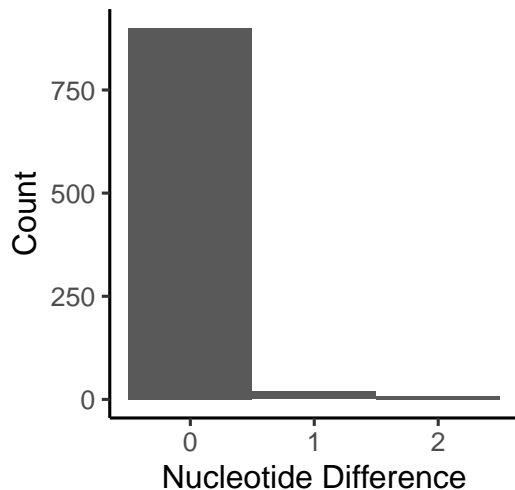


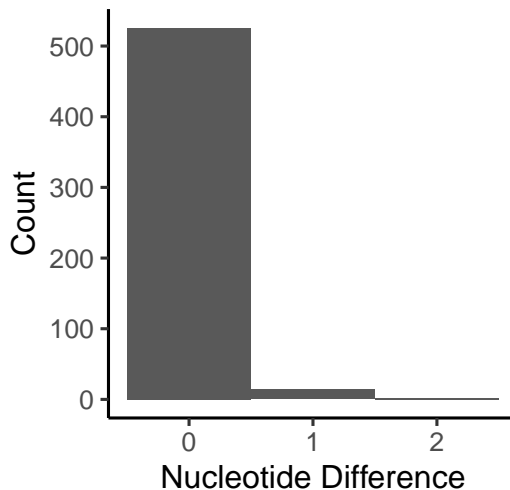
### IGHV1-2\*02

928 sequences assigned  
901 (97.1%) exact matches, in which:  
901 unique CDR3  
6 unique J



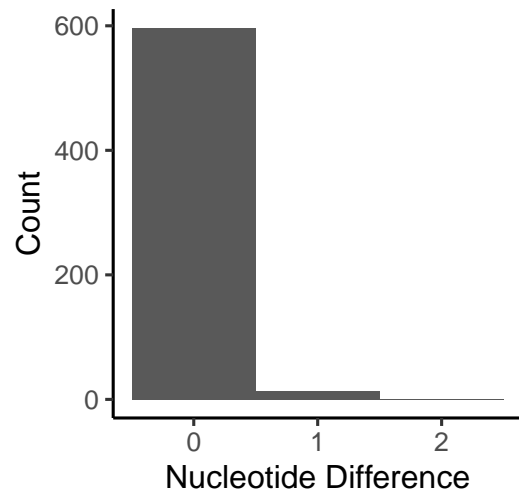
### IGHV1-8\*01

542 sequences assigned  
526 (97%) exact matches, in which:  
524 unique CDR3  
6 unique J



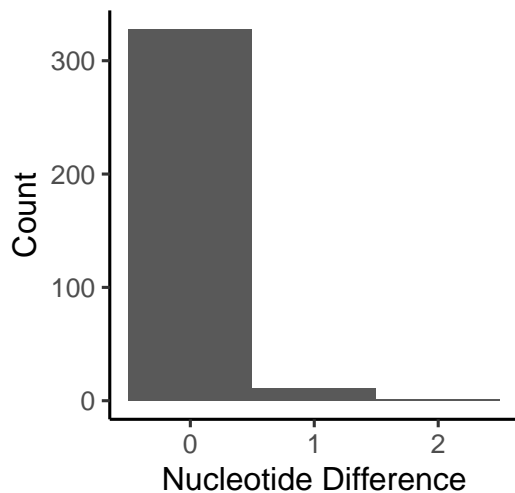
### IGHV1-24\*01

611 sequences assigned  
597 (97.7%) exact matches, in which:  
596 unique CDR3  
6 unique J



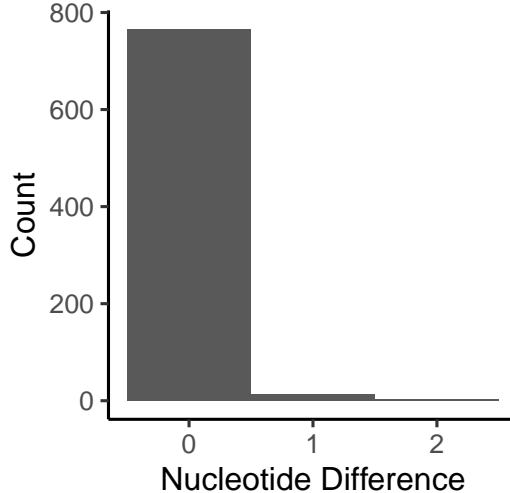
### IGHV1-2\*04

340 sequences assigned  
328 (96.5%) exact matches, in which:  
327 unique CDR3  
5 unique J



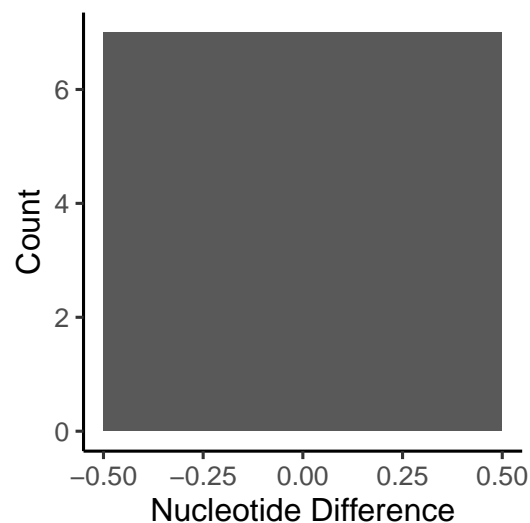
### IGHV1-18\*01

783 sequences assigned  
766 (97.8%) exact matches, in which:  
765 unique CDR3  
6 unique J



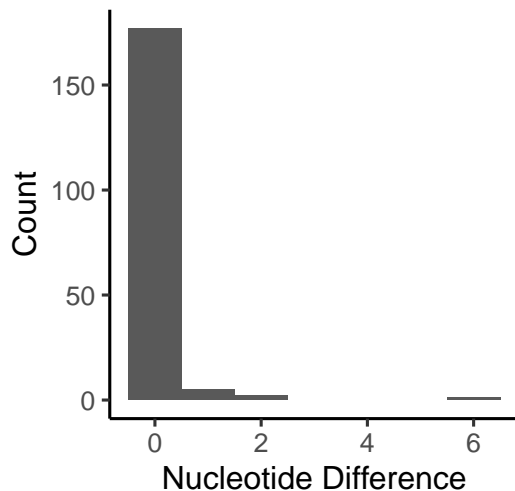
### IGHV1-45\*02

7 sequences assigned  
7 (100%) exact matches, in which:  
7 unique CDR3  
3 unique J



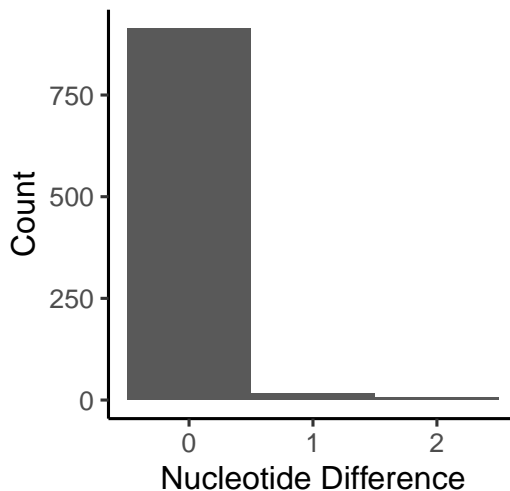
### IGHV1-3\*01\_05

185 sequences assigned  
177 (95.7%) exact matches, in which:  
177 unique CDR3  
6 unique J



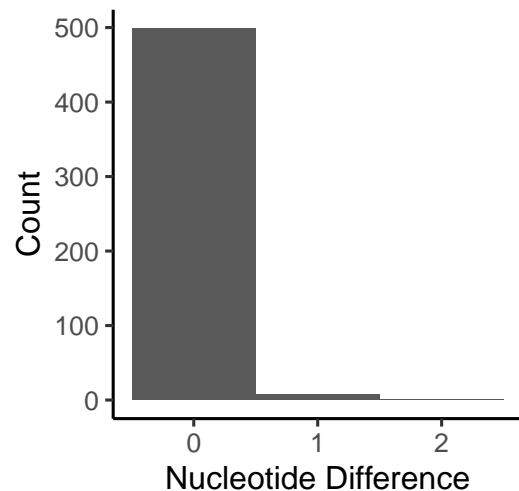
### IGHV1-18\*04

936 sequences assigned  
914 (97.6%) exact matches, in which:  
909 unique CDR3  
6 unique J



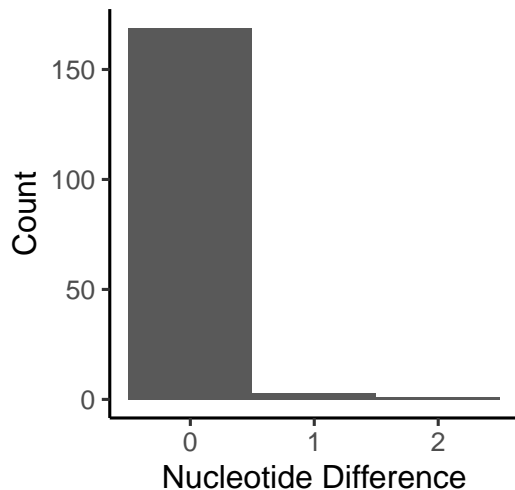
### IGHV1-46\*01

508 sequences assigned  
499 (98.2%) exact matches, in which:  
498 unique CDR3  
6 unique J



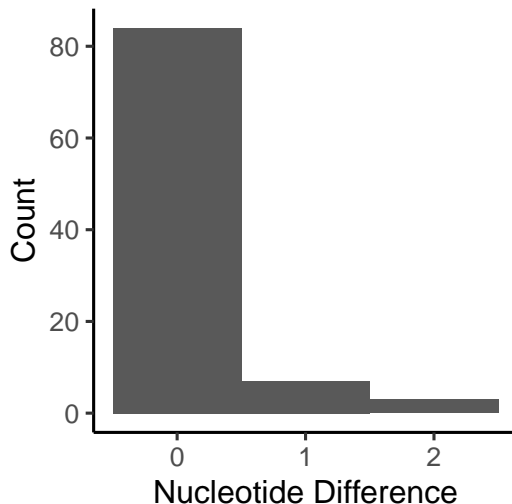
### IGHV1–58\*01\_03

173 sequences assigned  
169 (97.7%) exact matches, in which:  
169 unique CDR3  
5 unique J



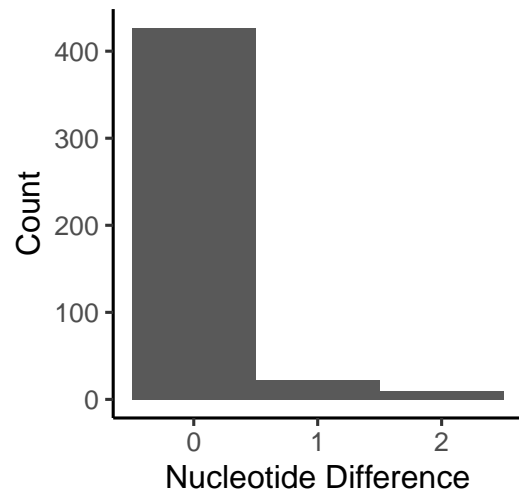
### IGHV2–5\*02

94 sequences assigned  
84 (89.4%) exact matches, in which:  
84 unique CDR3  
6 unique J



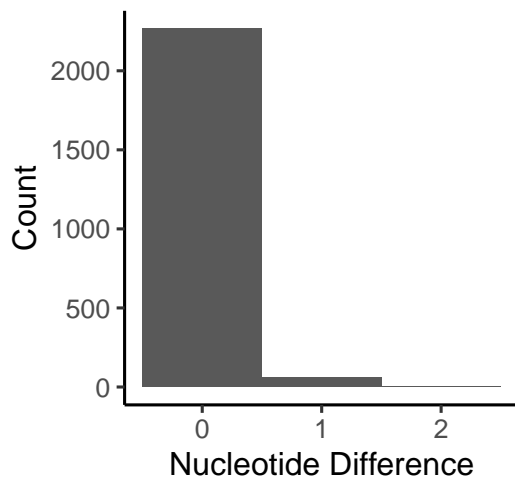
### IGHV3–7\*01

459 sequences assigned  
427 (93%) exact matches, in which:  
421 unique CDR3  
6 unique J



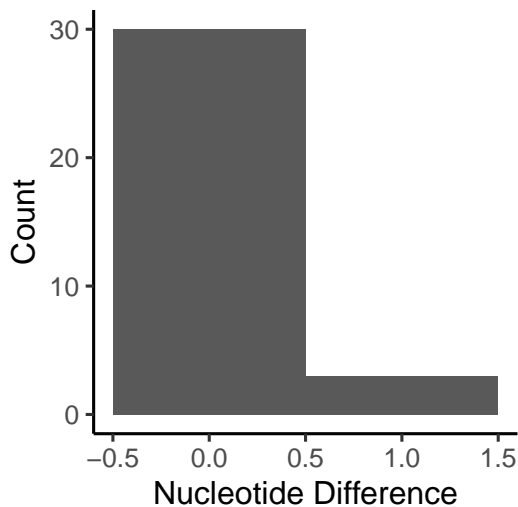
### IGHV1–69\*01\_12\_13

2326 sequences assigned  
2266 (97.4%) exact matches, in which:  
2262 unique CDR3  
6 unique J



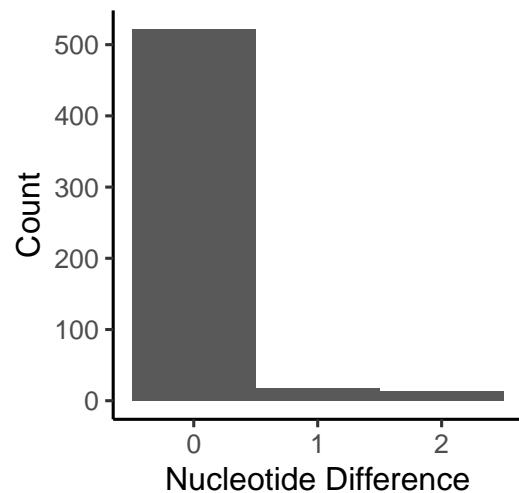
### IGHV2–26\*01

33 sequences assigned  
30 (90.9%) exact matches, in which:  
30 unique CDR3  
5 unique J



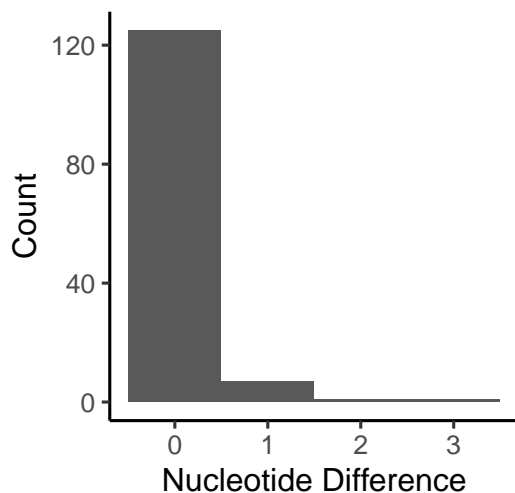
### IGHV3–7\*03

552 sequences assigned  
522 (94.6%) exact matches, in which:  
519 unique CDR3  
6 unique J



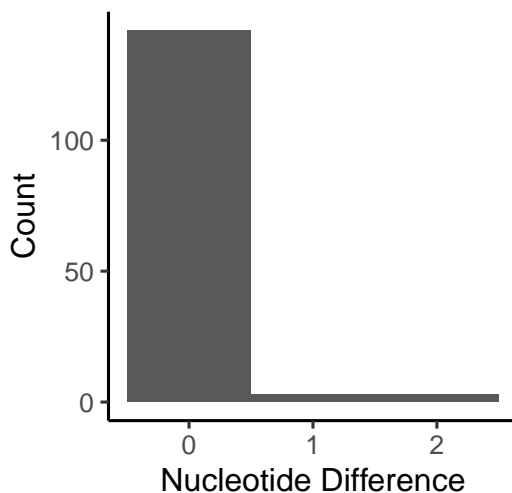
### IGHV2–5\*01

134 sequences assigned  
125 (93.3%) exact matches, in which:  
125 unique CDR3  
6 unique J



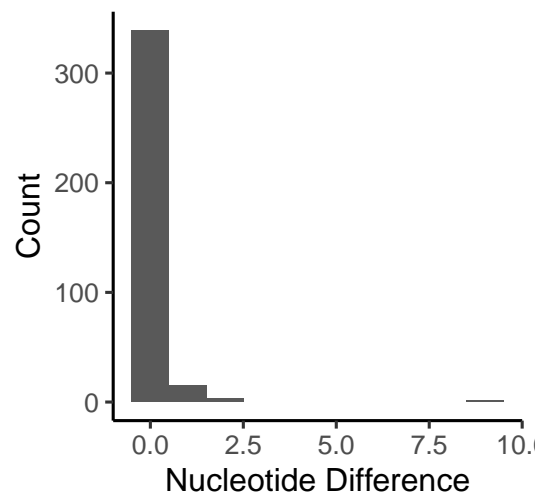
### IGHV2–70\*01

148 sequences assigned  
142 (95.9%) exact matches, in which:  
142 unique CDR3  
5 unique J



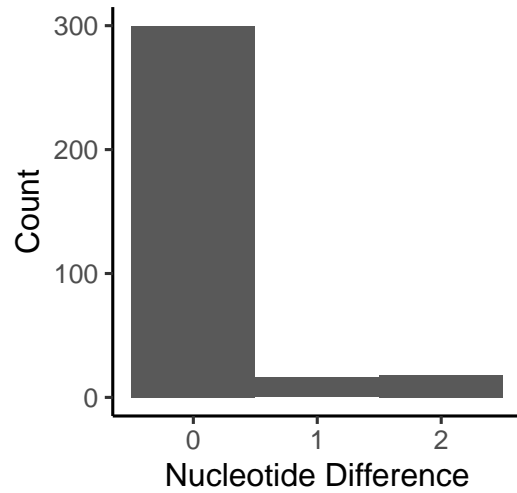
### IGHV3–9\*01

358 sequences assigned  
339 (94.7%) exact matches, in which:  
336 unique CDR3  
6 unique J



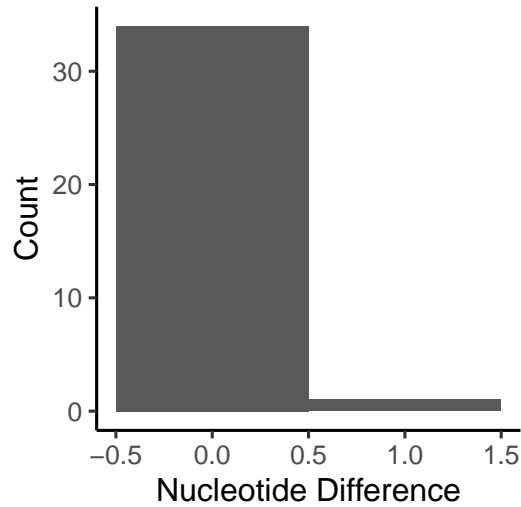
### IGHV3-11\*01

334 sequences assigned  
300 (89.8%) exact matches, in which:  
300 unique CDR3  
6 unique J



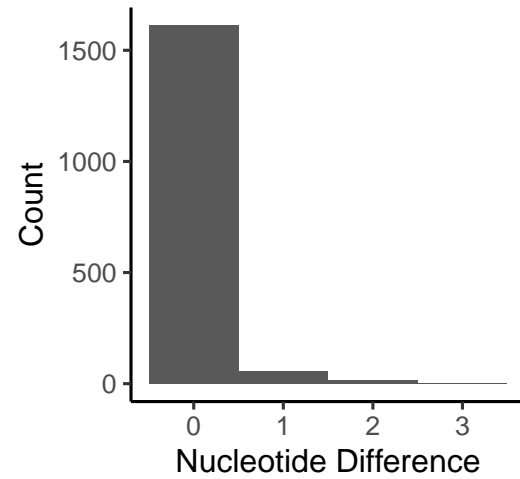
### IGHV3-13\*05

35 sequences assigned  
34 (97.1%) exact matches, in which:  
33 unique CDR3  
5 unique J



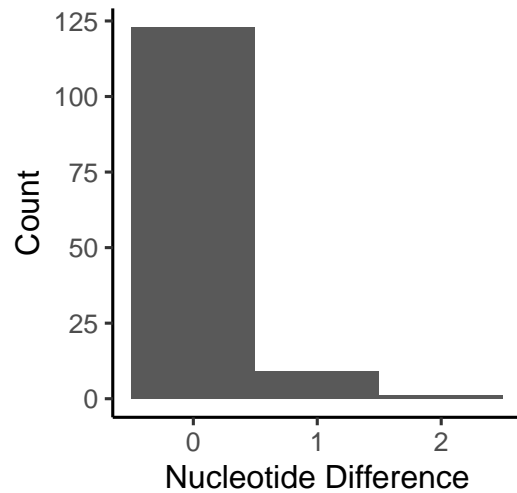
### IGHV3-21\*01\_02

1686 sequences assigned  
1612 (95.6%) exact matches, in which:  
1595 unique CDR3  
6 unique J



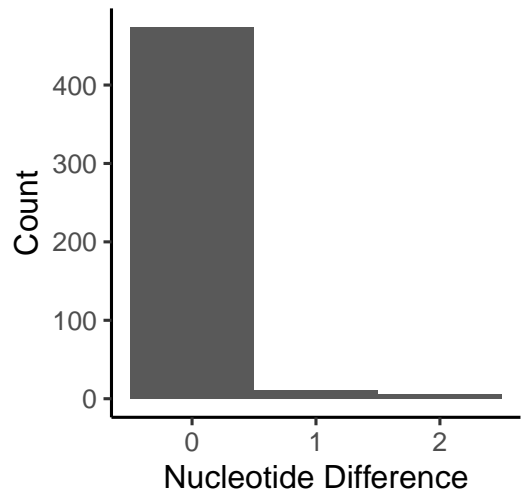
### IGHV3-11\*06

133 sequences assigned  
123 (92.5%) exact matches, in which:  
122 unique CDR3  
5 unique J



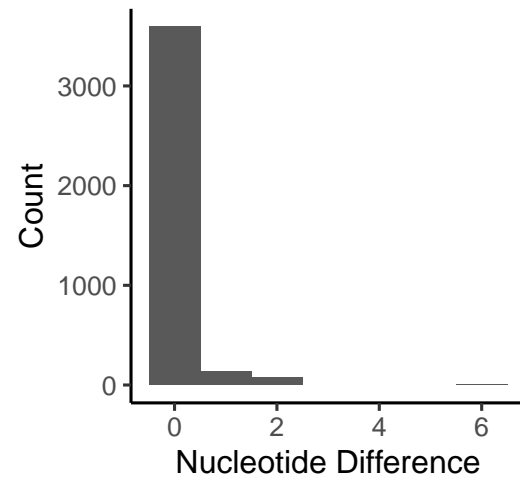
### IGHV3-15\*01\_02

491 sequences assigned  
474 (96.5%) exact matches, in which:  
472 unique CDR3  
6 unique J



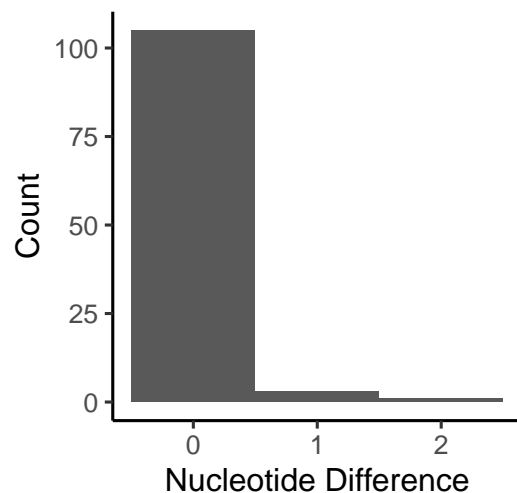
### IGHV3-23\*01\_04

3807 sequences assigned  
3594 (94.4%) exact matches, in which:  
3561 unique CDR3  
6 unique J



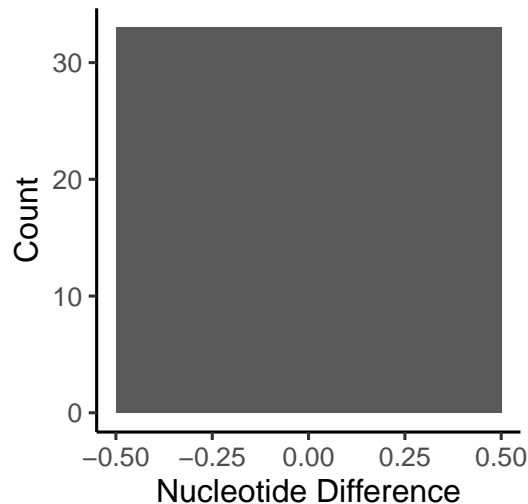
### IGHV3-13\*01

109 sequences assigned  
105 (96.3%) exact matches, in which:  
104 unique CDR3  
6 unique J



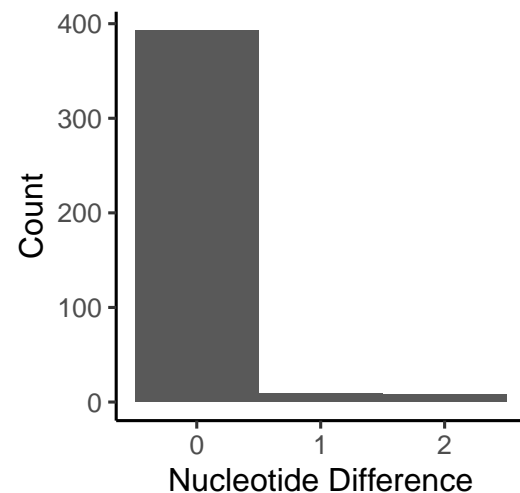
### IGHV3-20\*01\_02

33 sequences assigned  
33 (100%) exact matches, in which:  
33 unique CDR3  
5 unique J



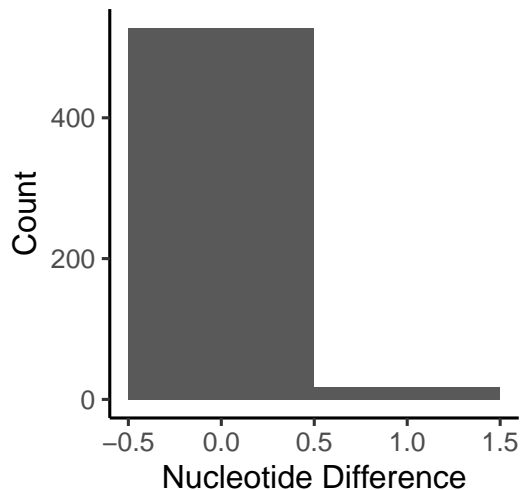
### IGHV3-33\*01

410 sequences assigned  
393 (95.9%) exact matches, in which:  
392 unique CDR3  
6 unique J



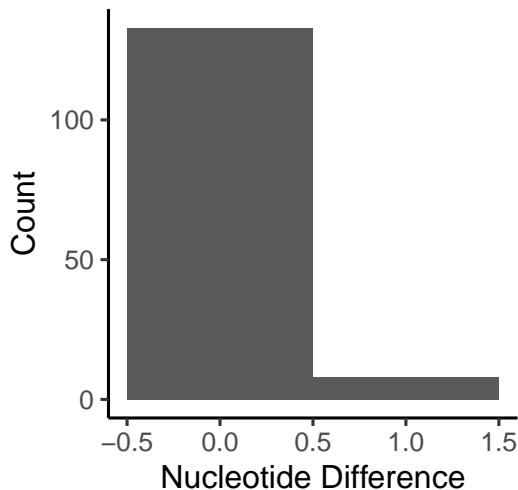
### IGHV3–33\*08

546 sequences assigned  
528 (96.7%) exact matches, in which:  
525 unique CDR3  
6 unique J



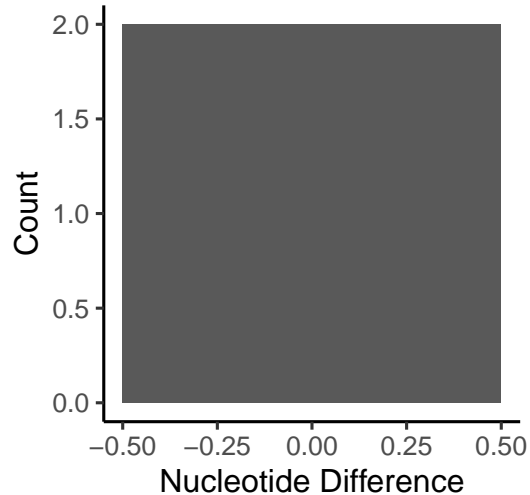
### IGHV3–49\*03\_05

141 sequences assigned  
133 (94.3%) exact matches, in which:  
132 unique CDR3  
6 unique J



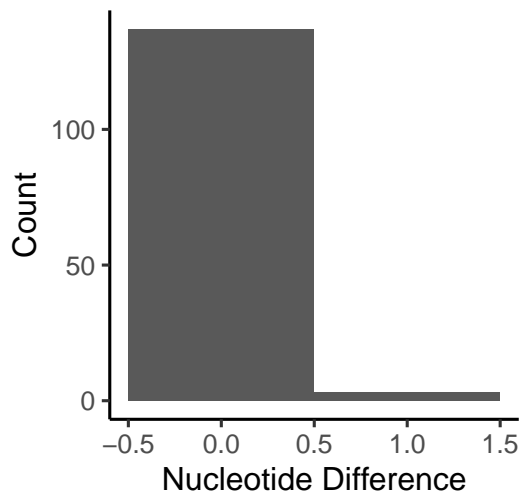
### IGHV3–66\*03

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



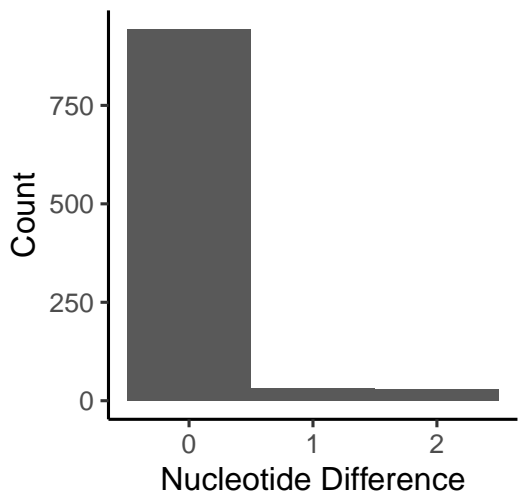
### IGHV3–43\*01

140 sequences assigned  
137 (97.9%) exact matches, in which:  
136 unique CDR3  
6 unique J



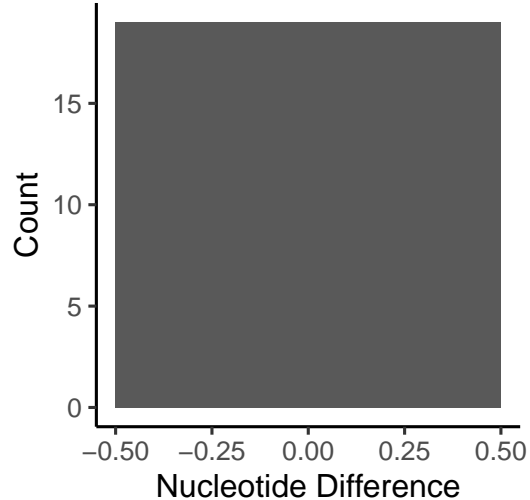
### IGHV3–53\*01\_02

1006 sequences assigned  
944 (93.8%) exact matches, in which:  
928 unique CDR3  
6 unique J



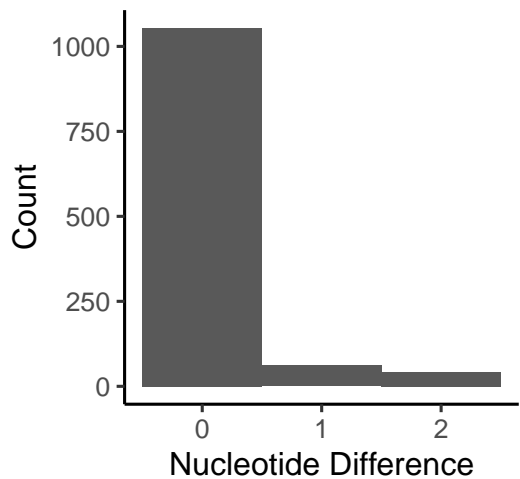
### IGHV3–72\*01

19 sequences assigned  
19 (100%) exact matches, in which:  
19 unique CDR3  
5 unique J



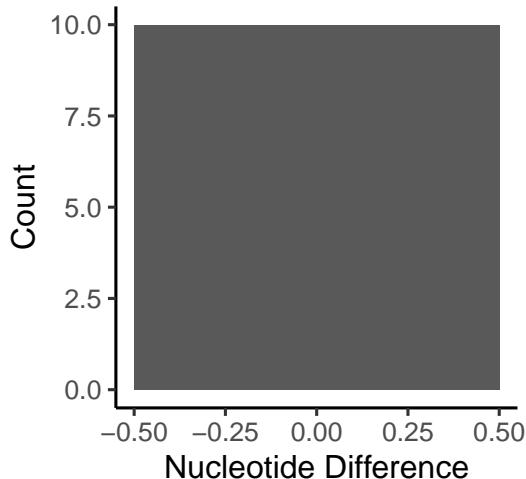
### IGHV3–48\*02

1158 sequences assigned  
1054 (91%) exact matches, in which:  
1044 unique CDR3  
6 unique J



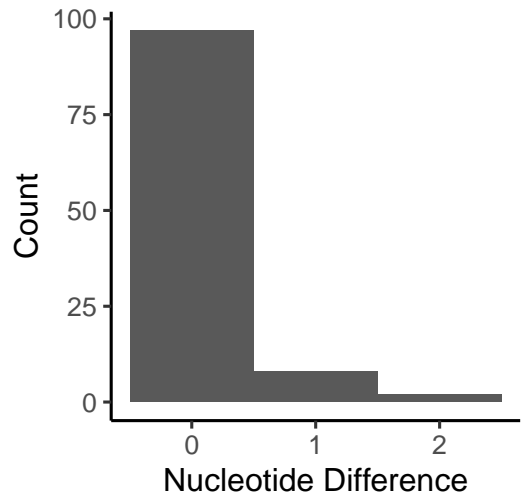
### IGHV3–64\*02\_07

10 sequences assigned  
10 (100%) exact matches, in which:  
10 unique CDR3  
4 unique J



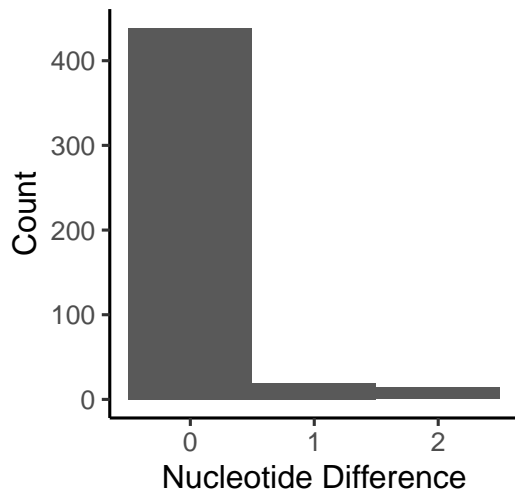
### IGHV3–73\*01\_02

107 sequences assigned  
97 (90.7%) exact matches, in which:  
96 unique CDR3  
5 unique J



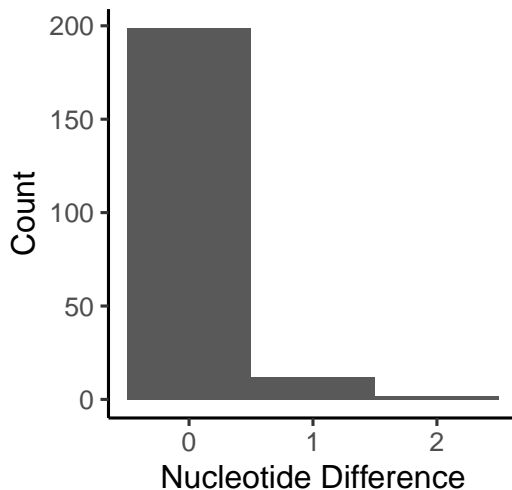
### IGHV3-74\*01\_02

472 sequences assigned  
439 (93%) exact matches, in which:  
429 unique CDR3  
6 unique J



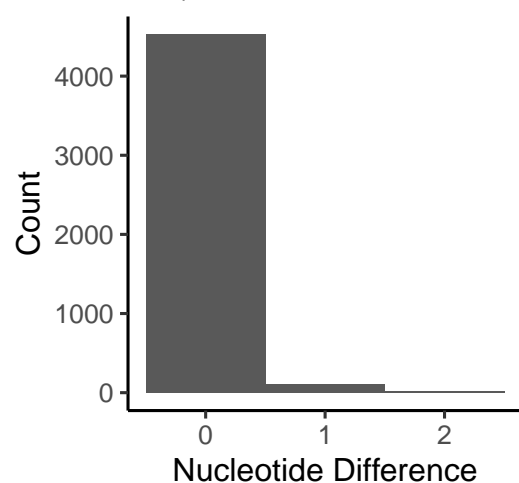
### IGHV4-4\*02\_03

213 sequences assigned  
199 (93.4%) exact matches, in which:  
199 unique CDR3  
6 unique J



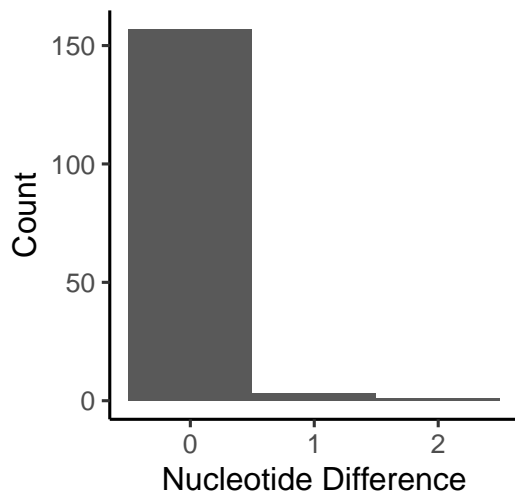
### IGHV4-34\*01\_02

4652 sequences assigned  
4527 (97.3%) exact matches, in which:  
4487 unique CDR3  
6 unique J



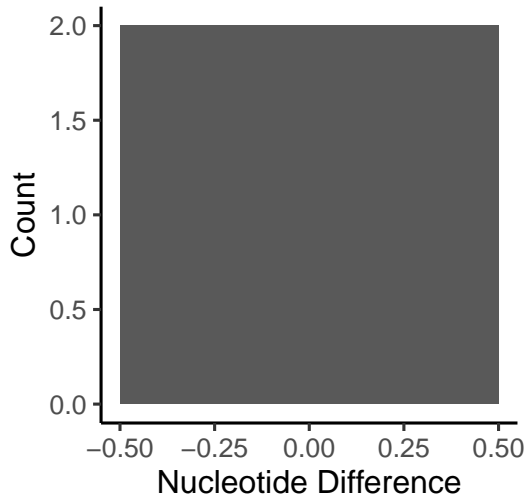
### IGHV3-64D\*06

161 sequences assigned  
157 (97.5%) exact matches, in which:  
156 unique CDR3  
6 unique J



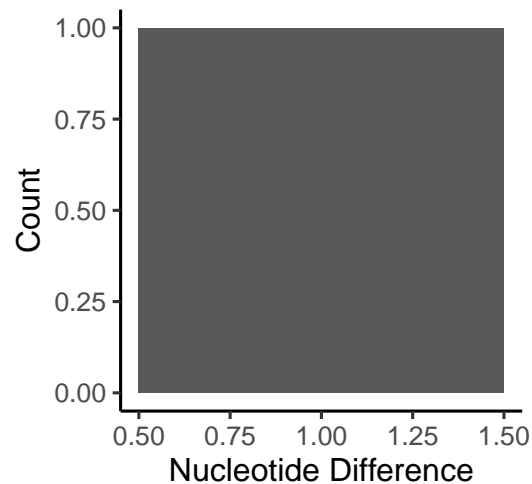
### IGHV4-28\*01\_07

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



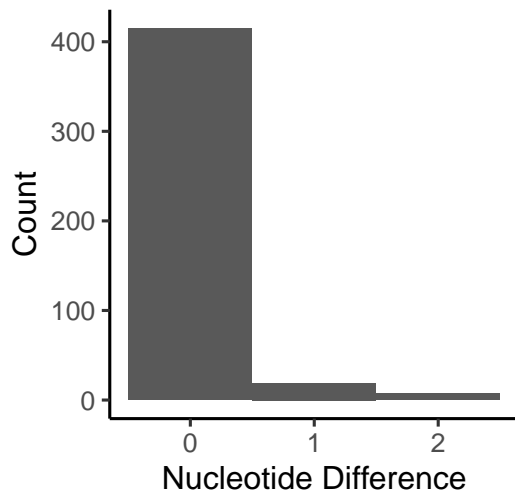
### IGHV4-39\*02

1 sequences assigned  
No exact matches.



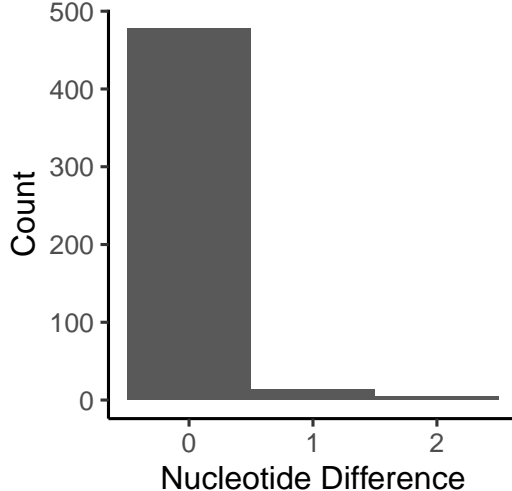
### IGHV4-4\*07

441 sequences assigned  
415 (94.1%) exact matches, in which:  
413 unique CDR3  
6 unique J



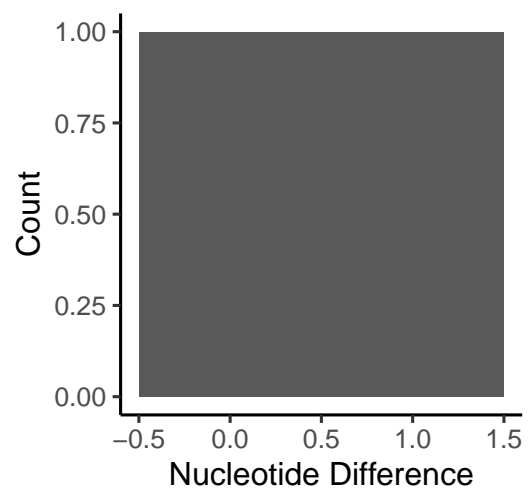
### IGHV4-31\*02

495 sequences assigned  
478 (96.6%) exact matches, in which:  
475 unique CDR3  
6 unique J



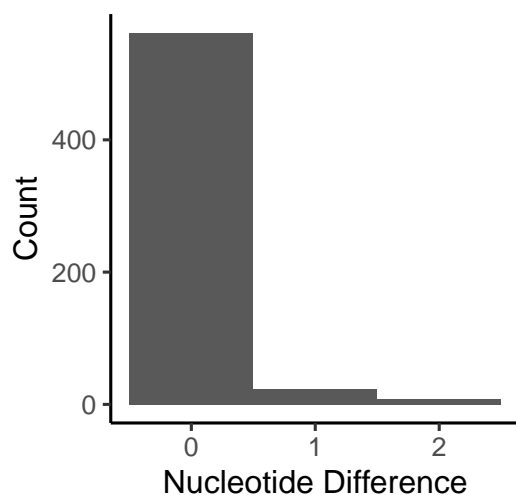
### IGHV4-59\*11

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



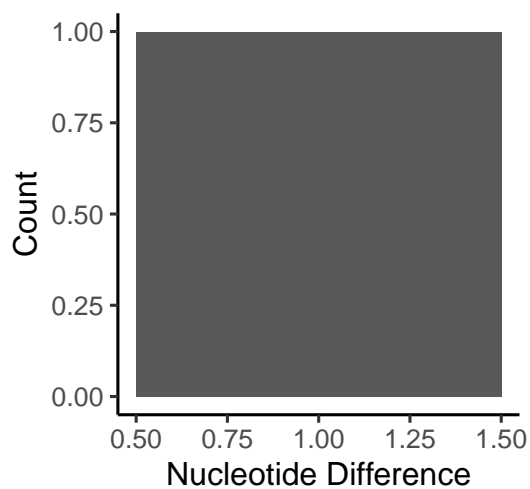
### IGHV4–61\*01

593 sequences assigned  
562 (94.8%) exact matches, in which:  
559 unique CDR3  
6 unique J



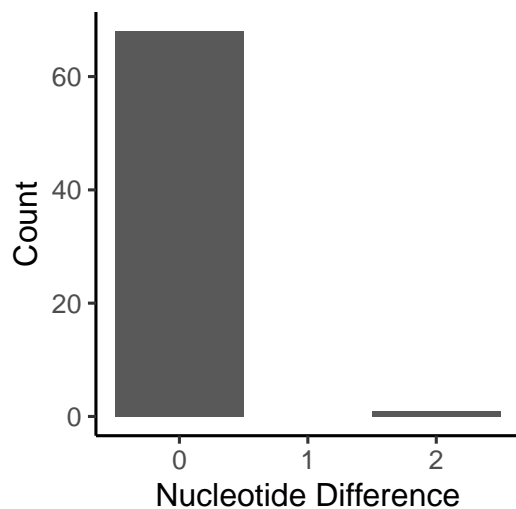
### IGHV5–51\*01\_03

1 sequences assigned  
No exact matches.



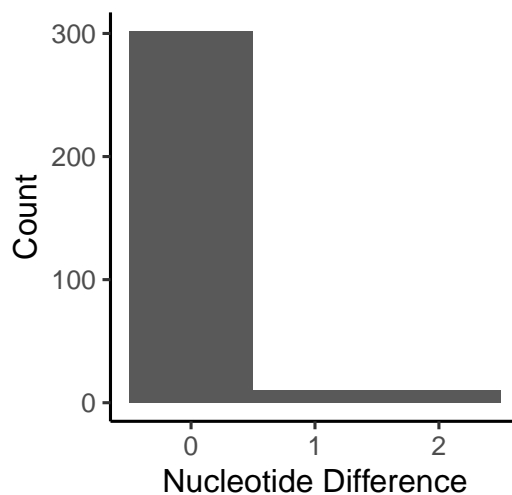
### IGHV5–10–1\*01\_03

69 sequences assigned  
68 (98.6%) exact matches, in which:  
68 unique CDR3  
5 unique J



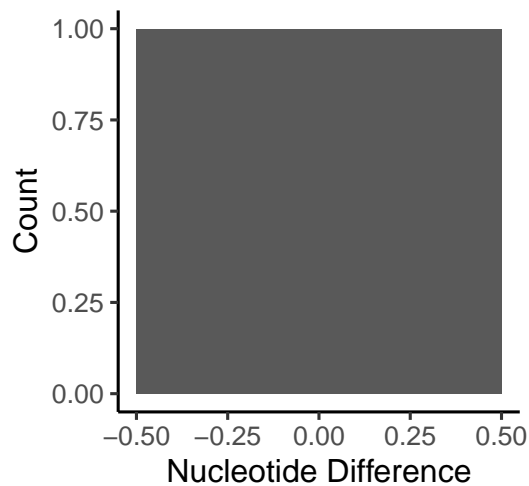
### IGHV6–1\*01\_02

322 sequences assigned  
302 (93.8%) exact matches, in which:  
300 unique CDR3  
6 unique J



### IGHV5–51\*07

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



### IGHV7–4–1\*01

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

