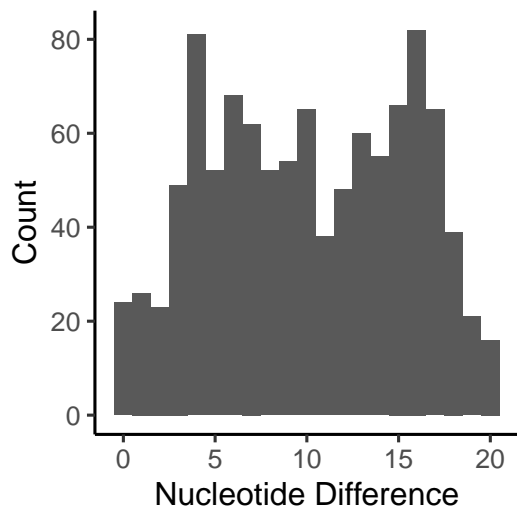


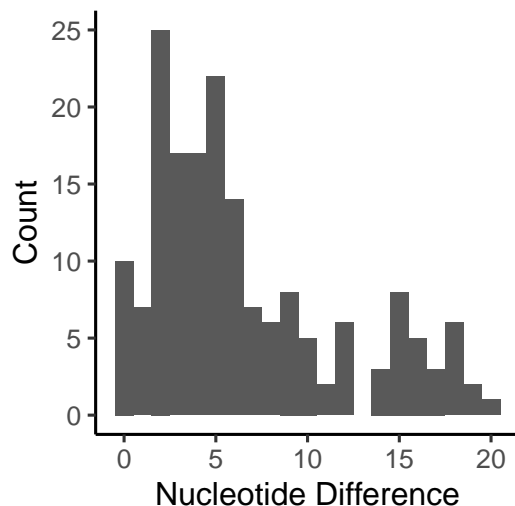
### IGHV1-2\*02

1124 sequences assigned  
24 (2.1%) exact matches, in which:  
20 unique CDR3  
3 unique J



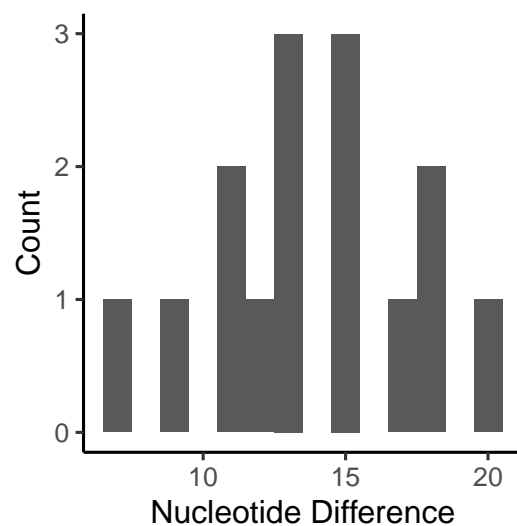
### IGHV1-8\*03

182 sequences assigned  
10 (5.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



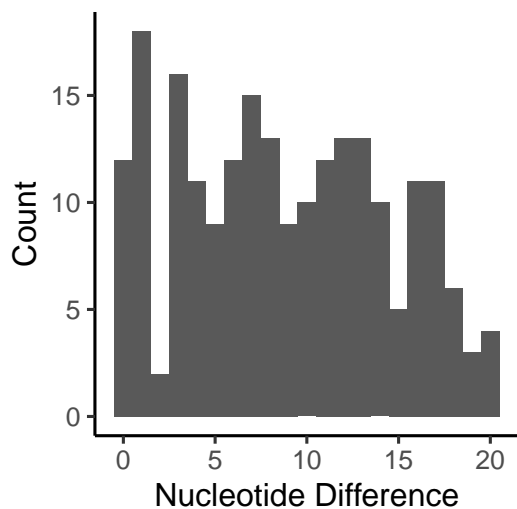
### IGHV1-45\*02

28 sequences assigned  
No exact matches.



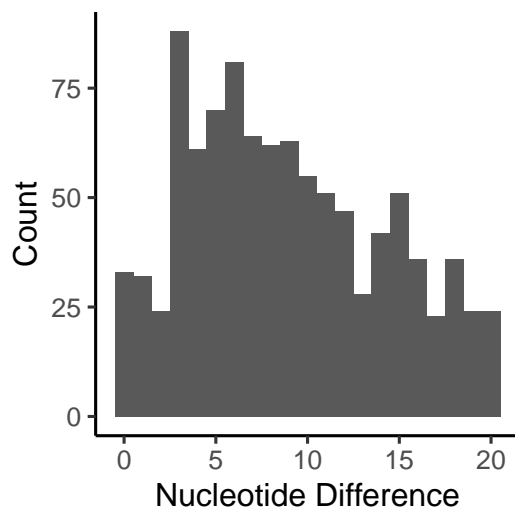
### IGHV1-3\*01\_05

234 sequences assigned  
12 (5.1%) exact matches, in which:  
7 unique CDR3  
3 unique J



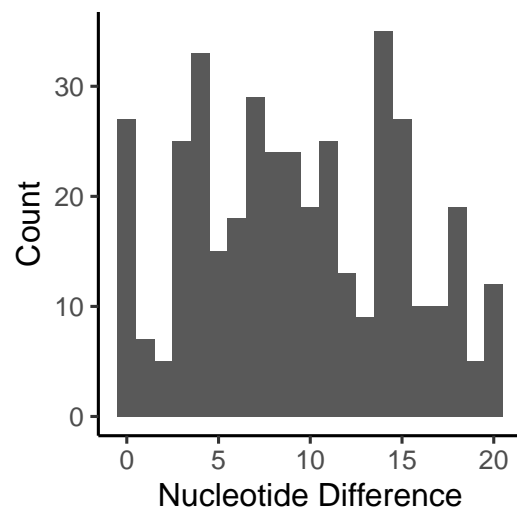
### IGHV1-18\*04

1116 sequences assigned  
33 (3%) exact matches, in which:  
26 unique CDR3  
4 unique J



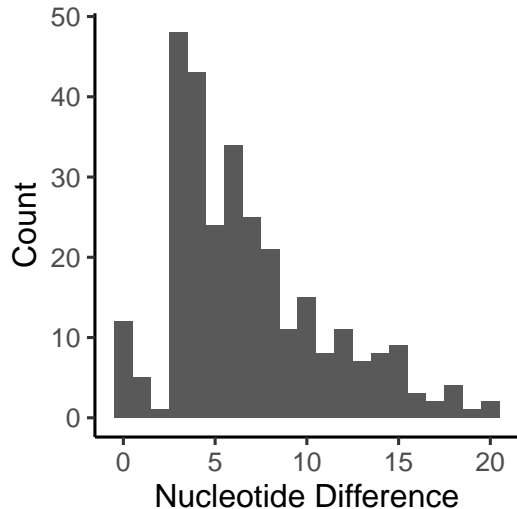
### IGHV1-46\*01

474 sequences assigned  
27 (5.7%) exact matches, in which:  
21 unique CDR3  
4 unique J



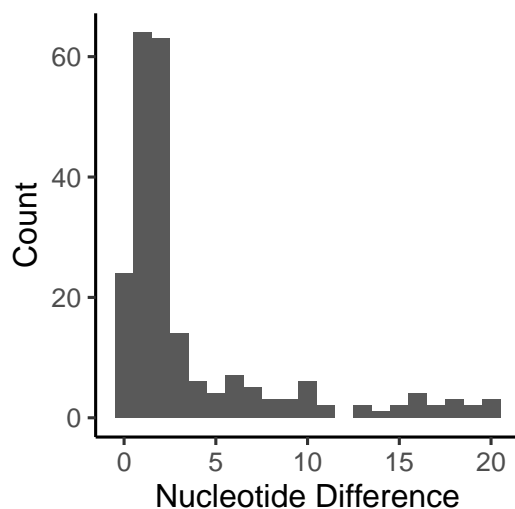
### IGHV1-8\*01

307 sequences assigned  
12 (3.9%) exact matches, in which:  
12 unique CDR3  
2 unique J



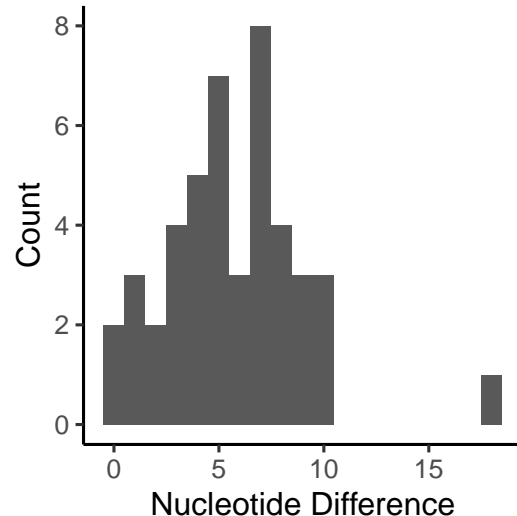
### IGHV1-24\*01

229 sequences assigned  
24 (10.5%) exact matches, in which:  
18 unique CDR3  
5 unique J



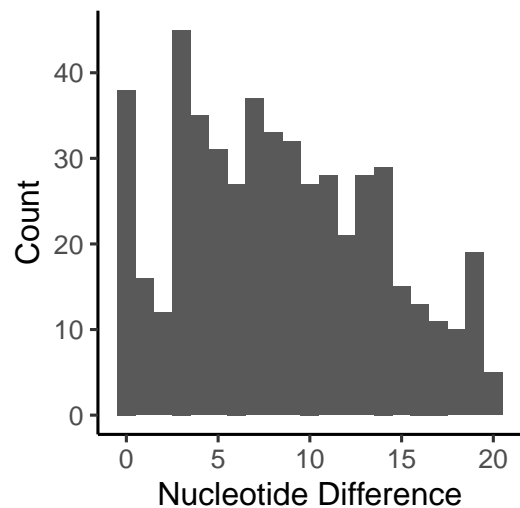
### IGHV1-58\*01\_03

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



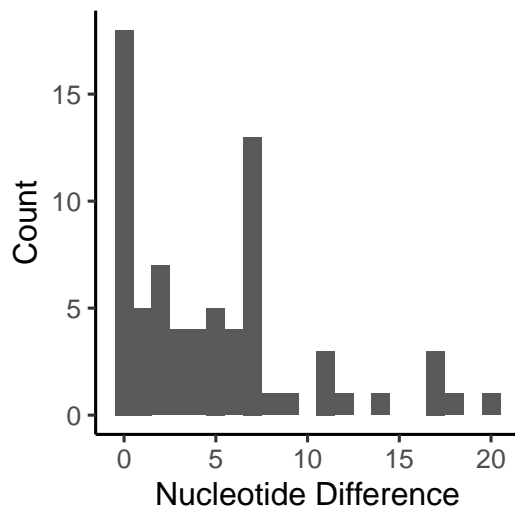
### IGHV1-69\*01\_12\_13

598 sequences assigned  
38 (6.4%) exact matches, in which:  
33 unique CDR3  
4 unique J



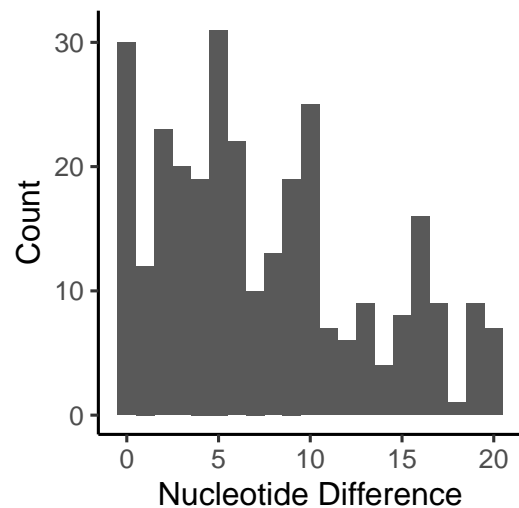
### IGHV2-70\*01

72 sequences assigned  
18 (25%) exact matches, in which:  
8 unique CDR3  
3 unique J



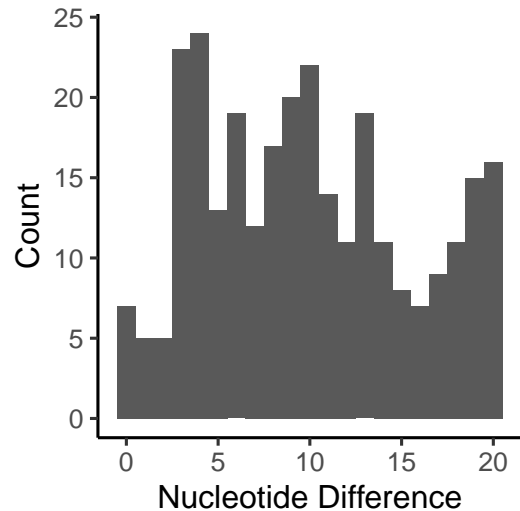
### IGHV3-9\*01

316 sequences assigned  
30 (9.5%) exact matches, in which:  
16 unique CDR3  
5 unique J



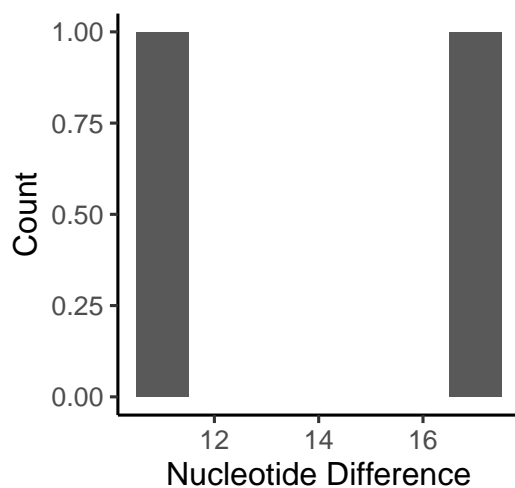
### IGHV2-5\*01

335 sequences assigned  
7 (2.1%) exact matches, in which:  
6 unique CDR3  
3 unique J



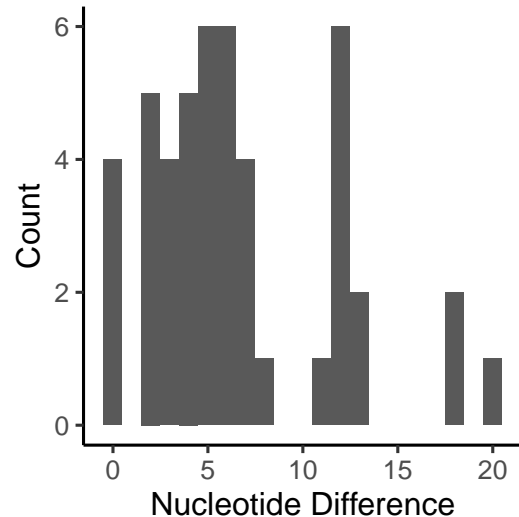
### IGHV2-70D\*04

2 sequences assigned  
No exact matches.



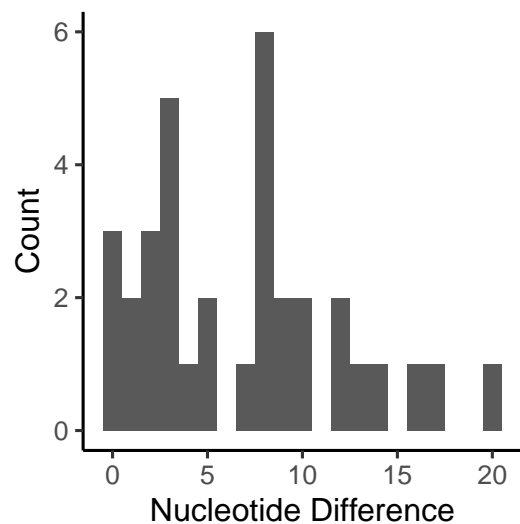
### IGHV3-9\*03

48 sequences assigned  
4 (8.3%) exact matches, in which:  
3 unique CDR3  
2 unique J



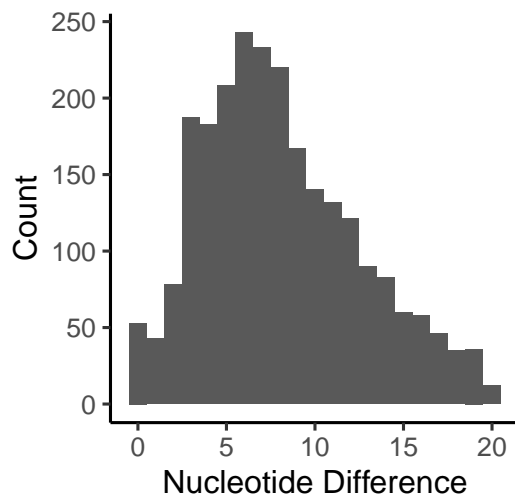
### IGHV2-26\*01

37 sequences assigned  
3 (8.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



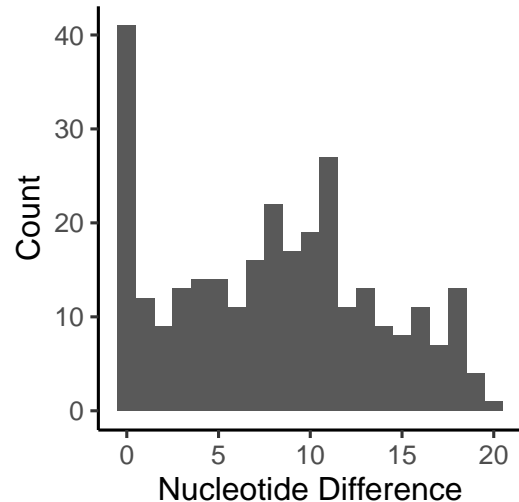
### IGHV3-7\*01

2489 sequences assigned  
53 (2.1%) exact matches, in which:  
29 unique CDR3  
4 unique J



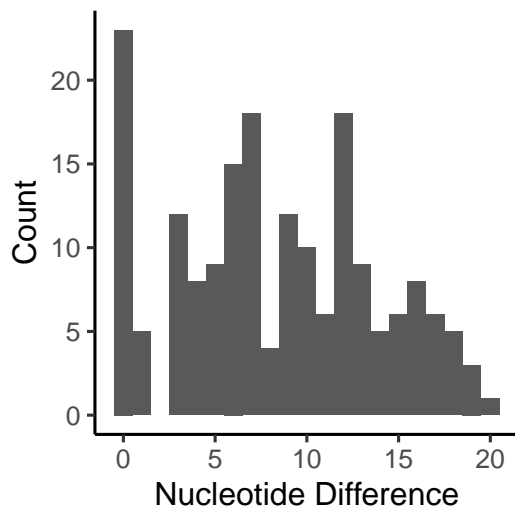
### IGHV3-11\*01

316 sequences assigned  
41 (13%) exact matches, in which:  
16 unique CDR3  
4 unique J



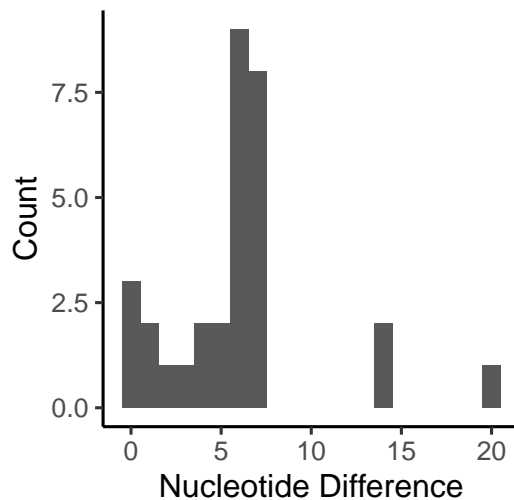
### IGHV3-11\*04

210 sequences assigned  
23 (11%) exact matches, in which:  
9 unique CDR3  
4 unique J



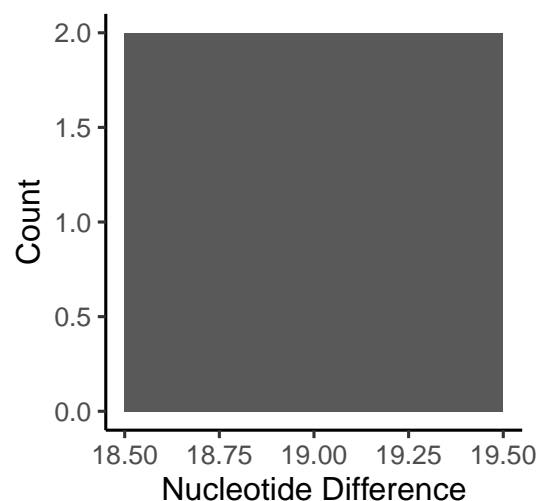
### IGHV3-20\*01\_02

31 sequences assigned  
3 (9.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



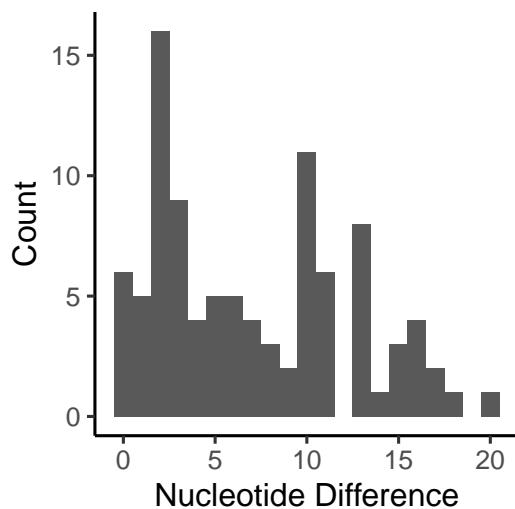
### IGHV3-22\*01\_02

2 sequences assigned  
No exact matches.



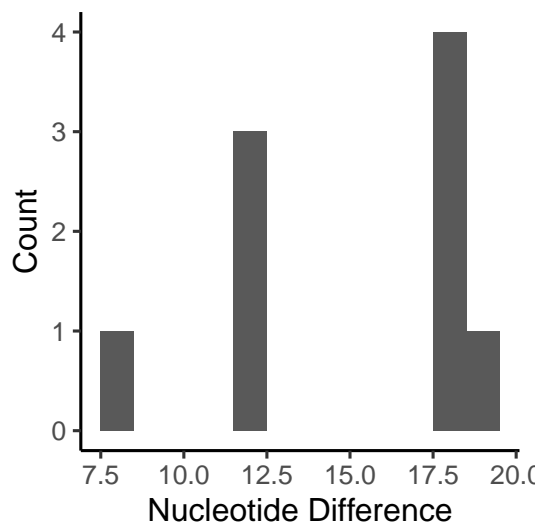
### IGHV3-13\*01

99 sequences assigned  
6 (6.1%) exact matches, in which:  
4 unique CDR3  
2 unique J



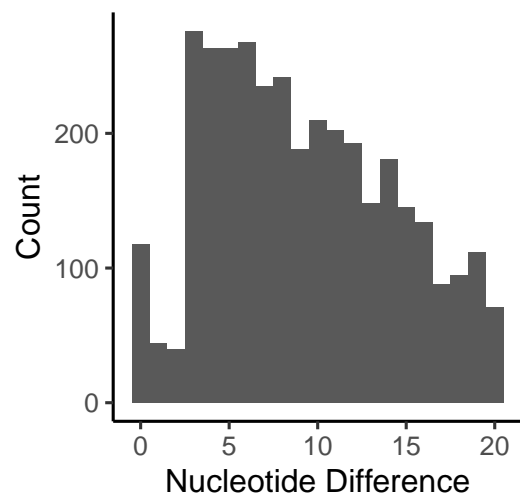
### IGHV3-20\*03\_04

9 sequences assigned  
No exact matches.



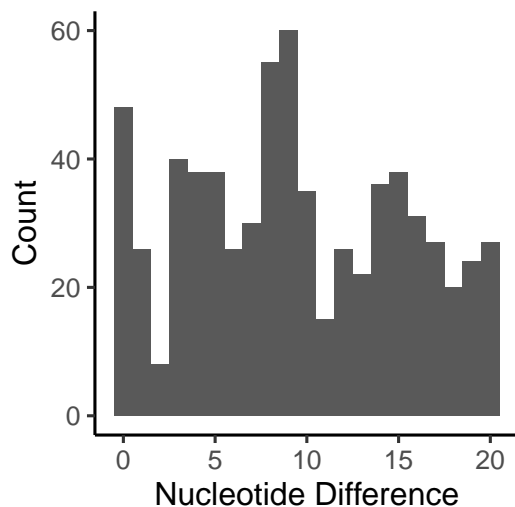
### IGHV3-23\*01\_04

3858 sequences assigned  
118 (3.1%) exact matches, in which:  
59 unique CDR3  
6 unique J



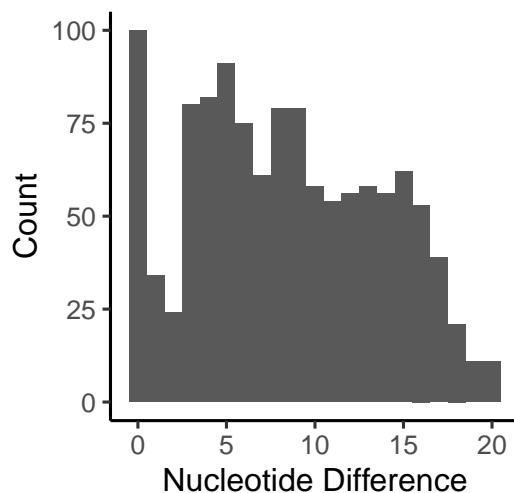
### IGHV3-15\*01\_02

771 sequences assigned  
48 (6.2%) exact matches, in which:  
19 unique CDR3  
3 unique J



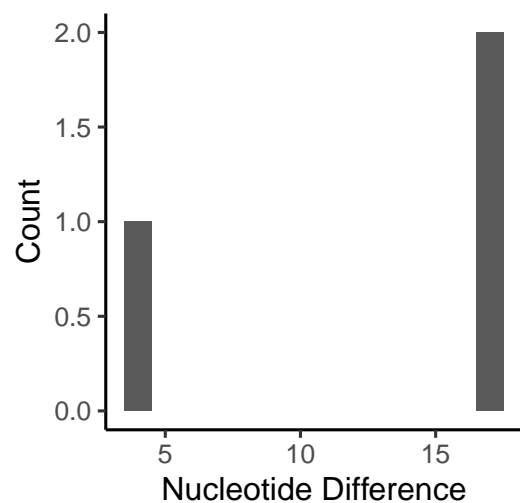
### IGHV3-21\*01\_02

1449 sequences assigned  
100 (6.9%) exact matches, in which:  
51 unique CDR3  
5 unique J



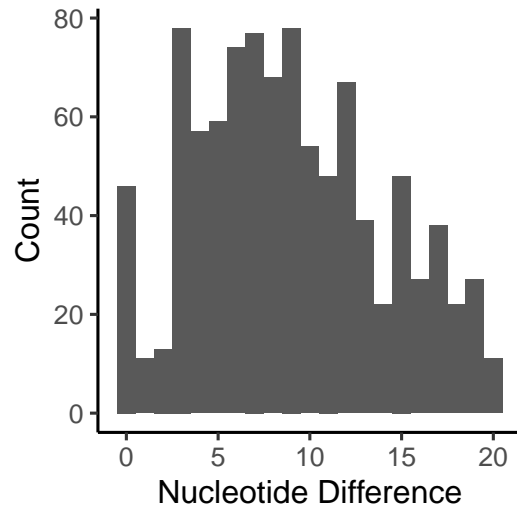
### IGHV3-30-3\*03

4 sequences assigned  
No exact matches.



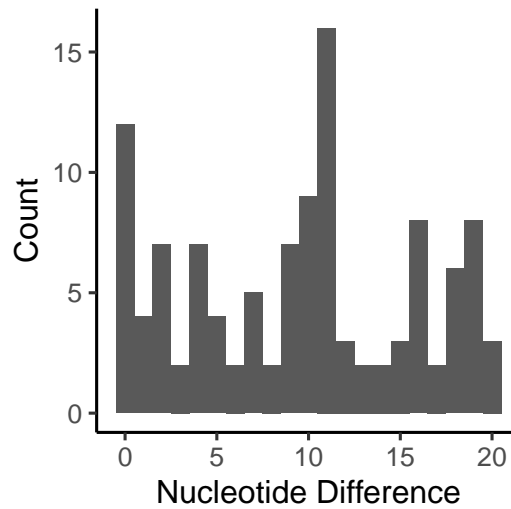
### IGHV3-33\*01

1070 sequences assigned  
46 (4.3%) exact matches, in which:  
27 unique CDR3  
4 unique J



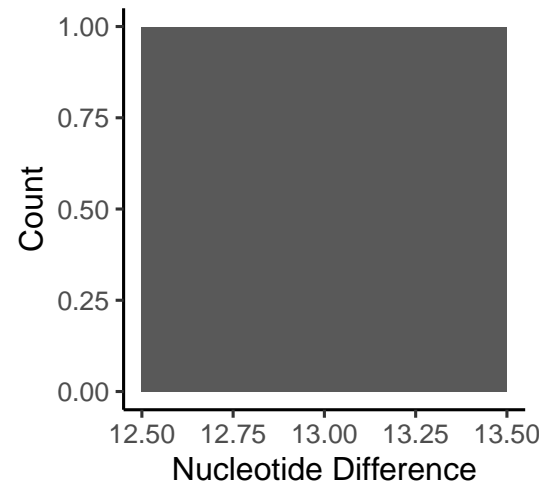
### IGHV3-49\*03\_05

136 sequences assigned  
12 (8.8%) exact matches, in which:  
6 unique CDR3  
3 unique J



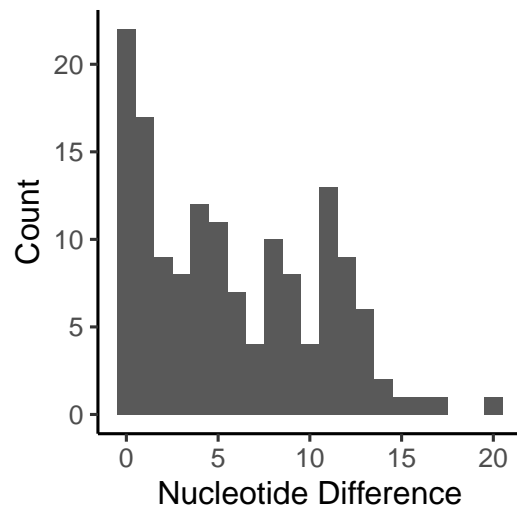
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



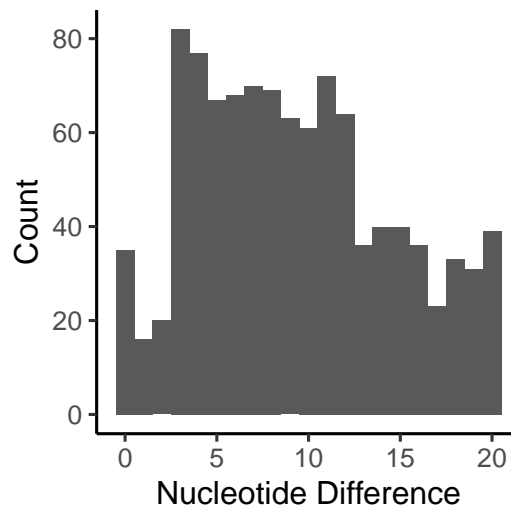
### IGHV3-43\*01

148 sequences assigned  
22 (14.9%) exact matches, in which:  
10 unique CDR3  
2 unique J



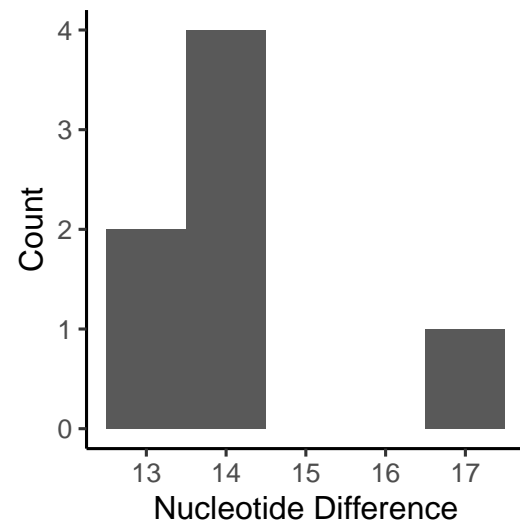
### IGHV3-53\*01\_02

1164 sequences assigned  
35 (3%) exact matches, in which:  
18 unique CDR3  
4 unique J



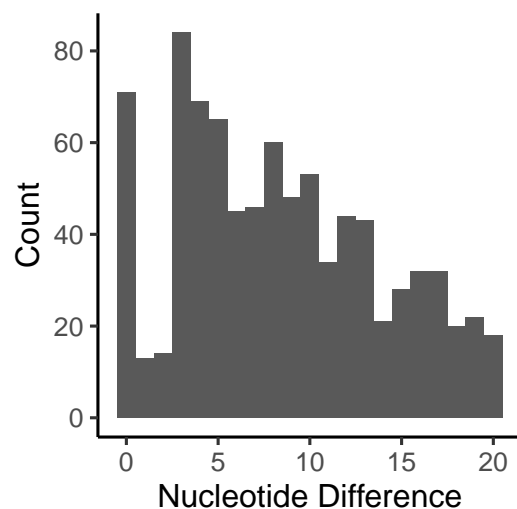
### IGHV3-69-1\*01

21 sequences assigned  
No exact matches.



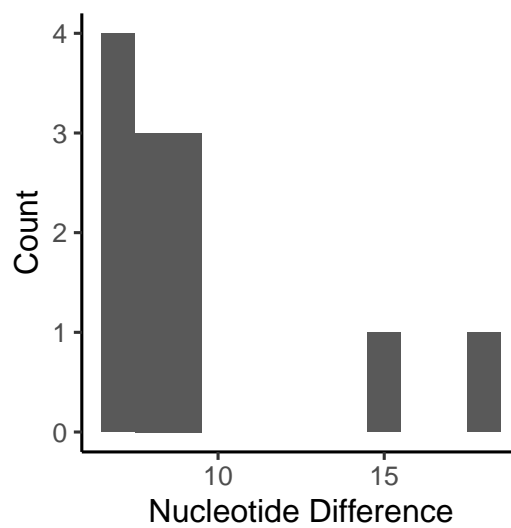
### IGHV3-48\*02

921 sequences assigned  
71 (7.7%) exact matches, in which:  
40 unique CDR3  
4 unique J



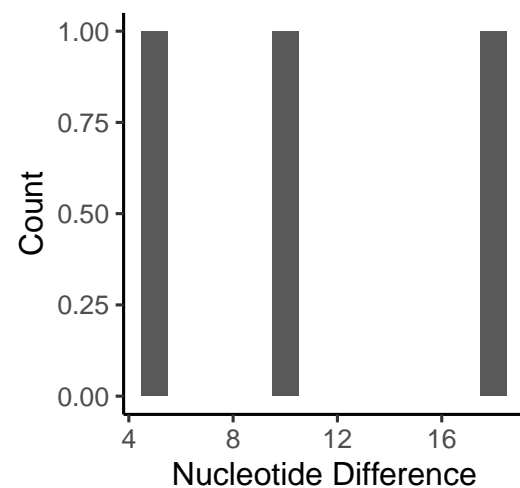
### IGHV3-64\*02\_07

12 sequences assigned  
No exact matches.



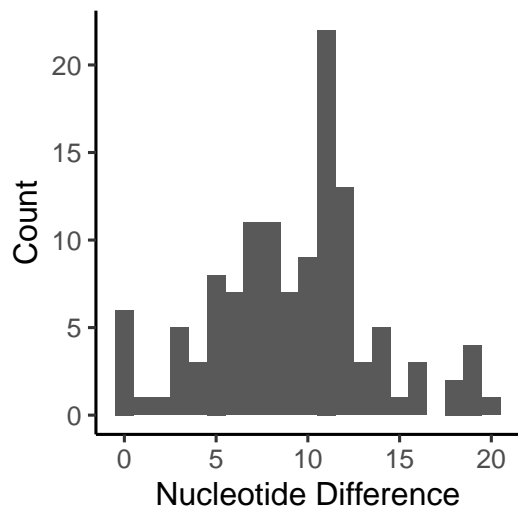
### IGHV3-69-1\*02

4 sequences assigned  
No exact matches.



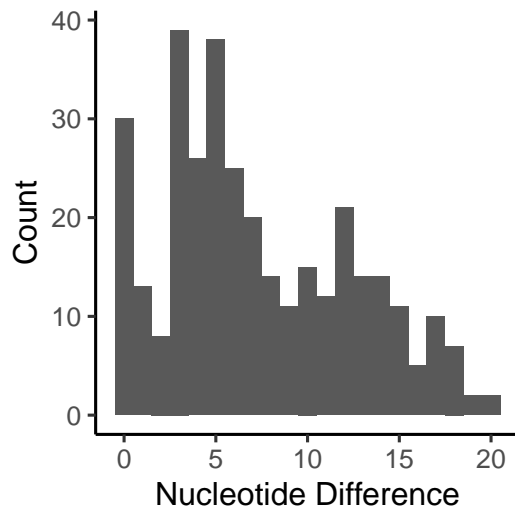
### IGHV3-72\*01

128 sequences assigned  
6 (4.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



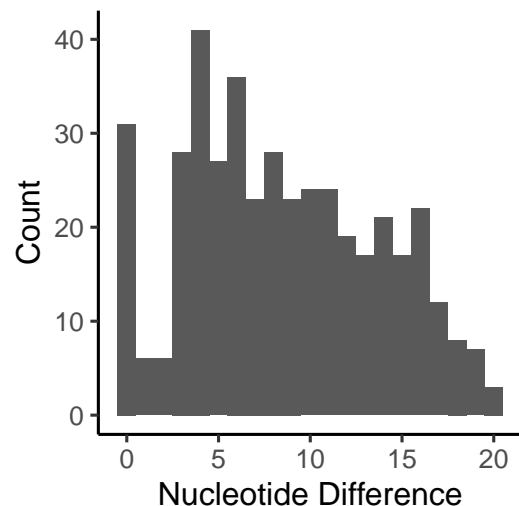
### IGHV3-74\*01\_02

354 sequences assigned  
30 (8.5%) exact matches, in which:  
17 unique CDR3  
3 unique J



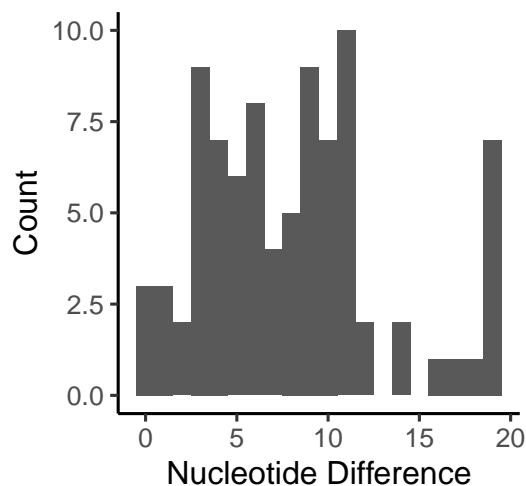
### IGHV4-4\*07

460 sequences assigned  
31 (6.7%) exact matches, in which:  
16 unique CDR3  
4 unique J



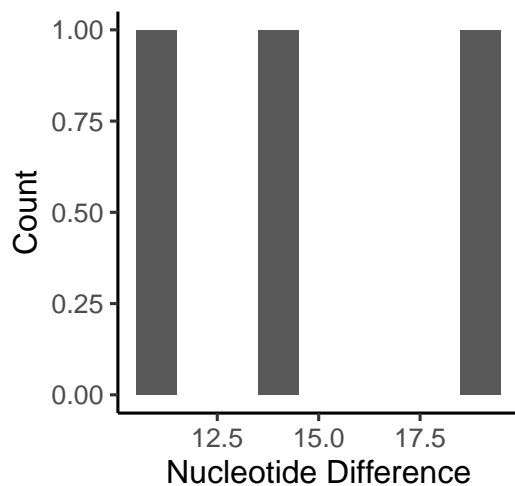
### IGHV3-73\*01\_02

90 sequences assigned  
3 (3.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



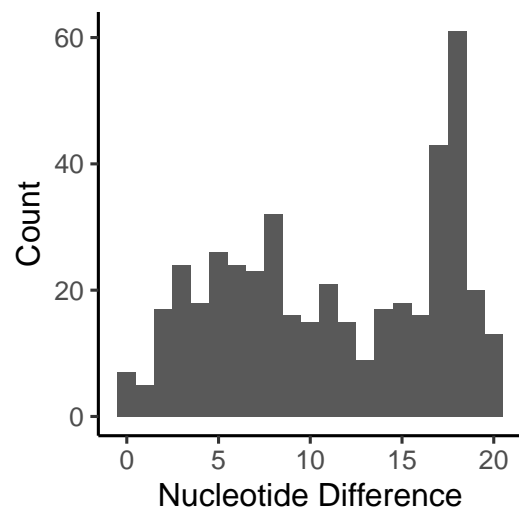
### IGHV3-64D\*06

3 sequences assigned  
No exact matches.



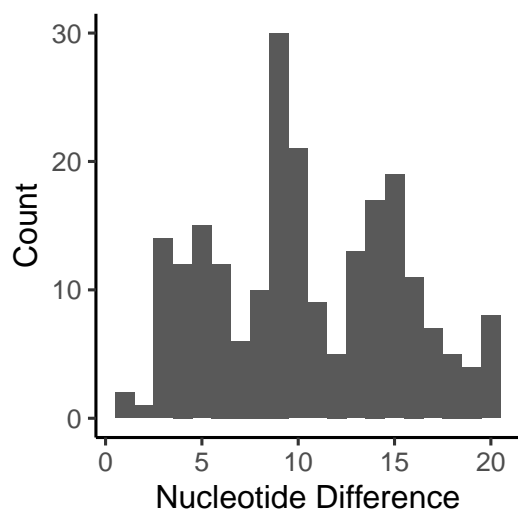
### IGHV4-4\*02\_03

513 sequences assigned  
7 (1.4%) exact matches, in which:  
5 unique CDR3  
2 unique J



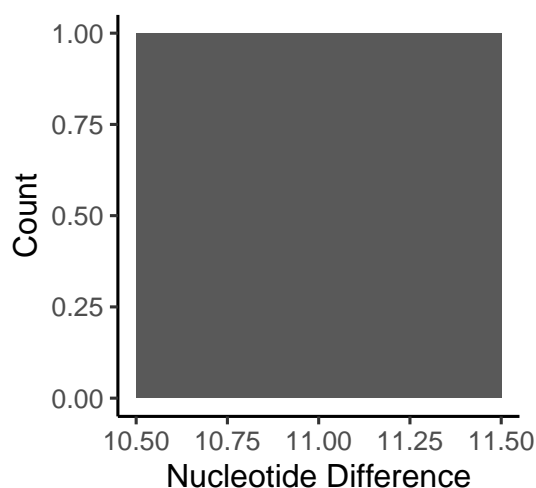
### IGHV3-74\*03

262 sequences assigned  
No exact matches.



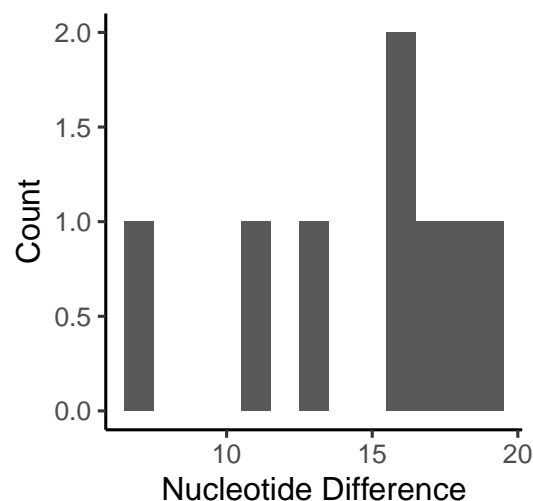
### IGHV3-64D\*09

1 sequences assigned  
No exact matches.



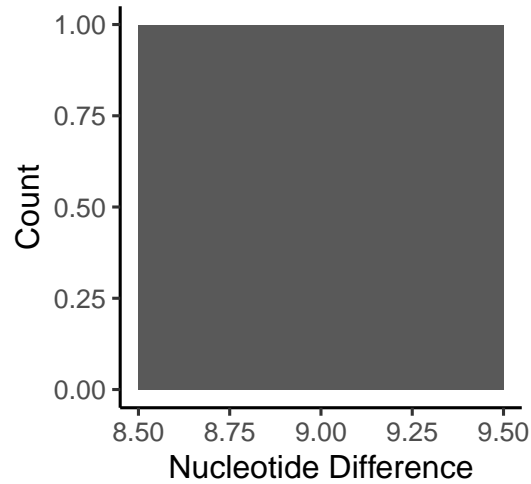
### IGHV4-28\*01\_07

12 sequences assigned  
No exact matches.



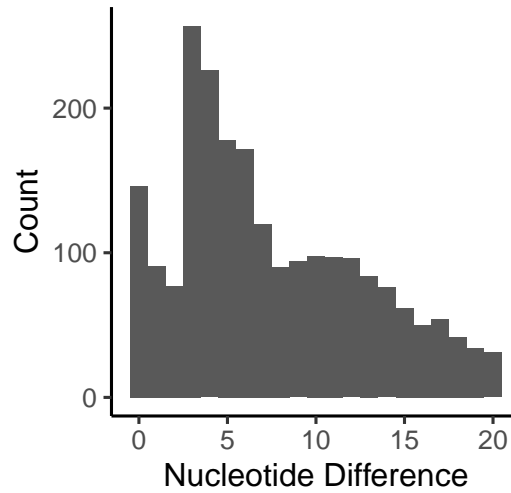
### IGHV4-30-4\*01

2 sequences assigned  
No exact matches.



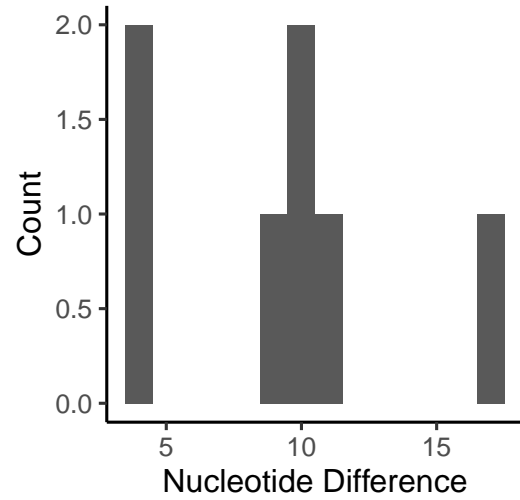
### IGHV4-34\*01\_02

2392 sequences assigned  
146 (6.1%) exact matches, in which:  
85 unique CDR3  
6 unique J



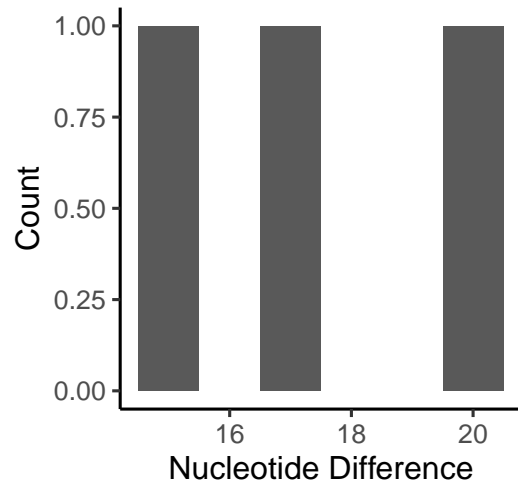
### IGHV4-39\*07

12 sequences assigned  
No exact matches.



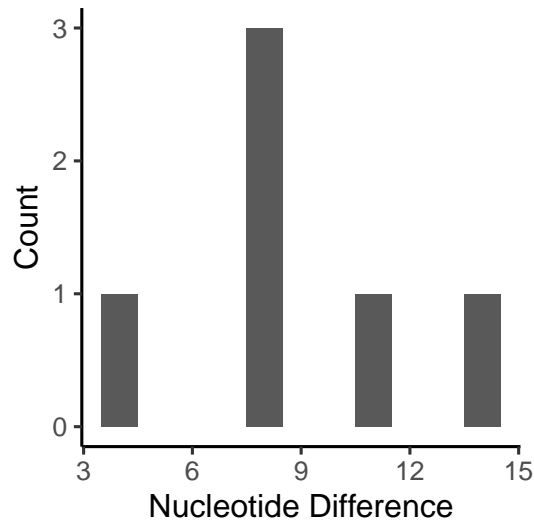
### IGHV4-30-2\*03

5 sequences assigned  
No exact matches.



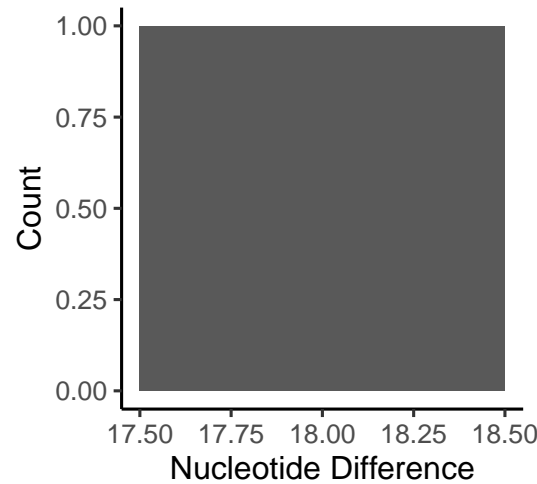
### IGHV4-38-2\*02

9 sequences assigned  
No exact matches.



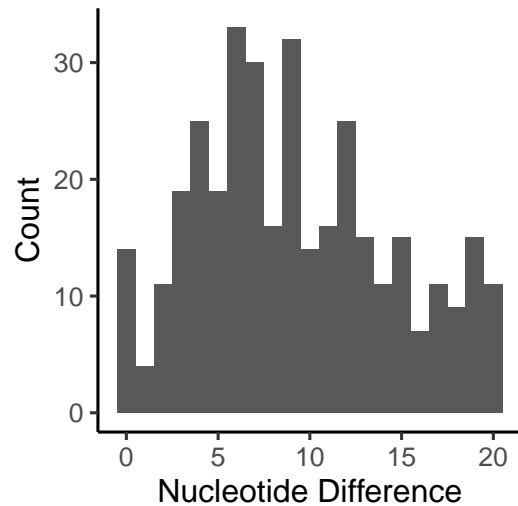
### IGHV4-55\*07

1 sequences assigned  
No exact matches.



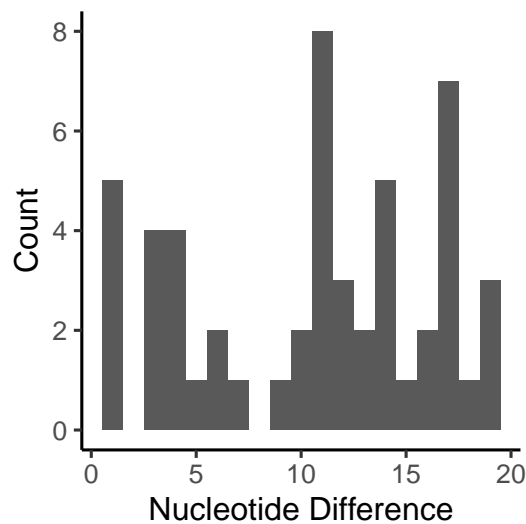
### IGHV4-31\*02

398 sequences assigned  
14 (3.5%) exact matches, in which:  
10 unique CDR3  
4 unique J



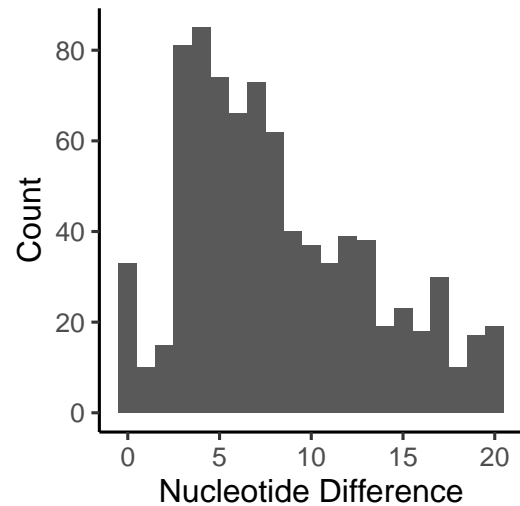
### IGHV4-39\*02

75 sequences assigned  
No exact matches.



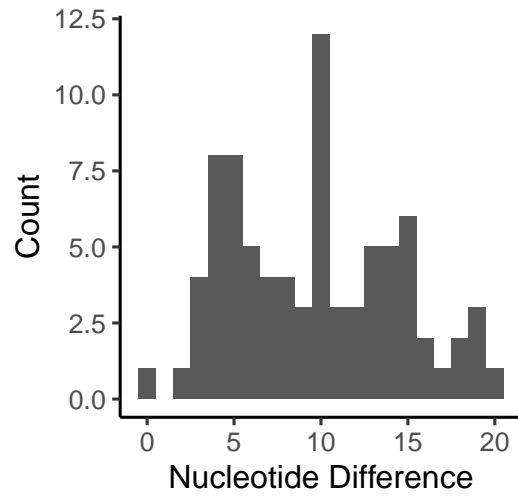
### IGHV4-59\*01\_07

911 sequences assigned  
33 (3.6%) exact matches, in which:  
23 unique CDR3  
5 unique J



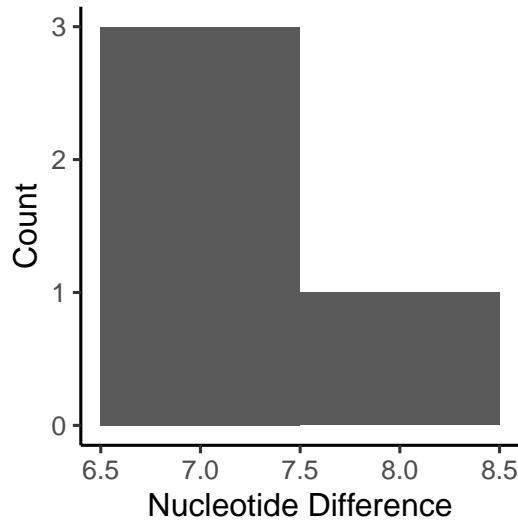
### IGHV4-59\*11

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



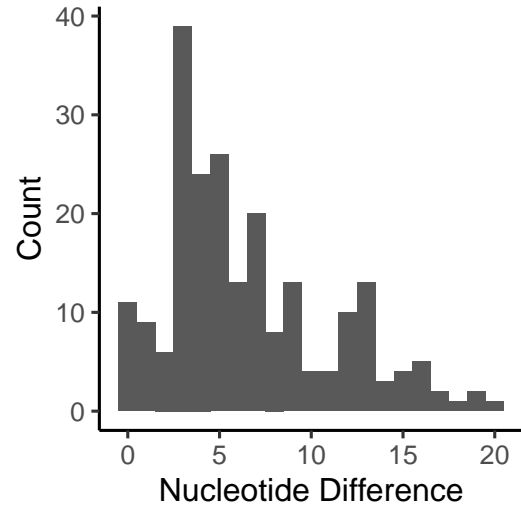
### IGHV4/OR15-8\*01

8 sequences assigned  
No exact matches.



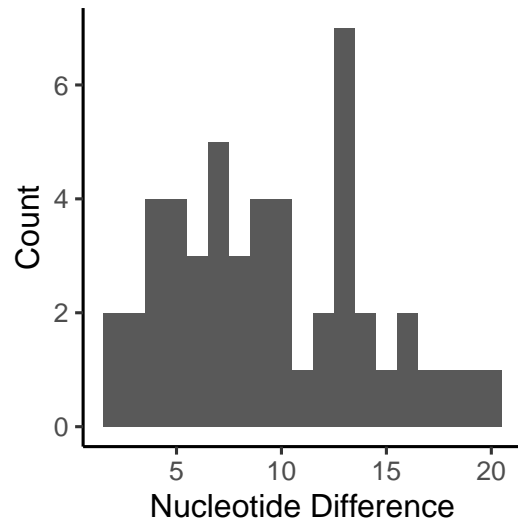
### IGHV5-51\*01\_03

224 sequences assigned  
11 (4.9%) exact matches, in which:  
11 unique CDR3  
3 unique J



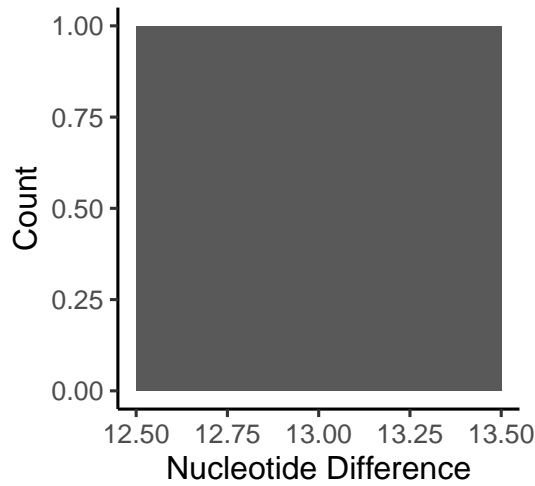
### IGHV4-59\*13

64 sequences assigned  
No exact matches.



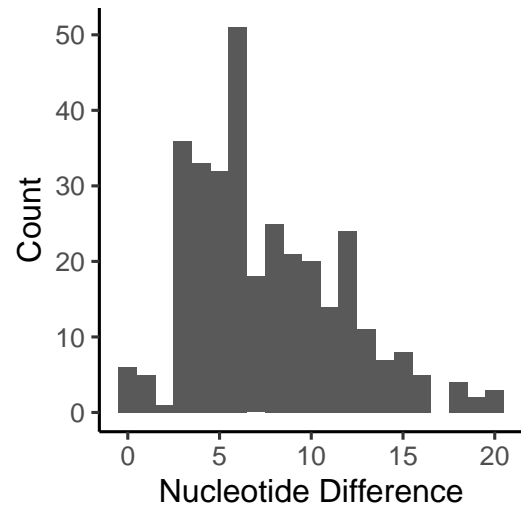
### IGHV4/OR15-8\*03

1 sequences assigned  
No exact matches.



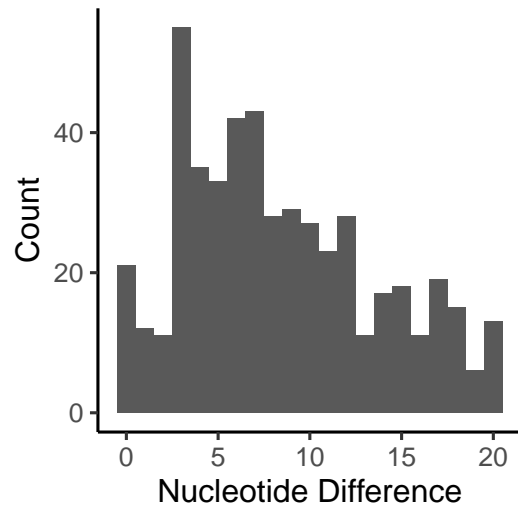
### IGHV6-1\*01\_02

354 sequences assigned  
6 (1.7%) exact matches, in which:  
6 unique CDR3  
2 unique J



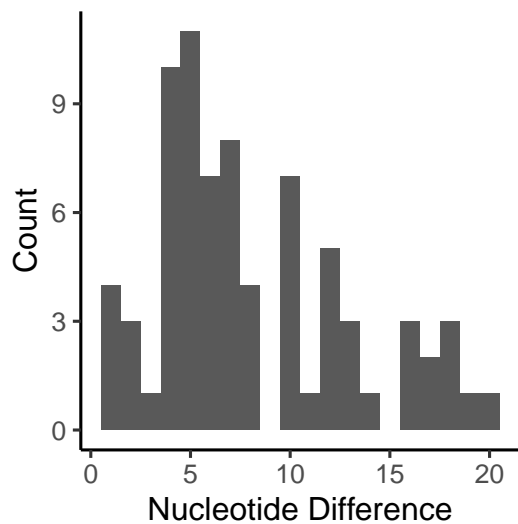
### IGHV4-61\*01

565 sequences assigned  
21 (3.7%) exact matches, in which:  
12 unique CDR3  
3 unique J



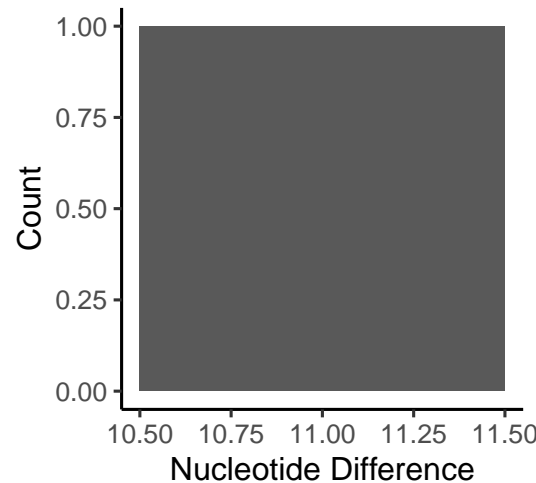
### IGHV5-51\*07

79 sequences assigned  
No exact matches.



### IGHV3/OR16-6\*02

1 sequences assigned  
No exact matches.







Warning – no inferred sequences found.