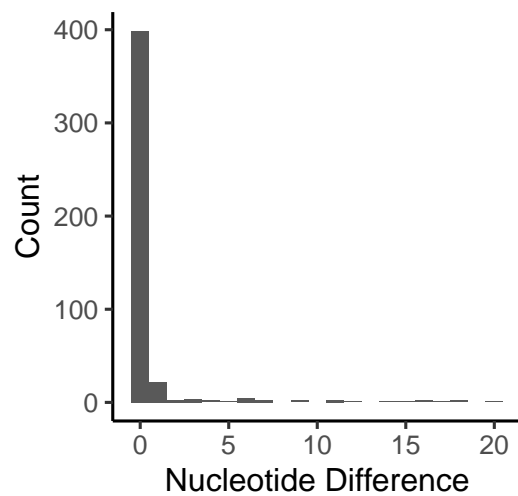


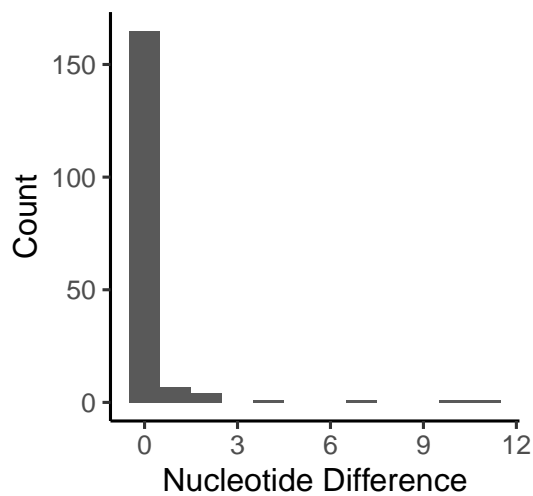
### IGKV1-5\*03

455 sequences assigned  
399 (87.7%) exact matches, in which:  
327 unique CDR3  
6 unique J



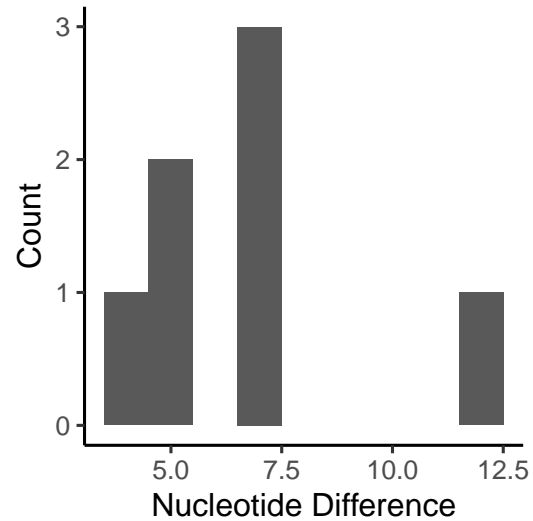
### IGKV1-8\*01

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



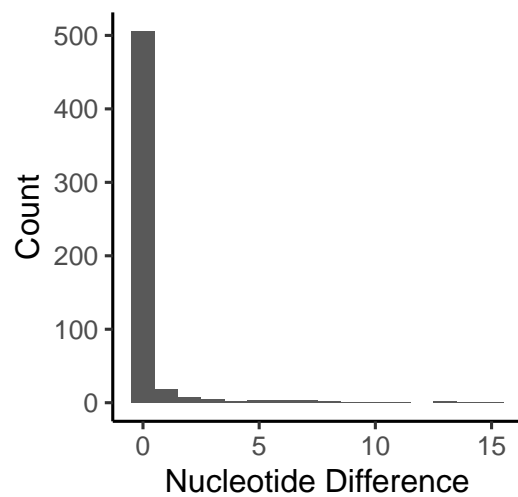
### IGKV1-16\*01

8 sequences assigned  
No exact matches.



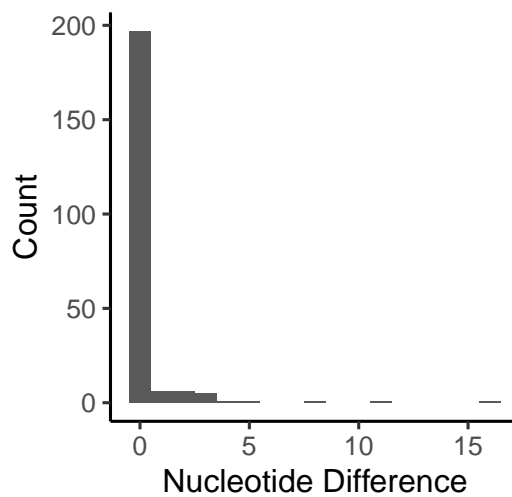
### IGKV1-5\*03\_G171A

559 sequences assigned  
506 (90.5%) exact matches, in which:  
401 unique CDR3  
6 unique J



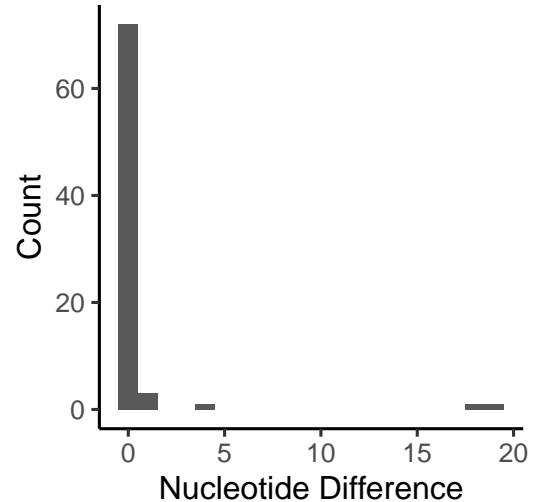
### IGKV1-8\*01\_G12A\_T31C

219 sequences assigned  
197 (90%) exact matches, in which:  
145 unique CDR3  
6 unique J



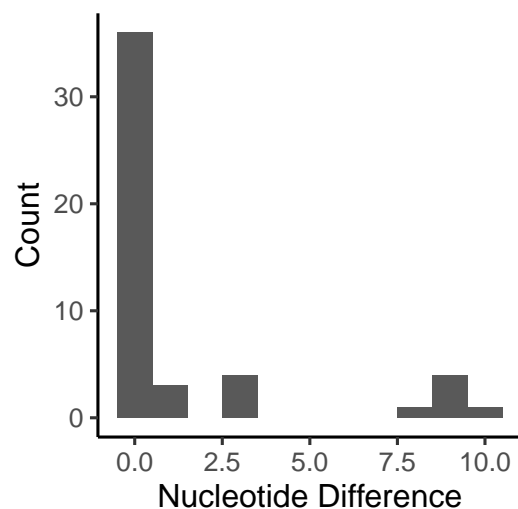
### IGKV1-16\*02

78 sequences assigned  
72 (92.3%) exact matches, in which:  
58 unique CDR3  
6 unique J



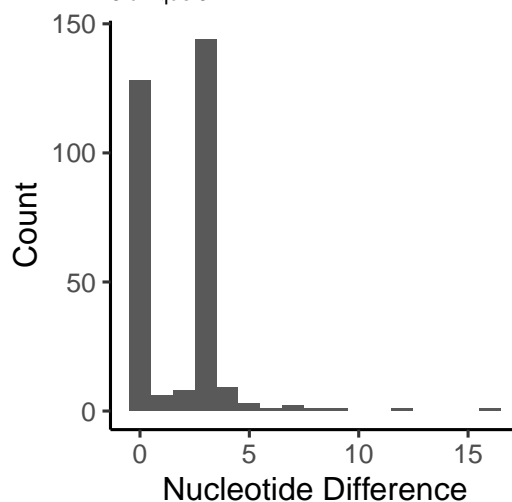
### IGKV1-6\*01

49 sequences assigned  
36 (73.5%) exact matches, in which:  
26 unique CDR3  
6 unique J



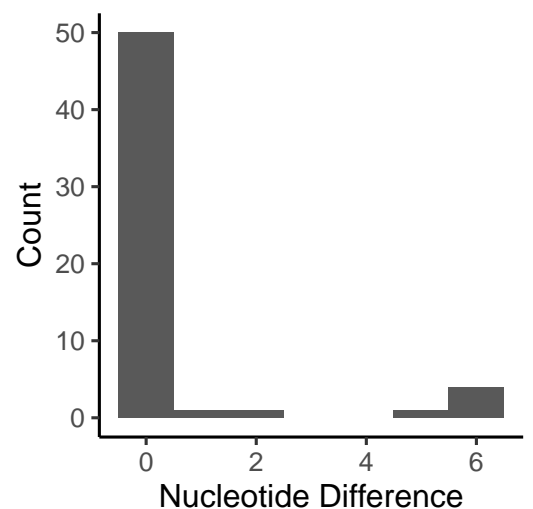
### IGKV1-9\*01

306 sequences assigned  
128 (41.8%) exact matches, in which:  
111 unique CDR3  
5 unique J



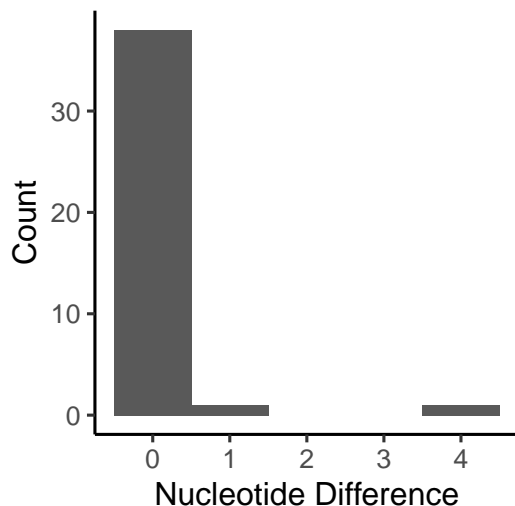
### IGKV1-17\*01

57 sequences assigned  
50 (87.7%) exact matches, in which:  
37 unique CDR3  
5 unique J



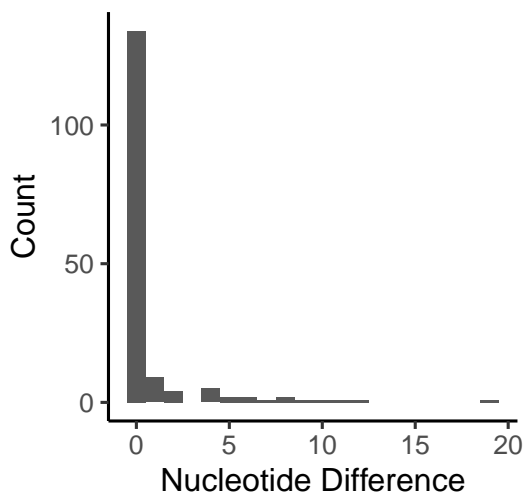
### IGKV1-17\*03

40 sequences assigned  
38 (95%) exact matches, in which:  
31 unique CDR3  
5 unique J



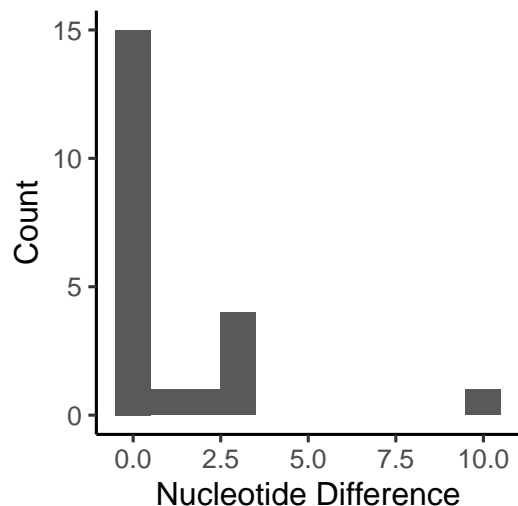
### IGKV1-NL1\*01

167 sequences assigned  
134 (80.2%) exact matches, in which:  
109 unique CDR3  
5 unique J



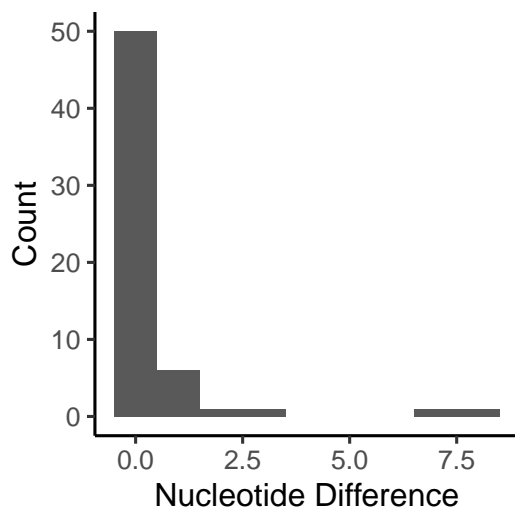
### IGKV2-24\*01

22 sequences assigned  
15 (68.2%) exact matches, in which:  
12 unique CDR3  
4 unique J



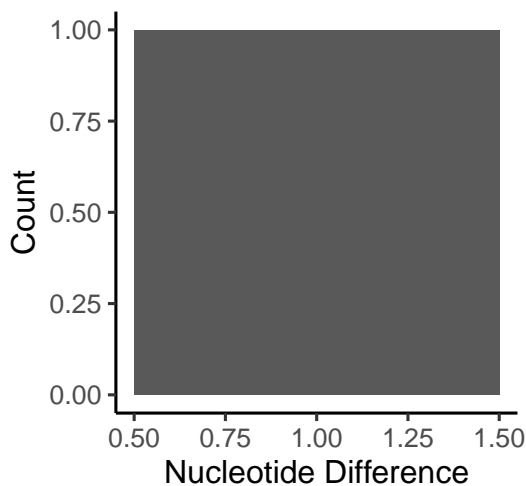
### IGKV1-27\*01

60 sequences assigned  
50 (83.3%) exact matches, in which:  
38 unique CDR3  
5 unique J



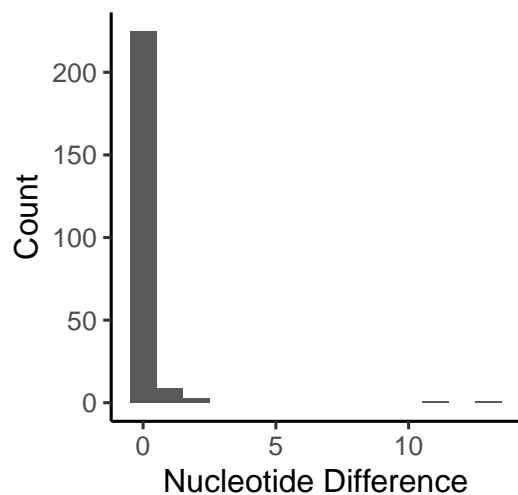
### IGKV2/OR22-4\*01

1 sequences assigned  
No exact matches.



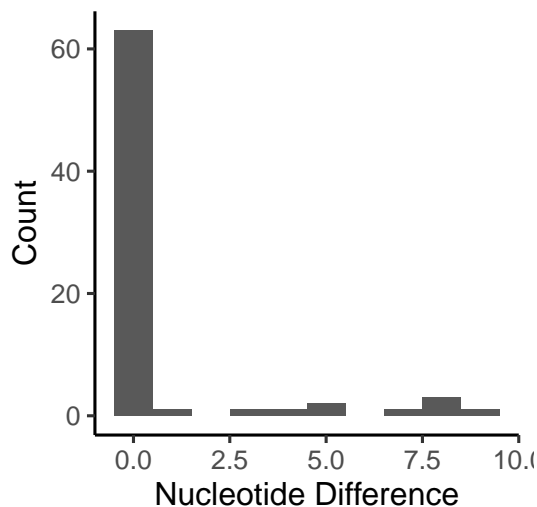
### IGKV2-29\*02

239 sequences assigned  
225 (94.1%) exact matches, in which:  
178 unique CDR3  
5 unique J



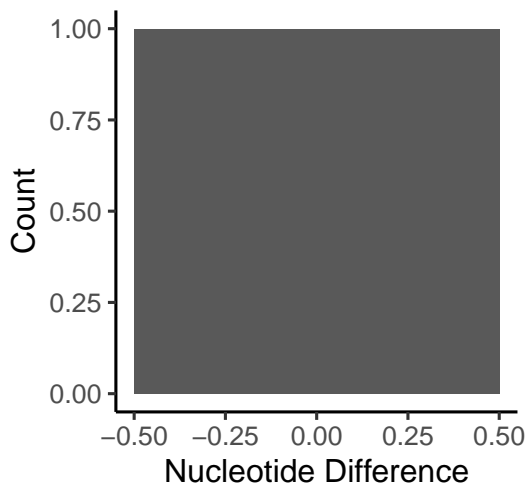
### IGKV1-27\*01\_T231C

73 sequences assigned  
63 (86.3%) exact matches, in which:  
49 unique CDR3  
6 unique J



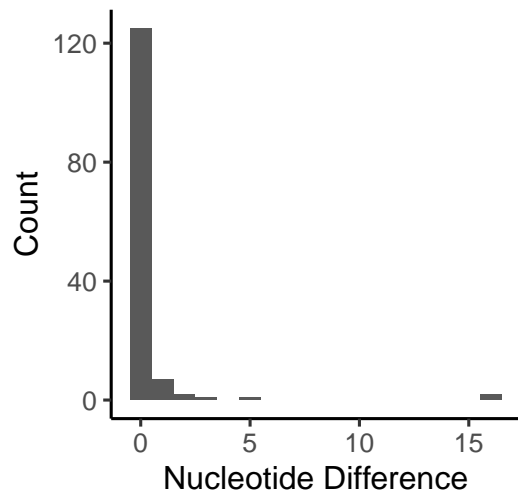
### IGKV2-18\*01

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



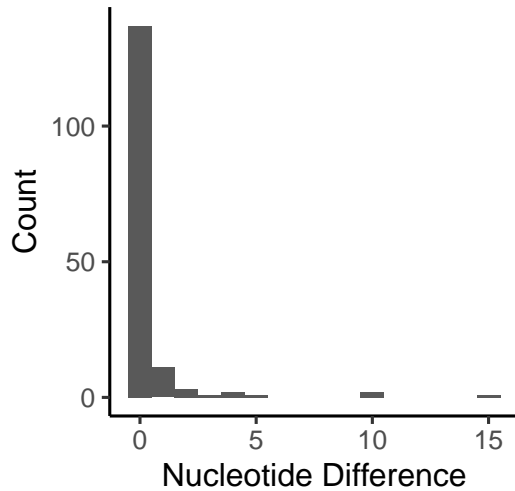
### IGKV2-30\*01

138 sequences assigned  
125 (90.6%) exact matches, in which:  
112 unique CDR3  
5 unique J



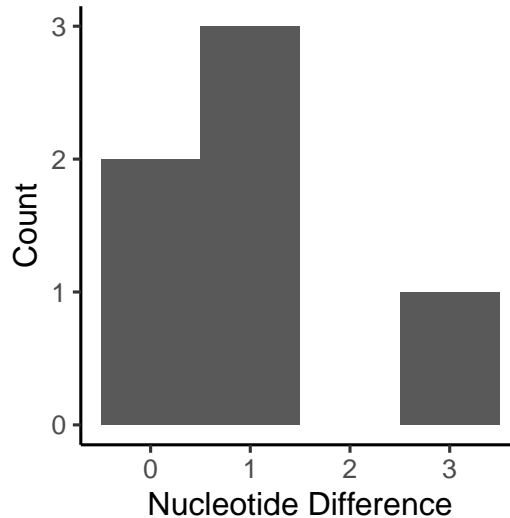
### IGKV2–30\*02

159 sequences assigned  
137 (86.2%) exact matches, in which:  
120 unique CDR3  
5 unique J



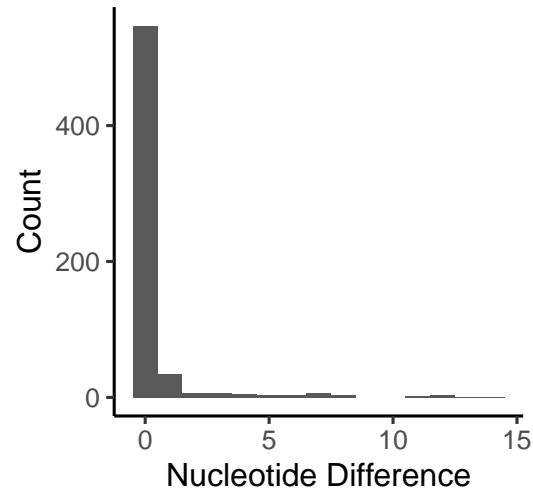
### IGKV3–7\*04

6 sequences assigned  
2 (33.3%) exact matches, in which:  
2 unique CDR3  
1 unique J



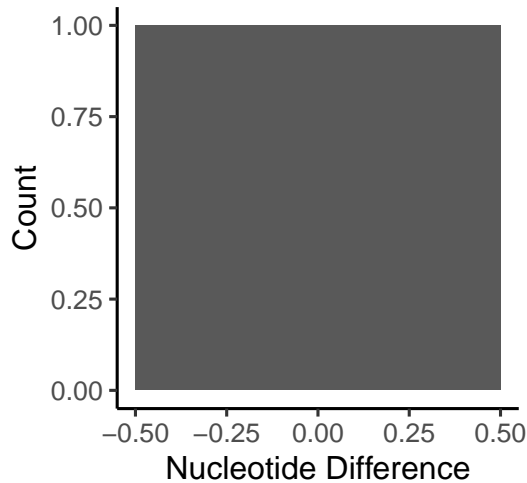
### IGKV3–15\*01\_C141G

624 sequences assigned  
547 (87.7%) exact matches, in which:  
411 unique CDR3  
6 unique J



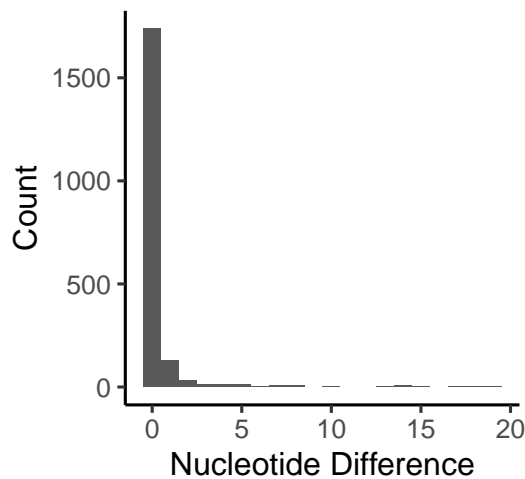
### IGKV1/OR2–108\*01

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



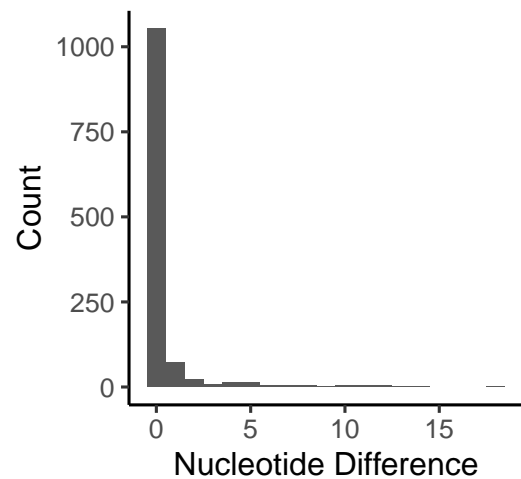
### IGKV3–11\*01

1971 sequences assigned  
1738 (88.2%) exact matches, in which:  
1183 unique CDR3  
6 unique J



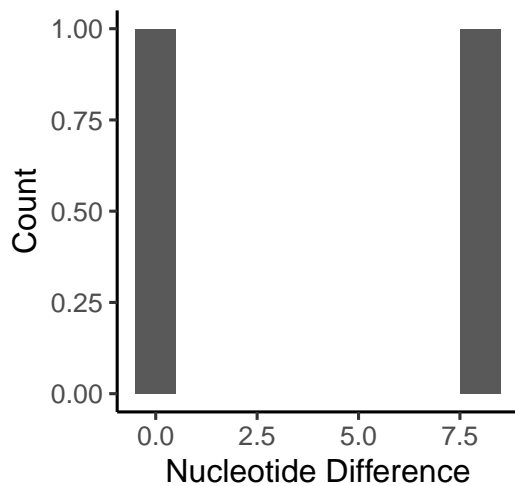
### IGKV3–20\*01

1211 sequences assigned  
1053 (87%) exact matches, in which:  
740 unique CDR3  
6 unique J



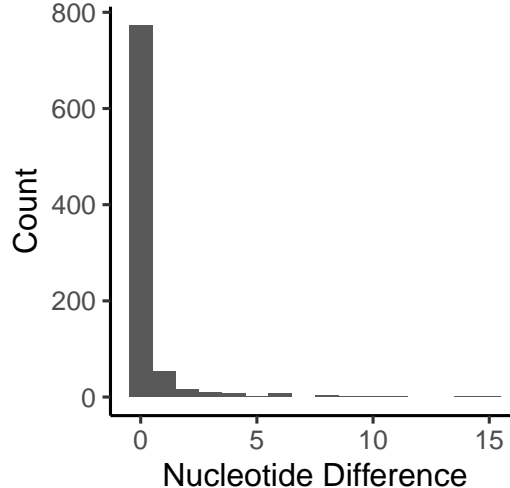
### IGKV3/OR2–268\*01

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



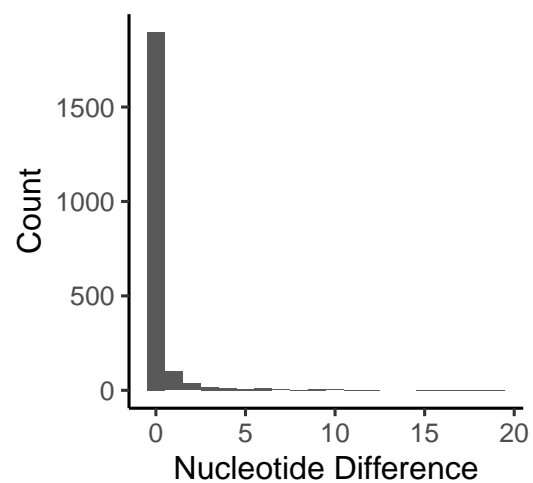
### IGKV3–15\*01

883 sequences assigned  
773 (87.5%) exact matches, in which:  
566 unique CDR3  
6 unique J



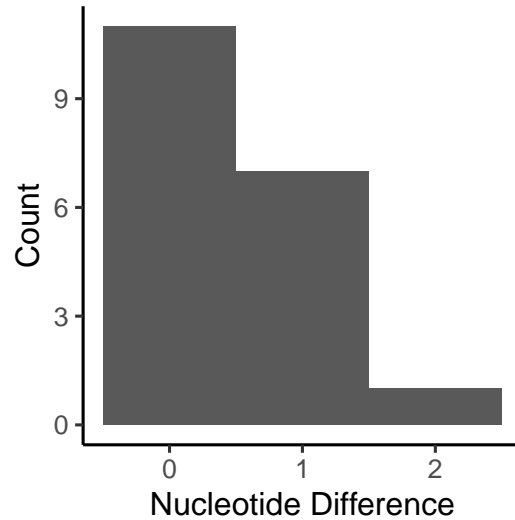
### IGKV4–1\*01

2115 sequences assigned  
1897 (89.7%) exact matches, in which:  
1094 unique CDR3  
6 unique J



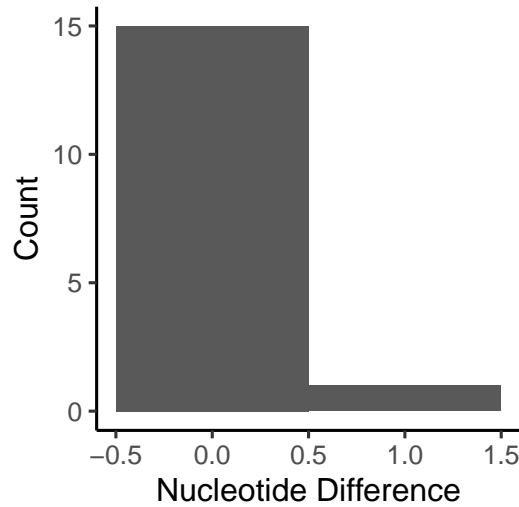
### IGKV5-2\*01

19 sequences assigned  
11 (57.9%) exact matches, in which:  
10 unique CDR3  
2 unique J



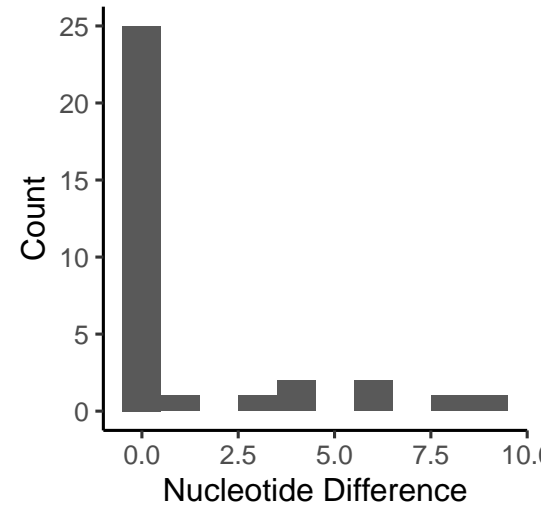
### IGKV3D-11\*02

16 sequences assigned  
15 (93.8%) exact matches, in which:  
14 unique CDR3  
5 unique J



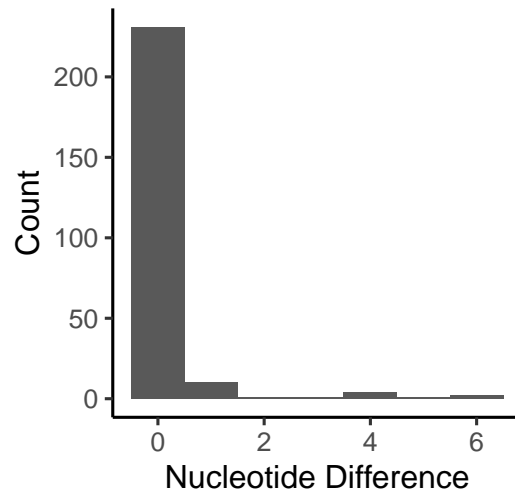
### IGKV1D-16\*01

33 sequences assigned  
25 (75.8%) exact matches, in which:  
22 unique CDR3  
6 unique J



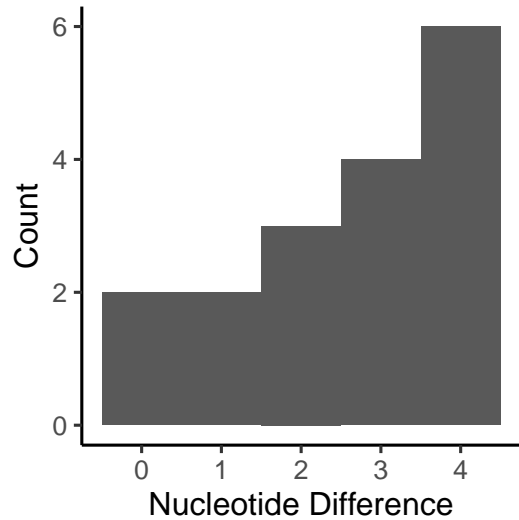
### IGKV1D-8\*01

250 sequences assigned  
231 (92.4%) exact matches, in which:  
133 unique CDR3  
6 unique J



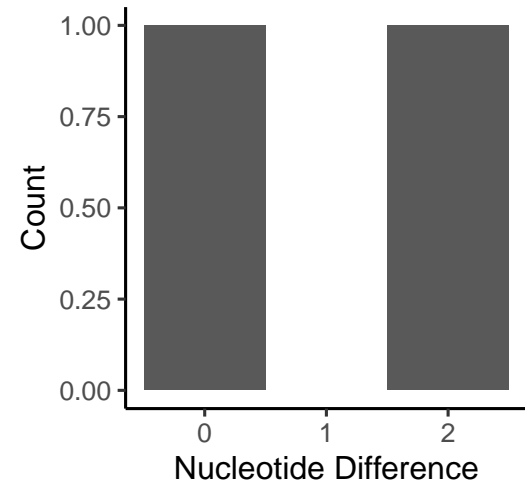
### IGKV3D-11\*02\_C247T

17 sequences assigned  
2 (11.8%) exact matches, in which:  
2 unique CDR3  
2 unique J



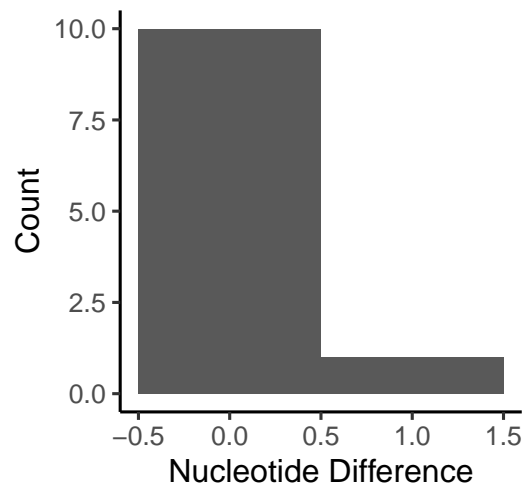
### IGKV1D-17\*01

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



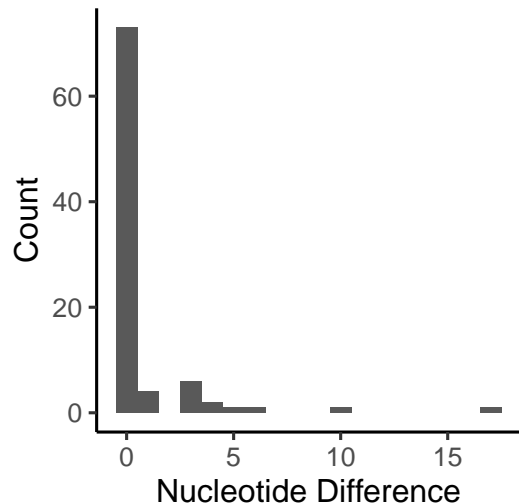
### IGKV3D-11\*01

11 sequences assigned  
10 (90.9%) exact matches, in which:  
10 unique CDR3  
3 unique J



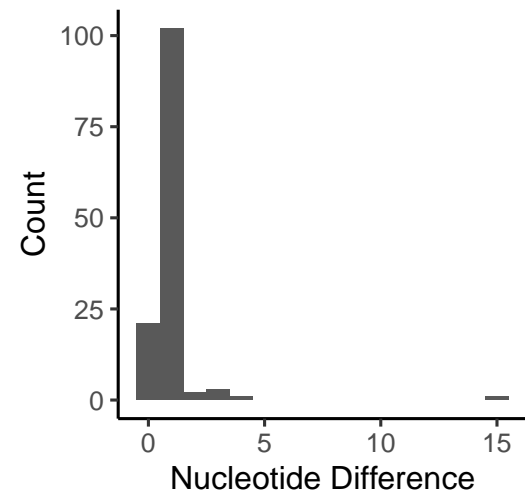
### IGKV3D-15\*01

89 sequences assigned  
73 (82%) exact matches, in which:  
66 unique CDR3  
6 unique J



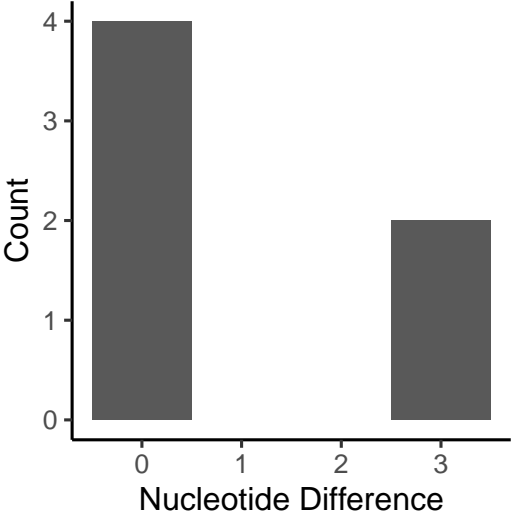
### IGKV3D-20\*01

130 sequences assigned  
21 (16.2%) exact matches, in which:  
18 unique CDR3  
4 unique J



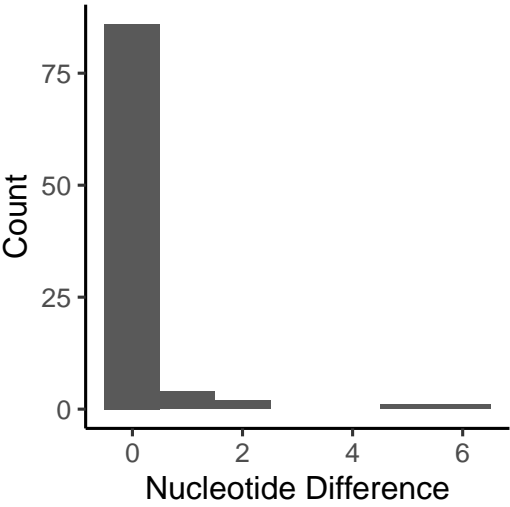
IGKV2D-24\*01

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



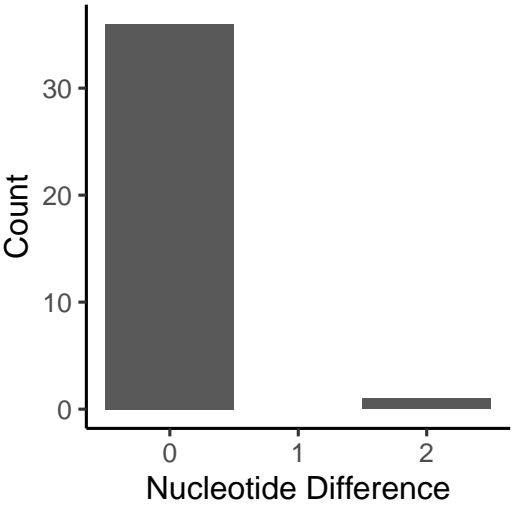
IGKV2D-29\*02

94 sequences assigned  
86 (91.5%) exact matches, in which:  
70 unique CDR3  
5 unique J



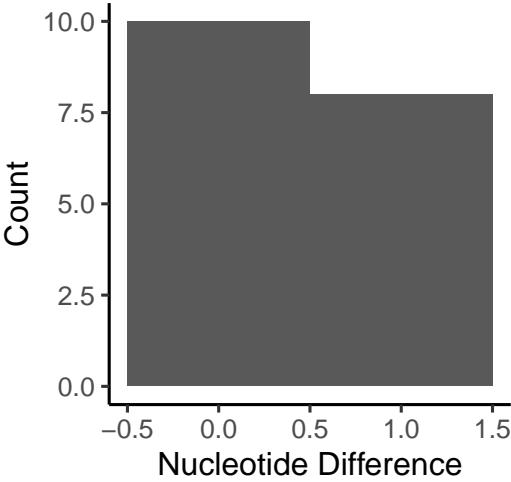
IGKV1E-12\*01

38 sequences assigned  
36 (94.7%) exact matches, in which:  
26 unique CDR3  
5 unique J



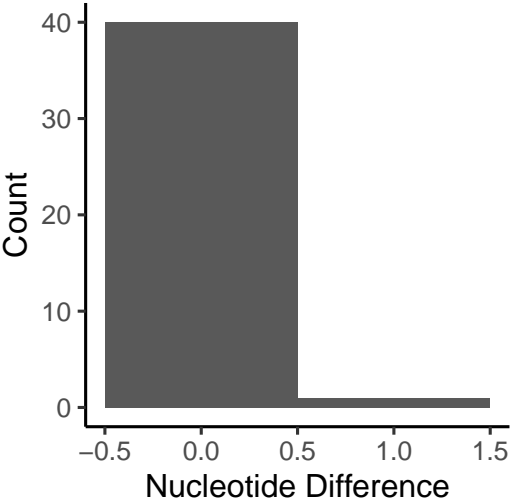
IGKV2D-26\*03

18 sequences assigned  
10 (55.6%) exact matches, in which:  
9 unique CDR3  
5 unique J



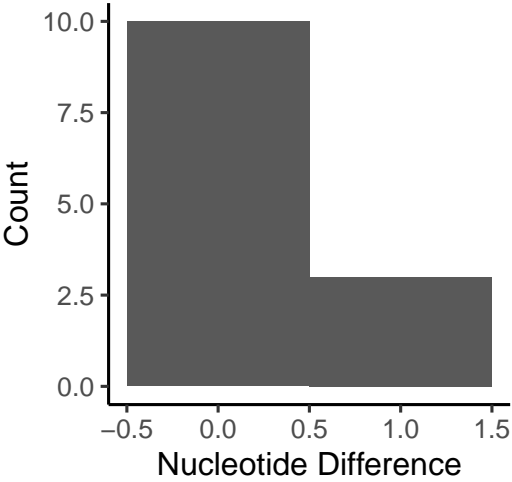
IGKV2D-30\*01

41 sequences assigned  
40 (97.6%) exact matches, in which:  
36 unique CDR3  
6 unique J



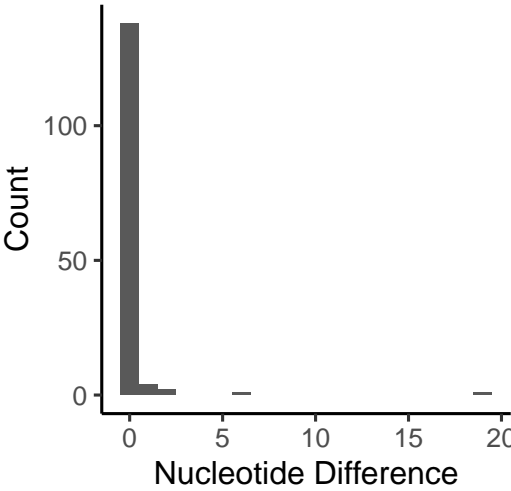
IGKV1E-12\*02

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



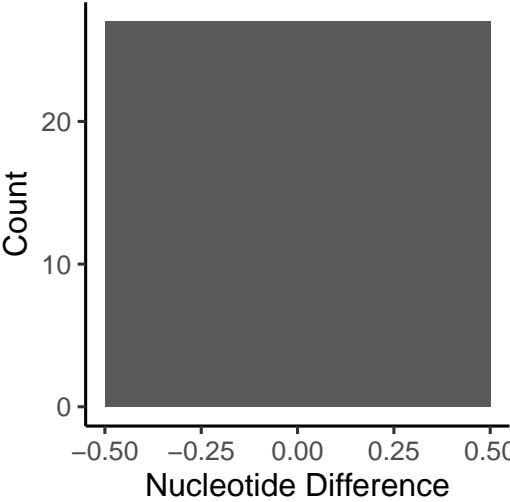
IGKV2D-29\*01

146 sequences assigned  
138 (94.5%) exact matches, in which:  
108 unique CDR3  
6 unique J



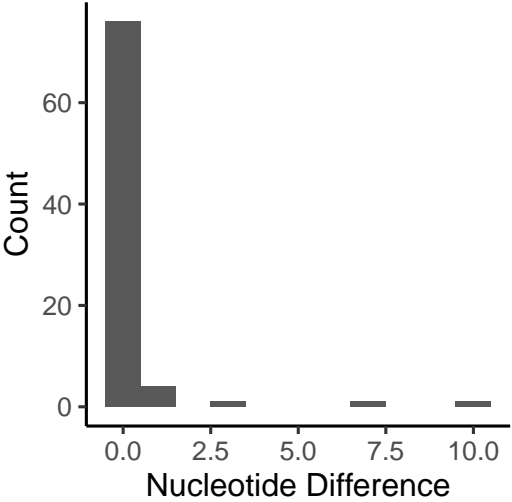
IGKV1D-43\*01

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



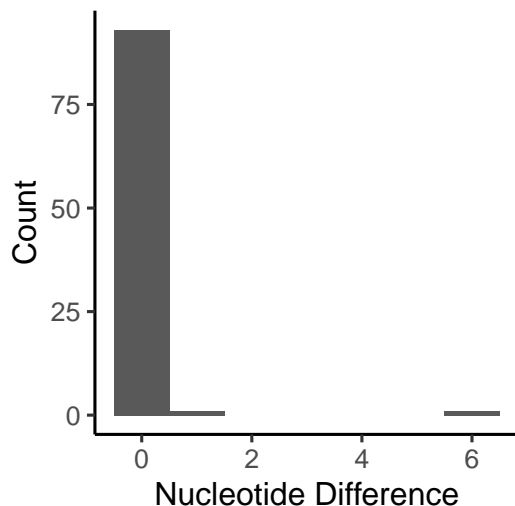
IGKV1E-12\*03

83 sequences assigned  
76 (91.6%) exact matches, in which:  
61 unique CDR3  
6 unique J



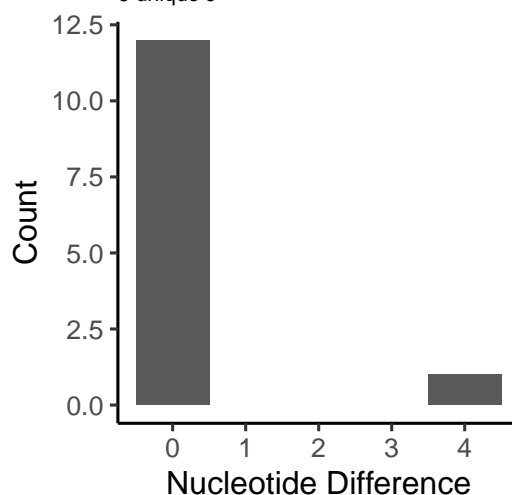
### IGKV1E-12\*01\_C279G

95 sequences assigned  
93 (97.9%) exact matches, in which:  
64 unique CDR3  
5 unique J



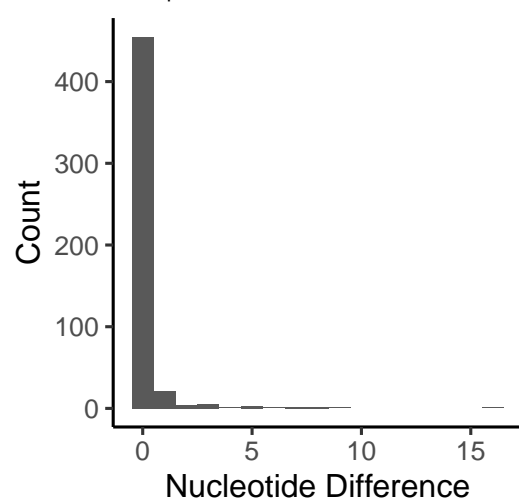
### IGKV6E-21\*01

13 sequences assigned  
12 (92.3%) exact matches, in which:  
11 unique CDR3  
6 unique J



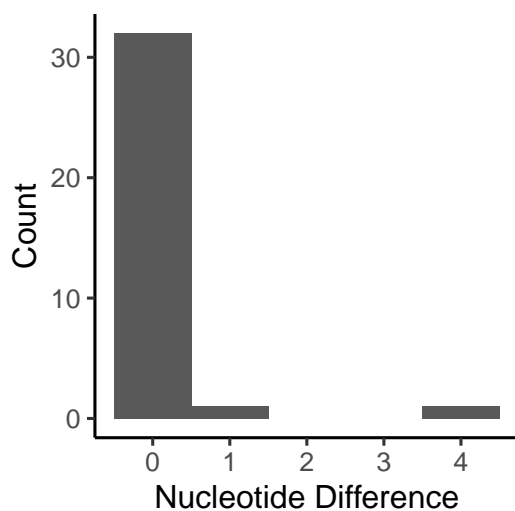
### IGKV1E-33\*01

496 sequences assigned  
455 (91.7%) exact matches, in which:  
343 unique CDR3  
6 unique J



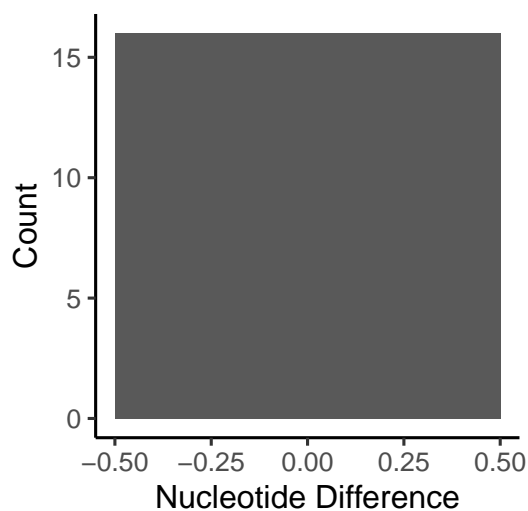
### IGKV1E-13\*02

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



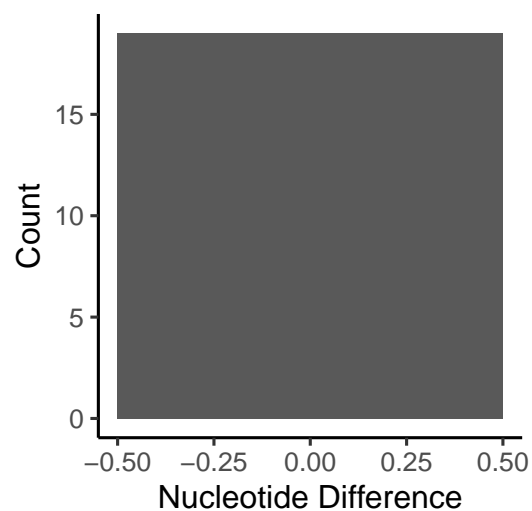
### IGKV6E-21\*03

16 sequences assigned  
16 (100%) exact matches, in which:  
14 unique CDR3  
5 unique J



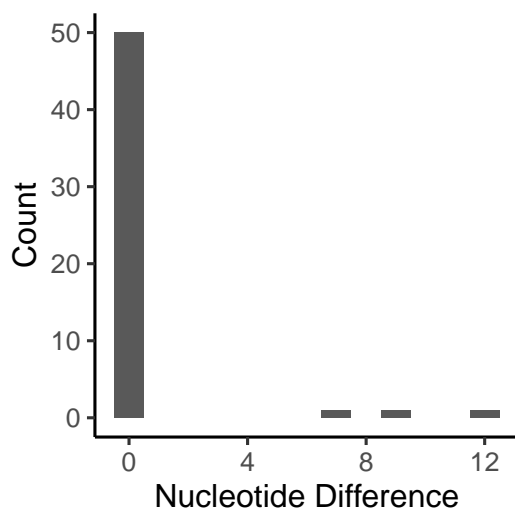
### IGKV1E-37\*01

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



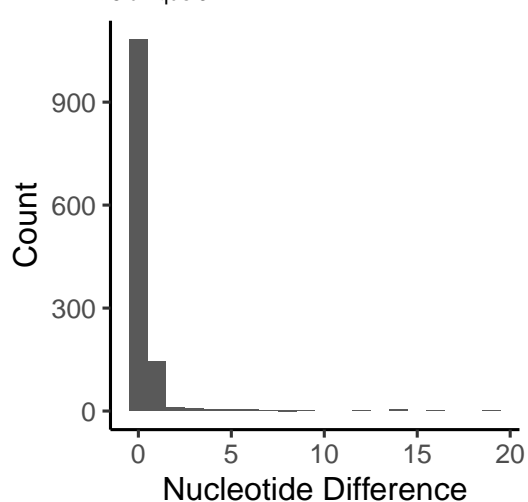
### IGKV1E-13\*03

53 sequences assigned  
50 (94.3%) exact matches, in which:  
42 unique CDR3  
6 unique J



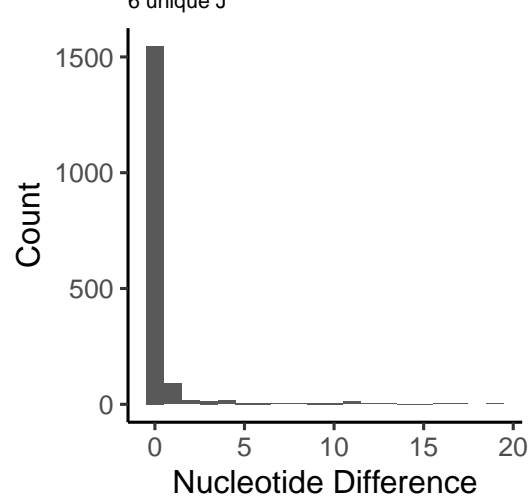
### IGKV2E-28\*01

1273 sequences assigned  
1083 (85.1%) exact matches, in which:  
739 unique CDR3  
6 unique J



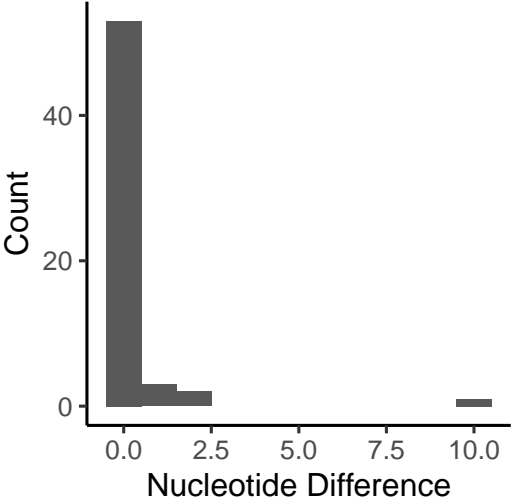
### IGKV1E-39\*01

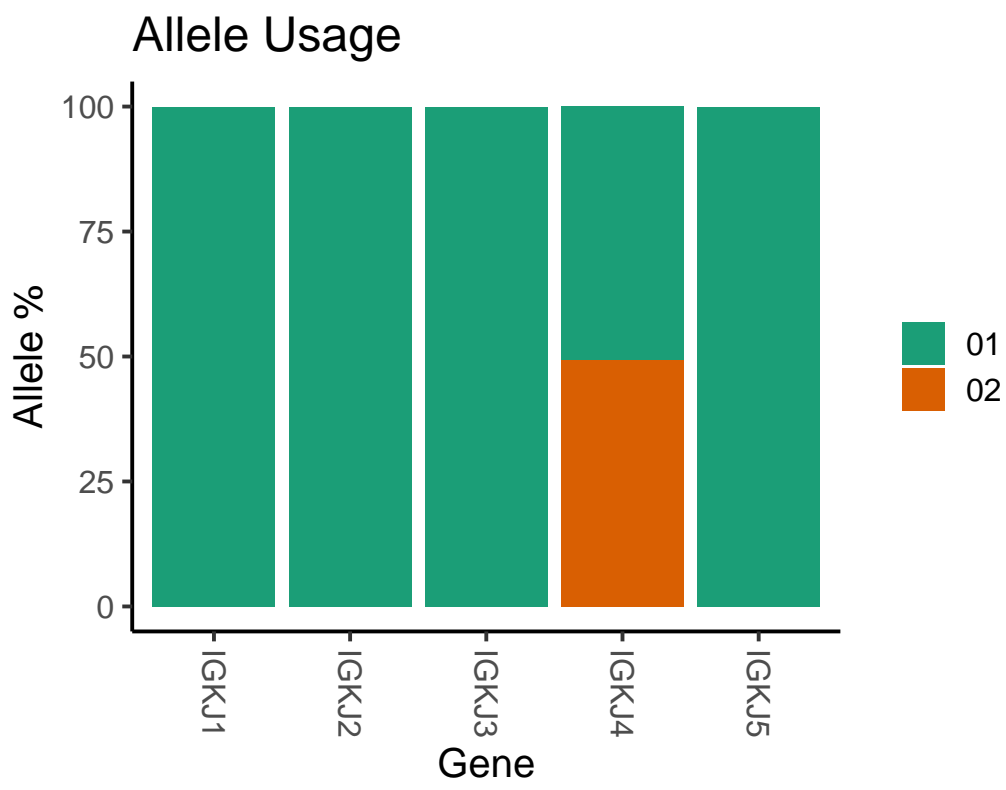
1750 sequences assigned  
1547 (88.4%) exact matches, in which:  
969 unique CDR3  
6 unique J



# IGKV2E-40\*01

59 sequences assigned  
53 (89.8%) exact matches, in which:  
40 unique CDR3  
6 unique J







Sequence Count by IGKJ4 allele usage



Warning – no inferred sequences found.