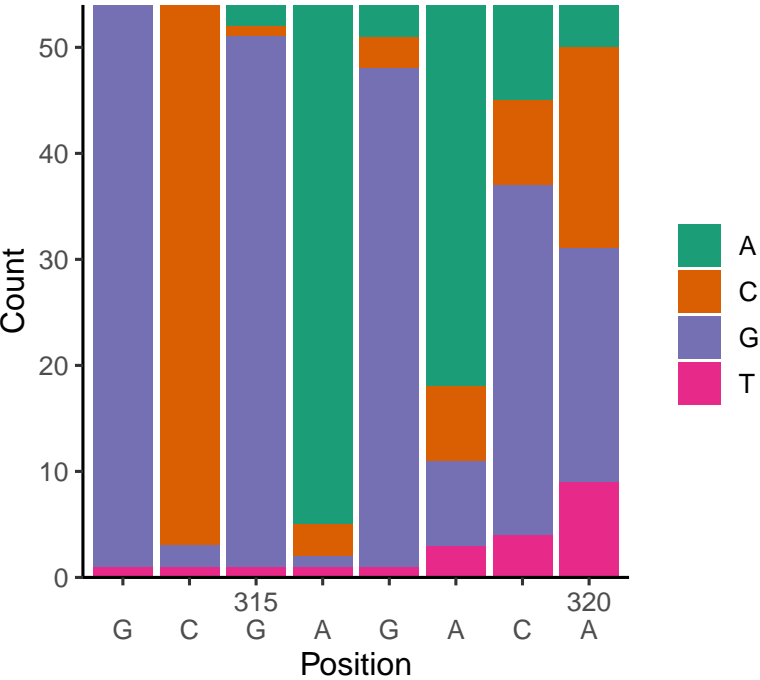
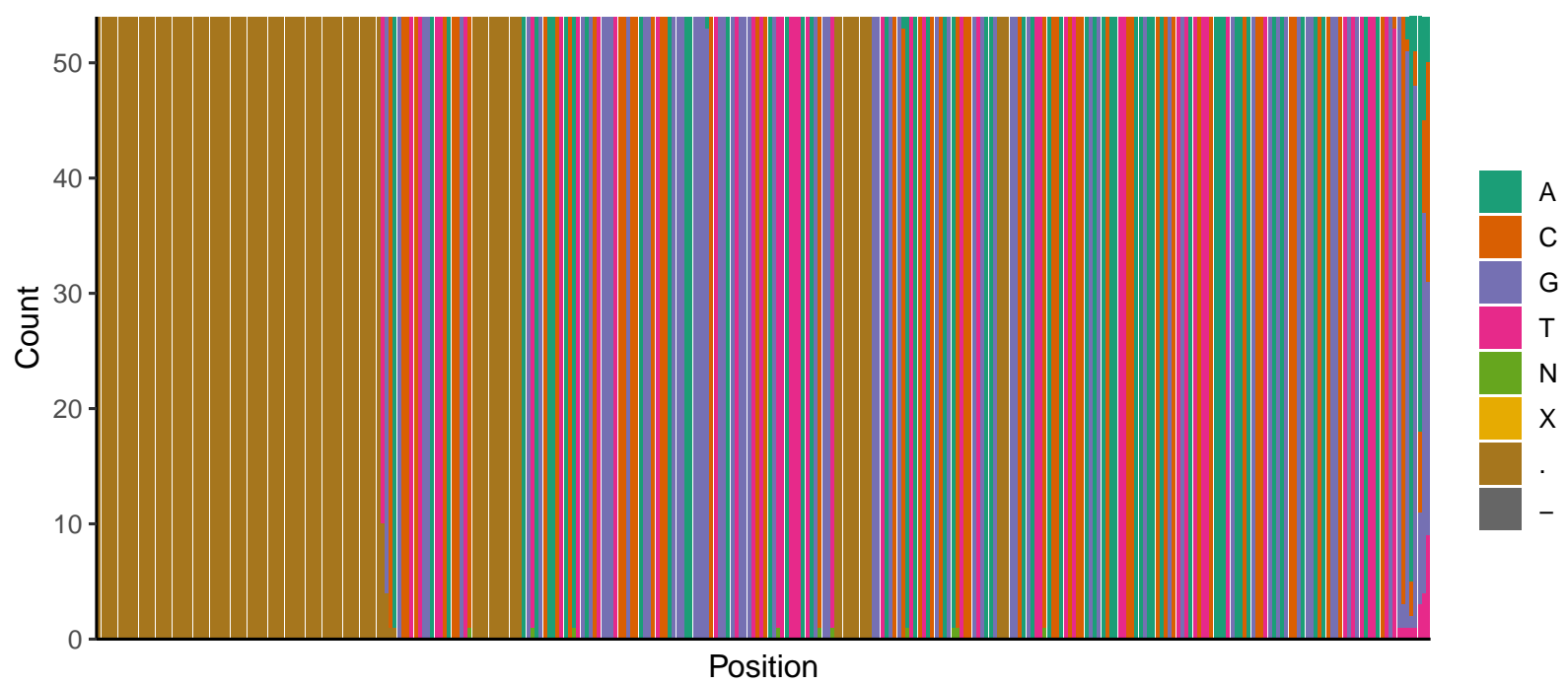


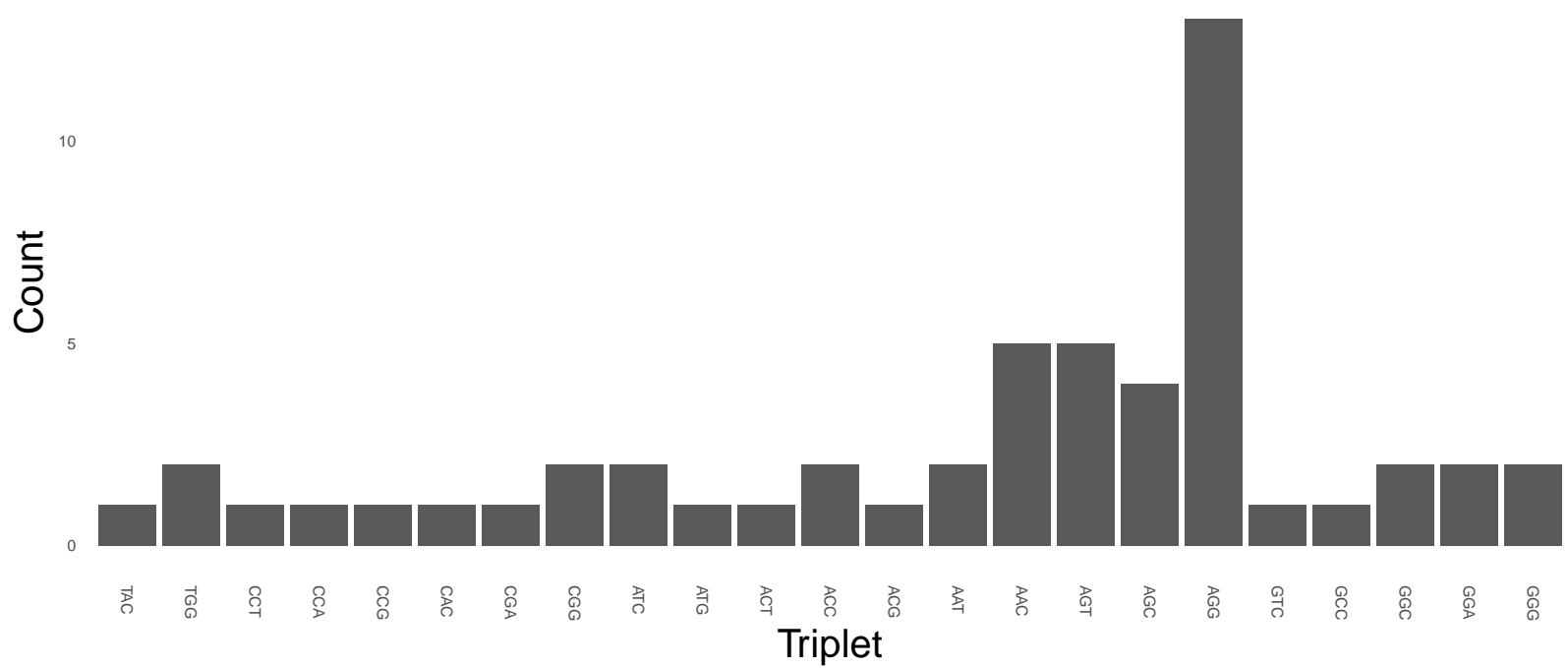
Gene IGHV3-66\*04\_A193G



Gene IGHV3-66\*04\_A193G

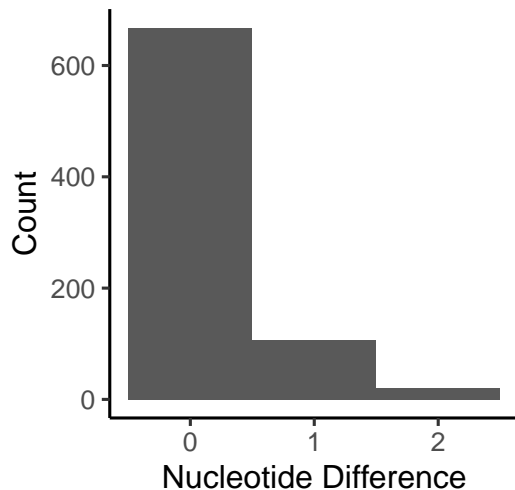


IGHV3-66\*04\_A193G- Final 3 nucleotides as a triplet



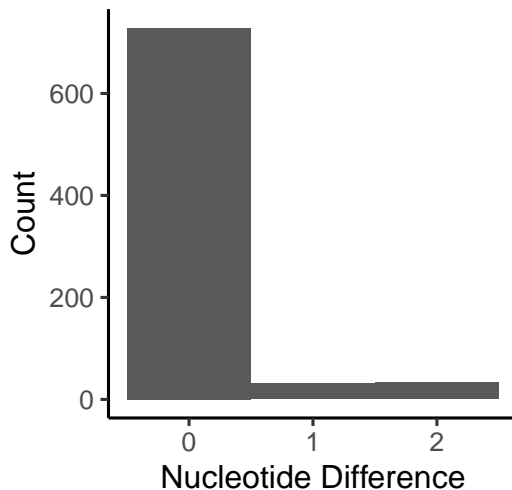
### IGHV1-2\*02

796 sequences assigned  
668 (83.9%) exact matches, in which:  
666 unique CDR3  
6 unique J



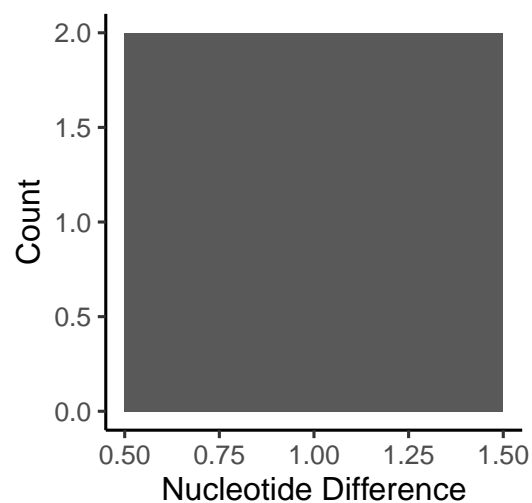
### IGHV1-18\*01

793 sequences assigned  
729 (91.9%) exact matches, in which:  
725 unique CDR3  
6 unique J



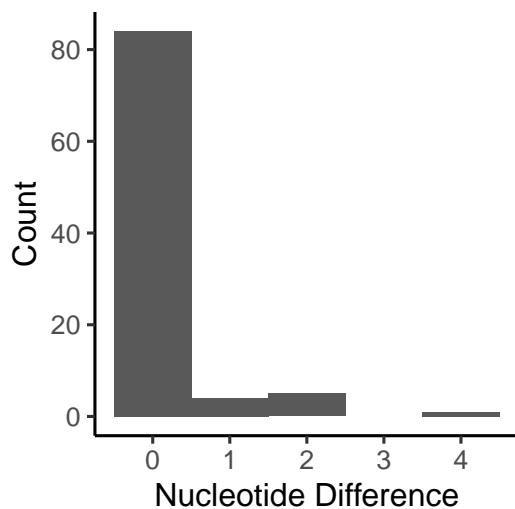
### IGHV1-38-4\*01

2 sequences assigned  
No exact matches.



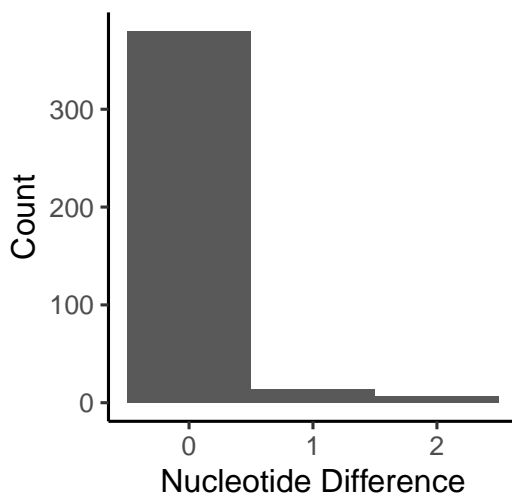
### IGHV1-3\*01\_05

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



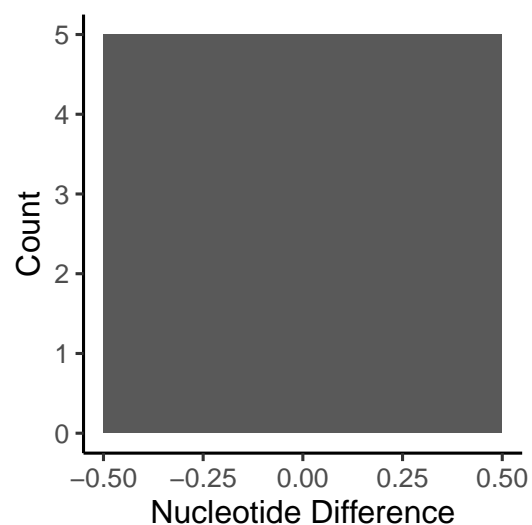
### IGHV1-18\*04

401 sequences assigned  
380 (94.8%) exact matches, in which:  
379 unique CDR3  
6 unique J



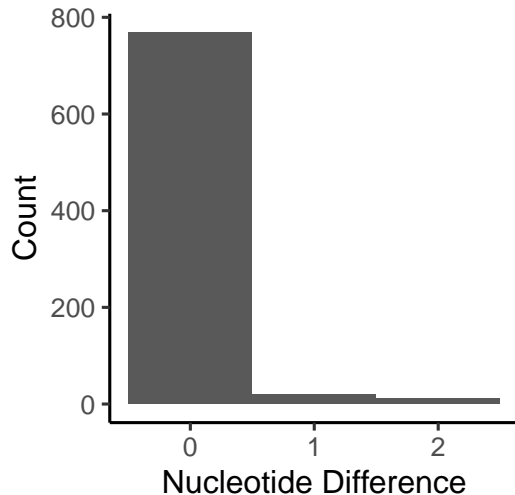
### IGHV1-45\*02

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



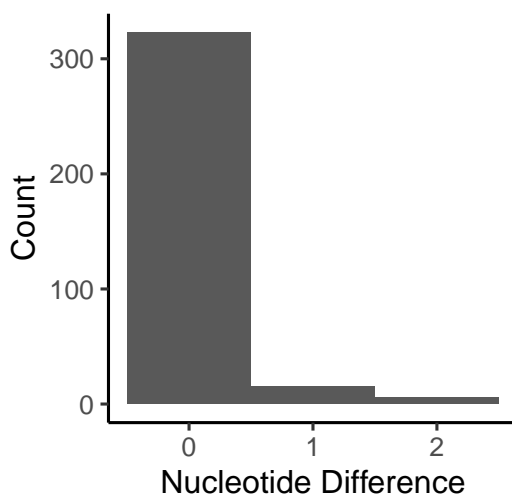
### IGHV1-8\*01

801 sequences assigned  
769 (96%) exact matches, in which:  
768 unique CDR3  
6 unique J



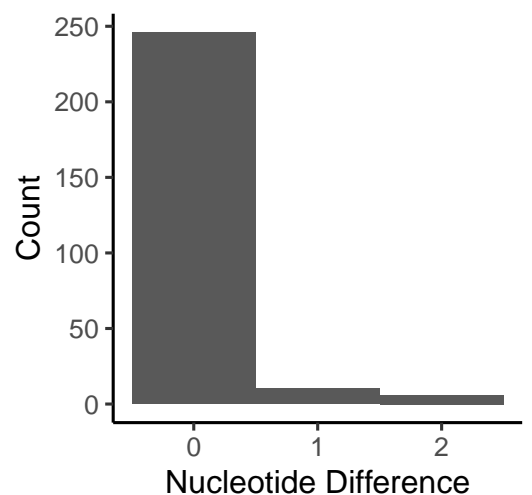
### IGHV1-24\*01

344 sequences assigned  
323 (93.9%) exact matches, in which:  
323 unique CDR3  
6 unique J



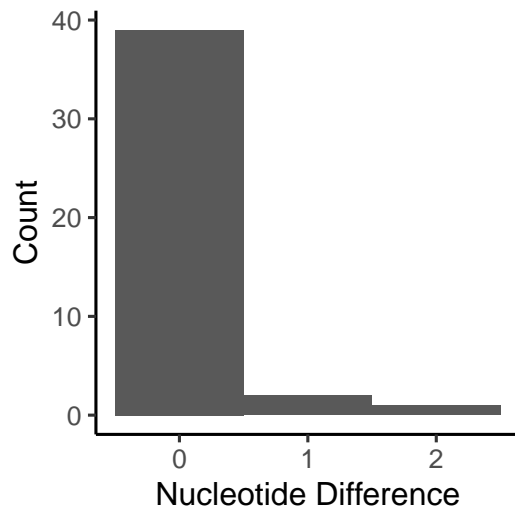
### IGHV1-46\*03

262 sequences assigned  
246 (93.9%) exact matches, in which:  
246 unique CDR3  
6 unique J



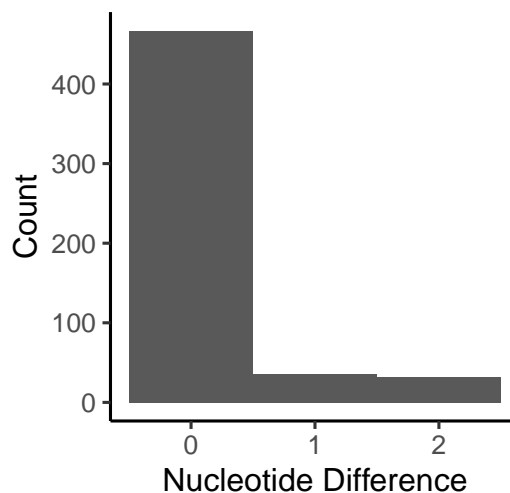
### IGHV1–58\*02

42 sequences assigned  
39 (92.9%) exact matches, in which:  
39 unique CDR3  
5 unique J



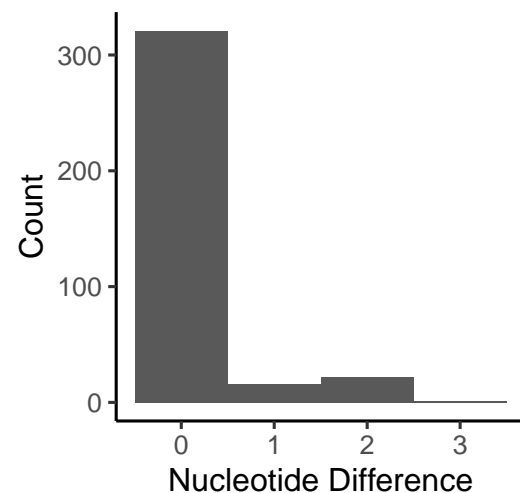
### IGHV2–5\*01

535 sequences assigned  
467 (87.3%) exact matches, in which:  
462 unique CDR3  
6 unique J



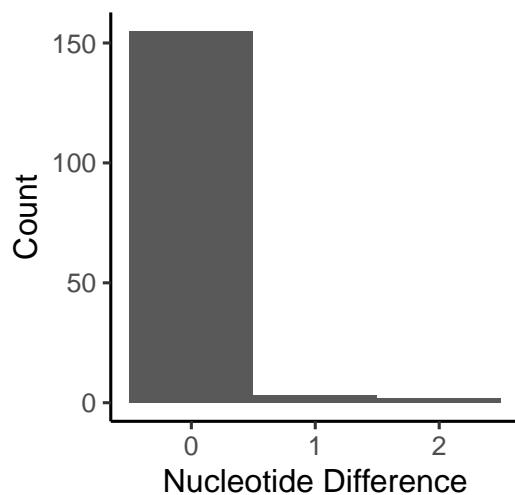
### IGHV3–7\*01

360 sequences assigned  
321 (89.2%) exact matches, in which:  
313 unique CDR3  
6 unique J



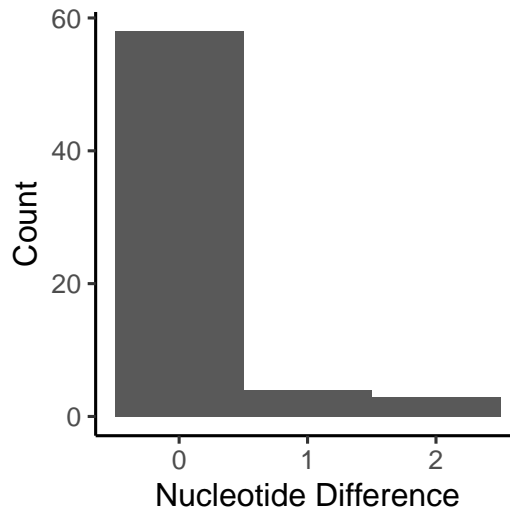
### IGHV1–69\*02

160 sequences assigned  
155 (96.9%) exact matches, in which:  
155 unique CDR3  
6 unique J



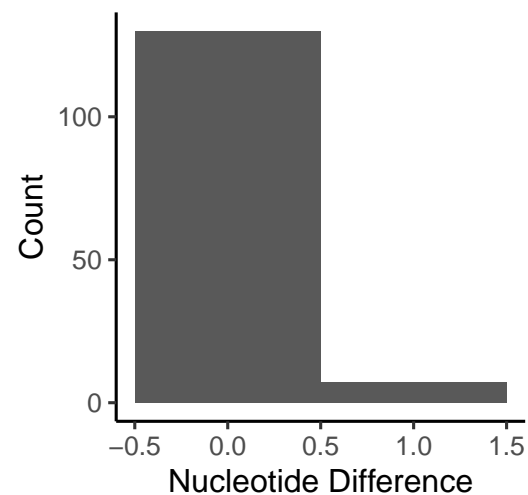
### IGHV2–26\*01

65 sequences assigned  
58 (89.2%) exact matches, in which:  
58 unique CDR3  
4 unique J



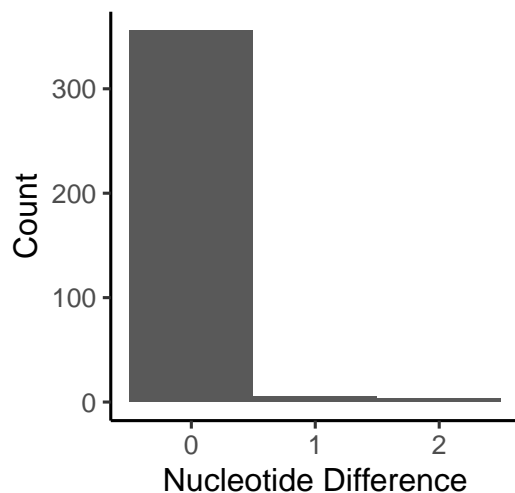
### IGHV3–7\*05

137 sequences assigned  
130 (94.9%) exact matches, in which:  
126 unique CDR3  
5 unique J



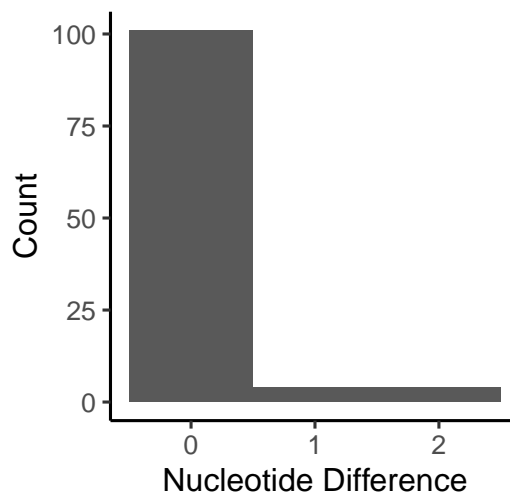
### IGHV1–69\*05

364 sequences assigned  
356 (97.8%) exact matches, in which:  
356 unique CDR3  
6 unique J



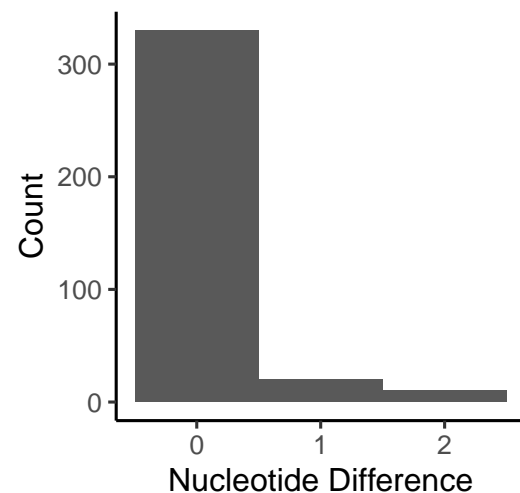
### IGHV2–70\*11\_15

109 sequences assigned  
101 (92.7%) exact matches, in which:  
99 unique CDR3  
5 unique J



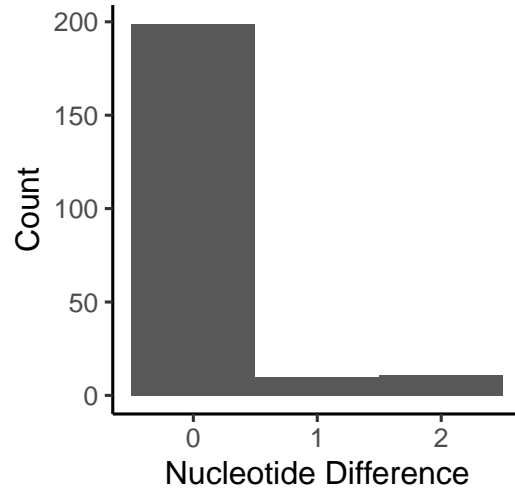
### IGHV3–9\*01

360 sequences assigned  
330 (91.7%) exact matches, in which:  
322 unique CDR3  
6 unique J



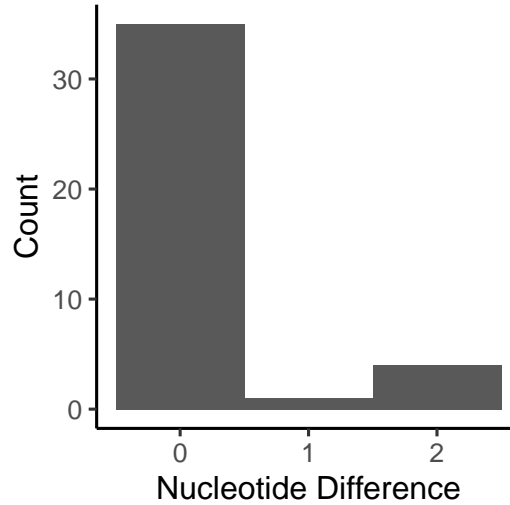
### IGHV3-11\*01

220 sequences assigned  
199 (90.5%) exact matches, in which:  
195 unique CDR3  
6 unique J



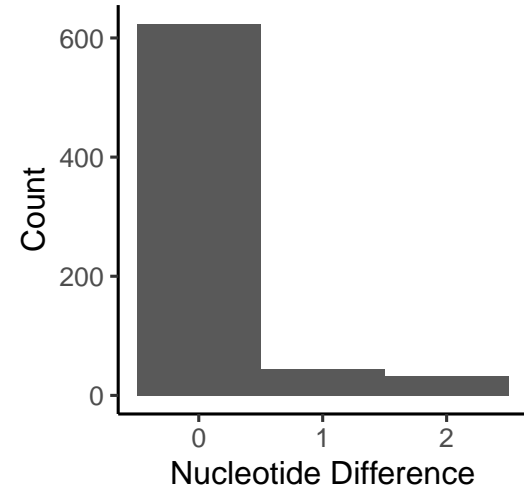
### IGHV3-20\*01\_02

40 sequences assigned  
35 (87.5%) exact matches, in which:  
34 unique CDR3  
5 unique J



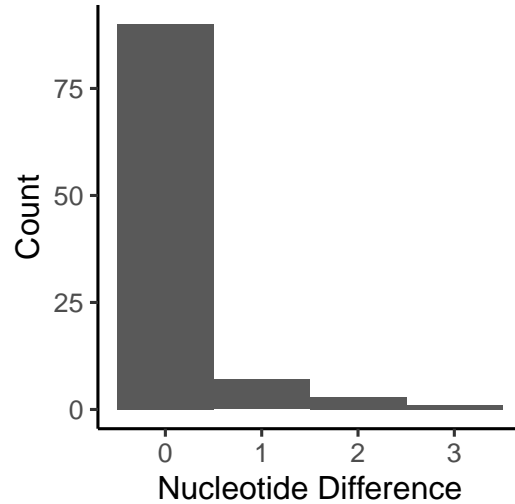
### IGHV3-30\*02

702 sequences assigned  
624 (88.9%) exact matches, in which:  
608 unique CDR3  
6 unique J



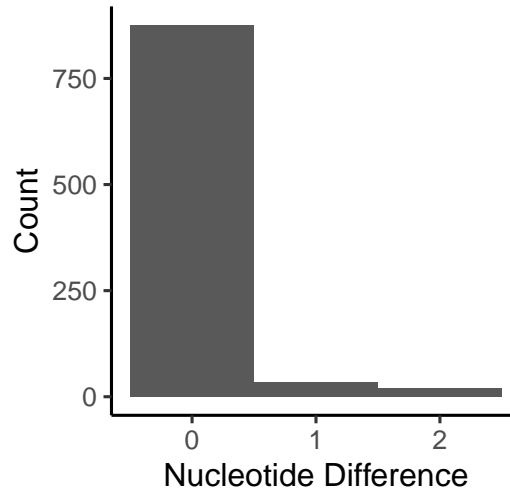
### IGHV3-13\*01

101 sequences assigned  
90 (89.1%) exact matches, in which:  
86 unique CDR3  
5 unique J



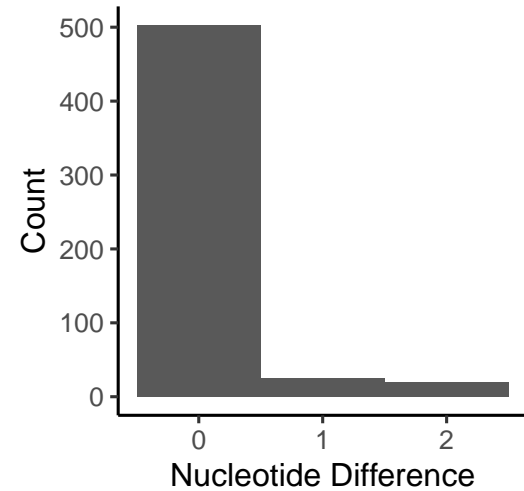
### IGHV3-21\*01\_02

929 sequences assigned  
876 (94.3%) exact matches, in which:  
843 unique CDR3  
6 unique J



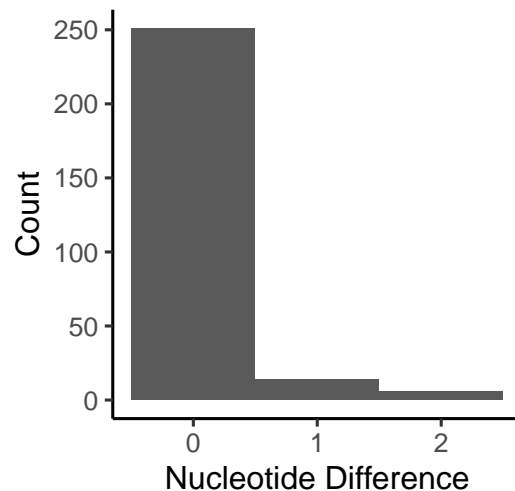
### IGHV3-30\*04

548 sequences assigned  
503 (91.8%) exact matches, in which:  
495 unique CDR3  
6 unique J



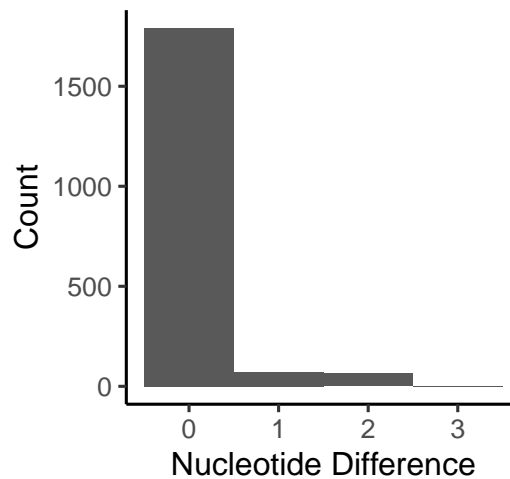
### IGHV3-15\*01\_02

271 sequences assigned  
251 (92.6%) exact matches, in which:  
249 unique CDR3  
6 unique J



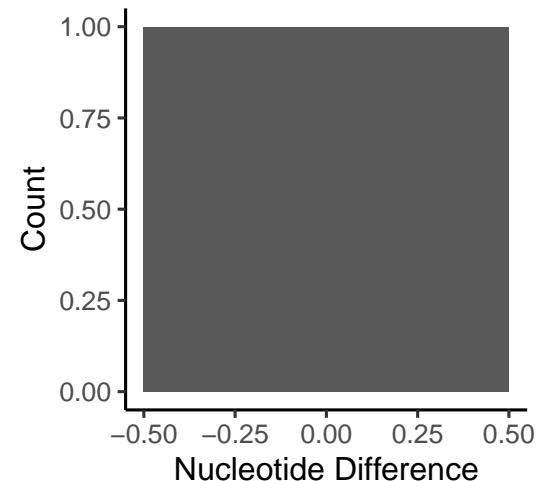
### IGHV3-23\*01\_04

1929 sequences assigned  
1791 (92.8%) exact matches, in which:  
1728 unique CDR3  
6 unique J



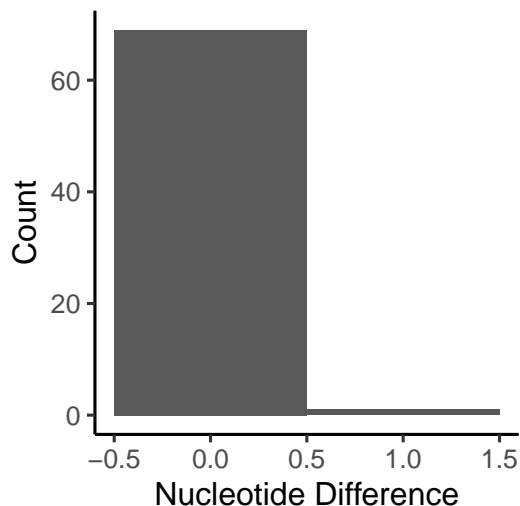
### IGHV3-38-3\*01

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



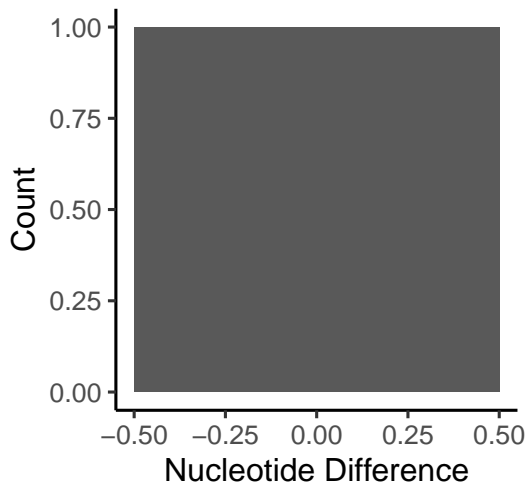
### IGHV3-43\*01

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



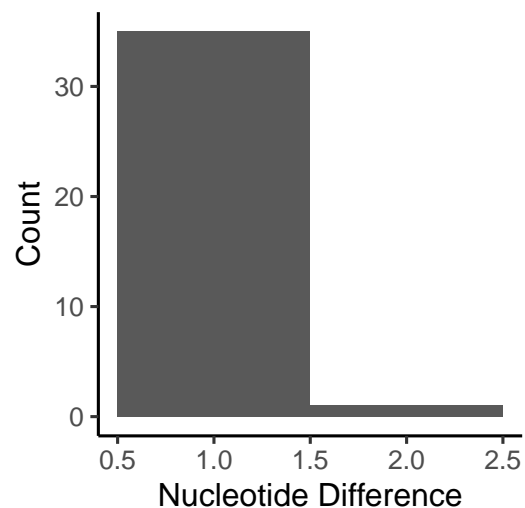
### IGHV3-52\*02

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



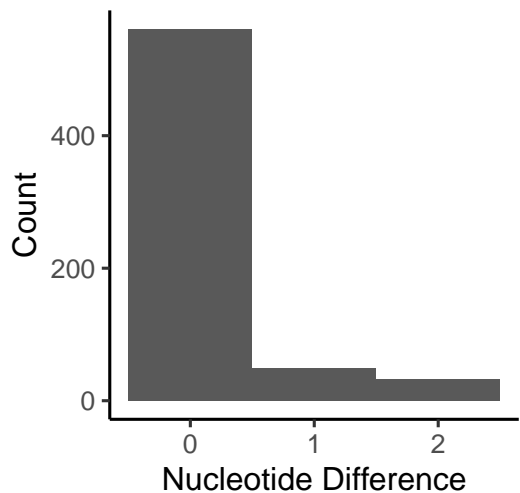
### IGHV3-66\*01

36 sequences assigned  
No exact matches.



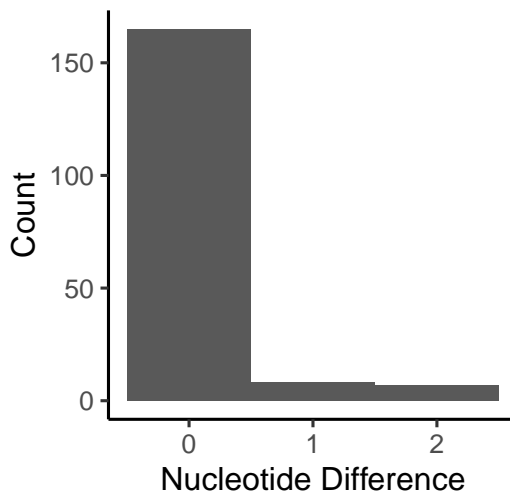
### IGHV3-48\*01

643 sequences assigned  
561 (87.2%) exact matches, in which:  
543 unique CDR3  
6 unique J



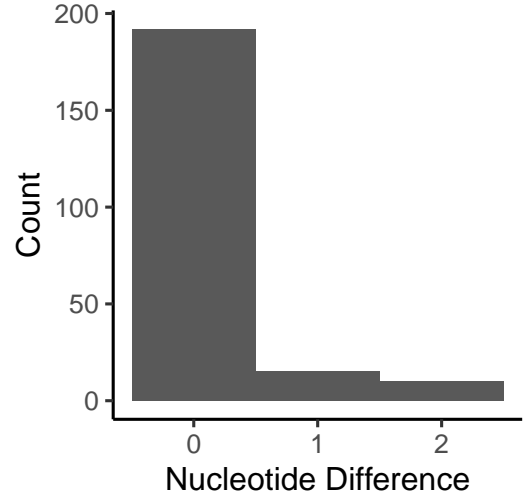
### IGHV3-53\*01\_02

180 sequences assigned  
165 (91.7%) exact matches, in which:  
158 unique CDR3  
6 unique J



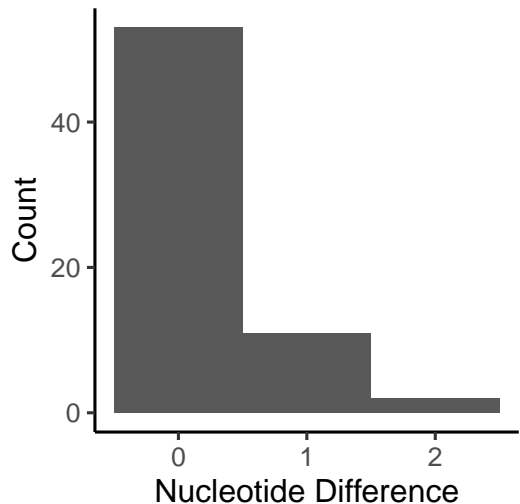
### IGHV3-66\*02

217 sequences assigned  
192 (88.5%) exact matches, in which:  
186 unique CDR3  
6 unique J



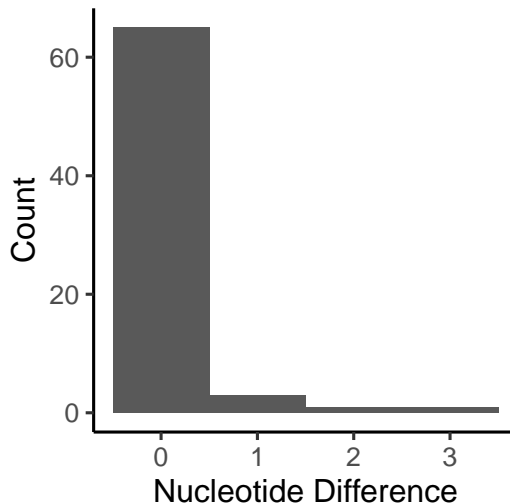
### IGHV3-49\*03\_05

66 sequences assigned  
53 (80.3%) exact matches, in which:  
53 unique CDR3  
5 unique J



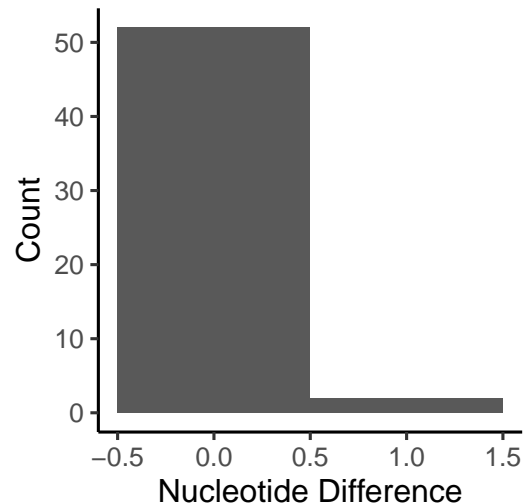
### IGHV3-64\*01

70 sequences assigned  
65 (92.9%) exact matches, in which:  
63 unique CDR3  
5 unique J



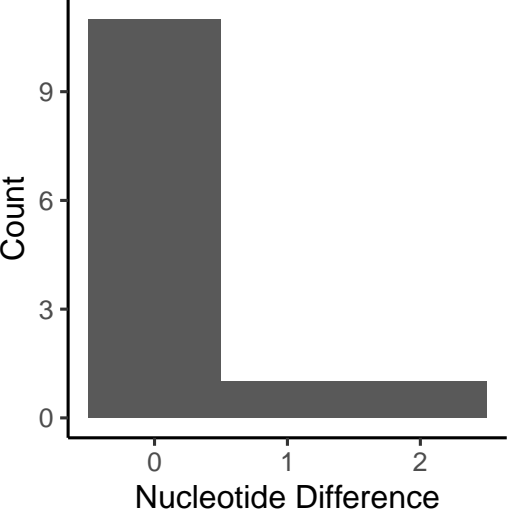
### IGHV3-66\*04\_A193G

54 sequences assigned  
52 (96.3%) exact matches, in which:  
49 unique CDR3  
5 unique J



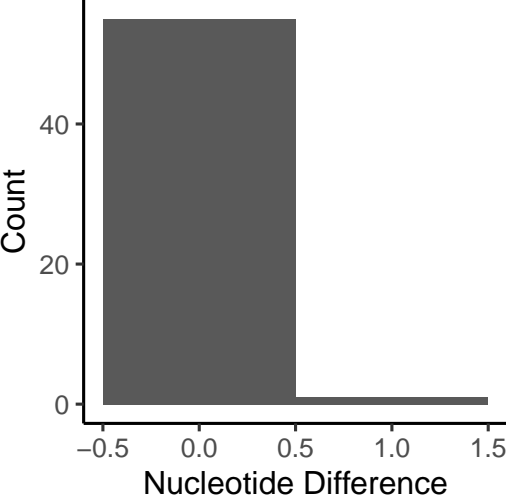
IGHV3-72\*01

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



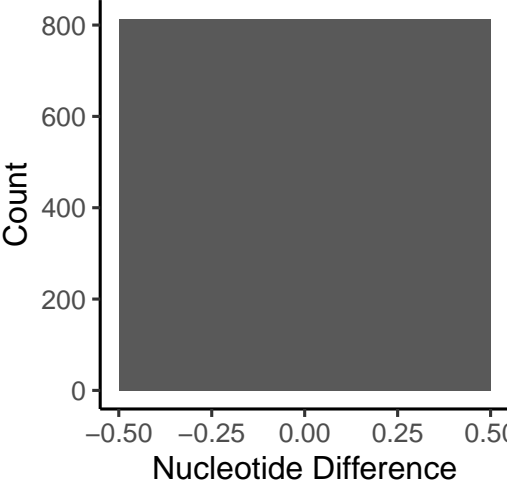
IGHV3-43D\*04

56 sequences assigned  
55 (98.2%) exact matches, in which:  
55 unique CDR3  
4 unique J



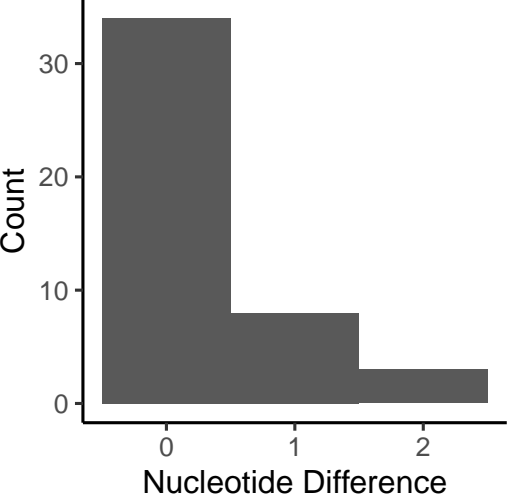
IGHV4-4\*09

814 sequences assigned  
814 (100%) exact matches, in which:  
793 unique CDR3  
6 unique J



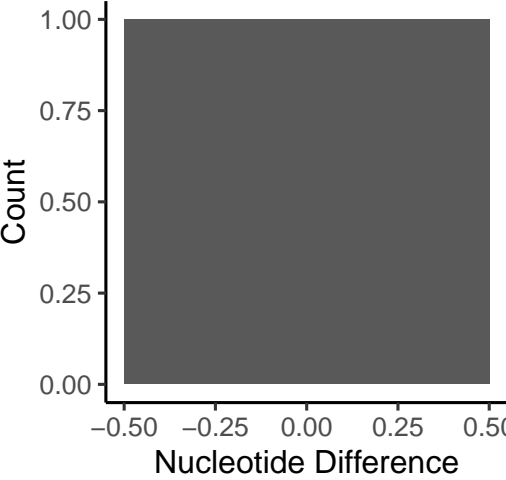
IGHV3-73\*01\_02

45 sequences assigned  
34 (75.6%) exact matches, in which:  
34 unique CDR3  
5 unique J



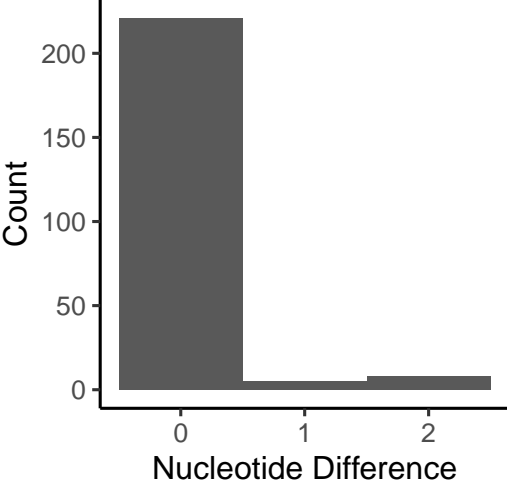
IGHV3-64D\*06

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



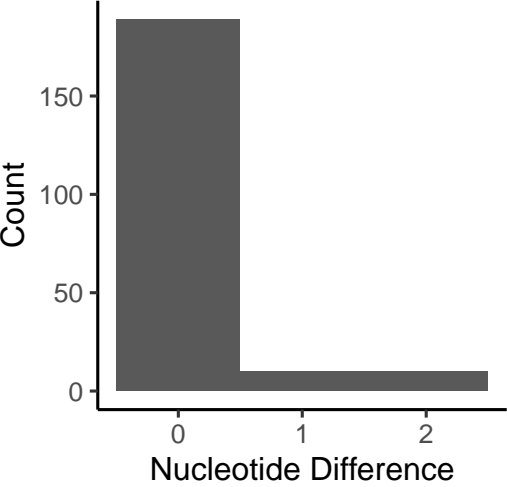
IGHV4-4\*02\_03

234 sequences assigned  
221 (94.4%) exact matches, in which:  
216 unique CDR3  
6 unique J



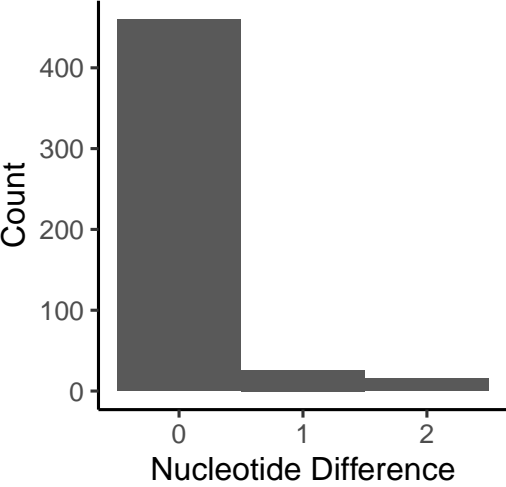
IGHV3-74\*01\_02

209 sequences assigned  
189 (90.4%) exact matches, in which:  
186 unique CDR3  
6 unique J



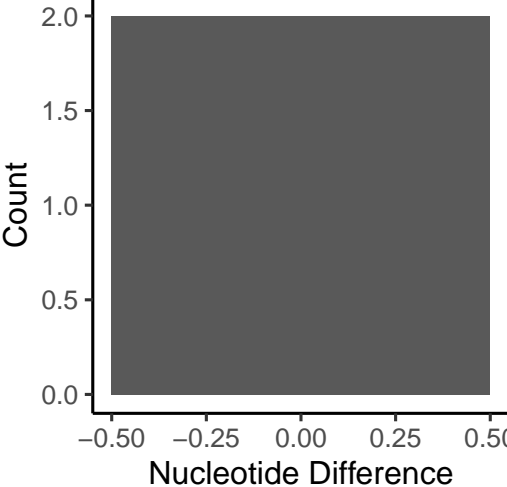
IGHV4-4\*07

502 sequences assigned  
460 (91.6%) exact matches, in which:  
444 unique CDR3  
5 unique J



IGHV4-28\*02\_05

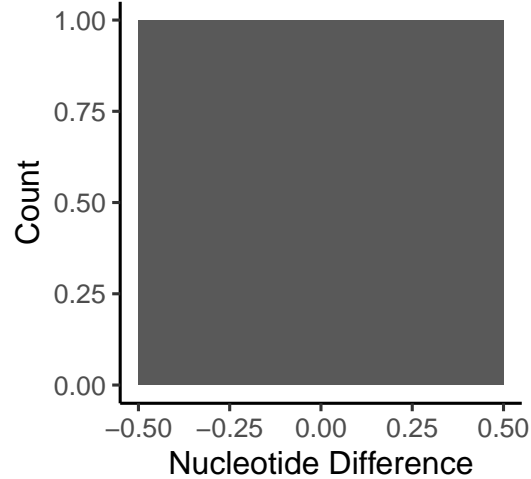
2 sequences assigned  
2 (100%) exact matches, in which:  
2 unique CDR3  
2 unique J





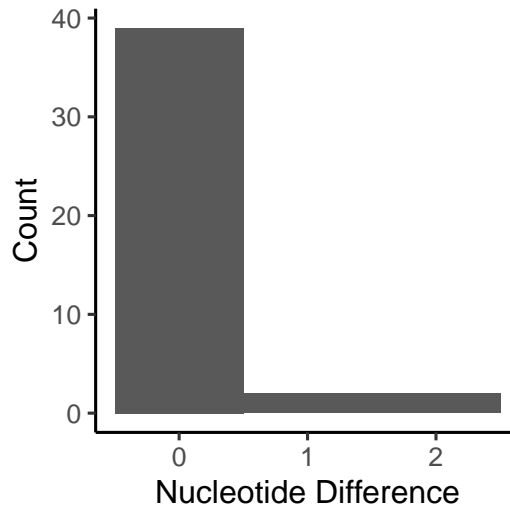
### IGHV4-30-2\*01

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



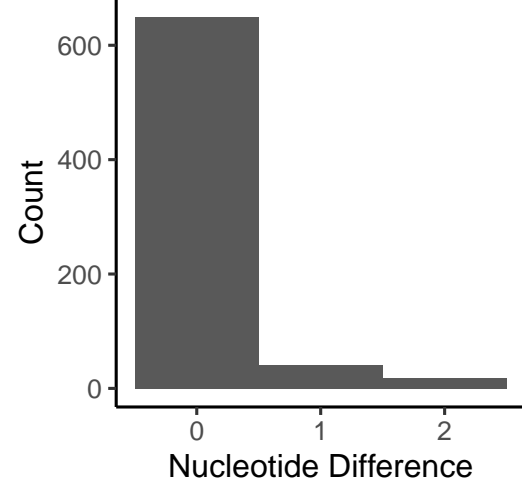
### IGHV4-38-2\*02

43 sequences assigned  
39 (90.7%) exact matches, in which:  
39 unique CDR3  
5 unique J



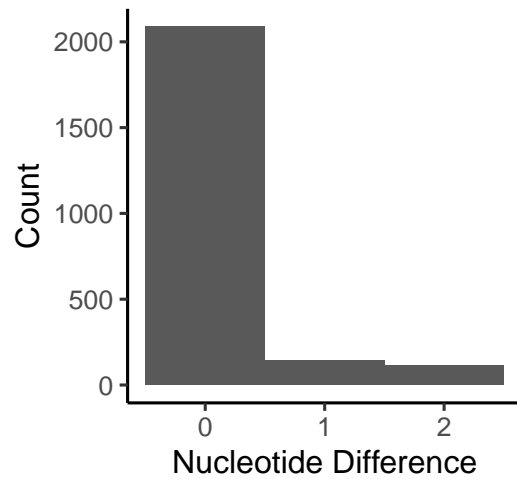
### IGHV4-61\*02

709 sequences assigned  
650 (91.7%) exact matches, in which:  
640 unique CDR3  
6 unique J



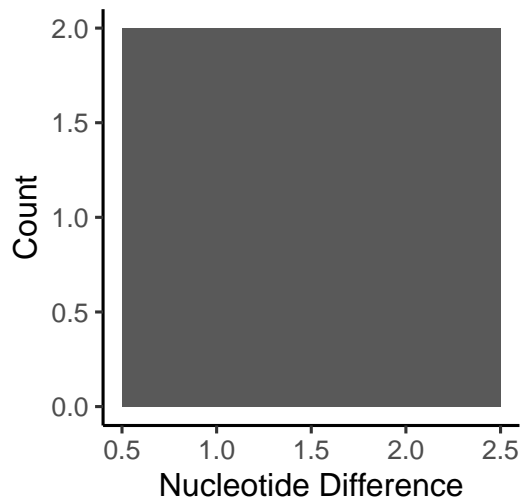
### IGHV4-34\*01\_02

2343 sequences assigned  
2088 (89.1%) exact matches, in which:  
1996 unique CDR3  
6 unique J



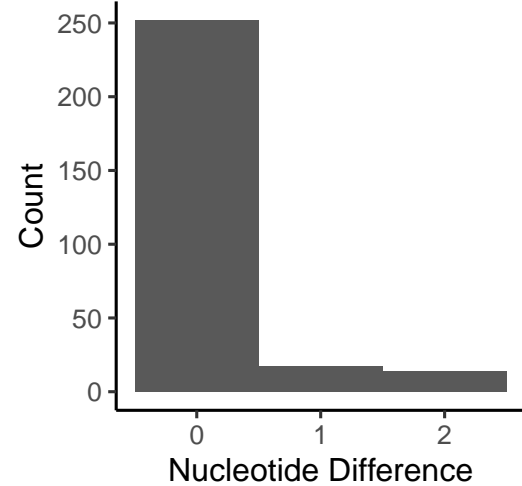
### IGHV4-39\*02

4 sequences assigned  
No exact matches.



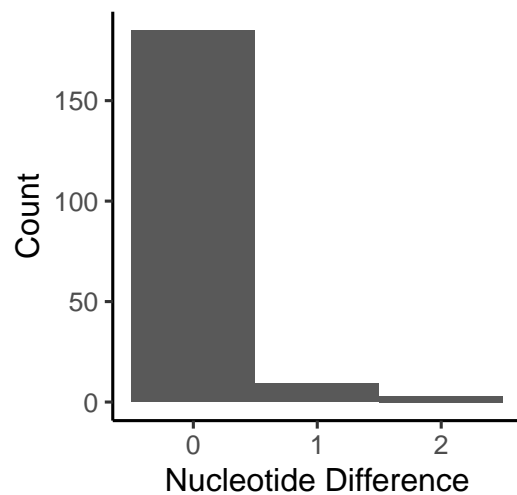
### IGHV6-1\*01\_02

283 sequences assigned  
252 (89%) exact matches, in which:  
251 unique CDR3  
6 unique J



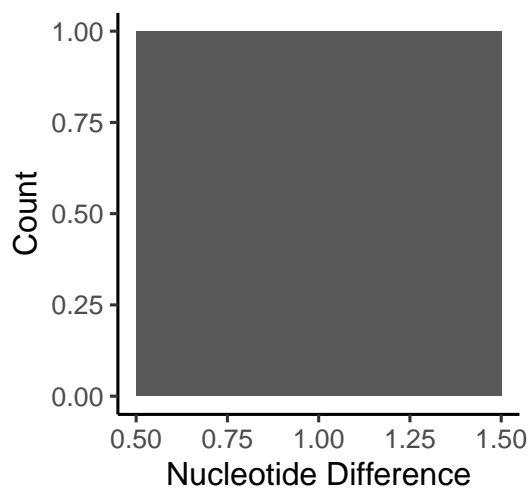
### IGHV4-38-2\*01

197 sequences assigned  
185 (93.9%) exact matches, in which:  
185 unique CDR3  
6 unique J



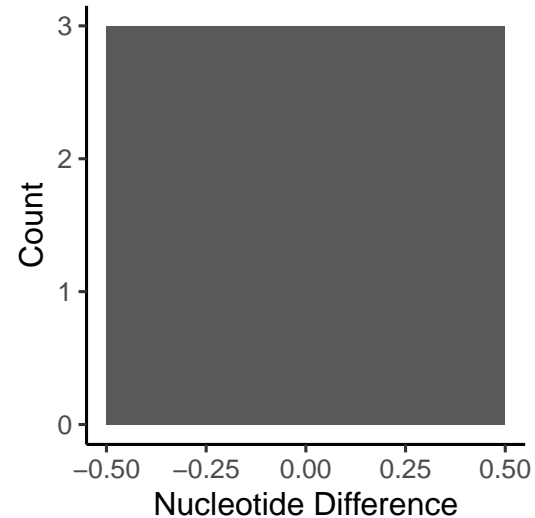
### IGHV4-59\*12

1 sequences assigned  
No exact matches.



### IGHV7-4-1\*01

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



IGHV3-66\*04\_A193G

