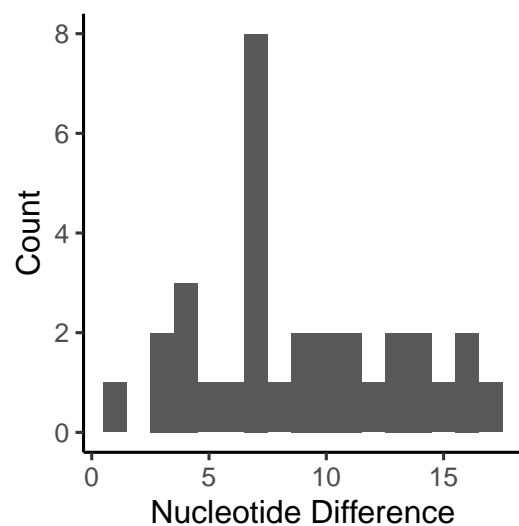
### IGHV3-49\*03\_05

182 sequences assigned  
2 (1.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



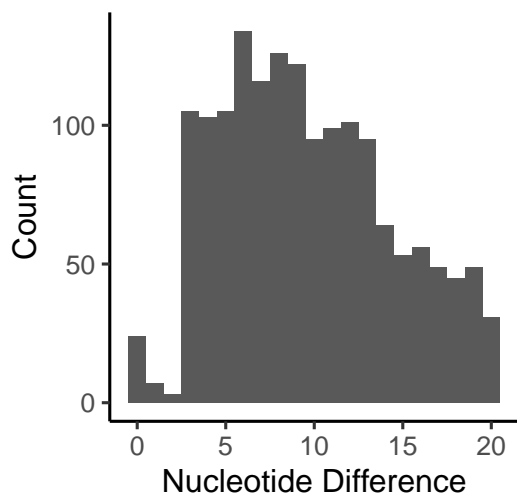
### IGHV3-64\*02\_07

37 sequences assigned  
No exact matches.



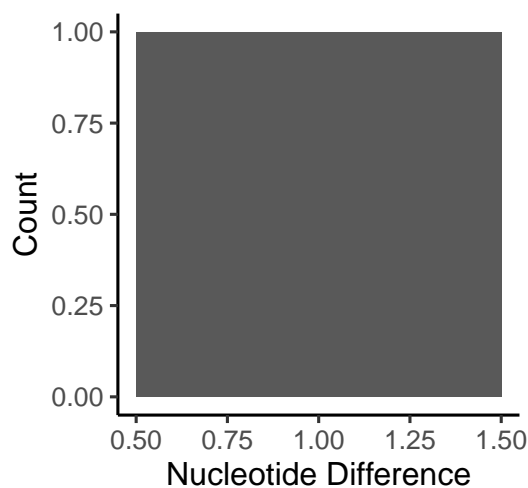
### IGHV3-48\*03

1834 sequences assigned  
24 (1.3%) exact matches, in which:  
13 unique CDR3  
4 unique J



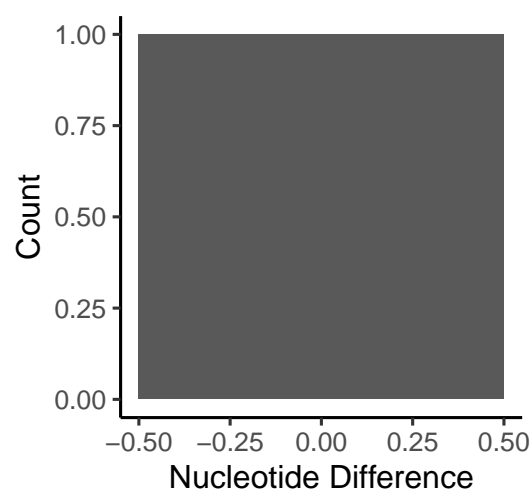
### IGHV3-52\*01\_03

1 sequences assigned  
No exact matches.



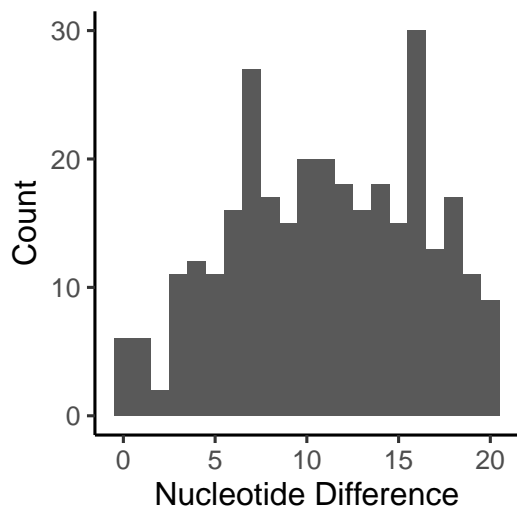
### IGHV3-66\*01

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



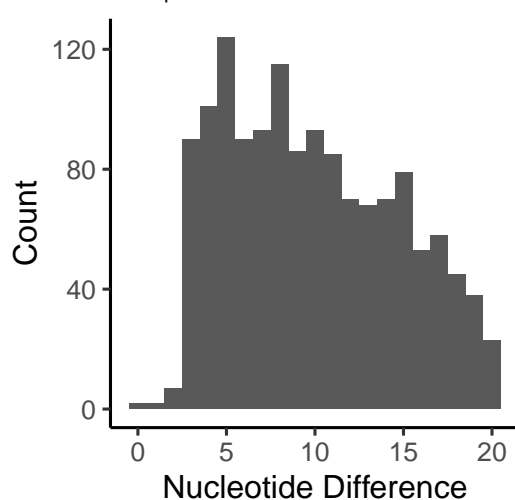
### IGHV3-49\*04

391 sequences assigned  
6 (1.5%) exact matches, in which:  
5 unique CDR3  
1 unique J



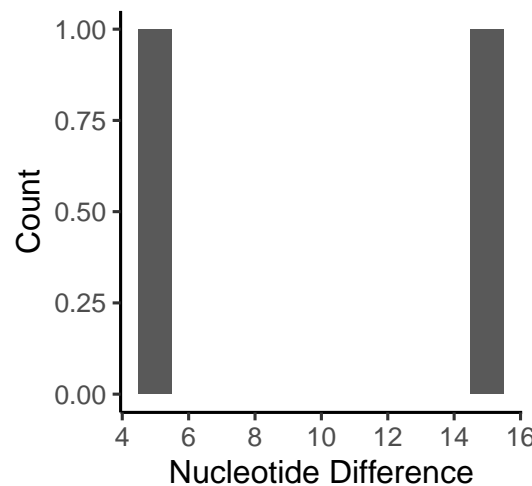
### IGHV3-53\*01\_02

1632 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



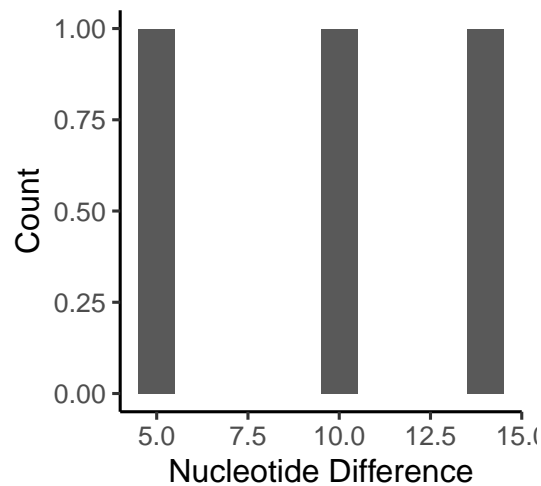
### IGHV3-66\*02

2 sequences assigned  
No exact matches.



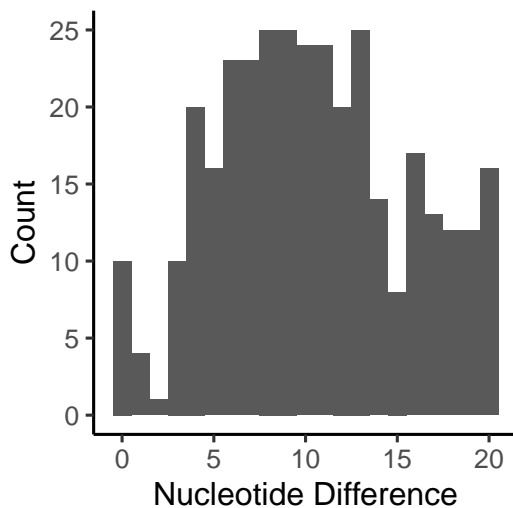
### IGHV3-66\*04

6 sequences assigned  
No exact matches.



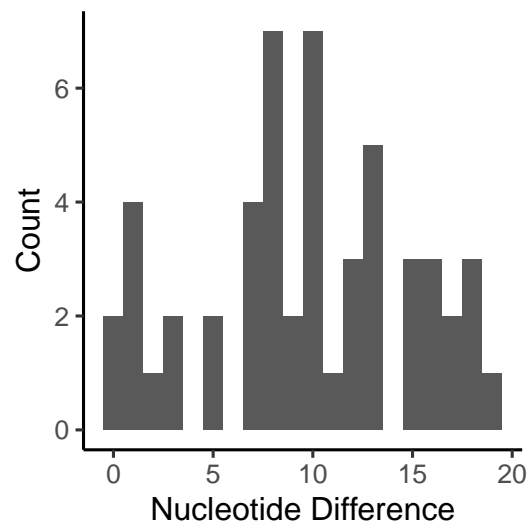
### IGHV3-73\*01\_02

410 sequences assigned  
10 (2.4%) exact matches, in which:  
5 unique CDR3  
3 unique J



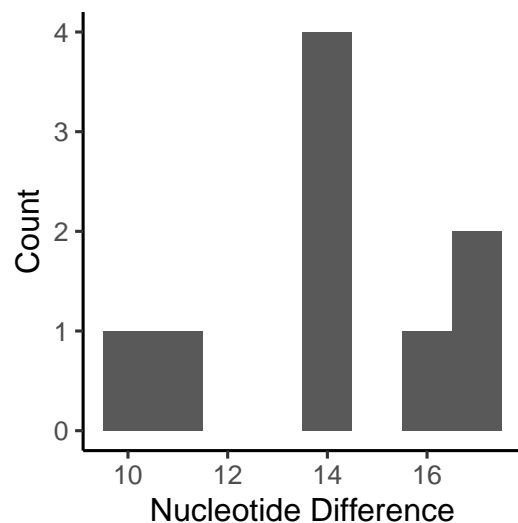
### IGHV3-43D\*04

59 sequences assigned  
2 (3.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



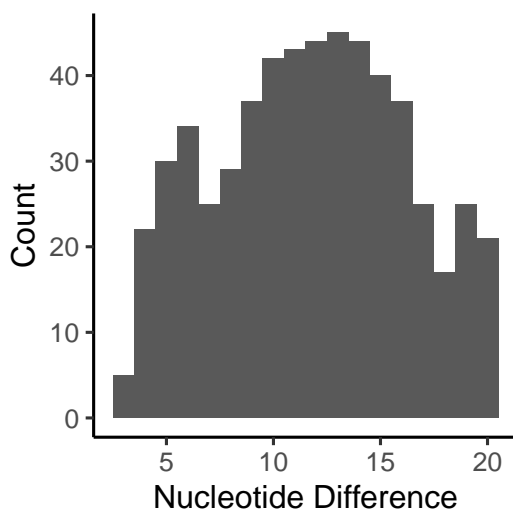
### IGHV3-69-1\*01

15 sequences assigned  
No exact matches.



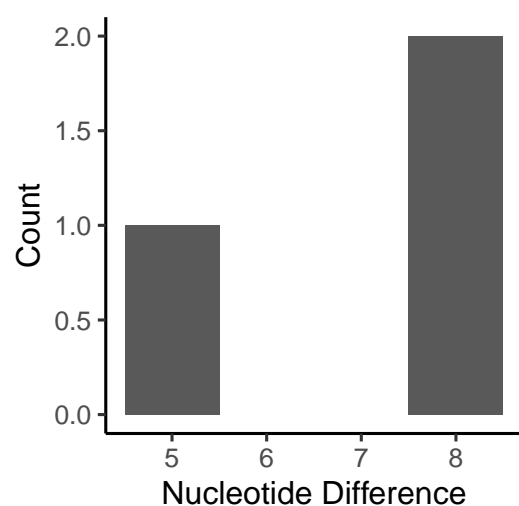
### IGHV3-74\*03

697 sequences assigned  
No exact matches.



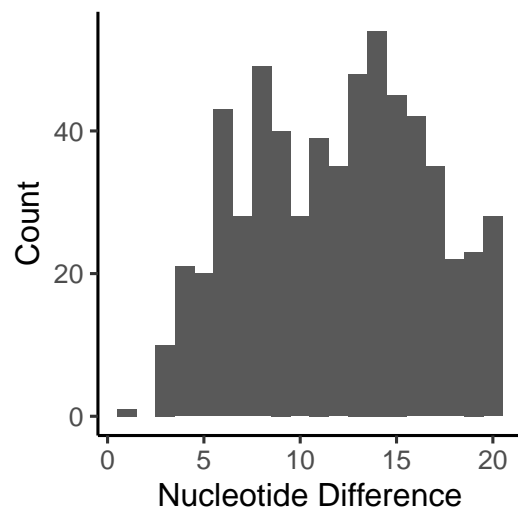
### IGHV3-64D\*06

3 sequences assigned  
No exact matches.



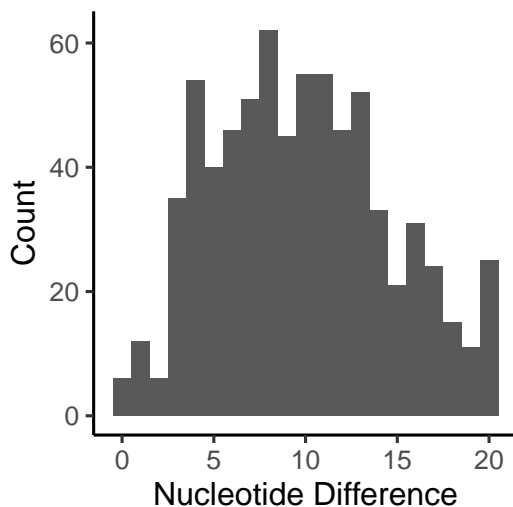
### IGHV3-72\*01

736 sequences assigned  
No exact matches.



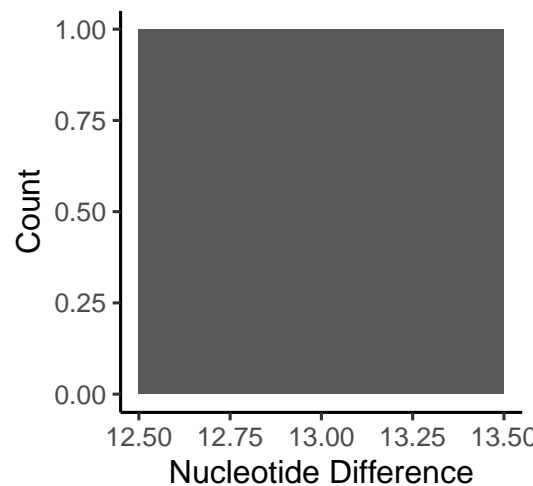
### IGHV3-74\*01\_02

832 sequences assigned  
6 (0.7%) exact matches, in which:  
6 unique CDR3  
5 unique J



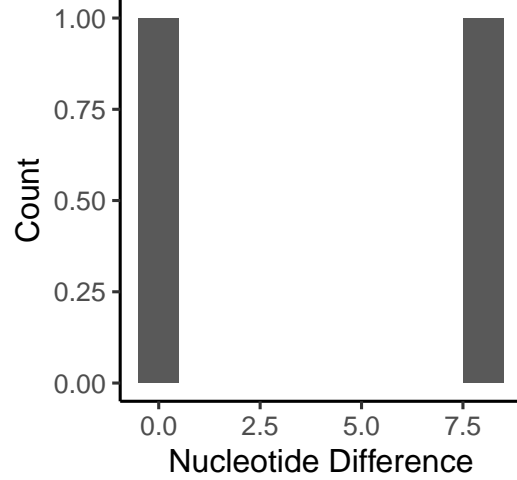
### IGHV3-64D\*08

1 sequences assigned  
No exact matches.



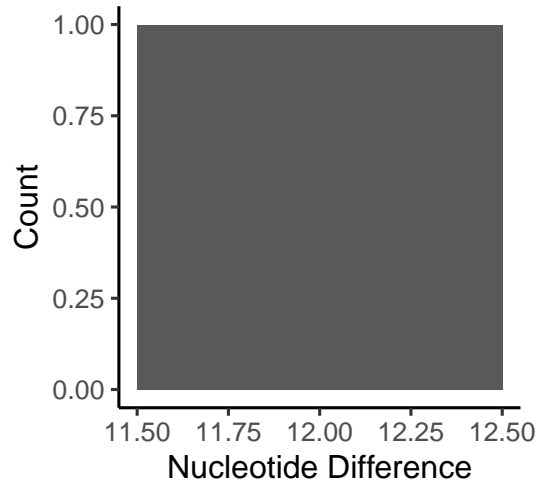
### IGHV3-64D\*09

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



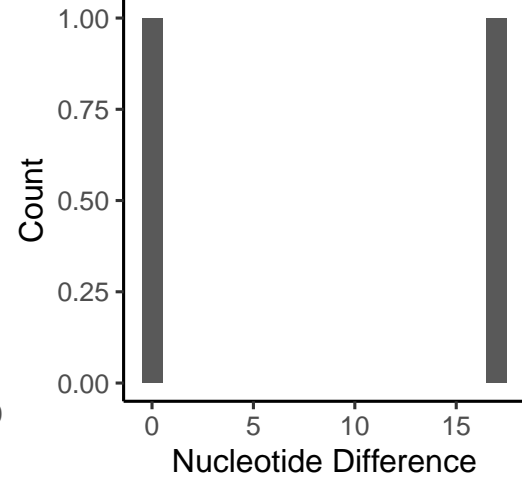
### IGHV4-28\*03

1 sequences assigned  
No exact matches.



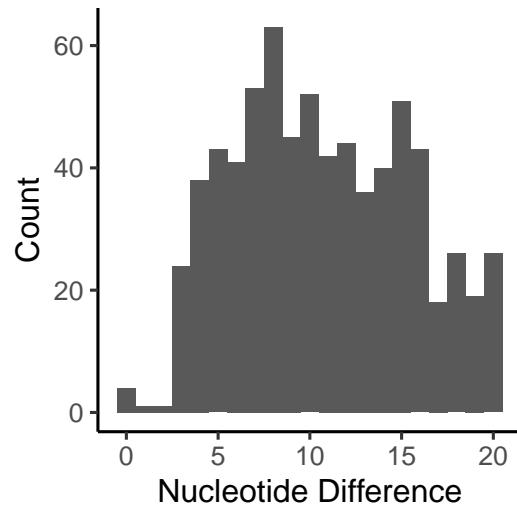
### IGHV4-30-2\*01

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



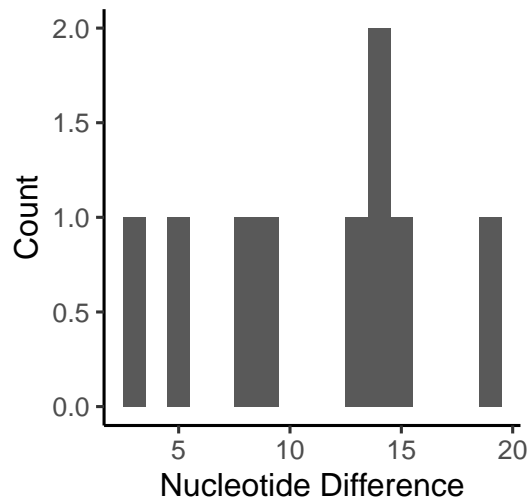
### IGHV4-4\*07

869 sequences assigned  
4 (0.5%) exact matches, in which:  
4 unique CDR3  
3 unique J



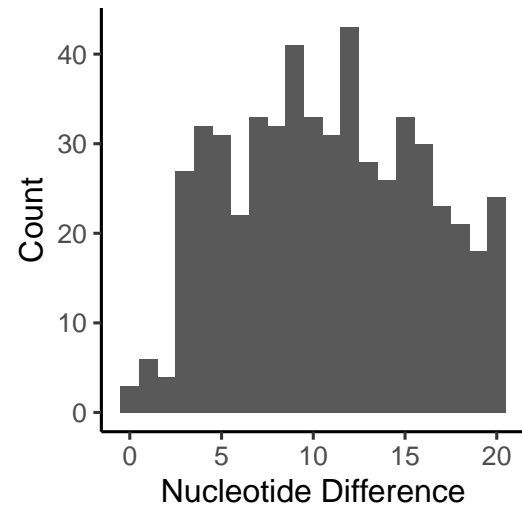
### IGHV4-28\*01\_07

9 sequences assigned  
No exact matches.



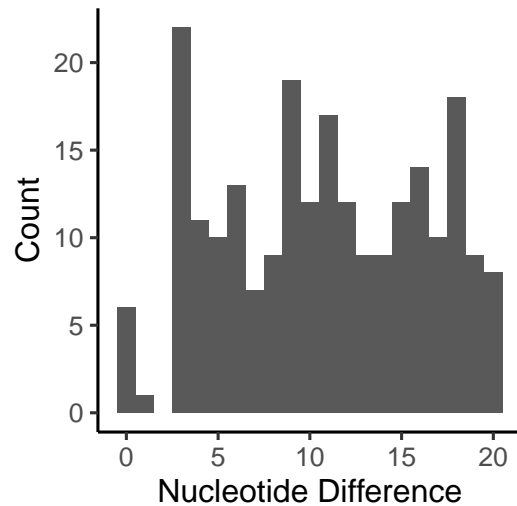
### IGHV4-31\*02

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



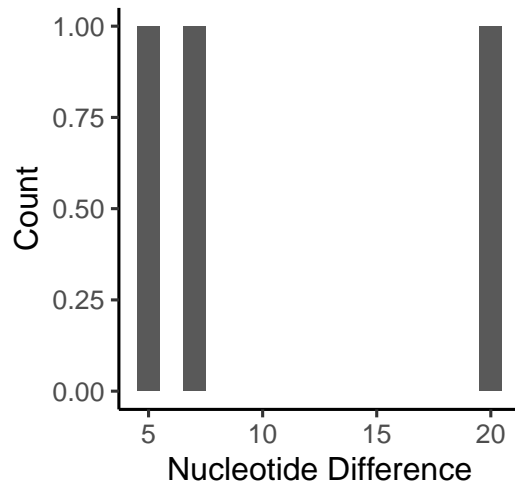
### IGHV4-4\*02\_03

311 sequences assigned  
6 (1.9%) exact matches, in which:  
3 unique CDR3  
2 unique J



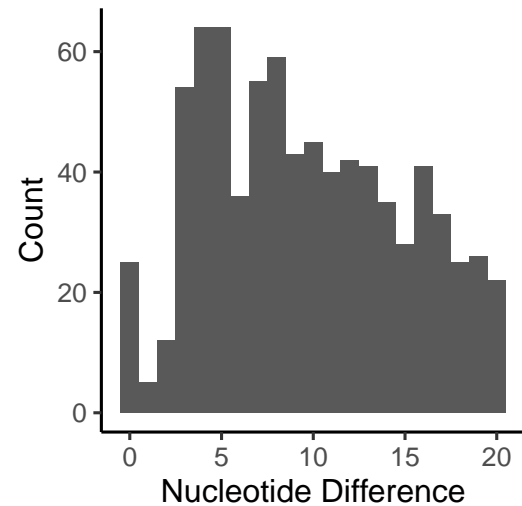
### IGHV4-28\*02\_05

3 sequences assigned  
No exact matches.



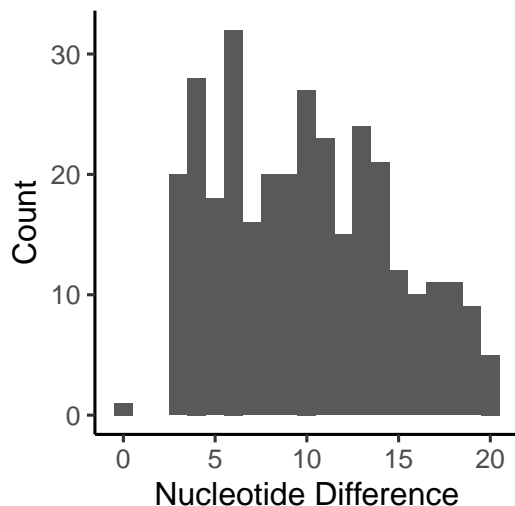
### IGHV4-34\*01\_02

1003 sequences assigned  
25 (2.5%) exact matches, in which:  
22 unique CDR3  
5 unique J



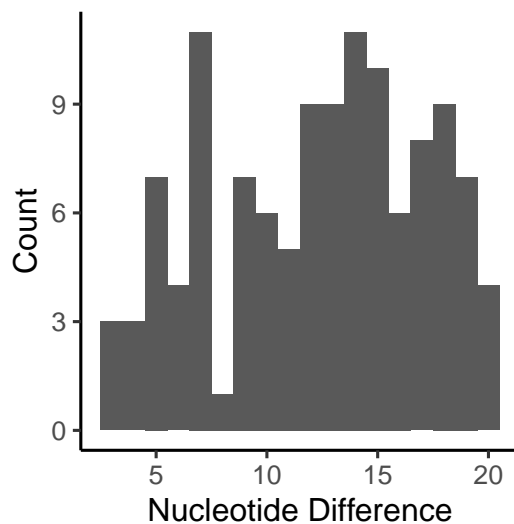
### IGHV4-38-2\*01

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



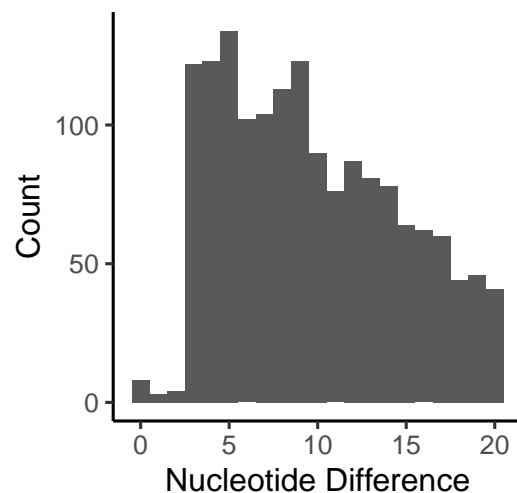
### IGHV4-39\*01\_05

174 sequences assigned  
No exact matches.



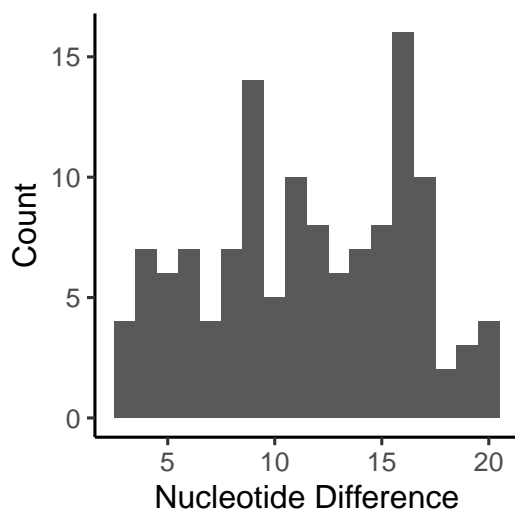
### IGHV4-59\*01\_07

1820 sequences assigned  
8 (0.4%) exact matches, in which:  
7 unique CDR3  
4 unique J



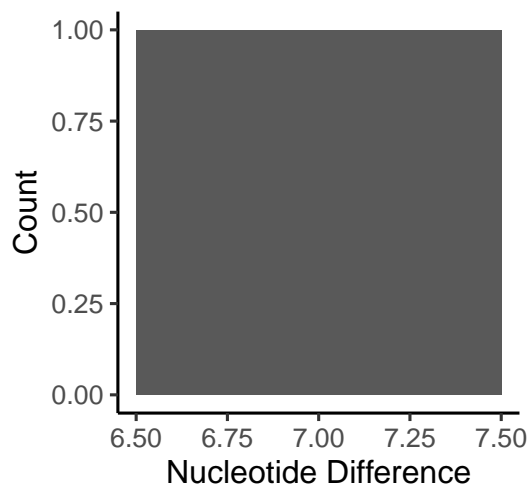
### IGHV4-38-2\*02

169 sequences assigned  
No exact matches.



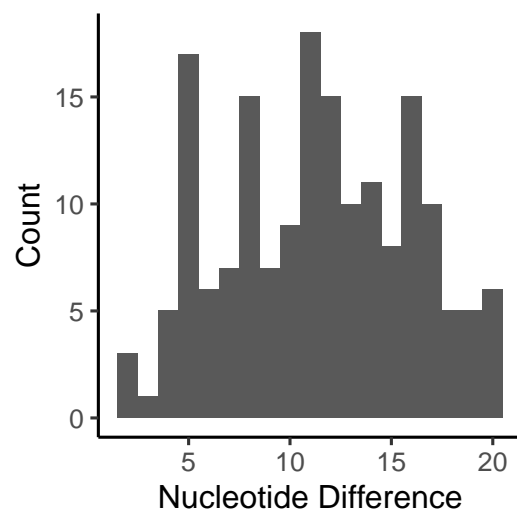
### IGHV4-55\*09

1 sequences assigned  
No exact matches.



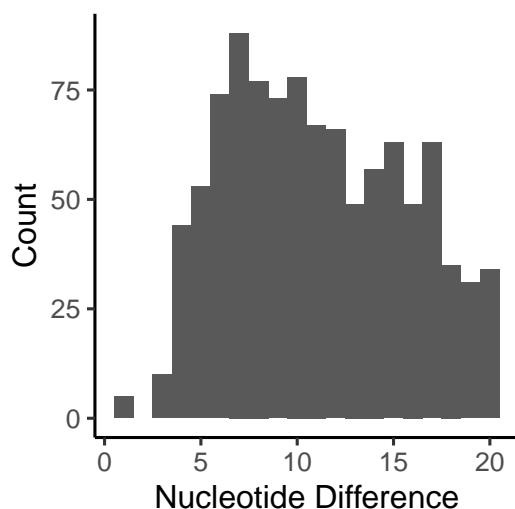
### IGHV4-59\*11

216 sequences assigned  
No exact matches.



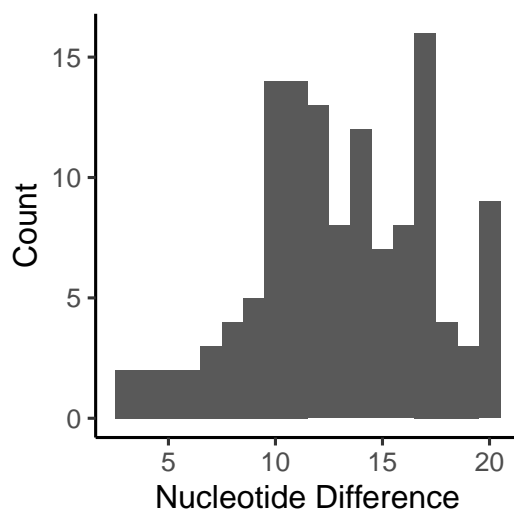
### IGHV4-39\*02

1315 sequences assigned  
No exact matches.



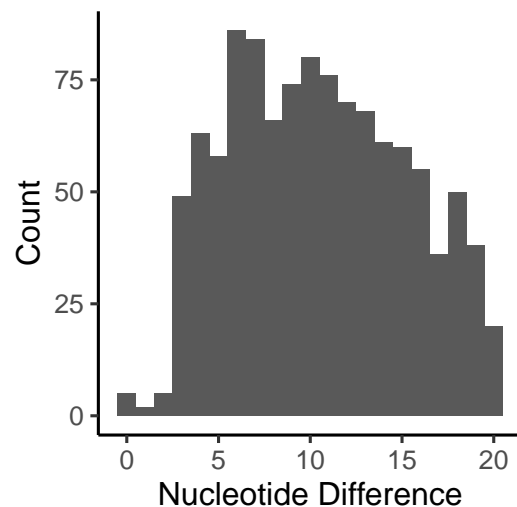
### IGHV4-59\*02

204 sequences assigned  
No exact matches.



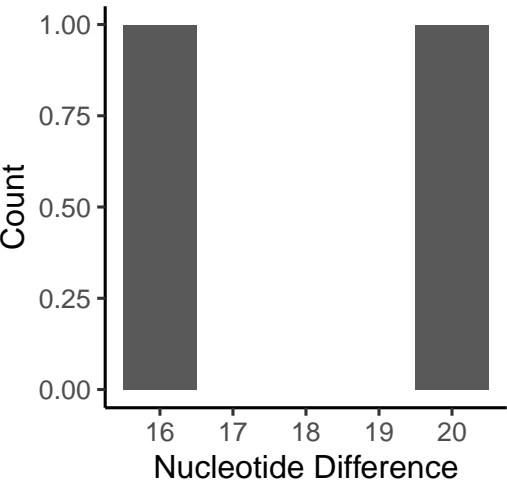
### IGHV4-61\*01

1265 sequences assigned  
5 (0.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



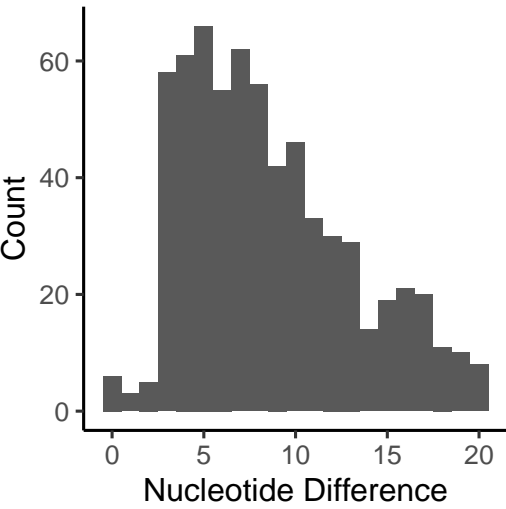
IGHV4/OR15-8\*01

3 sequences assigned  
No exact matches.



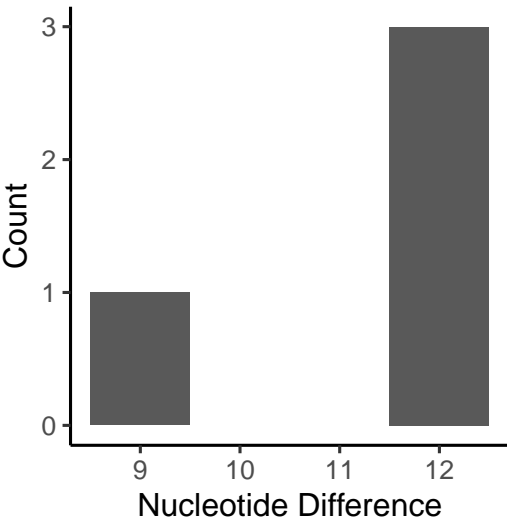
IGHV5-51\*01\_03

708 sequences assigned  
6 (0.8%) exact matches, in which:  
6 unique CDR3  
4 unique J



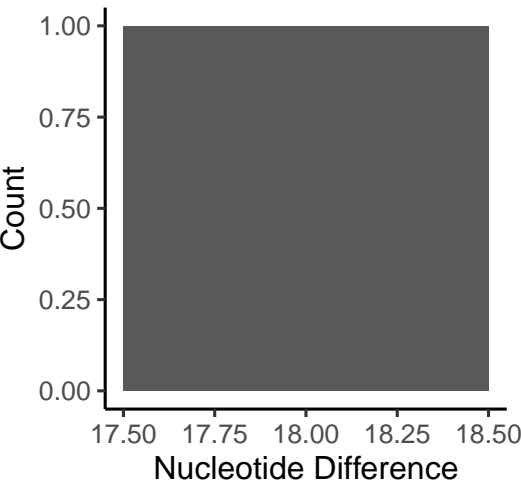
IGHV7-4-1\*02

4 sequences assigned  
No exact matches.



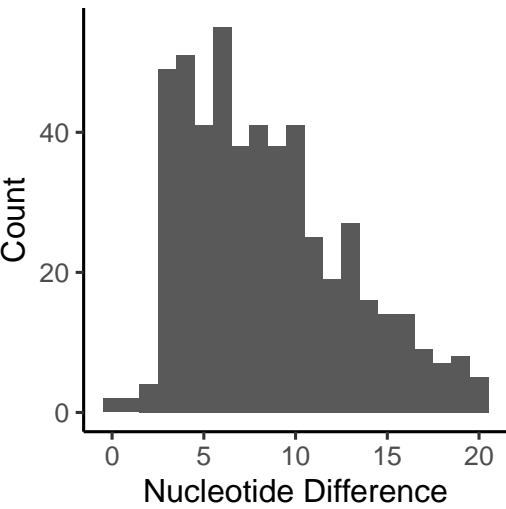
IGHV4/OR15-8\*02

2 sequences assigned  
No exact matches.



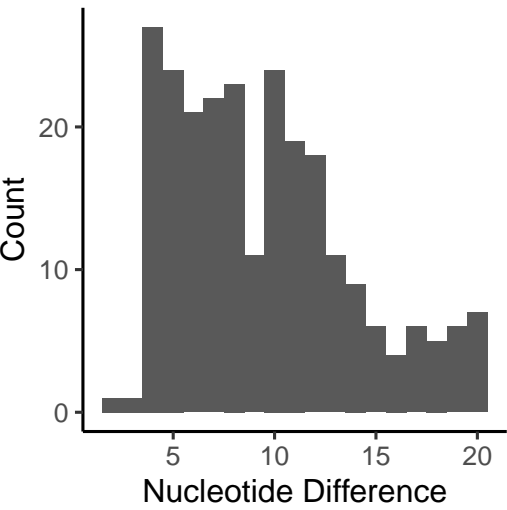
IGHV6-1\*01\_02

535 sequences assigned  
2 (0.4%) exact matches, in which:  
2 unique CDR3  
2 unique J



IGHV5-51\*07

258 sequences assigned  
No exact matches.



IGHV7-4-1\*01

1 sequences assigned  
No exact matches.

