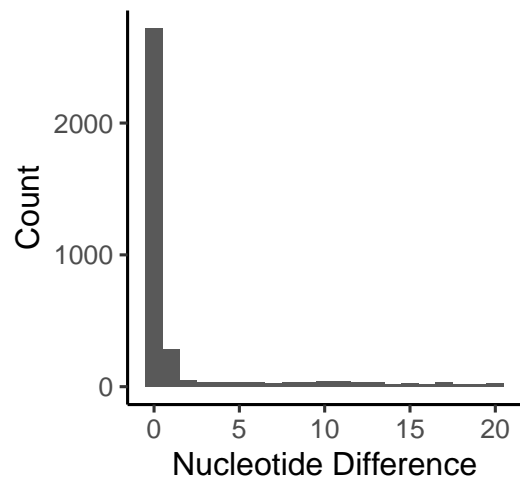


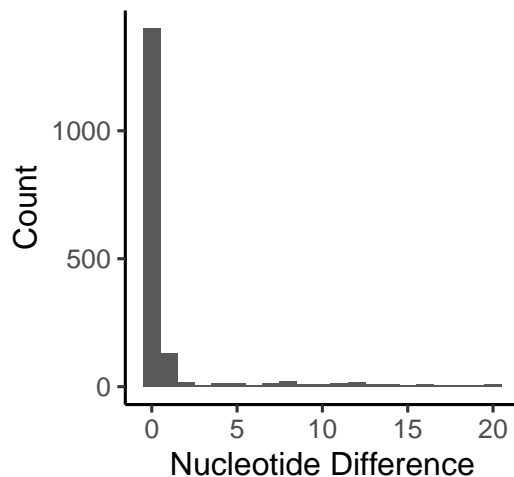
IGHV1-2*02

3748 sequences assigned
2718 (72.5%) exact matches, in which:
2648 unique CDR3
7 unique J



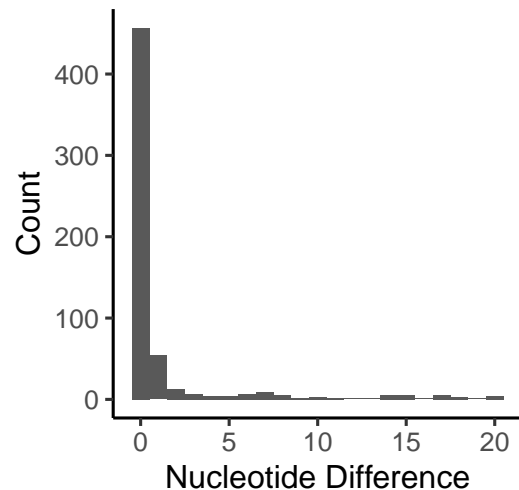
IGHV1-18*01

1836 sequences assigned
1400 (76.3%) exact matches, in which:
1383 unique CDR3
7 unique J



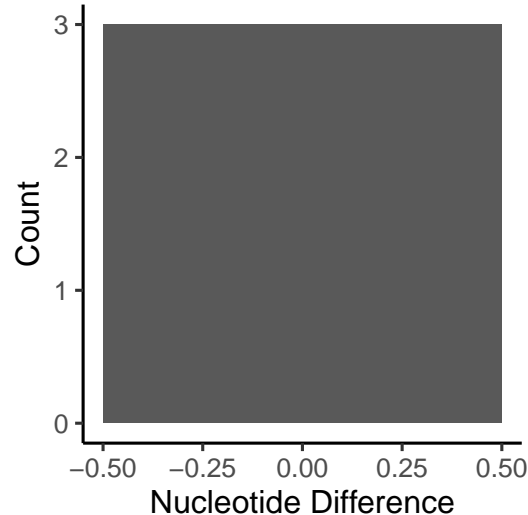
IGHV1-46*01

615 sequences assigned
457 (74.3%) exact matches, in which:
447 unique CDR3
7 unique J



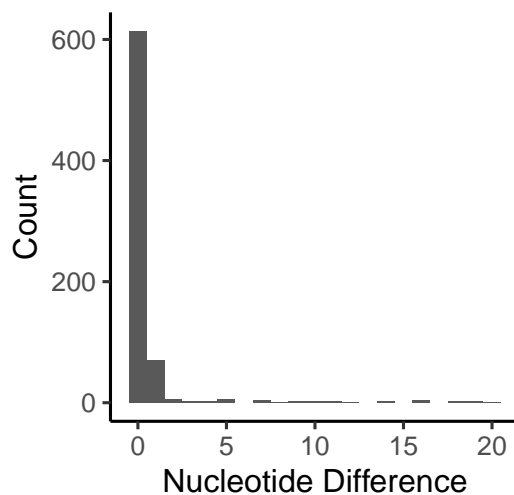
IGHV1-3*02

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



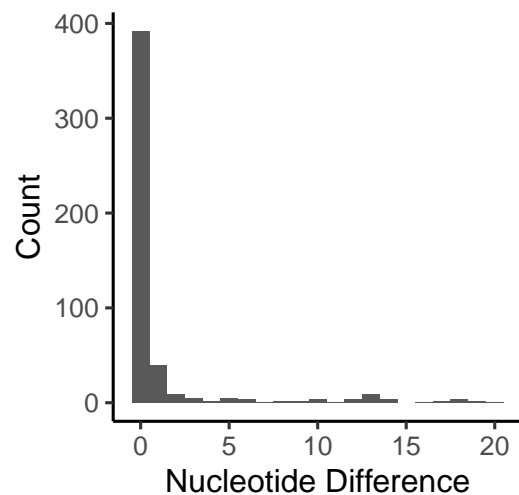
IGHV1-24*01

739 sequences assigned
614 (83.1%) exact matches, in which:
601 unique CDR3
7 unique J



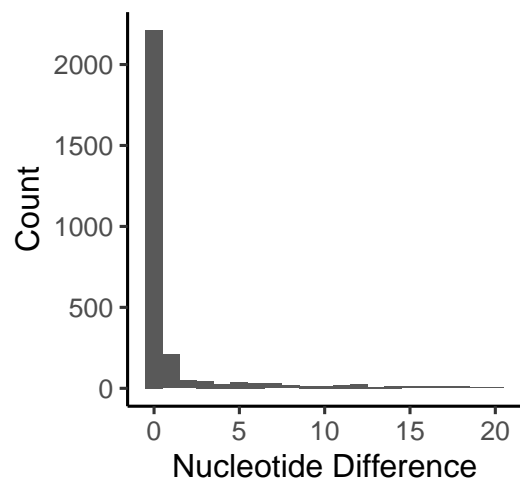
IGHV1-46*03

511 sequences assigned
392 (76.7%) exact matches, in which:
387 unique CDR3
6 unique J



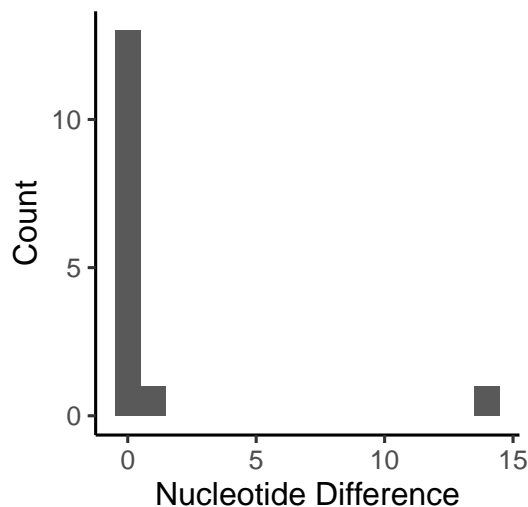
IGHV1-8*01

2871 sequences assigned
2213 (77.1%) exact matches, in which:
2174 unique CDR3
7 unique J



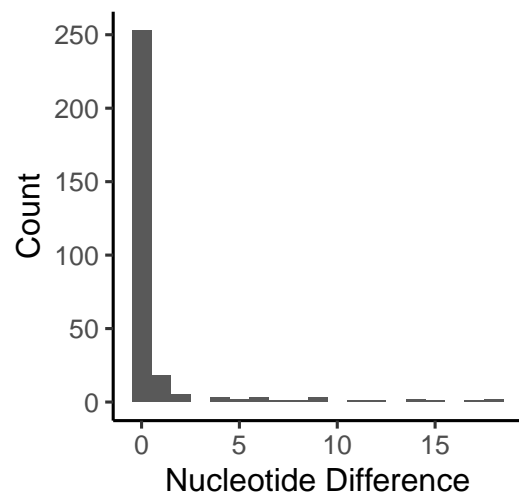
IGHV1-45*02

16 sequences assigned
13 (81.2%) exact matches, in which:
13 unique CDR3
6 unique J



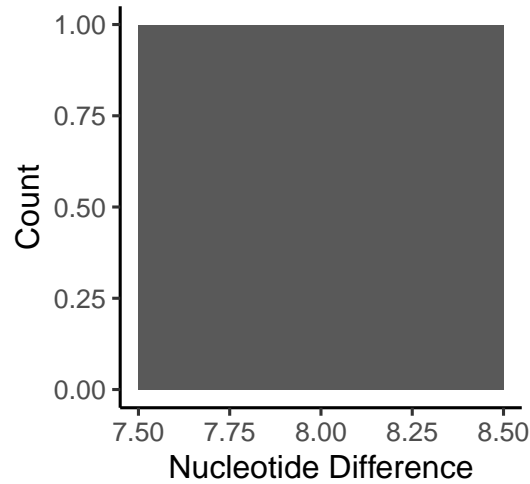
IGHV1-58*01

299 sequences assigned
253 (84.6%) exact matches, in which:
251 unique CDR3
6 unique J



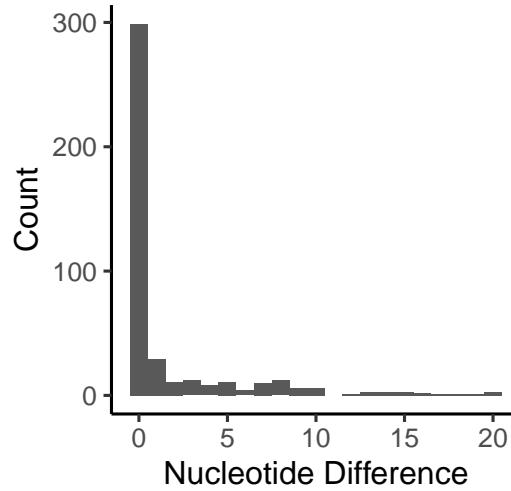
IGHV1-68*01

1 sequences assigned
No exact matches.



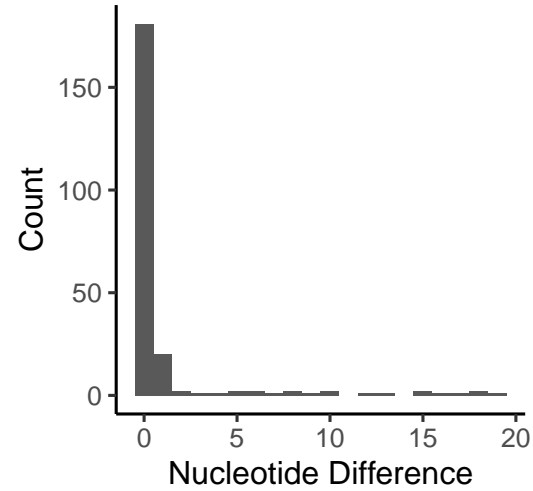
IGHV2-5*01

451 sequences assigned
299 (66.3%) exact matches, in which:
297 unique CDR3
7 unique J



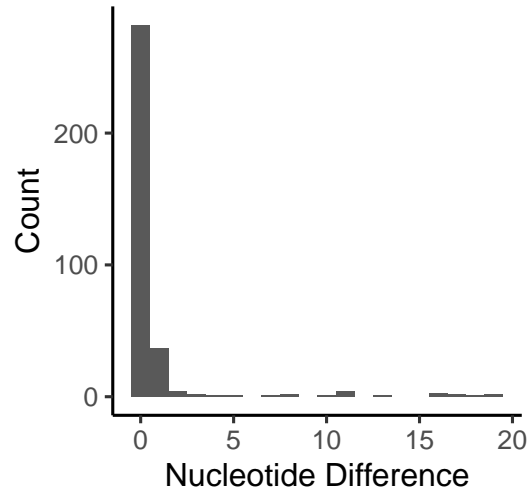
IGHV2-70*01

231 sequences assigned
181 (78.4%) exact matches, in which:
180 unique CDR3
7 unique J



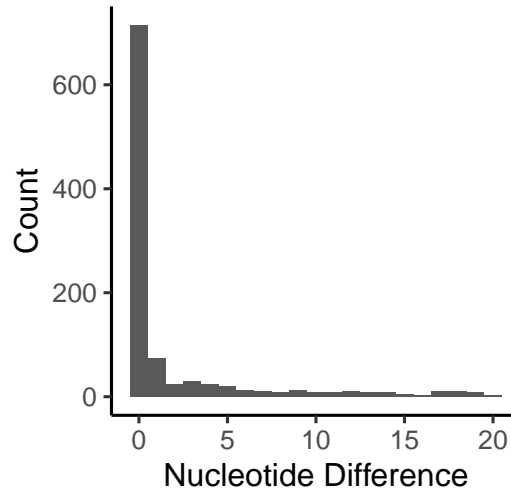
IGHV1-69-2*01

357 sequences assigned
282 (79%) exact matches, in which:
280 unique CDR3
7 unique J



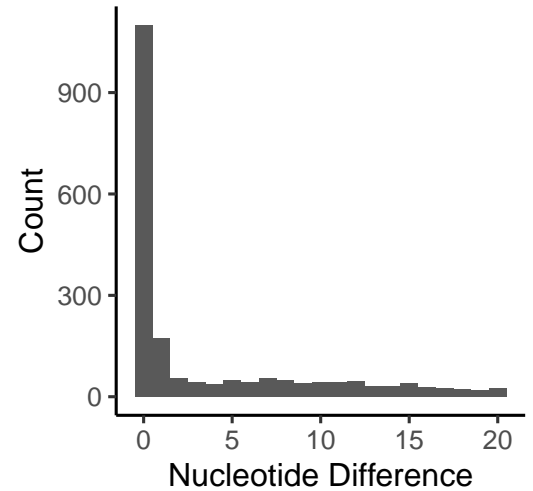
IGHV2-5*02

1046 sequences assigned
715 (68.4%) exact matches, in which:
705 unique CDR3
7 unique J



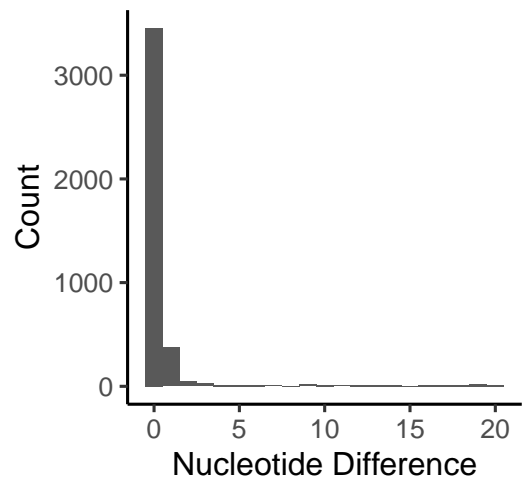
IGHV3-7*01

2074 sequences assigned
1100 (53%) exact matches, in which:
1085 unique CDR3
7 unique J



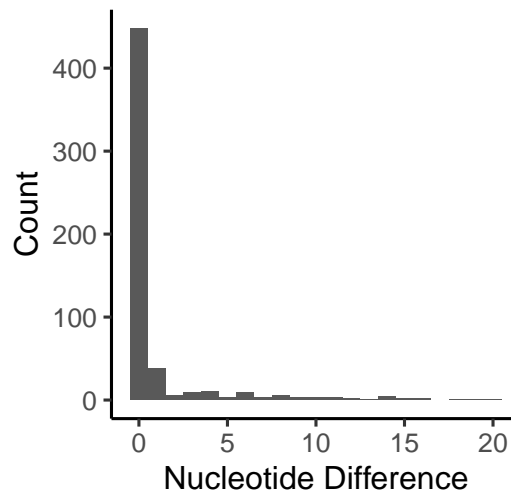
IGHV1-69*06

4203 sequences assigned
3455 (82.2%) exact matches, in which:
3393 unique CDR3
7 unique J



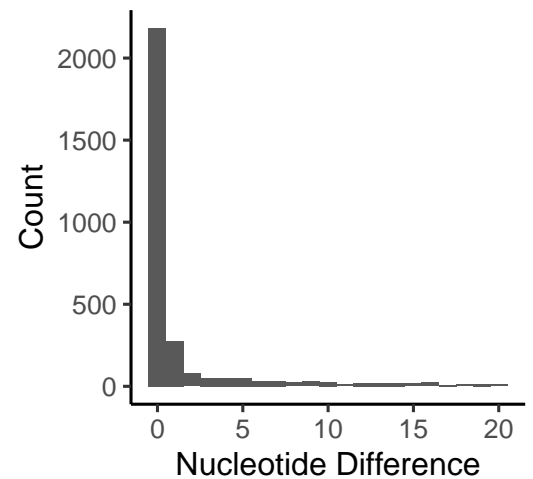
IGHV2-26*01

562 sequences assigned
448 (79.7%) exact matches, in which:
445 unique CDR3
7 unique J



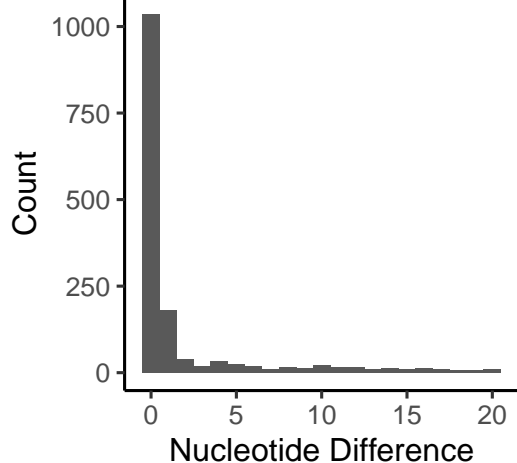
IGHV3-9*01

3078 sequences assigned
2183 (70.9%) exact matches, in which:
2138 unique CDR3
7 unique J



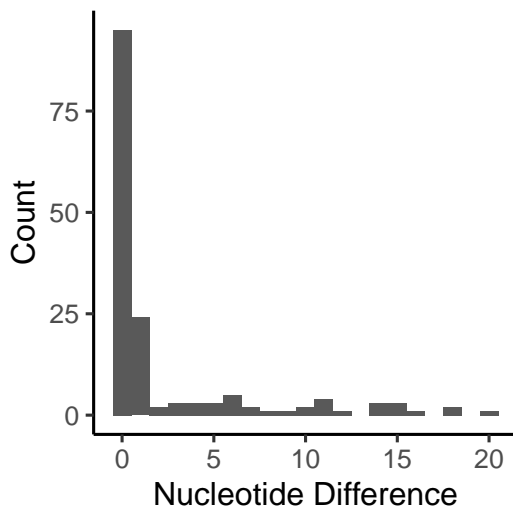
IGHV3-11*01

1578 sequences assigned
1035 (65.6%) exact matches, in which:
1016 unique CDR3
7 unique J



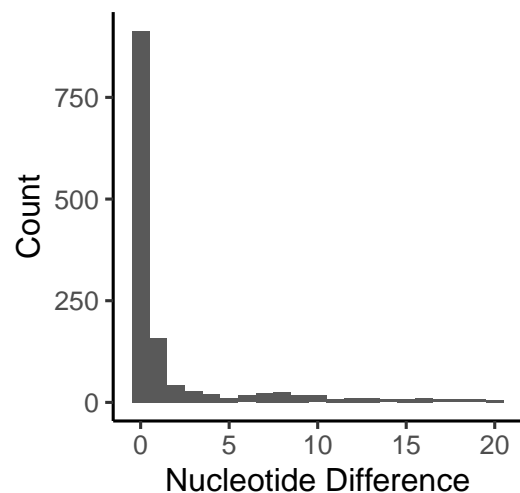
IGHV3-20*01

164 sequences assigned
95 (57.9%) exact matches, in which:
94 unique CDR3
6 unique J



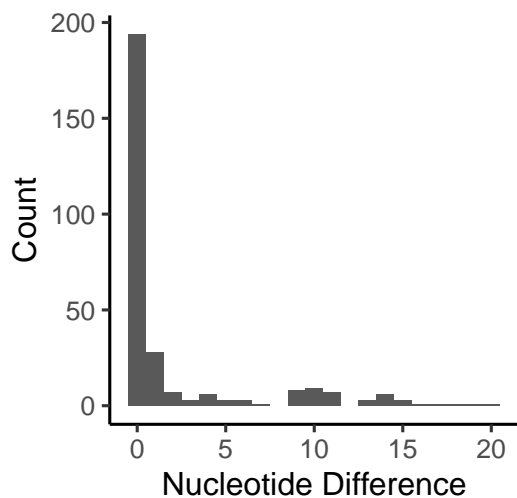
IGHV3-33*01

1402 sequences assigned
914 (65.2%) exact matches, in which:
891 unique CDR3
7 unique J



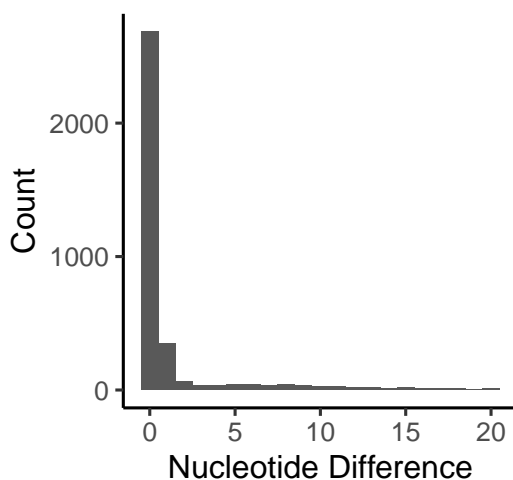
IGHV3-13*01

299 sequences assigned
194 (64.9%) exact matches, in which:
188 unique CDR3
6 unique J



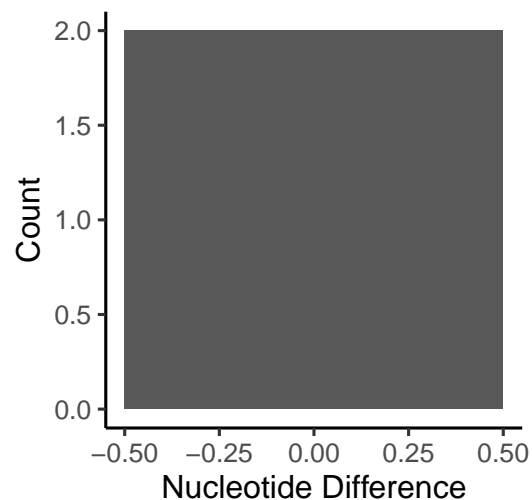
IGHV3-21*01

3597 sequences assigned
2685 (74.6%) exact matches, in which:
2617 unique CDR3
7 unique J



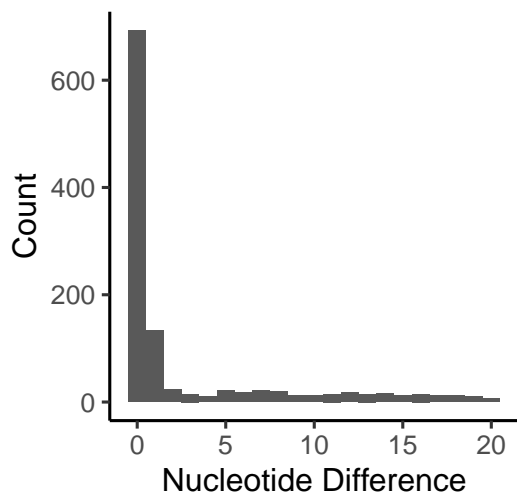
IGHV3-35*02

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



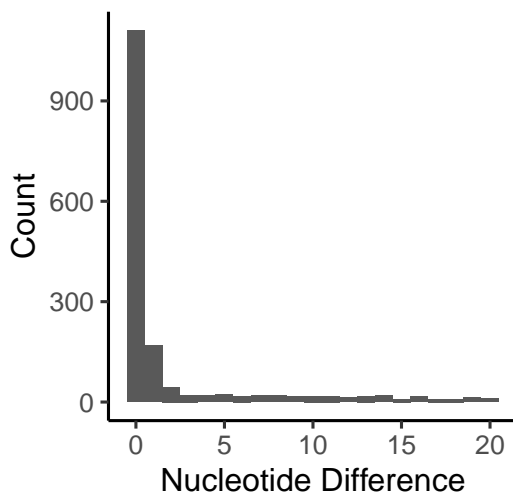
IGHV3-15*01

1179 sequences assigned
693 (58.8%) exact matches, in which:
684 unique CDR3
7 unique J



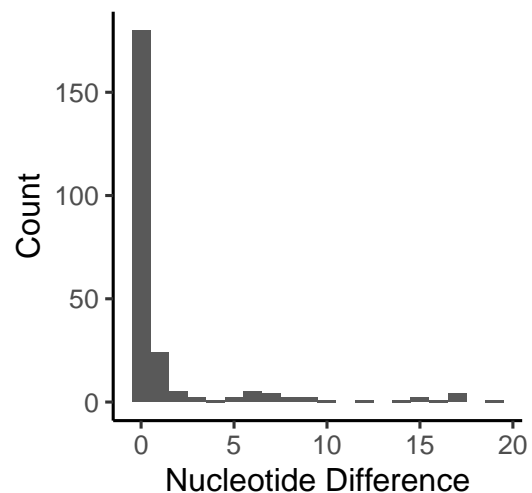
IGHV3-30-3*01

1682 sequences assigned
1111 (66.1%) exact matches, in which:
1089 unique CDR3
7 unique J



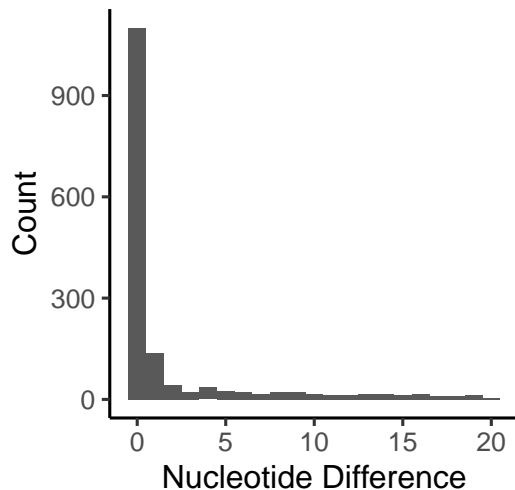
IGHV3-43*01

250 sequences assigned
180 (72%) exact matches, in which:
178 unique CDR3
6 unique J



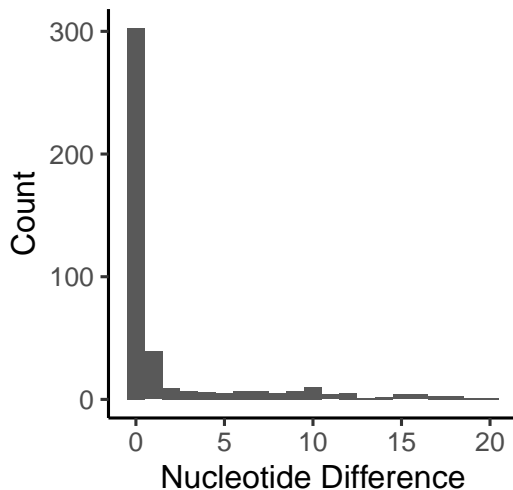
IGHV3-48*02

1634 sequences assigned
1101 (67.4%) exact matches, in which:
1084 unique CDR3
7 unique J



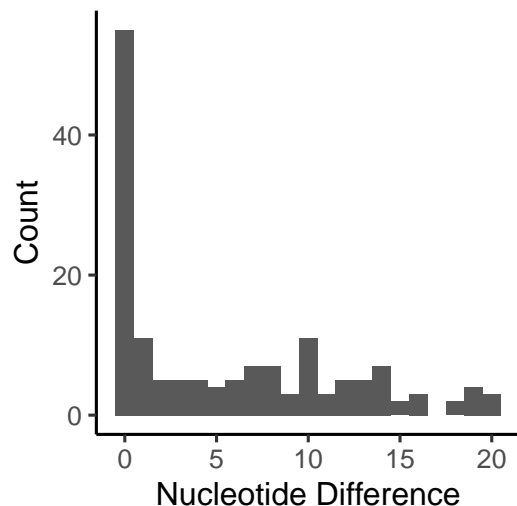
IGHV3-53*02

449 sequences assigned
303 (67.5%) exact matches, in which:
299 unique CDR3
6 unique J



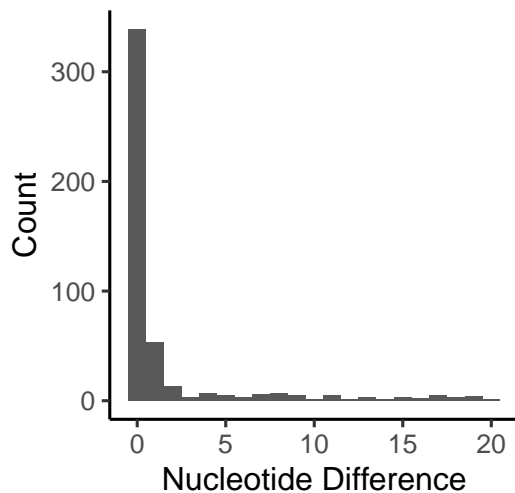
IGHV3-72*01

158 sequences assigned
55 (34.8%) exact matches, in which:
54 unique CDR3
6 unique J



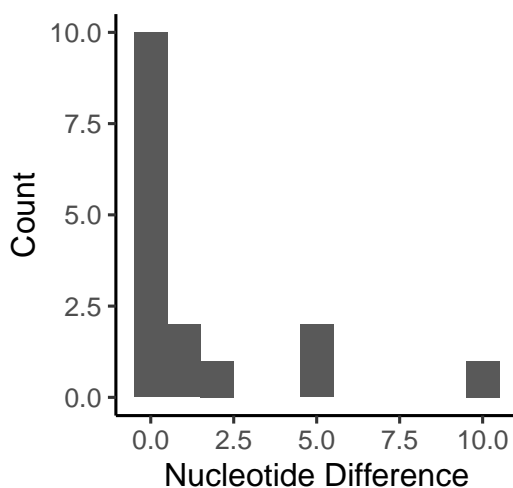
IGHV3-49*05

493 sequences assigned
339 (68.8%) exact matches, in which:
332 unique CDR3
7 unique J



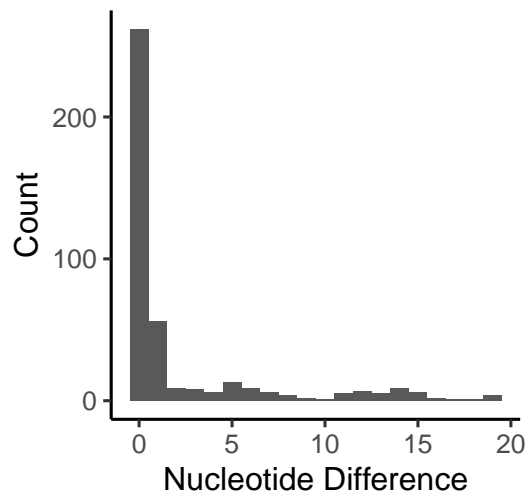
IGHV3-64*02

17 sequences assigned
10 (58.8%) exact matches, in which:
9 unique CDR3
3 unique J



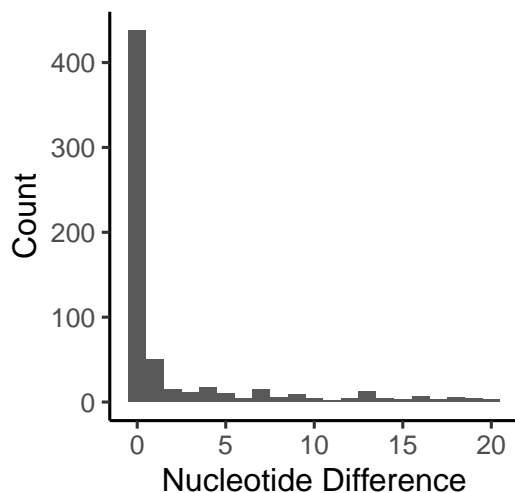
IGHV3-73*02

430 sequences assigned
262 (60.9%) exact matches, in which:
255 unique CDR3
7 unique J



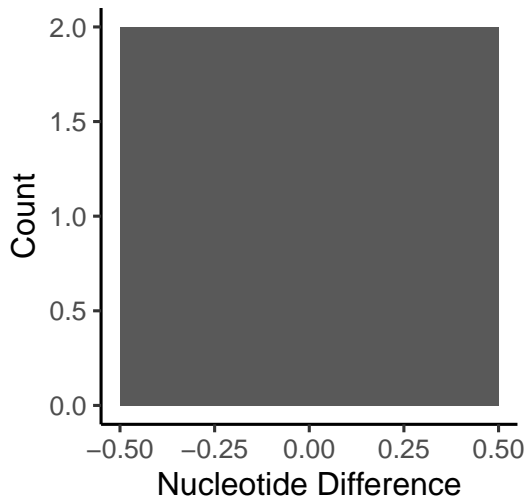
IGHV3-53*01

660 sequences assigned
438 (66.4%) exact matches, in which:
431 unique CDR3
7 unique J



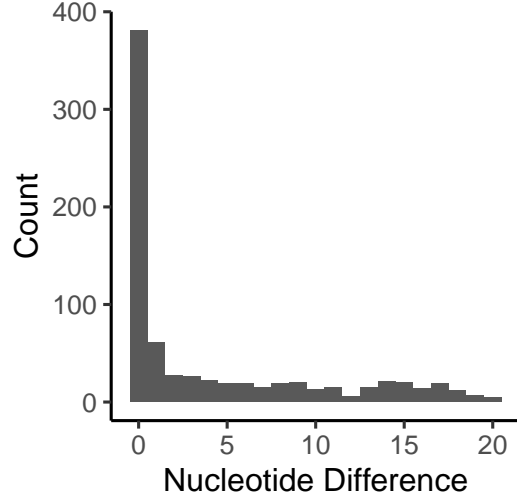
IGHV3-66*03

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



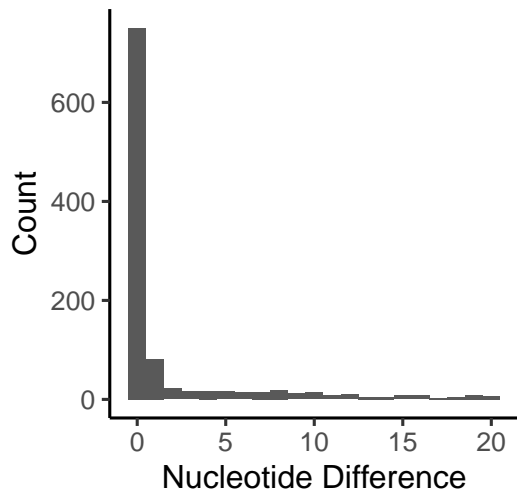
IGHV3-74*01

797 sequences assigned
381 (47.8%) exact matches, in which:
375 unique CDR3
7 unique J



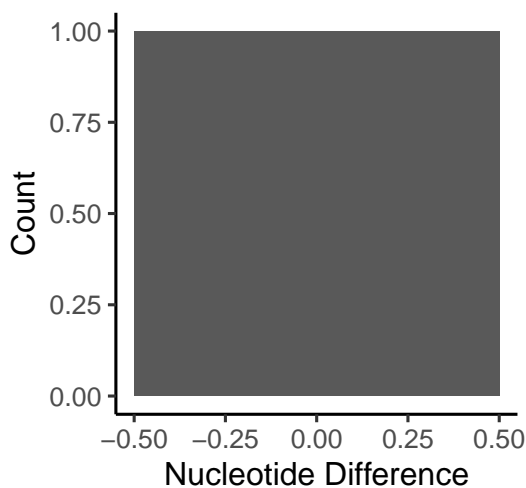
IGHV4-4*07

1086 sequences assigned
751 (69.2%) exact matches, in which:
740 unique CDR3
7 unique J



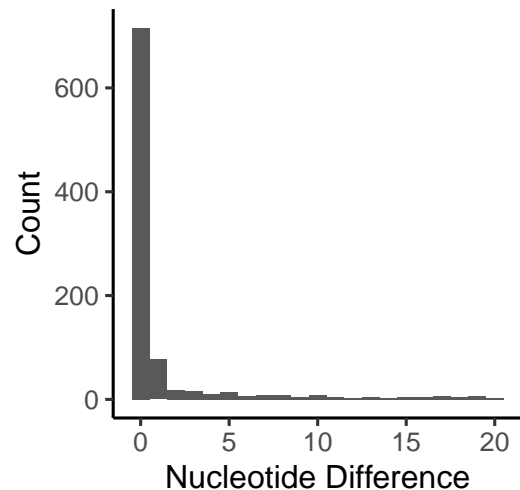
IGHV4-28*07

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



IGHV4-31*03

956 sequences assigned
716 (74.9%) exact matches, in which:
710 unique CDR3
7 unique J



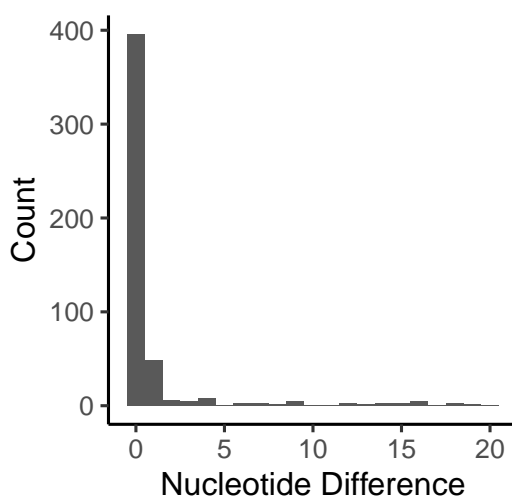
IGHV4-28*01

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



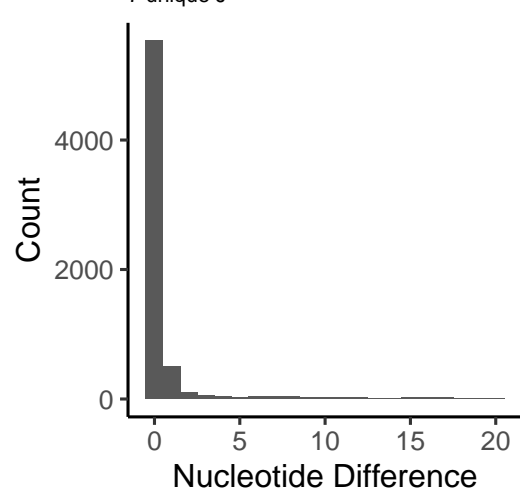
IGHV4-30-2*01

516 sequences assigned
396 (76.7%) exact matches, in which:
389 unique CDR3
7 unique J



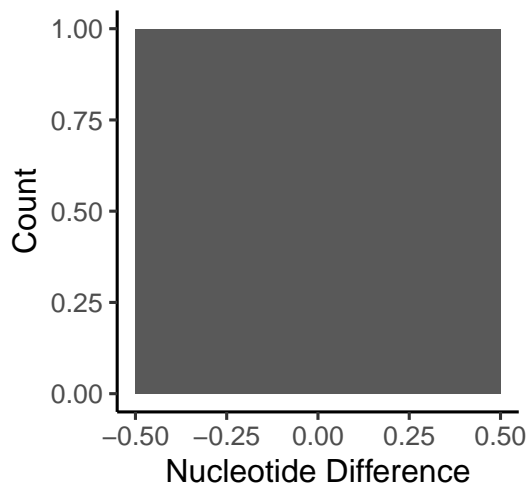
IGHV4-34*01

6706 sequences assigned
5534 (82.5%) exact matches, in which:
5432 unique CDR3
7 unique J



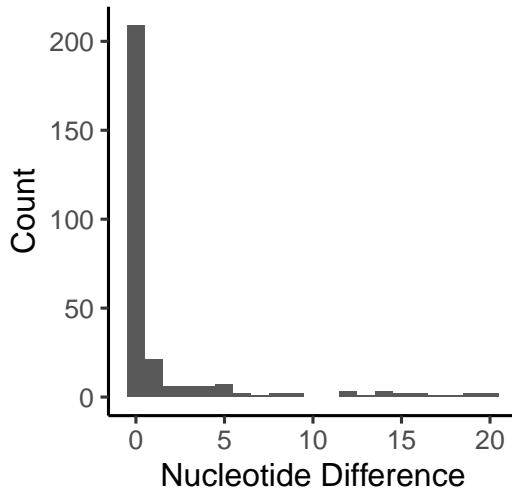
IGHV4-28*03

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



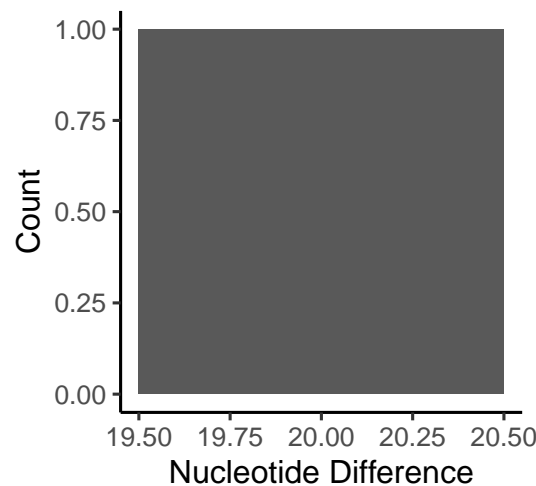
IGHV4-30-4*01

300 sequences assigned
209 (69.7%) exact matches, in which:
208 unique CDR3
6 unique J



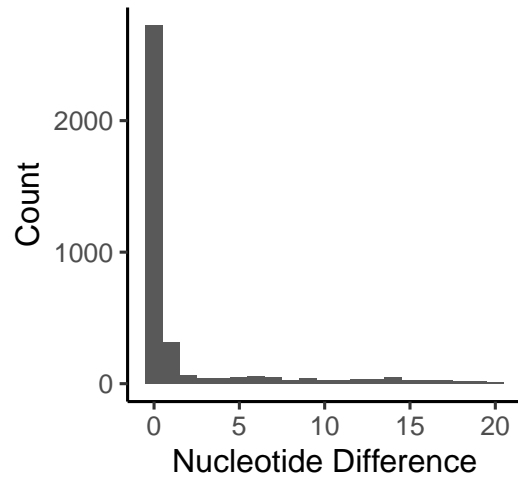
IGHV4-38-2*01

1 sequences assigned
No exact matches.



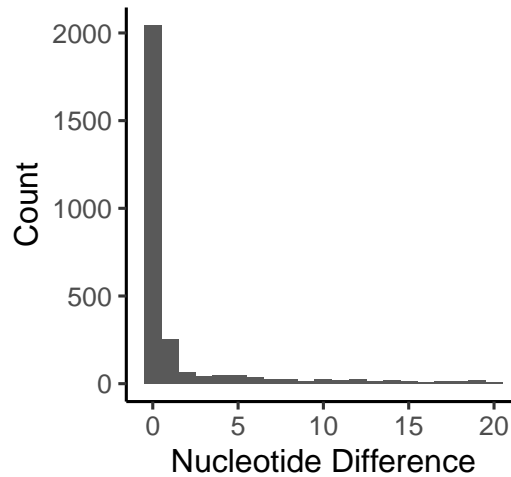
IGHV4-39*01

3916 sequences assigned
2724 (69.6%) exact matches, in which:
2657 unique CDR3
7 unique J



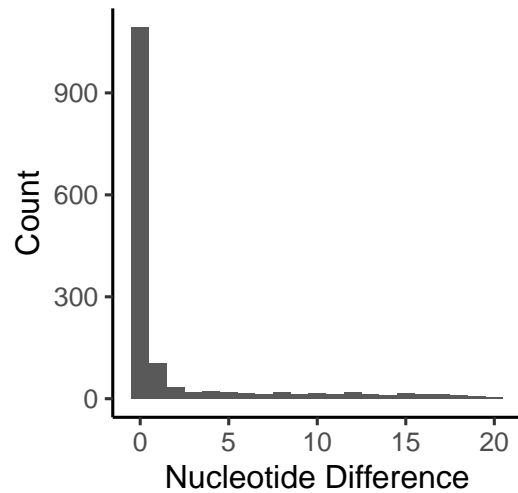
IGHV5-51*01

2864 sequences assigned
2043 (71.3%) exact matches, in which:
2003 unique CDR3
7 unique J



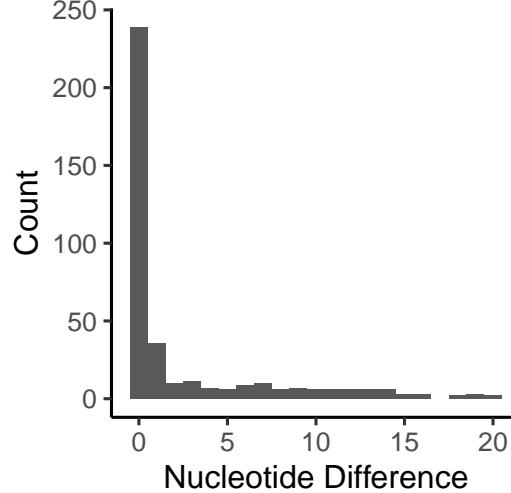
IGHV4-59*01

1553 sequences assigned
1094 (70.4%) exact matches, in which:
1080 unique CDR3
7 unique J



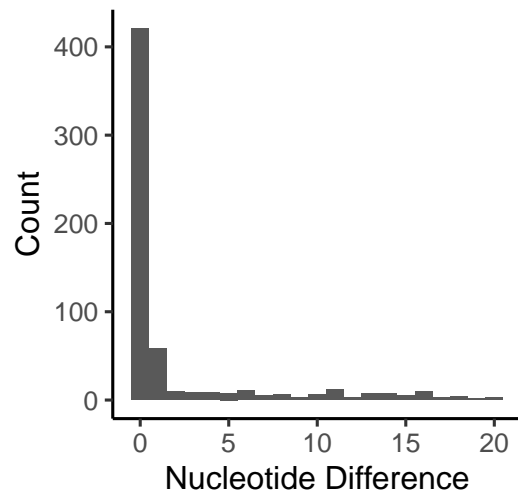
IGHV6-1*01

391 sequences assigned
239 (61.1%) exact matches, in which:
235 unique CDR3
7 unique J

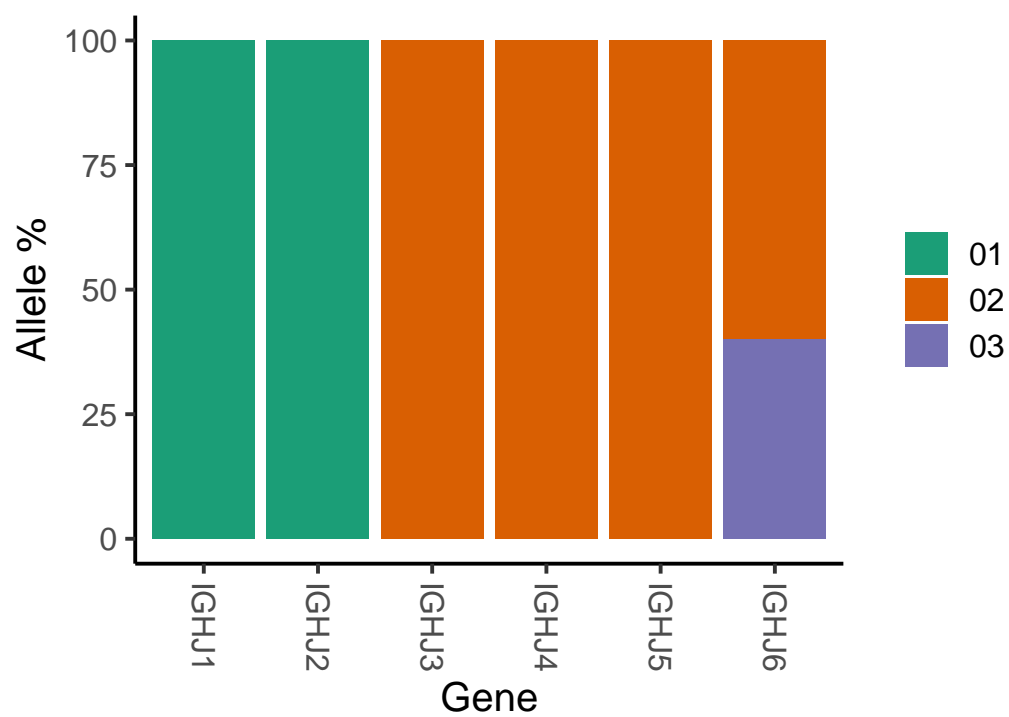


IGHV4-61*01

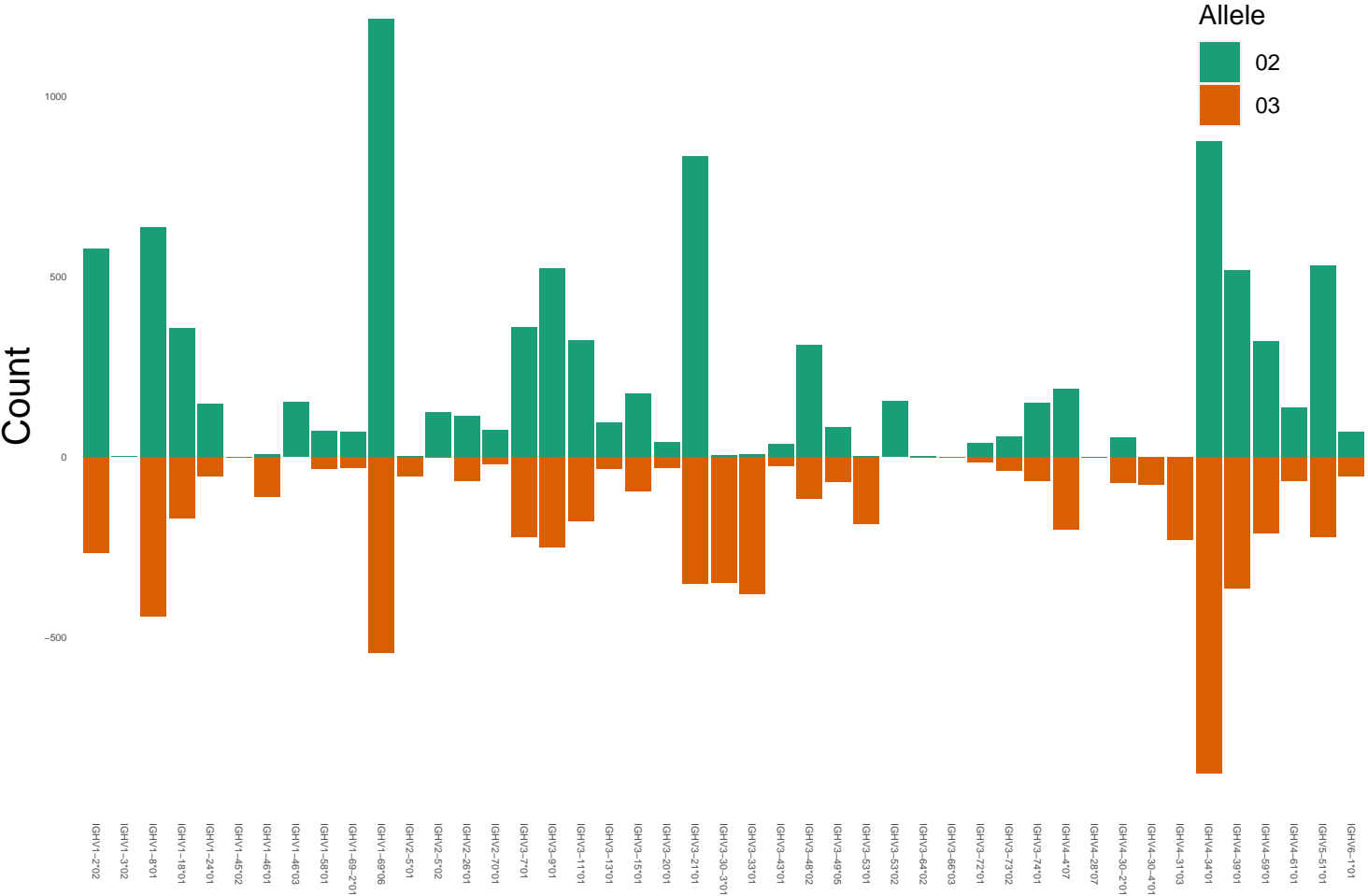
653 sequences assigned
421 (64.5%) exact matches, in which:
418 unique CDR3
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]