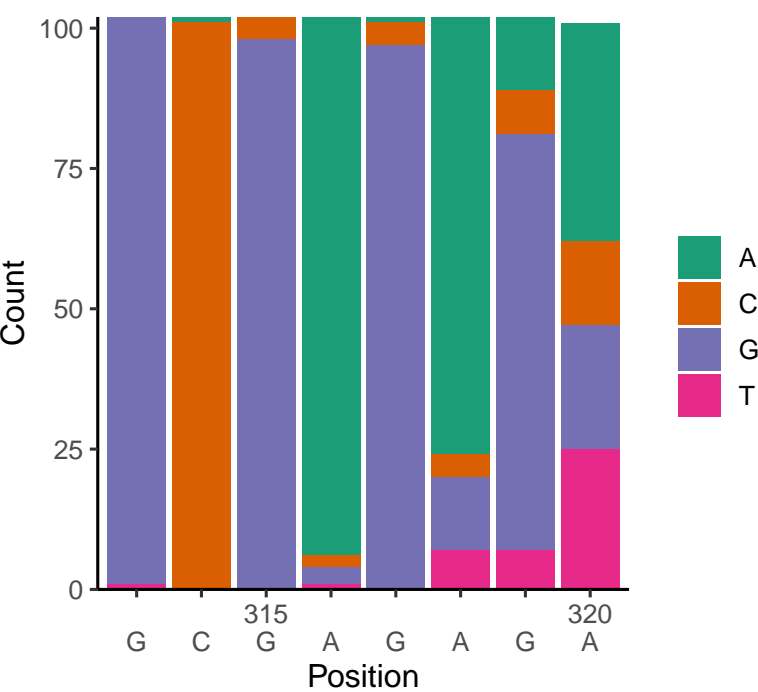


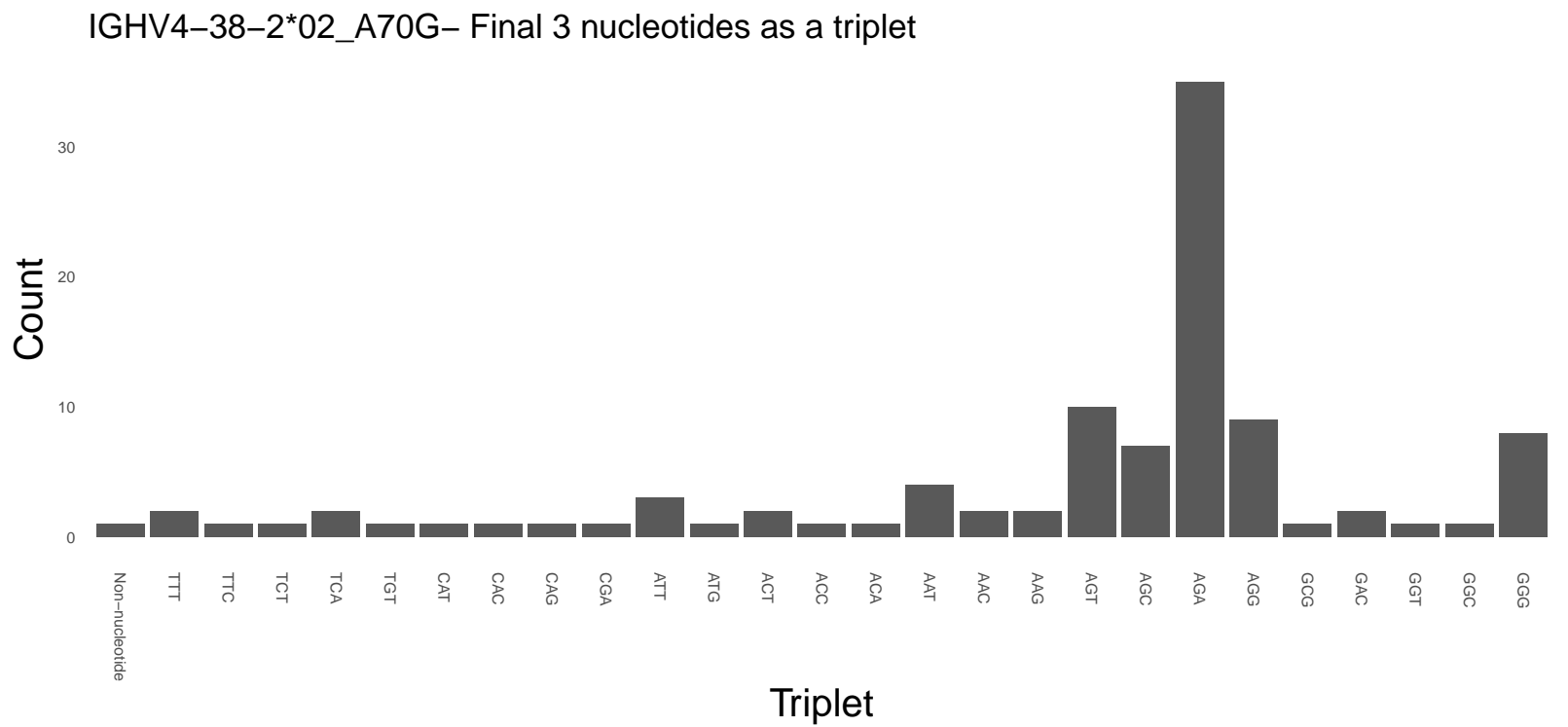
Gene IGHV4-38-2\*02\_A70G



Gene IGHV4-38-2\*02\_A70G

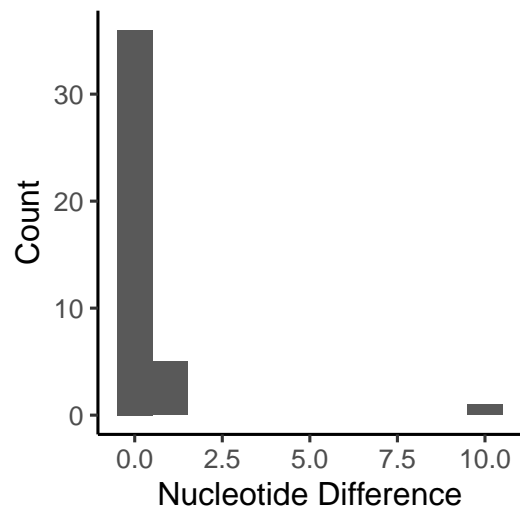


IGHV4-38-2\*02\_A70G- Final 3 nucleotides as a triplet



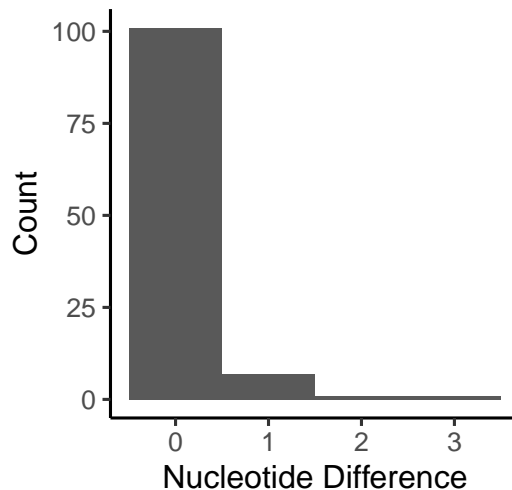
### IGHV1-2\*04

42 sequences assigned  
36 (85.7%) exact matches, in which:  
36 unique CDR3  
5 unique J



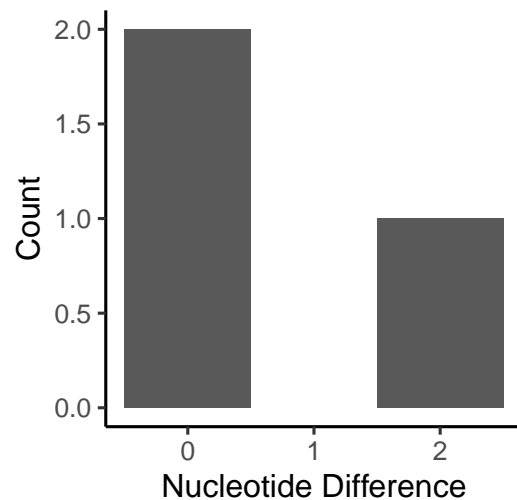
### IGHV1-8\*01

110 sequences assigned  
101 (91.8%) exact matches, in which:  
101 unique CDR3  
5 unique J



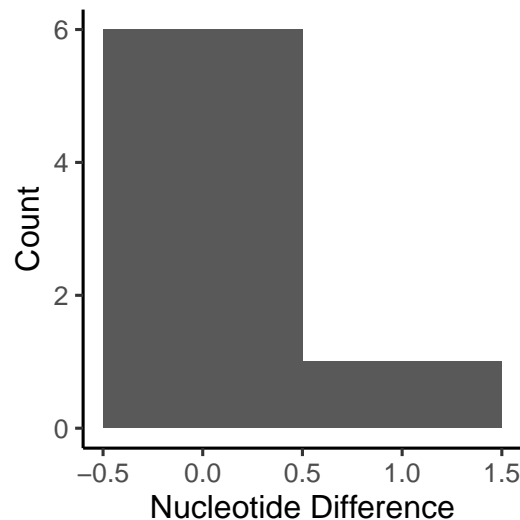
### IGHV1-45\*02

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



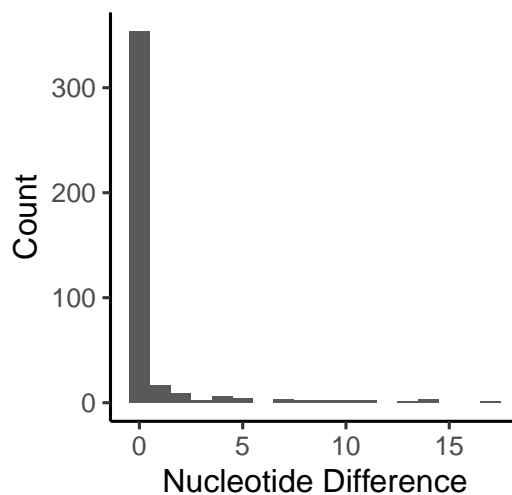
### IGHV1-2\*05

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



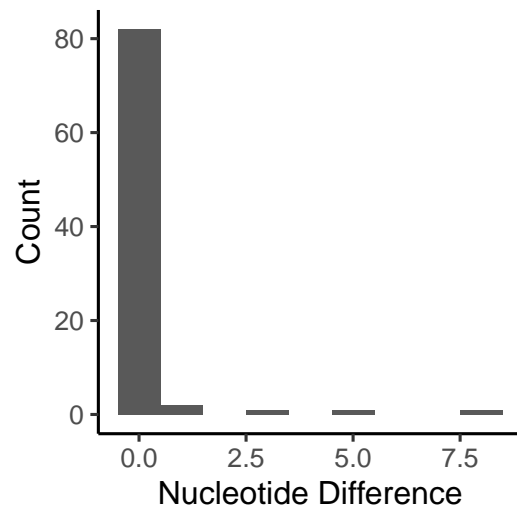
### IGHV1-18\*01

408 sequences assigned  
354 (86.8%) exact matches, in which:  
352 unique CDR3  
7 unique J



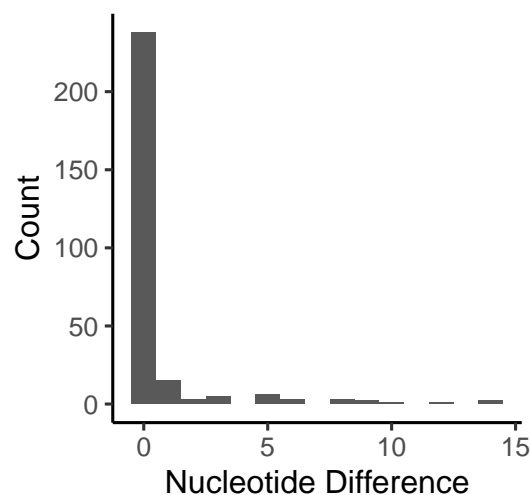
### IGHV1-46\*01

87 sequences assigned  
82 (94.3%) exact matches, in which:  
82 unique CDR3  
7 unique J



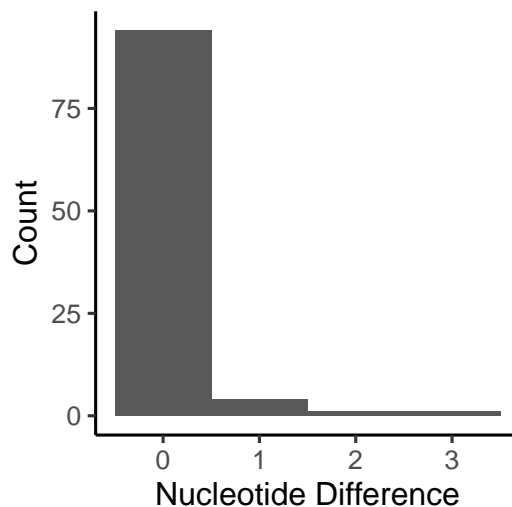
### IGHV1-3\*01

281 sequences assigned  
238 (84.7%) exact matches, in which:  
238 unique CDR3  
7 unique J



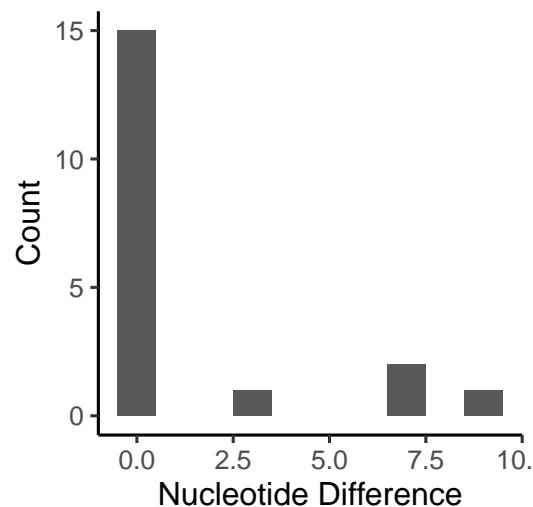
### IGHV1-24\*01

101 sequences assigned  
94 (93.1%) exact matches, in which:  
94 unique CDR3  
7 unique J



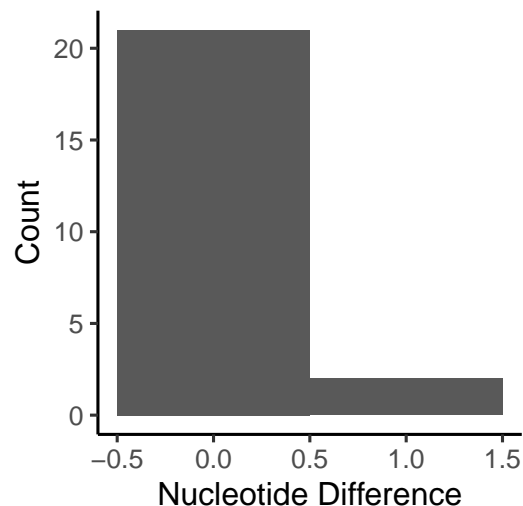
### IGHV1-58\*01

20 sequences assigned  
15 (75%) exact matches, in which:  
15 unique CDR3  
5 unique J



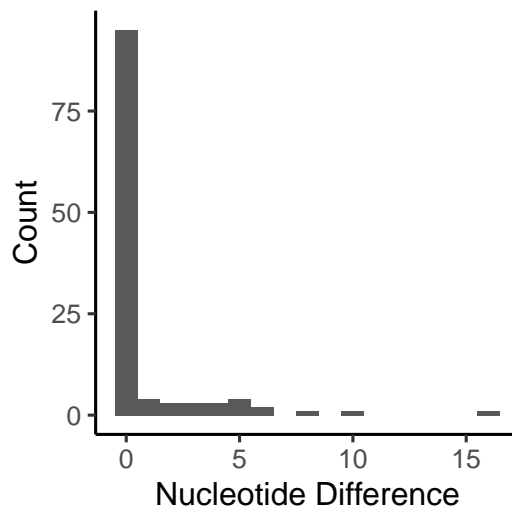
### IGHV1-69-2\*01

23 sequences assigned  
21 (91.3%) exact matches, in which:  
21 unique CDR3  
5 unique J



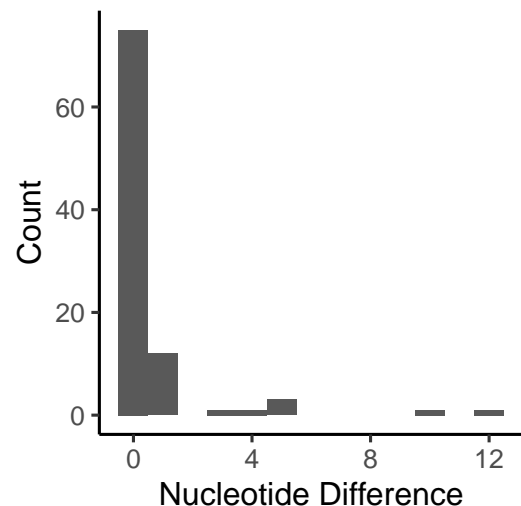
### IGHV2-5\*02

117 sequences assigned  
95 (81.2%) exact matches, in which:  
95 unique CDR3  
6 unique J



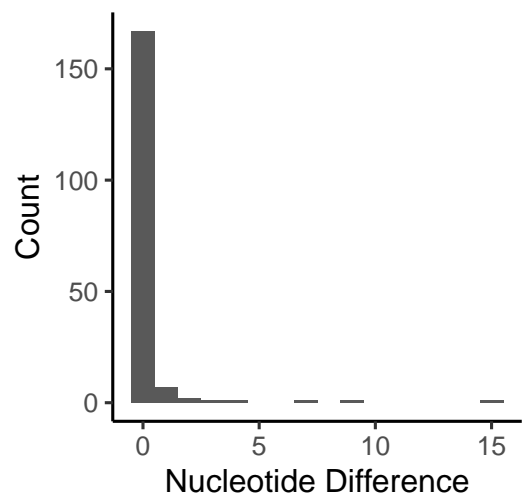
### IGHV3-7\*01

95 sequences assigned  
75 (78.9%) exact matches, in which:  
75 unique CDR3  
5 unique J



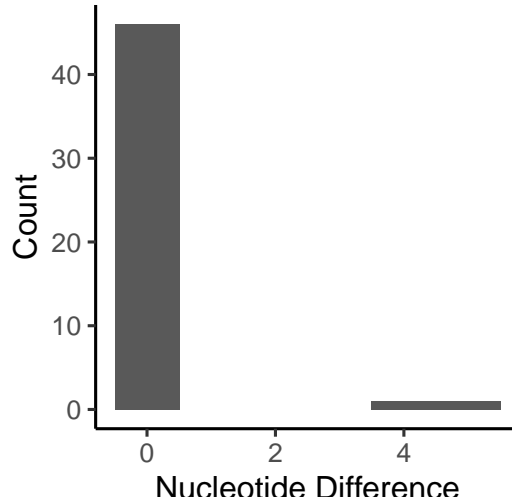
### IGHV1-69\*06

181 sequences assigned  
167 (92.3%) exact matches, in which:  
166 unique CDR3  
6 unique J



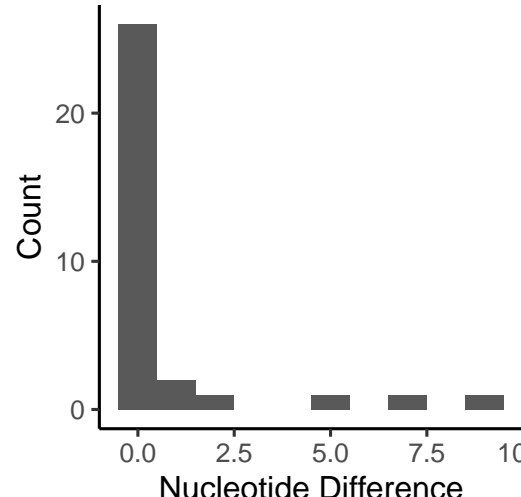
### IGHV2-26\*01

48 sequences assigned  
46 (95.8%) exact matches, in which:  
46 unique CDR3  
6 unique J



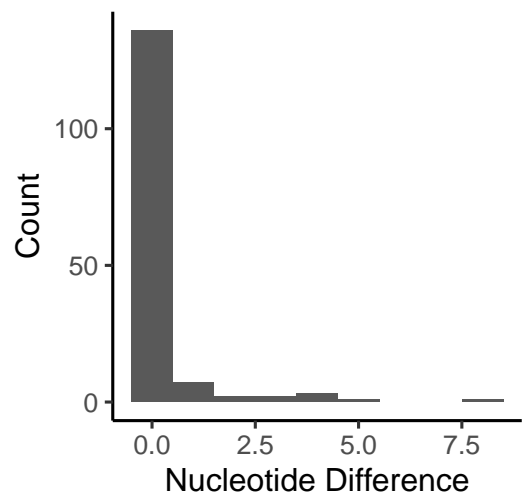
### IGHV3-7\*04

33 sequences assigned  
26 (78.8%) exact matches, in which:  
26 unique CDR3  
4 unique J



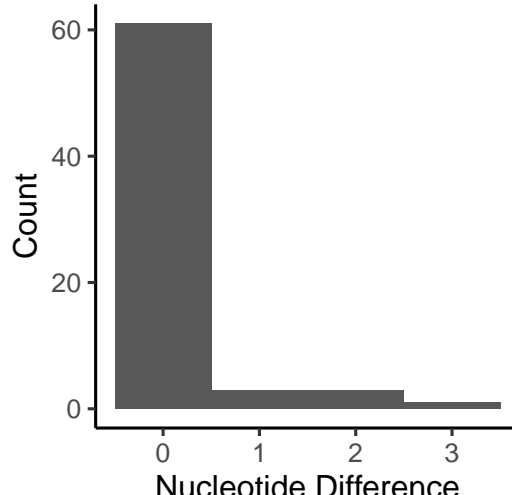
### IGHV2-5\*01

152 sequences assigned  
136 (89.5%) exact matches, in which:  
136 unique CDR3  
6 unique J



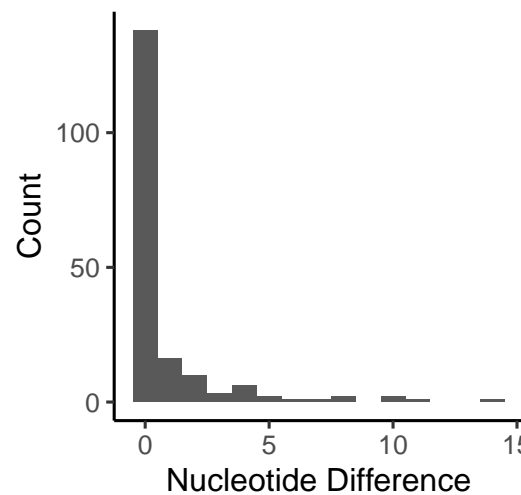
### IGHV2-70\*01

69 sequences assigned  
61 (88.4%) exact matches, in which:  
61 unique CDR3  
6 unique J



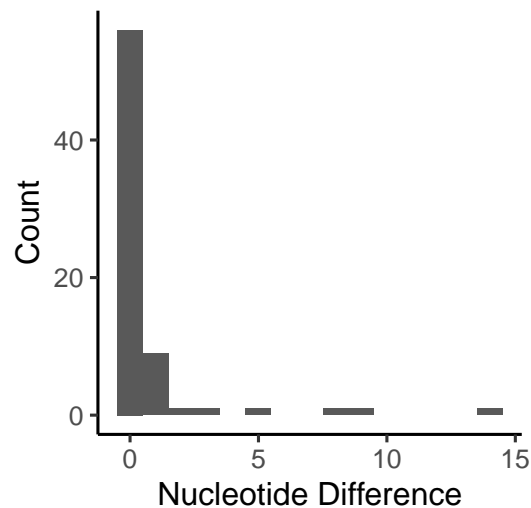
### IGHV3-9\*01

185 sequences assigned  
138 (74.6%) exact matches, in which:  
138 unique CDR3  
6 unique J



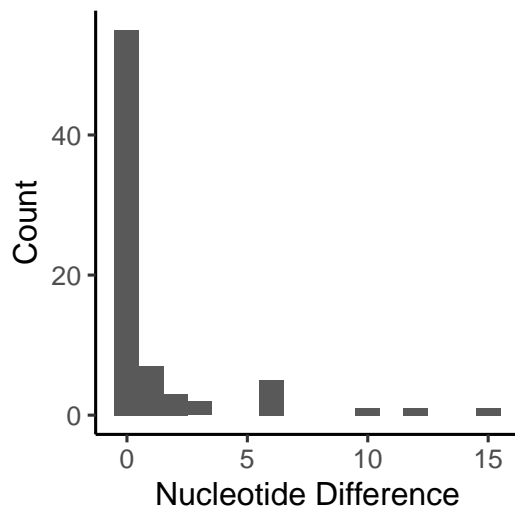
### IGHV3-11\*01

71 sequences assigned  
56 (78.9%) exact matches, in which:  
56 unique CDR3  
5 unique J



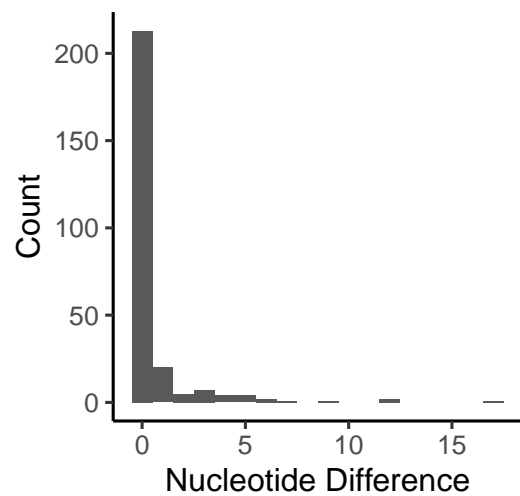
### IGHV3-15\*01

75 sequences assigned  
55 (73.3%) exact matches, in which:  
54 unique CDR3  
6 unique J



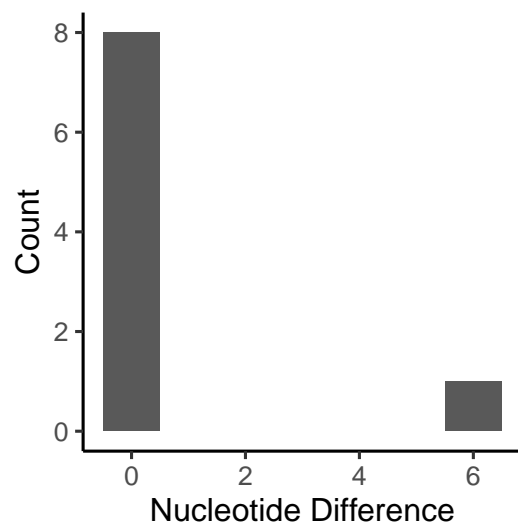
### IGHV3-21\*01

260 sequences assigned  
213 (81.9%) exact matches, in which:  
213 unique CDR3  
7 unique J



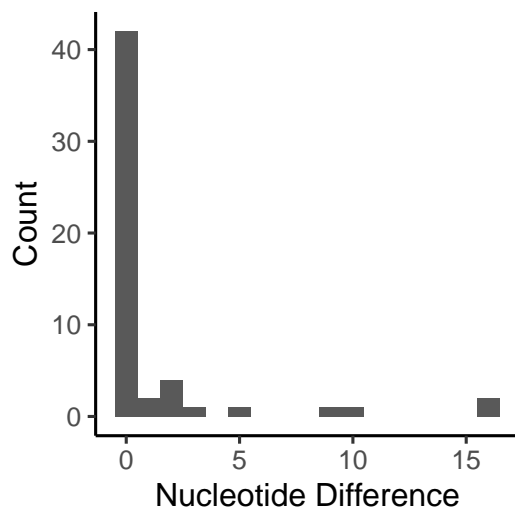
### IGHV3-11\*06

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



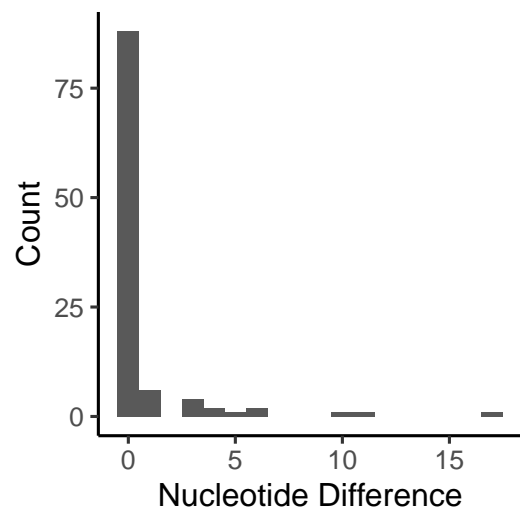
### IGHV3-15\*07

54 sequences assigned  
42 (77.8%) exact matches, in which:  
42 unique CDR3  
5 unique J



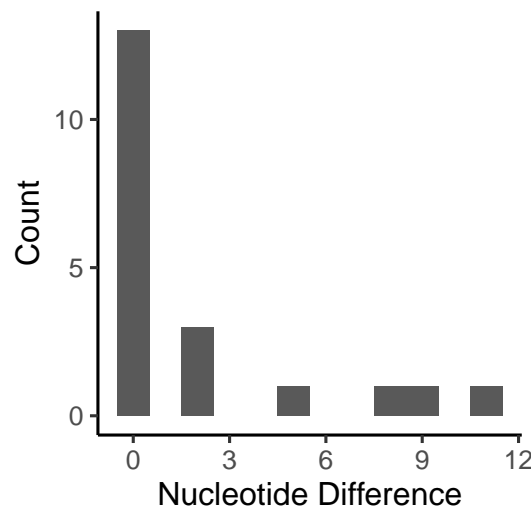
### IGHV3-30\*01

106 sequences assigned  
88 (83%) exact matches, in which:  
87 unique CDR3  
4 unique J



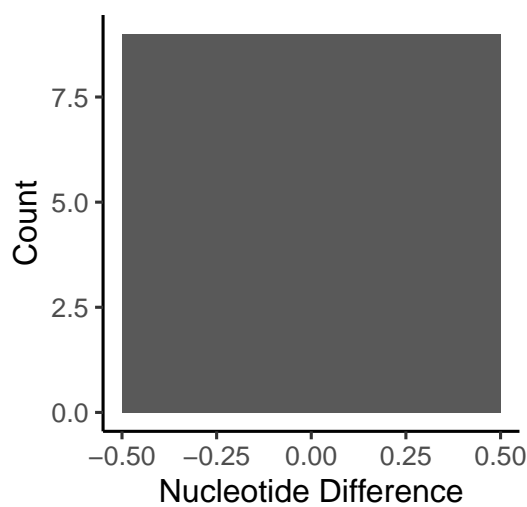
### IGHV3-13\*01

20 sequences assigned  
13 (65%) exact matches, in which:  
13 unique CDR3  
3 unique J



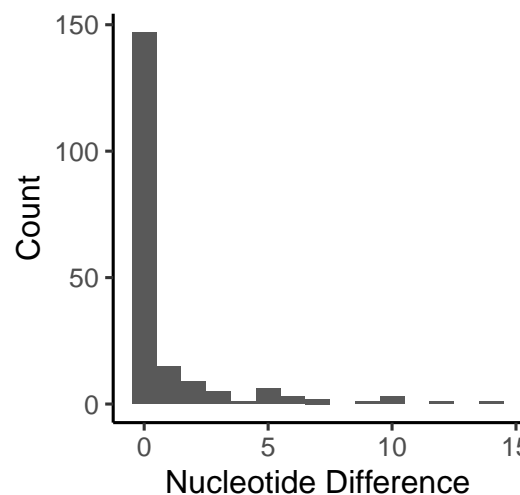
### IGHV3-20\*01

9 sequences assigned  
9 (100%) exact matches, in which:  
9 unique CDR3  
5 unique J



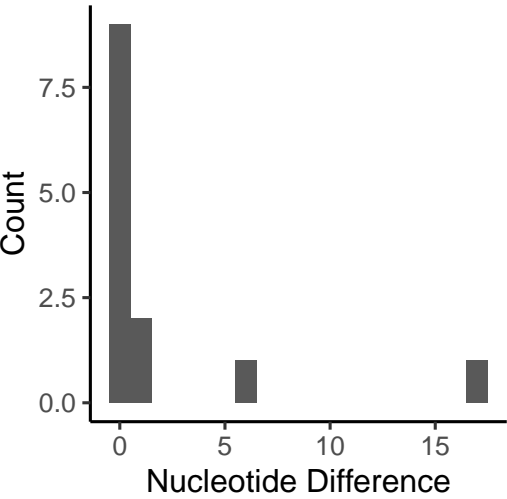
### IGHV3-33\*01

195 sequences assigned  
147 (75.4%) exact matches, in which:  
147 unique CDR3  
7 unique J



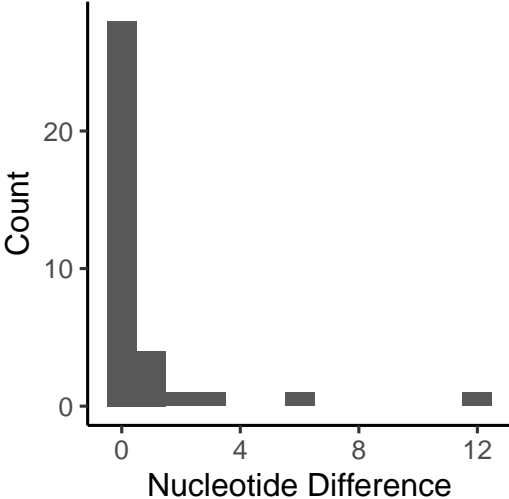
IGHV3-43\*01

13 sequences assigned  
9 (69.2%) exact matches, in which:  
9 unique CDR3  
3 unique J



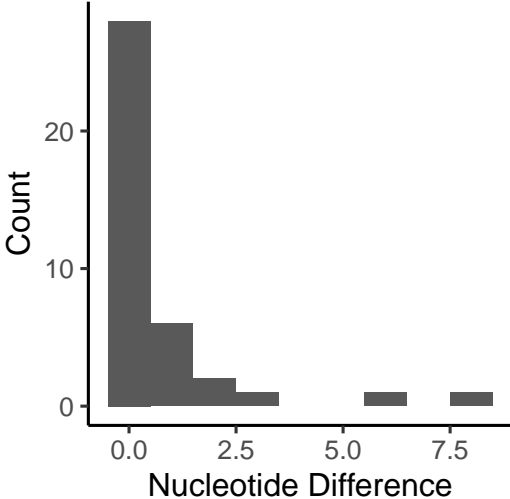
IGHV3-49\*04

36 sequences assigned  
28 (77.8%) exact matches, in which:  
28 unique CDR3  
5 unique J



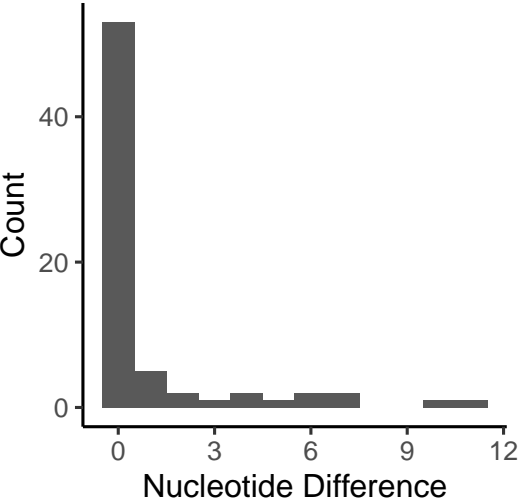
IGHV3-53\*02

39 sequences assigned  
28 (71.8%) exact matches, in which:  
28 unique CDR3  
5 unique J



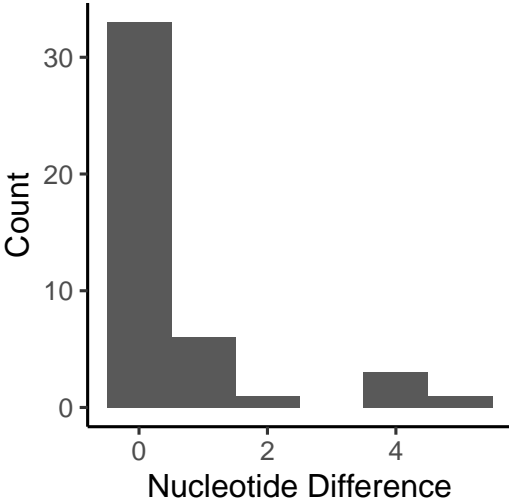
IGHV3-48\*02

70 sequences assigned  
53 (75.7%) exact matches, in which:  
53 unique CDR3  
5 unique J



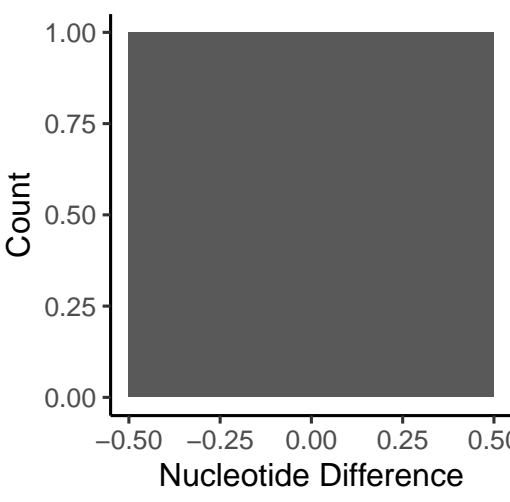
IGHV3-49\*05

45 sequences assigned  
33 (73.3%) exact matches, in which:  
33 unique CDR3  
5 unique J



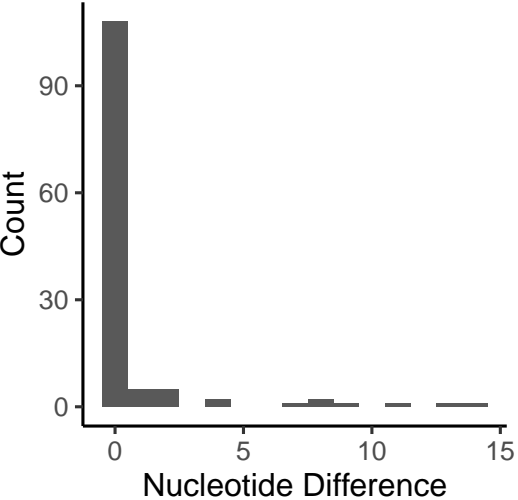
IGHV3-66\*03

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



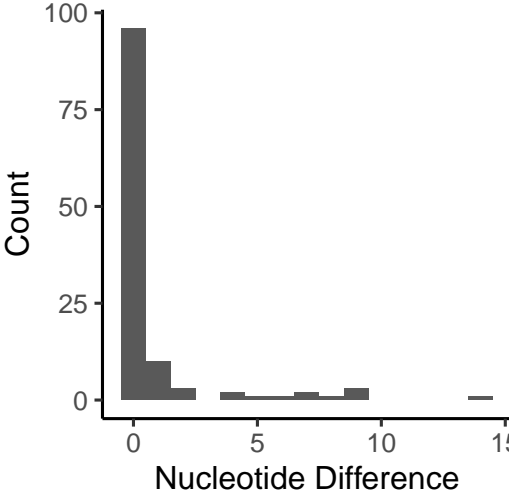
IGHV3-48\*03

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



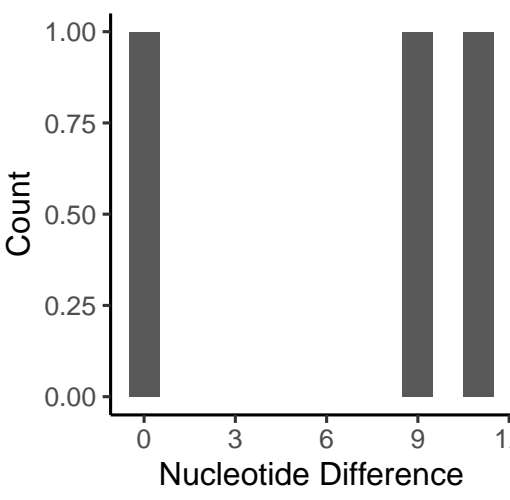
IGHV3-53\*01

121 sequences assigned  
96 (79.3%) exact matches, in which:  
96 unique CDR3  
7 unique J



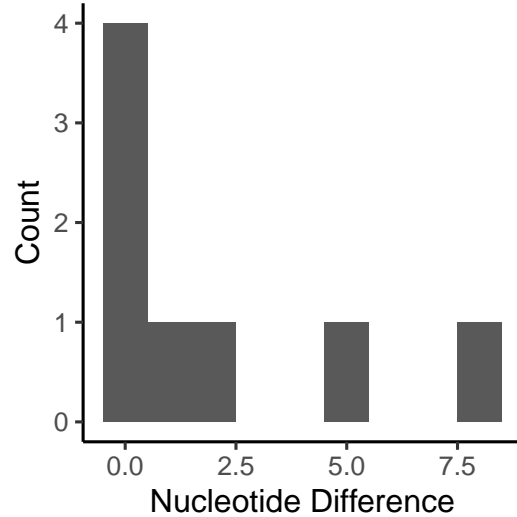
IGHV3-69-1\*01

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



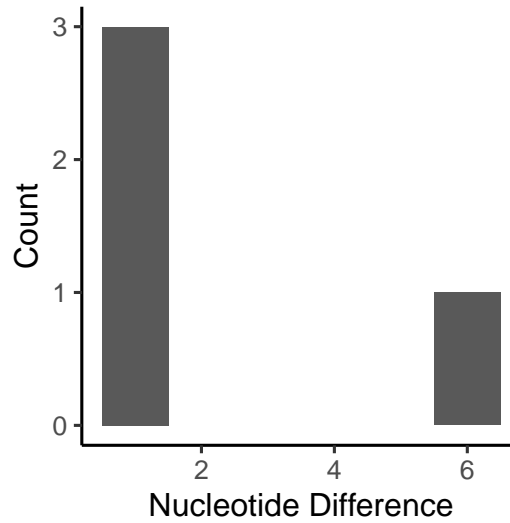
### IGHV3-72\*01

8 sequences assigned  
4 (50%) exact matches, in which:  
4 unique CDR3  
3 unique J



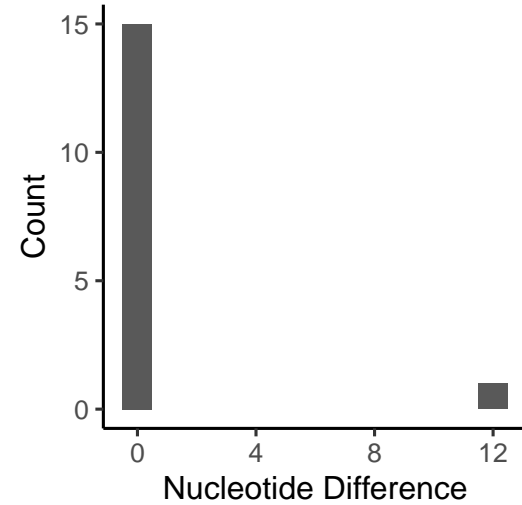
### IGHV3-43D\*04

4 sequences assigned  
No exact matches.



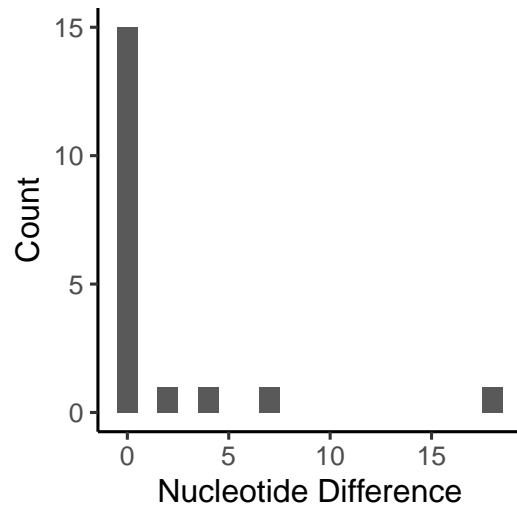
### IGHV4-31\*01

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



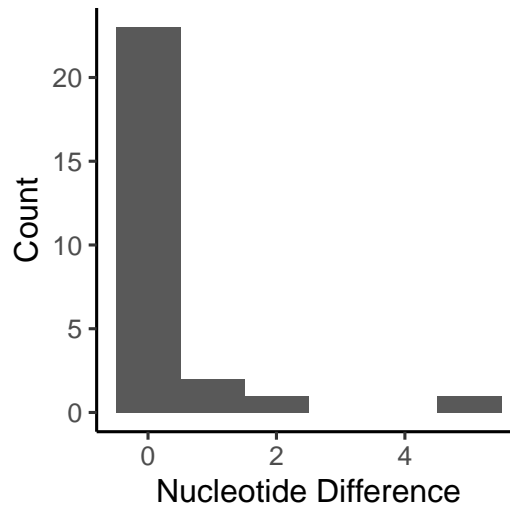
### IGHV3-73\*02

20 sequences assigned  
15 (75%) exact matches, in which:  
15 unique CDR3  
5 unique J



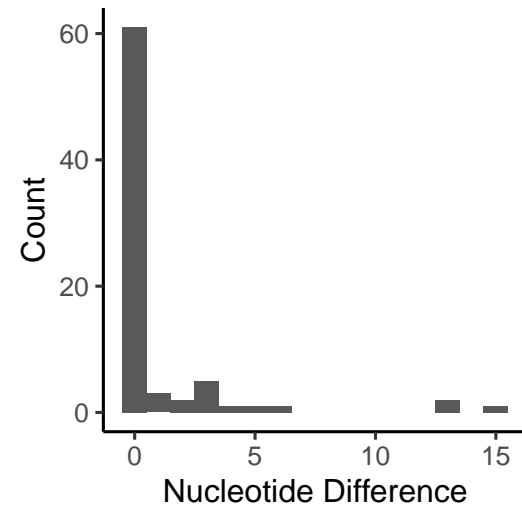
### IGHV3-64D\*06

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



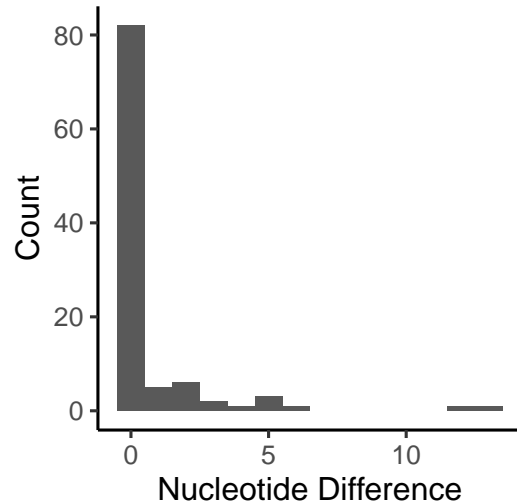
### IGHV4-31\*03

77 sequences assigned  
61 (79.2%) exact matches, in which:  
61 unique CDR3  
7 unique J



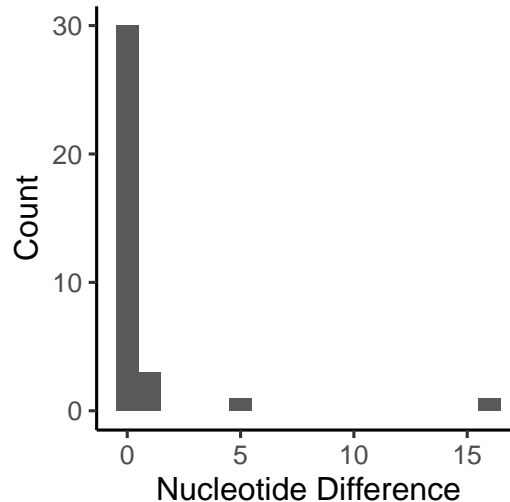
### IGHV3-74\*01

102 sequences assigned  
82 (80.4%) exact matches, in which:  
82 unique CDR3  
6 unique J



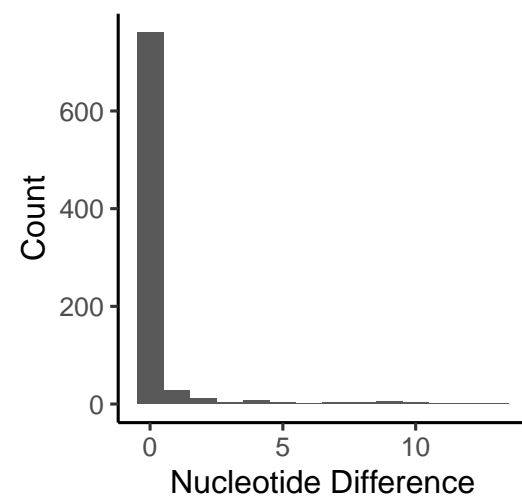
### IGHV4-4\*02

35 sequences assigned  
30 (85.7%) exact matches, in which:  
30 unique CDR3  
4 unique J



### IGHV4-34\*01

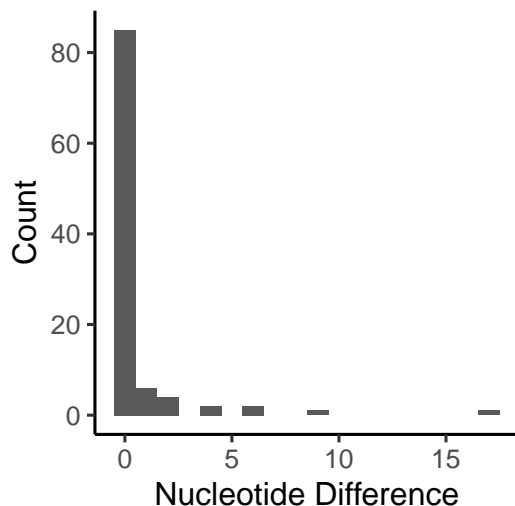
840 sequences assigned  
761 (90.6%) exact matches, in which:  
761 unique CDR3  
7 unique J





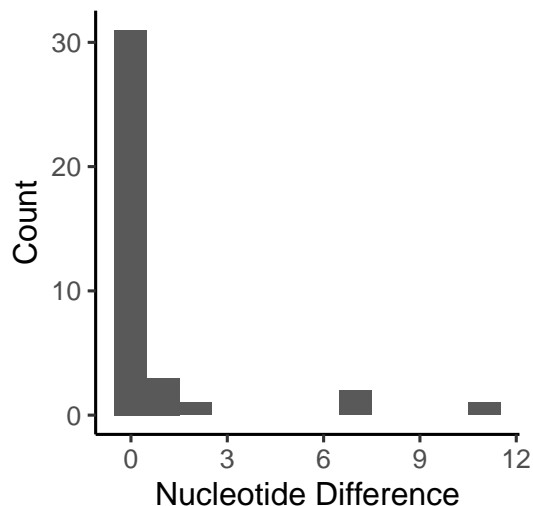
### IGHV4-38-2\*02\_A70G

102 sequences assigned  
85 (83.3%) exact matches, in which:  
85 unique CDR3  
6 unique J



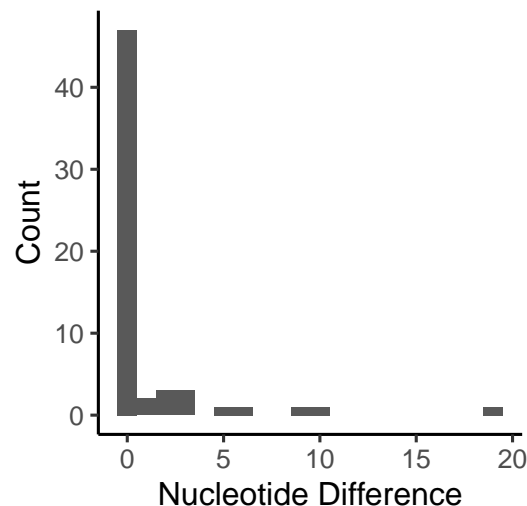
### IGHV4-61\*01

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



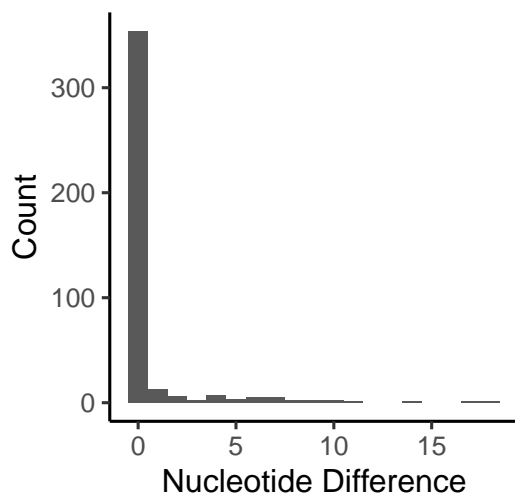
### IGHV6-1\*01

61 sequences assigned  
47 (77%) exact matches, in which:  
47 unique CDR3  
6 unique J



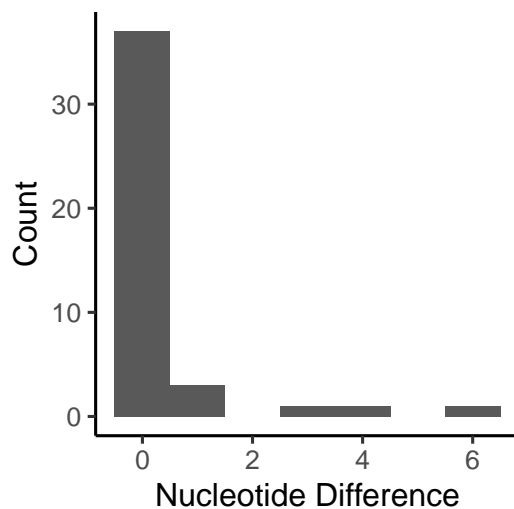
### IGHV4-39\*01

408 sequences assigned  
354 (86.8%) exact matches, in which:  
353 unique CDR3  
7 unique J



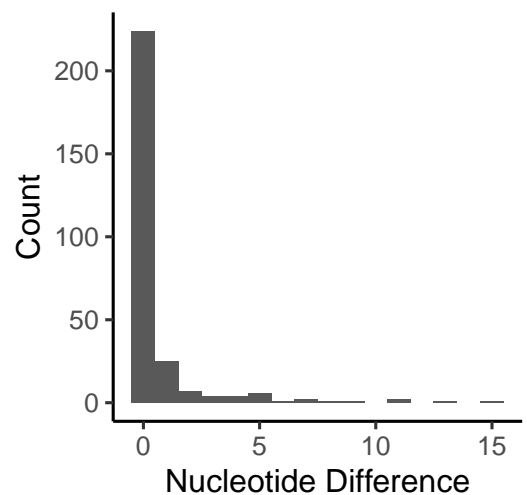
### IGHV5-10-1\*03

43 sequences assigned  
37 (86%) exact matches, in which:  
37 unique CDR3  
4 unique J



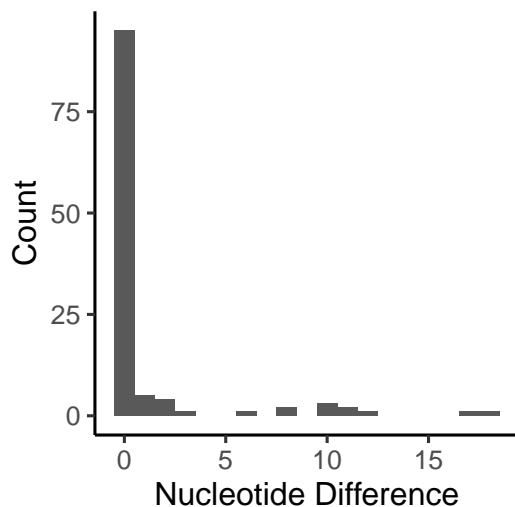
### IGHV7-4-1\*02

280 sequences assigned  
224 (80%) exact matches, in which:  
224 unique CDR3  
7 unique J



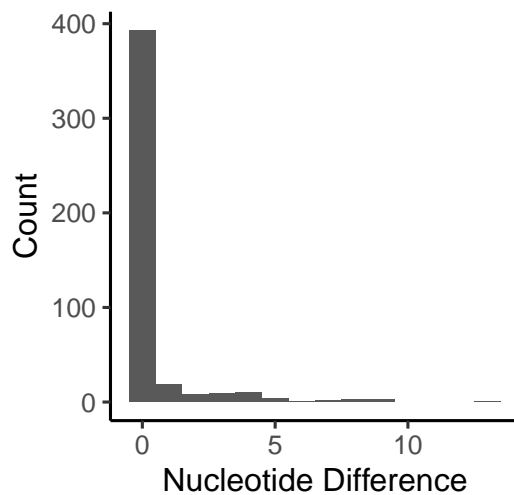
### IGHV4-59\*01

116 sequences assigned  
95 (81.9%) exact matches, in which:  
95 unique CDR3  
6 unique J

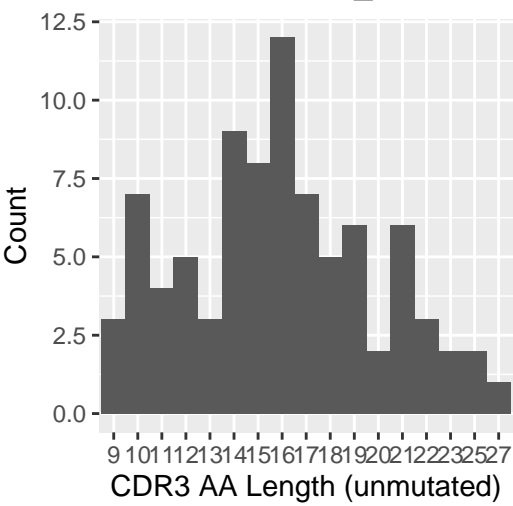


### IGHV5-51\*01

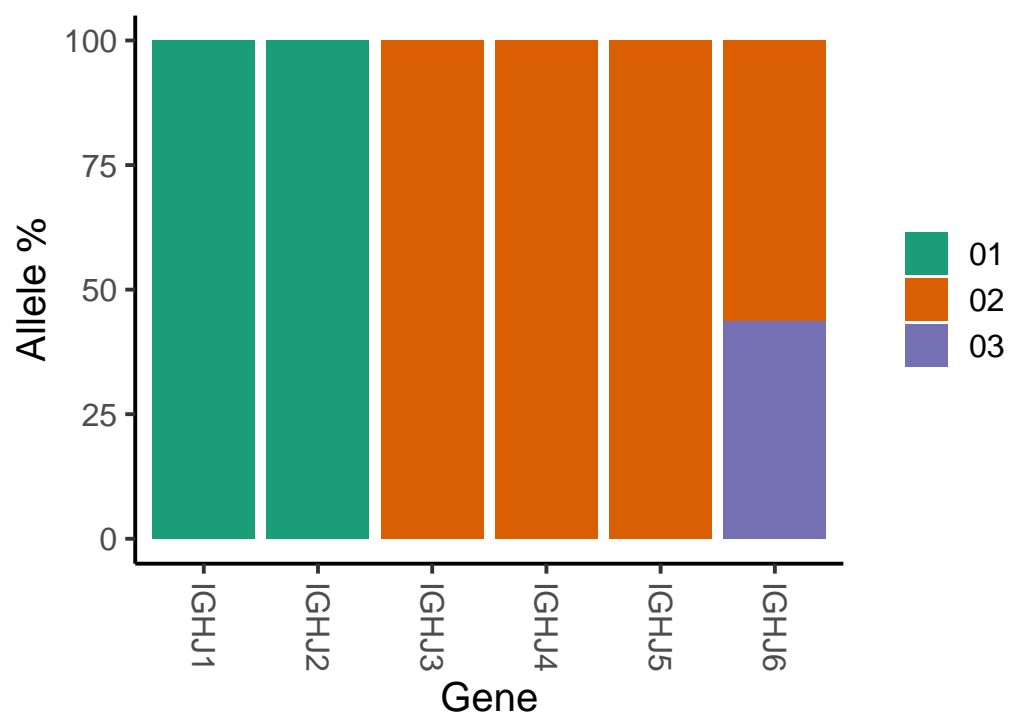
455 sequences assigned  
393 (86.4%) exact matches, in which:  
393 unique CDR3  
7 unique J



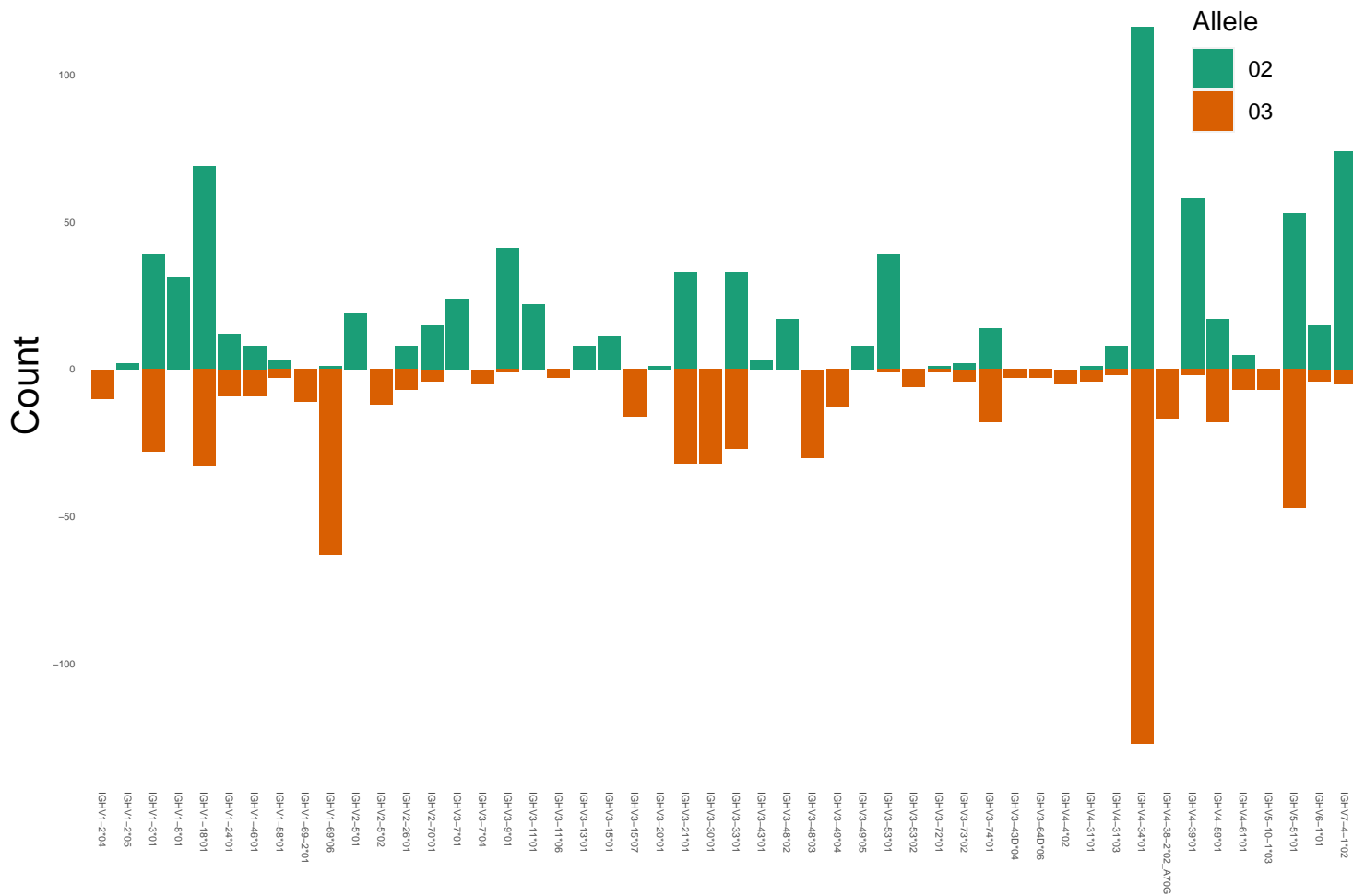
IGHV4-38-2\*02\_A70G



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]