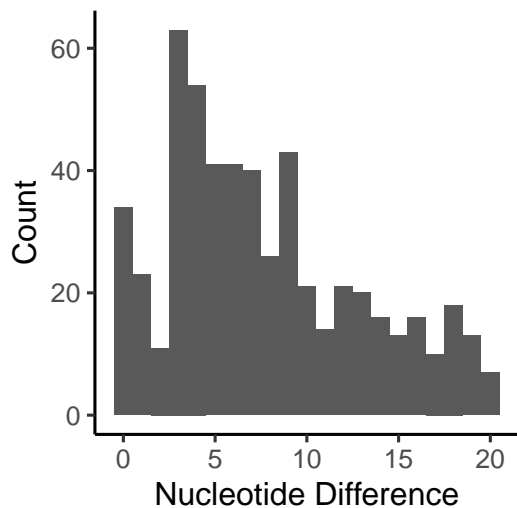


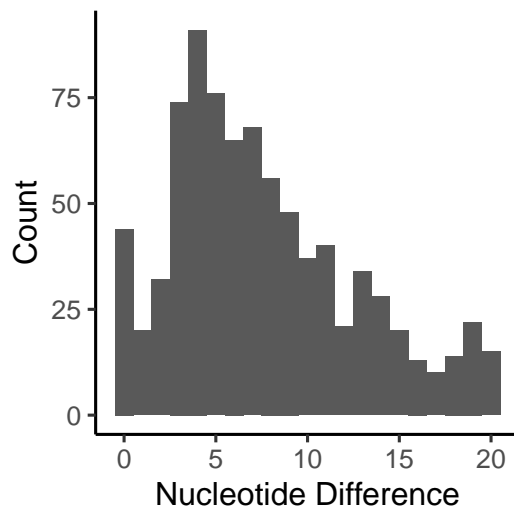
### IGHV1-2\*02

568 sequences assigned  
34 (6%) exact matches, in which:  
34 unique CDR3  
5 unique J



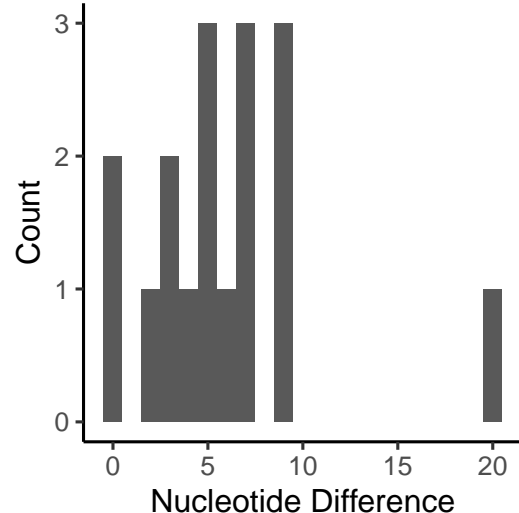
### IGHV1-18\*01

887 sequences assigned  
44 (5%) exact matches, in which:  
44 unique CDR3  
5 unique J



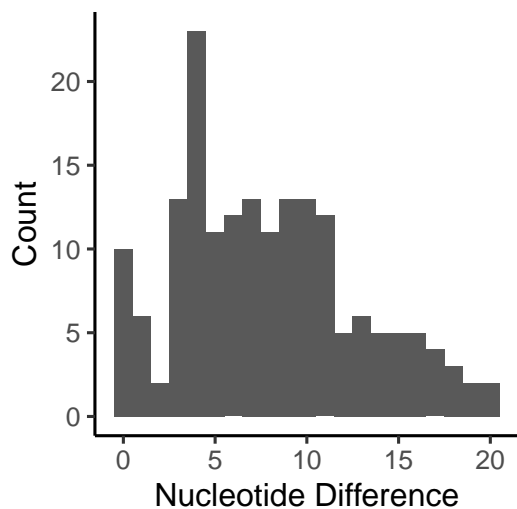
### IGHV1-58\*02

17 sequences assigned  
2 (11.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



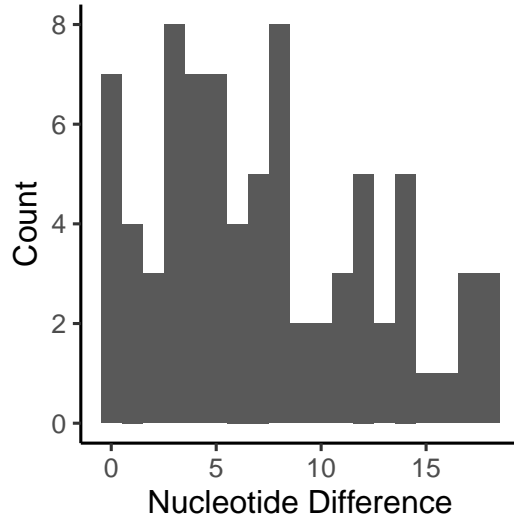
### IGHV1-3\*01\_05

188 sequences assigned  
10 (5.3%) exact matches, in which:  
10 unique CDR3  
3 unique J



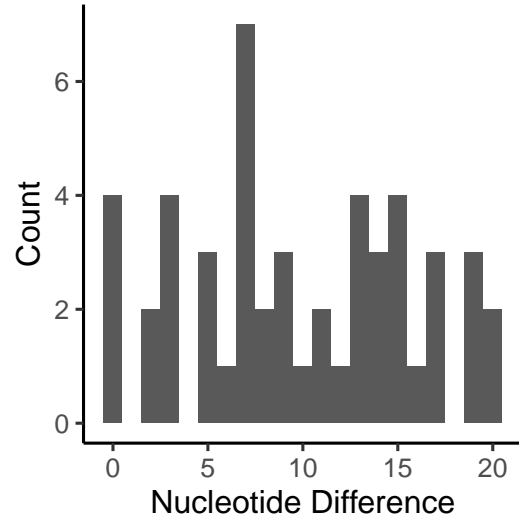
### IGHV1-24\*01

84 sequences assigned  
7 (8.3%) exact matches, in which:  
7 unique CDR3  
2 unique J



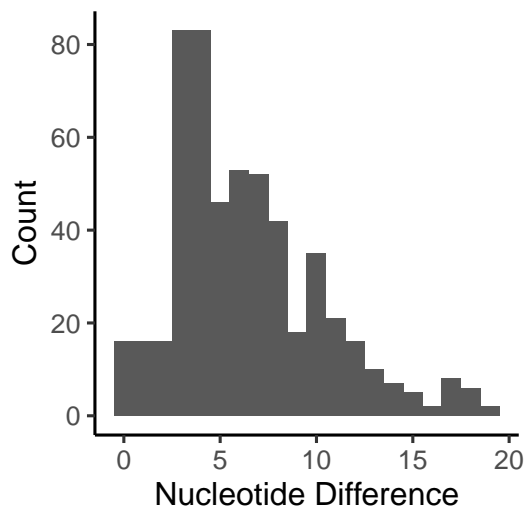
### IGHV1-69\*02

56 sequences assigned  
4 (7.1%) exact matches, in which:  
4 unique CDR3  
1 unique J



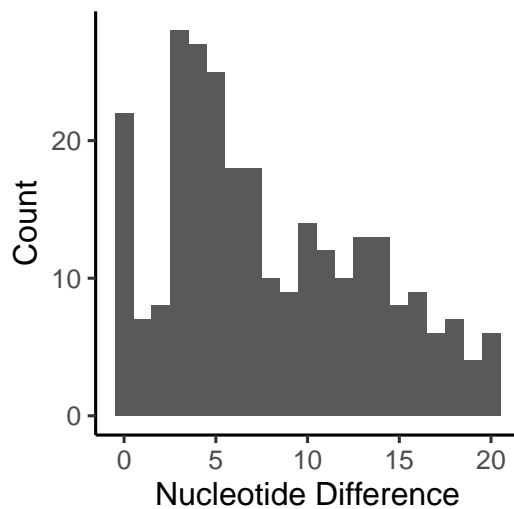
### IGHV1-8\*01

542 sequences assigned  
16 (3%) exact matches, in which:  
16 unique CDR3  
4 unique J



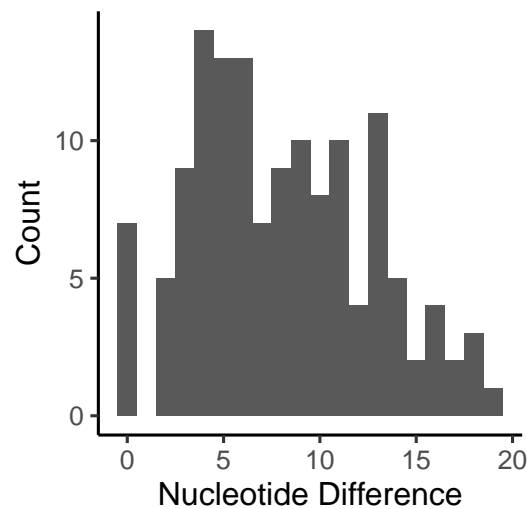
### IGHV1-46\*01

293 sequences assigned  
22 (7.5%) exact matches, in which:  
22 unique CDR3  
4 unique J



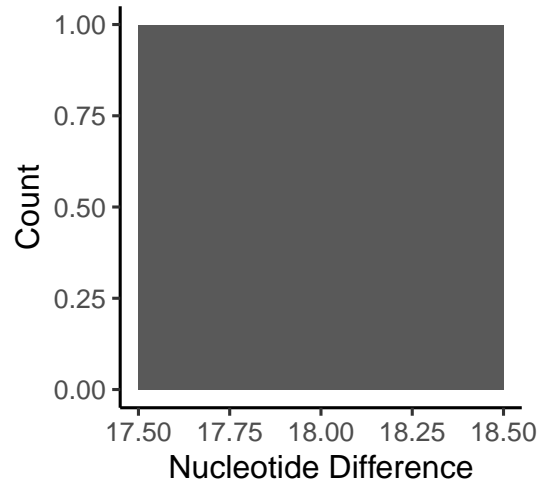
### IGHV1-69\*04\_09

156 sequences assigned  
7 (4.5%) exact matches, in which:  
7 unique CDR3  
3 unique J



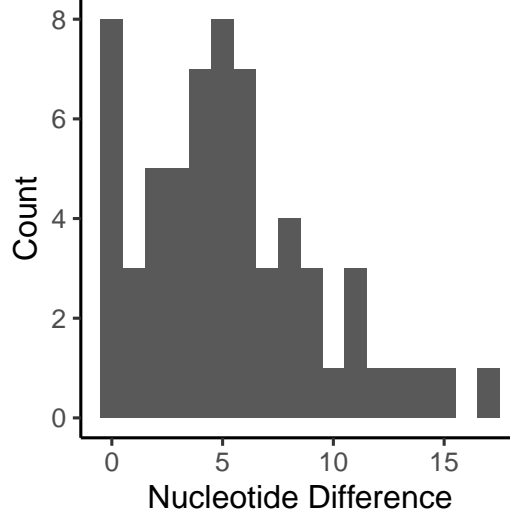
### IGHV1-69D\*01

2 sequences assigned  
No exact matches.



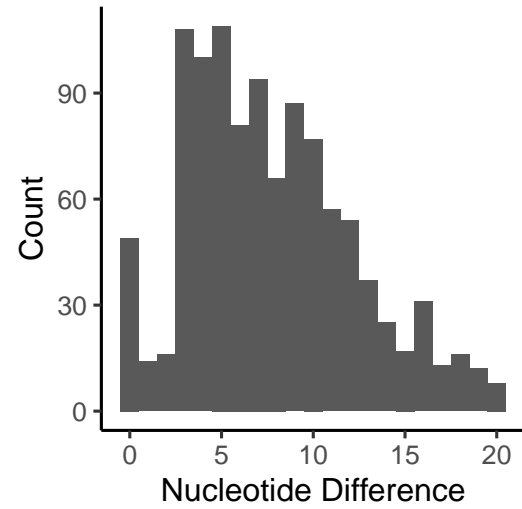
### IGHV2-70\*11\_15

63 sequences assigned  
8 (12.7%) exact matches, in which:  
8 unique CDR3  
3 unique J



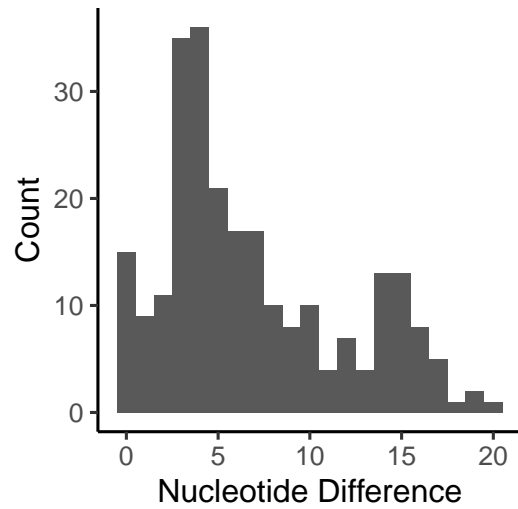
### IGHV3-7\*03

1087 sequences assigned  
49 (4.5%) exact matches, in which:  
28 unique CDR3  
4 unique J



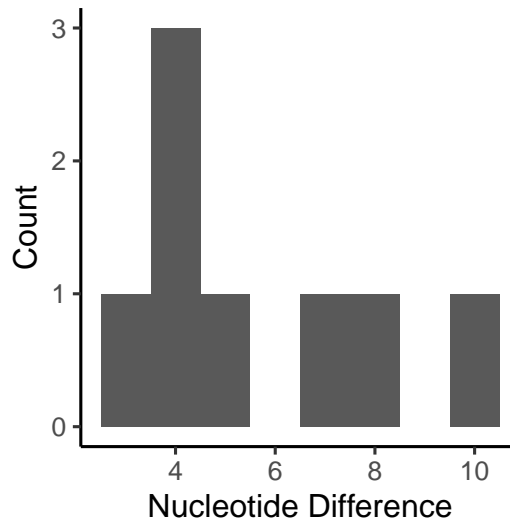
### IGHV2-5\*02

266 sequences assigned  
15 (5.6%) exact matches, in which:  
15 unique CDR3  
5 unique J



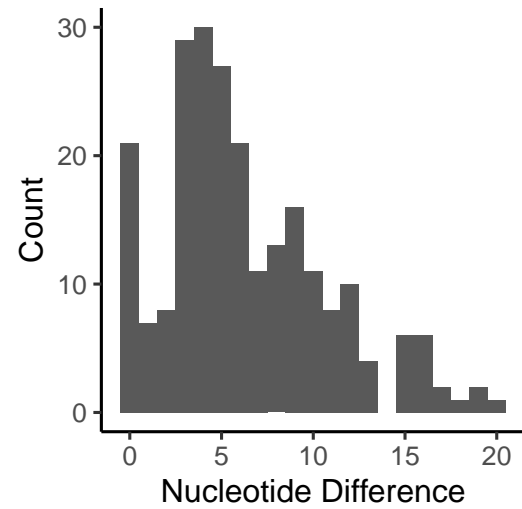
### IGHV2-70D\*04

8 sequences assigned  
No exact matches.



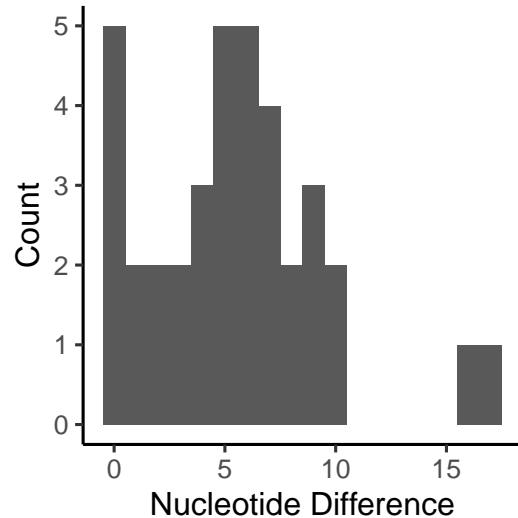
### IGHV3-9\*01

251 sequences assigned  
21 (8.4%) exact matches, in which:  
17 unique CDR3  
4 unique J



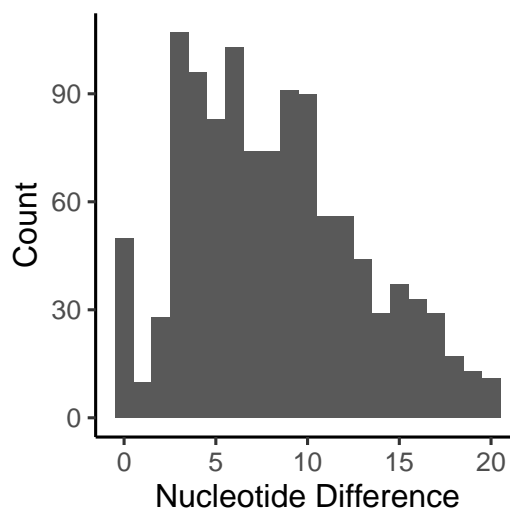
### IGHV2-26\*01

37 sequences assigned  
5 (13.5%) exact matches, in which:  
5 unique CDR3  
3 unique J



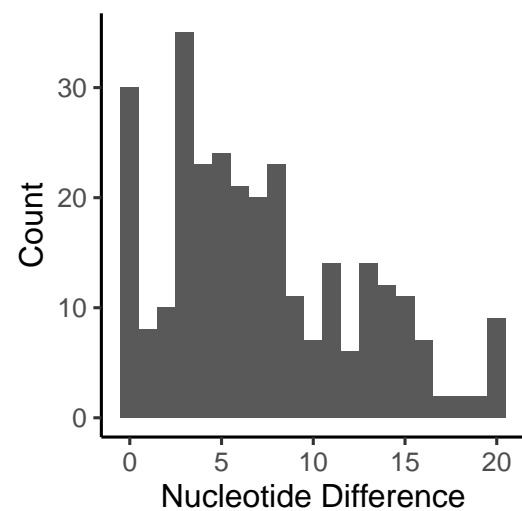
### IGHV3-7\*01

1166 sequences assigned  
50 (4.3%) exact matches, in which:  
32 unique CDR3  
5 unique J



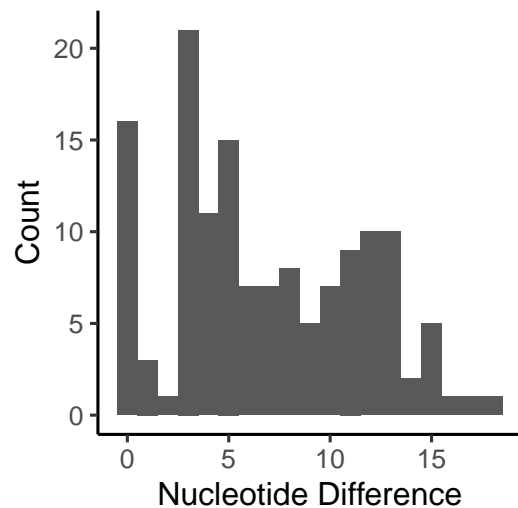
### IGHV3-11\*01

310 sequences assigned  
30 (9.7%) exact matches, in which:  
19 unique CDR3  
4 unique J



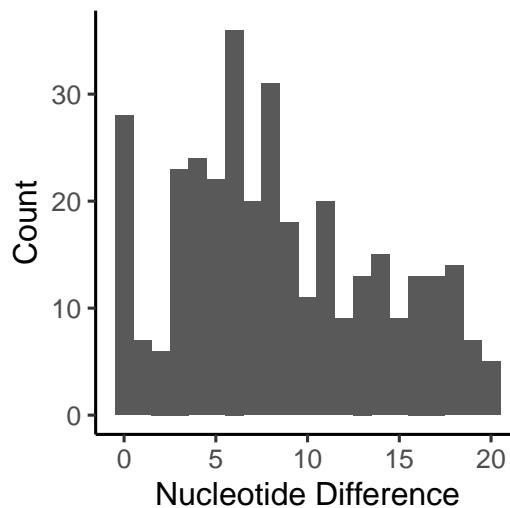
### IGHV3-11\*06

140 sequences assigned  
16 (11.4%) exact matches, in which:  
10 unique CDR3  
4 unique J



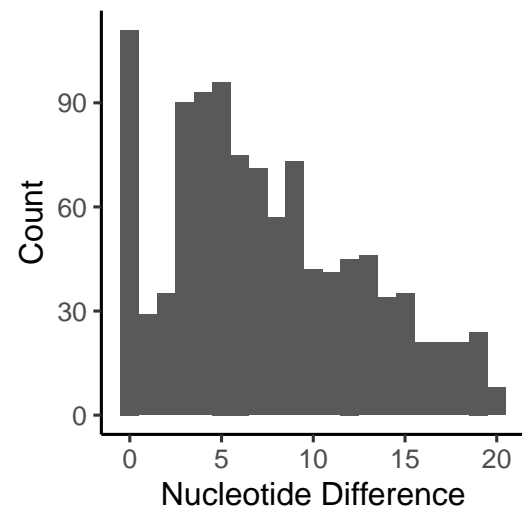
### IGHV3-15\*01\_02

360 sequences assigned  
28 (7.8%) exact matches, in which:  
20 unique CDR3  
4 unique J



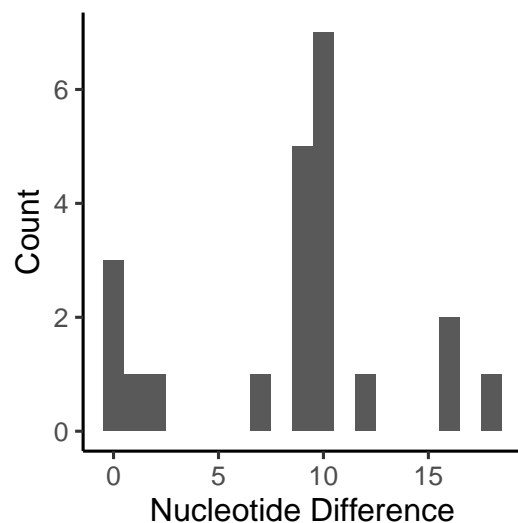
### IGHV3-21\*01\_02

1126 sequences assigned  
111 (9.9%) exact matches, in which:  
68 unique CDR3  
5 unique J



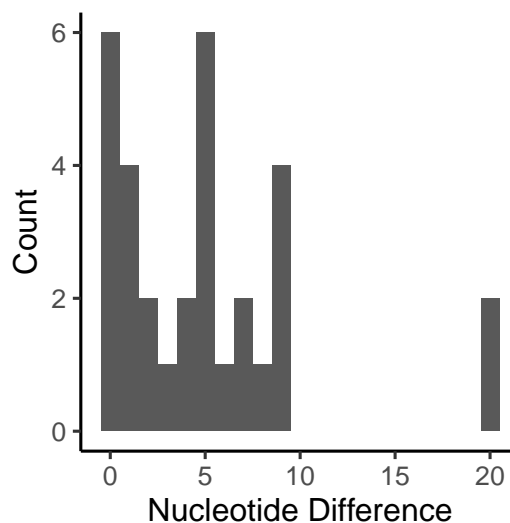
### IGHV3-13\*01

23 sequences assigned  
3 (13%) exact matches, in which:  
2 unique CDR3  
2 unique J



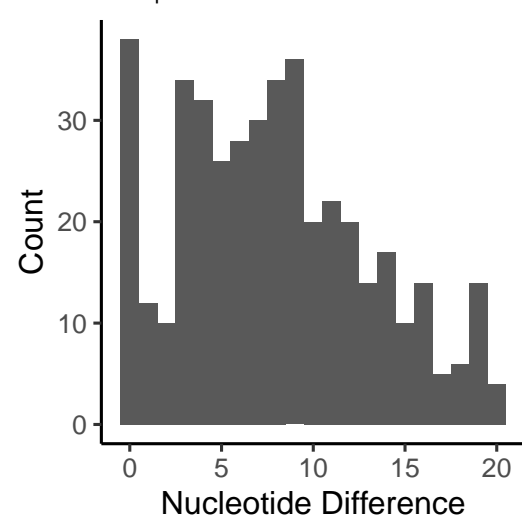
### IGHV3-20\*01\_02

31 sequences assigned  
6 (19.4%) exact matches, in which:  
4 unique CDR3  
2 unique J



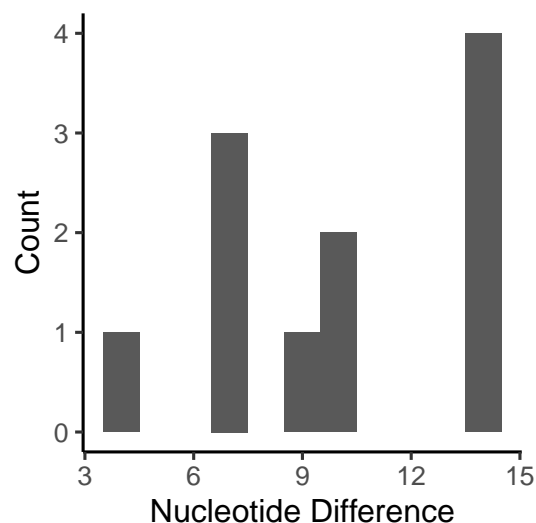
### IGHV3-30-3\*01

446 sequences assigned  
38 (8.5%) exact matches, in which:  
29 unique CDR3  
6 unique J



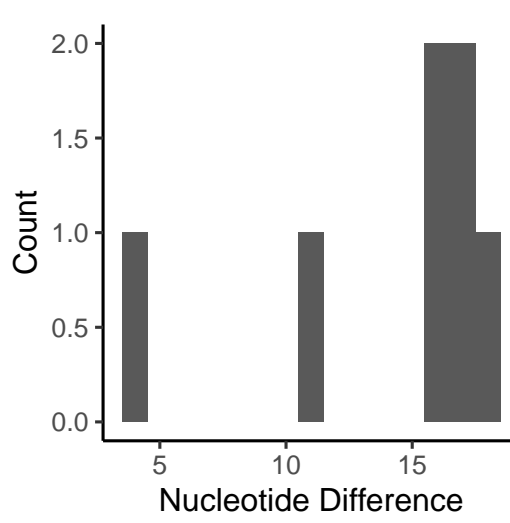
### IGHV3-13\*05

11 sequences assigned  
No exact matches.



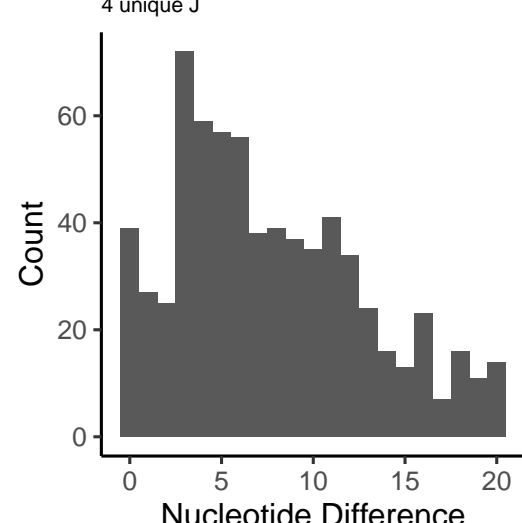
### IGHV3-20\*03\_04

8 sequences assigned  
No exact matches.



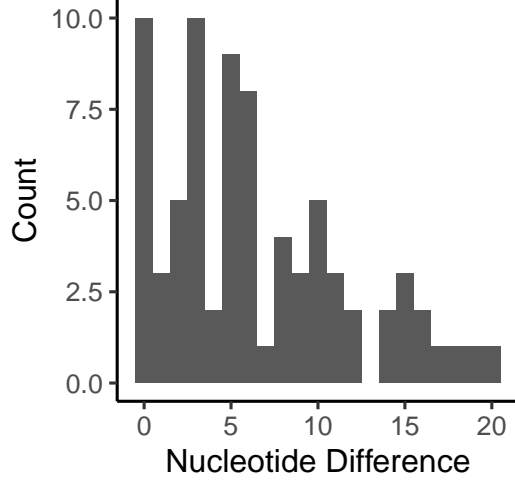
### IGHV3-33\*01

710 sequences assigned  
39 (5.5%) exact matches, in which:  
27 unique CDR3  
4 unique J



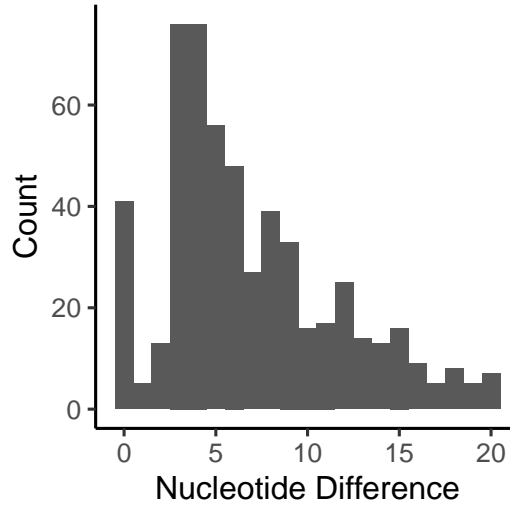
### IGHV3-43\*01

112 sequences assigned  
10 (8.9%) exact matches, in which:  
5 unique CDR3  
2 unique J



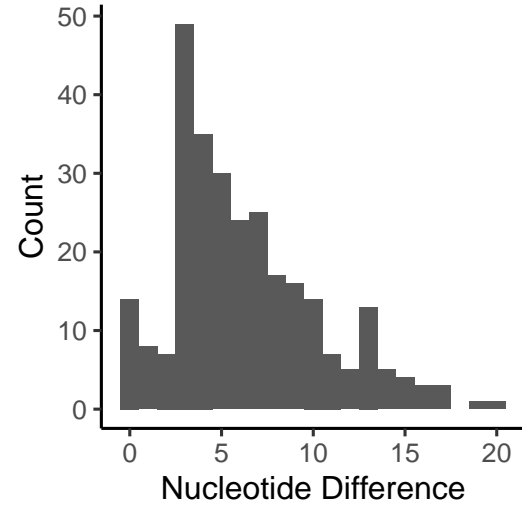
### IGHV3-53\*01\_02

573 sequences assigned  
41 (7.2%) exact matches, in which:  
28 unique CDR3  
3 unique J



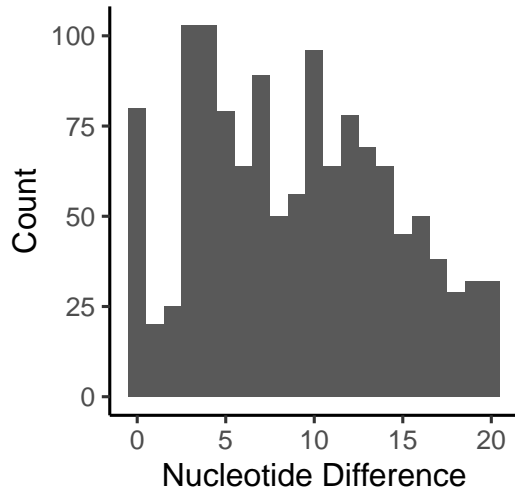
### IGHV3-66\*01

289 sequences assigned  
14 (4.8%) exact matches, in which:  
8 unique CDR3  
3 unique J



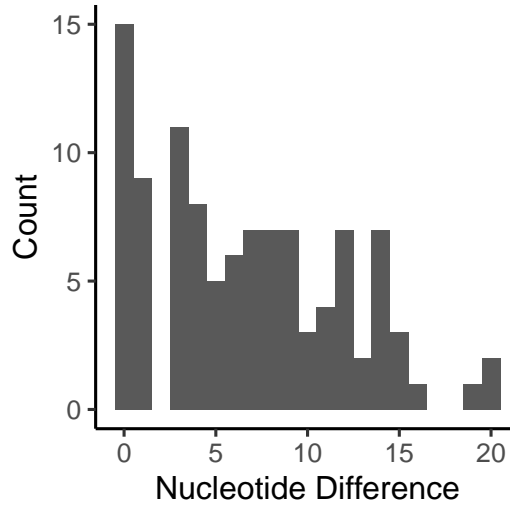
### IGHV3-48\*02

1371 sequences assigned  
80 (5.8%) exact matches, in which:  
47 unique CDR3  
6 unique J



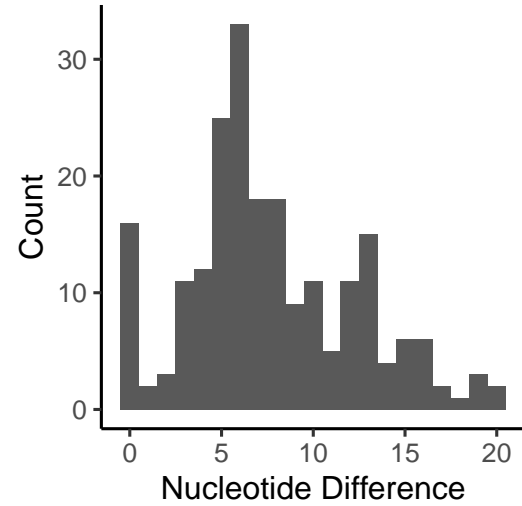
### IGHV3-64\*01

111 sequences assigned  
15 (13.5%) exact matches, in which:  
8 unique CDR3  
3 unique J



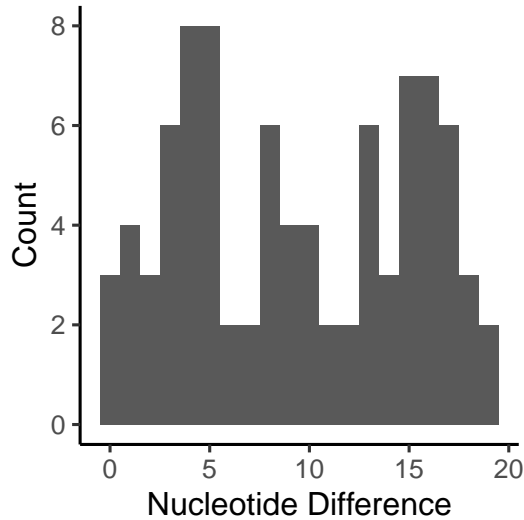
### IGHV3-66\*02

233 sequences assigned  
16 (6.9%) exact matches, in which:  
11 unique CDR3  
4 unique J



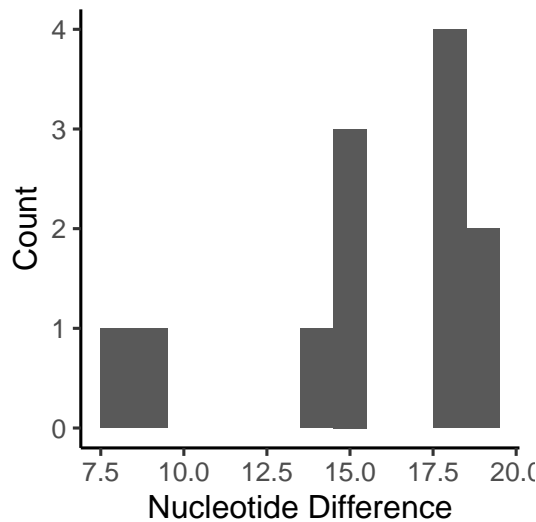
### IGHV3-49\*03\_05

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



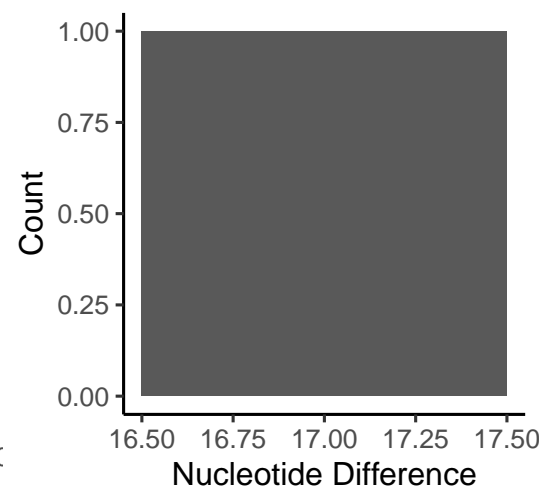
### IGHV3-64\*02\_07

17 sequences assigned  
No exact matches.



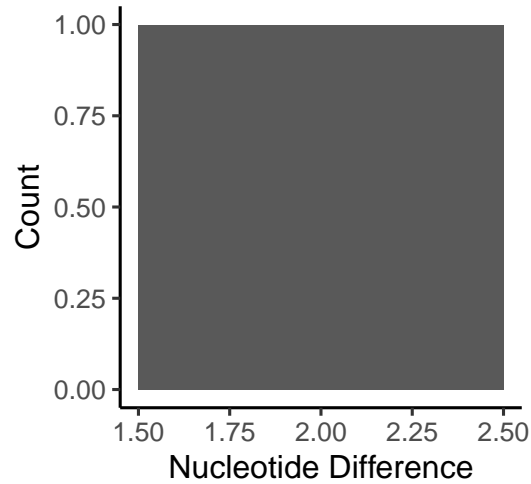
### IGHV3-69-1\*01

1 sequences assigned  
No exact matches.



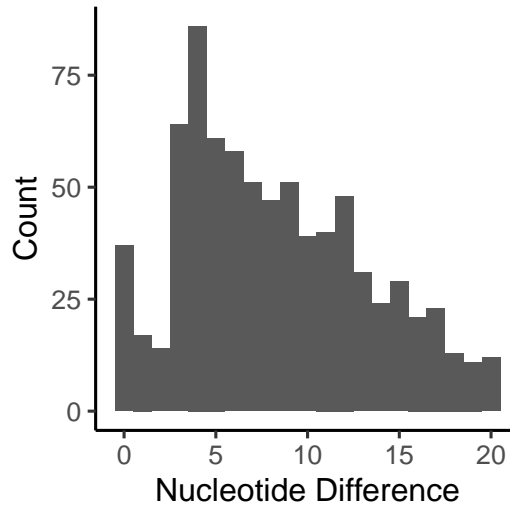
### IGHV3-69-1\*02

3 sequences assigned  
No exact matches.



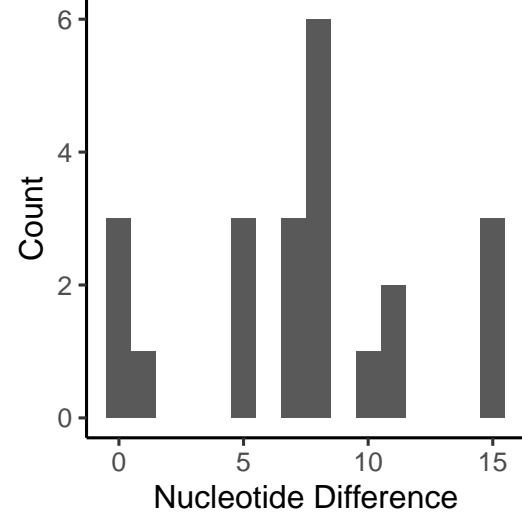
### IGHV3-74\*01\_02

801 sequences assigned  
37 (4.6%) exact matches, in which:  
27 unique CDR3  
4 unique J



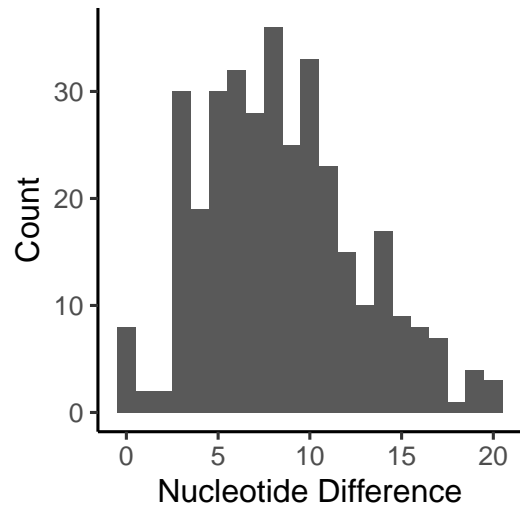
### IGHV4-28\*01\_07

24 sequences assigned  
3 (12.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



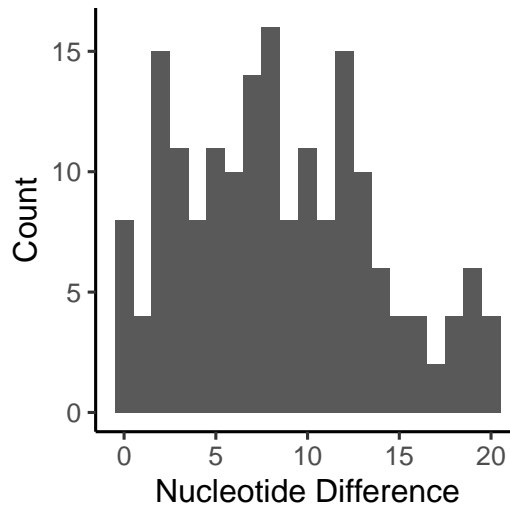
### IGHV3-72\*01

353 sequences assigned  
8 (2.3%) exact matches, in which:  
5 unique CDR3  
2 unique J



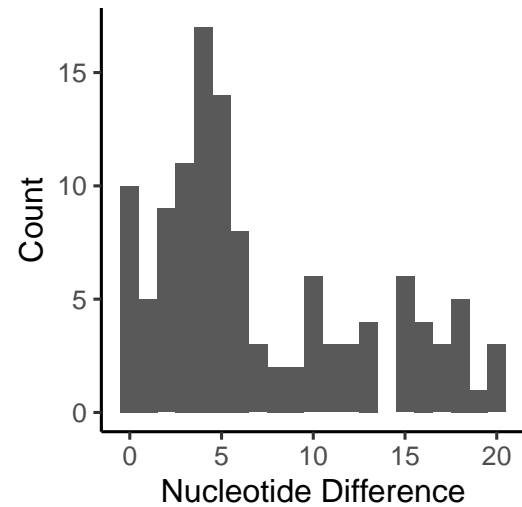
### IGHV3-64D\*09

186 sequences assigned  
8 (4.3%) exact matches, in which:  
7 unique CDR3  
3 unique J



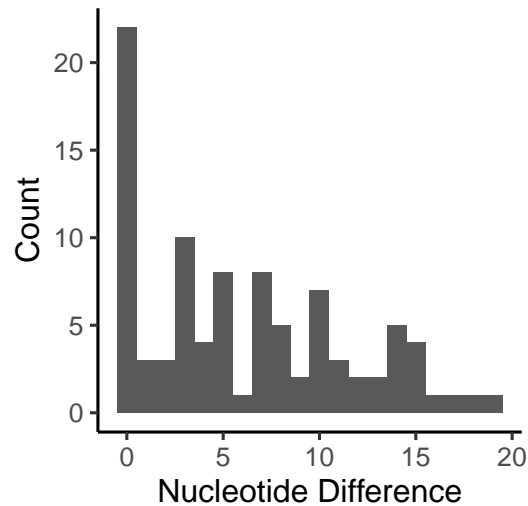
### IGHV4-30-4\*01

194 sequences assigned  
10 (5.2%) exact matches, in which:  
8 unique CDR3  
5 unique J



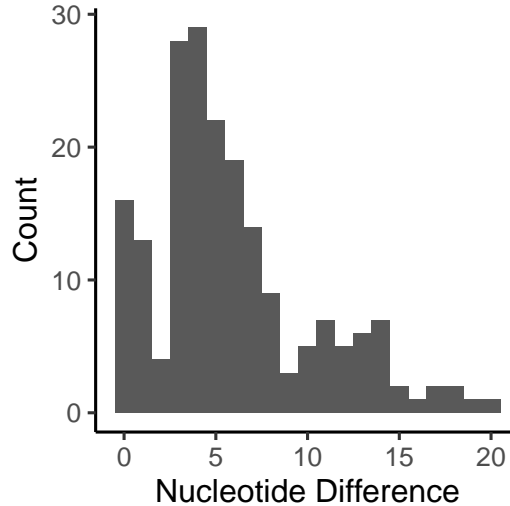
### IGHV3-73\*01\_02

95 sequences assigned  
22 (23.2%) exact matches, in which:  
11 unique CDR3  
4 unique J



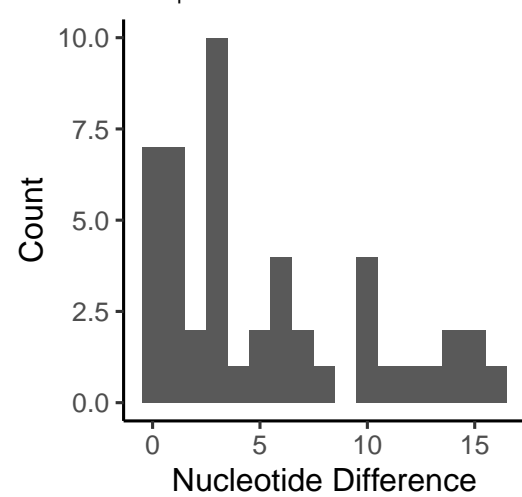
### IGHV4-4\*07

201 sequences assigned  
16 (8%) exact matches, in which:  
14 unique CDR3  
4 unique J



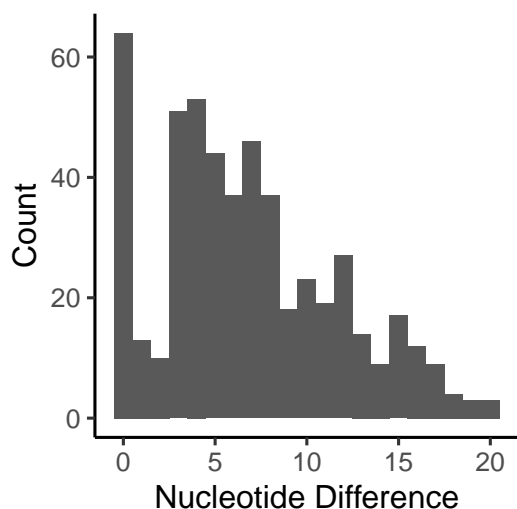
### IGHV4-30-2\*01

50 sequences assigned  
7 (14%) exact matches, in which:  
5 unique CDR3  
3 unique J



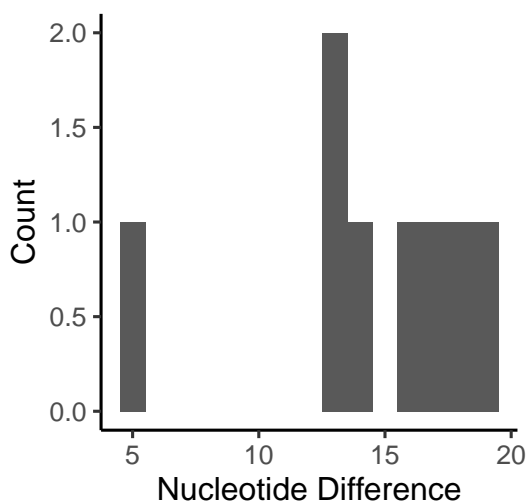
### IGHV4-31\*03\_04

535 sequences assigned  
64 (12%) exact matches, in which:  
48 unique CDR3  
5 unique J



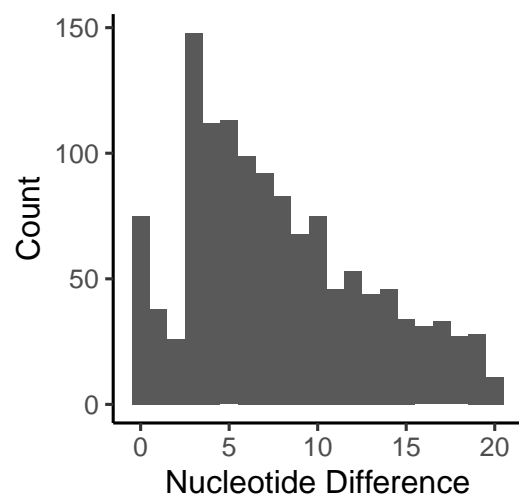
### IGHV4-38-2\*02

10 sequences assigned  
No exact matches.



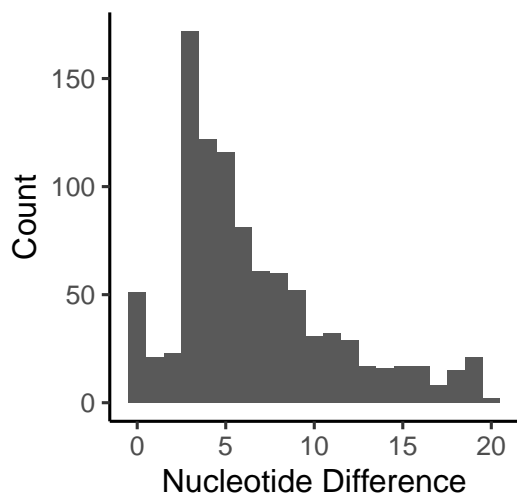
### IGHV4-59\*01\_07

1335 sequences assigned  
75 (5.6%) exact matches, in which:  
57 unique CDR3  
5 unique J



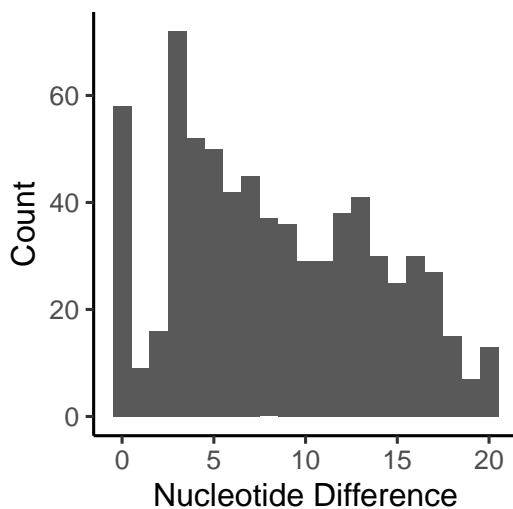
### IGHV4-34\*01\_02

1002 sequences assigned  
51 (5.1%) exact matches, in which:  
38 unique CDR3  
5 unique J



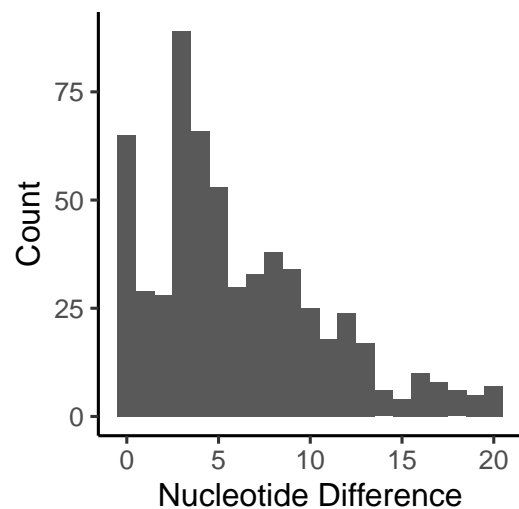
### IGHV4-39\*01\_05

795 sequences assigned  
58 (7.3%) exact matches, in which:  
47 unique CDR3  
4 unique J



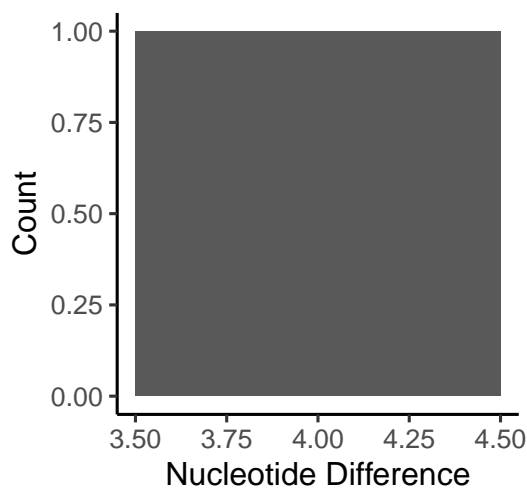
### IGHV4-61\*02

622 sequences assigned  
65 (10.5%) exact matches, in which:  
55 unique CDR3  
6 unique J



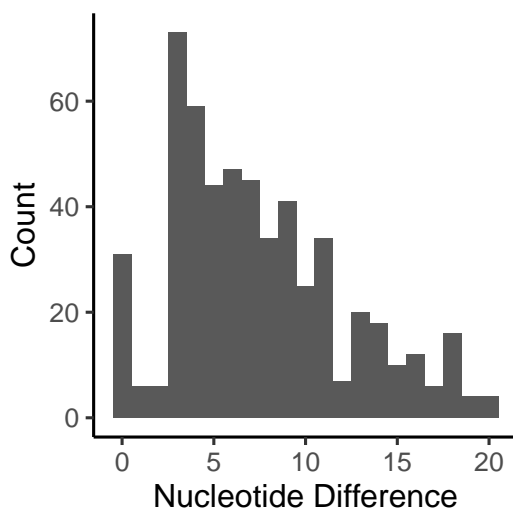
### IGHV4-38-2\*01

2 sequences assigned  
No exact matches.



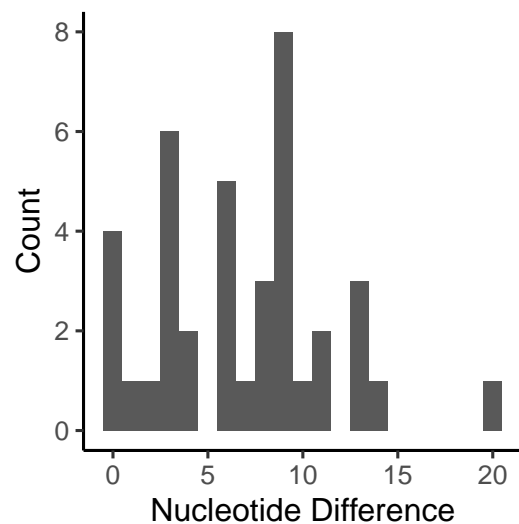
### IGHV4-59\*08

554 sequences assigned  
31 (5.6%) exact matches, in which:  
22 unique CDR3  
5 unique J



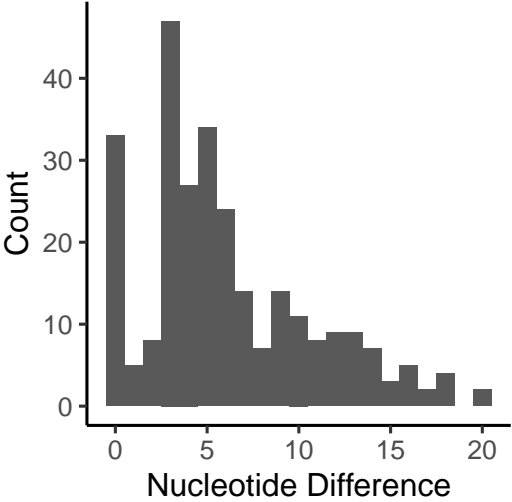
### IGHV5-10-1\*01\_03

40 sequences assigned  
4 (10%) exact matches, in which:  
4 unique CDR3  
3 unique J



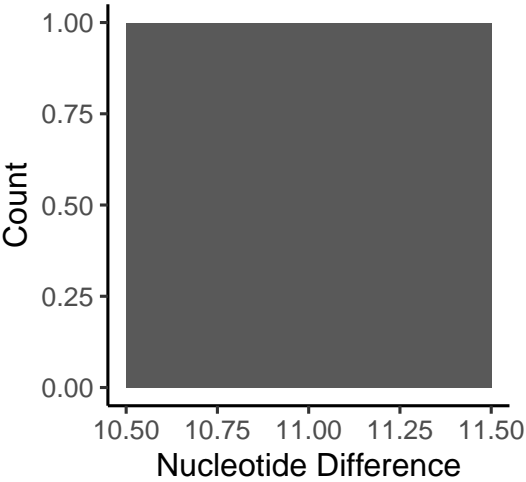
IGHV5-51\*01\_03

274 sequences assigned  
33 (12%) exact matches, in which:  
32 unique CDR3  
5 unique J



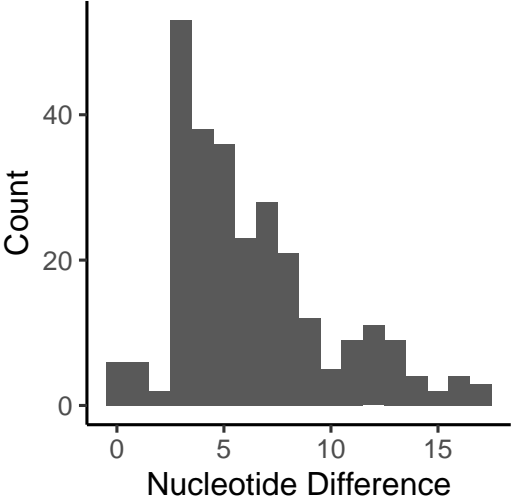
IGHV7-4-1\*02

1 sequences assigned  
No exact matches.



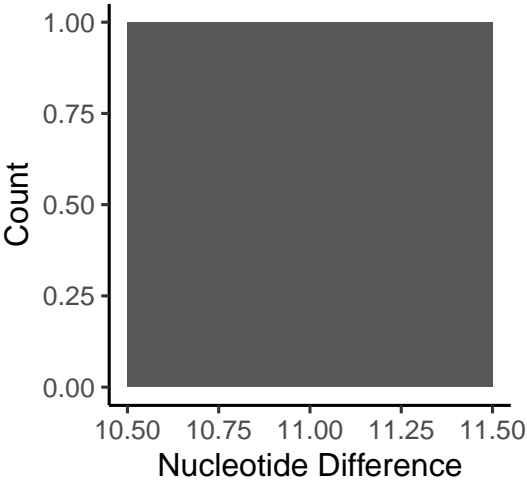
IGHV6-1\*01\_02

276 sequences assigned  
6 (2.2%) exact matches, in which:  
5 unique CDR3  
3 unique J



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\_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.

Novel sequence(s)IGHV5–51\*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.

Novel sequence(s)IGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

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

Novel sequence(s)IGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.