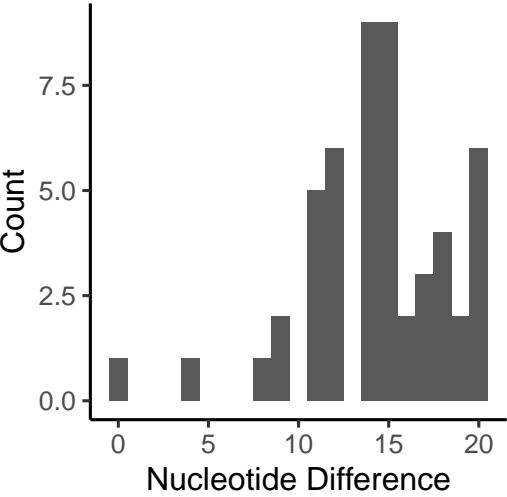


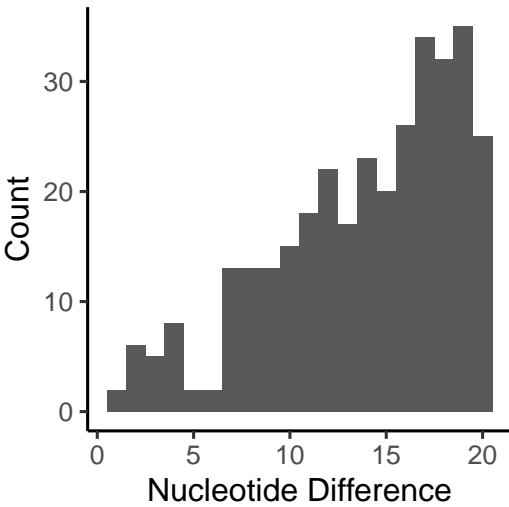
IGHV1-2\*02

134 sequences assigned  
1 (0.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



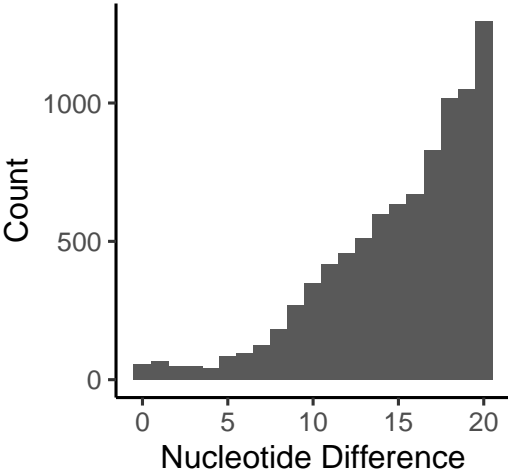
IGHV1-3\*01\_05

653 sequences assigned  
No exact matches.



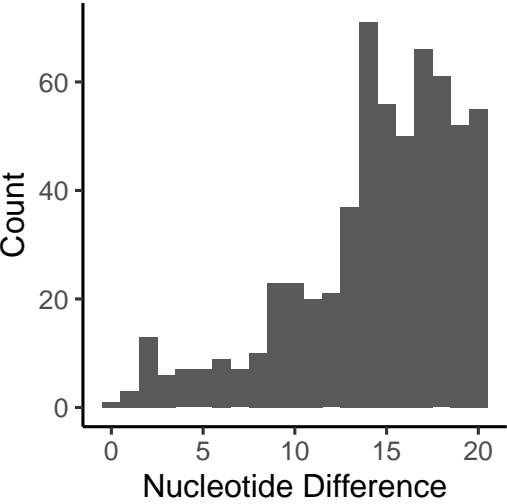
IGHV1-18\*01

17924 sequences assigned  
57 (0.3%) exact matches, in which:  
38 unique CDR3  
3 unique J



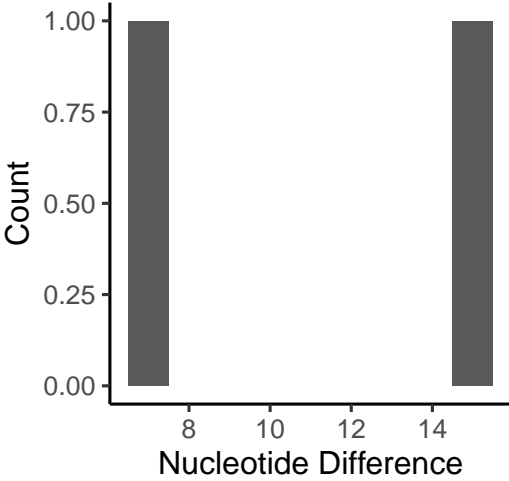
IGHV1-2\*04

890 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



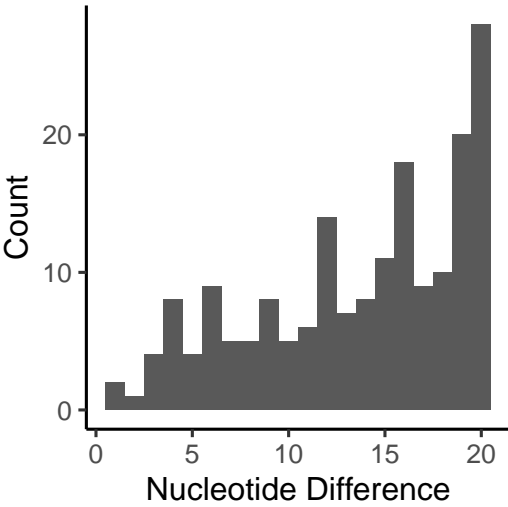
IGHV1-8\*01

2 sequences assigned  
No exact matches.



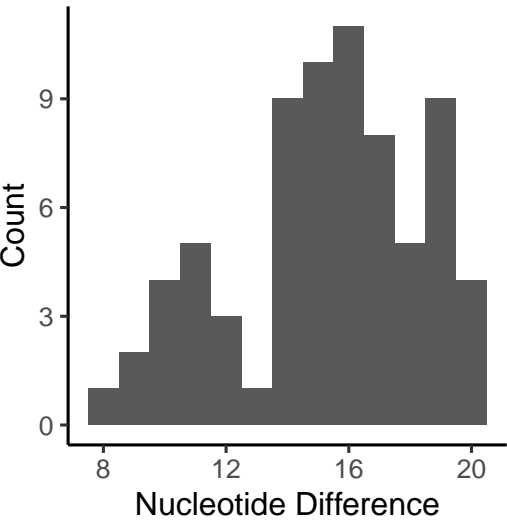
IGHV1-24\*01

287 sequences assigned  
No exact matches.



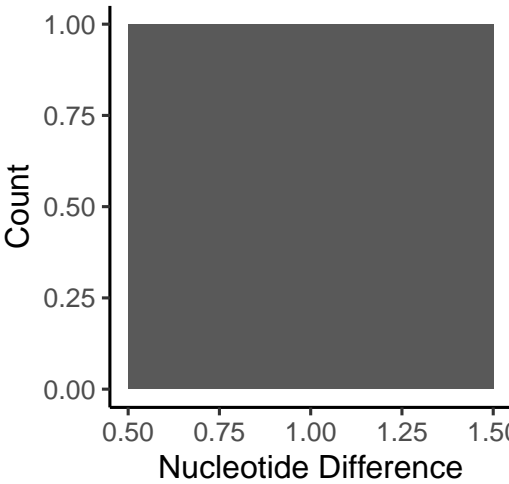
IGHV1-3\*04

178 sequences assigned  
No exact matches.



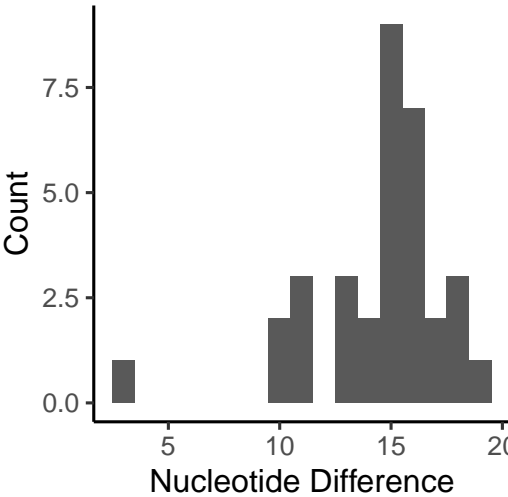
IGHV1-8\*03

1 sequences assigned  
No exact matches.



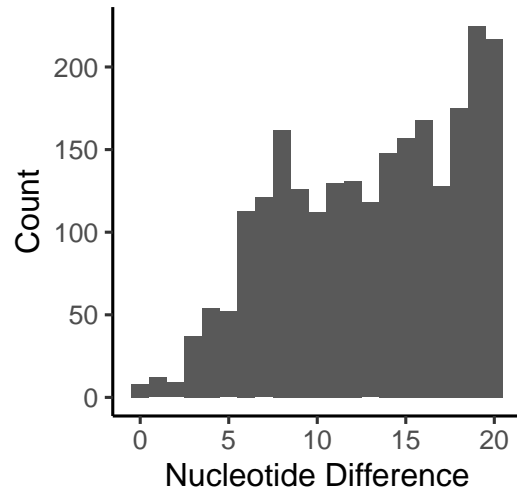
IGHV1-45\*02

85 sequences assigned  
No exact matches.



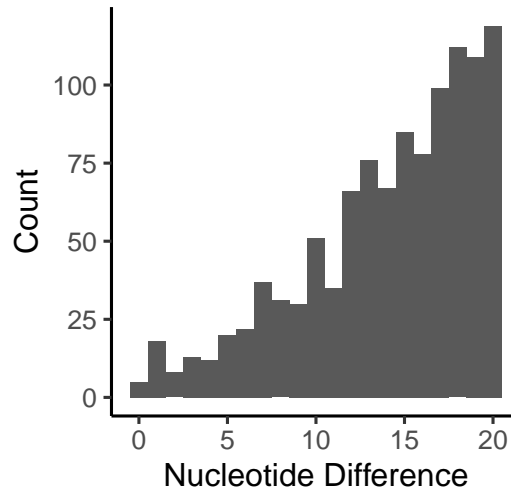
### IGHV1-46\*01

4172 sequences assigned  
8 (0.2%) exact matches, in which:  
6 unique CDR3  
3 unique J



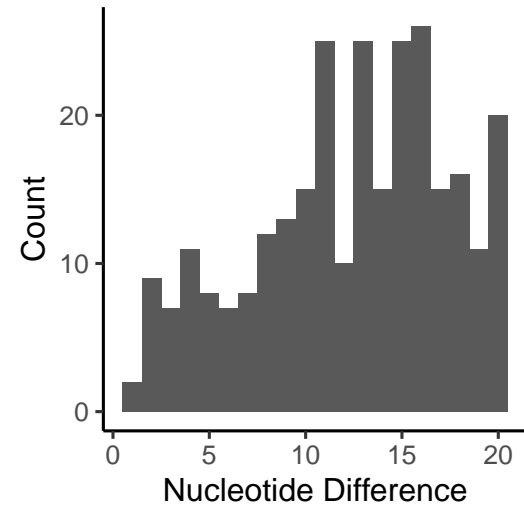
### IGHV1-69\*04\_09

3136 sequences assigned  
5 (0.2%) exact matches, in which:  
4 unique CDR3  
2 unique J



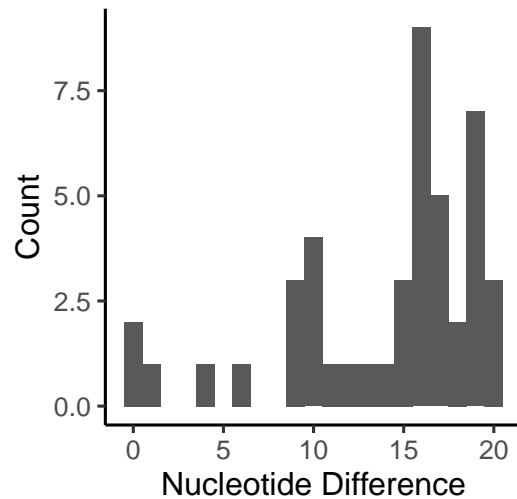
### IGHV2-70\*11\_15

395 sequences assigned  
No exact matches.



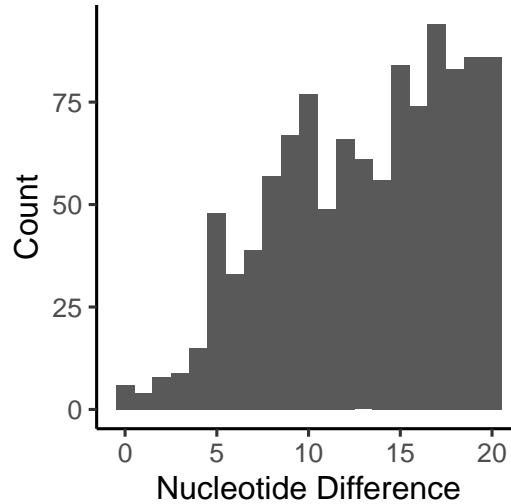
### IGHV1-58\*02

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



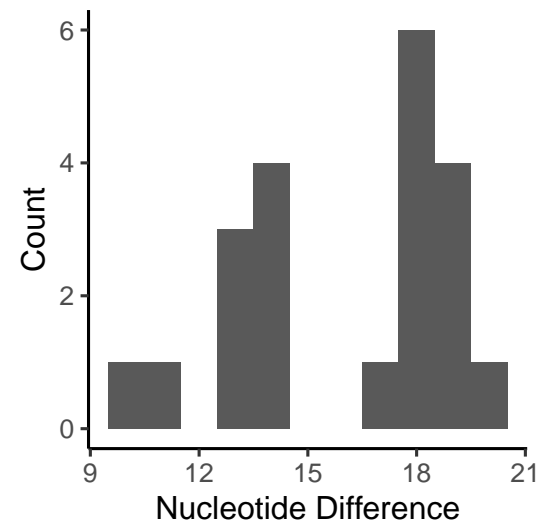
### IGHV2-5\*02

1575 sequences assigned  
6 (0.4%) exact matches, in which:  
5 unique CDR3  
2 unique J



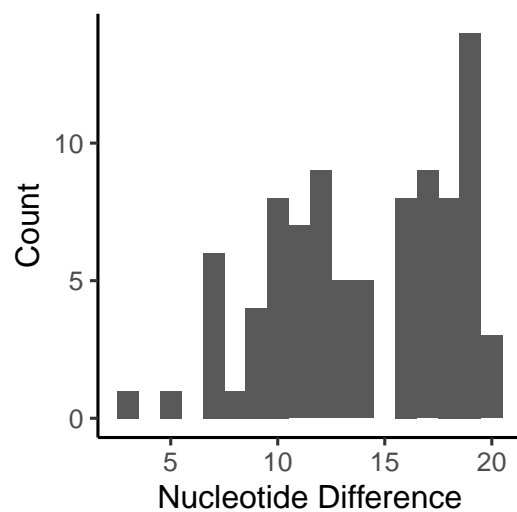
### IGHV2-70D\*04

30 sequences assigned  
No exact matches.



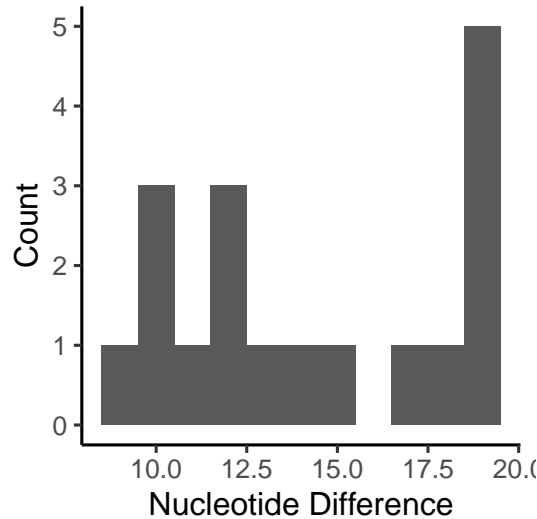
### IGHV1-58\*01\_03

161 sequences assigned  
No exact matches.



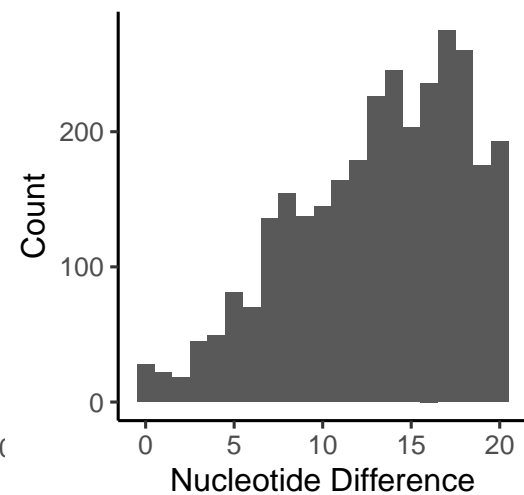
### IGHV2-26\*01

30 sequences assigned  
No exact matches.



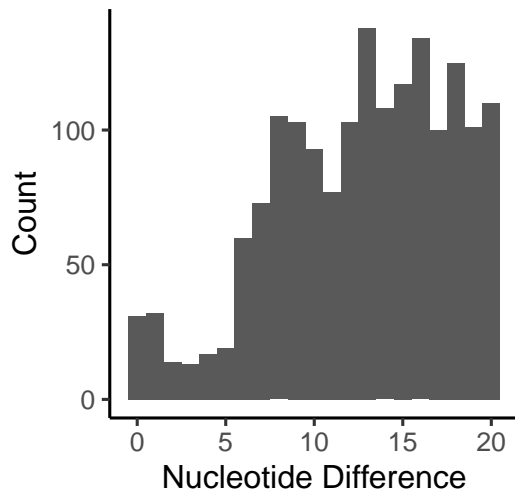
### IGHV3-7\*03

4696 sequences assigned  
28 (0.6%) exact matches, in which:  
21 unique CDR3  
2 unique J



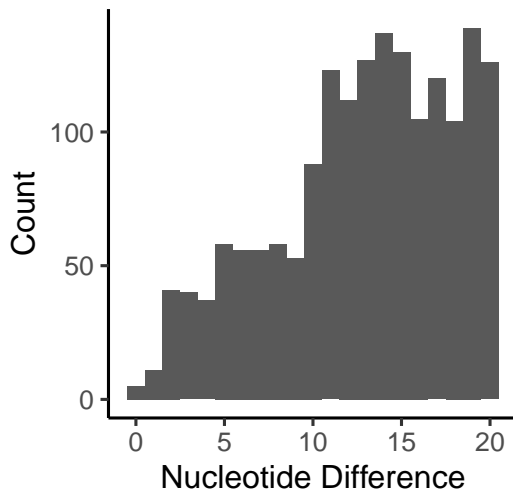
### IGHV3-7\*04

2788 sequences assigned  
31 (1.1%) exact matches, in which:  
22 unique CDR3  
3 unique J



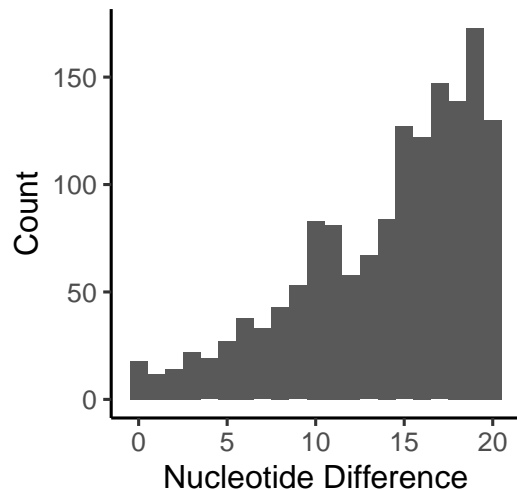
### IGHV3-11\*03\_05

3597 sequences assigned  
5 (0.1%) exact matches, in which:  
5 unique CDR3  
3 unique J



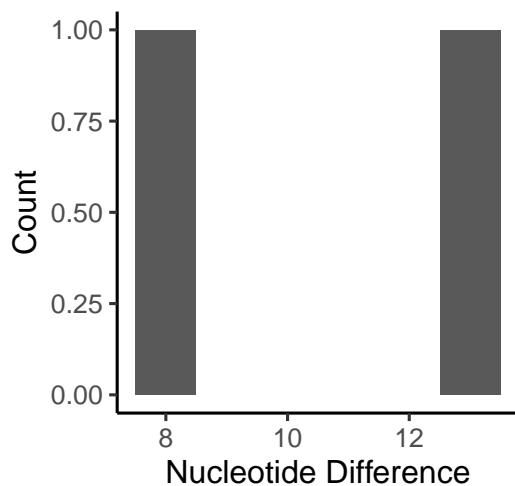
### IGHV3-15\*07

2559 sequences assigned  
18 (0.7%) exact matches, in which:  
17 unique CDR3  
3 unique J



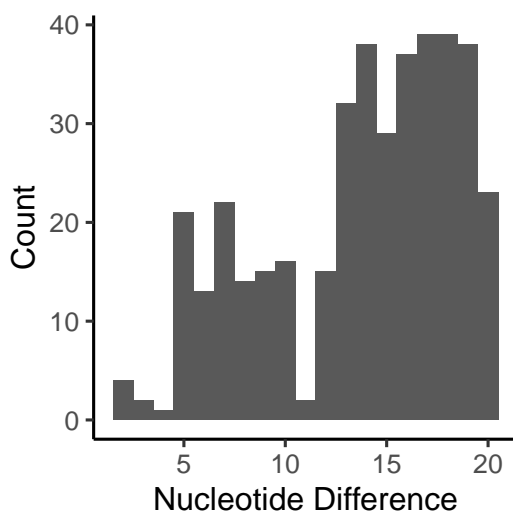
### IGHV3-9\*01

5 sequences assigned  
No exact matches.



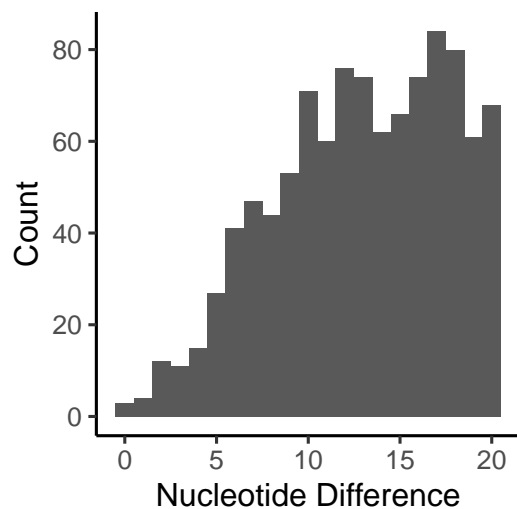
### IGHV3-13\*01

676 sequences assigned  
No exact matches.



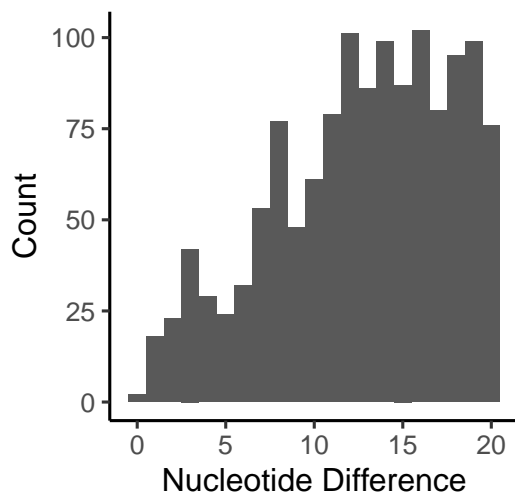
### IGHV3-15\*01\_02

1828 sequences assigned  
3 (0.2%) exact matches, in which:  
3 unique CDR3  
2 unique J



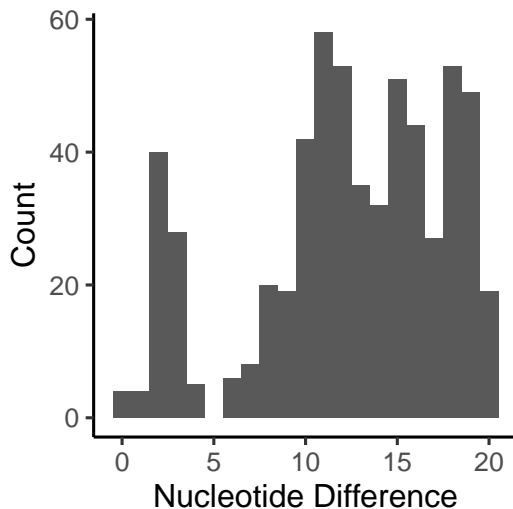
### IGHV3-11\*06

2182 sequences assigned  
2 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



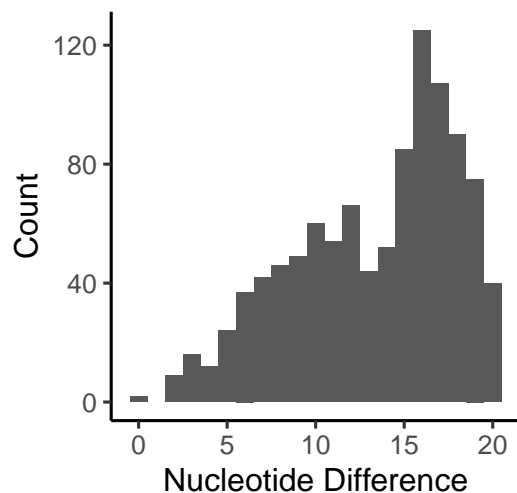
### IGHV3-13\*04

891 sequences assigned  
4 (0.4%) exact matches, in which:  
3 unique CDR3  
2 unique J



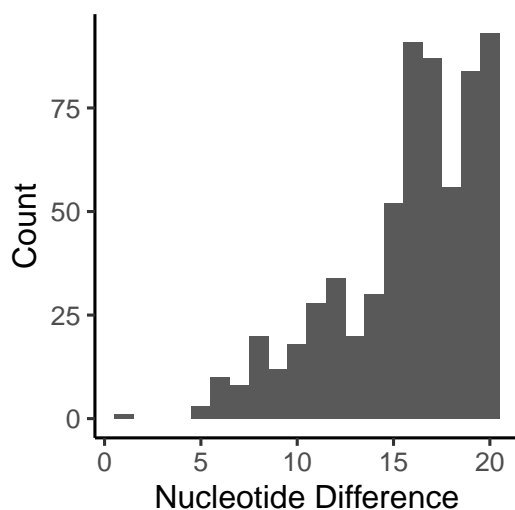
### IGHV3-20\*03\_04

1670 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
0 unique J



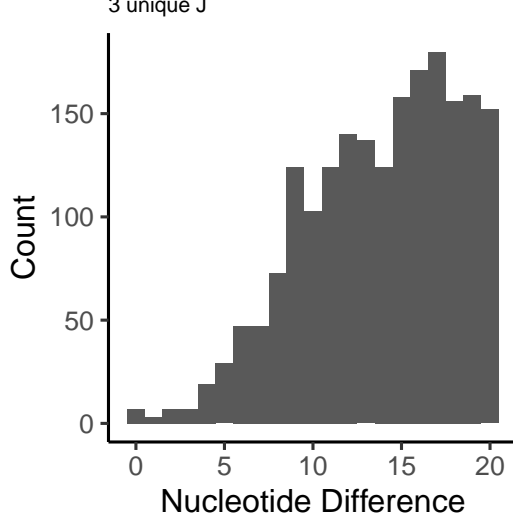
### IGHV3-21\*06

1631 sequences assigned  
No exact matches.



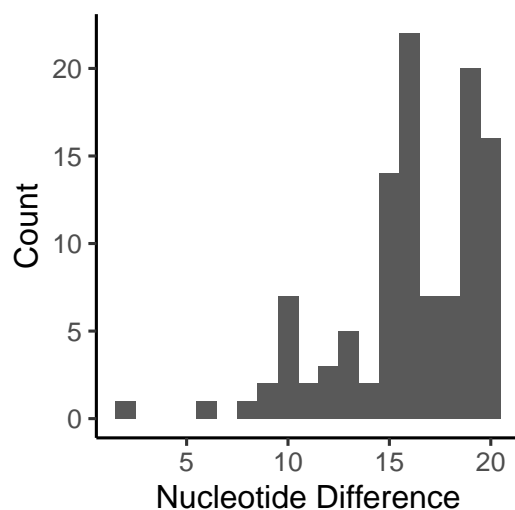
### IGHV3-30-3\*01

3483 sequences assigned  
7 (0.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



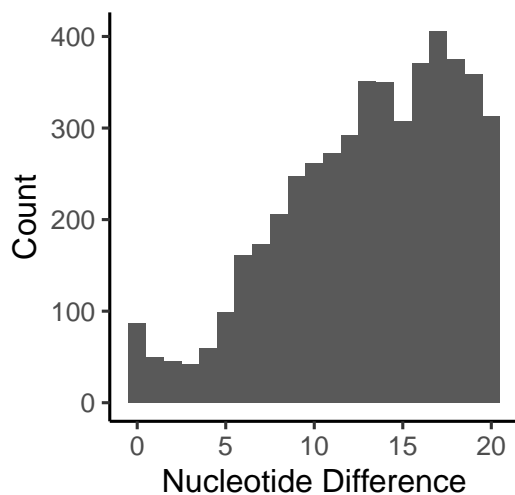
### IGHV3-33\*05

305 sequences assigned  
No exact matches.



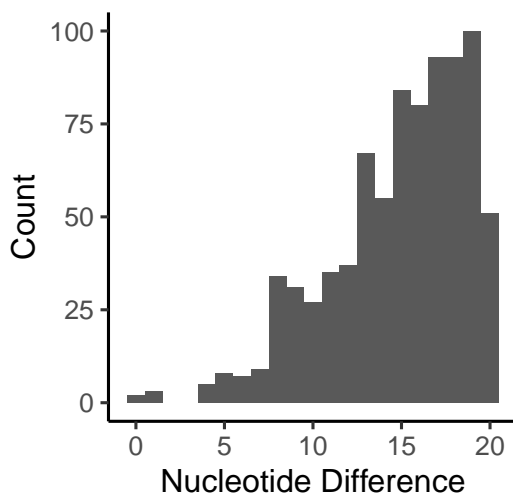
### IGHV3-21\*01\_02

7235 sequences assigned  
87 (1.2%) exact matches, in which:  
71 unique CDR3  
4 unique J



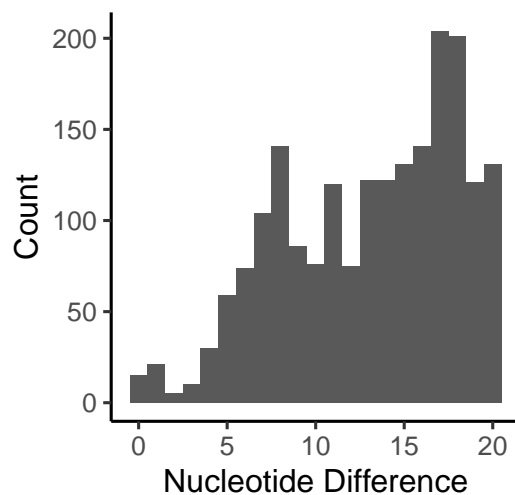
### IGHV3-30\*03

1824 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
1 unique J



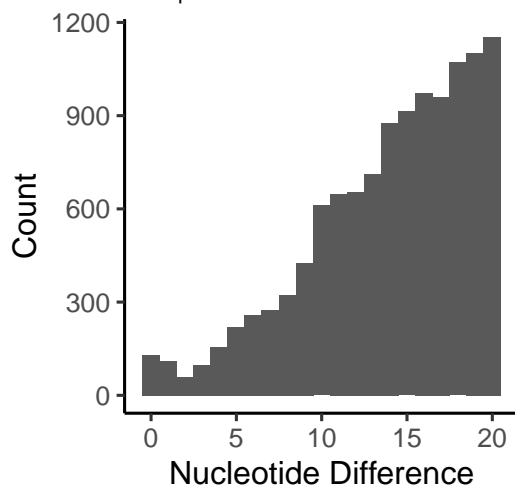
### IGHV3-43\*02

3328 sequences assigned  
15 (0.5%) exact matches, in which:  
12 unique CDR3  
2 unique J



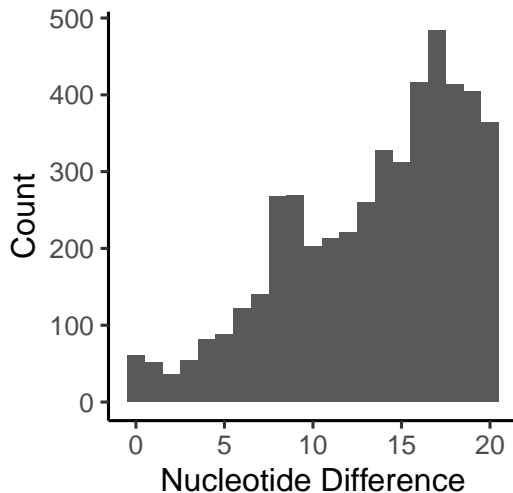
### IGHV3-23\*01\_04

22576 sequences assigned  
130 (0.6%) exact matches, in which:  
103 unique CDR3  
4 unique J



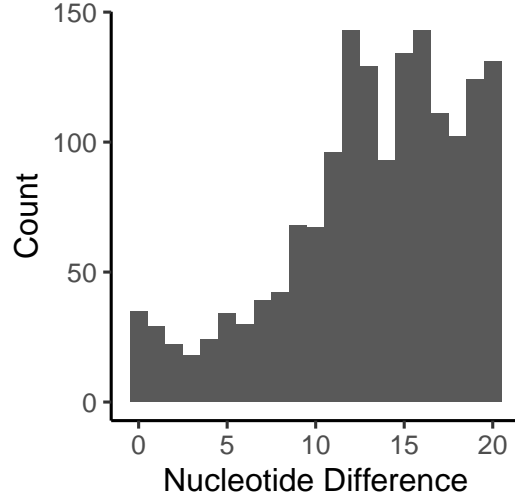
### IGHV3-33\*01

7739 sequences assigned  
60 (0.8%) exact matches, in which:  
41 unique CDR3  
3 unique J



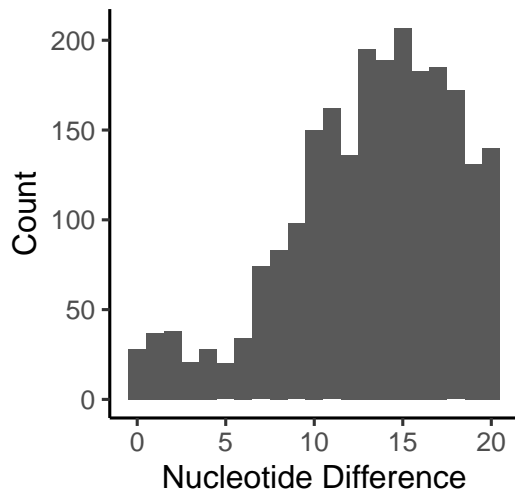
### IGHV3-48\*02

2581 sequences assigned  
35 (1.4%) exact matches, in which:  
24 unique CDR3  
2 unique J



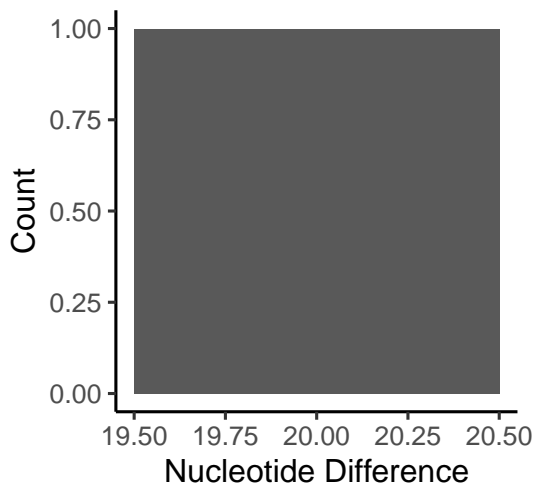
### IGHV3-48\*03

4100 sequences assigned  
28 (0.7%) exact matches, in which:  
20 unique CDR3  
4 unique J



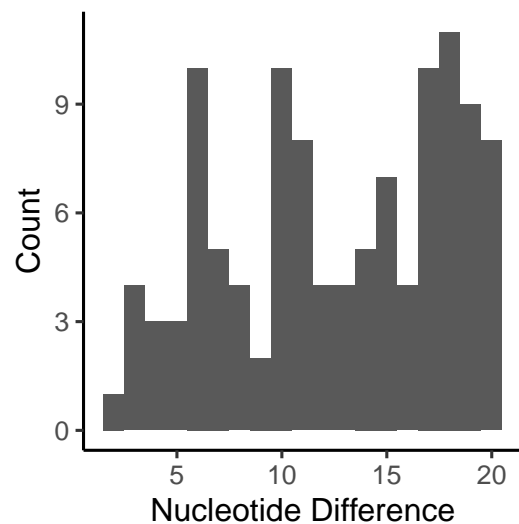
### IGHV3-52\*01\_03

1 sequences assigned  
No exact matches.



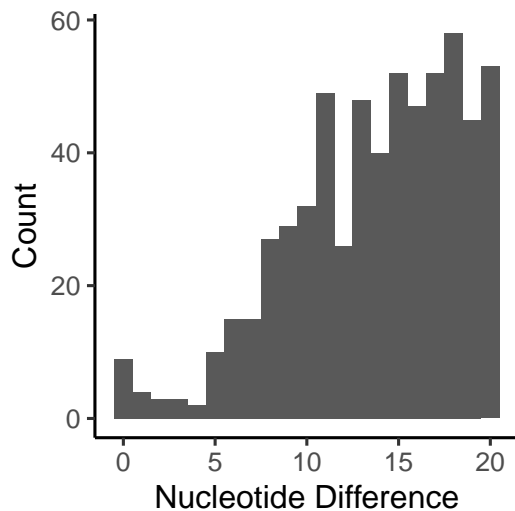
### IGHV3-64\*01

266 sequences assigned  
No exact matches.



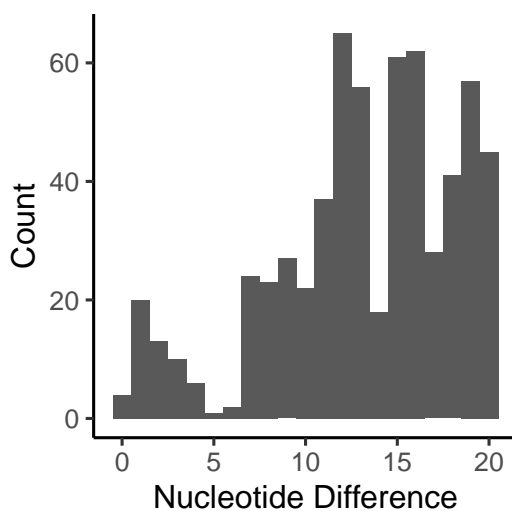
### IGHV3-49\*04

1156 sequences assigned  
9 (0.8%) exact matches, in which:  
9 unique CDR3  
2 unique J



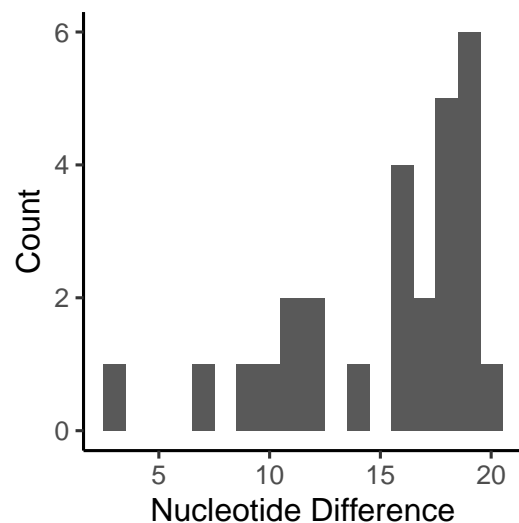
### IGHV3-53\*04

903 sequences assigned  
4 (0.4%) exact matches, in which:  
4 unique CDR3  
1 unique J



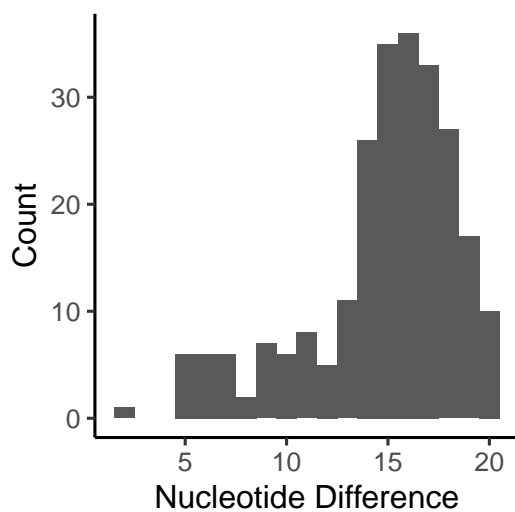
### IGHV3-64\*04

68 sequences assigned  
No exact matches.



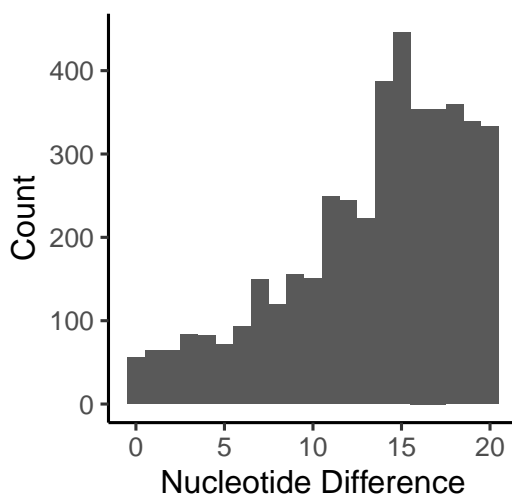
### IGHV3-49\*03\_05

497 sequences assigned  
No exact matches.



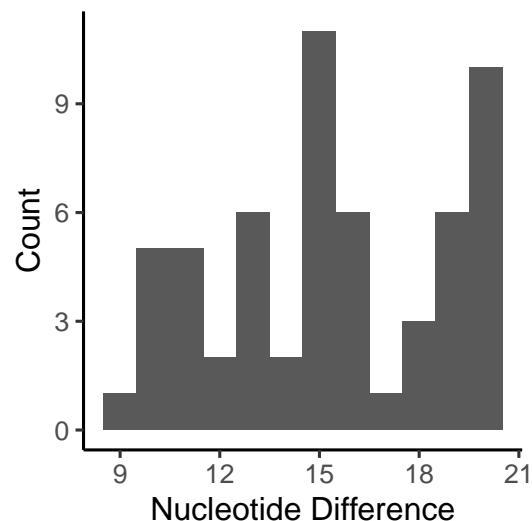
### IGHV3-53\*01\_02

7128 sequences assigned  
56 (0.8%) exact matches, in which:  
40 unique CDR3  
3 unique J



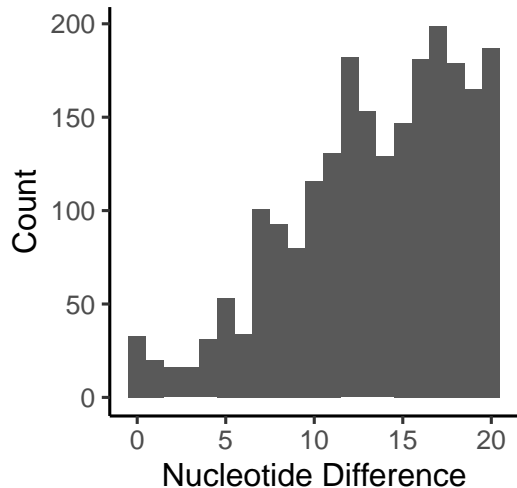
### IGHV3-64\*02\_07

140 sequences assigned  
No exact matches.



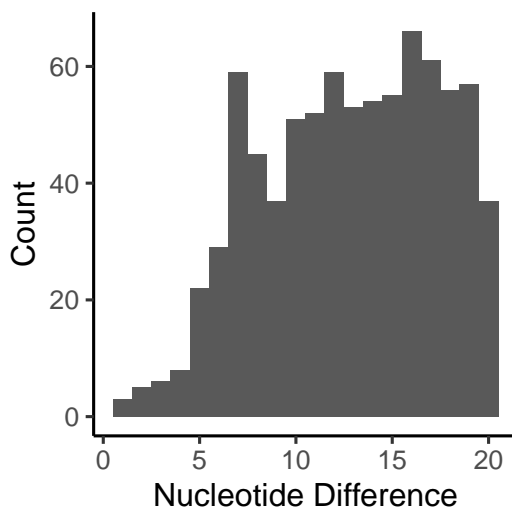
### IGHV3-66\*01

3481 sequences assigned  
33 (0.9%) exact matches, in which:  
26 unique CDR3  
4 unique J



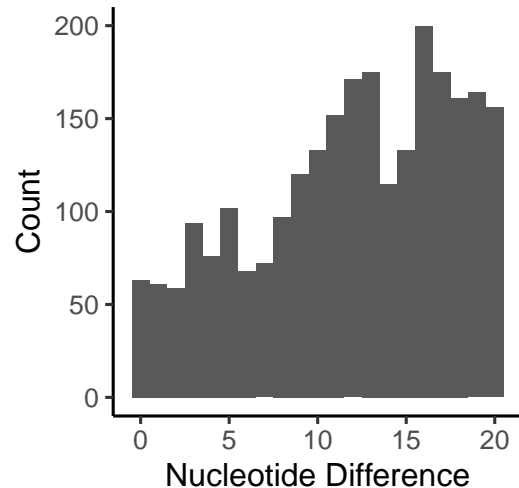
### IGHV3-72\*01

1068 sequences assigned  
No exact matches.



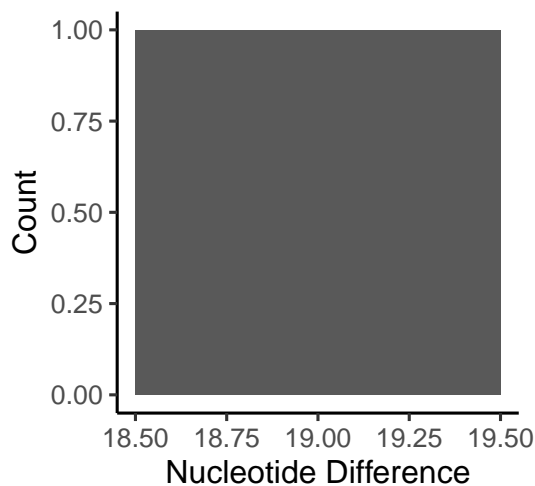
### IGHV3-74\*01\_02

3668 sequences assigned  
63 (1.7%) exact matches, in which:  
41 unique CDR3  
4 unique J



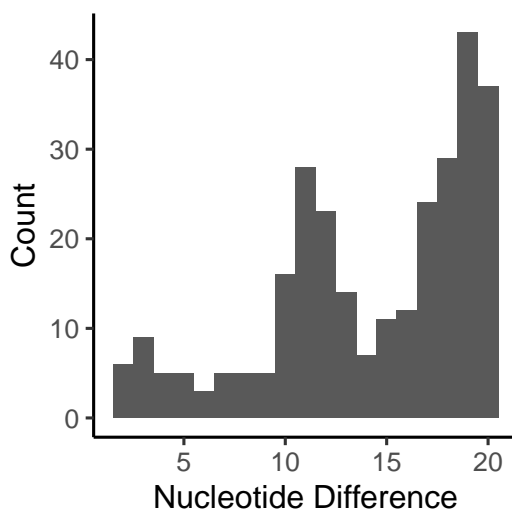
### IGHV3-69-1\*01

14 sequences assigned  
No exact matches.



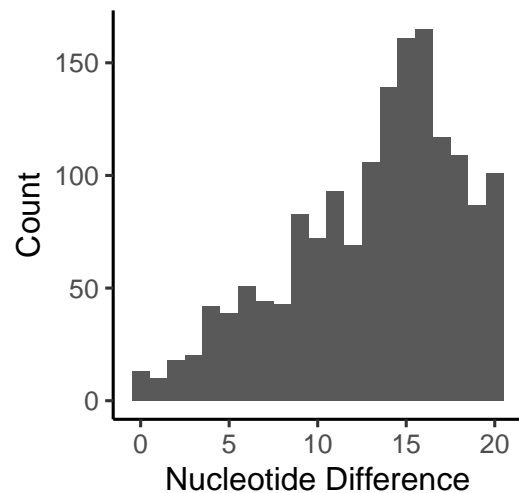
### IGHV3-73\*01\_02

508 sequences assigned  
No exact matches.



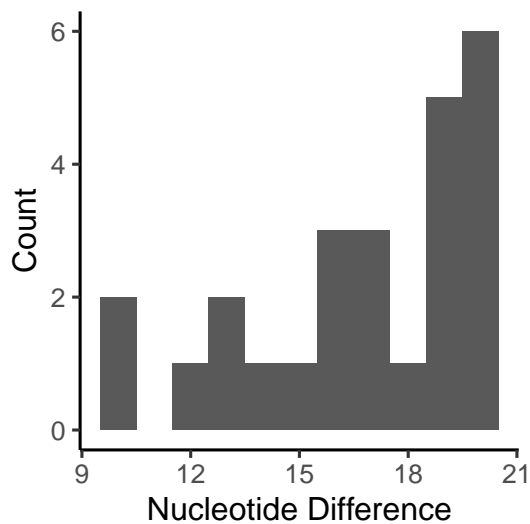
### IGHV3-64D\*06

3022 sequences assigned  
13 (0.4%) exact matches, in which:  
12 unique CDR3  
2 unique J



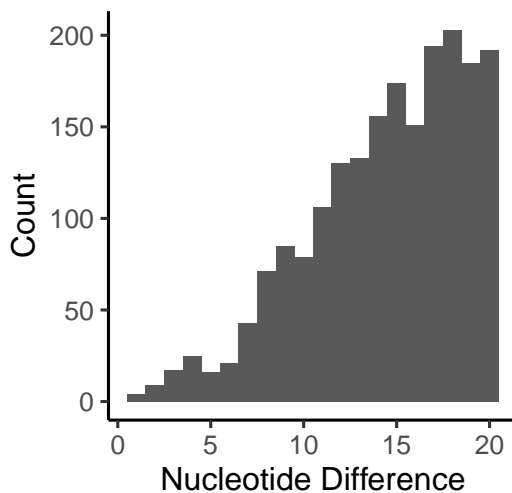
### IGHV3-69-1\*02

109 sequences assigned  
No exact matches.



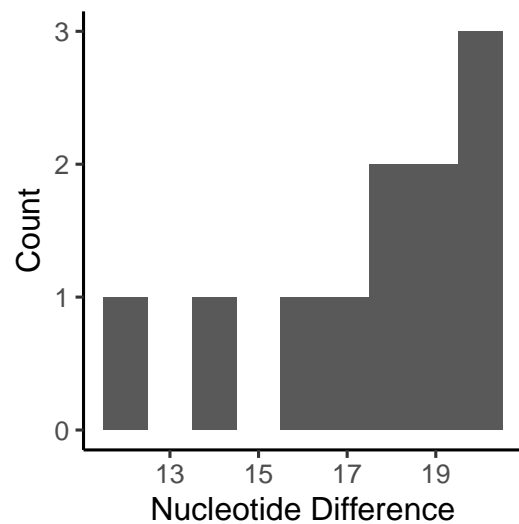
### IGHV3-74\*03

3637 sequences assigned  
No exact matches.



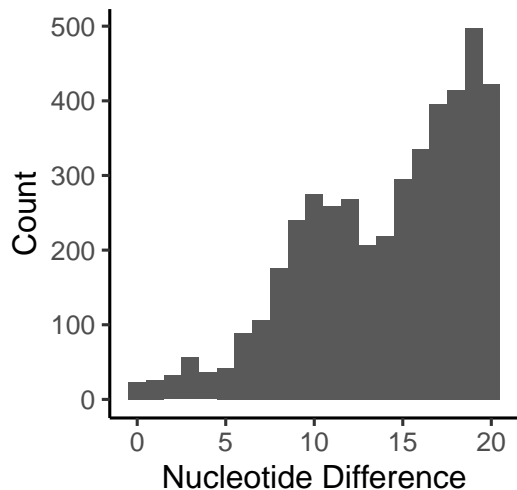
### IGHV3-NL1\*01

29 sequences assigned  
No exact matches.



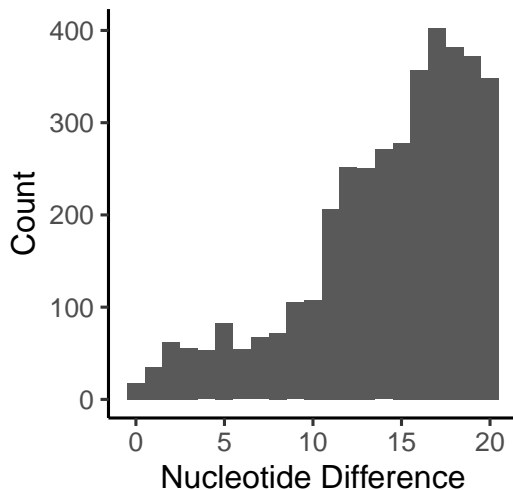
### IGHV4-4\*02\_03

9038 sequences assigned  
23 (0.3%) exact matches, in which:  
15 unique CDR3  
3 unique J



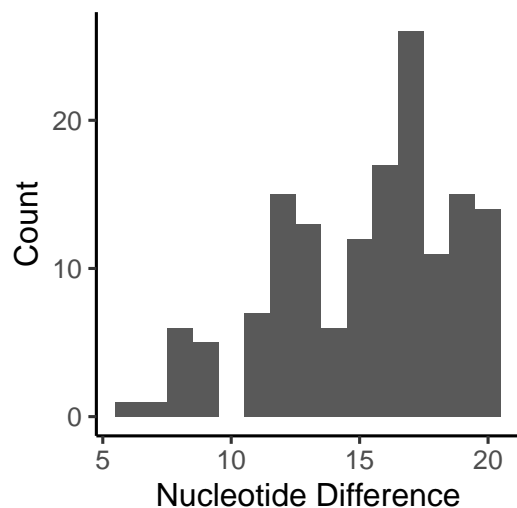
### IGHV4-30-4\*01

7094 sequences assigned  
18 (0.3%) exact matches, in which:  
11 unique CDR3  
2 unique J



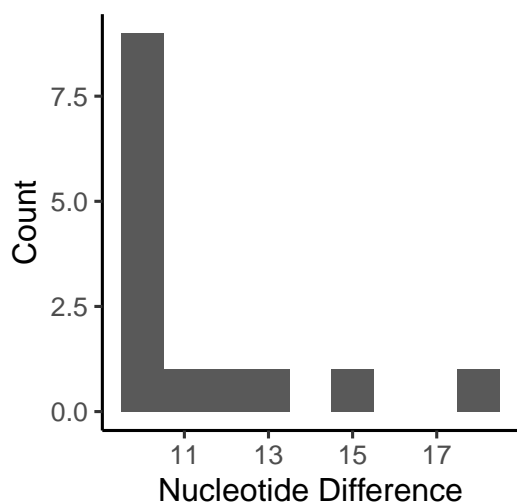
### IGHV4-30-2\*06

303 sequences assigned  
No exact matches.



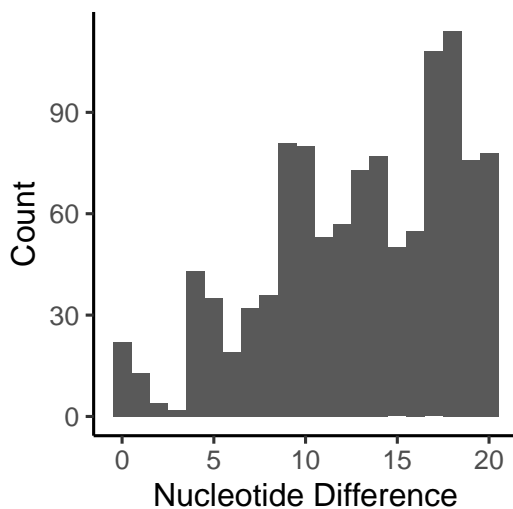
### IGHV4-28\*03

37 sequences assigned  
No exact matches.



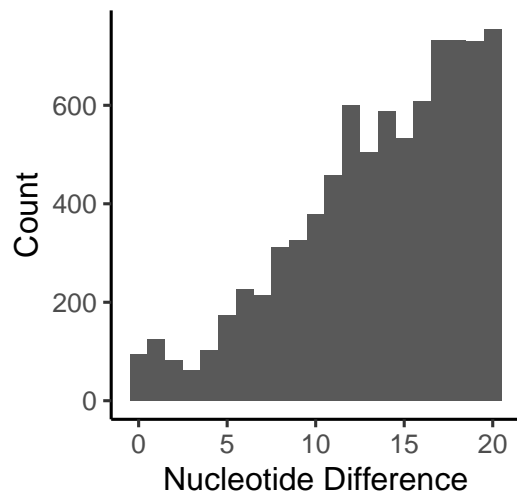
### IGHV4-30-2\*01

1776 sequences assigned  
22 (1.2%) exact matches, in which:  
19 unique CDR3  
4 unique J



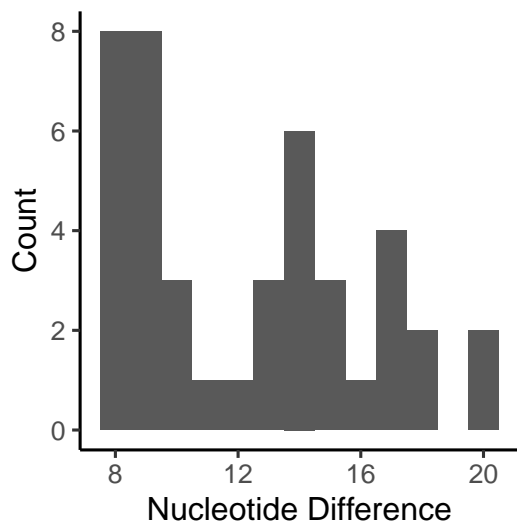
### IGHV4-31\*02

17571 sequences assigned  
95 (0.5%) exact matches, in which:  
71 unique CDR3  
3 unique J



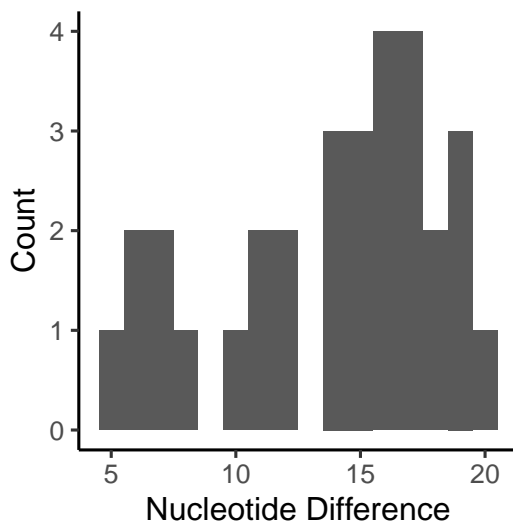
### IGHV4-28\*01\_07

93 sequences assigned  
No exact matches.



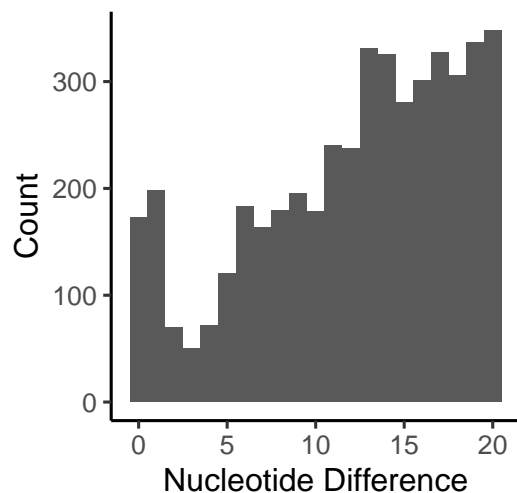
### IGHV4-30-2\*03

111 sequences assigned  
No exact matches.



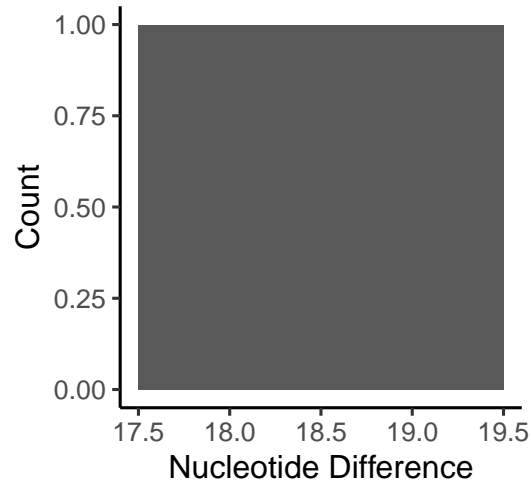
### IGHV4-34\*01\_02

8874 sequences assigned  
173 (1.9%) exact matches, in which:  
112 unique CDR3  
6 unique J



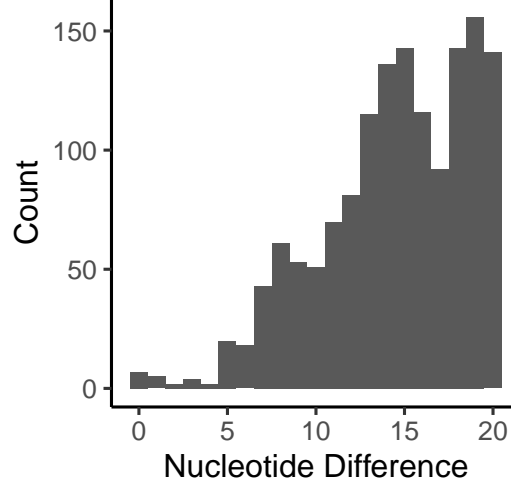
### IGHV4-38-2\*01

5 sequences assigned  
No exact matches.



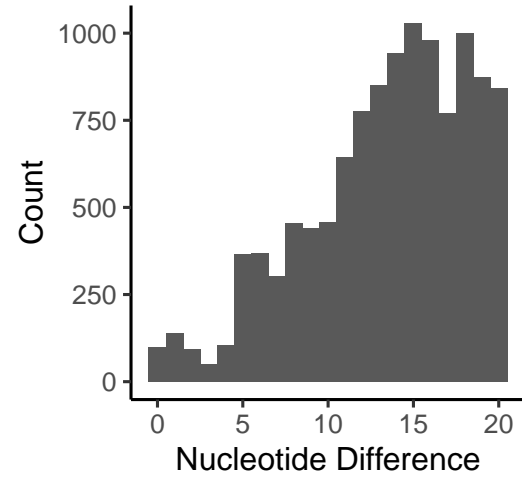
### IGHV4-39\*01\_05

3677 sequences assigned  
7 (0.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



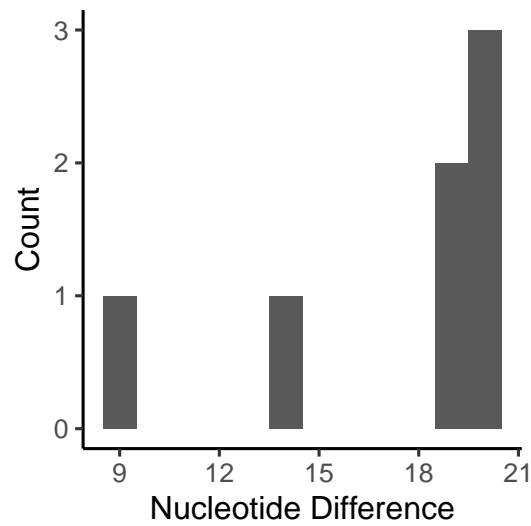
### IGHV4-59\*01\_07

19586 sequences assigned  
99 (0.5%) exact matches, in which:  
75 unique CDR3  
6 unique J



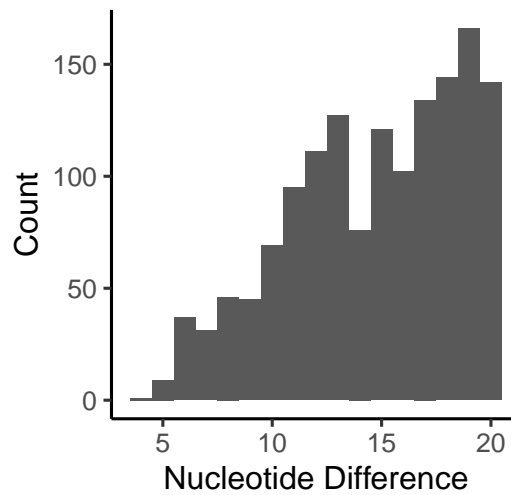
### IGHV4-38-2\*02

49 sequences assigned  
No exact matches.



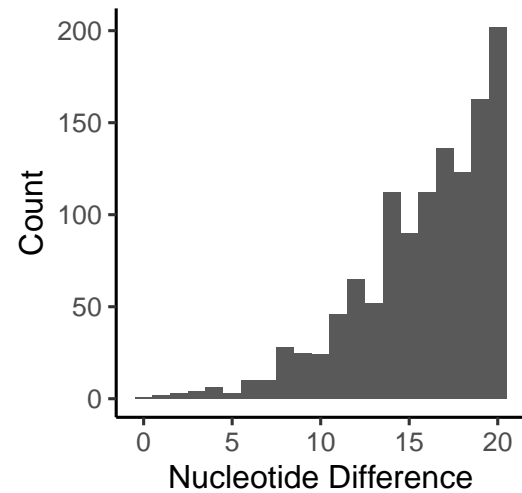
### IGHV4-59\*02

3441 sequences assigned  
No exact matches.



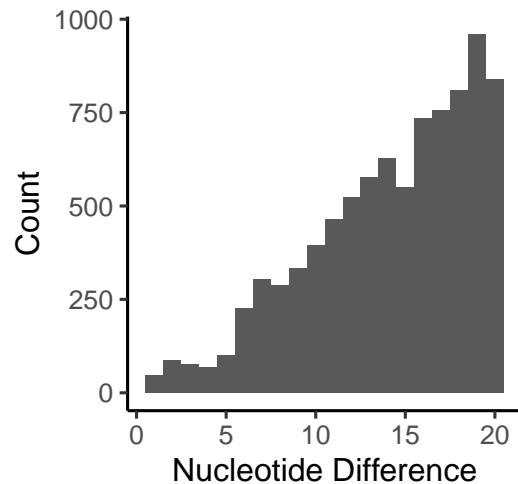
### IGHV4-59\*12

3394 sequences assigned  
1 (0%) exact matches, in which:  
1 unique CDR3  
1 unique J



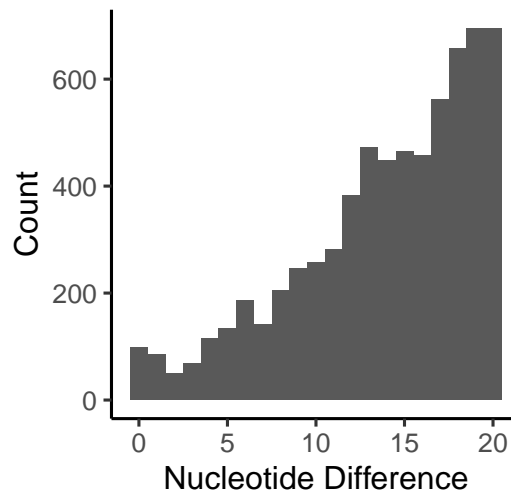
### IGHV4-39\*02

20914 sequences assigned  
No exact matches.



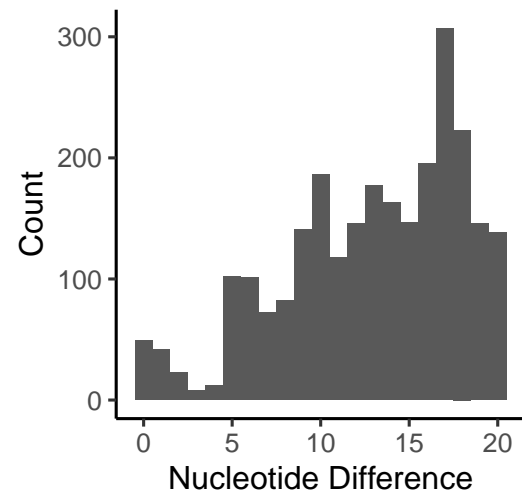
### IGHV4-59\*08

12656 sequences assigned  
98 (0.8%) exact matches, in which:  
69 unique CDR3  
5 unique J



### IGHV4-61\*01

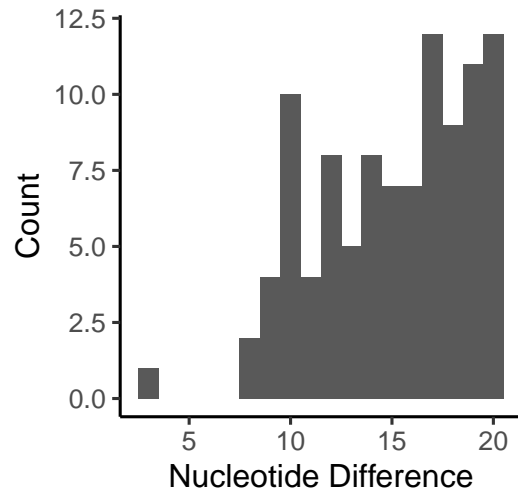
3682 sequences assigned  
49 (1.3%) exact matches, in which:  
40 unique CDR3  
3 unique J





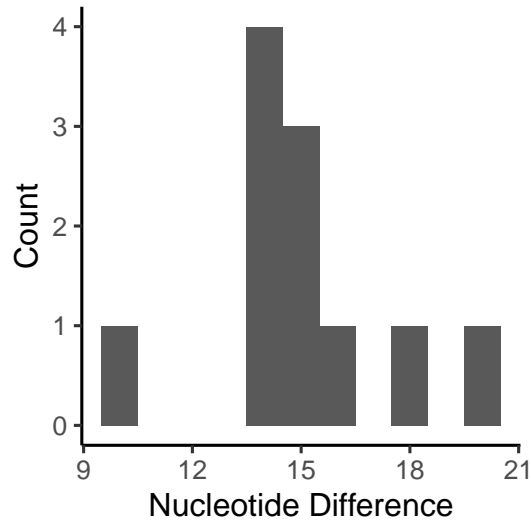
### IGHV4-61\*05

295 sequences assigned  
No exact matches.



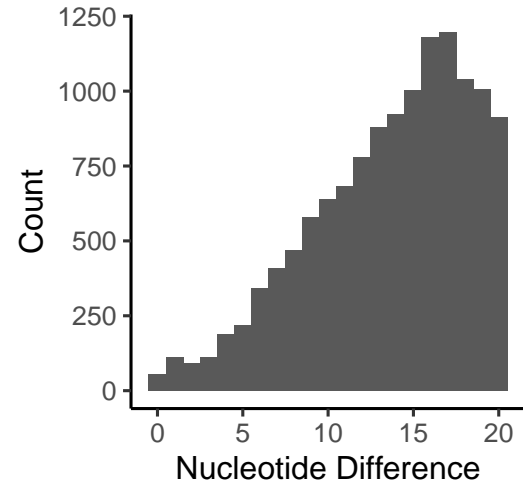
### IGHV4/OR15-8\*02

258 sequences assigned  
No exact matches.



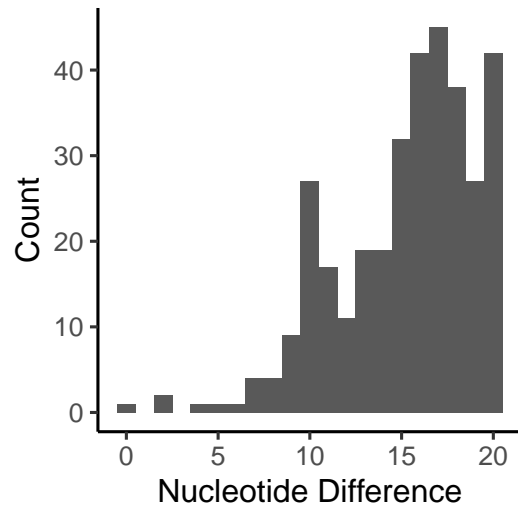
### IGHV5-51\*01\_03

20249 sequences assigned  
55 (0.3%) exact matches, in which:  
35 unique CDR3  
3 unique J



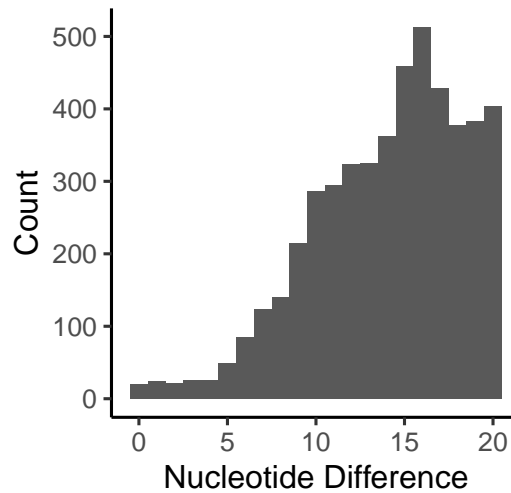
### IGHV4-61\*08

837 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



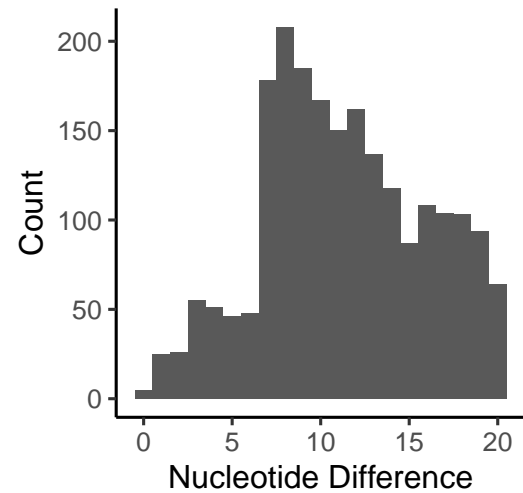
### IGHV5-10-1\*01\_03

8801 sequences assigned  
20 (0.2%) exact matches, in which:  
14 unique CDR3  
3 unique J



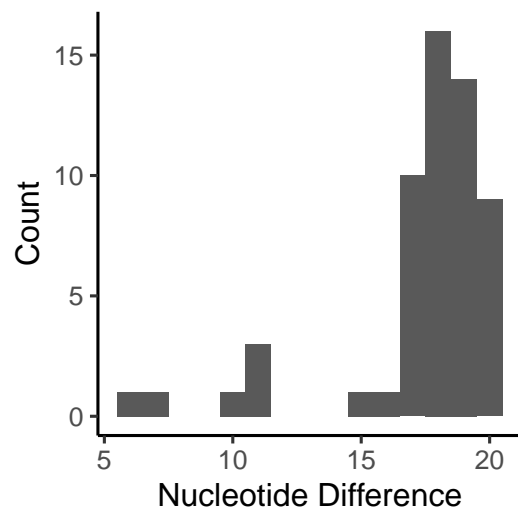
### IGHV6-1\*01\_02

2637 sequences assigned  
5 (0.2%) exact matches, in which:  
5 unique CDR3  
2 unique J



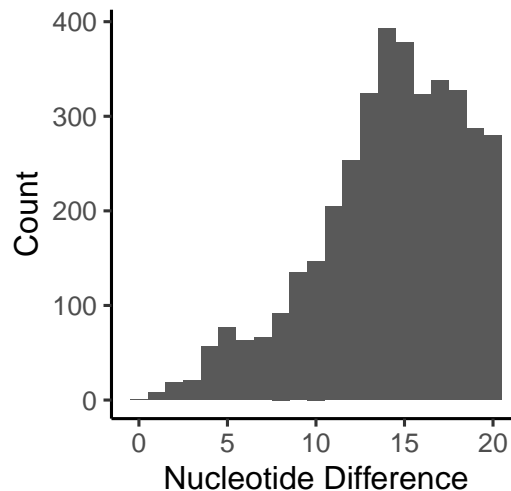
### IGHV4/OR15-8\*01

123 sequences assigned  
No exact matches.



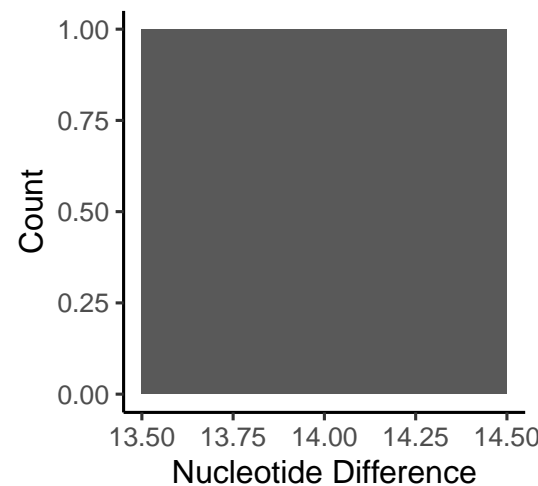
### IGHV5-51\*07

6016 sequences assigned  
1 (0%) exact matches, in which:  
1 unique CDR3  
1 unique J

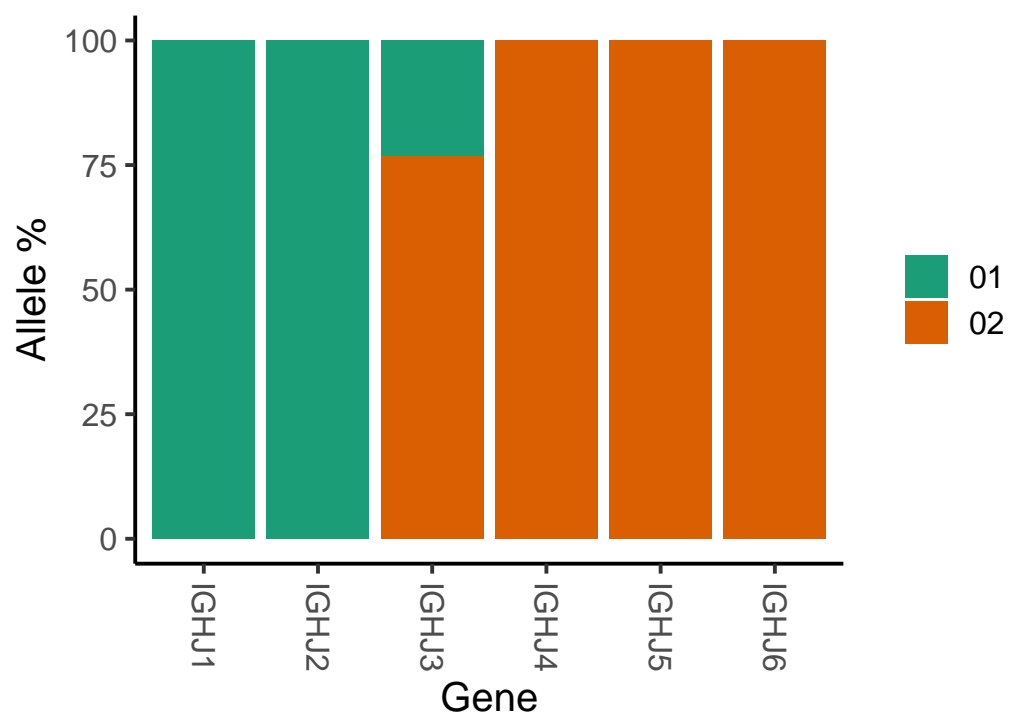


### IGHV3/OR16-10\*01\_03

1 sequences assigned  
No exact matches.



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Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.