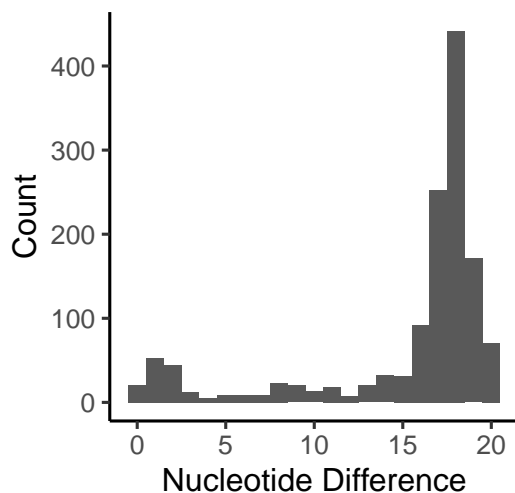


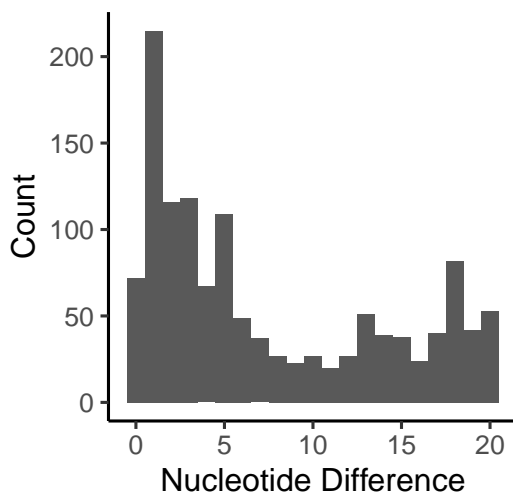
### IGHV1-2\*02

1691 sequences assigned  
21 (1.2%) exact matches, in which:  
15 unique CDR3  
4 unique J



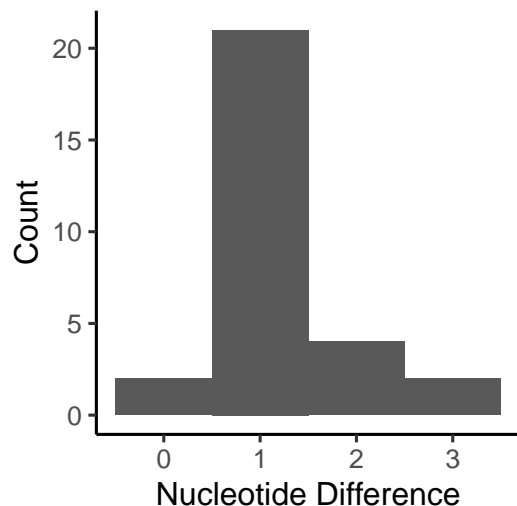
### IGHV1-18\*01

1950 sequences assigned  
72 (3.7%) exact matches, in which:  
36 unique CDR3  
4 unique J



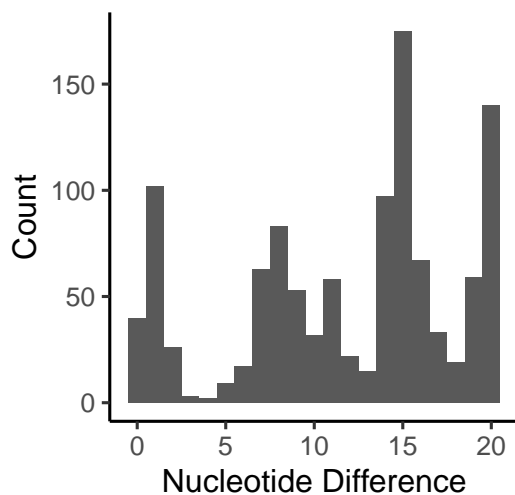
### IGHV1-58\*01

49 sequences assigned  
2 (4.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



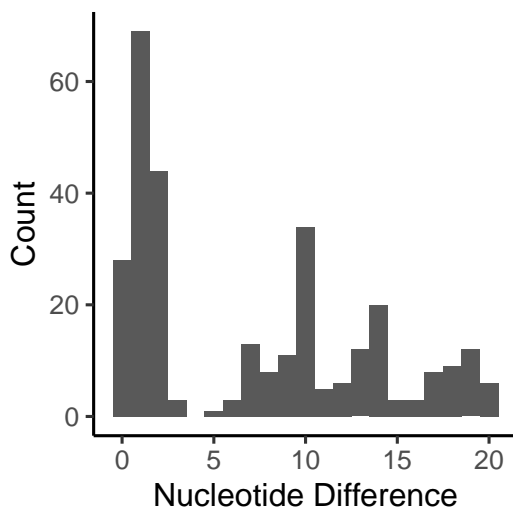
### IGHV1-3\*01

1606 sequences assigned  
40 (2.5%) exact matches, in which:  
18 unique CDR3  
3 unique J



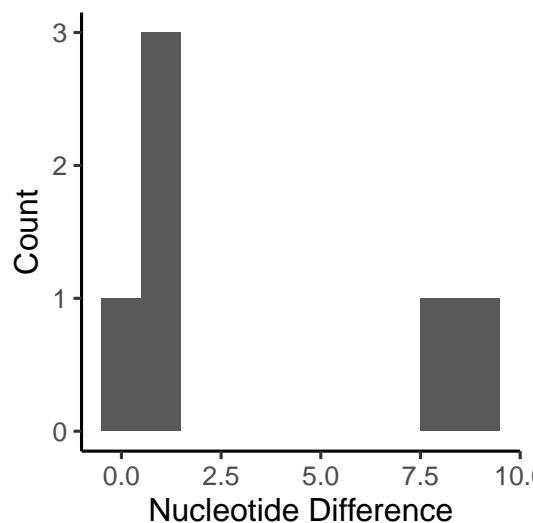
### IGHV1-24\*01

464 sequences assigned  
28 (6%) exact matches, in which:  
13 unique CDR3  
3 unique J



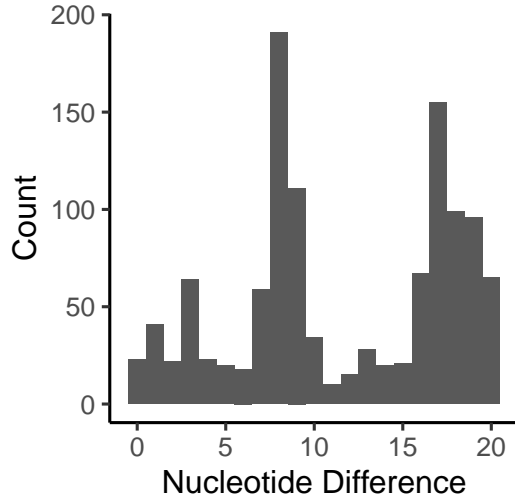
### IGHV1-69-2\*01

58 sequences assigned  
1 (1.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



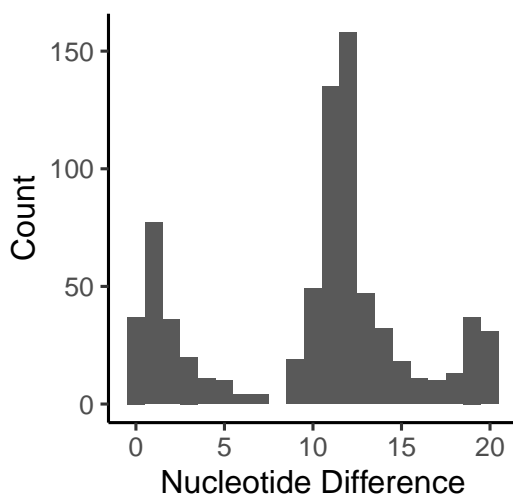
### IGHV1-8\*01

1426 sequences assigned  
23 (1.6%) exact matches, in which:  
16 unique CDR3  
3 unique J



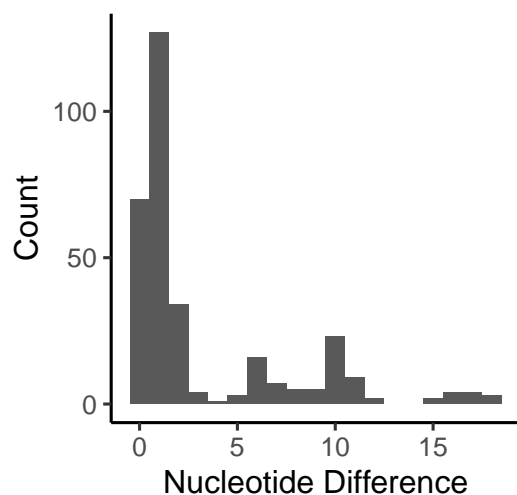
### IGHV1-46\*01

1115 sequences assigned  
37 (3.3%) exact matches, in which:  
21 unique CDR3  
3 unique J



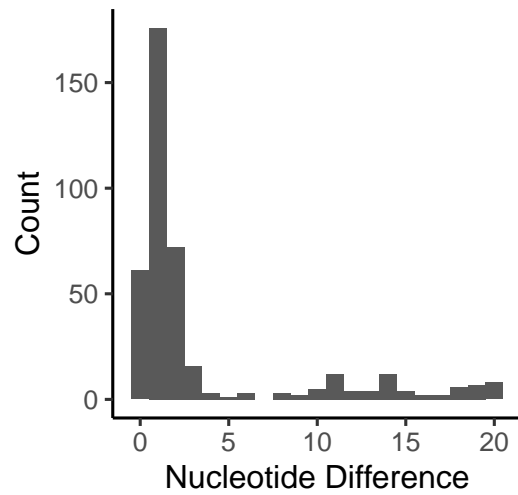
### IGHV1-69\*06

737 sequences assigned  
70 (9.5%) exact matches, in which:  
44 unique CDR3  
3 unique J



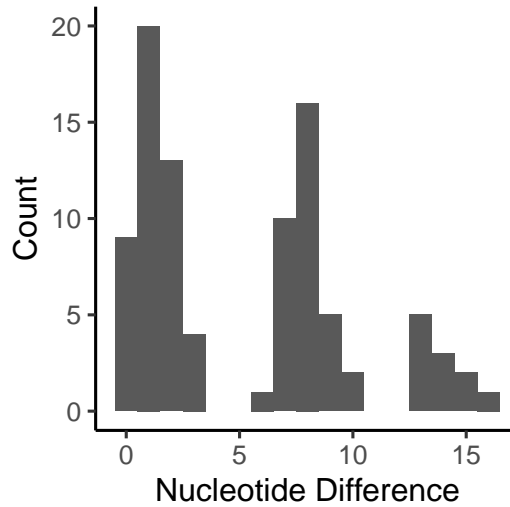
### IGHV2-5\*01

613 sequences assigned  
61 (10%) exact matches, in which:  
35 unique CDR3  
3 unique J



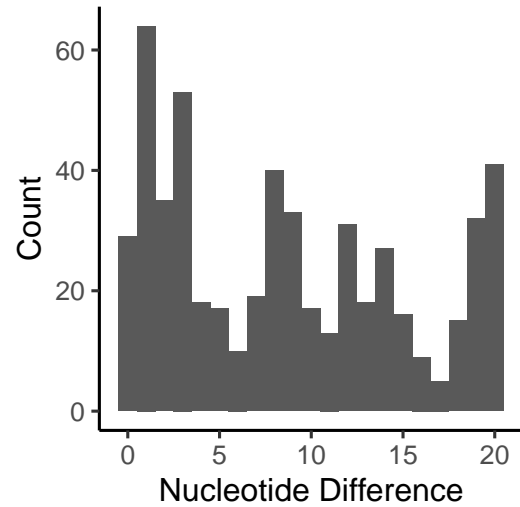
### IGHV2-70\*01

91 sequences assigned  
9 (9.9%) exact matches, in which:  
5 unique CDR3  
2 unique J



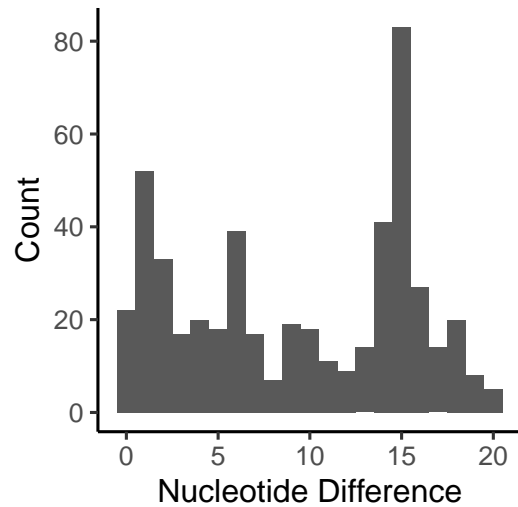
### IGHV3-11\*01

939 sequences assigned  
29 (3.1%) exact matches, in which:  
20 unique CDR3  
2 unique J



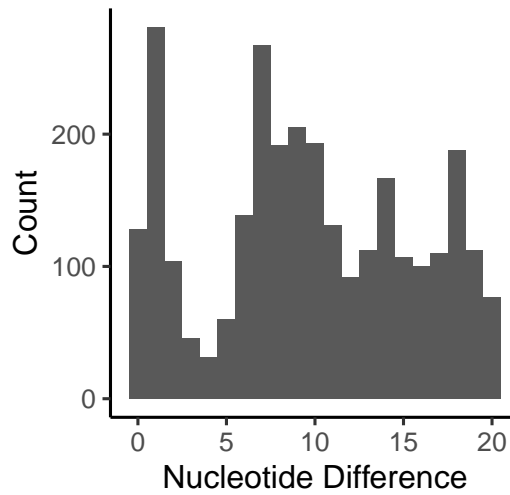
### IGHV2-5\*02

751 sequences assigned  
22 (2.9%) exact matches, in which:  
16 unique CDR3  
4 unique J



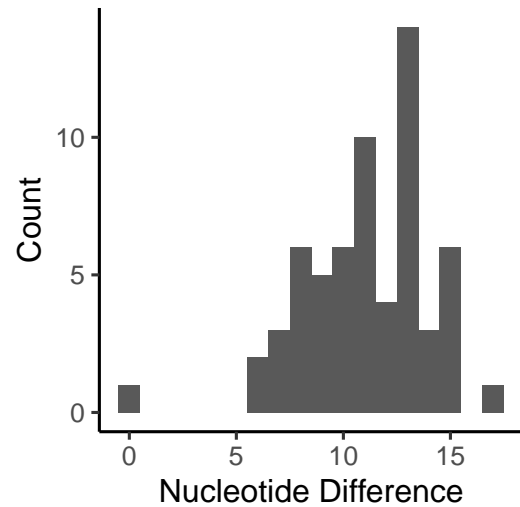
### IGHV3-7\*01

3759 sequences assigned  
128 (3.4%) exact matches, in which:  
82 unique CDR3  
5 unique J



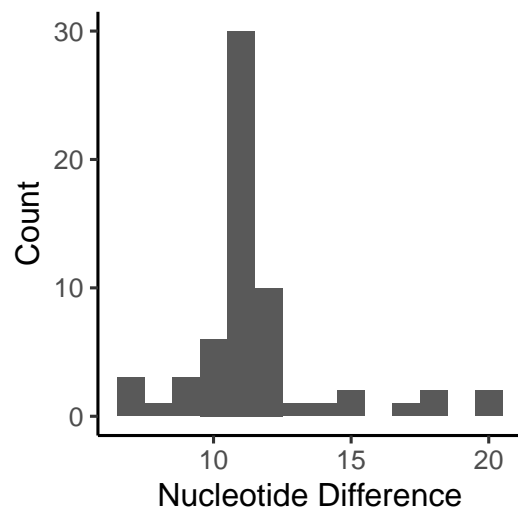
### IGHV3-13\*01

61 sequences assigned  
1 (1.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



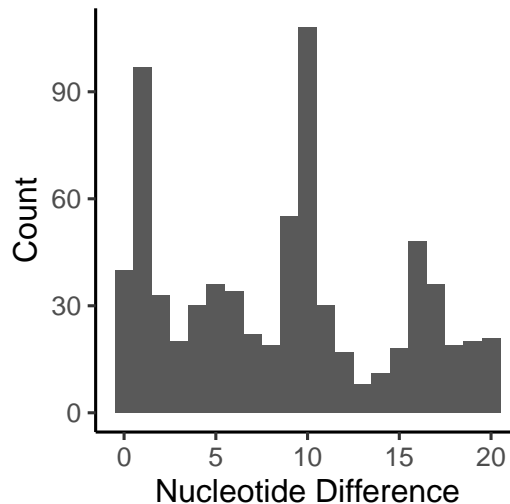
### IGHV2-26\*01

102 sequences assigned  
No exact matches.



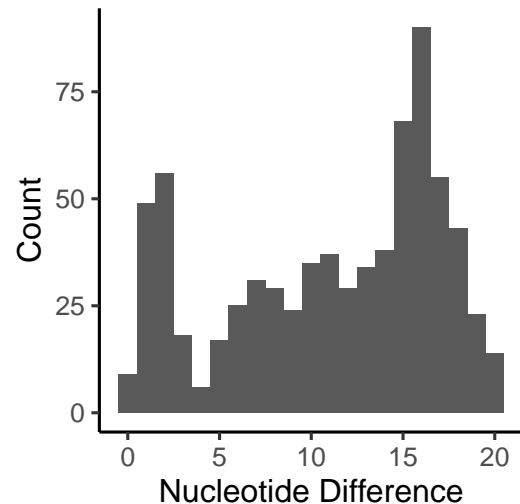
### IGHV3-9\*01

812 sequences assigned  
40 (4.9%) exact matches, in which:  
29 unique CDR3  
3 unique J



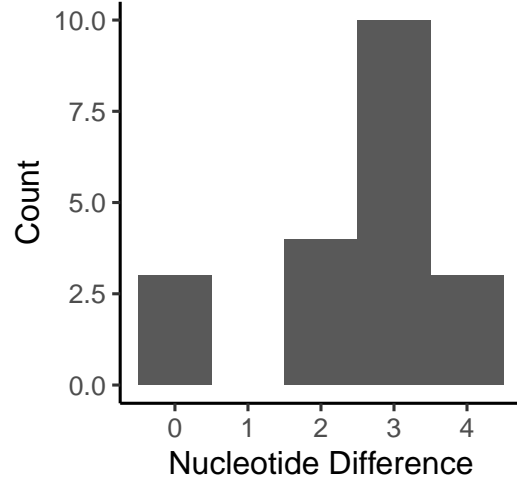
### IGHV3-15\*01

832 sequences assigned  
9 (1.1%) exact matches, in which:  
9 unique CDR3  
2 unique J



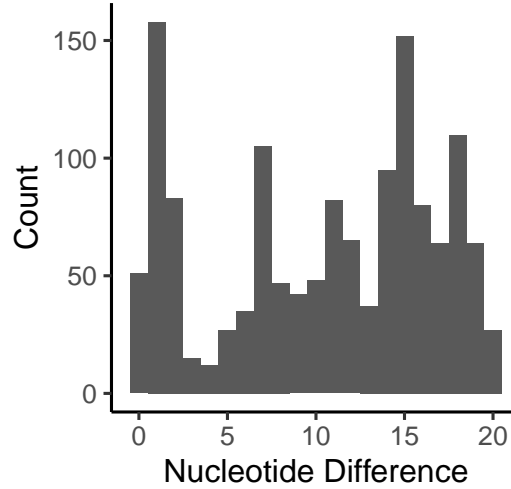
### IGHV3-20\*01

20 sequences assigned  
3 (15%) exact matches, in which:  
2 unique CDR3  
2 unique J



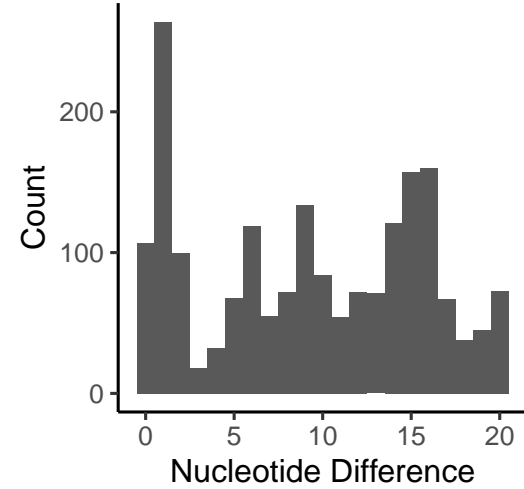
### IGHV3-23\*04

1962 sequences assigned  
51 (2.6%) exact matches, in which:  
27 unique CDR3  
4 unique J



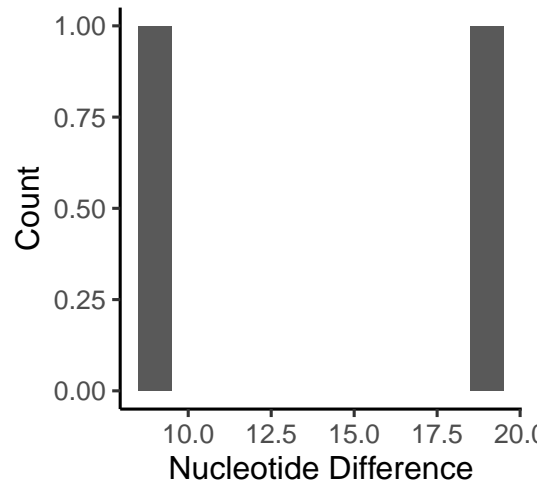
### IGHV3-33\*01

2772 sequences assigned  
107 (3.9%) exact matches, in which:  
63 unique CDR3  
4 unique J



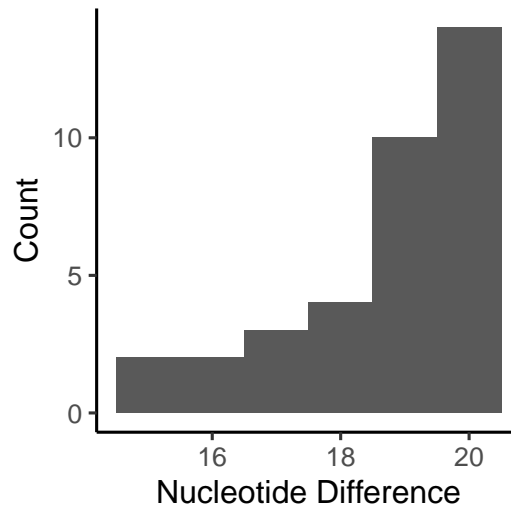
### IGHV3-20\*04

4 sequences assigned  
No exact matches.



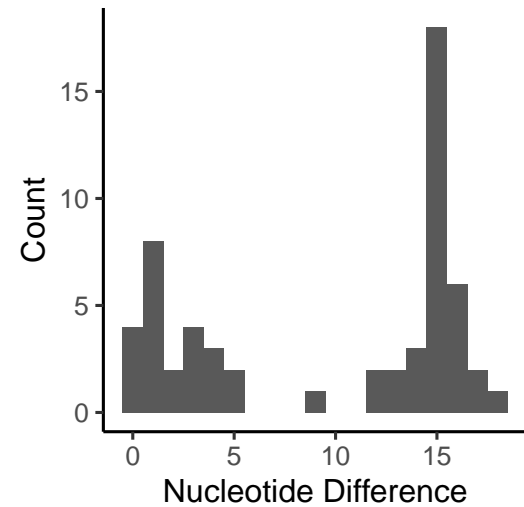
### IGHV3-30\*03

39 sequences assigned  
No exact matches.



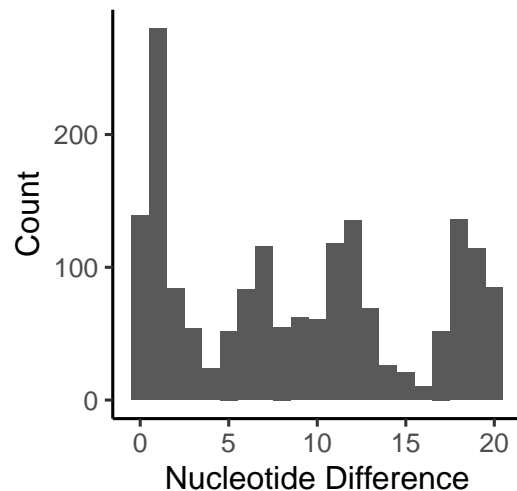
### IGHV3-43\*01

81 sequences assigned  
4 (4.9%) exact matches, in which:  
4 unique CDR3  
1 unique J



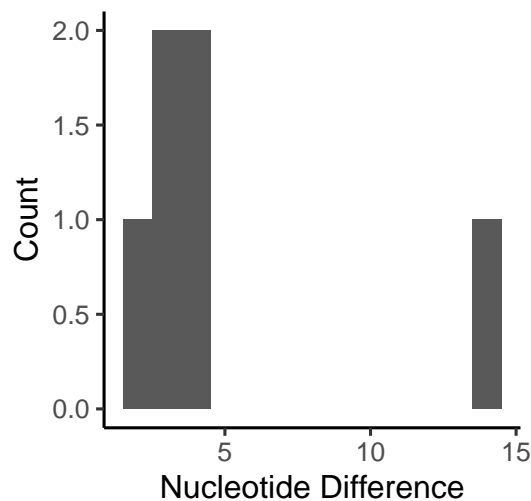
### IGHV3-21\*01

2179 sequences assigned  
139 (6.4%) exact matches, in which:  
92 unique CDR3  
4 unique J



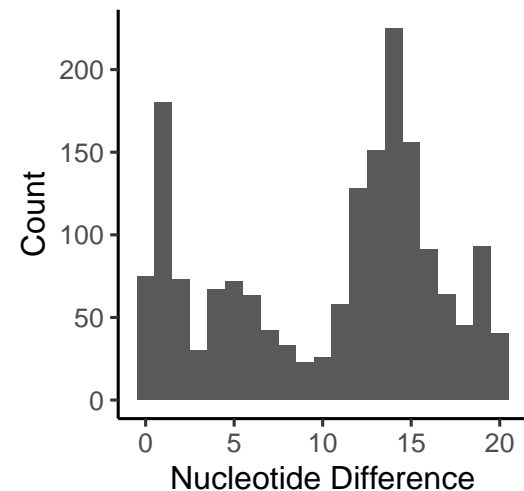
### IGHV3-30-3\*03

6 sequences assigned  
No exact matches.



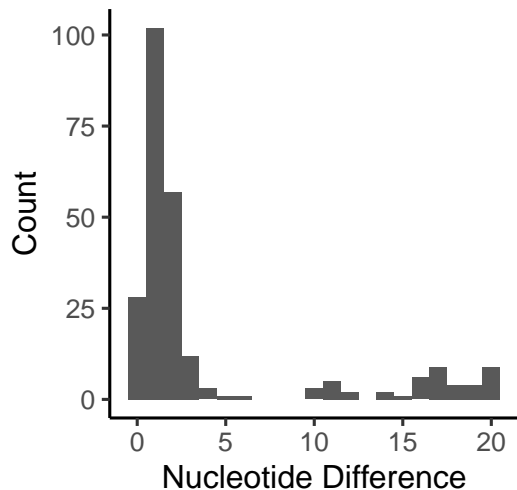
### IGHV3-48\*02

2104 sequences assigned  
75 (3.6%) exact matches, in which:  
38 unique CDR3  
3 unique J



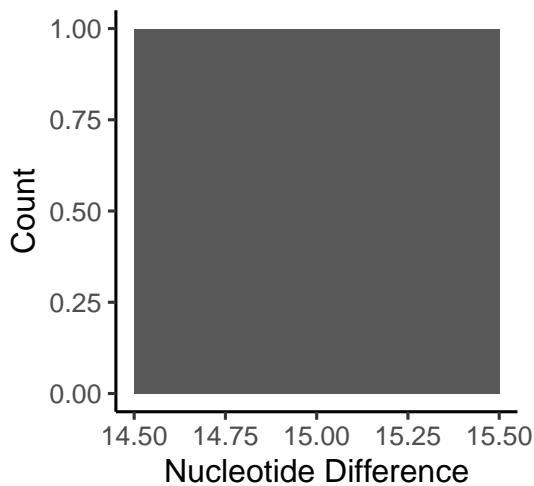
### IGHV3-49\*05

301 sequences assigned  
28 (9.3%) exact matches, in which:  
16 unique CDR3  
2 unique J



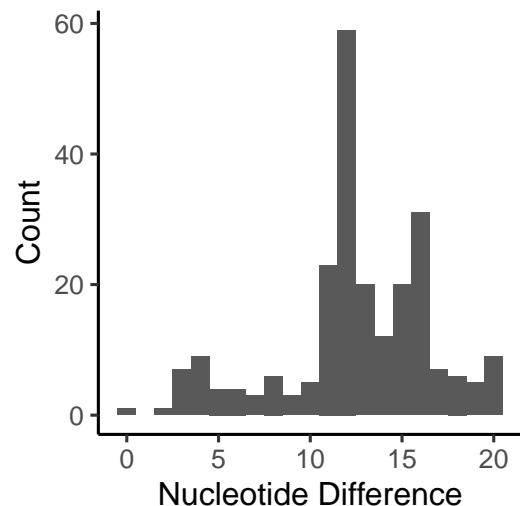
### IGHV3-66\*03

1 sequences assigned  
No exact matches.



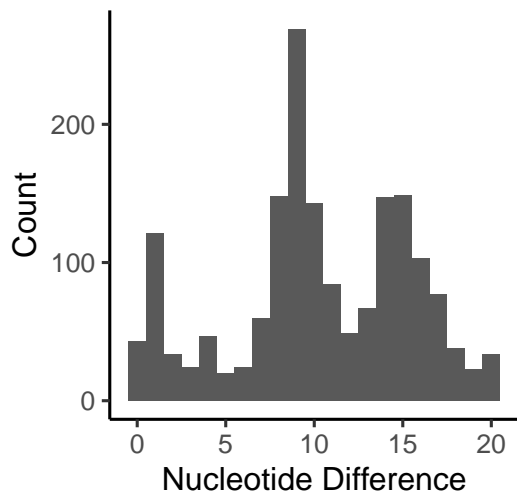
### IGHV3-72\*01

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



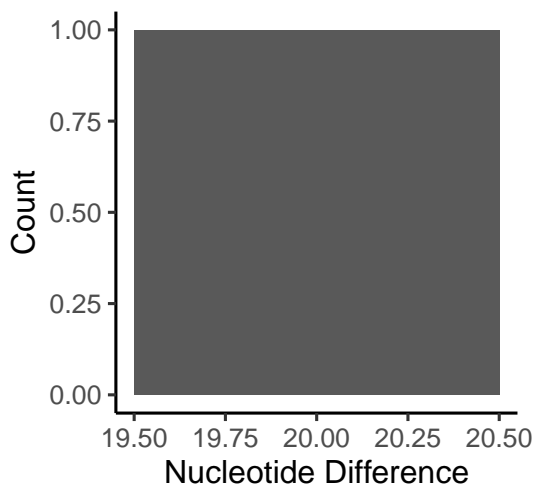
### IGHV3-53\*01

2451 sequences assigned  
43 (1.8%) exact matches, in which:  
27 unique CDR3  
5 unique J



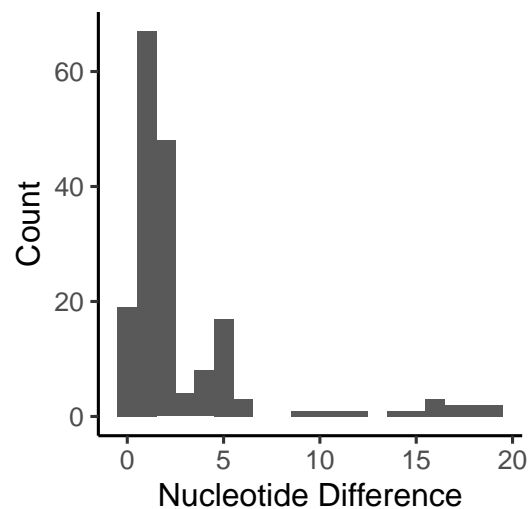
### IGHV3-66\*04

1 sequences assigned  
No exact matches.



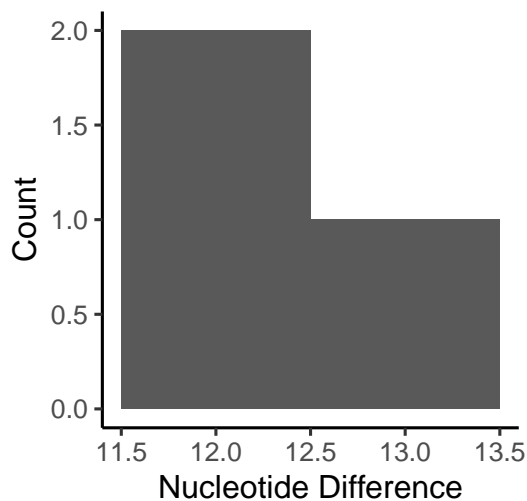
### IGHV3-73\*02

193 sequences assigned  
19 (9.8%) exact matches, in which:  
13 unique CDR3  
2 unique J



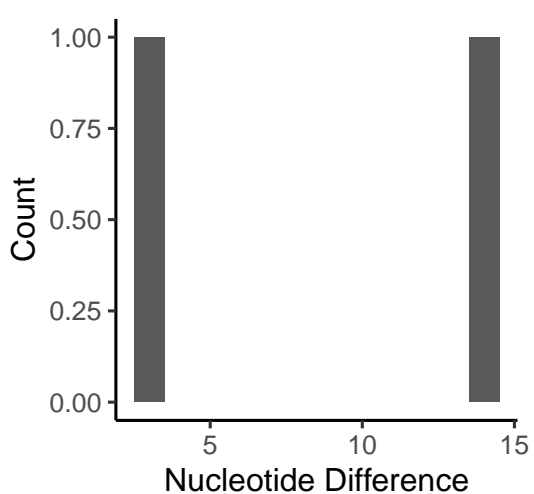
### IGHV3-64\*02

3 sequences assigned  
No exact matches.



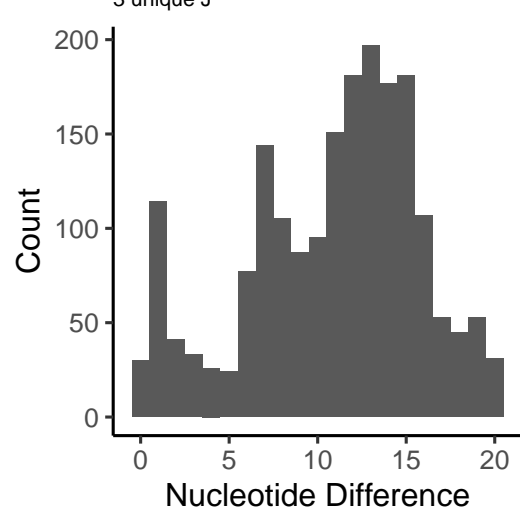
### IGHV3-69-1\*01

2 sequences assigned  
No exact matches.



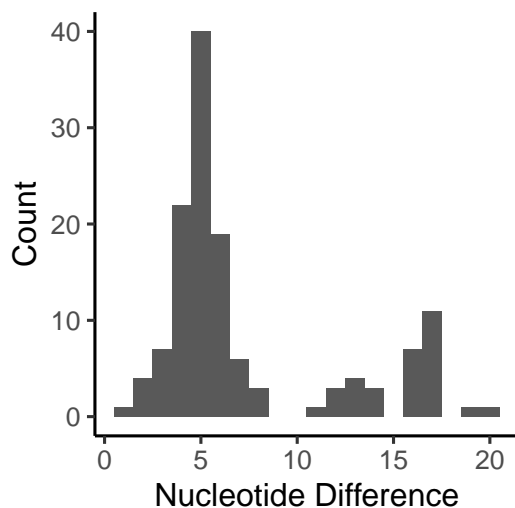
### IGHV3-74\*01

2287 sequences assigned  
30 (1.3%) exact matches, in which:  
19 unique CDR3  
3 unique J



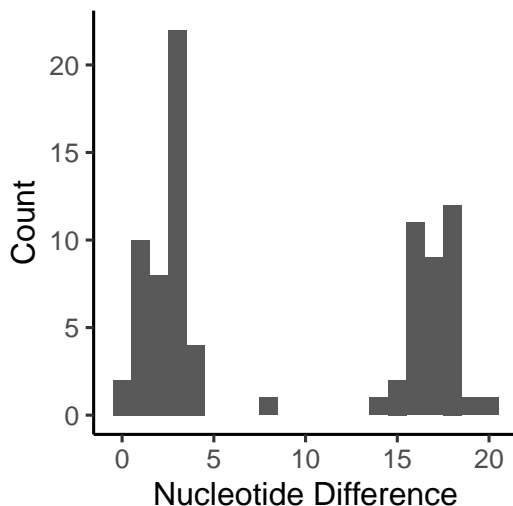
### IGHV4-4\*02

227 sequences assigned  
No exact matches.



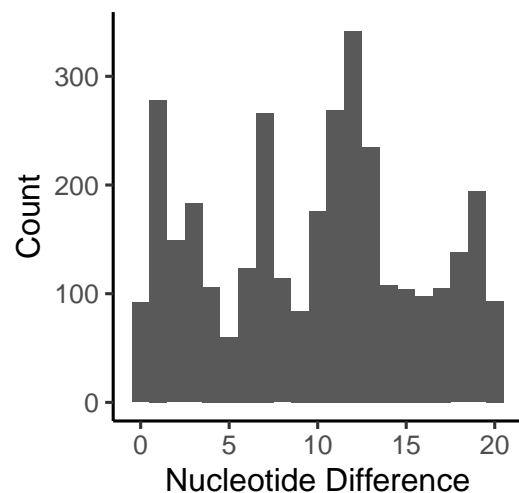
### IGHV4-30-2\*01

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



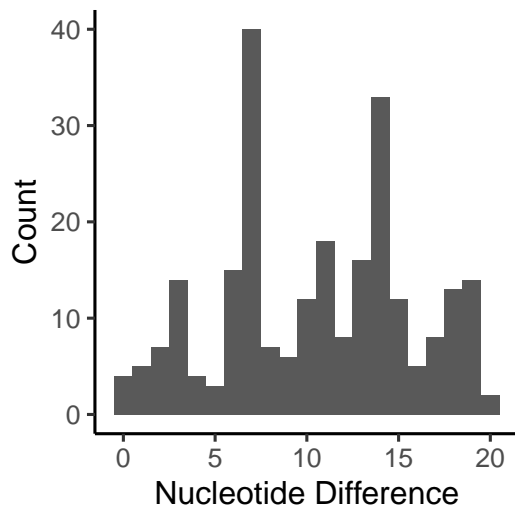
### IGHV4-39\*01

3987 sequences assigned  
92 (2.3%) exact matches, in which:  
56 unique CDR3  
5 unique J



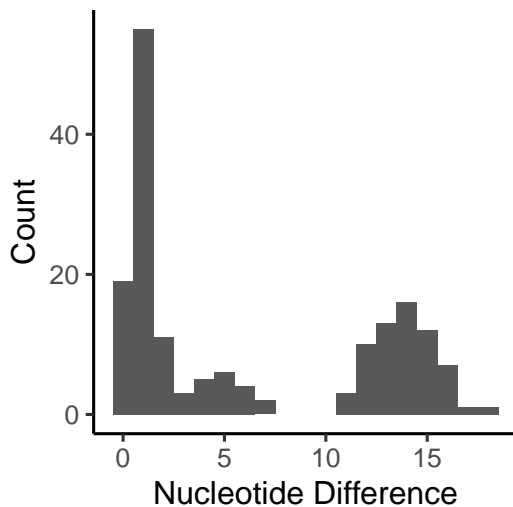
### IGHV4-4\*07

298 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
1 unique J



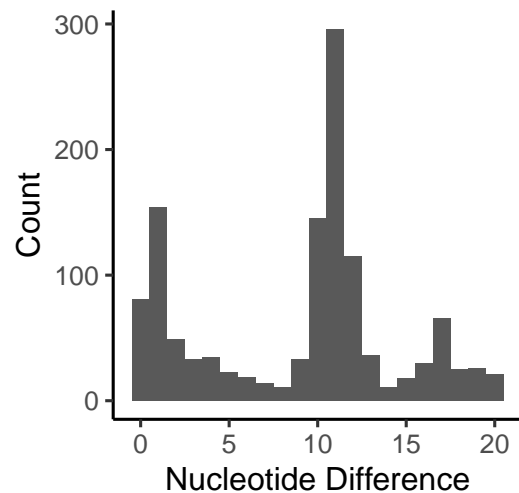
### IGHV4-31\*03

248 sequences assigned  
19 (7.7%) exact matches, in which:  
10 unique CDR3  
3 unique J



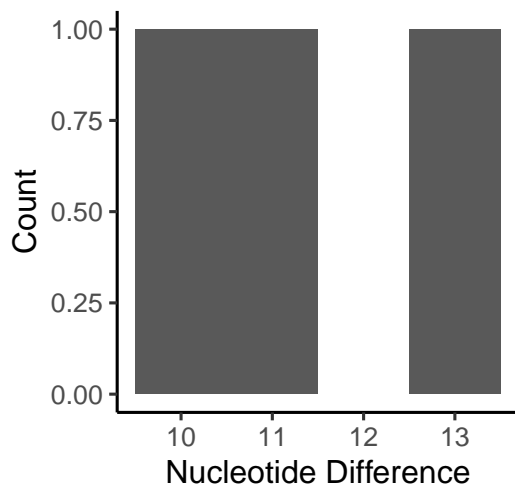
### IGHV4-59\*01

1683 sequences assigned  
81 (4.8%) exact matches, in which:  
37 unique CDR3  
4 unique J



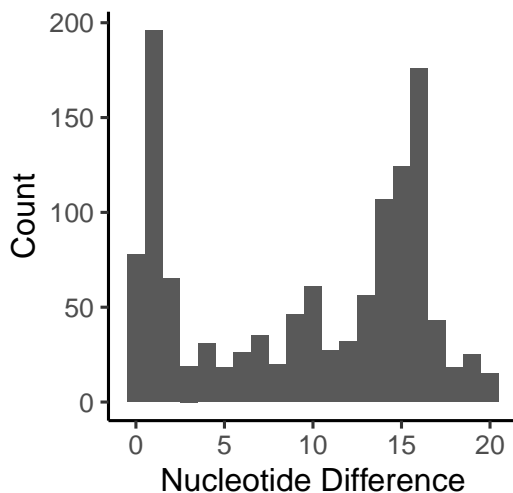
### IGHV4-28\*01

4 sequences assigned  
No exact matches.



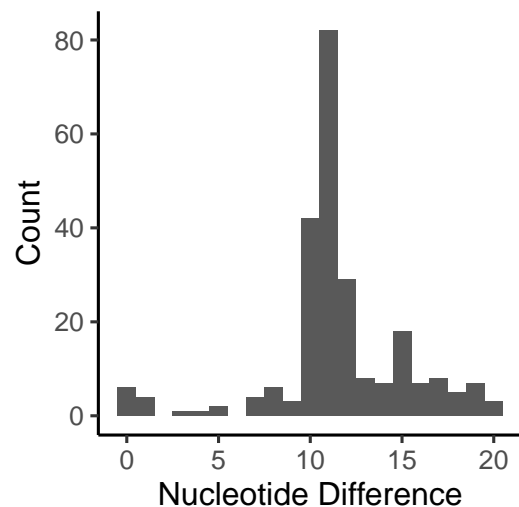
### IGHV4-34\*01

1715 sequences assigned  
78 (4.5%) exact matches, in which:  
55 unique CDR3  
3 unique J



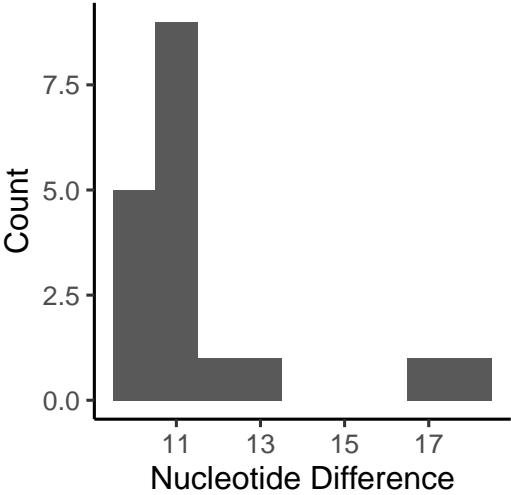
### IGHV4-61\*01

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



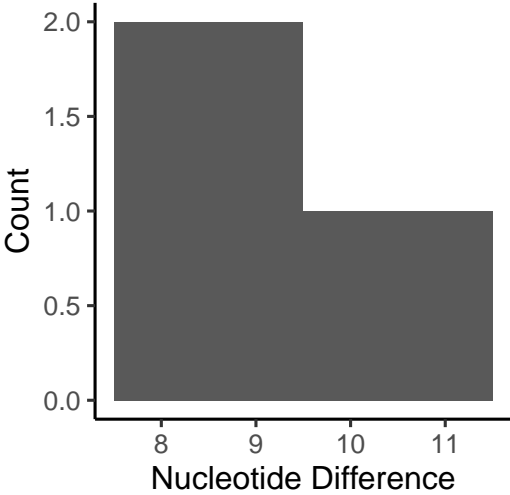
IGHV4-61\*08

34 sequences assigned  
No exact matches.



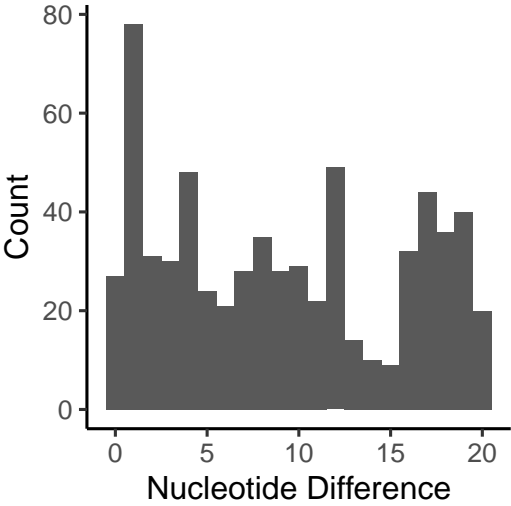
IGHV7-4-1\*01

6 sequences assigned  
No exact matches.



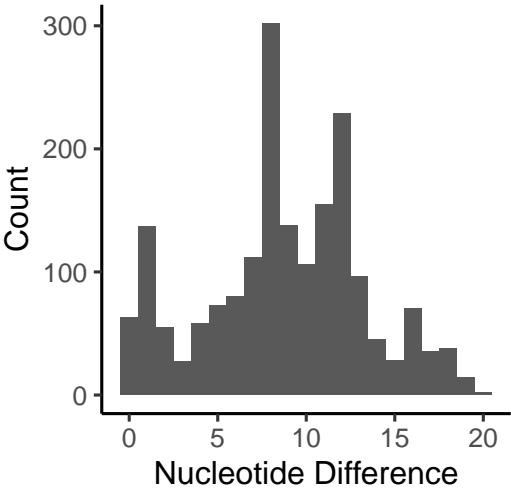
IGHV5-51\*01

1353 sequences assigned  
27 (2%) exact matches, in which:  
16 unique CDR3  
5 unique J



IGHV6-1\*01

1899 sequences assigned  
63 (3.3%) exact matches, in which:  
27 unique CDR3  
3 unique J





[illegible]