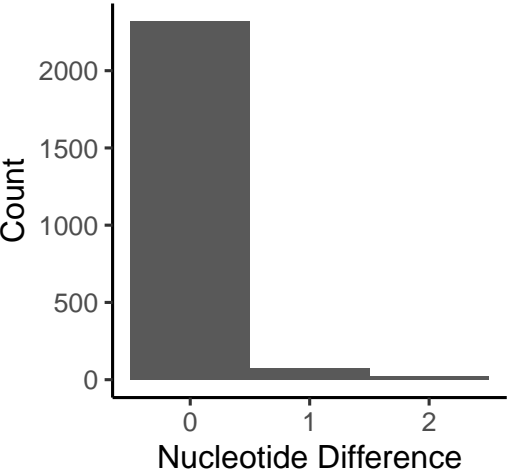


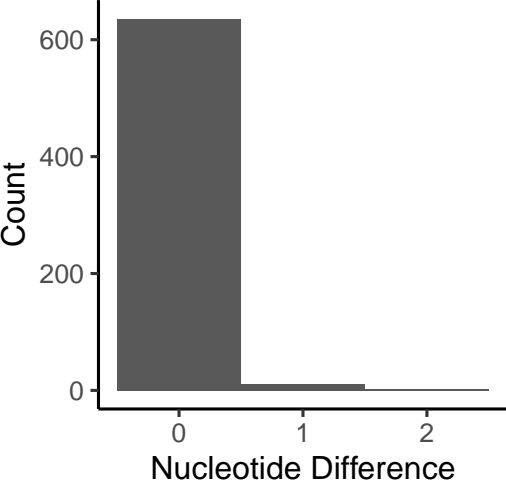
IGHV1-2\*02

2417 sequences assigned  
2319 (95.9%) exact matches, in which:  
2296 unique CDR3  
7 unique J



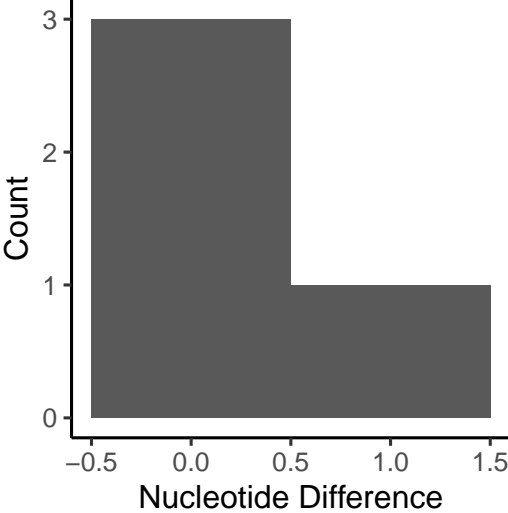
IGHV1-8\*02

650 sequences assigned  
636 (97.8%) exact matches, in which:  
628 unique CDR3  
7 unique J



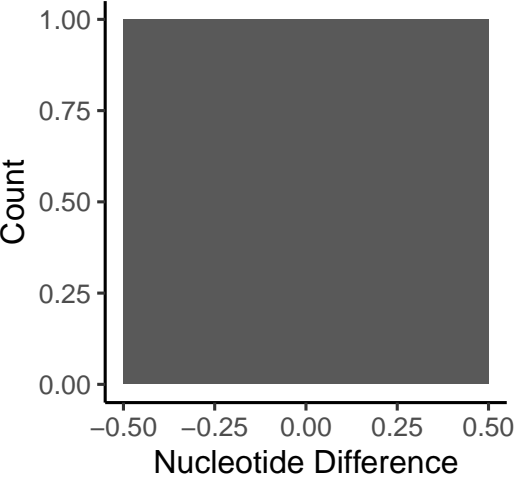
IGHV1-45\*02

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



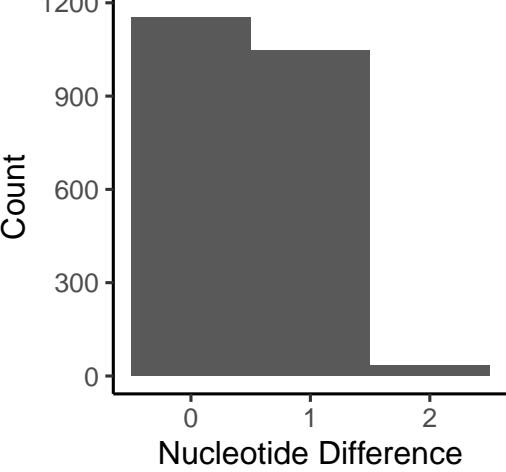
IGHV1-3\*02

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



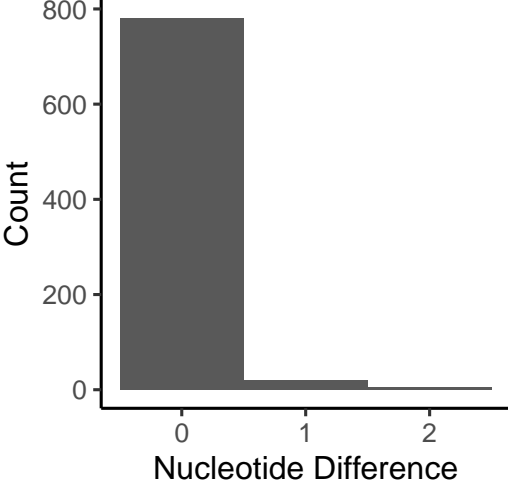
IGHV1-18\*01

2232 sequences assigned  
1152 (51.6%) exact matches, in which:  
1143 unique CDR3  
6 unique J



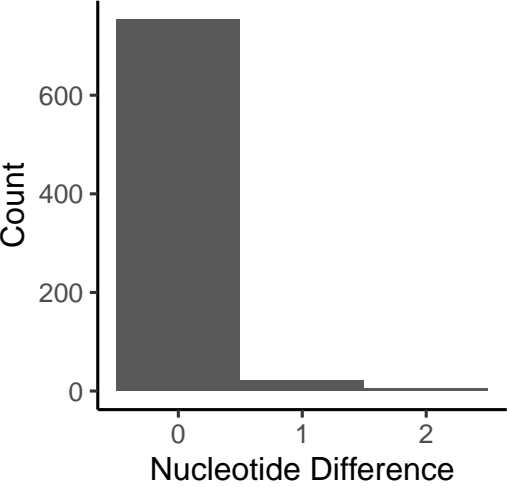
IGHV1-46\*01

806 sequences assigned  
781 (96.9%) exact matches, in which:  
778 unique CDR3  
7 unique J



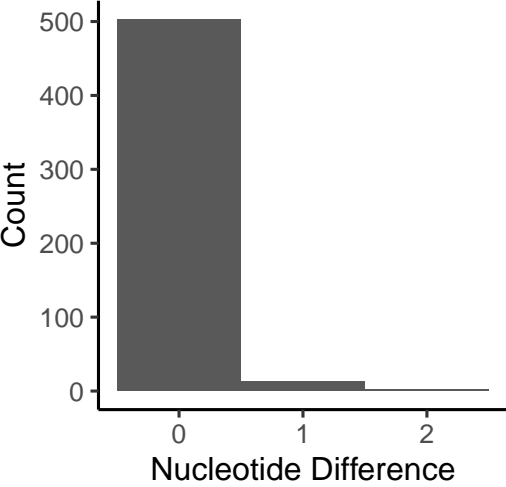
IGHV1-8\*01

780 sequences assigned  
754 (96.7%) exact matches, in which:  
744 unique CDR3  
6 unique J



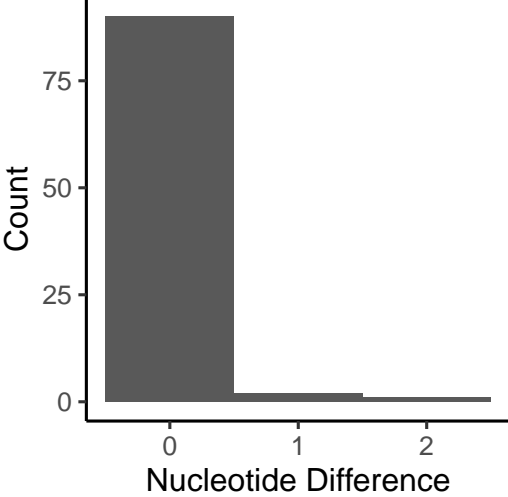
IGHV1-24\*01

518 sequences assigned  
503 (97.1%) exact matches, in which:  
497 unique CDR3  
7 unique J



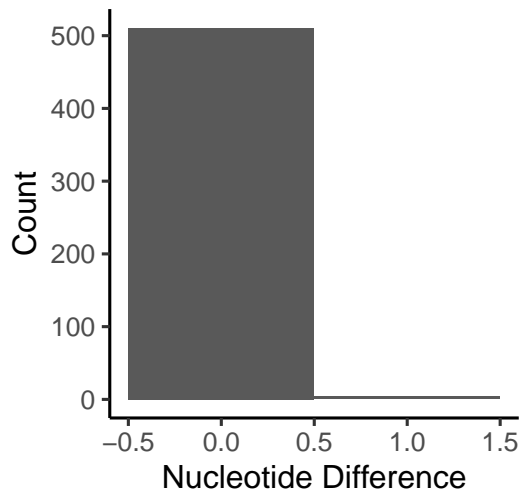
IGHV1-58\*02

93 sequences assigned  
90 (96.8%) exact matches, in which:  
89 unique CDR3  
7 unique J



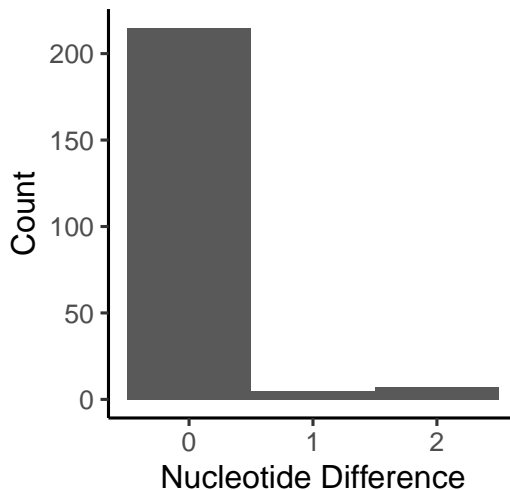
### IGHV1–69\*02

515 sequences assigned  
511 (99.2%) exact matches, in which:  
504 unique CDR3  
7 unique J



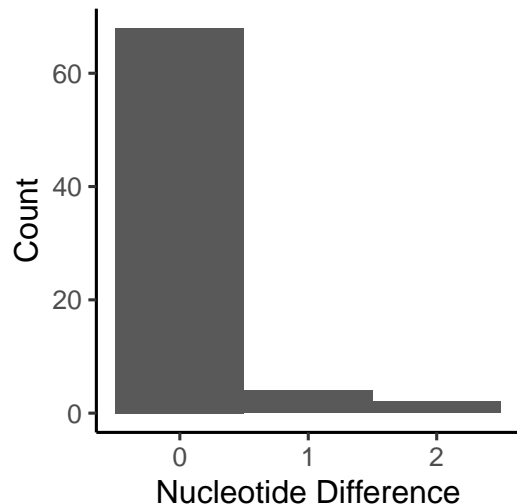
### IGHV2–5\*01

227 sequences assigned  
215 (94.7%) exact matches, in which:  
214 unique CDR3  
6 unique J



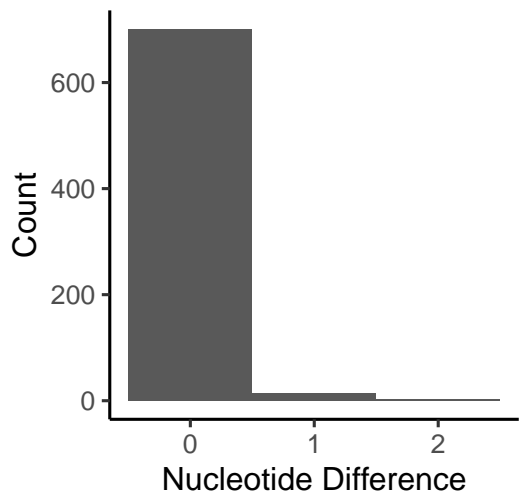
### IGHV2–70\*11\_15

74 sequences assigned  
68 (91.9%) exact matches, in which:  
68 unique CDR3  
5 unique J



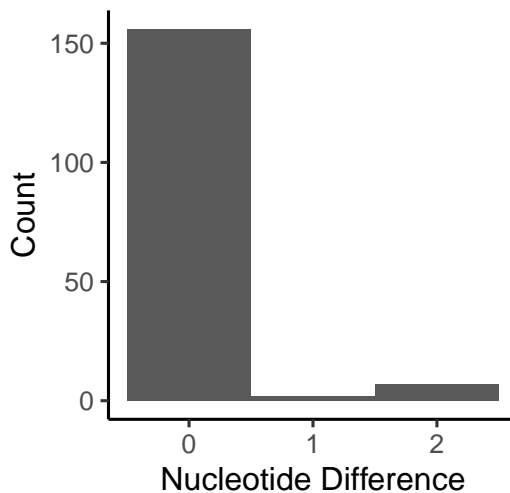
### IGHV1–69\*01\_12\_13

717 sequences assigned  
701 (97.8%) exact matches, in which:  
698 unique CDR3  
6 unique J



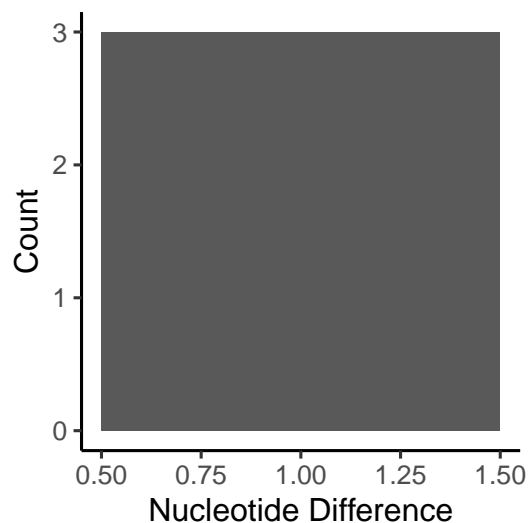
### IGHV2–5\*05\_09

165 sequences assigned  
156 (94.5%) exact matches, in which:  
154 unique CDR3  
6 unique J



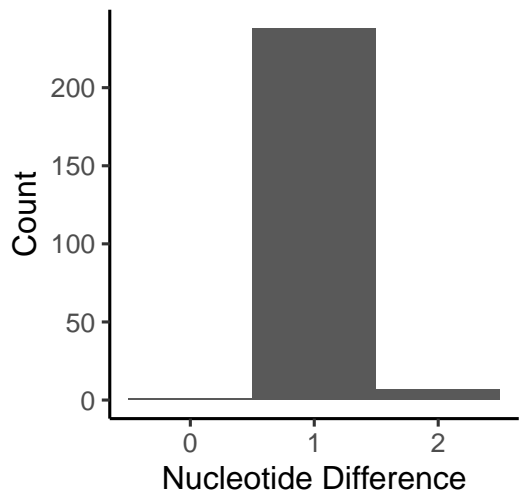
### IGHV2–70D\*04

3 sequences assigned  
No exact matches.



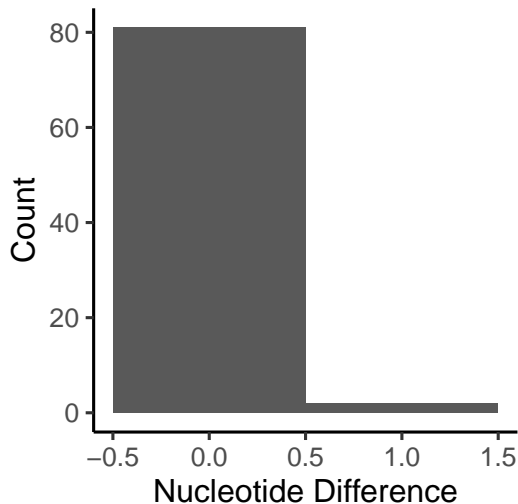
### IGHV1–69\*04\_09

246 sequences assigned  
1 (0.4%) exact matches, in which:  
1 unique CDR3  
1 unique J



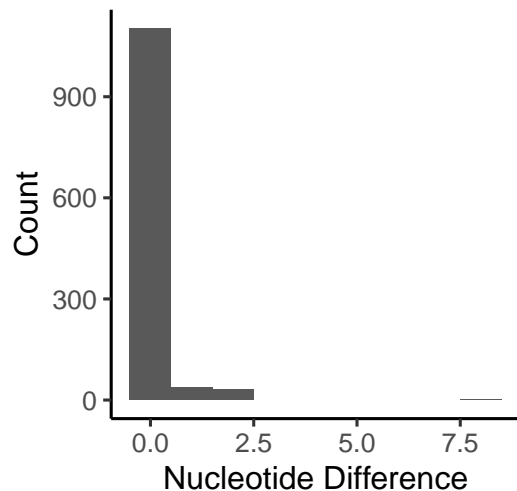
### IGHV2–26\*01

83 sequences assigned  
81 (97.6%) exact matches, in which:  
81 unique CDR3  
7 unique J



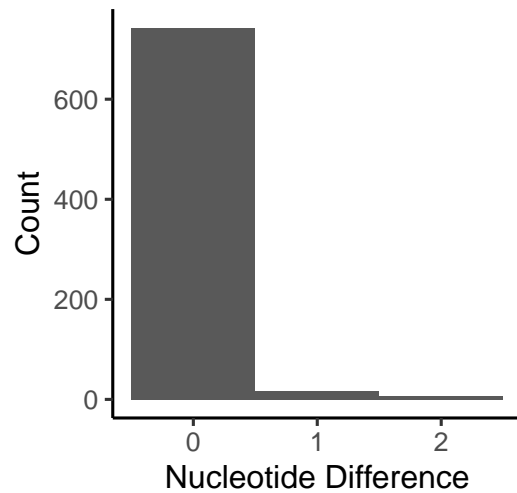
### IGHV3–7\*01

1174 sequences assigned  
1103 (94%) exact matches, in which:  
1072 unique CDR3  
7 unique J



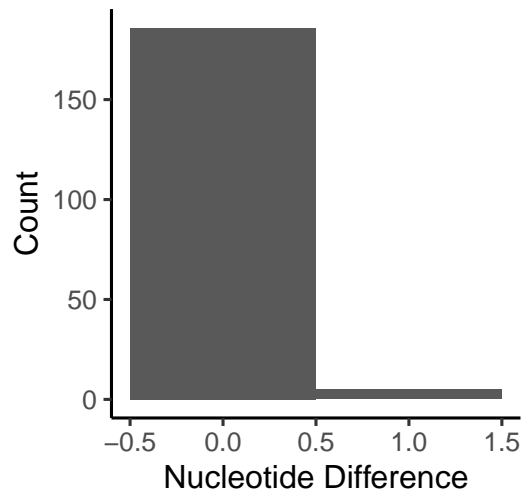
### IGHV3-9\*01

766 sequences assigned  
743 (97%) exact matches, in which:  
733 unique CDR3  
7 unique J



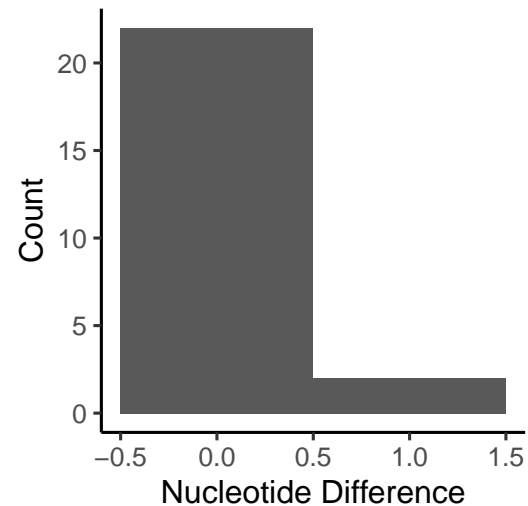
### IGHV3-13\*01

191 sequences assigned  
186 (97.4%) exact matches, in which:  
183 unique CDR3  
7 unique J



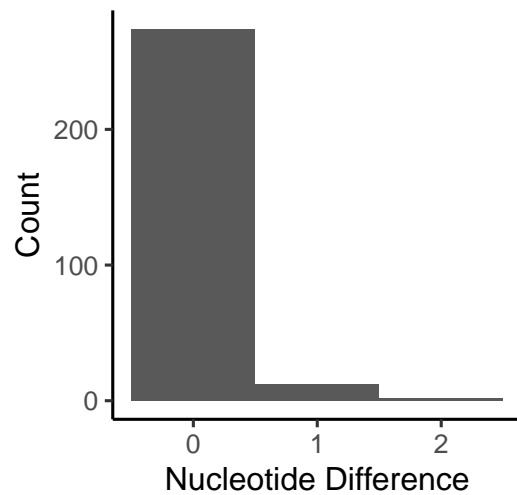
### IGHV3-20\*03\_04

24 sequences assigned  
22 (91.7%) exact matches, in which:  
22 unique CDR3  
4 unique J



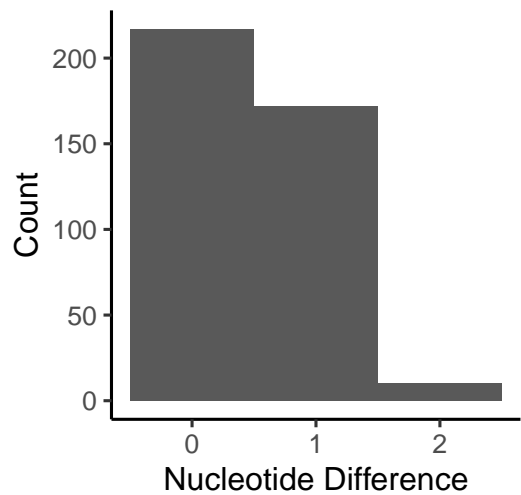
### IGHV3-11\*01

288 sequences assigned  
274 (95.1%) exact matches, in which:  
266 unique CDR3  
6 unique J



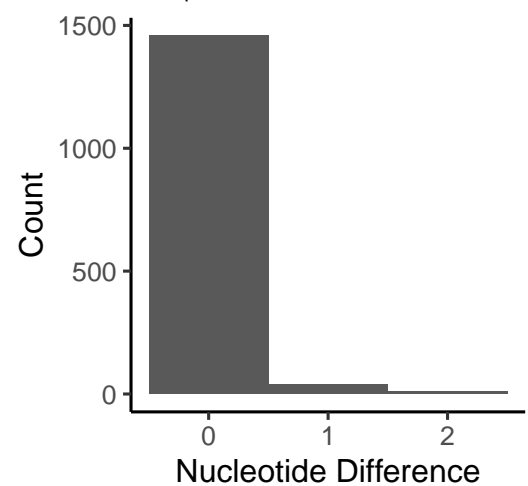
### IGHV3-15\*01\_02

399 sequences assigned  
217 (54.4%) exact matches, in which:  
215 unique CDR3  
5 unique J



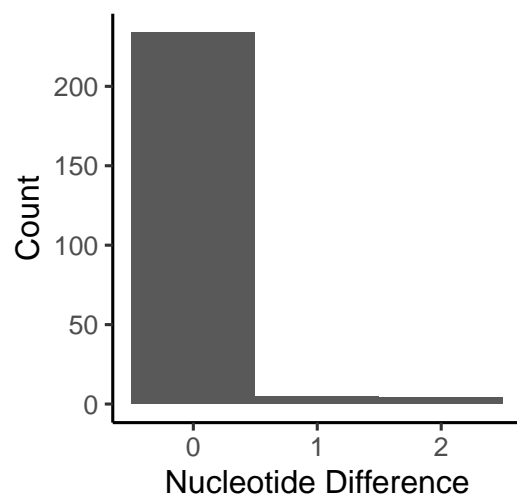
### IGHV3-21\*01\_02

1508 sequences assigned  
1458 (96.7%) exact matches, in which:  
1414 unique CDR3  
7 unique J



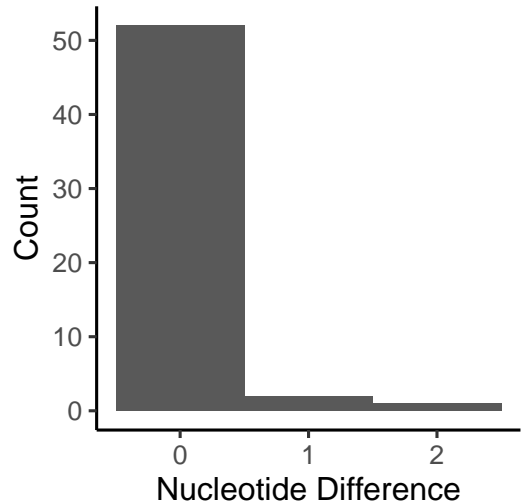
### IGHV3-11\*04

243 sequences assigned  
234 (96.3%) exact matches, in which:  
234 unique CDR3  
6 unique J



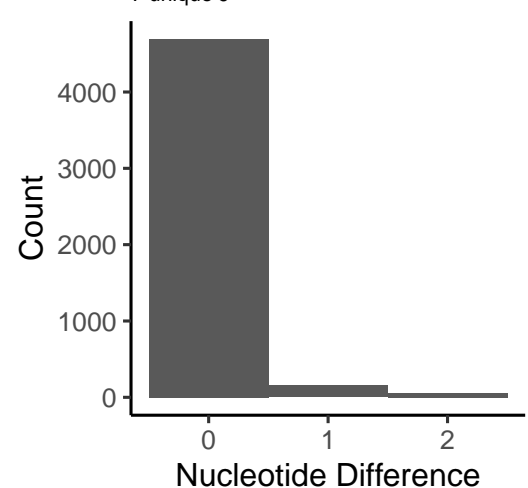
### IGHV3-20\*01\_02

55 sequences assigned  
52 (94.5%) exact matches, in which:  
50 unique CDR3  
6 unique J



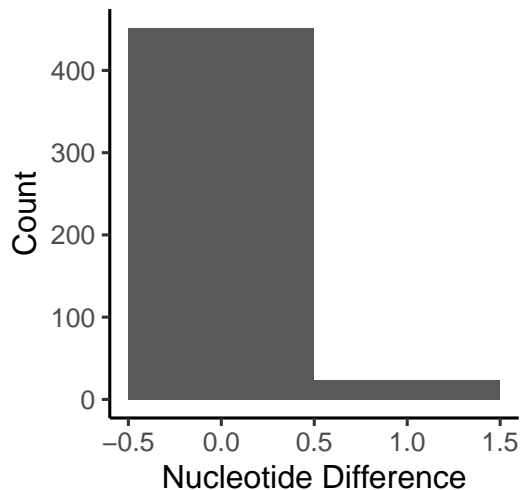
### IGHV3-23\*01\_04

4907 sequences assigned  
4694 (95.7%) exact matches, in which:  
4551 unique CDR3  
7 unique J



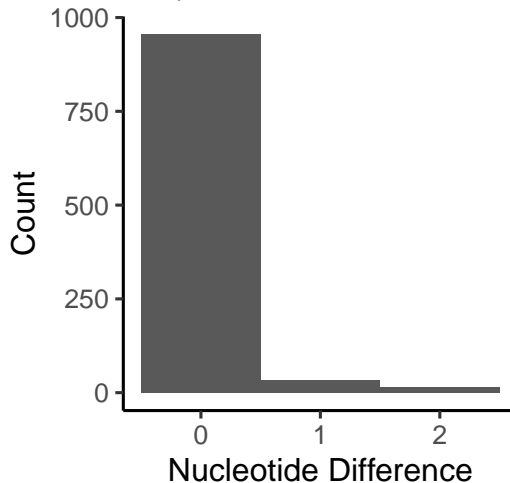
### IGHV3–30\*02\_A245G

476 sequences assigned  
452 (95%) exact matches, in which:  
438 unique CDR3  
6 unique J



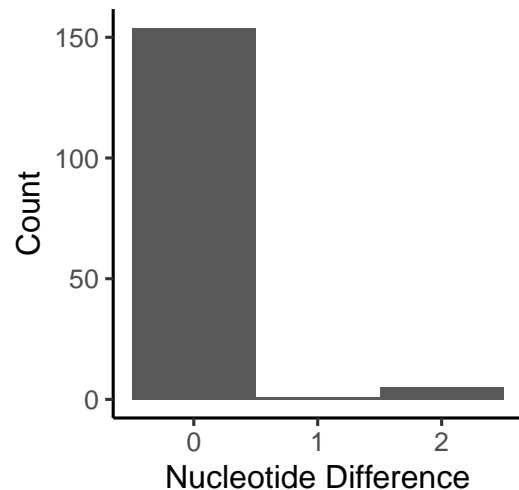
### IGHV3–48\*02

1004 sequences assigned  
955 (95.1%) exact matches, in which:  
933 unique CDR3  
7 unique J



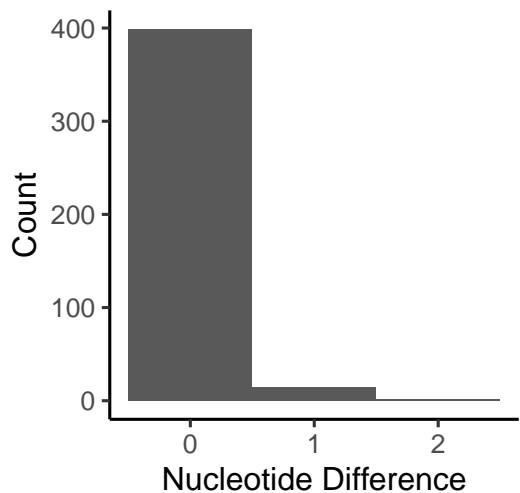
### IGHV3–64\*01

160 sequences assigned  
154 (96.2%) exact matches, in which:  
145 unique CDR3  
7 unique J



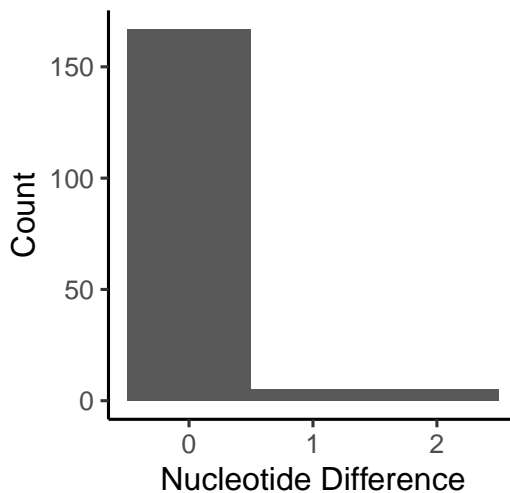
### IGHV3–33\*01

416 sequences assigned  
399 (95.9%) exact matches, in which:  
392 unique CDR3  
6 unique J



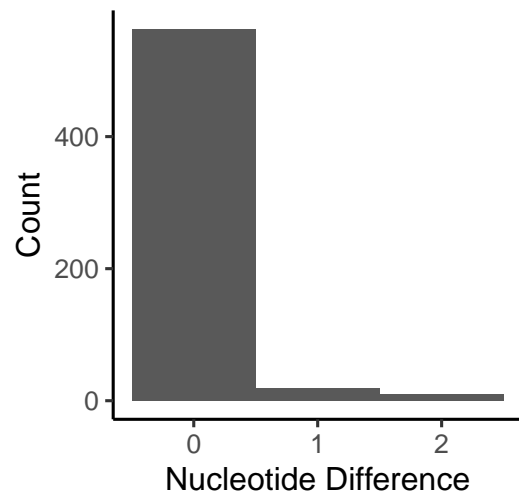
### IGHV3–49\*03\_05

177 sequences assigned  
167 (94.4%) exact matches, in which:  
167 unique CDR3  
7 unique J



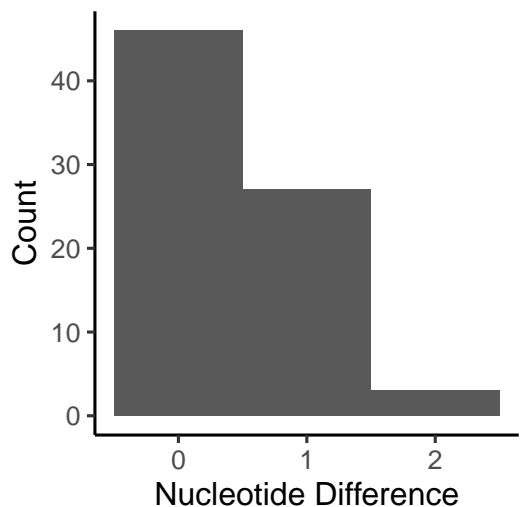
### IGHV3–66\*02

592 sequences assigned  
563 (95.1%) exact matches, in which:  
546 unique CDR3  
7 unique J



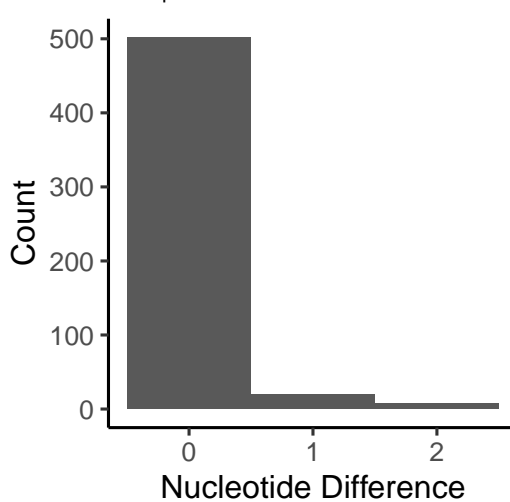
### IGHV3–43\*01

76 sequences assigned  
46 (60.5%) exact matches, in which:  
46 unique CDR3  
6 unique J



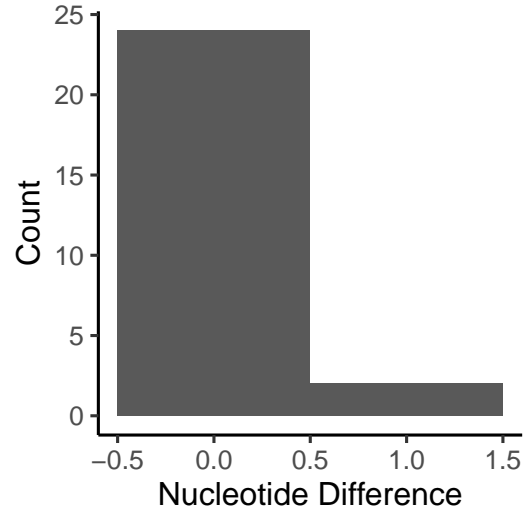
### IGHV3–53\*01\_02

529 sequences assigned  
502 (94.9%) exact matches, in which:  
491 unique CDR3  
7 unique J



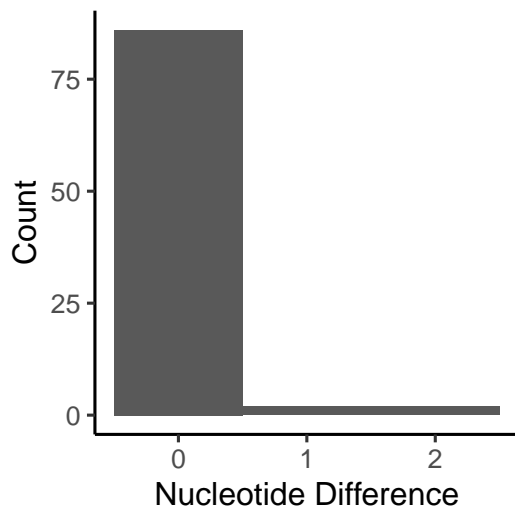
### IGHV3–72\*01

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



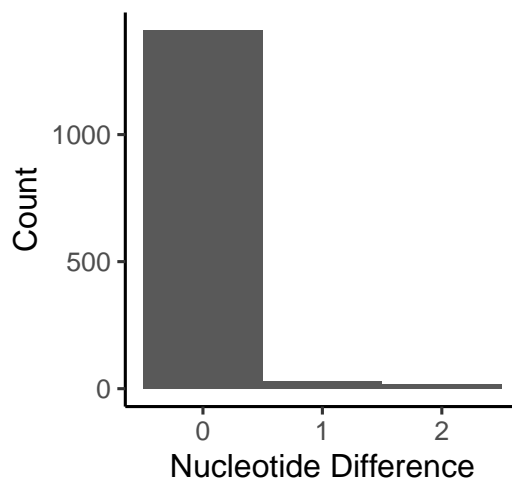
### IGHV3-73\*01\_02

90 sequences assigned  
86 (95.6%) exact matches, in which:  
86 unique CDR3  
6 unique J



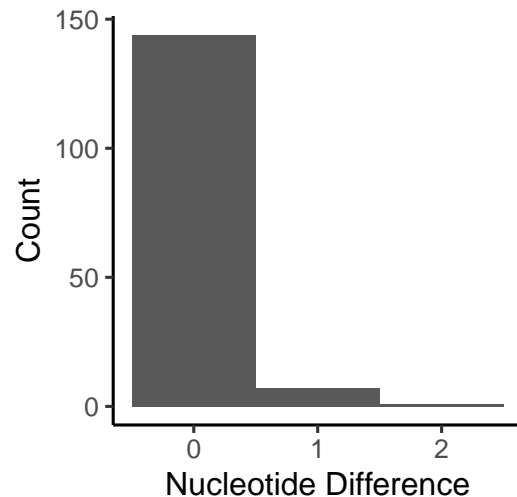
### IGHV4-4\*07

1458 sequences assigned  
1410 (96.7%) exact matches, in which:  
1373 unique CDR3  
7 unique J



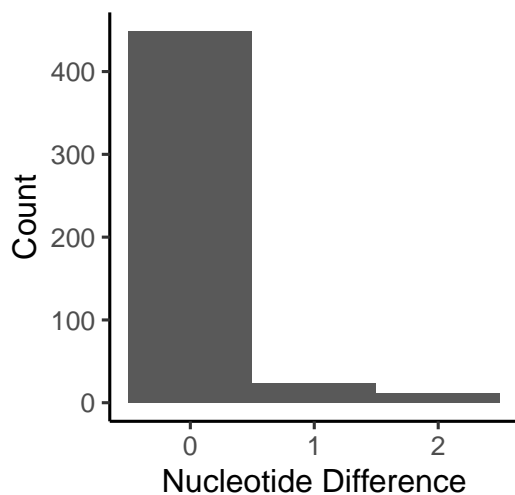
### IGHV4-30-4\*07

152 sequences assigned  
144 (94.7%) exact matches, in which:  
144 unique CDR3  
6 unique J



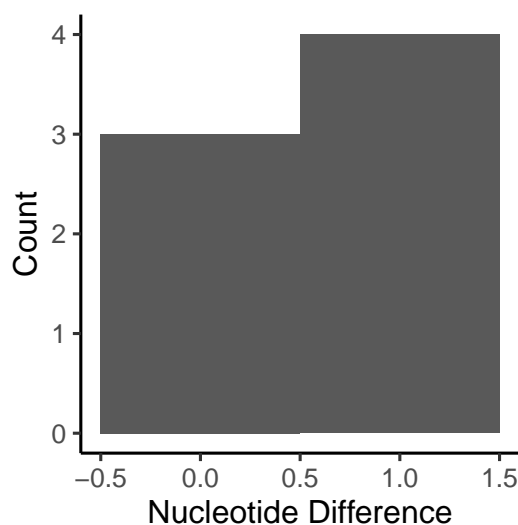
### IGHV3-74\*01\_02

484 sequences assigned  
449 (92.8%) exact matches, in which:  
436 unique CDR3  
7 unique J



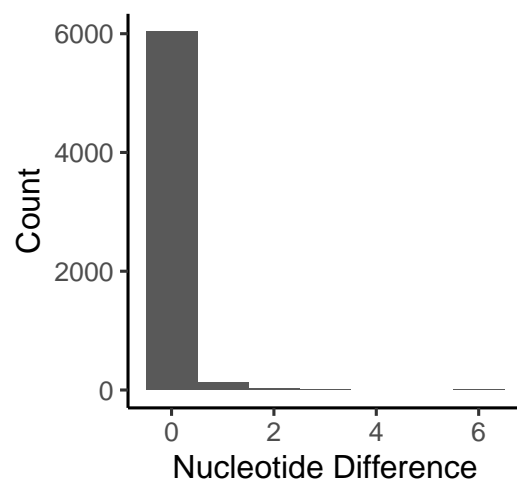
### IGHV4-28\*01\_07

7 sequences assigned  
3 (42.9%) exact matches, in which:  
3 unique CDR3  
2 unique J



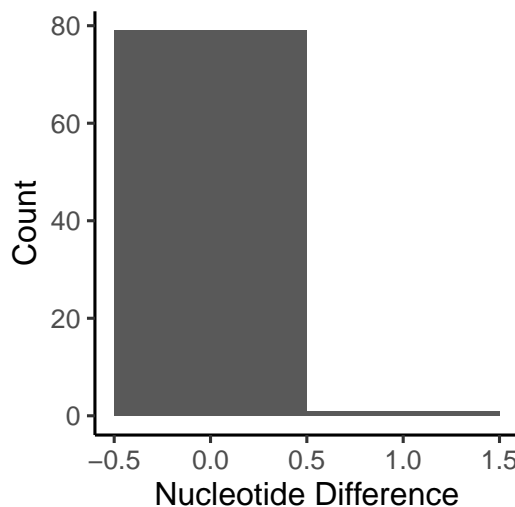
### IGHV4-34\*01\_02

6188 sequences assigned  
6033 (97.5%) exact matches, in which:  
5786 unique CDR3  
7 unique J



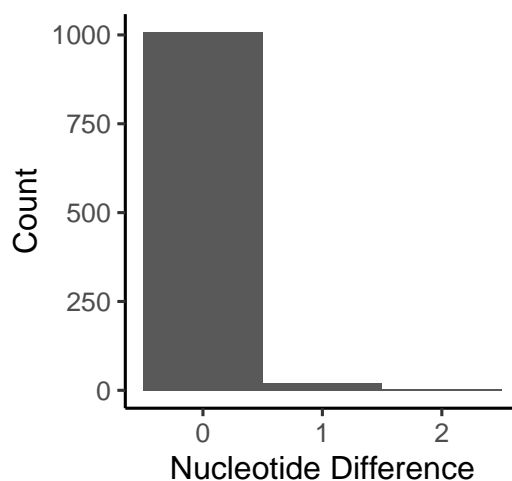
### IGHV3-43D\*03

80 sequences assigned  
79 (98.8%) exact matches, in which:  
79 unique CDR3  
6 unique J



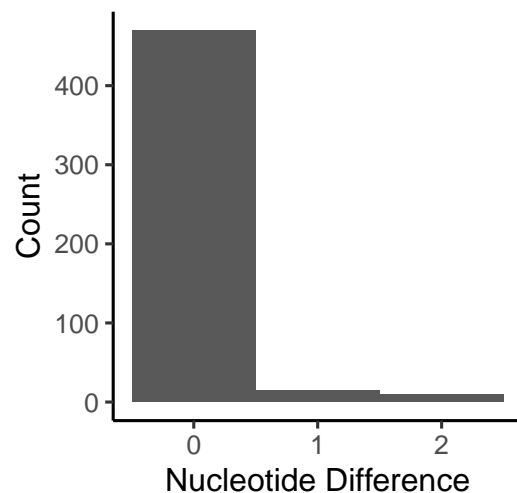
### IGHV4-30-2\*01

1033 sequences assigned  
1008 (97.6%) exact matches, in which:  
972 unique CDR3  
6 unique J



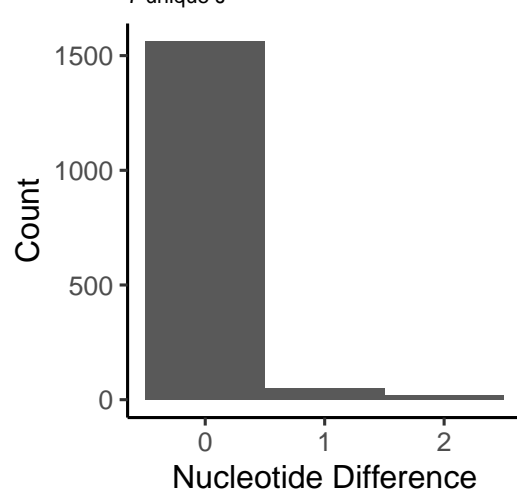
### IGHV4-38-2\*02

494 sequences assigned  
470 (95.1%) exact matches, in which:  
456 unique CDR3  
6 unique J



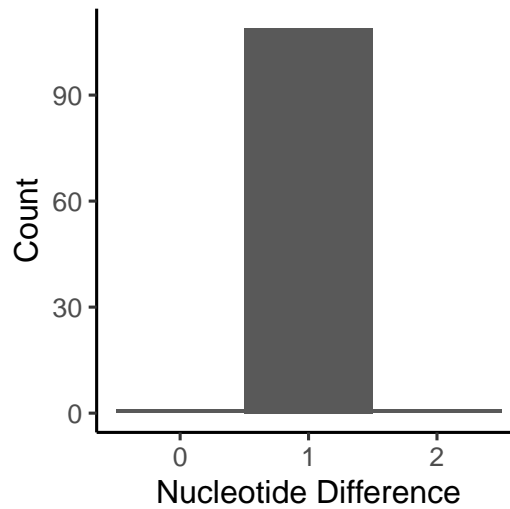
### IGHV4-39\*07

1629 sequences assigned  
1562 (95.9%) exact matches, in which:  
1533 unique CDR3  
7 unique J



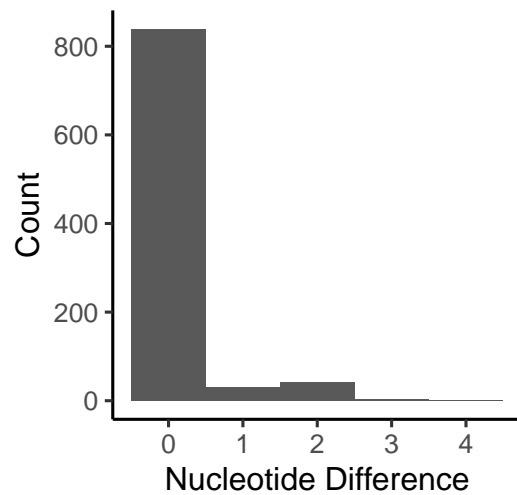
### IGHV5-51\*07

111 sequences assigned  
1 (0.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



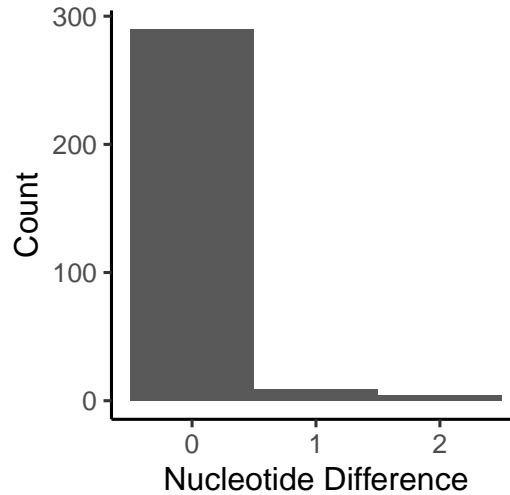
### IGHV4-59\*08

915 sequences assigned  
839 (91.7%) exact matches, in which:  
812 unique CDR3  
7 unique J



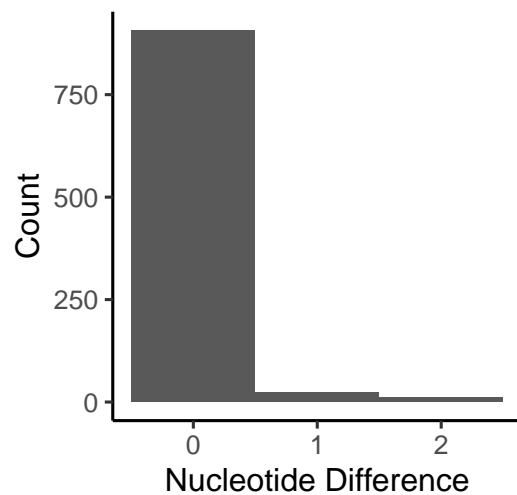
### IGHV5-51\*01\_03

303 sequences assigned  
290 (95.7%) exact matches, in which:  
289 unique CDR3  
7 unique J



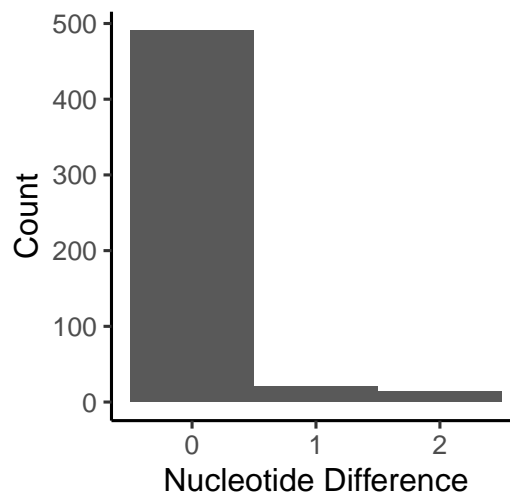
### IGHV4-61\*02

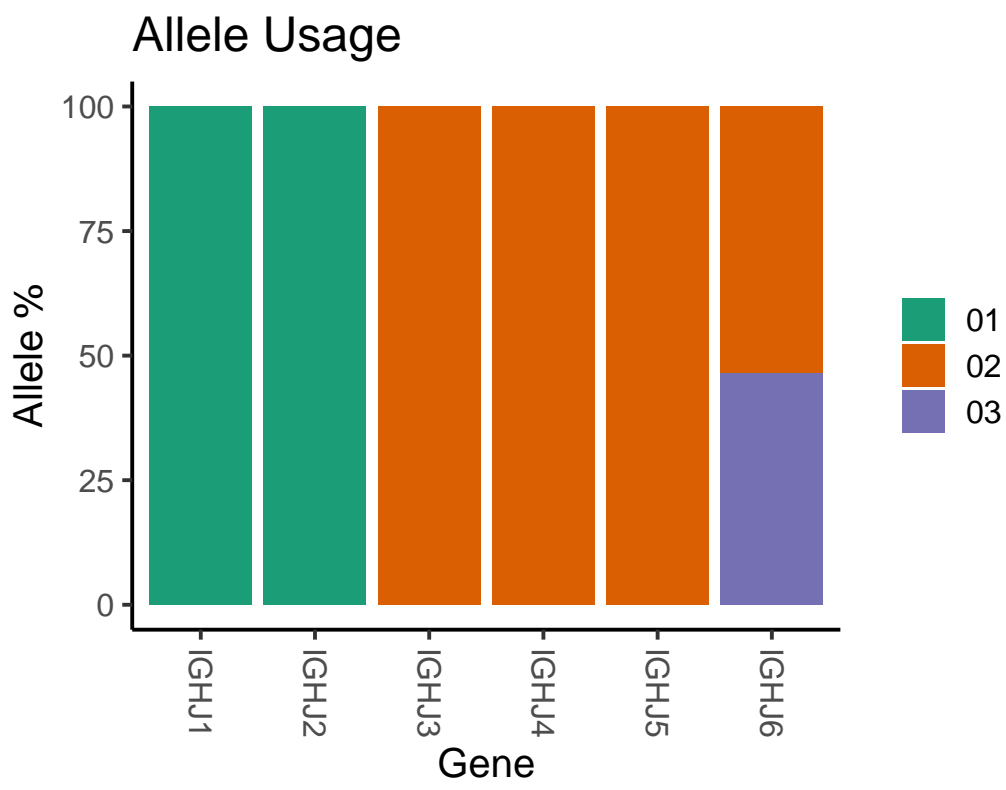
941 sequences assigned  
907 (96.4%) exact matches, in which:  
895 unique CDR3  
6 unique J



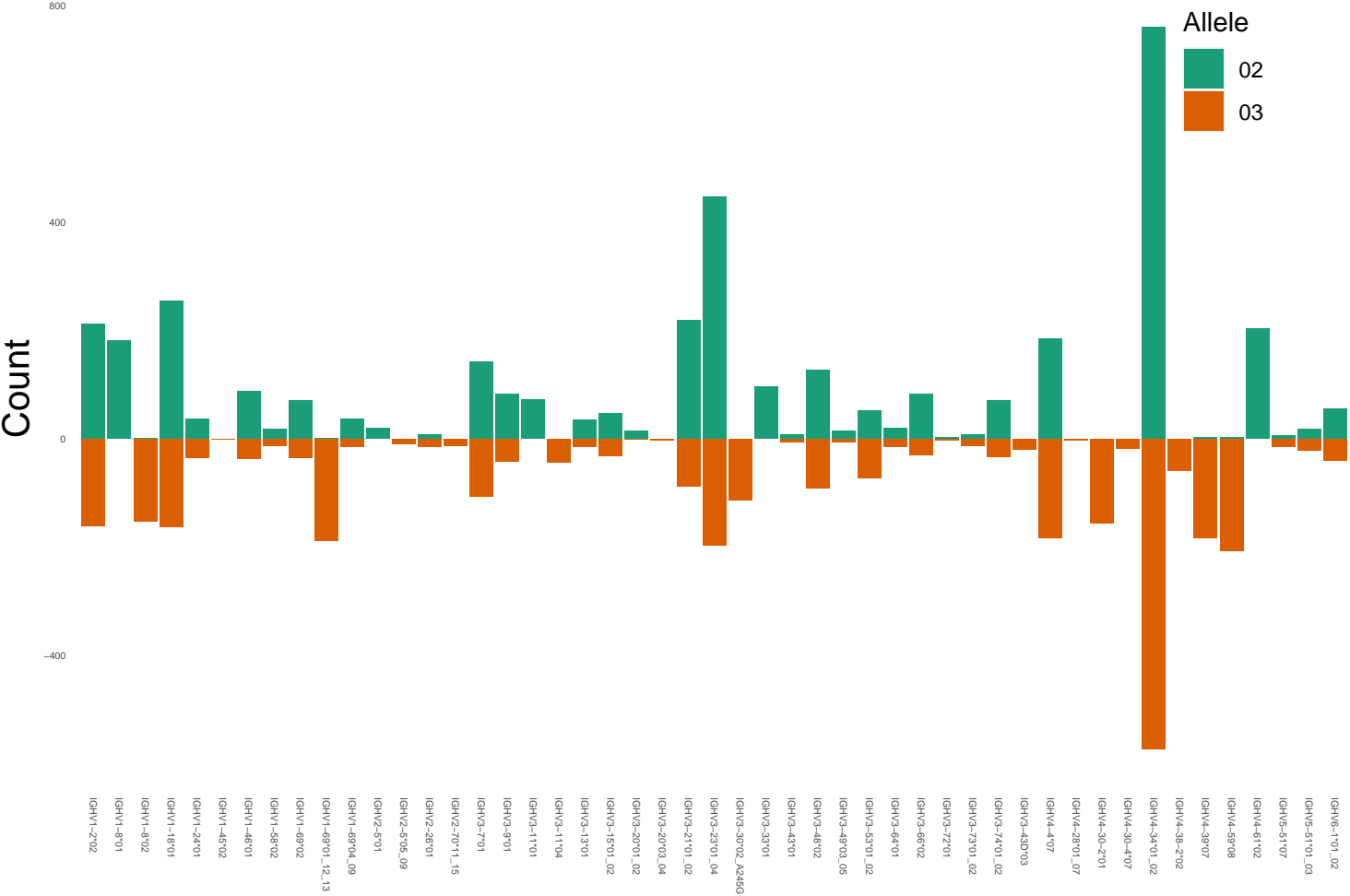
### IGHV6-1\*01\_02

525 sequences assigned  
491 (93.5%) exact matches, in which:  
483 unique CDR3  
7 unique J





Sequence Count byIGHJ6 allele usage





Warning – no inferred sequences found.