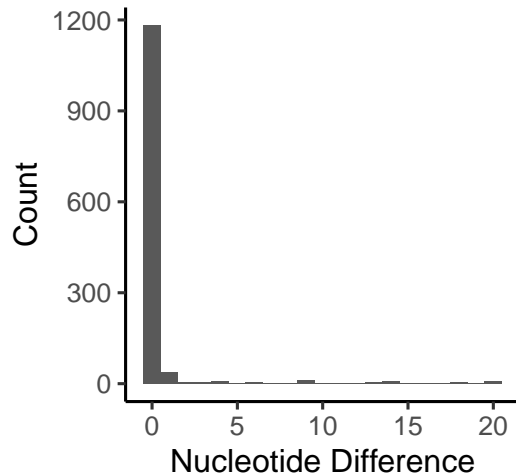


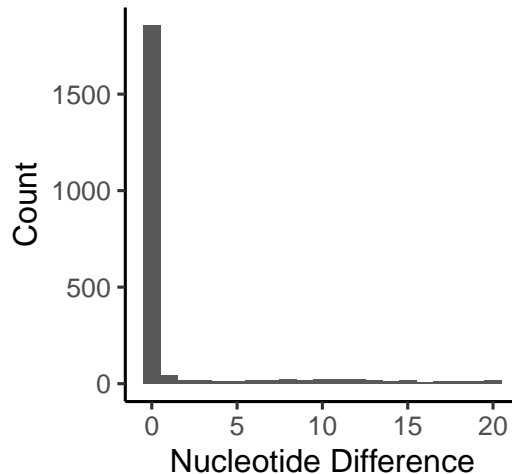
IGHV1-2*04

1324 sequences assigned
1182 (89.3%) exact matches, in which:
1176 unique CDR3
7 unique J



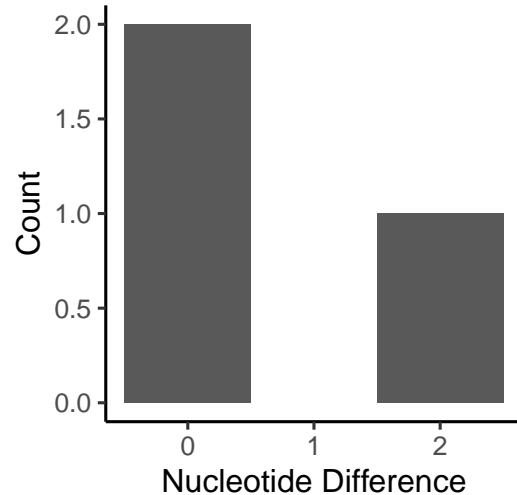
IGHV1-18*01

2361 sequences assigned
1856 (78.6%) exact matches, in which:
1843 unique CDR3
7 unique J



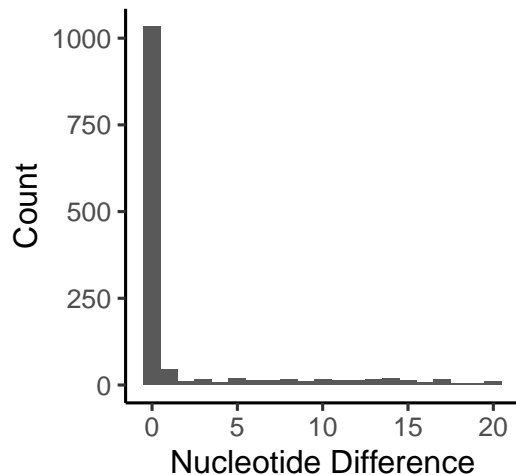
IGHV1-45*02

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



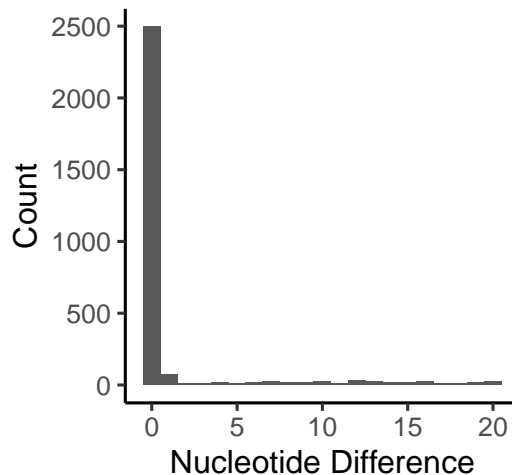
IGHV1-3*01_05

1384 sequences assigned
1033 (74.6%) exact matches, in which:
1028 unique CDR3
7 unique J



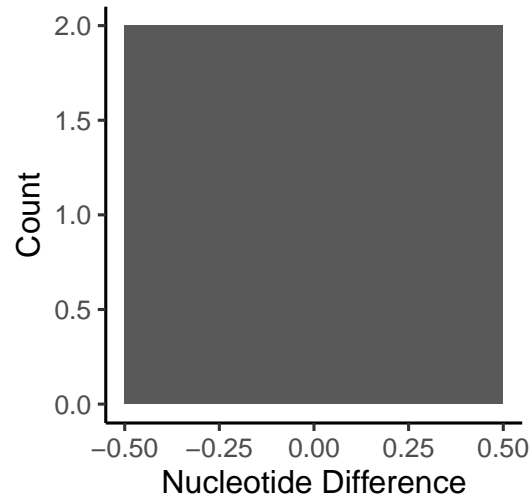
IGHV1-18*04

3058 sequences assigned
2496 (81.6%) exact matches, in which:
2475 unique CDR3
7 unique J



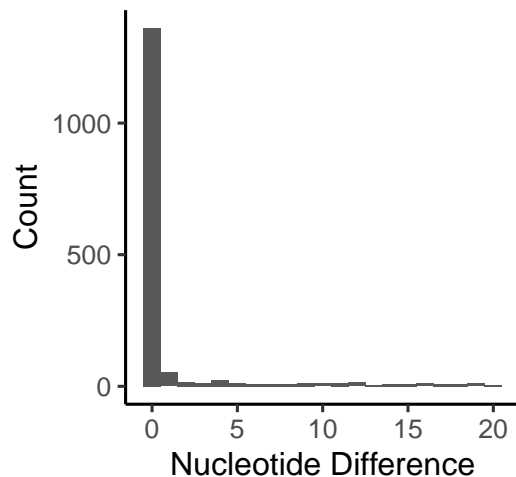
IGHV1-45*03

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



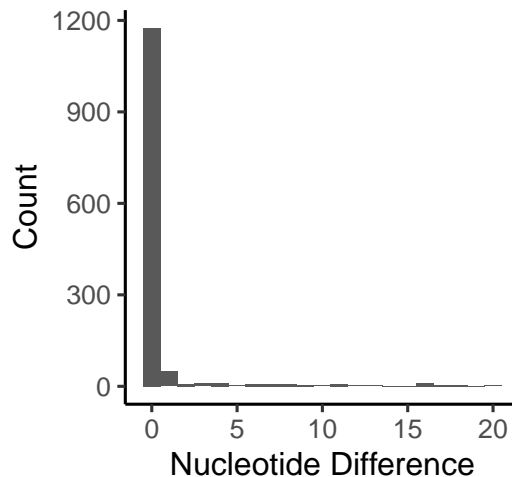
IGHV1-8*01

1690 sequences assigned
1361 (80.5%) exact matches, in which:
1354 unique CDR3
7 unique J



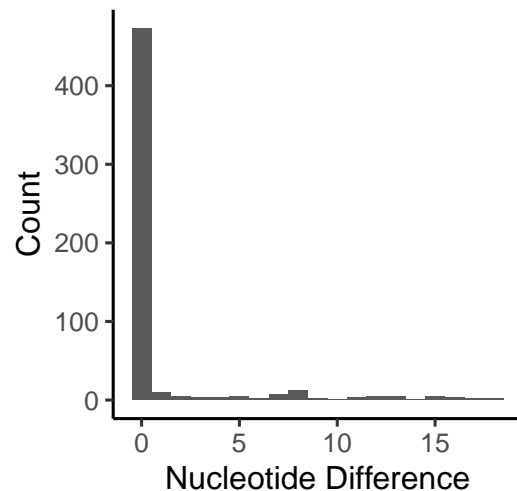
IGHV1-24*01

1371 sequences assigned
1175 (85.7%) exact matches, in which:
1160 unique CDR3
7 unique J



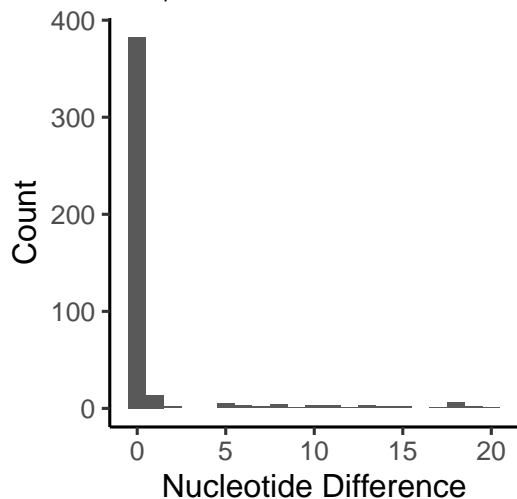
IGHV1-46*01

575 sequences assigned
473 (82.3%) exact matches, in which:
469 unique CDR3
7 unique J



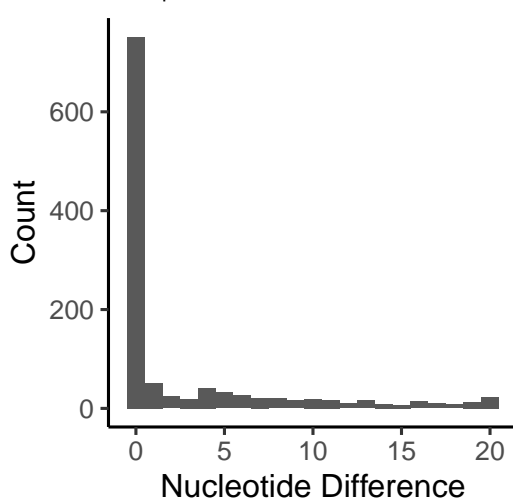
IGHV1–46*03

459 sequences assigned
383 (83.4%) exact matches, in which:
381 unique CDR3
6 unique J



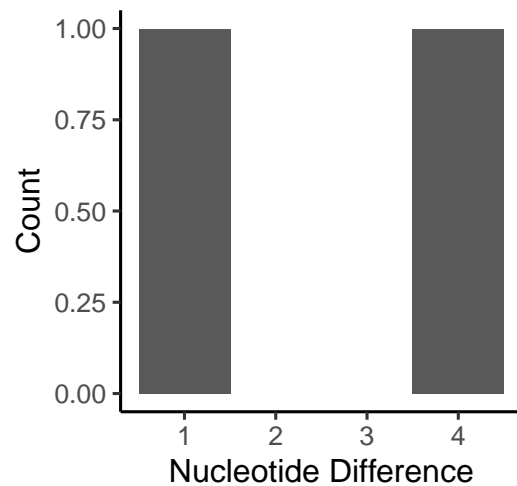
IGHV2–5*02

1230 sequences assigned
752 (61.1%) exact matches, in which:
746 unique CDR3
7 unique J



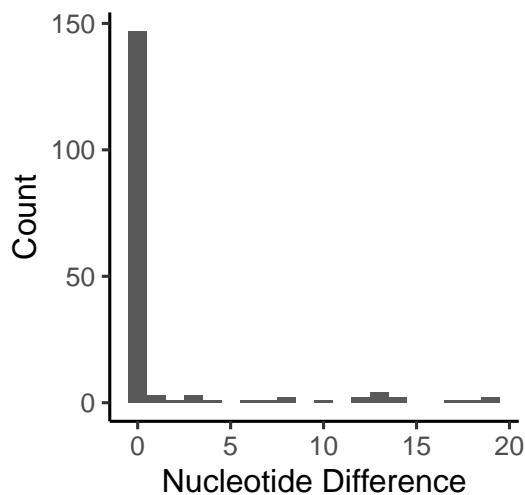
IGHV2–70D*04

2 sequences assigned
No exact matches.



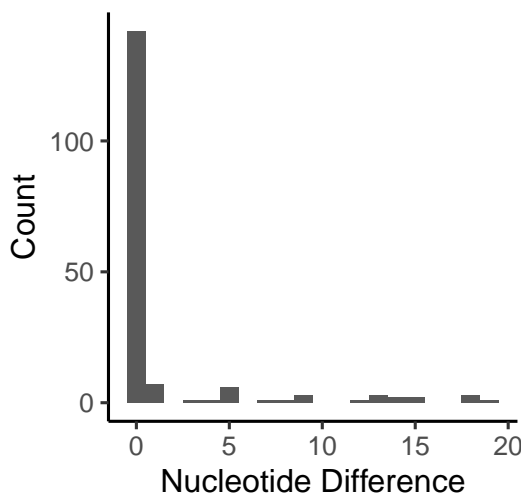
IGHV1–58*02

178 sequences assigned
147 (82.6%) exact matches, in which:
146 unique CDR3
6 unique J



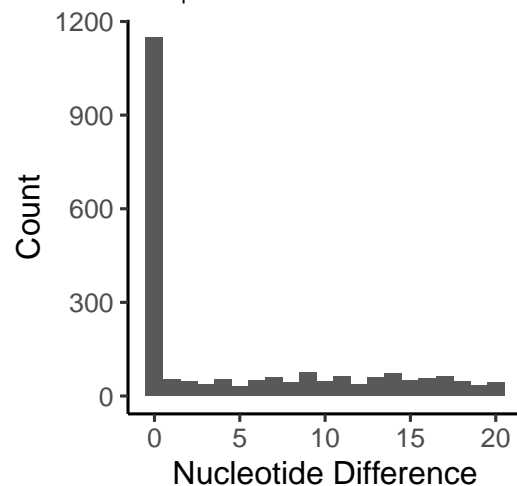
IGHV2–26*01

180 sequences assigned
142 (78.9%) exact matches, in which:
141 unique CDR3
7 unique J



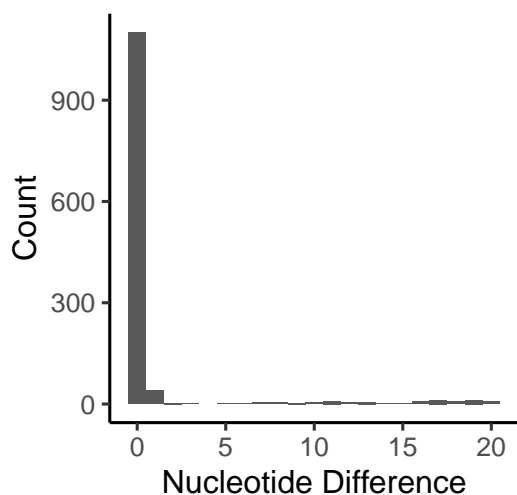
IGHV3–7*01

2488 sequences assigned
1148 (46.1%) exact matches, in which:
1119 unique CDR3
6 unique J



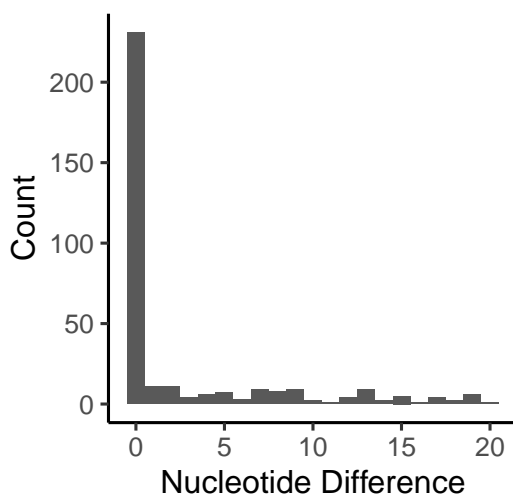
IGHV1–69*04_09

1305 sequences assigned
1101 (84.4%) exact matches, in which:
1092 unique CDR3
7 unique J



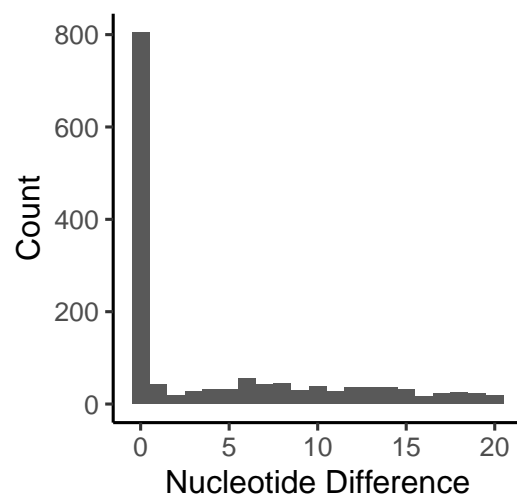
IGHV2–70*11_15

346 sequences assigned
231 (66.8%) exact matches, in which:
228 unique CDR3
6 unique J



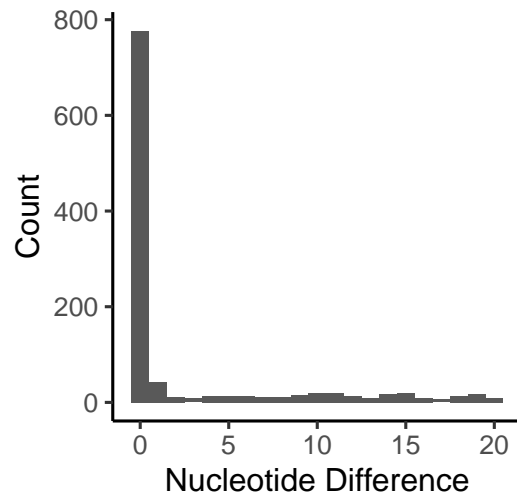
IGHV3–7*03

1643 sequences assigned
805 (49%) exact matches, in which:
786 unique CDR3
7 unique J



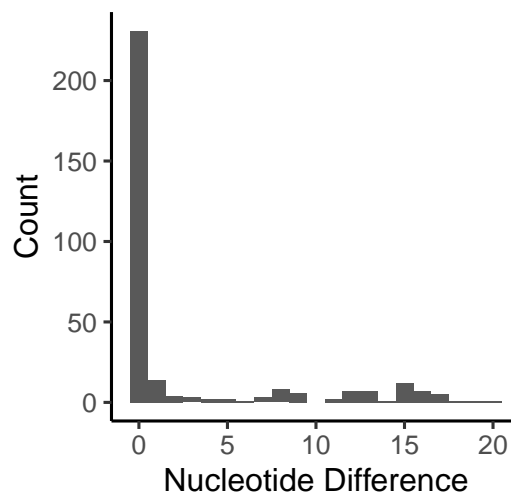
IGHV3-9*01

1180 sequences assigned
777 (65.8%) exact matches, in which:
766 unique CDR3
6 unique J



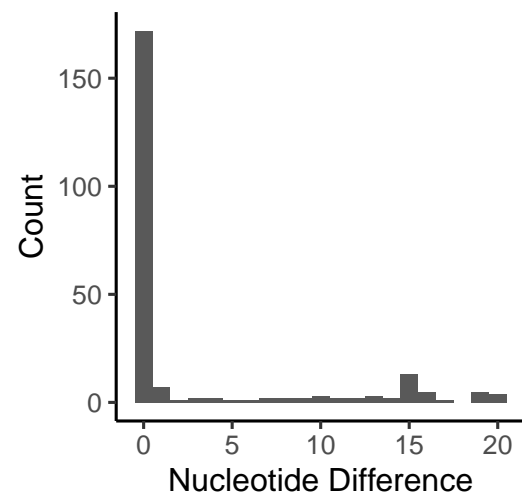
IGHV3-13*01

329 sequences assigned
231 (70.2%) exact matches, in which:
228 unique CDR3
6 unique J



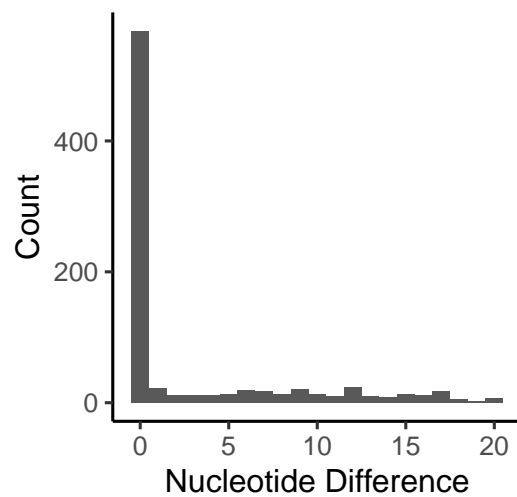
IGHV3-20*01_02

266 sequences assigned
172 (64.7%) exact matches, in which:
170 unique CDR3
6 unique J



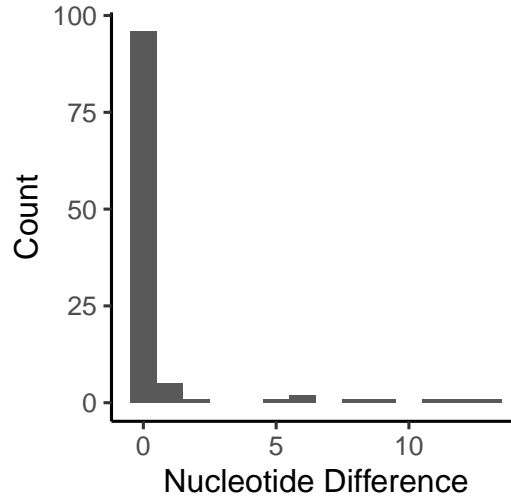
IGHV3-11*01

922 sequences assigned
568 (61.6%) exact matches, in which:
561 unique CDR3
7 unique J



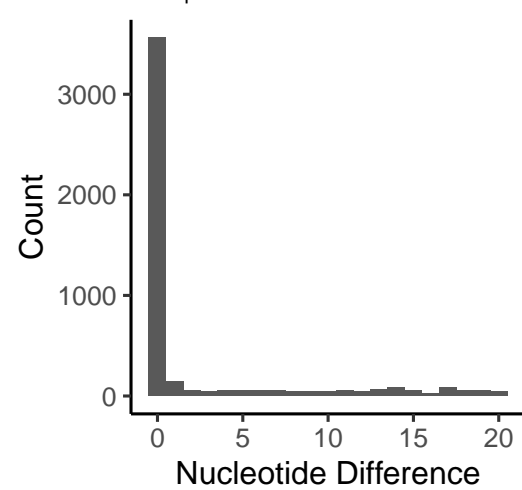
IGHV3-13*05

115 sequences assigned
96 (83.5%) exact matches, in which:
95 unique CDR3
5 unique J



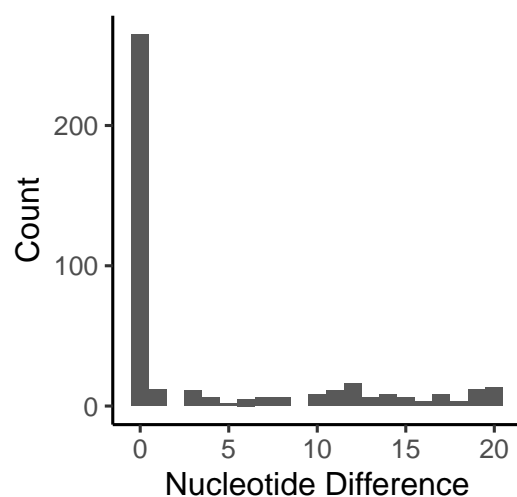
IGHV3-21*01_02

5107 sequences assigned
3562 (69.7%) exact matches, in which:
3500 unique CDR3
7 unique J



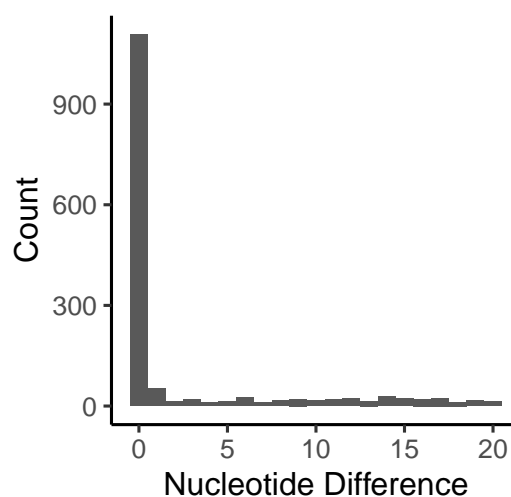
IGHV3-11*06

464 sequences assigned
265 (57.1%) exact matches, in which:
254 unique CDR3
7 unique J



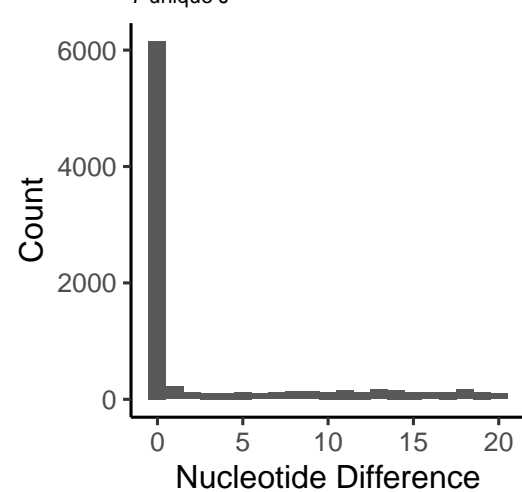
IGHV3-15*01_02

1631 sequences assigned
1108 (67.9%) exact matches, in which:
1091 unique CDR3
7 unique J



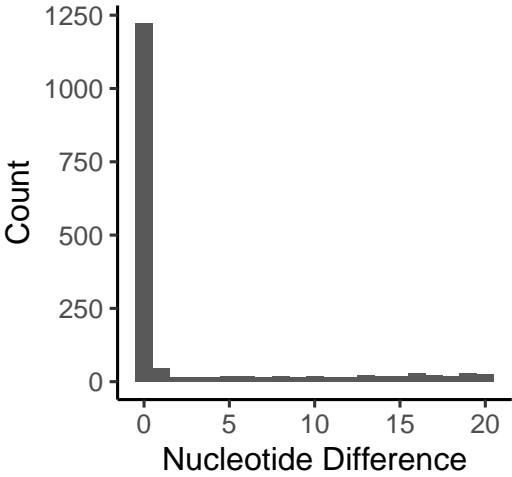
IGHV3-23*01_04

9778 sequences assigned
6156 (63%) exact matches, in which:
6044 unique CDR3
7 unique J



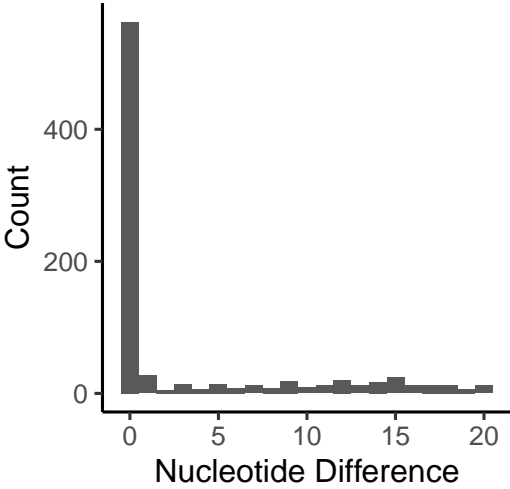
IGHV3-30-3*01

1887 sequences assigned
1222 (64.8%) exact matches, in which:
1201 unique CDR3
7 unique J



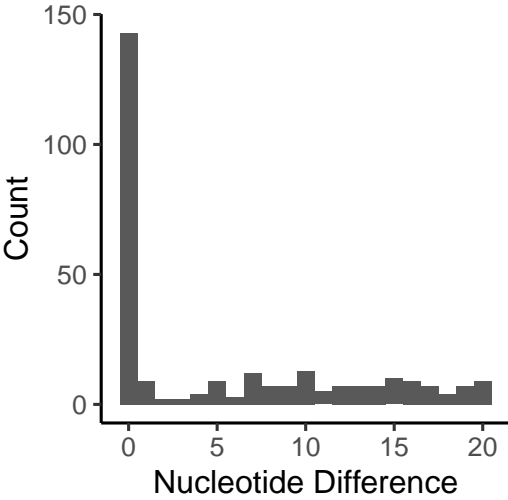
IGHV3-43*02

895 sequences assigned
563 (62.9%) exact matches, in which:
549 unique CDR3
6 unique J



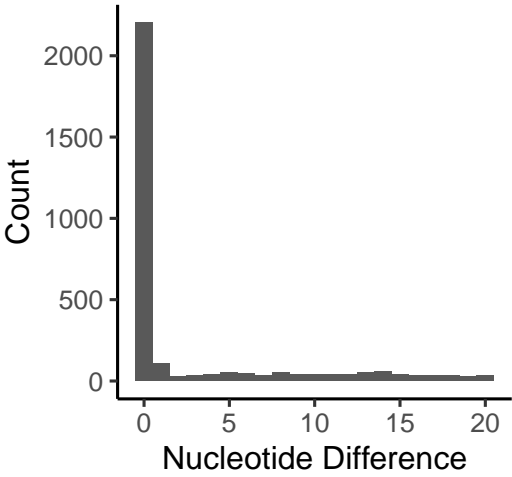
IGHV3-49*04

383 sequences assigned
143 (37.3%) exact matches, in which:
141 unique CDR3
5 unique J



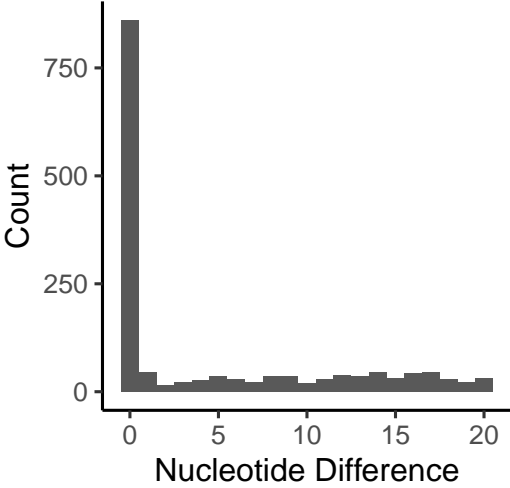
IGHV3-33*01

3282 sequences assigned
2203 (67.1%) exact matches, in which:
2150 unique CDR3
7 unique J



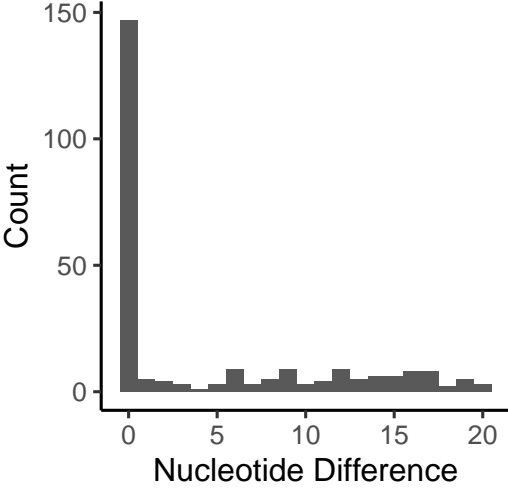
IGHV3-48*01

1671 sequences assigned
861 (51.5%) exact matches, in which:
846 unique CDR3
7 unique J



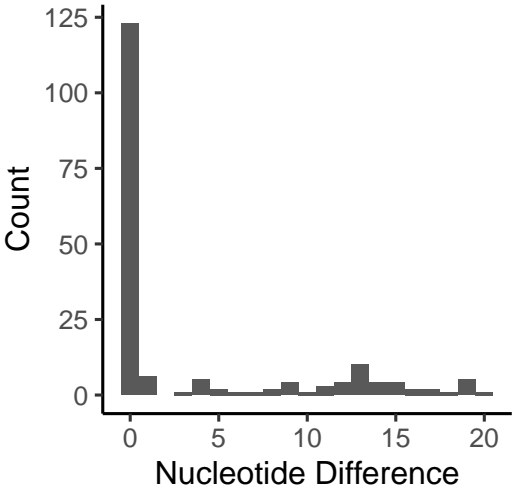
IGHV3-49*03_05

275 sequences assigned
147 (53.5%) exact matches, in which:
144 unique CDR3
4 unique J



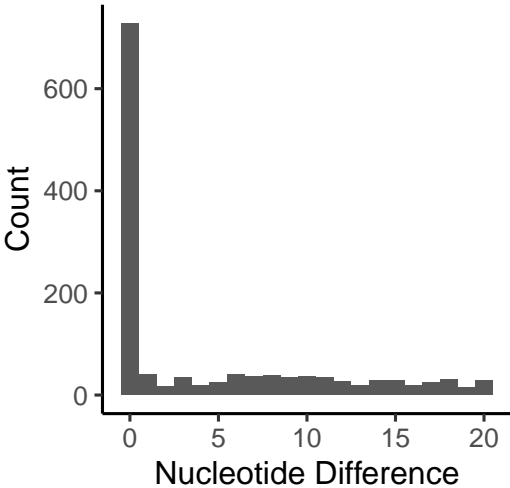
IGHV3-43*01

193 sequences assigned
123 (63.7%) exact matches, in which:
118 unique CDR3
5 unique J



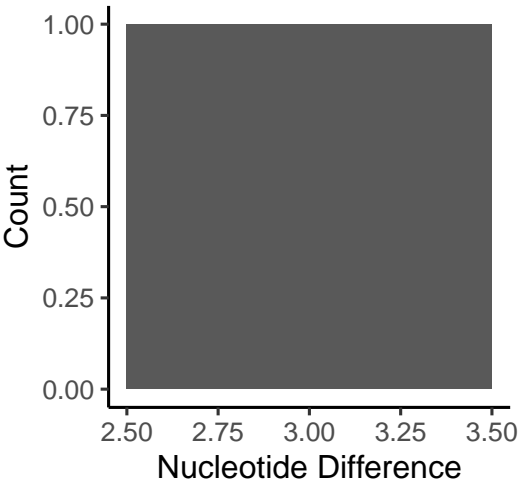
IGHV3-48*03

1468 sequences assigned
728 (49.6%) exact matches, in which:
717 unique CDR3
7 unique J



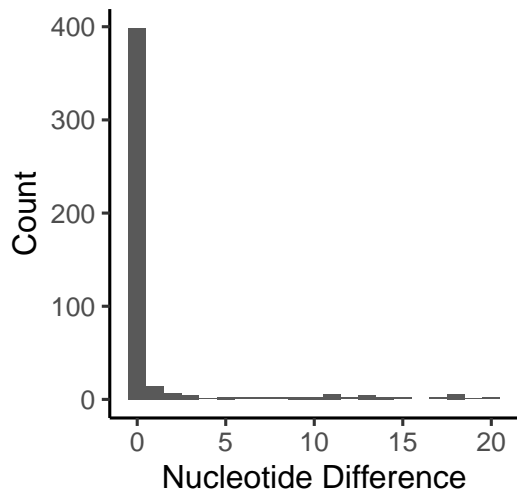
IGHV3-52*01_03

1 sequences assigned
No exact matches.



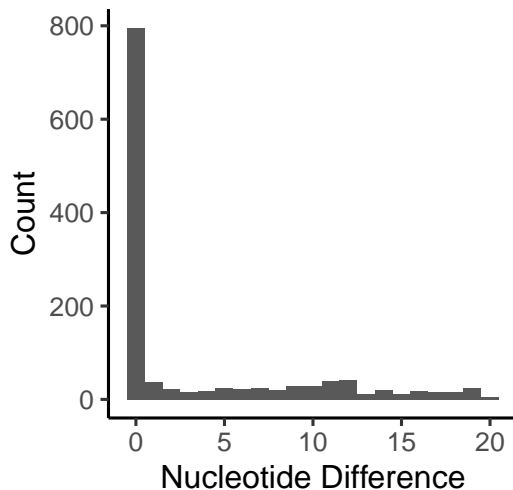
IGHV3–53*04

486 sequences assigned
399 (82.1%) exact matches, in which:
394 unique CDR3
7 unique J



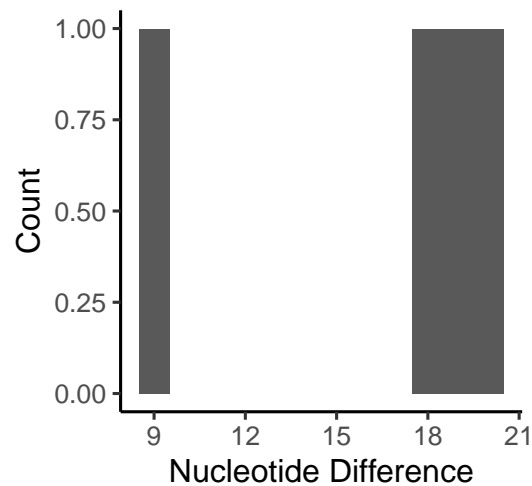
IGHV3–66*01

1318 sequences assigned
796 (60.4%) exact matches, in which:
773 unique CDR3
7 unique J



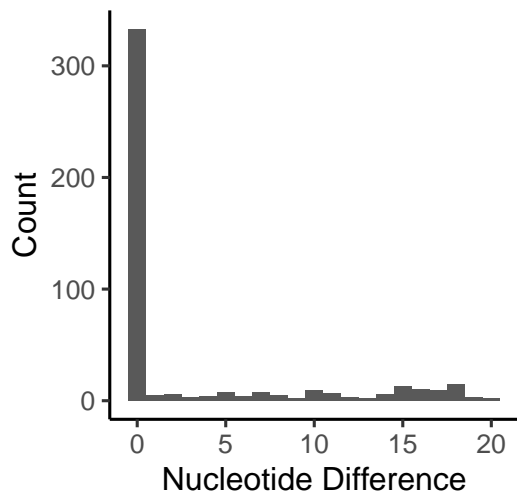
IGHV3–69–1*02

5 sequences assigned
No exact matches.



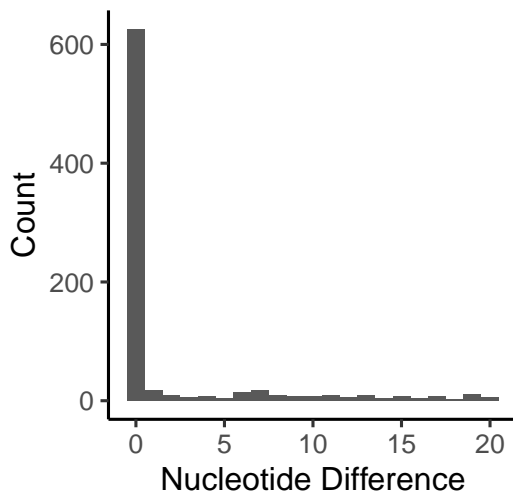
IGHV3–53*01_02

525 sequences assigned
333 (63.4%) exact matches, in which:
328 unique CDR3
6 unique J



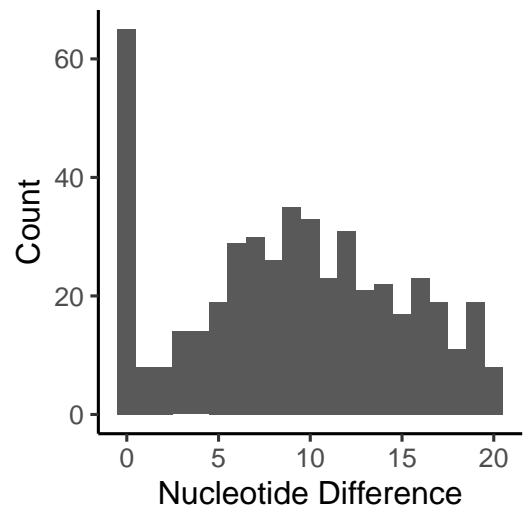
IGHV3–66*02

892 sequences assigned
626 (70.2%) exact matches, in which:
619 unique CDR3
7 unique J



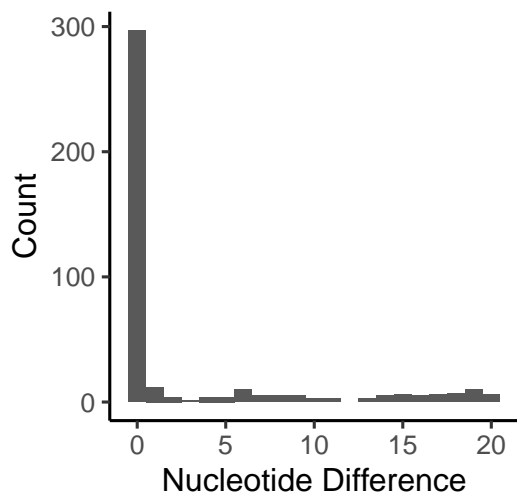
IGHV3–72*01

531 sequences assigned
65 (12.2%) exact matches, in which:
63 unique CDR3
7 unique J



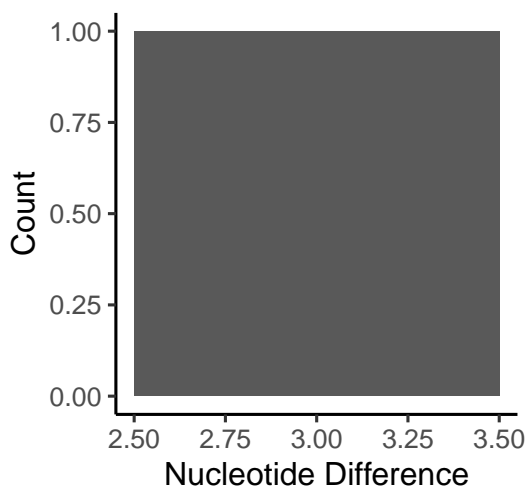
IGHV3–64*01

451 sequences assigned
297 (65.9%) exact matches, in which:
292 unique CDR3
7 unique J



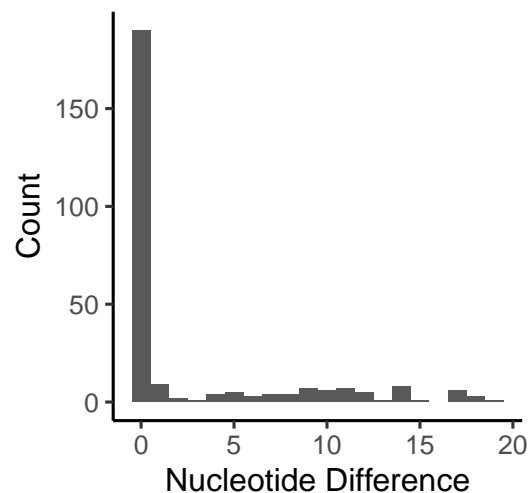
IGHV3–69–1*01

5 sequences assigned
No exact matches.



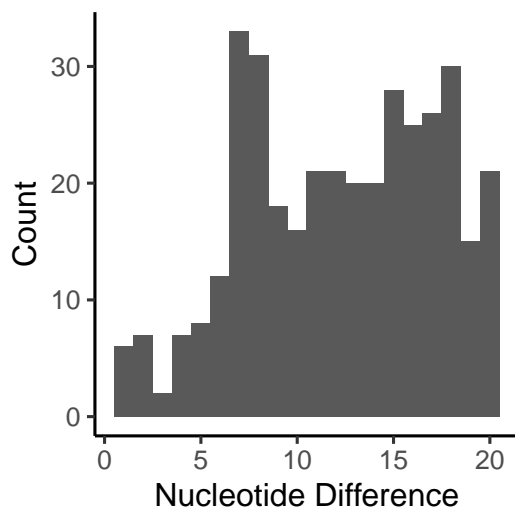
IGHV3–73*01_02

291 sequences assigned
190 (65.3%) exact matches, in which:
188 unique CDR3
6 unique J



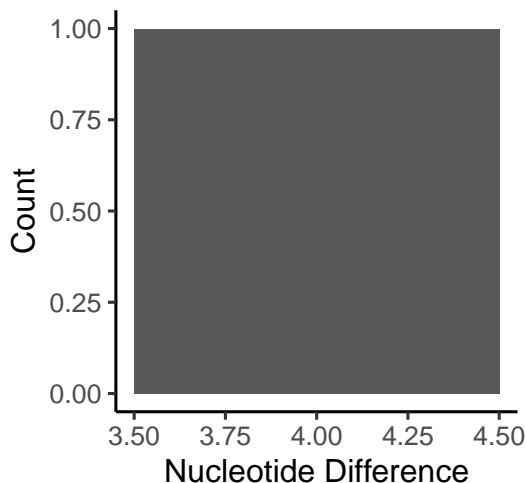
IGHV3-74*03

595 sequences assigned
No exact matches.



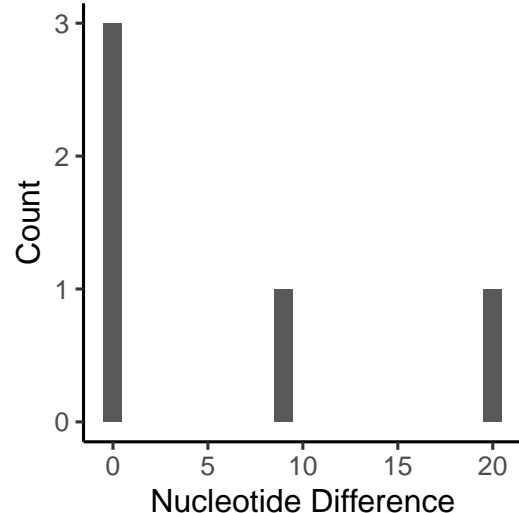
IGHV3-NL1*01

1 sequences assigned
No exact matches.



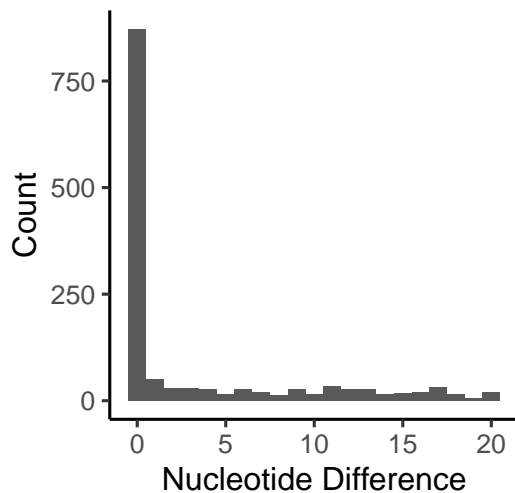
IGHV4-28*01_07

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



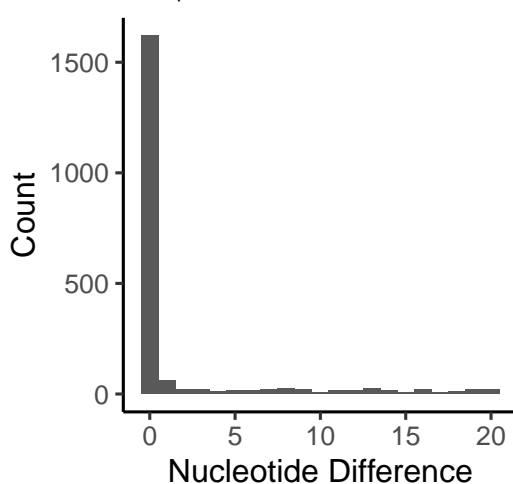
IGHV3-74*01_02

1440 sequences assigned
872 (60.6%) exact matches, in which:
840 unique CDR3
7 unique J



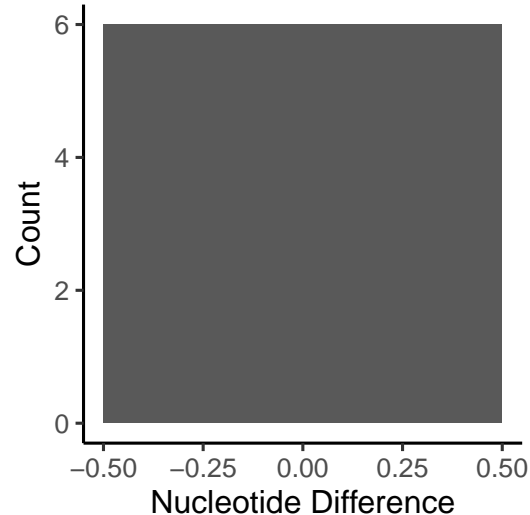
IGHV4-4*02_03

2245 sequences assigned
1620 (72.2%) exact matches, in which:
1591 unique CDR3
7 unique J



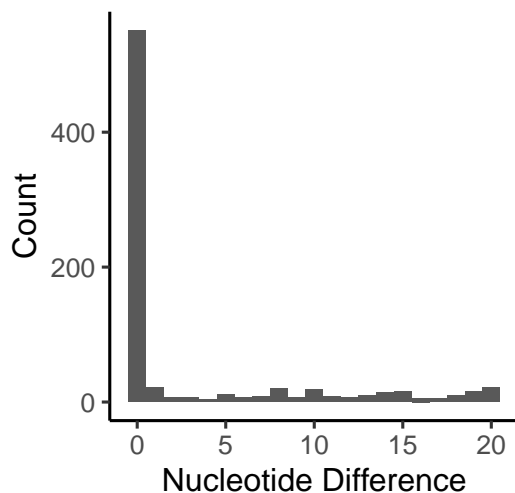
IGHV4-28*02_05

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



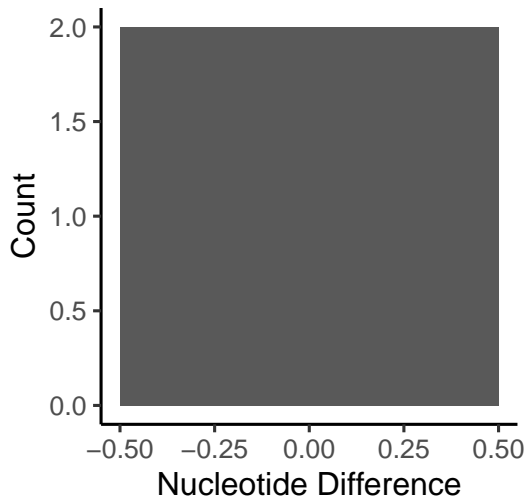
IGHV3-64D*09

913 sequences assigned
551 (60.4%) exact matches, in which:
539 unique CDR3
6 unique J



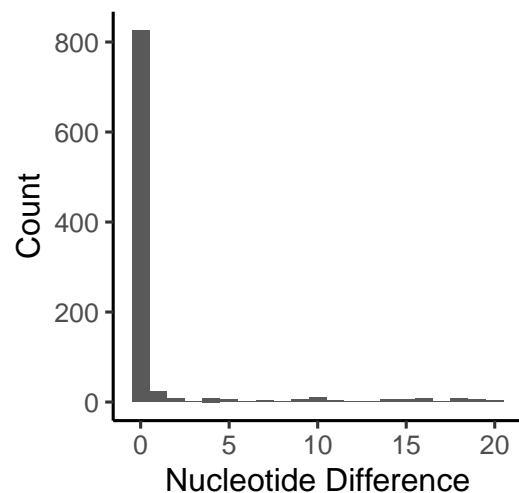
IGHV4-28*03

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



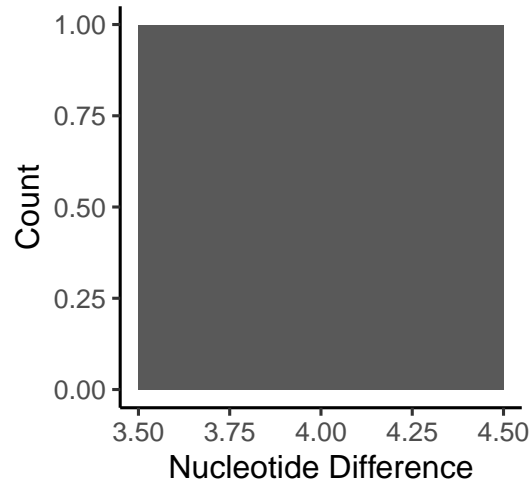
IGHV4-30-2*01

974 sequences assigned
826 (84.8%) exact matches, in which:
804 unique CDR3
6 unique J



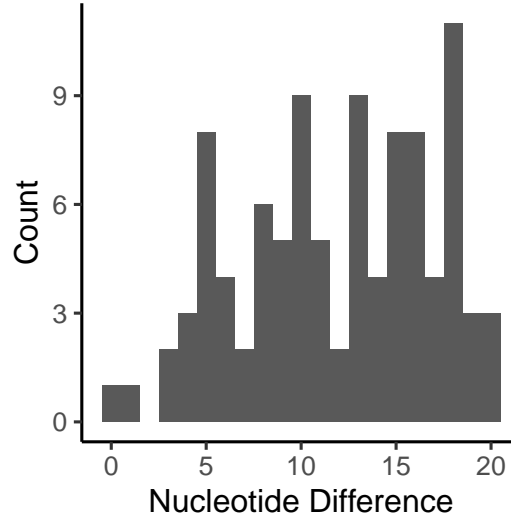
IGHV4-30-4*08

1 sequences assigned
No exact matches.



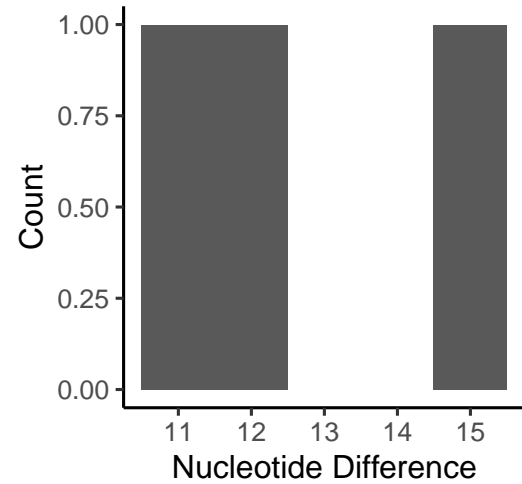
IGHV4-39*02

148 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



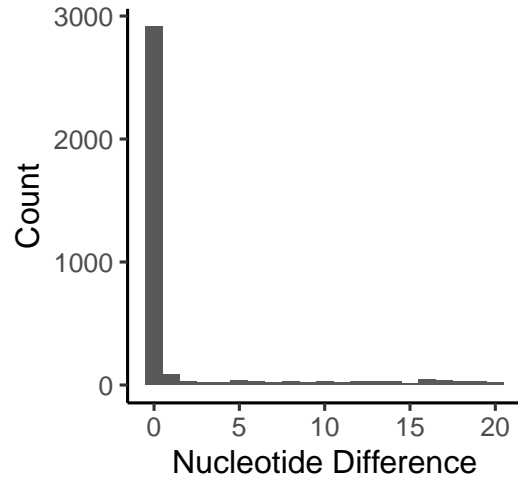
IGHV4/OR15-8*01

6 sequences assigned
No exact matches.



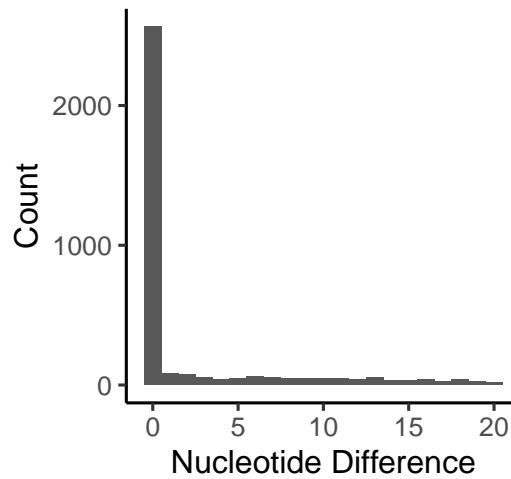
IGHV4-31*02

3741 sequences assigned
2913 (77.9%) exact matches, in which:
2883 unique CDR3
7 unique J



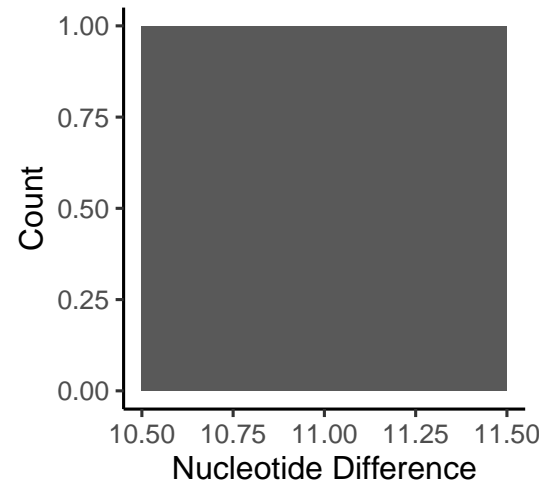
IGHV4-59*08

3828 sequences assigned
2564 (67%) exact matches, in which:
2519 unique CDR3
7 unique J



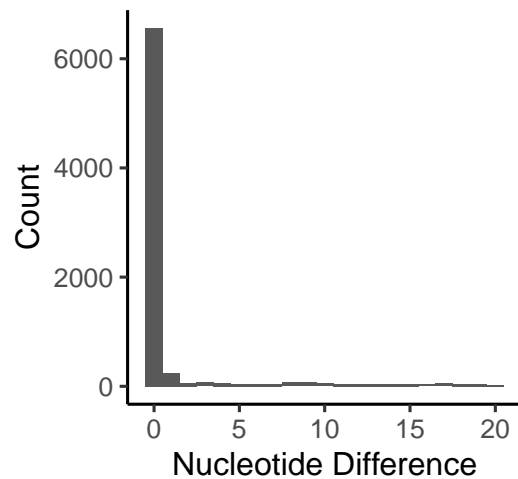
IGHV4/OR15-8*02

11 sequences assigned
No exact matches.



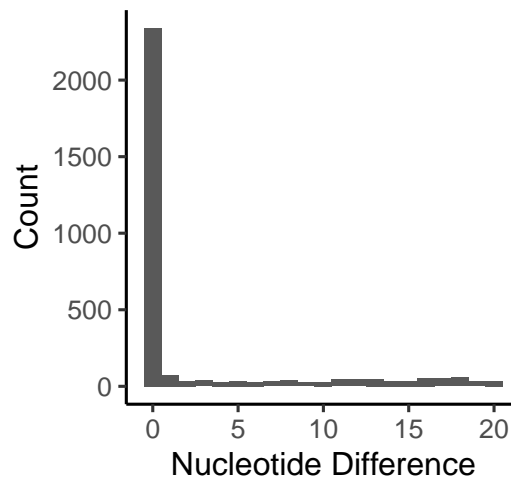
IGHV4-34*01_02

8057 sequences assigned
6562 (81.4%) exact matches, in which:
6415 unique CDR3
7 unique J



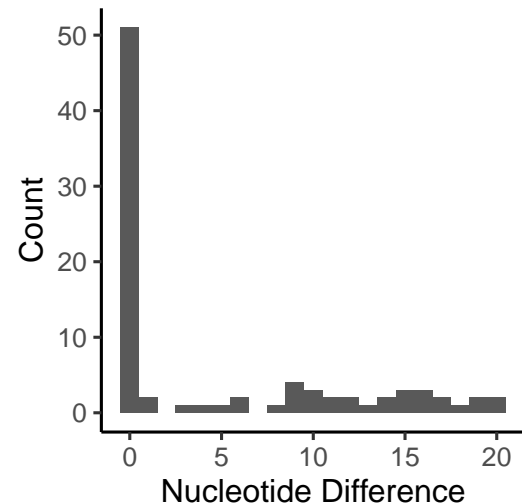
IGHV4-61*02

3516 sequences assigned
2340 (66.6%) exact matches, in which:
2315 unique CDR3
7 unique J



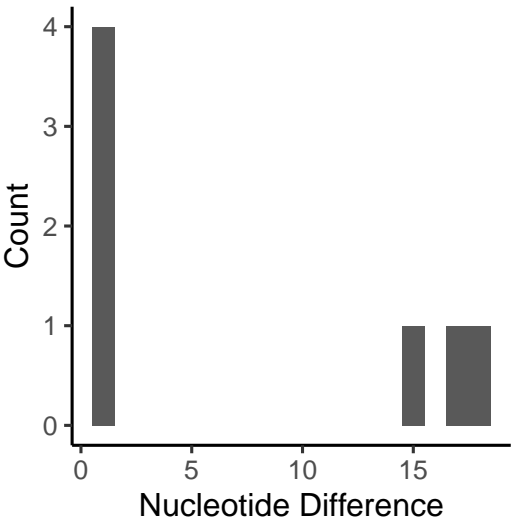
IGHV5-10-1*01_03

102 sequences assigned
51 (50%) exact matches, in which:
50 unique CDR3
4 unique J



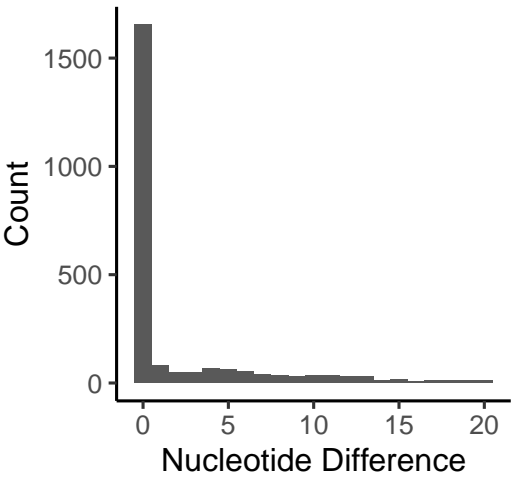
IGHV5–51*04

7 sequences assigned
No exact matches.



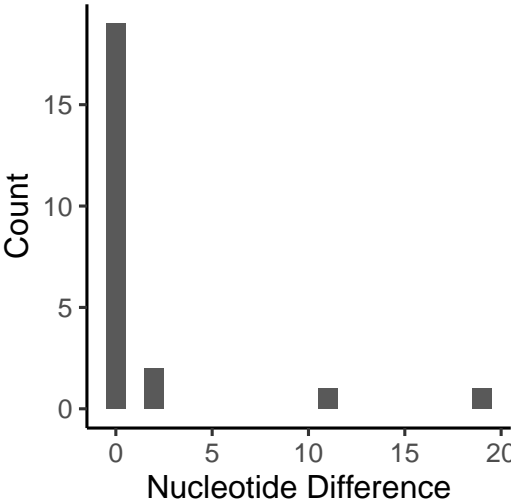
IGHV6–1*01_02

2363 sequences assigned
1654 (70%) exact matches, in which:
1632 unique CDR3
7 unique J

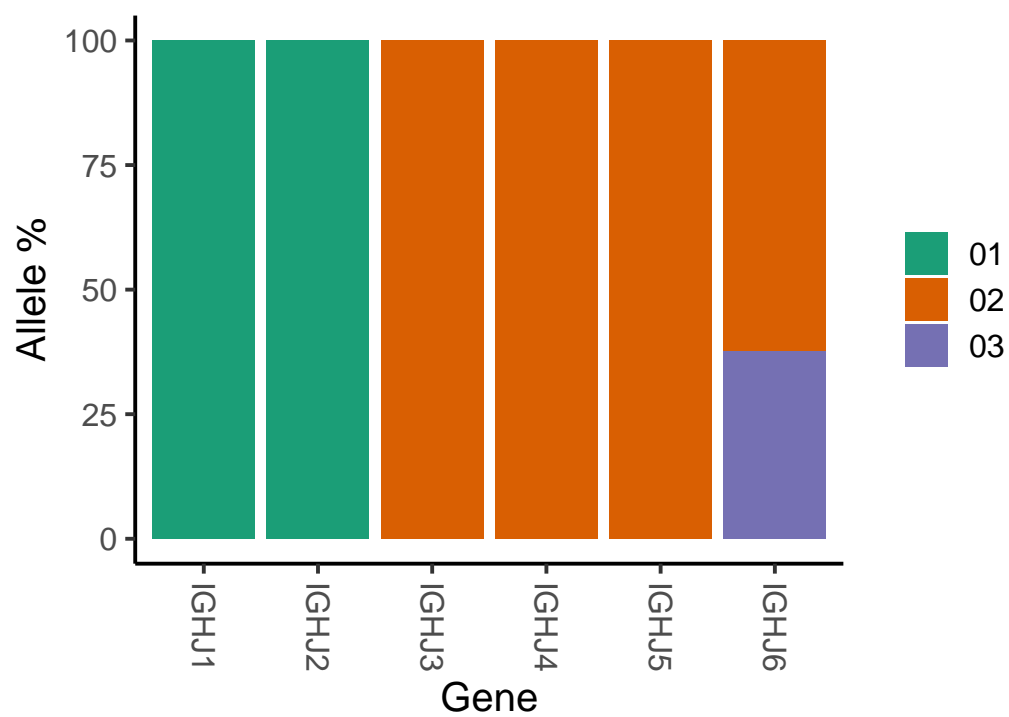


IGHV7–4–1*01

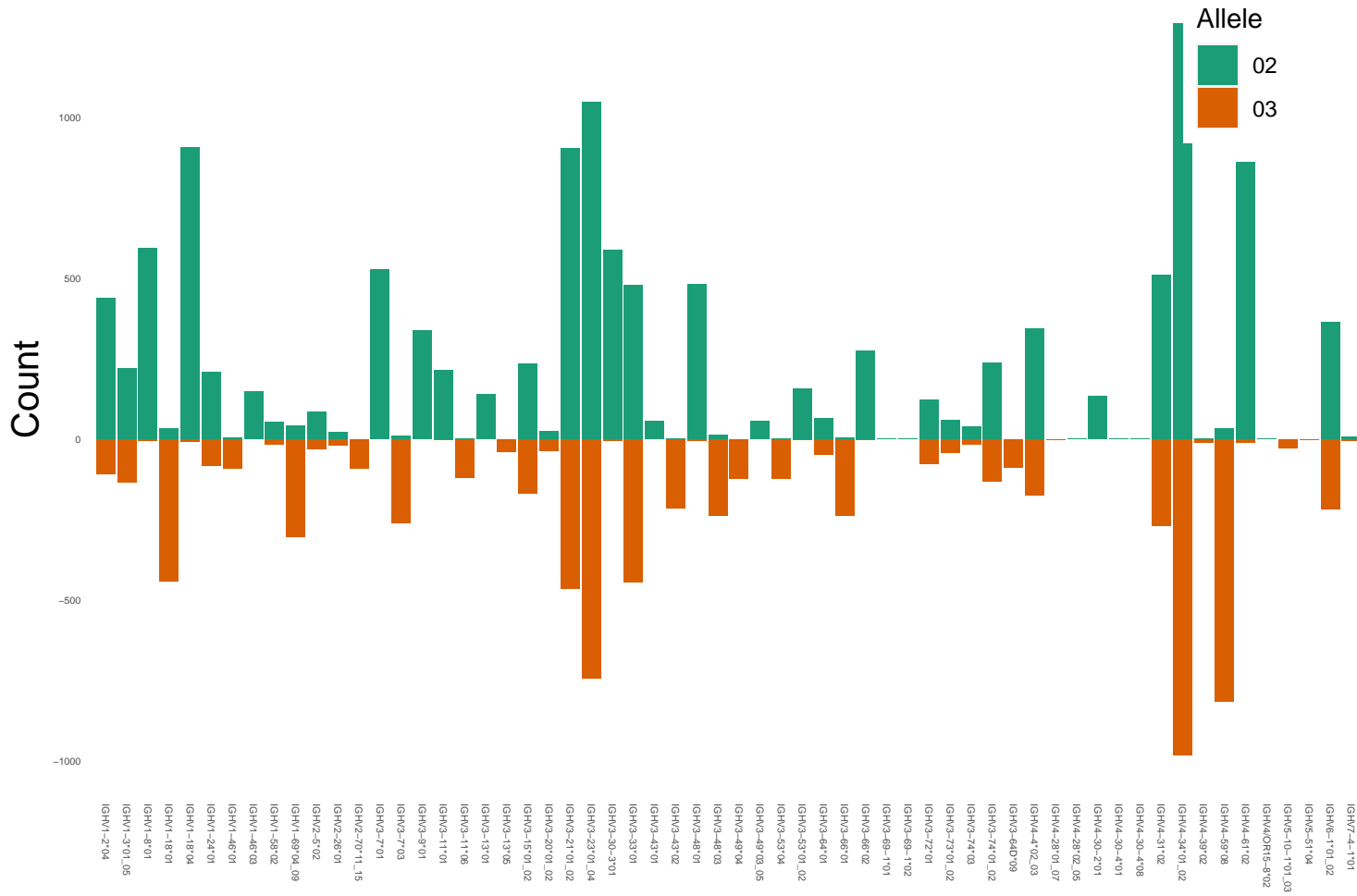
24 sequences assigned
19 (79.2%) exact matches, in which:
19 unique CDR3
5 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]