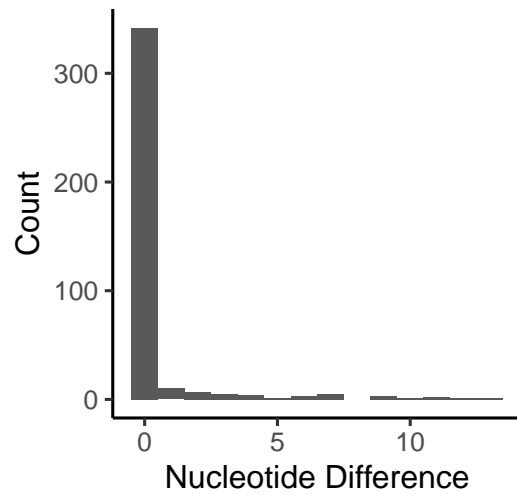


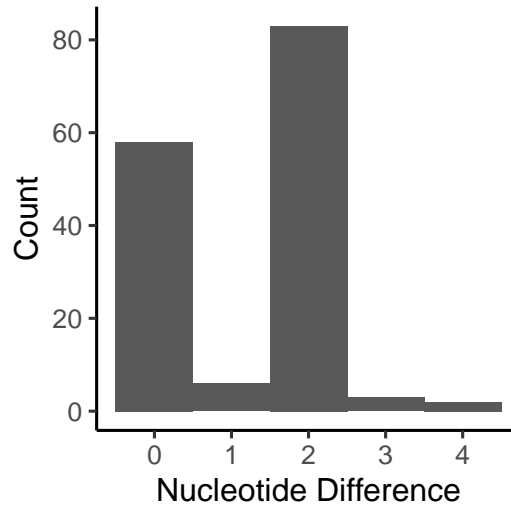
### IGKV1-5\*03

386 sequences assigned  
342 (88.6%) exact matches, in which:  
308 unique CDR3  
6 unique J



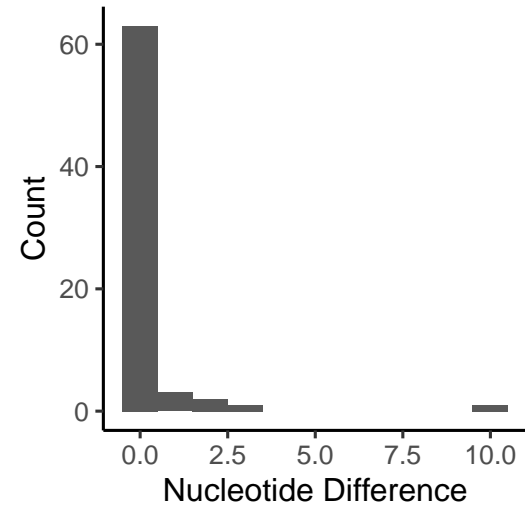
### IGKV1-8\*01

152 sequences assigned  
58 (38.2%) exact matches, in which:  
43 unique CDR3  
6 unique J



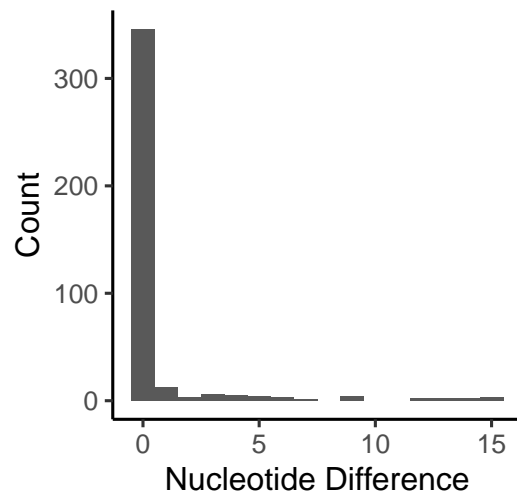
### IGKV1-17\*01

70 sequences assigned  
63 (90%) exact matches, in which:  
55 unique CDR3  
5 unique J



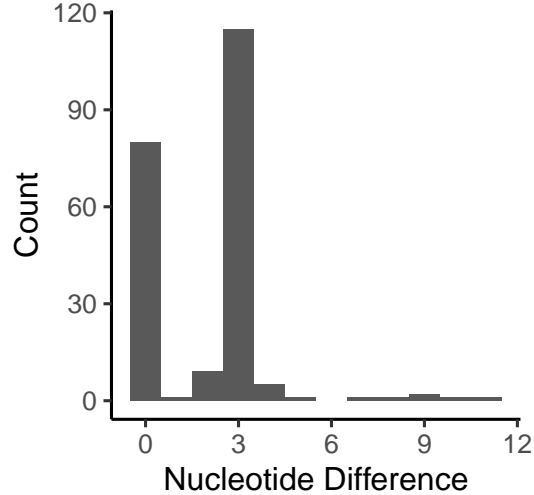
### IGKV1-5\*03\_G171A

394 sequences assigned  
346 (87.8%) exact matches, in which:  
324 unique CDR3  
6 unique J



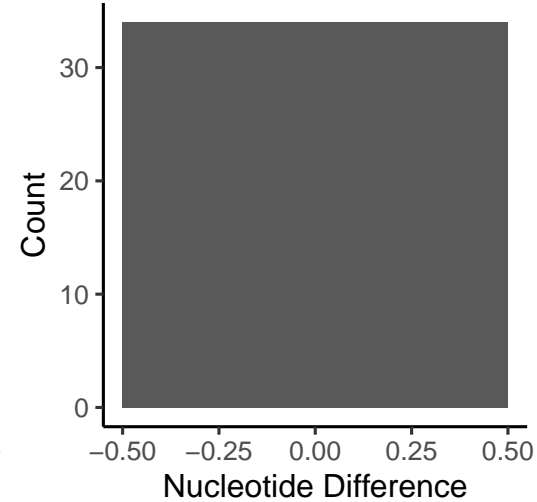
### IGKV1-9\*01

217 sequences assigned  
80 (36.9%) exact matches, in which:  
69 unique CDR3  
5 unique J



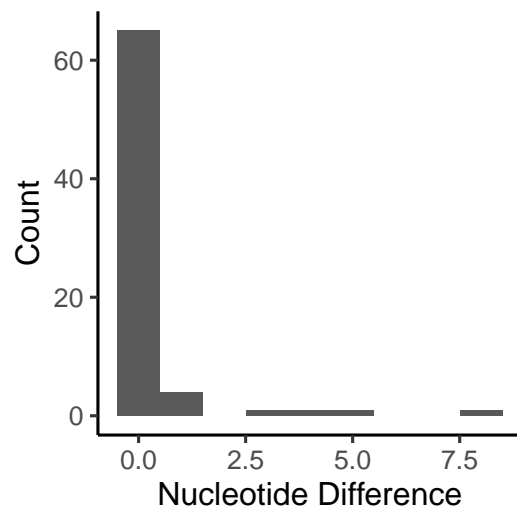
### IGKV1-17\*03

34 sequences assigned  
34 (100%) exact matches, in which:  
28 unique CDR3  
5 unique J



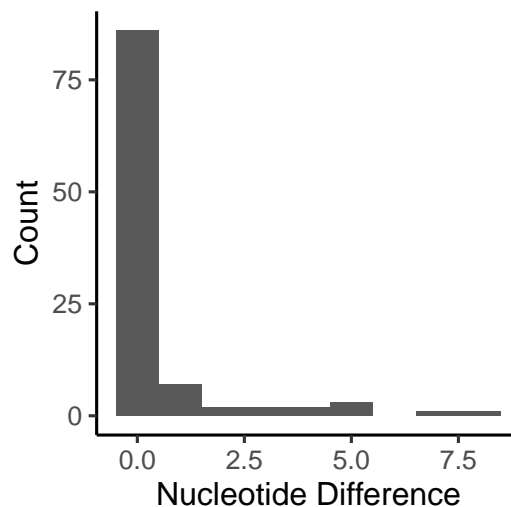
### IGKV1-6\*01

73 sequences assigned  
65 (89%) exact matches, in which:  
46 unique CDR3  
6 unique J



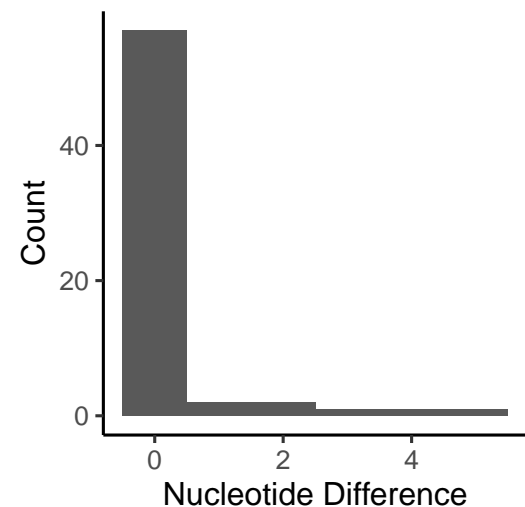
### IGKV1-16\*02

104 sequences assigned  
86 (82.7%) exact matches, in which:  
67 unique CDR3  
6 unique J



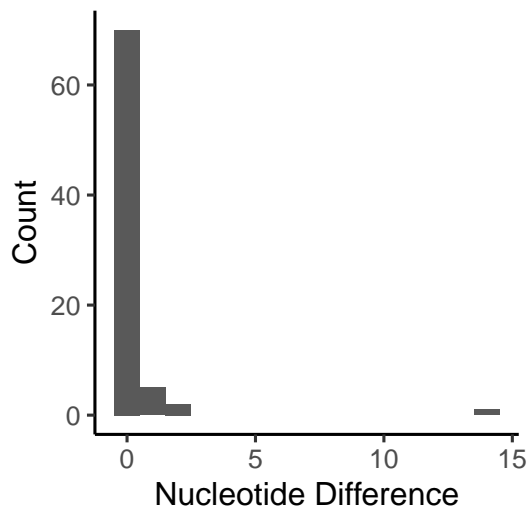
### IGKV1-27\*01

64 sequences assigned  
57 (89.1%) exact matches, in which:  
48 unique CDR3  
5 unique J



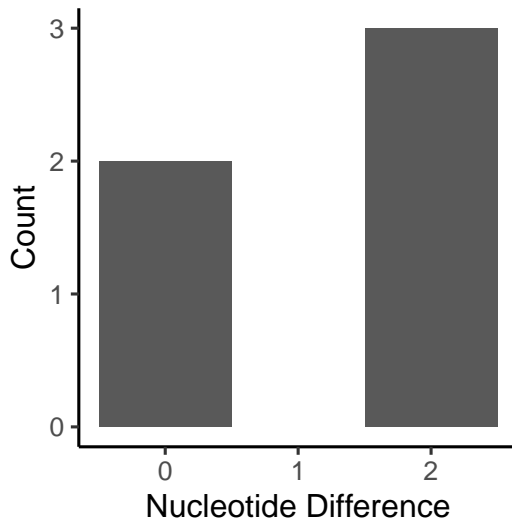
### IGKV1-27\*01\_T231C

78 sequences assigned  
70 (89.7%) exact matches, in which:  
64 unique CDR3  
5 unique J



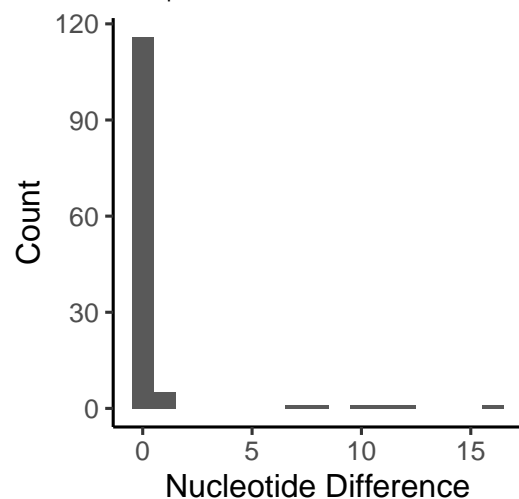
### IGKV2-18\*01

5 sequences assigned  
2 (40%) exact matches, in which:  
2 unique CDR3  
2 unique J



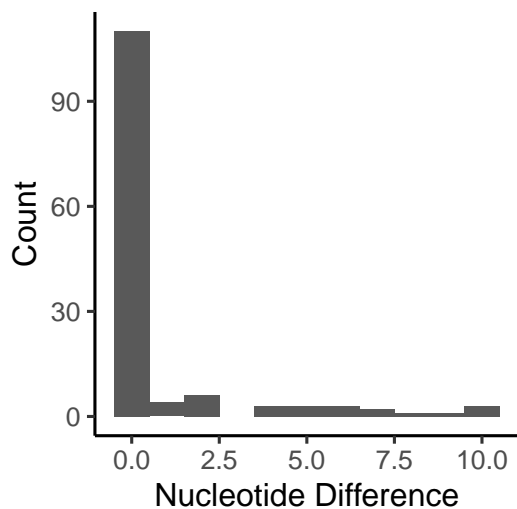
### IGKV2-30\*01

128 sequences assigned  
116 (90.6%) exact matches, in which:  
111 unique CDR3  
5 unique J



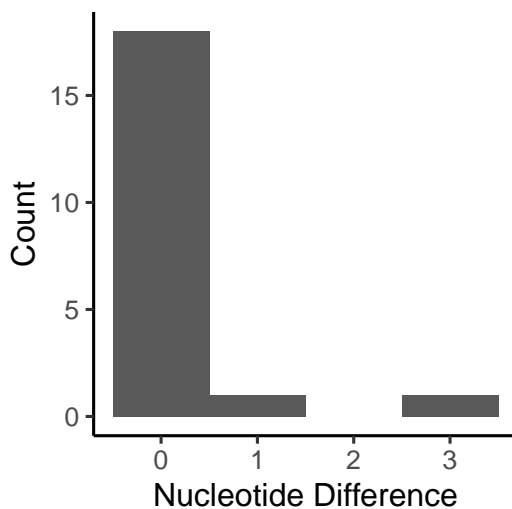
### IGKV1-NL1\*01

136 sequences assigned  
110 (80.9%) exact matches, in which:  
101 unique CDR3  
5 unique J



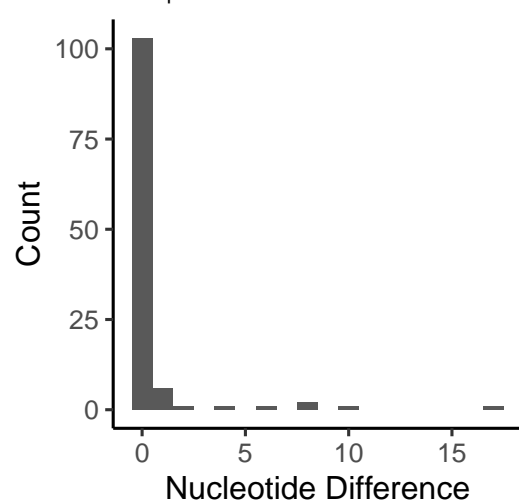
### IGKV2-24\*01

20 sequences assigned  
18 (90%) exact matches, in which:  
16 unique CDR3  
6 unique J



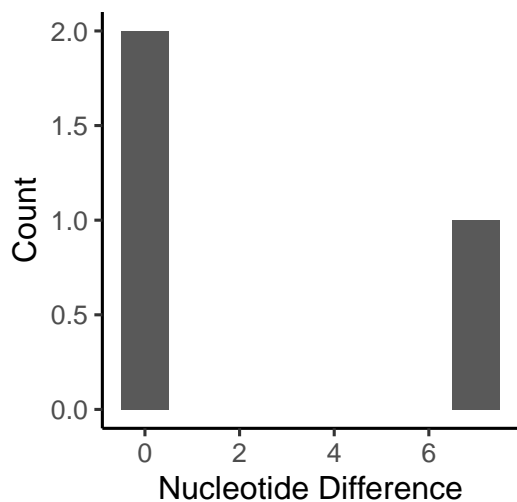
### IGKV2-30\*02

116 sequences assigned  
103 (88.8%) exact matches, in which:  
97 unique CDR3  
5 unique J



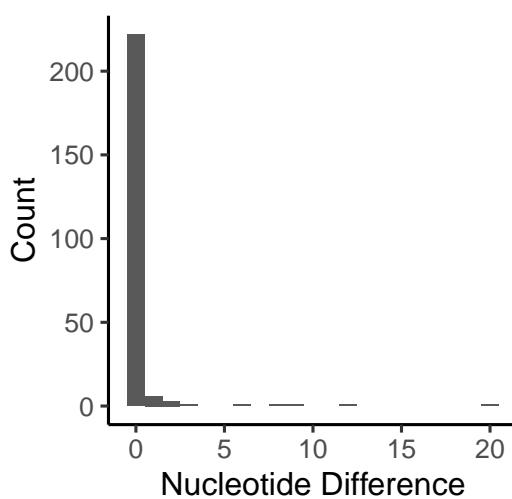
### IGKV2/OR22-4\*01

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



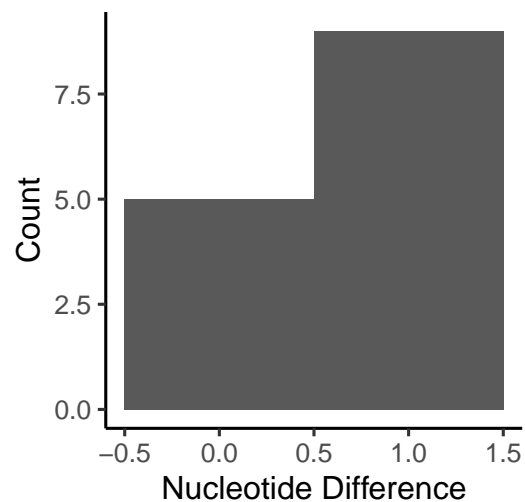
### IGKV2-29\*02

237 sequences assigned  
222 (93.7%) exact matches, in which:  
203 unique CDR3  
5 unique J



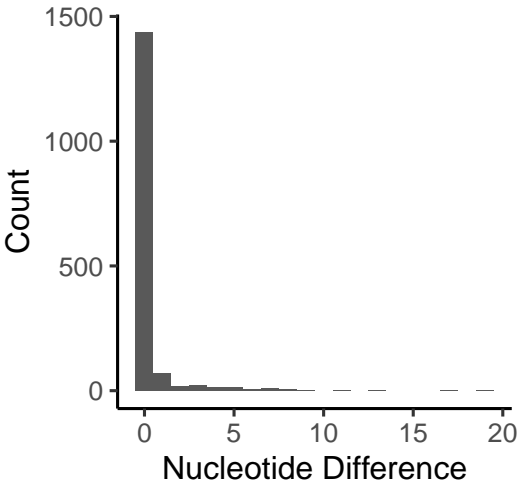
### IGKV3-7\*04

14 sequences assigned  
5 (35.7%) exact matches, in which:  
5 unique CDR3  
3 unique J



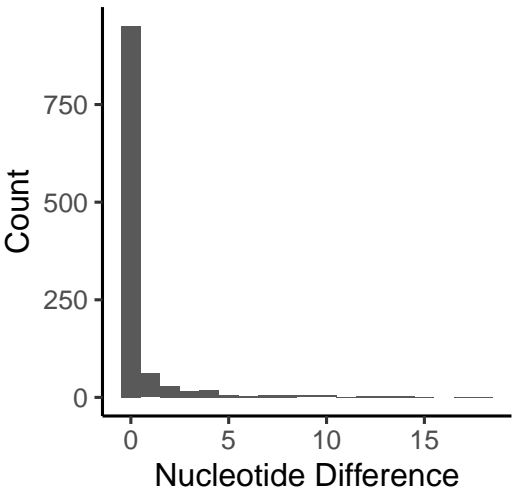
IGKV3-11\*01

1607 sequences assigned  
1436 (89.4%) exact matches, in which:  
1117 unique CDR3  
6 unique J



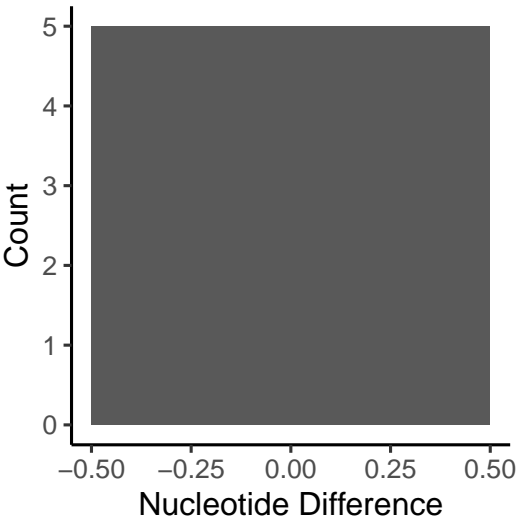
IGKV4-1\*01

1122 sequences assigned  
952 (84.8%) exact matches, in which:  
725 unique CDR3  
6 unique J



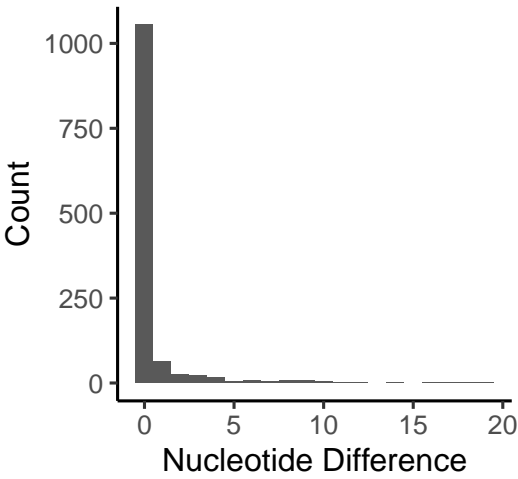
IGKV3D-7\*01

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



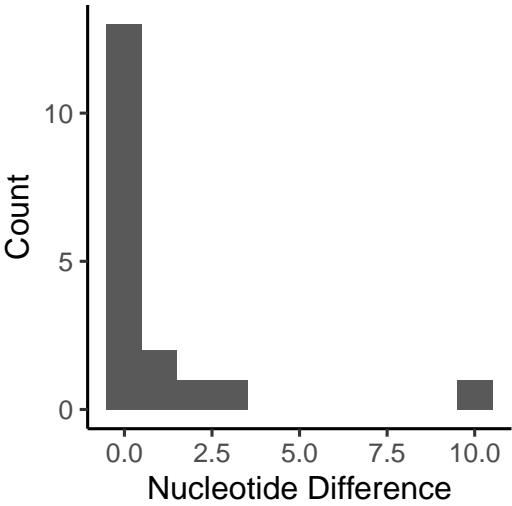
IGKV3-15\*01

1226 sequences assigned  
1055 (86.1%) exact matches, in which:  
878 unique CDR3  
6 unique J



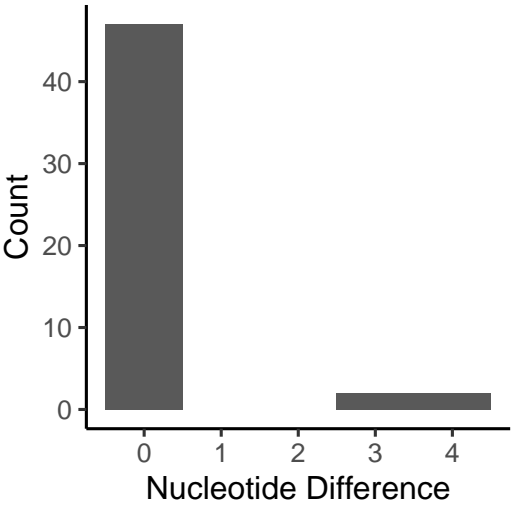
IGKV5-2\*01

18 sequences assigned  
13 (72.2%) exact matches, in which:  
12 unique CDR3  
3 unique J



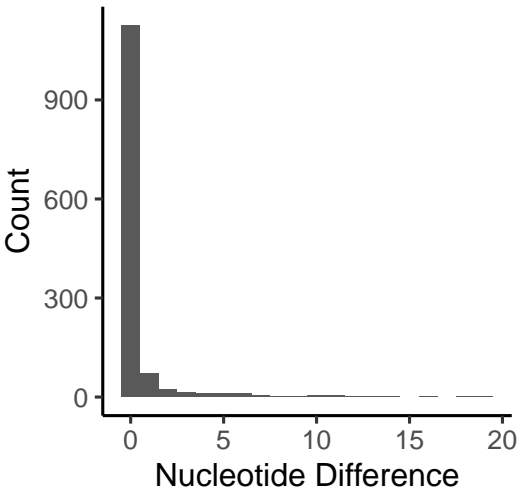
IGKV1D-8\*01

51 sequences assigned  
47 (92.2%) exact matches, in which:  
39 unique CDR3  
6 unique J



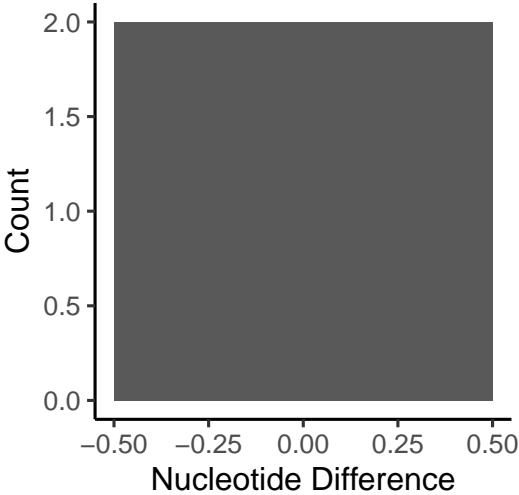
IGKV3-20\*01

1293 sequences assigned  
1126 (87.1%) exact matches, in which:  
900 unique CDR3  
6 unique J



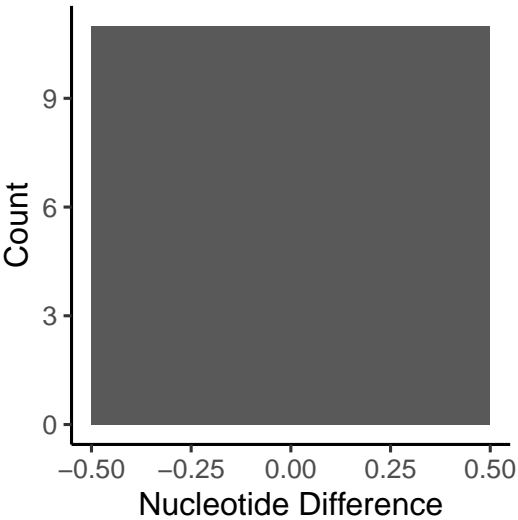
IGKV7-3\*01

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



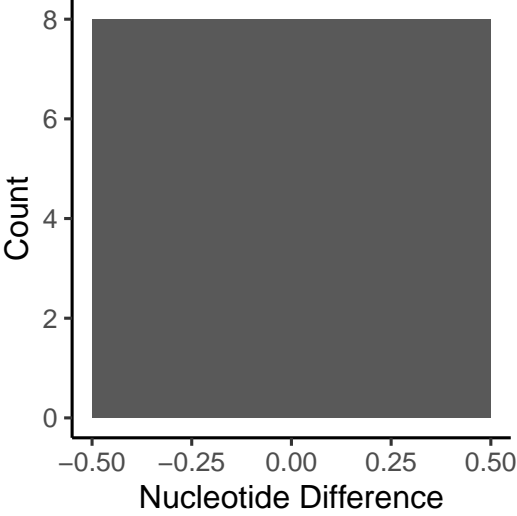
IGKV3D-11\*01

11 sequences assigned  
11 (100%) exact matches, in which:  
11 unique CDR3  
4 unique J



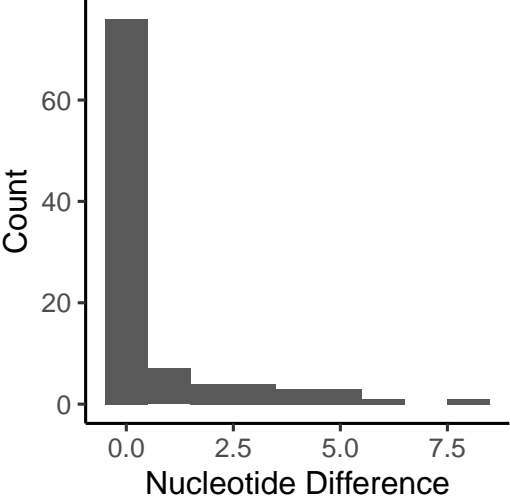
IGKV3D-11\*02

8 sequences assigned  
8 (100%) exact matches, in which:  
8 unique CDR3  
1 unique J



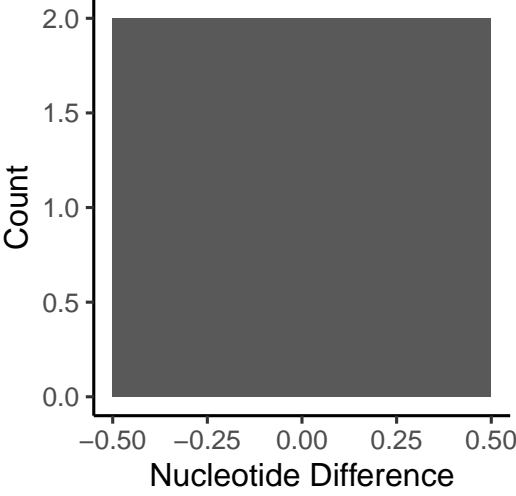
IGKV3D-15\*01

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



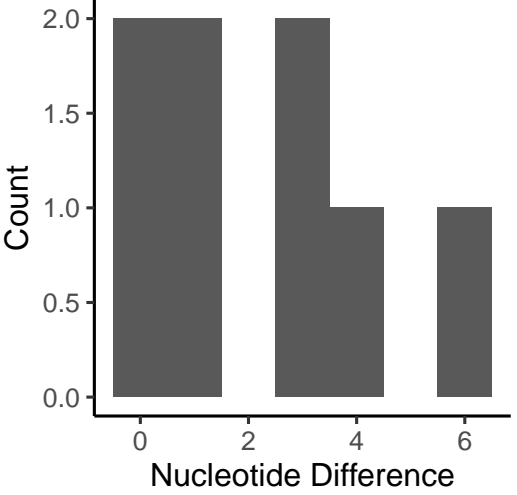
IGKV2D-24\*01

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



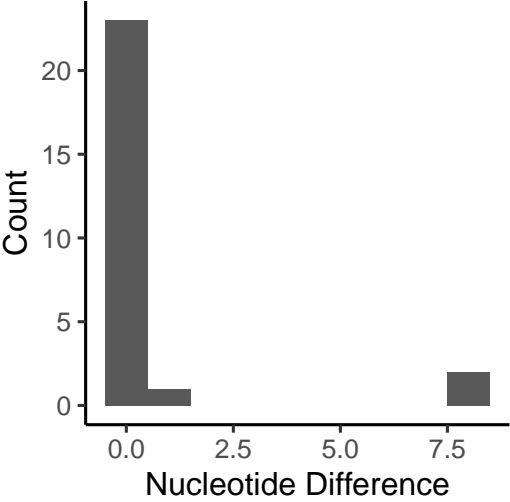
IGKV3D-11\*02\_C247T

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



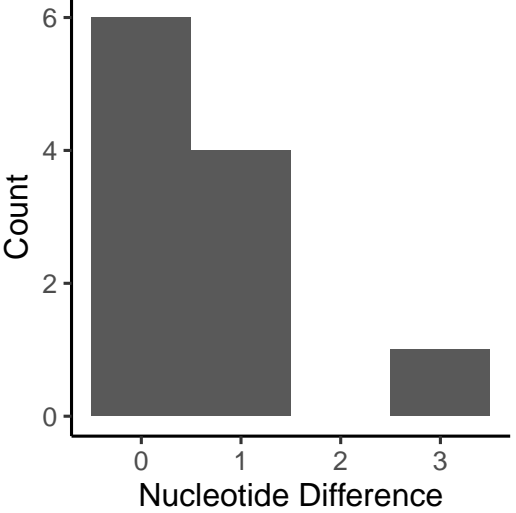
IGKV1D-16\*01

26 sequences assigned  
23 (88.5%) exact matches, in which:  
20 unique CDR3  
6 unique J



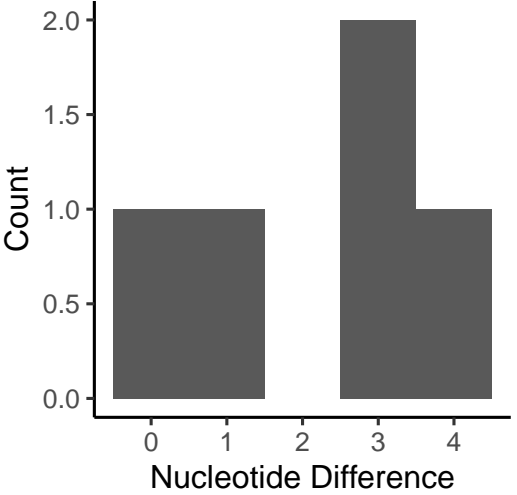
IGKV2D-26\*03

11 sequences assigned  
6 (54.5%) exact matches, in which:  
6 unique CDR3  
3 unique J



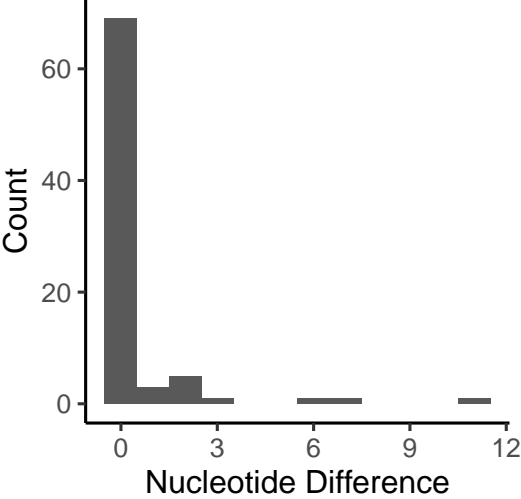
IGKV3D-11\*02\_T112A\_C

5 sequences assigned  
1 (20%) exact matches, in which:  
1 unique CDR3  
1 unique J



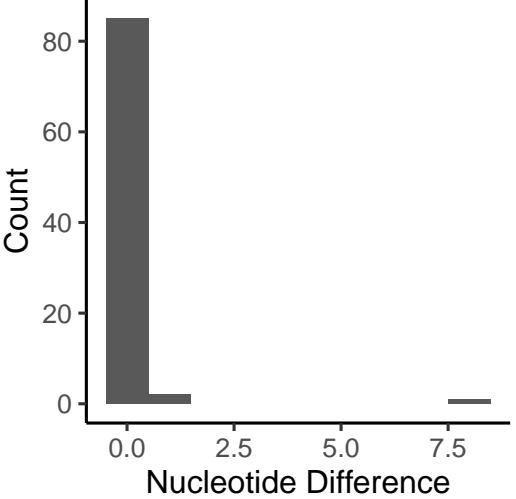
IGKV3D-20\*01

81 sequences assigned  
69 (85.2%) exact matches, in which:  
58 unique CDR3  
6 unique J



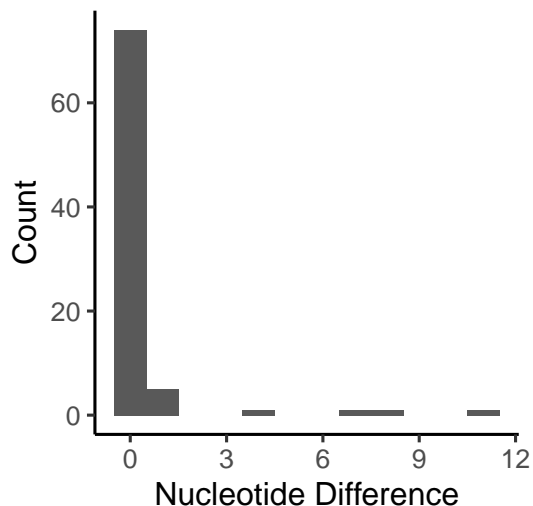
IGKV2D-29\*01

88 sequences assigned  
85 (96.6%) exact matches, in which:  
78 unique CDR3  
5 unique J



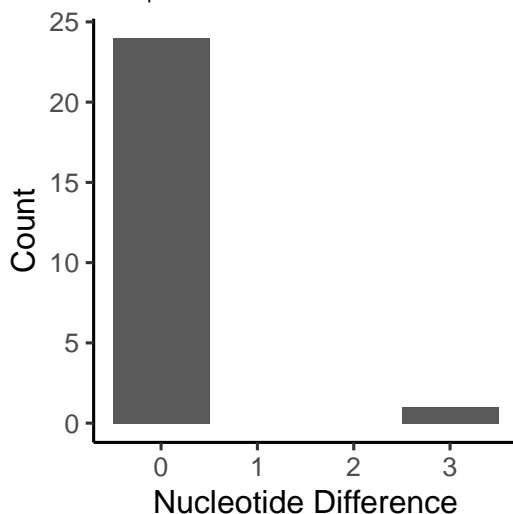
### IGKV2D-29\*02

83 sequences assigned  
74 (89.2%) exact matches, in which:  
71 unique CDR3  
5 unique J



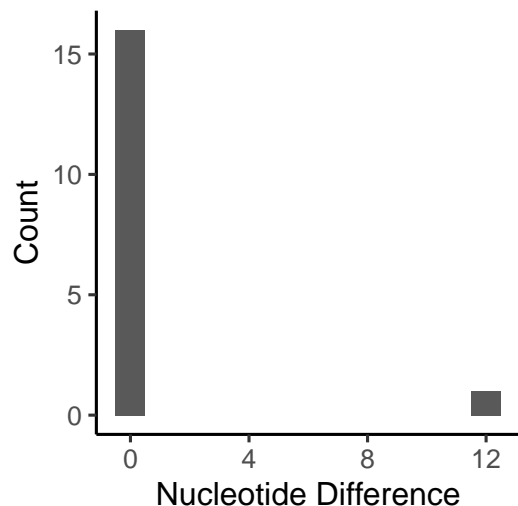
### IGKV1D-43\*01

25 sequences assigned  
24 (96%) exact matches, in which:  
22 unique CDR3  
5 unique J



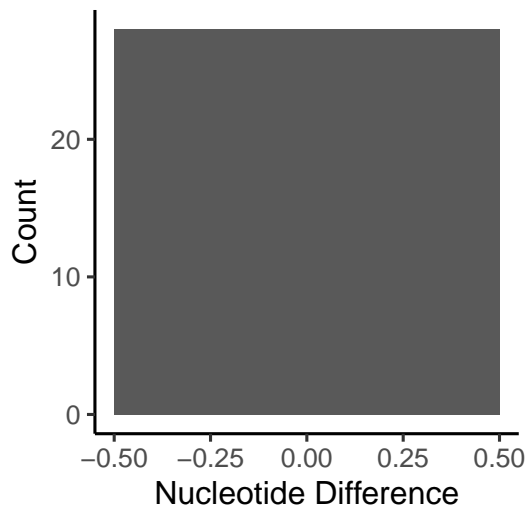
### IGKV1E-13\*02

17 sequences assigned  
16 (94.1%) exact matches, in which:  
15 unique CDR3  
5 unique J



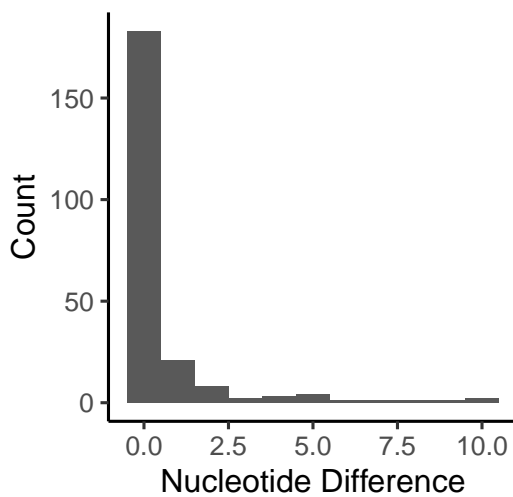
### IGKV2D-30\*01

28 sequences assigned  
28 (100%) exact matches, in which:  
27 unique CDR3  
6 unique J



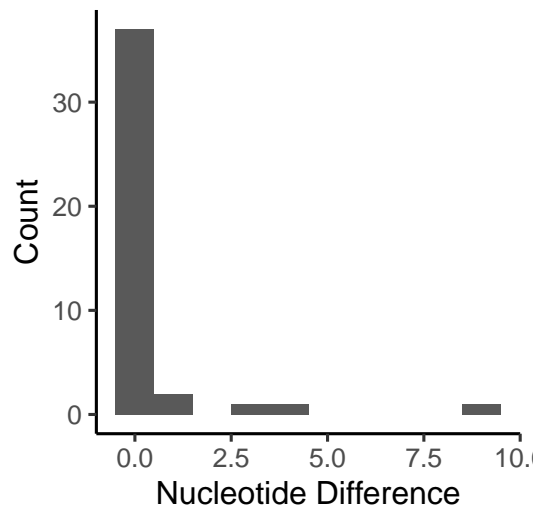
### IGKV1E-12\*01

227 sequences assigned  
183 (80.6%) exact matches, in which:  
142 unique CDR3  
6 unique J



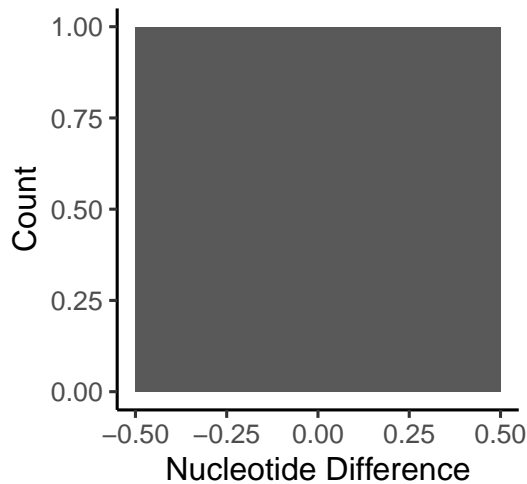
### IGKV1E-13\*03

42 sequences assigned  
37 (88.1%) exact matches, in which:  
30 unique CDR3  
6 unique J



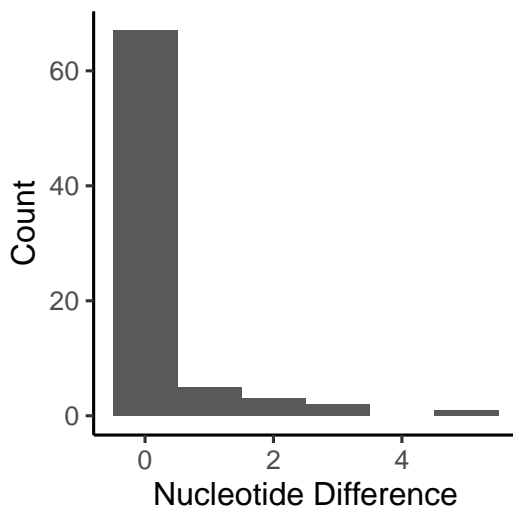
### IGKV6D-41\*01

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



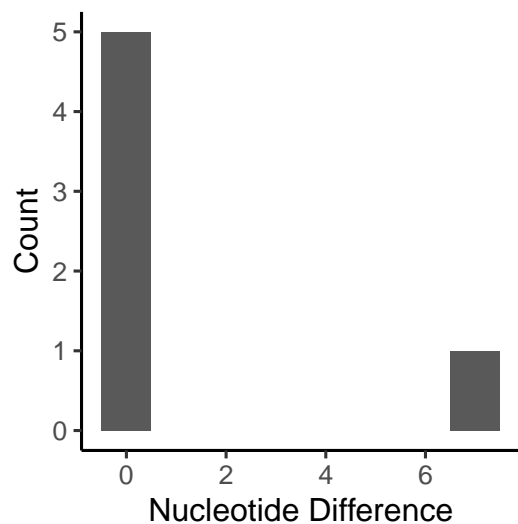
### IGKV1E-12\*03

78 sequences assigned  
67 (85.9%) exact matches, in which:  
54 unique CDR3  
6 unique J



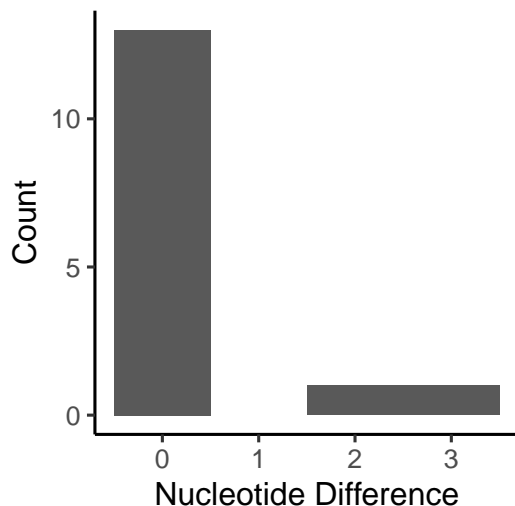
### IGKV6E-21\*01

6 sequences assigned  
5 (83.3%) exact matches, in which:  
5 unique CDR3  
2 unique J



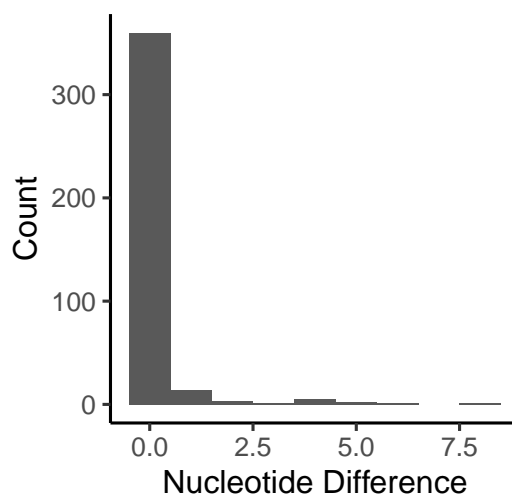
### IGKV6E-21\*02

15 sequences assigned  
13 (86.7%) exact matches, in which:  
13 unique CDR3  
4 unique J



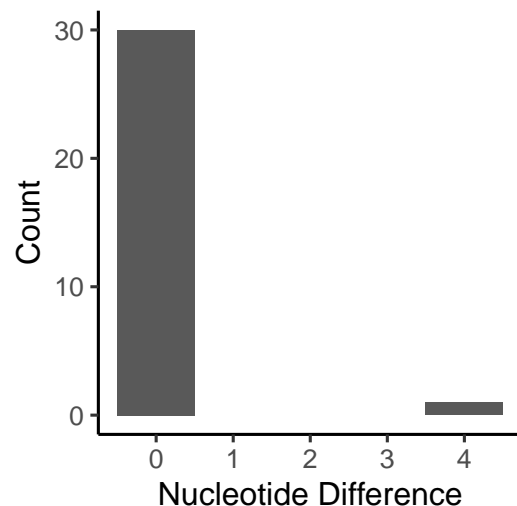
### IGKV2E-28\*01\_C142A

387 sequences assigned  
360 (93%) exact matches, in which:  
319 unique CDR3  
6 unique J



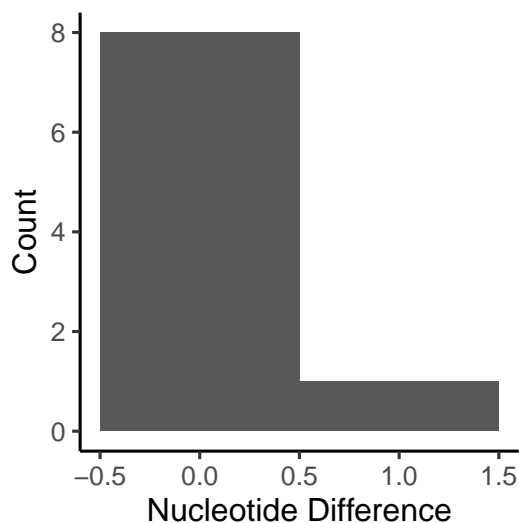
### IGKV1E-37\*01

31 sequences assigned  
30 (96.8%) exact matches, in which:  
27 unique CDR3  
6 unique J



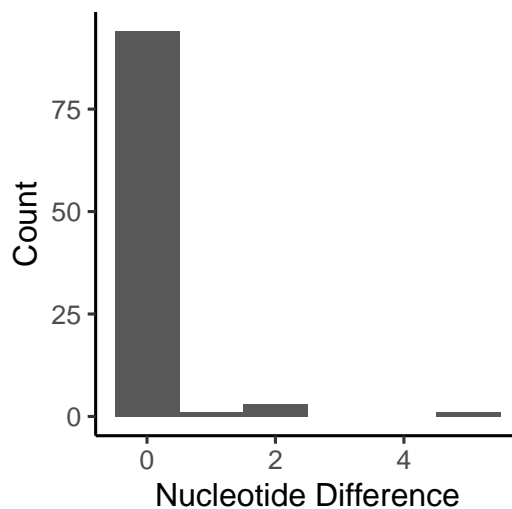
### IGKV6E-21\*03

9 sequences assigned  
8 (88.9%) exact matches, in which:  
8 unique CDR3  
5 unique J



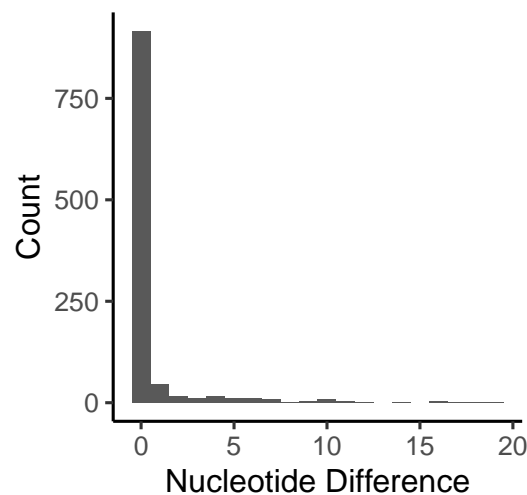
### IGKV2E-28\*01\_G90C

99 sequences assigned  
94 (94.9%) exact matches, in which:  
88 unique CDR3  
5 unique J



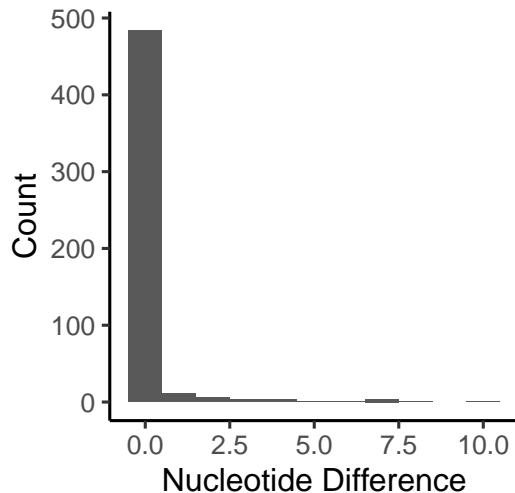
### IGKV1E-39\*01

1061 sequences assigned  
916 (86.3%) exact matches, in which:  
675 unique CDR3  
6 unique J



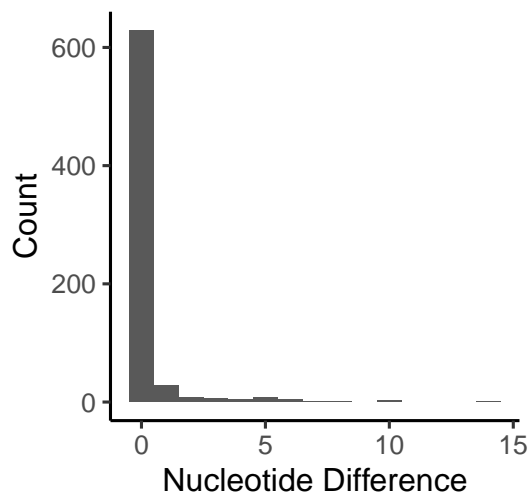
### IGKV2E-28\*01

515 sequences assigned  
484 (94%) exact matches, in which:  
427 unique CDR3  
6 unique J



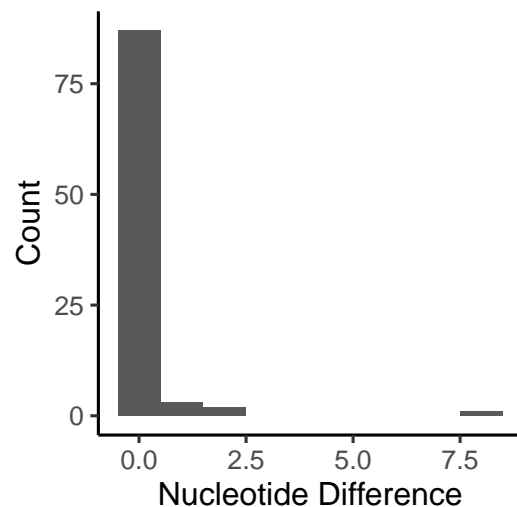
### IGKV1E-33\*01

692 sequences assigned  
629 (90.9%) exact matches, in which:  
491 unique CDR3  
6 unique J

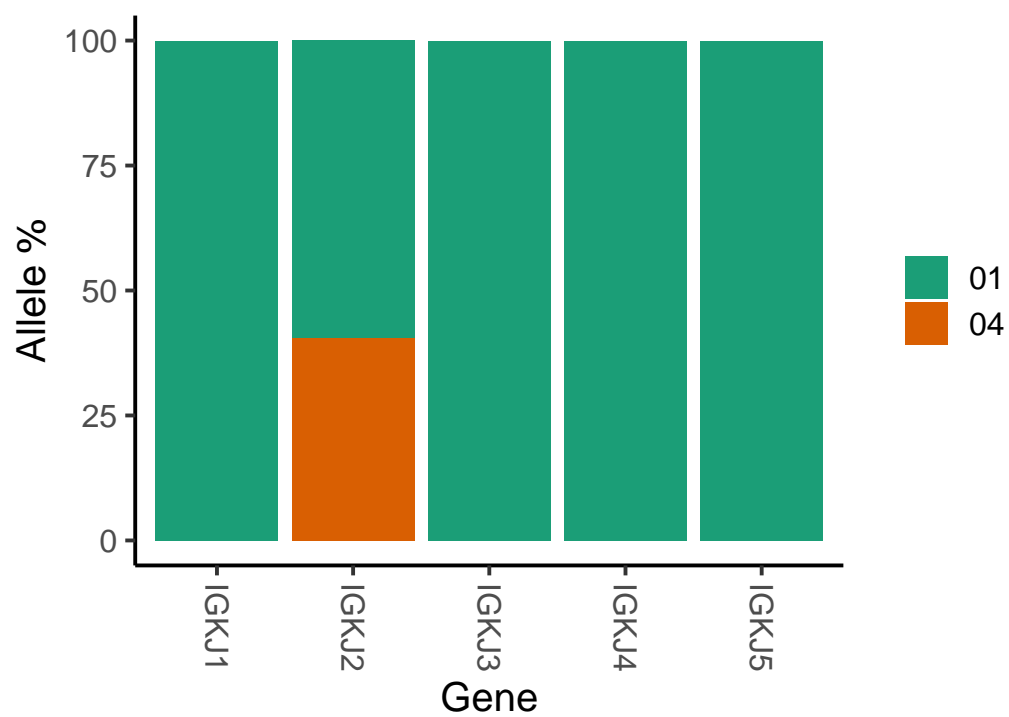


### IGKV2E-40\*01

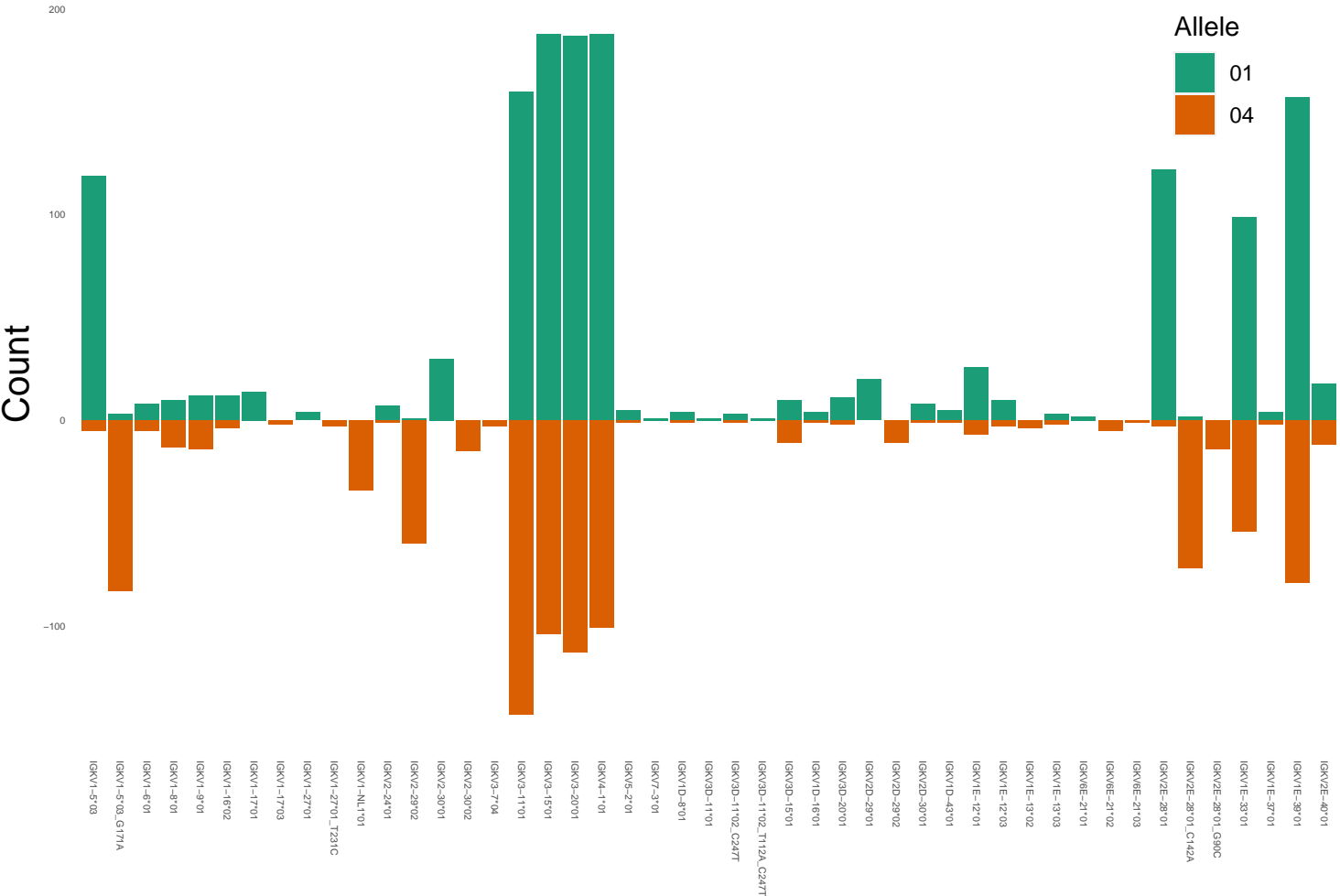
93 sequences assigned  
87 (93.5%) exact matches, in which:  
67 unique CDR3  
6 unique J



Allele Usage



Sequence Count by IGKJ2 allele usage





Warning – no inferred sequences found.