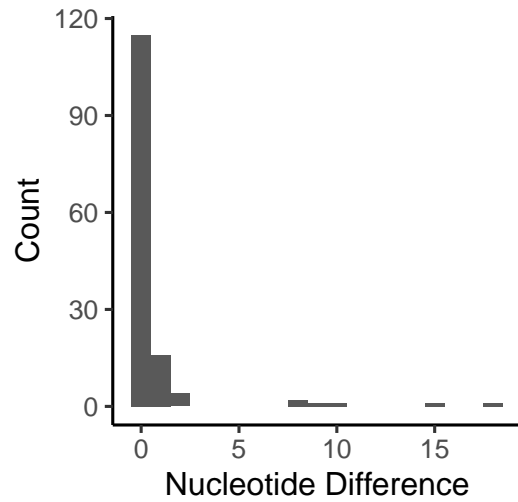


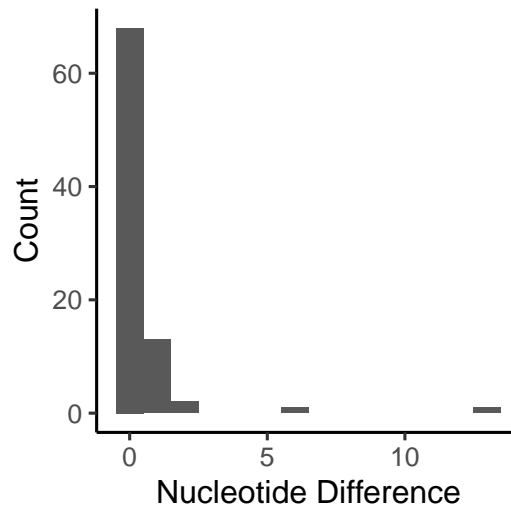
### IGHV1-2\*02

141 sequences assigned  
115 (81.6%) exact matches, in which:  
115 unique CDR3  
6 unique J



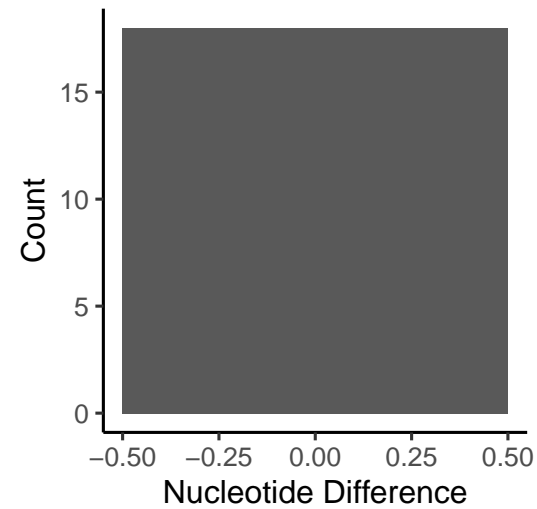
### IGHV1-24\*01

85 sequences assigned  
68 (80%) exact matches, in which:  
68 unique CDR3  
5 unique J



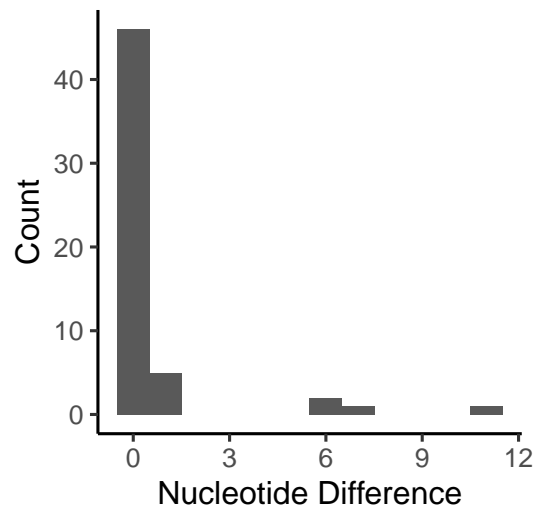
### IGHV1-58\*02

18 sequences assigned  
18 (100%) exact matches, in which:  
18 unique CDR3  
5 unique J



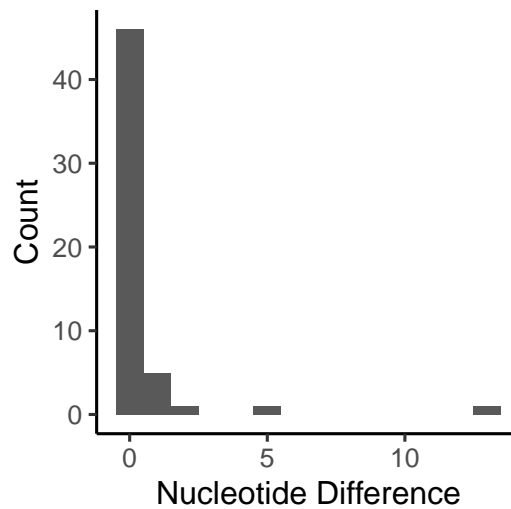
### IGHV1-3\*01

55 sequences assigned  
46 (83.6%) exact matches, in which:  
46 unique CDR3  
6 unique J



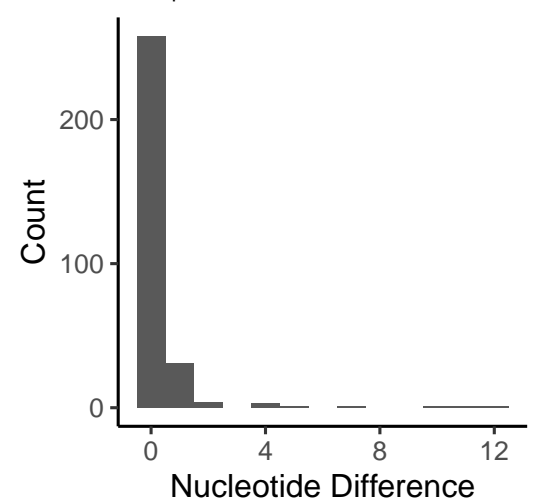
### IGHV1-46\*01

54 sequences assigned  
46 (85.2%) exact matches, in which:  
46 unique CDR3  
6 unique J



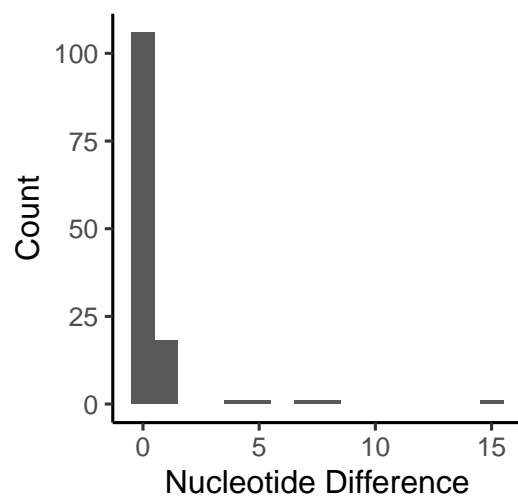
### IGHV1-69\*04

302 sequences assigned  
258 (85.4%) exact matches, in which:  
257 unique CDR3  
6 unique J



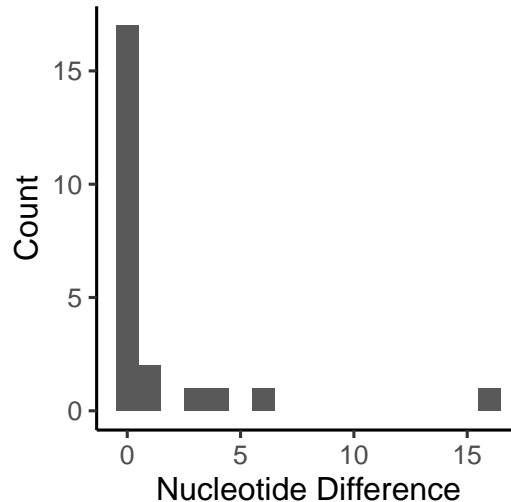
### IGHV1-18\*01

130 sequences assigned  
106 (81.5%) exact matches, in which:  
106 unique CDR3  
5 unique J



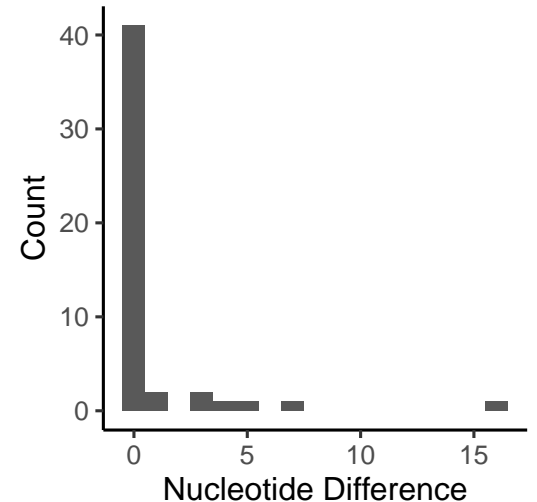
### IGHV1-46\*03

23 sequences assigned  
17 (73.9%) exact matches, in which:  
17 unique CDR3  
4 unique J



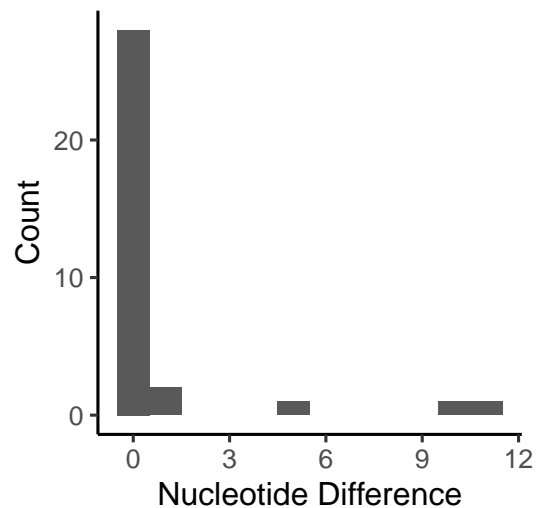
### IGHV2-5\*02

49 sequences assigned  
41 (83.7%) exact matches, in which:  
41 unique CDR3  
4 unique J



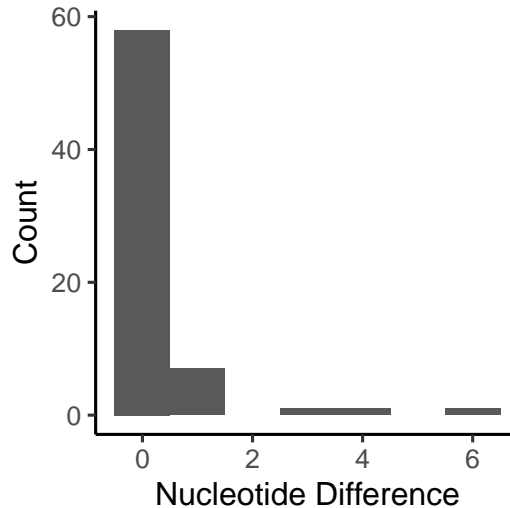
### IGHV2-26\*01

33 sequences assigned  
28 (84.8%) exact matches, in which:  
28 unique CDR3  
5 unique J



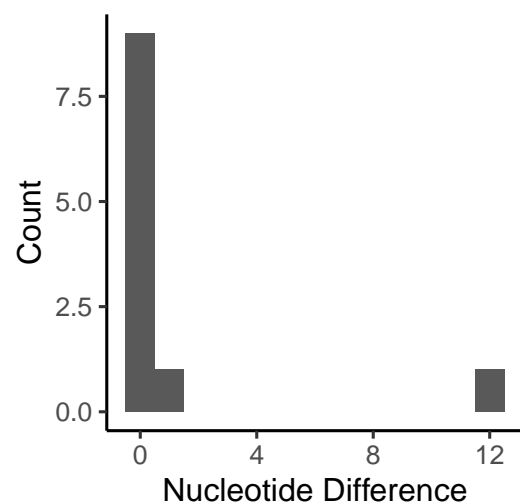
### IGHV3-7\*03

68 sequences assigned  
58 (85.3%) exact matches, in which:  
58 unique CDR3  
6 unique J



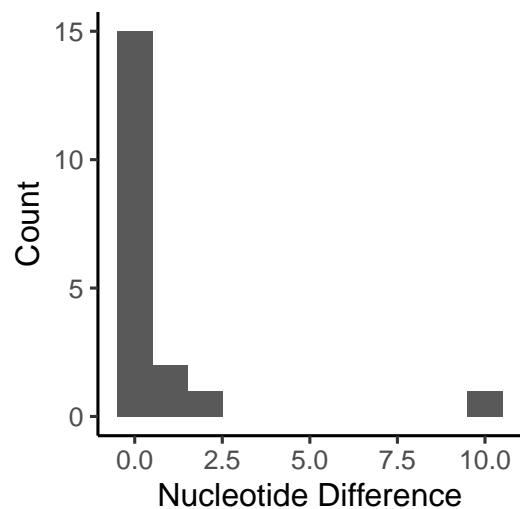
### IGHV3-13\*05

11 sequences assigned  
9 (81.8%) exact matches, in which:  
9 unique CDR3  
4 unique J



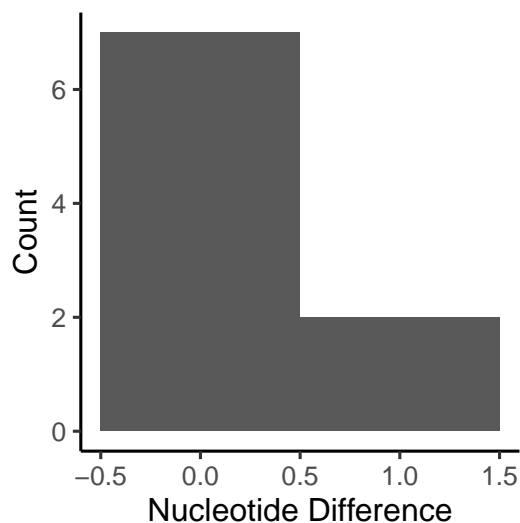
### IGHV2-70\*15

19 sequences assigned  
15 (78.9%) exact matches, in which:  
15 unique CDR3  
4 unique J



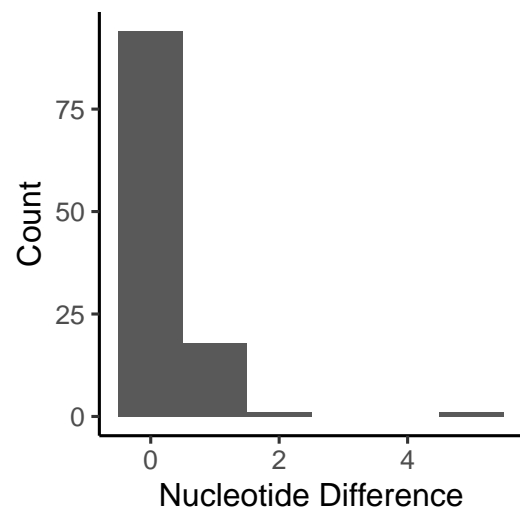
### IGHV3-7\*03\_A131C

9 sequences assigned  
7 (77.8%) exact matches, in which:  
7 unique CDR3  
3 unique J



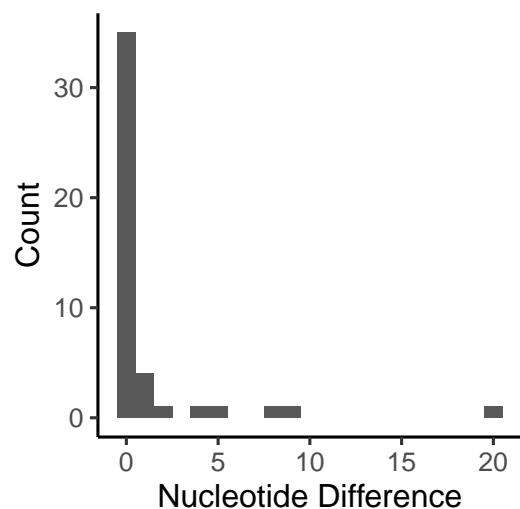
### IGHV3-15\*01

114 sequences assigned  
94 (82.5%) exact matches, in which:  
94 unique CDR3  
6 unique J



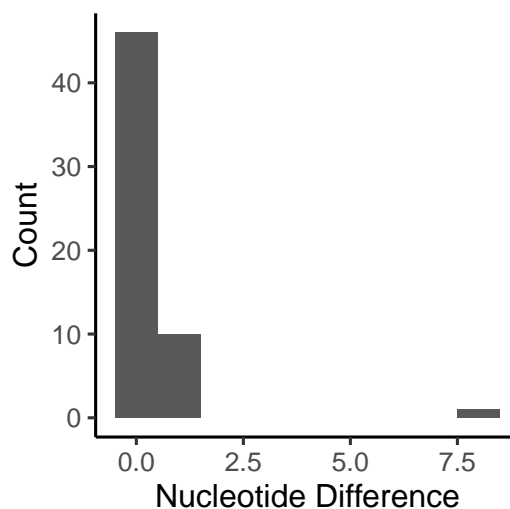
### IGHV3-7\*01

46 sequences assigned  
35 (76.1%) exact matches, in which:  
35 unique CDR3  
5 unique J



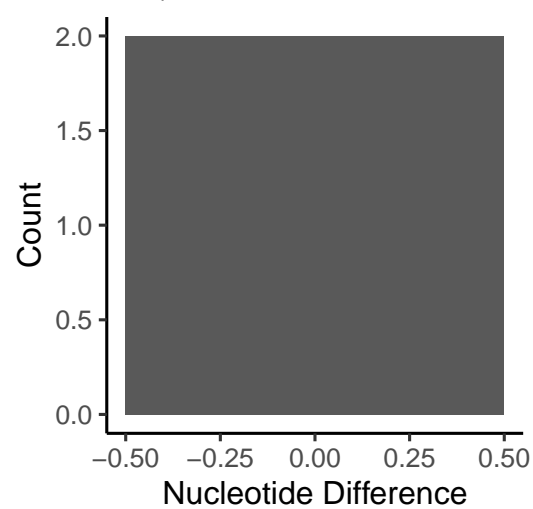
### IGHV3-11\*06

57 sequences assigned  
46 (80.7%) exact matches, in which:  
46 unique CDR3  
5 unique J



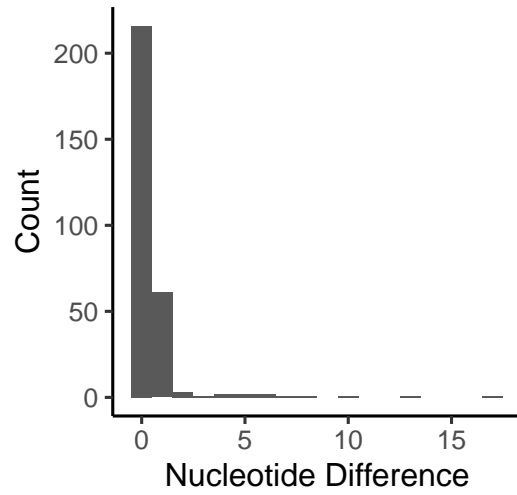
### IGHV3-20\*01

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



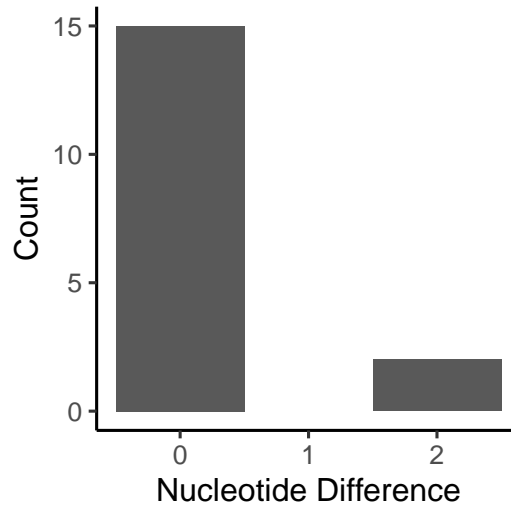
### IGHV3-21\*01

293 sequences assigned  
216 (73.7%) exact matches, in which:  
216 unique CDR3  
6 unique J



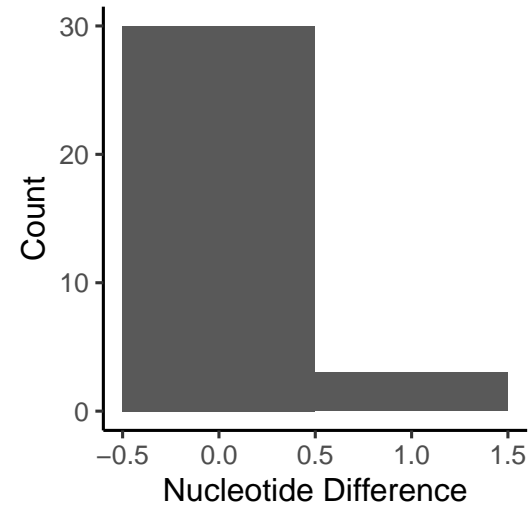
### IGHV3-43\*01

17 sequences assigned  
15 (88.2%) exact matches, in which:  
15 unique CDR3  
2 unique J



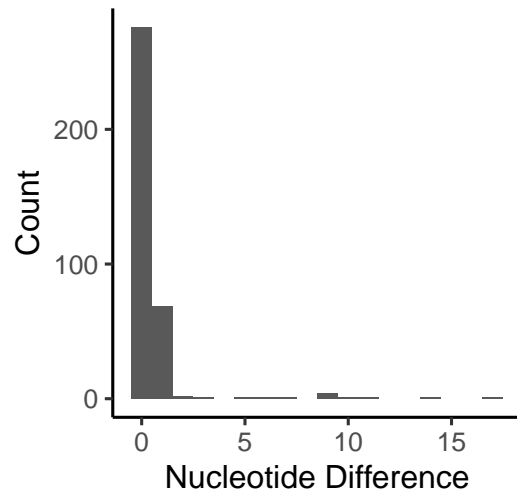
### IGHV3-53\*02

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



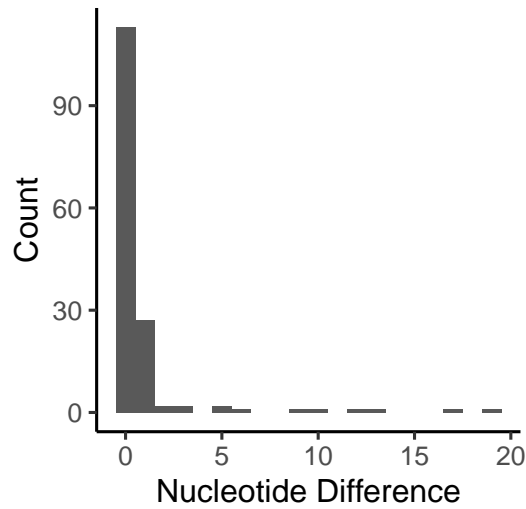
### IGHV3-30-3\*01

361 sequences assigned  
276 (76.5%) exact matches, in which:  
276 unique CDR3  
6 unique J



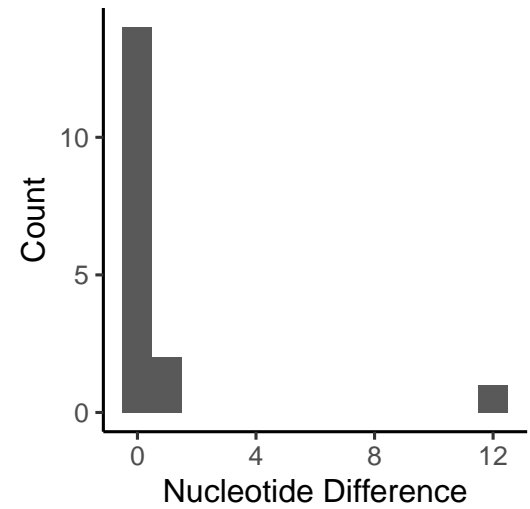
### IGHV3-48\*01

153 sequences assigned  
113 (73.9%) exact matches, in which:  
113 unique CDR3  
6 unique J



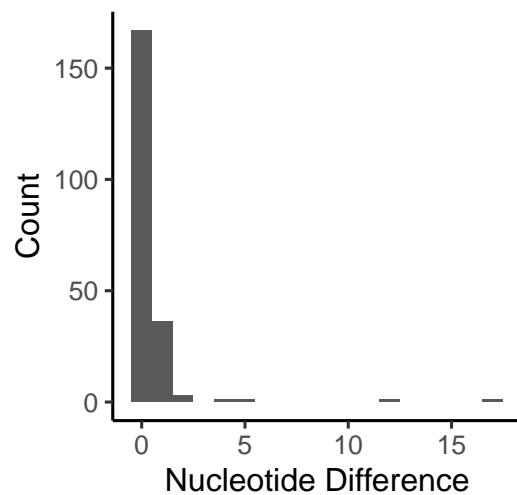
### IGHV3-64\*01

17 sequences assigned  
14 (82.4%) exact matches, in which:  
14 unique CDR3  
3 unique J



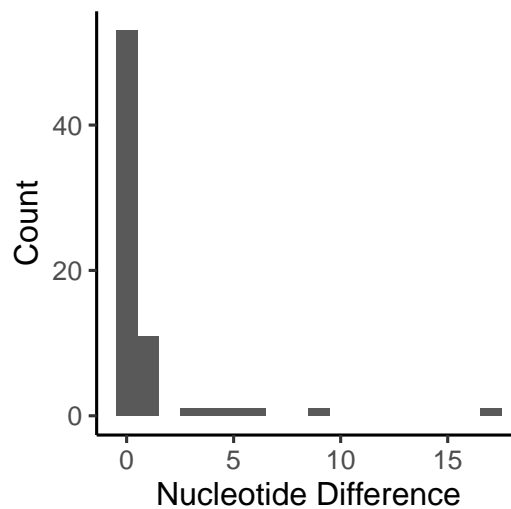
### IGHV3-33\*01

210 sequences assigned  
167 (79.5%) exact matches, in which:  
167 unique CDR3  
6 unique J



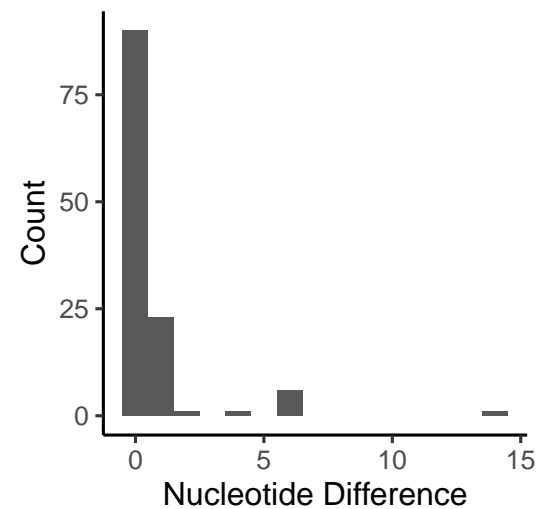
### IGHV3-49\*03

71 sequences assigned  
53 (74.6%) exact matches, in which:  
53 unique CDR3  
5 unique J



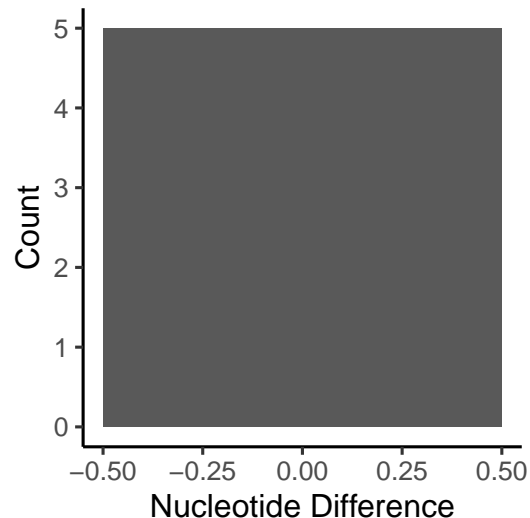
### IGHV3-66\*01

123 sequences assigned  
90 (73.2%) exact matches, in which:  
90 unique CDR3  
6 unique J



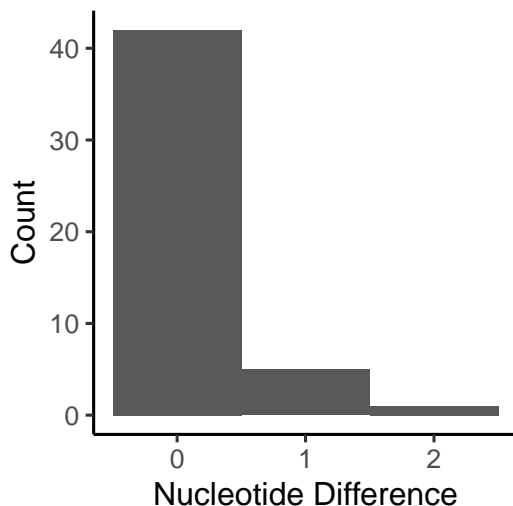
### IGHV3-72\*01

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



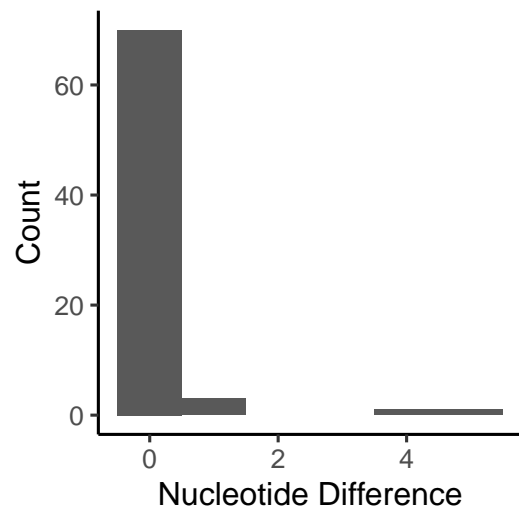
### IGHV3-64D\*06

48 sequences assigned  
42 (87.5%) exact matches, in which:  
42 unique CDR3  
5 unique J



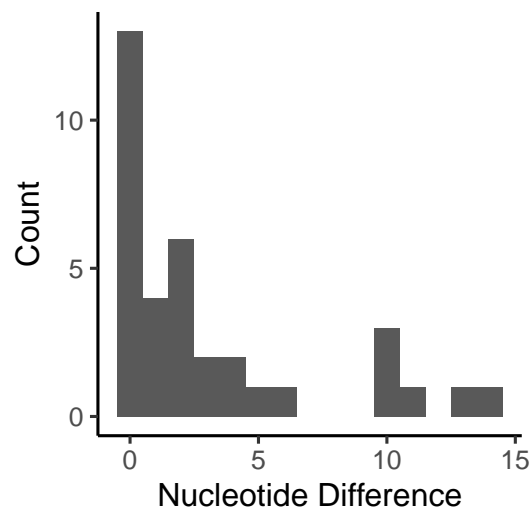
### IGHV4-30-4\*01

75 sequences assigned  
70 (93.3%) exact matches, in which:  
70 unique CDR3  
4 unique J



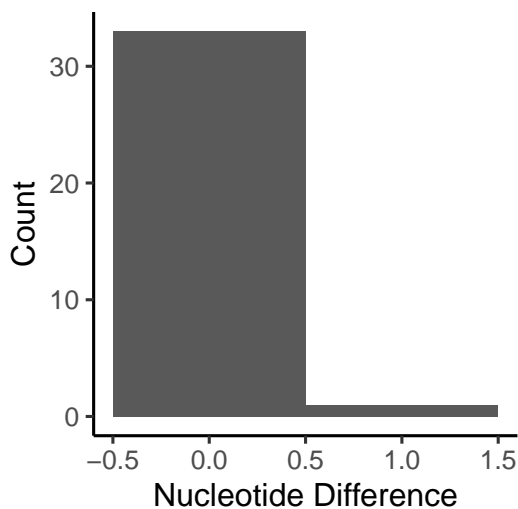
### IGHV3-73\*01

35 sequences assigned  
13 (37.1%) exact matches, in which:  
13 unique CDR3  
3 unique J



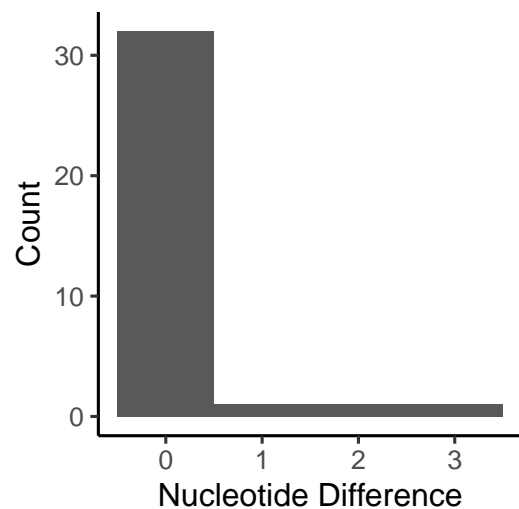
### IGHV4-4\*02

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



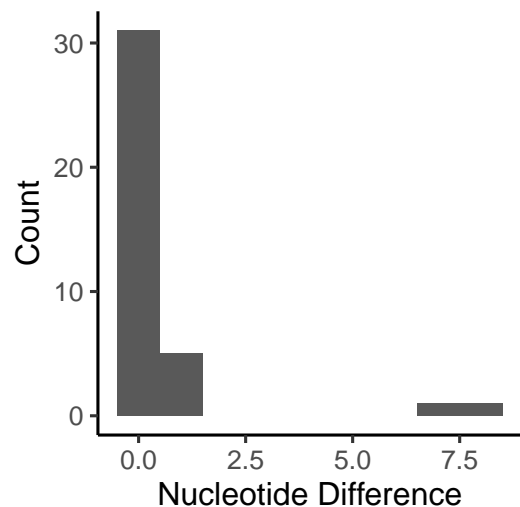
### IGHV4-30-2\*01

35 sequences assigned  
32 (91.4%) exact matches, in which:  
32 unique CDR3  
6 unique J



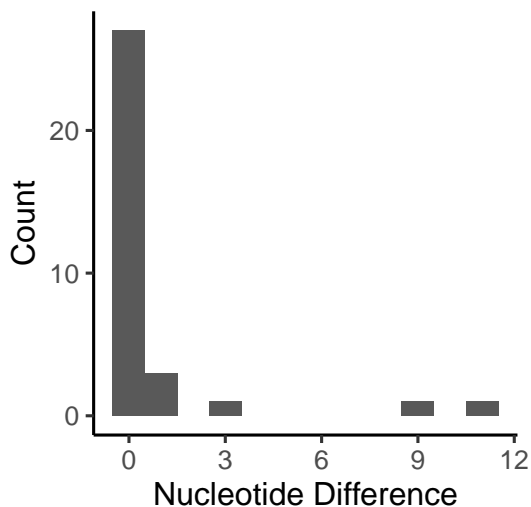
### IGHV3-74\*01

38 sequences assigned  
31 (81.6%) exact matches, in which:  
31 unique CDR3  
5 unique J



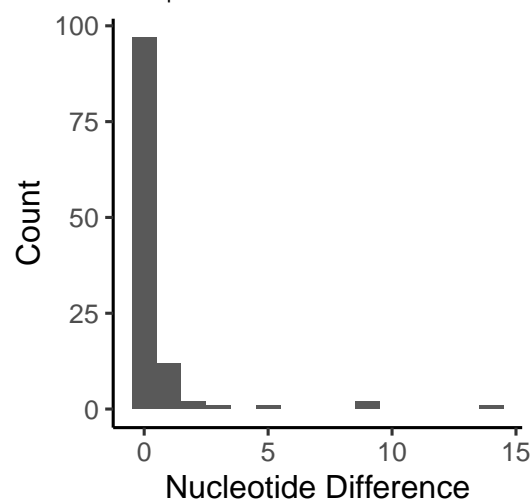
### IGHV4-4\*07

33 sequences assigned  
27 (81.8%) exact matches, in which:  
27 unique CDR3  
4 unique J



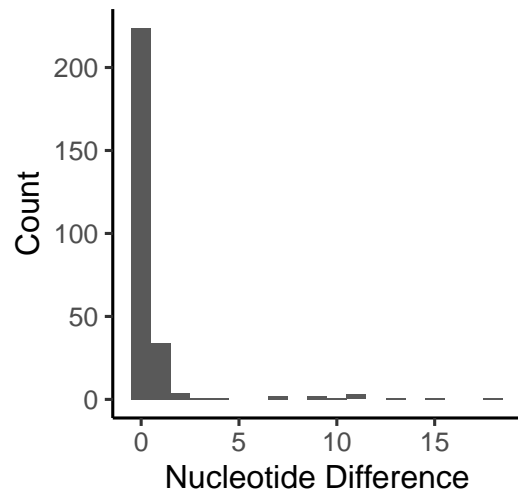
### IGHV4-31\*03

116 sequences assigned  
97 (83.6%) exact matches, in which:  
97 unique CDR3  
5 unique J



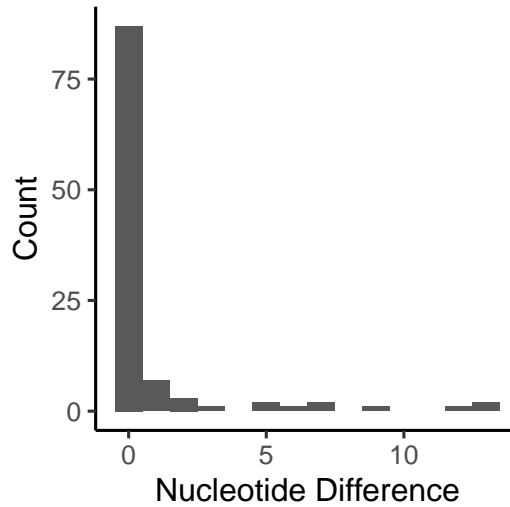
### IGHV4–34\*01

275 sequences assigned  
224 (81.5%) exact matches, in which:  
223 unique CDR3  
6 unique J



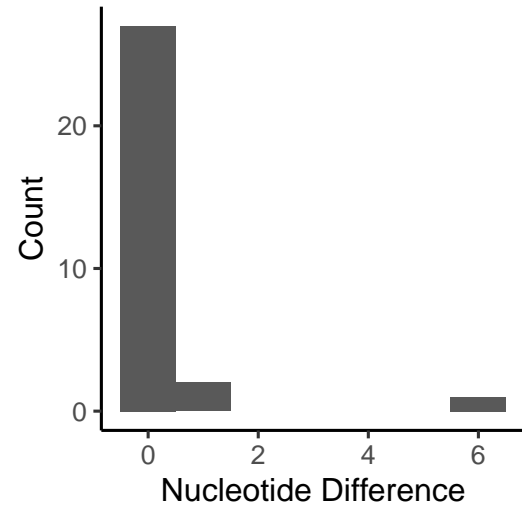
### IGHV4–59\*08

108 sequences assigned  
87 (80.6%) exact matches, in which:  
87 unique CDR3  
6 unique J



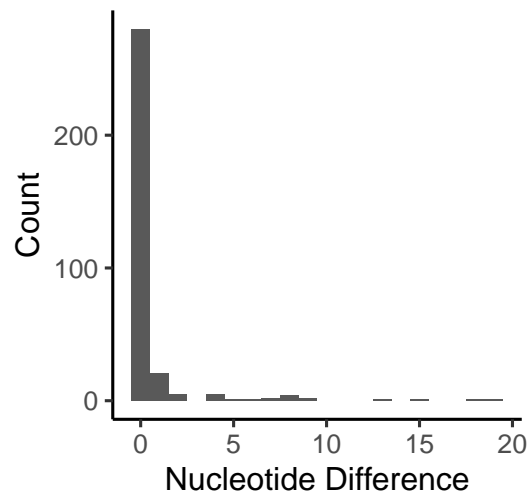
### IGHV6–1\*01

30 sequences assigned  
27 (90%) exact matches, in which:  
27 unique CDR3  
5 unique J



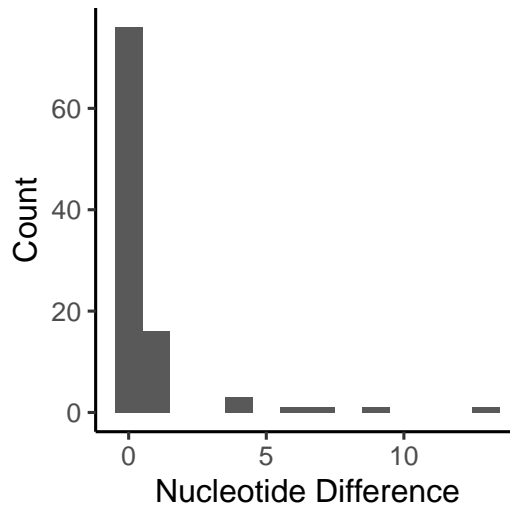
### IGHV4–39\*01

325 sequences assigned  
280 (86.2%) exact matches, in which:  
279 unique CDR3  
6 unique J



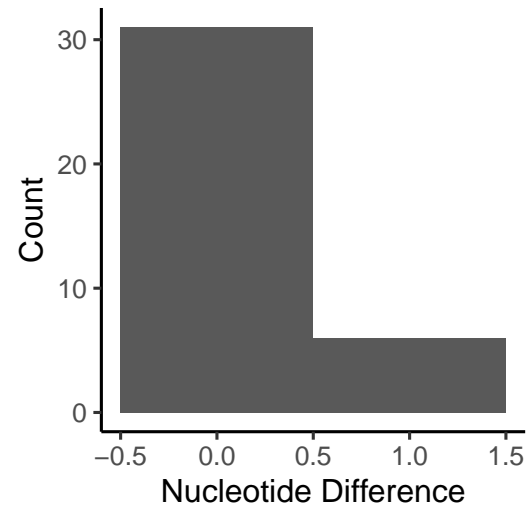
### IGHV5–10–1\*03

99 sequences assigned  
76 (76.8%) exact matches, in which:  
76 unique CDR3  
6 unique J



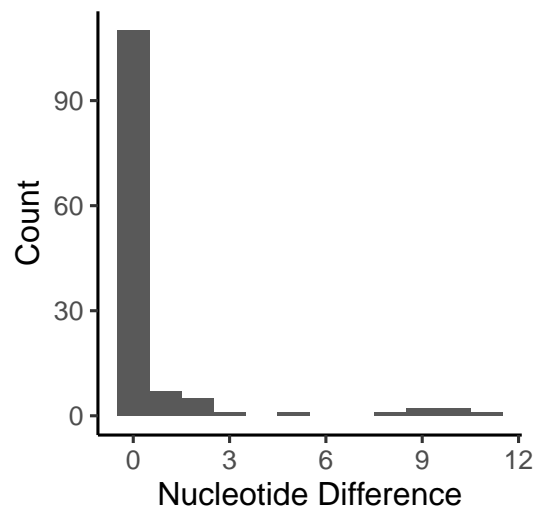
### IGHV7–4–1\*02

37 sequences assigned  
31 (83.8%) exact matches, in which:  
31 unique CDR3  
5 unique J



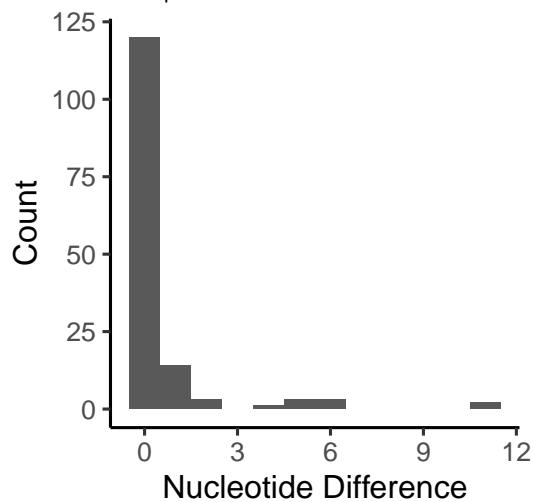
### IGHV4–59\*01

131 sequences assigned  
110 (84%) exact matches, in which:  
110 unique CDR3  
6 unique J



### IGHV5–51\*01\_C45G

146 sequences assigned  
120 (82.2%) exact matches, in which:  
120 unique CDR3  
6 unique J





Warning – no inferred sequences found.