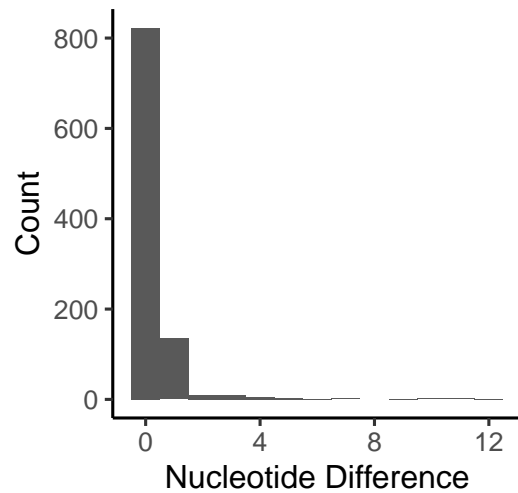


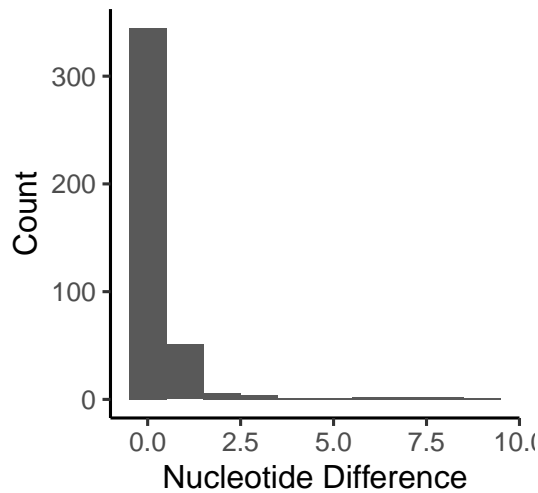
### IGKV1–5\*03

995 sequences assigned  
823 (82.7%) exact matches, in which:  
685 unique CDR3  
6 unique J



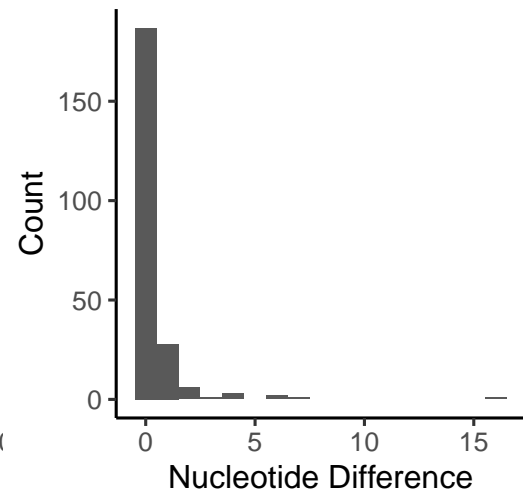
### IGKV1–9\*01

415 sequences assigned  
345 (83.1%) exact matches, in which:  
309 unique CDR3  
6 unique J



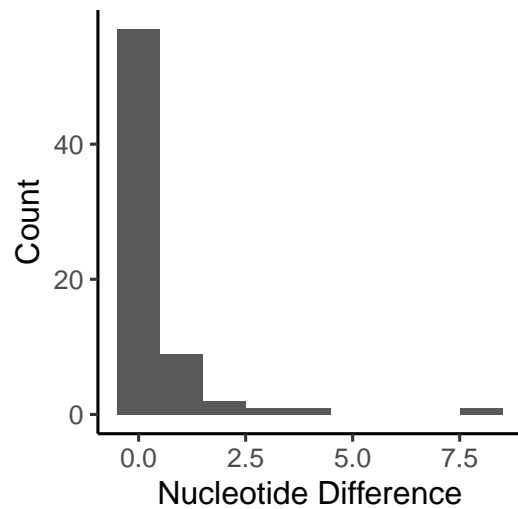
### IGKV1–27\*01

229 sequences assigned  
187 (81.7%) exact matches, in which:  
153 unique CDR3  
6 unique J



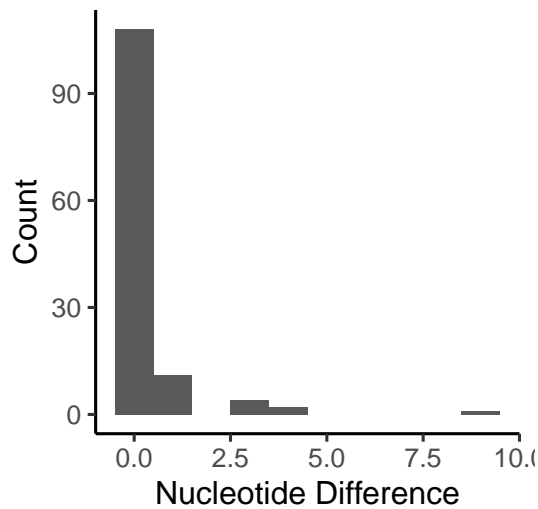
### IGKV1–6\*01

71 sequences assigned  
57 (80.3%) exact matches, in which:  
44 unique CDR3  
6 unique J



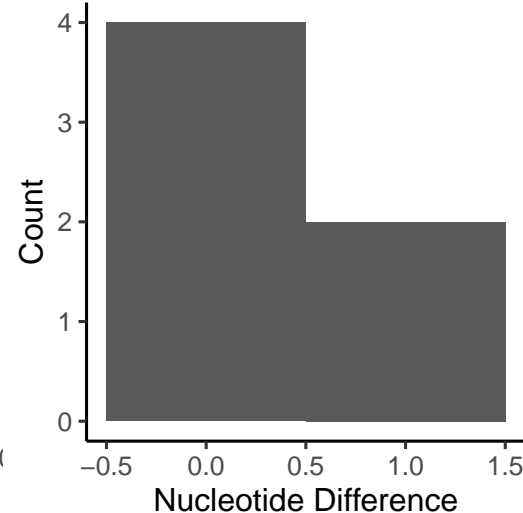
### IGKV1–16\*02

126 sequences assigned  
108 (85.7%) exact matches, in which:  
95 unique CDR3  
6 unique J



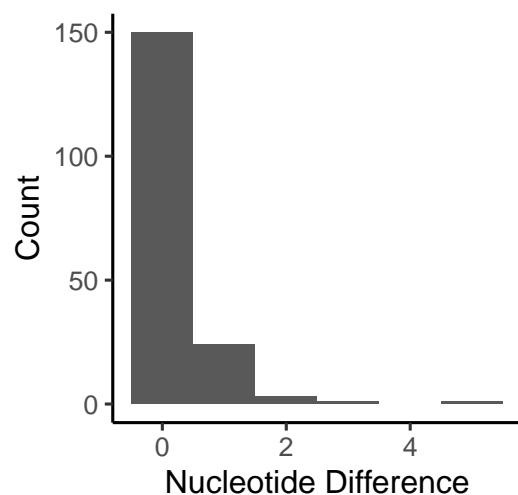
### IGKV2/OR22–4\*01

6 sequences assigned  
4 (66.7%) exact matches, in which:  
4 unique CDR3  
3 unique J



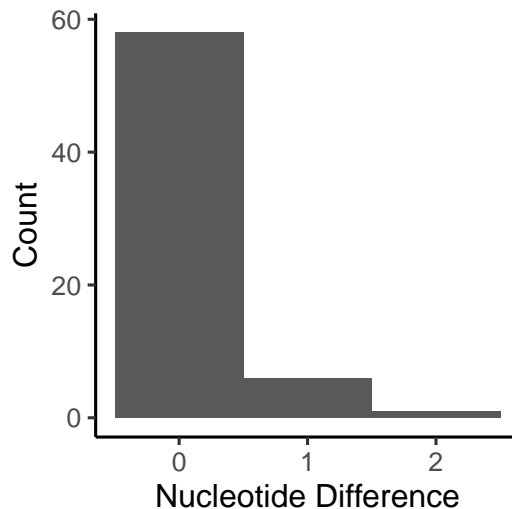
### IGKV1–8\*01

179 sequences assigned  
150 (83.8%) exact matches, in which:  
127 unique CDR3  
6 unique J



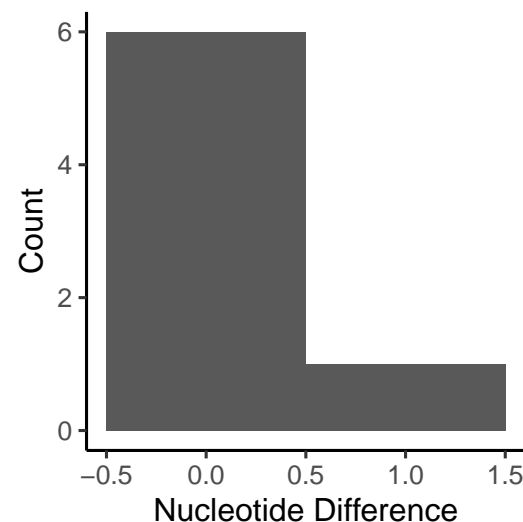
### IGKV1–17\*01

66 sequences assigned  
58 (87.9%) exact matches, in which:  
53 unique CDR3  
5 unique J



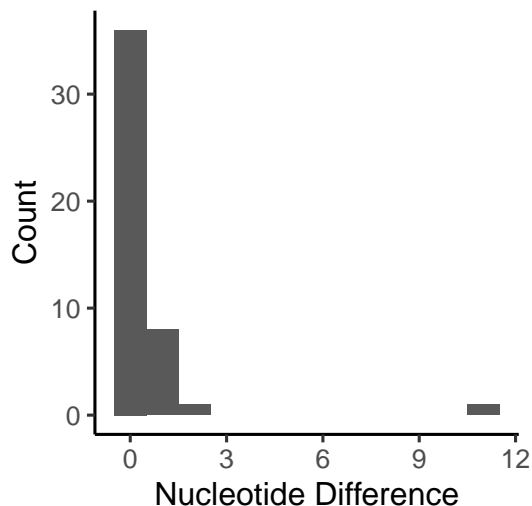
### IGKV2–18\*01

7 sequences assigned  
6 (85.7%) exact matches, in which:  
6 unique CDR3  
3 unique J



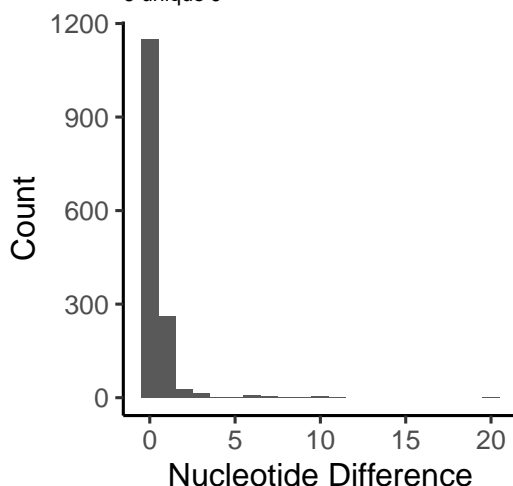
### IGKV2-24\*01

46 sequences assigned  
36 (78.3%) exact matches, in which:  
31 unique CDR3  
6 unique J



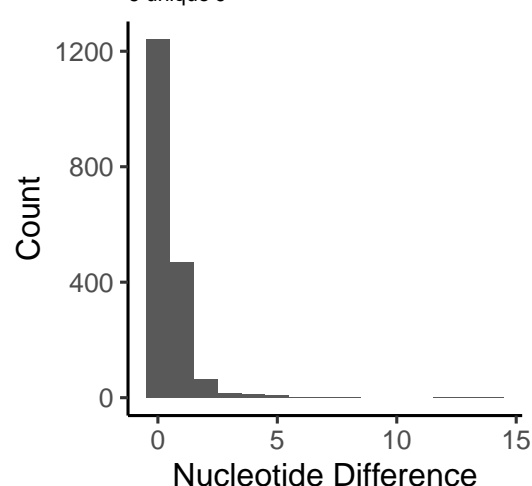
### IGKV3-11\*01

1479 sequences assigned  
1149 (77.7%) exact matches, in which:  
968 unique CDR3  
6 unique J



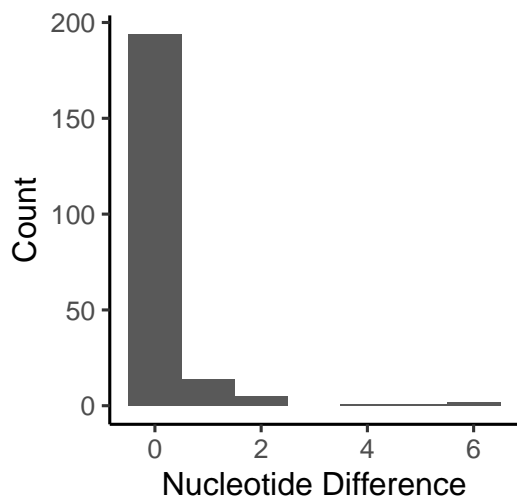
### IGKV3-20\*01

1823 sequences assigned  
1241 (68.1%) exact matches, in which:  
1021 unique CDR3  
6 unique J



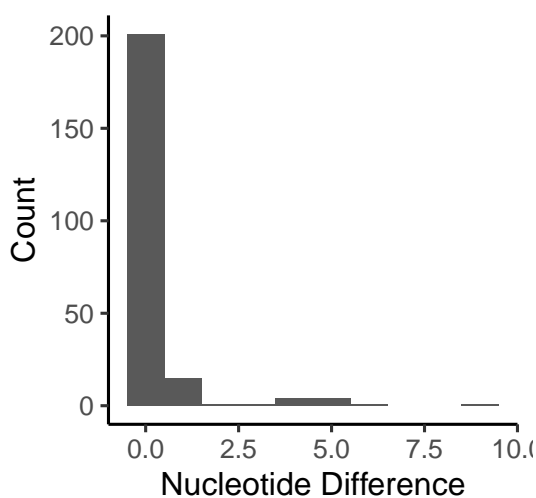
### IGKV2-30\*01

217 sequences assigned  
194 (89.4%) exact matches, in which:  
180 unique CDR3  
6 unique J



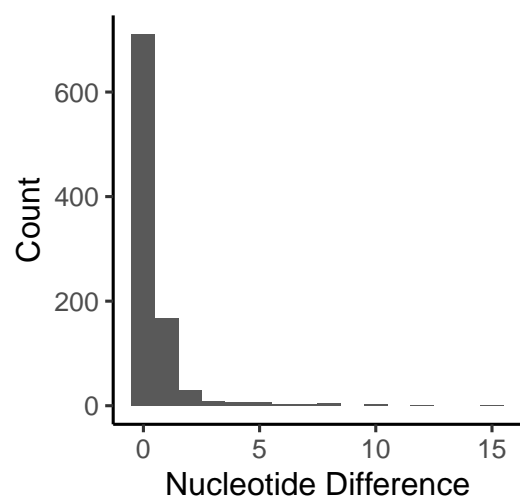
### IGKV3-11\*01\_A223C

228 sequences assigned  
201 (88.2%) exact matches, in which:  
198 unique CDR3  
6 unique J



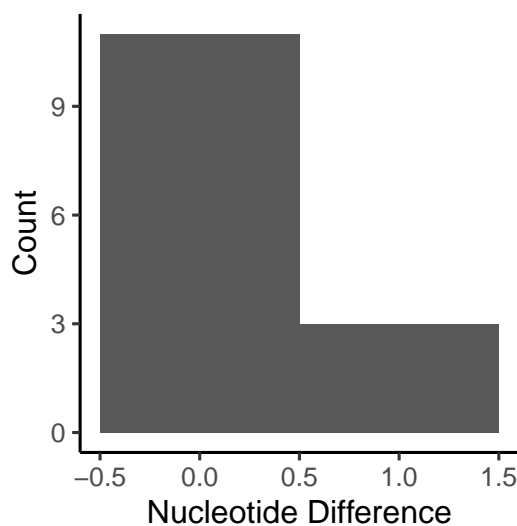
### IGKV4-1\*01

943 sequences assigned  
711 (75.4%) exact matches, in which:  
566 unique CDR3  
6 unique J



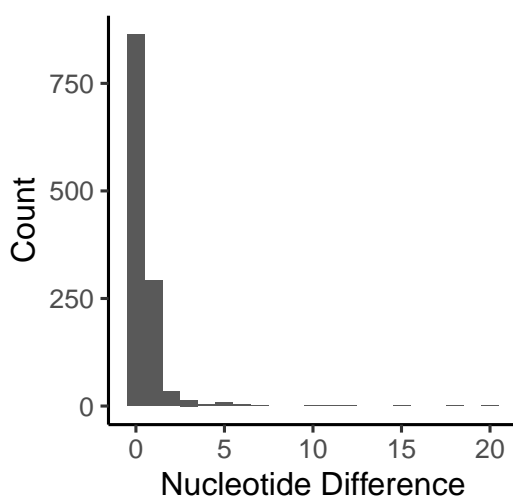
### IGKV3-7\*04

14 sequences assigned  
11 (78.6%) exact matches, in which:  
11 unique CDR3  
5 unique J



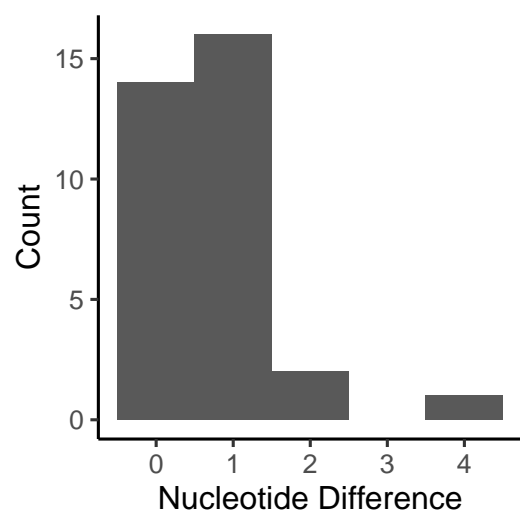
### IGKV3-15\*01

1230 sequences assigned  
864 (70.2%) exact matches, in which:  
701 unique CDR3  
6 unique J



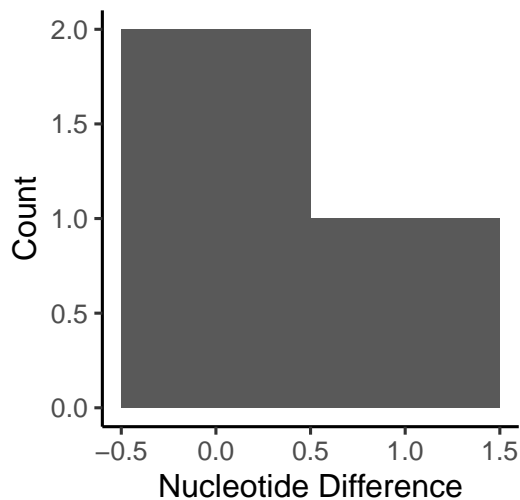
### IGKV5-2\*01

33 sequences assigned  
14 (42.4%) exact matches, in which:  
14 unique CDR3  
4 unique J



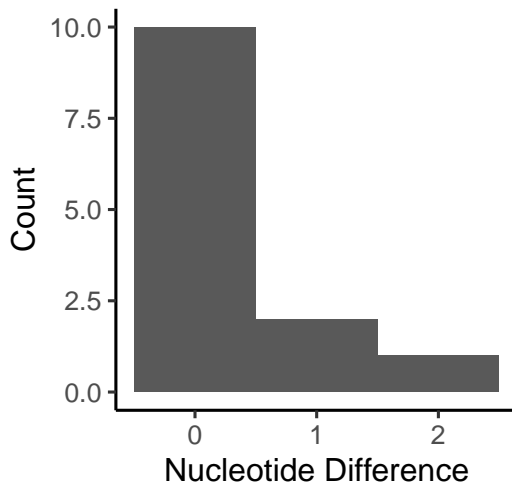
### IGKV7-3\*01

3 sequences assigned  
2 (66.7%) exact matches, in which:  
2 unique CDR3  
2 unique J



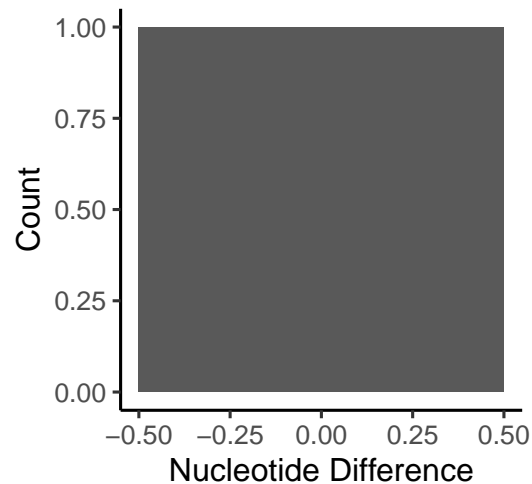
### IGKV3D-11\*01

13 sequences assigned  
10 (76.9%) exact matches, in which:  
10 unique CDR3  
3 unique J



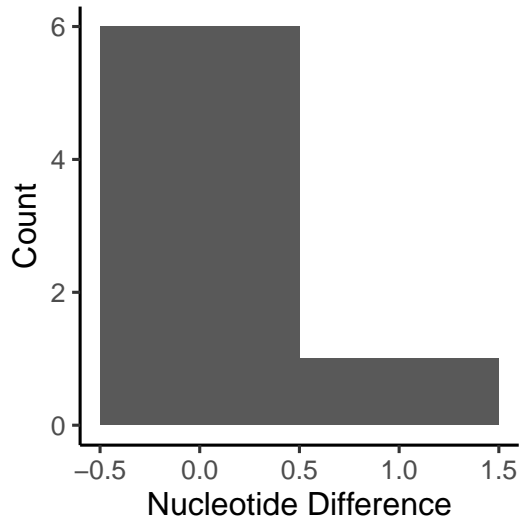
### IGKV1D-17\*01

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



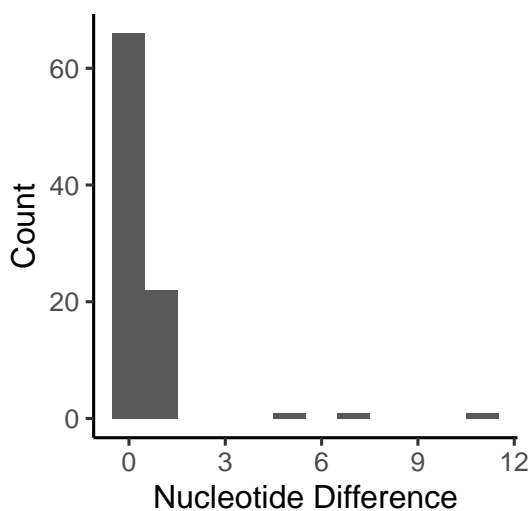
### IGKV3D-7\*01

7 sequences assigned  
6 (85.7%) exact matches, in which:  
6 unique CDR3  
2 unique J



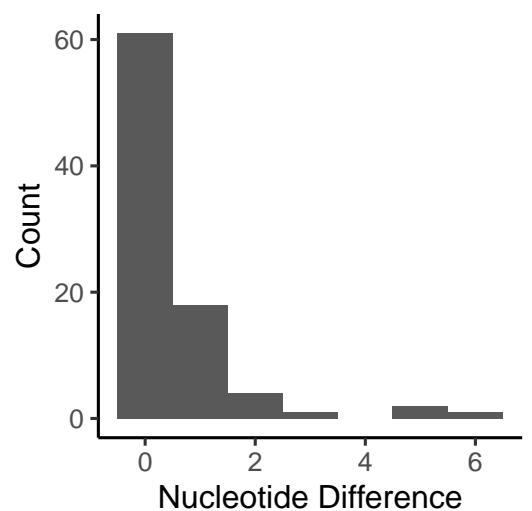
### IGKV3D-15\*01

91 sequences assigned  
66 (72.5%) exact matches, in which:  
58 unique CDR3  
6 unique J



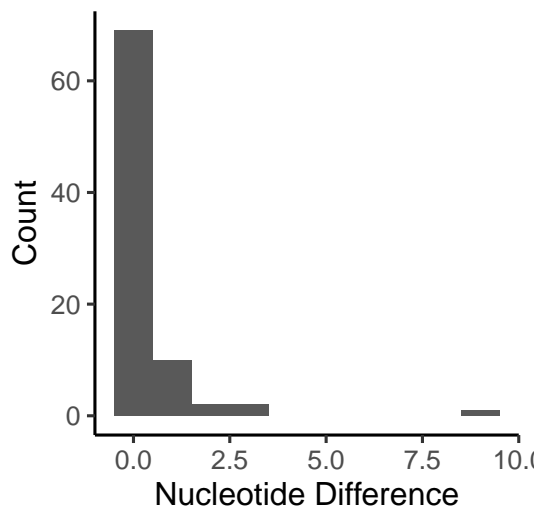
### IGKV3D-20\*01

87 sequences assigned  
61 (70.1%) exact matches, in which:  
56 unique CDR3  
5 unique J



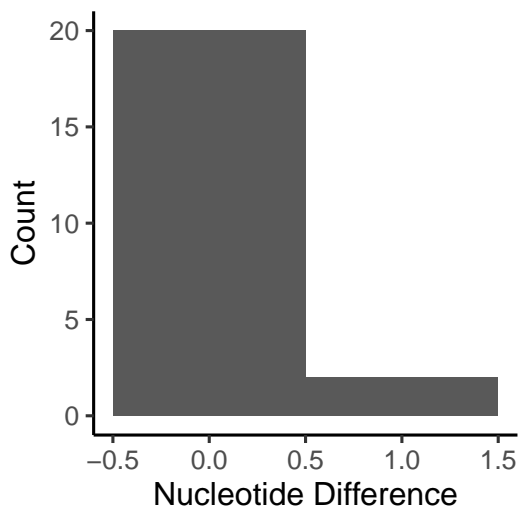
### IGKV1D-8\*01

84 sequences assigned  
69 (82.1%) exact matches, in which:  
53 unique CDR3  
6 unique J



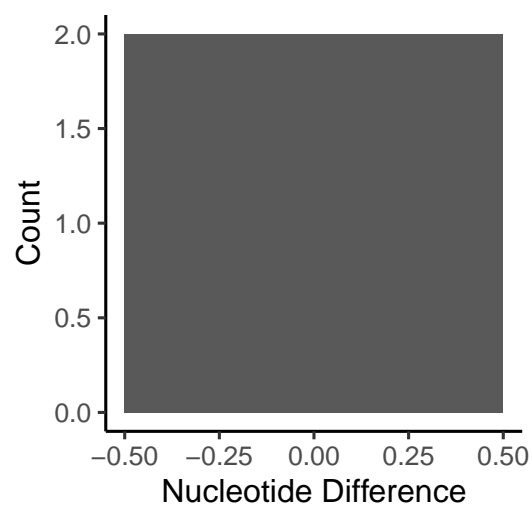
### IGKV1D-16\*01

22 sequences assigned  
20 (90.9%) exact matches, in which:  
20 unique CDR3  
4 unique J



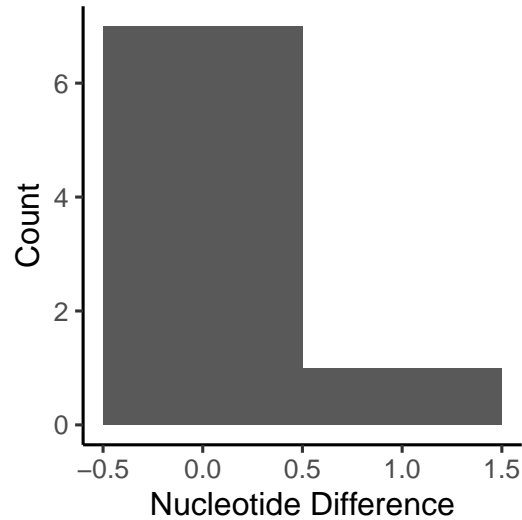
### IGKV2D-24\*01

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



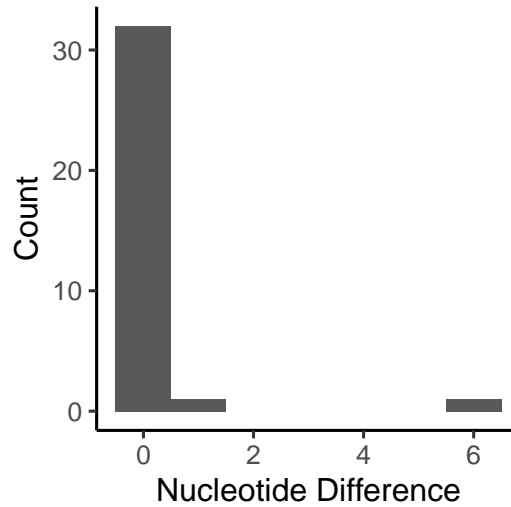
### IGKV2D-26\*03

8 sequences assigned  
7 (87.5%) exact matches, in which:  
7 unique CDR3  
4 unique J



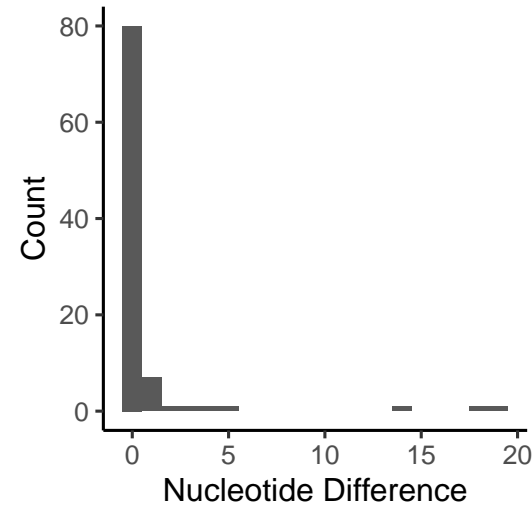
### IGKV1D-43\*01

34 sequences assigned  
32 (94.1%) exact matches, in which:  
32 unique CDR3  
4 unique J



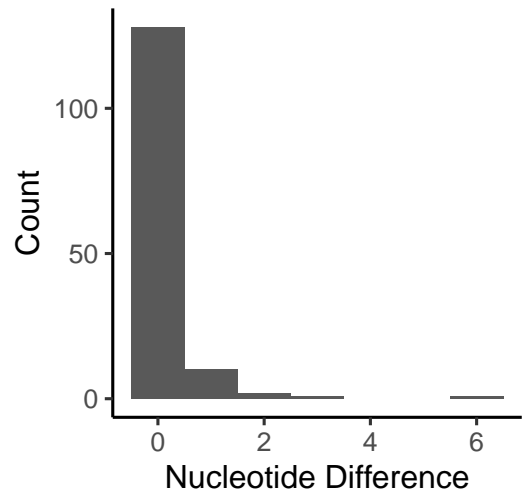
### IGKV1E-12\*03

96 sequences assigned  
80 (83.3%) exact matches, in which:  
70 unique CDR3  
6 unique J



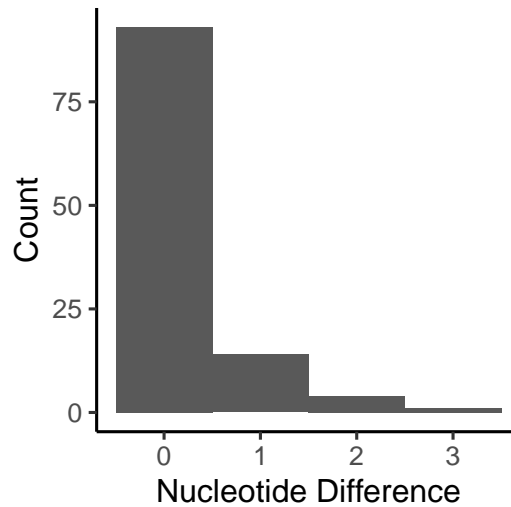
### IGKV2D-29\*01

142 sequences assigned  
128 (90.1%) exact matches, in which:  
119 unique CDR3  
6 unique J



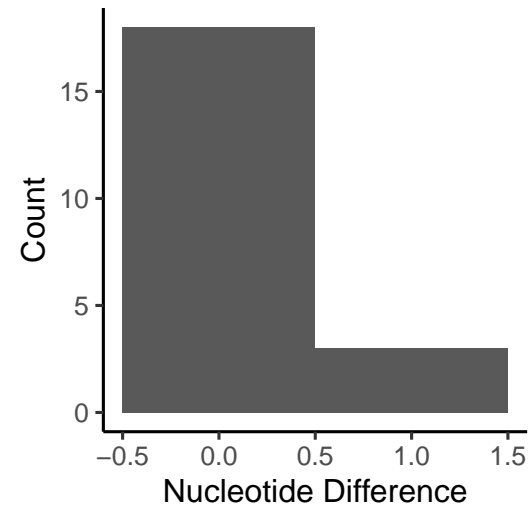
### IGKV1E-12\*01

112 sequences assigned  
93 (83%) exact matches, in which:  
75 unique CDR3  
6 unique J



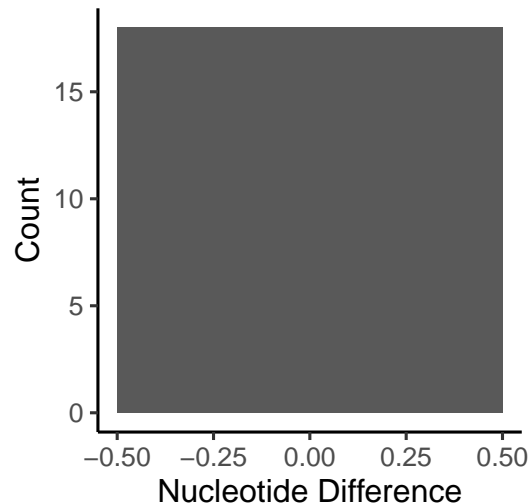
### IGKV1E-13\*03

21 sequences assigned  
18 (85.7%) exact matches, in which:  
17 unique CDR3  
5 unique J



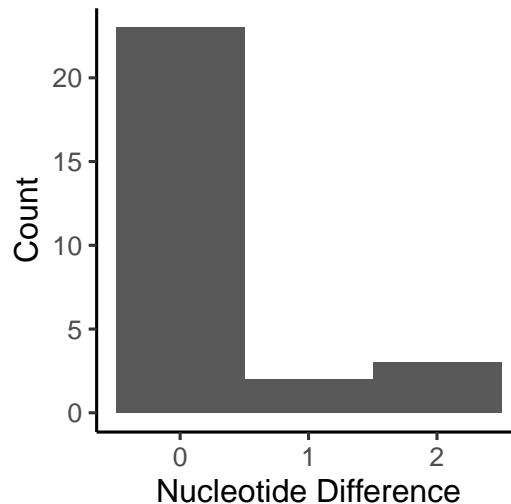
### IGKV2D-30\*01

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



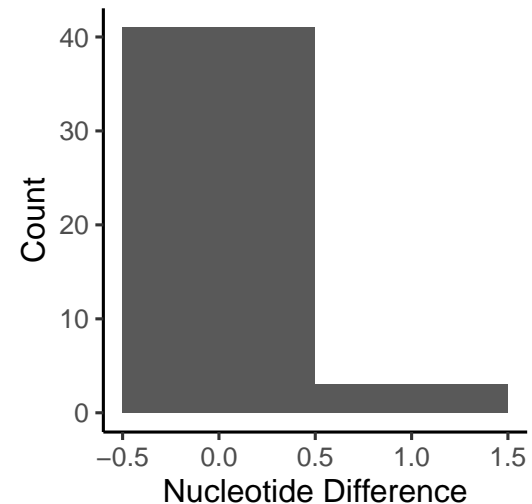
### IGKV1E-12\*02

28 sequences assigned  
23 (82.1%) exact matches, in which:  
20 unique CDR3  
6 unique J



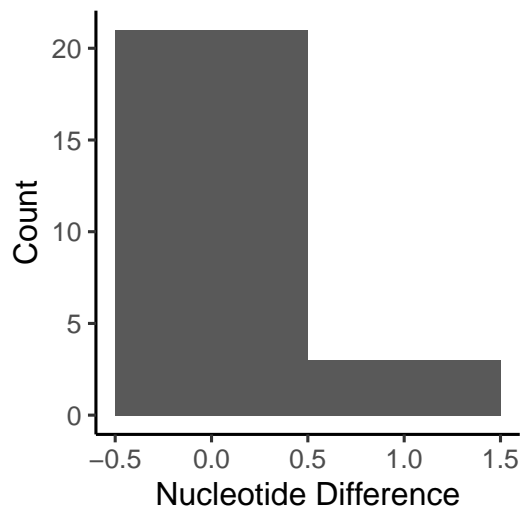
### IGKV6E-21\*01

44 sequences assigned  
41 (93.2%) exact matches, in which:  
35 unique CDR3  
5 unique J



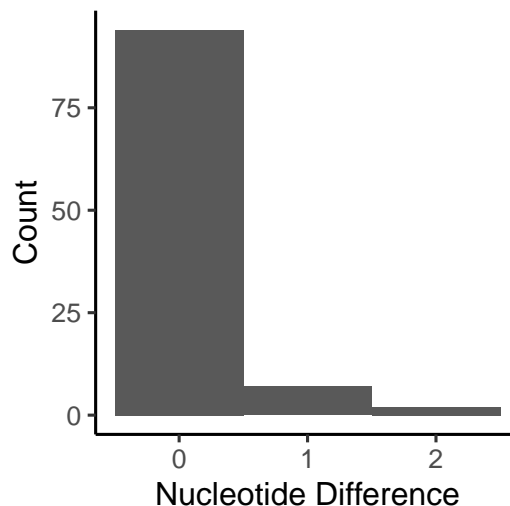
### IGKV6E-21\*03

24 sequences assigned  
21 (87.5%) exact matches, in which:  
19 unique CDR3  
5 unique J



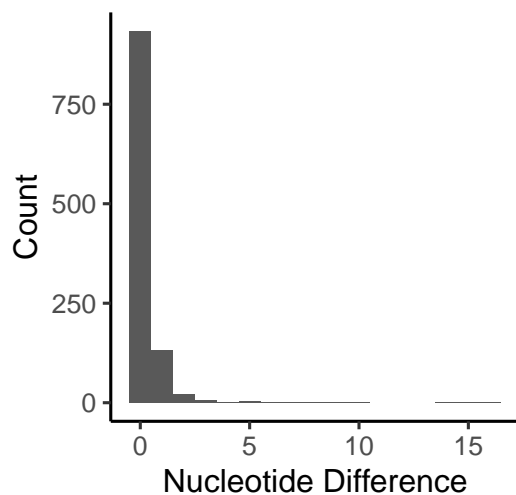
### IGKV1E-37\*01

103 sequences assigned  
94 (91.3%) exact matches, in which:  
84 unique CDR3  
6 unique J



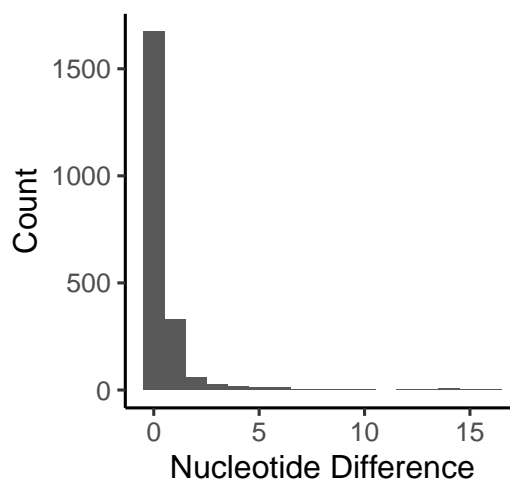
### IGKV2E-28\*01

1113 sequences assigned  
934 (83.9%) exact matches, in which:  
764 unique CDR3  
6 unique J



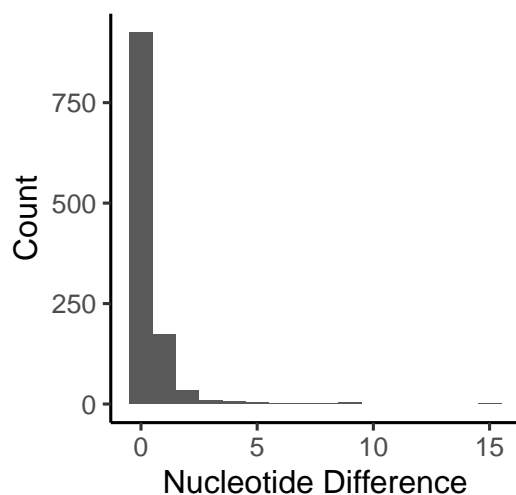
### IGKV1E-39\*01

2156 sequences assigned  
1673 (77.6%) exact matches, in which:  
1322 unique CDR3  
6 unique J



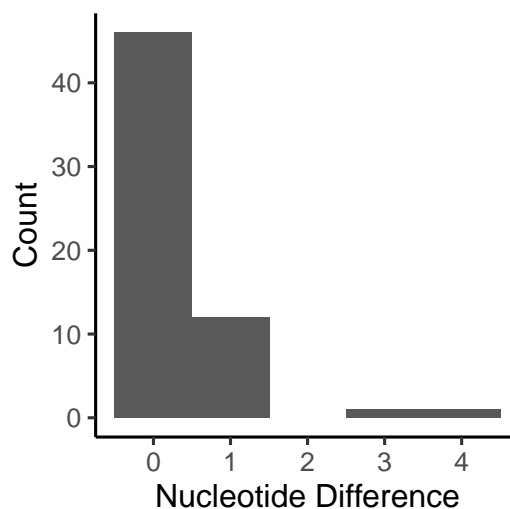
### IGKV1E-33\*01

1158 sequences assigned  
925 (79.9%) exact matches, in which:  
734 unique CDR3  
6 unique J

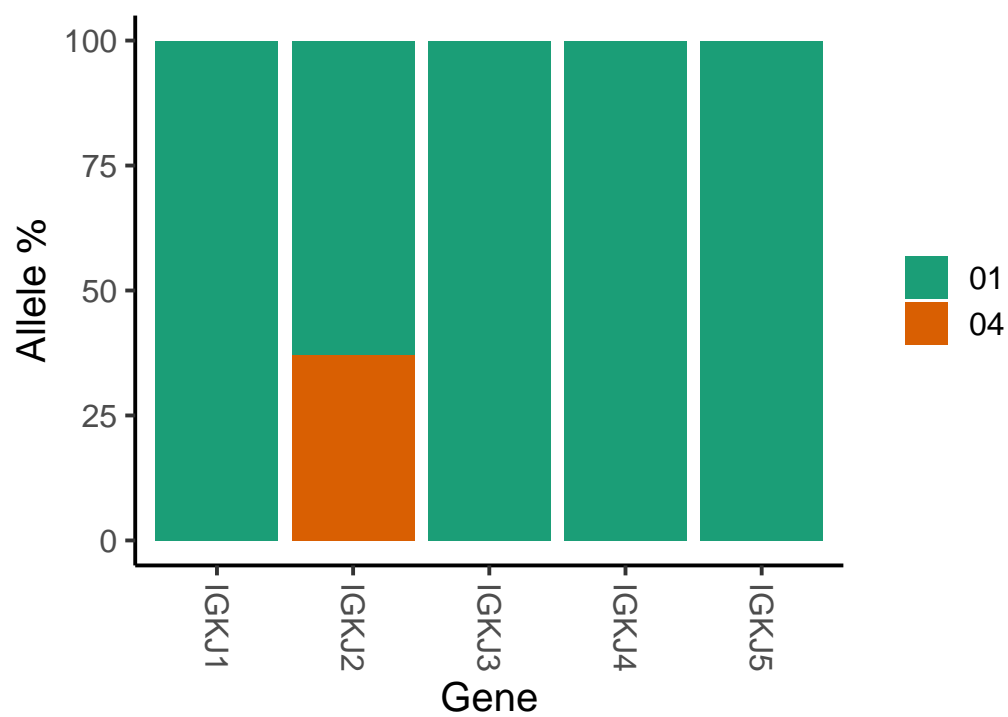


### IGKV2E-40\*01

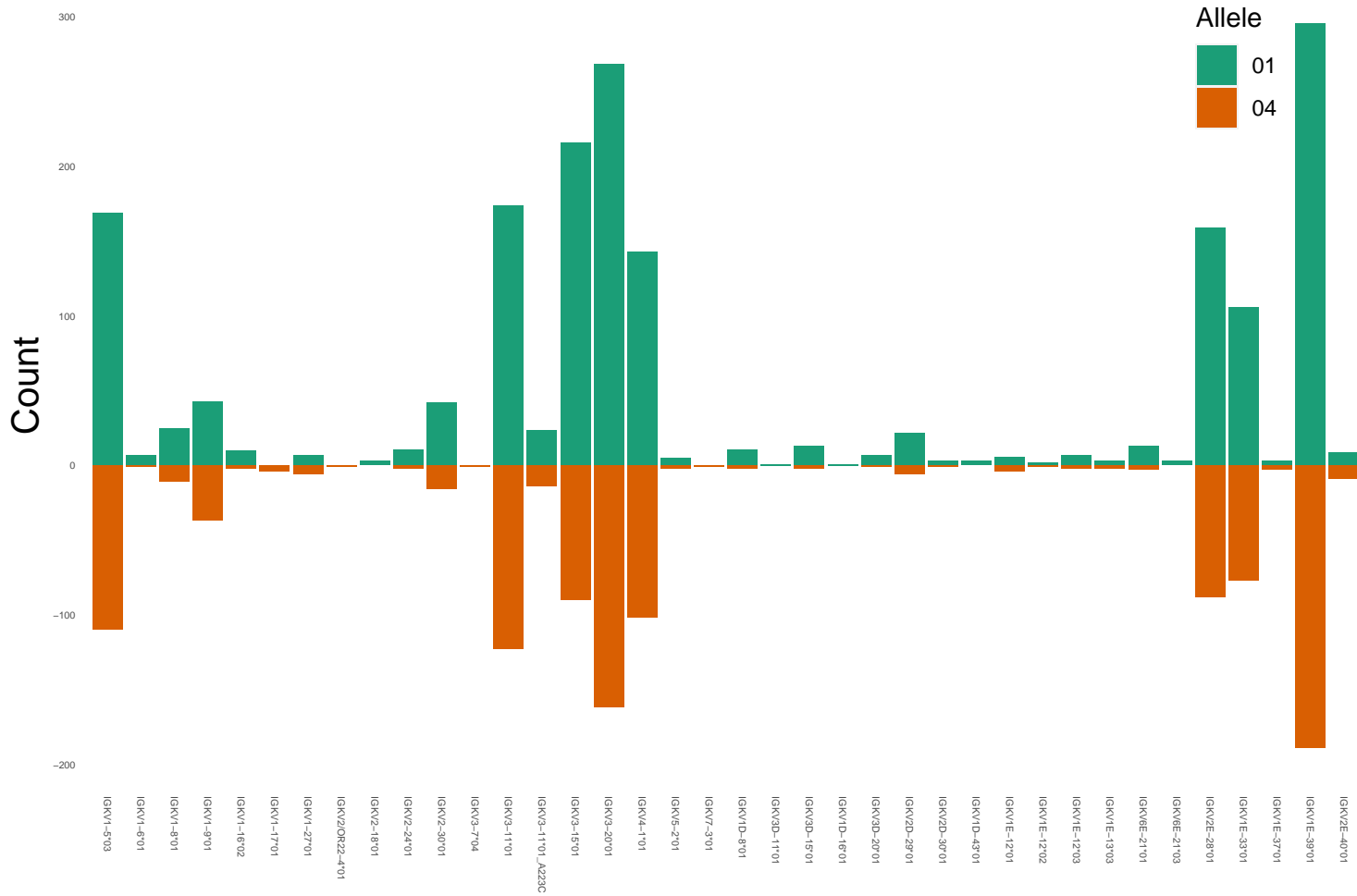
60 sequences assigned  
46 (76.7%) exact matches, in which:  
42 unique CDR3  
6 unique J



Allele Usage



Sequence Count by IGKJ2 allele usage



Warning – no inferred sequences found.