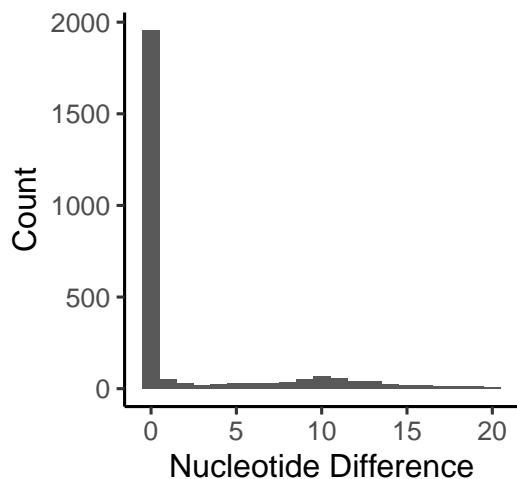


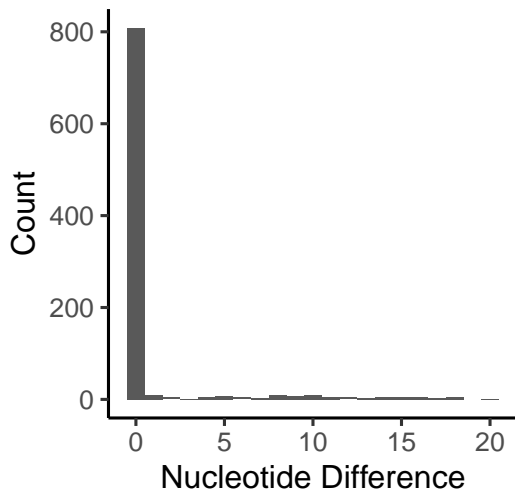
### IGHV1-2\*02

2721 sequences assigned  
1955 (71.8%) exact matches, in which:  
1950 unique CDR3  
7 unique J



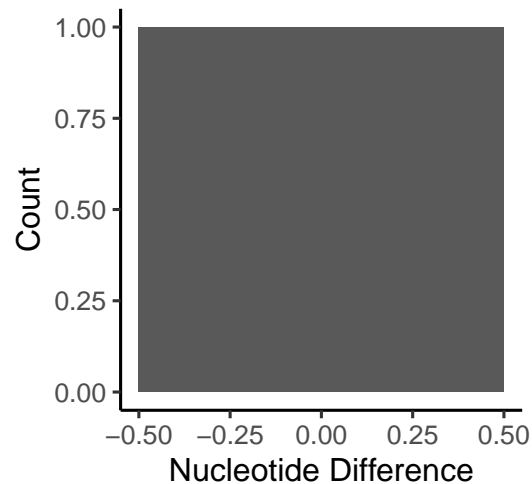
### IGHV1-18\*04

961 sequences assigned  
809 (84.2%) exact matches, in which:  
807 unique CDR3  
7 unique J



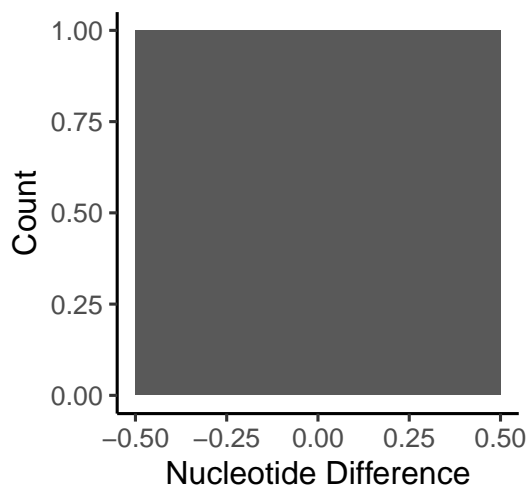
### IGHV1-45\*03

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



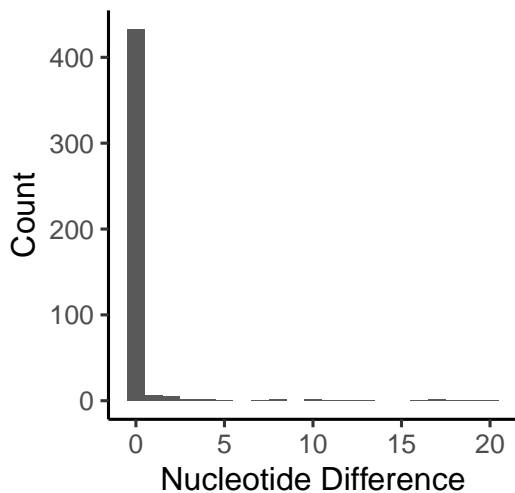
### IGHV1-3\*02

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



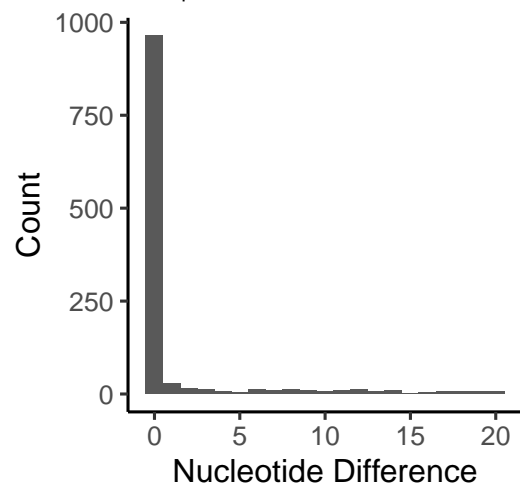
### IGHV1-24\*01

510 sequences assigned  
433 (84.9%) exact matches, in which:  
433 unique CDR3  
7 unique J



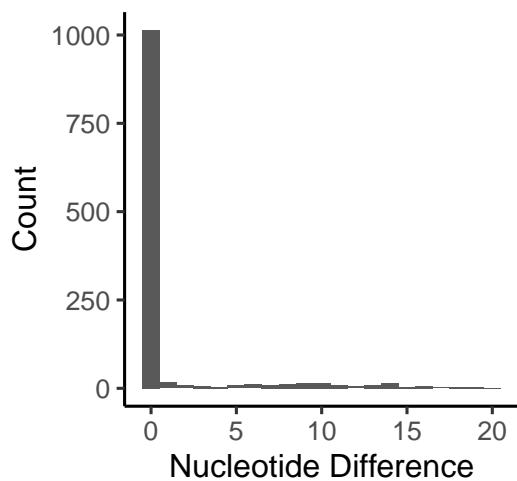
### IGHV1-46\*01

1210 sequences assigned  
964 (79.7%) exact matches, in which:  
962 unique CDR3  
7 unique J



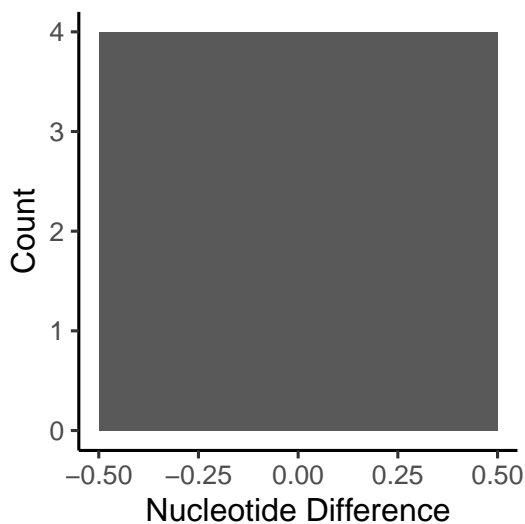
### IGHV1-18\*01

1258 sequences assigned  
1014 (80.6%) exact matches, in which:  
1011 unique CDR3  
7 unique J



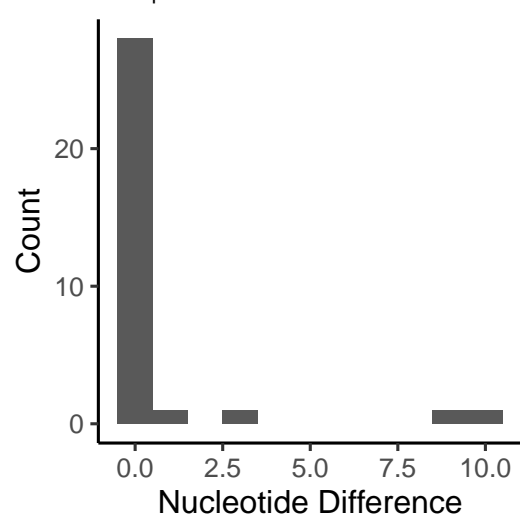
### IGHV1-45\*02

4 sequences assigned  
4 (100%) exact matches, in which:  
4 unique CDR3  
2 unique J



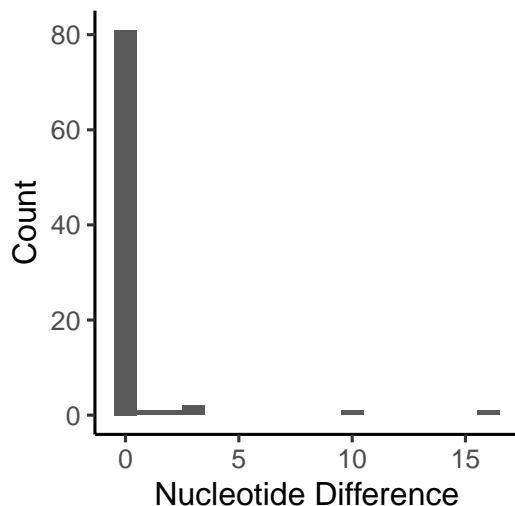
### IGHV1-58\*02

32 sequences assigned  
28 (87.5%) exact matches, in which:  
28 unique CDR3  
5 unique J



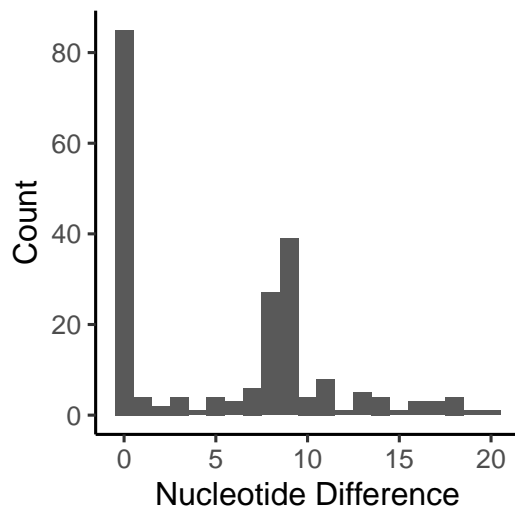
### IGHV1-58\*01\_03

89 sequences assigned  
81 (91%) exact matches, in which:  
81 unique CDR3  
5 unique J



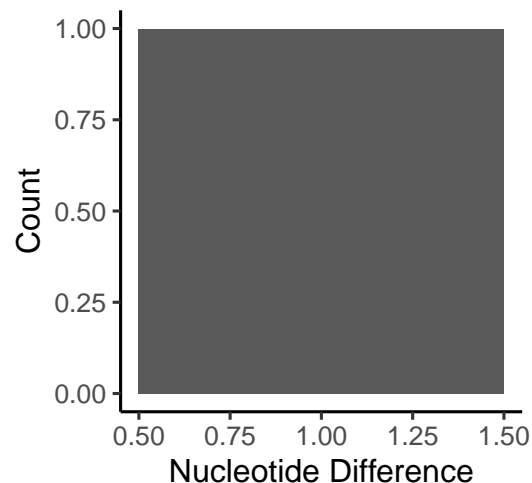
### IGHV2-5\*02

226 sequences assigned  
85 (37.6%) exact matches, in which:  
85 unique CDR3  
7 unique J



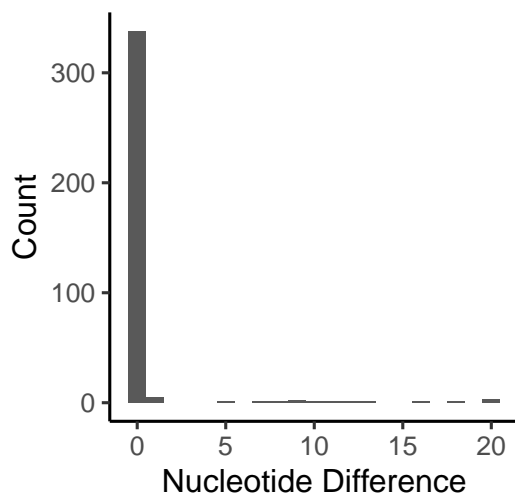
### IGHV2-70D\*04

1 sequences assigned  
No exact matches.



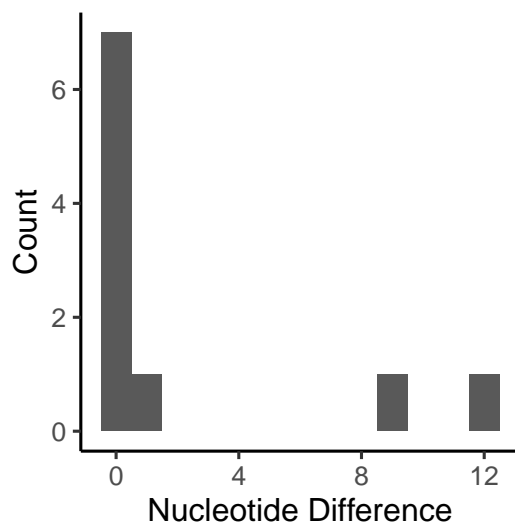
### IGHV1-69\*02

379 sequences assigned  
338 (89.2%) exact matches, in which:  
337 unique CDR3  
6 unique J



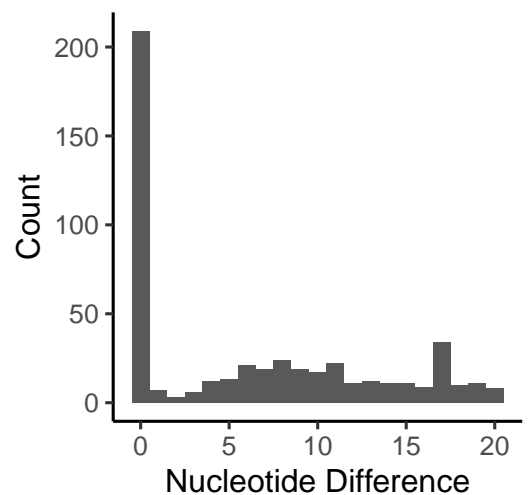
### IGHV2-26\*01

11 sequences assigned  
7 (63.6%) exact matches, in which:  
7 unique CDR3  
4 unique J



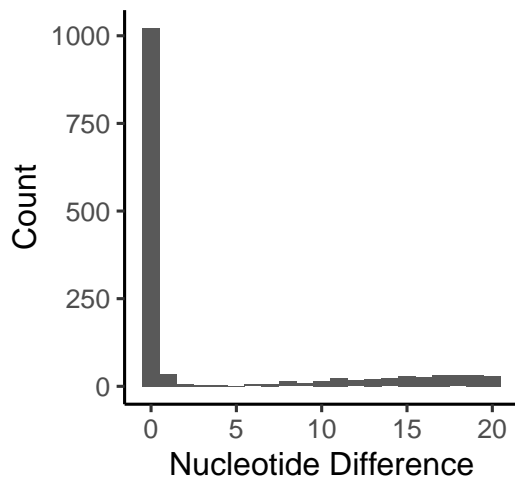
### IGHV3-7\*03

593 sequences assigned  
209 (35.2%) exact matches, in which:  
187 unique CDR3  
7 unique J



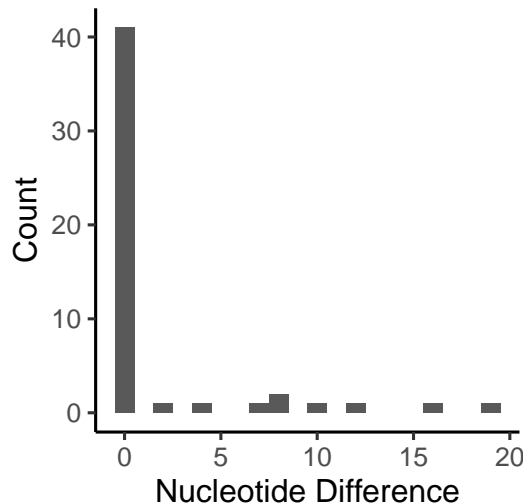
### IGHV1-69\*01\_12\_13

1572 sequences assigned  
1022 (65%) exact matches, in which:  
1020 unique CDR3  
7 unique J



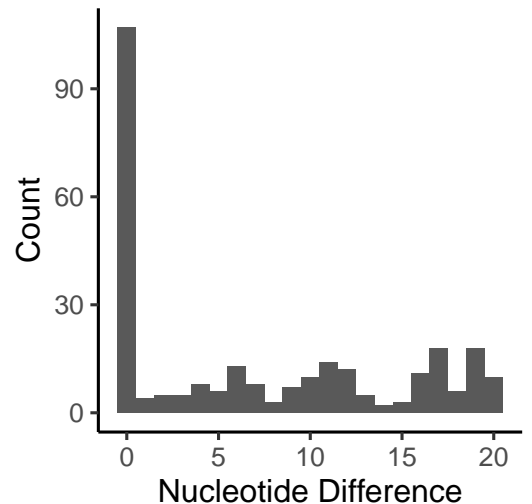
### IGHV2-70\*01

55 sequences assigned  
41 (74.5%) exact matches, in which:  
40 unique CDR3  
6 unique J



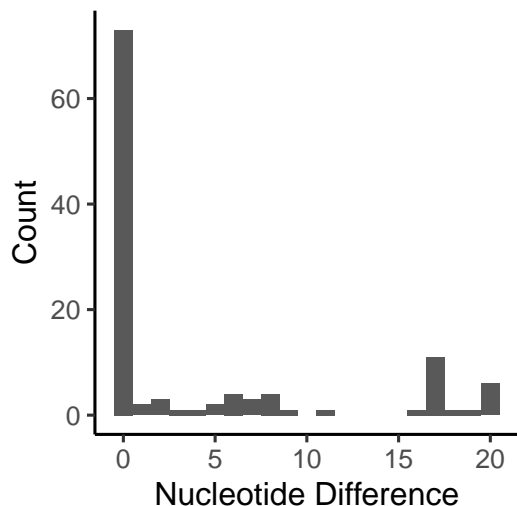
### IGHV3-7\*05

330 sequences assigned  
107 (32.4%) exact matches, in which:  
96 unique CDR3  
6 unique J



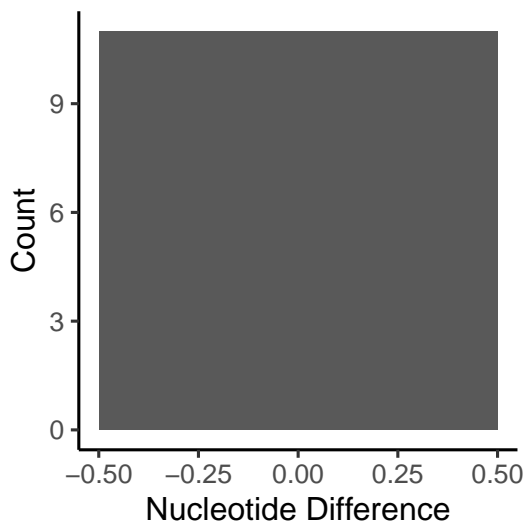
### IGHV3-11\*06

189 sequences assigned  
73 (38.6%) exact matches, in which:  
65 unique CDR3  
6 unique J



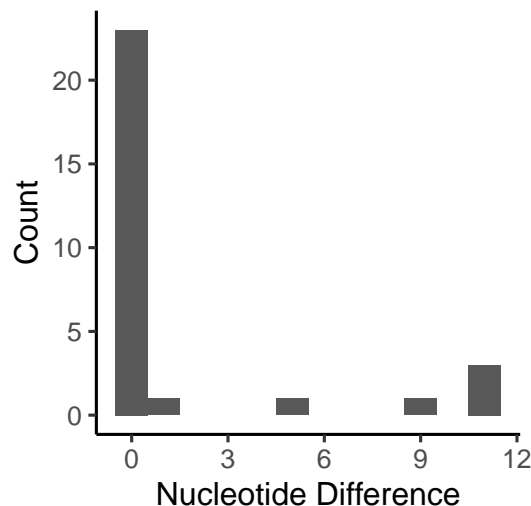
### IGHV3-13\*05

13 sequences assigned  
11 (84.6%) exact matches, in which:  
10 unique CDR3  
3 unique J



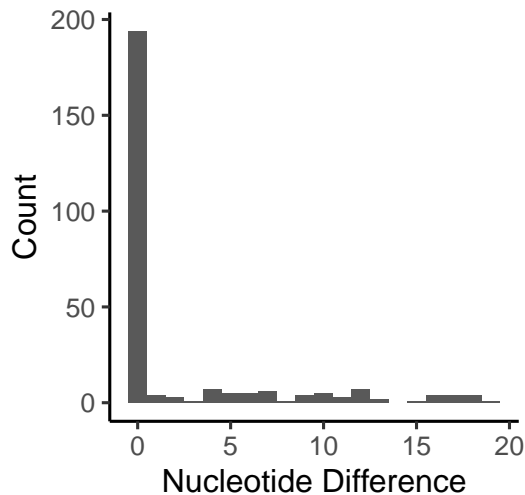
### IGHV3-20\*01\_02

29 sequences assigned  
23 (79.3%) exact matches, in which:  
19 unique CDR3  
6 unique J



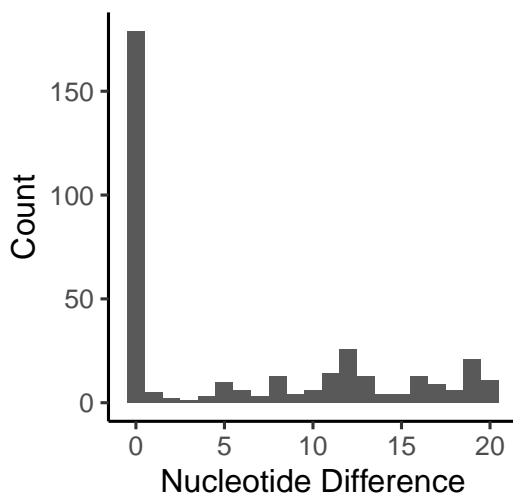
### IGHV3-11\*06\_T300C

374 sequences assigned  
194 (51.9%) exact matches, in which:  
163 unique CDR3  
7 unique J



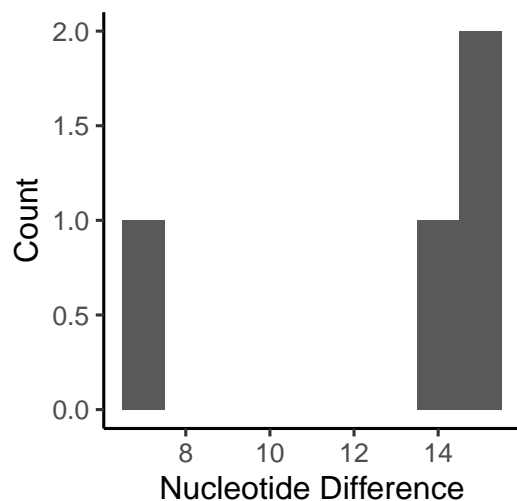
### IGHV3-15\*01\_02

499 sequences assigned  
179 (35.9%) exact matches, in which:  
167 unique CDR3  
7 unique J



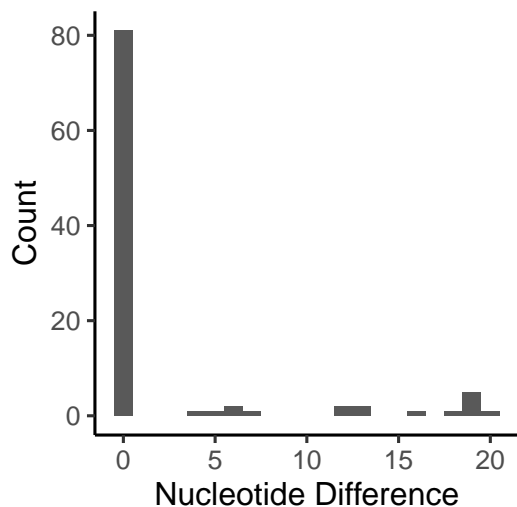
### IGHV3-20\*03\_04

11 sequences assigned  
No exact matches.



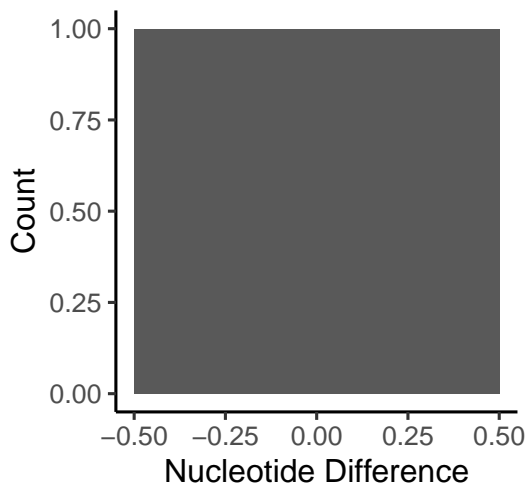
### IGHV3-13\*04

102 sequences assigned  
81 (79.4%) exact matches, in which:  
69 unique CDR3  
5 unique J



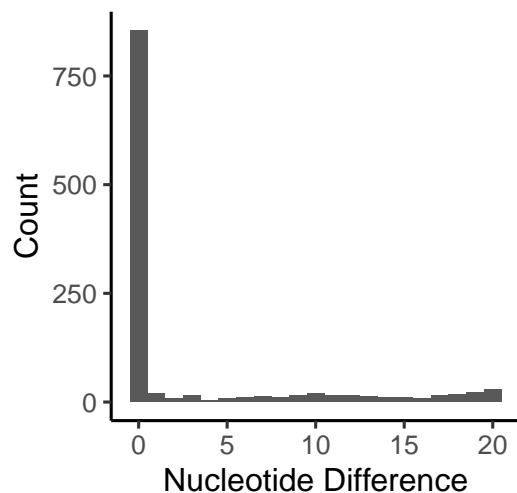
### IGHV3-19\*01

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



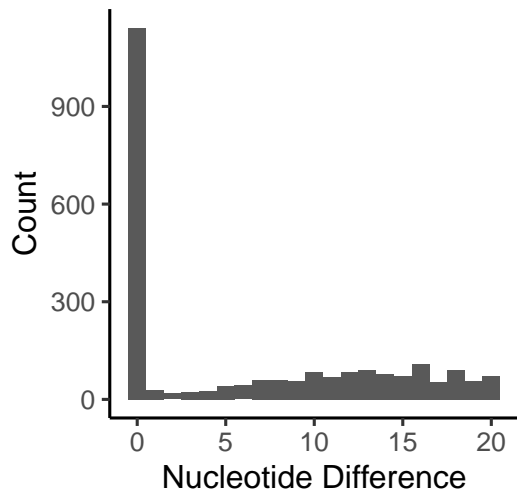
### IGHV3-21\*01\_02

1639 sequences assigned  
855 (52.2%) exact matches, in which:  
737 unique CDR3  
7 unique J



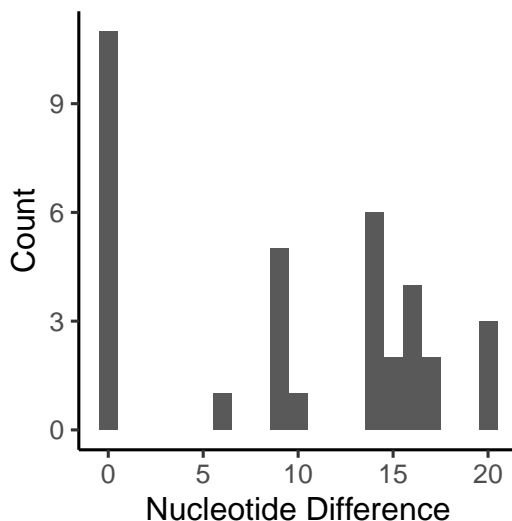
### IGHV3–23\*01\_04

2943 sequences assigned  
1142 (38.8%) exact matches, in which:  
994 unique CDR3  
7 unique J



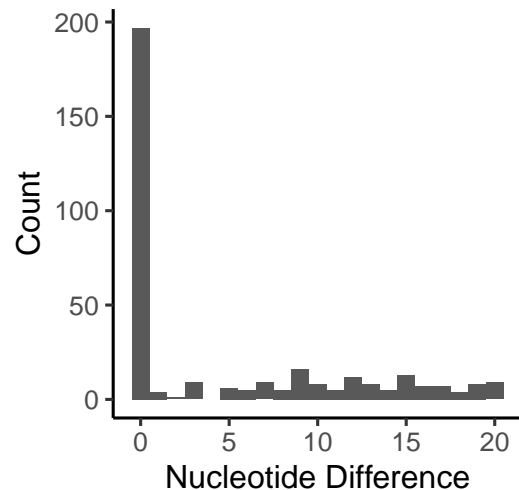
### IGHV3–43\*01

41 sequences assigned  
11 (26.8%) exact matches, in which:  
9 unique CDR3  
3 unique J



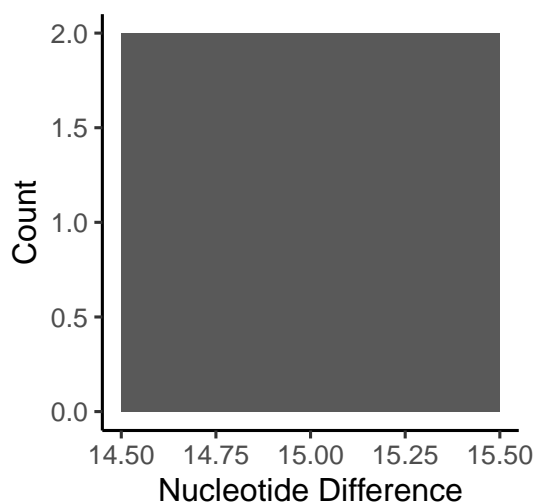
### IGHV3–48\*03

400 sequences assigned  
197 (49.2%) exact matches, in which:  
170 unique CDR3  
6 unique J



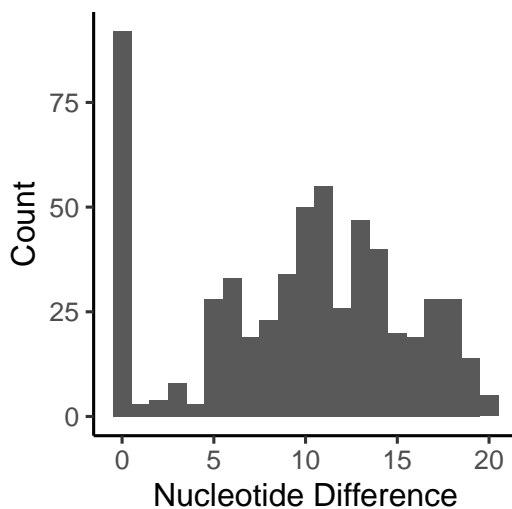
### IGHV3–30–5\*01

8 sequences assigned  
No exact matches.



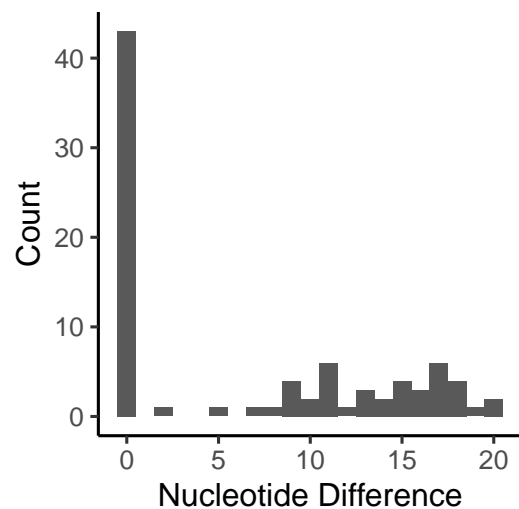
### IGHV3–43\*02

639 sequences assigned  
92 (14.4%) exact matches, in which:  
83 unique CDR3  
5 unique J



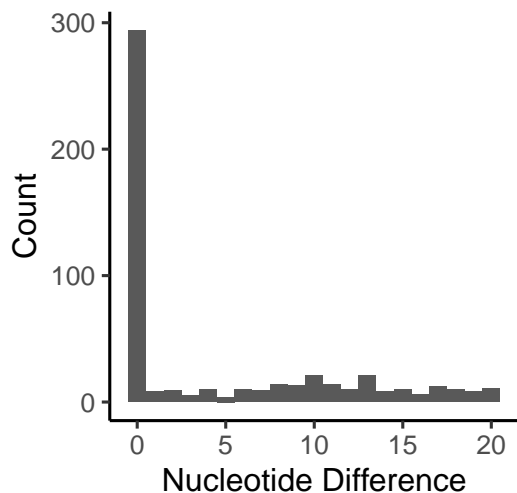
### IGHV3–49\*04

473 sequences assigned  
43 (9.1%) exact matches, in which:  
41 unique CDR3  
4 unique J



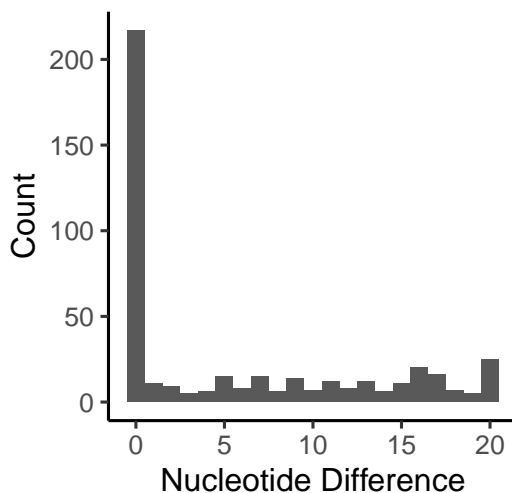
### IGHV3–33\*08

607 sequences assigned  
294 (48.4%) exact matches, in which:  
268 unique CDR3  
7 unique J



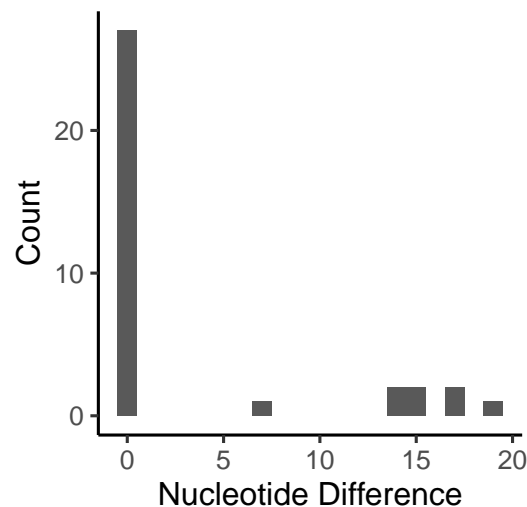
### IGHV3–48\*02

534 sequences assigned  
217 (40.6%) exact matches, in which:  
189 unique CDR3  
7 unique J



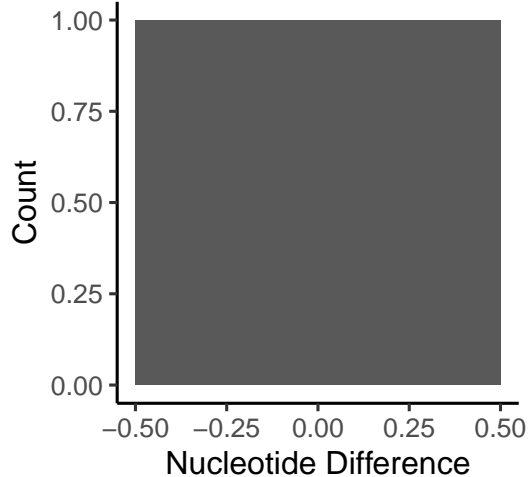
### IGHV3–49\*03\_05

44 sequences assigned  
27 (61.4%) exact matches, in which:  
24 unique CDR3  
4 unique J



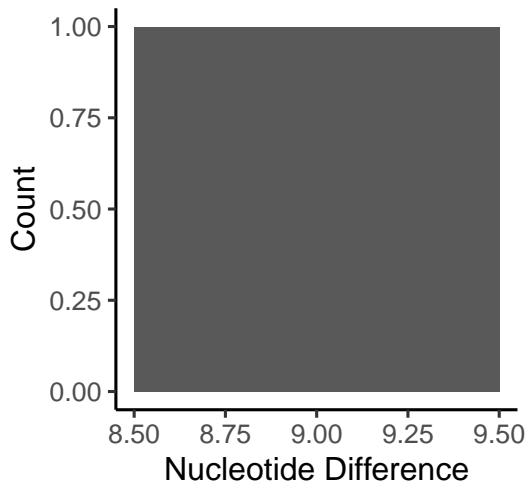
### IGHV3–52\*01\_03

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



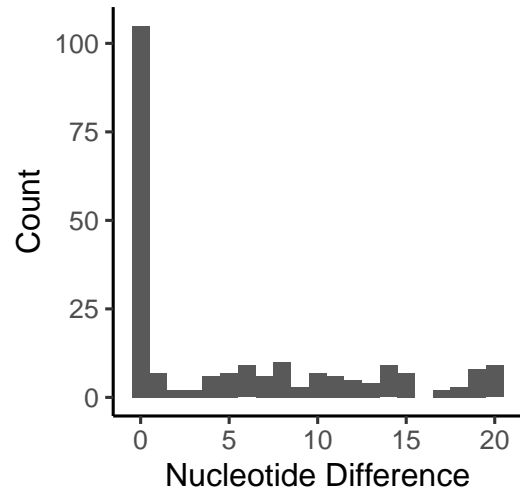
### IGHV3–62\*03

1 sequences assigned  
No exact matches.



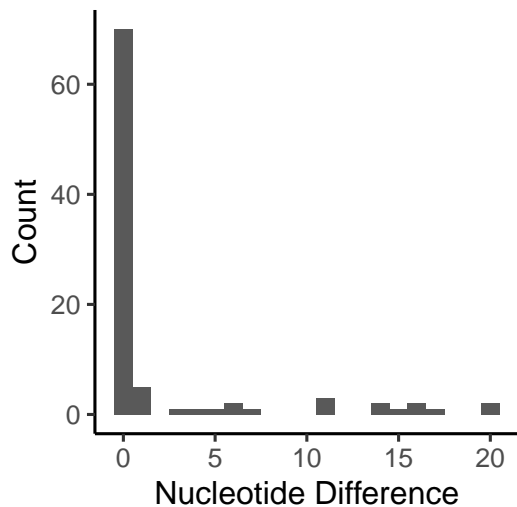
### IGHV3–66\*02

364 sequences assigned  
105 (28.8%) exact matches, in which:  
91 unique CDR3  
5 unique J



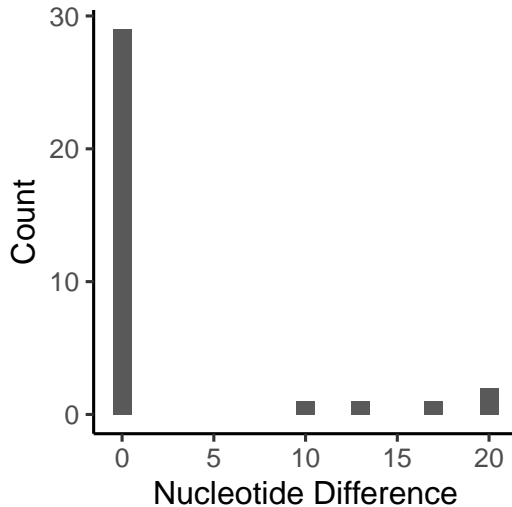
### IGHV3–53\*04

96 sequences assigned  
70 (72.9%) exact matches, in which:  
58 unique CDR3  
4 unique J



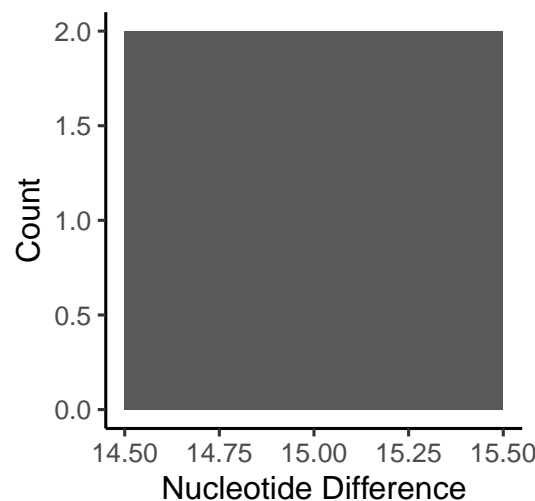
### IGHV3–64\*01

37 sequences assigned  
29 (78.4%) exact matches, in which:  
25 unique CDR3  
4 unique J



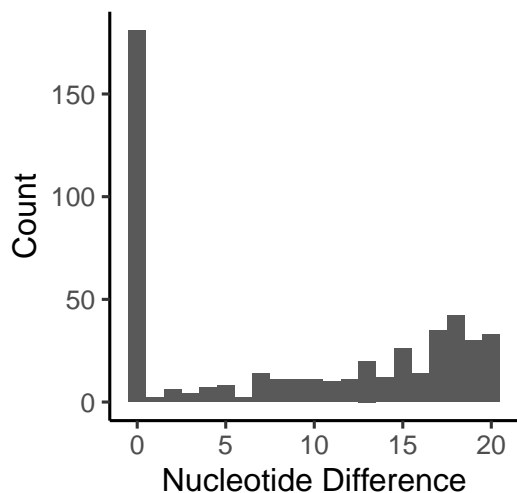
### IGHV3–69–1\*01

14 sequences assigned  
No exact matches.



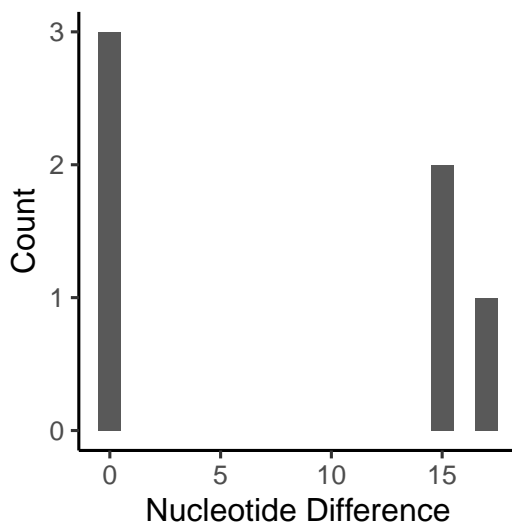
### IGHV3–53\*01\_02

1081 sequences assigned  
181 (16.7%) exact matches, in which:  
157 unique CDR3  
7 unique J



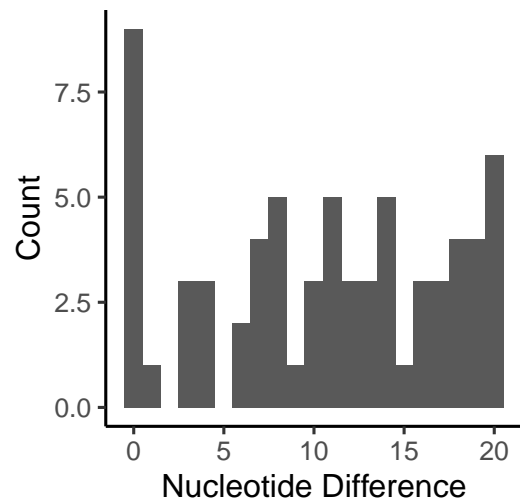
### IGHV3–64\*02\_07

12 sequences assigned  
3 (25%) exact matches, in which:  
2 unique CDR3  
2 unique J



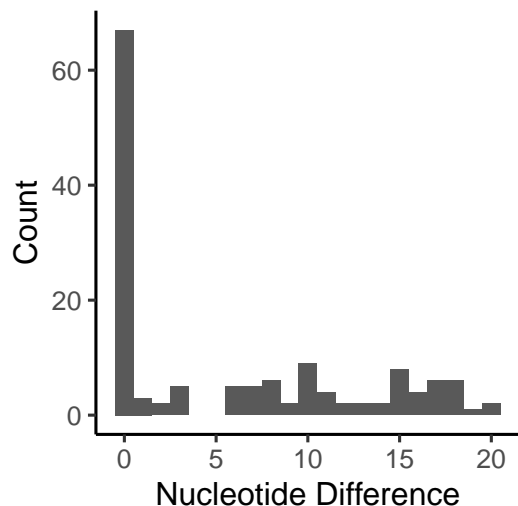
### IGHV3–72\*01

85 sequences assigned  
9 (10.6%) exact matches, in which:  
9 unique CDR3  
2 unique J



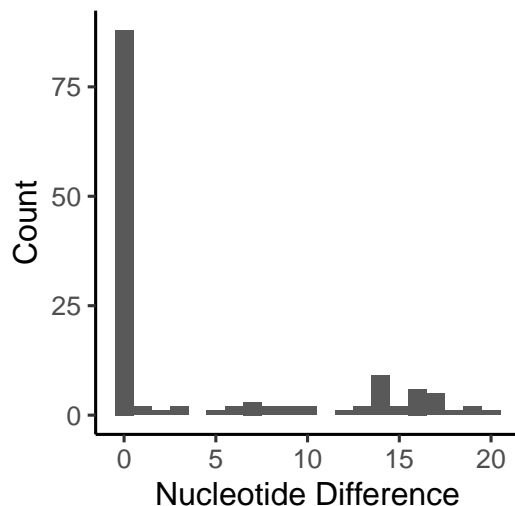
### IGHV3-73\*01\_02

161 sequences assigned  
67 (41.6%) exact matches, in which:  
62 unique CDR3  
5 unique J



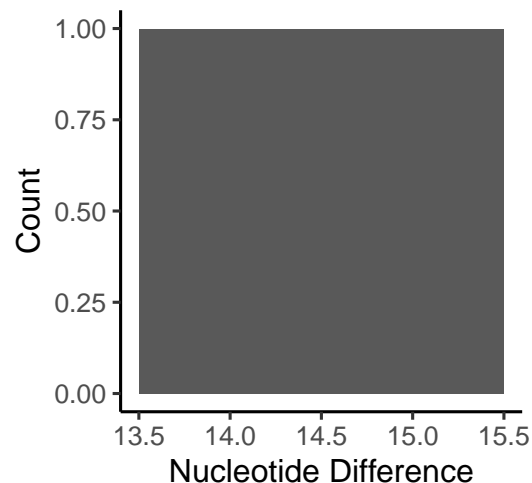
### IGHV3-64D\*06

154 sequences assigned  
88 (57.1%) exact matches, in which:  
75 unique CDR3  
5 unique J



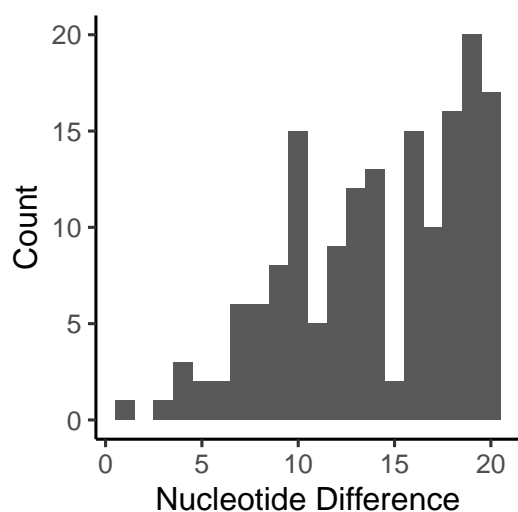
### IGHV4-30-2\*03

2 sequences assigned  
No exact matches.



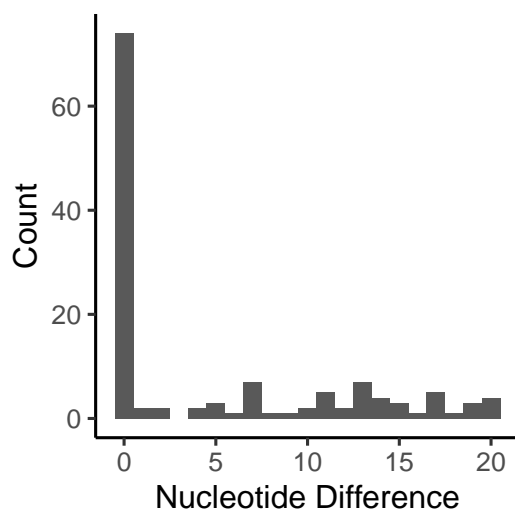
### IGHV3-74\*03

283 sequences assigned  
No exact matches.



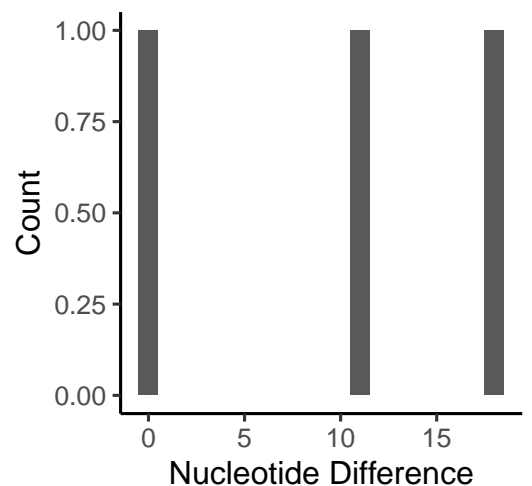
### IGHV3-64D\*09

151 sequences assigned  
74 (49%) exact matches, in which:  
63 unique CDR3  
6 unique J



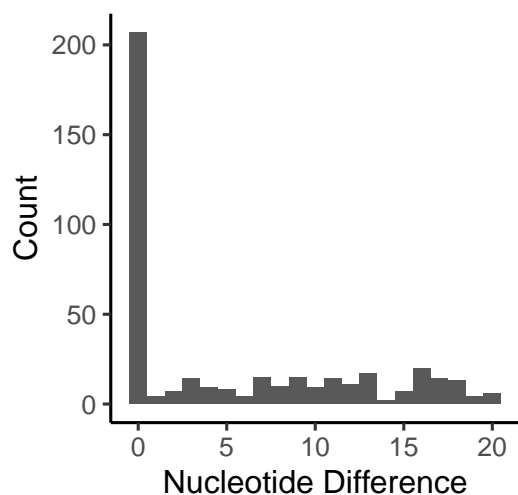
### IGHV4-31\*02

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



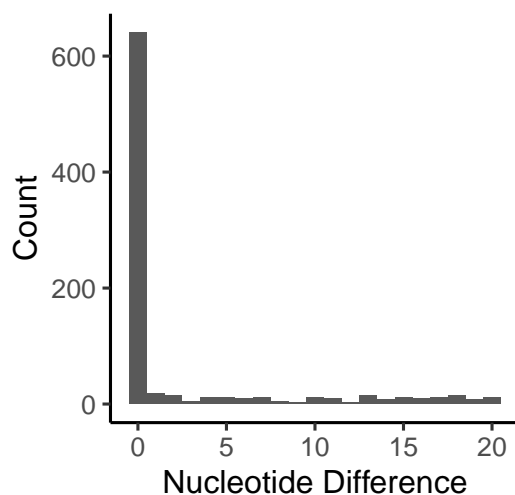
### IGHV3-74\*01\_02

438 sequences assigned  
207 (47.3%) exact matches, in which:  
171 unique CDR3  
7 unique J



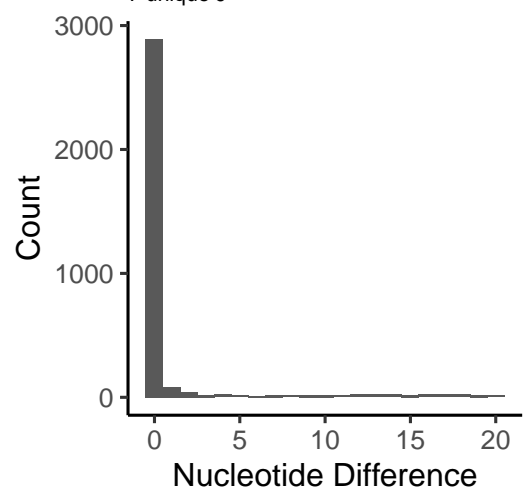
### IGHV4-4\*07

994 sequences assigned  
641 (64.5%) exact matches, in which:  
640 unique CDR3  
7 unique J



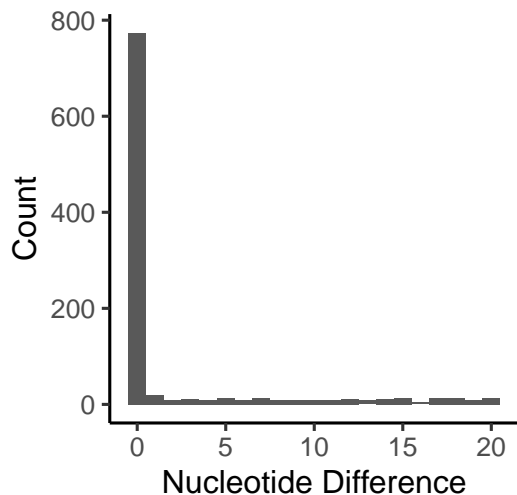
### IGHV4-34\*01\_02

3623 sequences assigned  
2891 (79.8%) exact matches, in which:  
2877 unique CDR3  
7 unique J



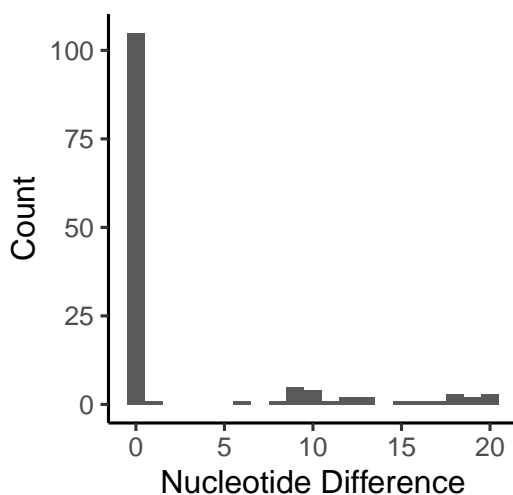
### IGHV4–39\*02\_C258G

1295 sequences assigned  
774 (59.8%) exact matches, in which:  
769 unique CDR3  
7 unique J



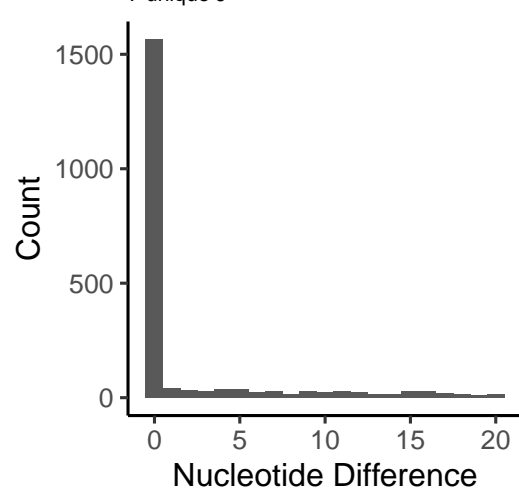
### IGHV4–61\*01

163 sequences assigned  
105 (64.4%) exact matches, in which:  
105 unique CDR3  
6 unique J



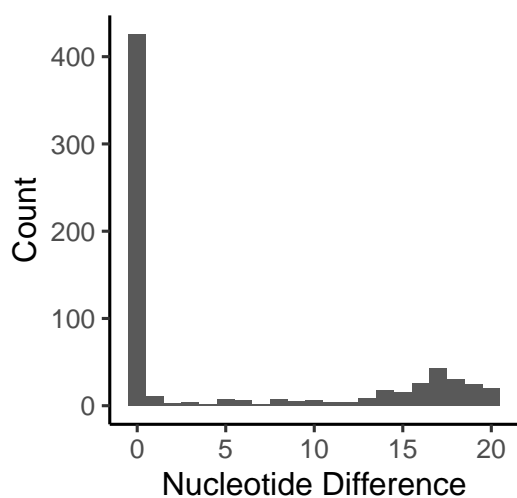
### IGHV5–51\*07\_A128G

2170 sequences assigned  
1565 (72.1%) exact matches, in which:  
1552 unique CDR3  
7 unique J



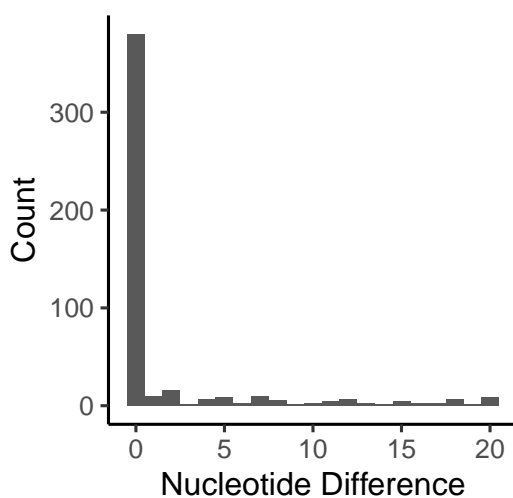
### IGHV4–59\*13

895 sequences assigned  
426 (47.6%) exact matches, in which:  
425 unique CDR3  
7 unique J



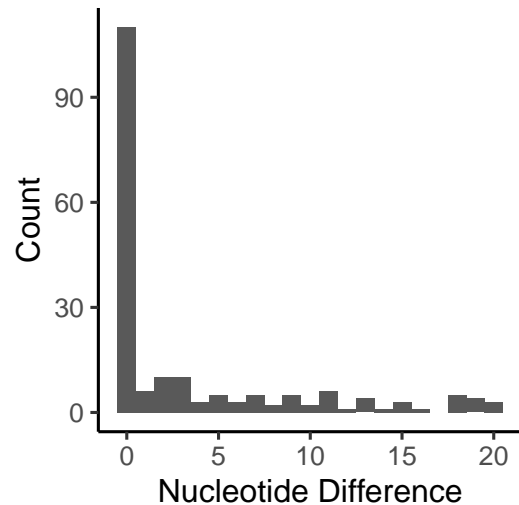
### IGHV4–61\*02

567 sequences assigned  
380 (67%) exact matches, in which:  
376 unique CDR3  
6 unique J



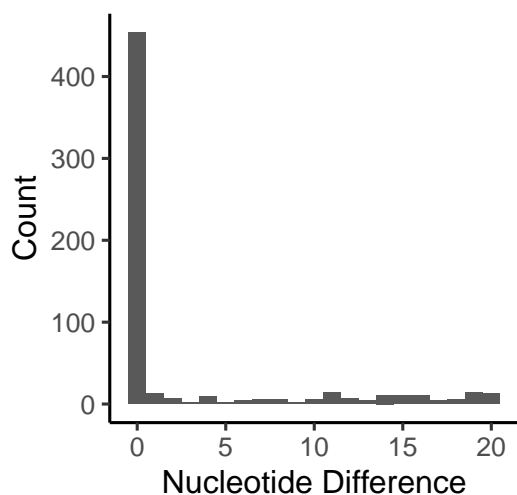
### IGHV6–1\*01\_02

207 sequences assigned  
110 (53.1%) exact matches, in which:  
110 unique CDR3  
7 unique J



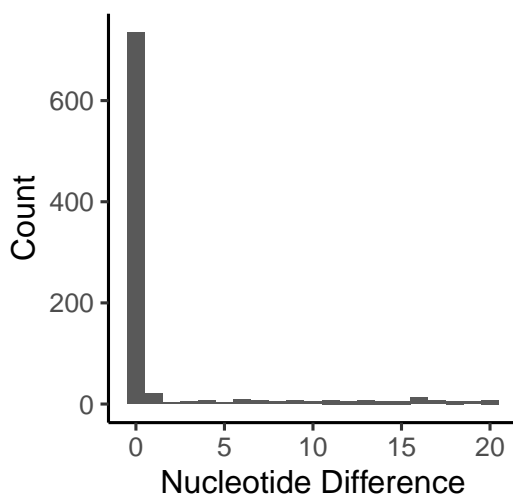
### IGHV4–59\*02\_G88A

715 sequences assigned  
454 (63.5%) exact matches, in which:  
453 unique CDR3  
7 unique J



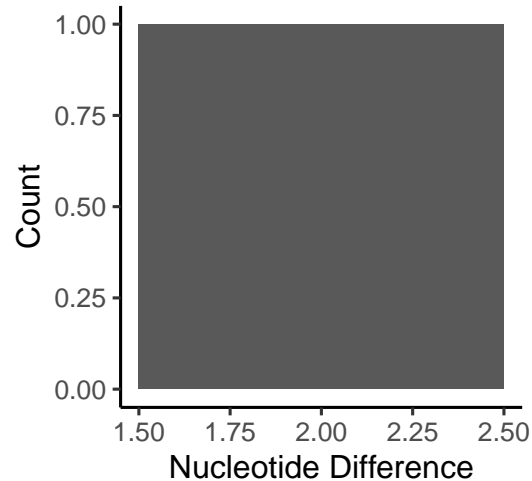
### IGHV5–10–1\*01\_03

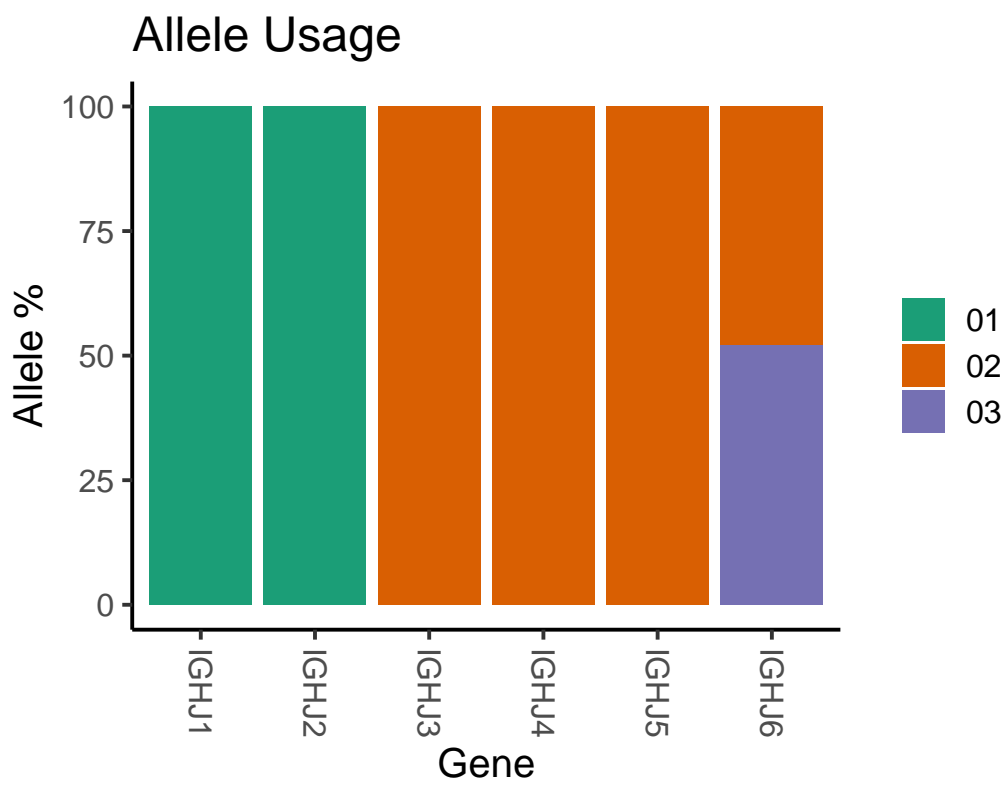
956 sequences assigned  
735 (76.9%) exact matches, in which:  
730 unique CDR3  
7 unique J



### IGHV3/OR16–9\*01

1 sequences assigned  
No exact matches.







## Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.