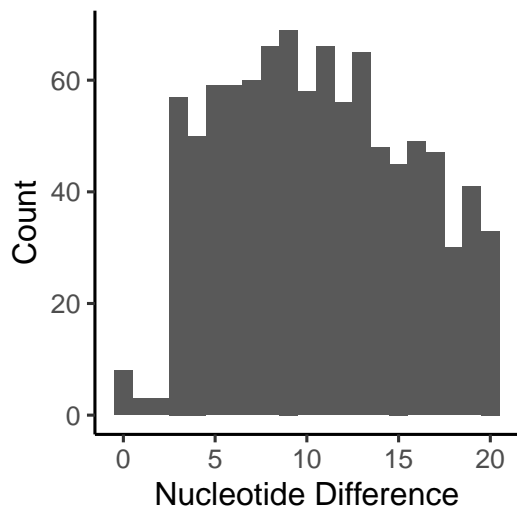


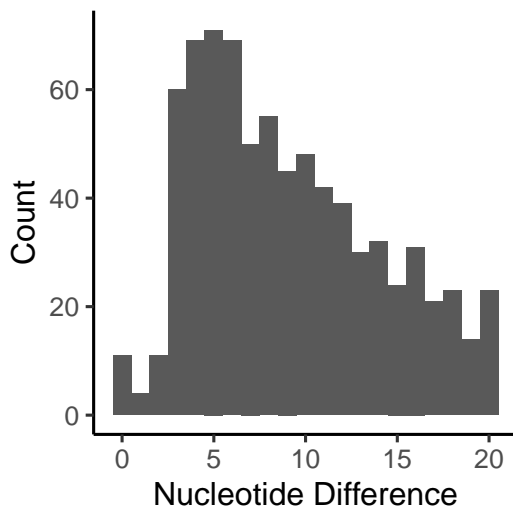
## IGHV1-2\*02

1194 sequences assigned  
8 (0.7%) exact matches, in which:  
8 unique CDR3  
3 unique J



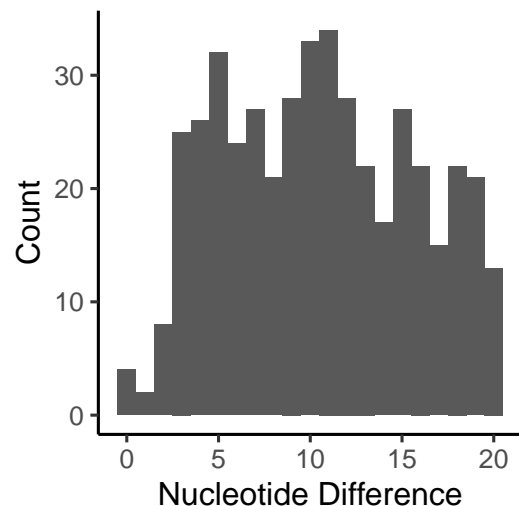
## IGHV1-8\*01

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



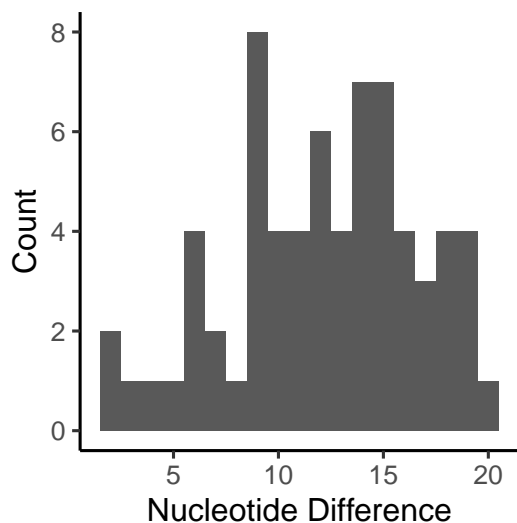
## IGHV1-46\*01

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



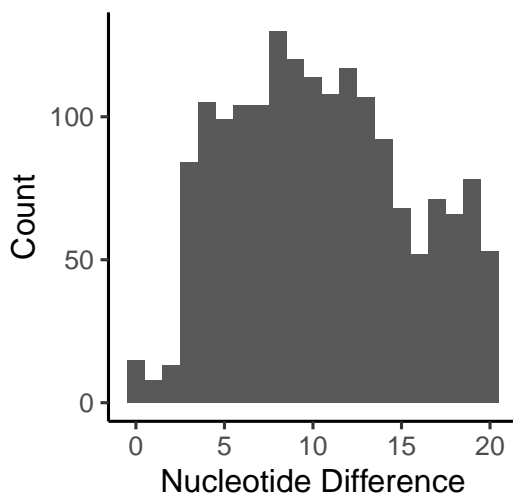
## IGHV1-3\*04

85 sequences assigned  
No exact matches.



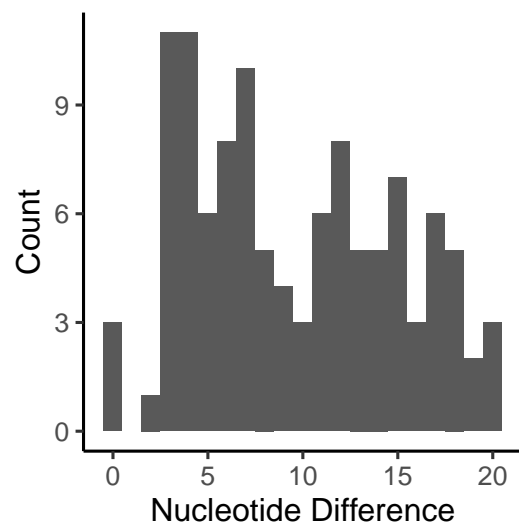
## IGHV1-18\*01

2136 sequences assigned  
15 (0.7%) exact matches, in which:  
15 unique CDR3  
4 unique J



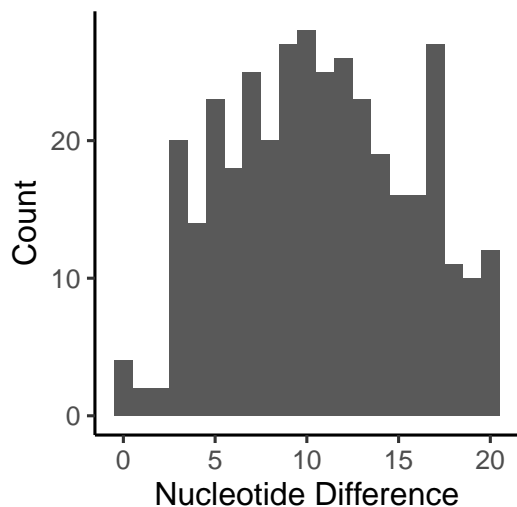
## IGHV1-58\*01\_03

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



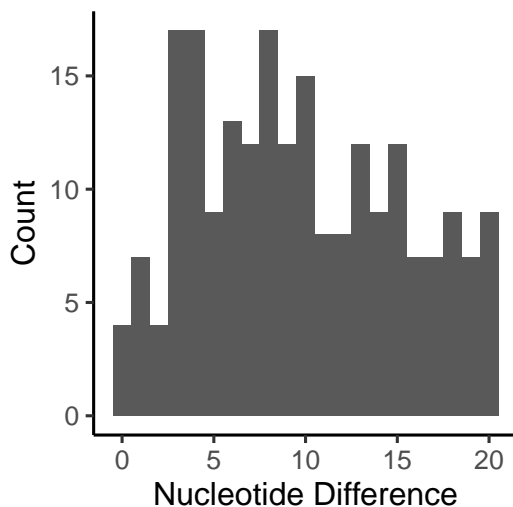
## IGHV1-3\*01\_05

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



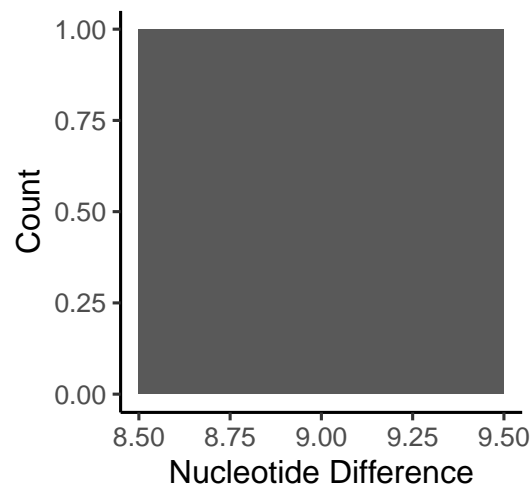
## IGHV1-24\*01

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



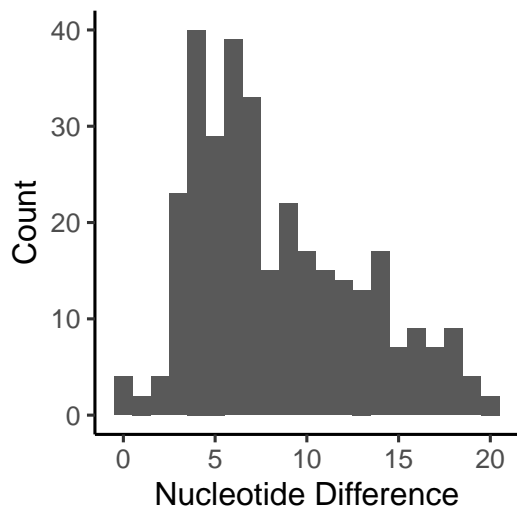
## IGHV1-NL1\*01

2 sequences assigned  
No exact matches.



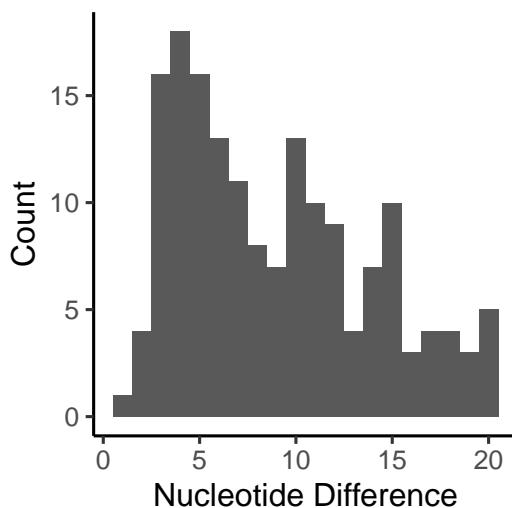
### IGHV2-5\*01

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



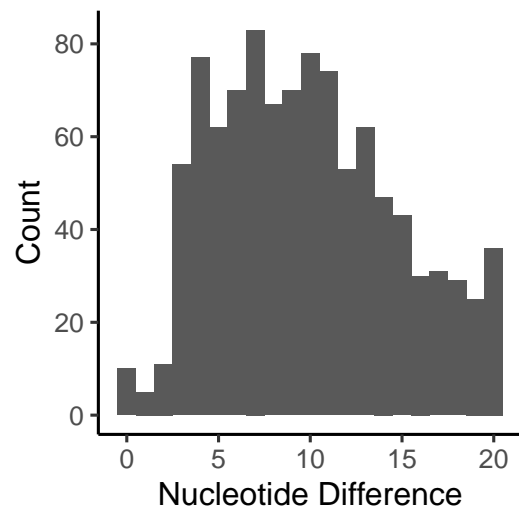
### IGHV2-70\*01

179 sequences assigned  
No exact matches.



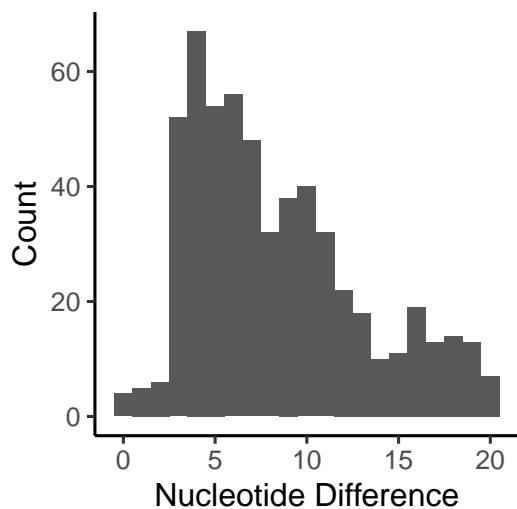
### IGHV3-11\*01

1216 sequences assigned  
10 (0.8%) exact matches, in which:  
9 unique CDR3  
5 unique J



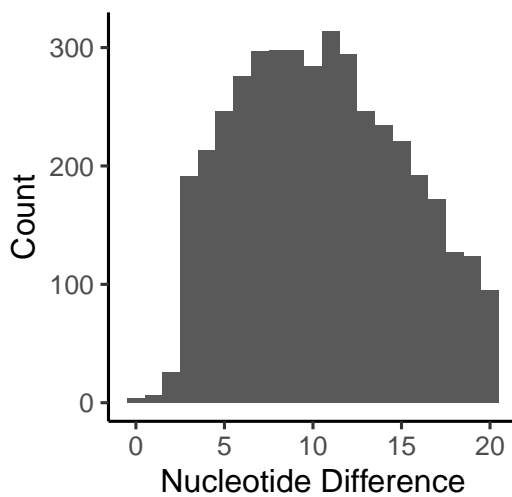
### IGHV2-5\*02

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



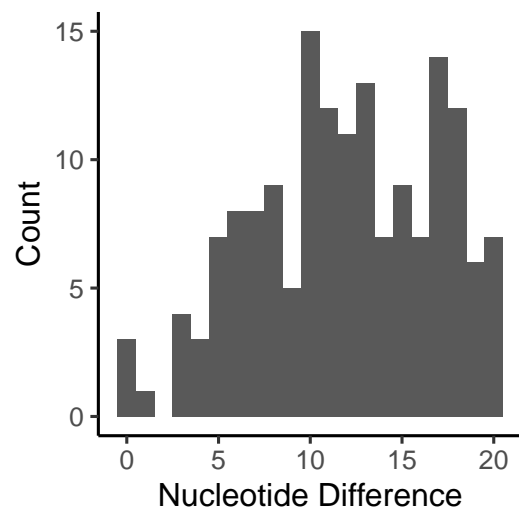
### IGHV3-7\*01

4621 sequences assigned  
4 (0.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



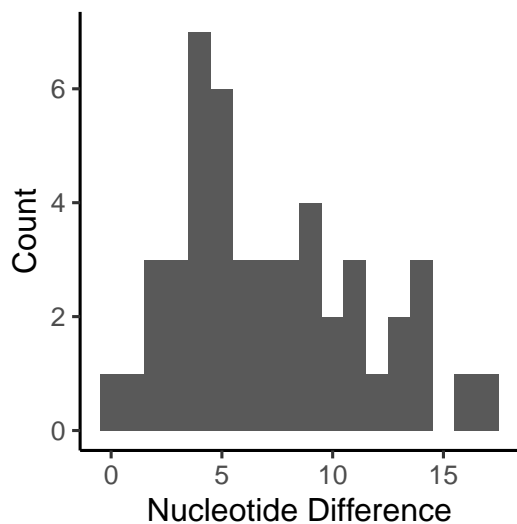
### IGHV3-13\*01

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



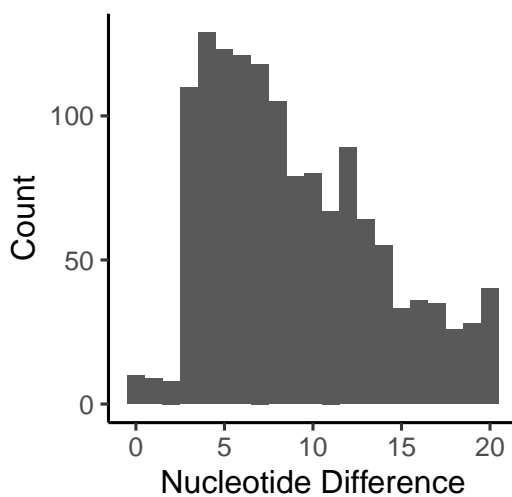
### IGHV2-26\*01

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



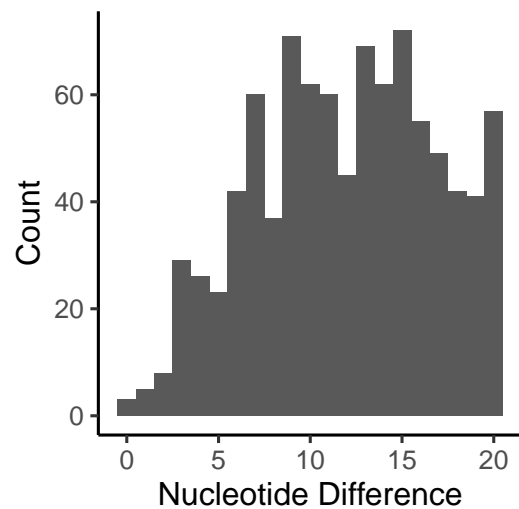
### IGHV3-9\*01

1561 sequences assigned  
10 (0.6%) exact matches, in which:  
7 unique CDR3  
3 unique J



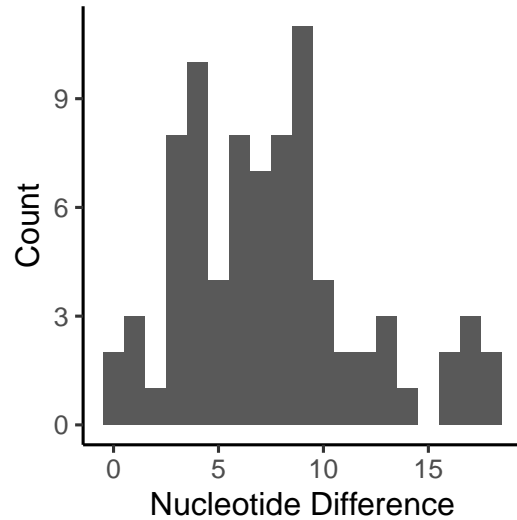
### IGHV3-15\*01\_02

1199 sequences assigned  
3 (0.3%) exact matches, in which:  
3 unique CDR3  
3 unique J



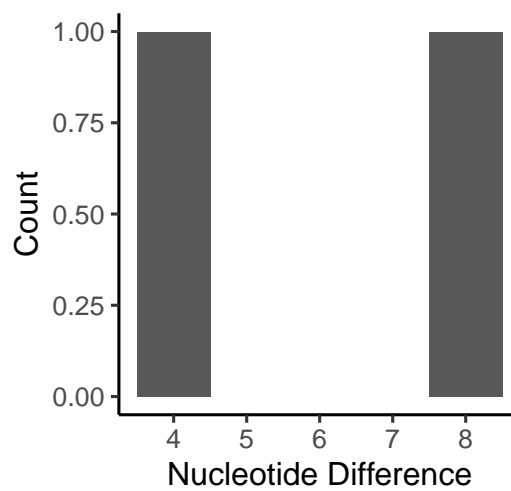
### IGHV3-20\*01\_02

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



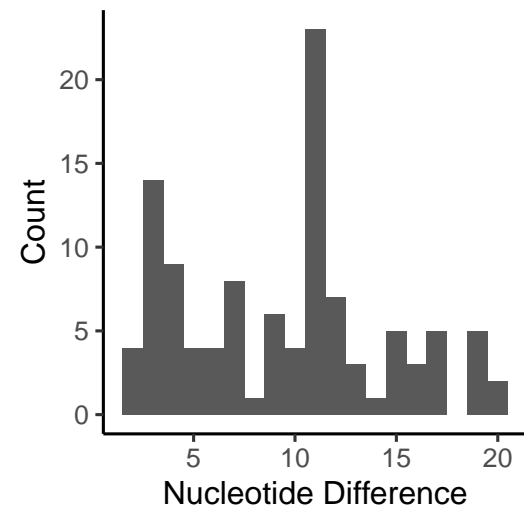
### IGHV3-30-3\*01

2 sequences assigned  
No exact matches.



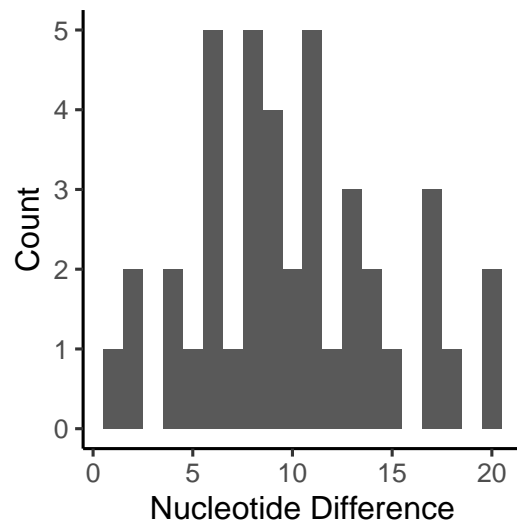
### IGHV3-43\*01

138 sequences assigned  
No exact matches.



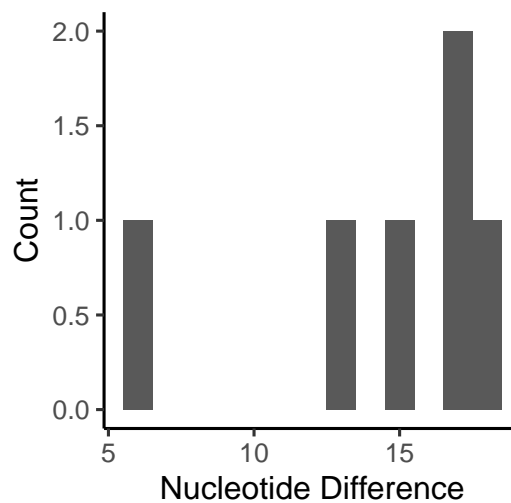
### IGHV3-20\*03\_04

49 sequences assigned  
No exact matches.



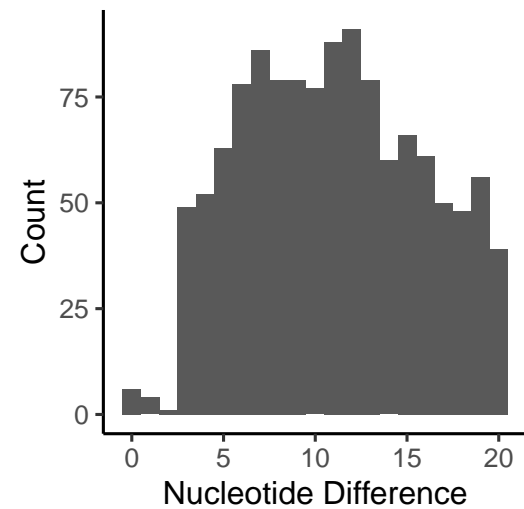
### IGHV3-30-3\*03

15 sequences assigned  
No exact matches.



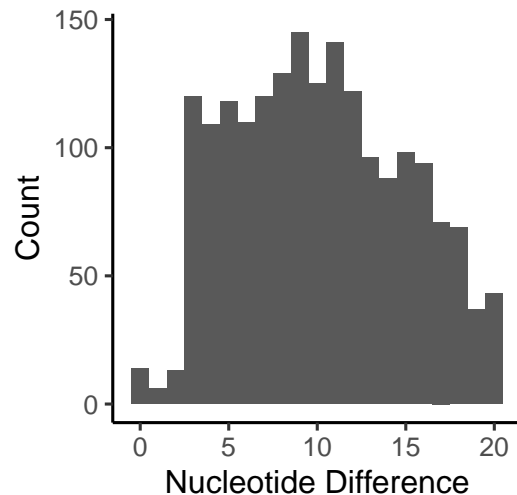
### IGHV3-48\*02

1501 sequences assigned  
6 (0.4%) exact matches, in which:  
5 unique CDR3  
2 unique J



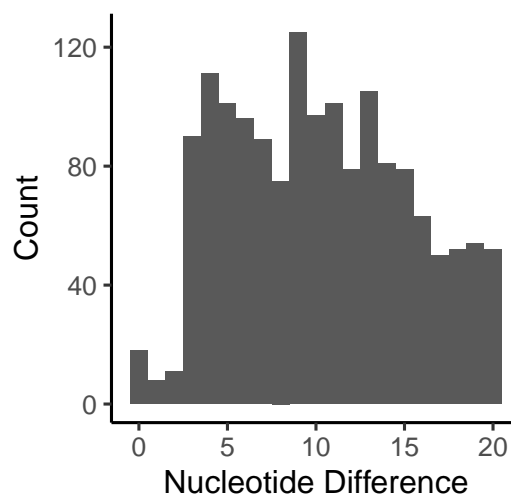
### IGHV3-21\*01\_02

2146 sequences assigned  
14 (0.7%) exact matches, in which:  
9 unique CDR3  
4 unique J



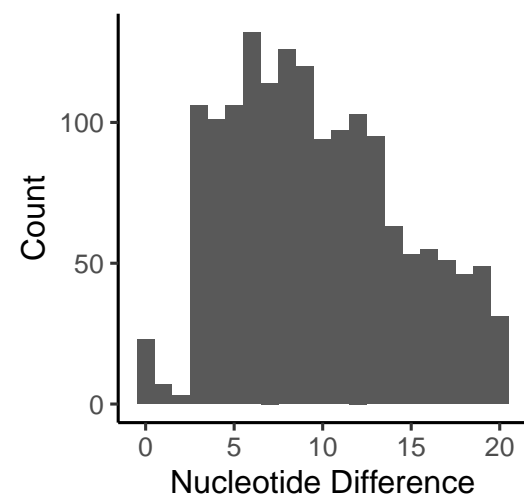
### IGHV3-33\*01

1824 sequences assigned  
18 (1%) exact matches, in which:  
12 unique CDR3  
3 unique J



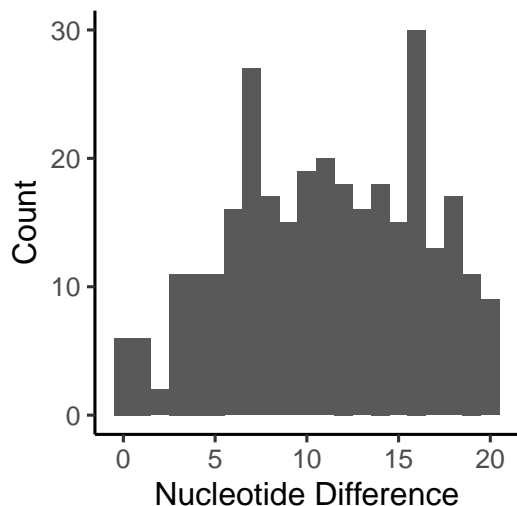
### IGHV3-48\*03

1826 sequences assigned  
23 (1.3%) exact matches, in which:  
13 unique CDR3  
4 unique J



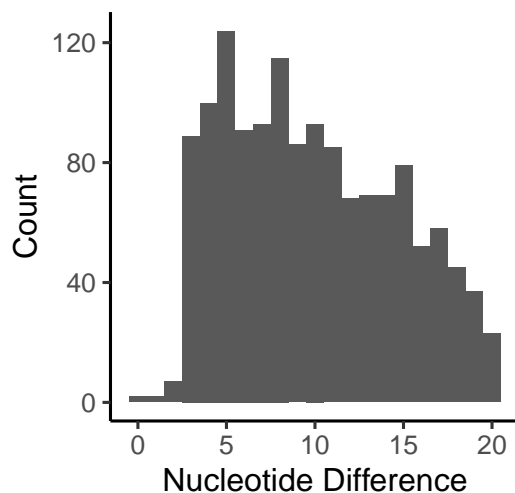
### IGHV3-49\*04

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



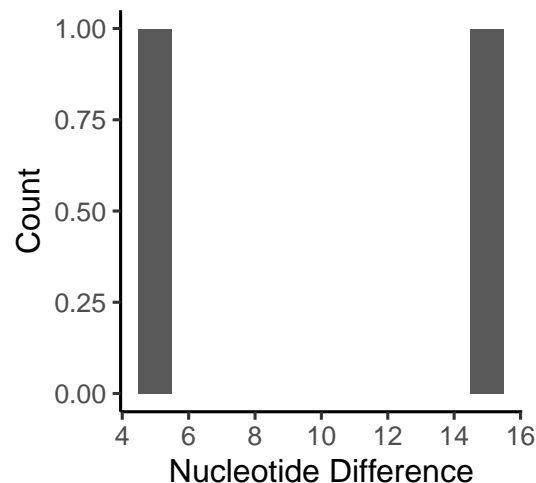
### IGHV3-53\*01\_02

1627 sequences assigned  
2 (0.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



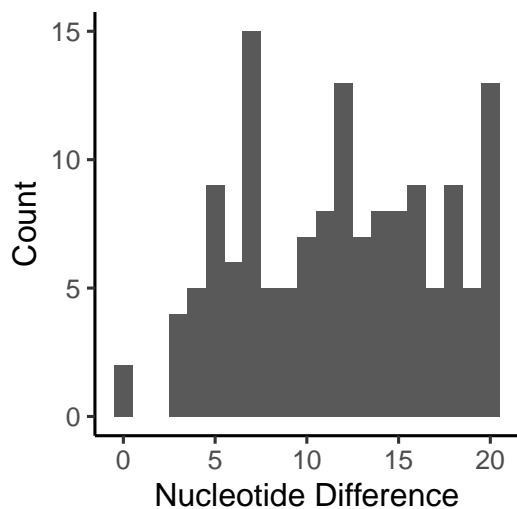
### IGHV3-66\*02

2 sequences assigned  
No exact matches.



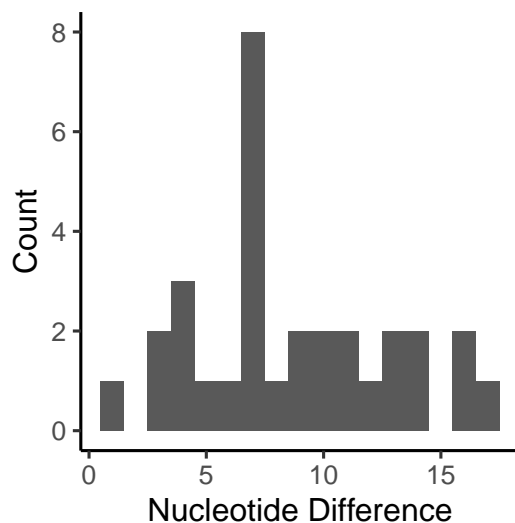
### IGHV3-49\*03\_05

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



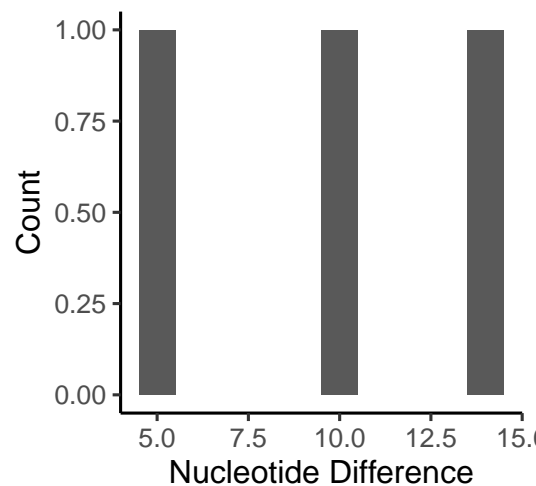
### IGHV3-64\*02\_07

36 sequences assigned  
No exact matches.



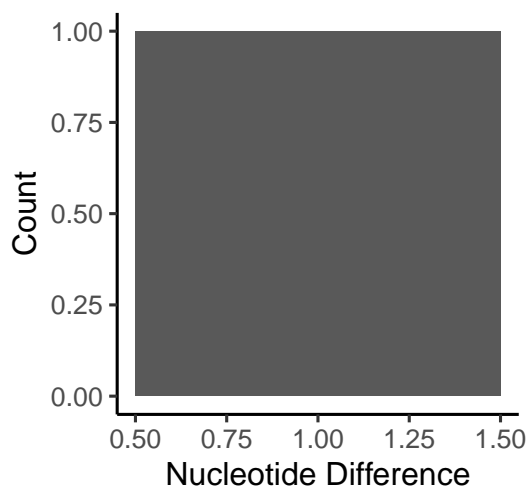
### IGHV3-66\*04

6 sequences assigned  
No exact matches.



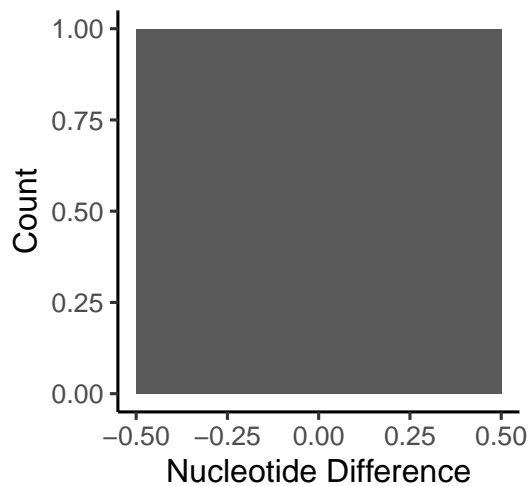
### IGHV3-52\*01\_03

1 sequences assigned  
No exact matches.



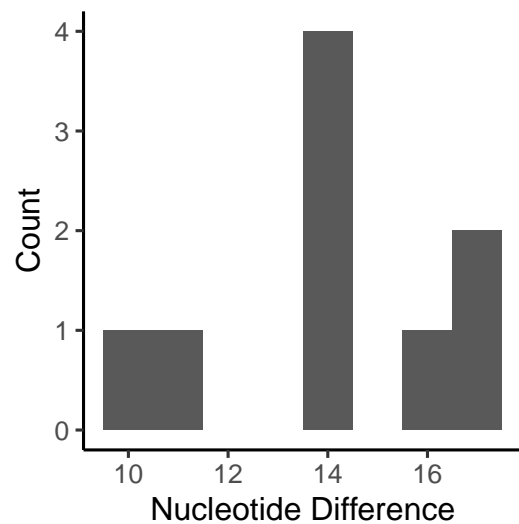
### IGHV3-66\*01

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



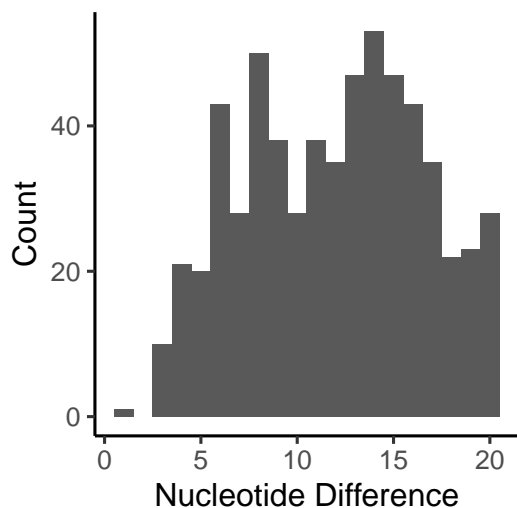
### IGHV3-69-1\*01

15 sequences assigned  
No exact matches.



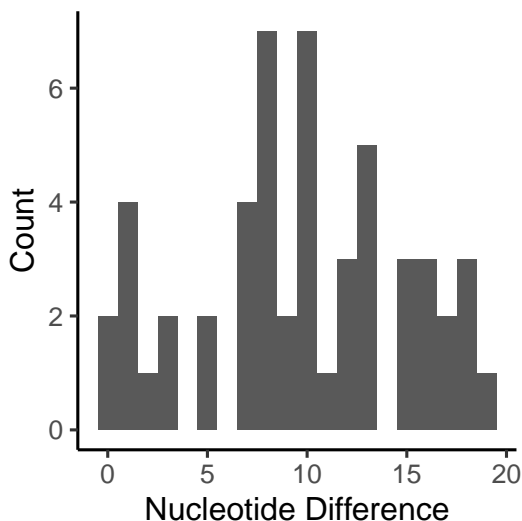
### IGHV3-72\*01

735 sequences assigned  
No exact matches.



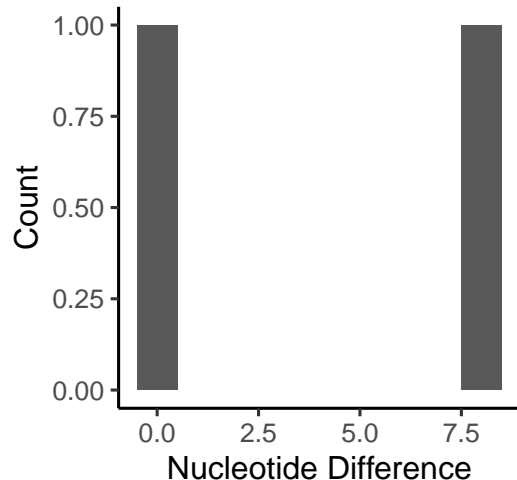
### IGHV3-43D\*04

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



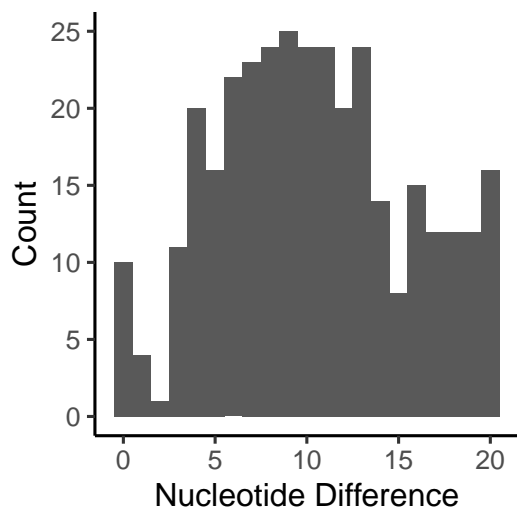
### IGHV3-64D\*09

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



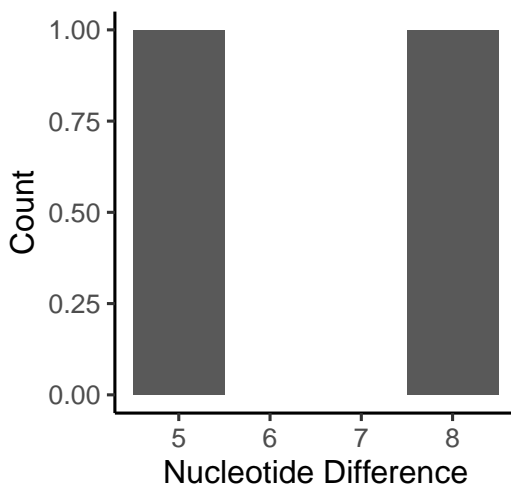
### IGHV3-73\*01\_02

405 sequences assigned  
10 (2.5%) exact matches, in which:  
5 unique CDR3  
3 unique J



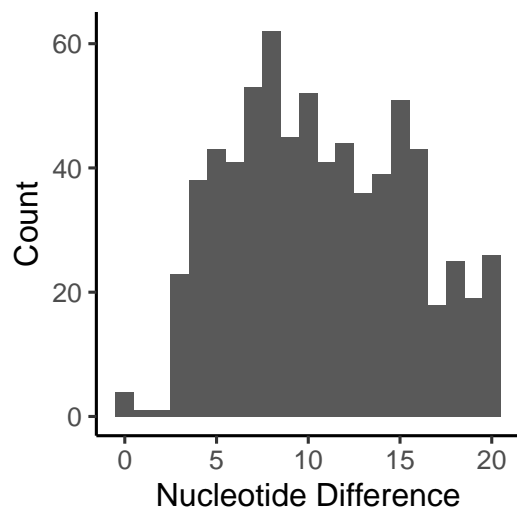
### IGHV3-64D\*06

2 sequences assigned  
No exact matches.



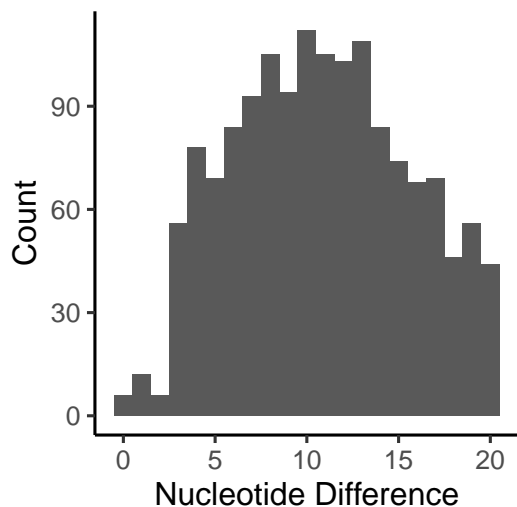
### IGHV4-4\*07

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



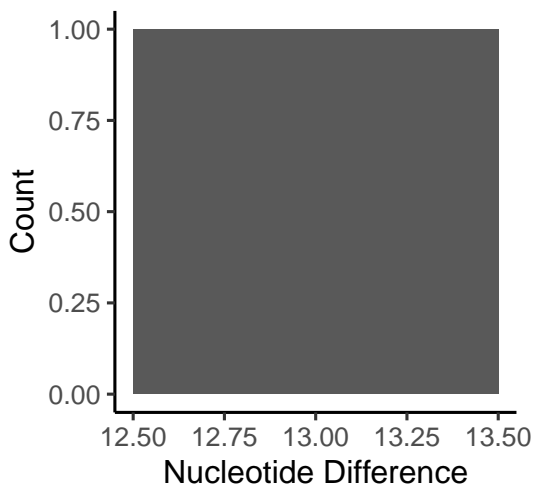
### IGHV3-74\*01\_02

1757 sequences assigned  
6 (0.3%) exact matches, in which:  
6 unique CDR3  
5 unique J



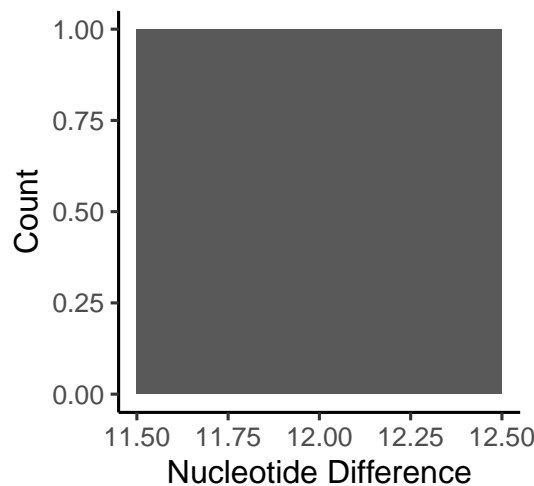
### IGHV3-64D\*08

1 sequences assigned  
No exact matches.



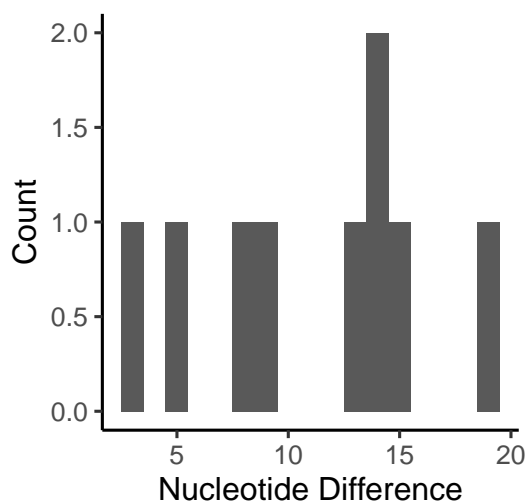
### IGHV4-28\*03

1 sequences assigned  
No exact matches.



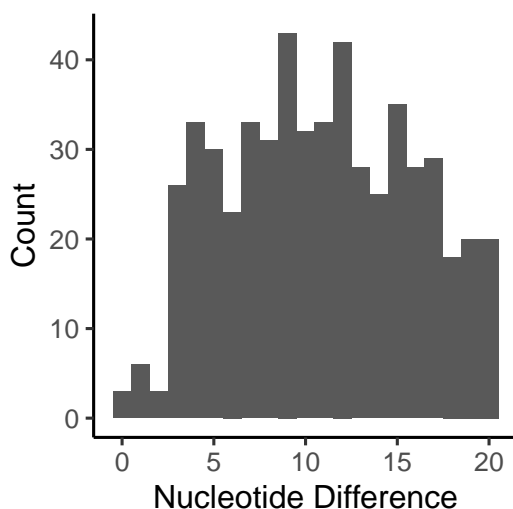
### IGHV4-28\*01\_07

9 sequences assigned  
No exact matches.



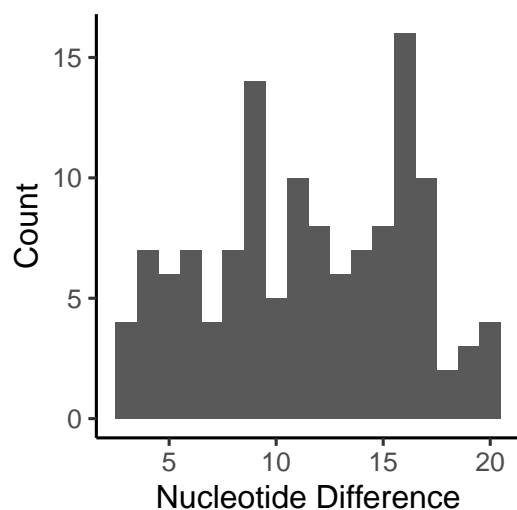
### IGHV4-31\*03\_04

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



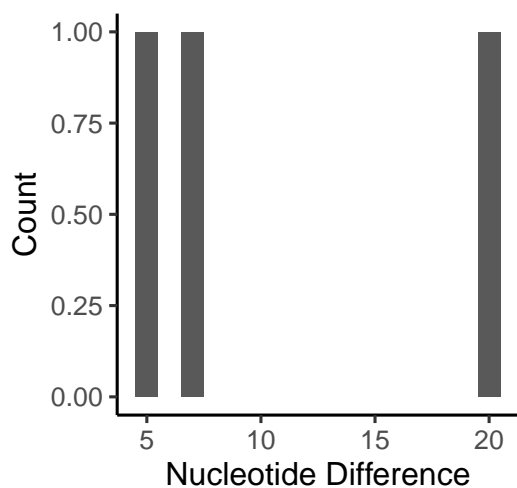
### IGHV4-38-2\*02

168 sequences assigned  
No exact matches.



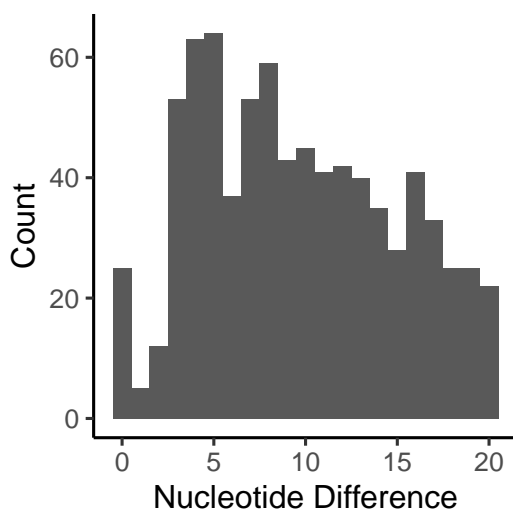
### IGHV4-28\*02\_05

3 sequences assigned  
No exact matches.



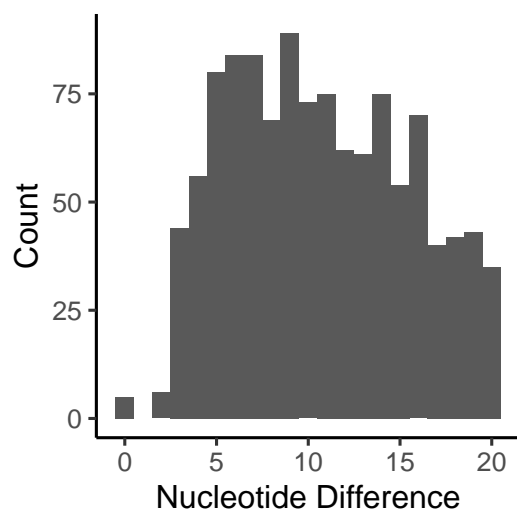
### IGHV4-34\*01\_02

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



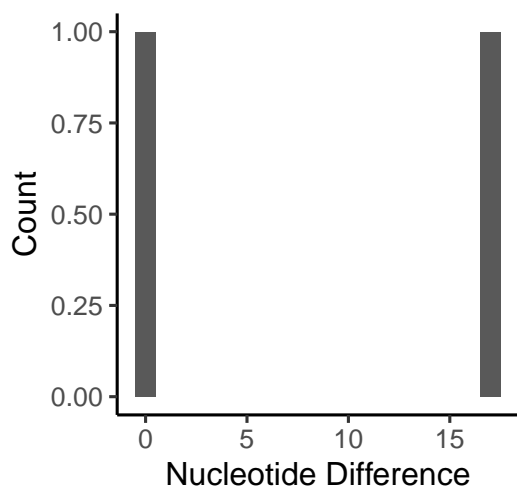
### IGHV4-39\*01\_05

1488 sequences assigned  
5 (0.3%) exact matches, in which:  
5 unique CDR3  
3 unique J



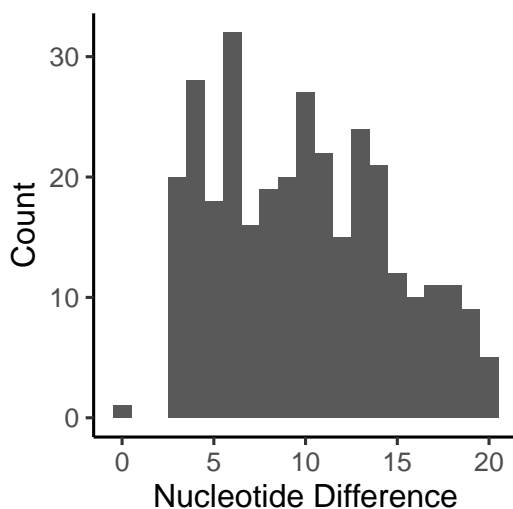
### IGHV4-30-2\*01

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



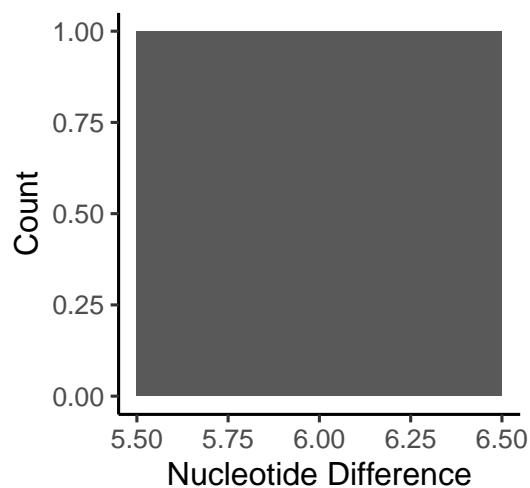
### IGHV4-38-2\*01

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



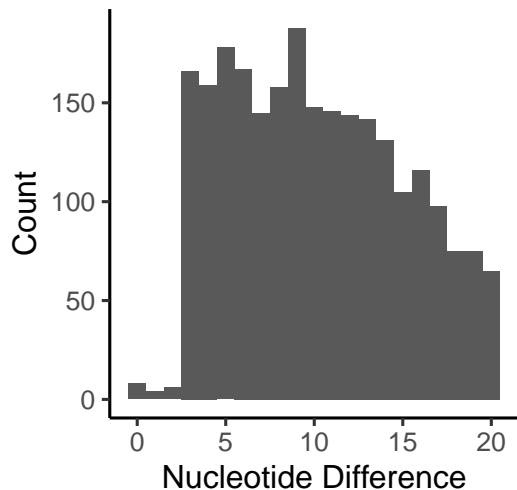
### IGHV4-55\*02\_04\_08

3 sequences assigned  
No exact matches.



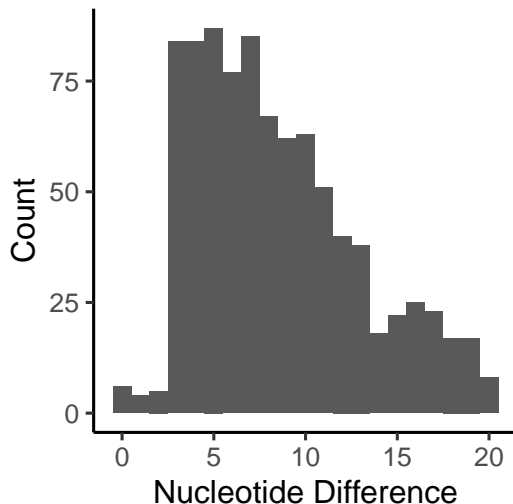
### IGHV4–59\*01\_07

2892 sequences assigned  
8 (0.3%) exact matches, in which:  
7 unique CDR3  
4 unique J



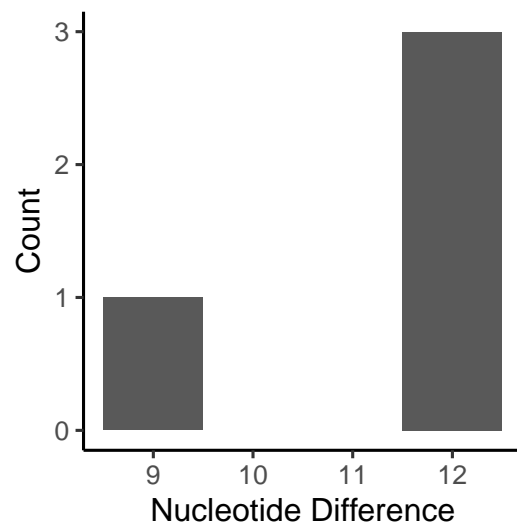
### IGHV5–51\*01\_03

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



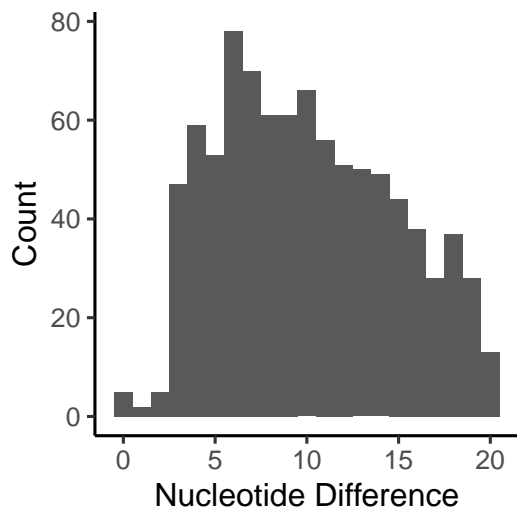
### IGHV7–4–1\*02

4 sequences assigned  
No exact matches.



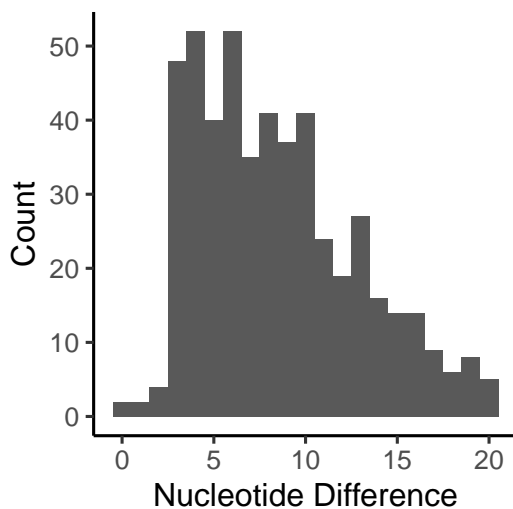
### IGHV4–61\*01

1000 sequences assigned  
5 (0.5%) exact matches, in which:  
3 unique CDR3  
2 unique J



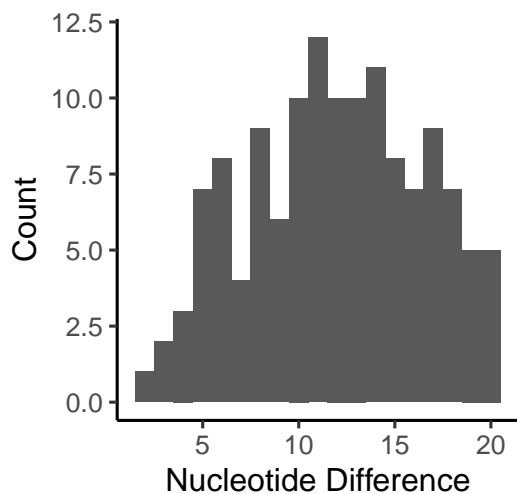
### IGHV6–1\*01\_02

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



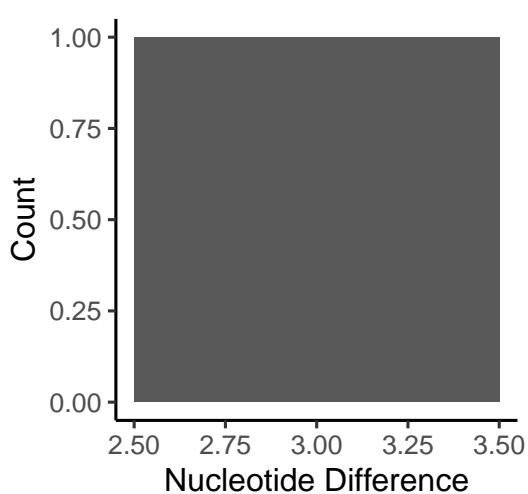
### IGHV4–61\*08

163 sequences assigned  
No exact matches.



### IGHV7–4–1\*01

1 sequences assigned  
No exact matches.







Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59\*02\_G88AIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59\*02\_G88AIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59\*02\_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–11\*06\_T300CIGHV4–38–2\*02\_A70GIGHV4–39\*02\_C258GIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–39\*02\_C258GIGHV4–59\*02\_G88AIGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.