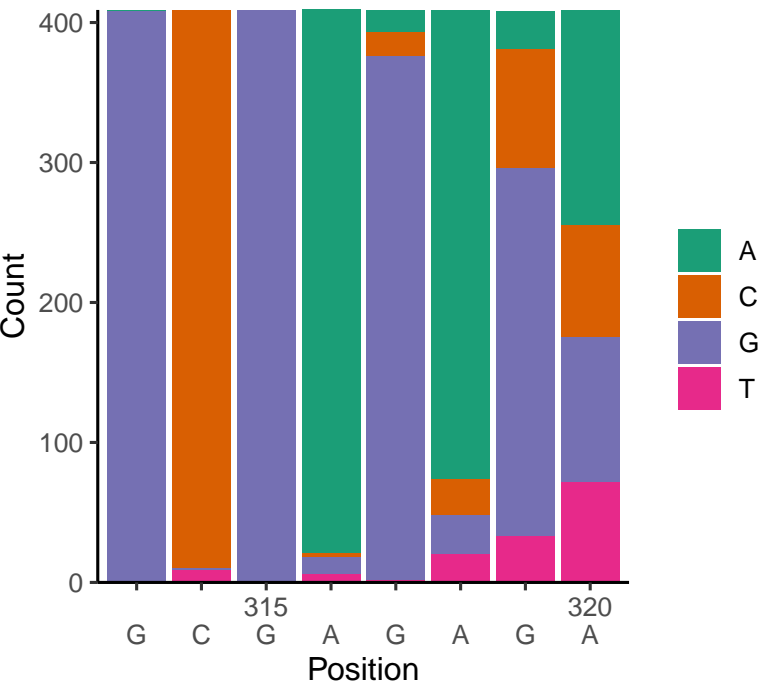
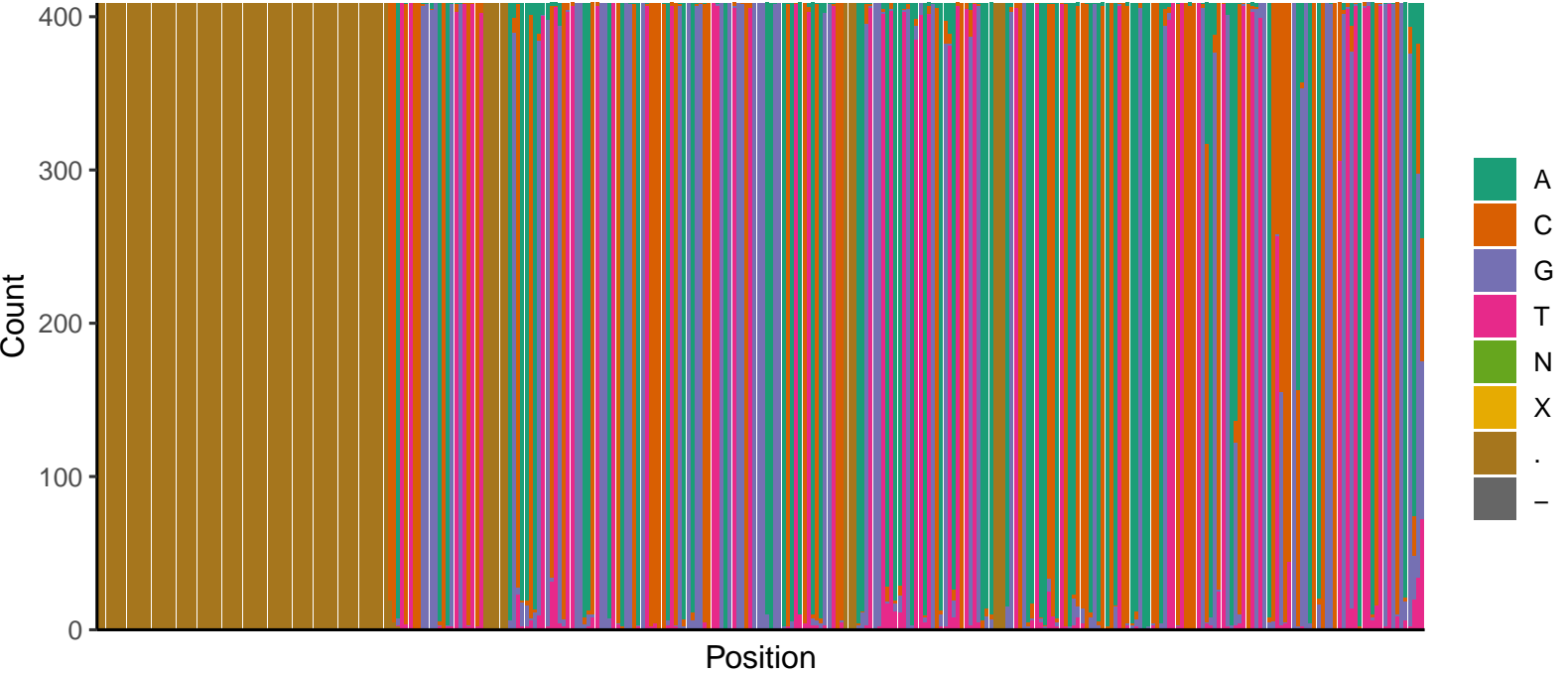


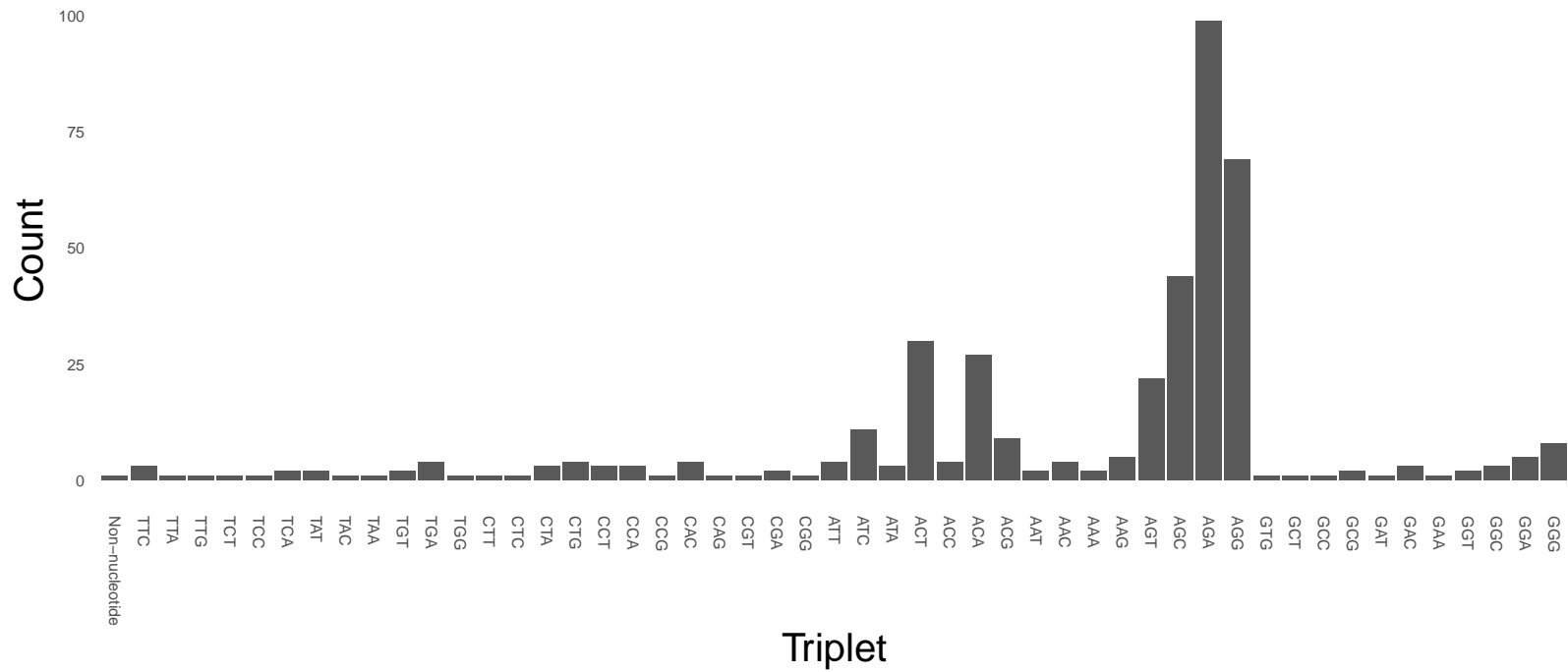
Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

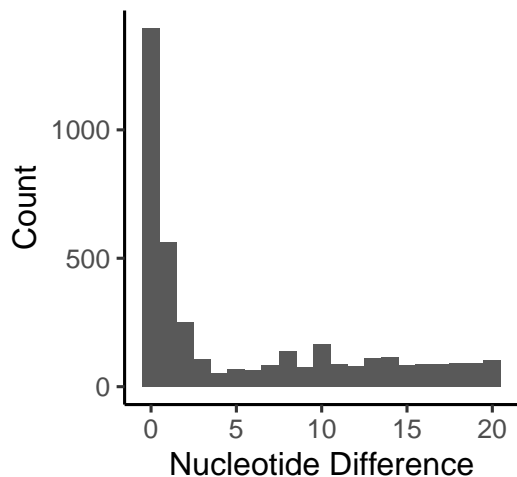


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



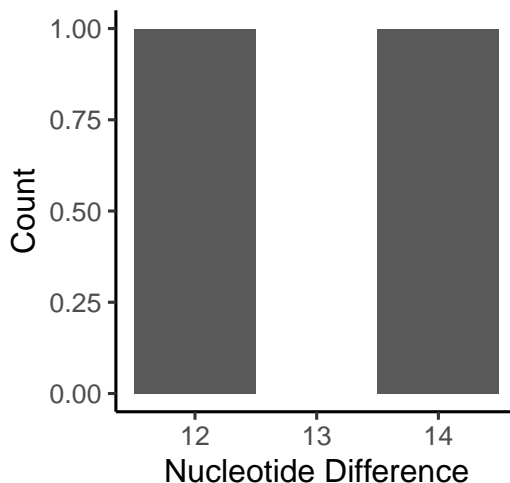
### IGHV1-2\*02

4494 sequences assigned  
1395 (31%) exact matches, in which:  
1331 unique CDR3  
6 unique J



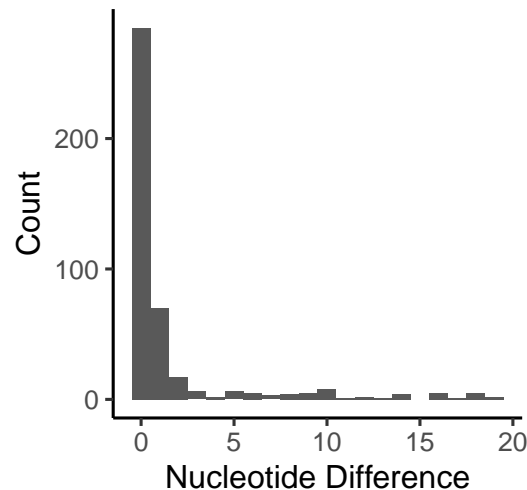
### IGHV1-3\*01\_05

3 sequences assigned  
No exact matches.



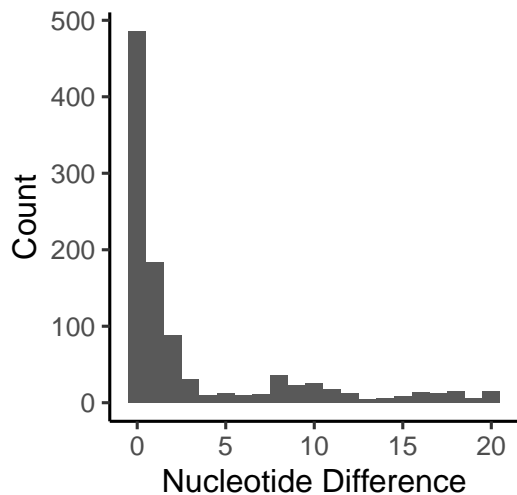
### IGHV1-24\*01

442 sequences assigned  
285 (64.5%) exact matches, in which:  
281 unique CDR3  
6 unique J



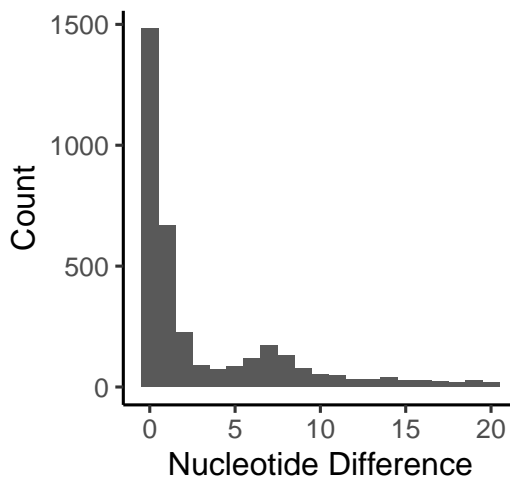
### IGHV1-2\*04

1061 sequences assigned  
486 (45.8%) exact matches, in which:  
462 unique CDR3  
6 unique J



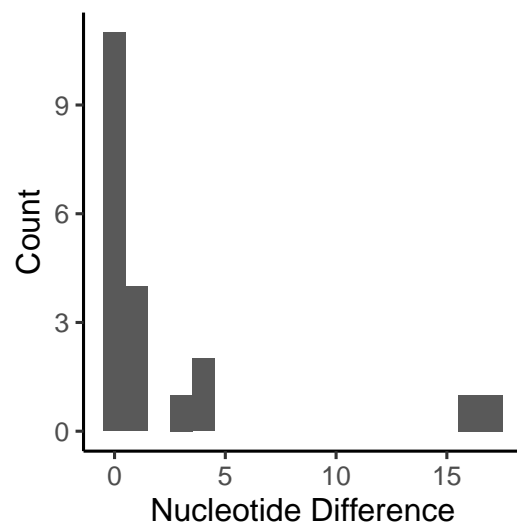
### IGHV1-8\*01

3601 sequences assigned  
1482 (41.2%) exact matches, in which:  
1411 unique CDR3  
6 unique J



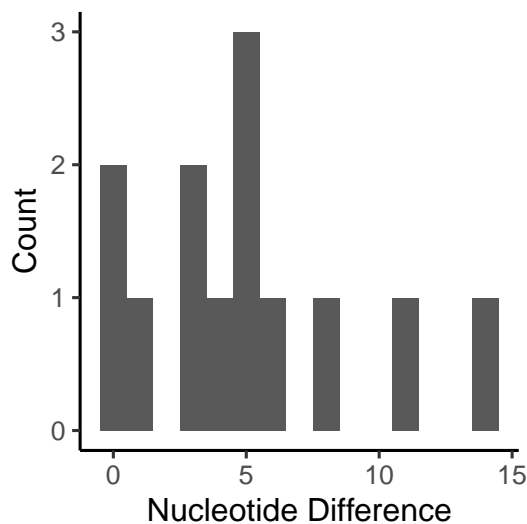
### IGHV1-45\*02

22 sequences assigned  
11 (50%) exact matches, in which:  
11 unique CDR3  
4 unique J



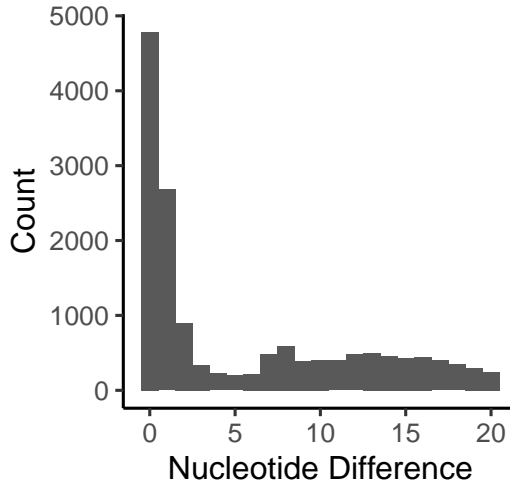
### IGHV1-3\*02

14 sequences assigned  
2 (14.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



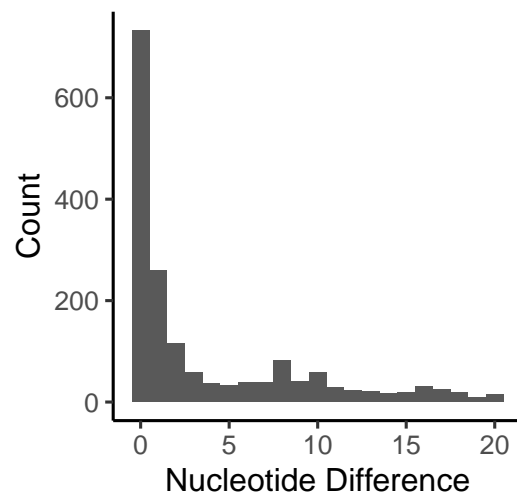
### IGHV1-18\*04

16366 sequences assigned  
4784 (29.2%) exact matches, in which:  
4381 unique CDR3  
6 unique J



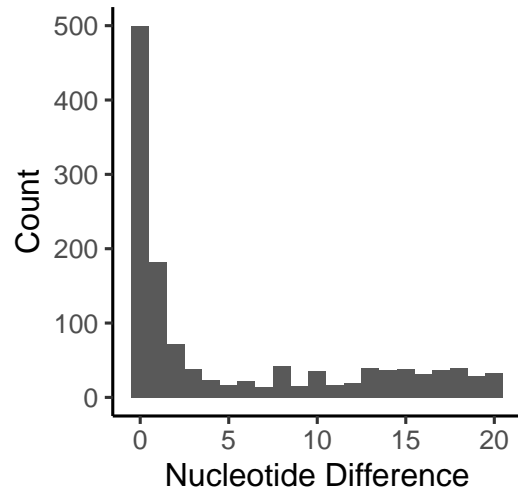
### IGHV1-46\*01

1789 sequences assigned  
733 (41%) exact matches, in which:  
709 unique CDR3  
6 unique J



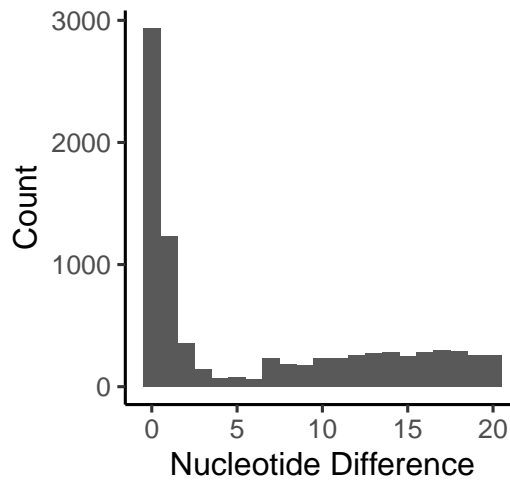
### IGHV1-46\*04

1825 sequences assigned  
500 (27.4%) exact matches, in which:  
480 unique CDR3  
6 unique J



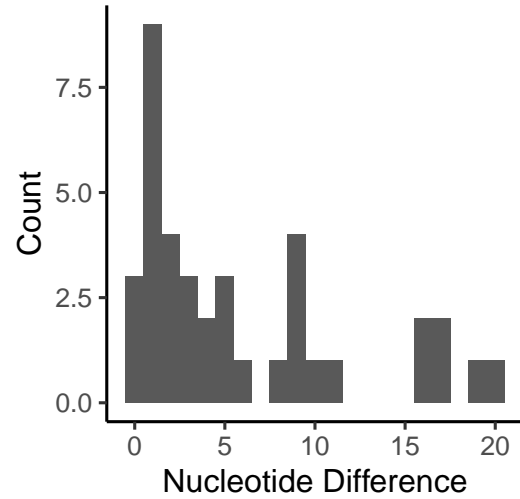
### IGHV1-69\*01\_12\_13

10437 sequences assigned  
2934 (28.1%) exact matches, in which:  
2825 unique CDR3  
6 unique J



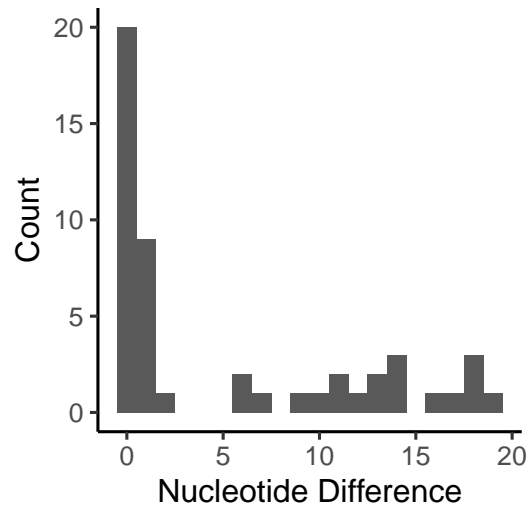
### IGHV2-5\*02

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



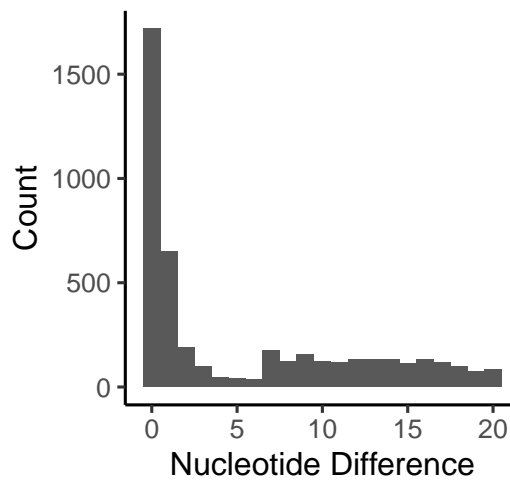
### IGHV1-58\*02

51 sequences assigned  
20 (39.2%) exact matches, in which:  
19 unique CDR3  
4 unique J



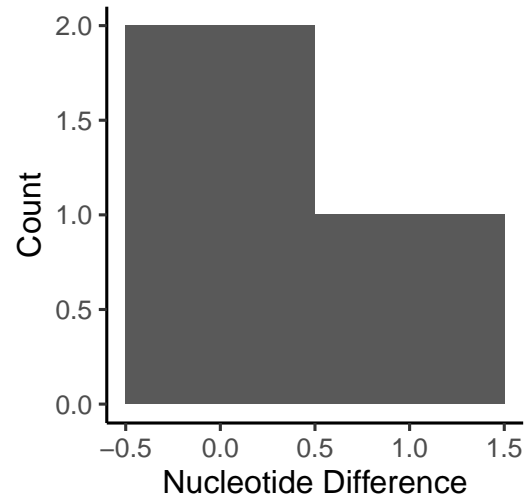
### IGHV1-69\*06\_14

5009 sequences assigned  
1718 (34.3%) exact matches, in which:  
1653 unique CDR3  
6 unique J



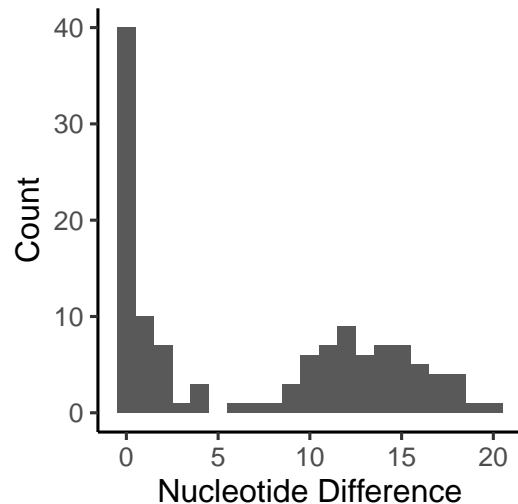
### IGHV2-26\*01

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



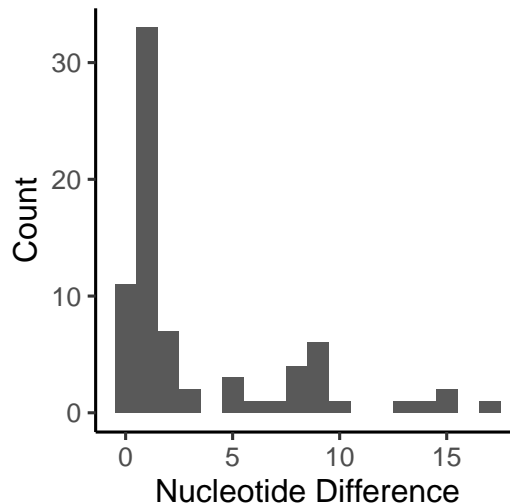
### IGHV1-58\*01\_03

147 sequences assigned  
40 (27.2%) exact matches, in which:  
40 unique CDR3  
5 unique J



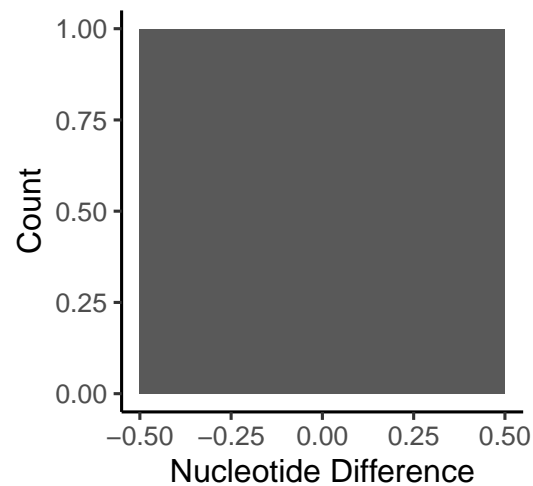
### IGHV2-5\*01

80 sequences assigned  
11 (13.8%) exact matches, in which:  
11 unique CDR3  
6 unique J



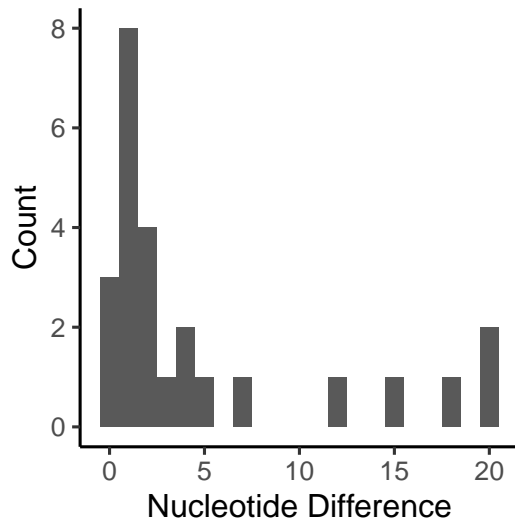
### IGHV2-26\*04

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



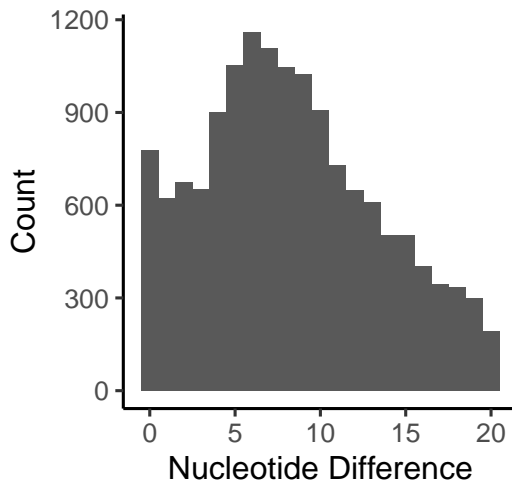
## IGHV2-70\*01

28 sequences assigned  
3 (10.7%) exact matches, in which:  
3 unique CDR3  
1 unique J



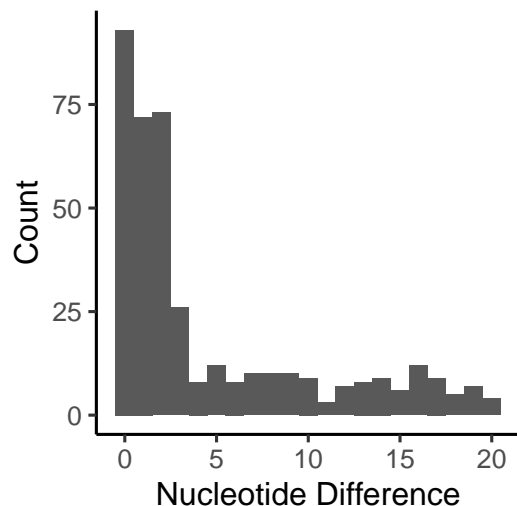
## IGHV3-7\*03

15177 sequences assigned  
778 (5.1%) exact matches, in which:  
759 unique CDR3  
6 unique J



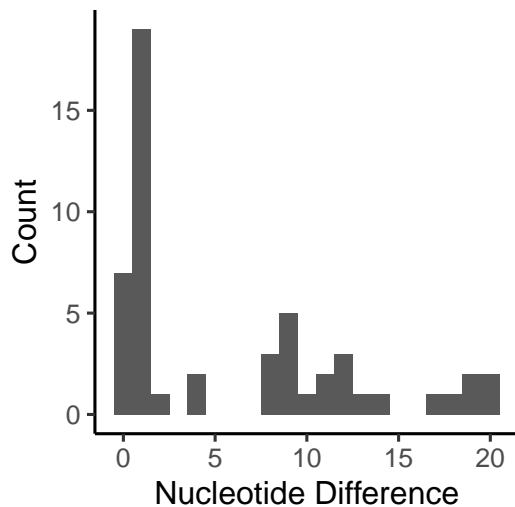
## IGHV3-11\*04

423 sequences assigned  
93 (22%) exact matches, in which:  
93 unique CDR3  
6 unique J



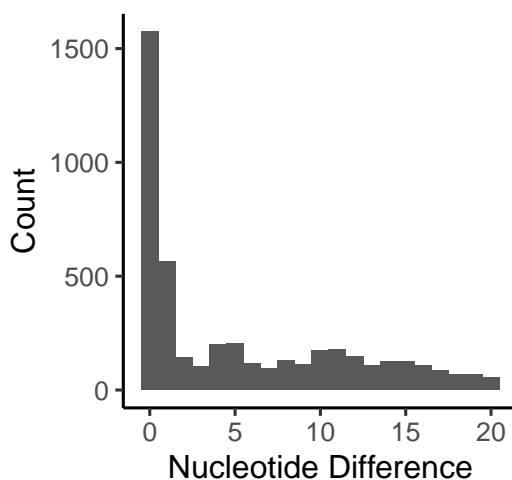
## IGHV2-70\*11\_15

52 sequences assigned  
7 (13.5%) exact matches, in which:  
7 unique CDR3  
3 unique J



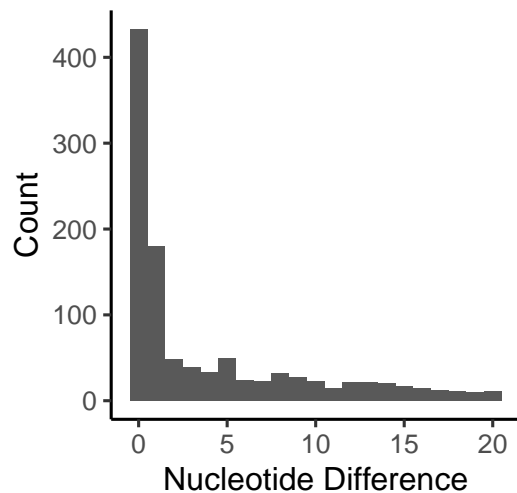
## IGHV3-9\*01

4881 sequences assigned  
1574 (32.2%) exact matches, in which:  
1505 unique CDR3  
6 unique J



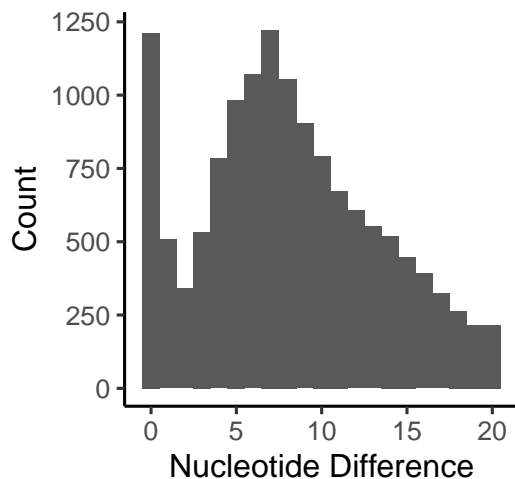
## IGHV3-11\*06

1160 sequences assigned  
433 (37.3%) exact matches, in which:  
411 unique CDR3  
6 unique J



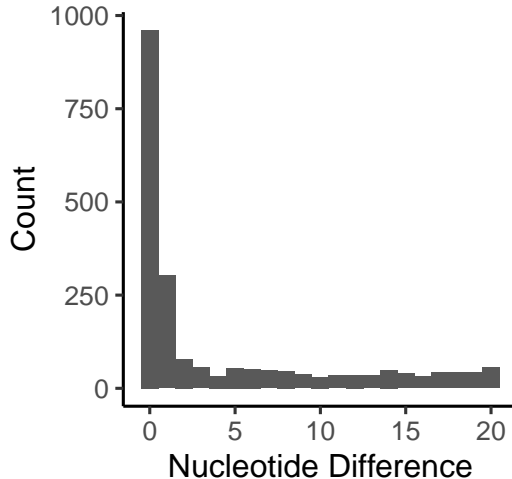
## IGHV3-7\*01

14211 sequences assigned  
1212 (8.5%) exact matches, in which:  
1170 unique CDR3  
6 unique J



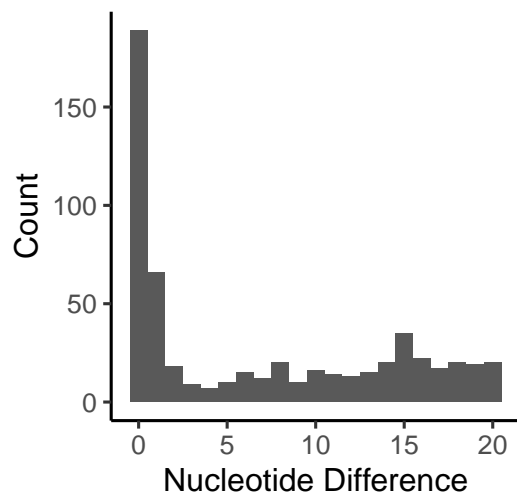
## IGHV3-11\*01

2435 sequences assigned  
961 (39.5%) exact matches, in which:  
928 unique CDR3  
6 unique J



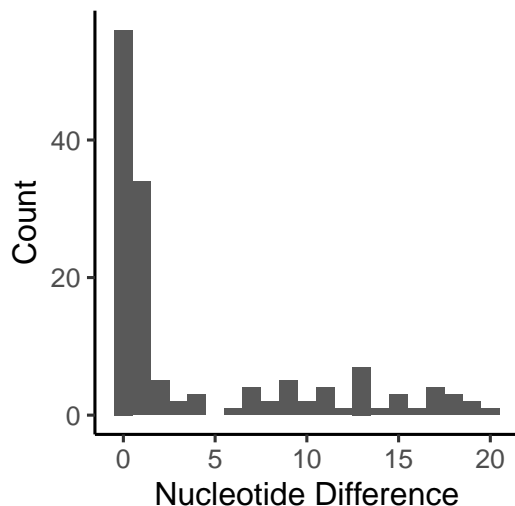
## IGHV3-13\*01

668 sequences assigned  
189 (28.3%) exact matches, in which:  
181 unique CDR3  
5 unique J



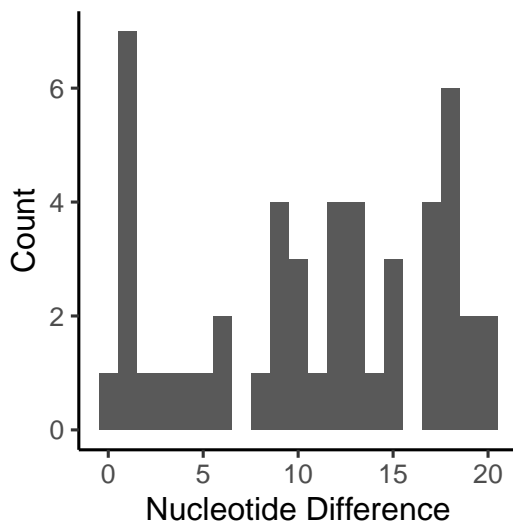
### IGHV3-13\*05

155 sequences assigned  
56 (36.1%) exact matches, in which:  
54 unique CDR3  
4 unique J



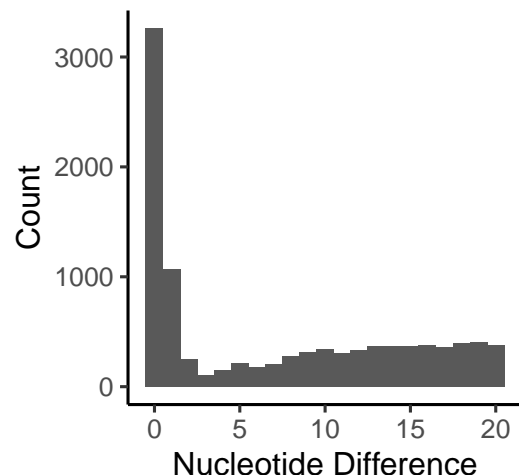
### IGHV3-20\*03\_04

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



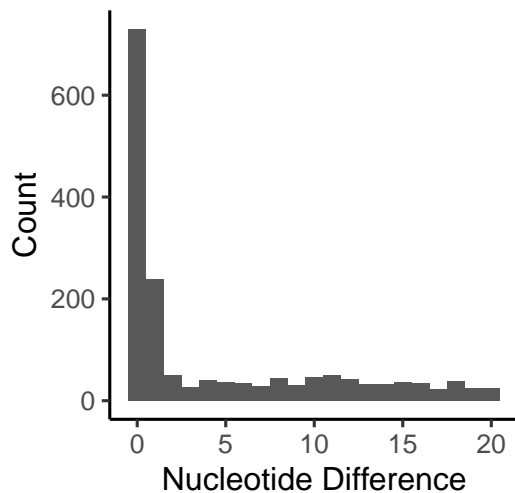
### IGHV3-23\*01\_04

12190 sequences assigned  
3260 (26.7%) exact matches, in which:  
3110 unique CDR3  
6 unique J



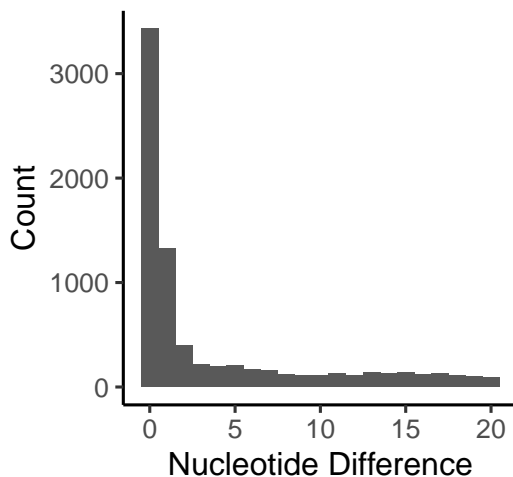
### IGHV3-15\*01\_02

1832 sequences assigned  
730 (39.8%) exact matches, in which:  
716 unique CDR3  
6 unique J



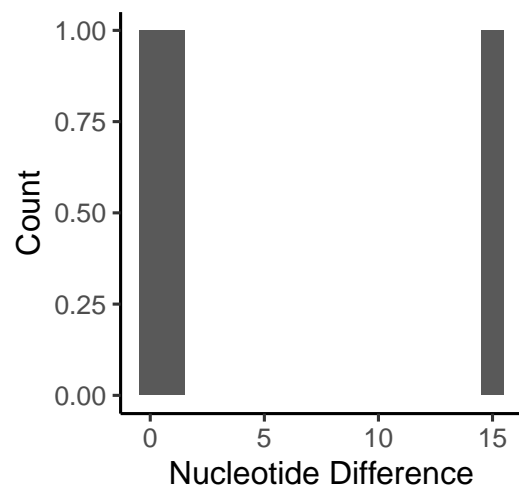
### IGHV3-21\*01\_02

8377 sequences assigned  
3430 (40.9%) exact matches, in which:  
3260 unique CDR3  
6 unique J



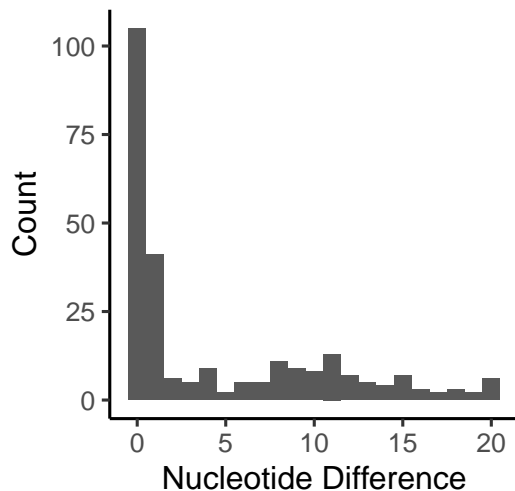
### IGHV3-30-3\*01

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



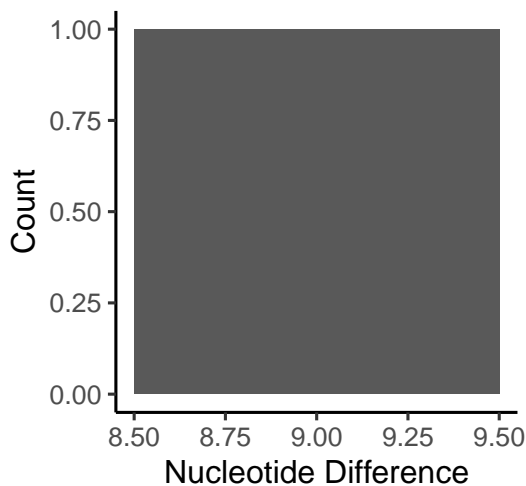
### IGHV3-20\*01\_02

284 sequences assigned  
105 (37%) exact matches, in which:  
99 unique CDR3  
6 unique J



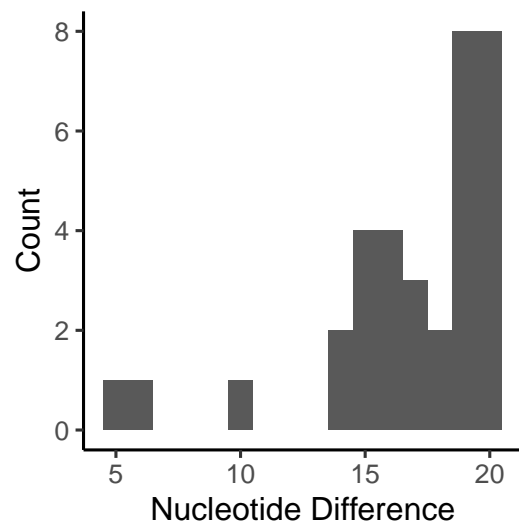
### IGHV3-22\*01\_02

1 sequences assigned  
No exact matches.



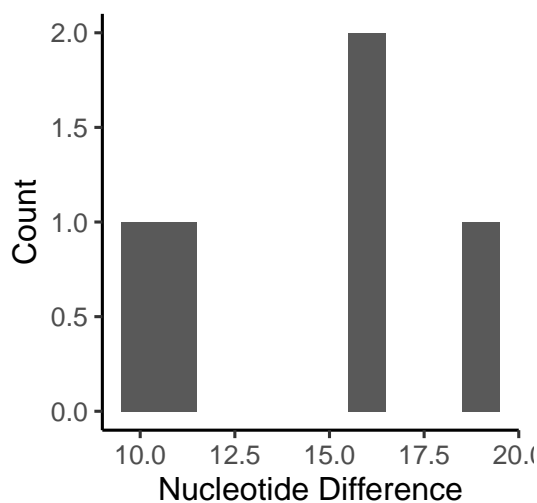
### IGHV3-30\*02

58 sequences assigned  
No exact matches.



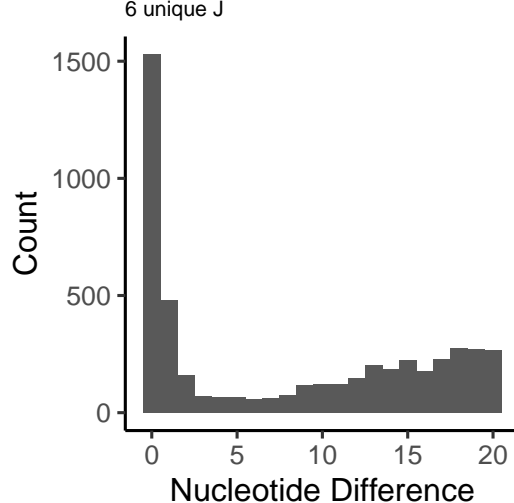
### IGHV3-30\*03

7 sequences assigned  
No exact matches.



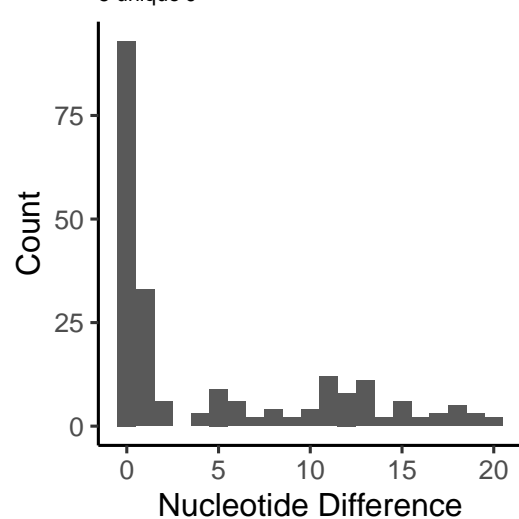
### IGHV3-33\*01

5839 sequences assigned  
1529 (26.2%) exact matches, in which:  
1474 unique CDR3  
6 unique J



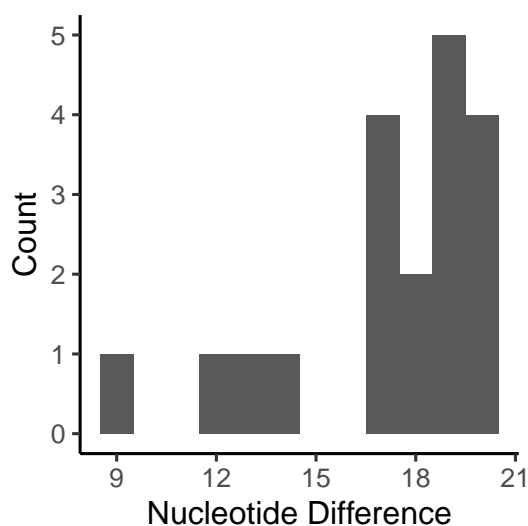
### IGHV3-43\*01

263 sequences assigned  
93 (35.4%) exact matches, in which:  
93 unique CDR3  
5 unique J



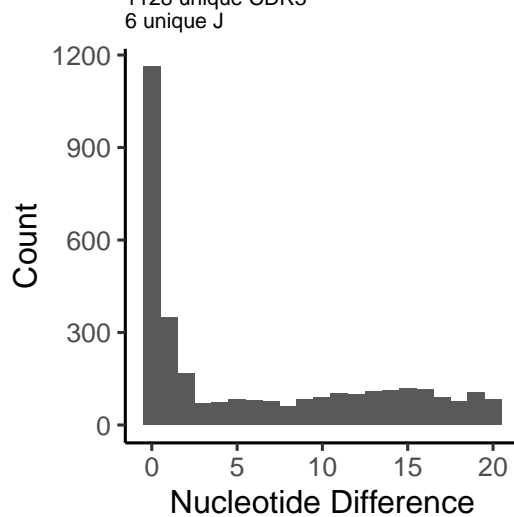
### IGHV3-30\*12

22 sequences assigned  
No exact matches.



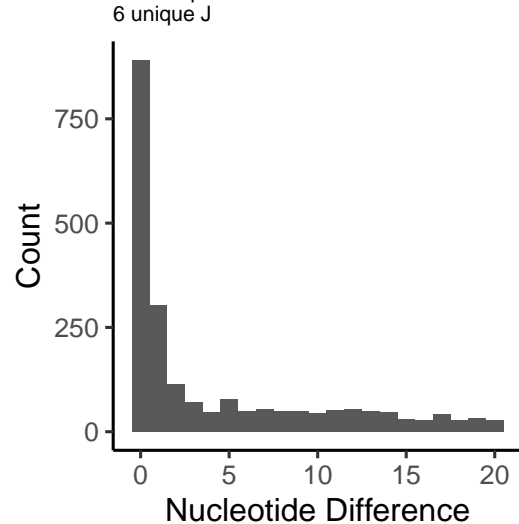
### IGHV3-33\*08

3813 sequences assigned  
1162 (30.5%) exact matches, in which:  
1128 unique CDR3  
6 unique J



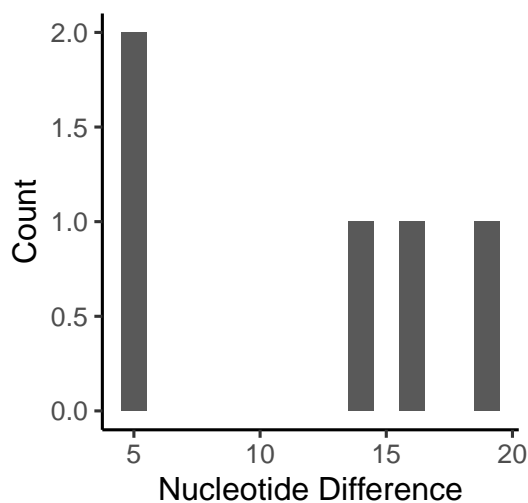
### IGHV3-48\*01

2340 sequences assigned  
891 (38.1%) exact matches, in which:  
854 unique CDR3  
6 unique J



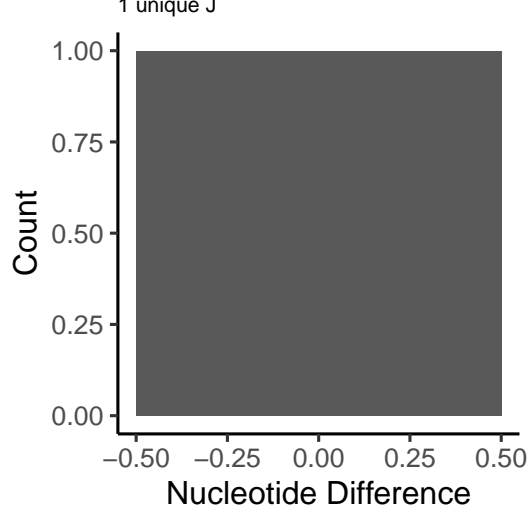
### IGHV3-30\*18

8 sequences assigned  
No exact matches.



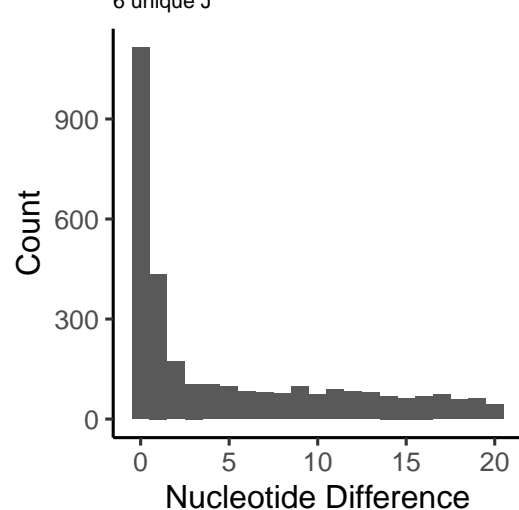
### IGHV3-35\*01

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



### IGHV3-48\*04

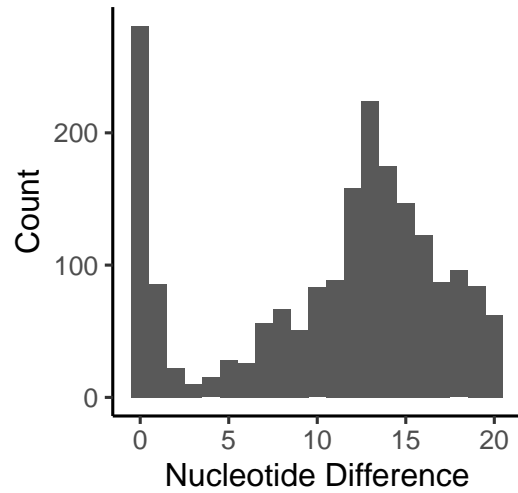
3420 sequences assigned  
1115 (32.6%) exact matches, in which:  
1063 unique CDR3  
6 unique J





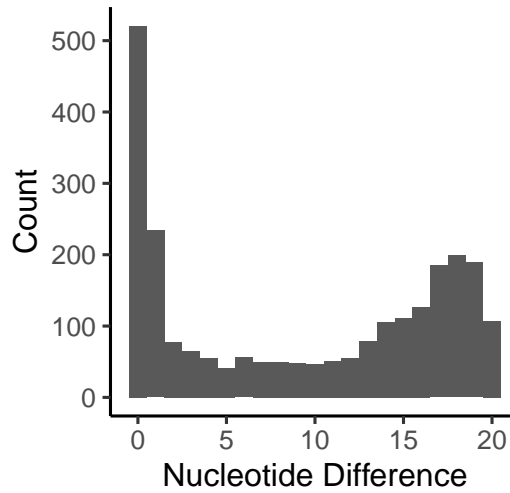
### IGHV3-49\*04

2254 sequences assigned  
281 (12.5%) exact matches, in which:  
265 unique CDR3  
6 unique J



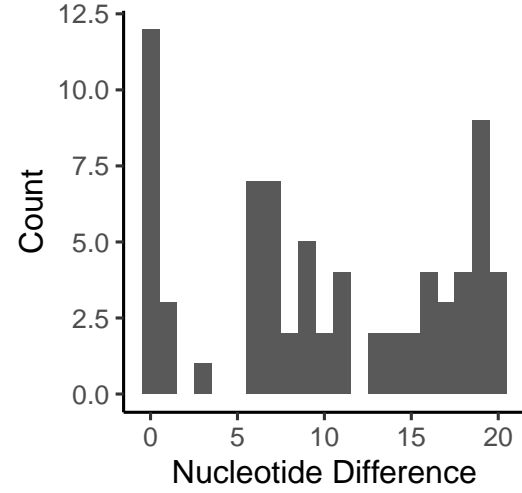
### IGHV3-53\*01\_02

2823 sequences assigned  
521 (18.5%) exact matches, in which:  
500 unique CDR3  
6 unique J



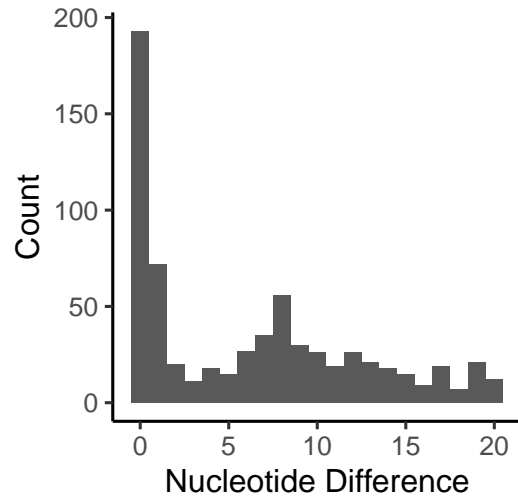
### IGHV3-64\*02\_07

140 sequences assigned  
12 (8.6%) exact matches, in which:  
12 unique CDR3  
3 unique J



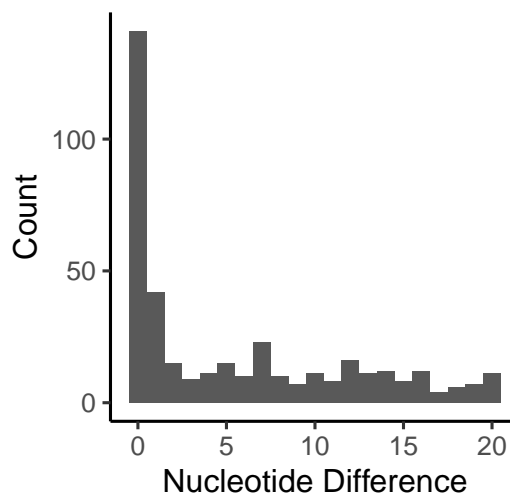
### IGHV3-49\*03\_05

701 sequences assigned  
193 (27.5%) exact matches, in which:  
186 unique CDR3  
5 unique J



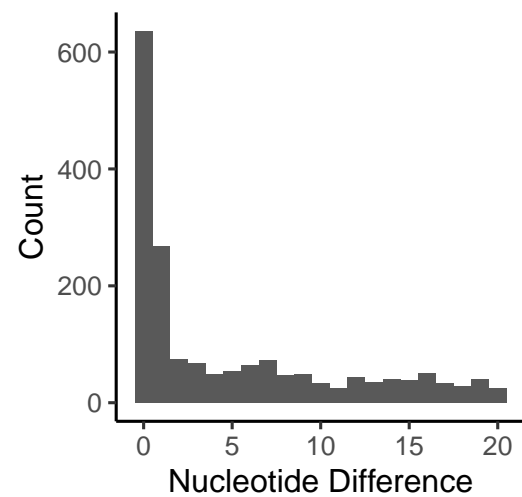
### IGHV3-64\*01

508 sequences assigned  
141 (27.8%) exact matches, in which:  
135 unique CDR3  
6 unique J



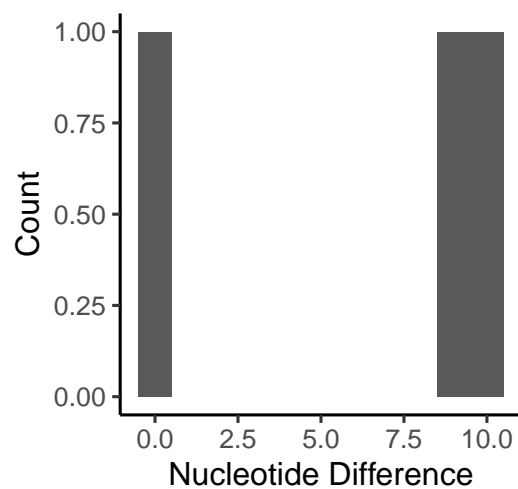
### IGHV3-66\*01

1952 sequences assigned  
636 (32.6%) exact matches, in which:  
609 unique CDR3  
6 unique J



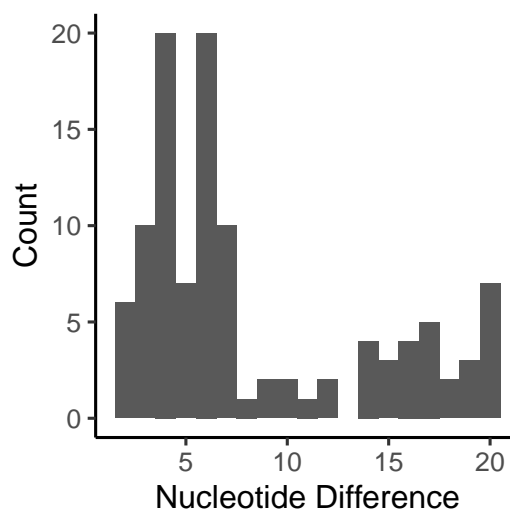
### IGHV3-52\*01\_03

3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



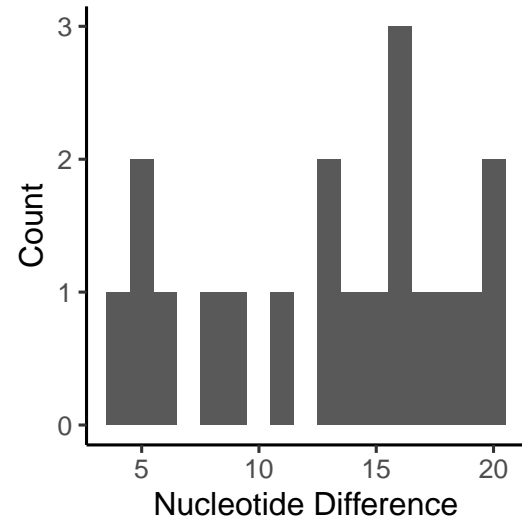
### IGHV3-64\*04

126 sequences assigned  
No exact matches.



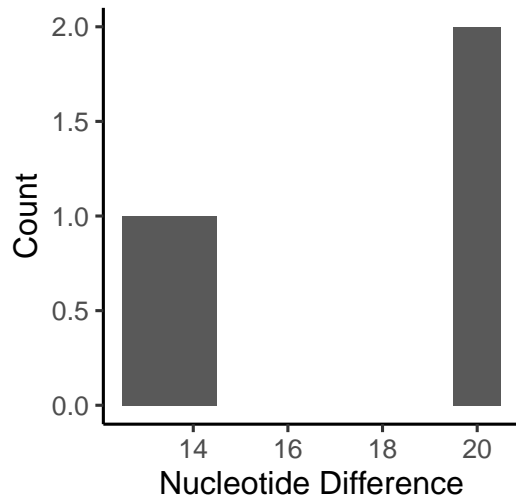
### IGHV3-69-1\*01

38 sequences assigned  
No exact matches.



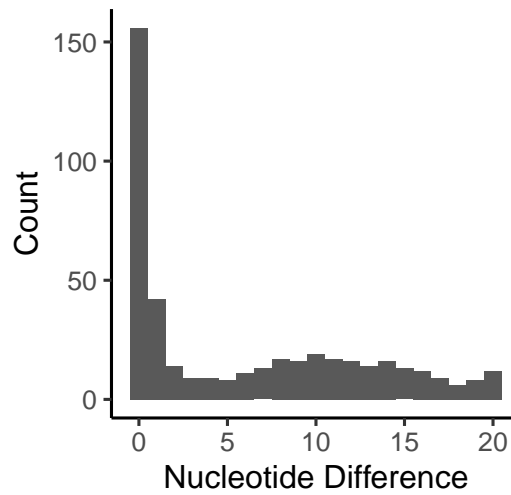
### IGHV3-69-1\*02

10 sequences assigned  
No exact matches.



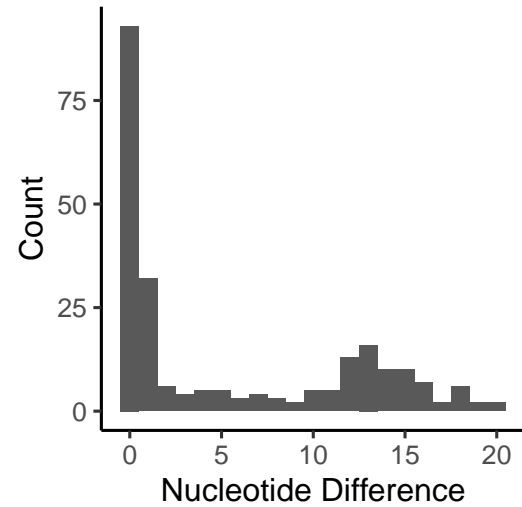
### IGHV3-73\*01\_02

470 sequences assigned  
156 (33.2%) exact matches, in which:  
151 unique CDR3  
6 unique J



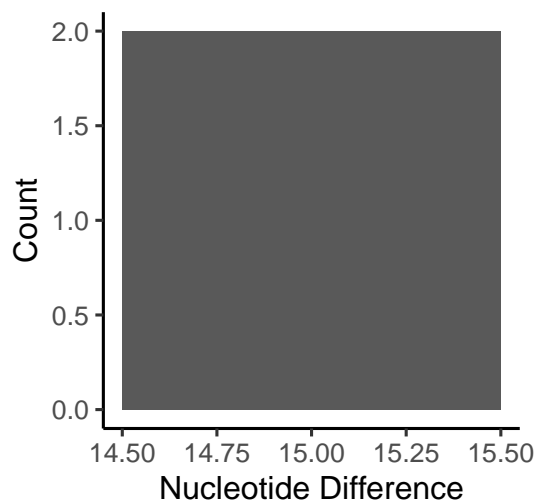
### IGHV3-43D\*04

254 sequences assigned  
93 (36.6%) exact matches, in which:  
89 unique CDR3  
5 unique J



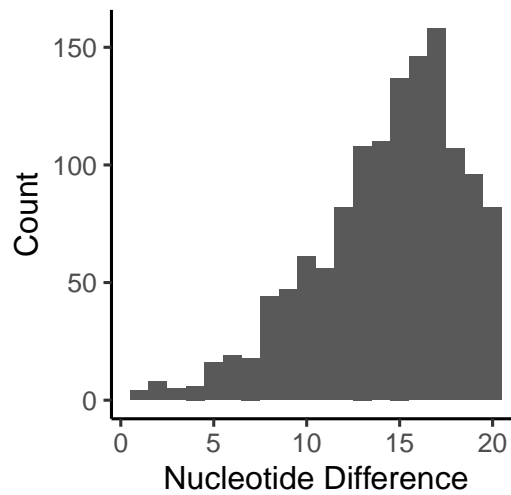
### IGHV3-71\*01\_04

6 sequences assigned  
No exact matches.



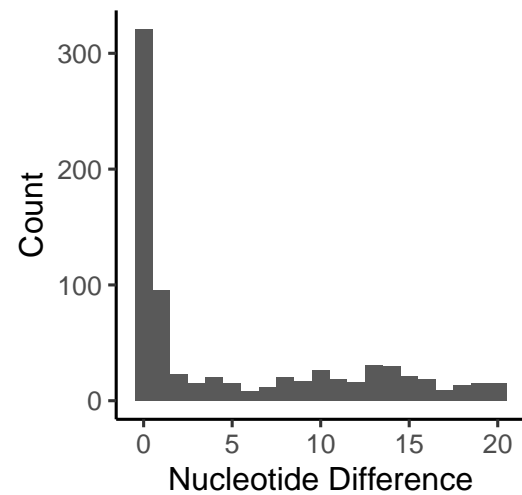
### IGHV3-74\*03

1769 sequences assigned  
No exact matches.



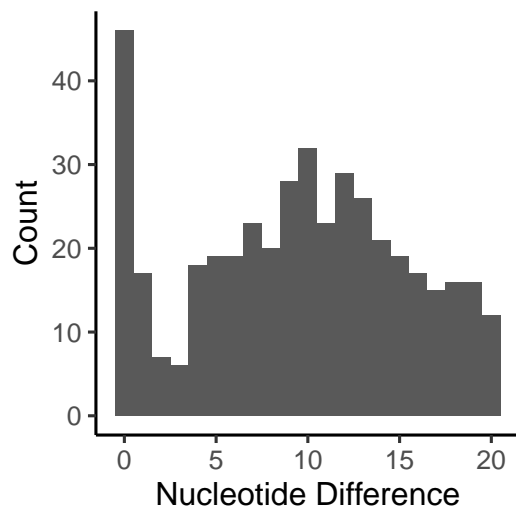
### IGHV3-64D\*06

850 sequences assigned  
321 (37.8%) exact matches, in which:  
302 unique CDR3  
6 unique J



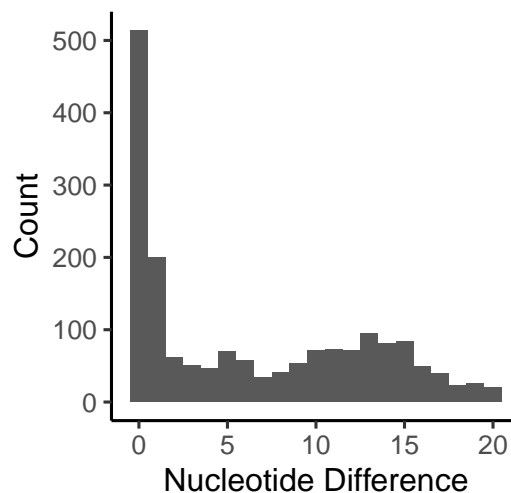
### IGHV3-72\*01

504 sequences assigned  
46 (9.1%) exact matches, in which:  
46 unique CDR3  
5 unique J



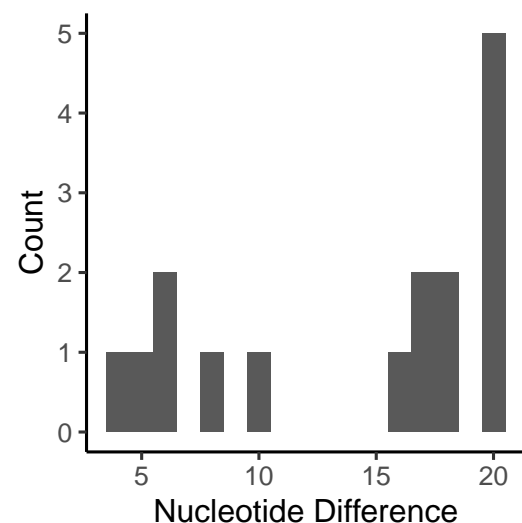
### IGHV3-74\*01\_02

1869 sequences assigned  
514 (27.5%) exact matches, in which:  
498 unique CDR3  
6 unique J



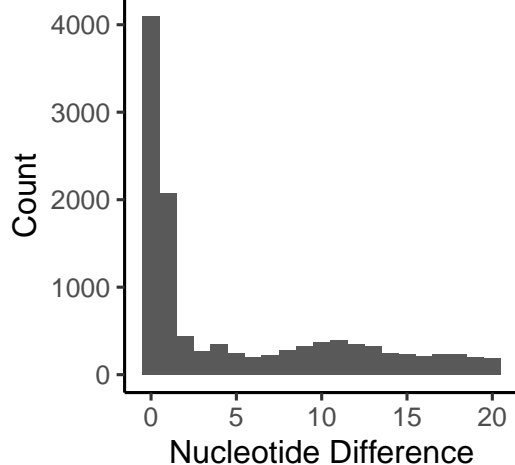
### IGHV3-NL1\*01

28 sequences assigned  
No exact matches.



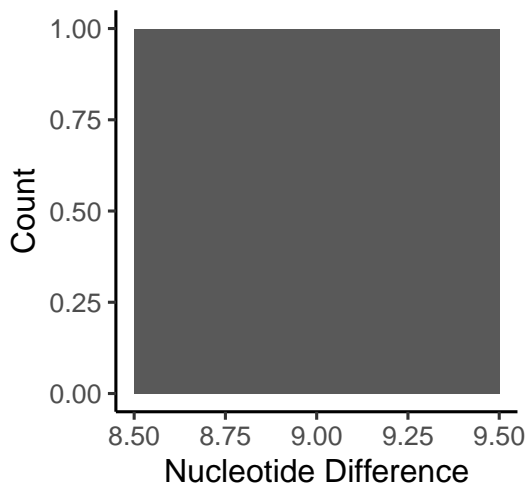
### IGHV4-4\*07

12499 sequences assigned  
4095 (32.8%) exact matches, in which:  
3567 unique CDR3  
6 unique J



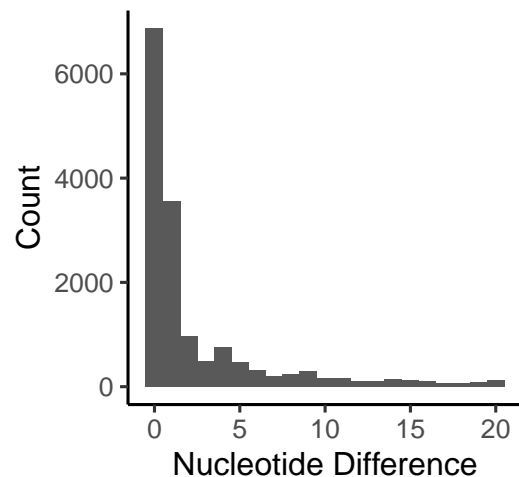
### IGHV4-30-4\*01

3 sequences assigned  
No exact matches.



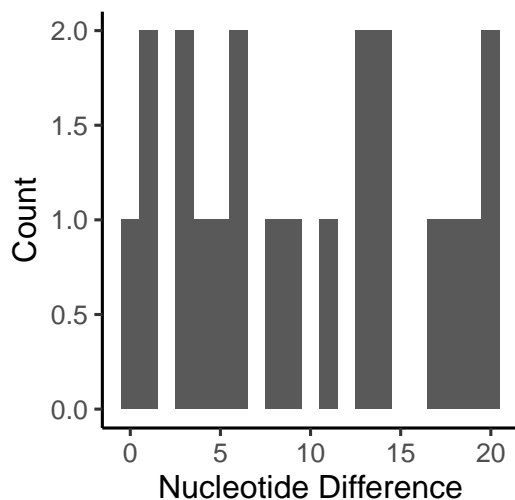
### IGHV4-34\*01\_02

16099 sequences assigned  
6871 (42.7%) exact matches, in which:  
6075 unique CDR3  
6 unique J



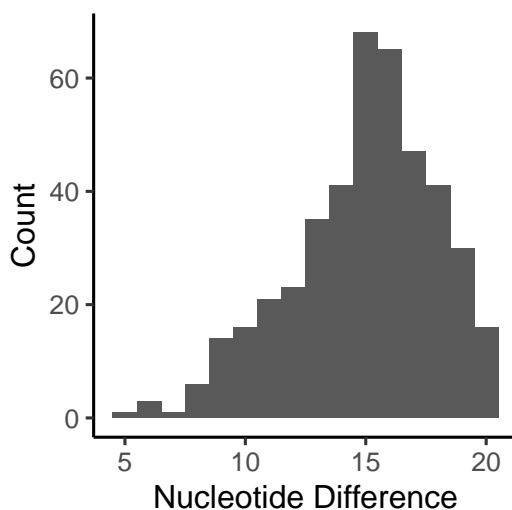
### IGHV4-28\*03

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



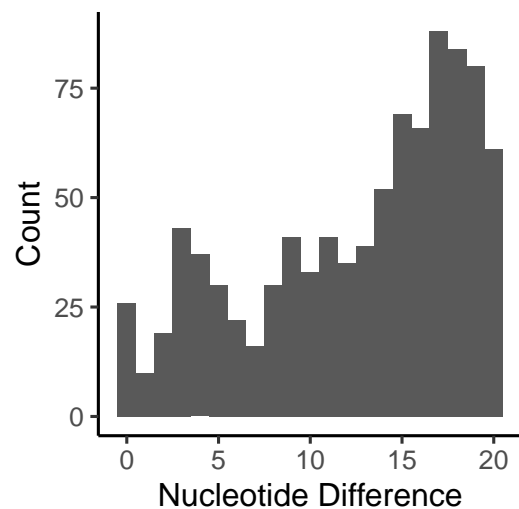
### IGHV4-30-2\*03

498 sequences assigned  
No exact matches.



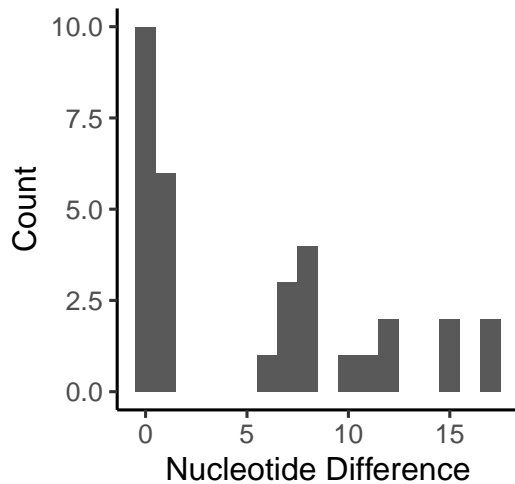
### IGHV4-38-2\*02

1425 sequences assigned  
26 (1.8%) exact matches, in which:  
26 unique CDR3  
5 unique J



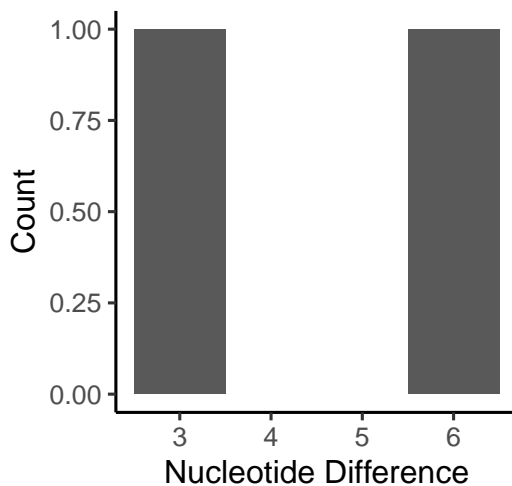
### IGHV4-28\*01\_07

50 sequences assigned  
10 (20%) exact matches, in which:  
9 unique CDR3  
3 unique J



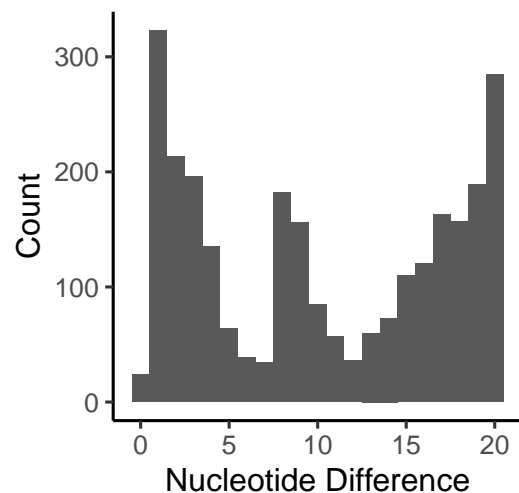
### IGHV4-31\*02

3 sequences assigned  
No exact matches.



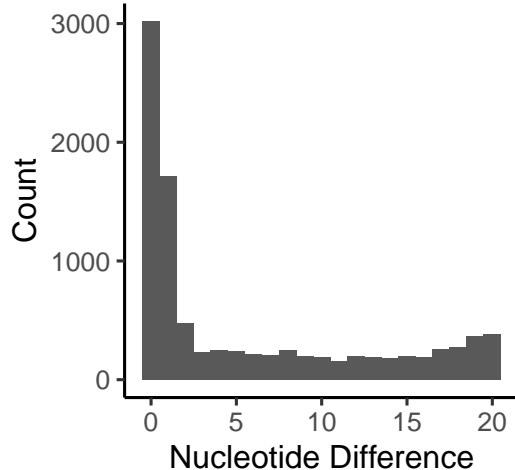
### IGHV4-39\*07

3951 sequences assigned  
24 (0.6%) exact matches, in which:  
24 unique CDR3  
3 unique J



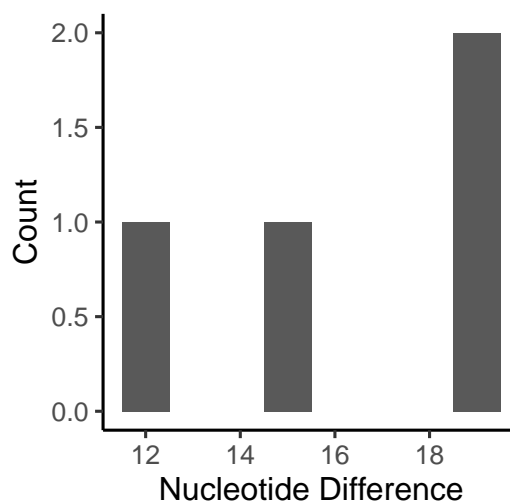
### IGHV4–59\*08

11759 sequences assigned  
3018 (25.7%) exact matches, in which:  
2599 unique CDR3  
6 unique J



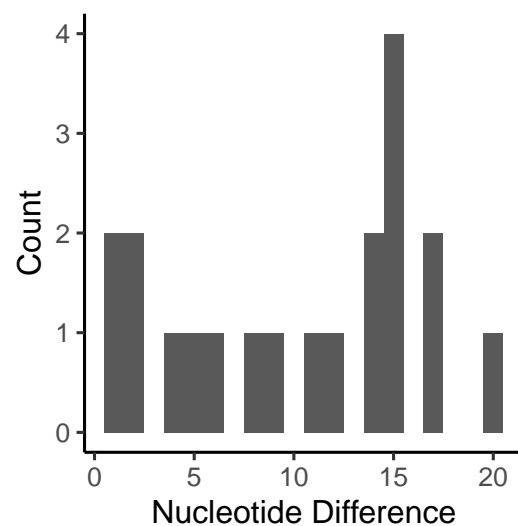
### IGHV4/OR15–8\*01

10 sequences assigned  
No exact matches.



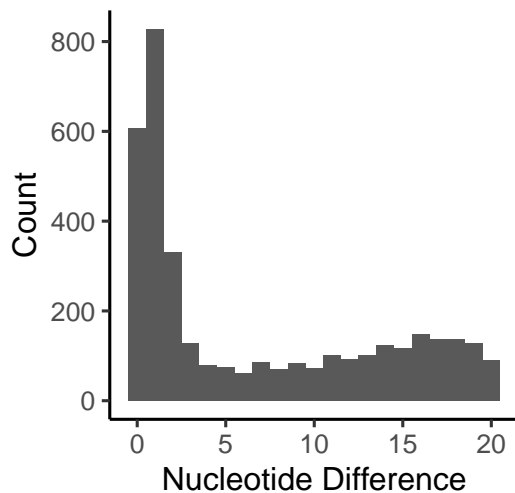
### IGHV5–51\*06

23 sequences assigned  
No exact matches.



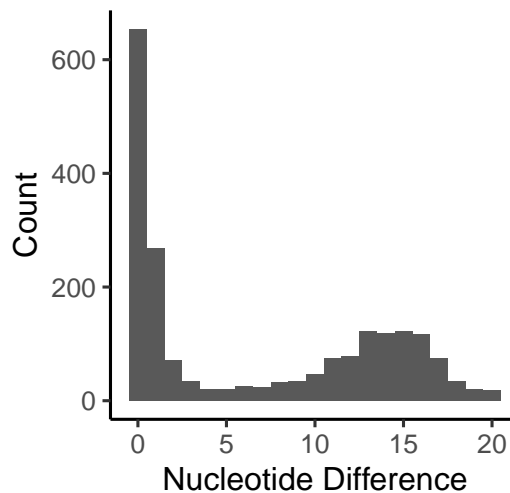
### IGHV4–59\*12

4236 sequences assigned  
608 (14.4%) exact matches, in which:  
596 unique CDR3  
6 unique J



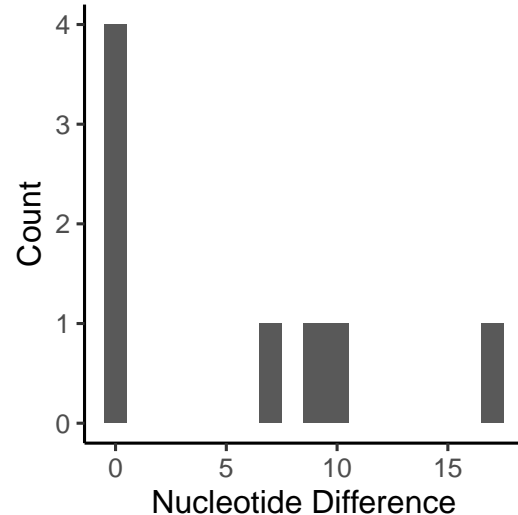
### IGHV5–10–1\*01\_03

2087 sequences assigned  
654 (31.3%) exact matches, in which:  
635 unique CDR3  
6 unique J



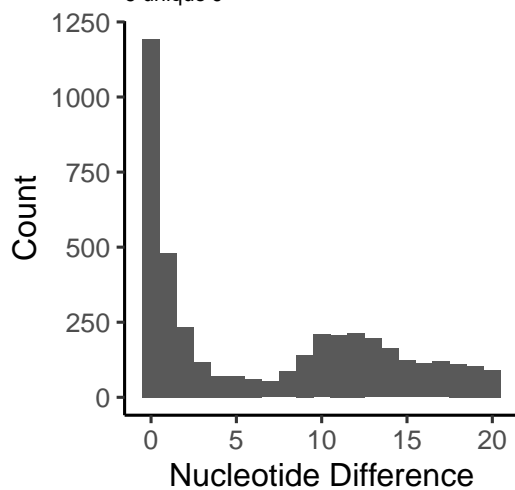
### IGHV5–51\*07

9 sequences assigned  
4 (44.4%) exact matches, in which:  
4 unique CDR3  
3 unique J



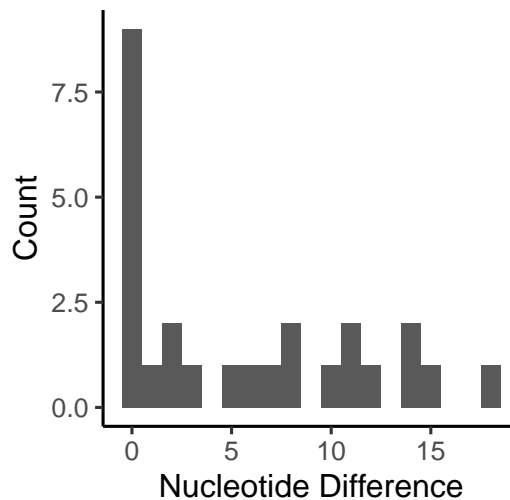
### IGHV4–61\*01

4624 sequences assigned  
1193 (25.8%) exact matches, in which:  
1108 unique CDR3  
6 unique J



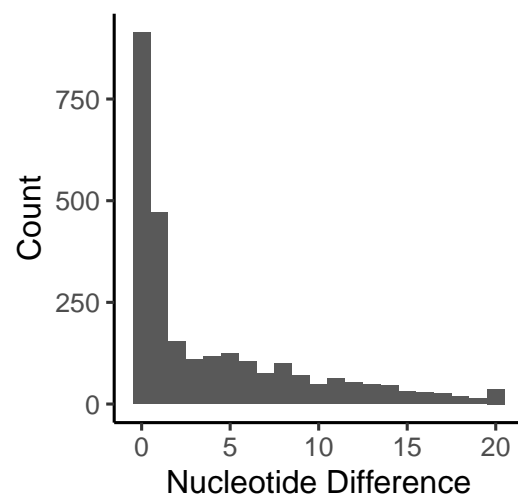
### IGHV5–51\*04

31 sequences assigned  
9 (29%) exact matches, in which:  
9 unique CDR3  
5 unique J



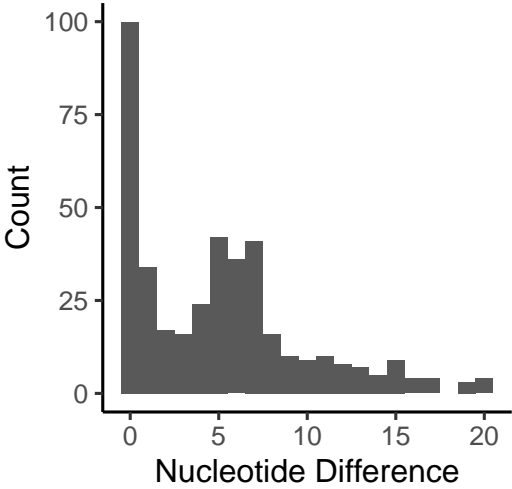
### IGHV6–1\*01\_02

2709 sequences assigned  
914 (33.7%) exact matches, in which:  
818 unique CDR3  
6 unique J

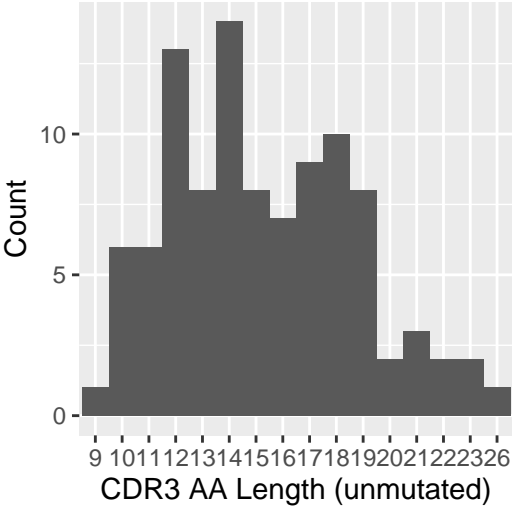


IGHV6-1\*01\_02\_A315G

409 sequences assigned  
100 (24.4%) exact matches, in which:  
99 unique CDR3  
6 unique J



IGHV6-1\*01\_02\_A315G



Allele Usage

