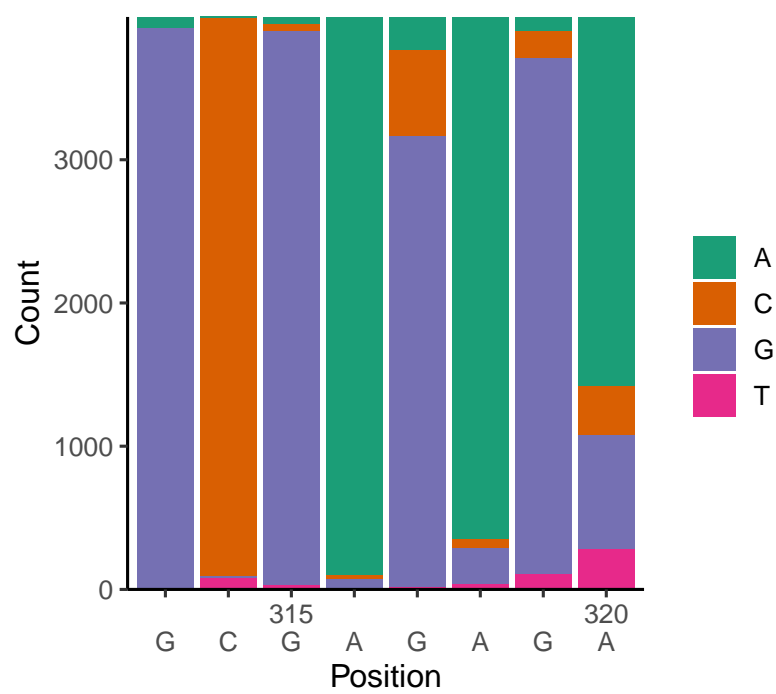


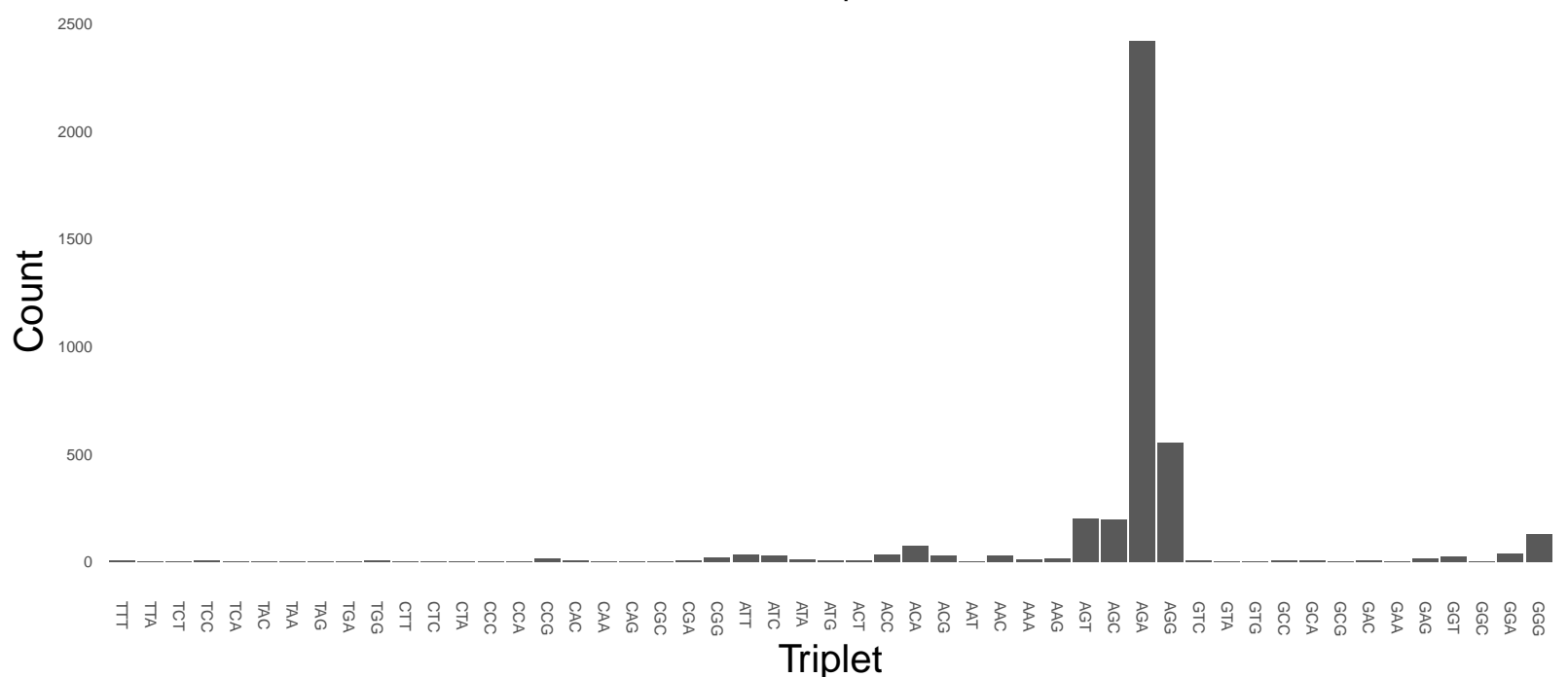
# Gene IGHV3-33\*01\_G75C



# Gene IGHV3-33\*01\_G75C

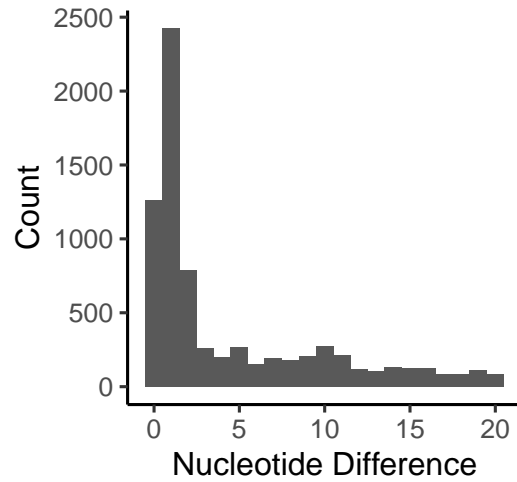


IGHV3-33\*01\_G75C- Final 3 nucleotides as a triplet



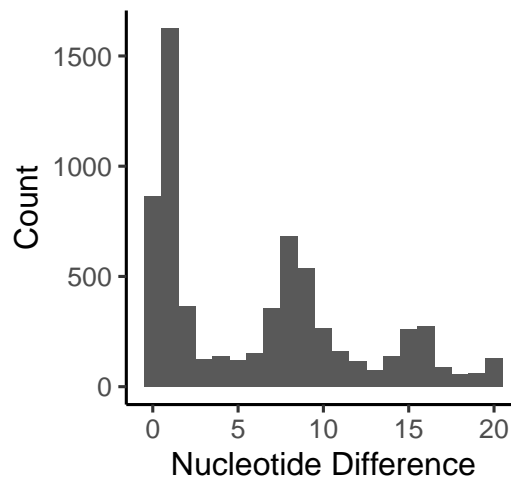
### IGHV1-2\*02

9506 sequences assigned  
1260 (13.3%) exact matches, in which:  
927 unique CDR3  
7 unique J



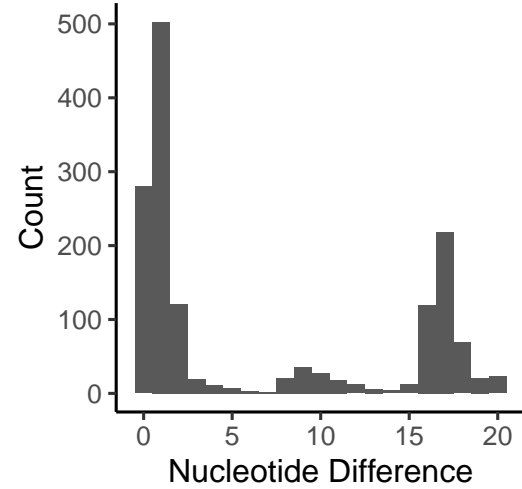
### IGHV1-8\*01

7614 sequences assigned  
864 (11.3%) exact matches, in which:  
629 unique CDR3  
7 unique J



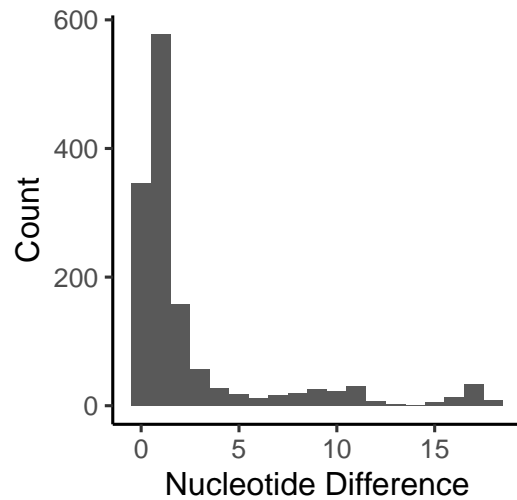
### IGHV1-24\*01

1978 sequences assigned  
280 (14.2%) exact matches, in which:  
196 unique CDR3  
5 unique J



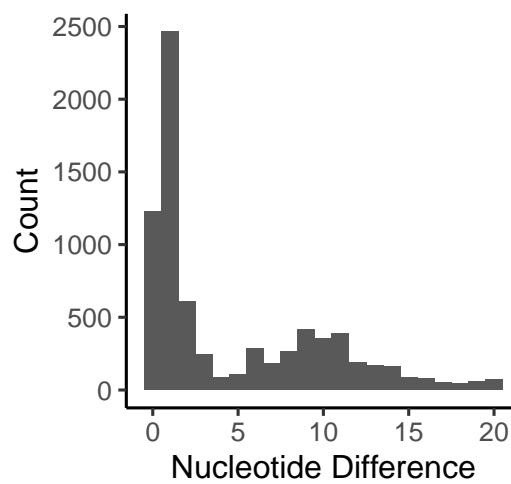
### IGHV1-2\*04

1466 sequences assigned  
346 (23.6%) exact matches, in which:  
269 unique CDR3  
5 unique J



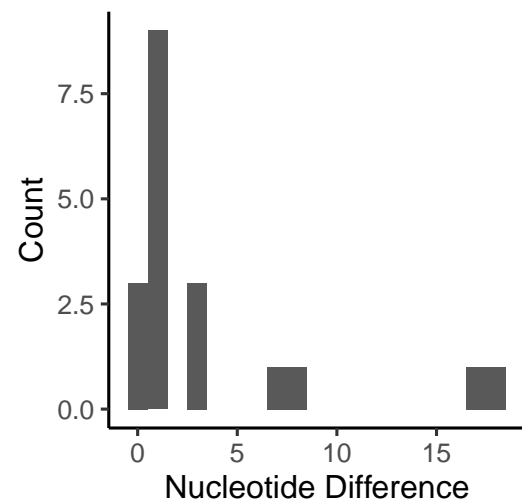
### IGHV1-18\*01

9219 sequences assigned  
1231 (13.4%) exact matches, in which:  
864 unique CDR3  
6 unique J



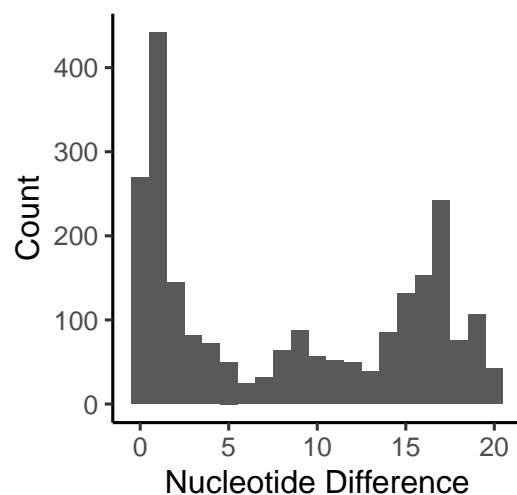
### IGHV1-45\*02

19 sequences assigned  
3 (15.8%) exact matches, in which:  
2 unique CDR3  
1 unique J



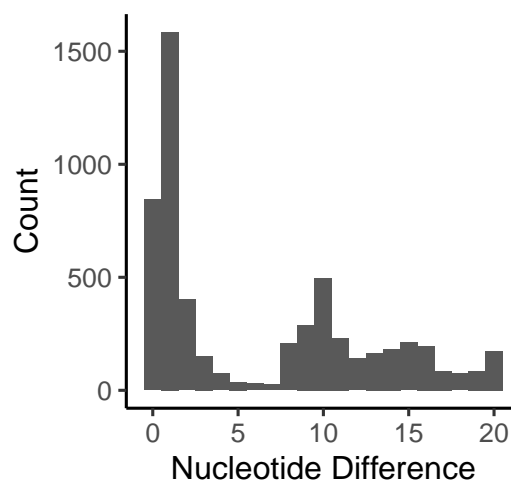
### IGHV1-3\*01\_05

3339 sequences assigned  
269 (8.1%) exact matches, in which:  
193 unique CDR3  
5 unique J



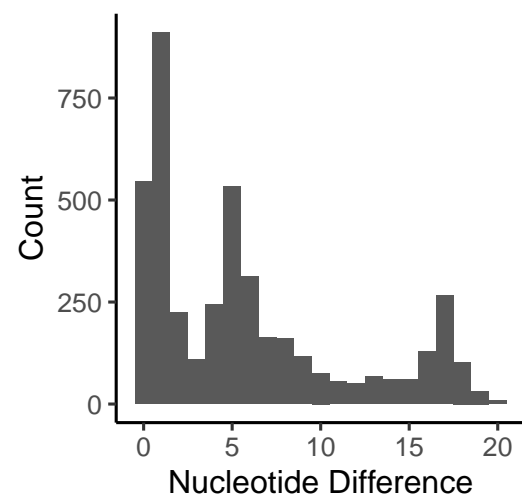
### IGHV1-18\*04

7160 sequences assigned  
844 (11.8%) exact matches, in which:  
601 unique CDR3  
6 unique J



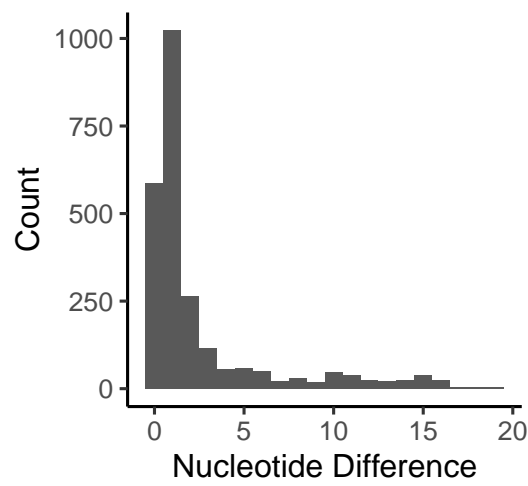
### IGHV1-46\*01

4820 sequences assigned  
545 (11.3%) exact matches, in which:  
413 unique CDR3  
5 unique J



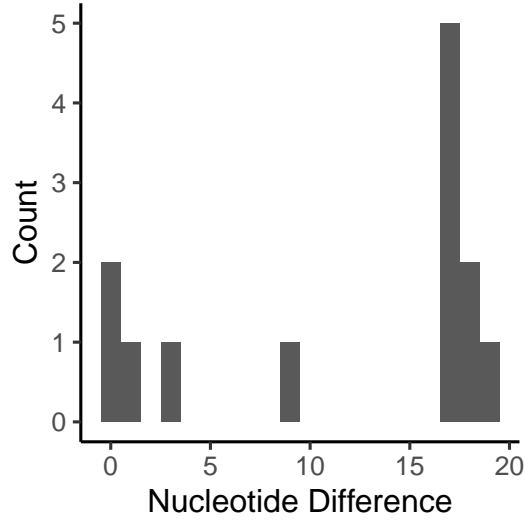
### IGHV1-46\*04

2739 sequences assigned  
587 (21.4%) exact matches, in which:  
431 unique CDR3  
7 unique J



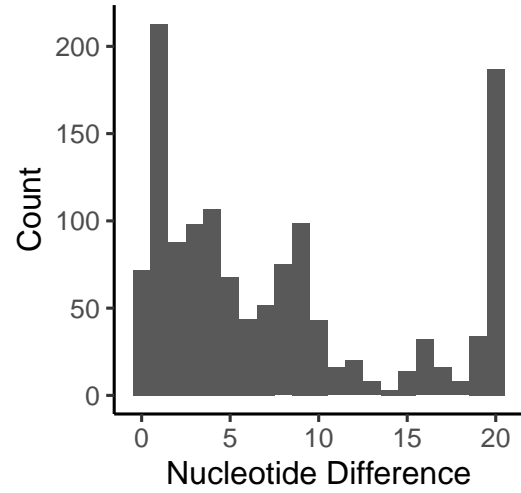
### IGHV1-69-2\*01

15 sequences assigned  
2 (13.3%) exact matches, in which:  
2 unique CDR3  
2 unique J



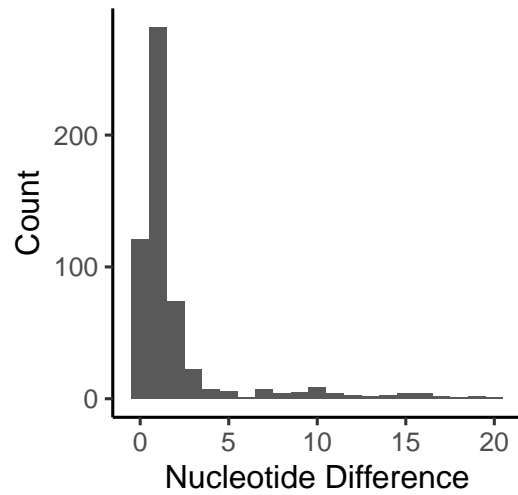
### IGHV2-5\*02

2282 sequences assigned  
72 (3.2%) exact matches, in which:  
51 unique CDR3  
6 unique J



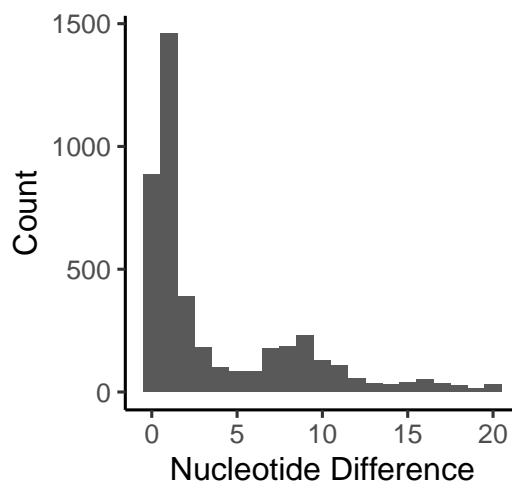
### IGHV1-58\*01\_03

569 sequences assigned  
121 (21.3%) exact matches, in which:  
92 unique CDR3  
5 unique J



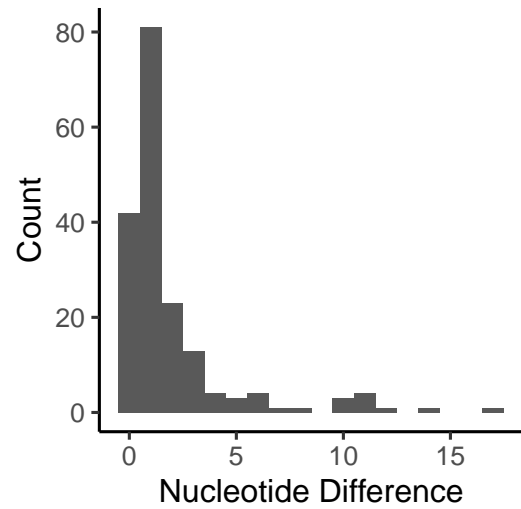
### IGHV1-69\*06\_14

5059 sequences assigned  
887 (17.5%) exact matches, in which:  
691 unique CDR3  
6 unique J



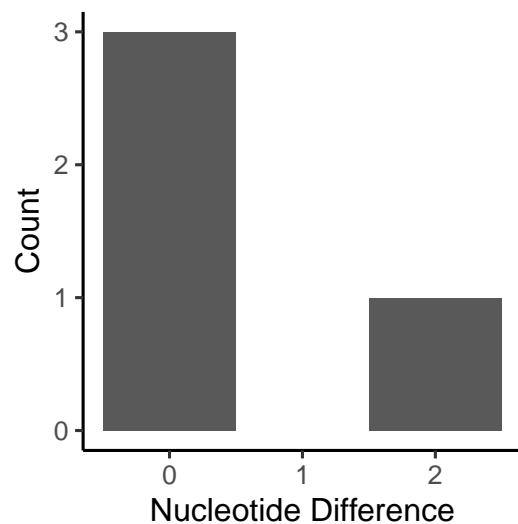
### IGHV2-26\*01

268 sequences assigned  
42 (15.7%) exact matches, in which:  
23 unique CDR3  
5 unique J



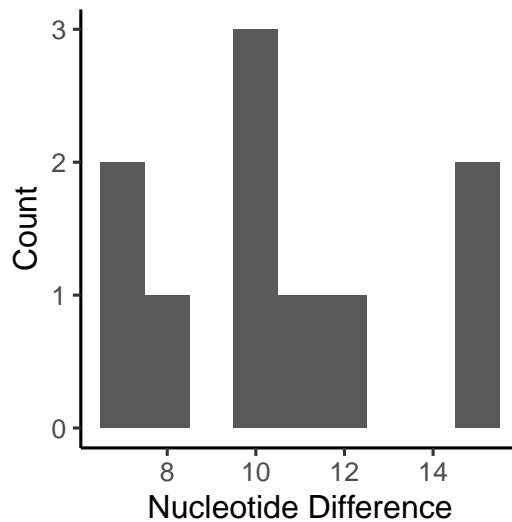
### IGHV1-68\*01

4 sequences assigned  
3 (75%) exact matches, in which:  
3 unique CDR3  
2 unique J



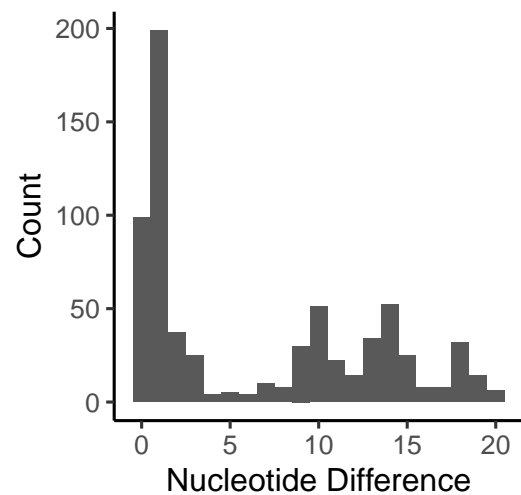
### IGHV1-NL1\*01

10 sequences assigned  
No exact matches.



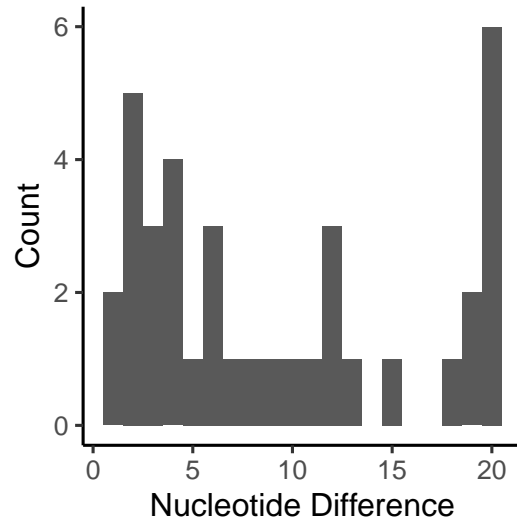
### IGHV2-70\*01

719 sequences assigned  
99 (13.8%) exact matches, in which:  
71 unique CDR3  
5 unique J



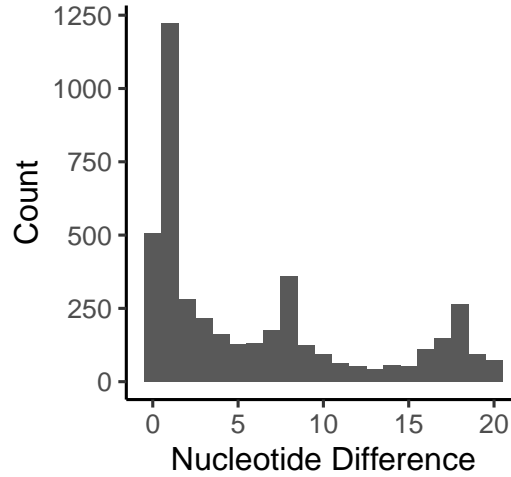
### IGHV2-70\*12

43 sequences assigned  
No exact matches.



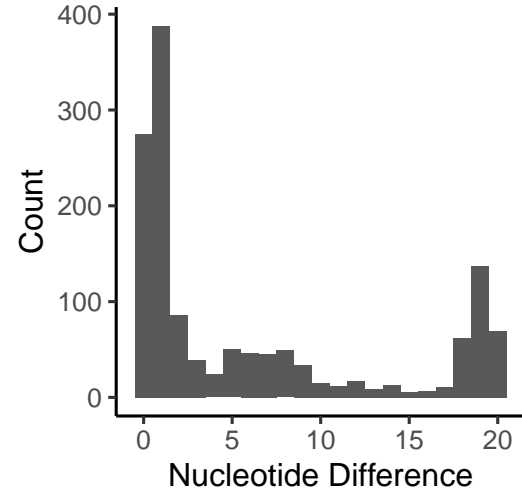
### IGHV3-9\*01

5021 sequences assigned  
505 (10.1%) exact matches, in which:  
281 unique CDR3  
7 unique J



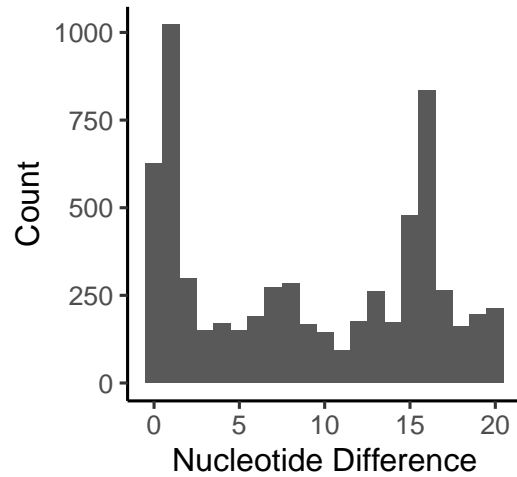
### IGHV3-11\*06

1624 sequences assigned  
275 (16.9%) exact matches, in which:  
171 unique CDR3  
7 unique J



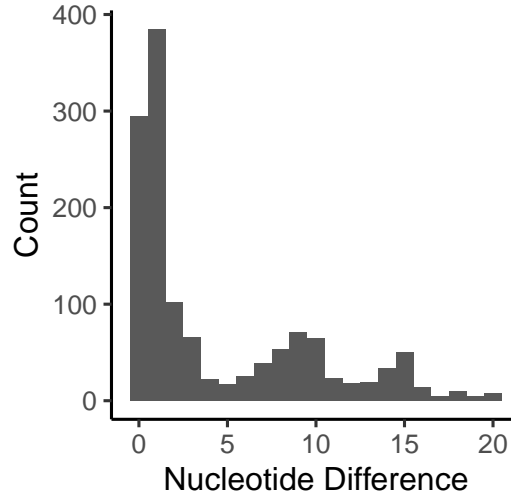
### IGHV3-7\*01

8723 sequences assigned  
625 (7.2%) exact matches, in which:  
403 unique CDR3  
7 unique J



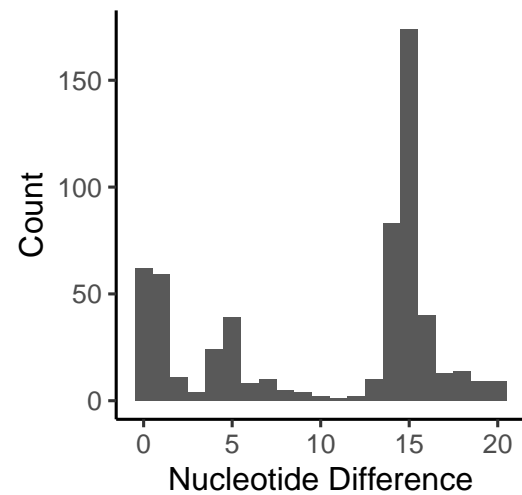
### IGHV3-11\*01

2075 sequences assigned  
295 (14.2%) exact matches, in which:  
195 unique CDR3  
6 unique J



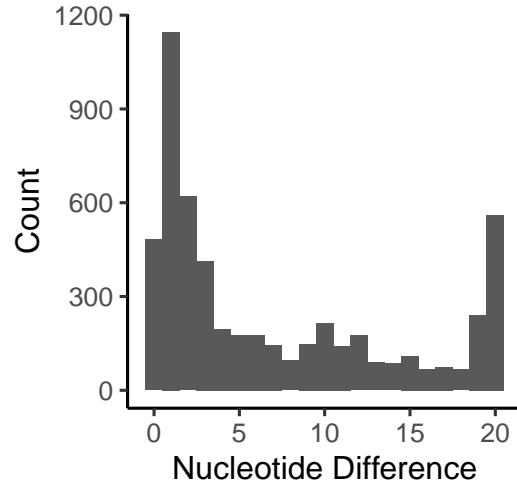
### IGHV3-13\*01

648 sequences assigned  
62 (9.6%) exact matches, in which:  
43 unique CDR3  
5 unique J



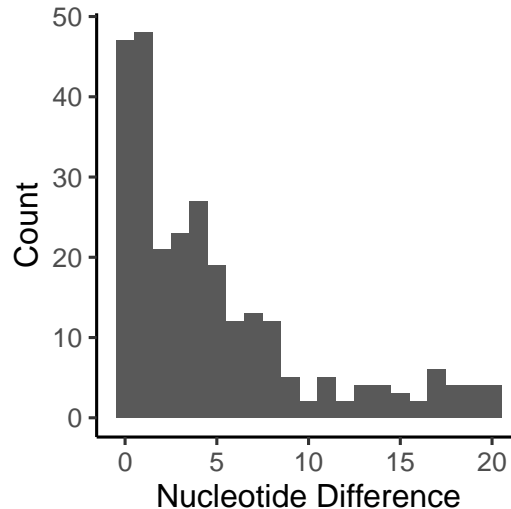
### IGHV3-7\*03

8645 sequences assigned  
482 (5.6%) exact matches, in which:  
293 unique CDR3  
5 unique J



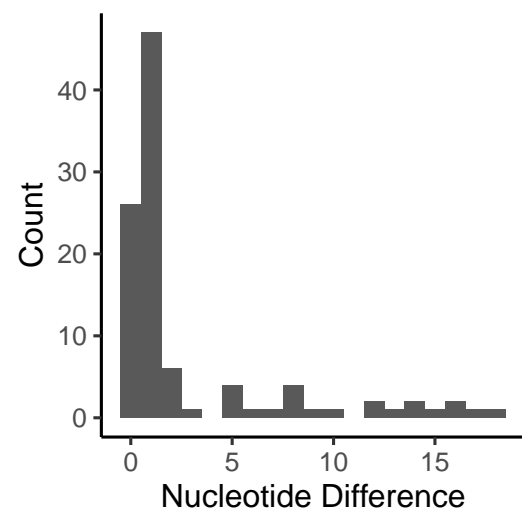
### IGHV3-11\*04

296 sequences assigned  
47 (15.9%) exact matches, in which:  
44 unique CDR3  
6 unique J



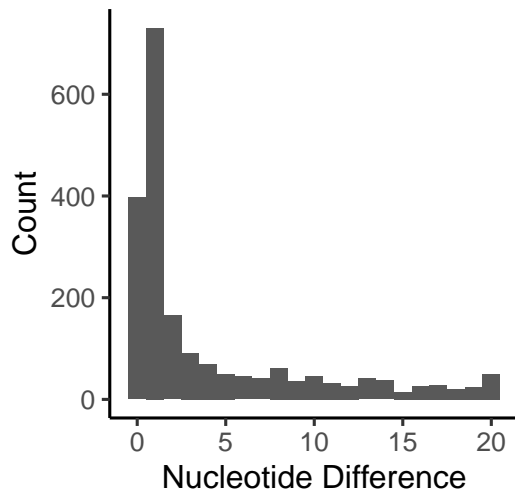
### IGHV3-13\*05

105 sequences assigned  
26 (24.8%) exact matches, in which:  
21 unique CDR3  
4 unique J



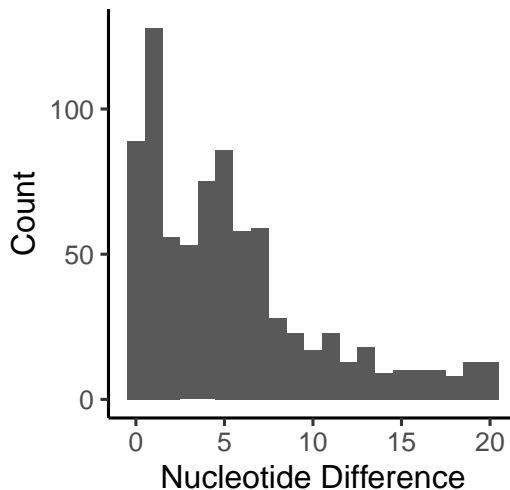
### IGHV3-15\*01\_02

2874 sequences assigned  
397 (13.8%) exact matches, in which:  
225 unique CDR3  
7 unique J



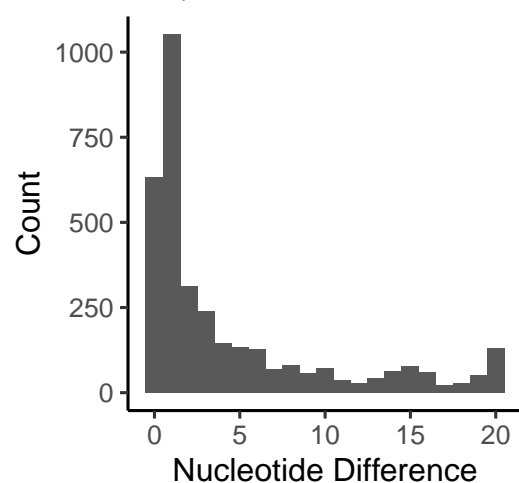
### IGHV3-21\*04

919 sequences assigned  
89 (9.7%) exact matches, in which:  
68 unique CDR3  
6 unique J



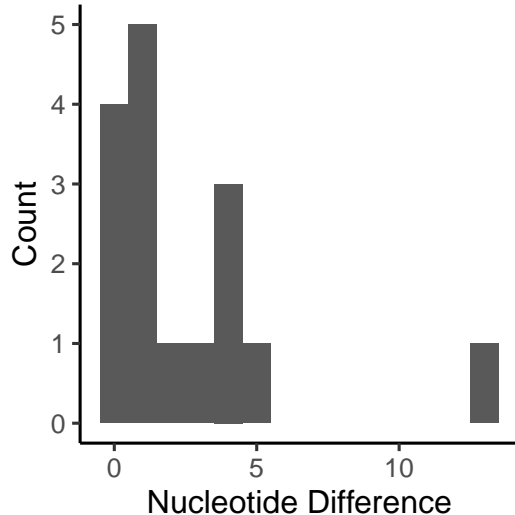
### IGHV3-30-3\*01

4578 sequences assigned  
632 (13.8%) exact matches, in which:  
401 unique CDR3  
7 unique J



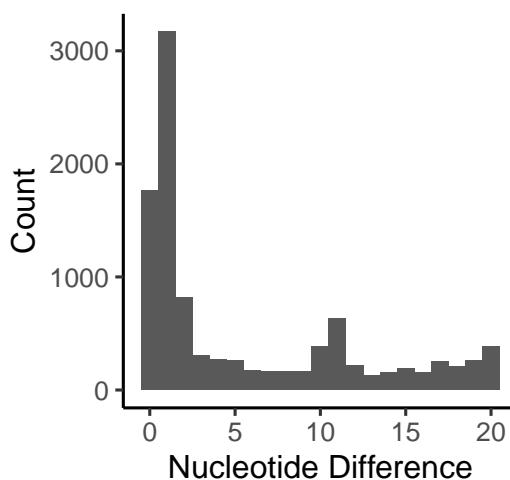
### IGHV3-19\*01

16 sequences assigned  
4 (25%) exact matches, in which:  
4 unique CDR3  
1 unique J



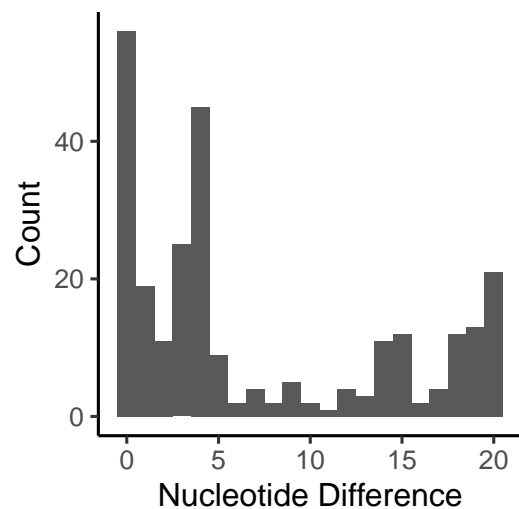
### IGHV3-21\*01\_02

13038 sequences assigned  
1767 (13.6%) exact matches, in which:  
993 unique CDR3  
7 unique J



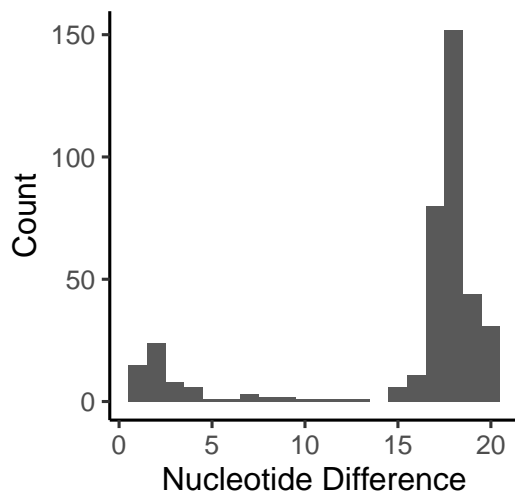
### IGHV3-30\*03

315 sequences assigned  
56 (17.8%) exact matches, in which:  
52 unique CDR3  
7 unique J



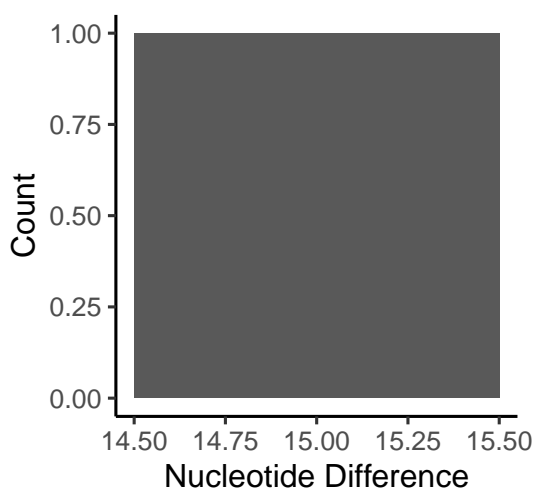
### IGHV3-20\*03\_04

496 sequences assigned  
No exact matches.



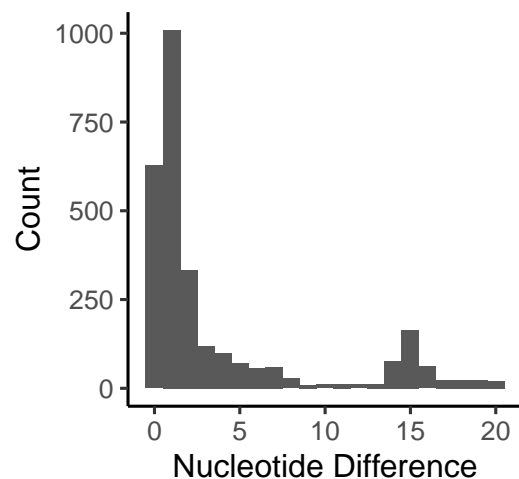
### IGHV3-22\*01\_02

1 sequences assigned  
No exact matches.



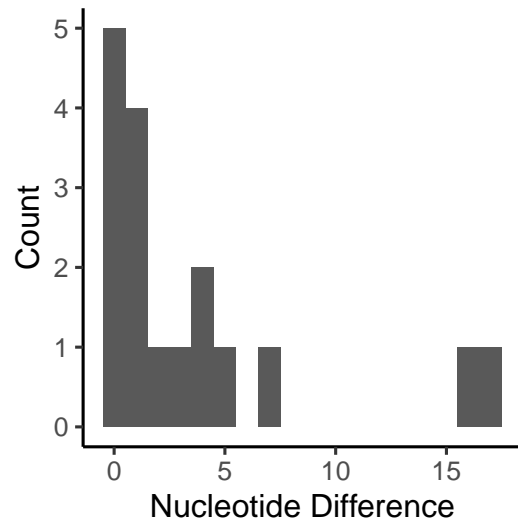
### IGHV3-33\*01

3307 sequences assigned  
628 (19%) exact matches, in which:  
414 unique CDR3  
7 unique J



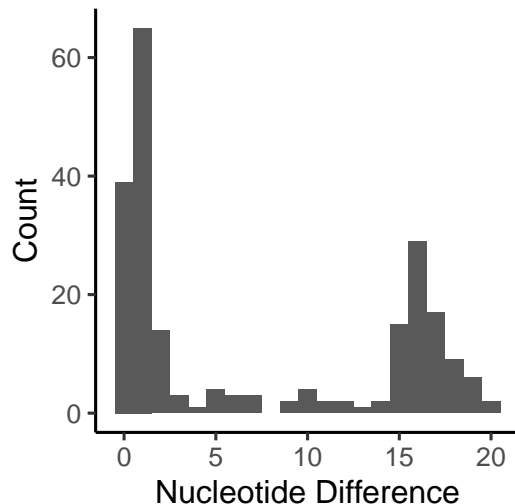
### IGHV3-33\*05

18 sequences assigned  
5 (27.8%) exact matches, in which:  
5 unique CDR3  
4 unique J



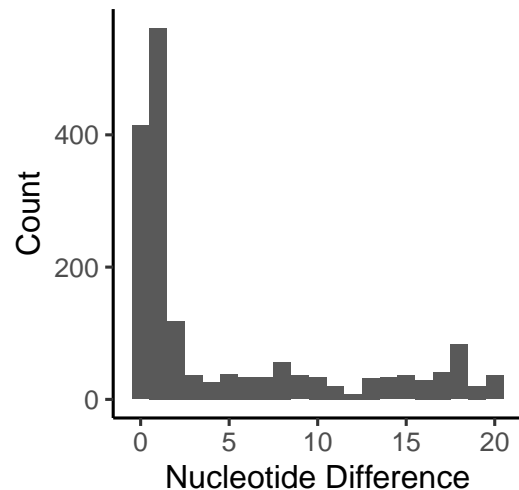
### IGHV3-43\*01

532 sequences assigned  
39 (7.3%) exact matches, in which:  
21 unique CDR3  
2 unique J



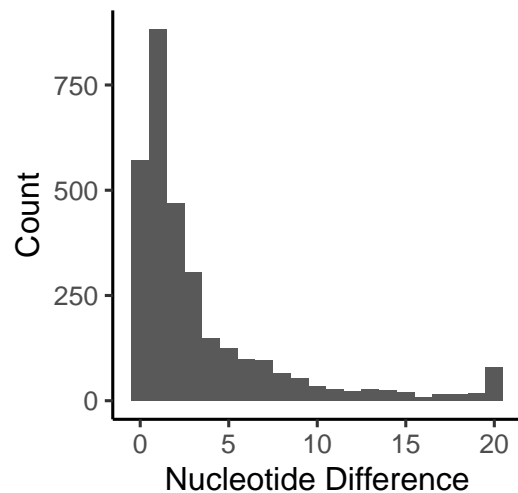
### IGHV3-48\*02

2821 sequences assigned  
414 (14.7%) exact matches, in which:  
242 unique CDR3  
7 unique J



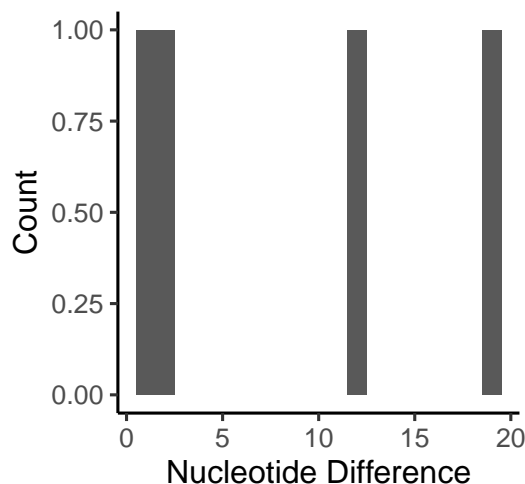
### IGHV3-33\*01\_G75C

3997 sequences assigned  
571 (14.3%) exact matches, in which:  
358 unique CDR3  
7 unique J



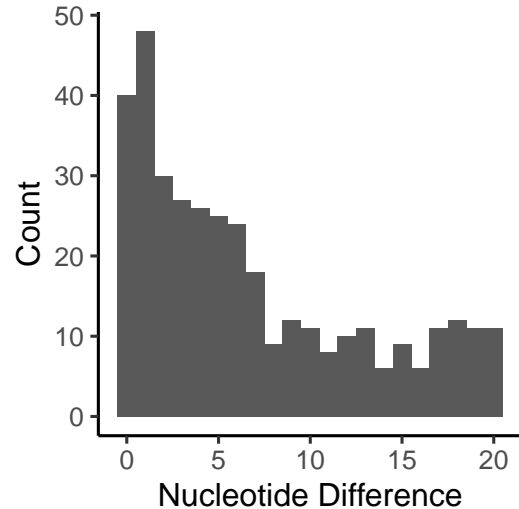
### IGHV3-47\*02

4 sequences assigned  
No exact matches.



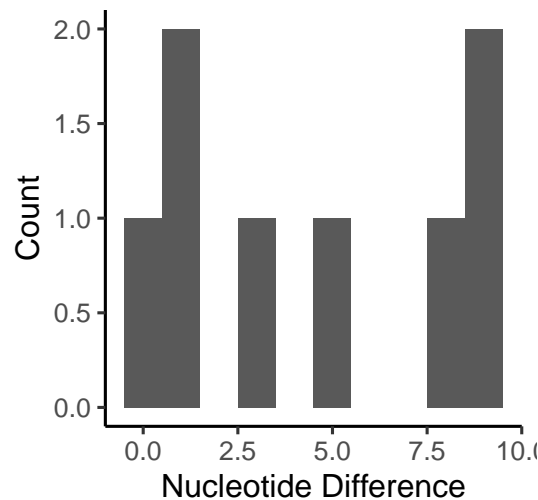
### IGHV3-48\*04

667 sequences assigned  
40 (6%) exact matches, in which:  
35 unique CDR3  
6 unique J



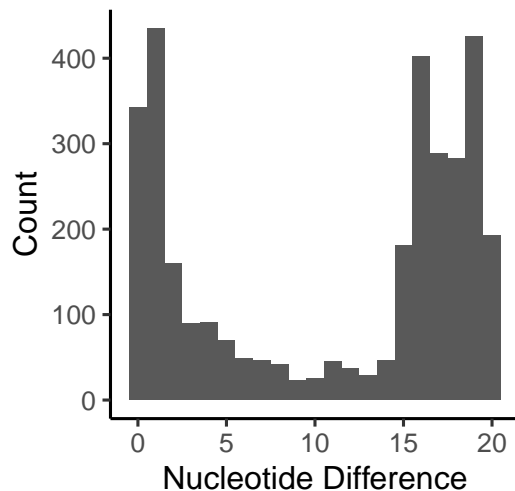
### IGHV3-35\*01

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



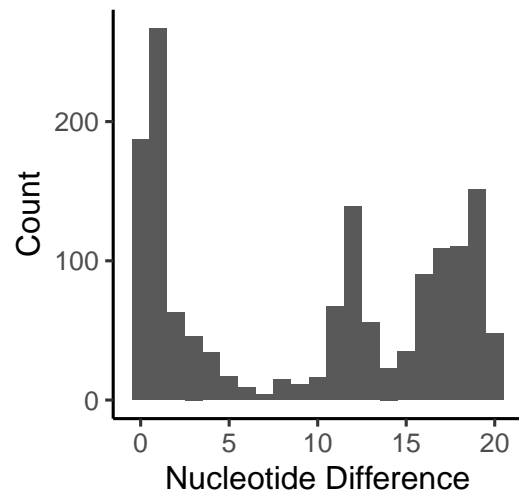
### IGHV3-48\*01

4563 sequences assigned  
342 (7.5%) exact matches, in which:  
240 unique CDR3  
7 unique J



### IGHV3-49\*03\_05

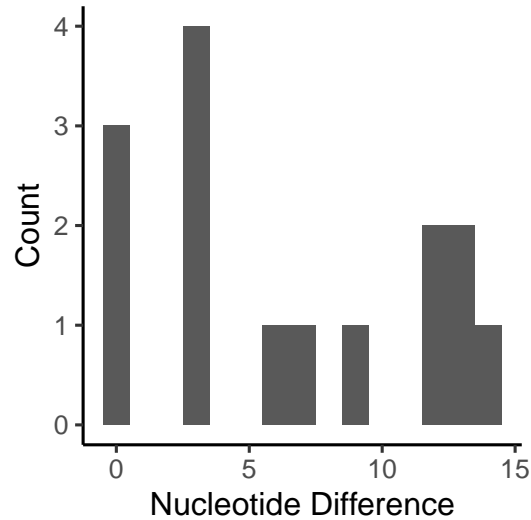
2137 sequences assigned  
187 (8.8%) exact matches, in which:  
110 unique CDR3  
6 unique J





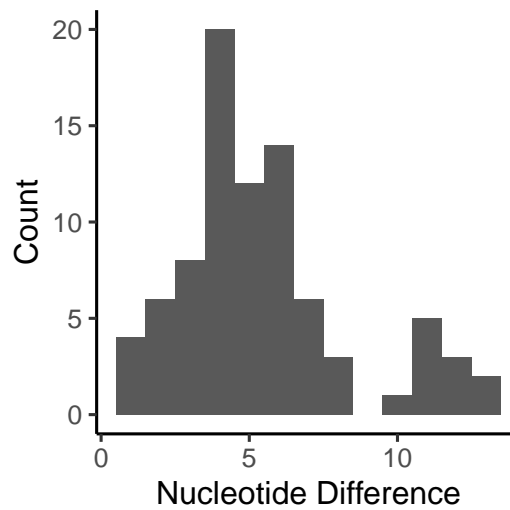
### IGHV3-52\*01\_03

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



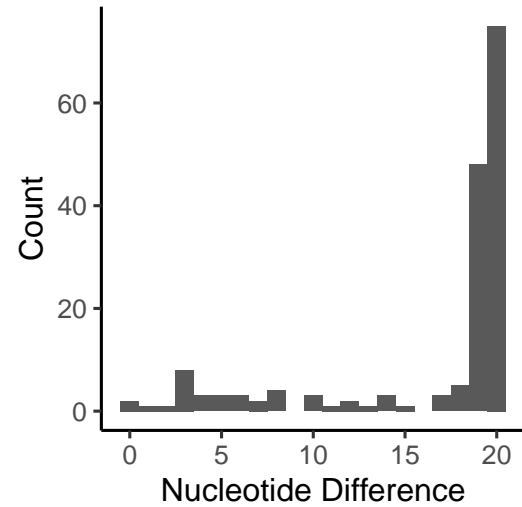
### IGHV3-64\*04

88 sequences assigned  
No exact matches.



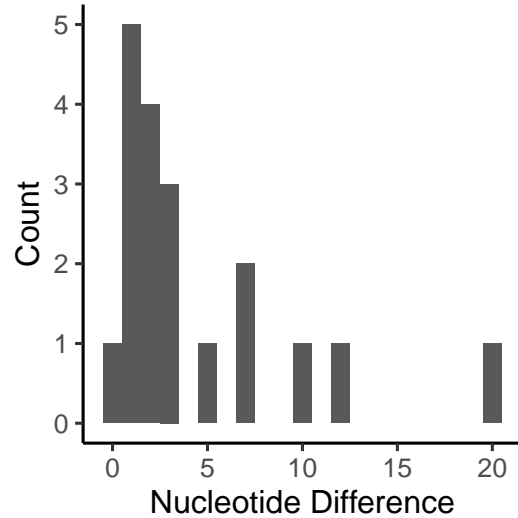
### IGHV3-69-1\*01

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



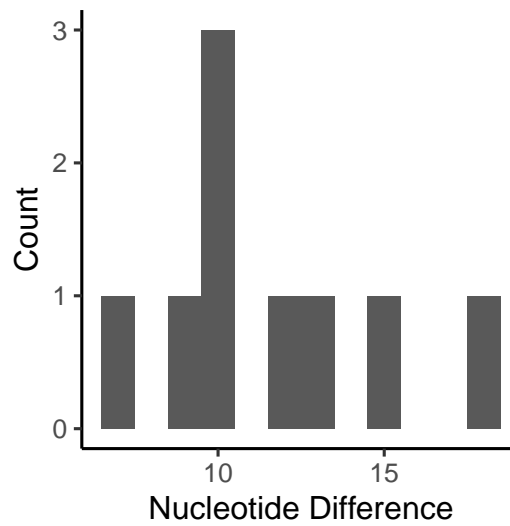
### IGHV3-53\*05

21 sequences assigned  
1 (4.8%) exact matches, in which:  
1 unique CDR3  
1 unique J



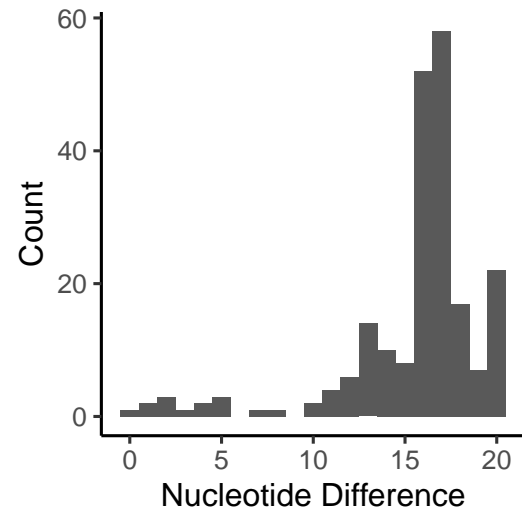
### IGHV3-66\*01

13 sequences assigned  
No exact matches.



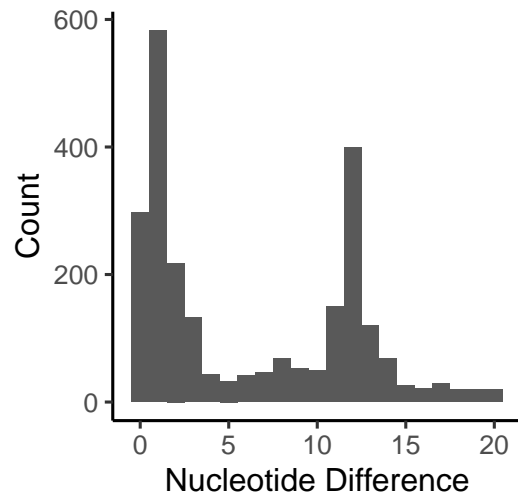
### IGHV3-72\*01

1097 sequences assigned  
1 (0.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



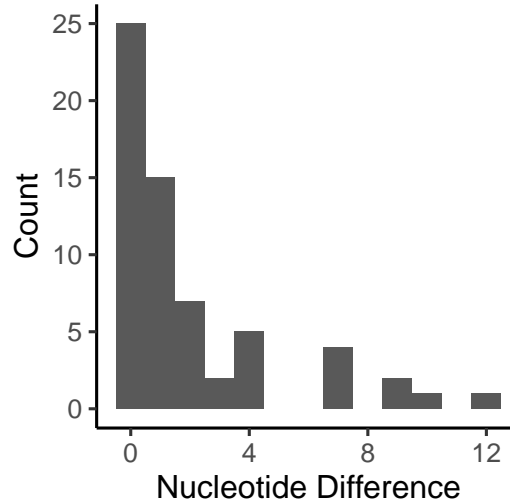
### IGHV3-53\*01\_02

3049 sequences assigned  
298 (9.8%) exact matches, in which:  
181 unique CDR3  
7 unique J



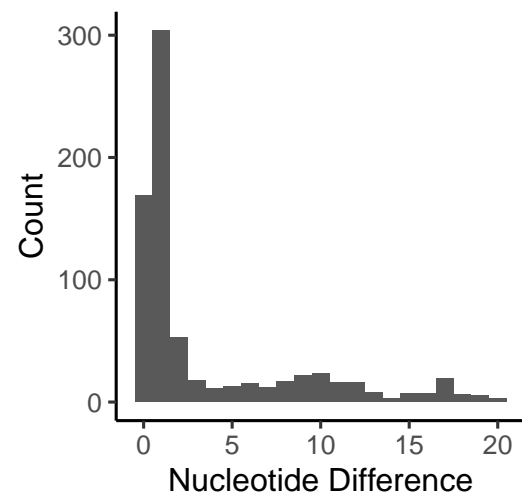
### IGHV3-66\*03

62 sequences assigned  
25 (40.3%) exact matches, in which:  
25 unique CDR3  
5 unique J



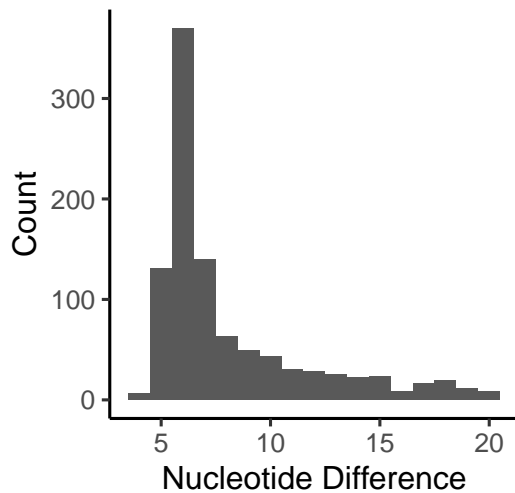
### IGHV3-73\*01\_02

1671 sequences assigned  
169 (10.1%) exact matches, in which:  
104 unique CDR3  
5 unique J



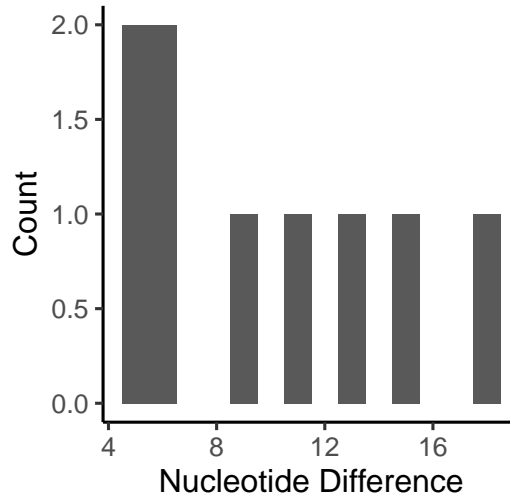
### IGHV3-74\*03

1056 sequences assigned  
No exact matches.



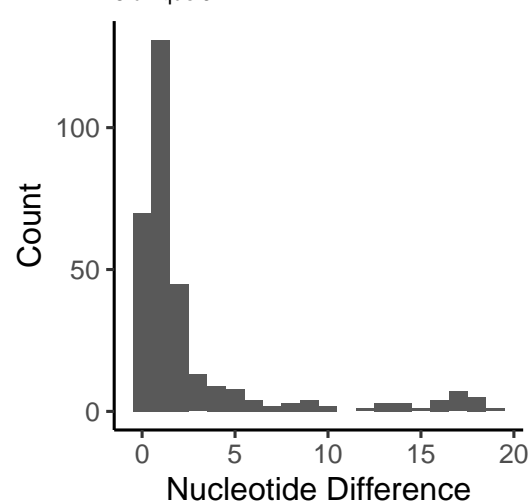
### IGHV3-NL1\*01

20 sequences assigned  
No exact matches.



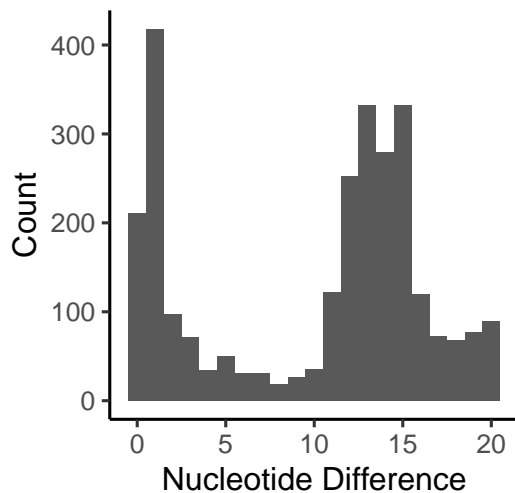
### IGHV4-30-2\*01

1157 sequences assigned  
70 (6.1%) exact matches, in which:  
47 unique CDR3  
5 unique J



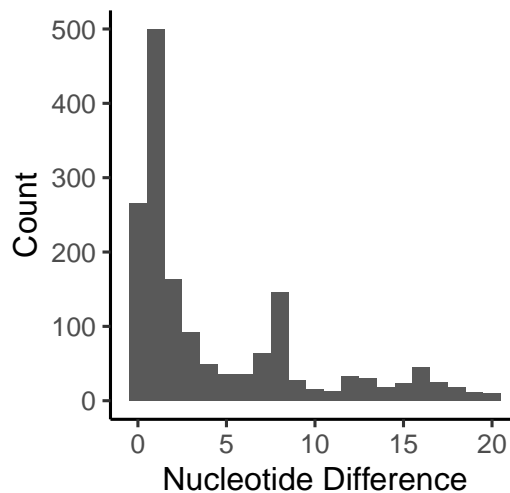
### IGHV3-74\*01\_02

6159 sequences assigned  
211 (3.4%) exact matches, in which:  
137 unique CDR3  
7 unique J



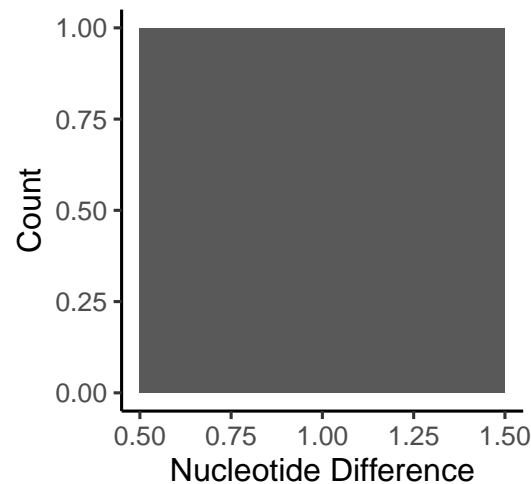
### IGHV4-4\*07

2400 sequences assigned  
265 (11%) exact matches, in which:  
188 unique CDR3  
6 unique J



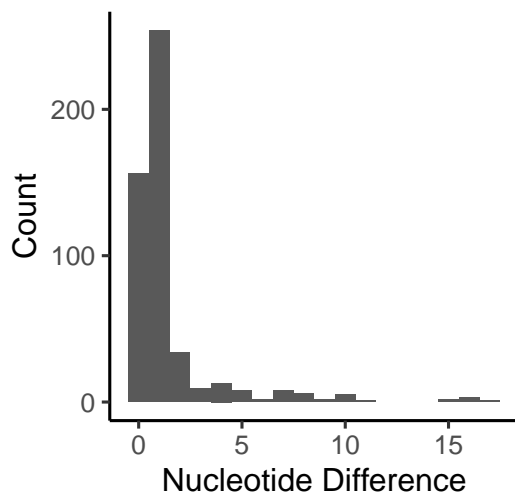
### IGHV4-30-4\*01

11 sequences assigned  
No exact matches.



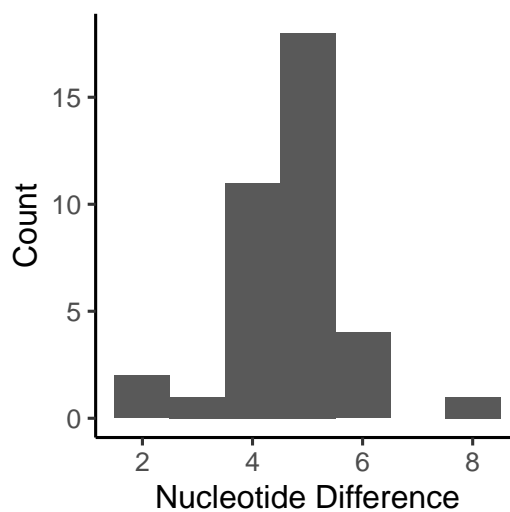
### IGHV3-64D\*06

623 sequences assigned  
156 (25%) exact matches, in which:  
89 unique CDR3  
5 unique J



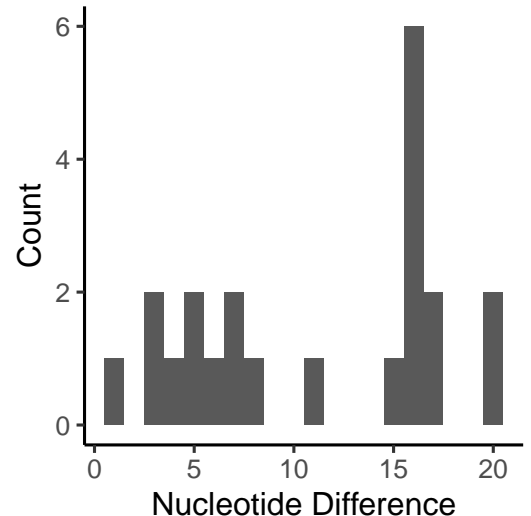
### IGHV4-28\*03

37 sequences assigned  
No exact matches.



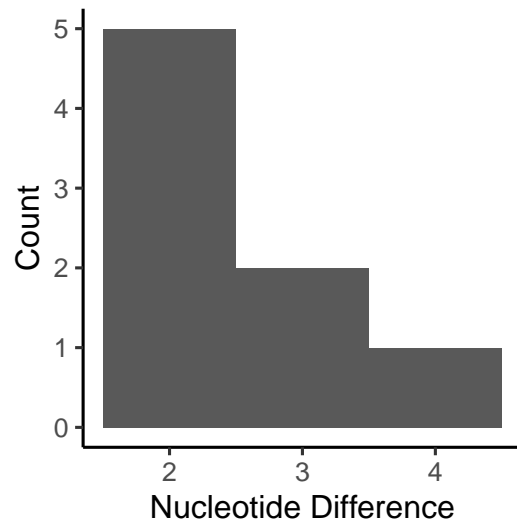
### IGHV4-30-2\*03

33 sequences assigned  
No exact matches.



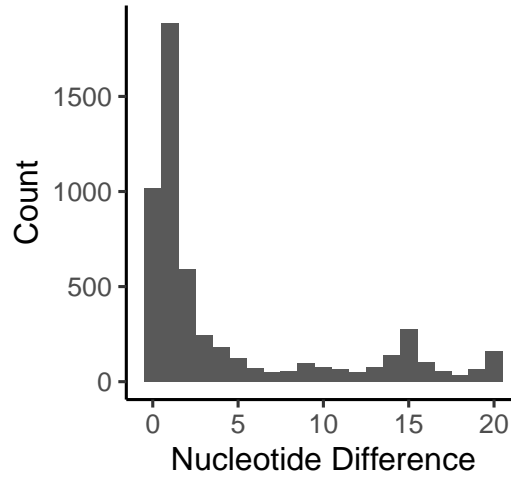
### IGHV4-30-2\*04

8 sequences assigned  
No exact matches.



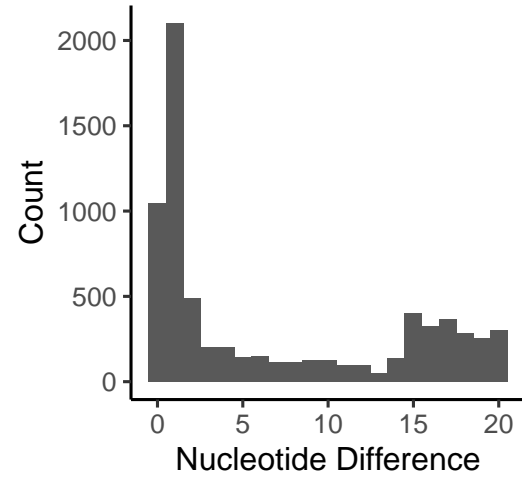
### IGHV4-34\*01\_02

6071 sequences assigned  
1016 (16.7%) exact matches, in which:  
635 unique CDR3  
7 unique J



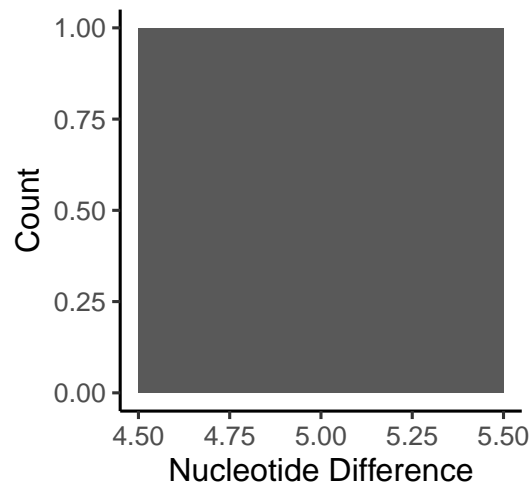
### IGHV4-39\*01\_05

10315 sequences assigned  
1046 (10.1%) exact matches, in which:  
698 unique CDR3  
7 unique J



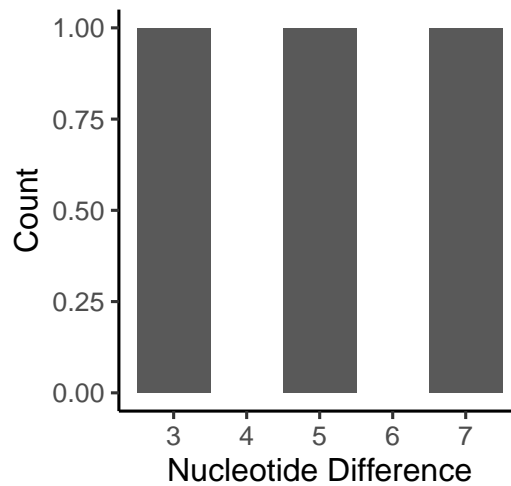
### IGHV4-30-4\*08

2 sequences assigned  
No exact matches.



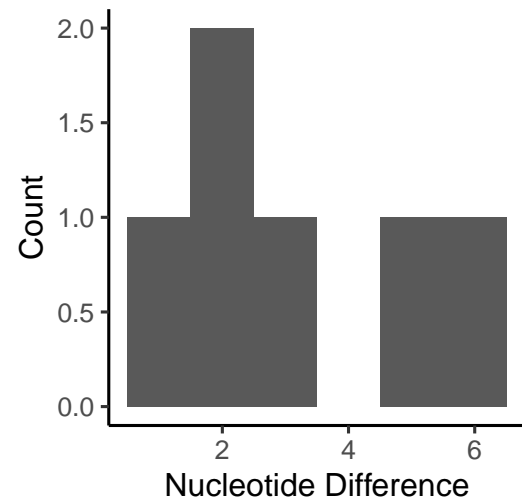
### IGHV4-38-2\*02

4 sequences assigned  
No exact matches.



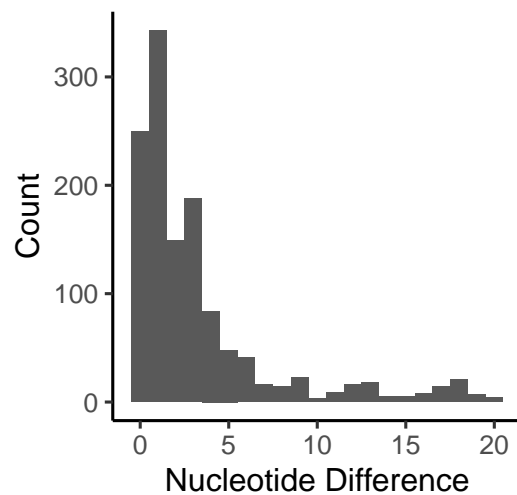
### IGHV4-55\*01\_05

6 sequences assigned  
No exact matches.



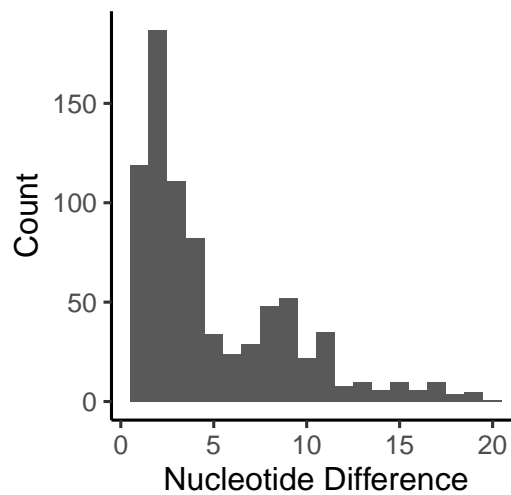
### IGHV4-31\*03\_04

1851 sequences assigned  
250 (13.5%) exact matches, in which:  
191 unique CDR3  
6 unique J



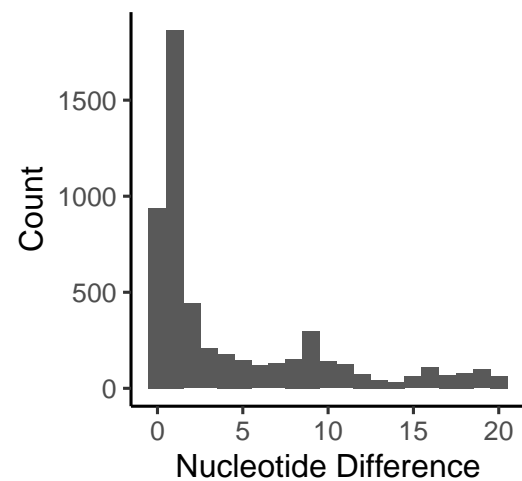
### IGHV4-39\*07

870 sequences assigned  
No exact matches.



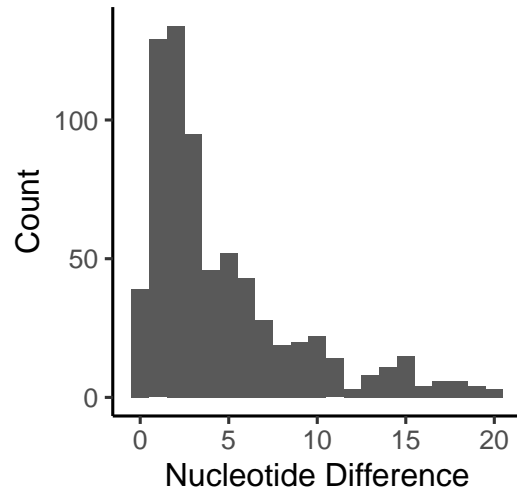
### IGHV4-59\*01\_07

7265 sequences assigned  
940 (12.9%) exact matches, in which:  
660 unique CDR3  
7 unique J



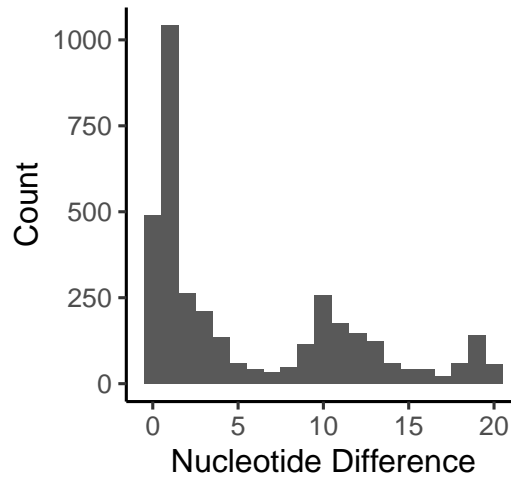
### IGHV4–59\*12

827 sequences assigned  
39 (4.7%) exact matches, in which:  
38 unique CDR3  
6 unique J



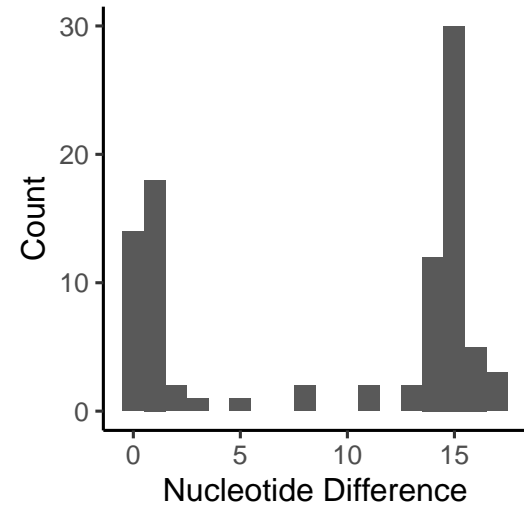
### IGHV5–10–1\*01\_03

3971 sequences assigned  
490 (12.3%) exact matches, in which:  
286 unique CDR3  
5 unique J



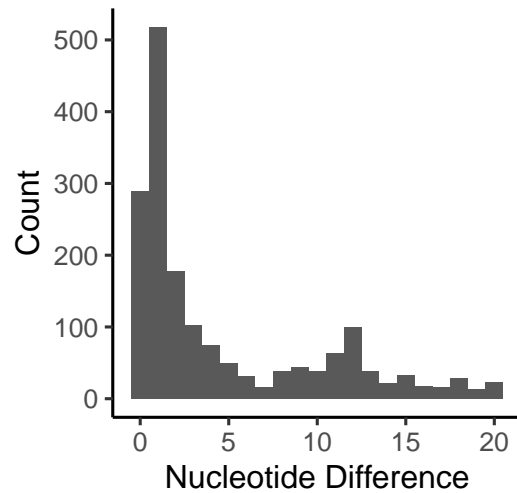
### IGHV7–4–1\*01

92 sequences assigned  
14 (15.2%) exact matches, in which:  
10 unique CDR3  
1 unique J



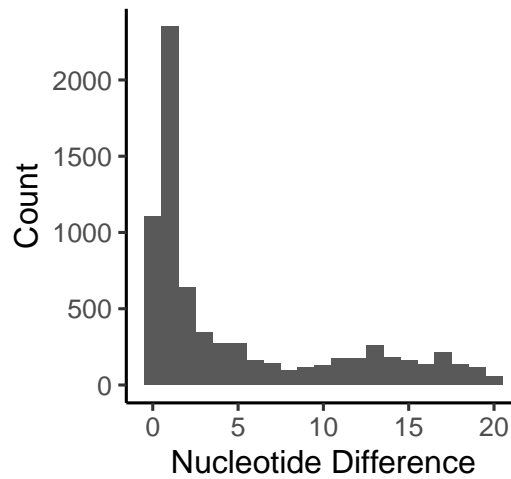
### IGHV4–61\*01

1967 sequences assigned  
289 (14.7%) exact matches, in which:  
195 unique CDR3  
6 unique J



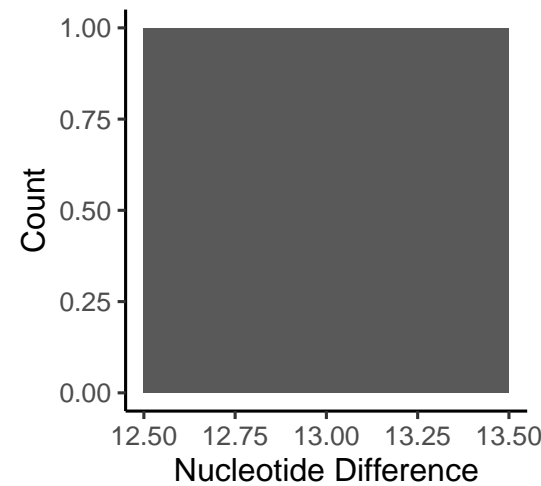
### IGHV5–51\*01\_03

8301 sequences assigned  
1104 (13.3%) exact matches, in which:  
612 unique CDR3  
6 unique J



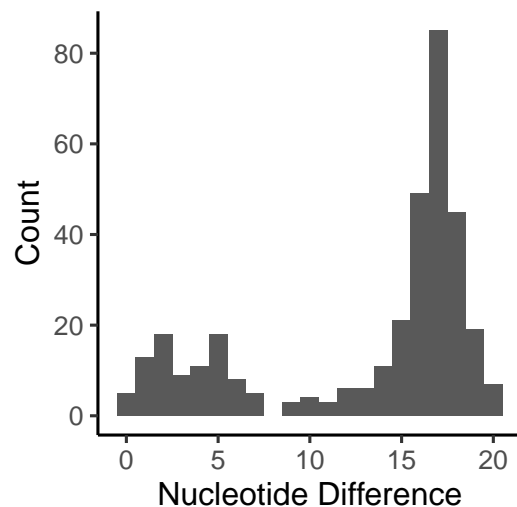
### IGHV7–4–1\*02

1 sequences assigned  
No exact matches.



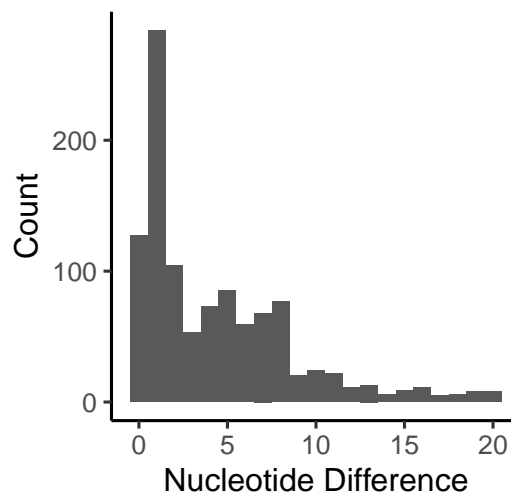
### IGHV4–61\*08

404 sequences assigned  
5 (1.2%) exact matches, in which:  
5 unique CDR3  
3 unique J



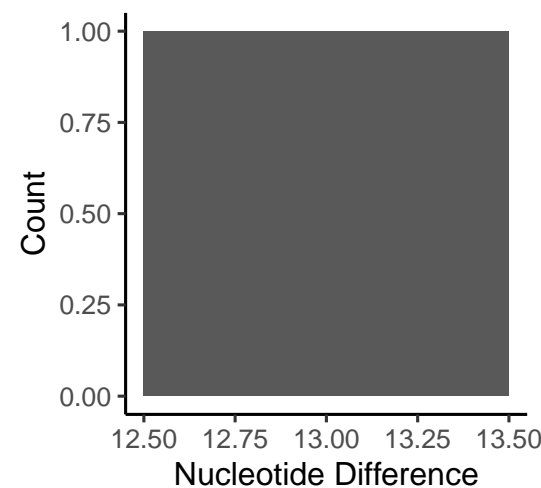
### IGHV6–1\*01\_02

1130 sequences assigned  
127 (11.2%) exact matches, in which:  
102 unique CDR3  
6 unique J

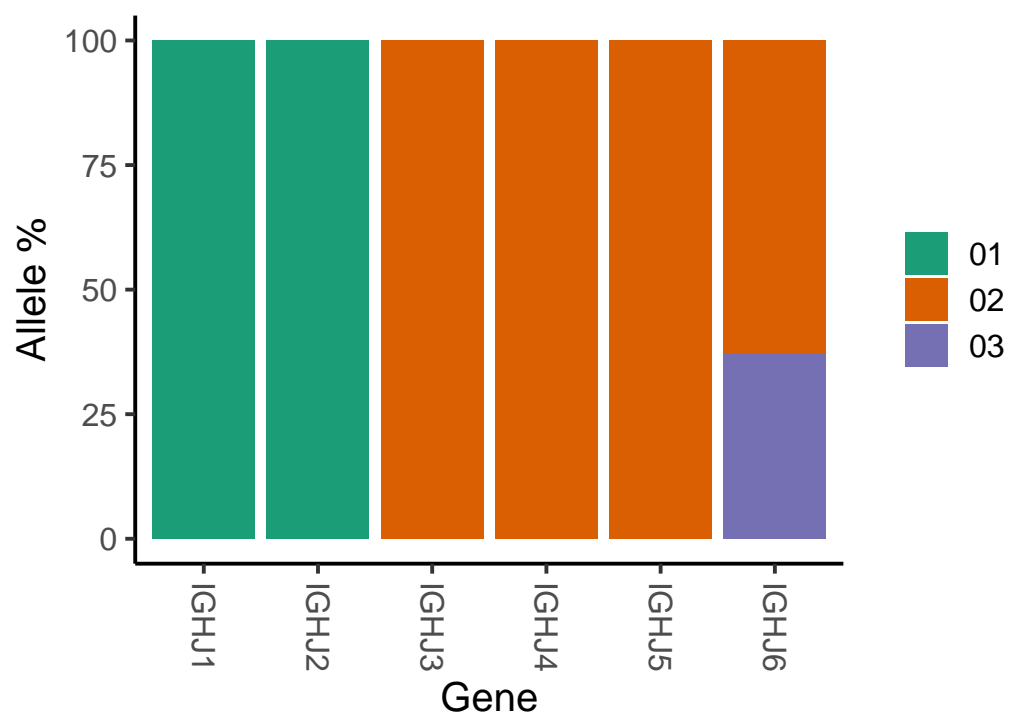


### IGHV7–81\*01

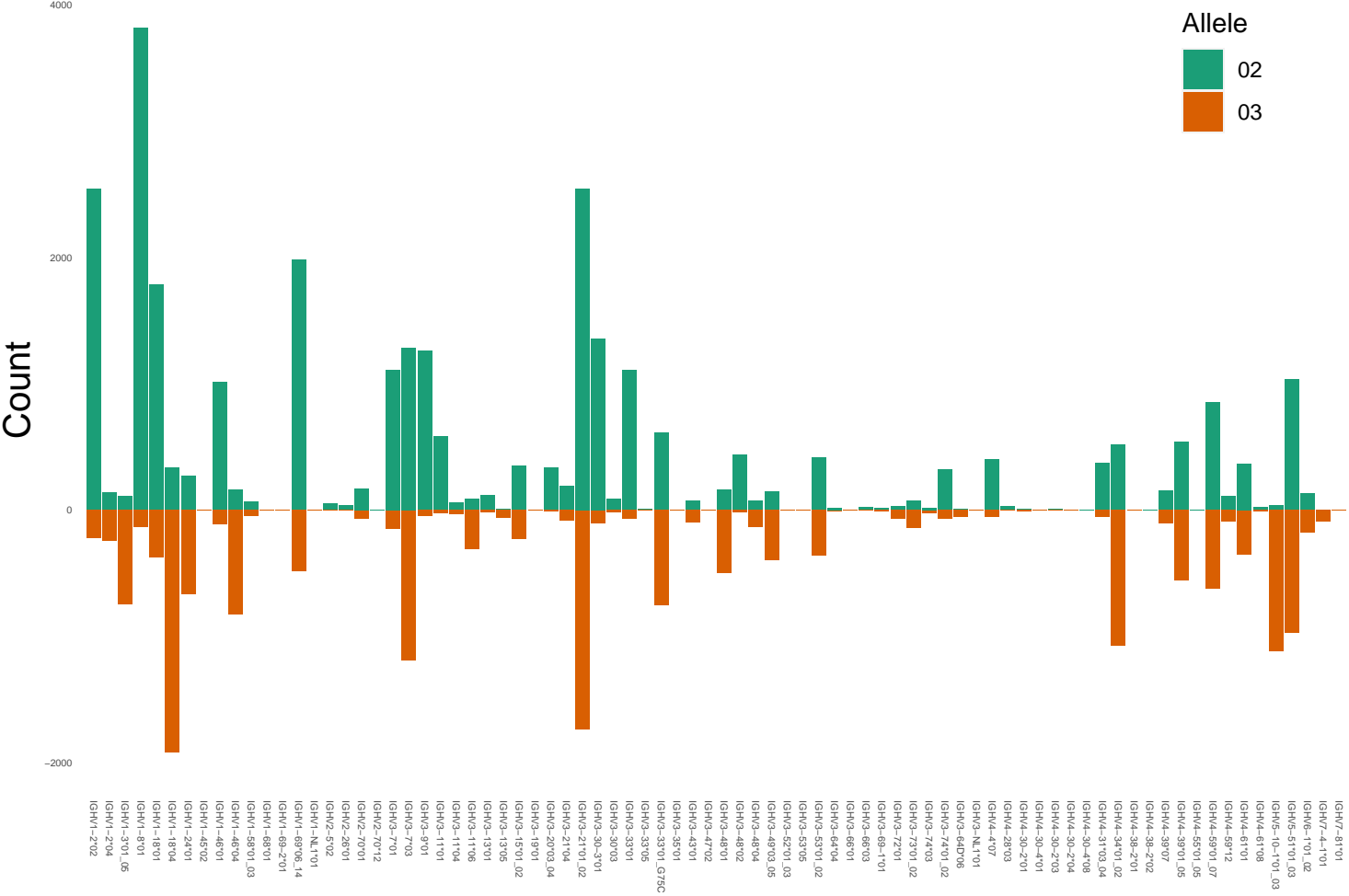
1 sequences assigned  
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning: IGHV4-31\*02, IGHV4-31\*03\_04 have identical germline sequences.

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

Novel sequence(s) IGHV1-69\*04\_09\_G112A 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.

Warning - no inferred sequences found.

Novel sequence(s) IGHV1-69\*08\_C191T IGHV3-30\*03\_T288C IGHV3-30-3\*02\_G75C IGHV4-59\*02\_G88A IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59\*02\_G88A IGHV5-51\*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) IGHV4-4\*02\_03\_C300T IGHV5-51\*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.

Warning - no inferred sequences found.

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

Novel sequence(s) IGHV1-69\*08\_C191T IGHV3-11\*06\_T300C IGHV3-30\*03\_T288C IGHV4-59\*02\_G88A IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59\*02\_G88A IGHV5-51\*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.

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-30\*03\_T288C IGHV3-30-3\*01\_T288C IGHV4-59\*02\_G88A IGHV5-10-1\*01\_03\_T258C IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.

Novel sequence(s) IGHV3-48\*04\_A193T\_C198T\_A200C\_C201T\_T210A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59\*02\_G88A 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) IGHV3-33\*01\_C288T IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59\*02\_G88A IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-33\*01\_T105C\_A173T\_T192G\_C288T are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-30\*04\_T288C IGHV3-33\*01\_G75C IGHV4-30-2\*03\_T288C IGHV4-59\*02\_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV3-11\*06\_T300C 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) IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4-59\*02\_G88A IGHV5-51\*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) IGHV5-51\*07\_A128G are not listed in the genotype and will be ignored.

Warning - no inferred sequences found.