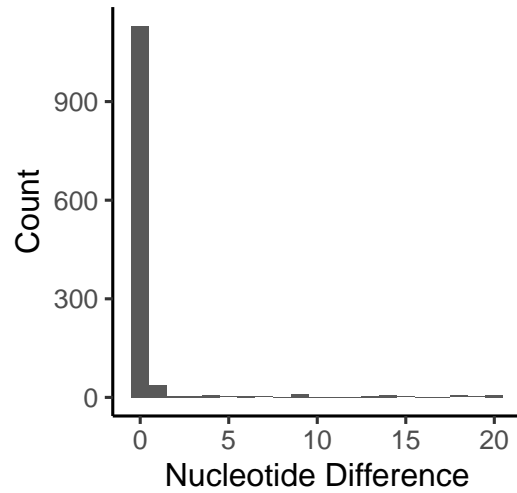


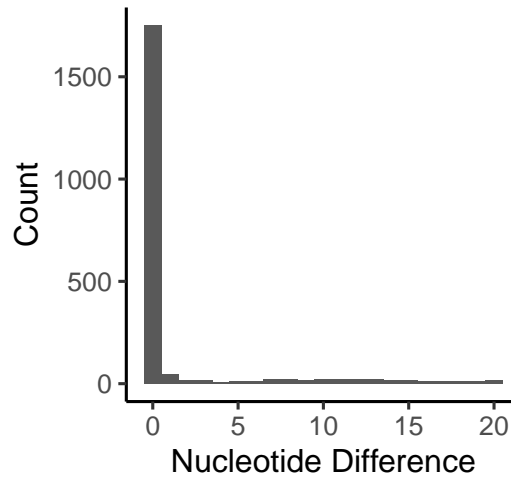
IGHV1-2*04

1269 sequences assigned
1131 (89.1%) exact matches, in which:
1129 unique CDR3
7 unique J



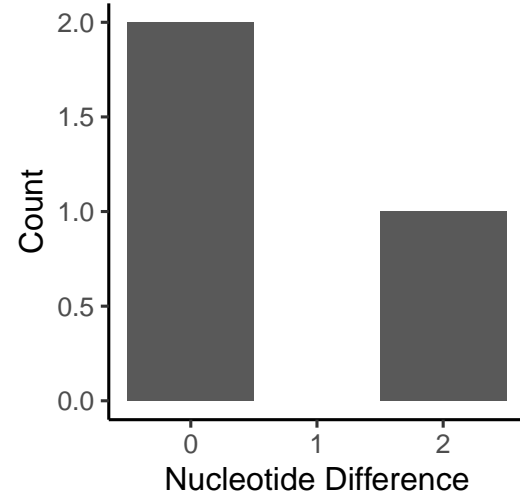
IGHV1-18*01

2244 sequences assigned
1751 (78%) exact matches, in which:
1751 unique CDR3
7 unique J



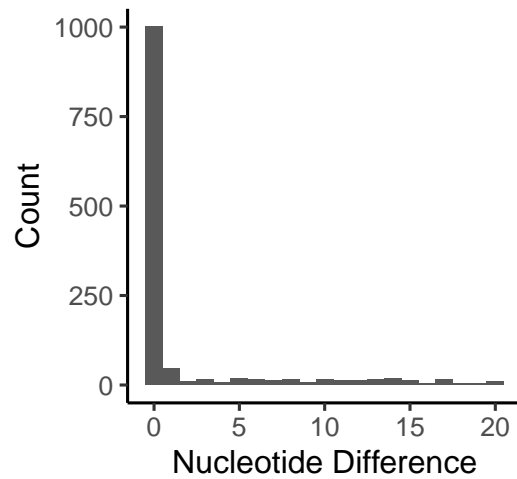
IGHV1-45*02

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



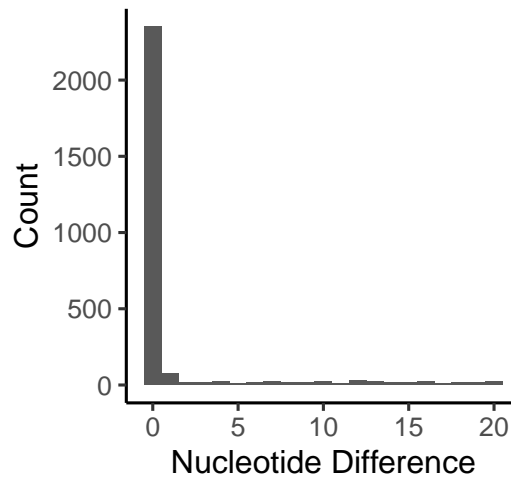
IGHV1-3*01_05

1344 sequences assigned
1001 (74.5%) exact matches, in which:
999 unique CDR3
7 unique J



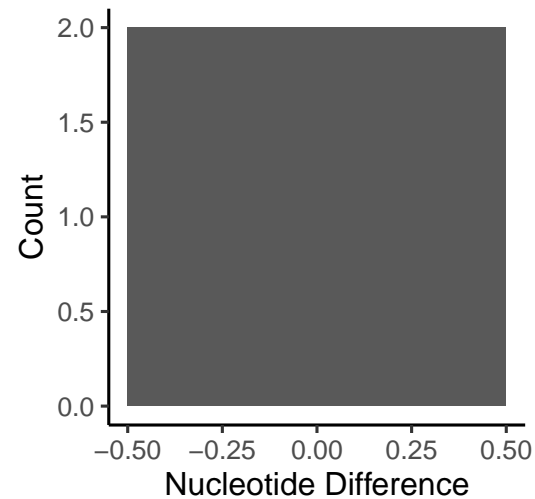
IGHV1-18*04

2900 sequences assigned
2350 (81%) exact matches, in which:
2345 unique CDR3
7 unique J



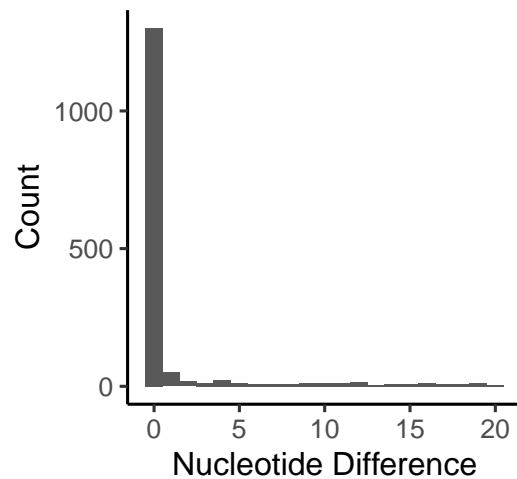
IGHV1-45*03

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



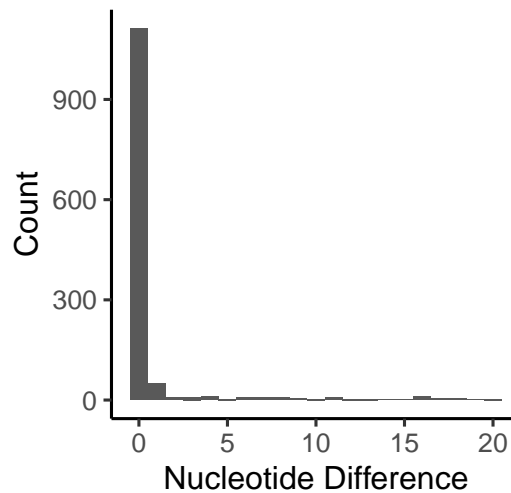
IGHV1-8*01

1624 sequences assigned
1301 (80.1%) exact matches, in which:
1299 unique CDR3
7 unique J



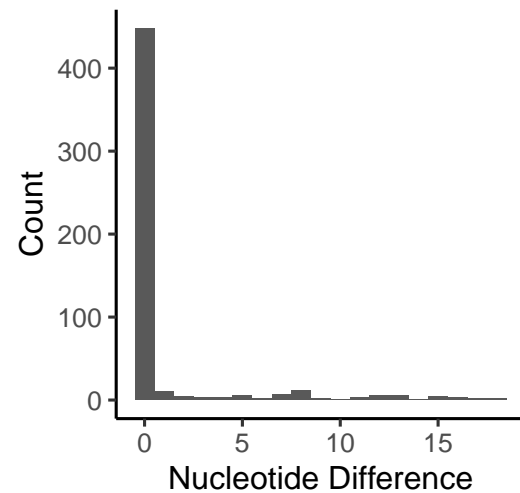
IGHV1-24*01

1308 sequences assigned
1113 (85.1%) exact matches, in which:
1105 unique CDR3
7 unique J



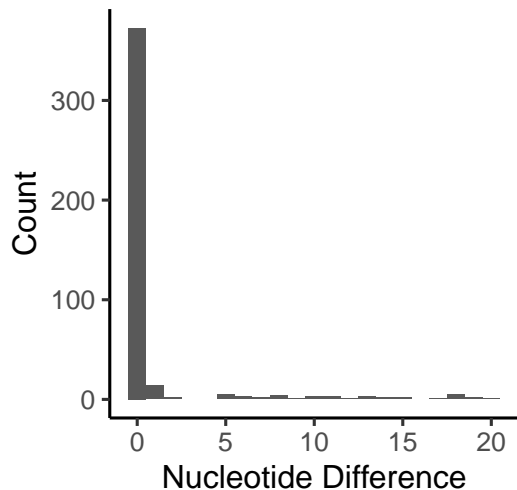
IGHV1-46*01

550 sequences assigned
448 (81.5%) exact matches, in which:
447 unique CDR3
7 unique J



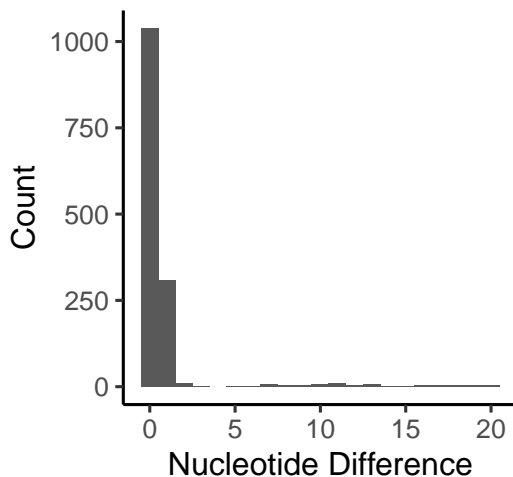
IGHV1–46*03

447 sequences assigned
373 (83.4%) exact matches, in which:
372 unique CDR3
6 unique J



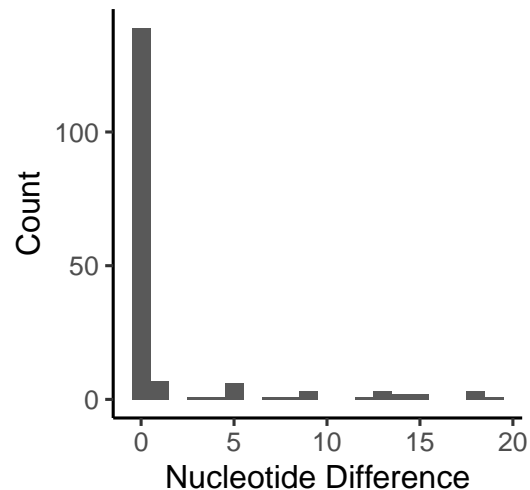
IGHV1–69*04_09

1489 sequences assigned
1038 (69.7%) exact matches, in which:
1034 unique CDR3
7 unique J



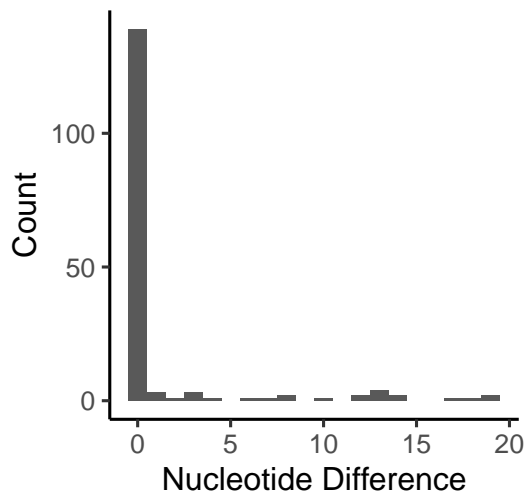
IGHV2–26*01

177 sequences assigned
139 (78.5%) exact matches, in which:
139 unique CDR3
7 unique J



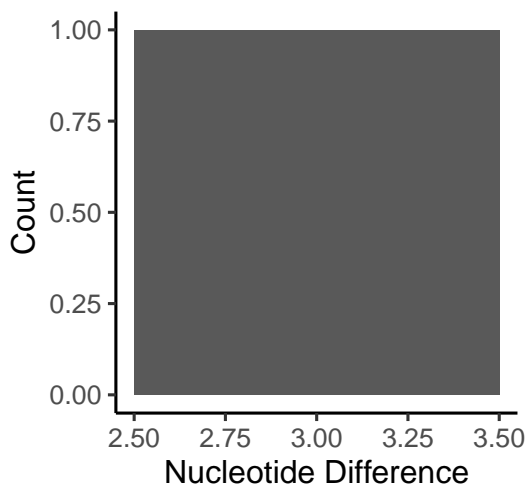
IGHV1–58*02

170 sequences assigned
139 (81.8%) exact matches, in which:
139 unique CDR3
6 unique J



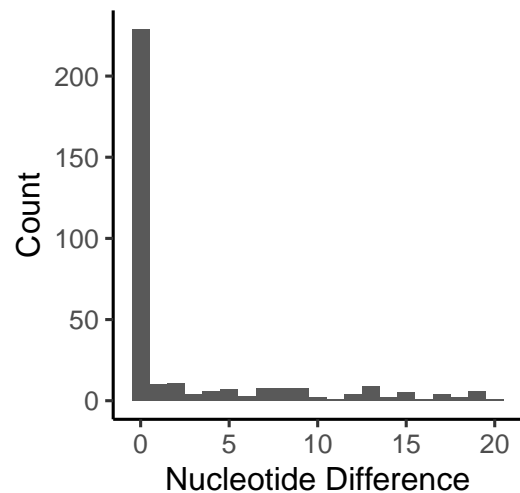
IGHV1–69D*01

1 sequences assigned
No exact matches.



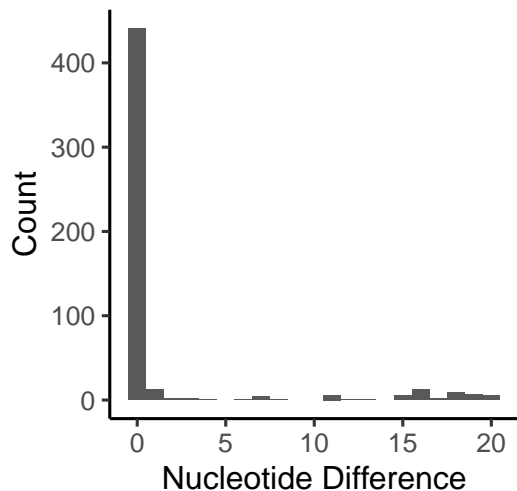
IGHV2–70*11_15

341 sequences assigned
229 (67.2%) exact matches, in which:
227 unique CDR3
6 unique J



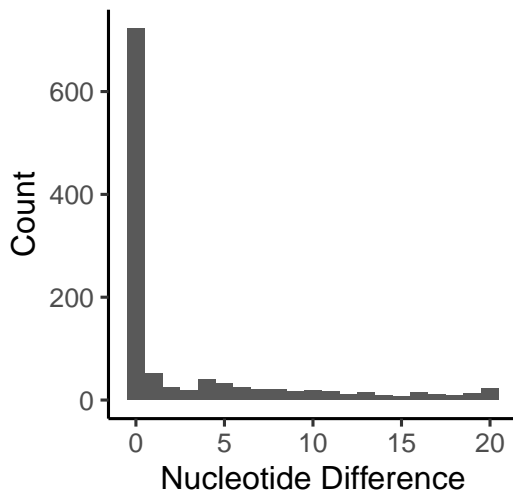
IGHV1–69*02

544 sequences assigned
441 (81.1%) exact matches, in which:
439 unique CDR3
7 unique J



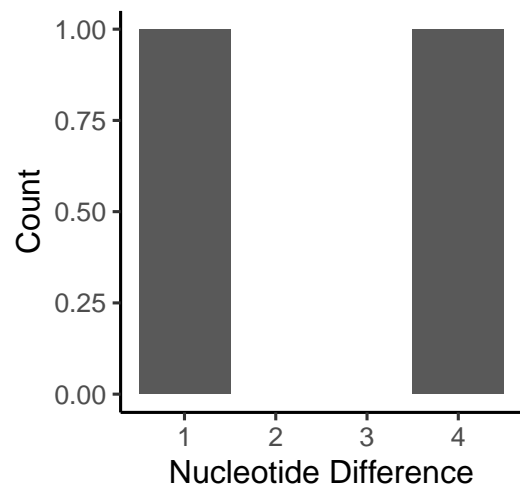
IGHV2–5*02

1194 sequences assigned
723 (60.6%) exact matches, in which:
718 unique CDR3
7 unique J



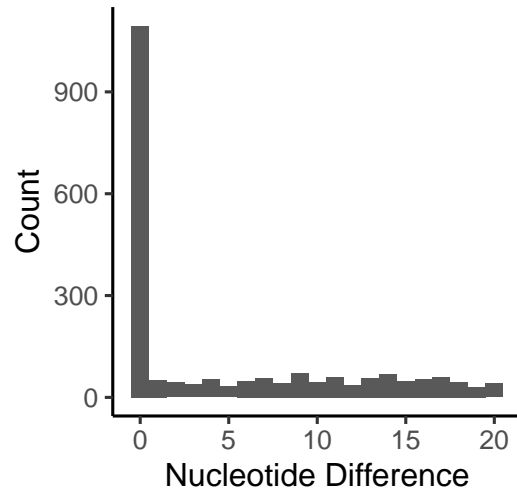
IGHV2–70D*04

2 sequences assigned
No exact matches.



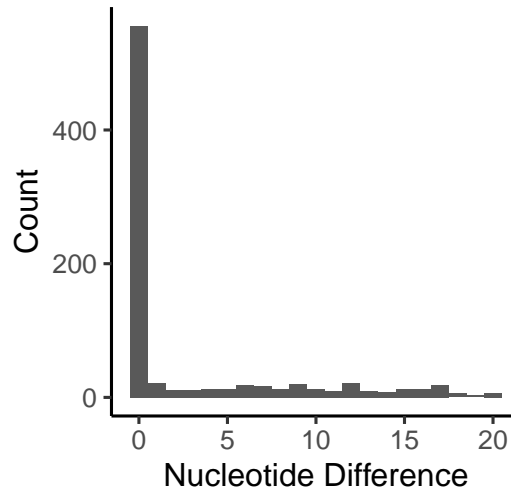
IGHV3-7*01

2401 sequences assigned
1095 (45.6%) exact matches, in which:
1078 unique CDR3
6 unique J



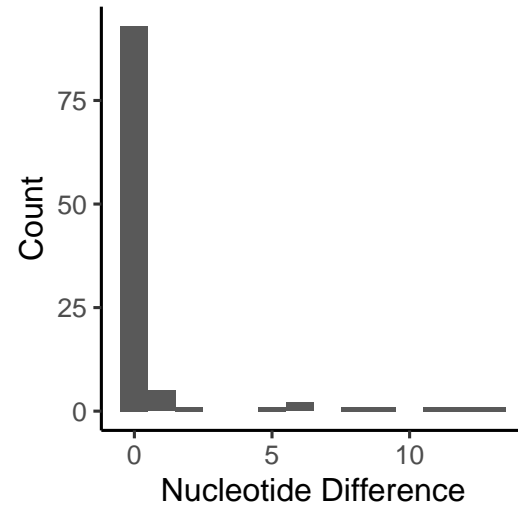
IGHV3-11*01

903 sequences assigned
556 (61.6%) exact matches, in which:
550 unique CDR3
7 unique J



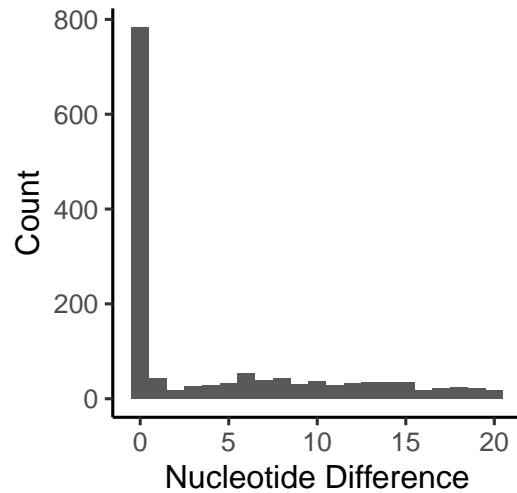
IGHV3-13*05

112 sequences assigned
93 (83%) exact matches, in which:
92 unique CDR3
5 unique J



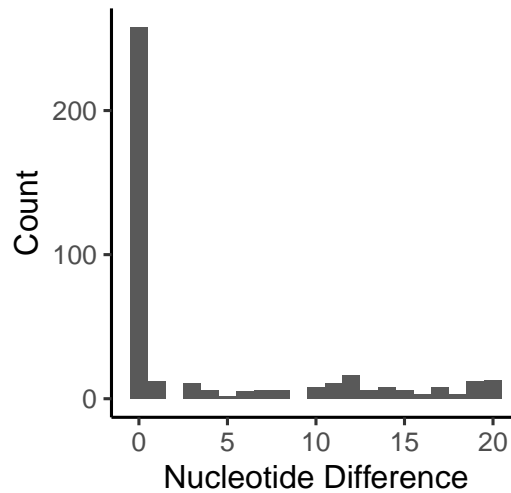
IGHV3-7*03

1609 sequences assigned
784 (48.7%) exact matches, in which:
767 unique CDR3
7 unique J



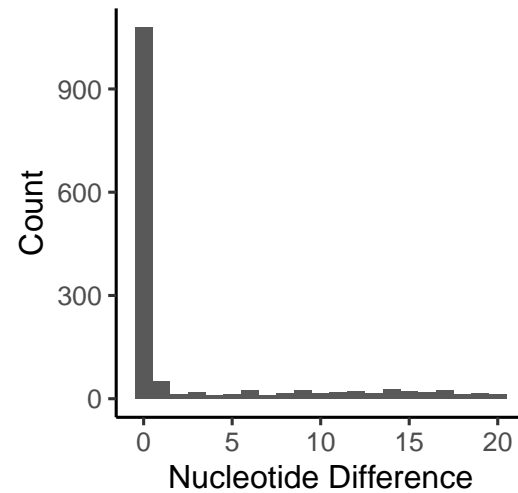
IGHV3-11*06

457 sequences assigned
258 (56.5%) exact matches, in which:
249 unique CDR3
7 unique J



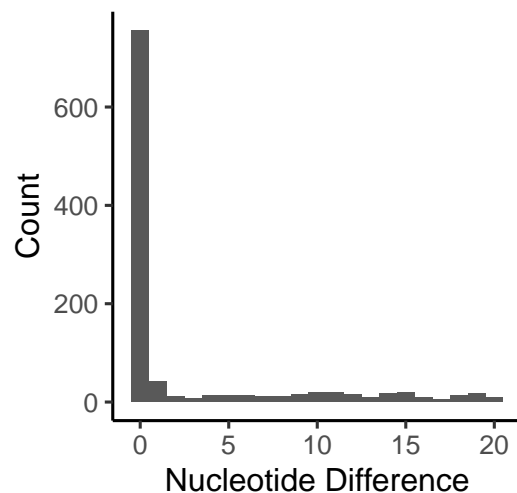
IGHV3-15*01_02

1603 sequences assigned
1080 (67.4%) exact matches, in which:
1067 unique CDR3
7 unique J



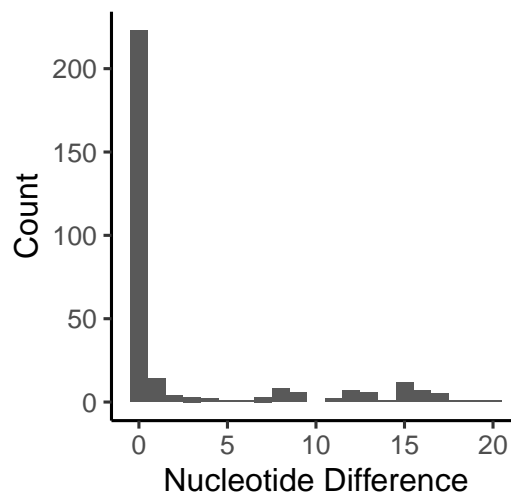
IGHV3-9*01

1157 sequences assigned
756 (65.3%) exact matches, in which:
746 unique CDR3
6 unique J



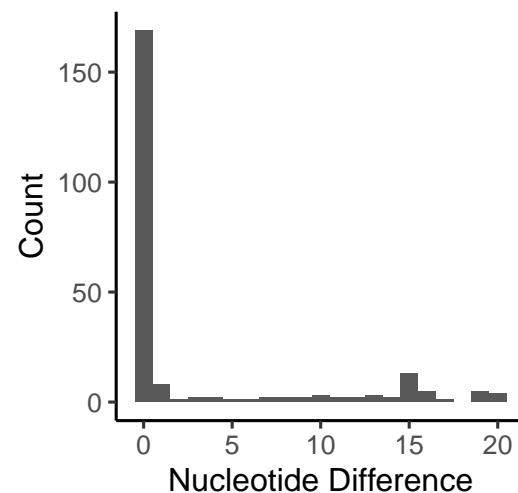
IGHV3-13*01

319 sequences assigned
223 (69.9%) exact matches, in which:
220 unique CDR3
6 unique J



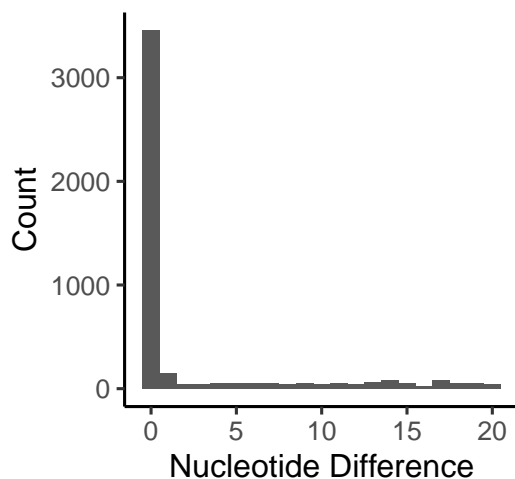
IGHV3-20*01_02

264 sequences assigned
169 (64%) exact matches, in which:
167 unique CDR3
6 unique J



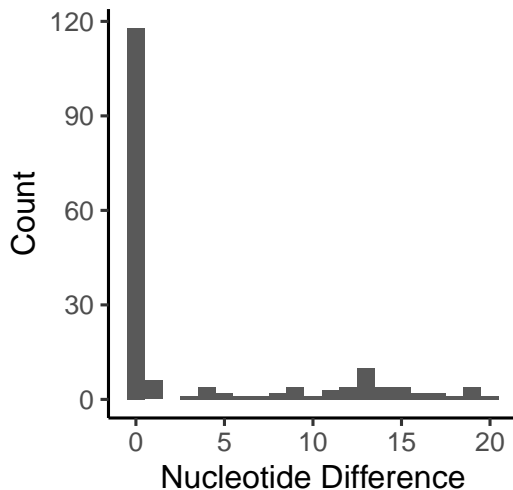
IGHV3-21*01_02

4983 sequences assigned
3456 (69.4%) exact matches, in which:
3407 unique CDR3
7 unique J



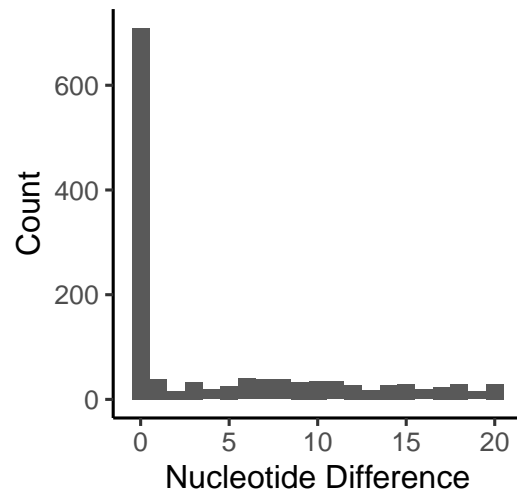
IGHV3-43*01

186 sequences assigned
118 (63.4%) exact matches, in which:
114 unique CDR3
5 unique J



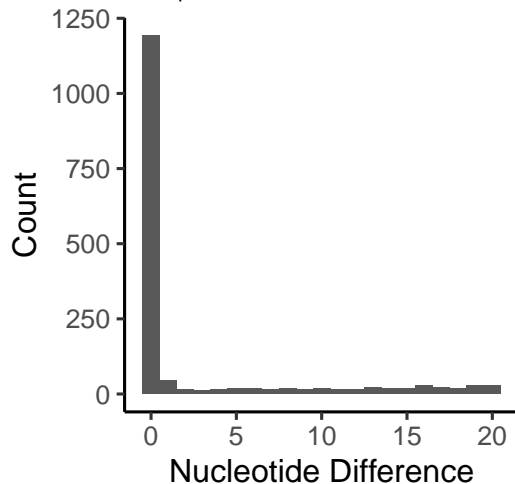
IGHV3-48*03

1441 sequences assigned
710 (49.3%) exact matches, in which:
701 unique CDR3
7 unique J



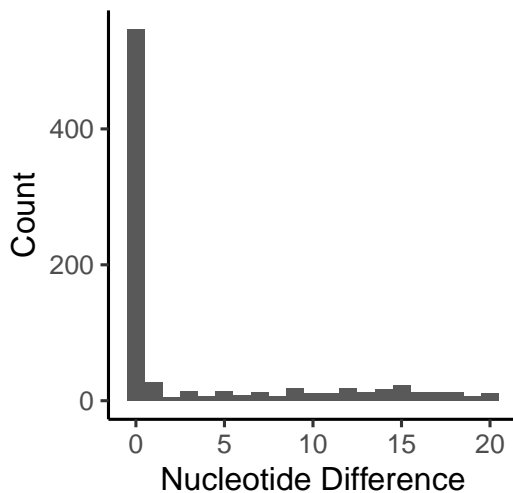
IGHV3-30-3*01

1860 sequences assigned
1192 (64.1%) exact matches, in which:
1175 unique CDR3
7 unique J



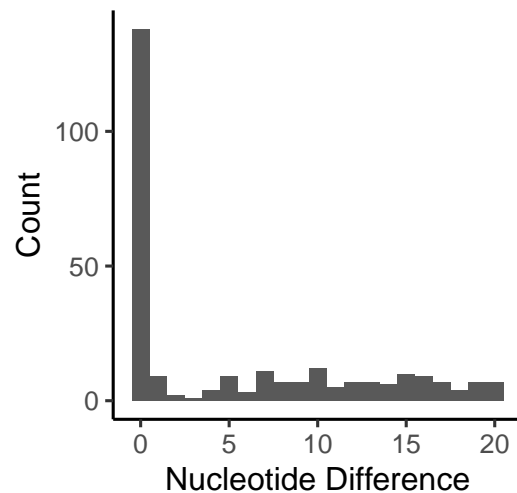
IGHV3-43*02

875 sequences assigned
547 (62.5%) exact matches, in which:
536 unique CDR3
6 unique J



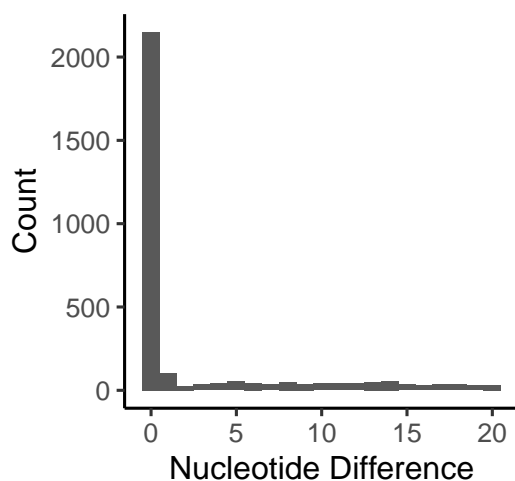
IGHV3-49*04

366 sequences assigned
138 (37.7%) exact matches, in which:
136 unique CDR3
5 unique J



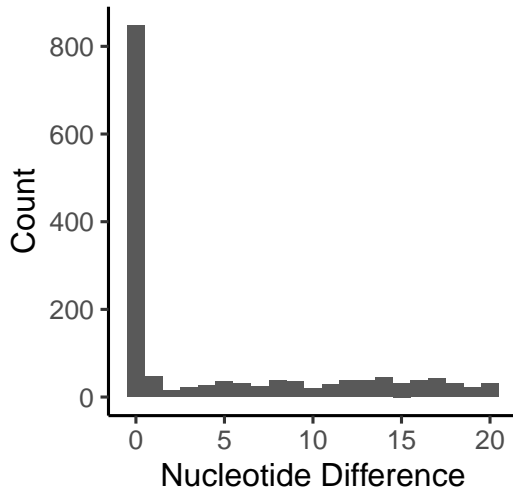
IGHV3-33*01

3203 sequences assigned
2150 (67.1%) exact matches, in which:
2102 unique CDR3
7 unique J



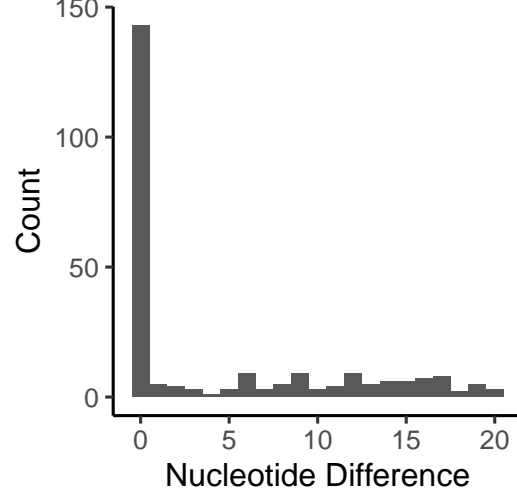
IGHV3-48*01

1649 sequences assigned
848 (51.4%) exact matches, in which:
835 unique CDR3
7 unique J



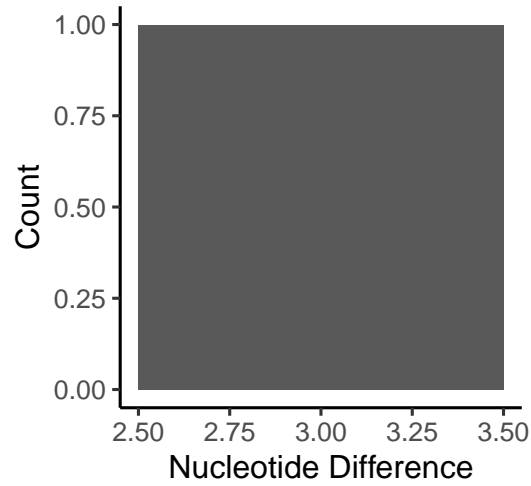
IGHV3-49*03_05

270 sequences assigned
143 (53%) exact matches, in which:
140 unique CDR3
4 unique J



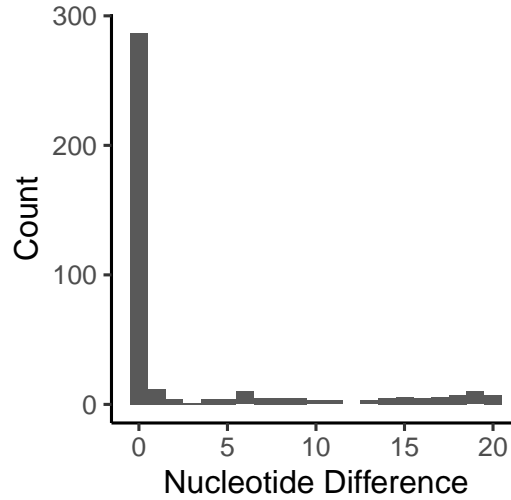
IGHV3-52*01_03

1 sequences assigned
No exact matches.



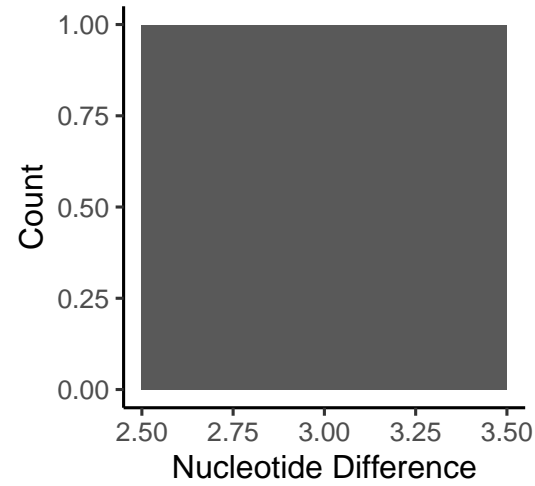
IGHV3-64*01

442 sequences assigned
287 (64.9%) exact matches, in which:
283 unique CDR3
7 unique J



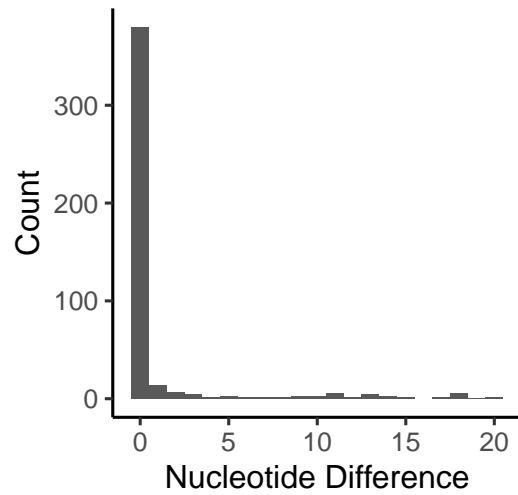
IGHV3-69-1*01

5 sequences assigned
No exact matches.



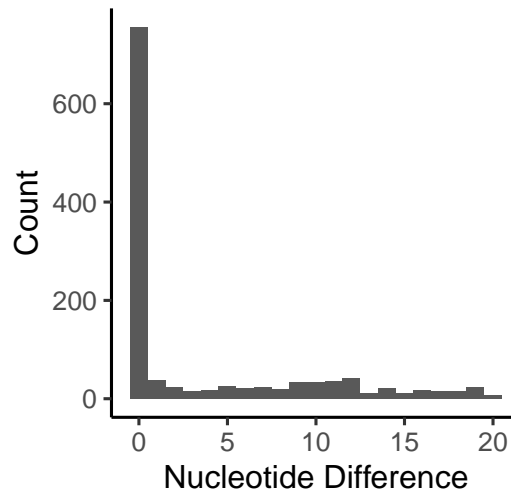
IGHV3-53*04

467 sequences assigned
380 (81.4%) exact matches, in which:
377 unique CDR3
7 unique J



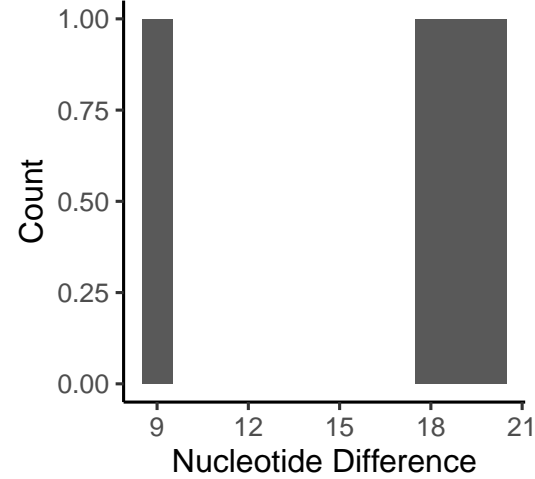
IGHV3-66*01

1284 sequences assigned
756 (58.9%) exact matches, in which:
741 unique CDR3
7 unique J



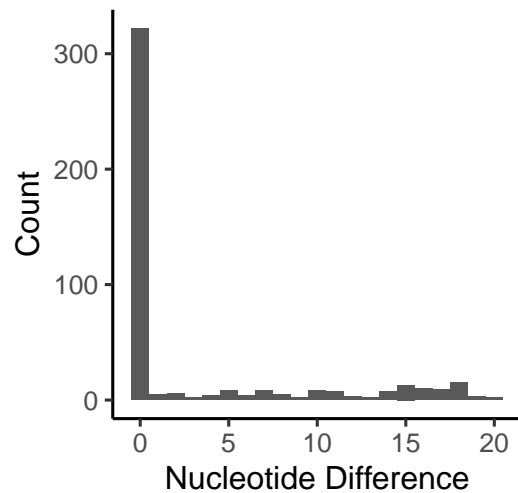
IGHV3-69-1*02

5 sequences assigned
No exact matches.



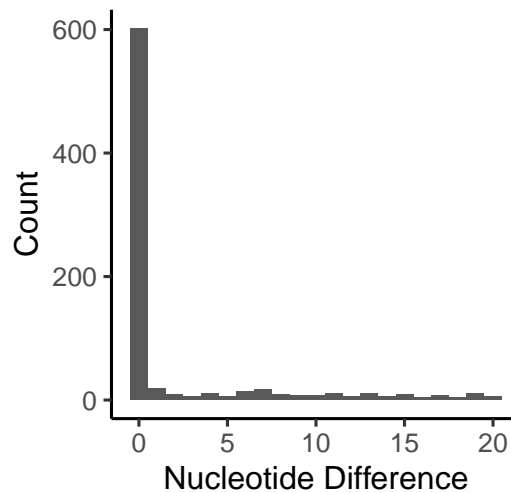
IGHV3-53*01_02

512 sequences assigned
322 (62.9%) exact matches, in which:
319 unique CDR3
6 unique J



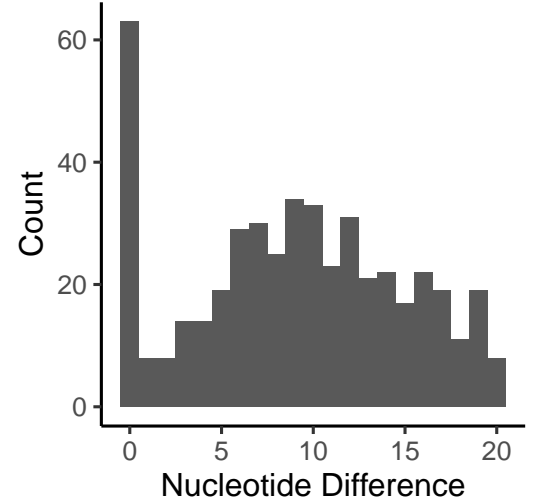
IGHV3-66*02

872 sequences assigned
602 (69%) exact matches, in which:
596 unique CDR3
7 unique J



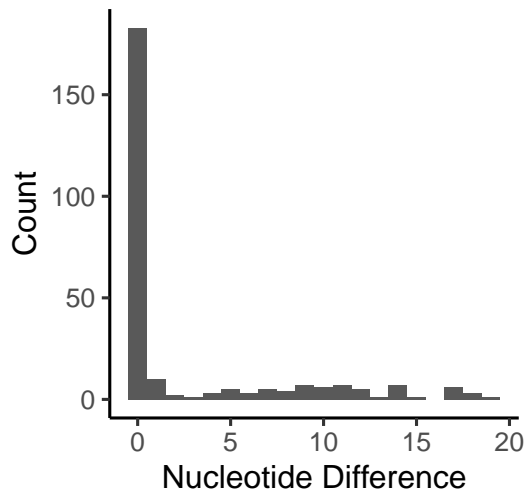
IGHV3-72*01

523 sequences assigned
63 (12%) exact matches, in which:
62 unique CDR3
7 unique J



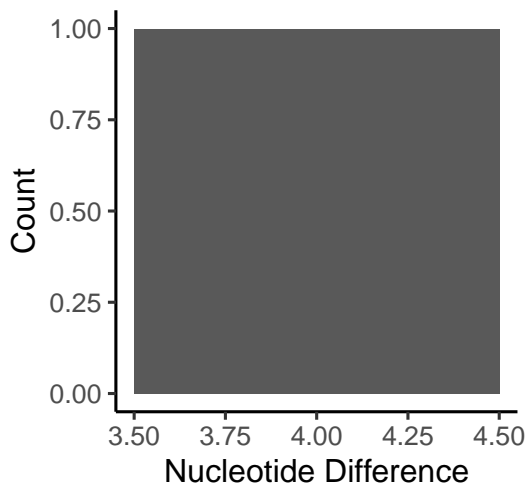
IGHV3–73*01_02

289 sequences assigned
183 (63.3%) exact matches, in which:
182 unique CDR3
6 unique J



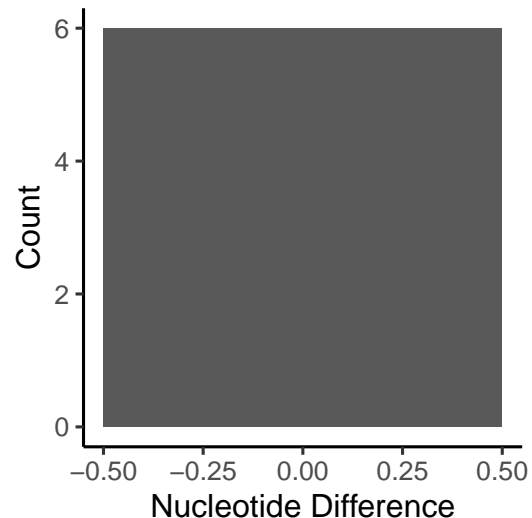
IGHV3–NL1*01

1 sequences assigned
No exact matches.



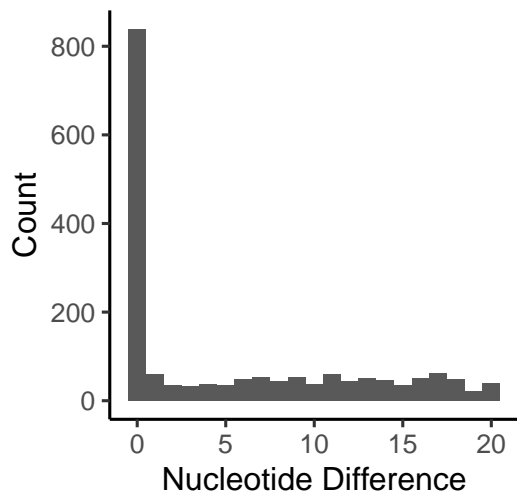
IGHV4–28*02_05

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



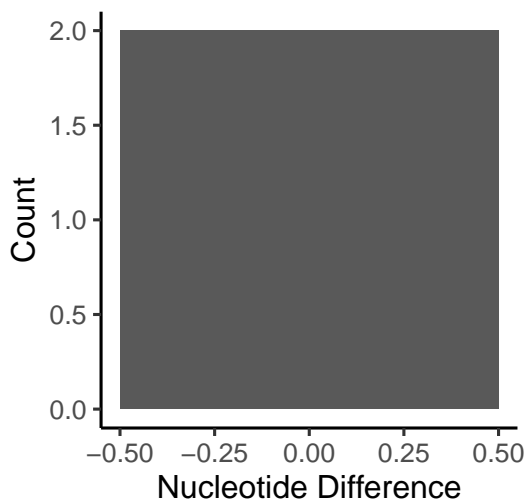
IGHV3–74*01_02

2074 sequences assigned
839 (40.5%) exact matches, in which:
810 unique CDR3
7 unique J



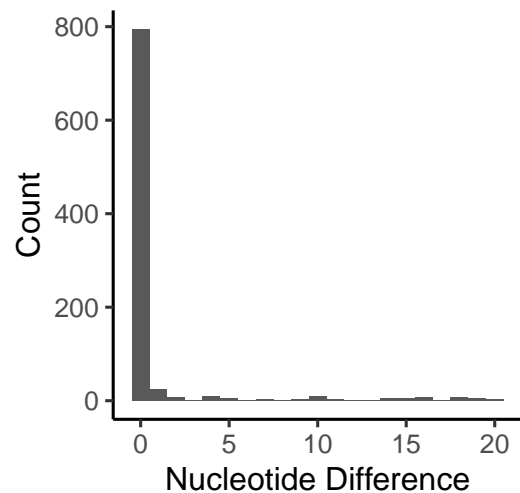
IGHV4–28*03

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



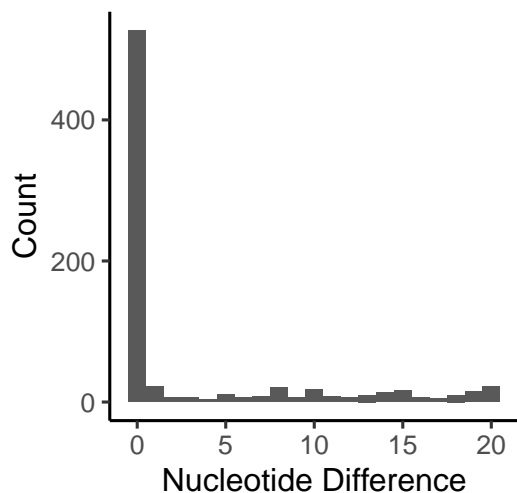
IGHV4–30–2*01

940 sequences assigned
795 (84.6%) exact matches, in which:
777 unique CDR3
6 unique J



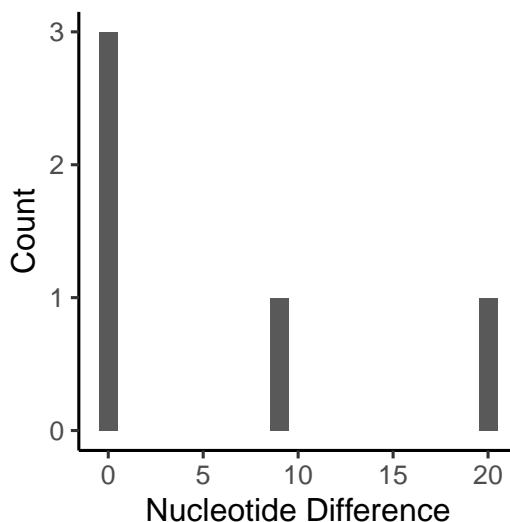
IGHV3–64D*09

884 sequences assigned
527 (59.6%) exact matches, in which:
517 unique CDR3
6 unique J



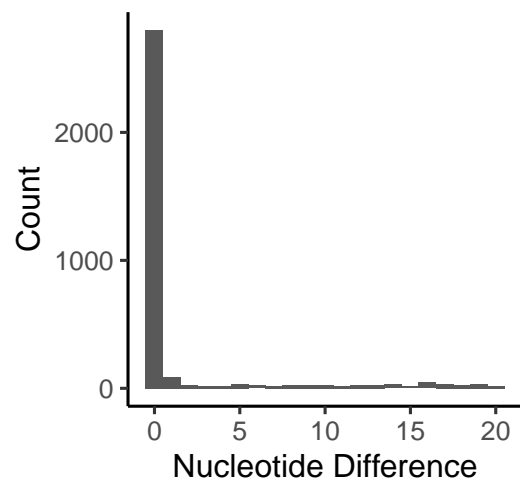
IGHV4–28*01_07

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



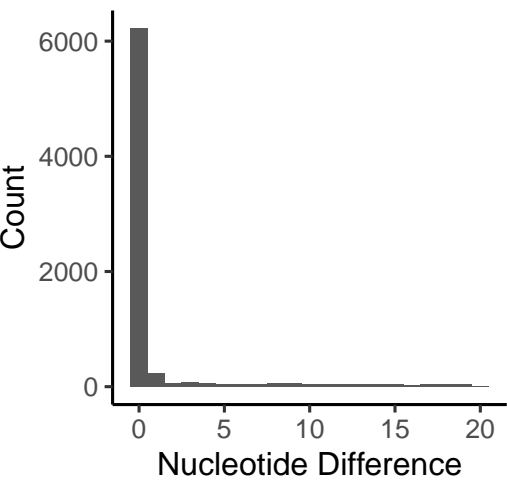
IGHV4–31*03_04

3659 sequences assigned
2800 (76.5%) exact matches, in which:
2778 unique CDR3
7 unique J



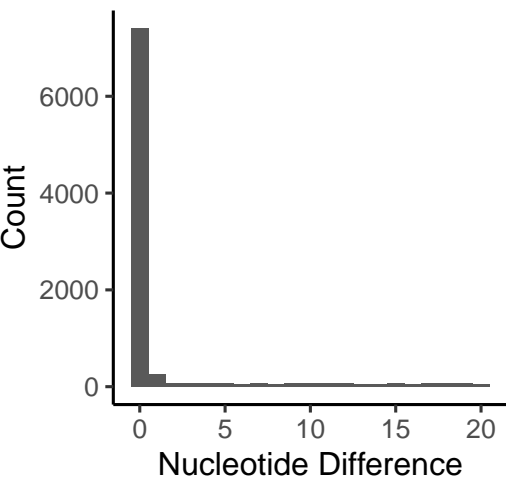
IGHV4-34*01_02

7678 sequences assigned
6221 (81%) exact matches, in which:
6132 unique CDR3
7 unique J



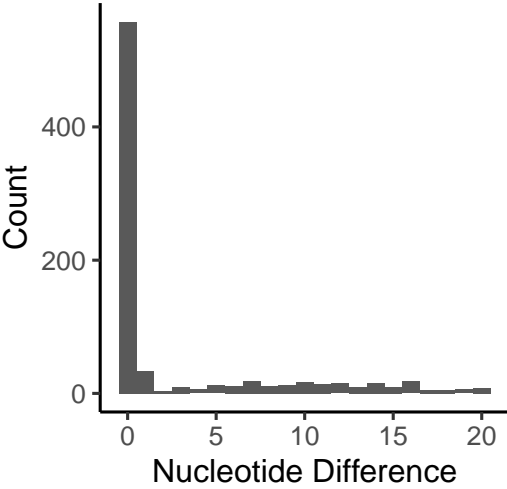
IGHV4-59*01_07

9454 sequences assigned
7402 (78.3%) exact matches, in which:
7295 unique CDR3
7 unique J



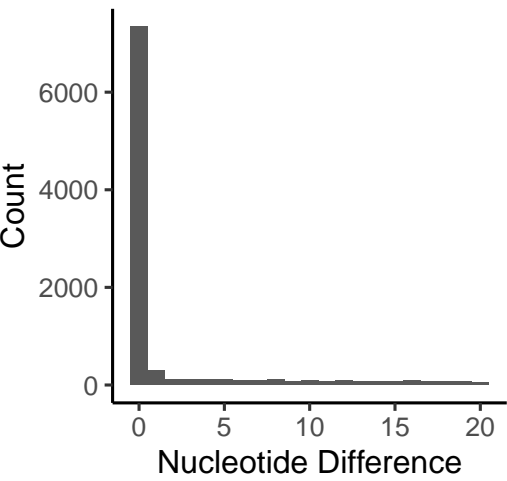
IGHV5-51*01_03

850 sequences assigned
558 (65.6%) exact matches, in which:
558 unique CDR3
7 unique J



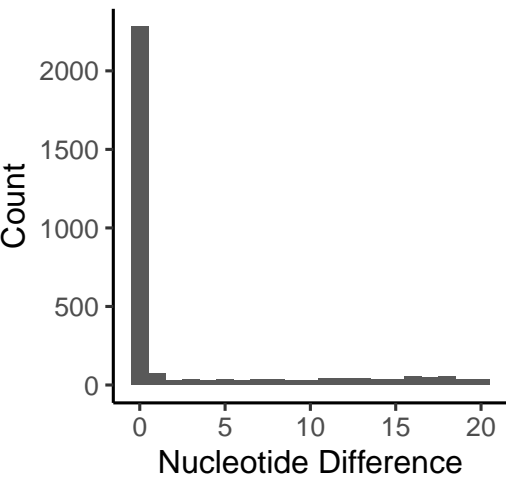
IGHV4-39*01_05

9852 sequences assigned
7341 (74.5%) exact matches, in which:
7209 unique CDR3
7 unique J



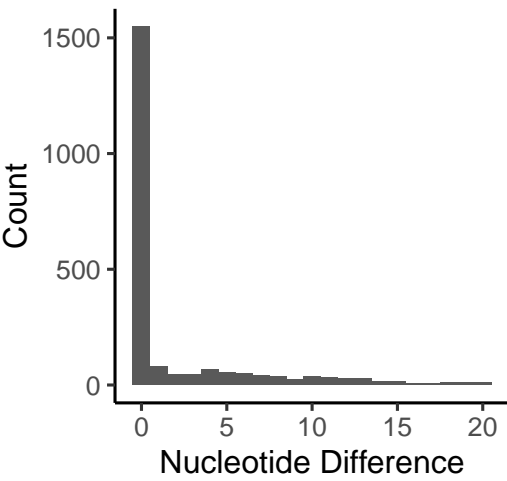
IGHV4-61*02

3416 sequences assigned
2281 (66.8%) exact matches, in which:
2263 unique CDR3
7 unique J



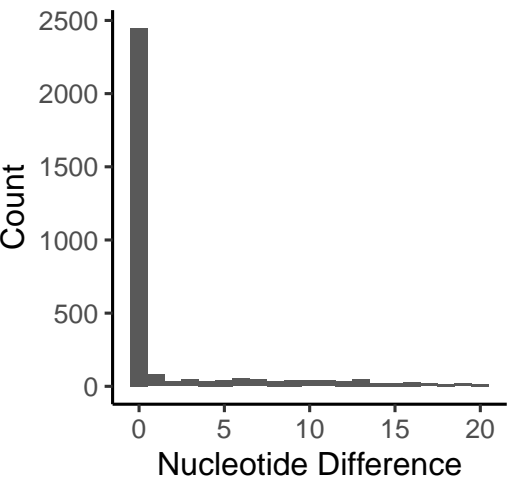
IGHV6-1*01_02

2220 sequences assigned
1548 (69.7%) exact matches, in which:
1543 unique CDR3
7 unique J



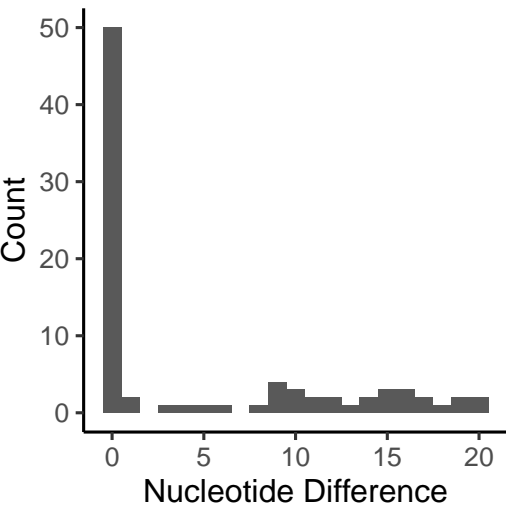
IGHV4-59*08

3371 sequences assigned
2448 (72.6%) exact matches, in which:
2424 unique CDR3
7 unique J



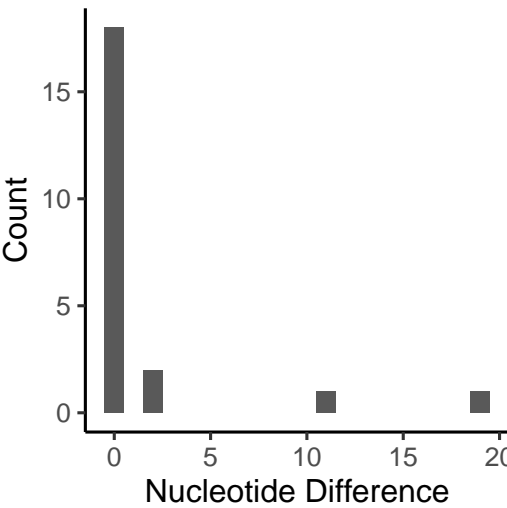
IGHV5-10-1*01_03

100 sequences assigned
50 (50%) exact matches, in which:
49 unique CDR3
4 unique J

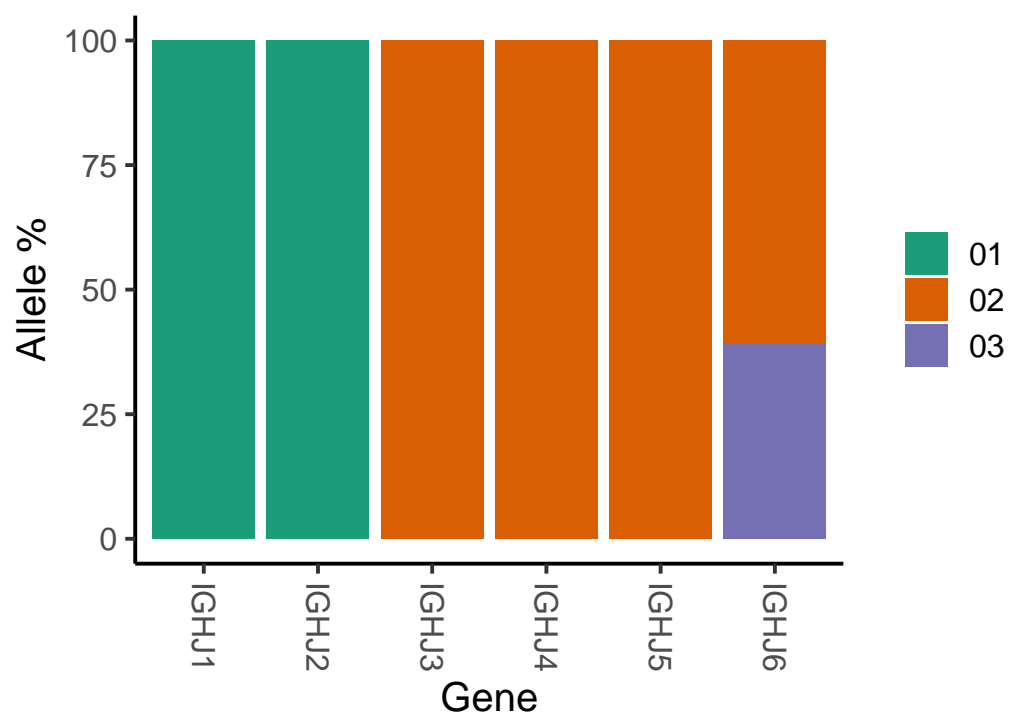


IGHV7-4-1*01

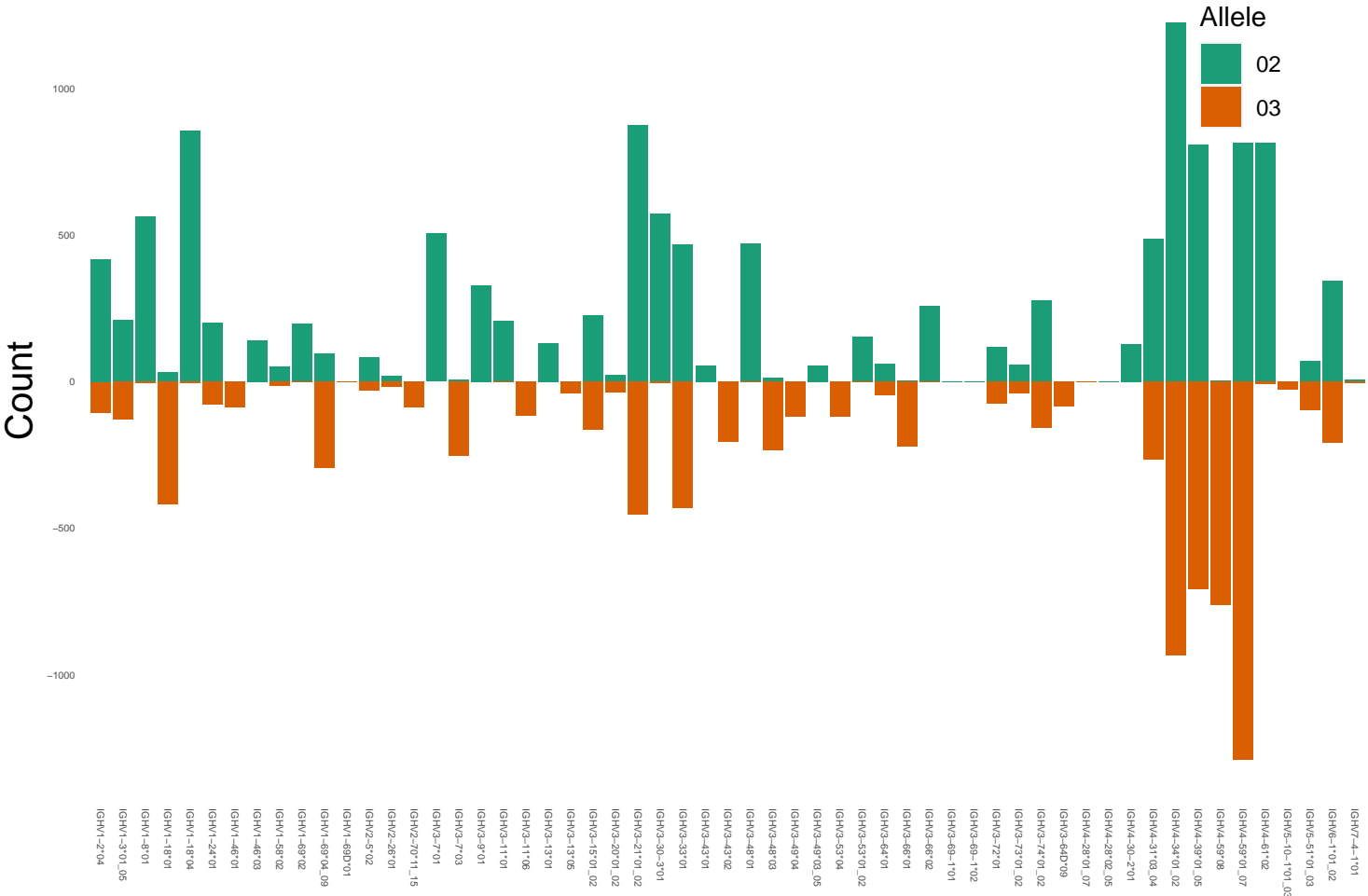
23 sequences assigned
18 (78.3%) exact matches, in which:
18 unique CDR3
5 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



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.

Warning – no inferred sequences found.

Novel sequence(s)IGHV1–69*04_09_G112AIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.