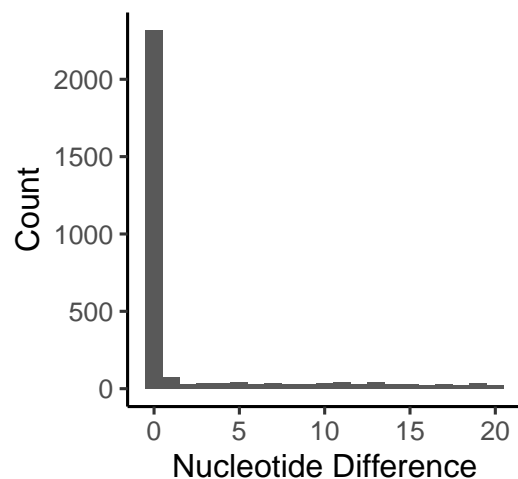


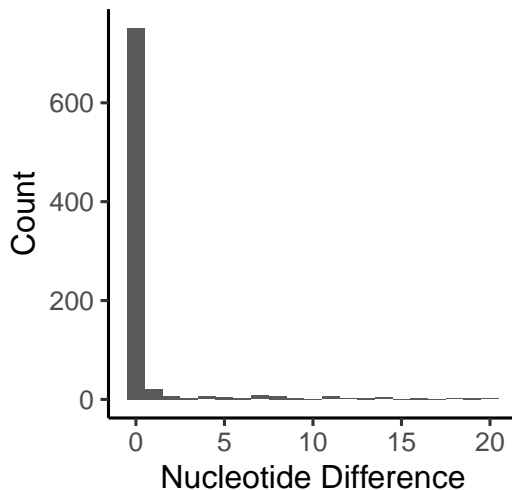
### IGHV1-2\*02

3191 sequences assigned  
2316 (72.6%) exact matches, in which:  
2293 unique CDR3  
7 unique J



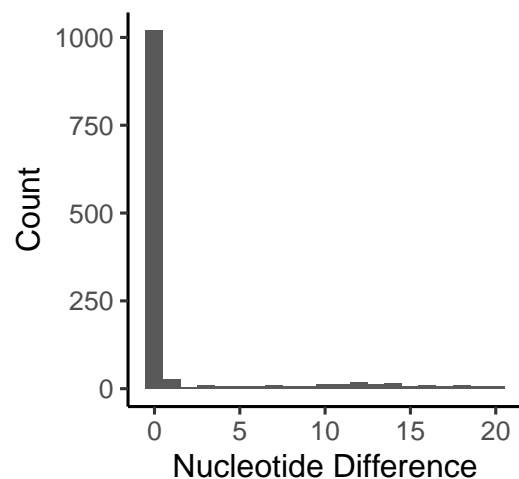
### IGHV1-8\*01

855 sequences assigned  
752 (88%) exact matches, in which:  
742 unique CDR3  
6 unique J



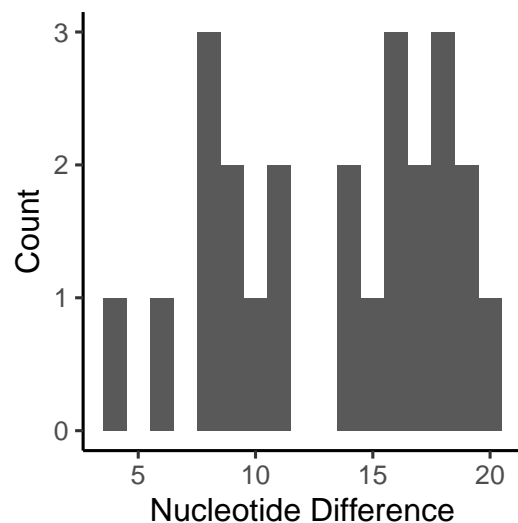
### IGHV1-18\*01\_A190G

1325 sequences assigned  
1020 (77%) exact matches, in which:  
1010 unique CDR3  
6 unique J



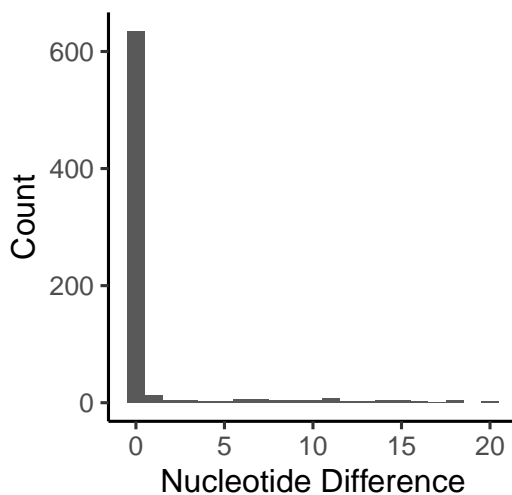
### IGHV1-3\*04

32 sequences assigned  
No exact matches.



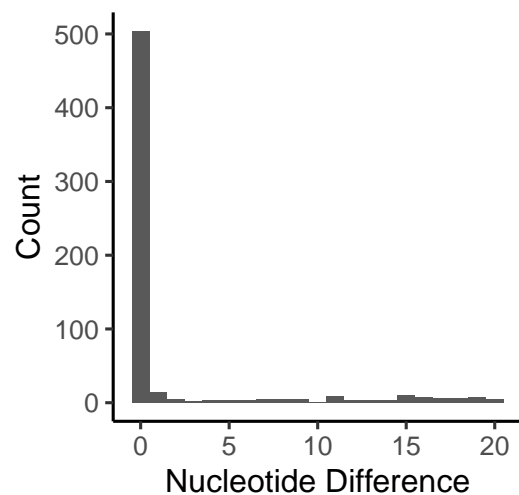
### IGHV1-8\*02

739 sequences assigned  
635 (85.9%) exact matches, in which:  
627 unique CDR3  
7 unique J



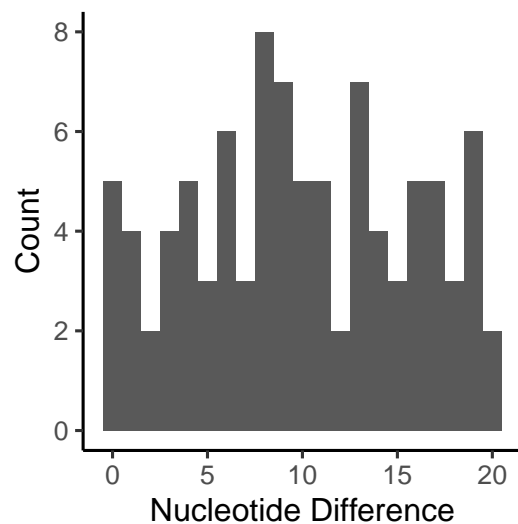
### IGHV1-24\*01

637 sequences assigned  
504 (79.1%) exact matches, in which:  
498 unique CDR3  
7 unique J



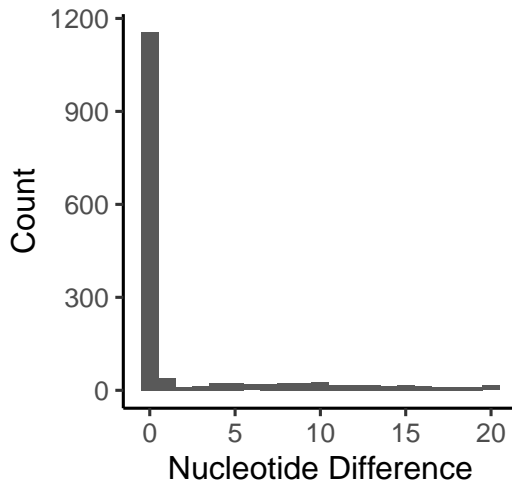
### IGHV1-3\*01\_05

123 sequences assigned  
5 (4.1%) exact matches, in which:  
5 unique CDR3  
2 unique J



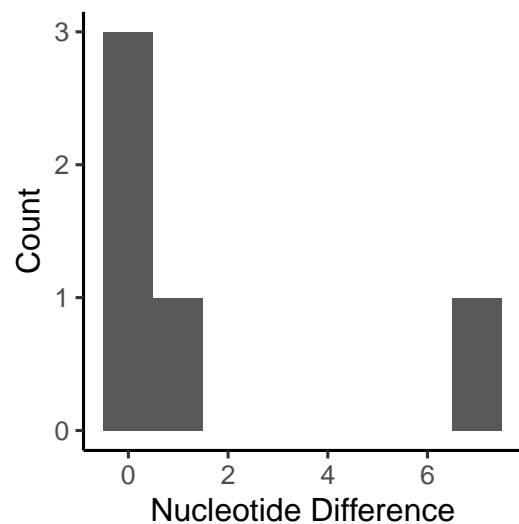
### IGHV1-18\*01

1626 sequences assigned  
1156 (71.1%) exact matches, in which:  
1147 unique CDR3  
6 unique J



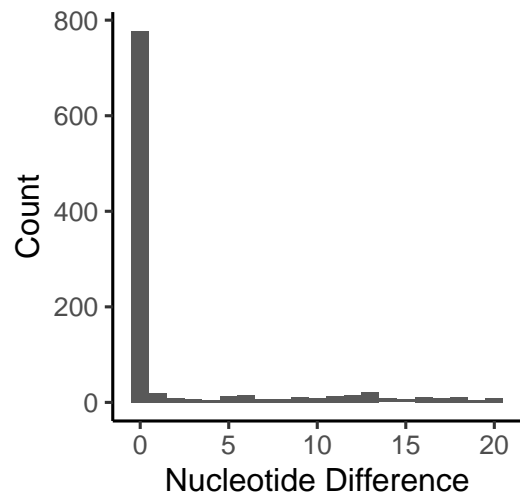
### IGHV1-45\*02

5 sequences assigned  
3 (60%) exact matches, in which:  
3 unique CDR3  
3 unique J



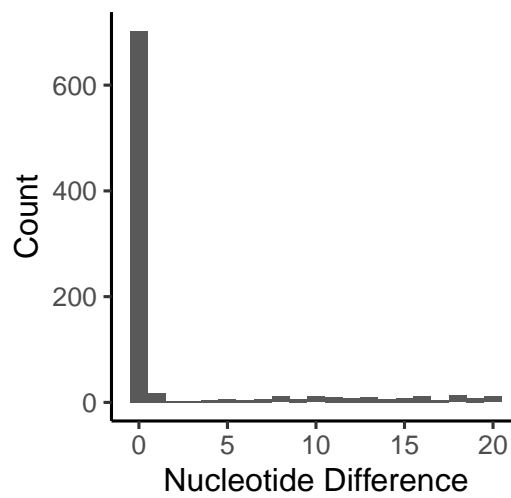
### IGHV1-46\*01

1064 sequences assigned  
778 (73.1%) exact matches, in which:  
775 unique CDR3  
7 unique J



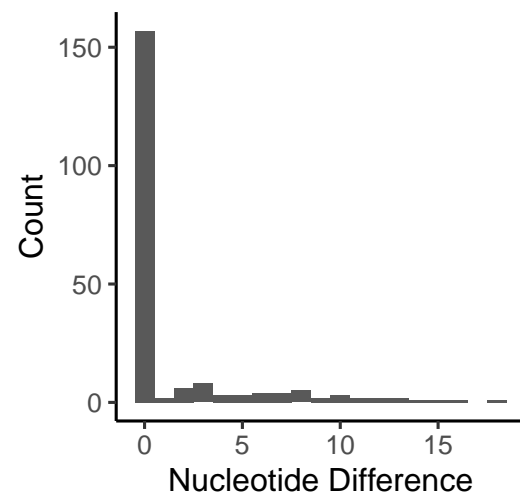
### IGHV1-69\*01\_12\_13

1022 sequences assigned  
703 (68.8%) exact matches, in which:  
700 unique CDR3  
7 unique J



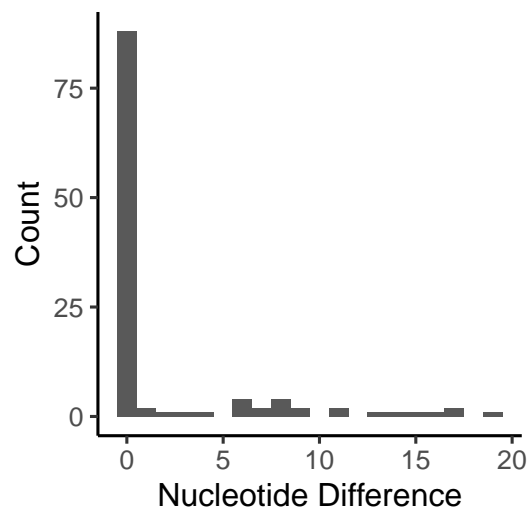
### IGHV2-5\*05\_09

212 sequences assigned  
157 (74.1%) exact matches, in which:  
155 unique CDR3  
6 unique J



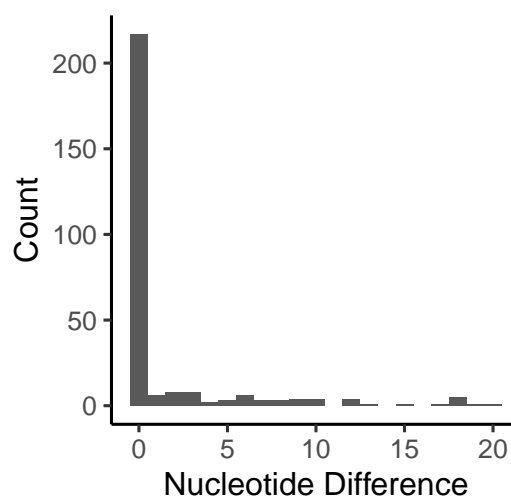
### IGHV1-58\*02

126 sequences assigned  
88 (69.8%) exact matches, in which:  
88 unique CDR3  
7 unique J



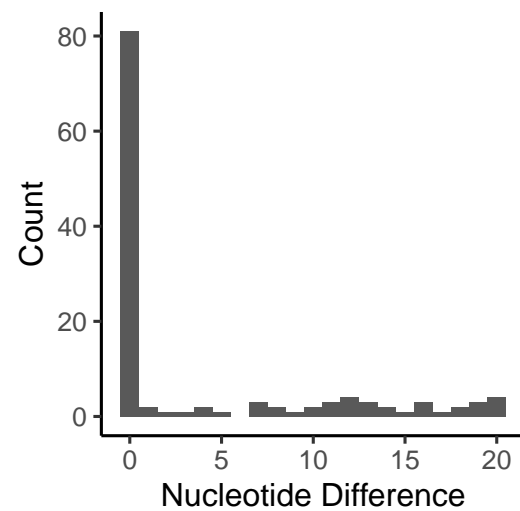
### IGHV2-5\*01

286 sequences assigned  
217 (75.9%) exact matches, in which:  
216 unique CDR3  
6 unique J



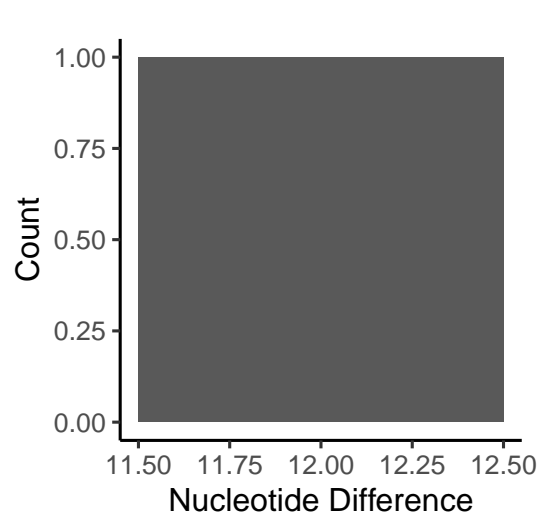
### IGHV2-26\*01

128 sequences assigned  
81 (63.3%) exact matches, in which:  
81 unique CDR3  
7 unique J



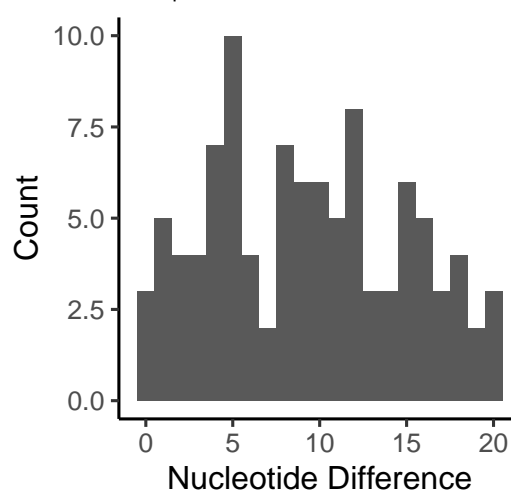
### IGHV1-69-2\*01

2 sequences assigned  
No exact matches.



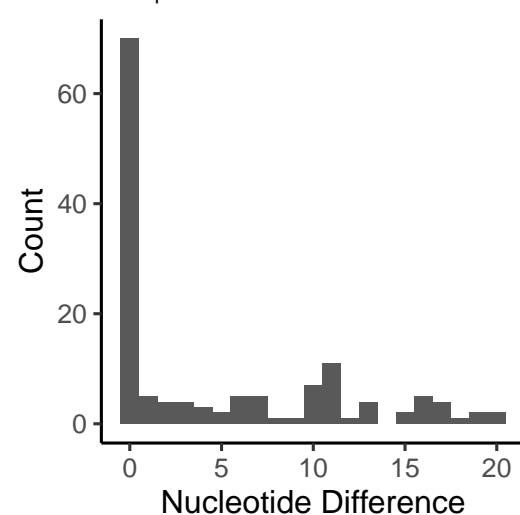
### IGHV2-5\*02

120 sequences assigned  
3 (2.5%) exact matches, in which:  
3 unique CDR3  
2 unique J



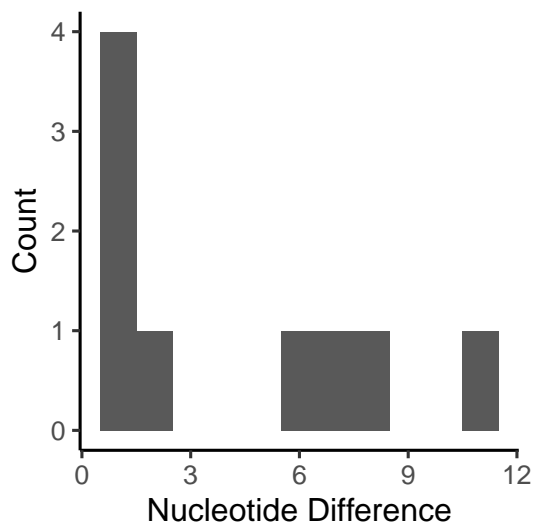
### IGHV2-70\*11\_15

146 sequences assigned  
70 (47.9%) exact matches, in which:  
70 unique CDR3  
5 unique J



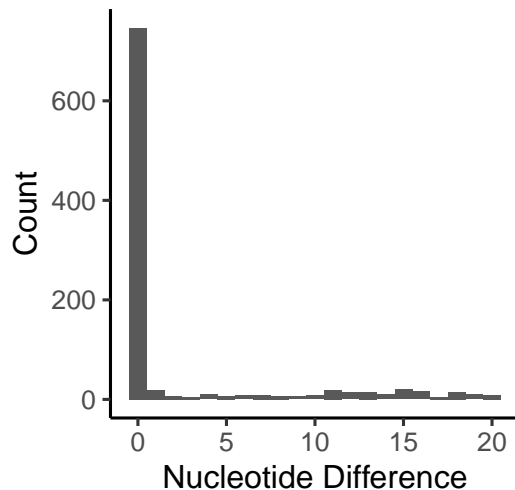
### IGHV2-70D\*04

11 sequences assigned  
No exact matches.



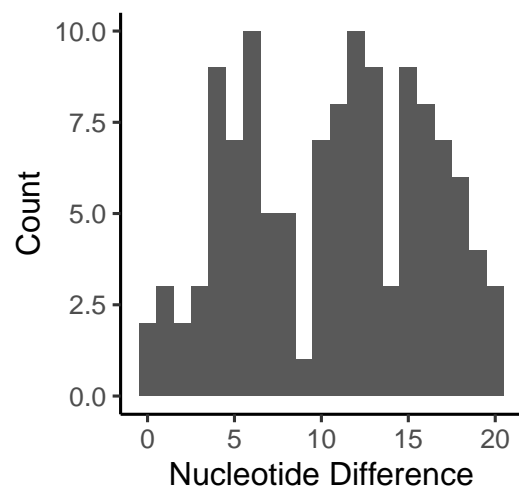
### IGHV3-9\*01

999 sequences assigned  
747 (74.8%) exact matches, in which:  
735 unique CDR3  
7 unique J



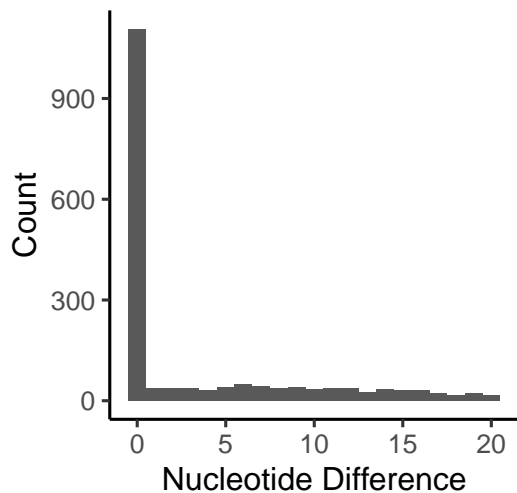
### IGHV3-11\*06

180 sequences assigned  
2 (1.1%) exact matches, in which:  
2 unique CDR3  
2 unique J



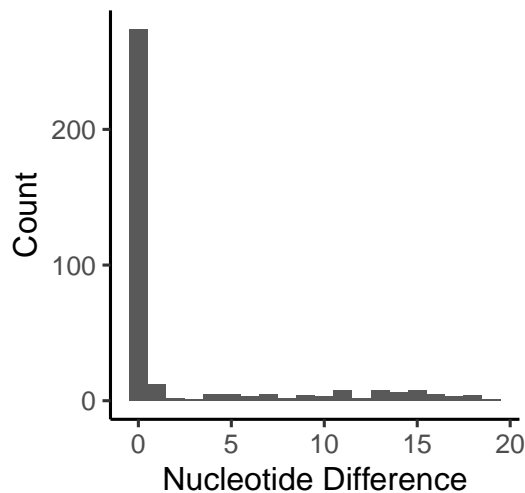
### IGHV3-7\*01

1904 sequences assigned  
1107 (58.1%) exact matches, in which:  
1076 unique CDR3  
7 unique J



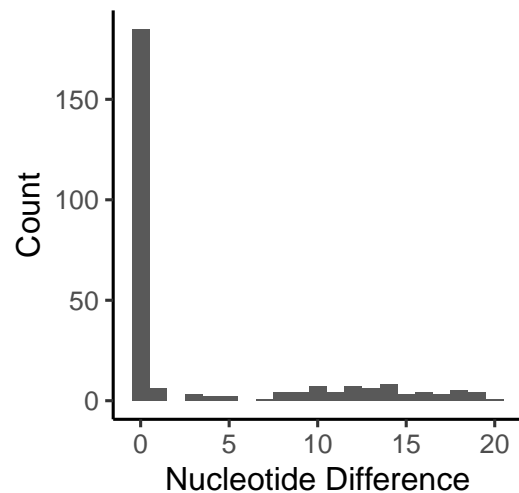
### IGHV3-11\*01

396 sequences assigned  
274 (69.2%) exact matches, in which:  
266 unique CDR3  
6 unique J



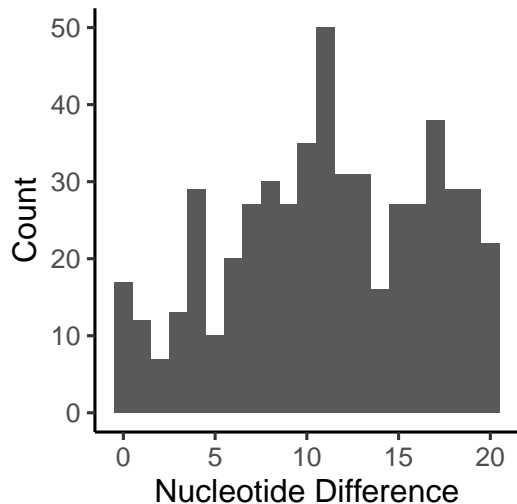
### IGHV3-13\*01

267 sequences assigned  
185 (69.3%) exact matches, in which:  
182 unique CDR3  
7 unique J



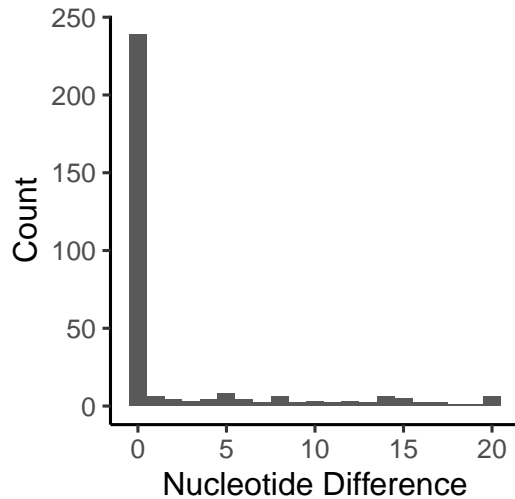
### IGHV3-7\*03

657 sequences assigned  
17 (2.6%) exact matches, in which:  
12 unique CDR3  
5 unique J



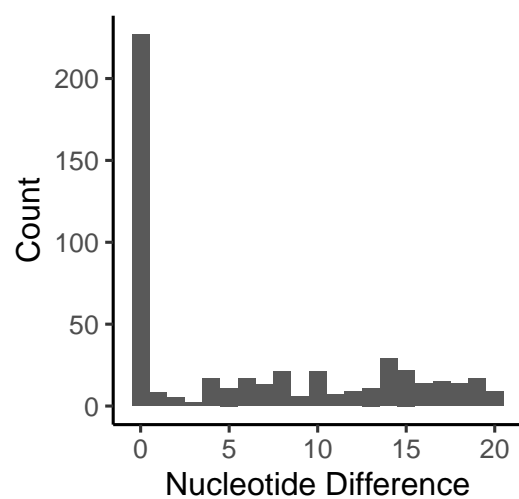
### IGHV3-11\*04

328 sequences assigned  
239 (72.9%) exact matches, in which:  
238 unique CDR3  
6 unique J



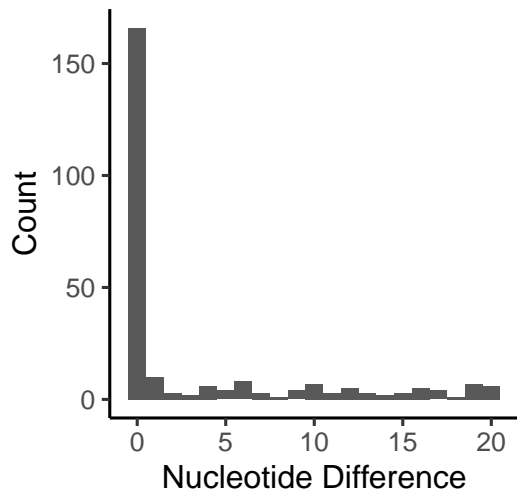
### IGHV3-15\*01\_02

565 sequences assigned  
227 (40.2%) exact matches, in which:  
222 unique CDR3  
6 unique J



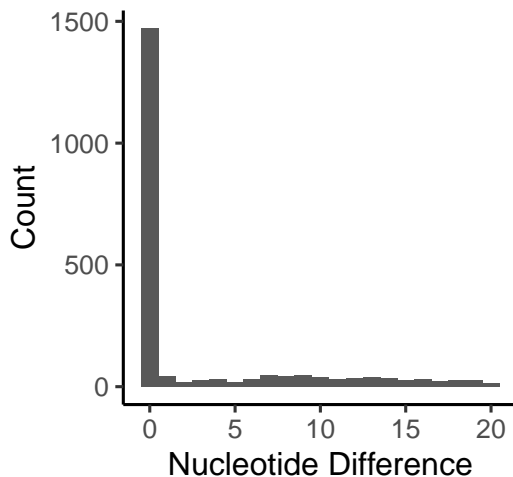
### IGHV3-15\*01\_02\_G147A

266 sequences assigned  
166 (62.4%) exact matches, in which:  
162 unique CDR3  
6 unique J



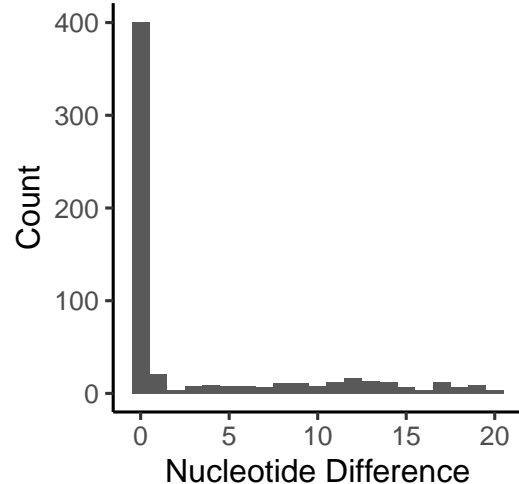
### IGHV3-21\*01\_02

2307 sequences assigned  
1471 (63.8%) exact matches, in which:  
1423 unique CDR3  
7 unique J



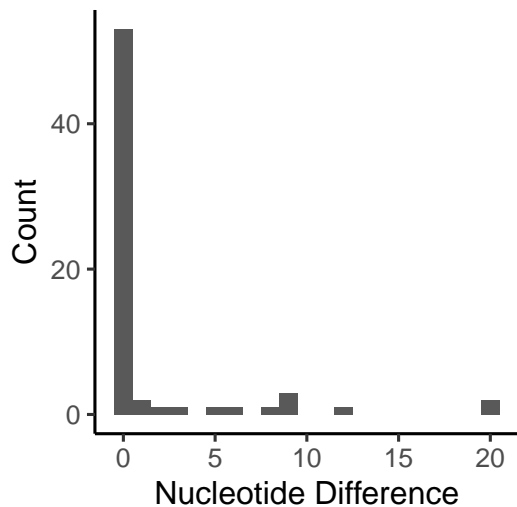
### IGHV3-33\*01

655 sequences assigned  
401 (61.2%) exact matches, in which:  
394 unique CDR3  
6 unique J



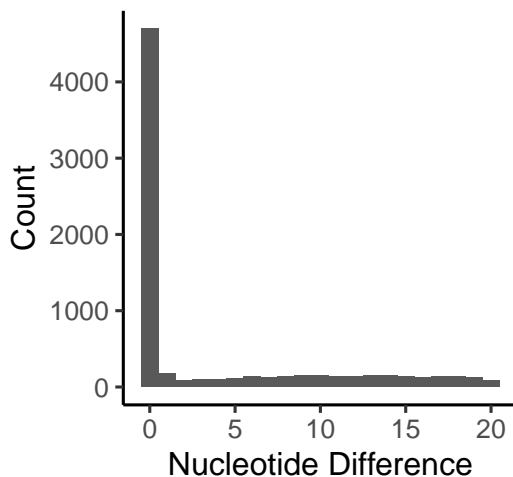
### IGHV3-20\*01\_02

66 sequences assigned  
53 (80.3%) exact matches, in which:  
51 unique CDR3  
6 unique J



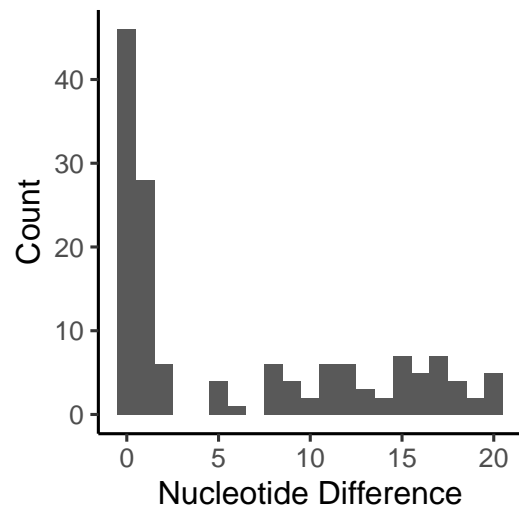
### IGHV3-23\*01\_04

8211 sequences assigned  
4697 (57.2%) exact matches, in which:  
4550 unique CDR3  
7 unique J



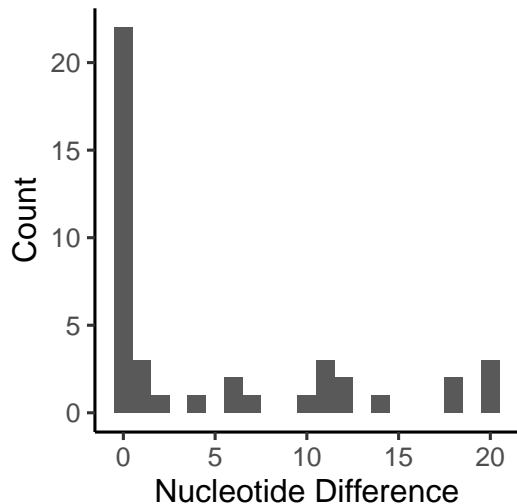
### IGHV3-43\*01

165 sequences assigned  
46 (27.9%) exact matches, in which:  
46 unique CDR3  
6 unique J



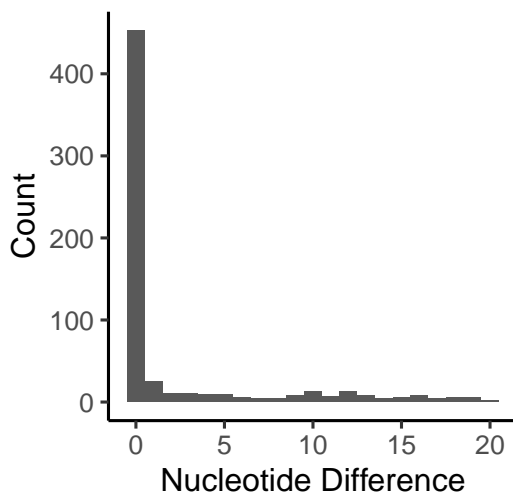
### IGHV3-20\*03\_04

45 sequences assigned  
22 (48.9%) exact matches, in which:  
22 unique CDR3  
4 unique J



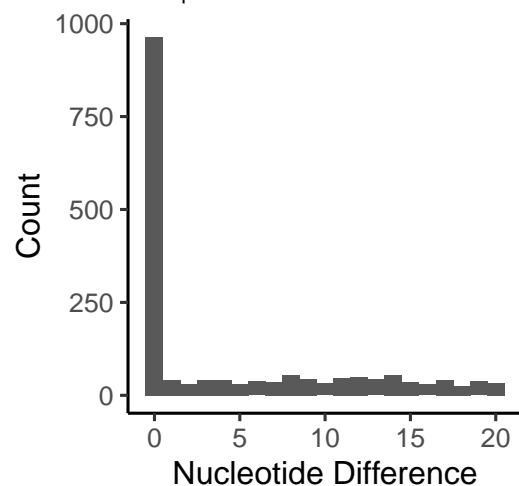
### IGHV3-30\*02\_A245G

623 sequences assigned  
453 (72.7%) exact matches, in which:  
439 unique CDR3  
6 unique J



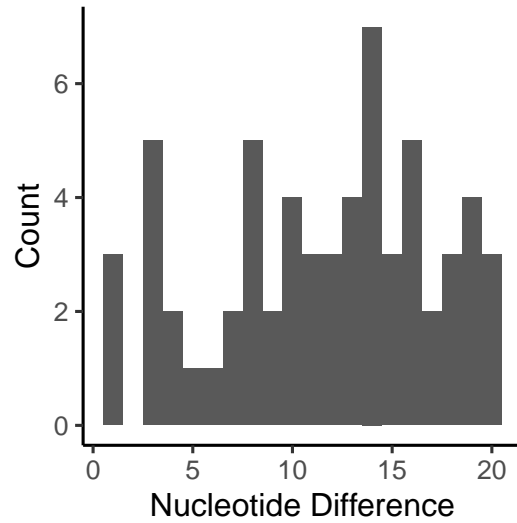
### IGHV3-48\*02

1947 sequences assigned  
964 (49.5%) exact matches, in which:  
940 unique CDR3  
7 unique J



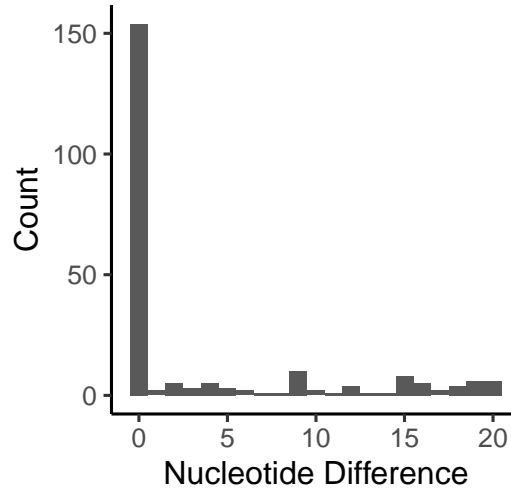
### IGHV3-49\*04

74 sequences assigned  
No exact matches.



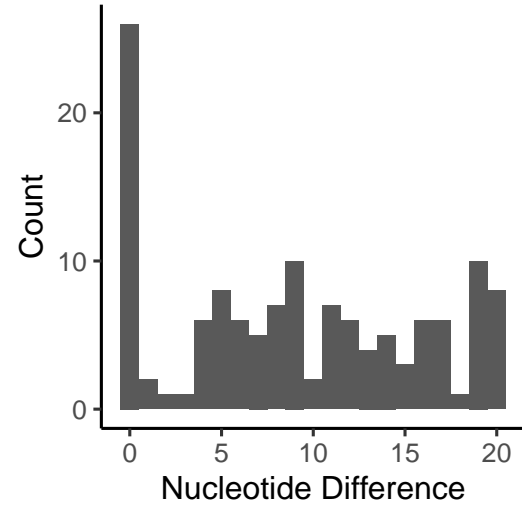
### IGHV3-64\*01

265 sequences assigned  
154 (58.1%) exact matches, in which:  
145 unique CDR3  
7 unique J



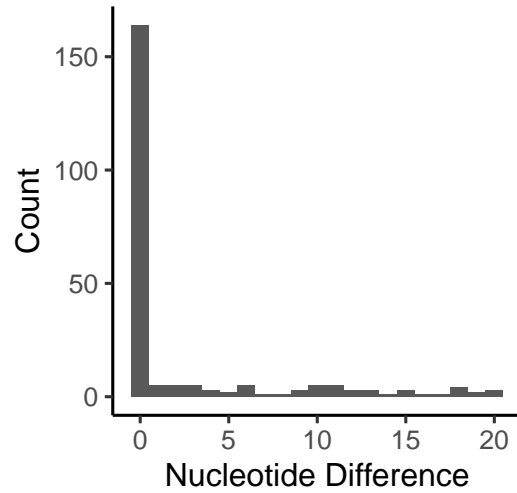
### IGHV3-72\*01

156 sequences assigned  
26 (16.7%) exact matches, in which:  
23 unique CDR3  
5 unique J



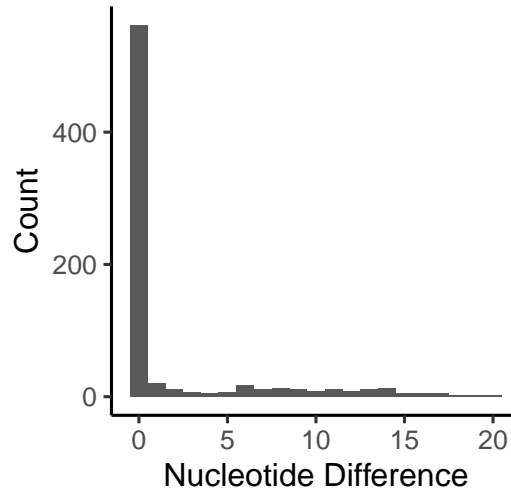
### IGHV3-49\*03\_05

241 sequences assigned  
164 (68%) exact matches, in which:  
164 unique CDR3  
7 unique J



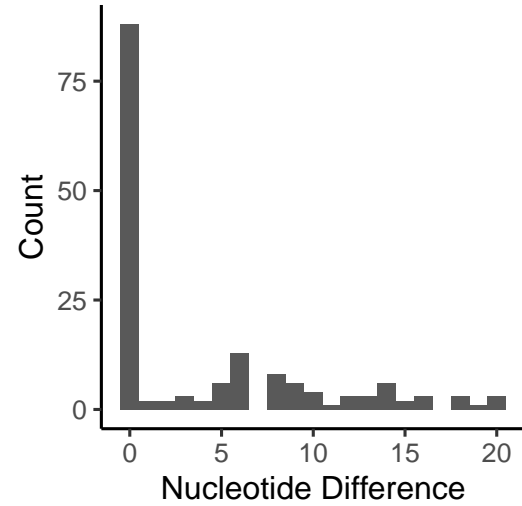
### IGHV3-66\*02

804 sequences assigned  
562 (69.9%) exact matches, in which:  
545 unique CDR3  
7 unique J



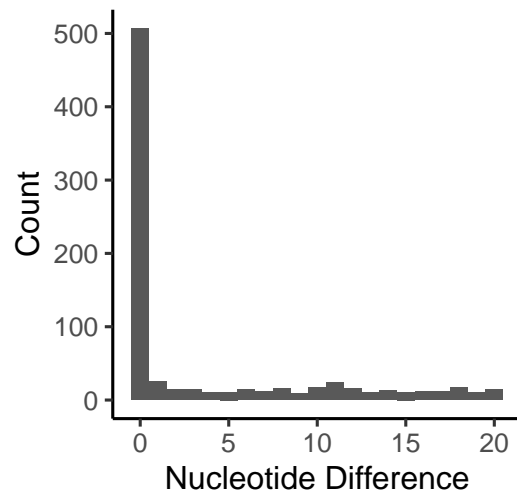
### IGHV3-73\*01\_02

184 sequences assigned  
88 (47.8%) exact matches, in which:  
88 unique CDR3  
6 unique J



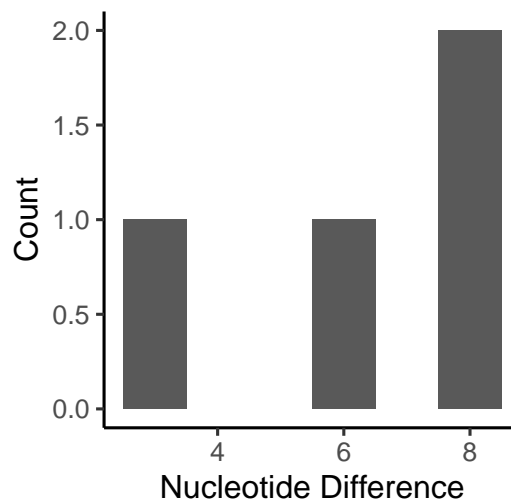
### IGHV3-53\*01\_02

855 sequences assigned  
507 (59.3%) exact matches, in which:  
495 unique CDR3  
7 unique J



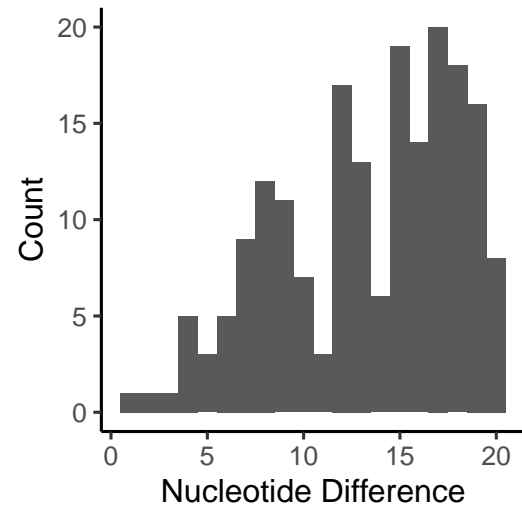
### IGHV3-69-1\*02

5 sequences assigned  
No exact matches.



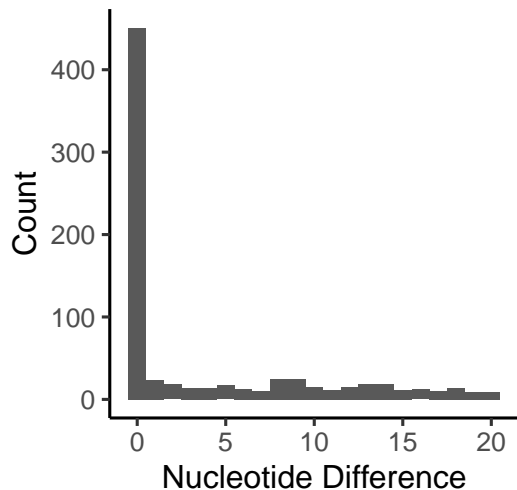
### IGHV3-74\*03

260 sequences assigned  
No exact matches.



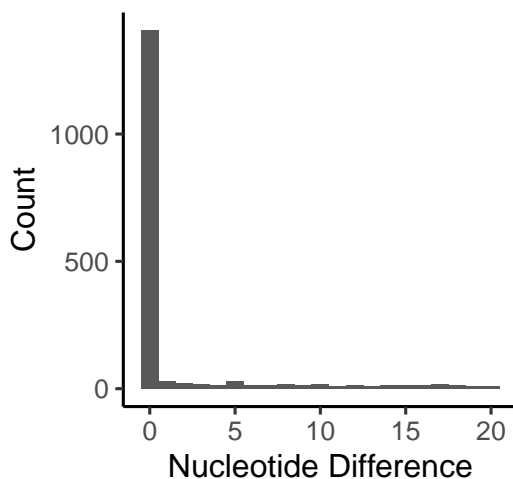
### IGHV3-74\*01\_02

831 sequences assigned  
451 (54.3%) exact matches, in which:  
437 unique CDR3  
7 unique J



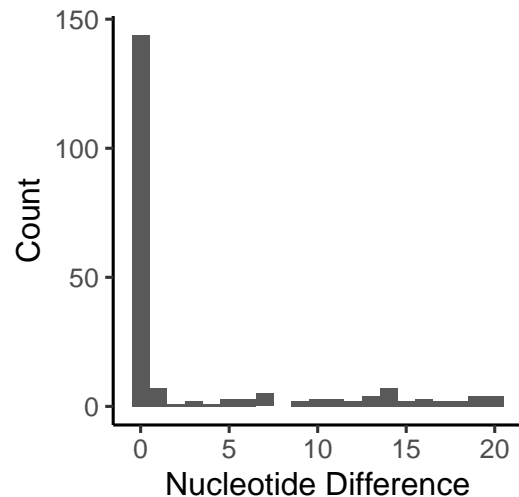
### IGHV4-4\*07

1804 sequences assigned  
1407 (78%) exact matches, in which:  
1370 unique CDR3  
7 unique J



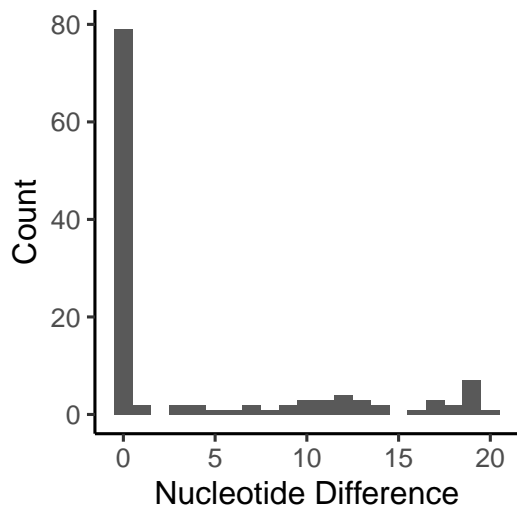
### IGHV4-30-4\*07

263 sequences assigned  
144 (54.8%) exact matches, in which:  
144 unique CDR3  
6 unique J



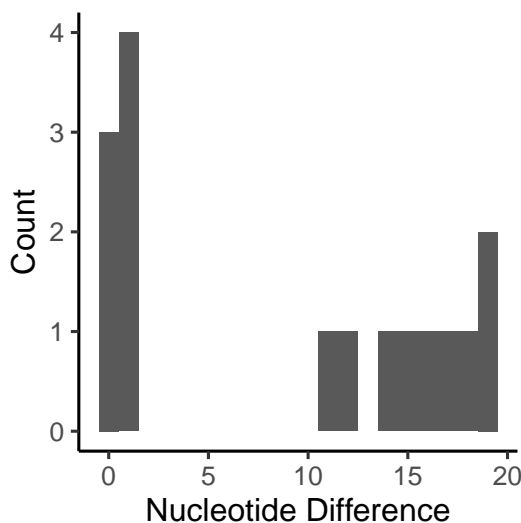
### IGHV3-43D\*03

128 sequences assigned  
79 (61.7%) exact matches, in which:  
79 unique CDR3  
6 unique J



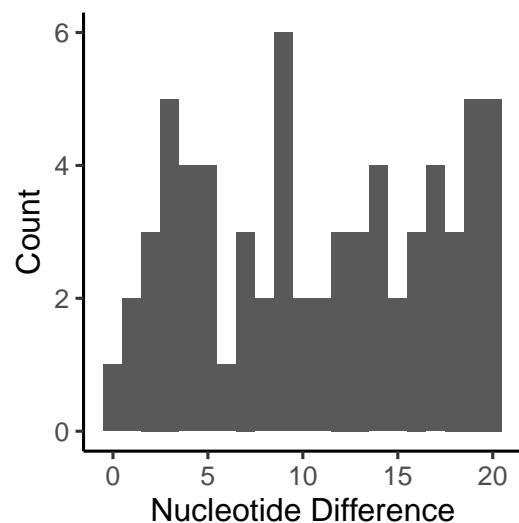
### IGHV4-28\*01\_07

18 sequences assigned  
3 (16.7%) exact matches, in which:  
3 unique CDR3  
2 unique J



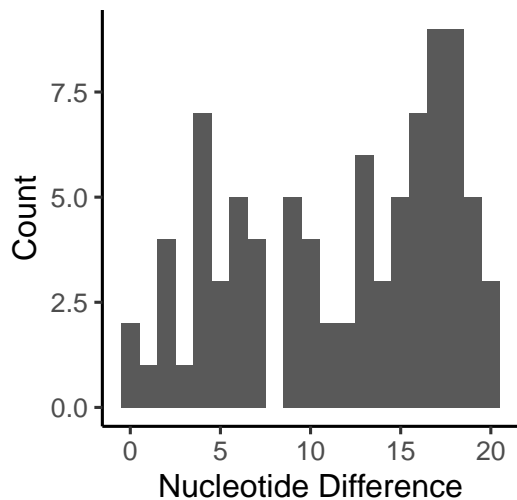
### IGHV4-31\*02

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



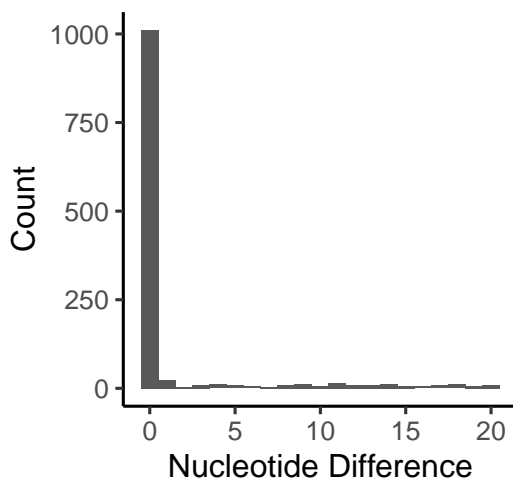
### IGHV3-64D\*06

144 sequences assigned  
2 (1.4%) exact matches, in which:  
2 unique CDR3  
2 unique J



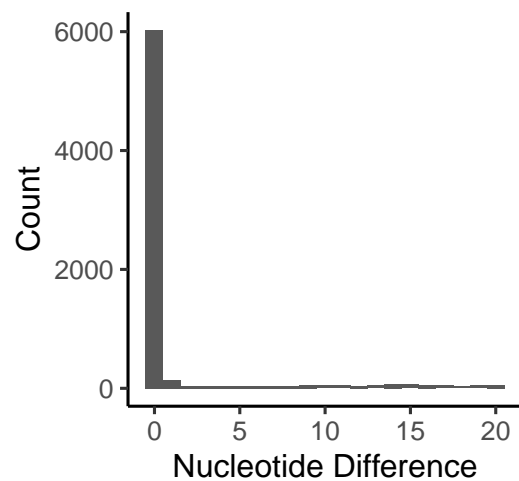
### IGHV4-30-2\*01

1282 sequences assigned  
1011 (78.9%) exact matches, in which:  
975 unique CDR3  
6 unique J



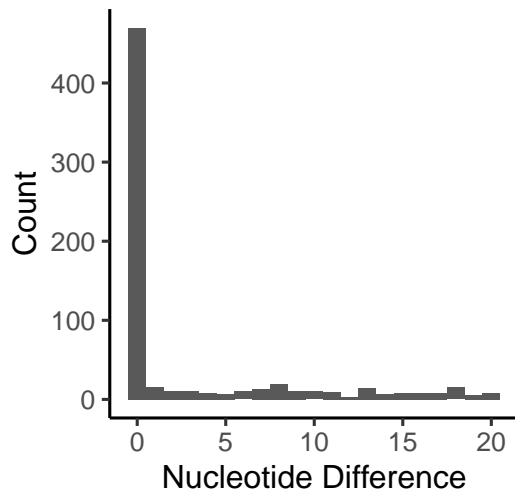
### IGHV4-34\*01\_02

7381 sequences assigned  
6027 (81.7%) exact matches, in which:  
5779 unique CDR3  
7 unique J



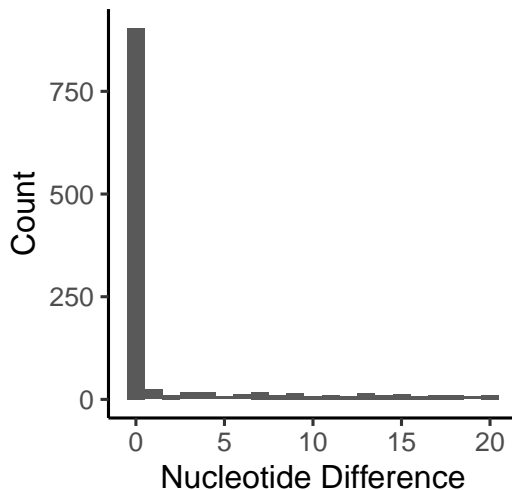
### IGHV4-38-2\*02

740 sequences assigned  
470 (63.5%) exact matches, in which:  
456 unique CDR3  
6 unique J



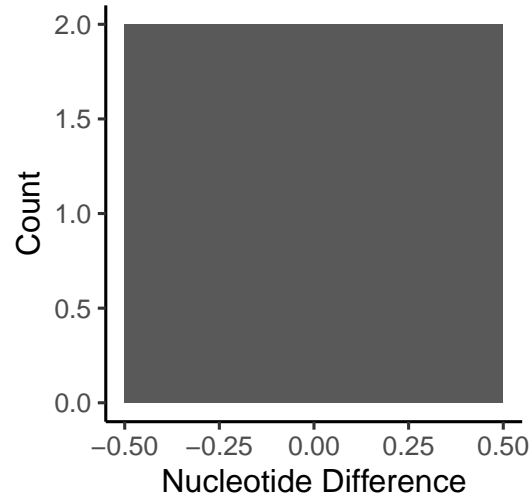
### IGHV4-61\*02

1233 sequences assigned  
905 (73.4%) exact matches, in which:  
892 unique CDR3  
6 unique J



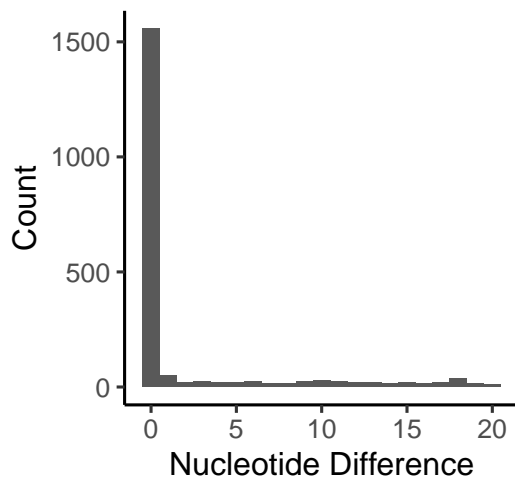
### IGHV5-51\*01\_03

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



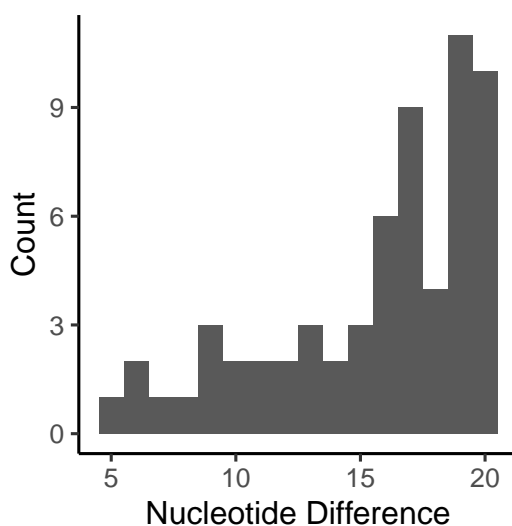
### IGHV4-39\*07

2177 sequences assigned  
1557 (71.5%) exact matches, in which:  
1528 unique CDR3  
7 unique J



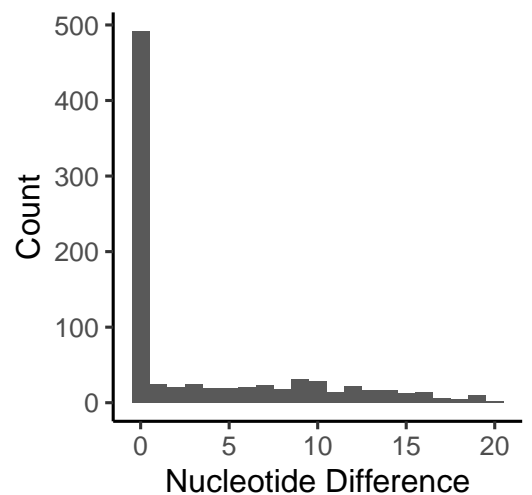
### IGHV4/OR15-8\*02

105 sequences assigned  
No exact matches.



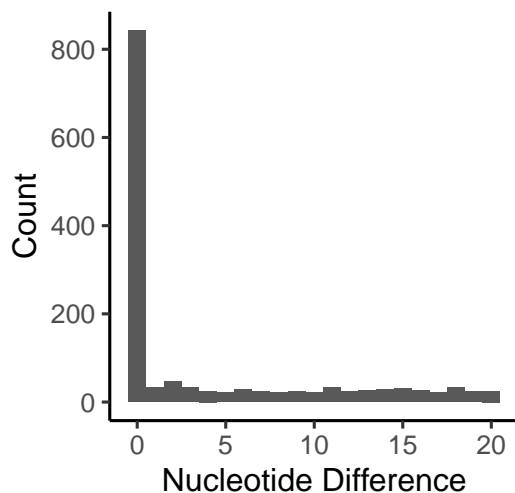
### IGHV6-1\*01\_02

870 sequences assigned  
492 (56.6%) exact matches, in which:  
484 unique CDR3  
7 unique J



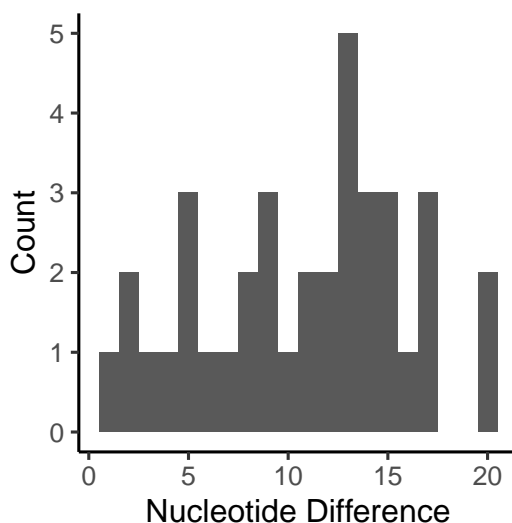
### IGHV4-59\*08

1614 sequences assigned  
843 (52.2%) exact matches, in which:  
814 unique CDR3  
7 unique J



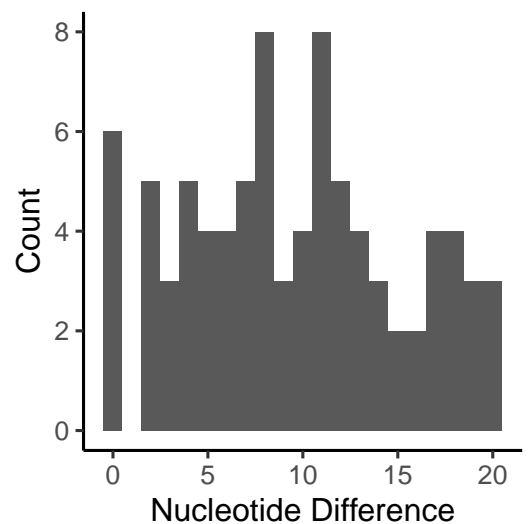
### IGHV5-10-1\*01\_03

56 sequences assigned  
No exact matches.

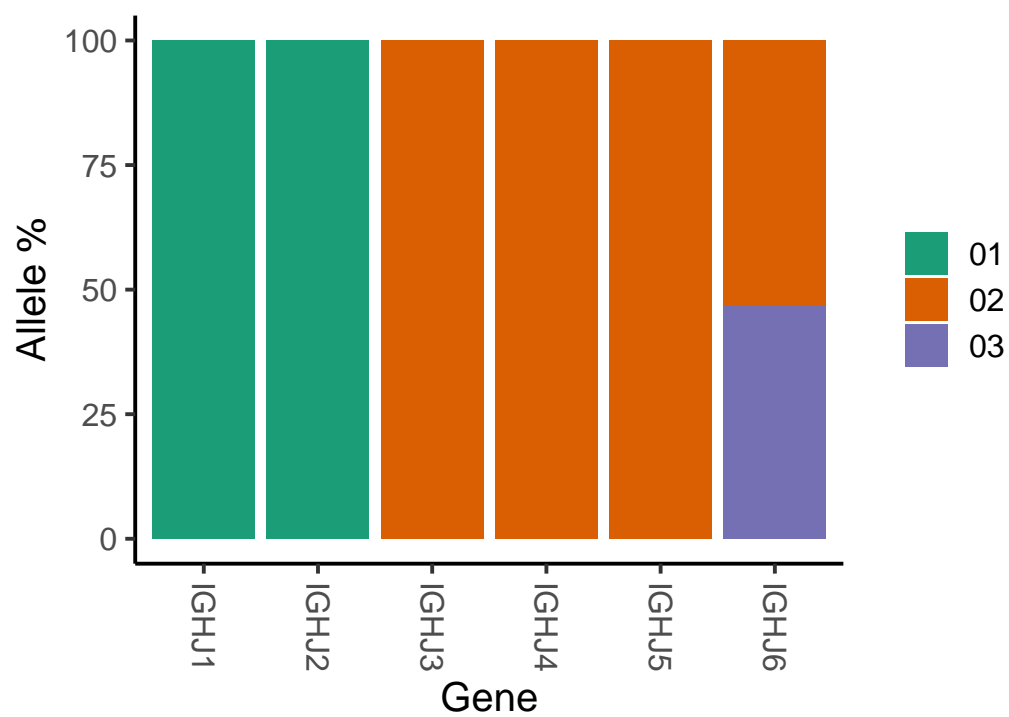


### IGHV7-4-1\*02

131 sequences assigned  
6 (4.6%) exact matches, in which:  
6 unique CDR3  
1 unique J

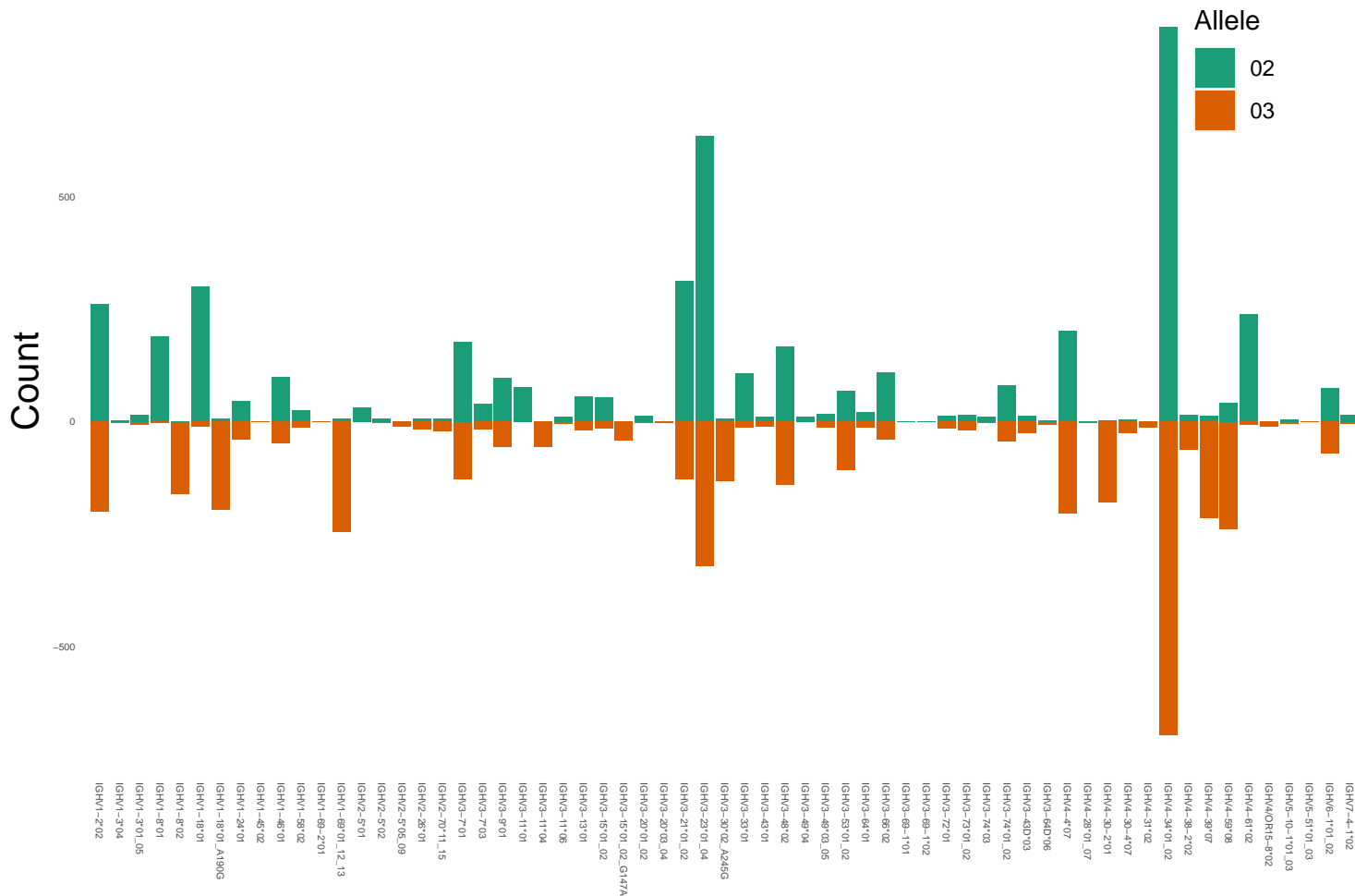


Allele Usage





Sequence Count byIGHJ6 allele usage



Warning – no inferred sequences found.