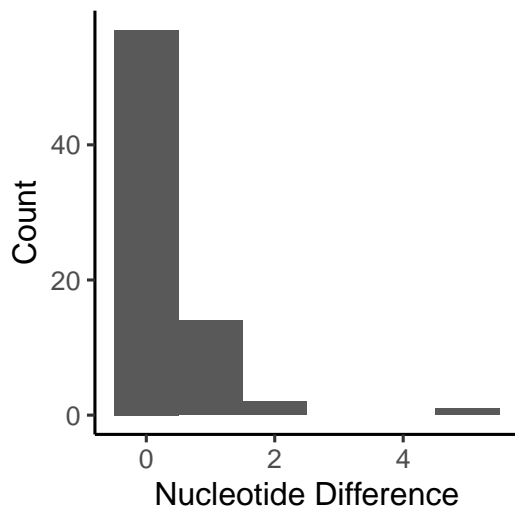


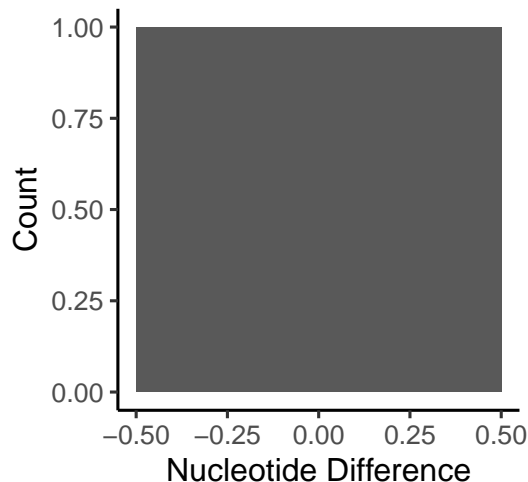
### IGHV1-2\*04

74 sequences assigned  
57 (77%) exact matches, in which:  
57 unique CDR3  
6 unique J



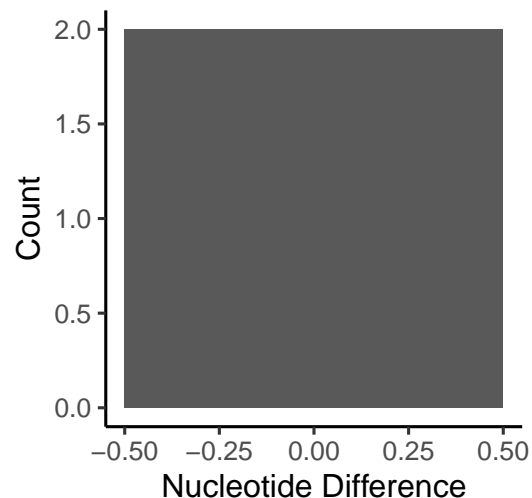
### IGHV1-8\*01

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



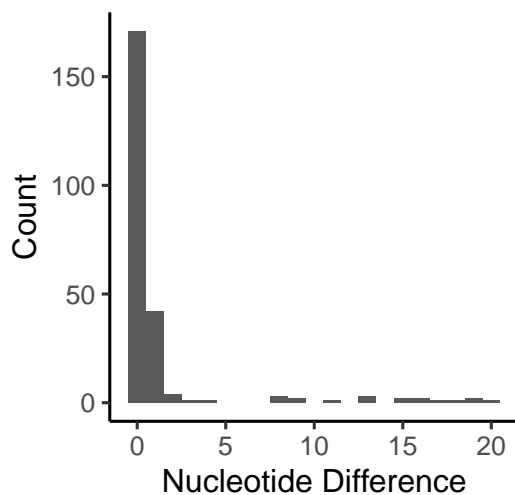
### IGHV1-45\*02

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



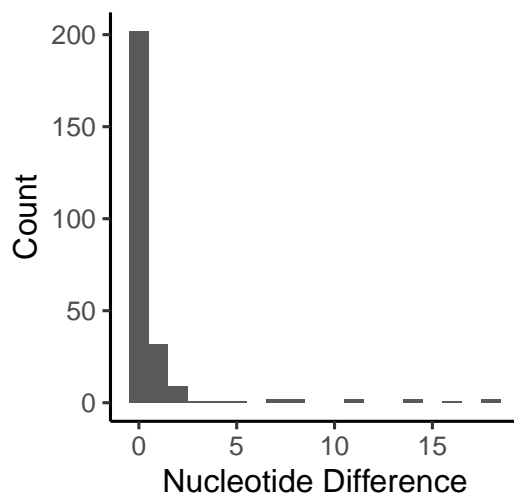
### IGHV1-2\*06

240 sequences assigned  
171 (71.2%) exact matches, in which:  
171 unique CDR3  
6 unique J



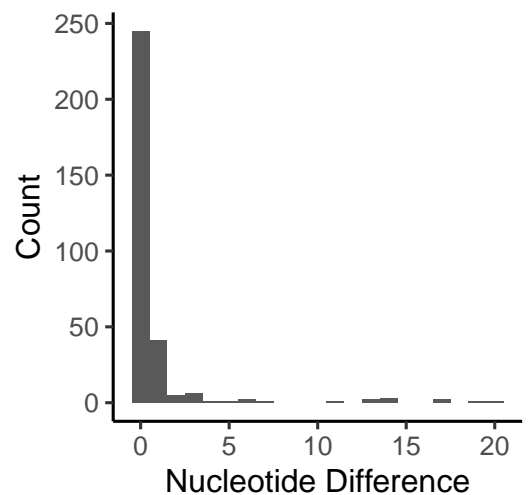
### IGHV1-18\*01

262 sequences assigned  
202 (77.1%) exact matches, in which:  
202 unique CDR3  
7 unique J



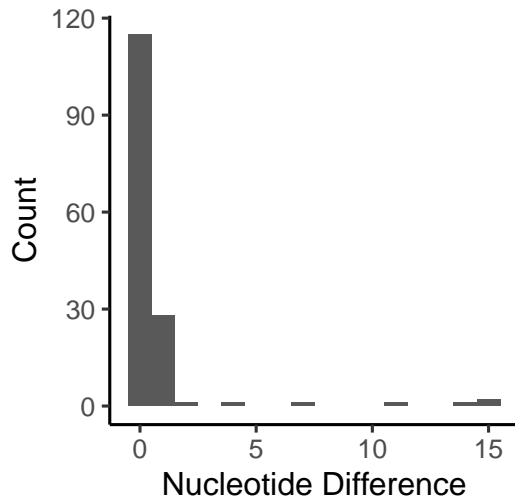
### IGHV1-46\*01

316 sequences assigned  
245 (77.5%) exact matches, in which:  
245 unique CDR3  
7 unique J



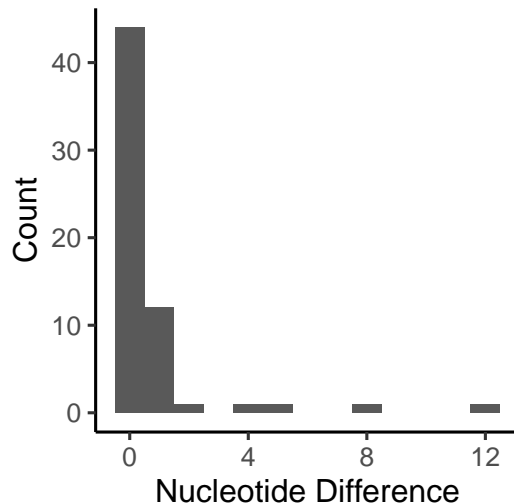
### IGHV1-3\*01

151 sequences assigned  
115 (76.2%) exact matches, in which:  
115 unique CDR3  
6 unique J



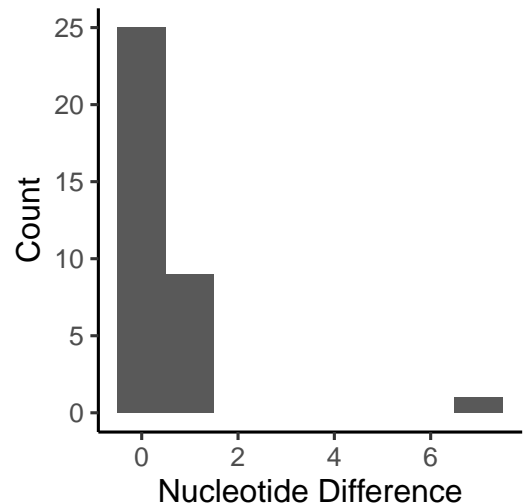
### IGHV1-24\*01

61 sequences assigned  
44 (72.1%) exact matches, in which:  
44 unique CDR3  
7 unique J



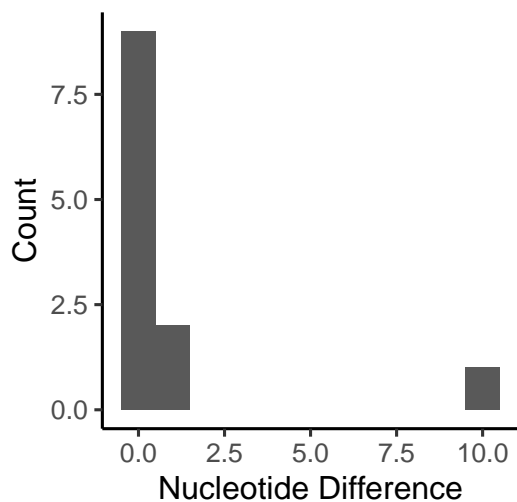
### IGHV1-58\*01

35 sequences assigned  
25 (71.4%) exact matches, in which:  
25 unique CDR3  
5 unique J



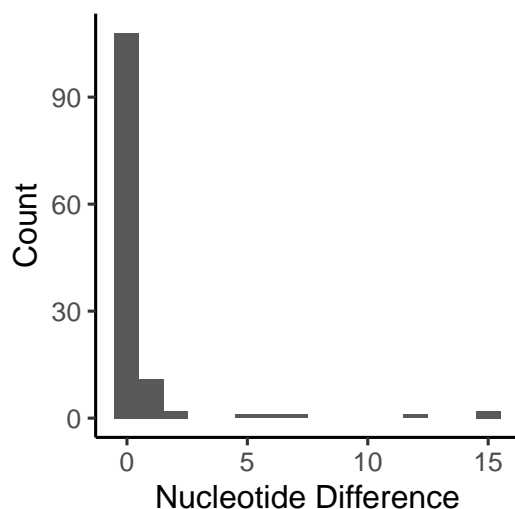
### IGHV1-69-2\*01

12 sequences assigned  
9 (75%) exact matches, in which:  
9 unique CDR3  
4 unique J



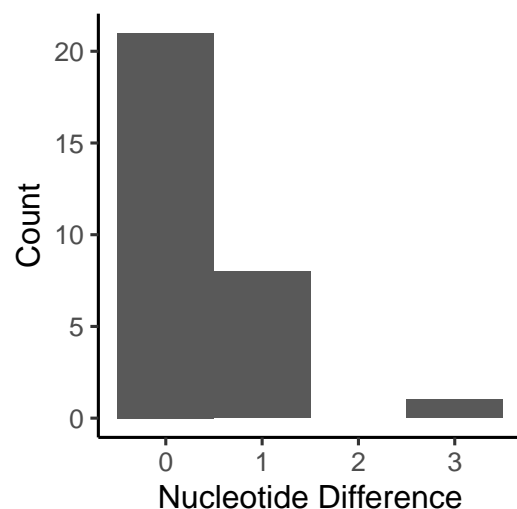
### IGHV2-26\*01

127 sequences assigned  
108 (85%) exact matches, in which:  
108 unique CDR3  
7 unique J



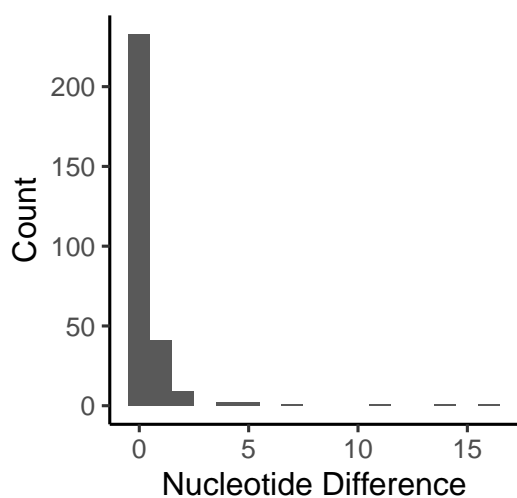
### IGHV3-7\*04

30 sequences assigned  
21 (70%) exact matches, in which:  
21 unique CDR3  
4 unique J



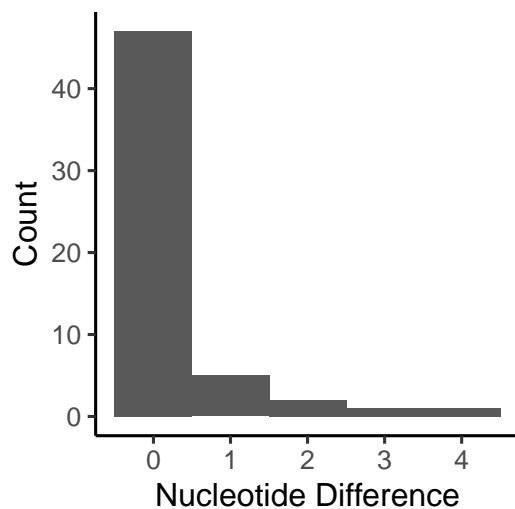
### IGHV1-69\*06

296 sequences assigned  
233 (78.7%) exact matches, in which:  
233 unique CDR3  
6 unique J



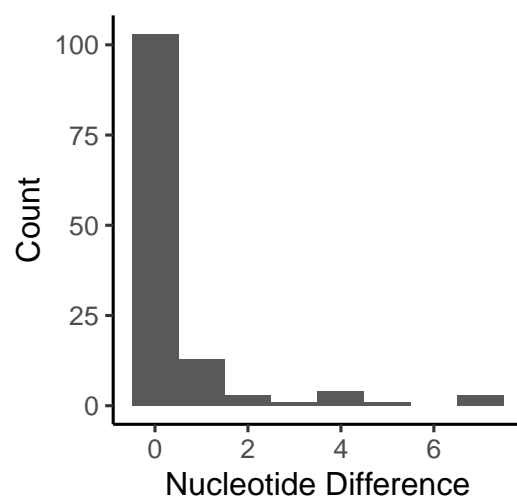
### IGHV2-70\*01

56 sequences assigned  
47 (83.9%) exact matches, in which:  
47 unique CDR3  
5 unique J



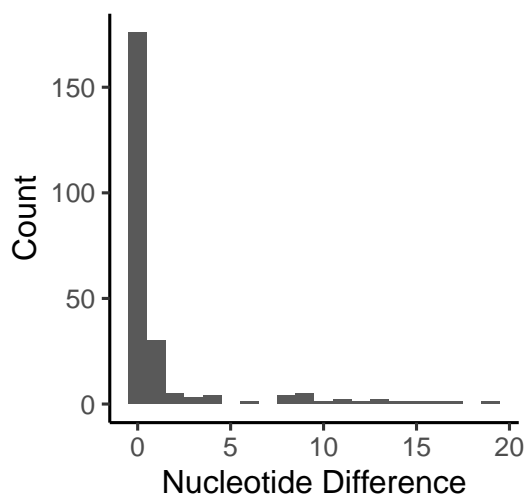
### IGHV3-11\*05

128 sequences assigned  
103 (80.5%) exact matches, in which:  
103 unique CDR3  
5 unique J



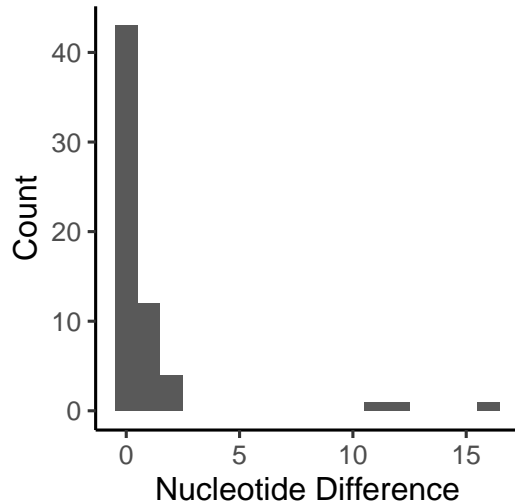
### IGHV2-5\*02

240 sequences assigned  
176 (73.3%) exact matches, in which:  
176 unique CDR3  
7 unique J



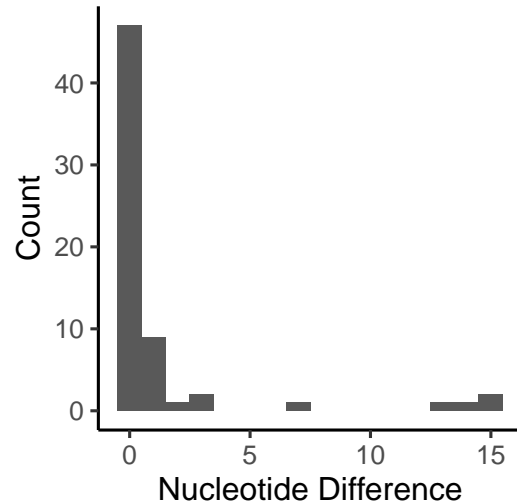
### IGHV3-7\*01

64 sequences assigned  
43 (67.2%) exact matches, in which:  
43 unique CDR3  
6 unique J



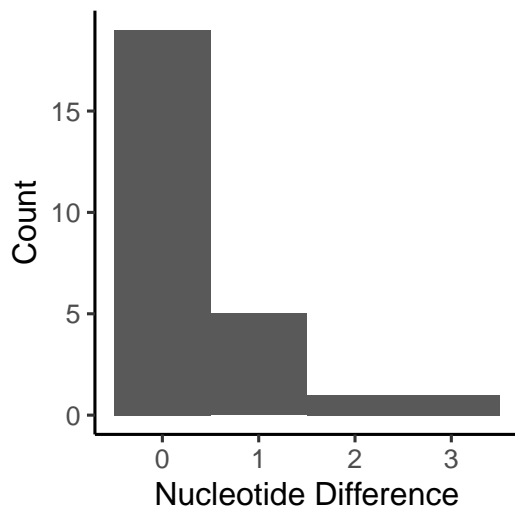
### IGHV3-11\*06

64 sequences assigned  
47 (73.4%) exact matches, in which:  
47 unique CDR3  
5 unique J



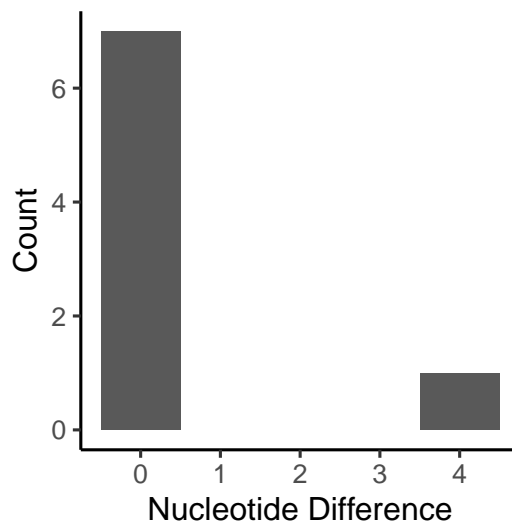
### IGHV3-13\*04

26 sequences assigned  
19 (73.1%) exact matches, in which:  
19 unique CDR3  
4 unique J



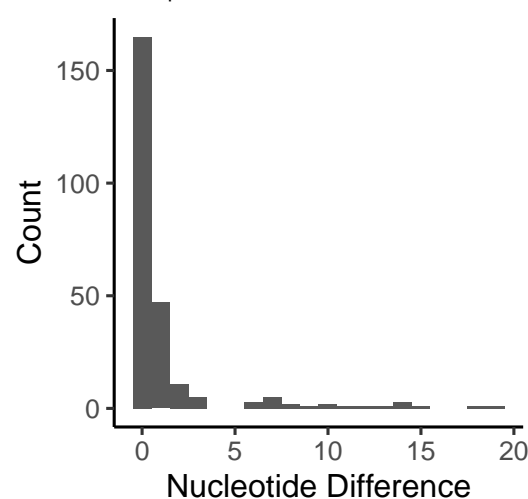
### IGHV3-20\*01

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



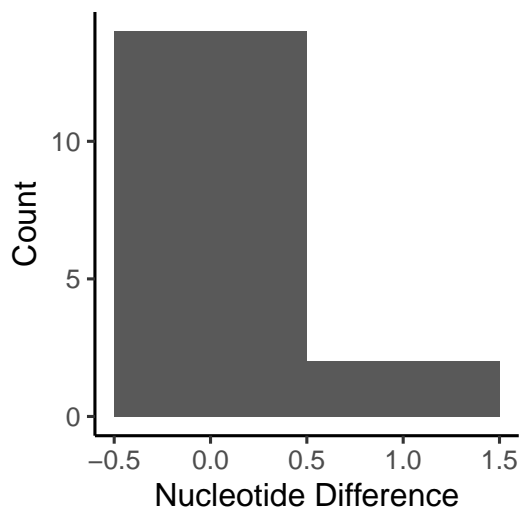
### IGHV3-30-3\*01

252 sequences assigned  
165 (65.5%) exact matches, in which:  
165 unique CDR3  
6 unique J



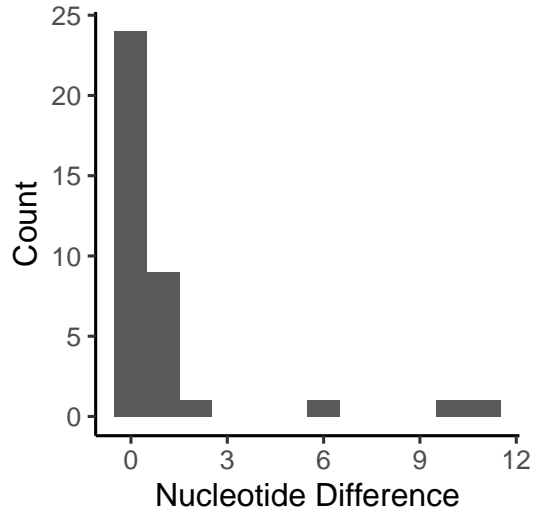
### IGHV3-13\*05

16 sequences assigned  
14 (87.5%) exact matches, in which:  
14 unique CDR3  
4 unique J



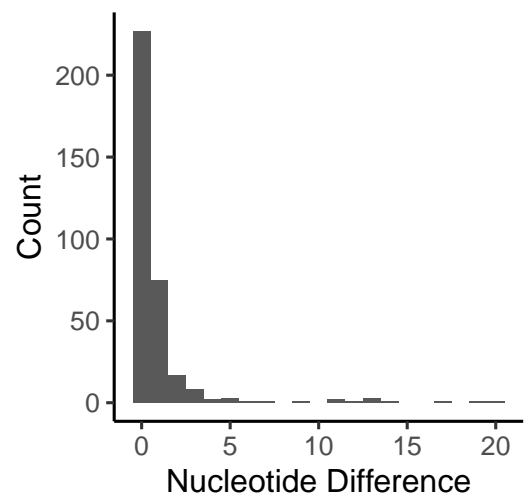
### IGHV3-20\*04

37 sequences assigned  
24 (64.9%) exact matches, in which:  
24 unique CDR3  
5 unique J



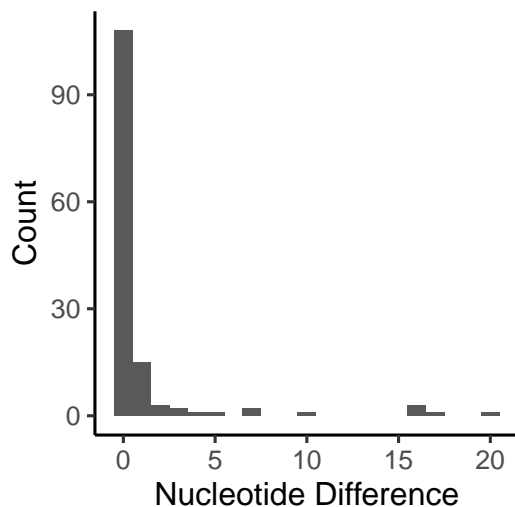
### IGHV3-33\*01

349 sequences assigned  
227 (65%) exact matches, in which:  
227 unique CDR3  
7 unique J



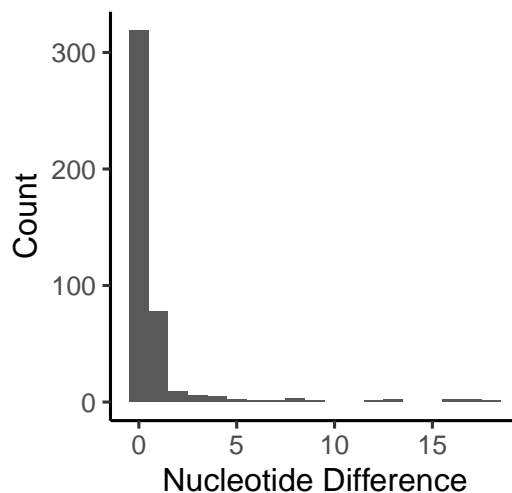
### IGHV3-15\*01

141 sequences assigned  
108 (76.6%) exact matches, in which:  
108 unique CDR3  
7 unique J



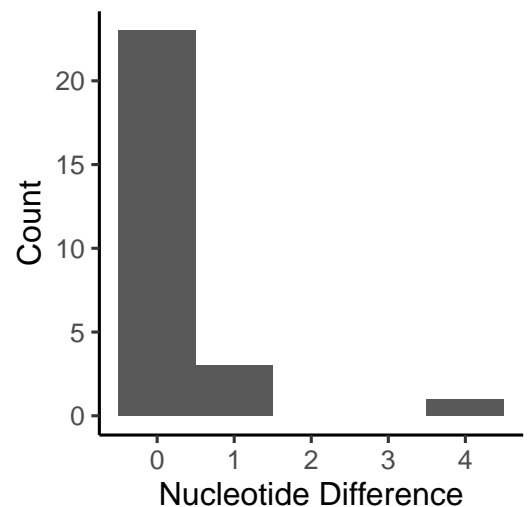
### IGHV3-21\*01

435 sequences assigned  
319 (73.3%) exact matches, in which:  
319 unique CDR3  
7 unique J



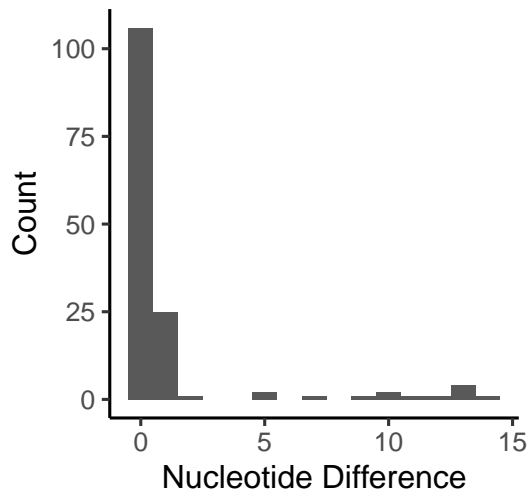
### IGHV3-43\*01

27 sequences assigned  
23 (85.2%) exact matches, in which:  
23 unique CDR3  
5 unique J



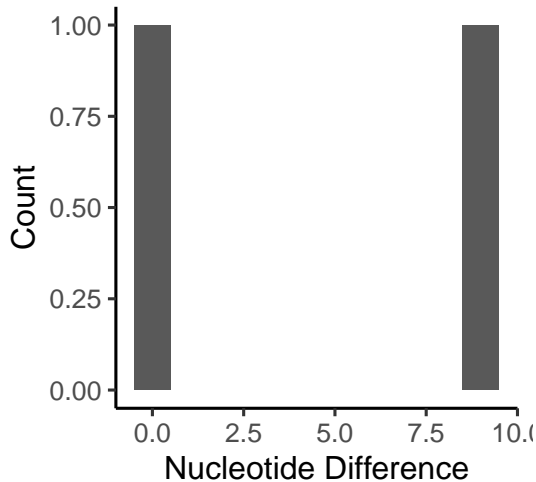
### IGHV3-48\*02

147 sequences assigned  
106 (72.1%) exact matches, in which:  
106 unique CDR3  
7 unique J



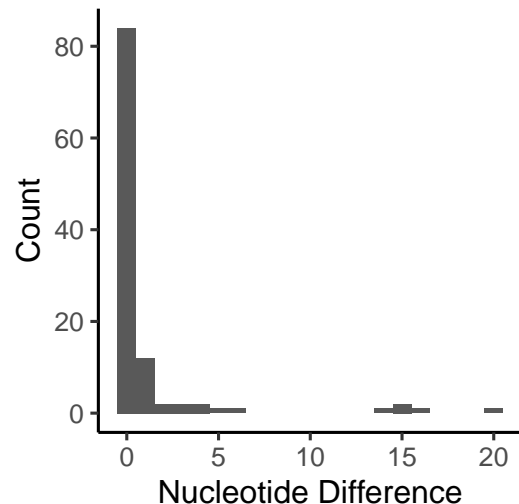
### IGHV3-64\*02

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



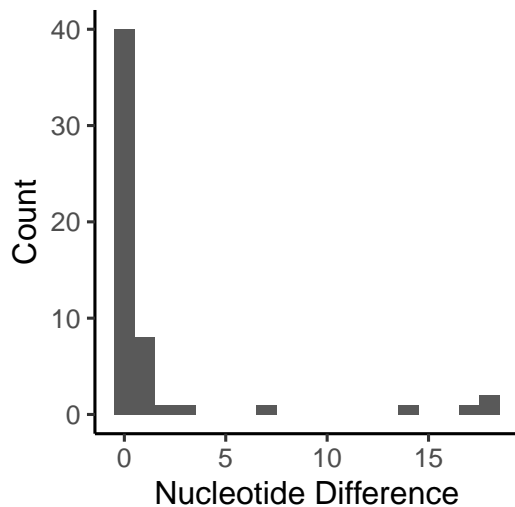
### IGHV3-74\*01

110 sequences assigned  
84 (76.4%) exact matches, in which:  
84 unique CDR3  
6 unique J



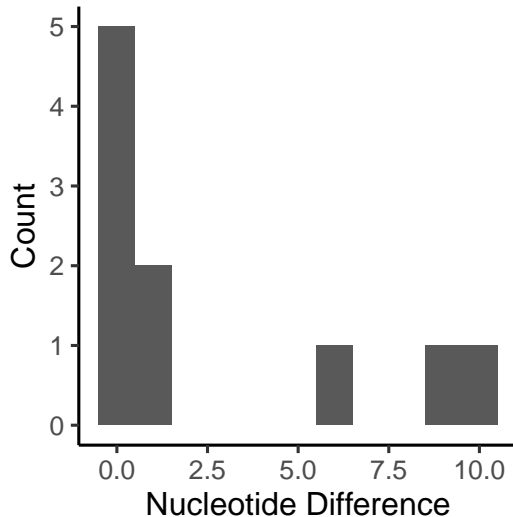
### IGHV3-49\*05

55 sequences assigned  
40 (72.7%) exact matches, in which:  
40 unique CDR3  
7 unique J



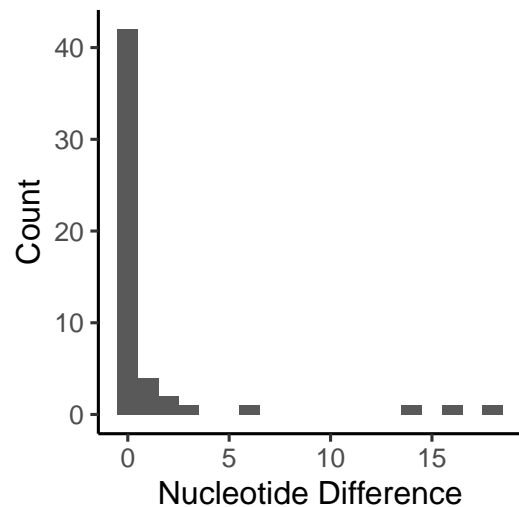
### IGHV3-72\*01

11 sequences assigned  
5 (45.5%) exact matches, in which:  
5 unique CDR3  
3 unique J



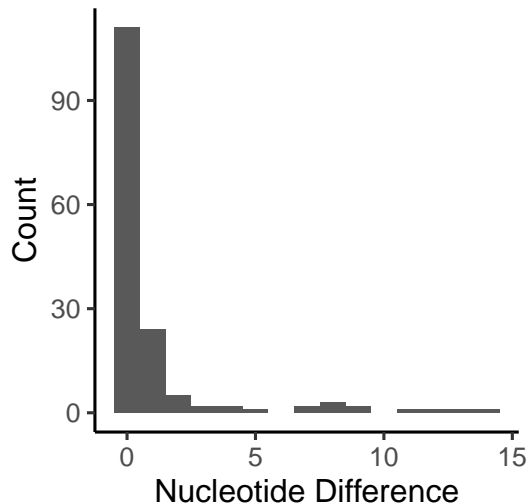
### IGHV3-64D\*06

55 sequences assigned  
42 (76.4%) exact matches, in which:  
42 unique CDR3  
7 unique J



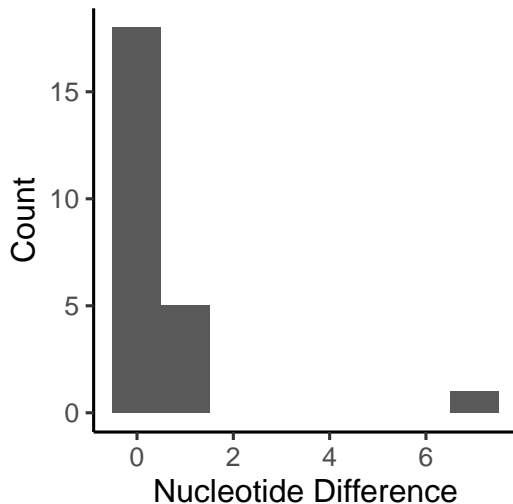
### IGHV3-53\*01

157 sequences assigned  
111 (70.7%) exact matches, in which:  
111 unique CDR3  
6 unique J



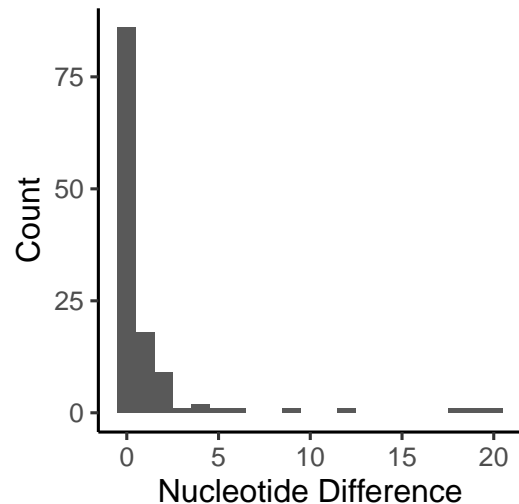
### IGHV3-73\*02

24 sequences assigned  
18 (75%) exact matches, in which:  
18 unique CDR3  
5 unique J



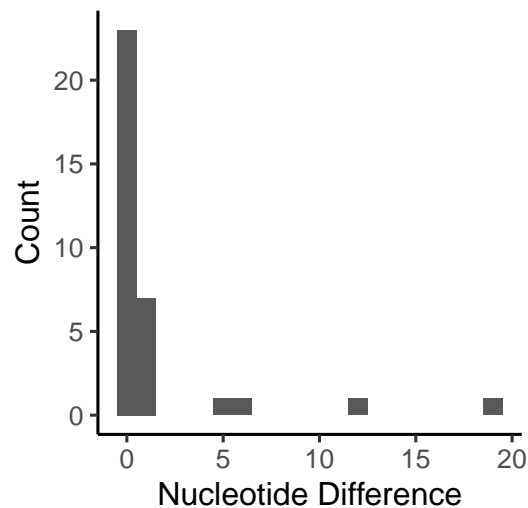
### IGHV4-4\*02

125 sequences assigned  
86 (68.8%) exact matches, in which:  
86 unique CDR3  
7 unique J



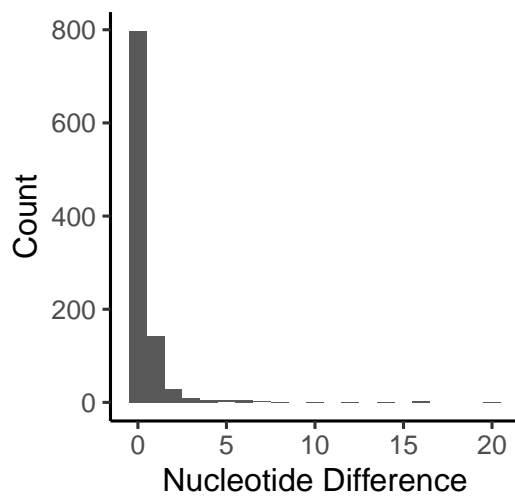
### IGHV4-30-2\*01

36 sequences assigned  
23 (63.9%) exact matches, in which:  
23 unique CDR3  
7 unique J



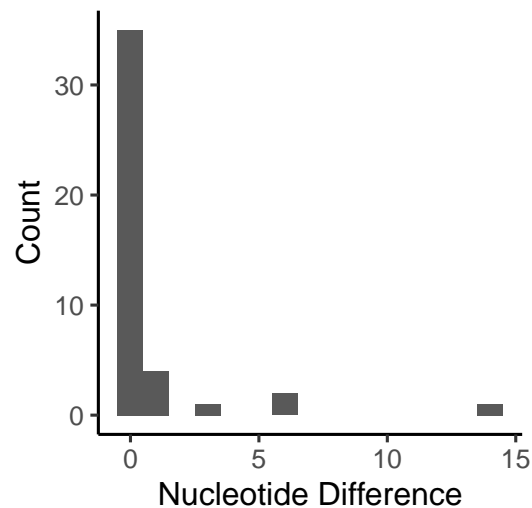
### IGHV4-34\*01

1009 sequences assigned  
798 (79.1%) exact matches, in which:  
797 unique CDR3  
7 unique J



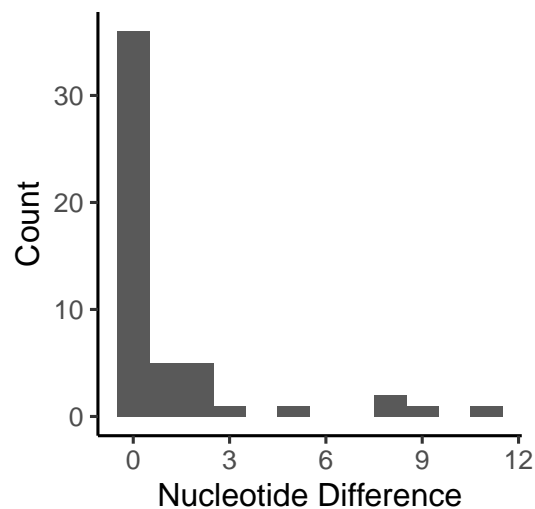
### IGHV4-61\*01

44 sequences assigned  
35 (79.5%) exact matches, in which:  
35 unique CDR3  
6 unique J



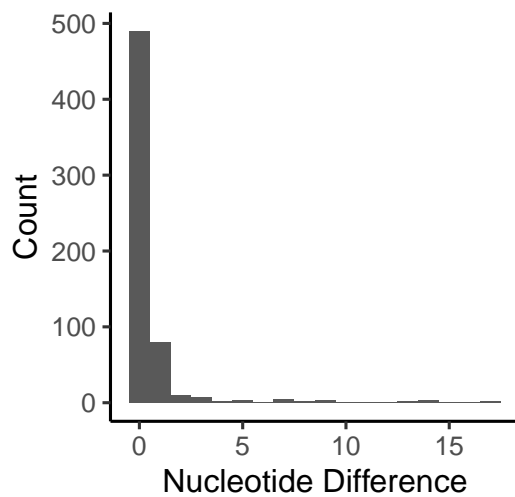
### IGHV4-30-4\*01

52 sequences assigned  
36 (69.2%) exact matches, in which:  
36 unique CDR3  
6 unique J



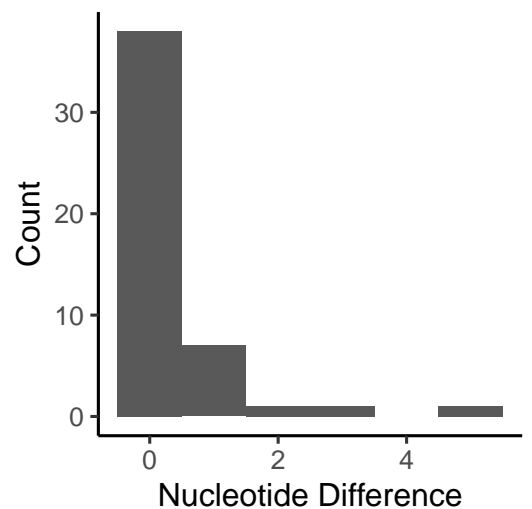
### IGHV4-39\*01

621 sequences assigned  
490 (78.9%) exact matches, in which:  
490 unique CDR3  
7 unique J



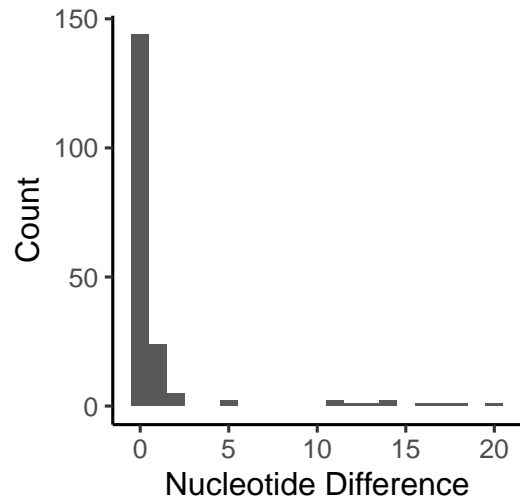
### IGHV5-10-1\*01

48 sequences assigned  
38 (79.2%) exact matches, in which:  
38 unique CDR3  
6 unique J



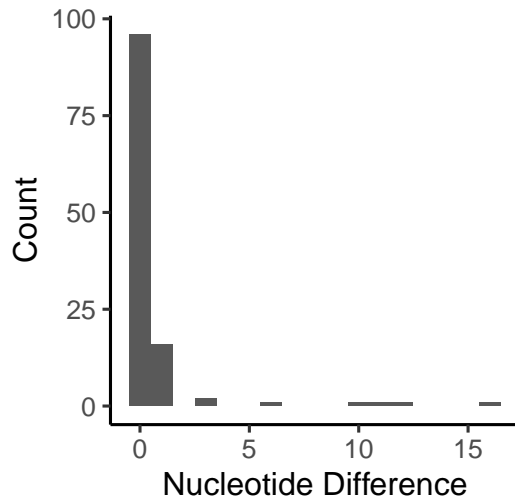
### IGHV4-31\*03

186 sequences assigned  
144 (77.4%) exact matches, in which:  
144 unique CDR3  
6 unique J



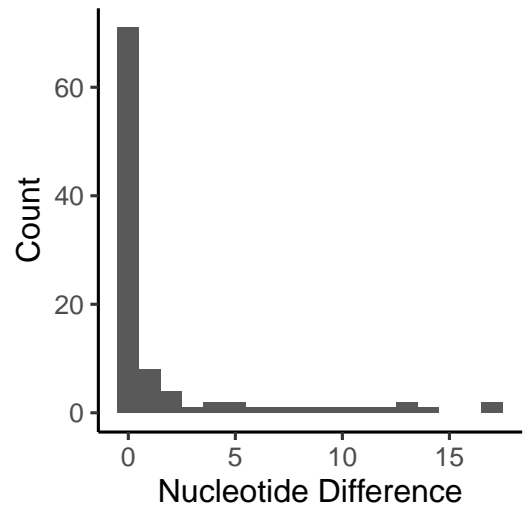
### IGHV4-59\*01

125 sequences assigned  
96 (76.8%) exact matches, in which:  
96 unique CDR3  
7 unique J



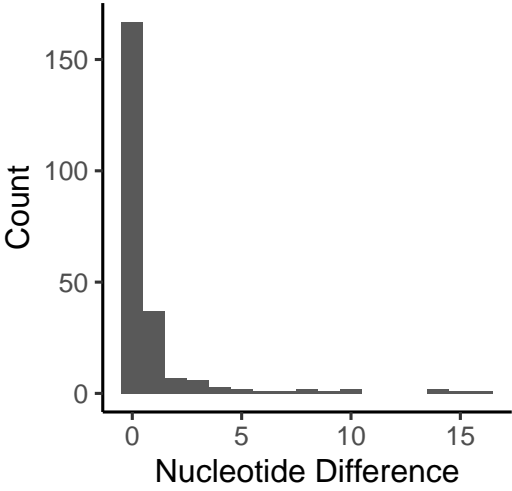
### IGHV5-10-1\*03

101 sequences assigned  
71 (70.3%) exact matches, in which:  
71 unique CDR3  
6 unique J



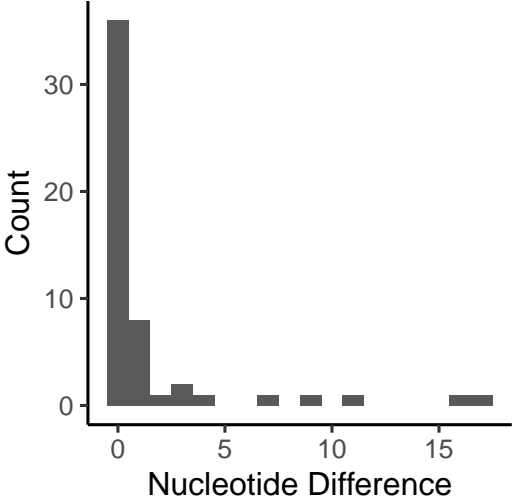
# IGHV5-51\*01

233 sequences assigned  
167 (71.7%) exact matches, in which:  
167 unique CDR3  
7 unique J



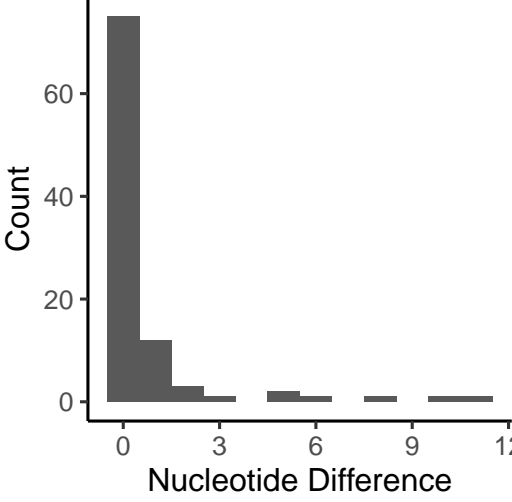
# IGHV6-1\*01

54 sequences assigned  
36 (66.7%) exact matches, in which:  
36 unique CDR3  
6 unique J

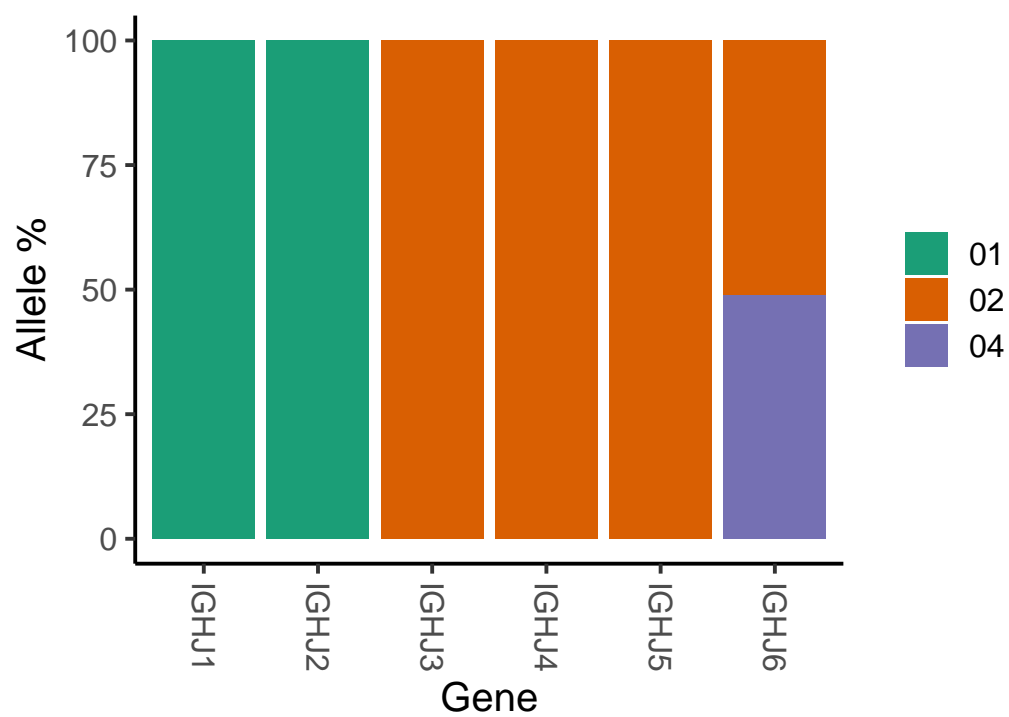


# IGHV7-4-1\*02

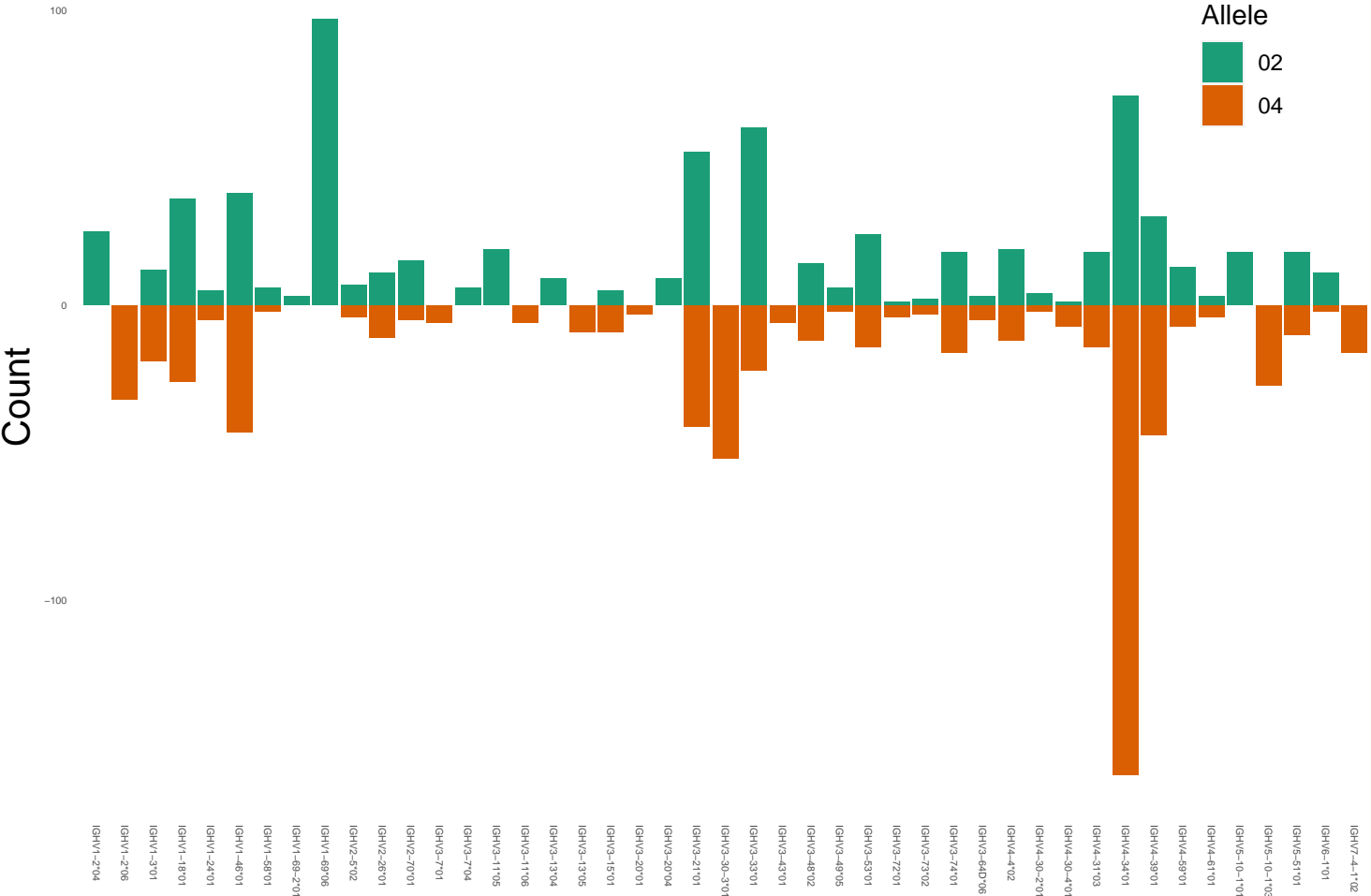
98 sequences assigned  
75 (76.5%) exact matches, in which:  
75 unique CDR3  
6 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage





Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.