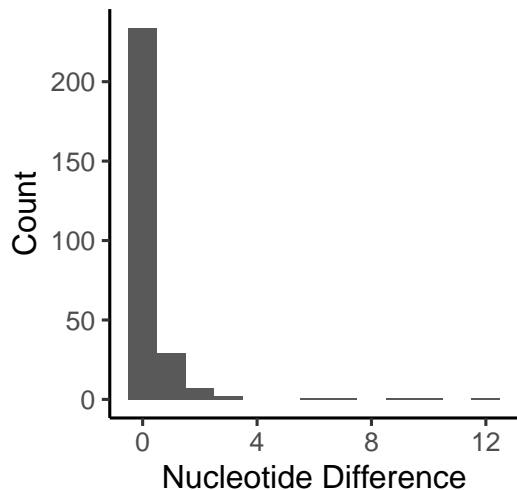


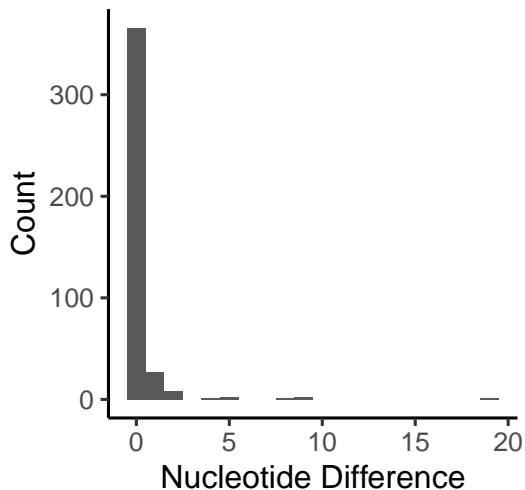
### IGHV1-2\*02

277 sequences assigned  
234 (84.5%) exact matches, in which:  
232 unique CDR3  
6 unique J



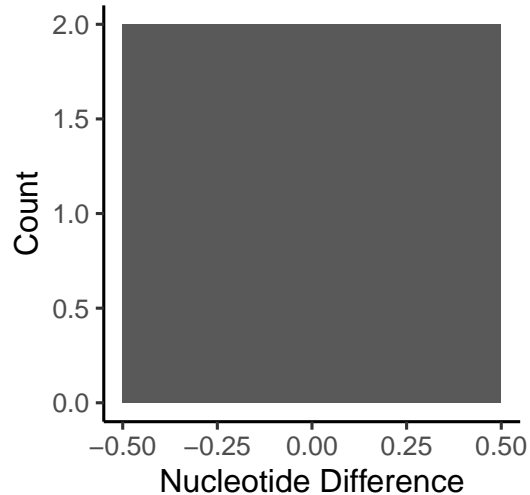
### IGHV1-8\*01

408 sequences assigned  
366 (89.7%) exact matches, in which:  
364 unique CDR3  
7 unique J



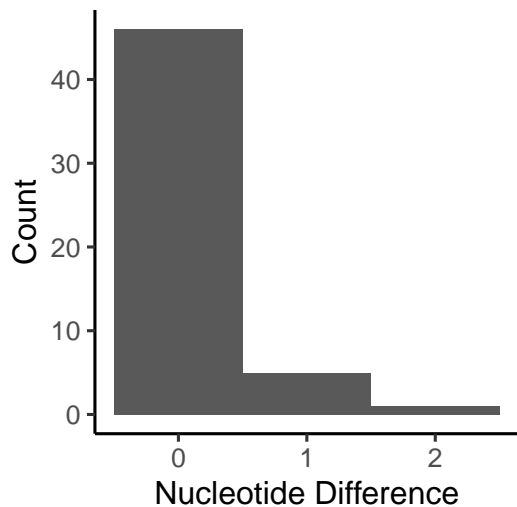
### IGHV1-45\*02

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



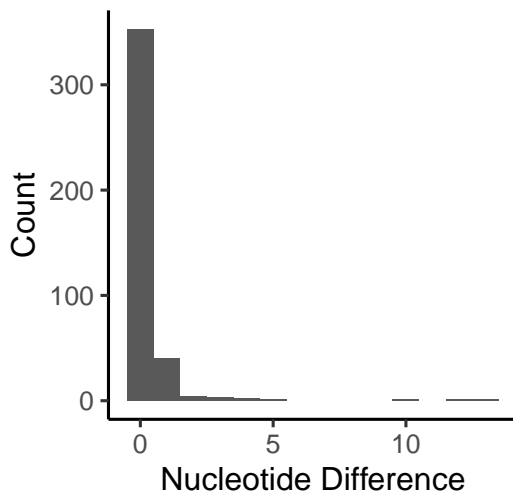
### IGHV1-2\*04

52 sequences assigned  
46 (88.5%) exact matches, in which:  
45 unique CDR3  
5 unique J



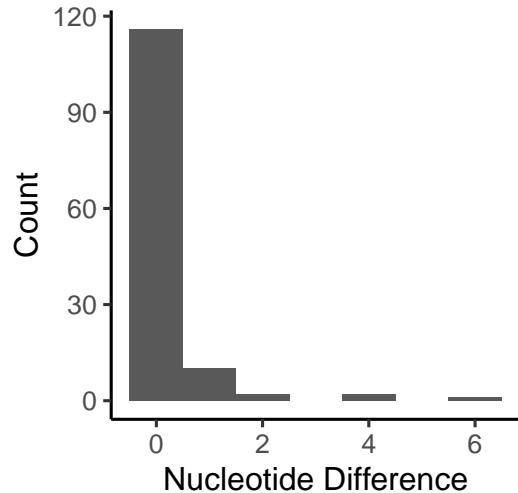
### IGHV1-18\*01

407 sequences assigned  
353 (86.7%) exact matches, in which:  
351 unique CDR3  
7 unique J



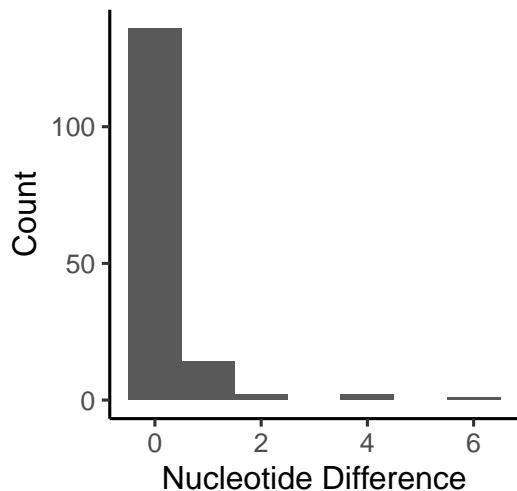
### IGHV1-46\*01

131 sequences assigned  
116 (88.5%) exact matches, in which:  
116 unique CDR3  
5 unique J



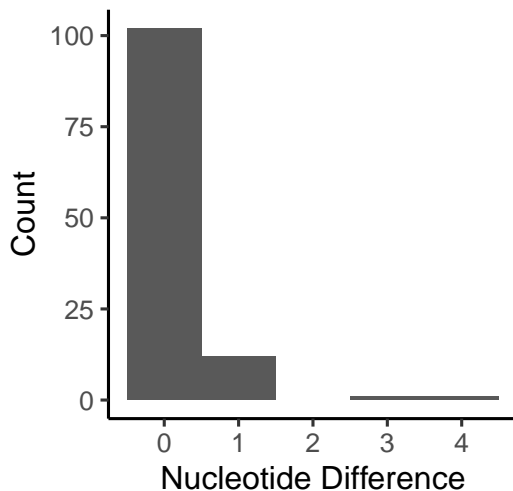
### IGHV1-3\*01

158 sequences assigned  
136 (86.1%) exact matches, in which:  
135 unique CDR3  
6 unique J



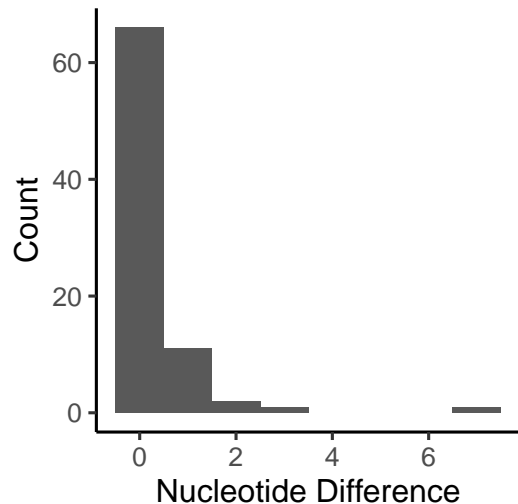
### IGHV1-24\*01

116 sequences assigned  
102 (87.9%) exact matches, in which:  
101 unique CDR3  
6 unique J



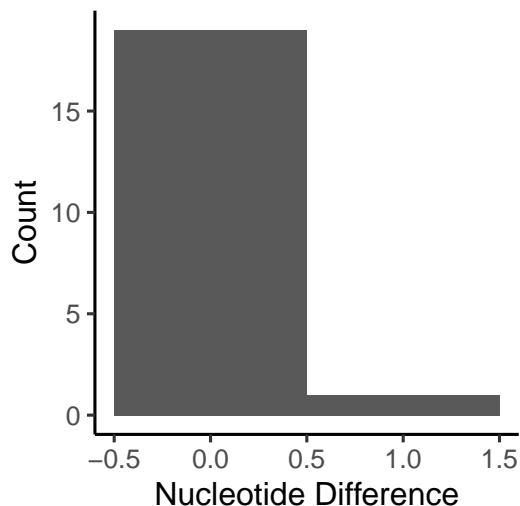
### IGHV1-46\*03

81 sequences assigned  
66 (81.5%) exact matches, in which:  
66 unique CDR3  
4 unique J



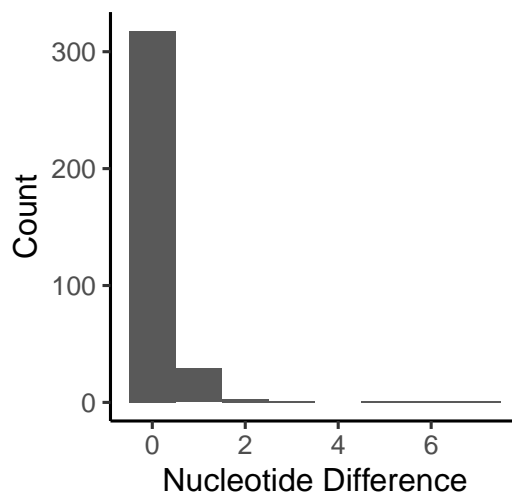
### IGHV1-58\*01

20 sequences assigned  
19 (95%) exact matches, in which:  
19 unique CDR3  
3 unique J



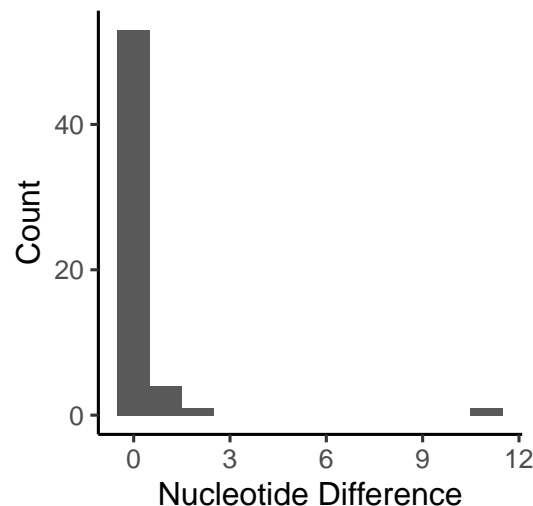
### IGHV1-69\*09

359 sequences assigned  
318 (88.6%) exact matches, in which:  
315 unique CDR3  
7 unique J



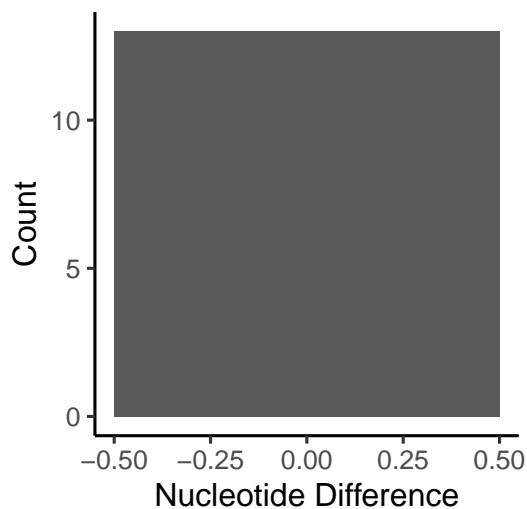
### IGHV2-26\*01

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



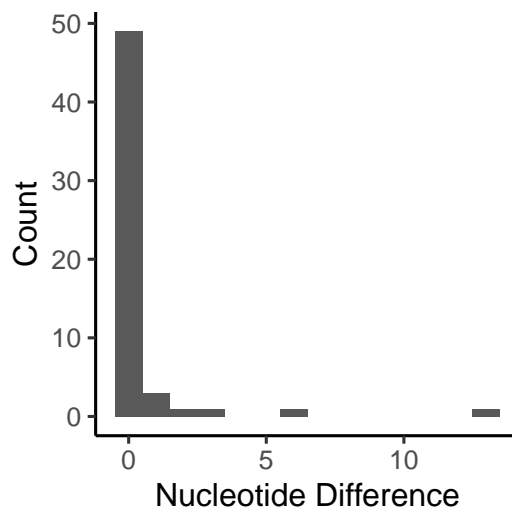
### IGHV1-58\*02

13 sequences assigned  
13 (100%) exact matches, in which:  
13 unique CDR3  
4 unique J



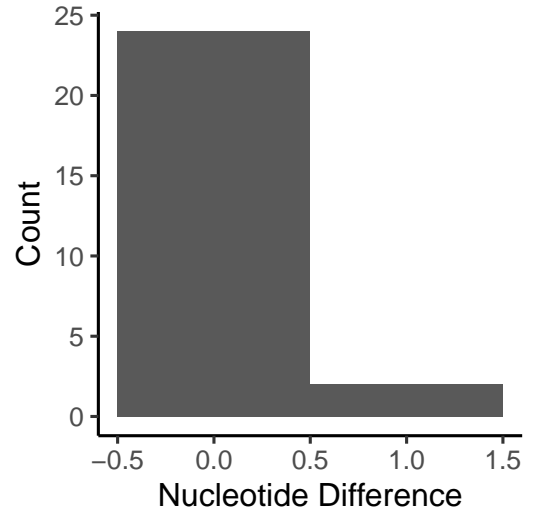
### IGHV2-5\*01

56 sequences assigned  
49 (87.5%) exact matches, in which:  
49 unique CDR3  
4 unique J



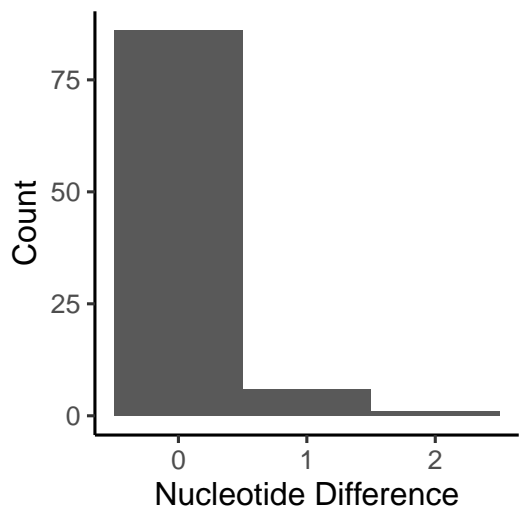
### IGHV2-70\*01

26 sequences assigned  
24 (92.3%) exact matches, in which:  
24 unique CDR3  
5 unique J



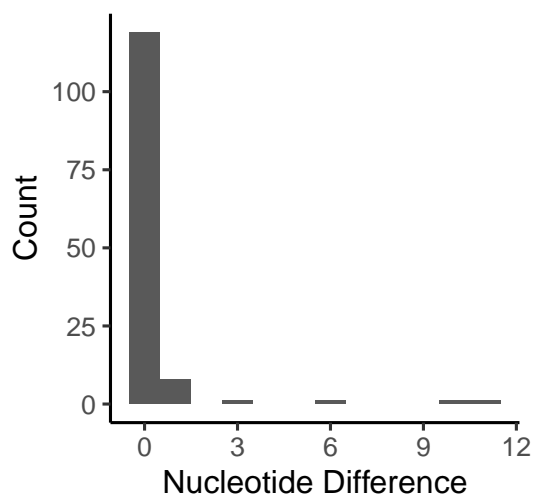
### IGHV1-69\*02

93 sequences assigned  
86 (92.5%) exact matches, in which:  
85 unique CDR3  
6 unique J



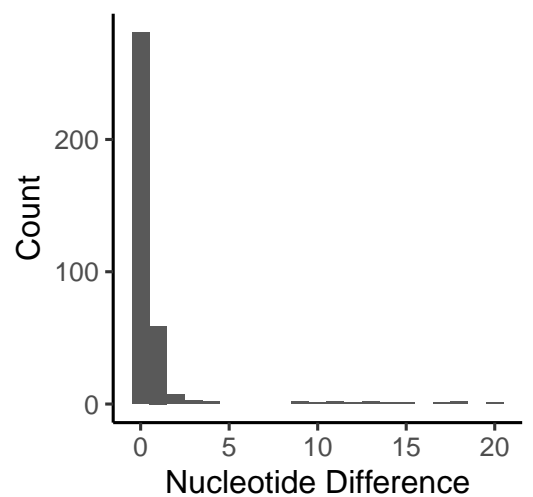
### IGHV2-5\*02

131 sequences assigned  
119 (90.8%) exact matches, in which:  
119 unique CDR3  
6 unique J



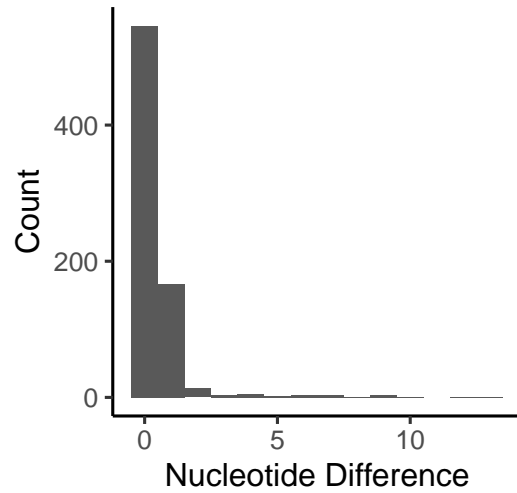
### IGHV3-7\*01

375 sequences assigned  
281 (74.9%) exact matches, in which:  
280 unique CDR3  
7 unique J



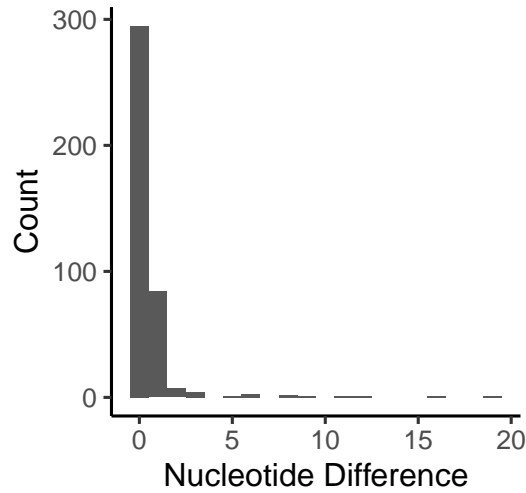
### IGHV3-9\*01

751 sequences assigned  
546 (72.7%) exact matches, in which:  
531 unique CDR3  
7 unique J



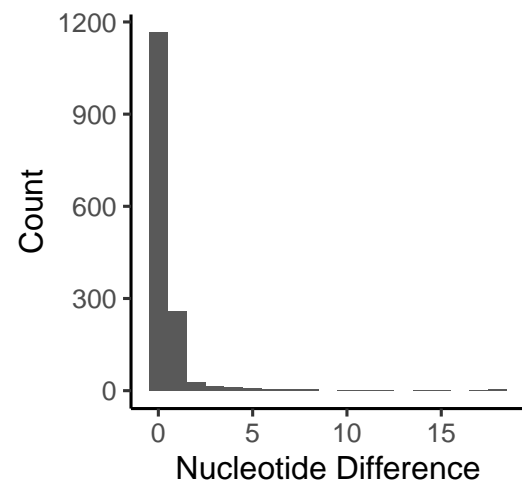
### IGHV3-15\*01

402 sequences assigned  
295 (73.4%) exact matches, in which:  
291 unique CDR3  
7 unique J



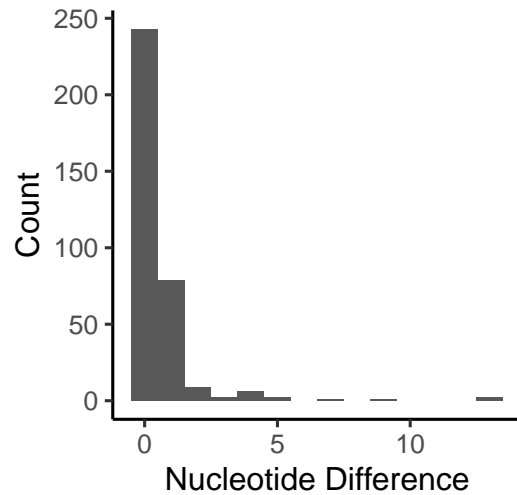
### IGHV3-23\*01

1528 sequences assigned  
1166 (76.3%) exact matches, in which:  
1139 unique CDR3  
7 unique J



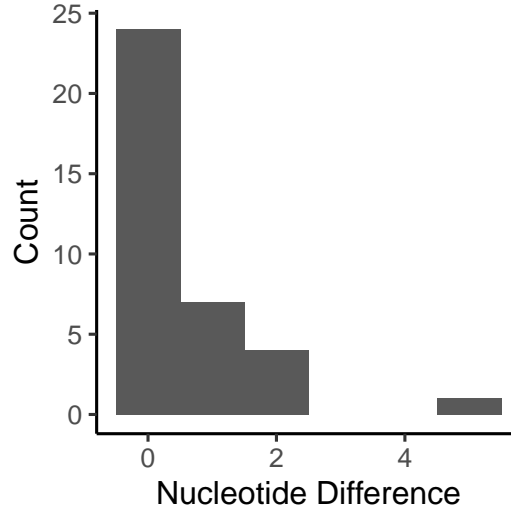
### IGHV3-11\*01

345 sequences assigned  
243 (70.4%) exact matches, in which:  
242 unique CDR3  
7 unique J



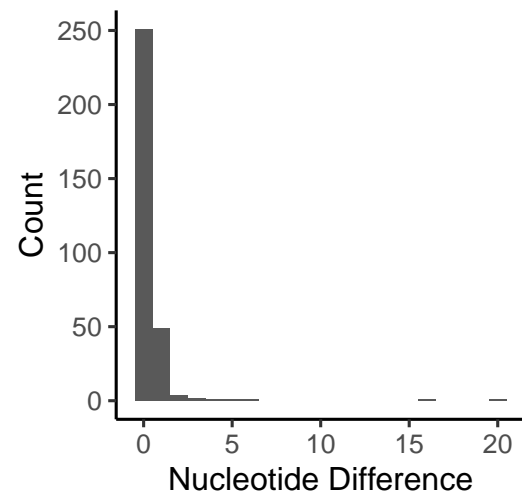
### IGHV3-20\*01

36 sequences assigned  
24 (66.7%) exact matches, in which:  
23 unique CDR3  
5 unique J



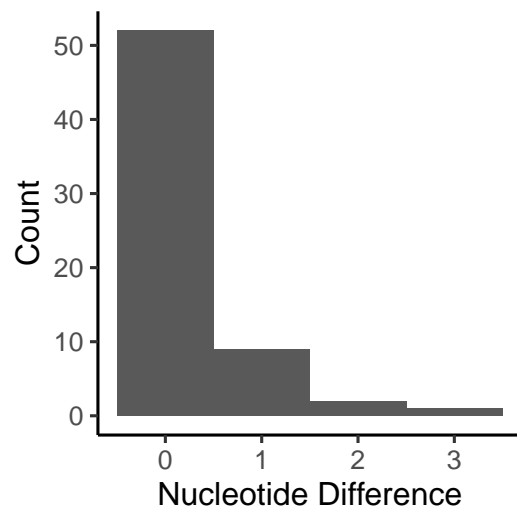
### IGHV3-30\*01

314 sequences assigned  
251 (79.9%) exact matches, in which:  
247 unique CDR3  
7 unique J



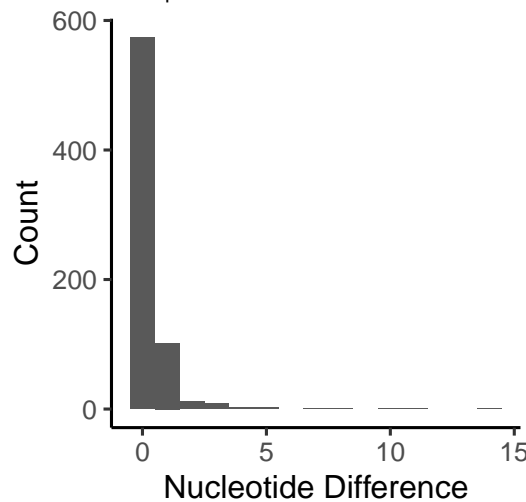
### IGHV3-13\*01

64 sequences assigned  
52 (81.2%) exact matches, in which:  
51 unique CDR3  
7 unique J



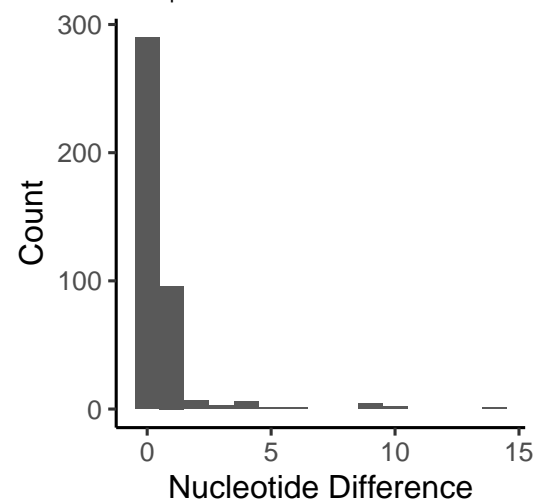
### IGHV3-21\*01

707 sequences assigned  
574 (81.2%) exact matches, in which:  
567 unique CDR3  
7 unique J



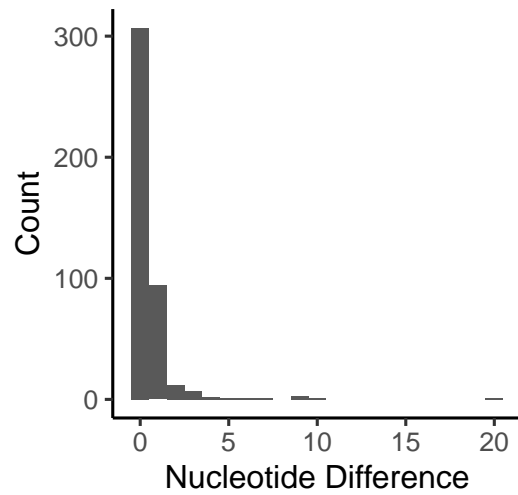
### IGHV3-30-3\*01

412 sequences assigned  
290 (70.4%) exact matches, in which:  
289 unique CDR3  
6 unique J



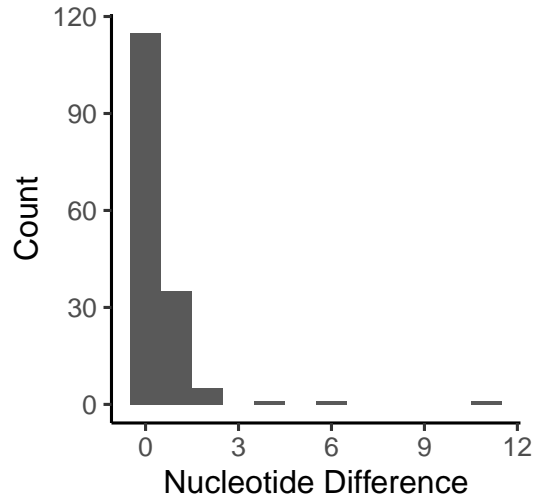
### IGHV3–30\*18

433 sequences assigned  
307 (70.9%) exact matches, in which:  
301 unique CDR3  
6 unique J



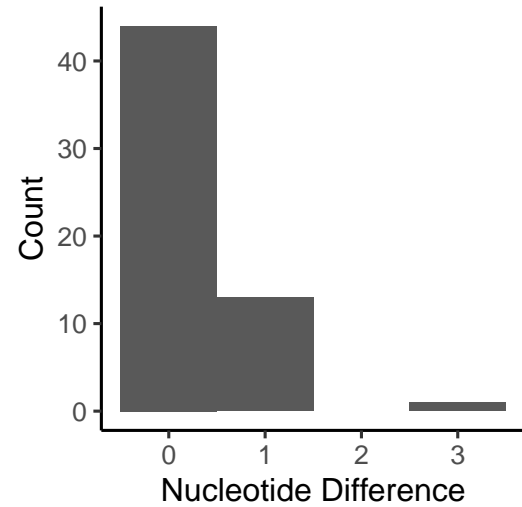
### IGHV3–48\*01

158 sequences assigned  
115 (72.8%) exact matches, in which:  
113 unique CDR3  
6 unique J



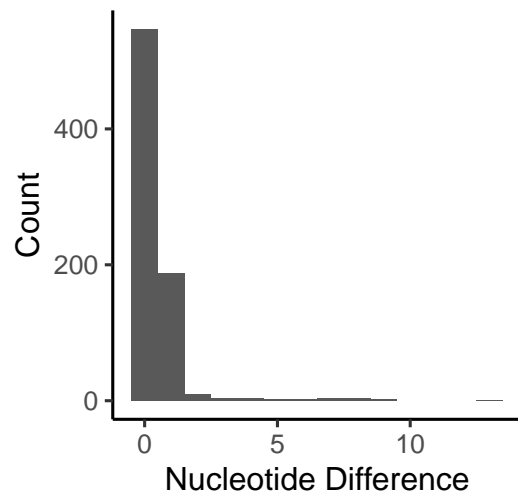
### IGHV3–49\*05

58 sequences assigned  
44 (75.9%) exact matches, in which:  
44 unique CDR3  
6 unique J



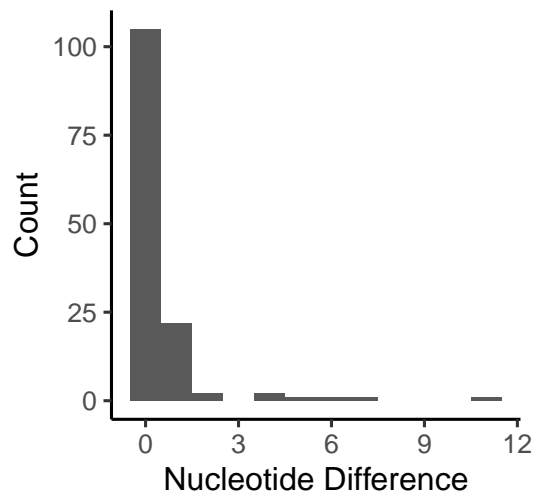
### IGHV3–33\*01

767 sequences assigned  
547 (71.3%) exact matches, in which:  
540 unique CDR3  
7 unique J



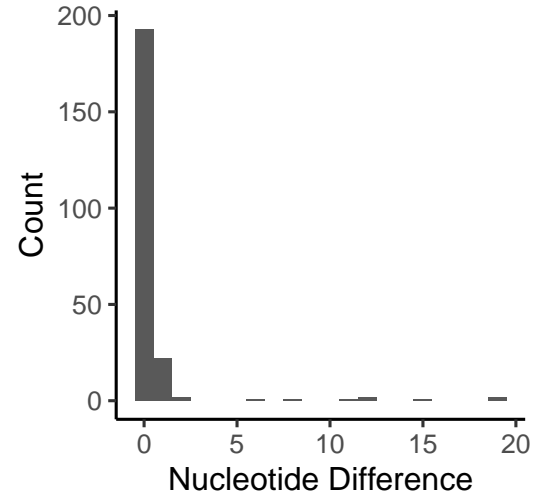
### IGHV3–48\*02

135 sequences assigned  
105 (77.8%) exact matches, in which:  
104 unique CDR3  
5 unique J



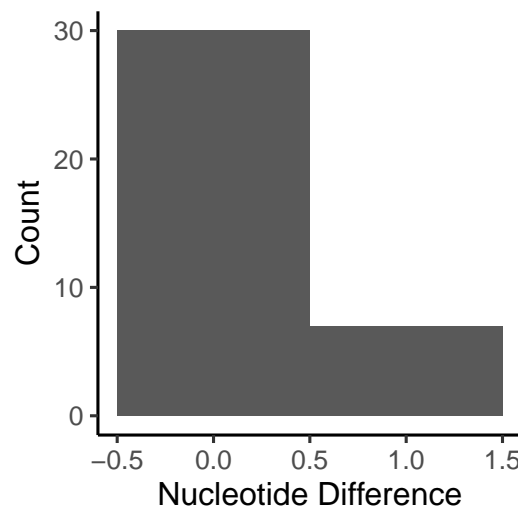
### IGHV3–53\*01

225 sequences assigned  
193 (85.8%) exact matches, in which:  
192 unique CDR3  
7 unique J



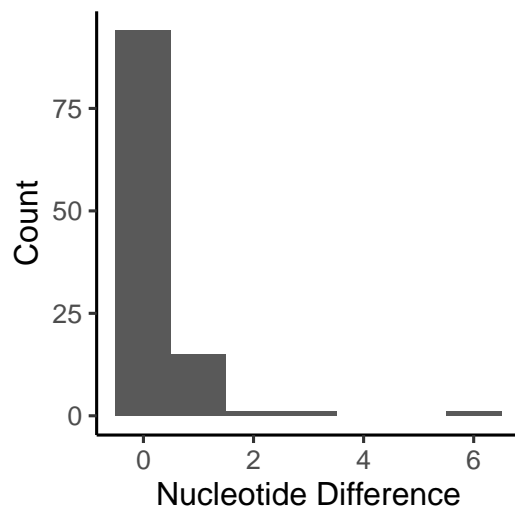
### IGHV3–43\*01

37 sequences assigned  
30 (81.1%) exact matches, in which:  
30 unique CDR3  
6 unique J



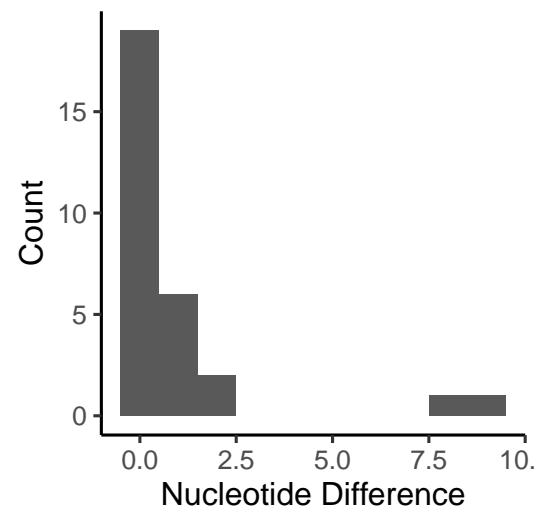
### IGHV3–49\*03

112 sequences assigned  
94 (83.9%) exact matches, in which:  
94 unique CDR3  
6 unique J



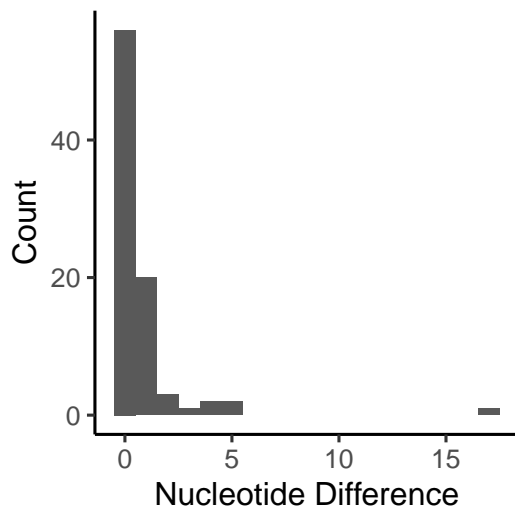
### IGHV3–64\*01

29 sequences assigned  
19 (65.5%) exact matches, in which:  
19 unique CDR3  
3 unique J



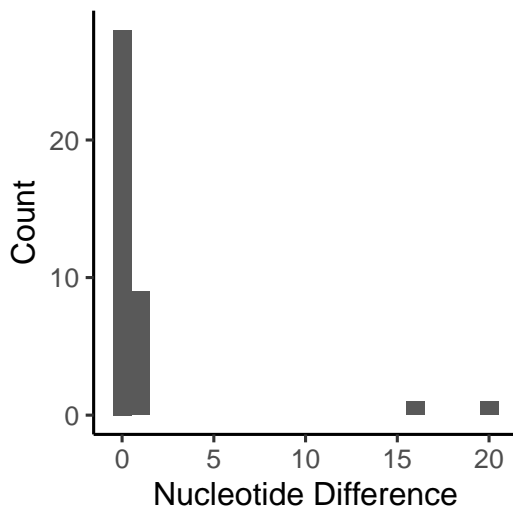
### IGHV3-66\*02

85 sequences assigned  
56 (65.9%) exact matches, in which:  
55 unique CDR3  
4 unique J



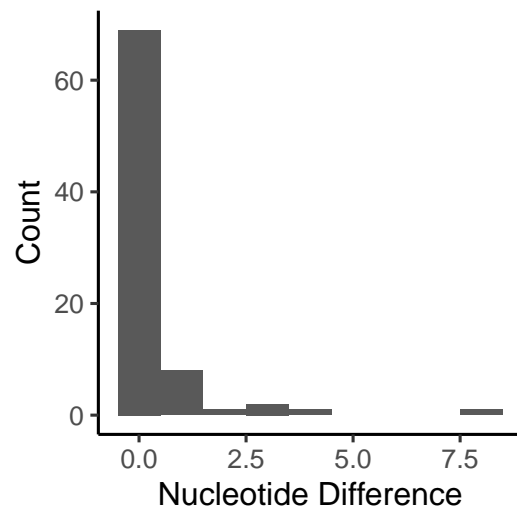
### IGHV3-73\*02

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



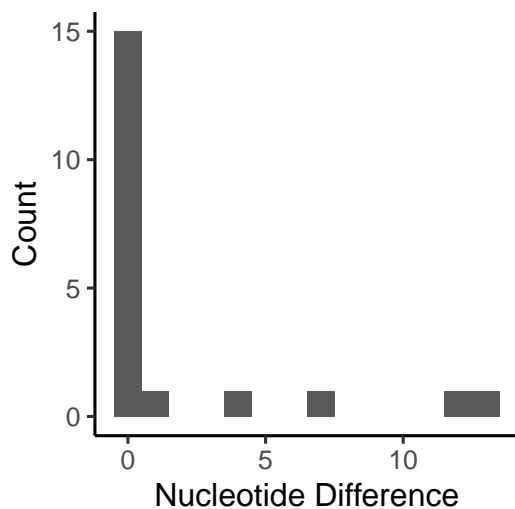
### IGHV4-4\*07

82 sequences assigned  
69 (84.1%) exact matches, in which:  
69 unique CDR3  
6 unique J



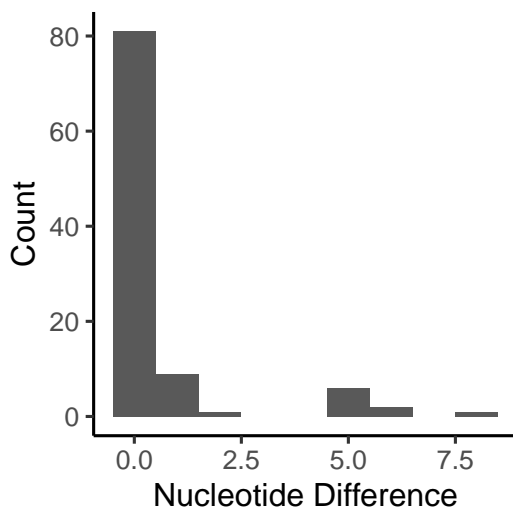
### IGHV3-72\*01

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



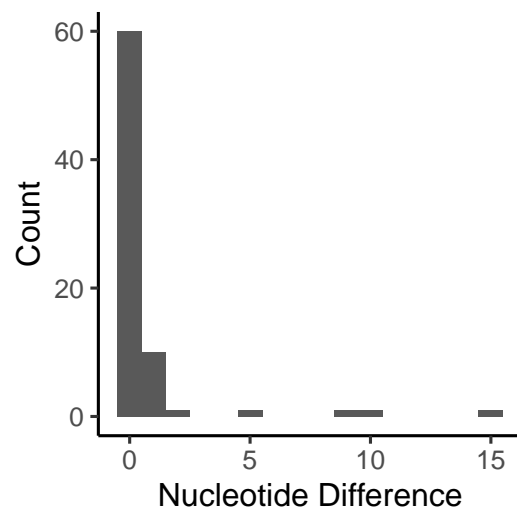
### IGHV3-74\*01

101 sequences assigned  
81 (80.2%) exact matches, in which:  
81 unique CDR3  
7 unique J



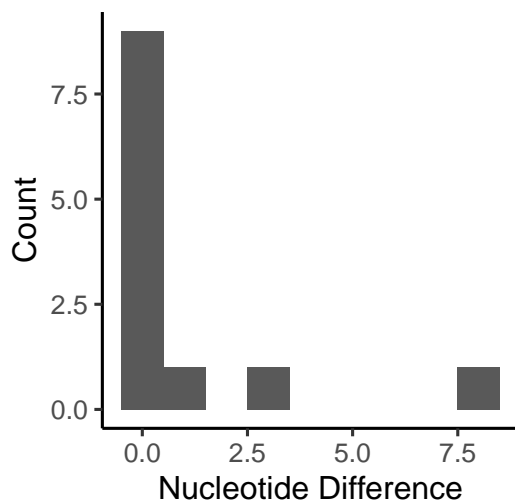
### IGHV4-30-4\*01

75 sequences assigned  
60 (80%) exact matches, in which:  
60 unique CDR3  
6 unique J



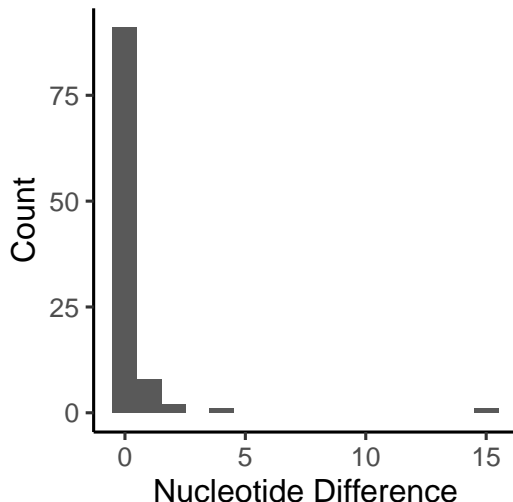
### IGHV3-73\*01

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



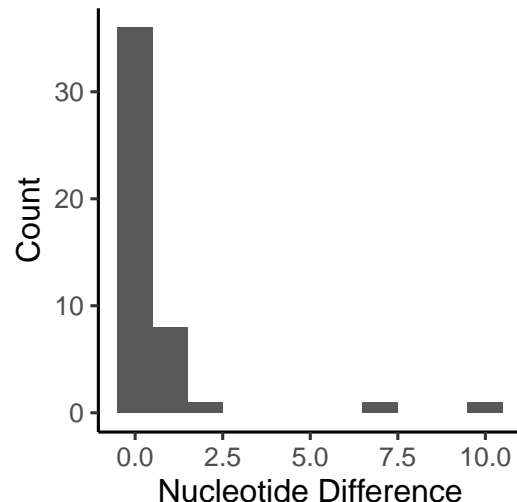
### IGHV4-4\*02

103 sequences assigned  
91 (88.3%) exact matches, in which:  
91 unique CDR3  
5 unique J



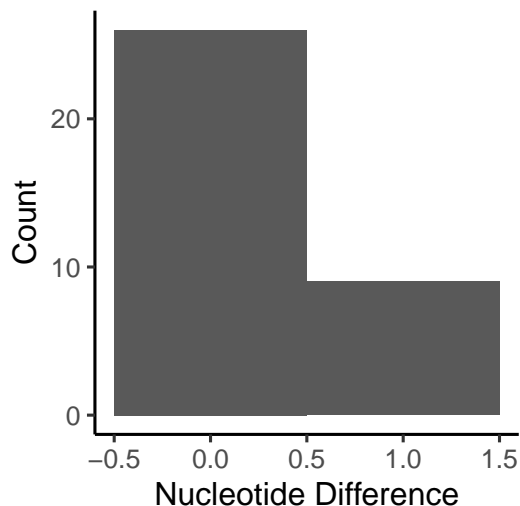
### IGHV4-30-2\*01

47 sequences assigned  
36 (76.6%) exact matches, in which:  
36 unique CDR3  
6 unique J



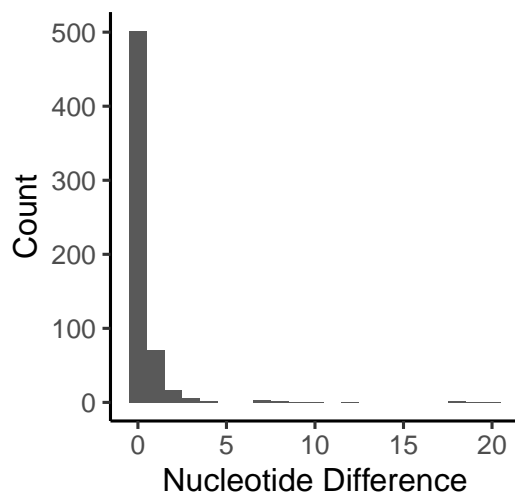
### IGHV4-31\*01

35 sequences assigned  
26 (74.3%) exact matches, in which:  
26 unique CDR3  
5 unique J



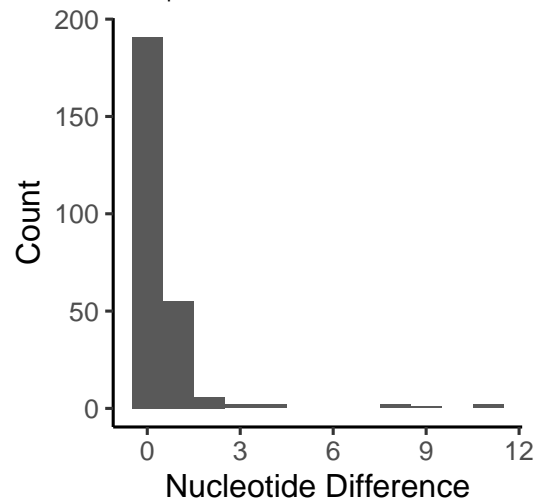
### IGHV4-39\*01

610 sequences assigned  
502 (82.3%) exact matches, in which:  
500 unique CDR3  
7 unique J



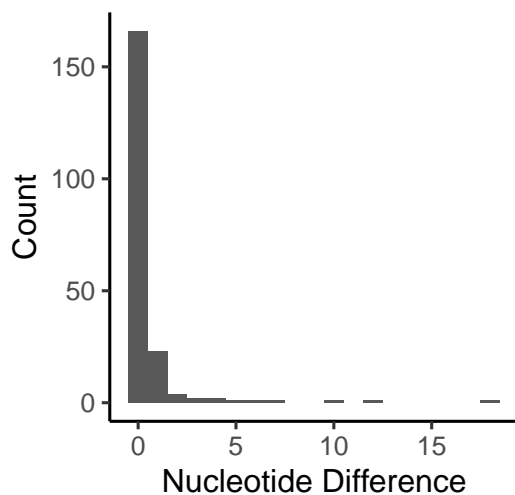
### IGHV4-61\*02

261 sequences assigned  
191 (73.2%) exact matches, in which:  
191 unique CDR3  
6 unique J



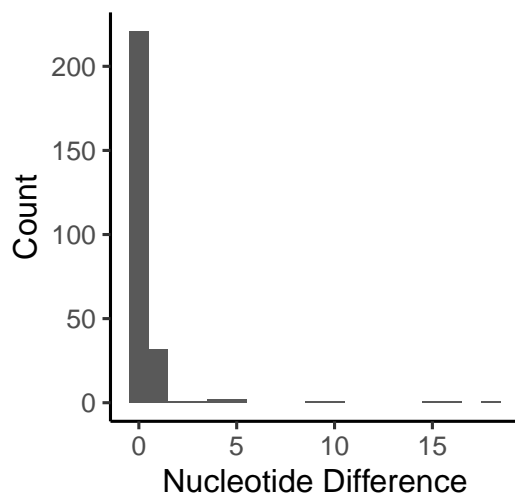
### IGHV4-31\*03

203 sequences assigned  
166 (81.8%) exact matches, in which:  
165 unique CDR3  
6 unique J



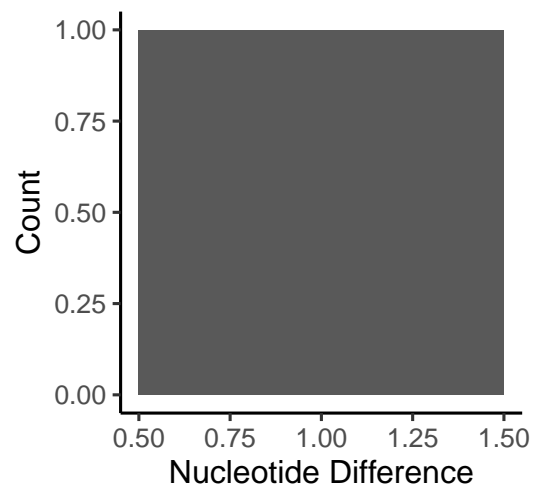
### IGHV4-59\*01

267 sequences assigned  
221 (82.8%) exact matches, in which:  
220 unique CDR3  
6 unique J



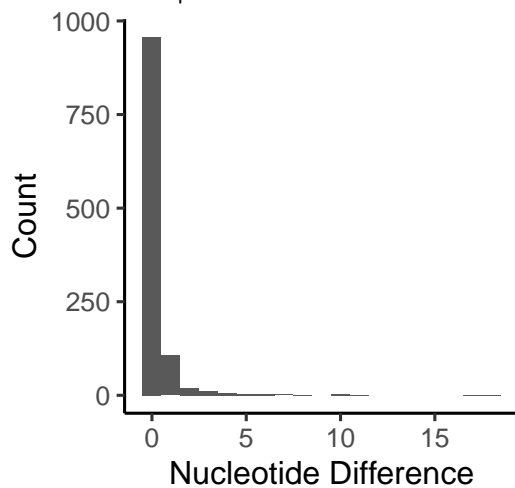
### IGHV1/OR15-2\*01

1 sequences assigned  
No exact matches.



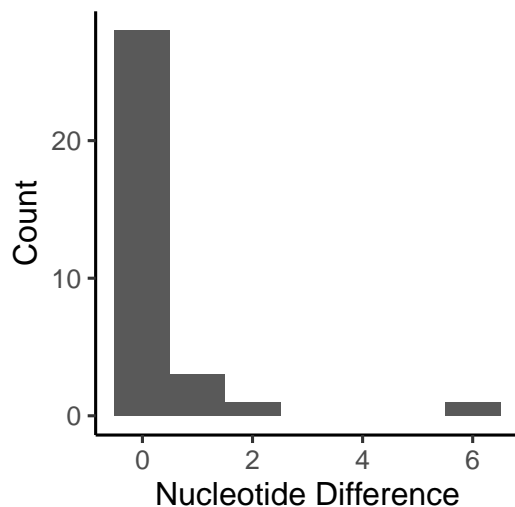
### IGHV4-34\*01

1115 sequences assigned  
957 (85.8%) exact matches, in which:  
945 unique CDR3  
7 unique J



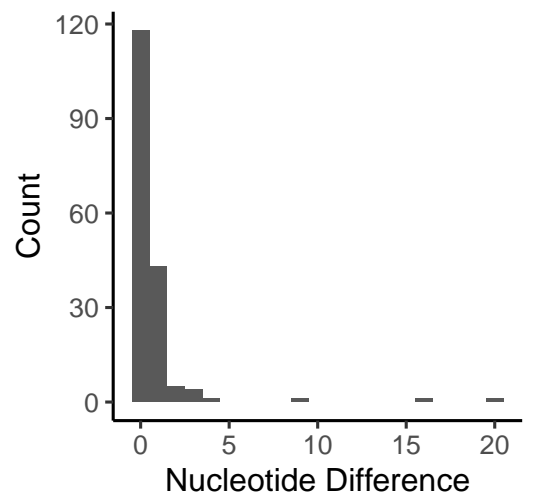
### IGHV4-61\*01

33 sequences assigned  
28 (84.8%) exact matches, in which:  
28 unique CDR3  
4 unique J



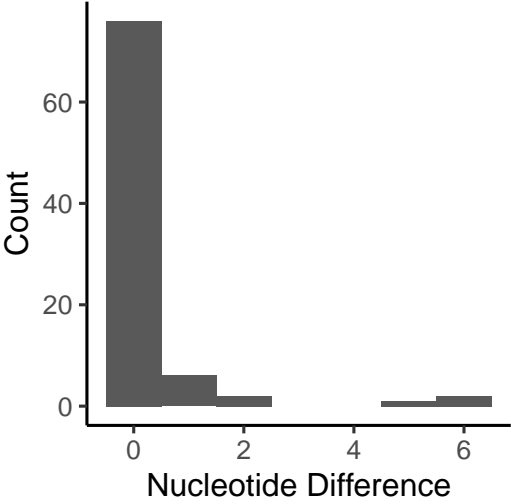
### IGHV5-51\*01

174 sequences assigned  
118 (67.8%) exact matches, in which:  
117 unique CDR3  
7 unique J



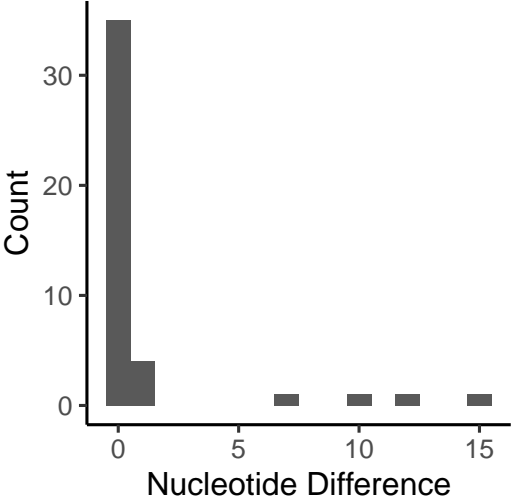
IGHV5-51\*03

87 sequences assigned  
76 (87.4%) exact matches, in which:  
75 unique CDR3  
7 unique J



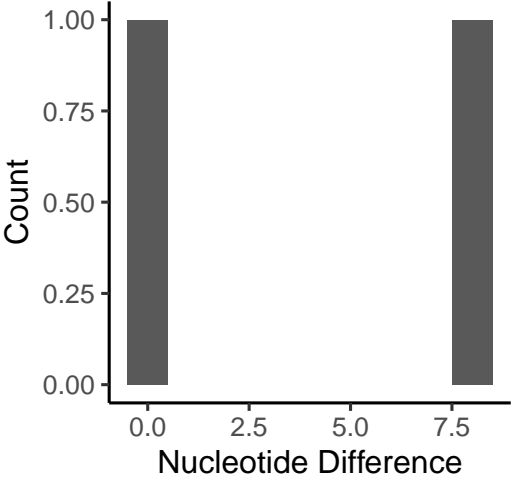
IGHV6-1\*01

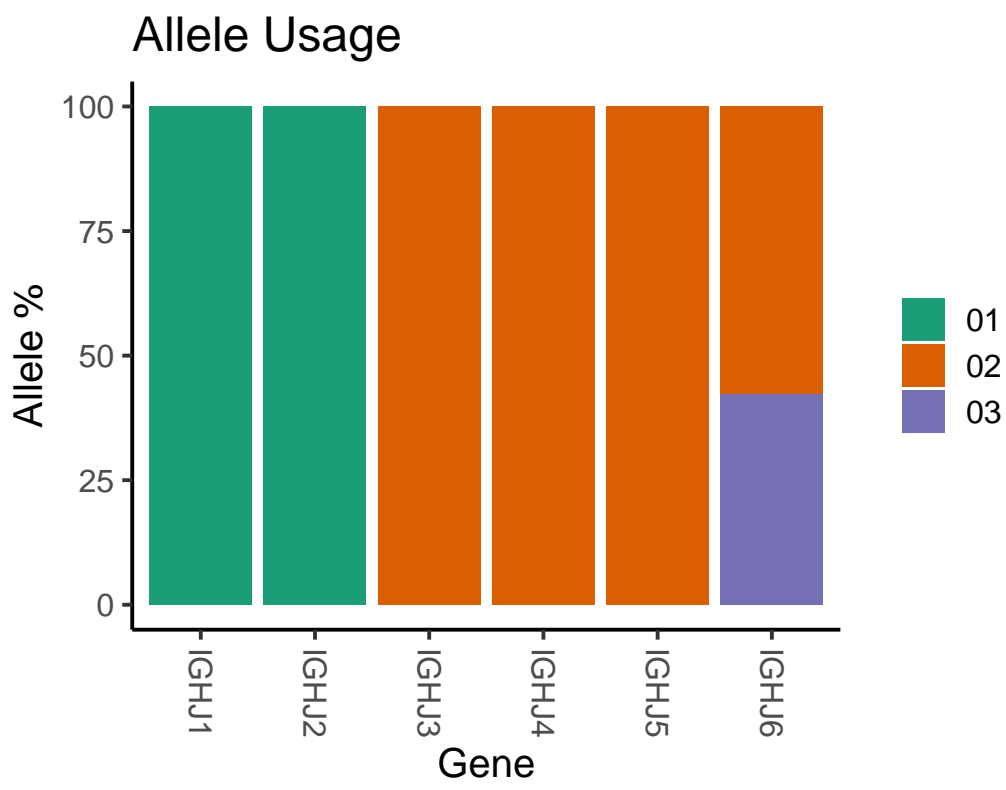
43 sequences assigned  
35 (81.4%) exact matches, in which:  
35 unique CDR3  
6 unique J



IGHV7-4-1\*01

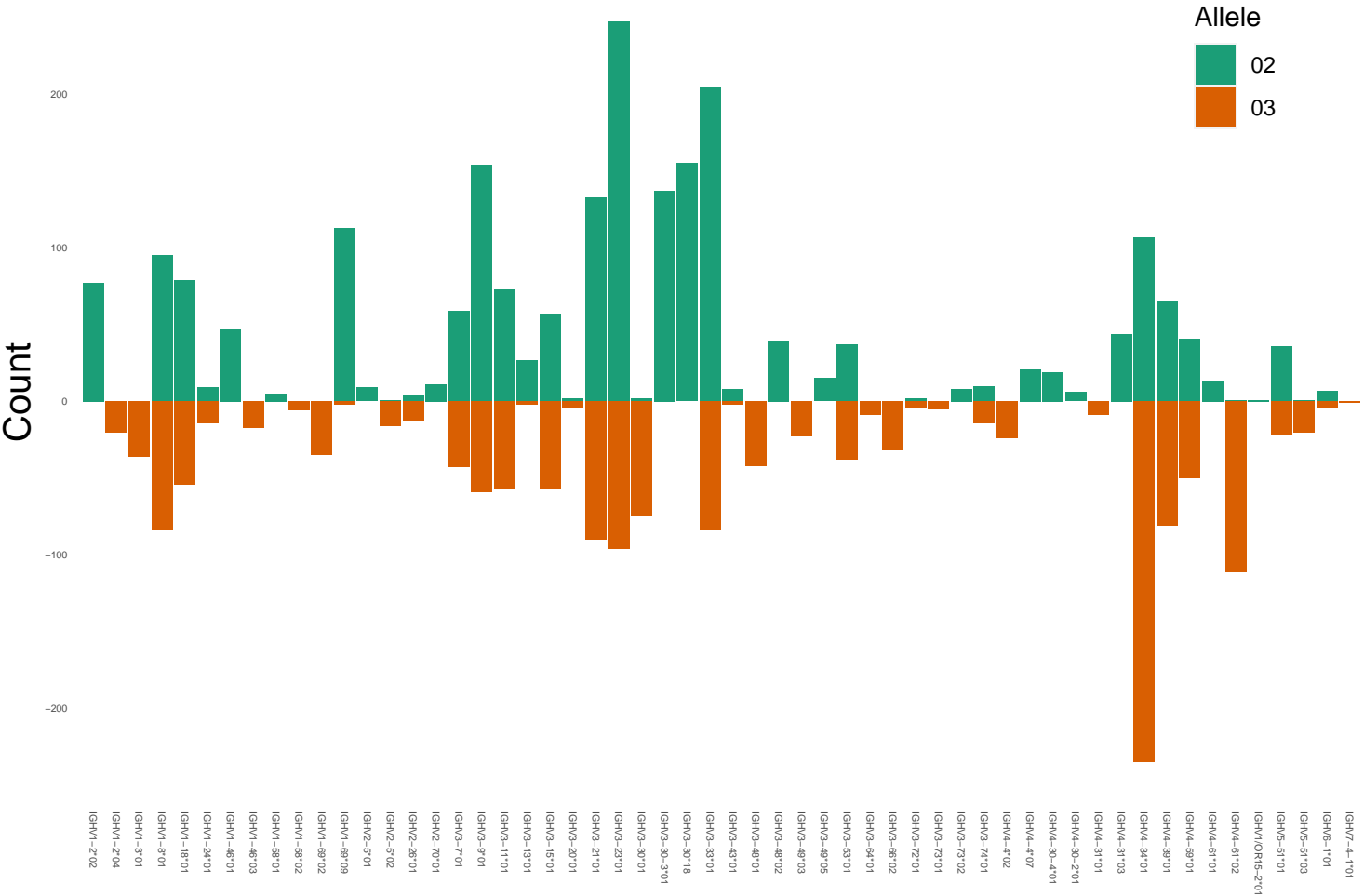
2 sequences assigned  
1 (50%) exact matches, in which:  
1 unique CDR3  
1 unique J







Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.