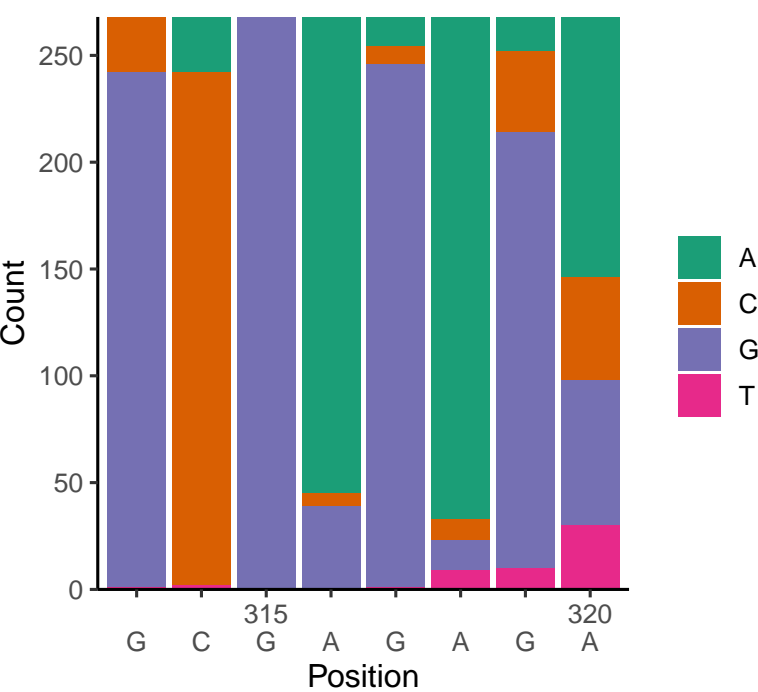
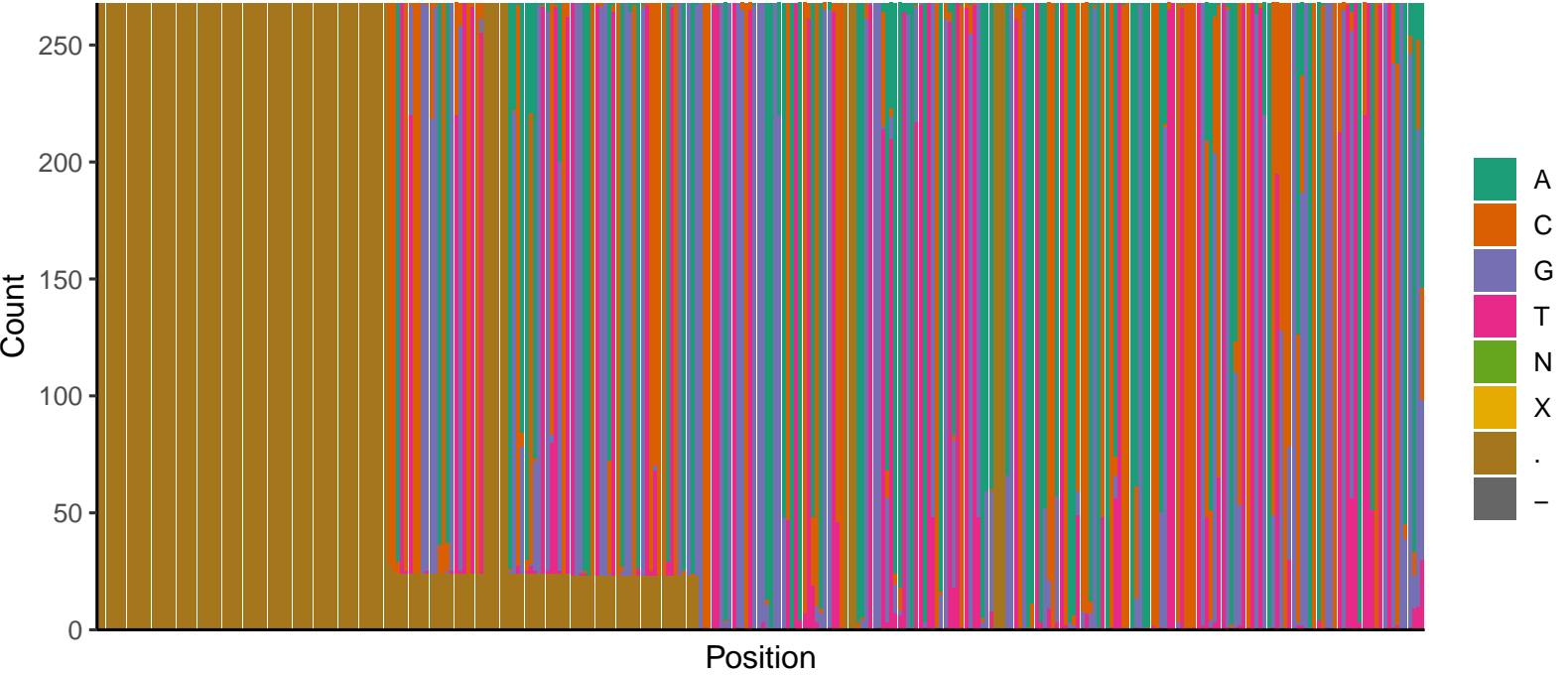


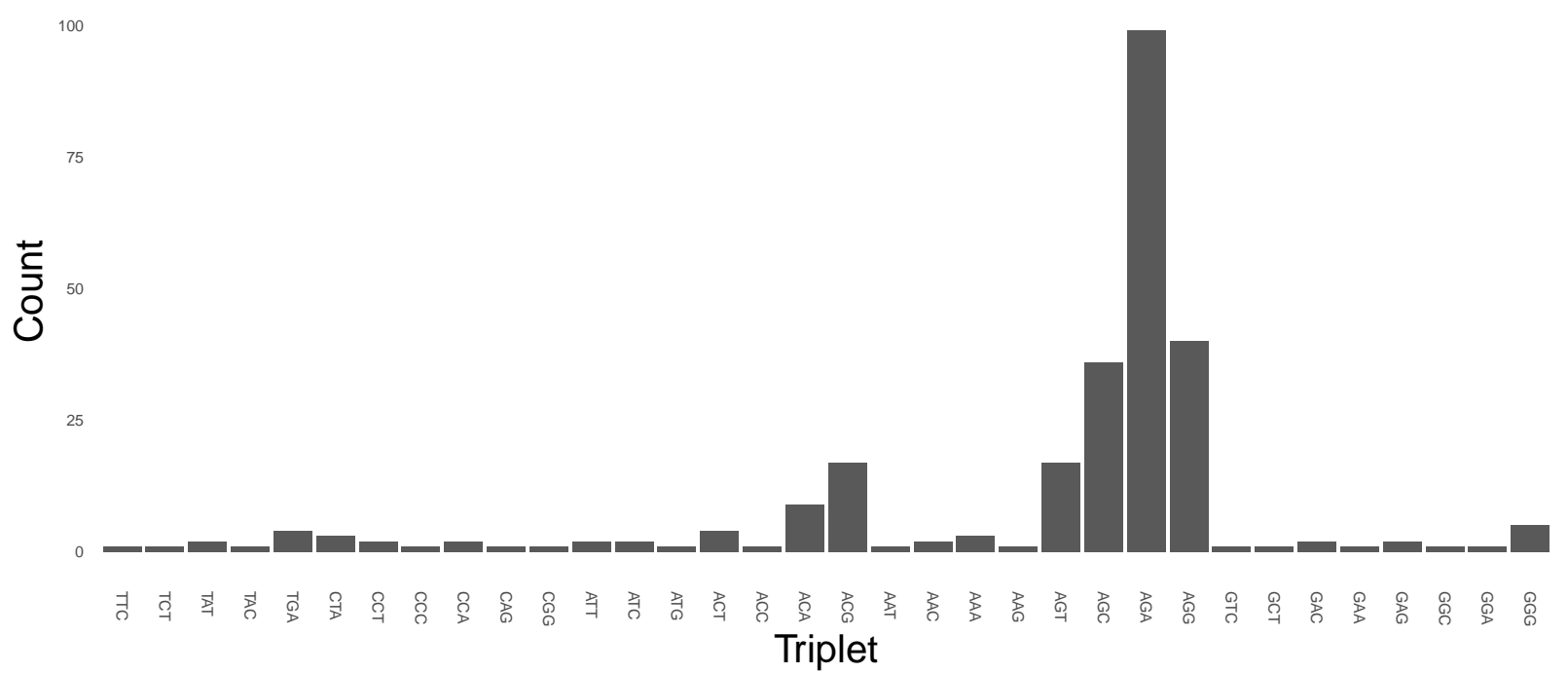
Gene IGHV6-1\*01\_02\_A315G



Gene IGHV6-1\*01\_02\_A315G

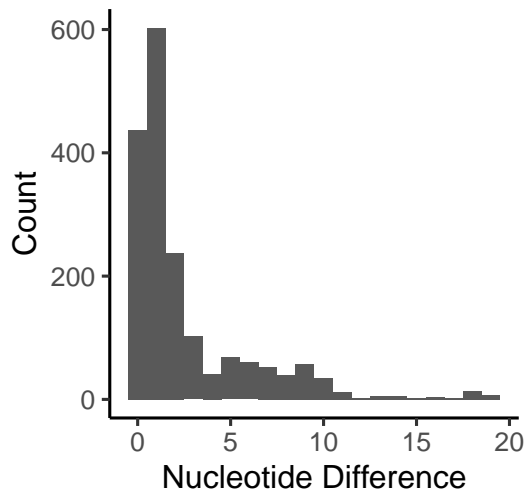


IGHV6-1\*01\_02\_A315G- Final 3 nucleotides as a triplet



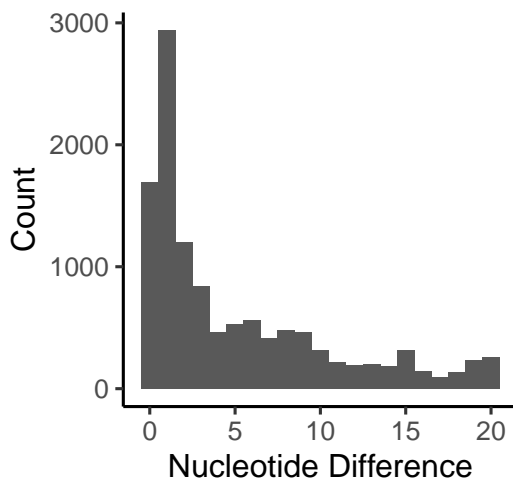
### IGHV1-2\*04

1825 sequences assigned  
437 (23.9%) exact matches, in which:  
362 unique CDR3  
7 unique J



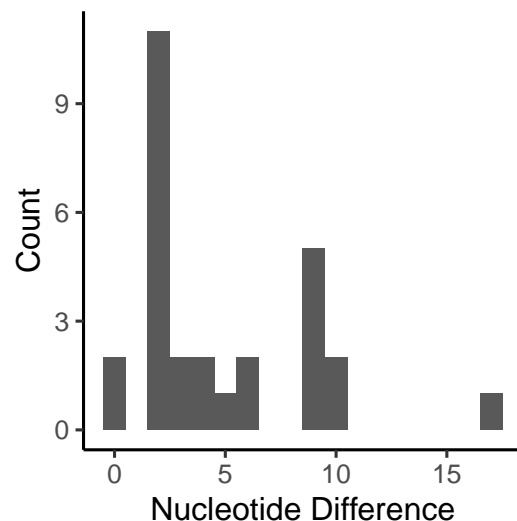
### IGHV1-8\*01

12477 sequences assigned  
1696 (13.6%) exact matches, in which:  
1279 unique CDR3  
7 unique J



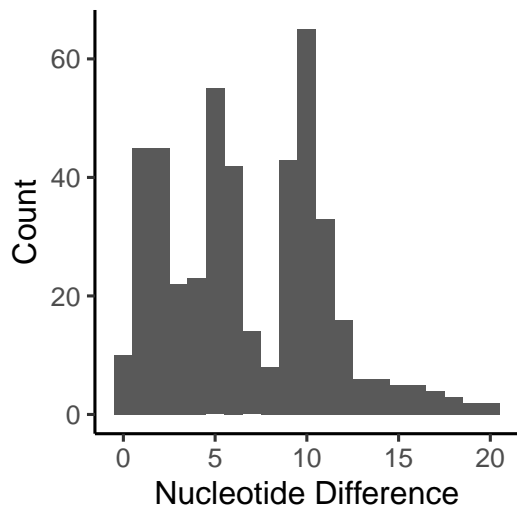
### IGHV1-45\*02

28 sequences assigned  
2 (7.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



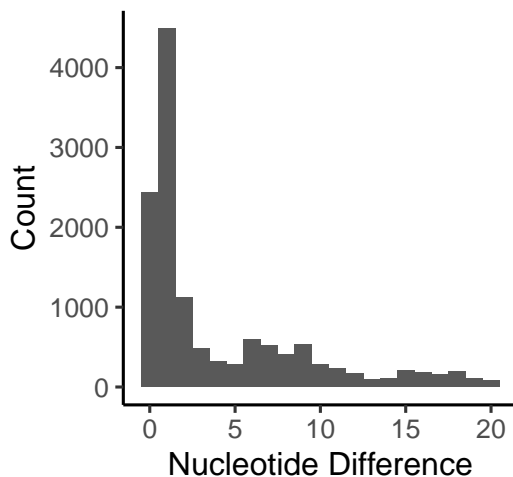
### IGHV1-2\*06

469 sequences assigned  
10 (2.1%) exact matches, in which:  
10 unique CDR3  
5 unique J



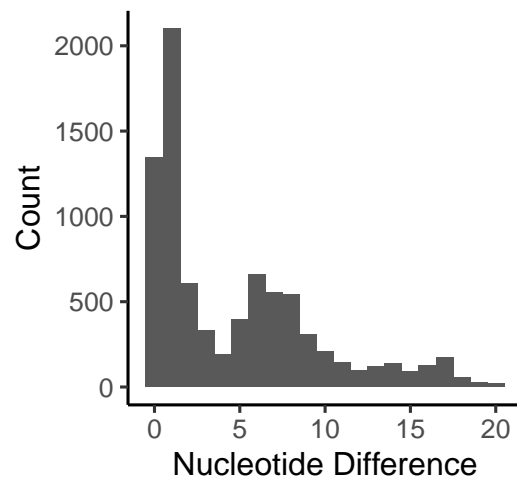
### IGHV1-18\*01

15752 sequences assigned  
2438 (15.5%) exact matches, in which:  
1839 unique CDR3  
7 unique J



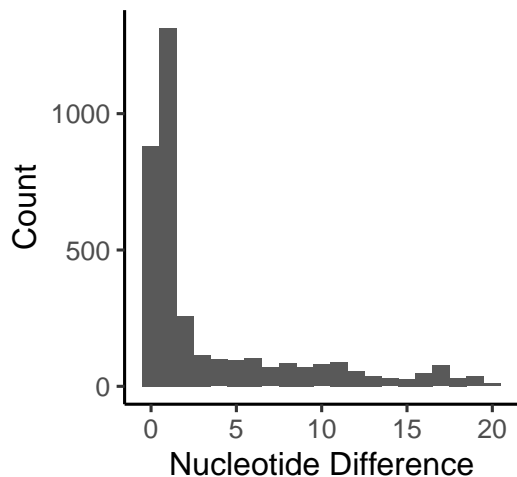
### IGHV1-46\*01

9242 sequences assigned  
1345 (14.6%) exact matches, in which:  
1060 unique CDR3  
7 unique J



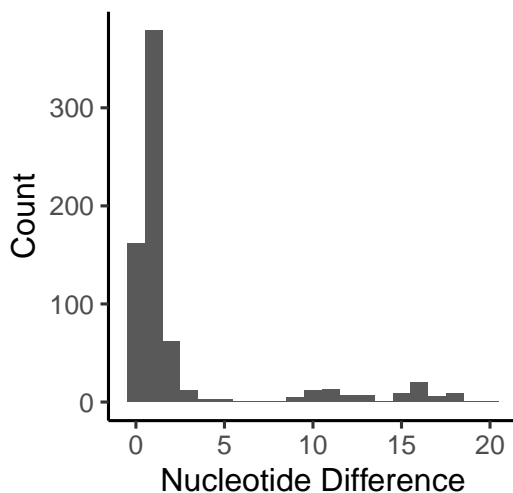
### IGHV1-3\*01\_05

4721 sequences assigned  
881 (18.7%) exact matches, in which:  
683 unique CDR3  
6 unique J



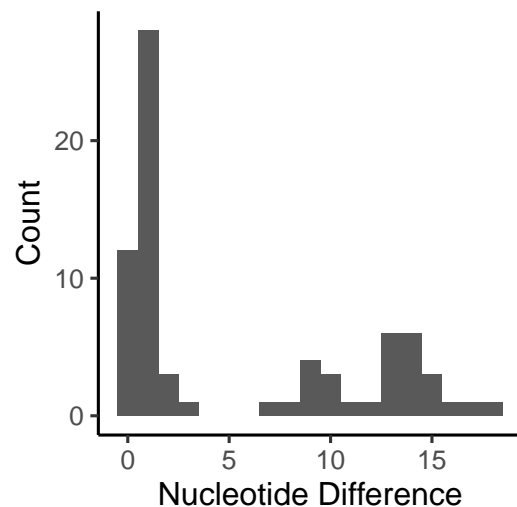
### IGHV1-24\*01

878 sequences assigned  
162 (18.5%) exact matches, in which:  
124 unique CDR3  
7 unique J



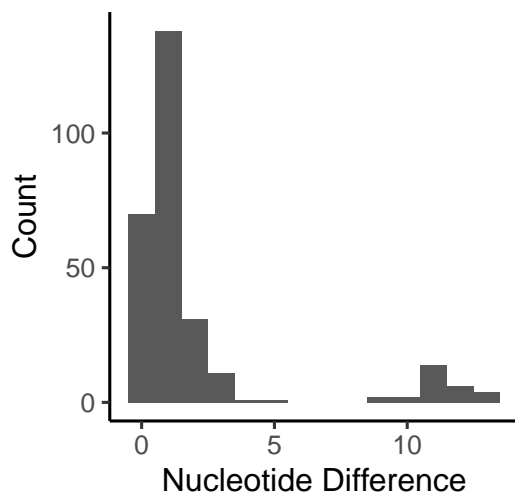
### IGHV1-58\*02

77 sequences assigned  
12 (15.6%) exact matches, in which:  
9 unique CDR3  
4 unique J



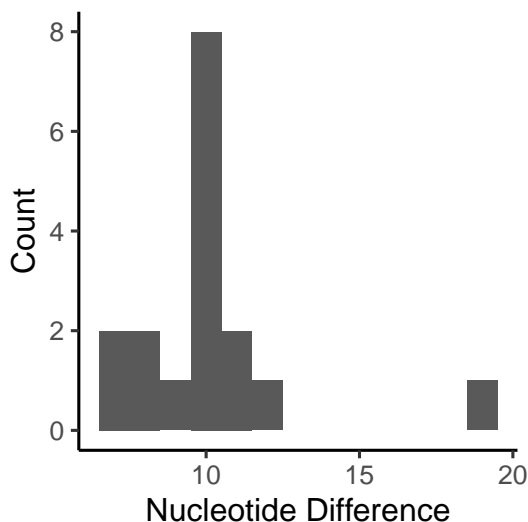
### IGHV1–58\*01\_03

301 sequences assigned  
70 (23.3%) exact matches, in which:  
51 unique CDR3  
5 unique J



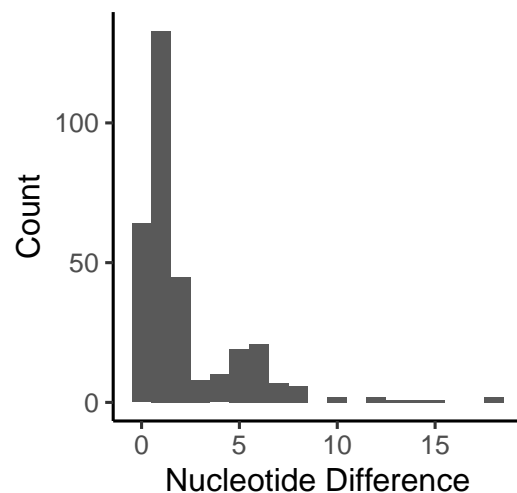
### IGHV1–NL1\*01

17 sequences assigned  
No exact matches.



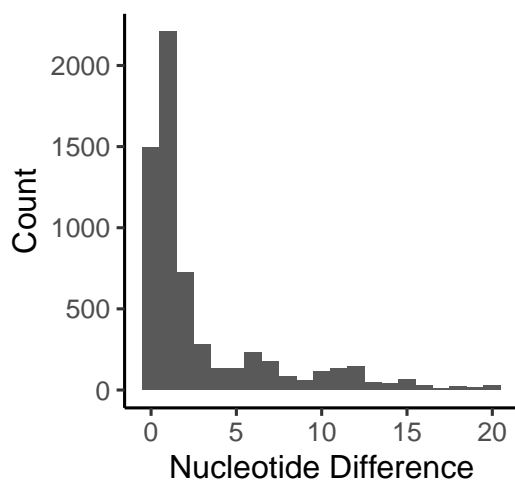
### IGHV2–70\*01

325 sequences assigned  
64 (19.7%) exact matches, in which:  
43 unique CDR3  
5 unique J



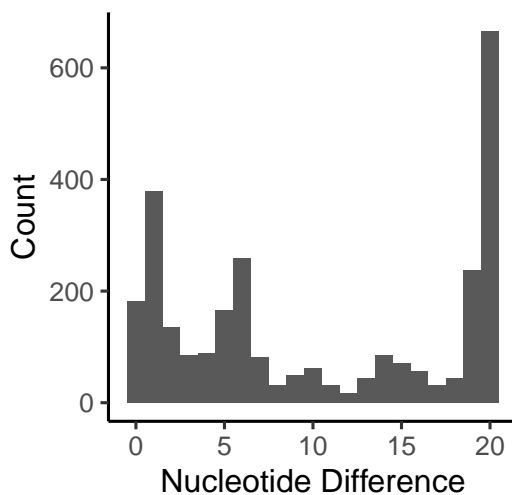
### IGHV1–69\*01\_12\_13

6887 sequences assigned  
1493 (21.7%) exact matches, in which:  
1242 unique CDR3  
7 unique J



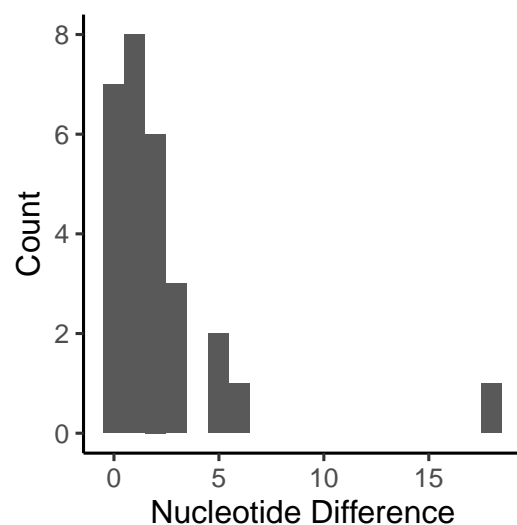
### IGHV2–5\*02

3511 sequences assigned  
181 (5.2%) exact matches, in which:  
135 unique CDR3  
7 unique J



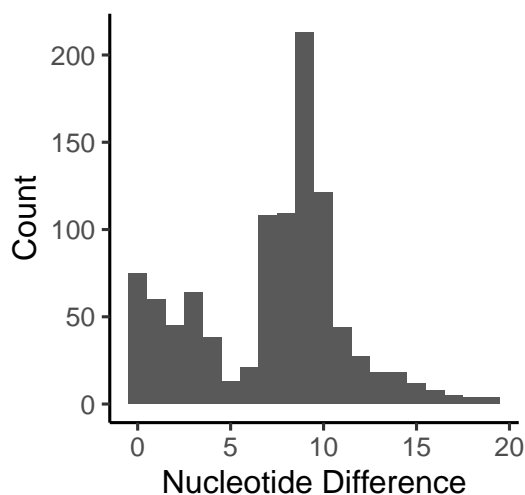
### IGHV2–70\*12

28 sequences assigned  
7 (25%) exact matches, in which:  
7 unique CDR3  
4 unique J



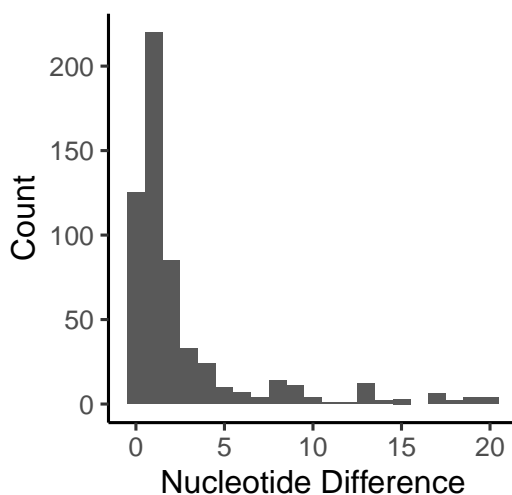
### IGHV1–69\*06\_14

1056 sequences assigned  
75 (7.1%) exact matches, in which:  
72 unique CDR3  
6 unique J



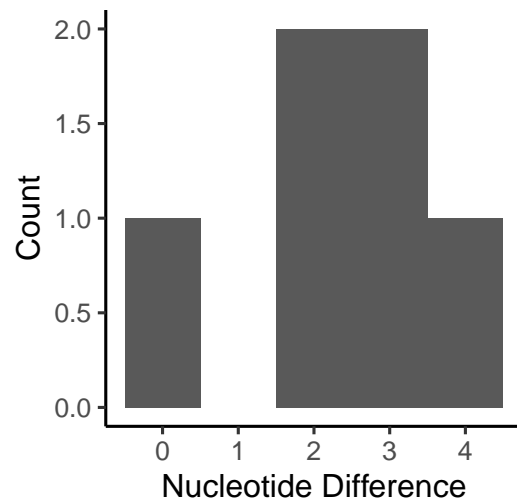
### IGHV2–26\*01

624 sequences assigned  
125 (20%) exact matches, in which:  
84 unique CDR3  
6 unique J



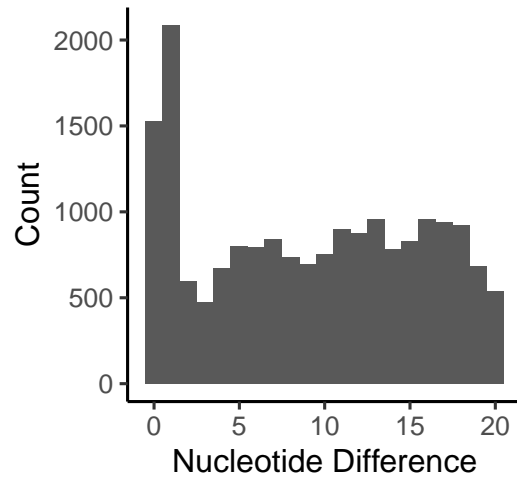
### IGHV2–70D\*14

6 sequences assigned  
1 (16.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



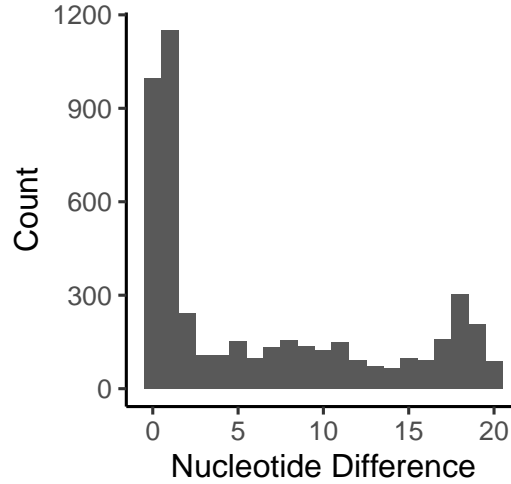
### IGHV3-7\*01

22674 sequences assigned  
1525 (6.7%) exact matches, in which:  
1030 unique CDR3  
7 unique J



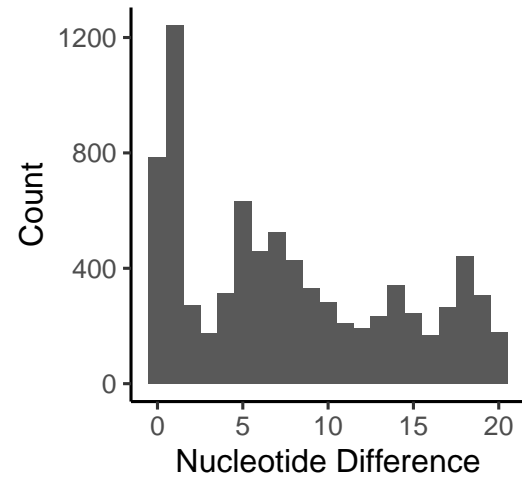
### IGHV3-11\*01

5999 sequences assigned  
998 (16.6%) exact matches, in which:  
660 unique CDR3  
7 unique J



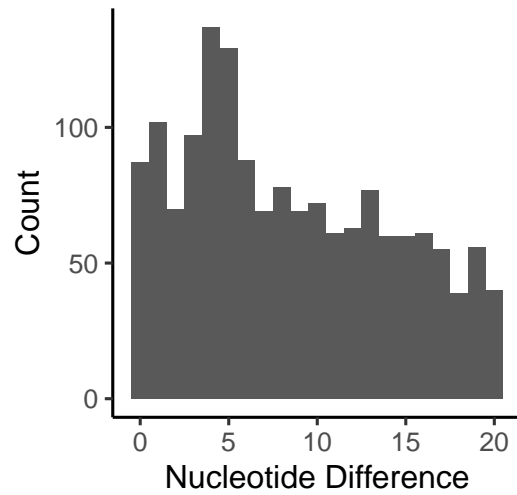
### IGHV3-15\*01\_02

9871 sequences assigned  
785 (8%) exact matches, in which:  
473 unique CDR3  
7 unique J



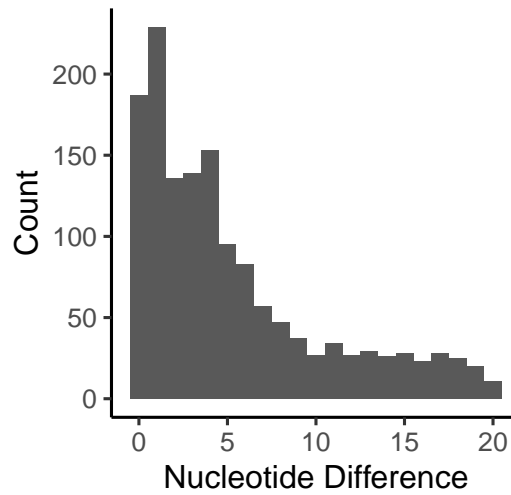
### IGHV3-7\*03

1858 sequences assigned  
87 (4.7%) exact matches, in which:  
77 unique CDR3  
6 unique J



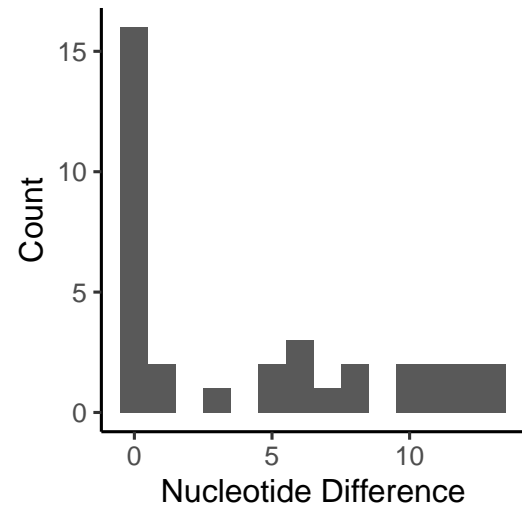
### IGHV3-11\*04

1557 sequences assigned  
187 (12%) exact matches, in which:  
165 unique CDR3  
7 unique J



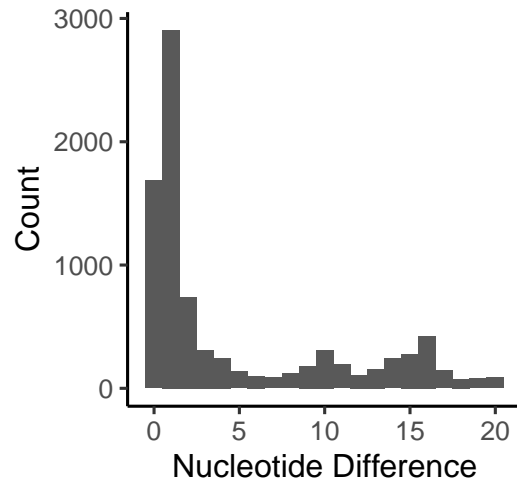
### IGHV3-19\*01

35 sequences assigned  
16 (45.7%) exact matches, in which:  
12 unique CDR3  
3 unique J



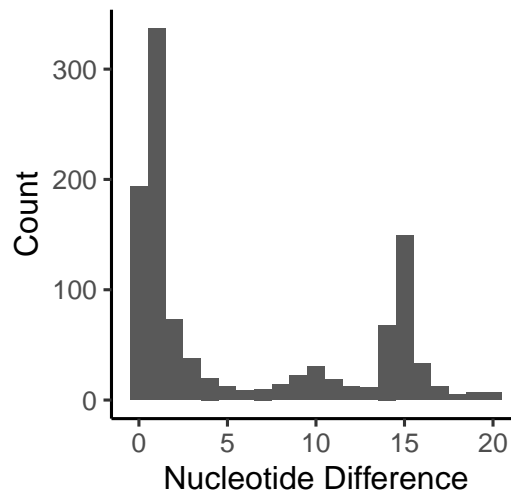
### IGHV3-9\*01

10453 sequences assigned  
1685 (16.1%) exact matches, in which:  
1003 unique CDR3  
7 unique J



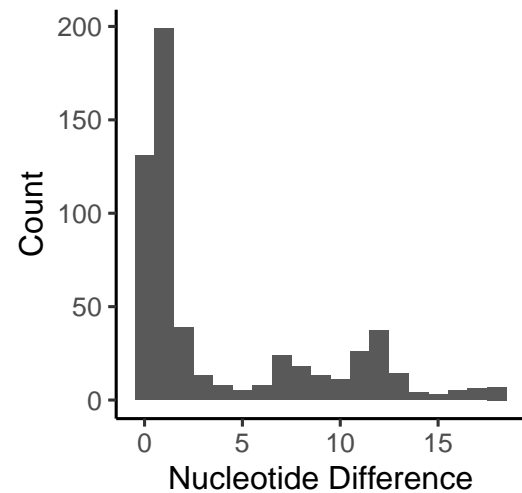
### IGHV3-13\*01

1092 sequences assigned  
194 (17.8%) exact matches, in which:  
111 unique CDR3  
6 unique J



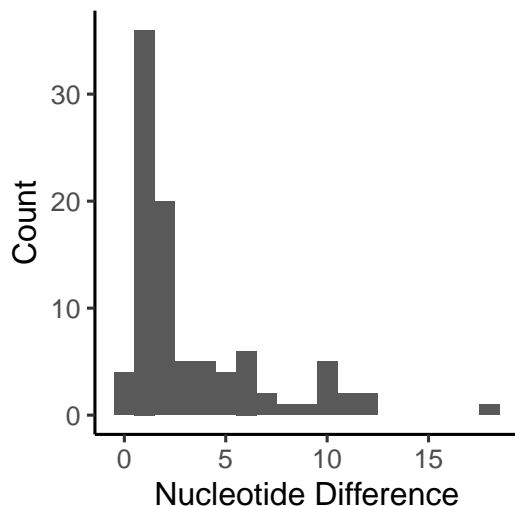
### IGHV3-20\*01\_02

578 sequences assigned  
131 (22.7%) exact matches, in which:  
80 unique CDR3  
5 unique J



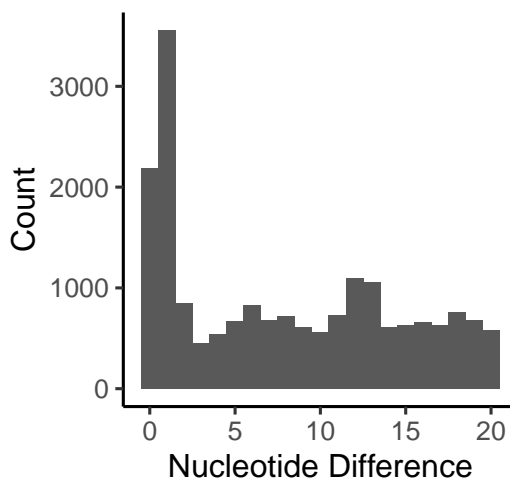
### IGHV3-20\*03\_04

112 sequences assigned  
4 (3.6%) exact matches, in which:  
4 unique CDR3  
3 unique J



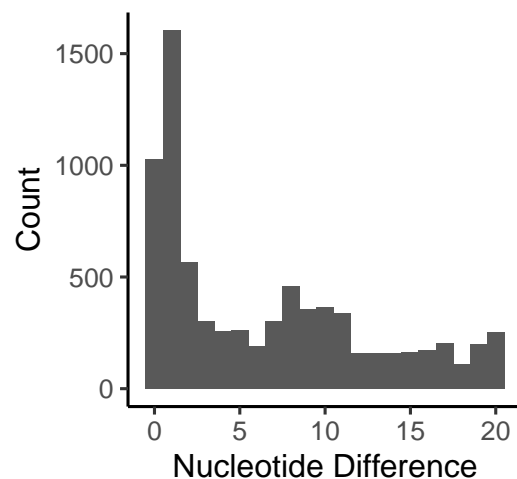
### IGHV3-23\*01\_04

24929 sequences assigned  
2189 (8.8%) exact matches, in which:  
1294 unique CDR3  
7 unique J



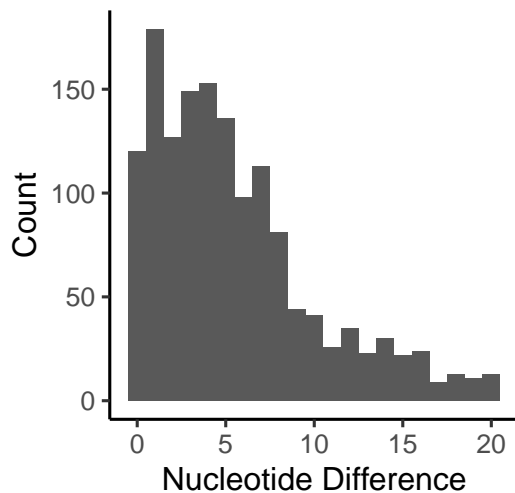
### IGHV3-30\*18

10218 sequences assigned  
1028 (10.1%) exact matches, in which:  
576 unique CDR3  
7 unique J



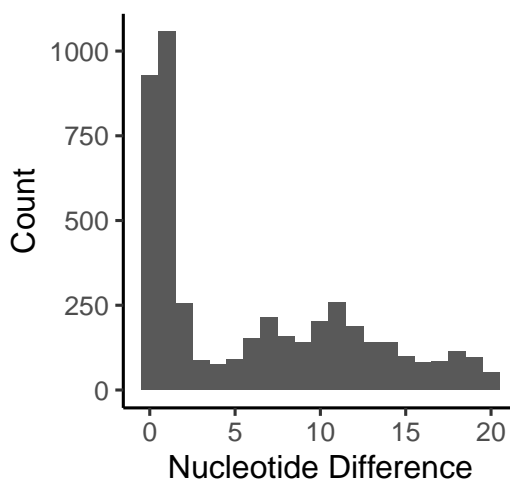
### IGHV3-21\*04

1505 sequences assigned  
120 (8%) exact matches, in which:  
103 unique CDR3  
7 unique J



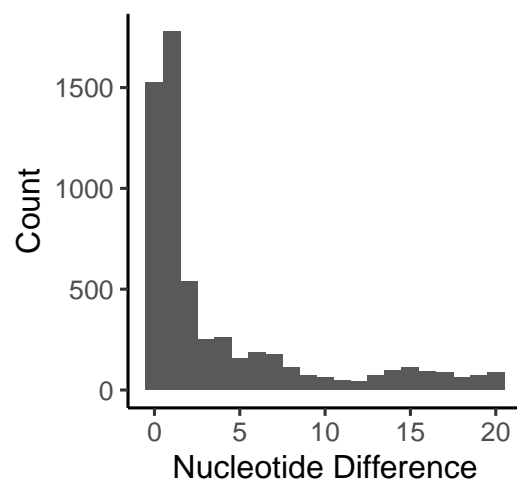
### IGHV3-30-3\*01

4939 sequences assigned  
929 (18.8%) exact matches, in which:  
652 unique CDR3  
7 unique J



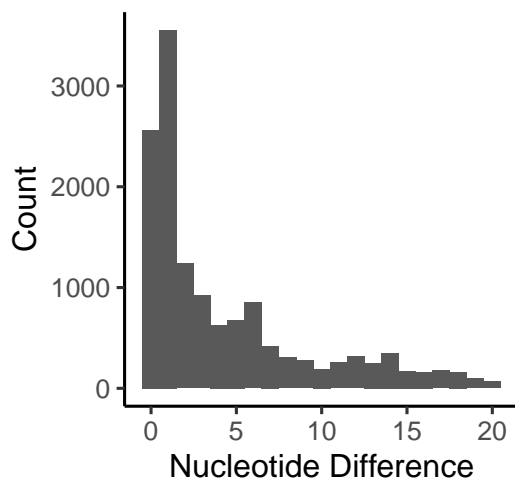
### IGHV3-33\*05

7412 sequences assigned  
1523 (20.5%) exact matches, in which:  
974 unique CDR3  
7 unique J



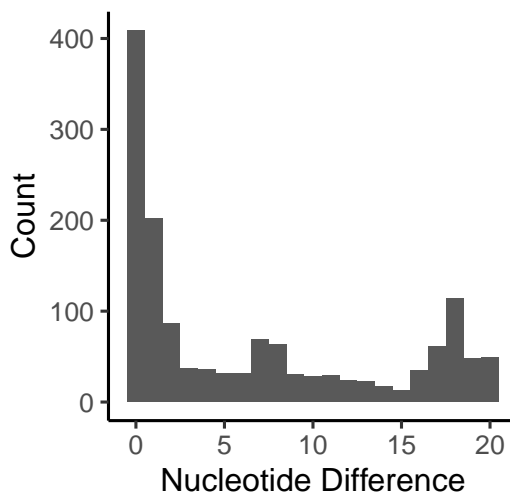
### IGHV3-21\*01\_02

14667 sequences assigned  
2562 (17.5%) exact matches, in which:  
1580 unique CDR3  
7 unique J



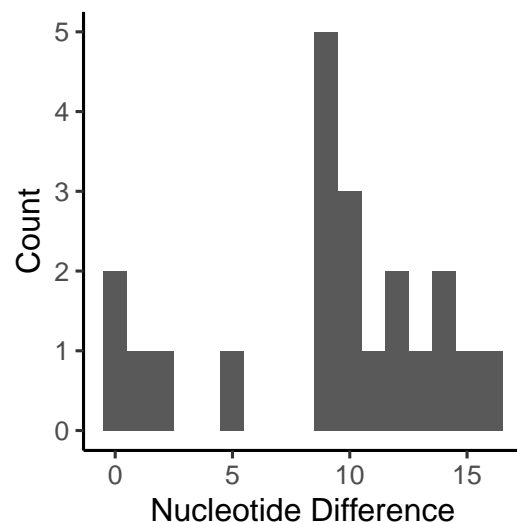
### IGHV3-30\*03

1802 sequences assigned  
409 (22.7%) exact matches, in which:  
347 unique CDR3  
7 unique J



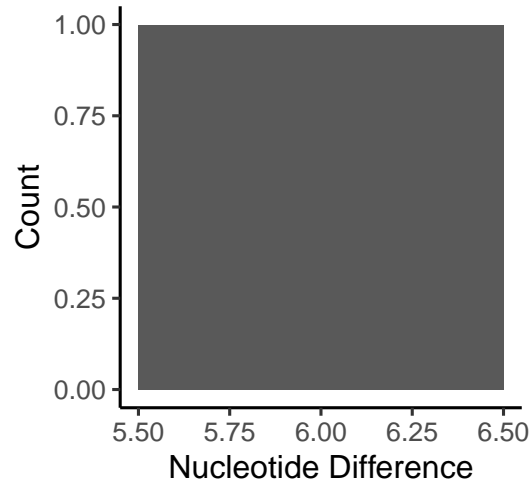
### IGHV3-35\*01

21 sequences assigned  
2 (9.5%) exact matches, in which:  
2 unique CDR3  
2 unique J



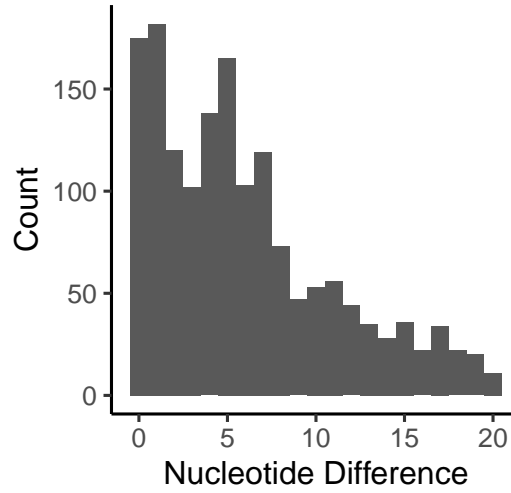
### IGHV3-38\*02

1 sequences assigned  
No exact matches.



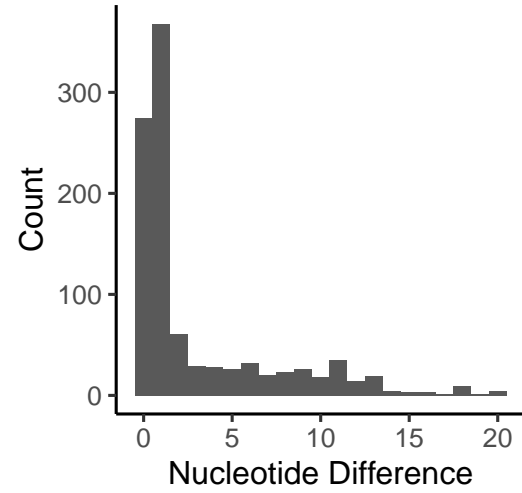
### IGHV3-48\*01

1667 sequences assigned  
175 (10.5%) exact matches, in which:  
144 unique CDR3  
7 unique J



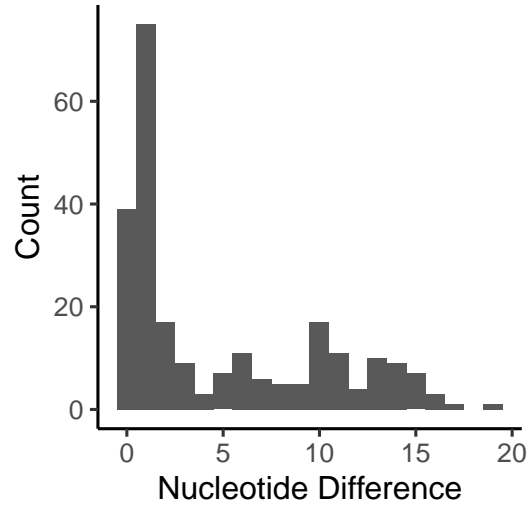
### IGHV3-49\*03\_05

1152 sequences assigned  
275 (23.9%) exact matches, in which:  
165 unique CDR3  
7 unique J



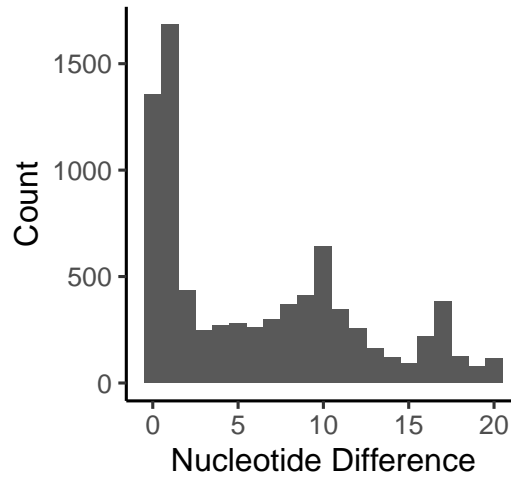
### IGHV3-43\*01

244 sequences assigned  
39 (16%) exact matches, in which:  
21 unique CDR3  
4 unique J



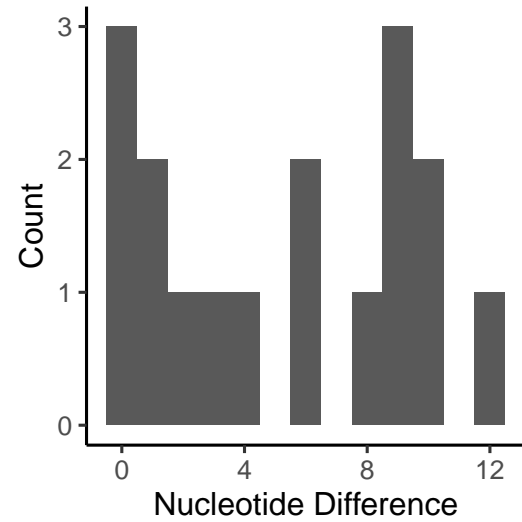
### IGHV3-48\*02

9330 sequences assigned  
1357 (14.5%) exact matches, in which:  
845 unique CDR3  
7 unique J



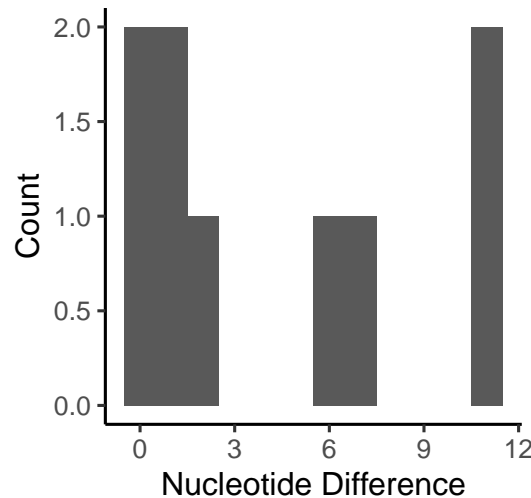
### IGHV3-52\*01\_03

17 sequences assigned  
3 (17.6%) exact matches, in which:  
2 unique CDR3  
1 unique J



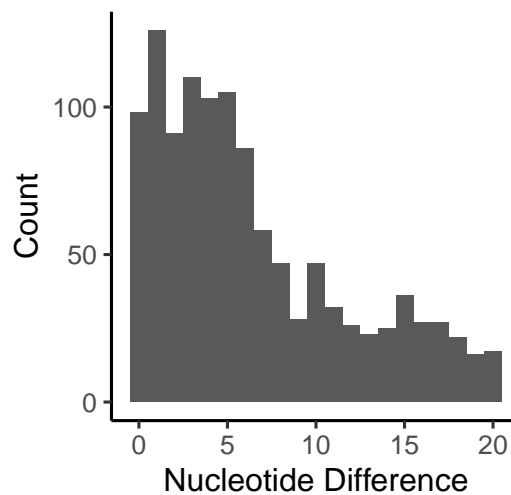
### IGHV3-47\*02

9 sequences assigned  
2 (22.2%) exact matches, in which:  
1 unique CDR3  
1 unique J



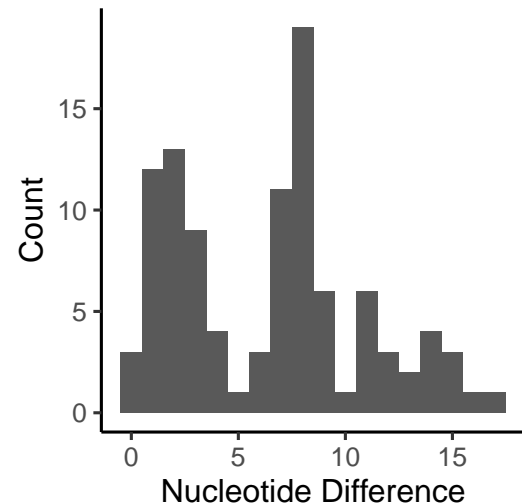
### IGHV3-48\*04

1309 sequences assigned  
98 (7.5%) exact matches, in which:  
85 unique CDR3  
7 unique J



### IGHV3-53\*05

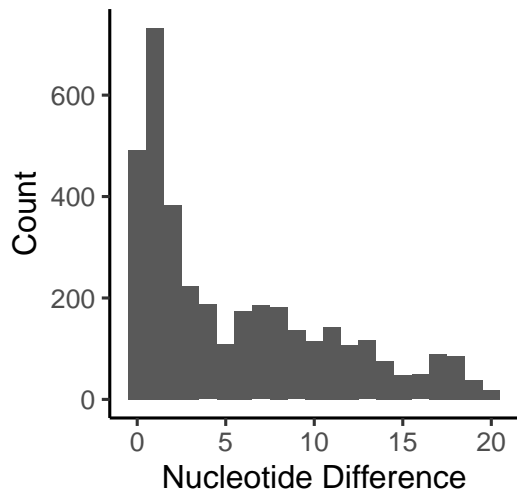
118 sequences assigned  
3 (2.5%) exact matches, in which:  
3 unique CDR3  
3 unique J





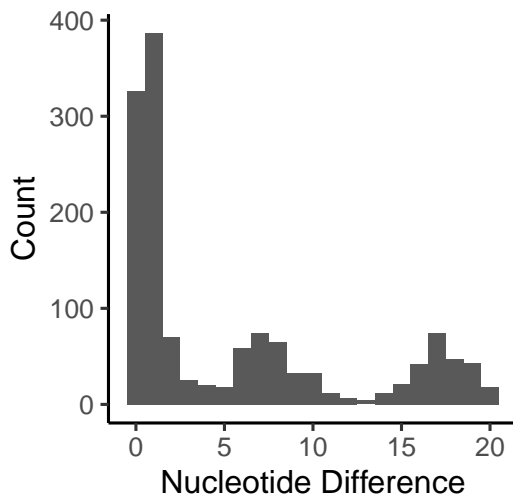
### IGHV3-53\*01\_02

5724 sequences assigned  
491 (8.6%) exact matches, in which:  
346 unique CDR3  
7 unique J



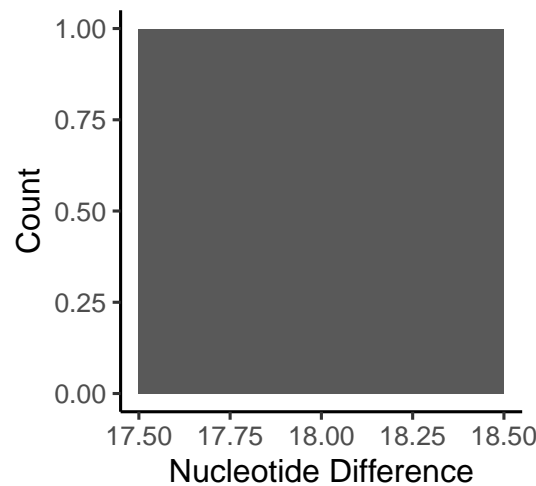
### IGHV3-66\*02

1961 sequences assigned  
326 (16.6%) exact matches, in which:  
233 unique CDR3  
7 unique J



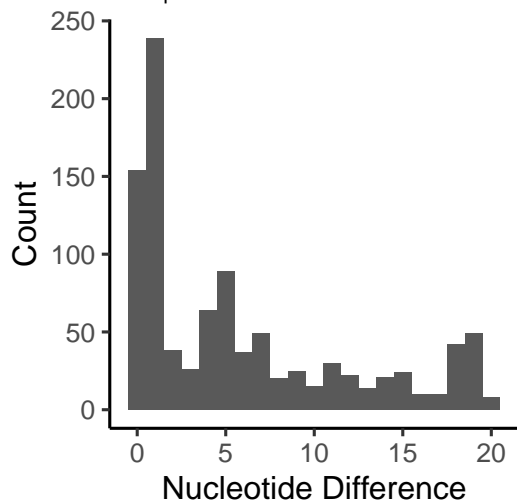
### IGHV3-69-1\*02

12 sequences assigned  
No exact matches.



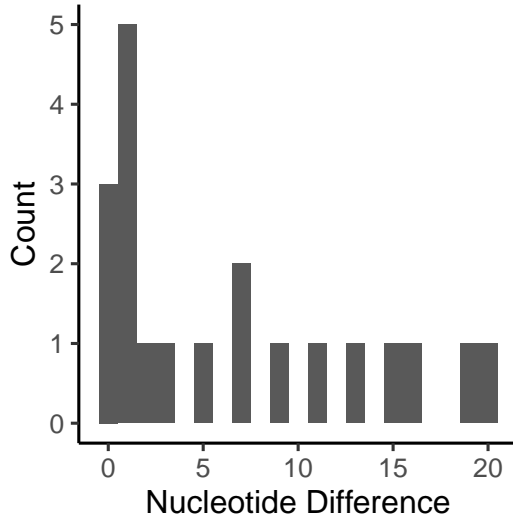
### IGHV3-64\*01

997 sequences assigned  
154 (15.4%) exact matches, in which:  
100 unique CDR3  
6 unique J



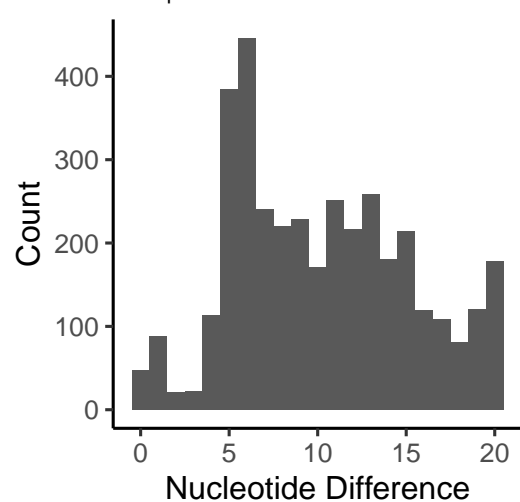
### IGHV3-66\*03

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



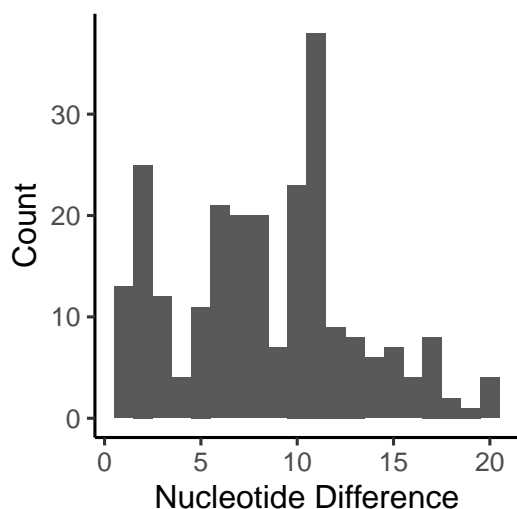
### IGHV3-72\*01

4720 sequences assigned  
47 (1%) exact matches, in which:  
32 unique CDR3  
6 unique J



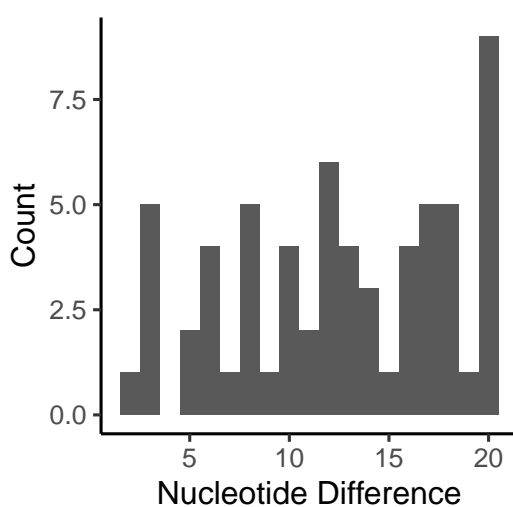
### IGHV3-66\*01

432 sequences assigned  
No exact matches.



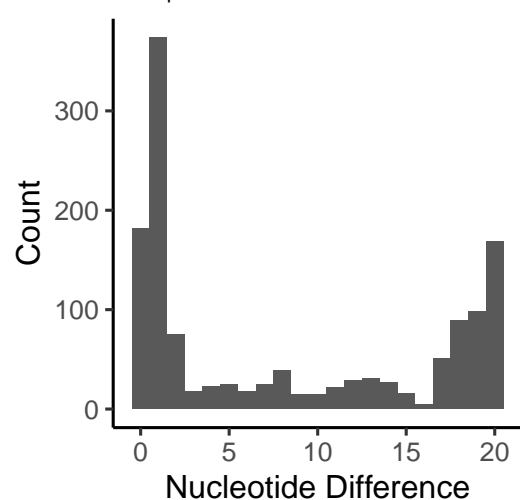
### IGHV3-69-1\*01

99 sequences assigned  
No exact matches.



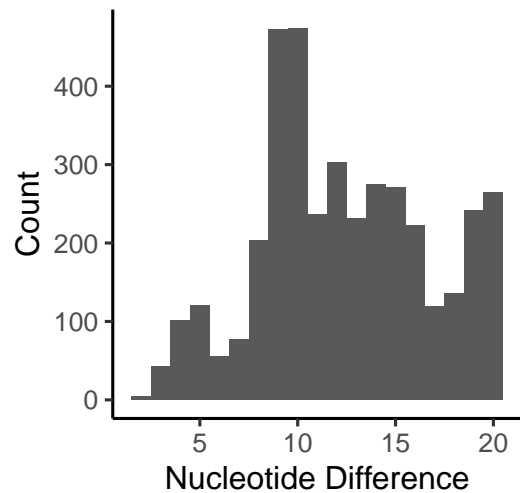
### IGHV3-73\*01\_02

1719 sequences assigned  
182 (10.6%) exact matches, in which:  
105 unique CDR3  
5 unique J



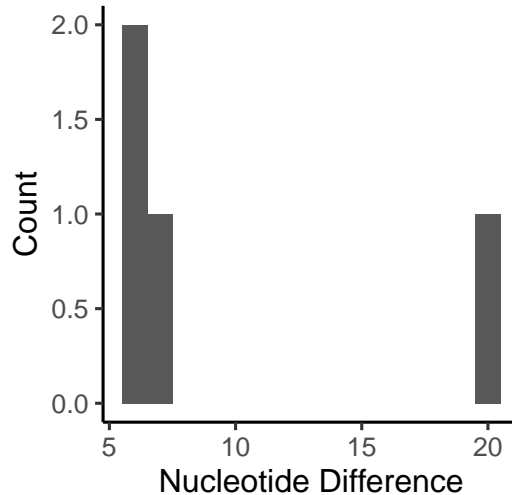
### IGHV3-74\*03

5127 sequences assigned  
No exact matches.



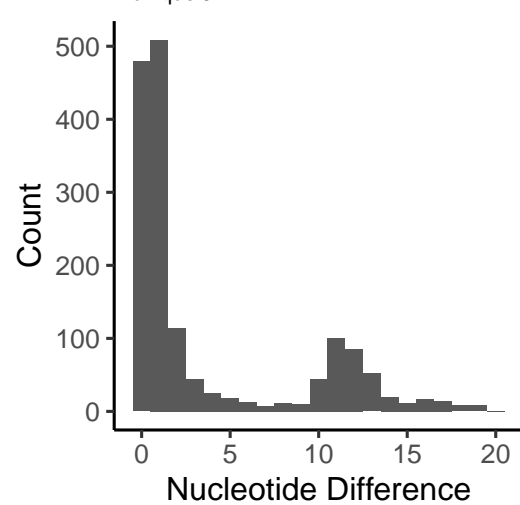
### IGHV3-64D\*06

5 sequences assigned  
No exact matches.



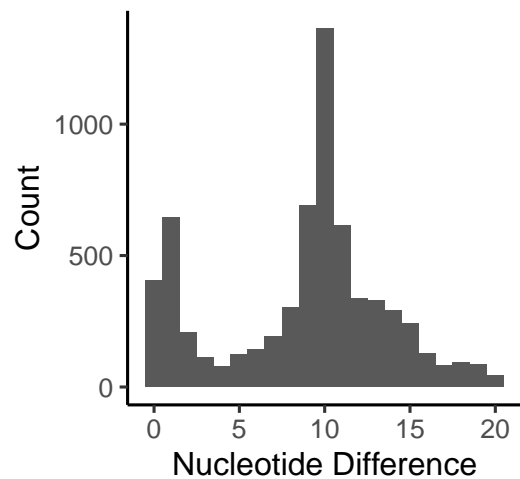
### IGHV4-4\*02\_03

1811 sequences assigned  
479 (26.4%) exact matches, in which:  
346 unique CDR3  
7 unique J



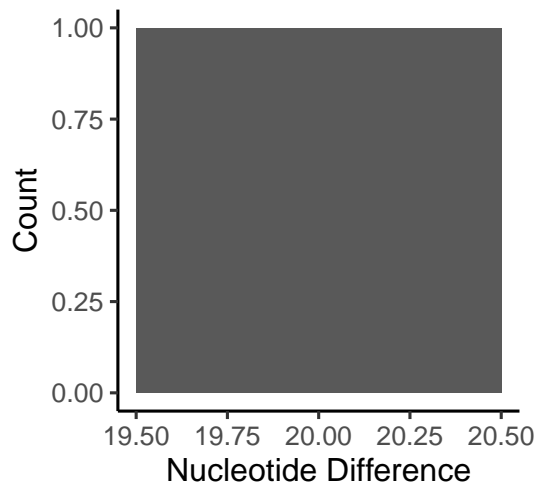
### IGHV3-74\*01\_02

6920 sequences assigned  
407 (5.9%) exact matches, in which:  
235 unique CDR3  
7 unique J



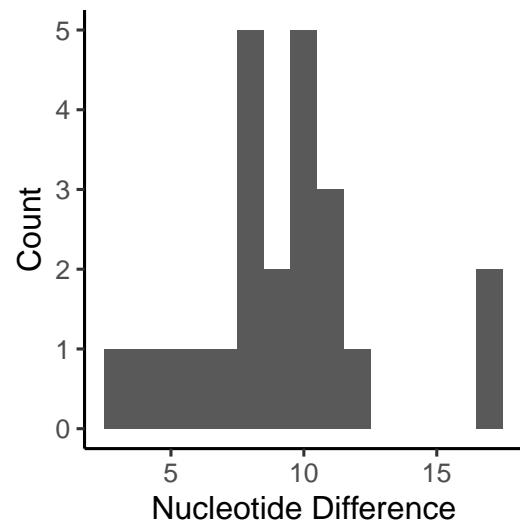
### IGHV3-64D\*08

1 sequences assigned  
No exact matches.



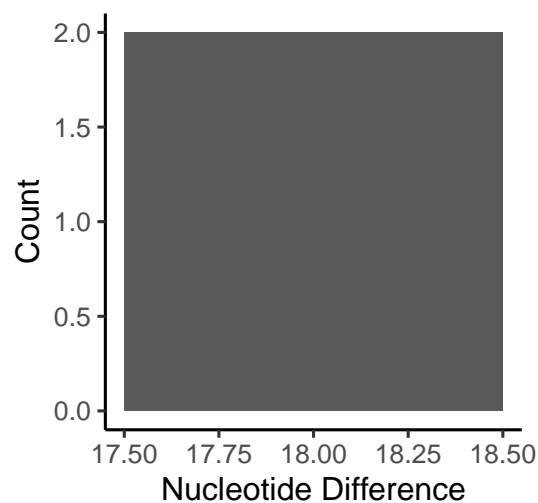
### IGHV4-28\*03

24 sequences assigned  
No exact matches.



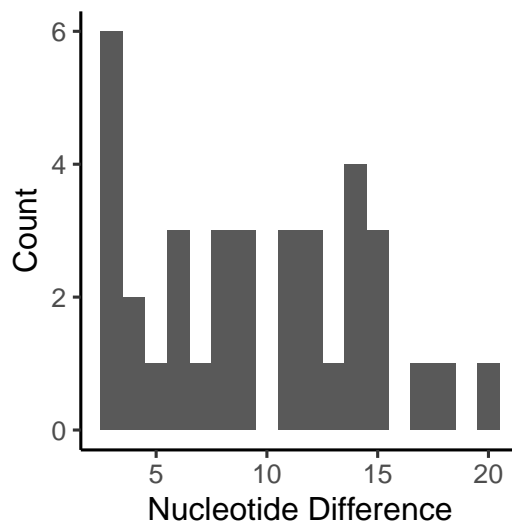
### IGHV3-43D\*04

2 sequences assigned  
No exact matches.



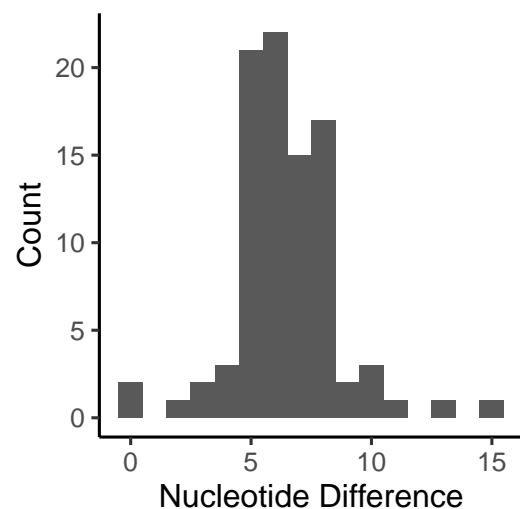
### IGHV3-NL1\*01

48 sequences assigned  
No exact matches.



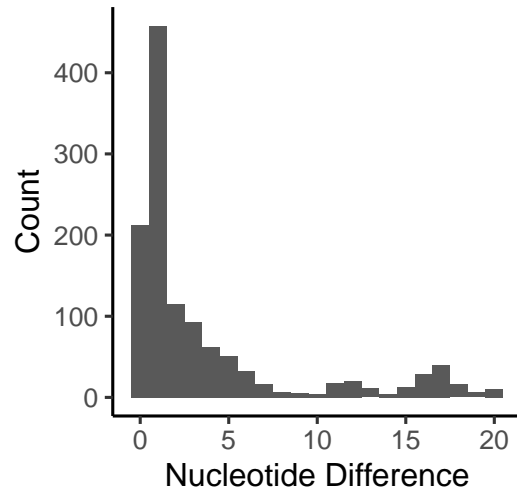
### IGHV4-28\*02\_05

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



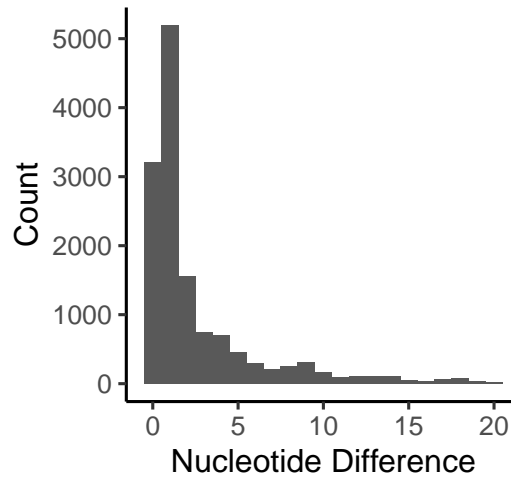
### IGHV4-30-4\*01

1323 sequences assigned  
212 (16%) exact matches, in which:  
134 unique CDR3  
6 unique J



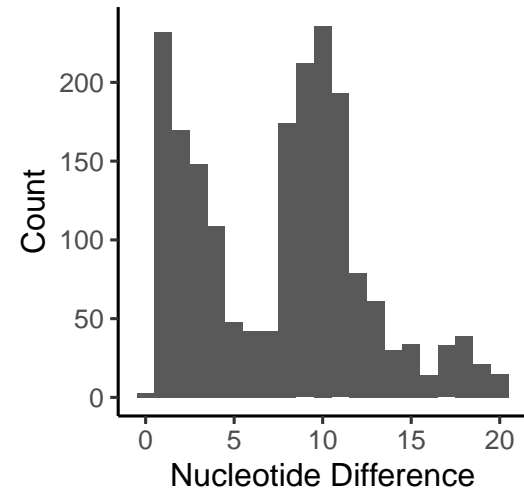
### IGHV4-34\*01\_02

15606 sequences assigned  
3213 (20.6%) exact matches, in which:  
2081 unique CDR3  
7 unique J



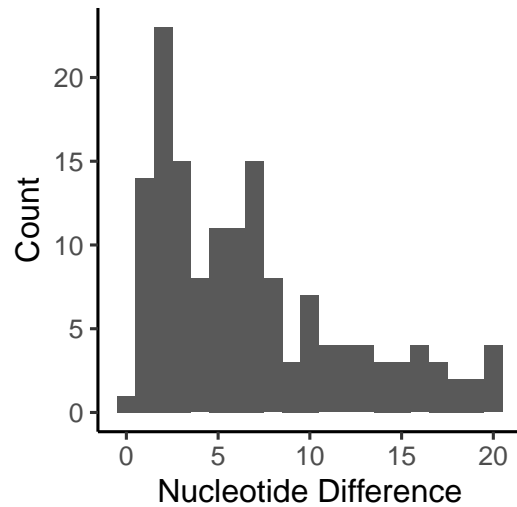
### IGHV4-39\*07

3713 sequences assigned  
3 (0.1%) exact matches, in which:  
3 unique CDR3  
2 unique J



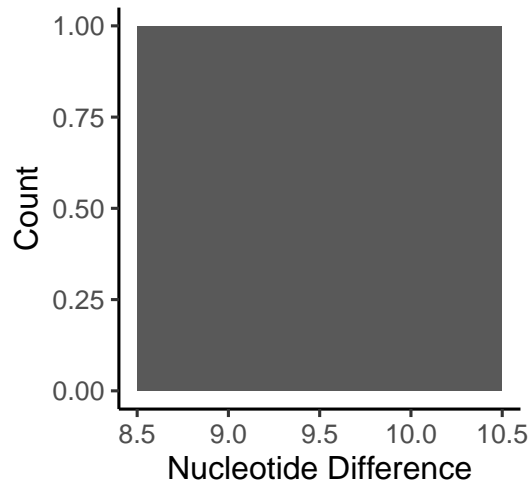
### IGHV4-30-2\*03

210 sequences assigned  
1 (0.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



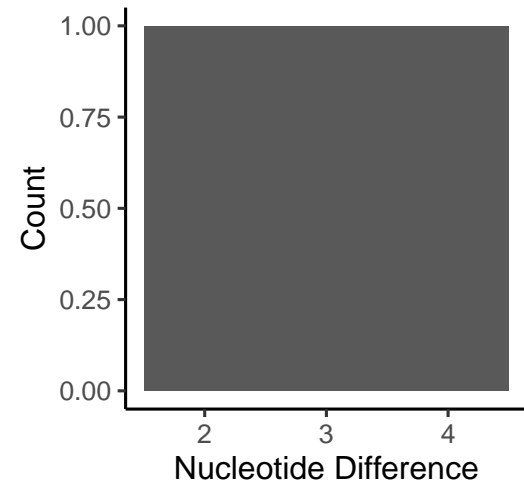
### IGHV4-38-2\*01

3 sequences assigned  
No exact matches.



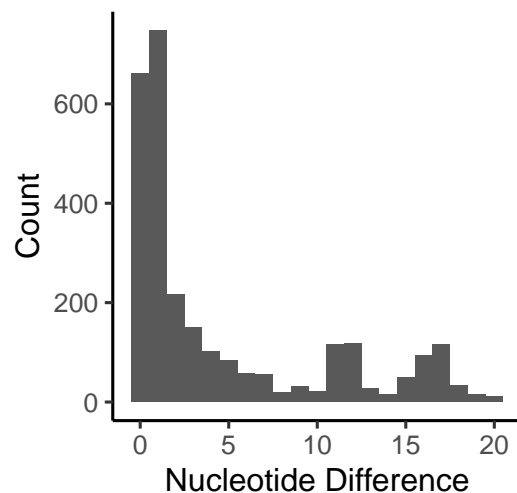
### IGHV4-55\*09

5 sequences assigned  
No exact matches.



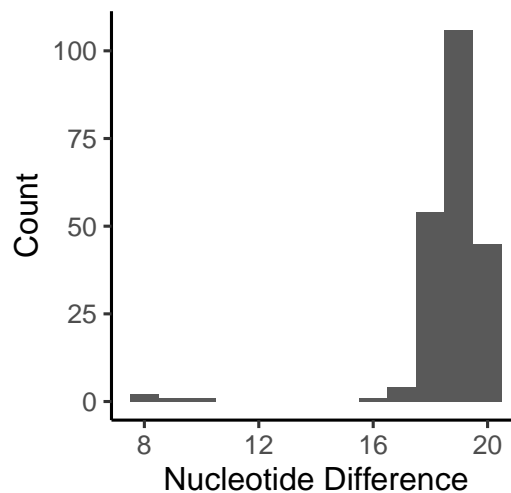
### IGHV4-31\*02

3325 sequences assigned  
661 (19.9%) exact matches, in which:  
531 unique CDR3  
7 unique J



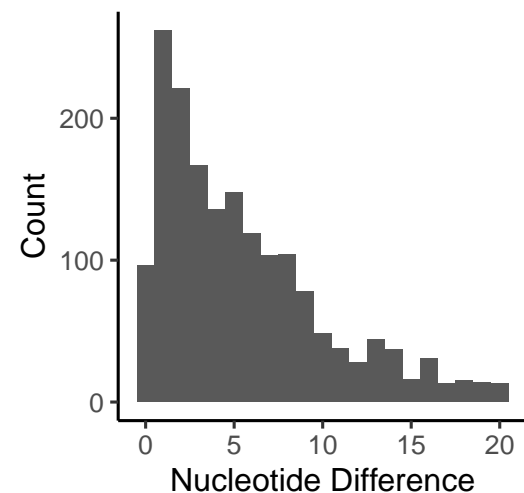
### IGHV4-38-2\*02

264 sequences assigned  
No exact matches.



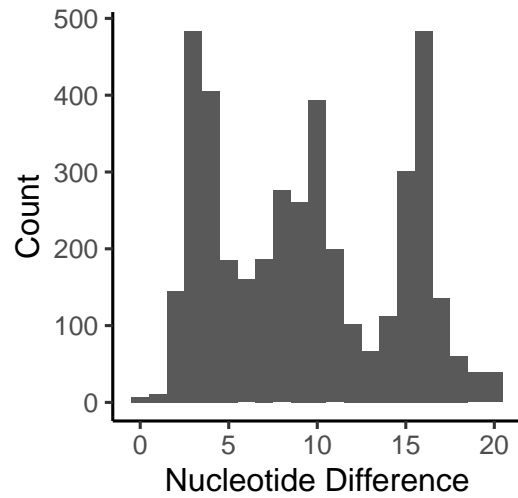
### IGHV4-59\*08

2007 sequences assigned  
96 (4.8%) exact matches, in which:  
89 unique CDR3  
6 unique J



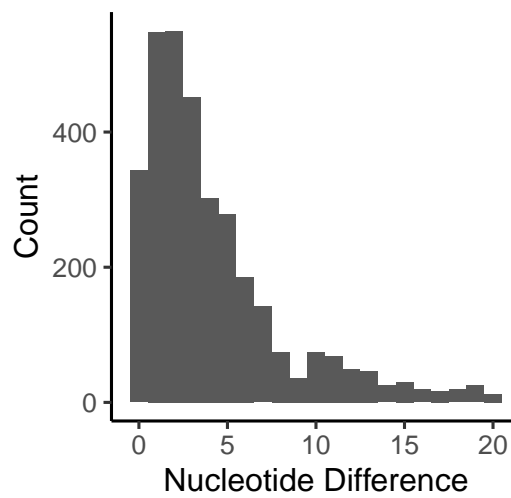
### IGHV4–59\*11

4193 sequences assigned  
7 (0.2%) exact matches, in which:  
7 unique CDR3  
3 unique J



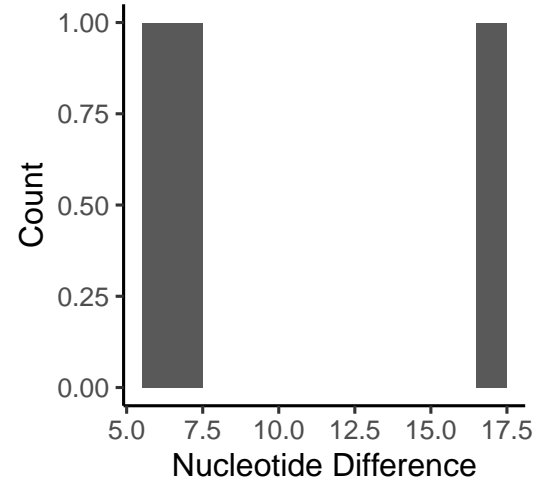
### IGHV4–61\*01

3932 sequences assigned  
343 (8.7%) exact matches, in which:  
302 unique CDR3  
6 unique J



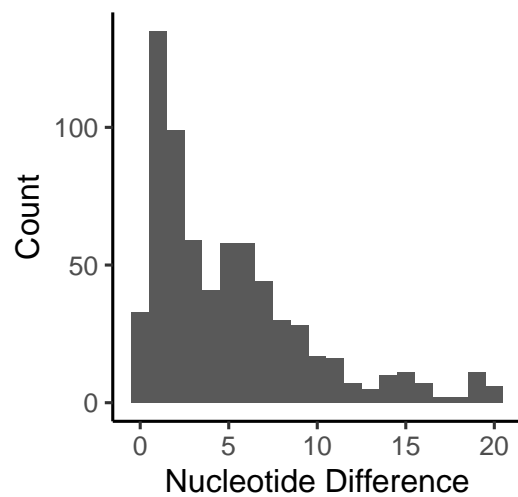
### IGHV1/OR15–3\*02

3 sequences assigned  
No exact matches.



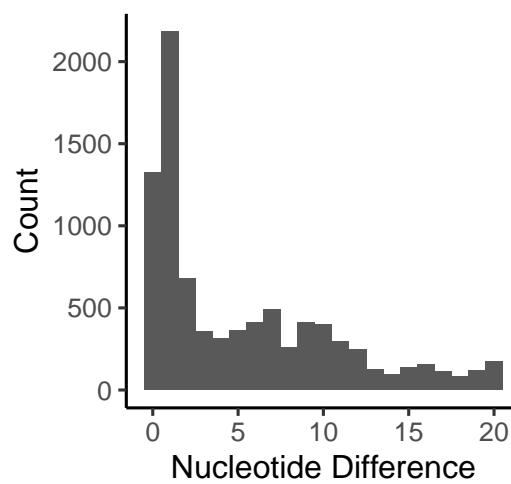
### IGHV4–59\*12

714 sequences assigned  
33 (4.6%) exact matches, in which:  
32 unique CDR3  
6 unique J



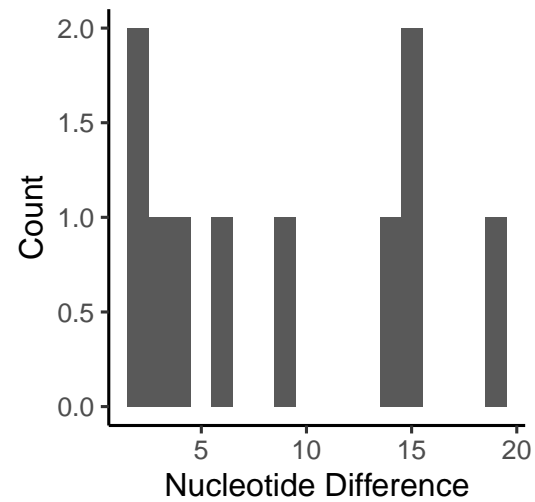
### IGHV4–61\*02

10637 sequences assigned  
1327 (12.5%) exact matches, in which:  
1030 unique CDR3  
7 unique J



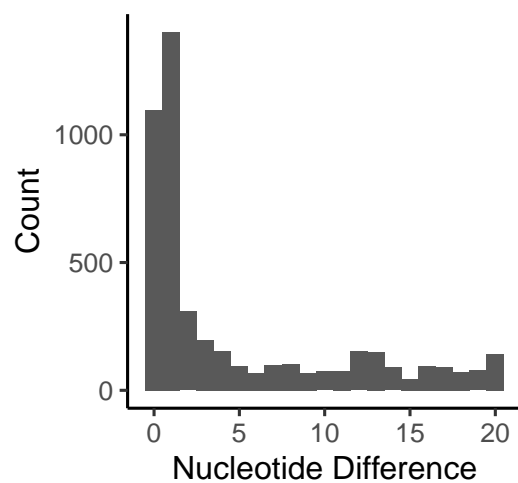
### IGHV4/OR15–8\*01

17 sequences assigned  
No exact matches.



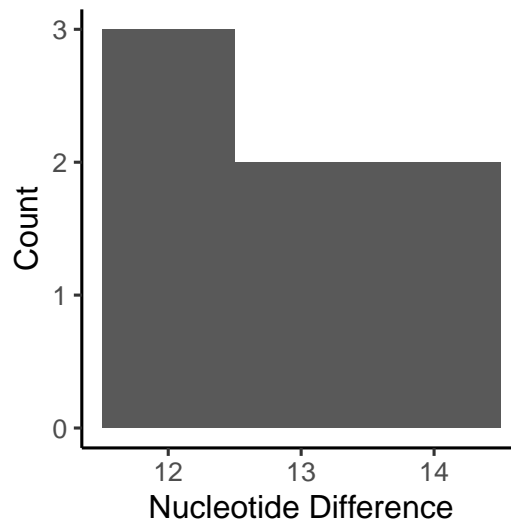
### IGHV4–59\*13

6021 sequences assigned  
1097 (18.2%) exact matches, in which:  
843 unique CDR3  
7 unique J



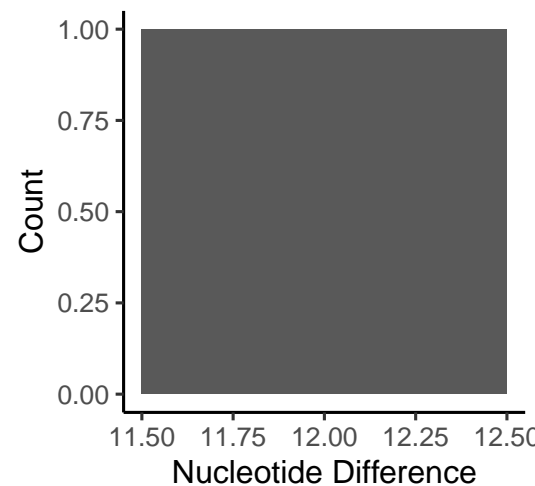
### IGHV1/OR15–2\*02\_03

8 sequences assigned  
No exact matches.



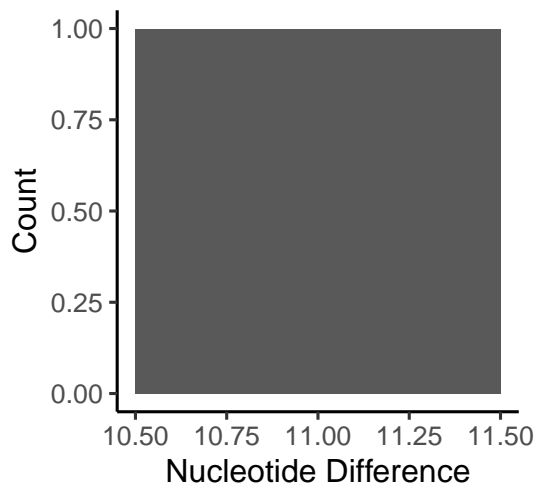
### IGHV4/OR15–8\*02

5 sequences assigned  
No exact matches.



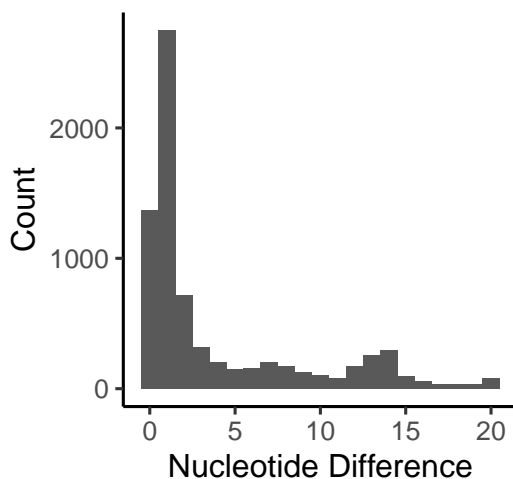
### IGHV1/OR15-9\*01

1 sequences assigned  
No exact matches.



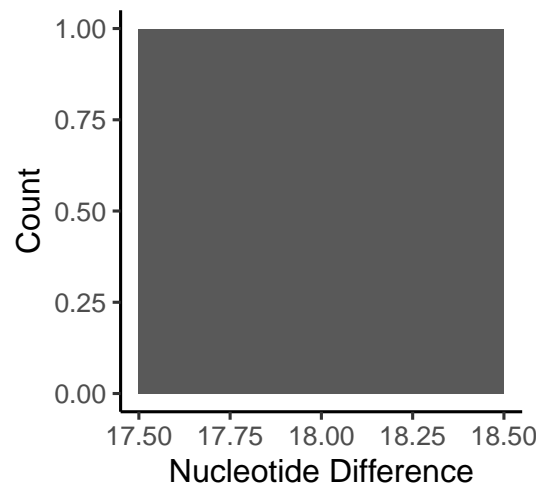
### IGHV5-51\*01\_03

8135 sequences assigned  
1372 (16.9%) exact matches, in which:  
722 unique CDR3  
7 unique J



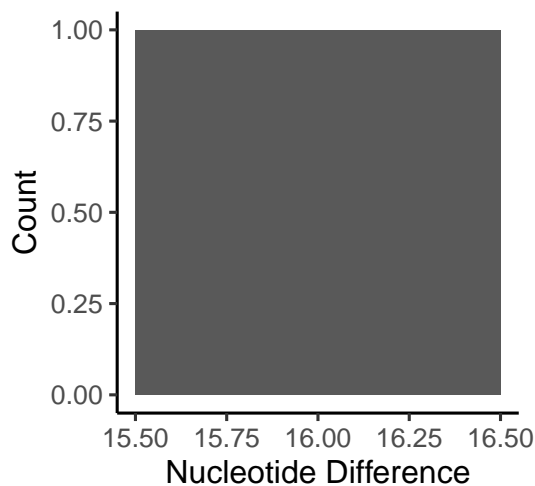
### IGHV3/OR16-10\*01\_03

2 sequences assigned  
No exact matches.



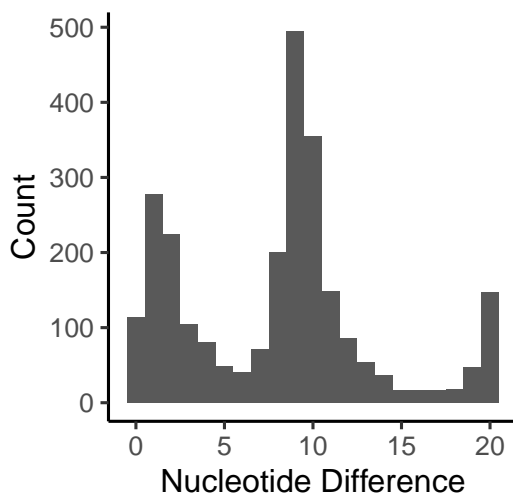
### IGHV5-10-1\*01\_03

1 sequences assigned  
No exact matches.



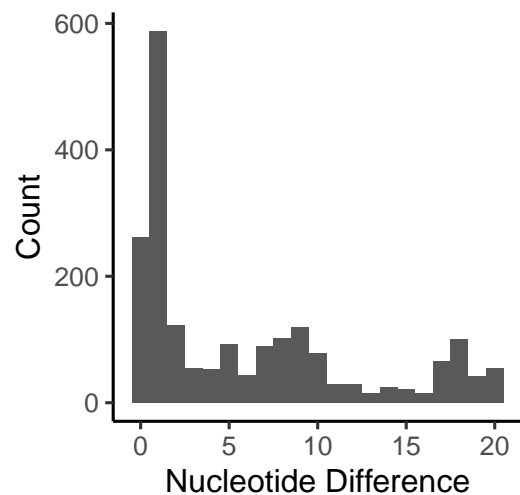
### IGHV6-1\*01\_02

2986 sequences assigned  
114 (3.8%) exact matches, in which:  
94 unique CDR3  
6 unique J



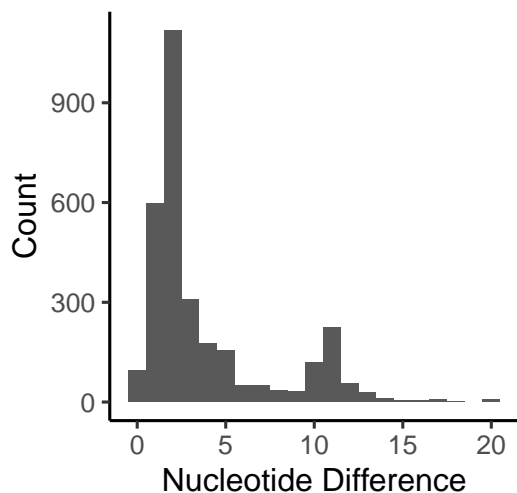
### IGHV7-4-1\*02

2580 sequences assigned  
261 (10.1%) exact matches, in which:  
198 unique CDR3  
7 unique J



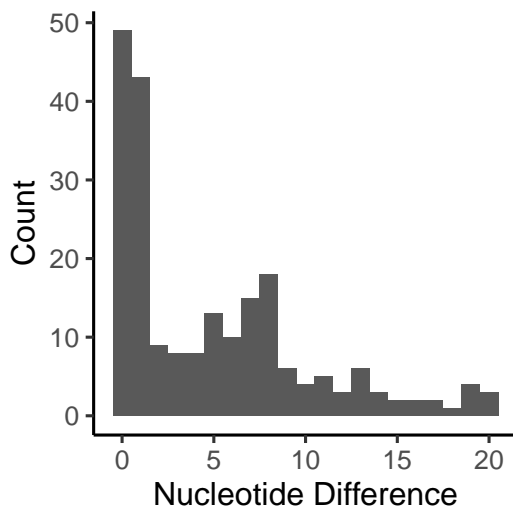
### IGHV5-51\*07

3201 sequences assigned  
94 (2.9%) exact matches, in which:  
66 unique CDR3  
6 unique J



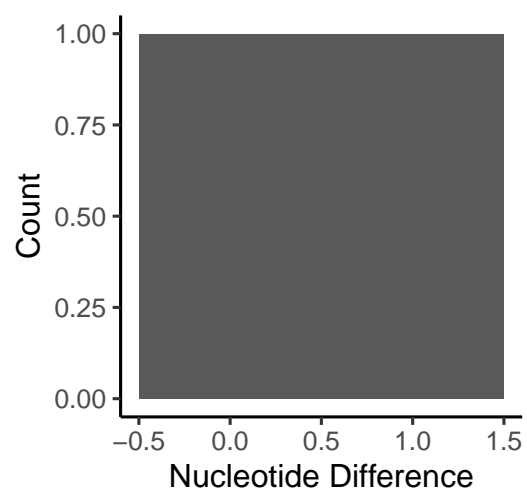
### IGHV6-1\*01\_02\_A315G

268 sequences assigned  
49 (18.3%) exact matches, in which:  
49 unique CDR3  
6 unique J

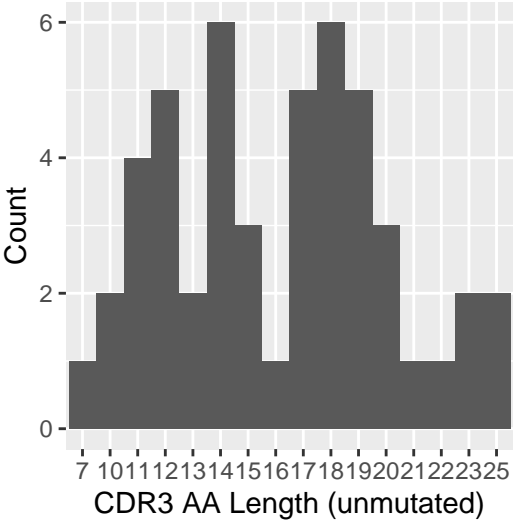


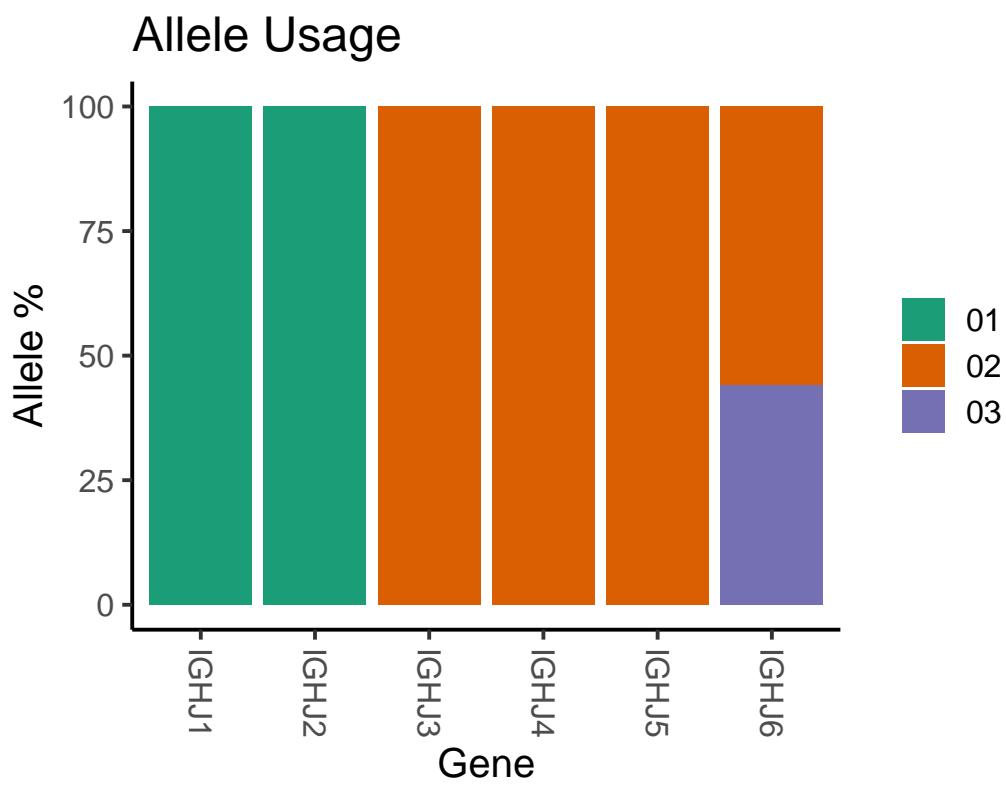
### IGHV7-81\*01

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



IGHV6-1\*01\_02\_A315G





## Sequence Count by IGHJ6 allele usage

