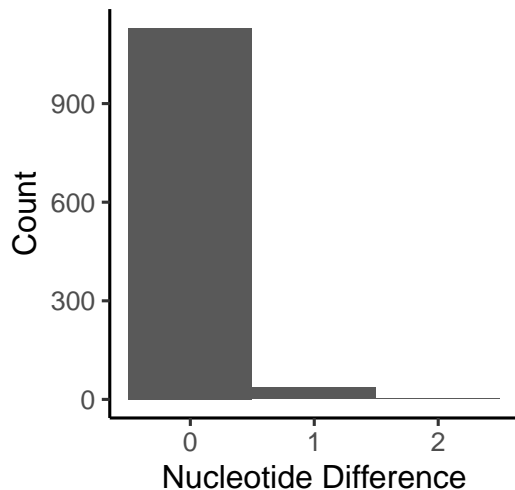


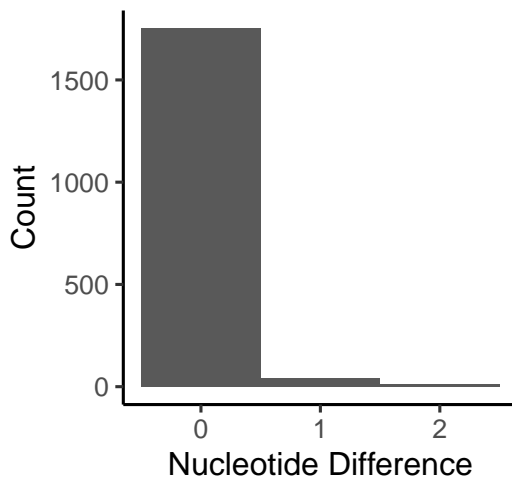
IGHV1-2*04

1170 sequences assigned
1131 (96.7%) exact matches, in which:
1130 unique CDR3
7 unique J



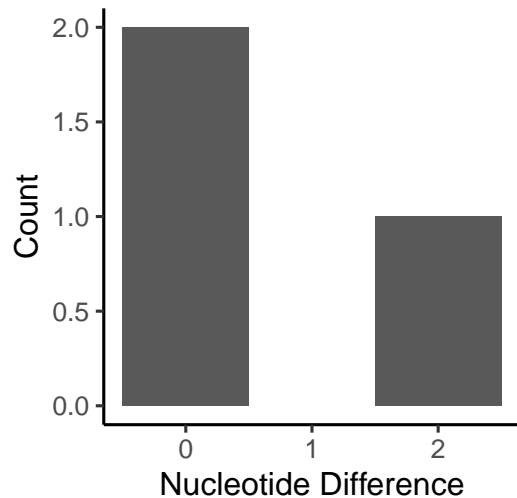
IGHV1-18*01

1808 sequences assigned
1752 (96.9%) exact matches, in which:
1752 unique CDR3
7 unique J



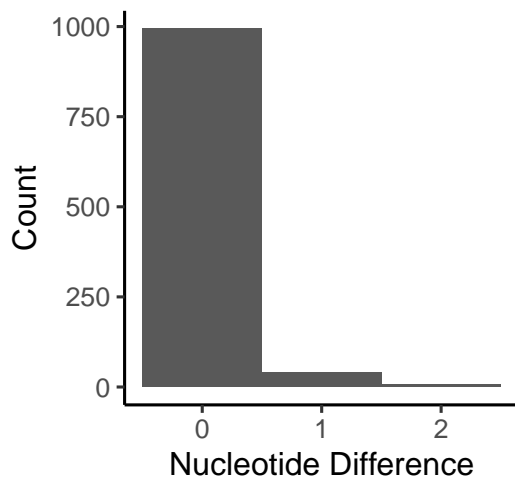
IGHV1-45*02

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



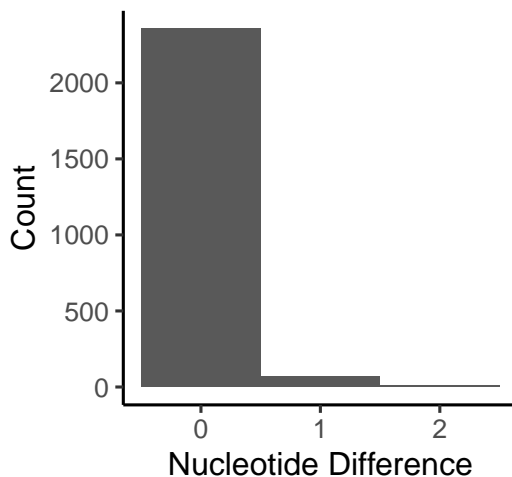
IGHV1-3*01_05

1042 sequences assigned
994 (95.4%) exact matches, in which:
993 unique CDR3
7 unique J



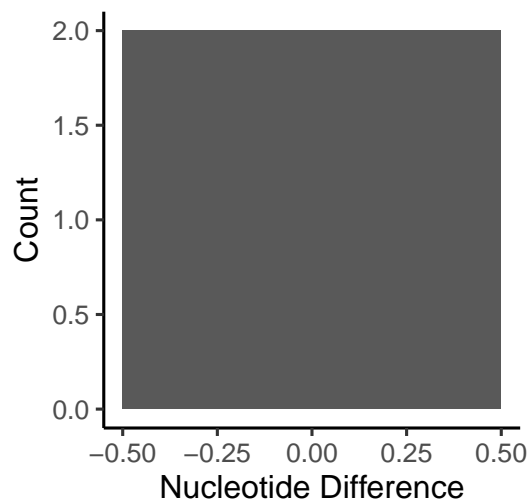
IGHV1-18*04

2435 sequences assigned
2356 (96.8%) exact matches, in which:
2353 unique CDR3
7 unique J



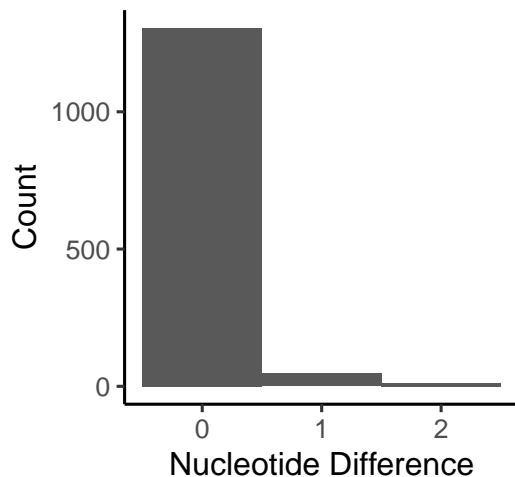
IGHV1-45*03

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



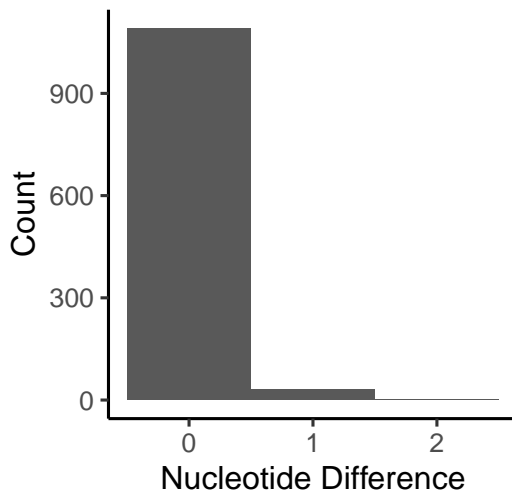
IGHV1-8*01

1364 sequences assigned
1305 (95.7%) exact matches, in which:
1305 unique CDR3
7 unique J



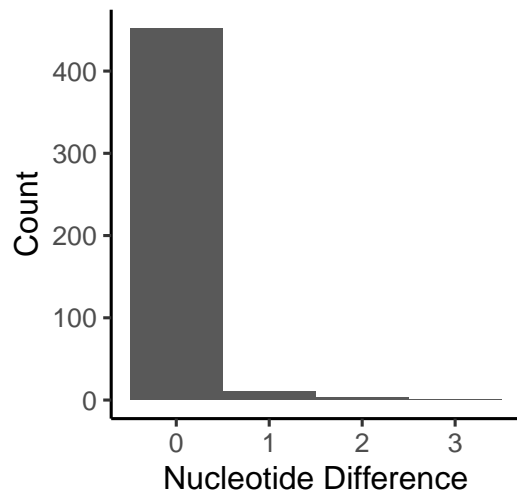
IGHV1-24*01

1123 sequences assigned
1091 (97.2%) exact matches, in which:
1089 unique CDR3
7 unique J



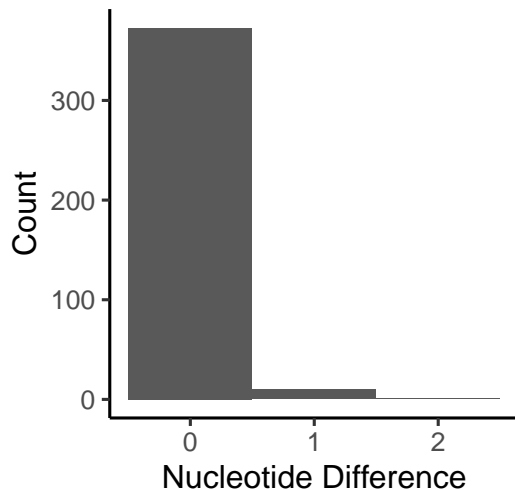
IGHV1-46*01

466 sequences assigned
452 (97%) exact matches, in which:
452 unique CDR3
7 unique J



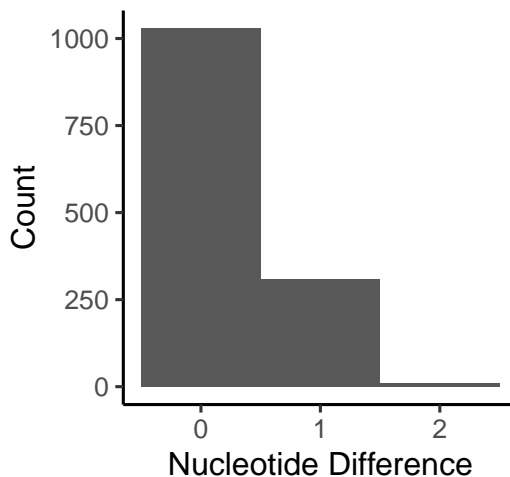
IGHV1–46*03

384 sequences assigned
373 (97.1%) exact matches, in which:
373 unique CDR3
6 unique J



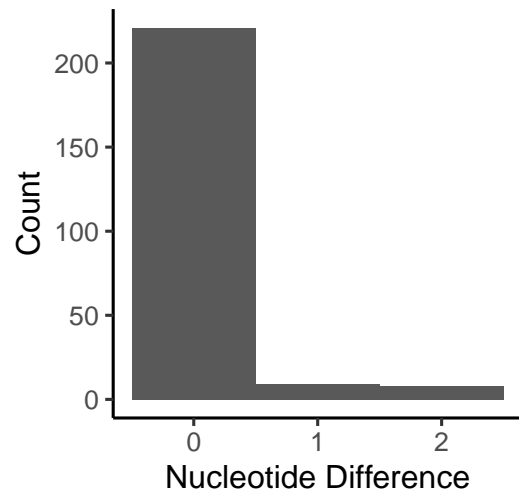
IGHV1–69*04_09

1346 sequences assigned
1029 (76.4%) exact matches, in which:
1028 unique CDR3
7 unique J



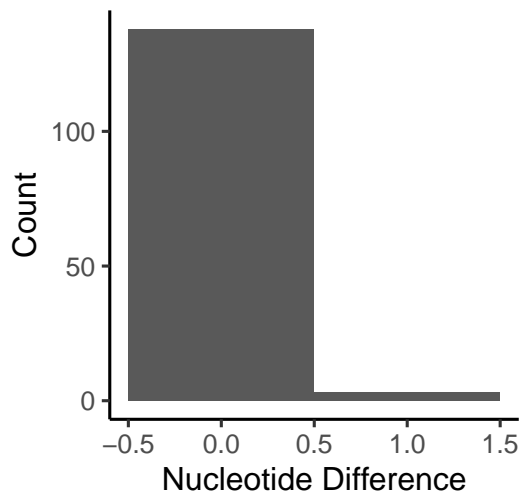
IGHV2–70*11_15

238 sequences assigned
221 (92.9%) exact matches, in which:
221 unique CDR3
6 unique J



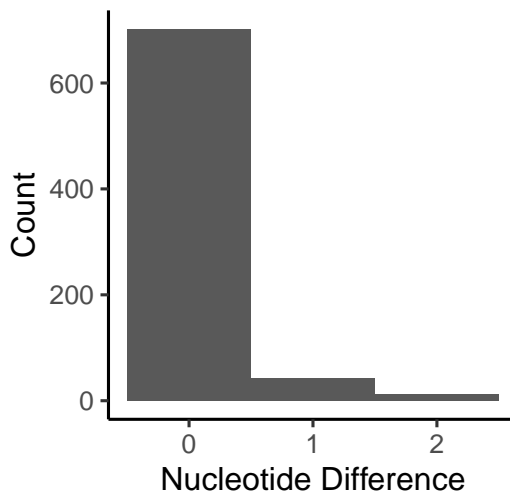
IGHV1–58*02

141 sequences assigned
138 (97.9%) exact matches, in which:
138 unique CDR3
6 unique J



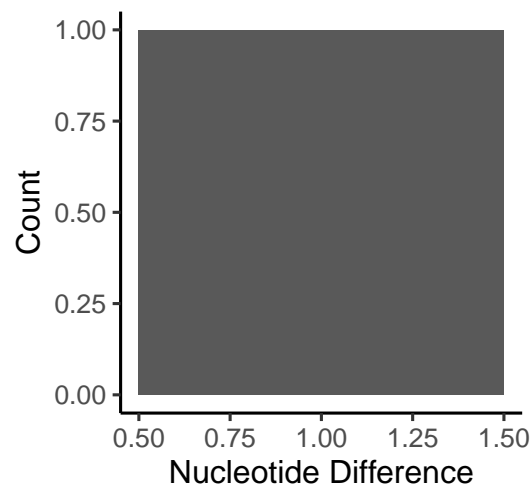
IGHV2–5*02

757 sequences assigned
702 (92.7%) exact matches, in which:
701 unique CDR3
7 unique J



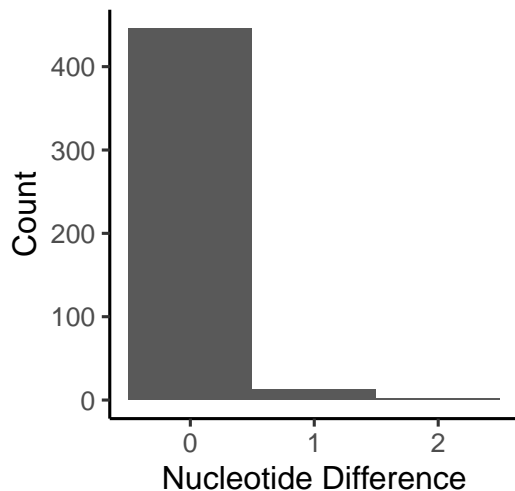
IGHV2–70D*04

1 sequences assigned
No exact matches.



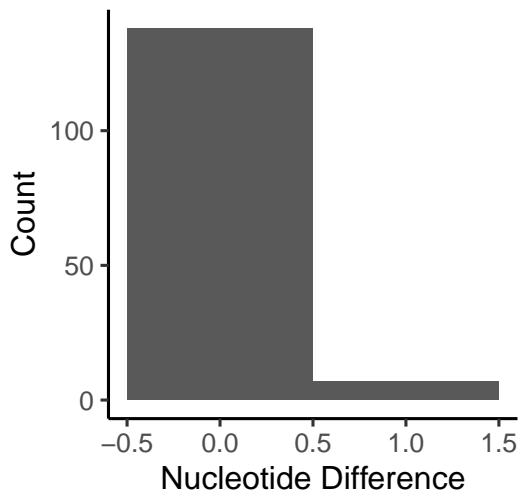
IGHV1–69*02

461 sequences assigned
446 (96.7%) exact matches, in which:
444 unique CDR3
7 unique J



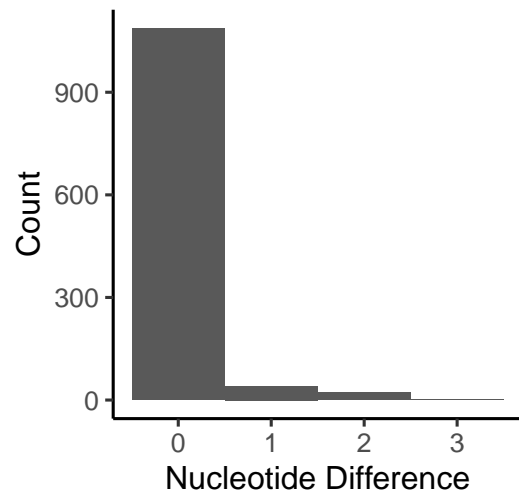
IGHV2–26*01

145 sequences assigned
138 (95.2%) exact matches, in which:
138 unique CDR3
7 unique J



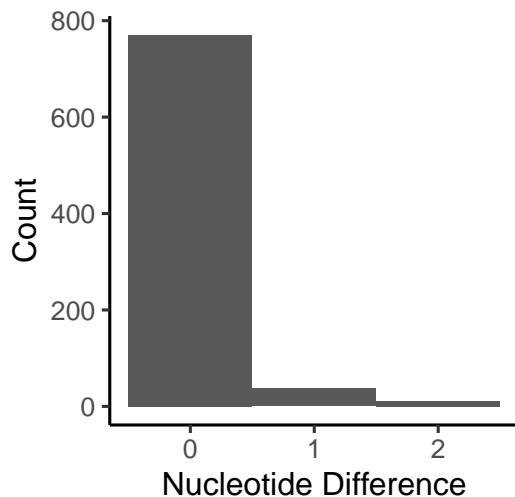
IGHV3–7*01

1152 sequences assigned
1087 (94.4%) exact matches, in which:
1074 unique CDR3
6 unique J



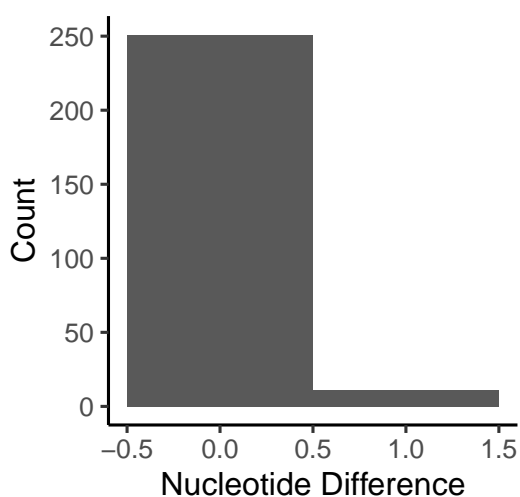
IGHV3-7*03

820 sequences assigned
771 (94%) exact matches, in which:
760 unique CDR3
7 unique J



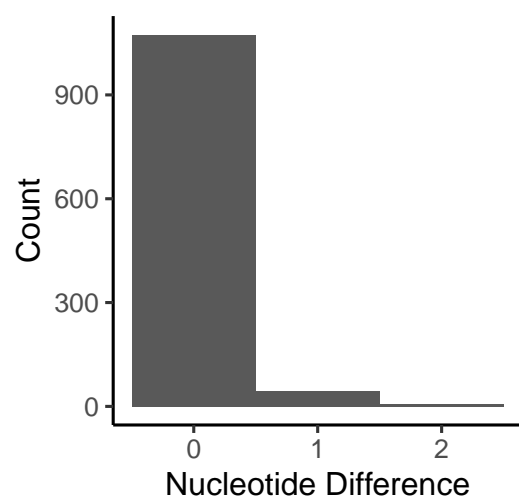
IGHV3-11*06

262 sequences assigned
251 (95.8%) exact matches, in which:
247 unique CDR3
7 unique J



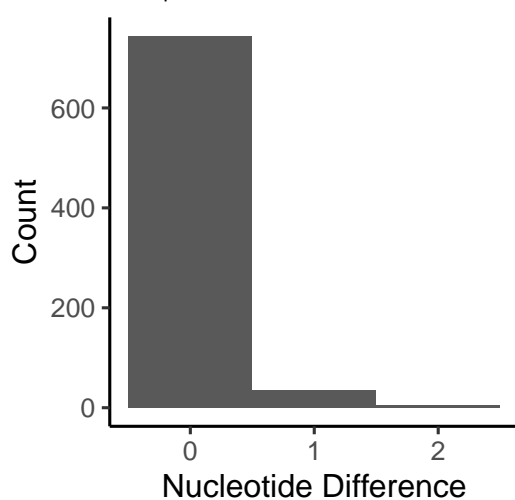
IGHV3-15*01_02

1127 sequences assigned
1074 (95.3%) exact matches, in which:
1066 unique CDR3
7 unique J



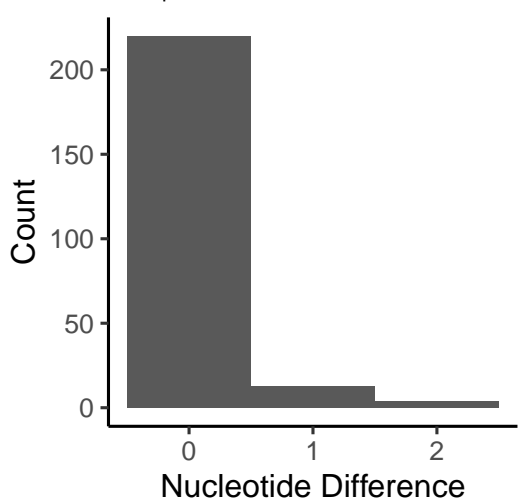
IGHV3-9*01

786 sequences assigned
744 (94.7%) exact matches, in which:
739 unique CDR3
6 unique J



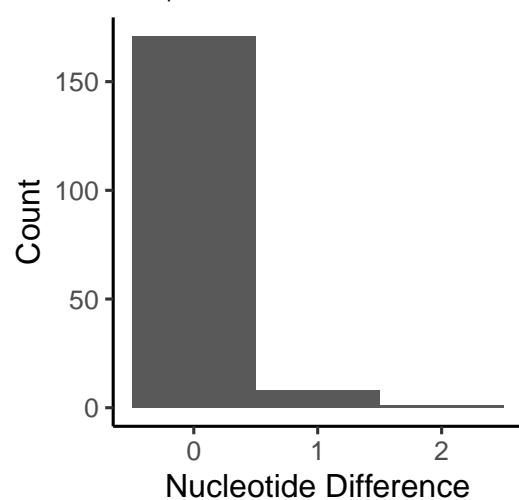
IGHV3-13*01

237 sequences assigned
220 (92.8%) exact matches, in which:
219 unique CDR3
6 unique J



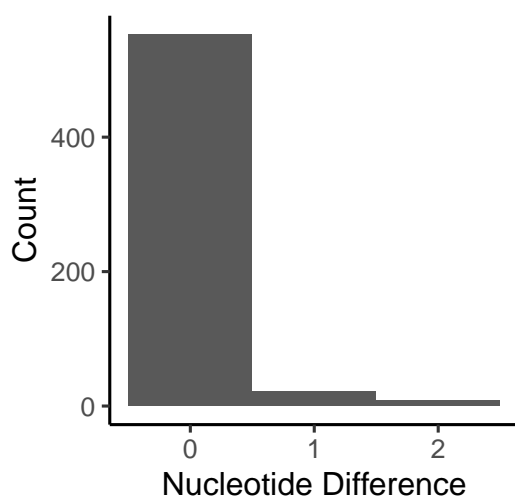
IGHV3-20*01_02

180 sequences assigned
171 (95%) exact matches, in which:
168 unique CDR3
6 unique J



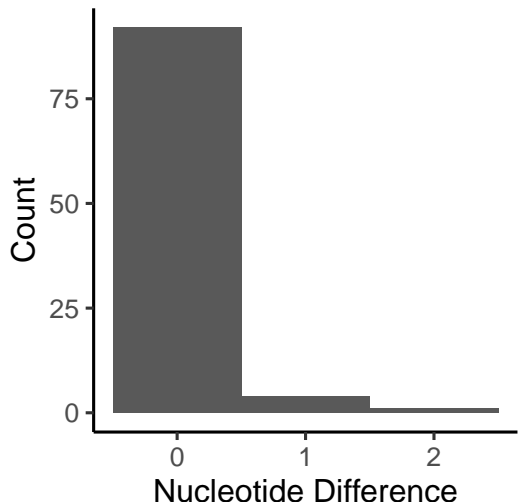
IGHV3-11*01

582 sequences assigned
553 (95%) exact matches, in which:
548 unique CDR3
7 unique J



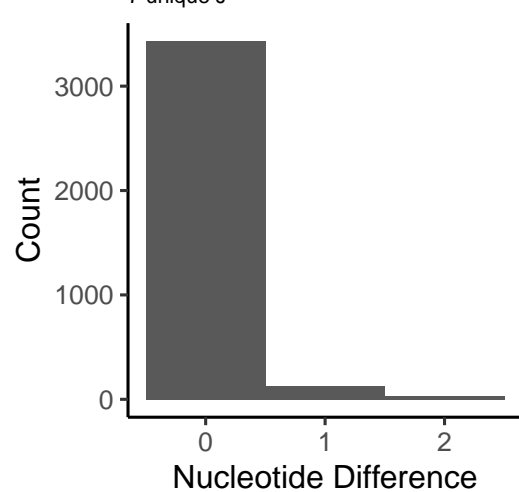
IGHV3-13*05

97 sequences assigned
92 (94.8%) exact matches, in which:
91 unique CDR3
5 unique J



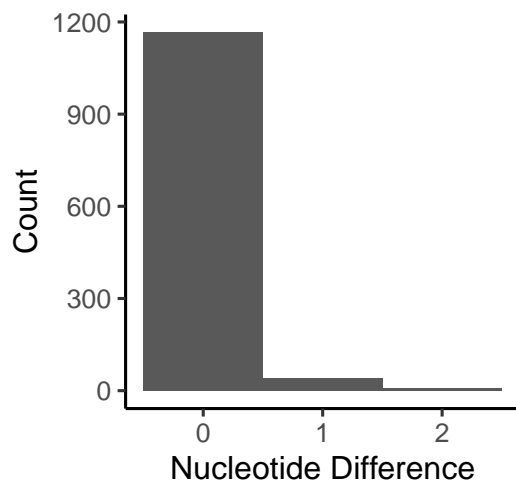
IGHV3-21*01_02

3587 sequences assigned
3432 (95.7%) exact matches, in which:
3402 unique CDR3
7 unique J



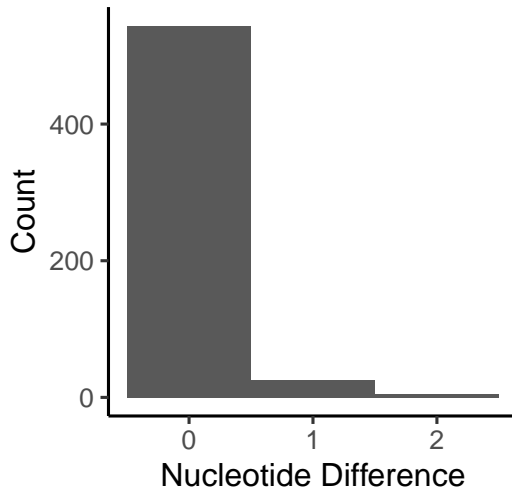
IGHV3-30-3*01

1216 sequences assigned
1166 (95.9%) exact matches, in which:
1162 unique CDR3
7 unique J



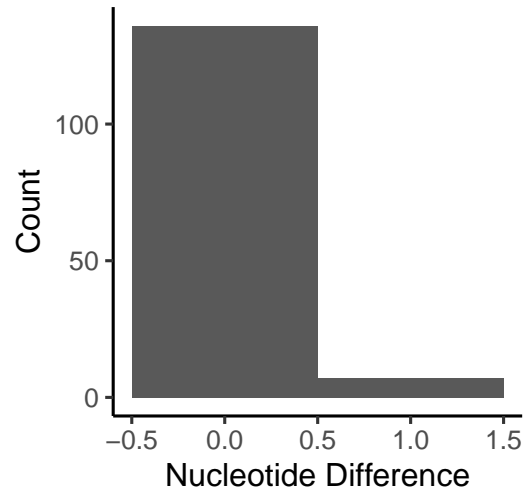
IGHV3-43*02

574 sequences assigned
544 (94.8%) exact matches, in which:
535 unique CDR3
6 unique J



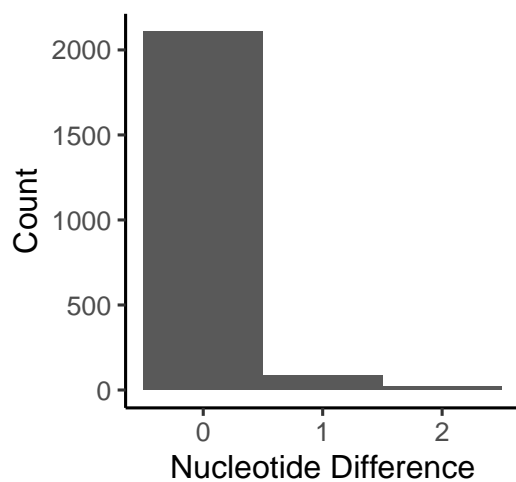
IGHV3-49*04

143 sequences assigned
136 (95.1%) exact matches, in which:
136 unique CDR3
5 unique J



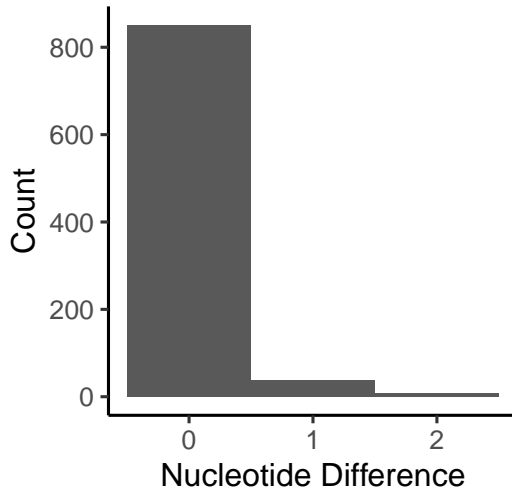
IGHV3-33*01

2212 sequences assigned
2107 (95.3%) exact matches, in which:
2083 unique CDR3
7 unique J



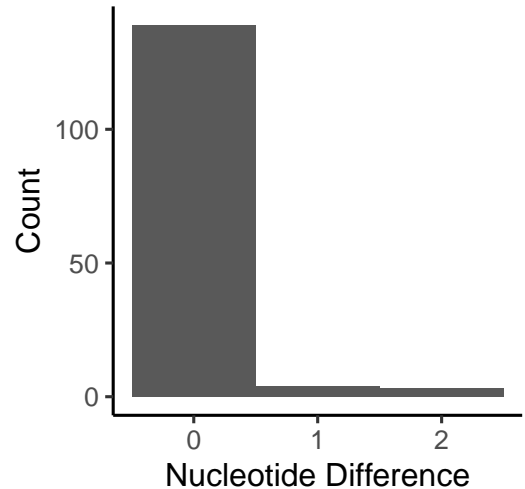
IGHV3-48*01

897 sequences assigned
851 (94.9%) exact matches, in which:
840 unique CDR3
7 unique J



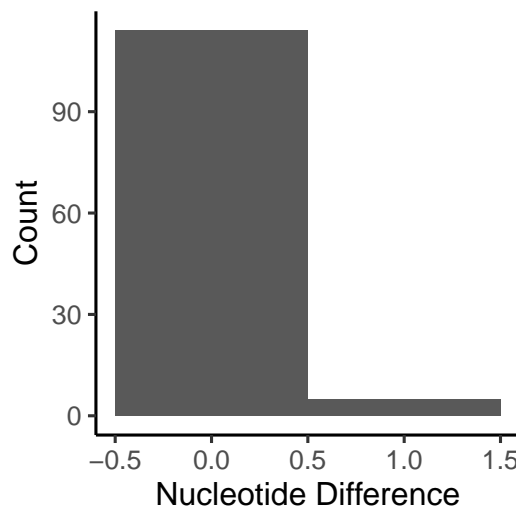
IGHV3-49*03_05

146 sequences assigned
139 (95.2%) exact matches, in which:
138 unique CDR3
4 unique J



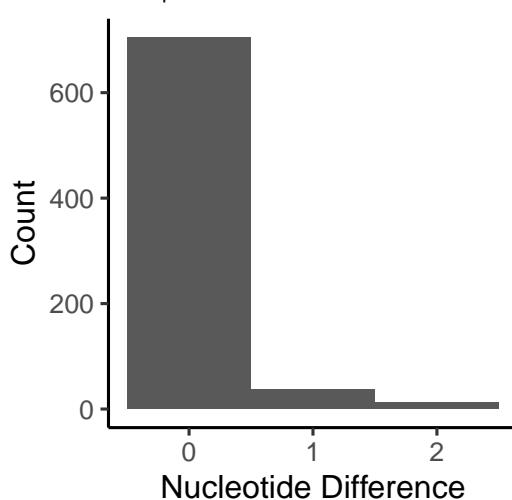
IGHV3-43*01

119 sequences assigned
114 (95.8%) exact matches, in which:
112 unique CDR3
5 unique J



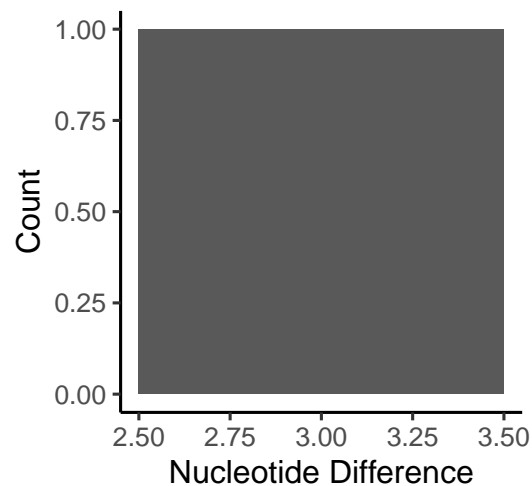
IGHV3-48*03

754 sequences assigned
705 (93.5%) exact matches, in which:
699 unique CDR3
7 unique J



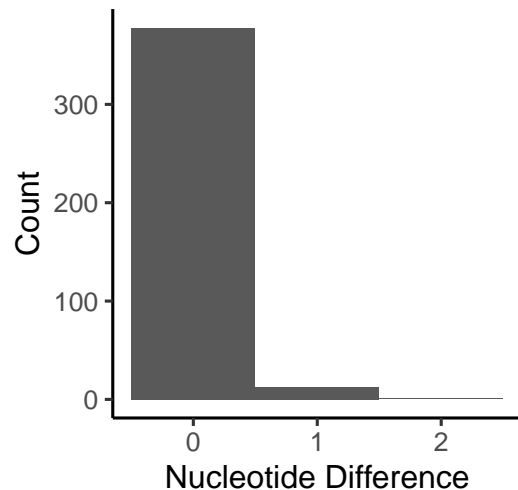
IGHV3-52*01_03

1 sequences assigned
No exact matches.



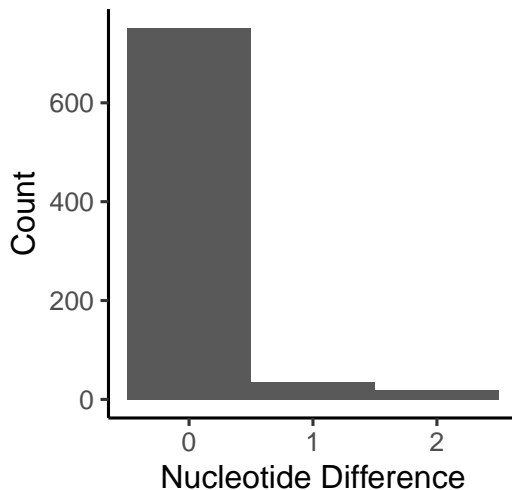
IGHV3-53*04

392 sequences assigned
378 (96.4%) exact matches, in which:
375 unique CDR3
7 unique J



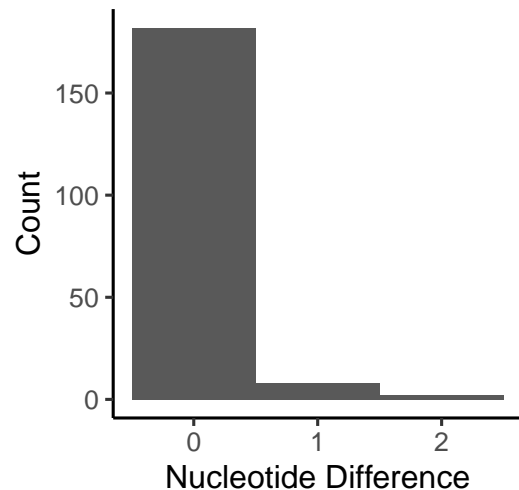
IGHV3-66*01

806 sequences assigned
752 (93.3%) exact matches, in which:
743 unique CDR3
7 unique J



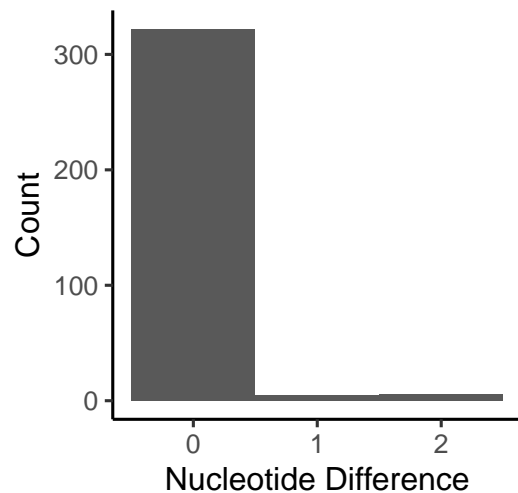
IGHV3-73*01_02

192 sequences assigned
182 (94.8%) exact matches, in which:
181 unique CDR3
6 unique J



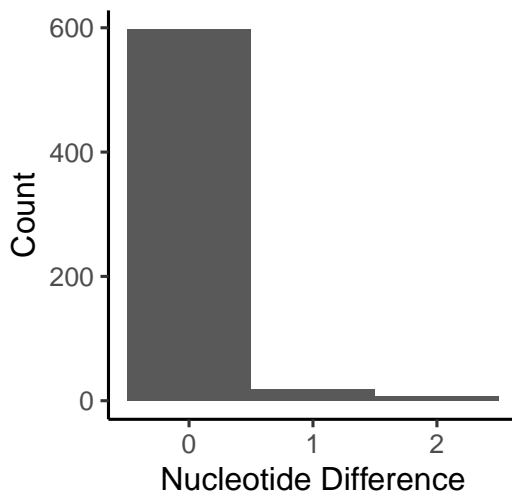
IGHV3-53*01_02

333 sequences assigned
322 (96.7%) exact matches, in which:
319 unique CDR3
6 unique J



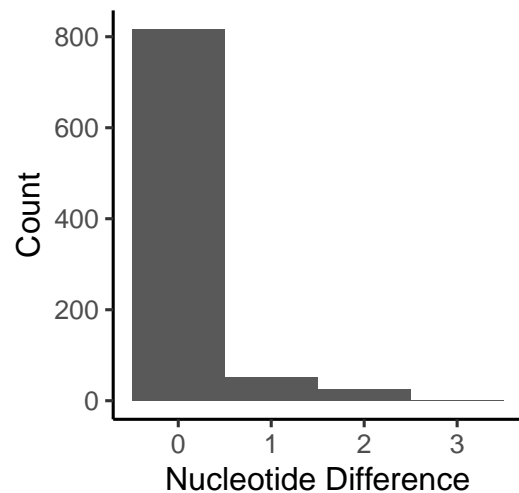
IGHV3-66*02

624 sequences assigned
598 (95.8%) exact matches, in which:
592 unique CDR3
6 unique J



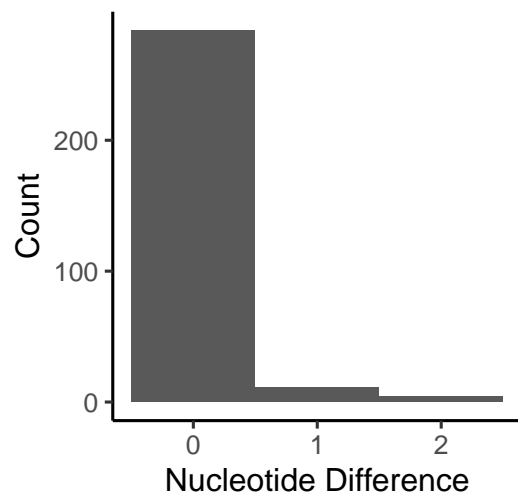
IGHV3-74*01_02

894 sequences assigned
817 (91.4%) exact matches, in which:
801 unique CDR3
7 unique J



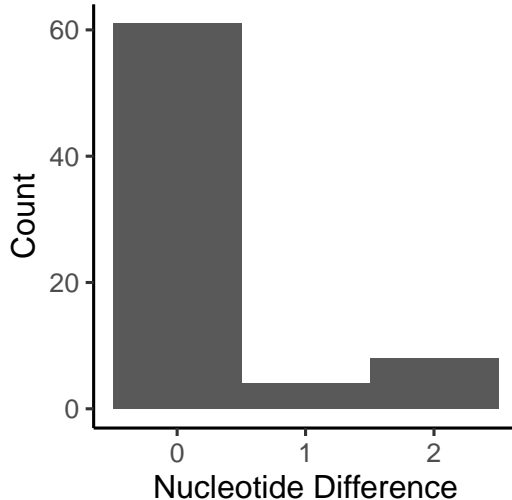
IGHV3-64*01

299 sequences assigned
284 (95%) exact matches, in which:
282 unique CDR3
7 unique J



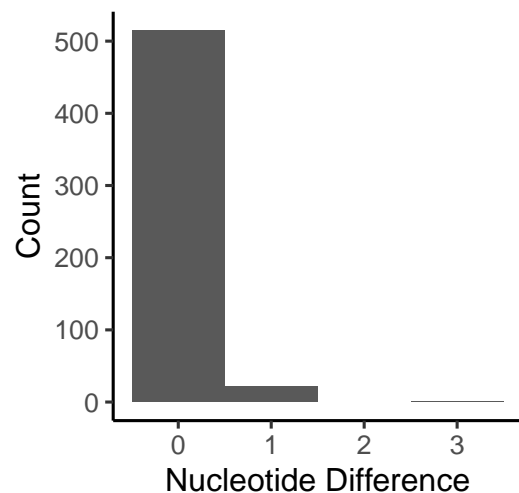
IGHV3-72*01

73 sequences assigned
61 (83.6%) exact matches, in which:
60 unique CDR3
7 unique J



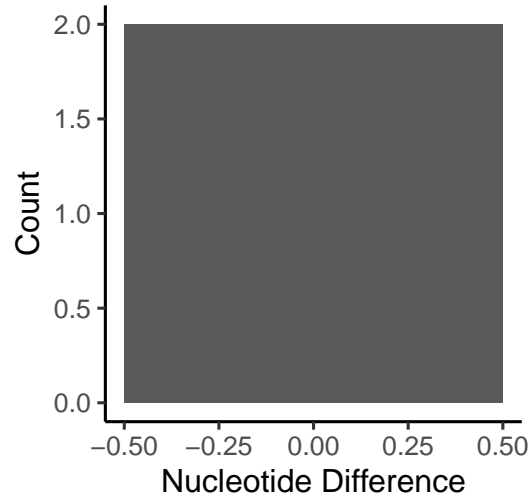
IGHV3-64D*09

538 sequences assigned
515 (95.7%) exact matches, in which:
513 unique CDR3
6 unique J



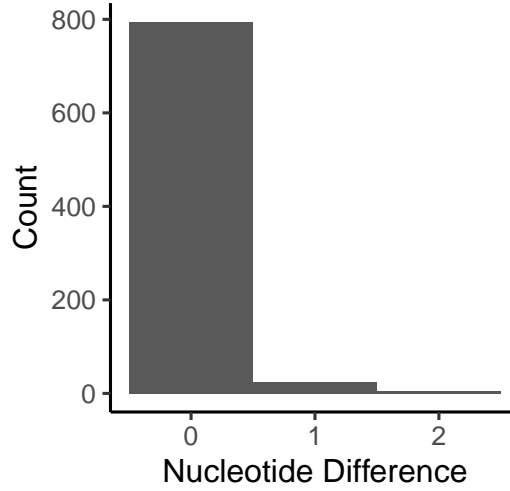
IGHV4-28*03

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



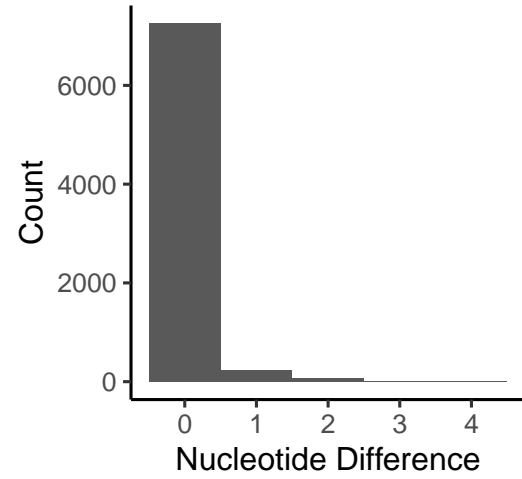
IGHV4-30-2*01

825 sequences assigned
795 (96.4%) exact matches, in which:
777 unique CDR3
6 unique J



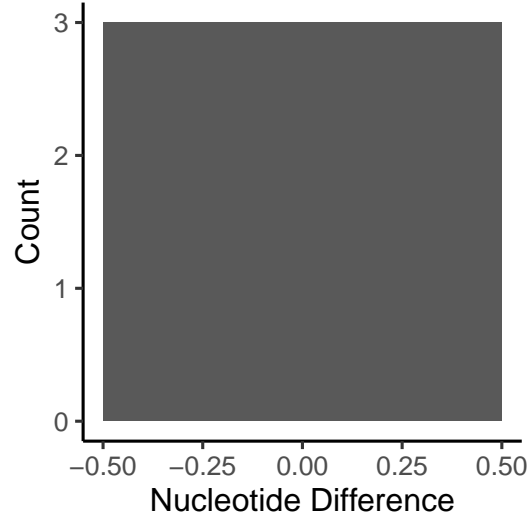
IGHV4-39*01_05

7559 sequences assigned
7255 (96%) exact matches, in which:
7178 unique CDR3
7 unique J



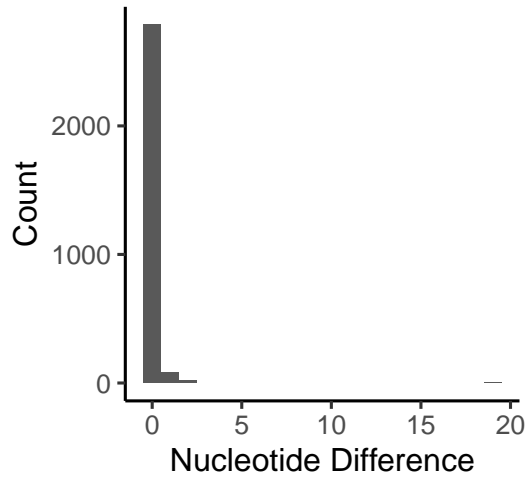
IGHV4-28*01_07

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



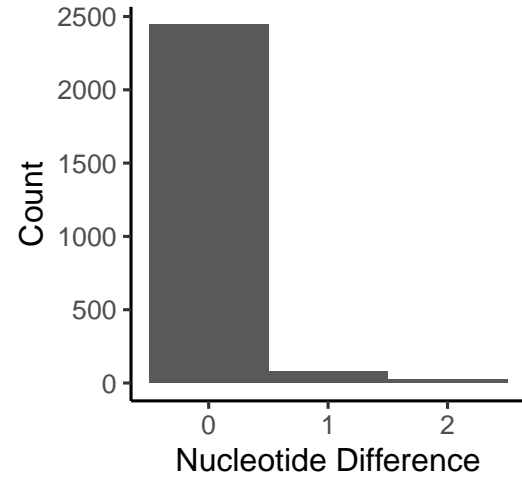
IGHV4-31*03_04

2887 sequences assigned
2787 (96.5%) exact matches, in which:
2775 unique CDR3
7 unique J



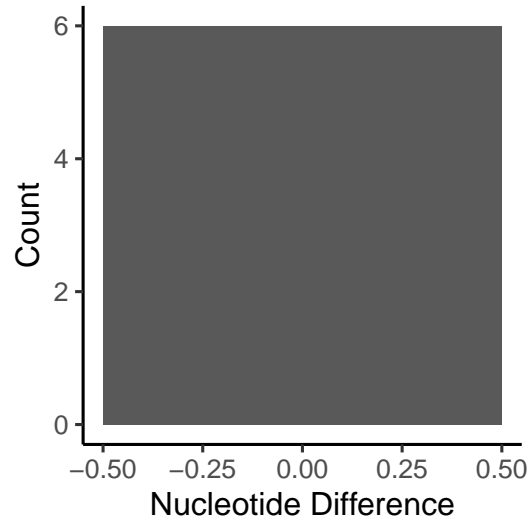
IGHV4-59*08

2549 sequences assigned
2444 (95.9%) exact matches, in which:
2424 unique CDR3
7 unique J



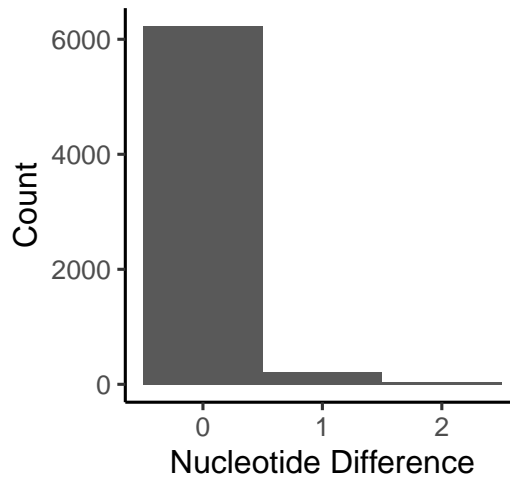
IGHV4-28*02_05

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



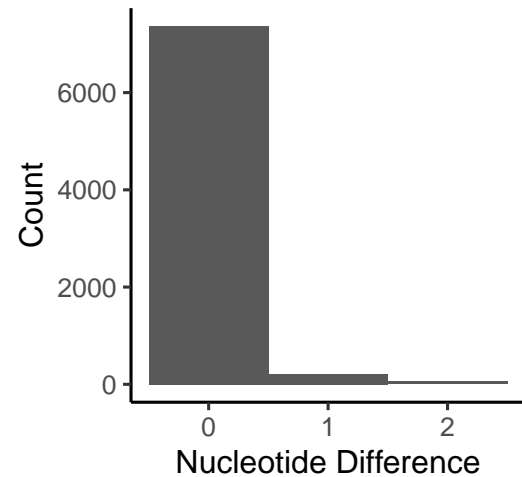
IGHV4-34*01_02

6493 sequences assigned
6230 (95.9%) exact matches, in which:
6153 unique CDR3
7 unique J



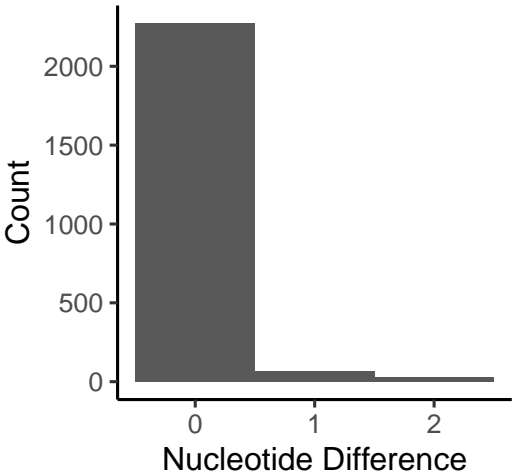
IGHV4-59*01_07

7632 sequences assigned
7369 (96.6%) exact matches, in which:
7295 unique CDR3
7 unique J



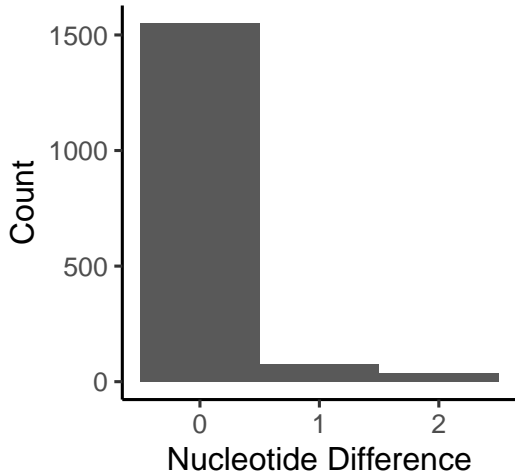
IGHV4-61*02

2366 sequences assigned
2272 (96%) exact matches, in which:
2262 unique CDR3
7 unique J



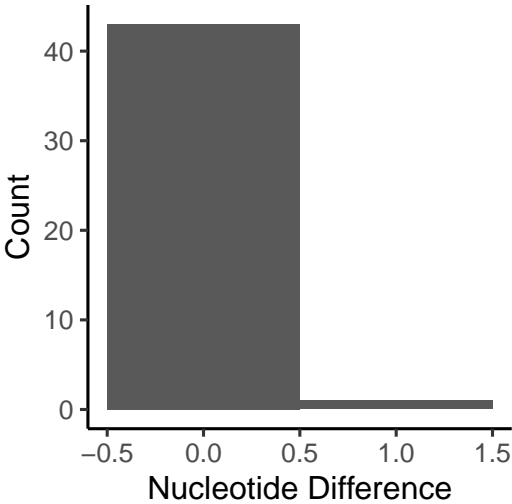
IGHV6-1*01_02

1663 sequences assigned
1550 (93.2%) exact matches, in which:
1545 unique CDR3
7 unique J



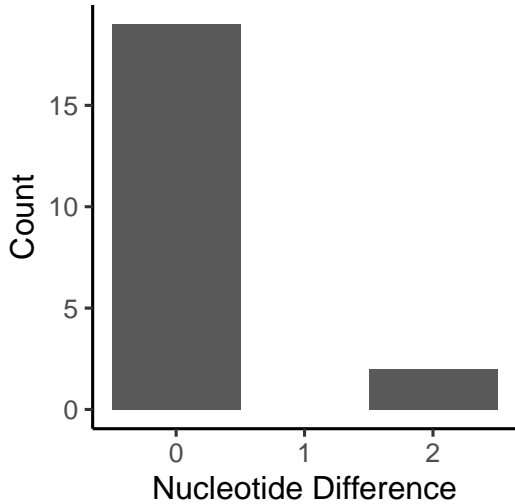
IGHV5-10-1*01_03

44 sequences assigned
43 (97.7%) exact matches, in which:
43 unique CDR3
4 unique J



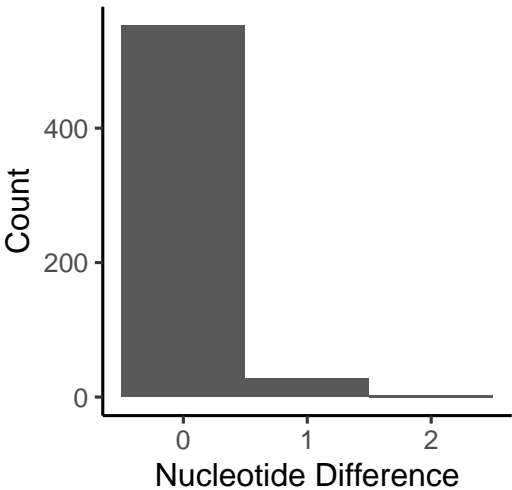
IGHV7-4-1*01

21 sequences assigned
19 (90.5%) exact matches, in which:
19 unique CDR3
5 unique J

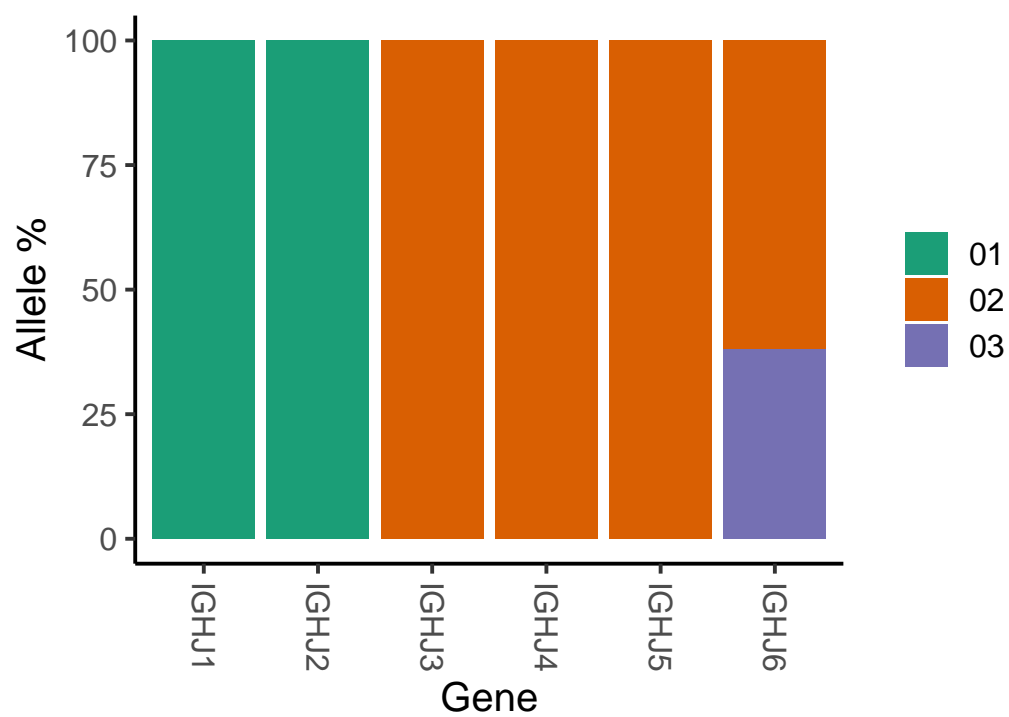


IGHV5-51*01_03

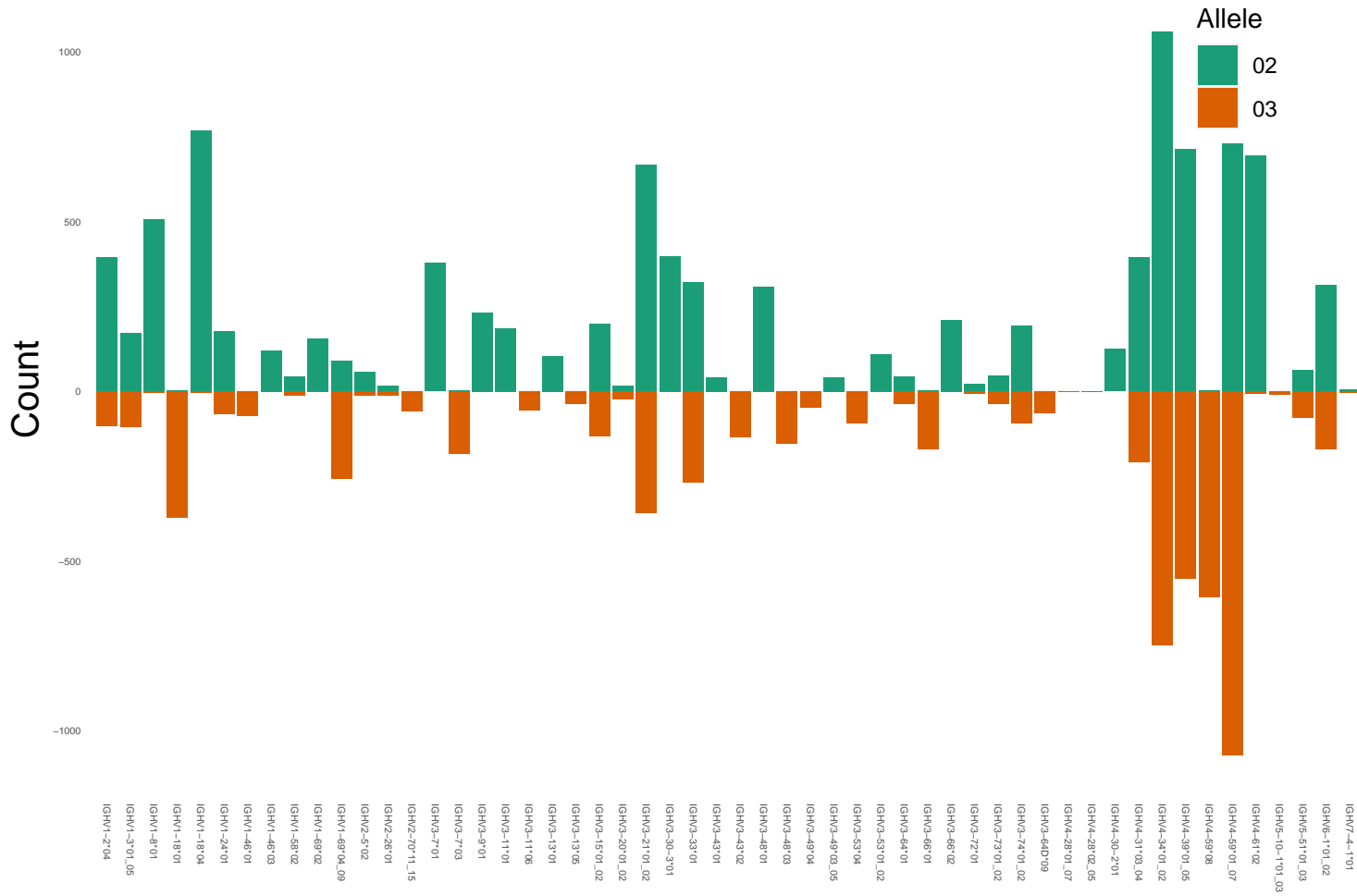
584 sequences assigned
553 (94.7%) exact matches, in which:
553 unique CDR3
7 unique J



Allele Usage



Sequence Count byIGHJ6 allele usage



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.

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

Warning - no inferred sequences found.

Warning - no inferred sequences found.

Novel sequence(s)IGHV4-39*02_C258GIGHV5-51*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.

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_G88AIGHV5-51*07_A128G are not listed in the genotype and will be ignored.

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)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_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)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.

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.