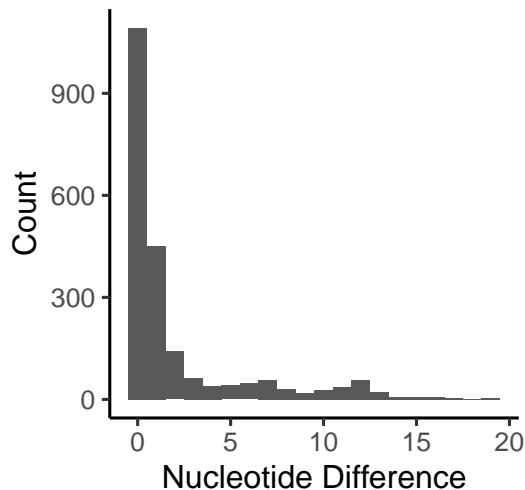


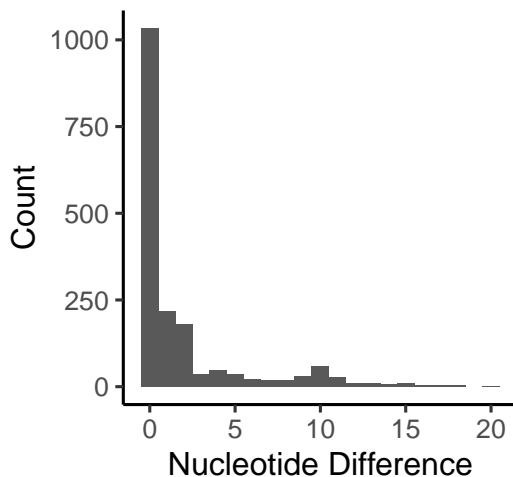
### IGHV1-2\*02

2154 sequences assigned  
1093 (50.7%) exact matches, in which:  
1007 unique CDR3  
7 unique J



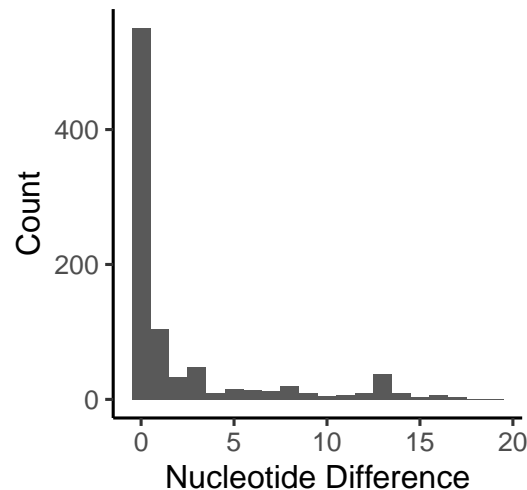
### IGHV1-18\*01

1776 sequences assigned  
1033 (58.2%) exact matches, in which:  
961 unique CDR3  
7 unique J



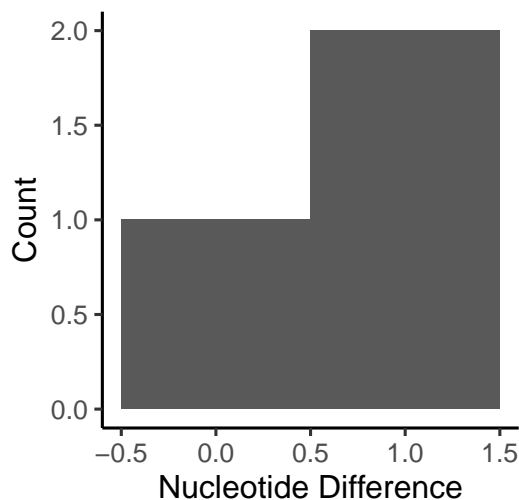
### IGHV1-46\*01

903 sequences assigned  
551 (61%) exact matches, in which:  
518 unique CDR3  
7 unique J



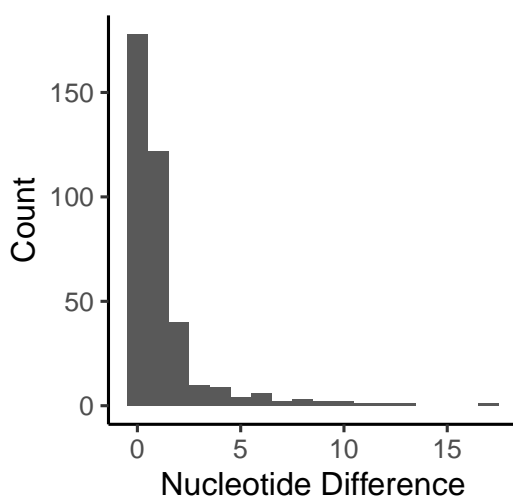
### IGHV1-3\*02

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



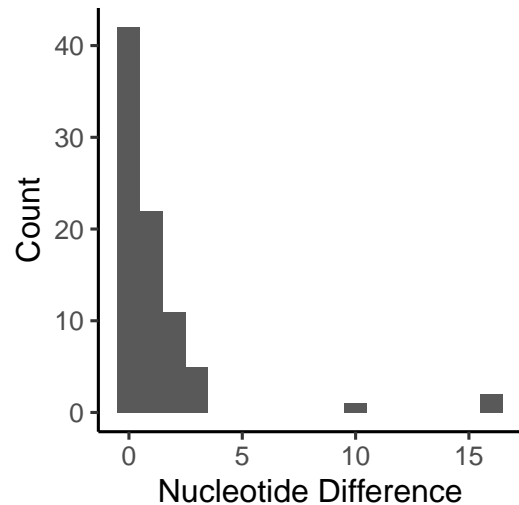
### IGHV1-24\*01

390 sequences assigned  
178 (45.6%) exact matches, in which:  
159 unique CDR3  
7 unique J



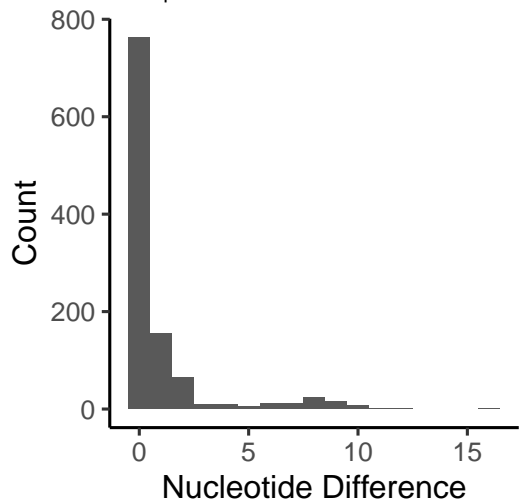
### IGHV1-58\*01

83 sequences assigned  
42 (50.6%) exact matches, in which:  
36 unique CDR3  
4 unique J



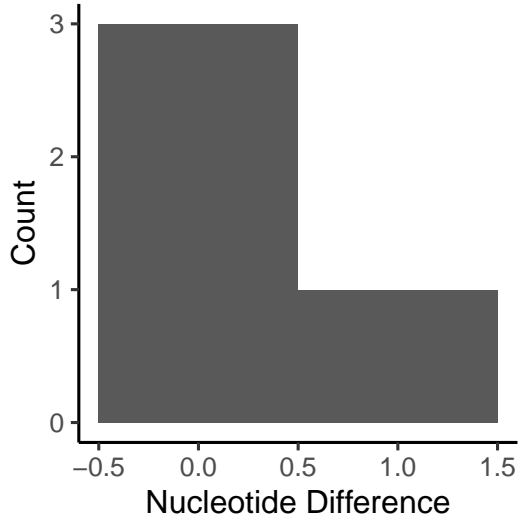
### IGHV1-8\*01

1082 sequences assigned  
763 (70.5%) exact matches, in which:  
730 unique CDR3  
7 unique J



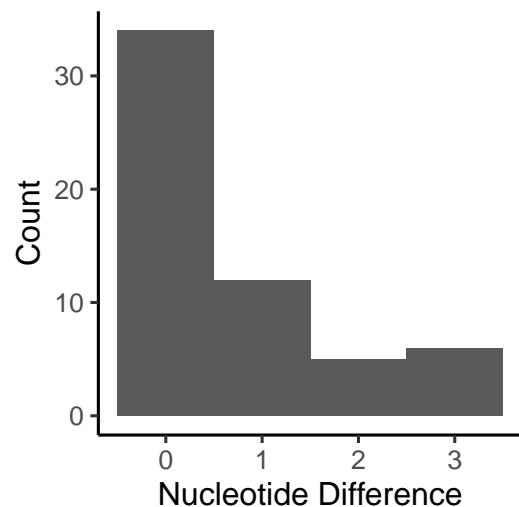
### IGHV1-45\*02

4 sequences assigned  
3 (75%) exact matches, in which:  
3 unique CDR3  
3 unique J



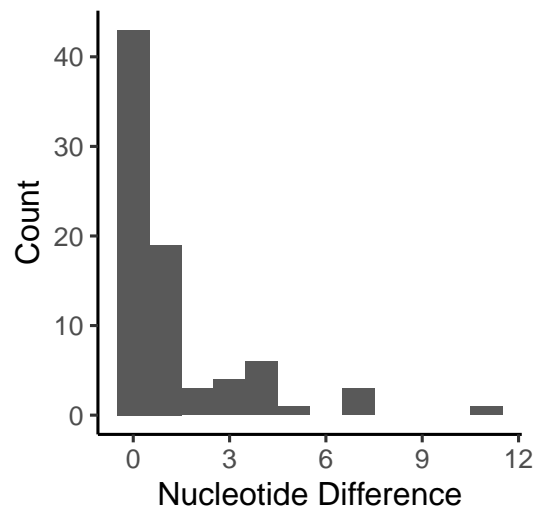
### IGHV1-58\*02

57 sequences assigned  
34 (59.6%) exact matches, in which:  
27 unique CDR3  
4 unique J



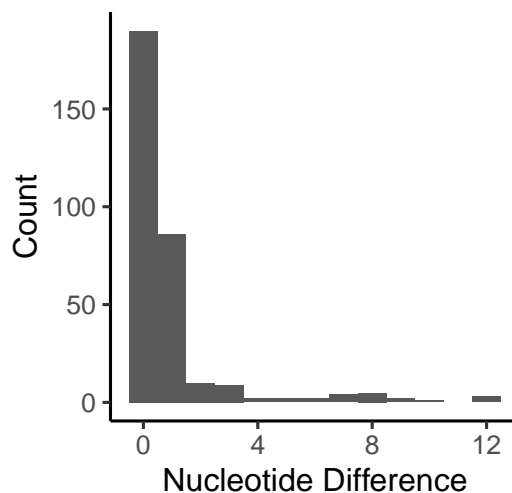
### IGHV1-69-2\*01

80 sequences assigned  
43 (53.8%) exact matches, in which:  
37 unique CDR3  
5 unique J



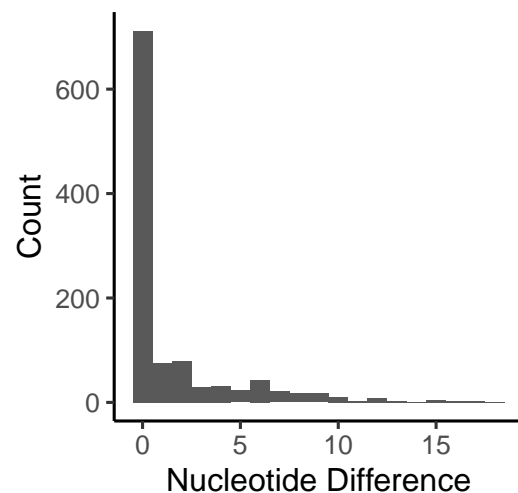
### IGHV2-26\*01

316 sequences assigned  
190 (60.1%) exact matches, in which:  
181 unique CDR3  
7 unique J



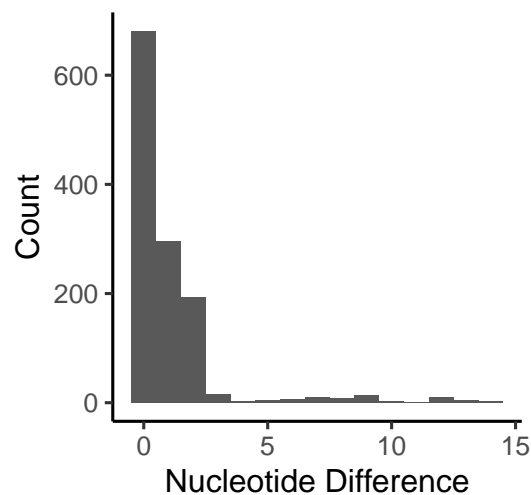
### IGHV3-7\*01

1090 sequences assigned  
712 (65.3%) exact matches, in which:  
668 unique CDR3  
7 unique J



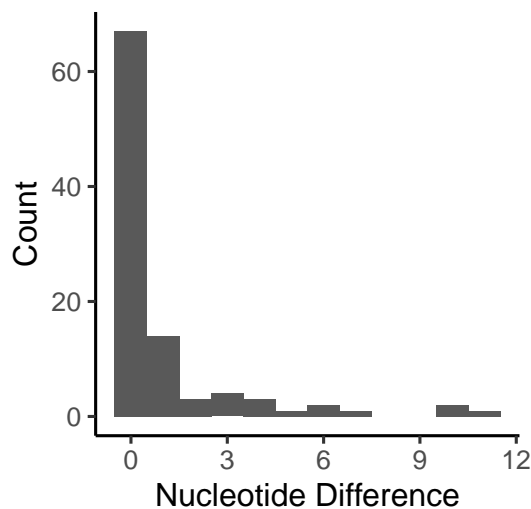
### IGHV1-69\*04\_T49G

1253 sequences assigned  
681 (54.3%) exact matches, in which:  
631 unique CDR3  
7 unique J



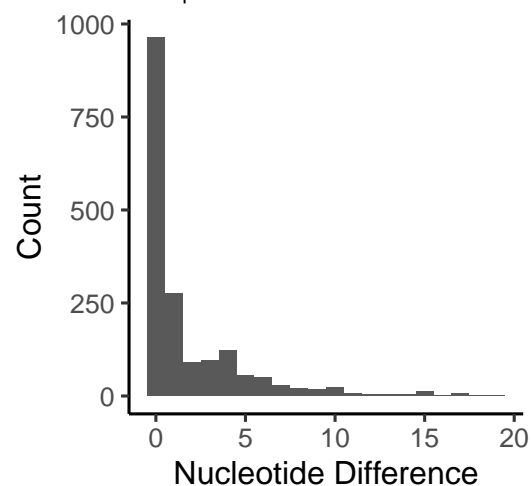
### IGHV2-70\*01

99 sequences assigned  
67 (67.7%) exact matches, in which:  
63 unique CDR3  
6 unique J



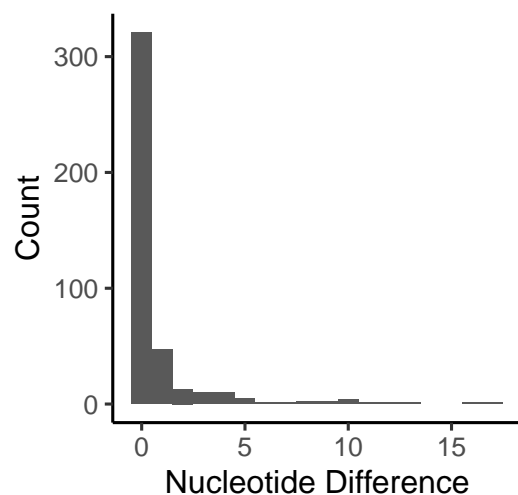
### IGHV3-9\*01

1784 sequences assigned  
963 (54%) exact matches, in which:  
863 unique CDR3  
7 unique J



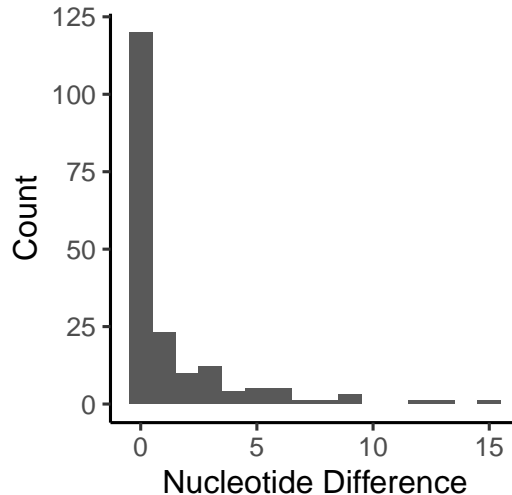
### IGHV2-5\*01

421 sequences assigned  
321 (76.2%) exact matches, in which:  
299 unique CDR3  
7 unique J



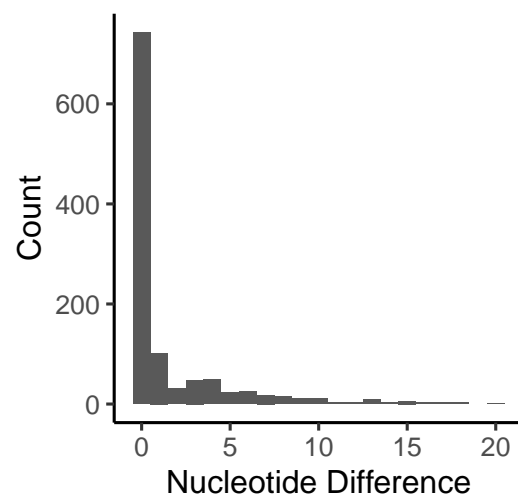
### IGHV2-70\*15

187 sequences assigned  
120 (64.2%) exact matches, in which:  
113 unique CDR3  
6 unique J



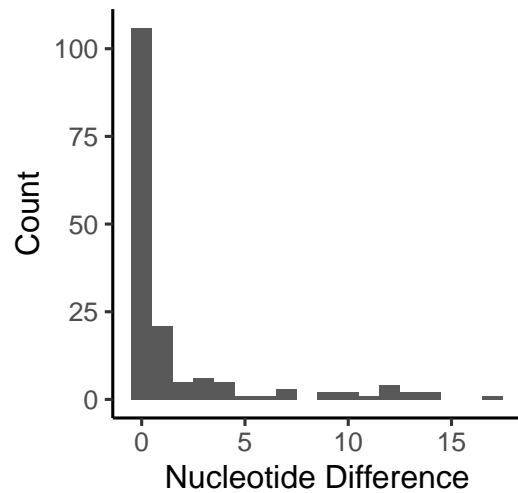
### IGHV3-11\*01

1115 sequences assigned  
743 (66.6%) exact matches, in which:  
686 unique CDR3  
7 unique J



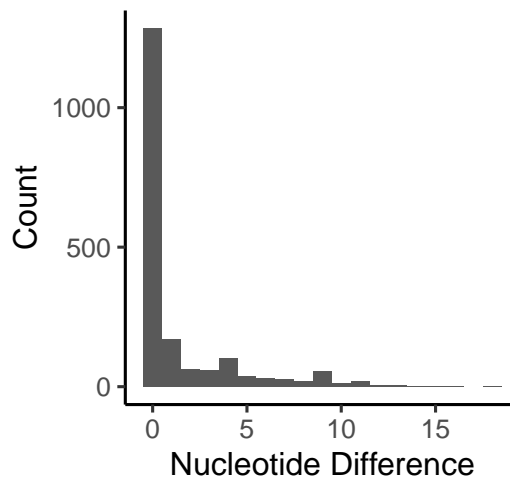
### IGHV3-13\*01

162 sequences assigned  
106 (65.4%) exact matches, in which:  
103 unique CDR3  
6 unique J



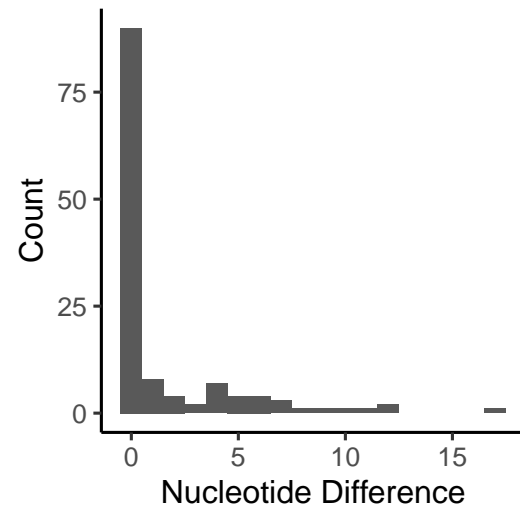
### IGHV3-21\*01

1902 sequences assigned  
1284 (67.5%) exact matches, in which:  
1188 unique CDR3  
7 unique J



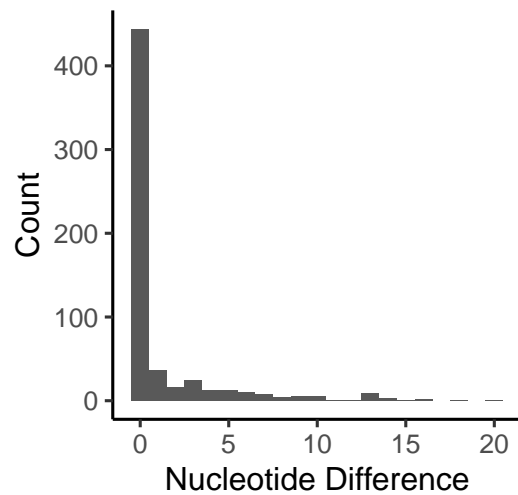
### IGHV3-43\*01

129 sequences assigned  
90 (69.8%) exact matches, in which:  
86 unique CDR3  
7 unique J



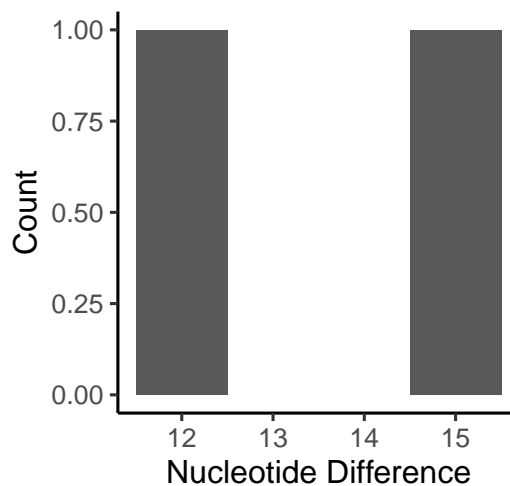
### IGHV3-15\*01

598 sequences assigned  
444 (74.2%) exact matches, in which:  
419 unique CDR3  
7 unique J



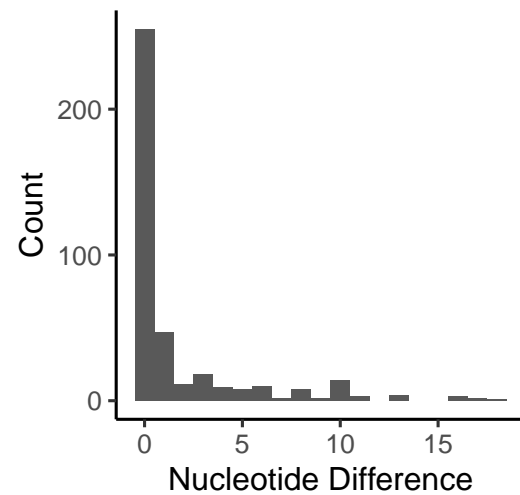
### IGHV3-30-3\*03

2 sequences assigned  
No exact matches.



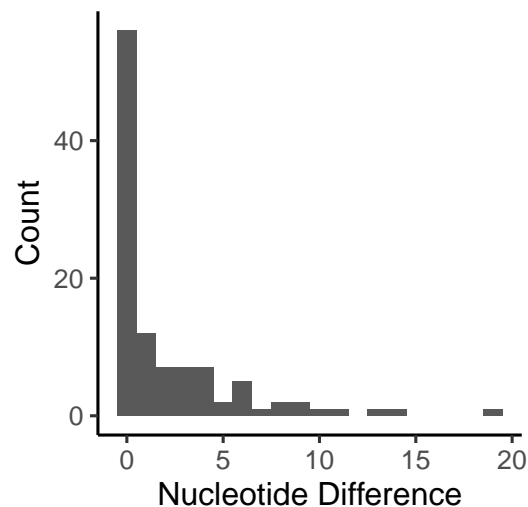
### IGHV3-48\*01

397 sequences assigned  
255 (64.2%) exact matches, in which:  
239 unique CDR3  
6 unique J



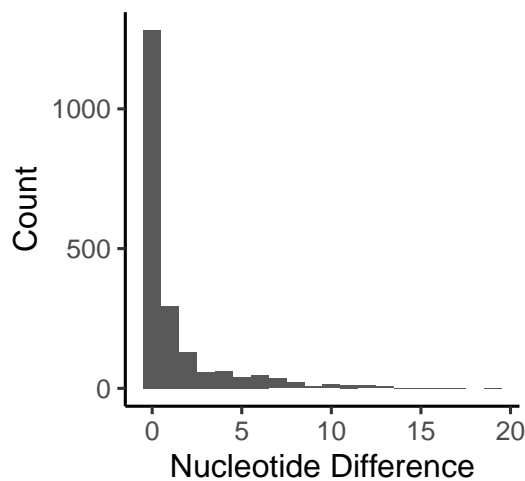
### IGHV3-20\*01

106 sequences assigned  
56 (52.8%) exact matches, in which:  
51 unique CDR3  
6 unique J



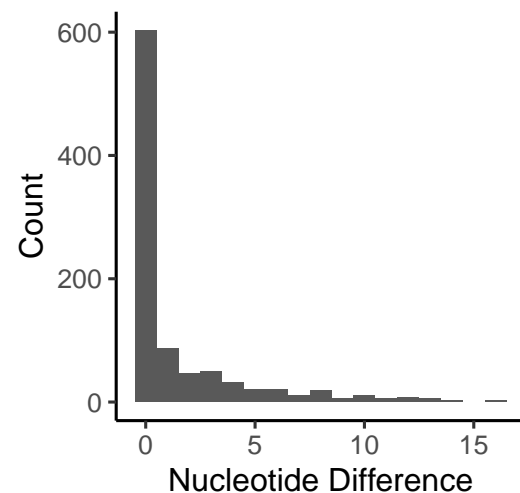
### IGHV3-33\*01

2025 sequences assigned  
1282 (63.3%) exact matches, in which:  
1194 unique CDR3  
7 unique J



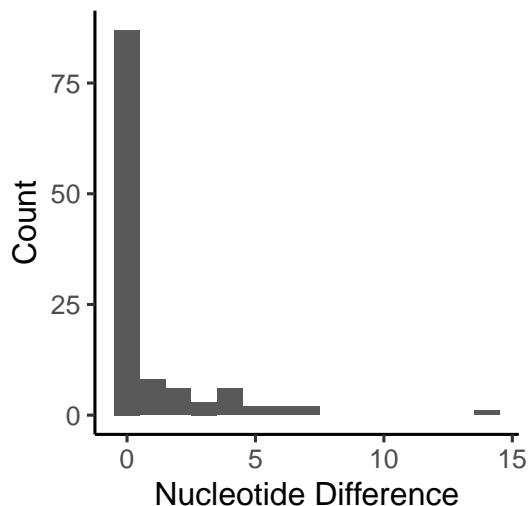
### IGHV3-48\*03

927 sequences assigned  
603 (65%) exact matches, in which:  
567 unique CDR3  
6 unique J



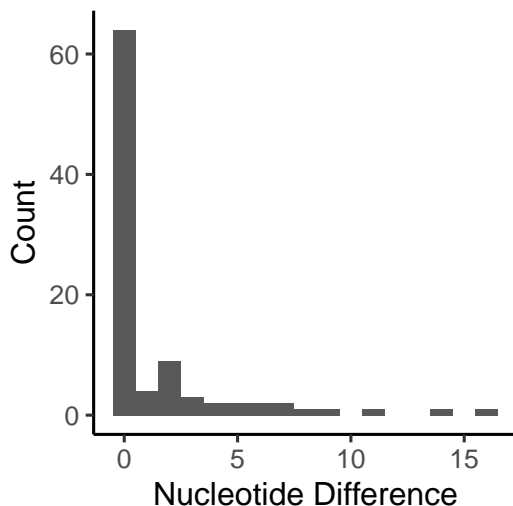
### IGHV3-49\*03

117 sequences assigned  
87 (74.4%) exact matches, in which:  
84 unique CDR3  
5 unique J



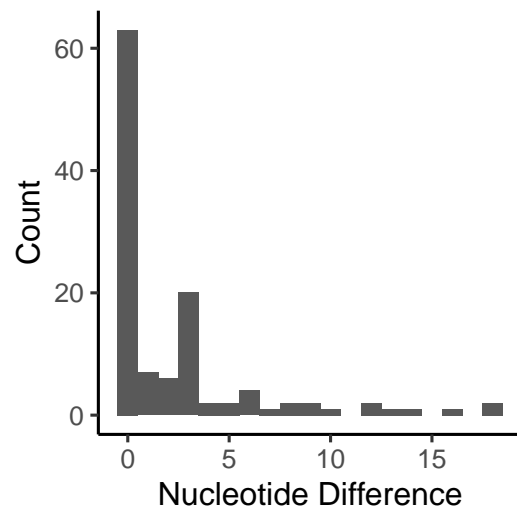
### IGHV3-64\*01

93 sequences assigned  
64 (68.8%) exact matches, in which:  
61 unique CDR3  
5 unique J



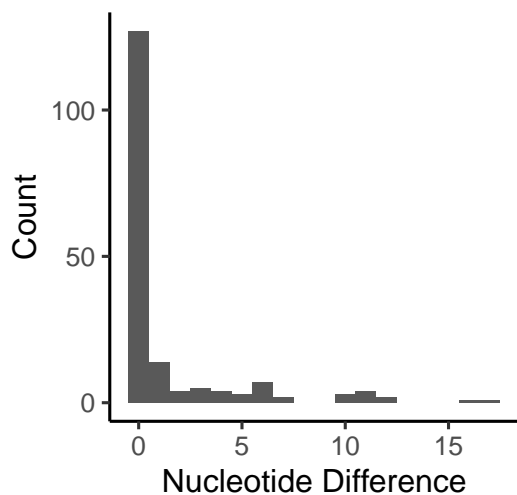
### IGHV3-73\*01

119 sequences assigned  
63 (52.9%) exact matches, in which:  
55 unique CDR3  
5 unique J



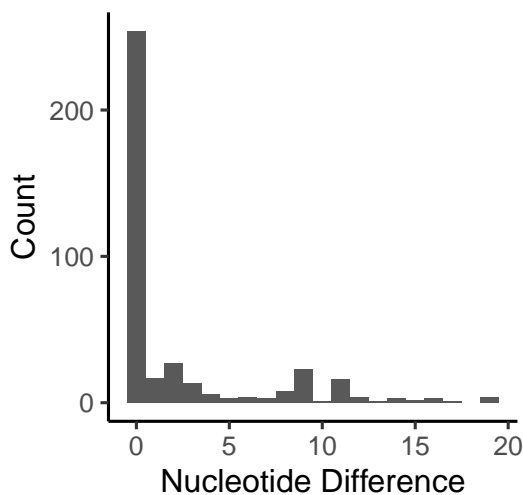
### IGHV3-49\*04

177 sequences assigned  
127 (71.8%) exact matches, in which:  
119 unique CDR3  
6 unique J



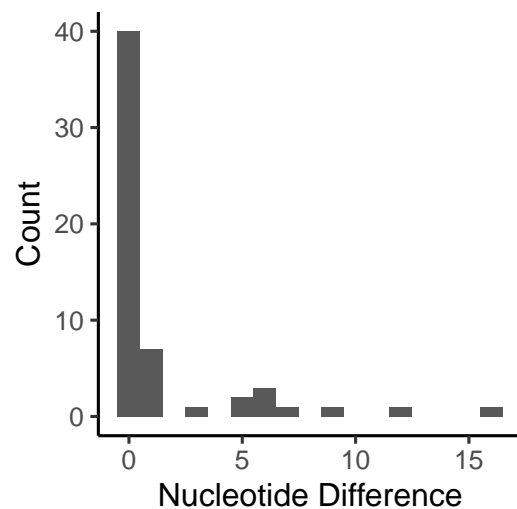
### IGHV3-66\*01

394 sequences assigned  
254 (64.5%) exact matches, in which:  
230 unique CDR3  
7 unique J



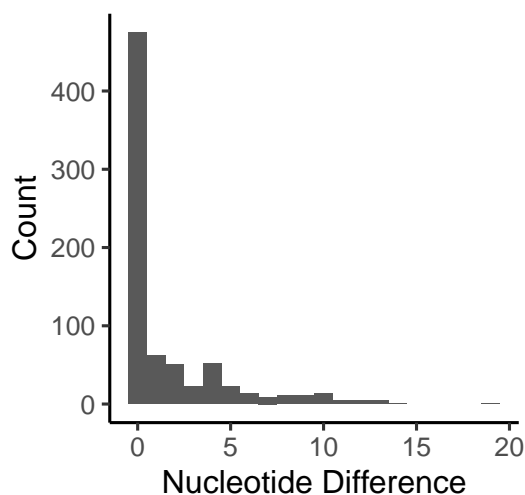
### IGHV3-73\*02

57 sequences assigned  
40 (70.2%) exact matches, in which:  
39 unique CDR3  
5 unique J



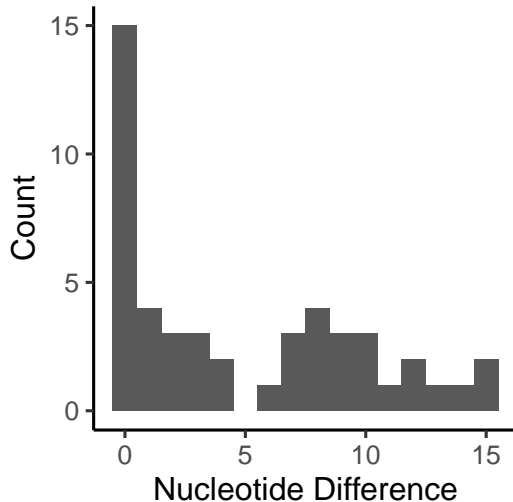
### IGHV3-53\*01

760 sequences assigned  
475 (62.5%) exact matches, in which:  
428 unique CDR3  
7 unique J



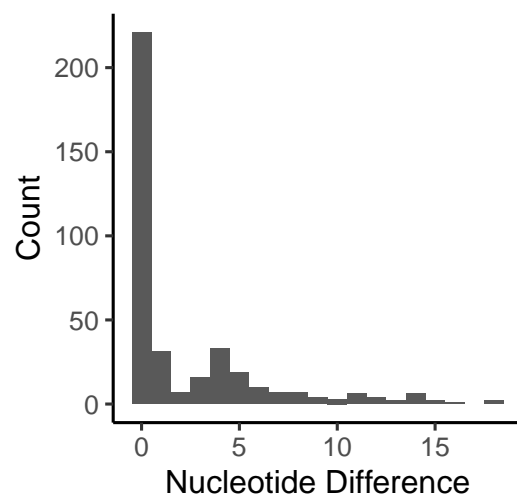
### IGHV3-72\*01

48 sequences assigned  
15 (31.2%) exact matches, in which:  
13 unique CDR3  
3 unique J



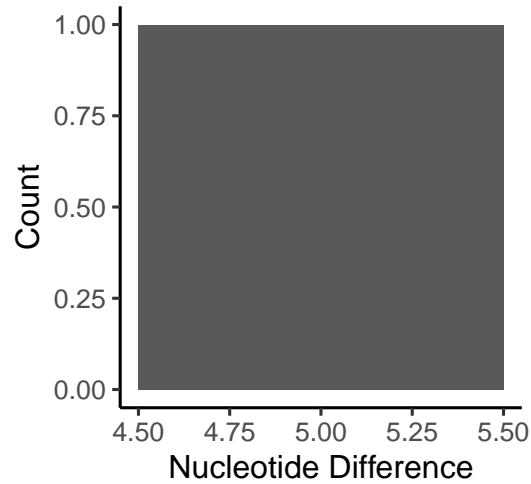
### IGHV3-74\*01

381 sequences assigned  
221 (58%) exact matches, in which:  
207 unique CDR3  
7 unique J



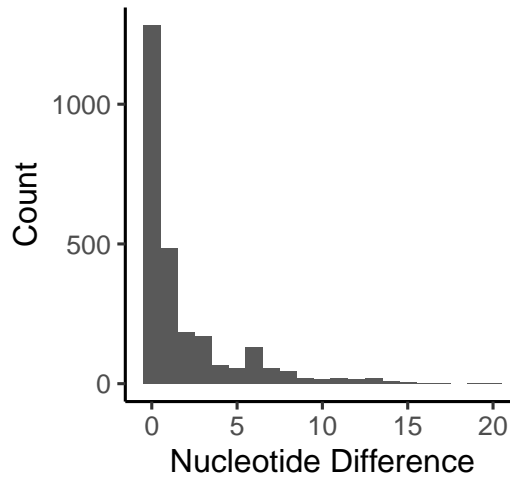
### IGHV3–NL1\*01

1 sequences assigned  
No exact matches.



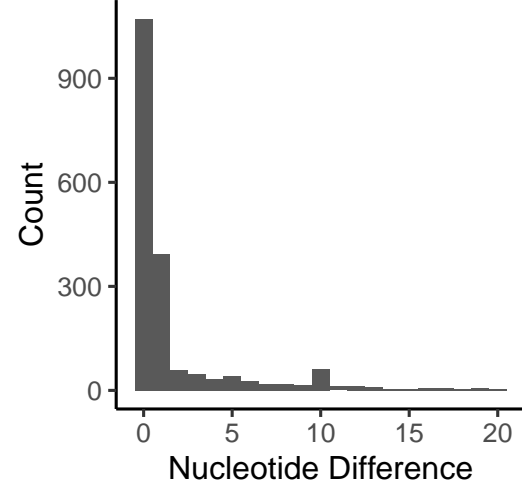
### IGHV4–31\*03

2594 sequences assigned  
1282 (49.4%) exact matches, in which:  
1181 unique CDR3  
7 unique J



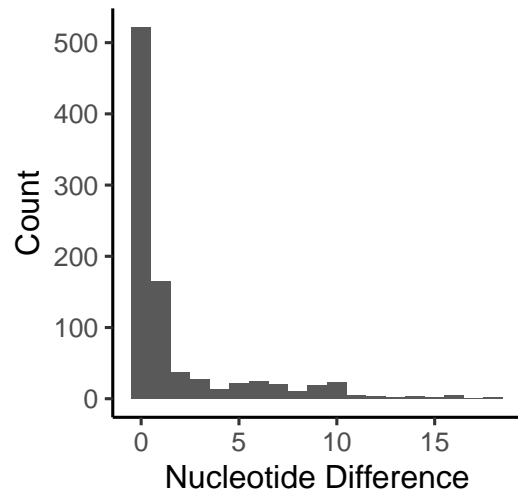
### IGHV4–59\*01

1859 sequences assigned  
1072 (57.7%) exact matches, in which:  
962 unique CDR3  
7 unique J



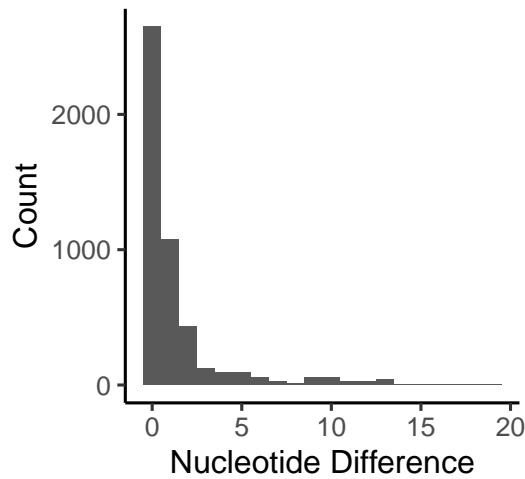
### IGHV4–4\*07

913 sequences assigned  
522 (57.2%) exact matches, in which:  
495 unique CDR3  
7 unique J



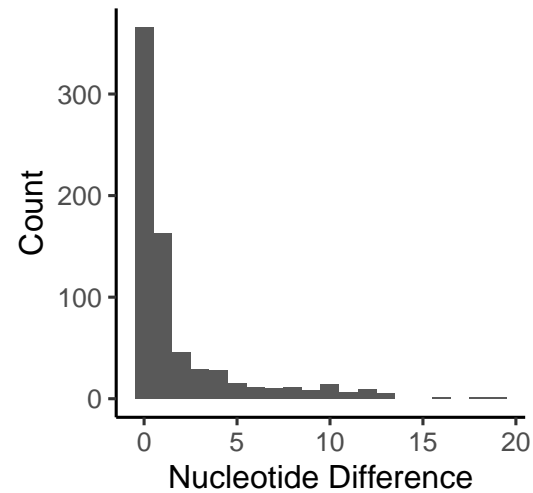
### IGHV4–34\*01

4791 sequences assigned  
2648 (55.3%) exact matches, in which:  
2475 unique CDR3  
7 unique J



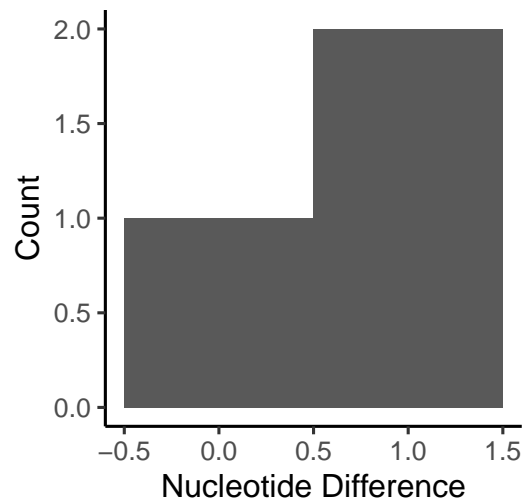
### IGHV4–59\*08

726 sequences assigned  
366 (50.4%) exact matches, in which:  
332 unique CDR3  
6 unique J



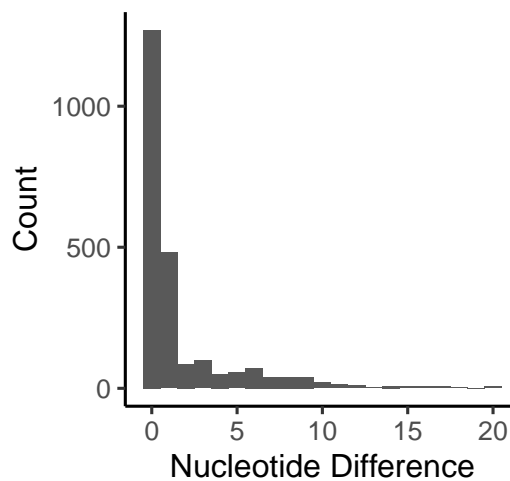
### IGHV4–28\*01

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



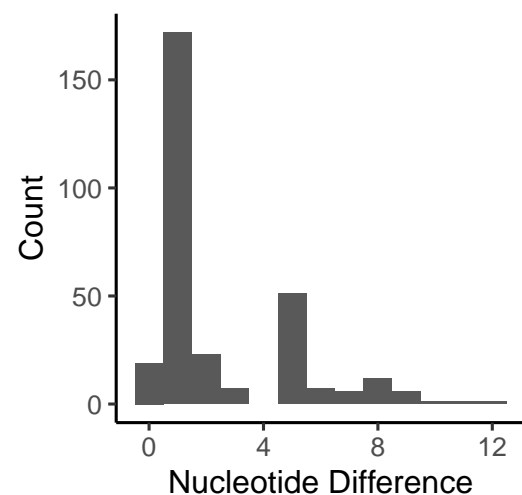
### IGHV4–39\*01

2331 sequences assigned  
1270 (54.5%) exact matches, in which:  
1218 unique CDR3  
7 unique J



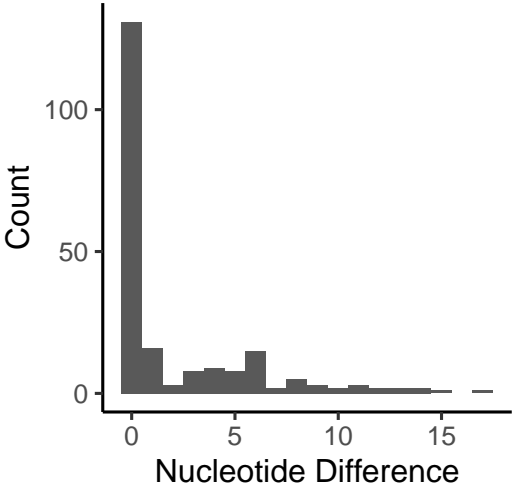
### IGHV4–59\*12

306 sequences assigned  
19 (6.2%) exact matches, in which:  
19 unique CDR3  
5 unique J



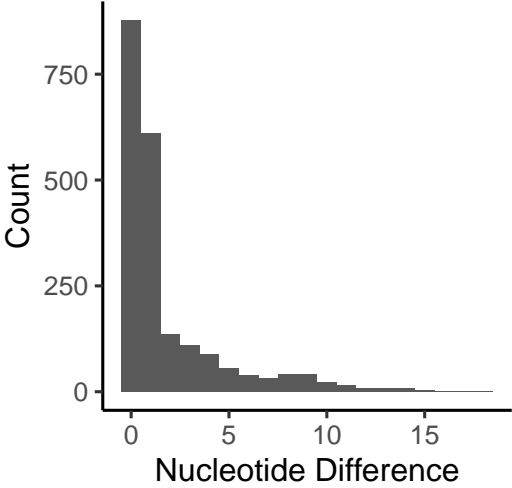
IGHV4–61\*01

213 sequences assigned  
131 (61.5%) exact matches, in which:  
125 unique CDR3  
7 unique J



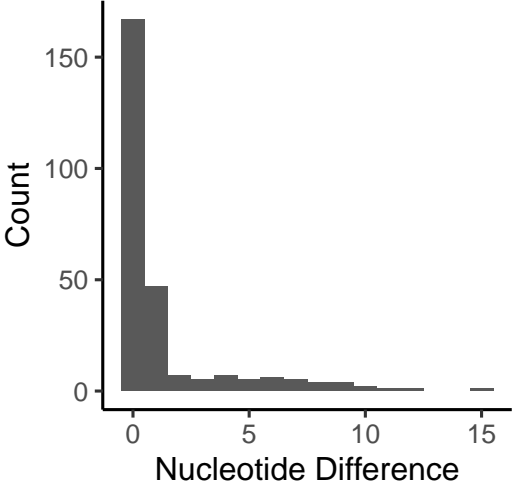
IGHV5–51\*01

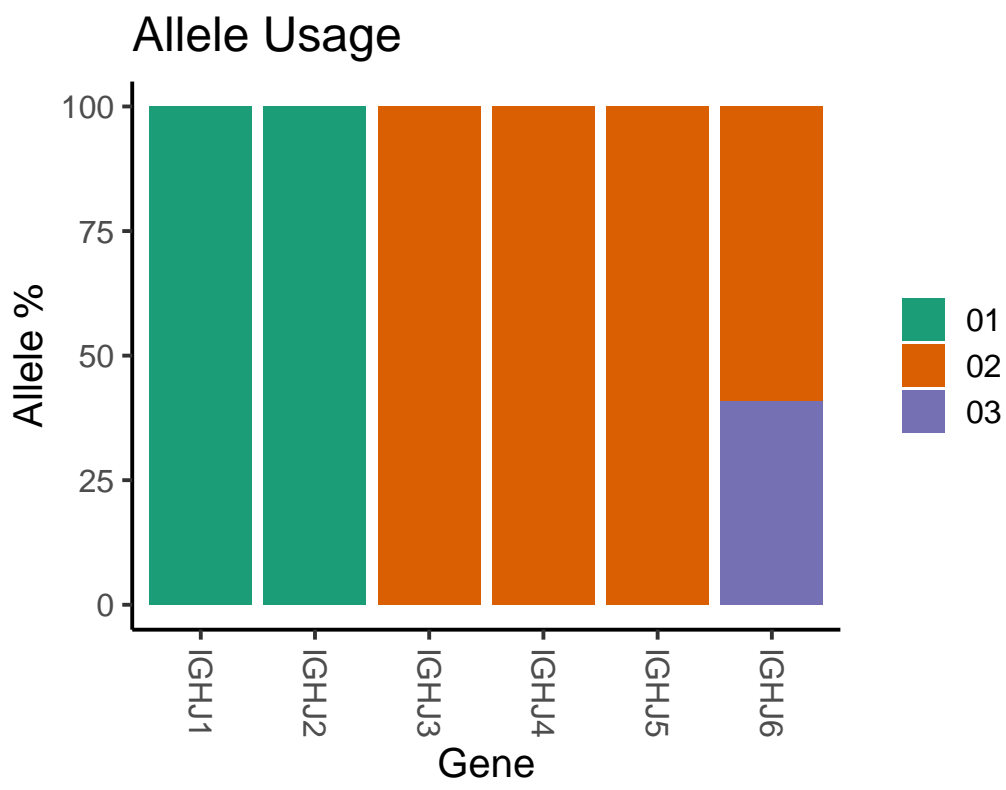
2107 sequences assigned  
878 (41.7%) exact matches, in which:  
722 unique CDR3  
7 unique J



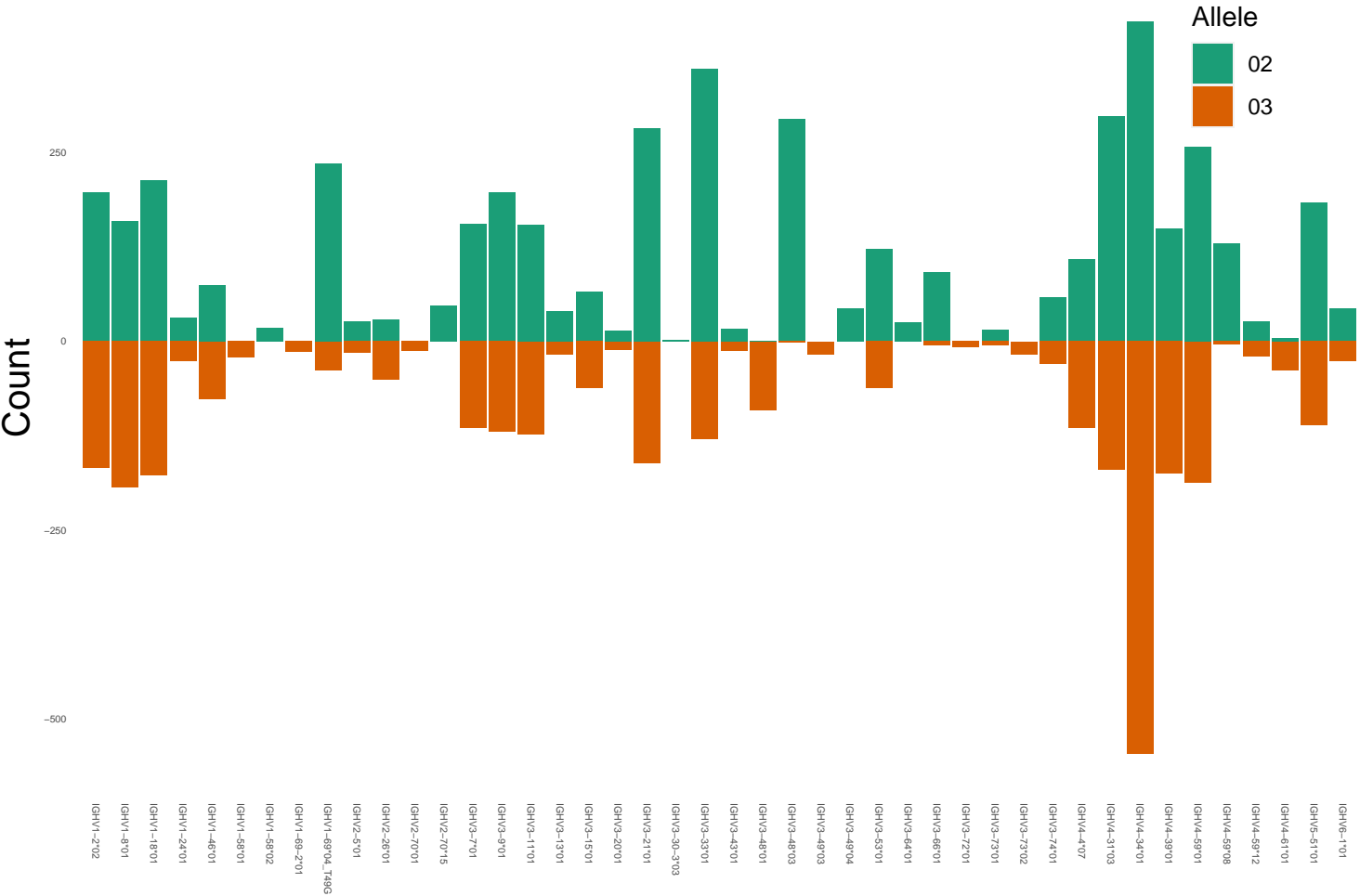
IGHV6–1\*01

262 sequences assigned  
167 (63.7%) exact matches, in which:  
158 unique CDR3  
7 unique J





Sequence Count byIGHJ6 allele usage





Warning – no inferred sequences found.