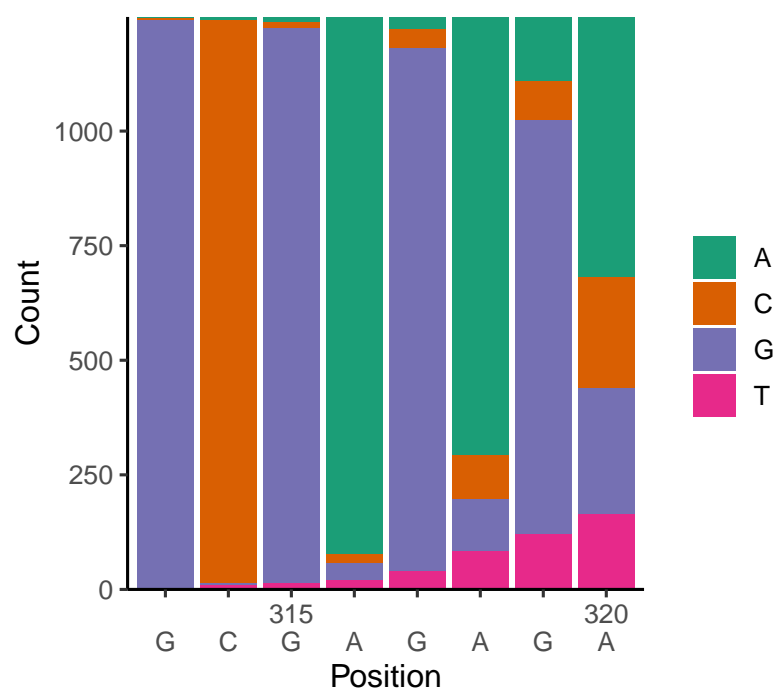
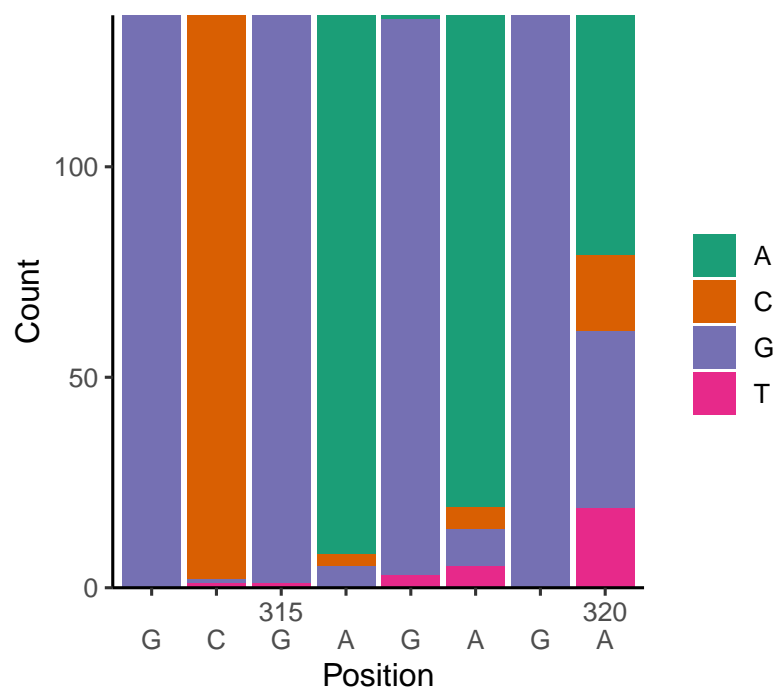


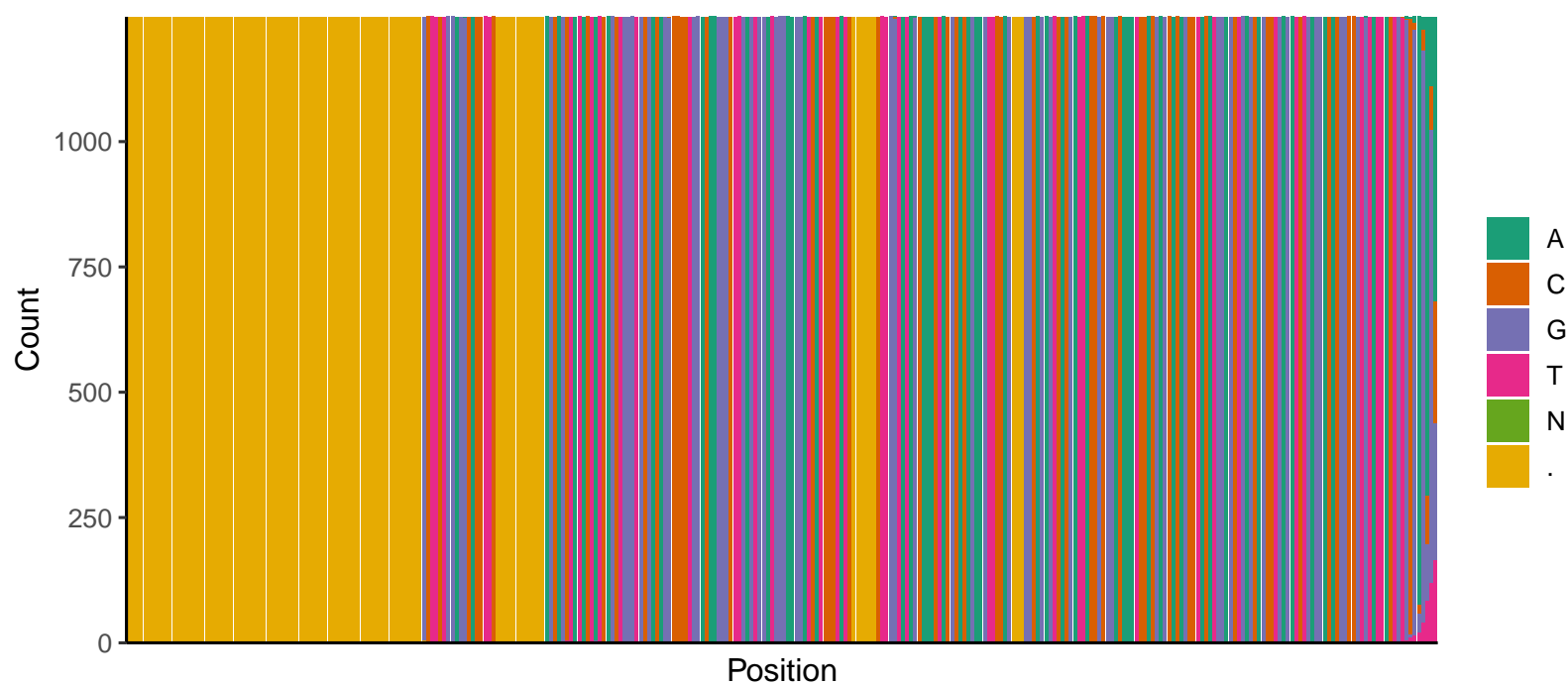
Gene IGHV1-69*04_09_G112A



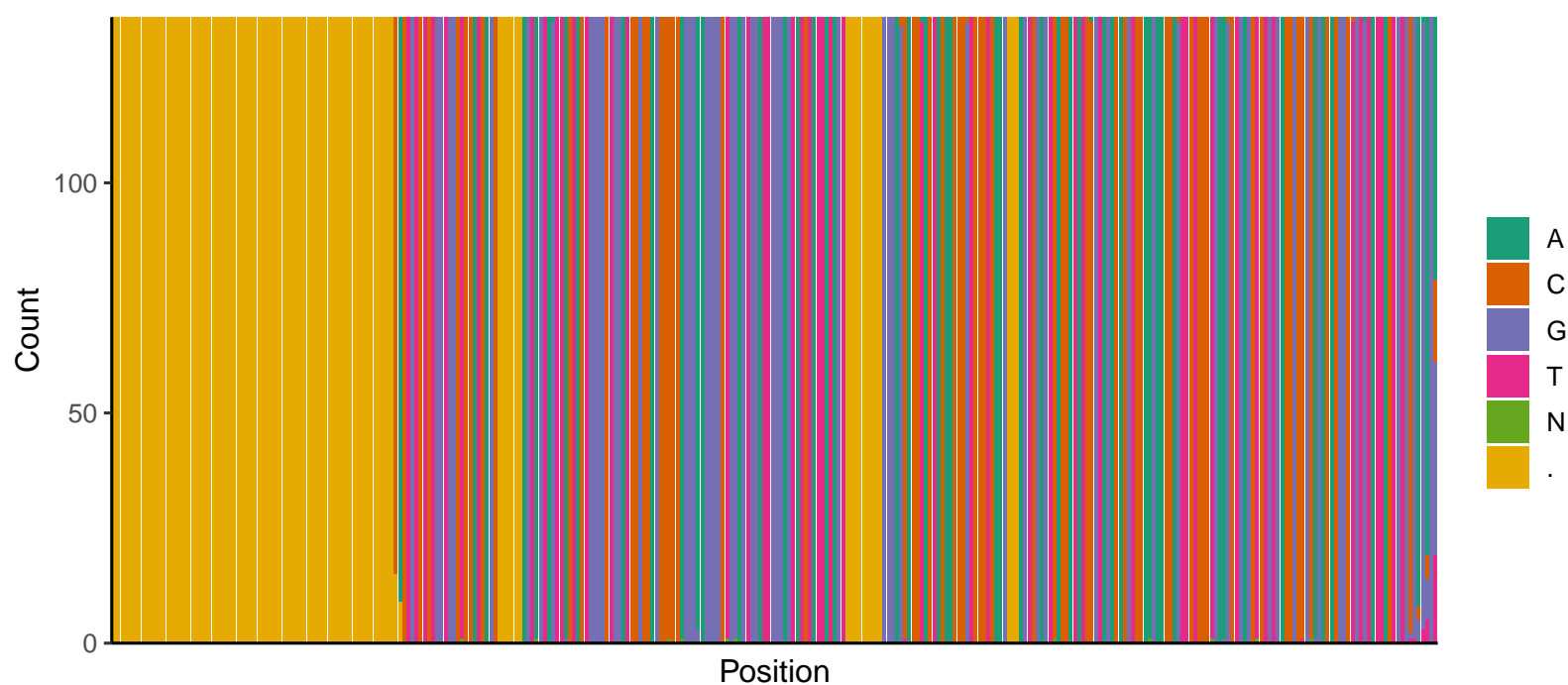
Gene IGHV4-39*02_C258G



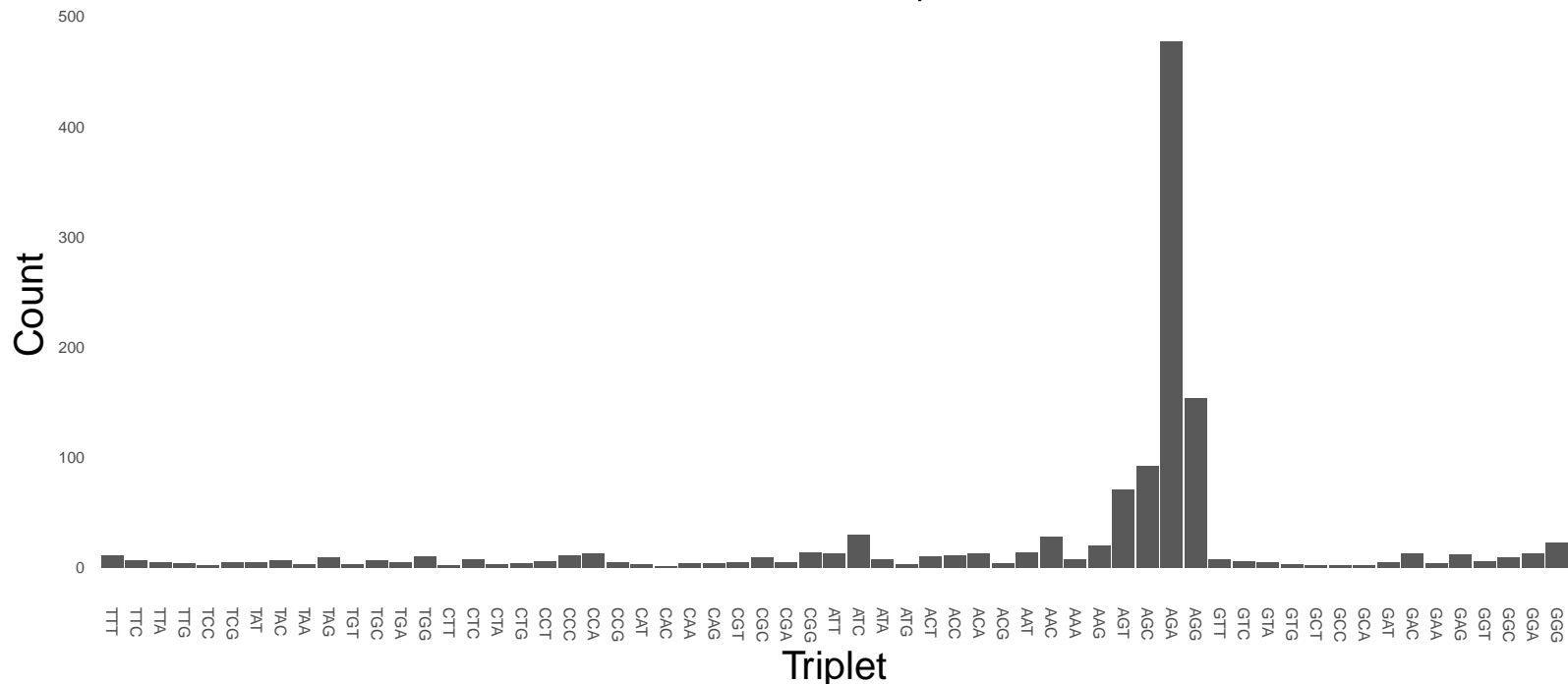
Gene IGHV1-69*04_09_G112A



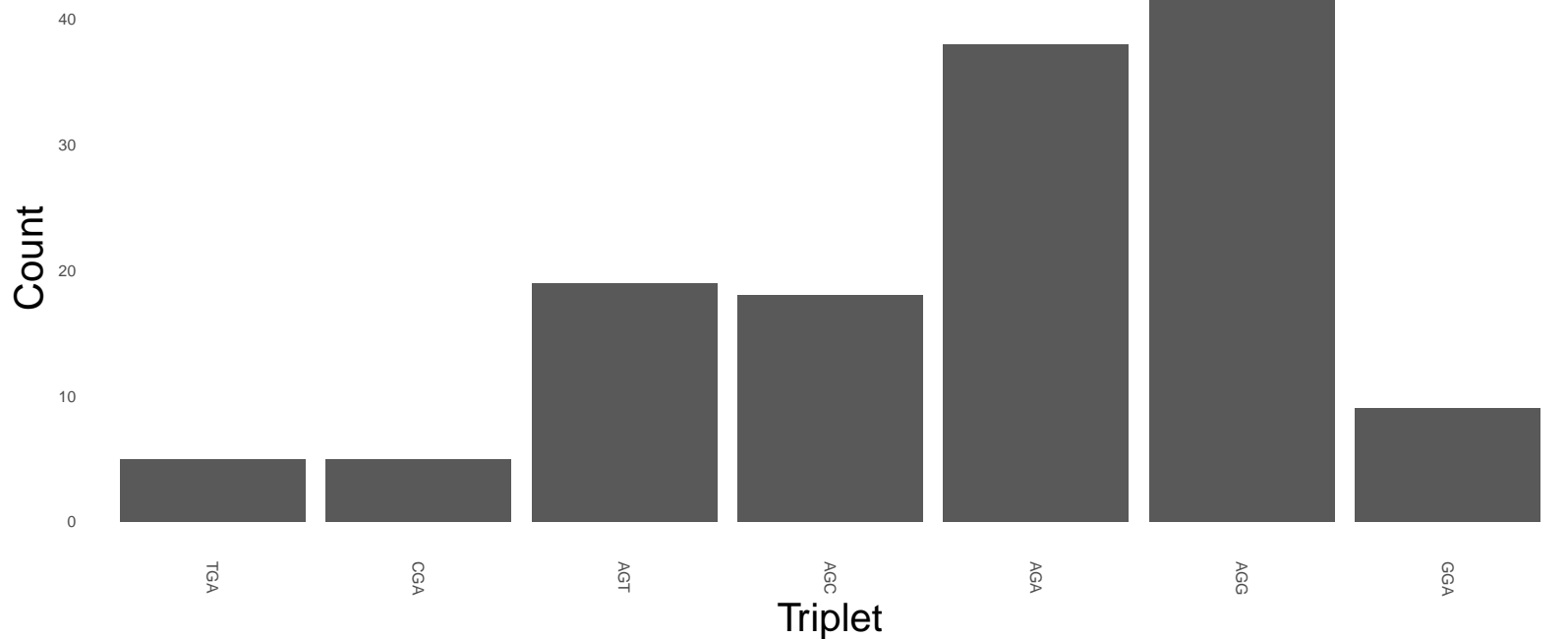
Gene IGHV4-39*02_C258G



IGHV1-69*04_09_G112A- Final 3 nucleotides as a triplet

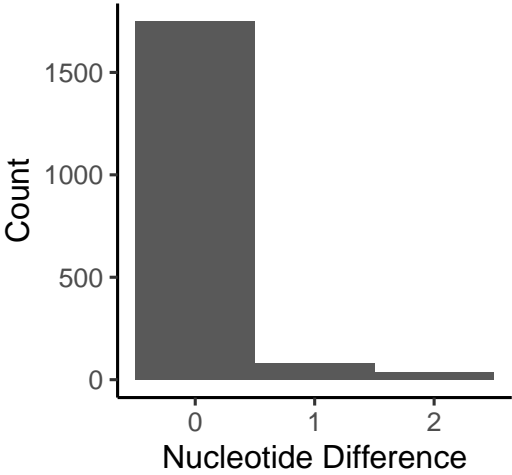


IGHV4-39*02_C258G- Final 3 nucleotides as a triplet



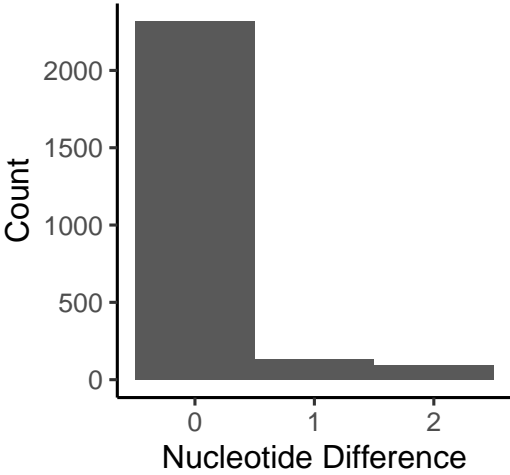
IGHV1-2*02

1865 sequences assigned
1749 (93.8%) exact matches, in which:
1746 unique CDR3
6 unique J



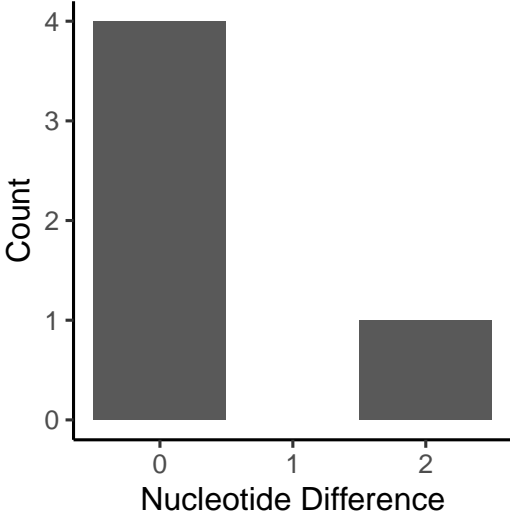
IGHV1-8*01

2541 sequences assigned
2317 (91.2%) exact matches, in which:
2311 unique CDR3
6 unique J



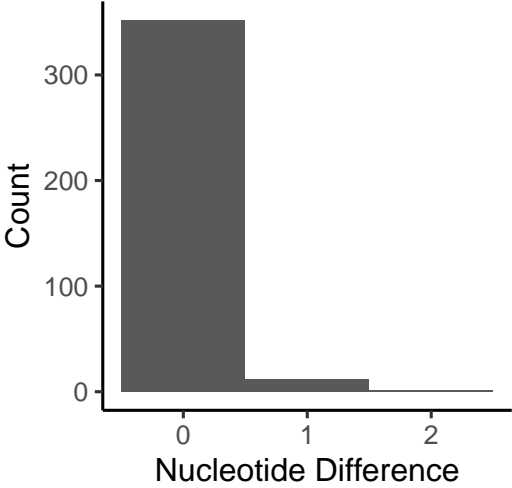
IGHV1-45*02

5 sequences assigned
4 (80%) exact matches, in which:
4 unique CDR3
3 unique J



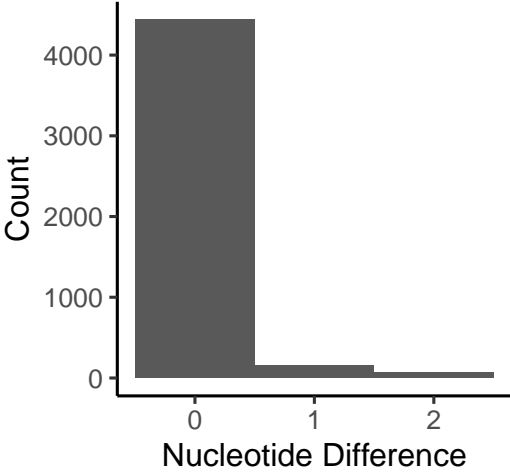
IGHV1-2*04

365 sequences assigned
352 (96.4%) exact matches, in which:
352 unique CDR3
6 unique J



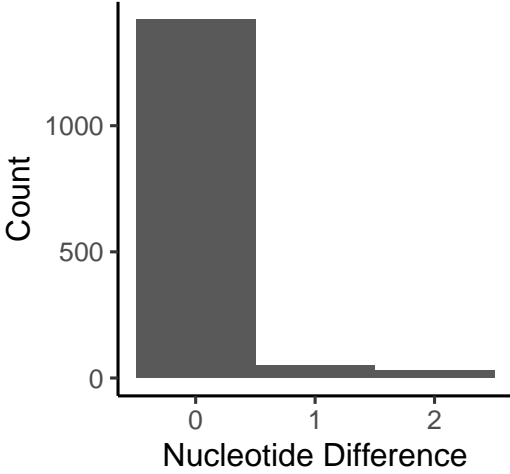
IGHV1-18*01

4664 sequences assigned
4438 (95.2%) exact matches, in which:
4434 unique CDR3
6 unique J



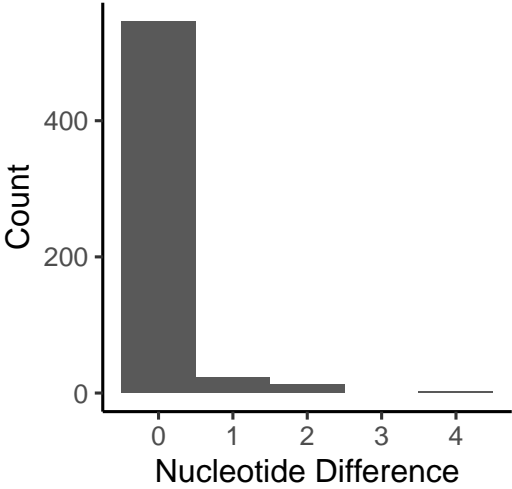
IGHV1-46*01

1499 sequences assigned
1420 (94.7%) exact matches, in which:
1420 unique CDR3
6 unique J



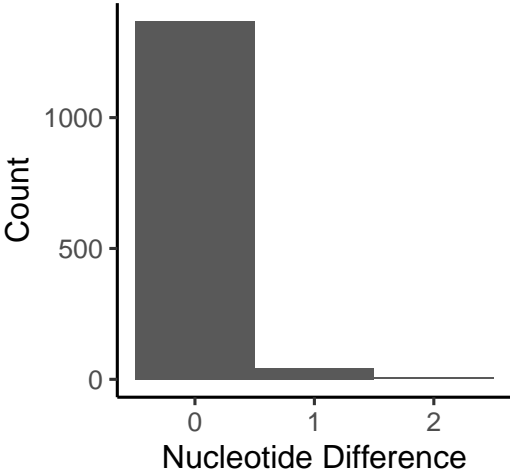
IGHV1-3*01_05

584 sequences assigned
546 (93.5%) exact matches, in which:
546 unique CDR3
6 unique J



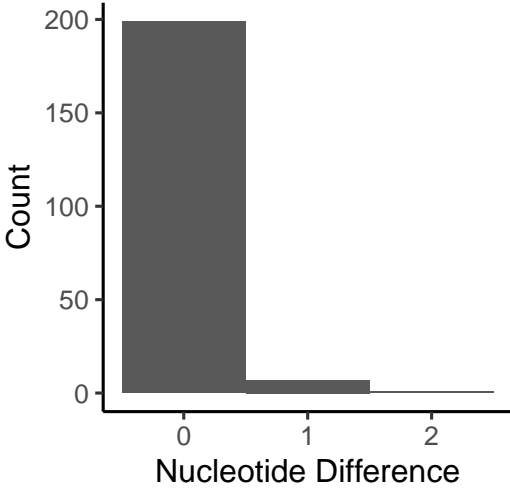
IGHV1-24*01

1419 sequences assigned
1369 (96.5%) exact matches, in which:
1367 unique CDR3
6 unique J



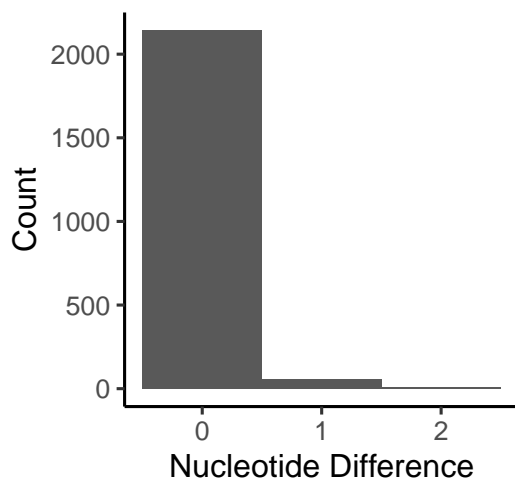
IGHV1-58*02

207 sequences assigned
199 (96.1%) exact matches, in which:
199 unique CDR3
5 unique J



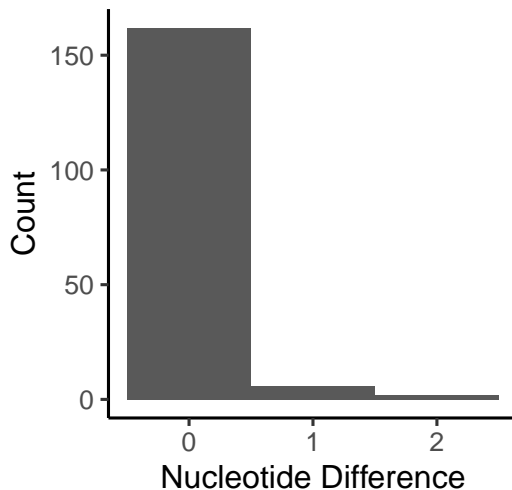
IGHV1-69*04_09

2207 sequences assigned
2142 (97.1%) exact matches, in which:
2142 unique CDR3
6 unique J



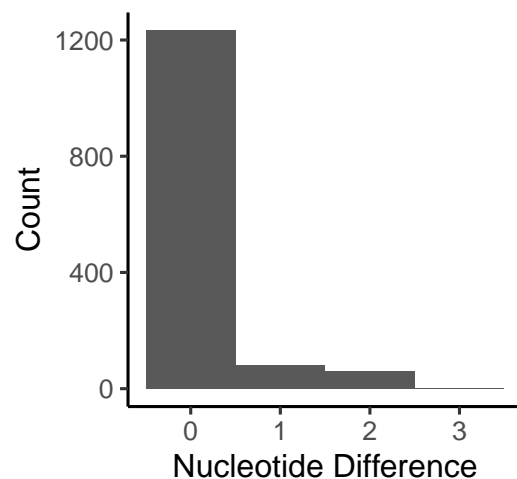
IGHV2-26*01

170 sequences assigned
162 (95.3%) exact matches, in which:
162 unique CDR3
5 unique J



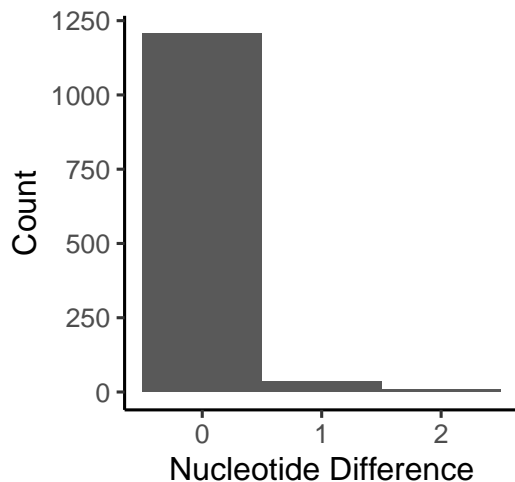
IGHV3-7*01

1375 sequences assigned
1233 (89.7%) exact matches, in which:
1206 unique CDR3
6 unique J



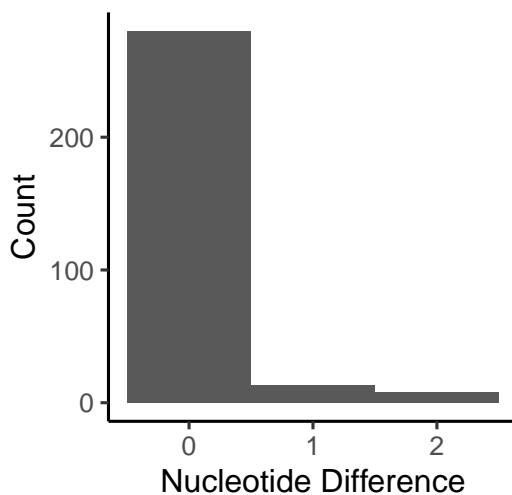
IGHV1-69*04_09_G112.

1249 sequences assigned
1206 (96.6%) exact matches, in which:
1205 unique CDR3
6 unique J



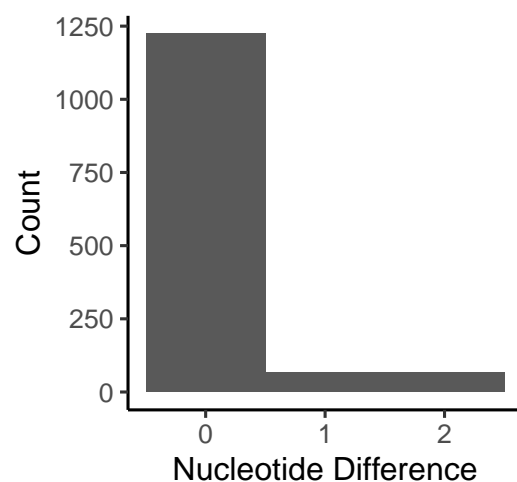
IGHV2-70*11_15

301 sequences assigned
280 (93%) exact matches, in which:
279 unique CDR3
4 unique J



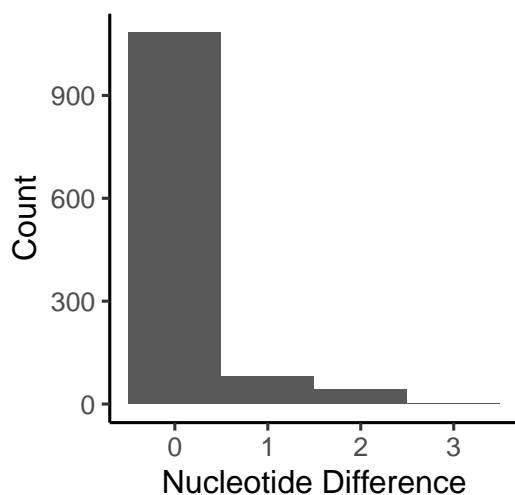
IGHV3-7*03

1360 sequences assigned
1224 (90%) exact matches, in which:
1200 unique CDR3
6 unique J



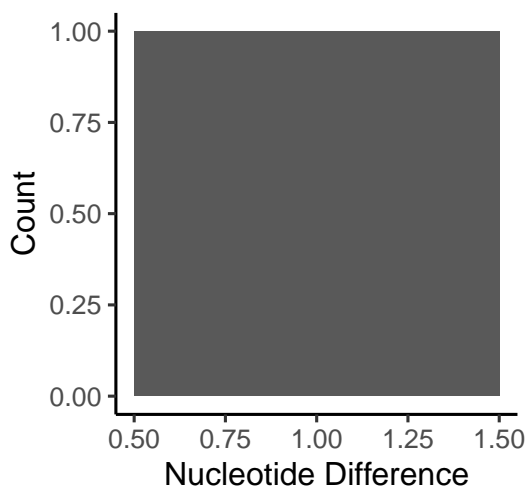
IGHV2-5*02

1206 sequences assigned
1084 (89.9%) exact matches, in which:
1079 unique CDR3
6 unique J



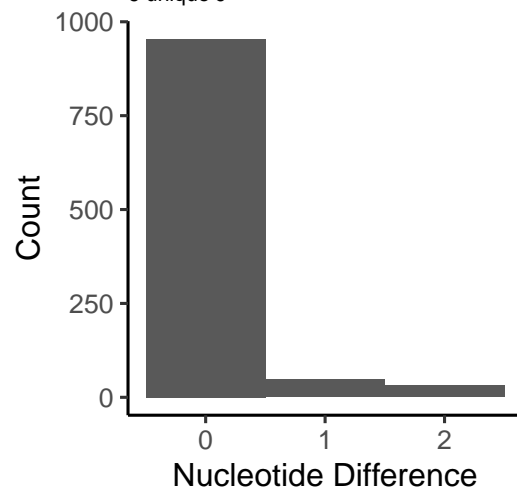
IGHV2-70D*04

1 sequences assigned
No exact matches.



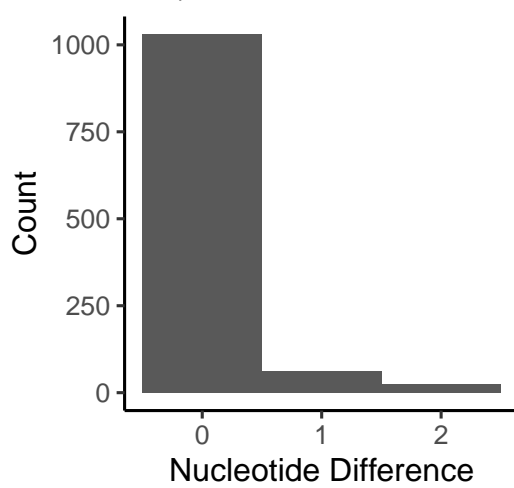
IGHV3-9*01

1032 sequences assigned
954 (92.4%) exact matches, in which:
944 unique CDR3
6 unique J



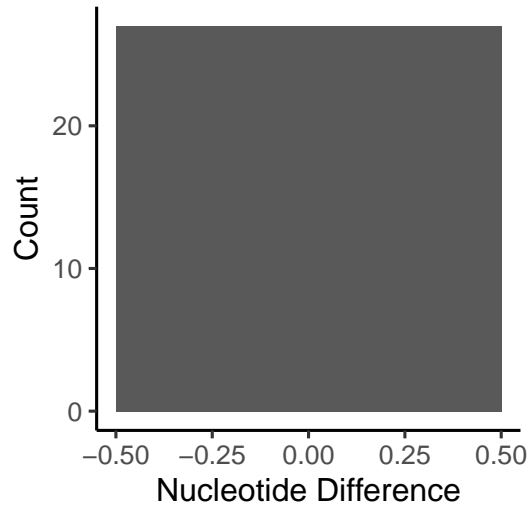
IGHV3-11*01

1117 sequences assigned
1030 (92.2%) exact matches, in which:
1015 unique CDR3
6 unique J



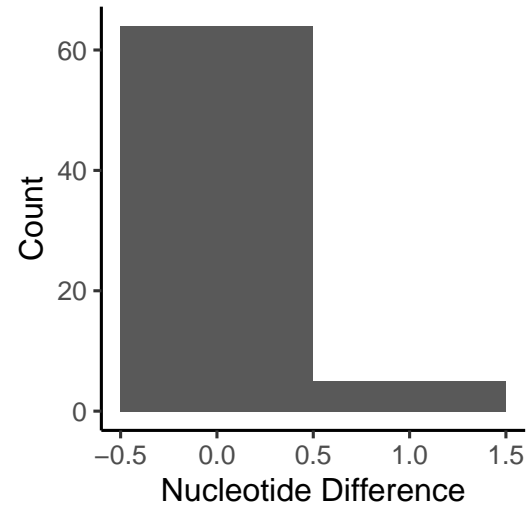
IGHV3-13*05

27 sequences assigned
27 (100%) exact matches, in which:
27 unique CDR3
5 unique J



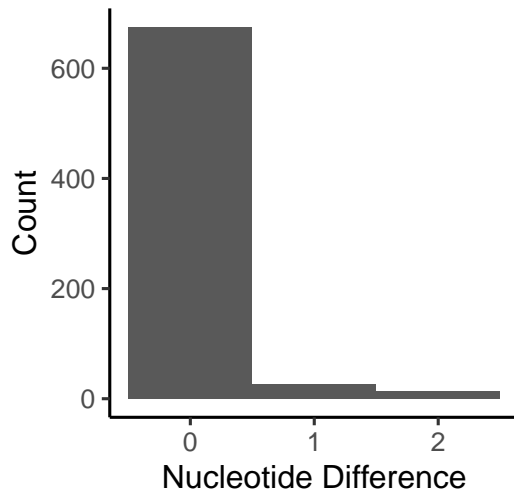
IGHV3-20*01_02

69 sequences assigned
64 (92.8%) exact matches, in which:
63 unique CDR3
5 unique J



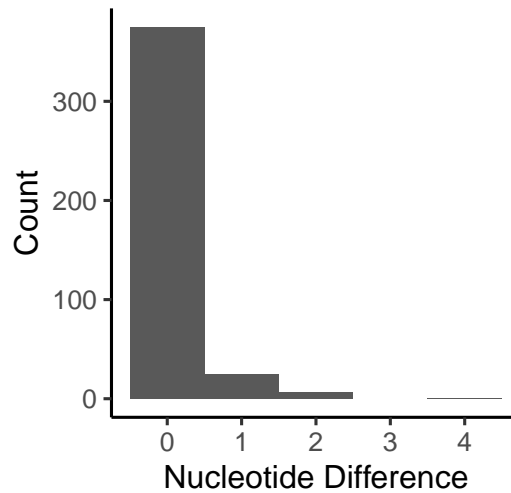
IGHV3-11*06

715 sequences assigned
675 (94.4%) exact matches, in which:
660 unique CDR3
6 unique J



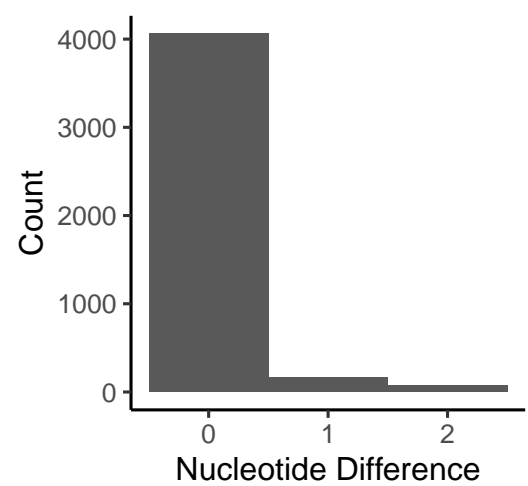
IGHV3-15*01_02

408 sequences assigned
375 (91.9%) exact matches, in which:
373 unique CDR3
6 unique J



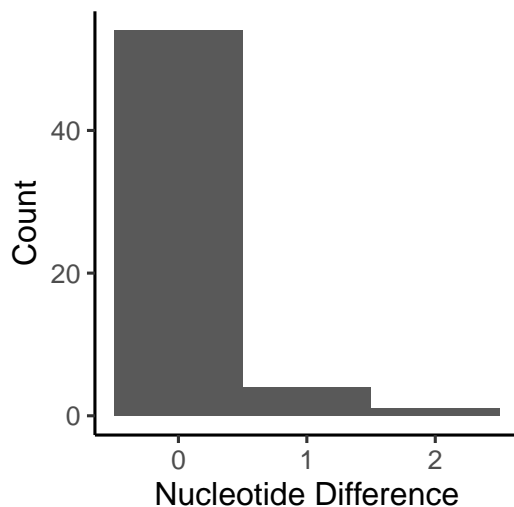
IGHV3-21*01_02

4304 sequences assigned
4061 (94.4%) exact matches, in which:
3948 unique CDR3
6 unique J



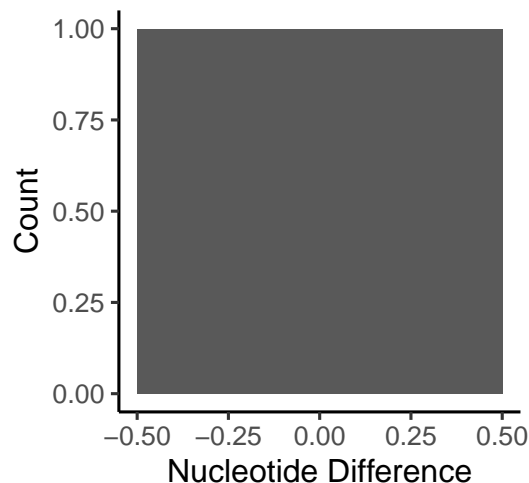
IGHV3-13*01

59 sequences assigned
54 (91.5%) exact matches, in which:
52 unique CDR3
5 unique J



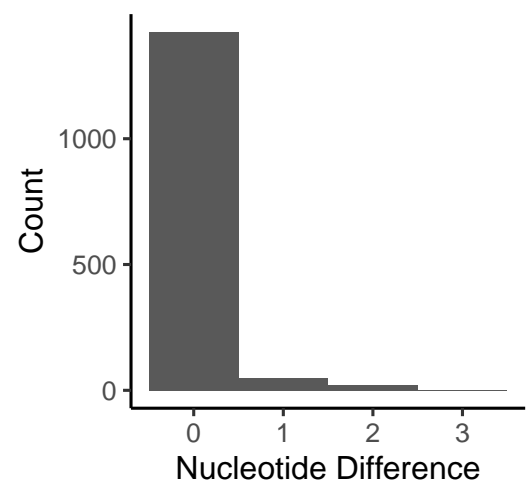
IGHV3-19*01

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



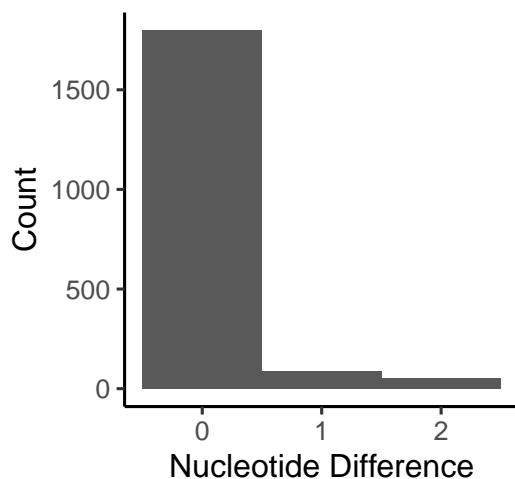
IGHV3-30-3*01

1496 sequences assigned
1424 (95.2%) exact matches, in which:
1408 unique CDR3
6 unique J



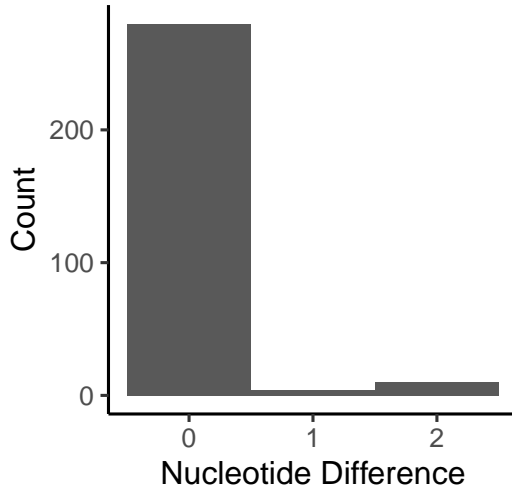
IGHV3–33*01

1936 sequences assigned
1798 (92.9%) exact matches, in which:
1770 unique CDR3
6 unique J



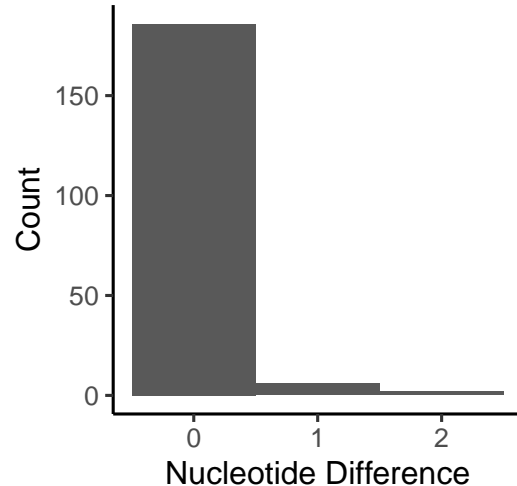
IGHV3–49*03_05

294 sequences assigned
280 (95.2%) exact matches, in which:
277 unique CDR3
5 unique J



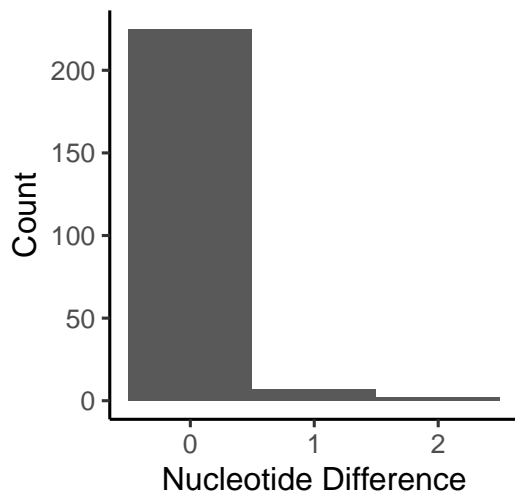
IGHV3–64*01

194 sequences assigned
186 (95.9%) exact matches, in which:
184 unique CDR3
5 unique J



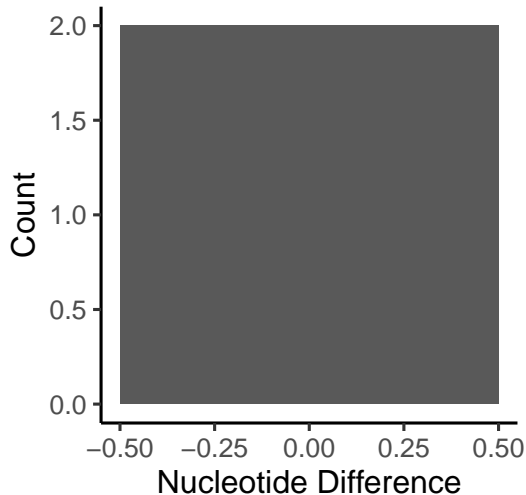
IGHV3–43*01

234 sequences assigned
225 (96.2%) exact matches, in which:
223 unique CDR3
6 unique J



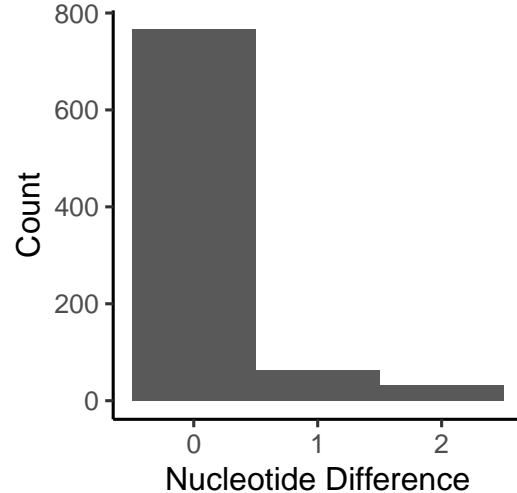
IGHV3–52*01_03

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



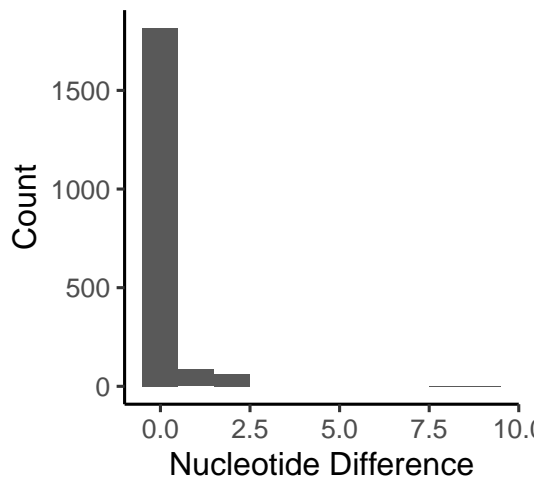
IGHV3–66*01

860 sequences assigned
767 (89.2%) exact matches, in which:
741 unique CDR3
6 unique J



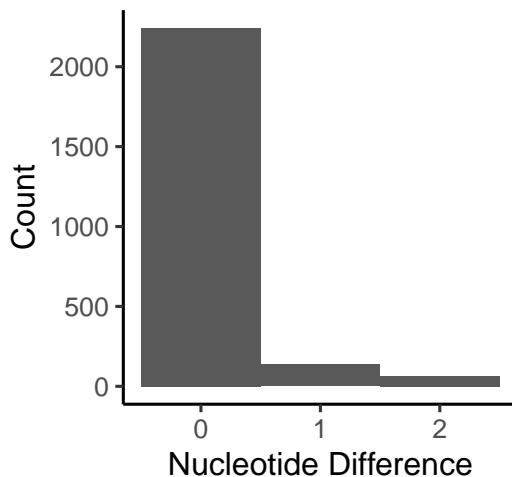
IGHV3–48*02

1967 sequences assigned
1816 (92.3%) exact matches, in which:
1764 unique CDR3
6 unique J



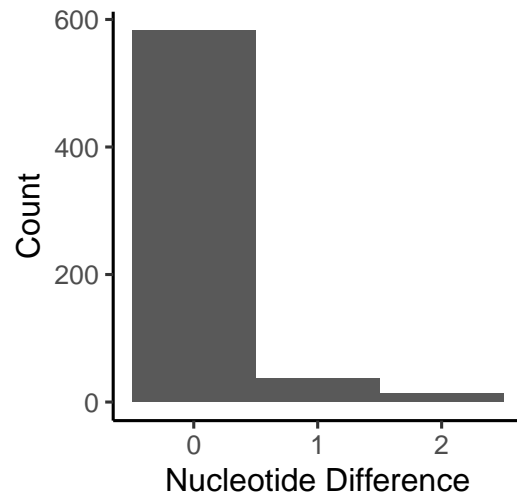
IGHV3–53*01_02

2445 sequences assigned
2242 (91.7%) exact matches, in which:
2173 unique CDR3
6 unique J



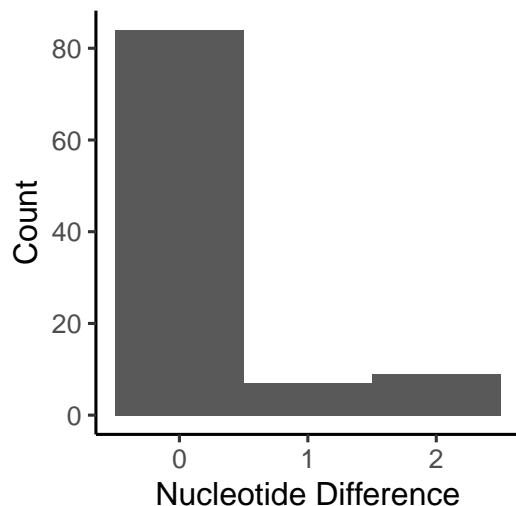
IGHV3–66*02

634 sequences assigned
583 (92%) exact matches, in which:
570 unique CDR3
6 unique J



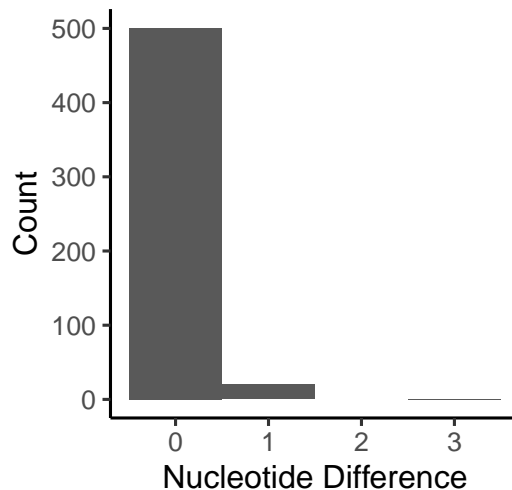
IGHV3-72*01

100 sequences assigned
84 (84%) exact matches, in which:
83 unique CDR3
6 unique J



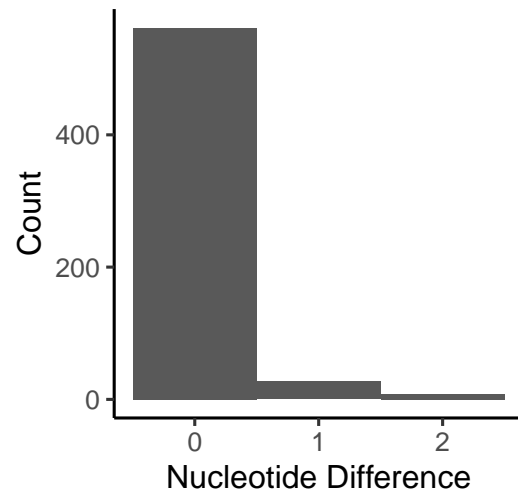
IGHV3-64D*09

522 sequences assigned
501 (96%) exact matches, in which:
492 unique CDR3
6 unique J



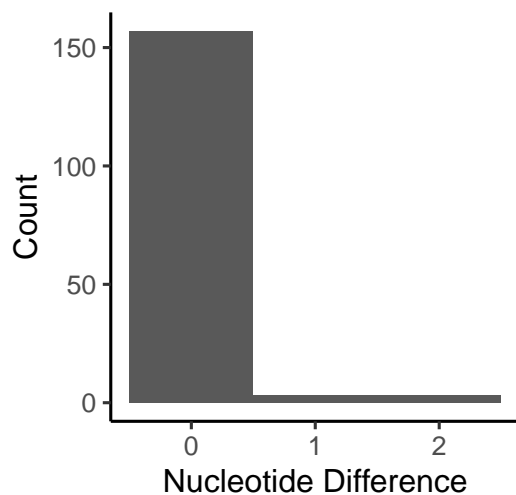
IGHV4-30-4*01

597 sequences assigned
562 (94.1%) exact matches, in which:
556 unique CDR3
6 unique J



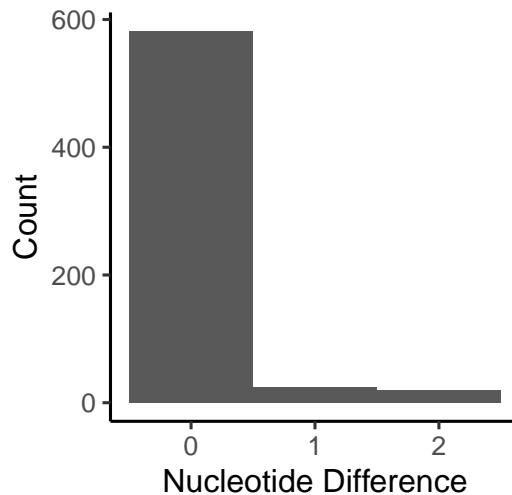
IGHV3-73*01_02

163 sequences assigned
157 (96.3%) exact matches, in which:
153 unique CDR3
5 unique J



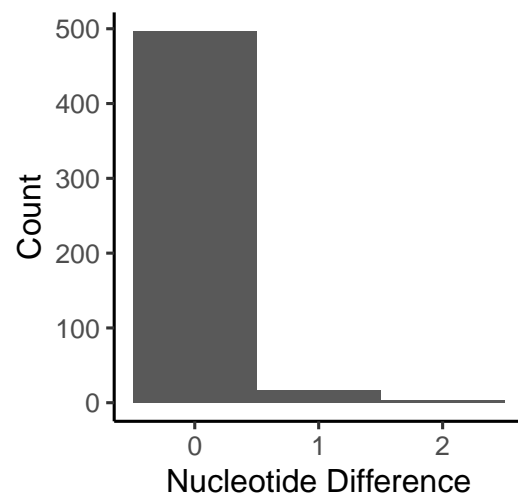
IGHV4-4*07

625 sequences assigned
582 (93.1%) exact matches, in which:
573 unique CDR3
6 unique J



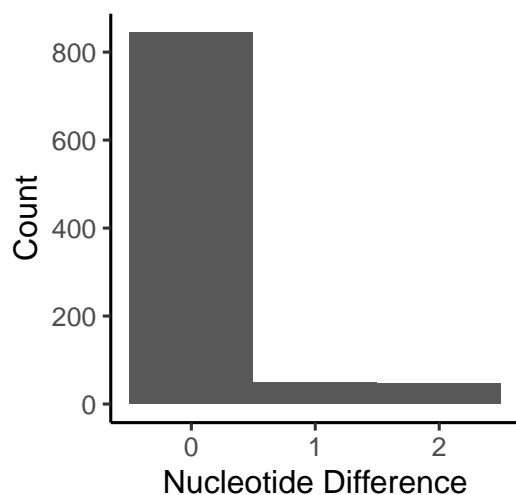
IGHV4-30-2*01

518 sequences assigned
497 (95.9%) exact matches, in which:
494 unique CDR3
6 unique J



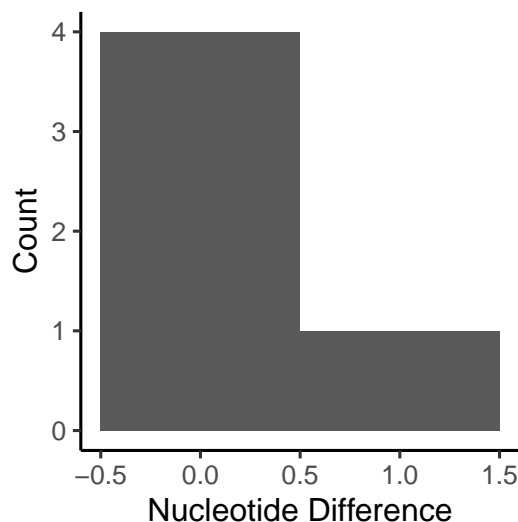
IGHV3-74*01_02

941 sequences assigned
845 (89.8%) exact matches, in which:
830 unique CDR3
6 unique J



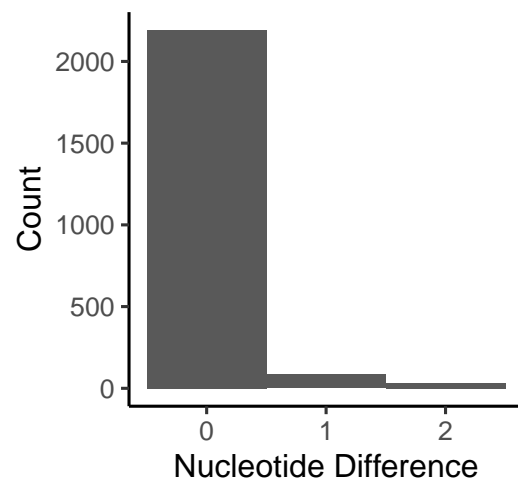
IGHV4-28*01_07

5 sequences assigned
4 (80%) exact matches, in which:
4 unique CDR3
2 unique J



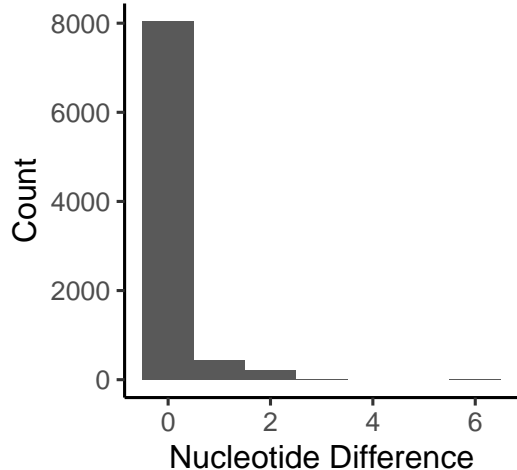
IGHV4-31*03_04

2311 sequences assigned
2192 (94.9%) exact matches, in which:
2172 unique CDR3
6 unique J



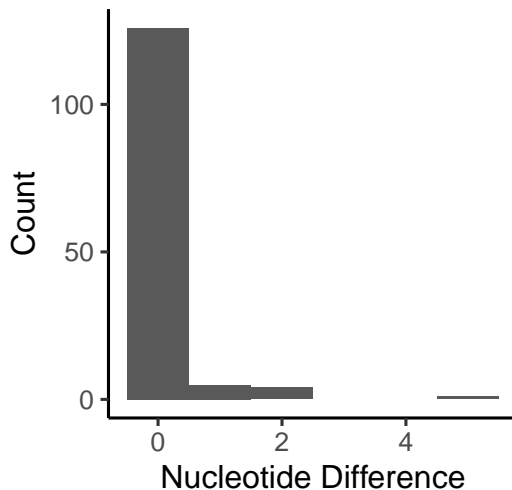
IGHV4-34*01_02

8677 sequences assigned
8040 (92.7%) exact matches, in which:
7940 unique CDR3
6 unique J



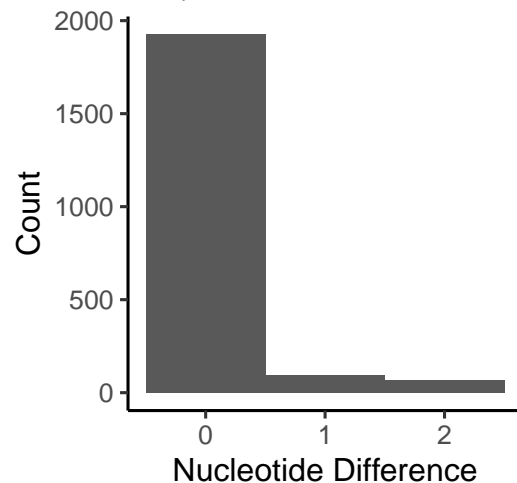
IGHV4-39*02_C258G

136 sequences assigned
126 (92.6%) exact matches, in which:
124 unique CDR3
6 unique J



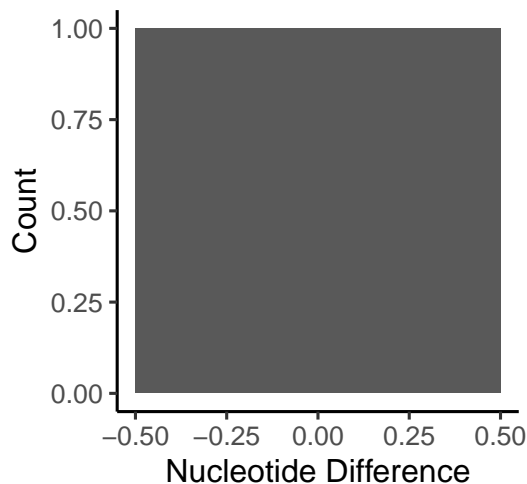
IGHV4-61*02

2084 sequences assigned
1926 (92.4%) exact matches, in which:
1896 unique CDR3
6 unique J



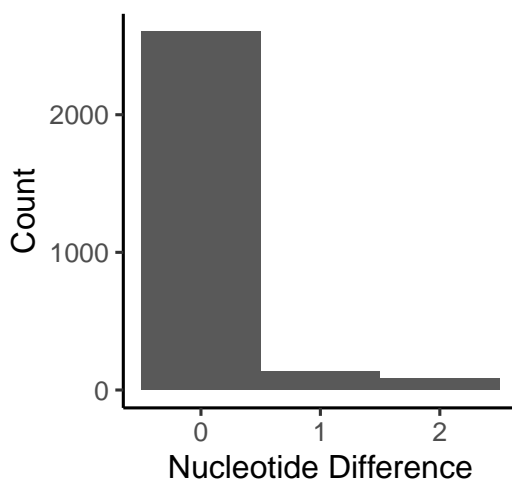
IGHV4-38-2*01

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



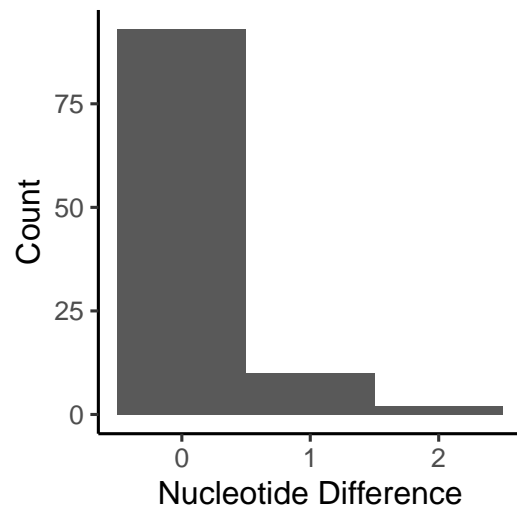
IGHV4-59*08

2822 sequences assigned
2603 (92.2%) exact matches, in which:
2533 unique CDR3
6 unique J



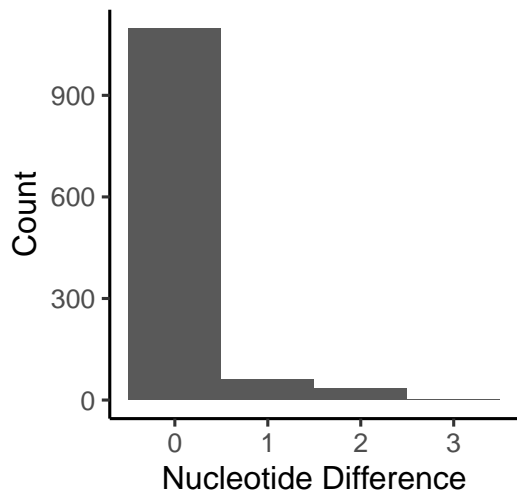
IGHV5-10-1*01_03

105 sequences assigned
93 (88.6%) exact matches, in which:
93 unique CDR3
5 unique J



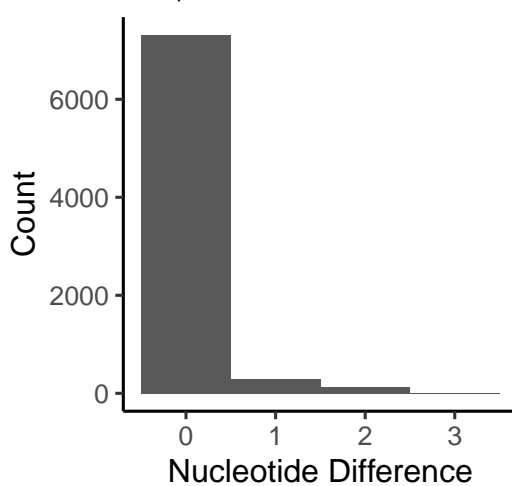
IGHV4-39*01_05

1192 sequences assigned
1098 (92.1%) exact matches, in which:
1089 unique CDR3
6 unique J



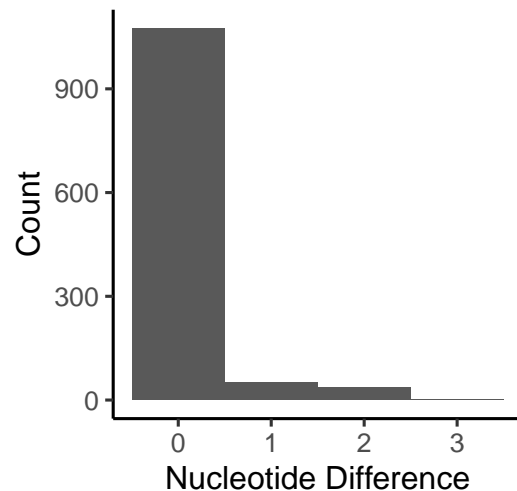
IGHV4-59*01_07

7731 sequences assigned
7311 (94.6%) exact matches, in which:
7202 unique CDR3
6 unique J



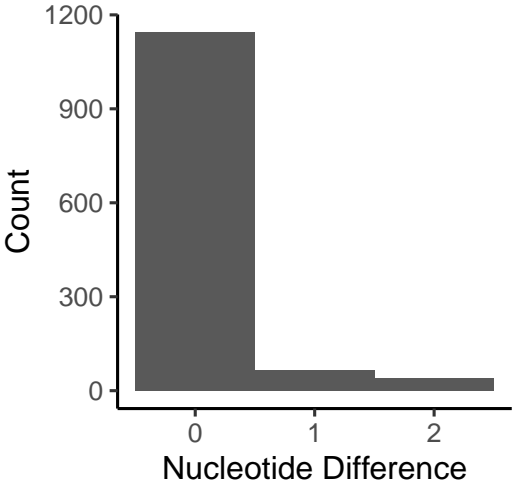
IGHV5-51*01_03

1163 sequences assigned
1075 (92.4%) exact matches, in which:
1074 unique CDR3
6 unique J



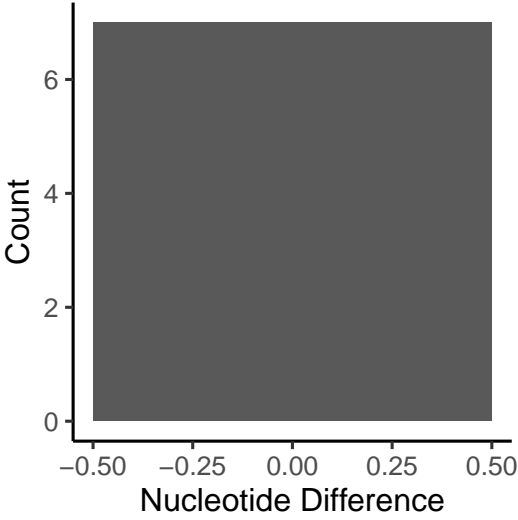
IGHV6-1*01_02

1248 sequences assigned
1144 (91.7%) exact matches, in which:
1143 unique CDR3
6 unique J



IGHV7-4-1*01

7 sequences assigned
7 (100%) exact matches, in which:
7 unique CDR3
3 unique J





Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV3–11*06_T300CIGHV4–38–2*02_A70GIGHV4–39*02_C258GIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–39*02_C258GIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.