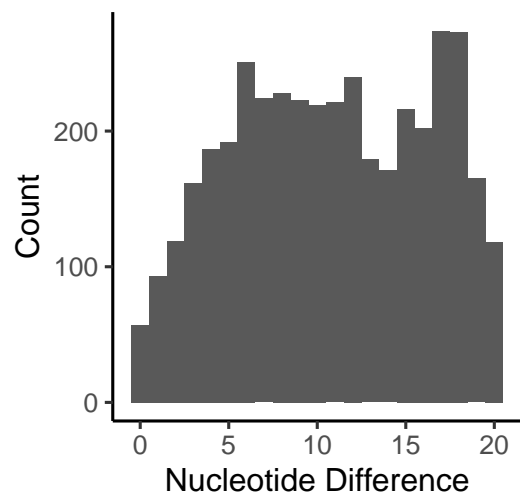


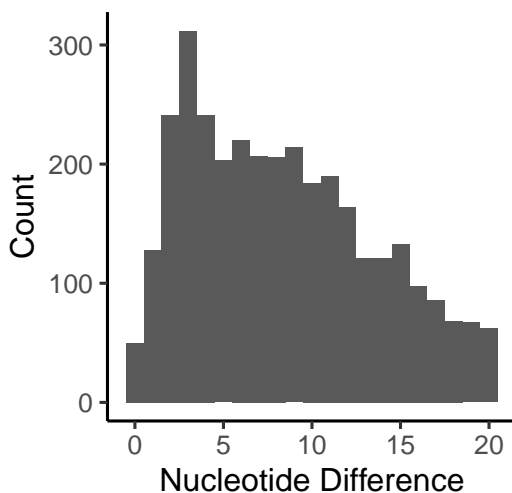
### IGHV1-2\*02

4769 sequences assigned  
57 (1.2%) exact matches, in which:  
50 unique CDR3  
4 unique J



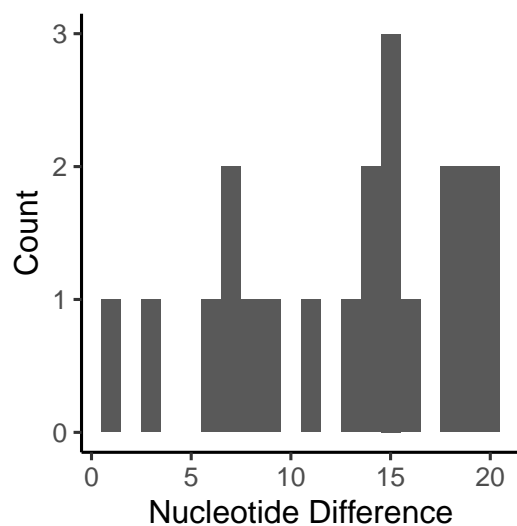
### IGHV1-8\*01

3552 sequences assigned  
50 (1.4%) exact matches, in which:  
42 unique CDR3  
5 unique J



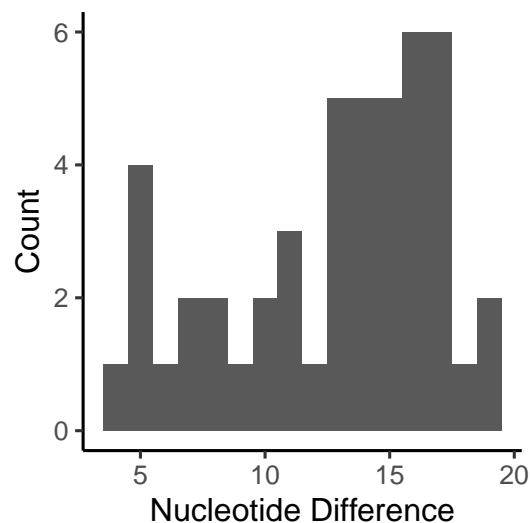
### IGHV1-45\*02

24 sequences assigned  
No exact matches.



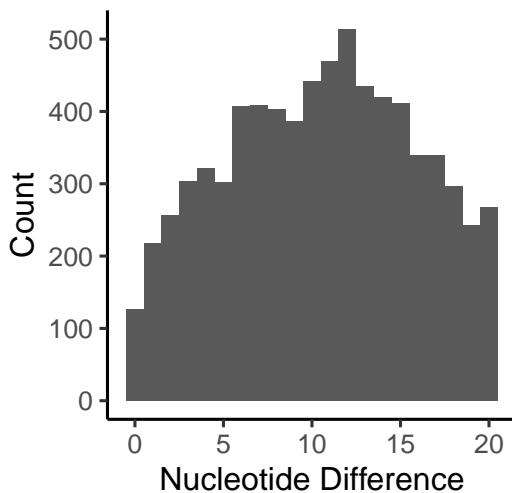
### IGHV1-3\*04

80 sequences assigned  
No exact matches.



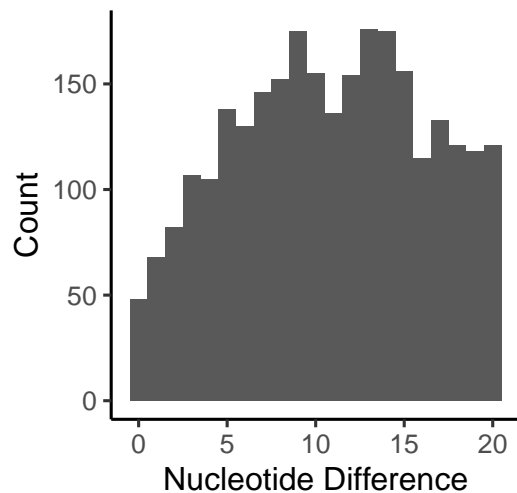
### IGHV1-18\*01

8670 sequences assigned  
126 (1.5%) exact matches, in which:  
107 unique CDR3  
6 unique J



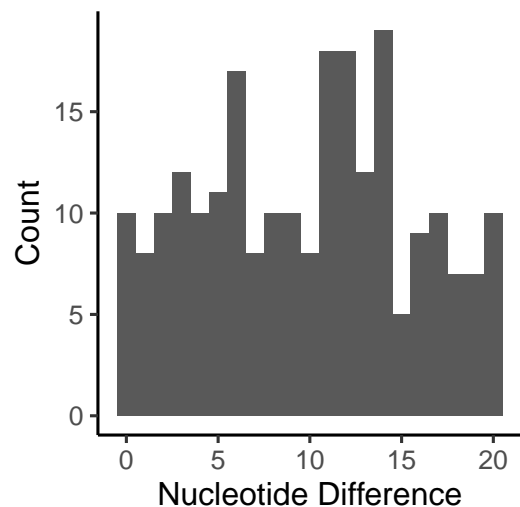
### IGHV1-46\*01

3555 sequences assigned  
48 (1.4%) exact matches, in which:  
41 unique CDR3  
5 unique J



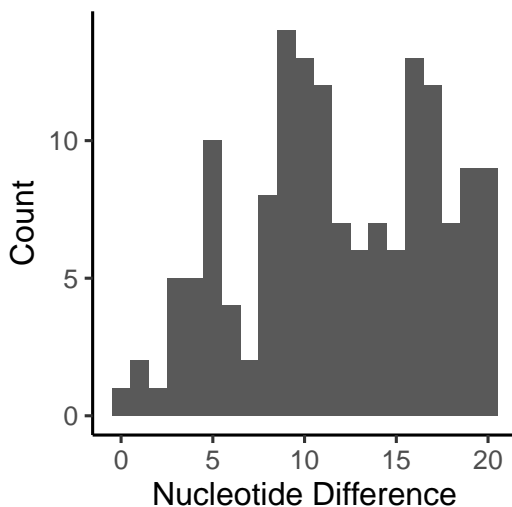
### IGHV1-3\*01\_05

301 sequences assigned  
10 (3.3%) exact matches, in which:  
8 unique CDR3  
2 unique J



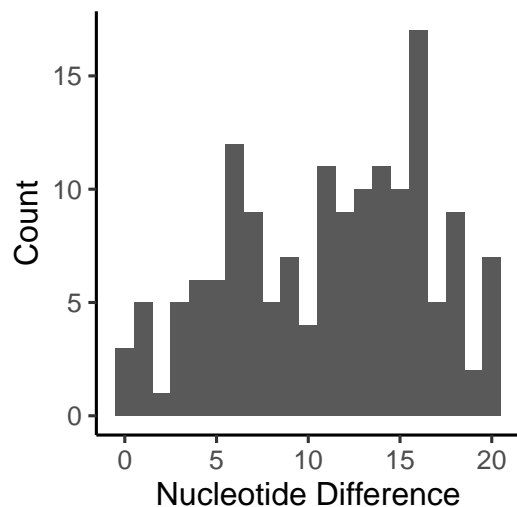
### IGHV1-24\*01

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



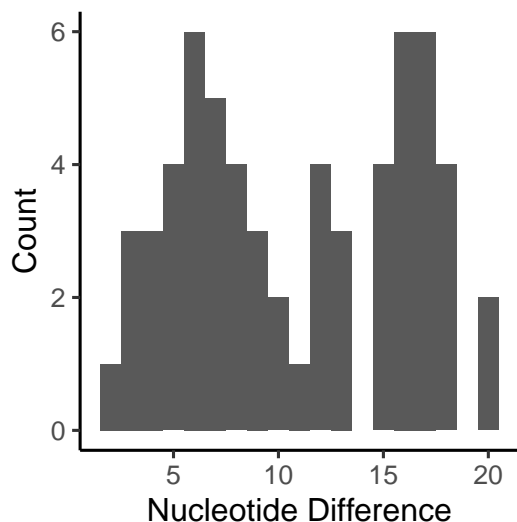
### IGHV1-58\*01\_03

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



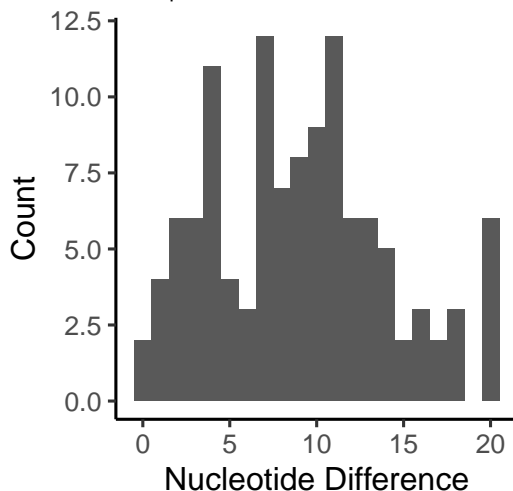
### IGHV1-69-2\*01

83 sequences assigned  
No exact matches.



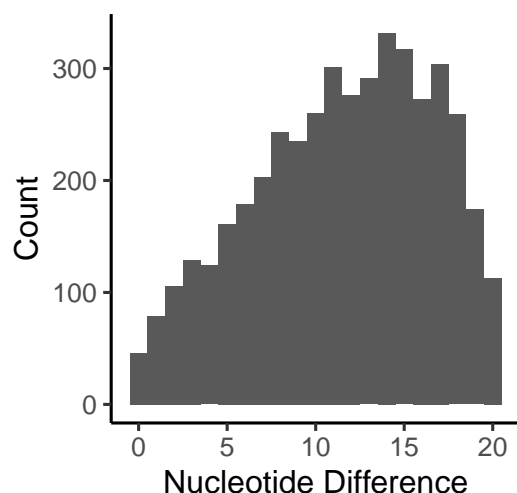
### IGHV2-5\*02

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



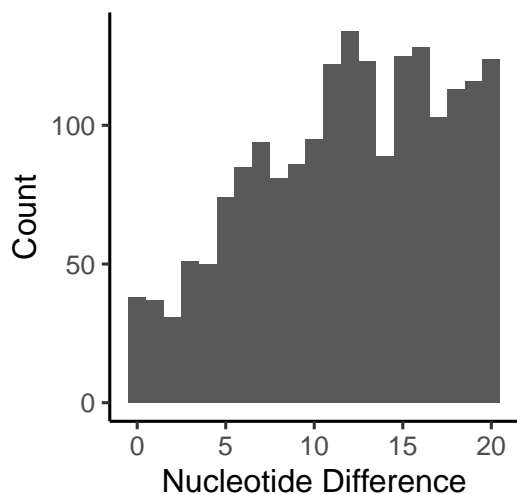
### IGHV3-7\*01

4971 sequences assigned  
46 (0.9%) exact matches, in which:  
42 unique CDR3  
5 unique J



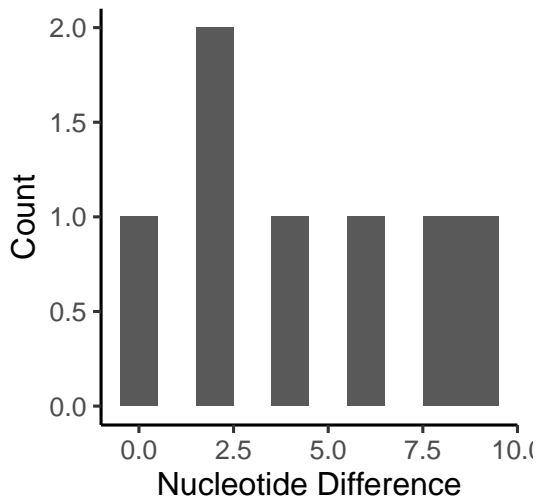
### IGHV1-69\*06\_14

3606 sequences assigned  
38 (1.1%) exact matches, in which:  
35 unique CDR3  
5 unique J



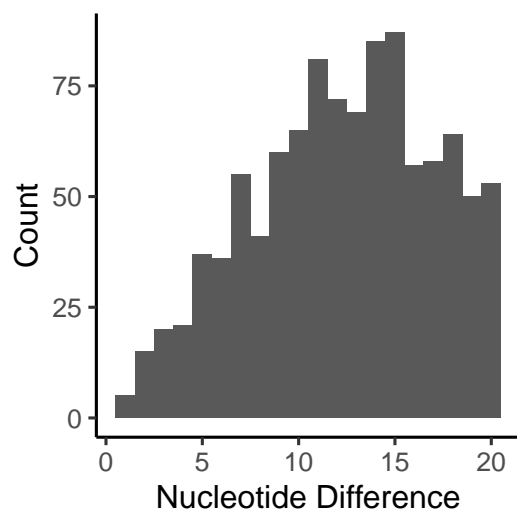
### IGHV2-26\*01

7 sequences assigned  
1 (14.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



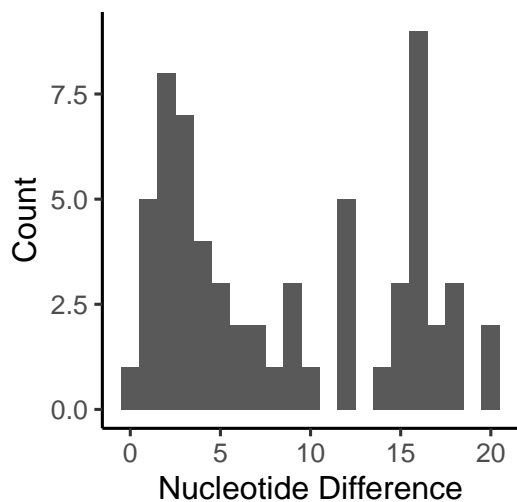
### IGHV3-7\*03

1241 sequences assigned  
No exact matches.



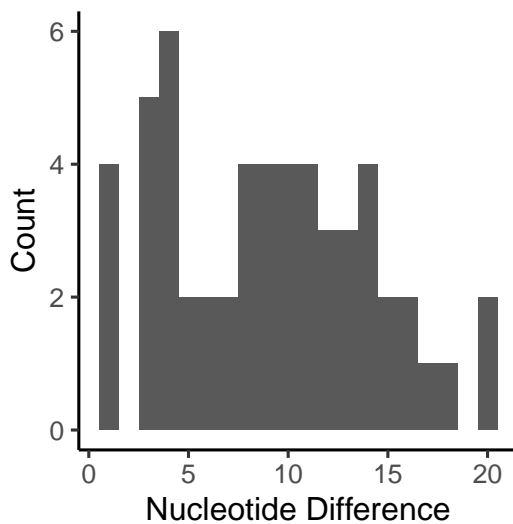
### IGHV2-5\*01

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



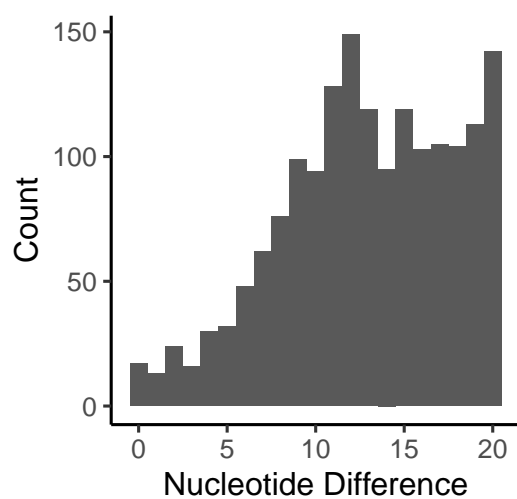
### IGHV2-70\*01

65 sequences assigned  
No exact matches.



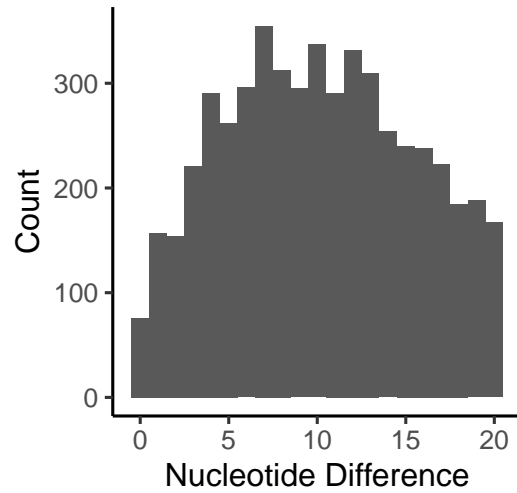
### IGHV3-7\*05

2285 sequences assigned  
17 (0.7%) exact matches, in which:  
15 unique CDR3  
3 unique J



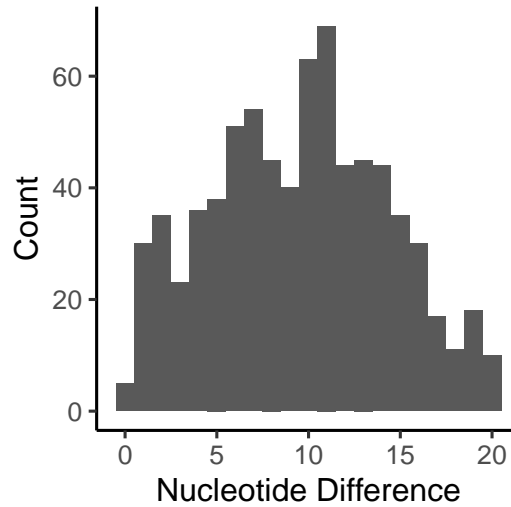
### IGHV3-9\*01

6337 sequences assigned  
76 (1.2%) exact matches, in which:  
64 unique CDR3  
6 unique J



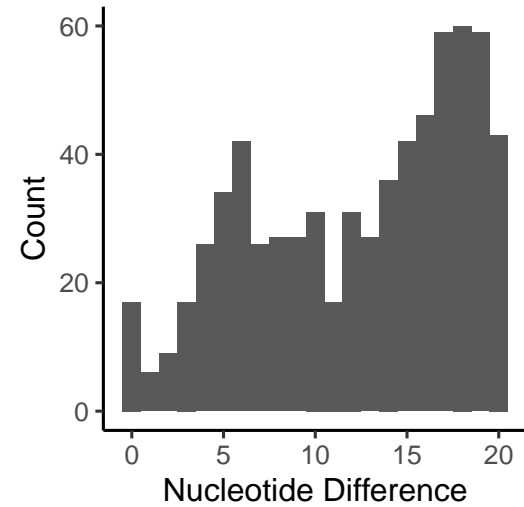
### IGHV3-11\*06

833 sequences assigned  
5 (0.6%) exact matches, in which:  
5 unique CDR3  
2 unique J



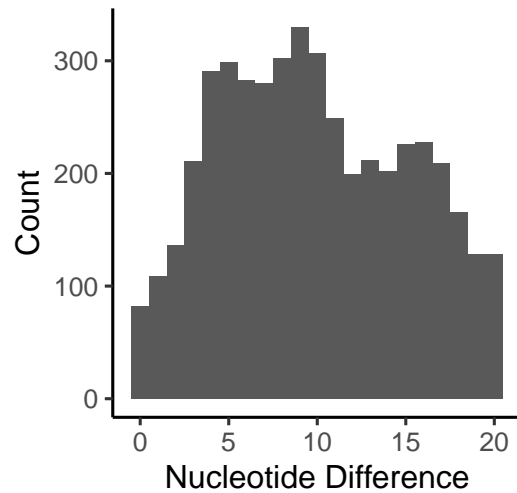
### IGHV3-15\*01\_02

1012 sequences assigned  
17 (1.7%) exact matches, in which:  
14 unique CDR3  
4 unique J



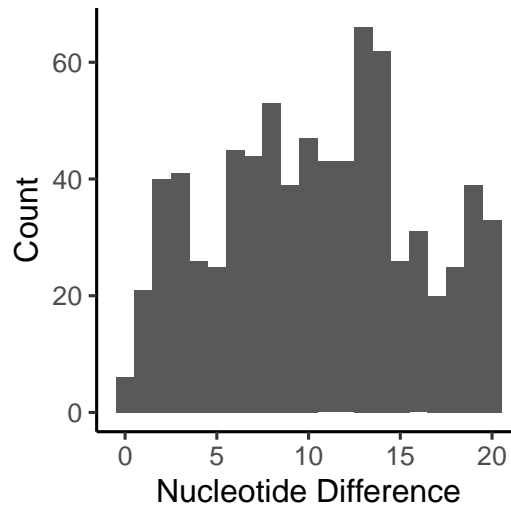
### IGHV3-11\*01

5452 sequences assigned  
82 (1.5%) exact matches, in which:  
68 unique CDR3  
6 unique J



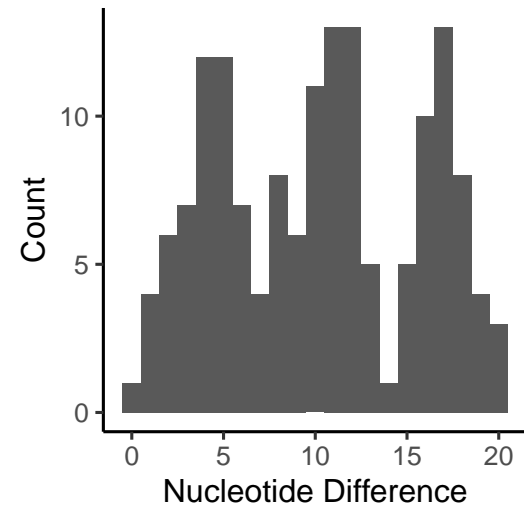
### IGHV3-13\*01

957 sequences assigned  
6 (0.6%) exact matches, in which:  
6 unique CDR3  
4 unique J



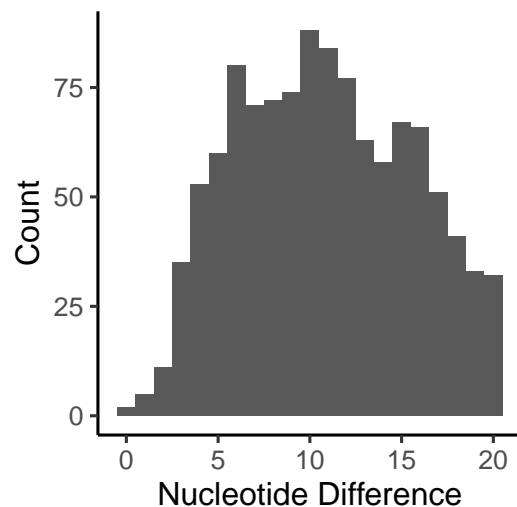
### IGHV3-20\*01\_02

163 sequences assigned  
1 (0.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



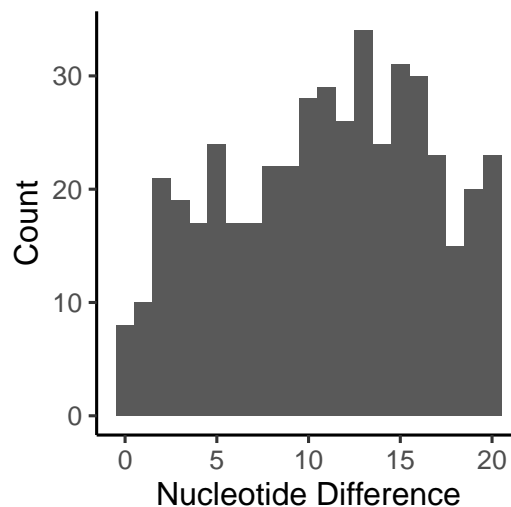
### IGHV3-11\*04

1278 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
2 unique J



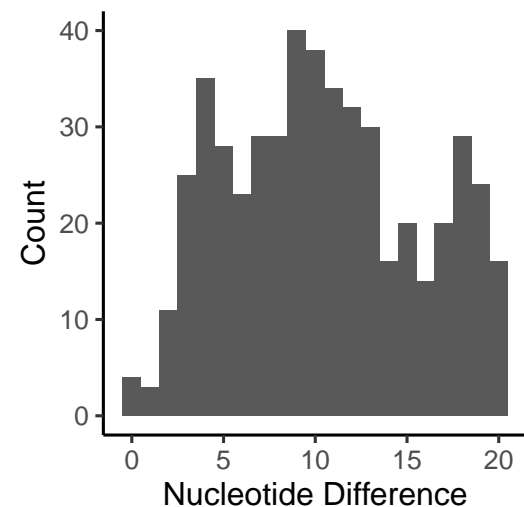
### IGHV3-15\*07

616 sequences assigned  
8 (1.3%) exact matches, in which:  
8 unique CDR3  
2 unique J



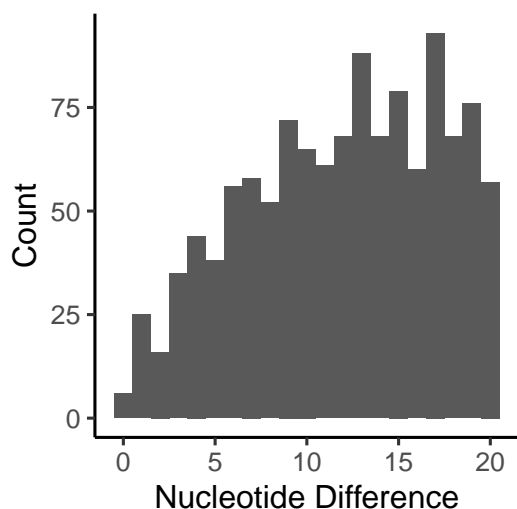
### IGHV3-20\*03\_04

619 sequences assigned  
4 (0.6%) exact matches, in which:  
3 unique CDR3  
2 unique J



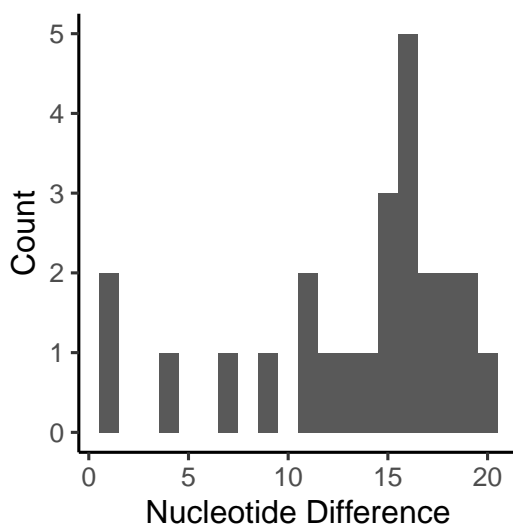
### IGHV3-21\*04

1445 sequences assigned  
6 (0.4%) exact matches, in which:  
6 unique CDR3  
2 unique J



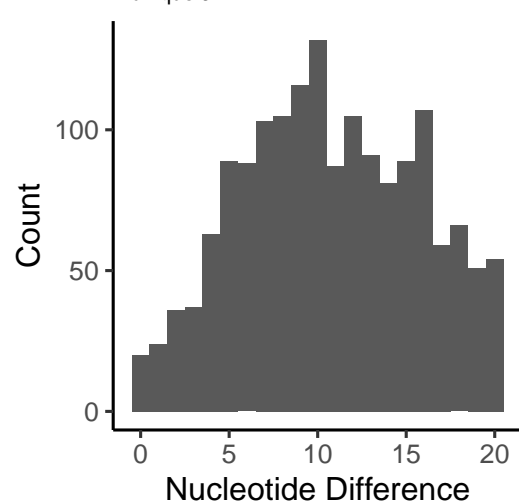
### IGHV3-30-3\*03

44 sequences assigned  
No exact matches.



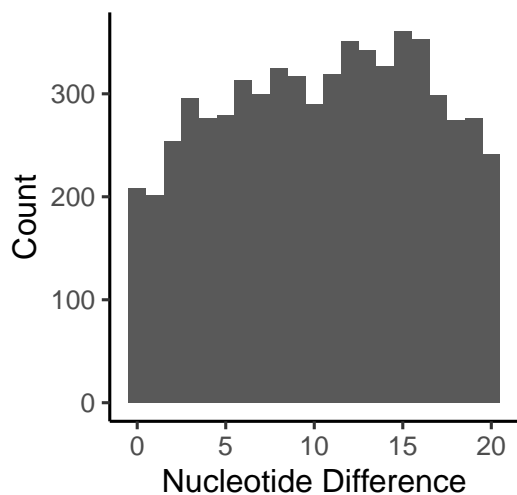
### IGHV3-33\*06

1866 sequences assigned  
20 (1.1%) exact matches, in which:  
18 unique CDR3  
4 unique J



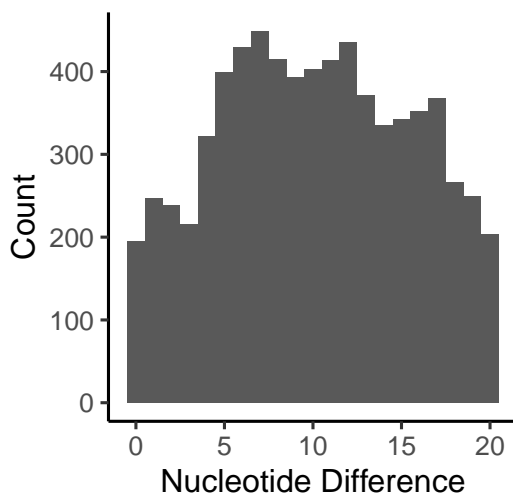
### IGHV3-21\*01\_02

7561 sequences assigned  
208 (2.8%) exact matches, in which:  
170 unique CDR3  
6 unique J



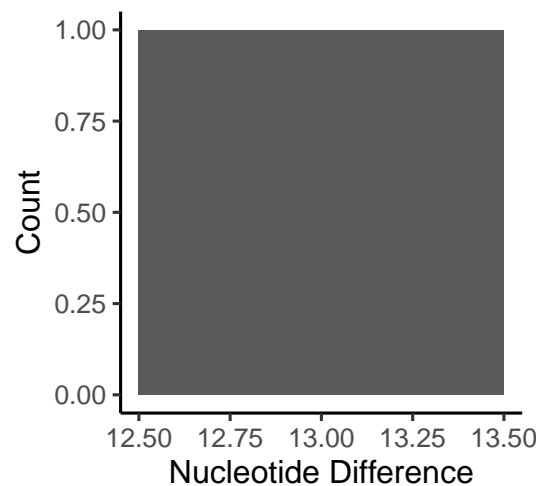
### IGHV3-33\*01

8224 sequences assigned  
195 (2.4%) exact matches, in which:  
146 unique CDR3  
6 unique J



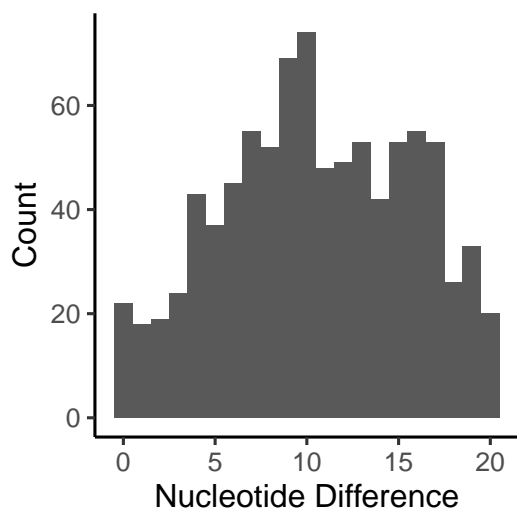
### IGHV3-35\*01

1 sequences assigned  
No exact matches.



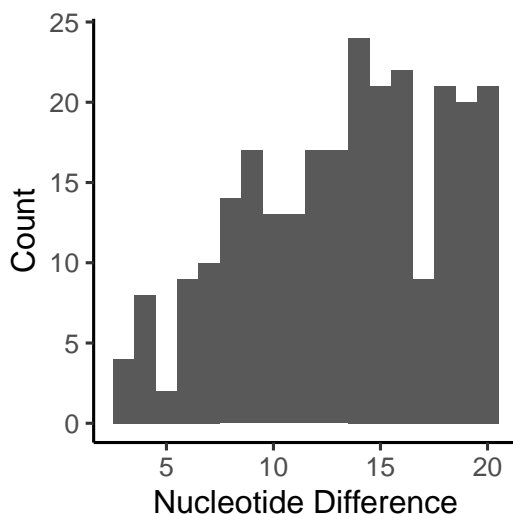
### IGHV3-30\*03

1108 sequences assigned  
22 (2%) exact matches, in which:  
22 unique CDR3  
4 unique J



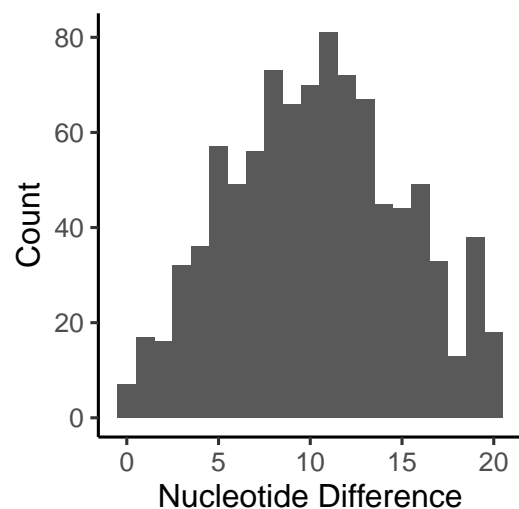
### IGHV3-33\*05

697 sequences assigned  
No exact matches.



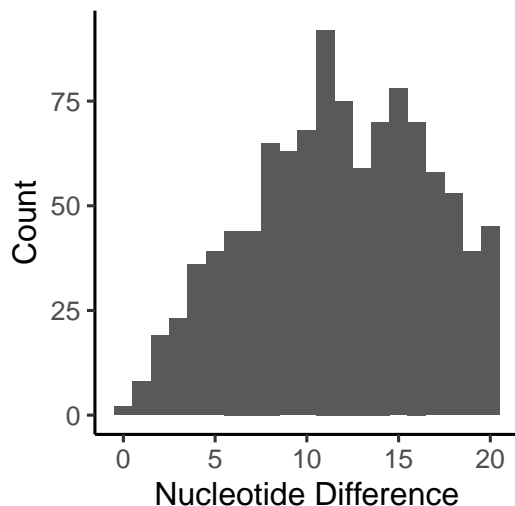
### IGHV3-43\*01

1137 sequences assigned  
7 (0.6%) exact matches, in which:  
6 unique CDR3  
2 unique J



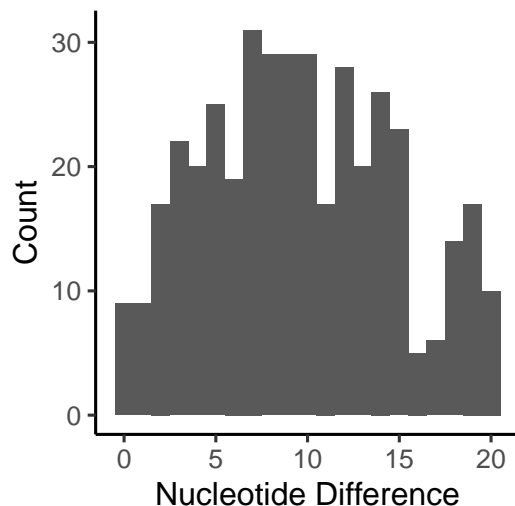
### IGHV3-48\*01

1243 sequences assigned  
2 (0.2%) exact matches, in which:  
2 unique CDR3  
2 unique J



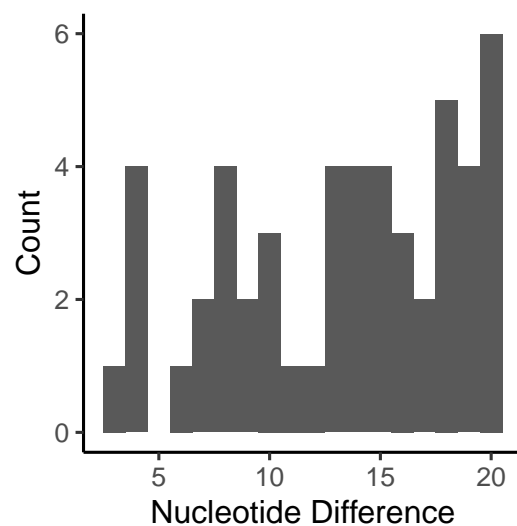
### IGHV3-49\*03\_05

479 sequences assigned  
9 (1.9%) exact matches, in which:  
8 unique CDR3  
3 unique J



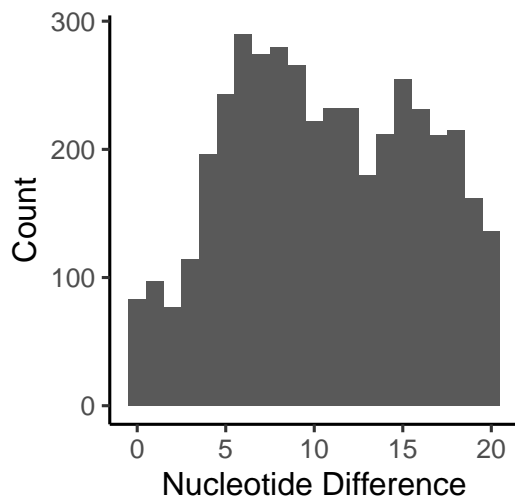
### IGHV3-53\*05

72 sequences assigned  
No exact matches.



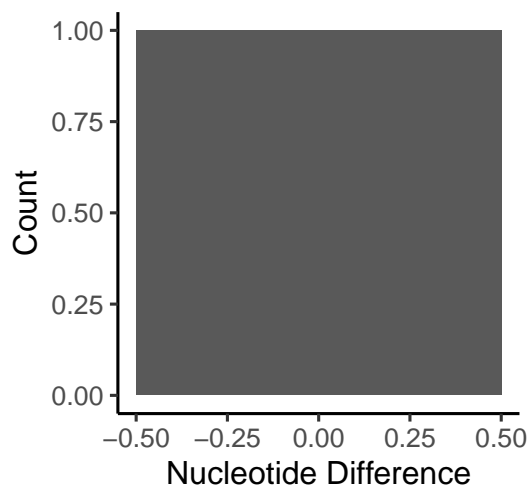
### IGHV3-48\*02

5015 sequences assigned  
83 (1.7%) exact matches, in which:  
71 unique CDR3  
4 unique J



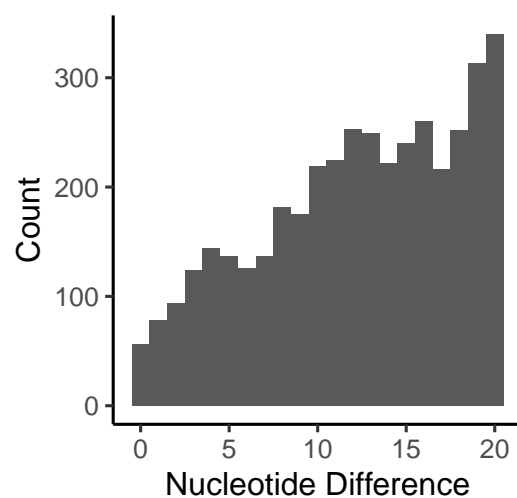
### IGHV3-52\*02

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



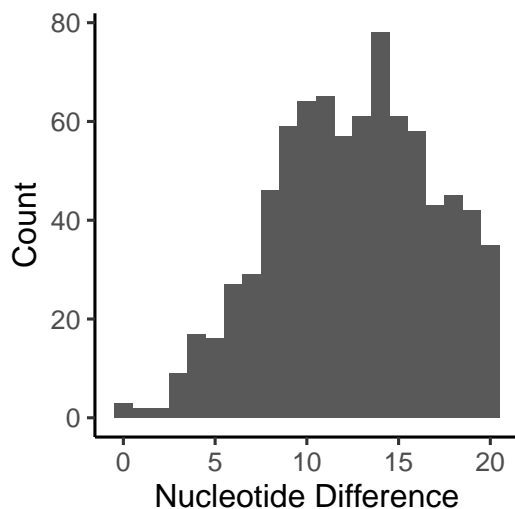
### IGHV3-53\*01\_02

6046 sequences assigned  
56 (0.9%) exact matches, in which:  
49 unique CDR3  
5 unique J



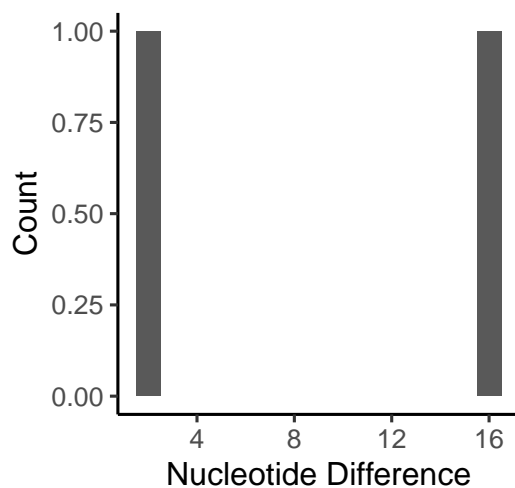
### IGHV3-48\*04

1029 sequences assigned  
3 (0.3%) exact matches, in which:  
3 unique CDR3  
3 unique J



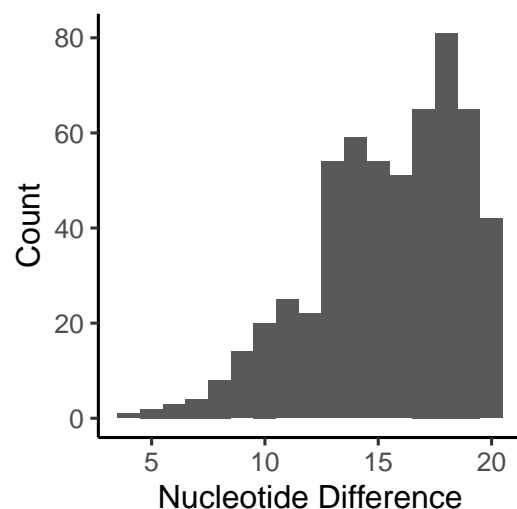
### IGHV3-52\*01\_03

2 sequences assigned  
No exact matches.



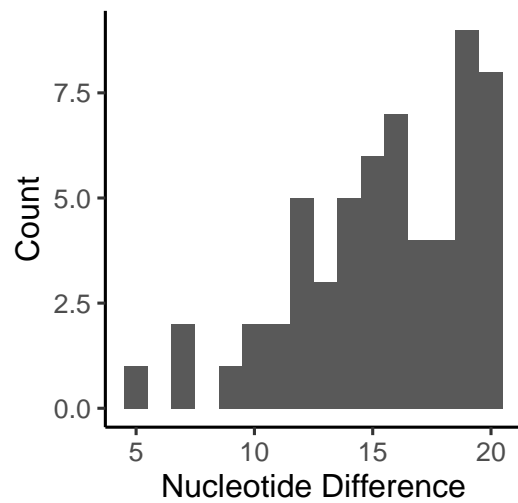
### IGHV3-64\*04

739 sequences assigned  
No exact matches.



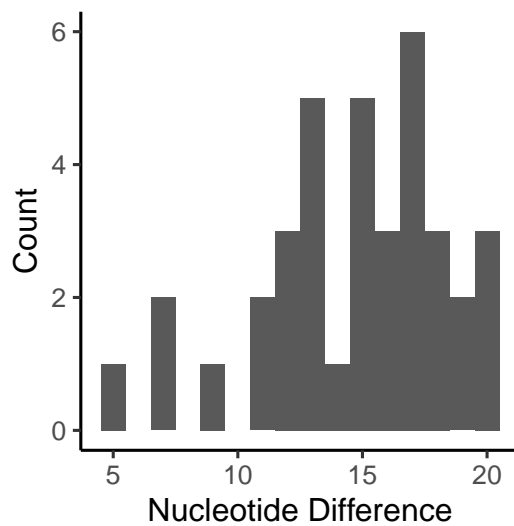
### IGHV3-66\*01

92 sequences assigned  
No exact matches.



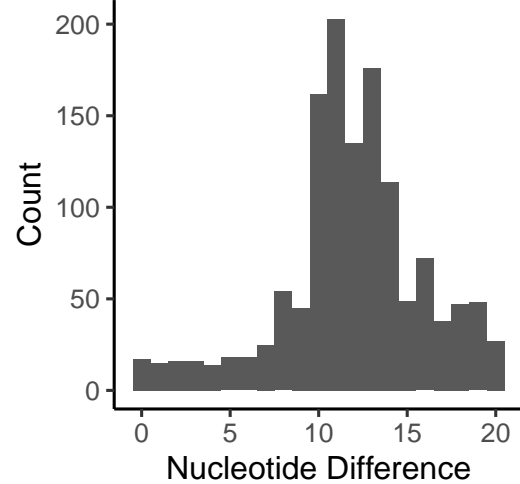
### IGHV3-69-1\*01

82 sequences assigned  
No exact matches.



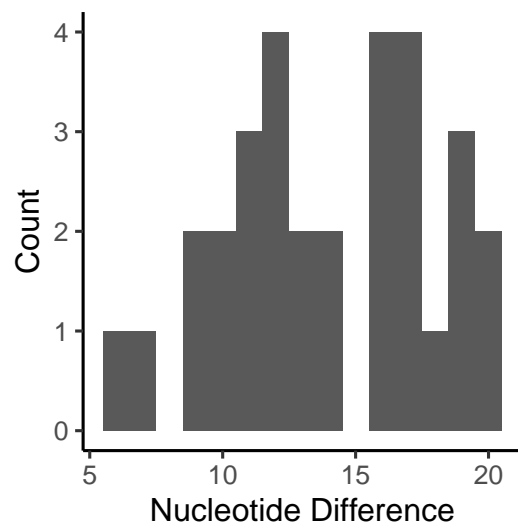
### IGHV3-73\*01\_02

1406 sequences assigned  
17 (1.2%) exact matches, in which:  
10 unique CDR3  
2 unique J



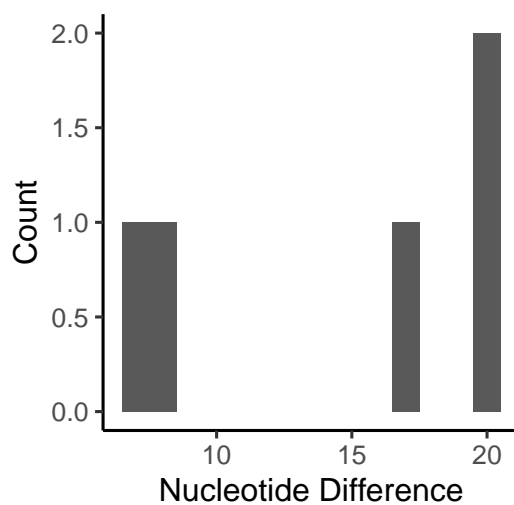
### IGHV3-66\*02

51 sequences assigned  
No exact matches.



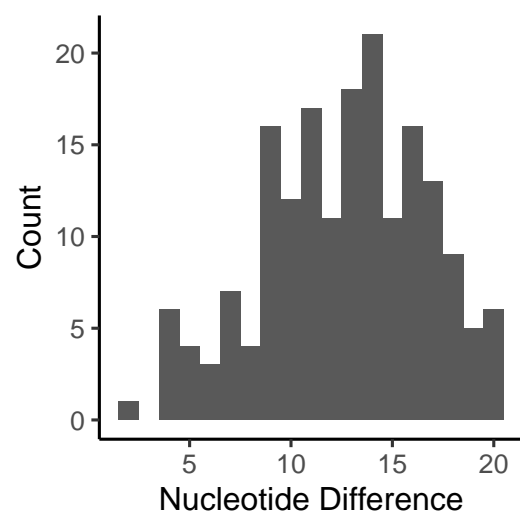
### IGHV3-69-1\*02

14 sequences assigned  
No exact matches.



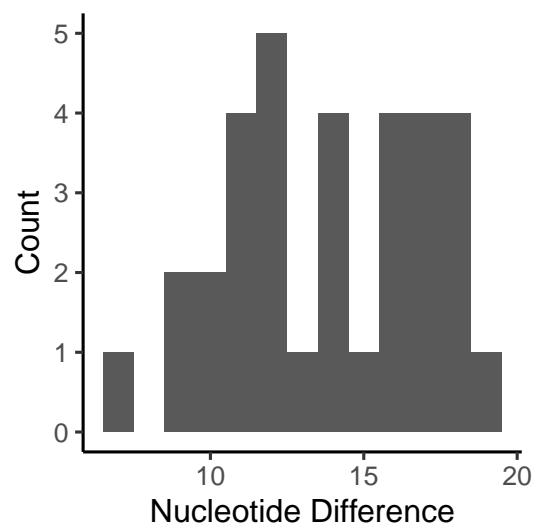
### IGHV3-74\*03

617 sequences assigned  
No exact matches.



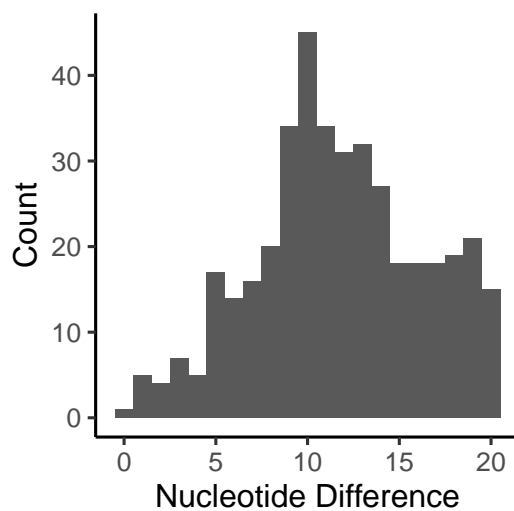
### IGHV3-66\*03

42 sequences assigned  
No exact matches.



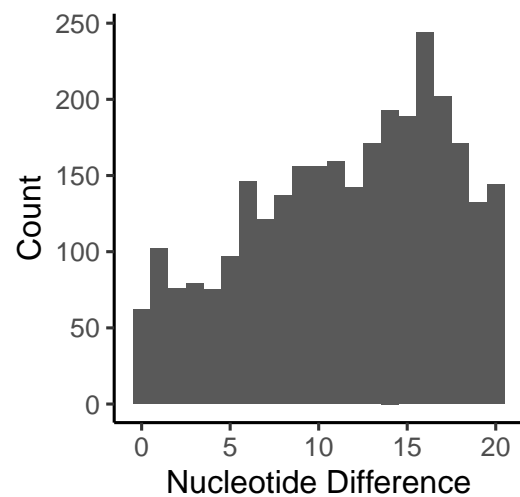
### IGHV3-72\*01

476 sequences assigned  
1 (0.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



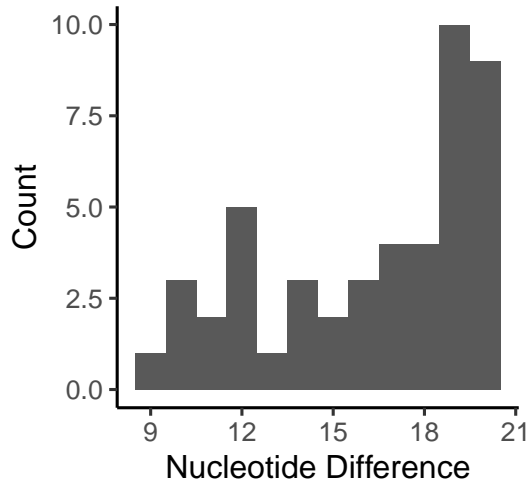
### IGHV3-74\*01\_02

3571 sequences assigned  
62 (1.7%) exact matches, in which:  
52 unique CDR3  
6 unique J



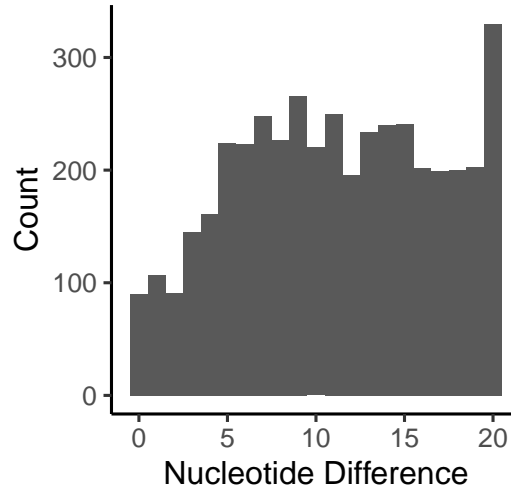
### IGHV3-43D\*04

70 sequences assigned  
No exact matches.



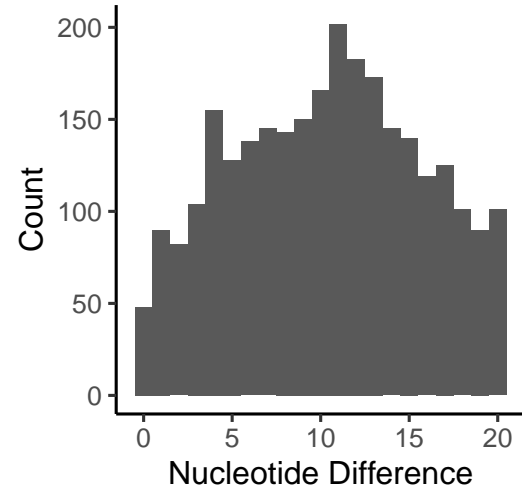
### IGHV4-4\*07

6333 sequences assigned  
90 (1.4%) exact matches, in which:  
74 unique CDR3  
5 unique J



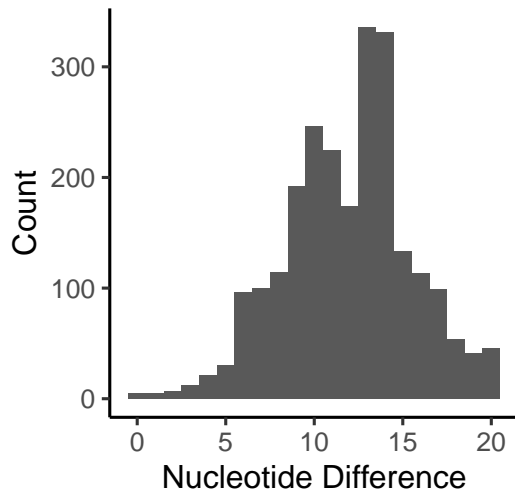
### IGHV4-30-4\*01

4417 sequences assigned  
48 (1.1%) exact matches, in which:  
34 unique CDR3  
4 unique J



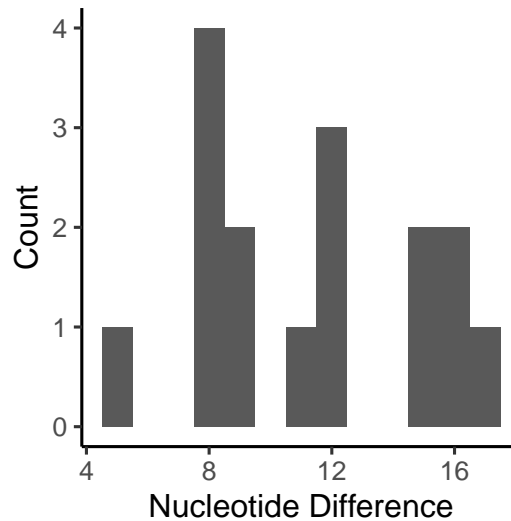
### IGHV3-64D\*08

2573 sequences assigned  
5 (0.2%) exact matches, in which:  
4 unique CDR3  
2 unique J



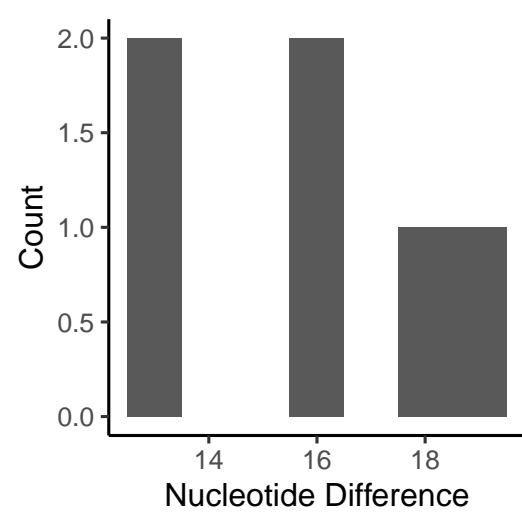
### IGHV4-28\*03

24 sequences assigned  
No exact matches.



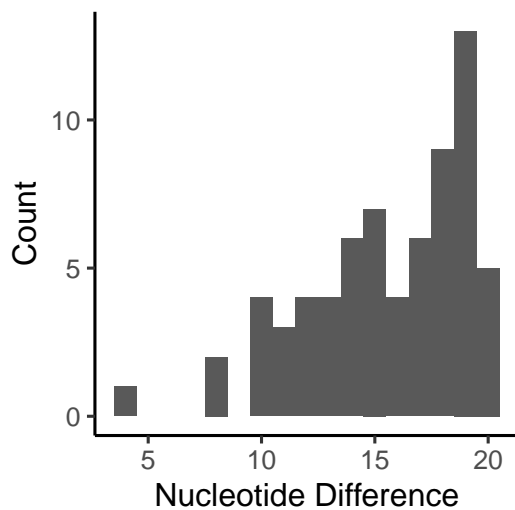
### IGHV4-30-2\*01

13 sequences assigned  
No exact matches.



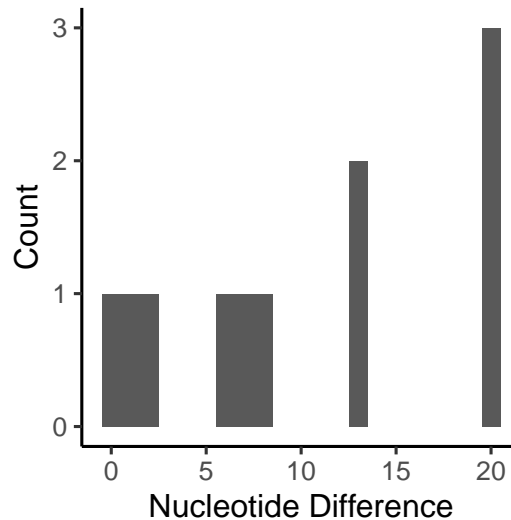
### IGHV3-NL1\*01

129 sequences assigned  
No exact matches.



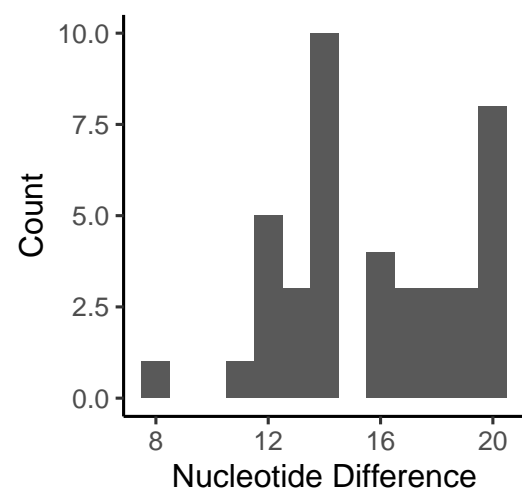
### IGHV4-28\*01\_07

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



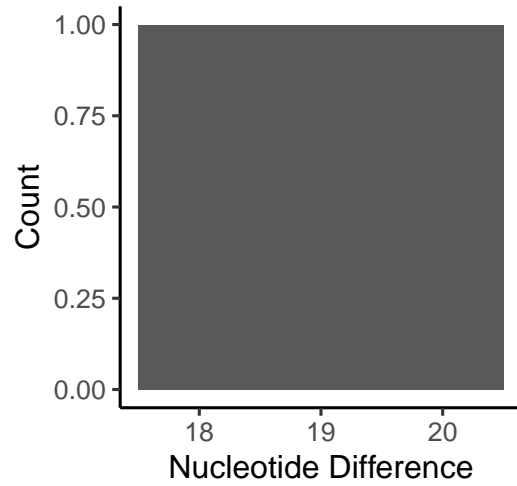
### IGHV4-30-2\*03

65 sequences assigned  
No exact matches.



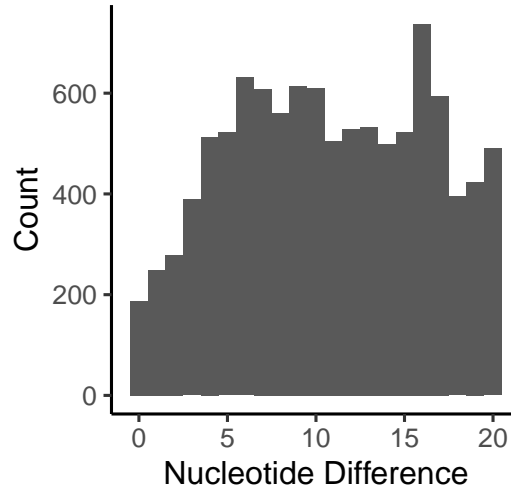
### IGHV4-30-2\*06

12 sequences assigned  
No exact matches.



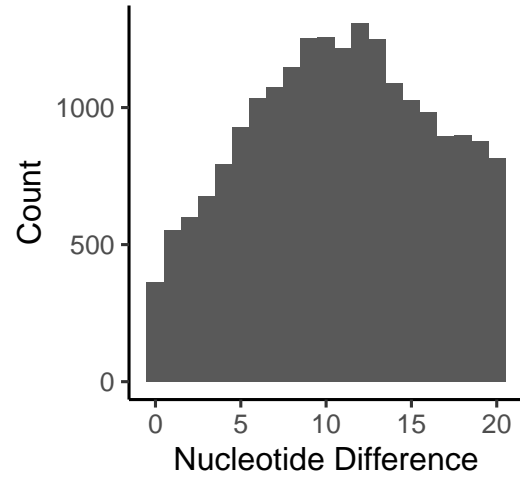
### IGHV4-34\*01\_02

12099 sequences assigned  
188 (1.6%) exact matches, in which:  
147 unique CDR3  
5 unique J



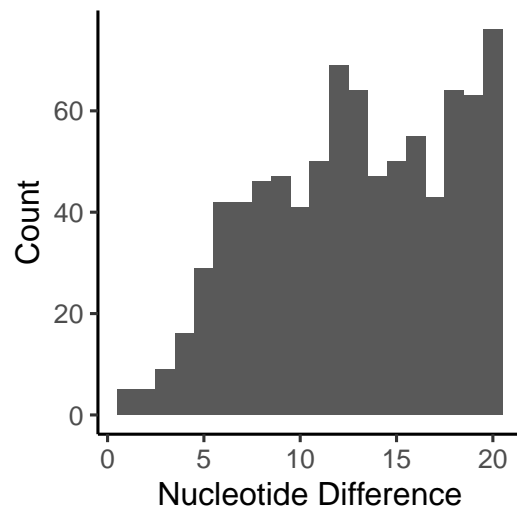
### IGHV4-39\*01\_05

26174 sequences assigned  
364 (1.4%) exact matches, in which:  
284 unique CDR3  
6 unique J



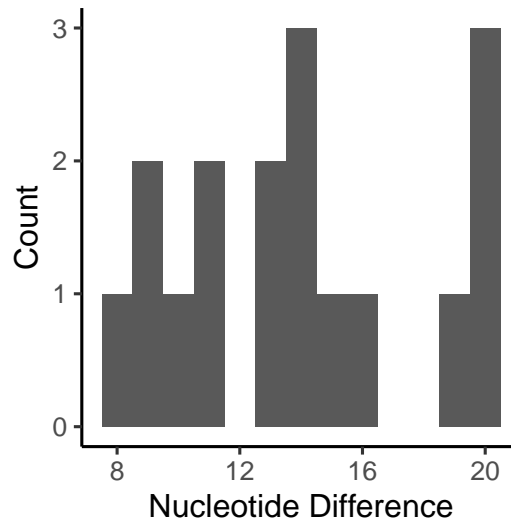
### IGHV4-30-4\*08

1351 sequences assigned  
No exact matches.



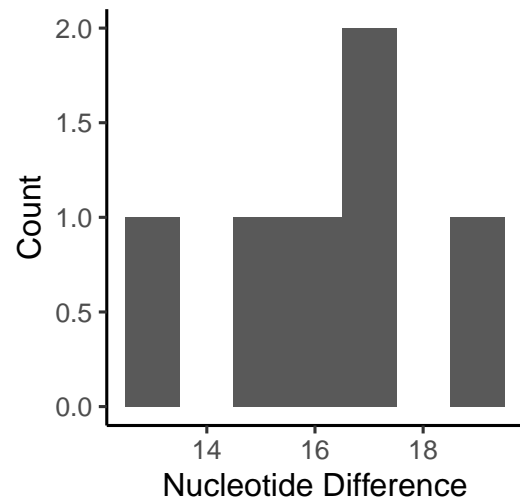
### IGHV4-38-2\*02

42 sequences assigned  
No exact matches.



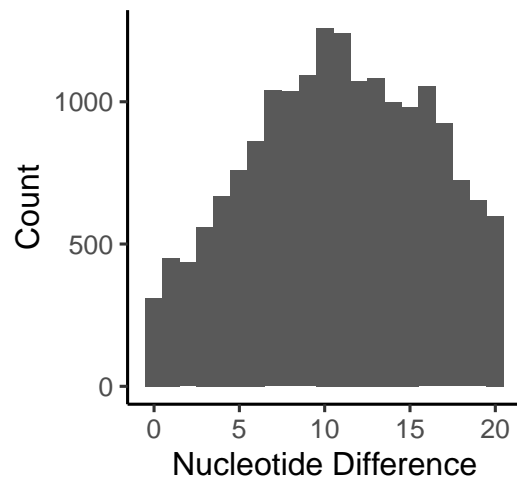
### IGHV4-55\*09

34 sequences assigned  
No exact matches.



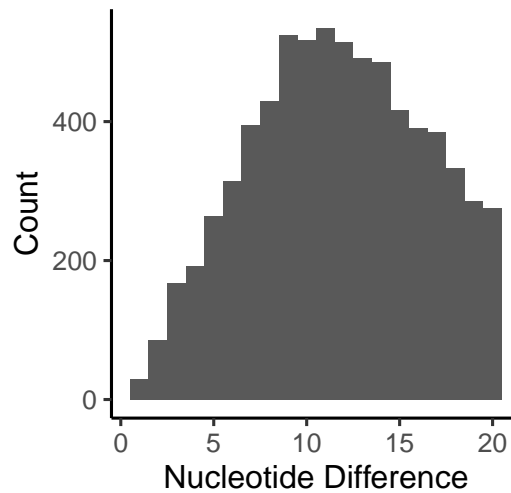
### IGHV4-31\*03\_04

22147 sequences assigned  
311 (1.4%) exact matches, in which:  
241 unique CDR3  
6 unique J



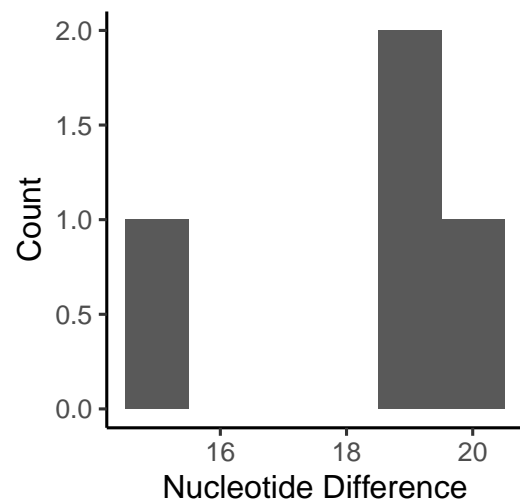
### IGHV4-39\*07

8447 sequences assigned  
No exact matches.



### IGHV4-55\*01\_05

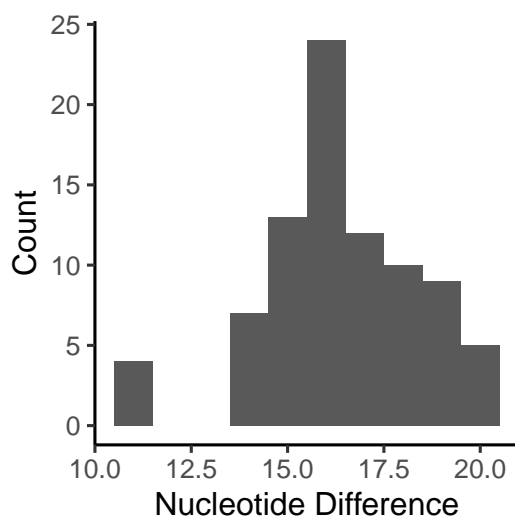
10 sequences assigned  
No exact matches.





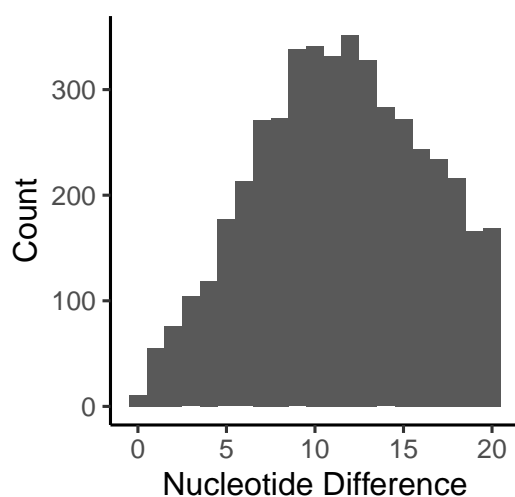
### IGHV4-55\*02\_04\_08

93 sequences assigned  
No exact matches.



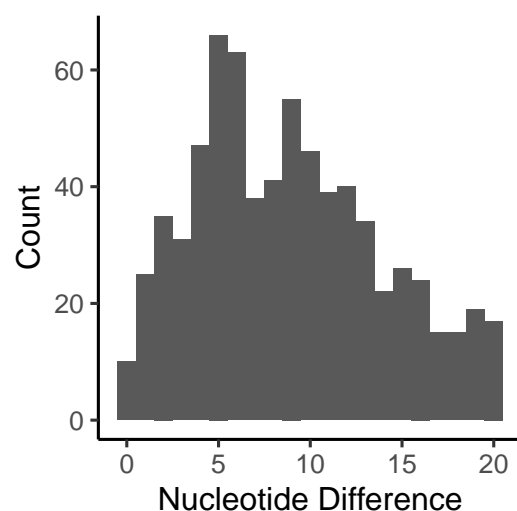
### IGHV4-59\*12

5389 sequences assigned  
11 (0.2%) exact matches, in which:  
11 unique CDR3  
4 unique J



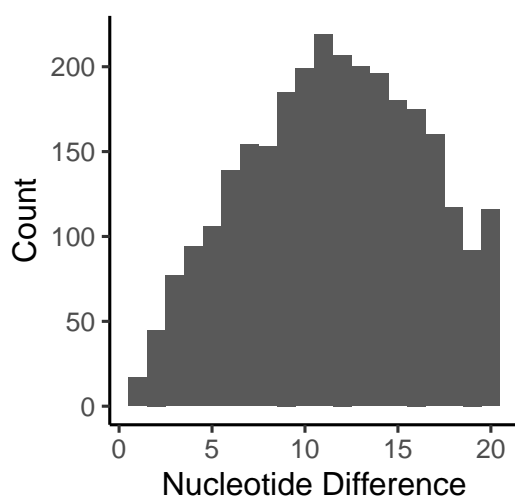
### IGHV5-10-1\*01\_03

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



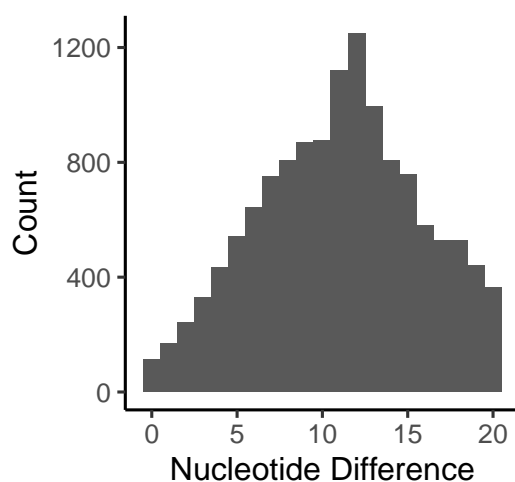
### IGHV4-59\*08

3395 sequences assigned  
No exact matches.



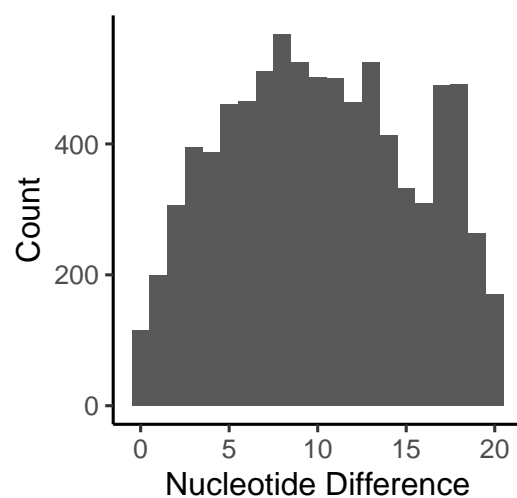
### IGHV4-61\*01

15565 sequences assigned  
112 (0.7%) exact matches, in which:  
96 unique CDR3  
6 unique J



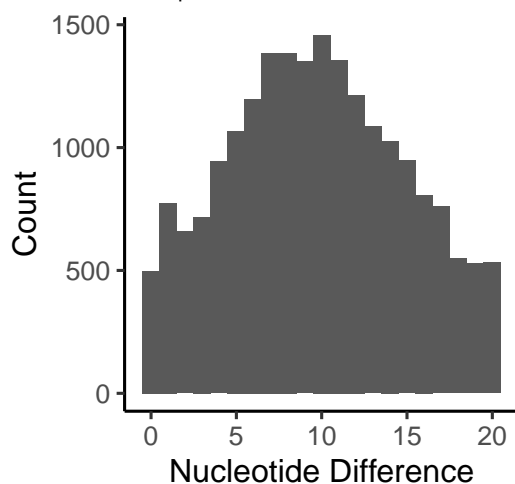
### IGHV5-51\*01\_03

9129 sequences assigned  
116 (1.3%) exact matches, in which:  
100 unique CDR3  
6 unique J



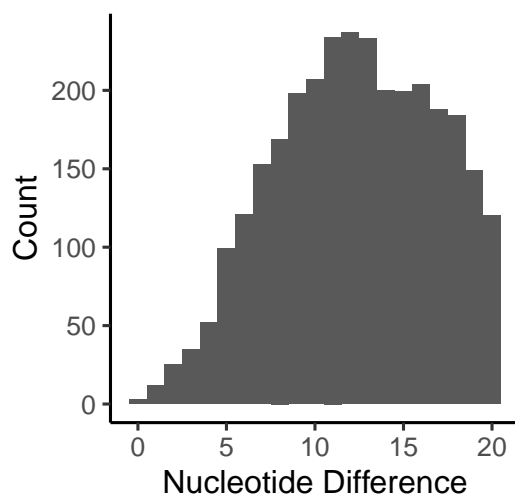
### IGHV4-59\*01\_07

23921 sequences assigned  
497 (2.1%) exact matches, in which:  
382 unique CDR3  
6 unique J



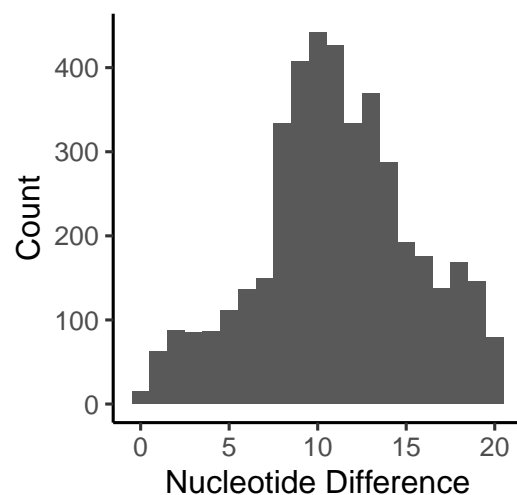
### IGHV4-61\*08

3806 sequences assigned  
3 (0.1%) exact matches, in which:  
3 unique CDR3  
3 unique J



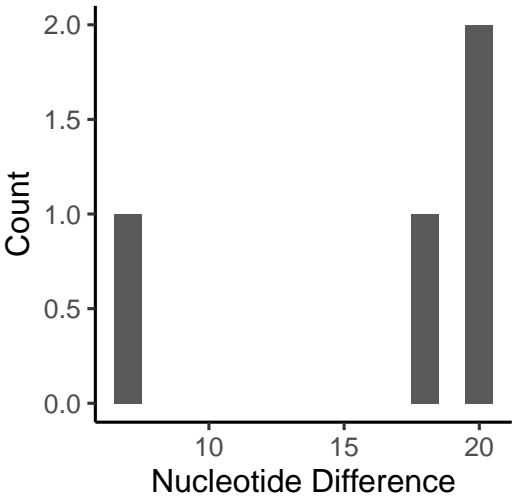
### IGHV6-1\*01\_02

4958 sequences assigned  
15 (0.3%) exact matches, in which:  
13 unique CDR3  
4 unique J



IGHV7-4-1\*02

51 sequences assigned  
No exact matches.





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.