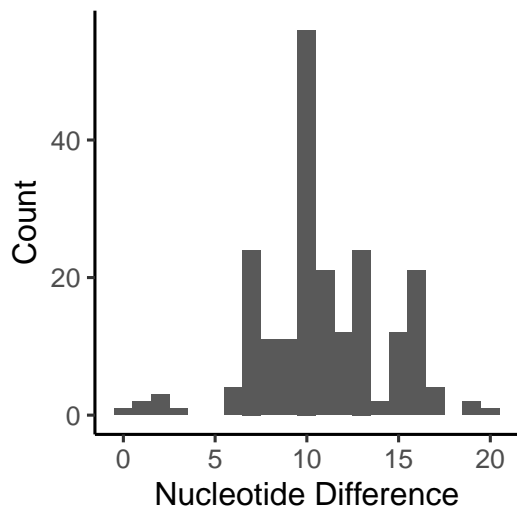


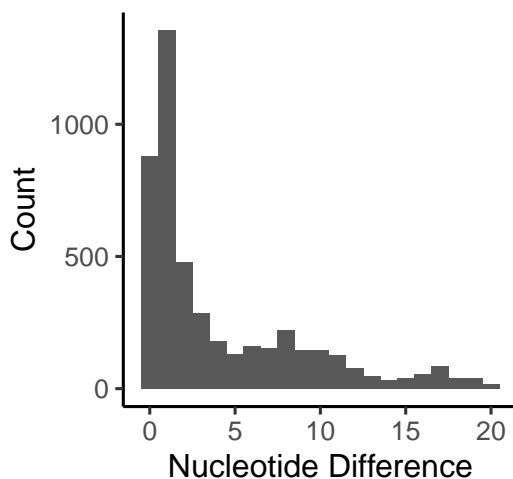
IGHV1-2*02

221 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



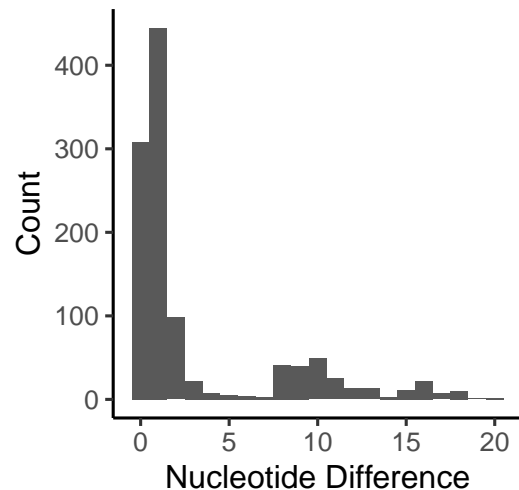
IGHV1-3*01_05

6082 sequences assigned
881 (14.5%) exact matches, in which:
683 unique CDR3
6 unique J



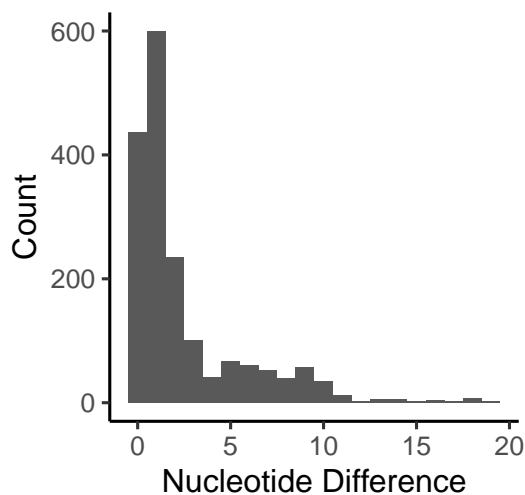
IGHV1-24*01

1326 sequences assigned
308 (23.2%) exact matches, in which:
265 unique CDR3
7 unique J



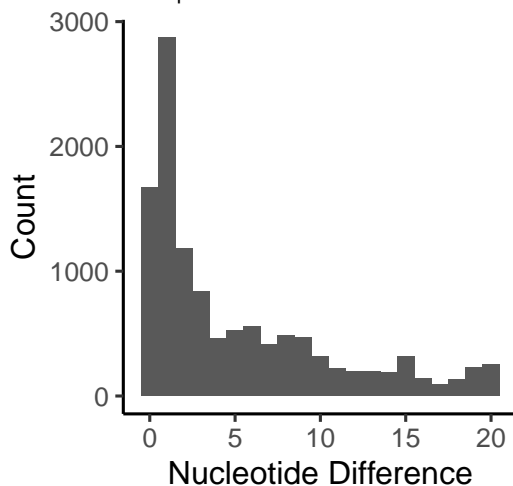
IGHV1-2*04

1805 sequences assigned
436 (24.2%) exact matches, in which:
361 unique CDR3
7 unique J



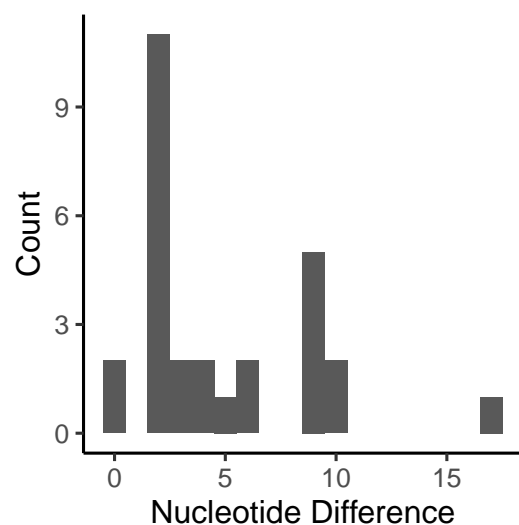
IGHV1-8*01

12368 sequences assigned
1670 (13.5%) exact matches, in which:
1266 unique CDR3
7 unique J



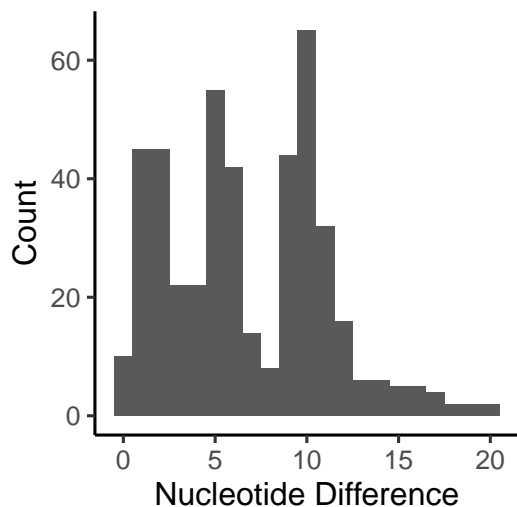
IGHV1-45*02

28 sequences assigned
2 (7.1%) exact matches, in which:
2 unique CDR3
2 unique J



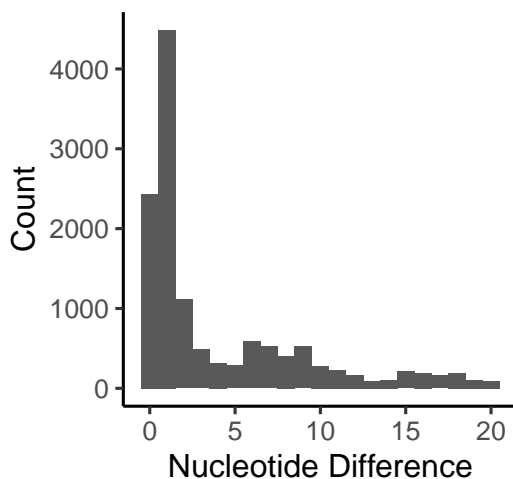
IGHV1-2*06

467 sequences assigned
10 (2.1%) exact matches, in which:
10 unique CDR3
5 unique J



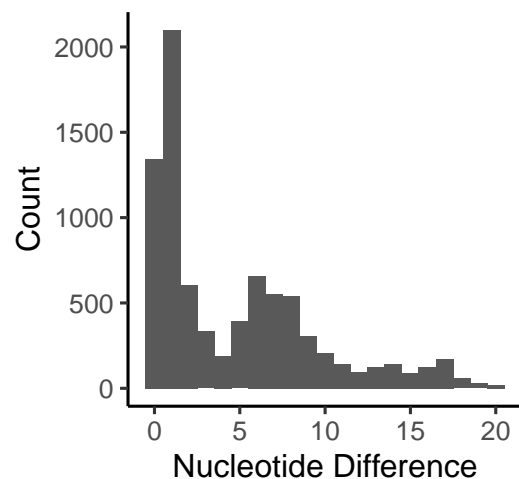
IGHV1-18*01

15756 sequences assigned
2436 (15.5%) exact matches, in which:
1837 unique CDR3
7 unique J



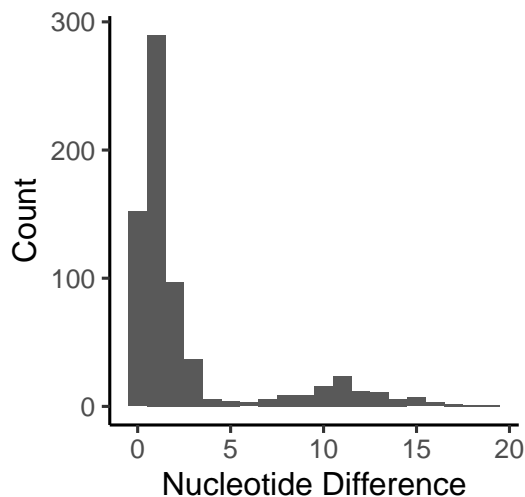
IGHV1-46*01

9241 sequences assigned
1344 (14.5%) exact matches, in which:
1057 unique CDR3
7 unique J



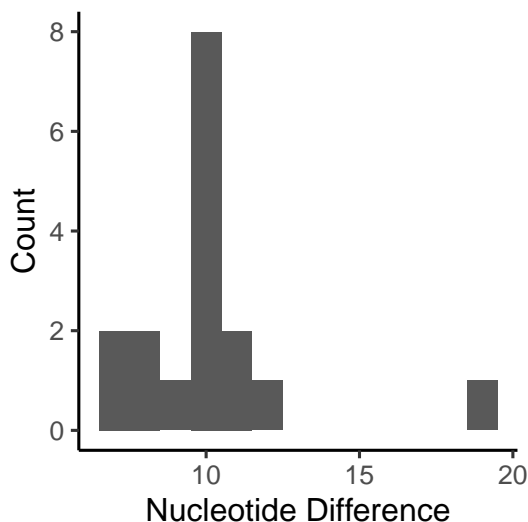
IGHV1–58*01_03

722 sequences assigned
152 (21.1%) exact matches, in which:
129 unique CDR3
6 unique J



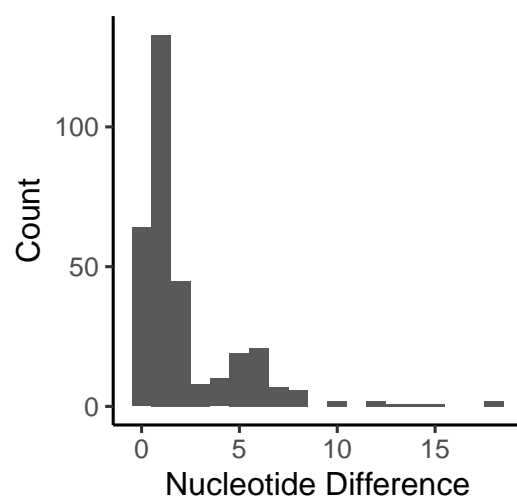
IGHV1–NL1*01

17 sequences assigned
No exact matches.



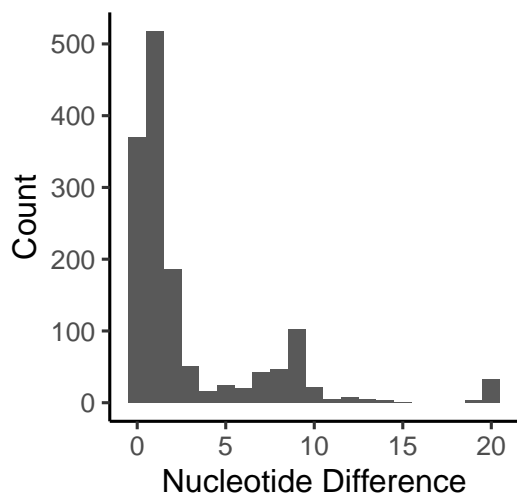
IGHV2–70*01

325 sequences assigned
64 (19.7%) exact matches, in which:
43 unique CDR3
5 unique J



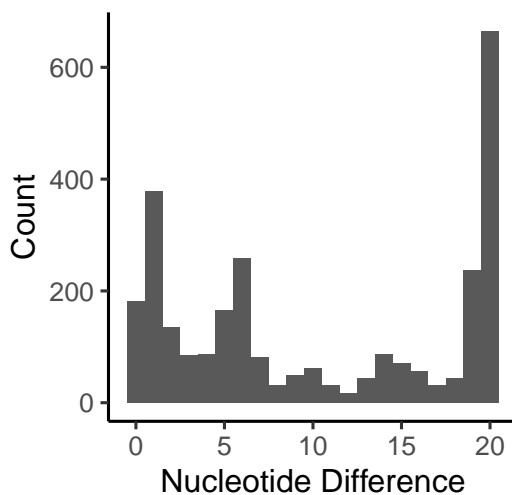
IGHV1–69*02

1568 sequences assigned
370 (23.6%) exact matches, in which:
308 unique CDR3
7 unique J



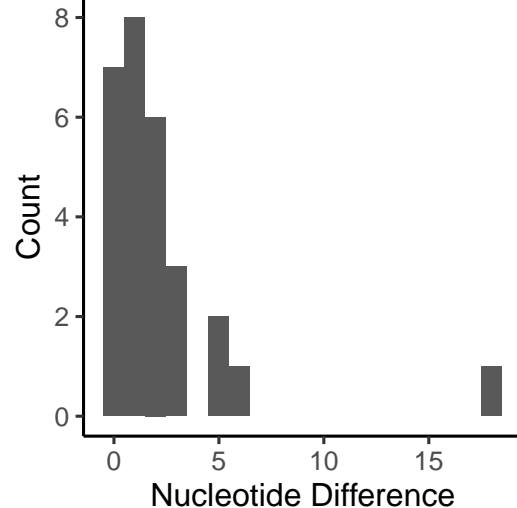
IGHV2–5*02

3511 sequences assigned
181 (5.2%) exact matches, in which:
135 unique CDR3
7 unique J



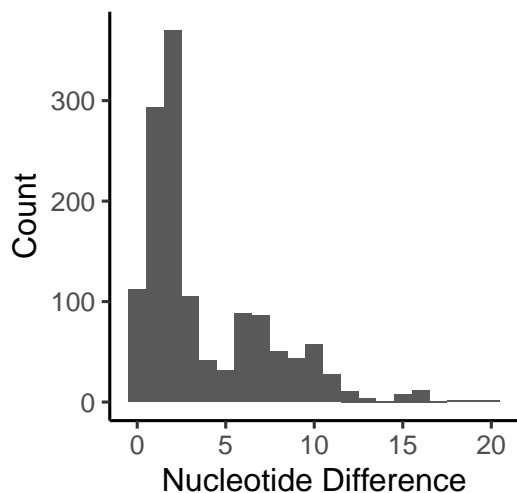
IGHV2–70*12

28 sequences assigned
7 (25%) exact matches, in which:
7 unique CDR3
4 unique J



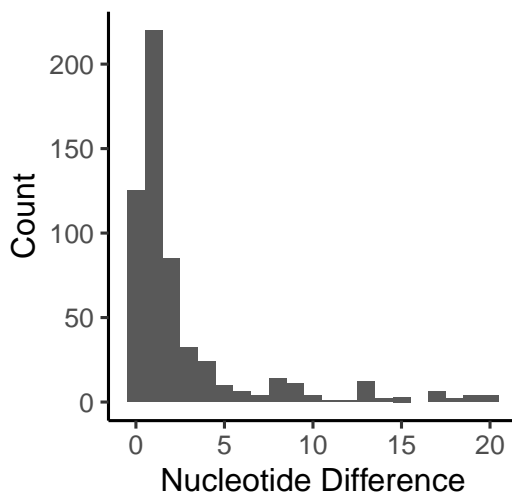
IGHV1–69*04_09

1354 sequences assigned
112 (8.3%) exact matches, in which:
105 unique CDR3
6 unique J



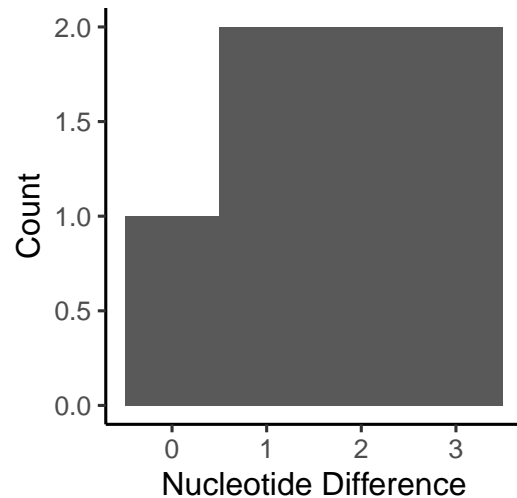
IGHV2–26*01

622 sequences assigned
125 (20.1%) exact matches, in which:
84 unique CDR3
6 unique J



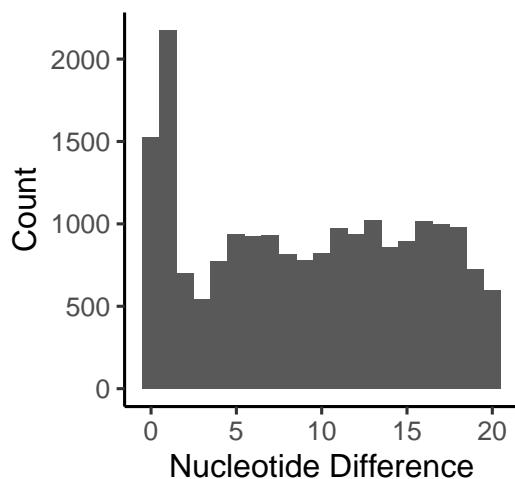
IGHV2–70D*04

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



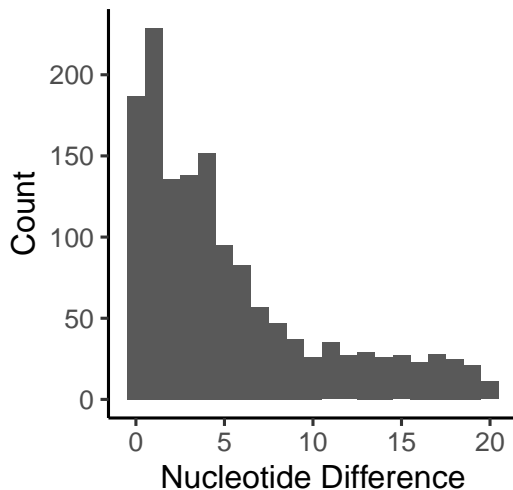
IGHV3-7*01

24570 sequences assigned
1526 (6.2%) exact matches, in which:
1028 unique CDR3
7 unique J



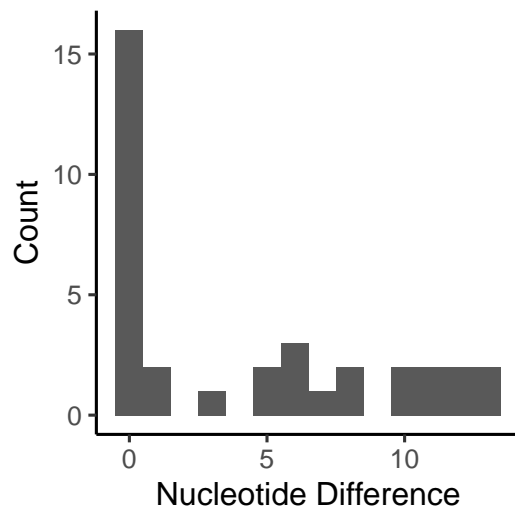
IGHV3-11*04

1554 sequences assigned
187 (12%) exact matches, in which:
165 unique CDR3
7 unique J



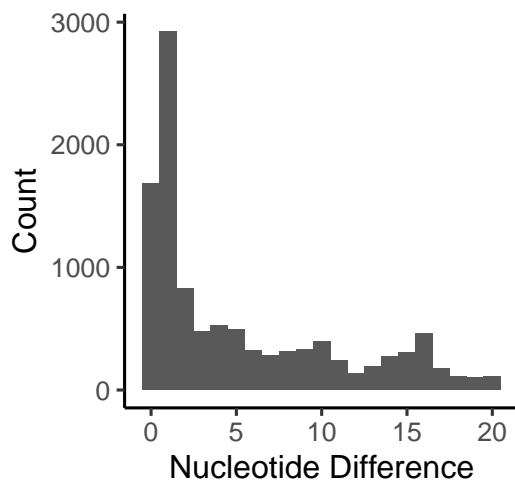
IGHV3-19*01

35 sequences assigned
16 (45.7%) exact matches, in which:
12 unique CDR3
3 unique J



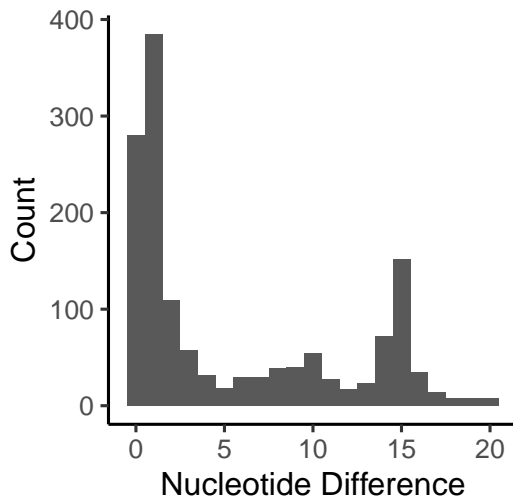
IGHV3-9*01

12727 sequences assigned
1683 (13.2%) exact matches, in which:
1002 unique CDR3
7 unique J



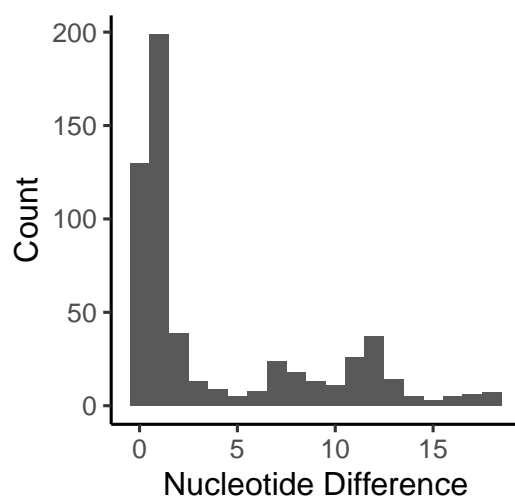
IGHV3-13*01

1595 sequences assigned
280 (17.6%) exact matches, in which:
195 unique CDR3
7 unique J



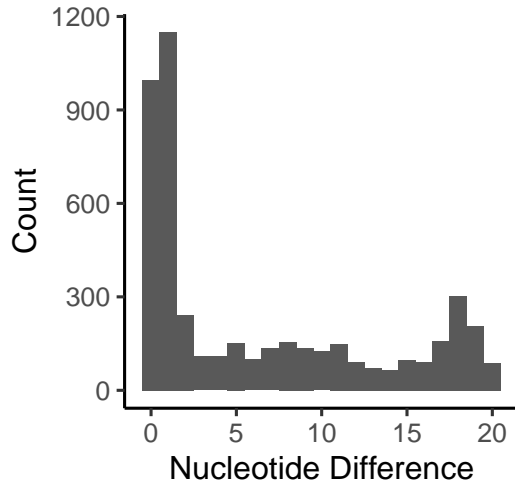
IGHV3-20*01_02

579 sequences assigned
130 (22.5%) exact matches, in which:
79 unique CDR3
5 unique J



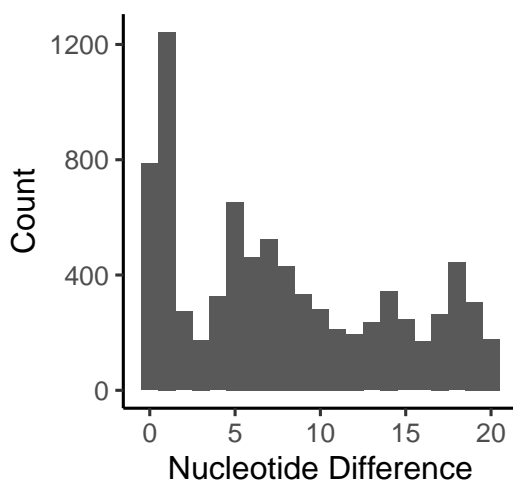
IGHV3-11*01

6001 sequences assigned
997 (16.6%) exact matches, in which:
659 unique CDR3
7 unique J



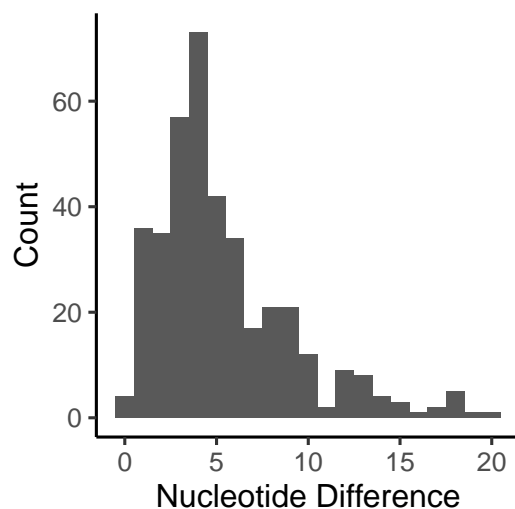
IGHV3-15*01_02

9981 sequences assigned
787 (7.9%) exact matches, in which:
473 unique CDR3
7 unique J



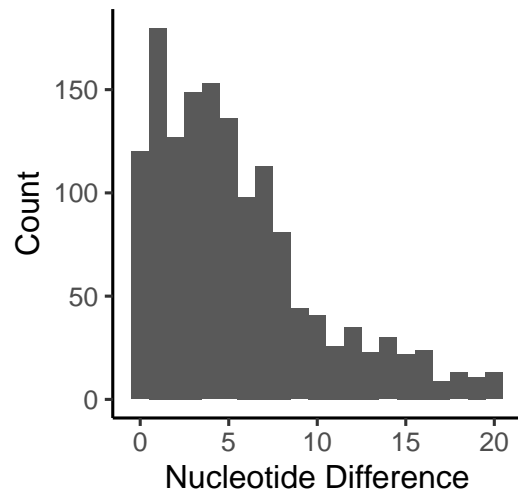
IGHV3-20*03_04

411 sequences assigned
4 (1%) exact matches, in which:
4 unique CDR3
3 unique J



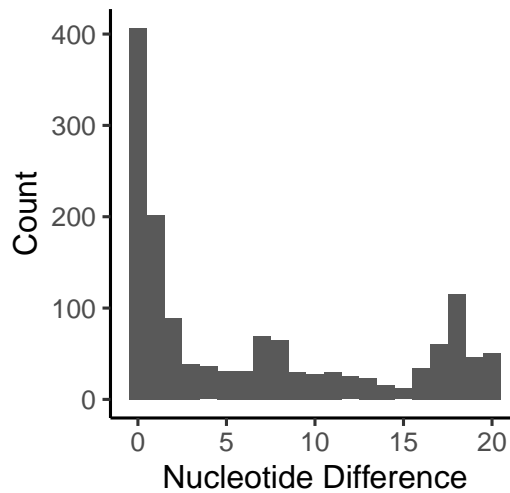
IGHV3-21*04

1506 sequences assigned
120 (8%) exact matches, in which:
103 unique CDR3
7 unique J



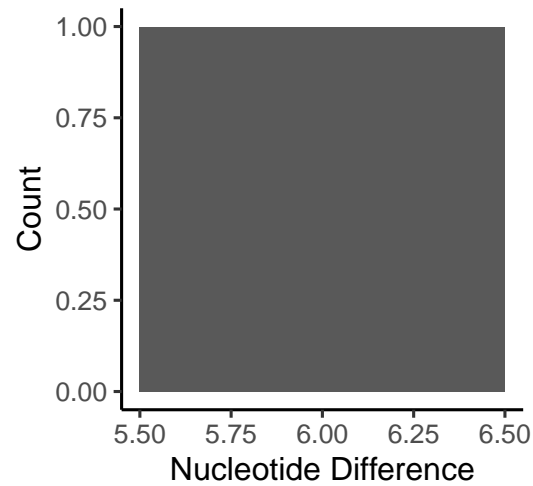
IGHV3-30*03

1815 sequences assigned
407 (22.4%) exact matches, in which:
345 unique CDR3
7 unique J



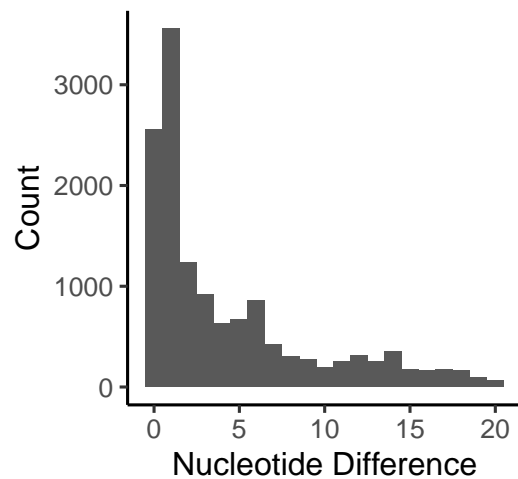
IGHV3-38*02

1 sequences assigned
No exact matches.



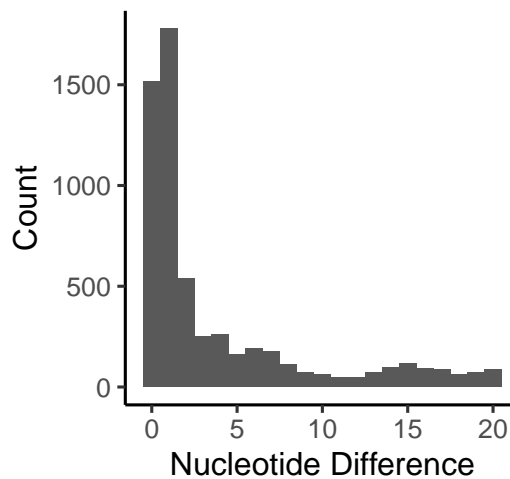
IGHV3-21*01_02

14660 sequences assigned
2558 (17.4%) exact matches, in which:
1577 unique CDR3
7 unique J



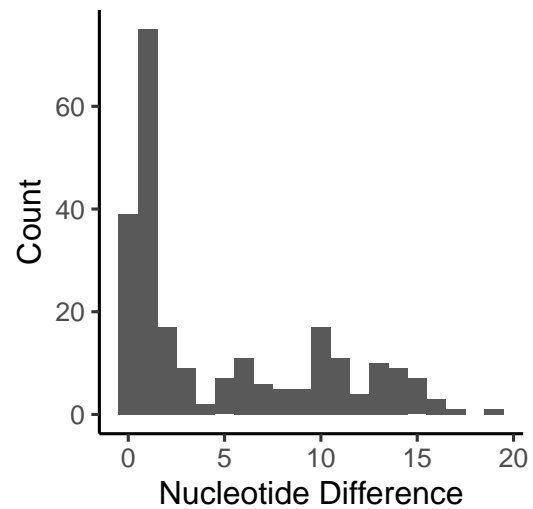
IGHV3-33*05

7424 sequences assigned
1518 (20.4%) exact matches, in which:
971 unique CDR3
7 unique J



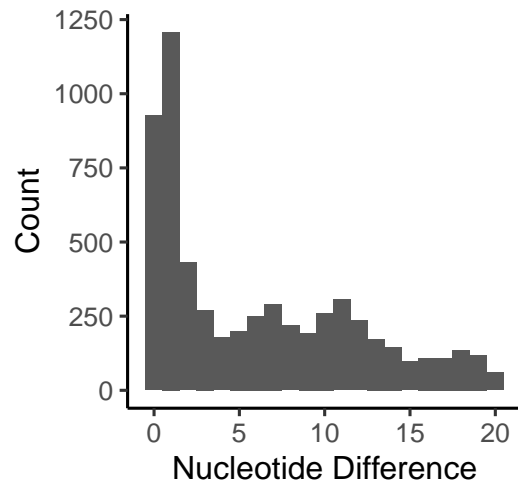
IGHV3-43*01

243 sequences assigned
39 (16%) exact matches, in which:
21 unique CDR3
4 unique J



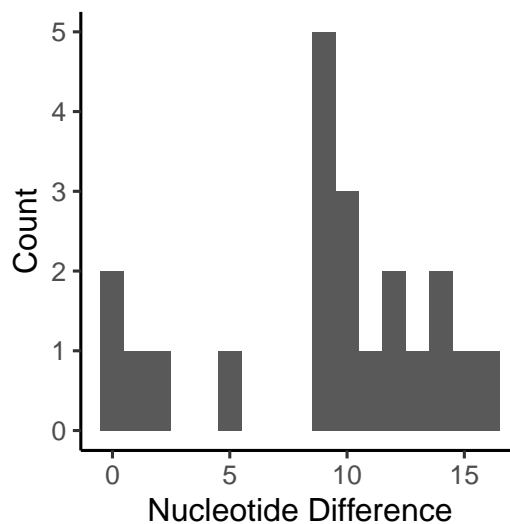
IGHV3-30-3*01

6322 sequences assigned
927 (14.7%) exact matches, in which:
651 unique CDR3
7 unique J



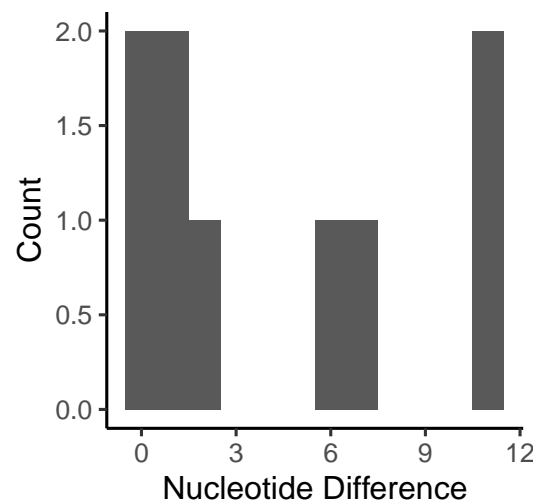
IGHV3-35*01

21 sequences assigned
2 (9.5%) exact matches, in which:
2 unique CDR3
2 unique J



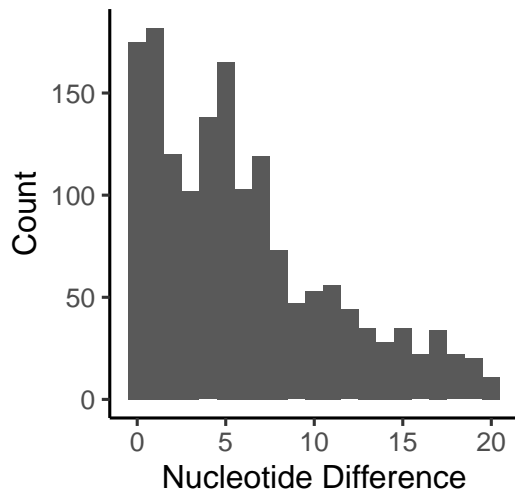
IGHV3-47*02

9 sequences assigned
2 (22.2%) exact matches, in which:
1 unique CDR3
1 unique J



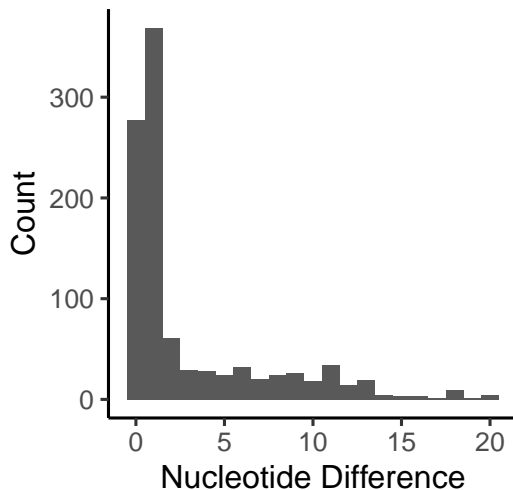
IGHV3-48*01

1666 sequences assigned
175 (10.5%) exact matches, in which:
144 unique CDR3
7 unique J



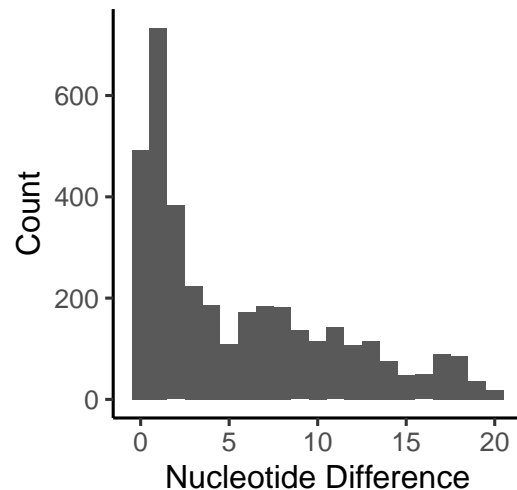
IGHV3-49*03_05

1152 sequences assigned
277 (24%) exact matches, in which:
165 unique CDR3
7 unique J



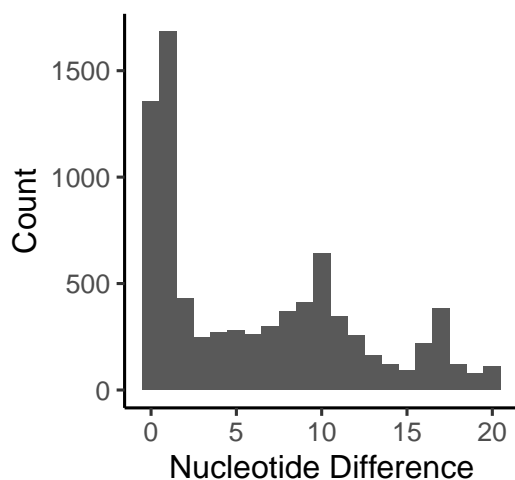
IGHV3-53*01_02

5729 sequences assigned
492 (8.6%) exact matches, in which:
346 unique CDR3
7 unique J



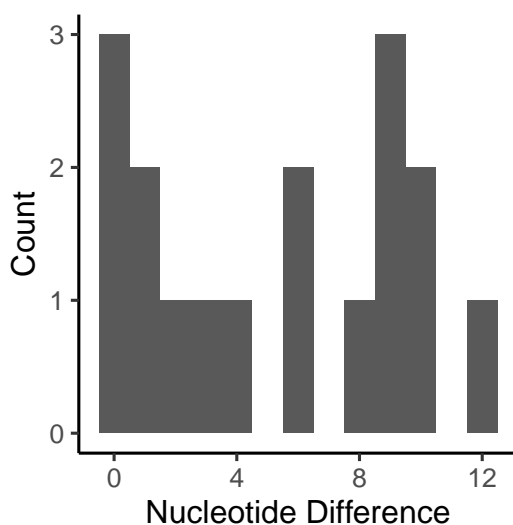
IGHV3-48*02

9250 sequences assigned
1355 (14.6%) exact matches, in which:
844 unique CDR3
7 unique J



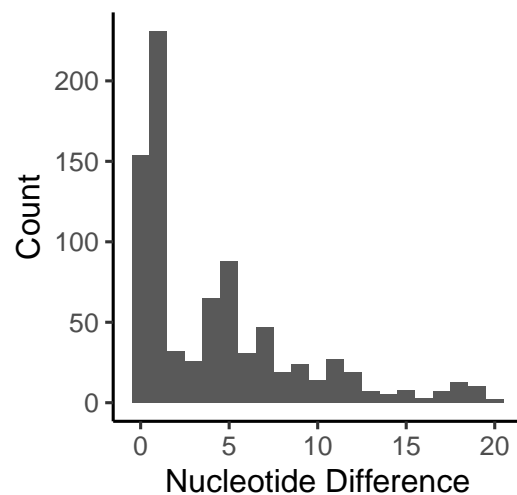
IGHV3-52*01_03

17 sequences assigned
3 (17.6%) exact matches, in which:
2 unique CDR3
1 unique J



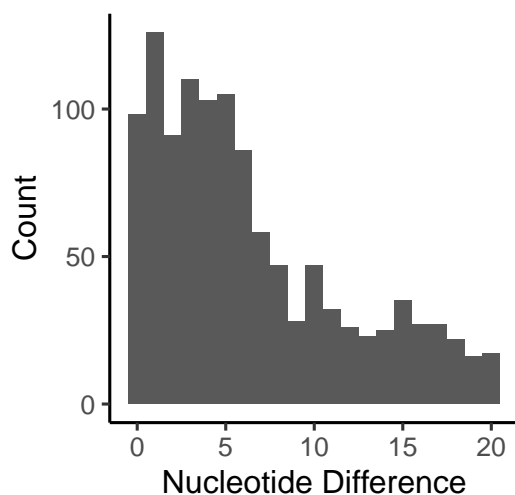
IGHV3-64*01

835 sequences assigned
154 (18.4%) exact matches, in which:
100 unique CDR3
6 unique J



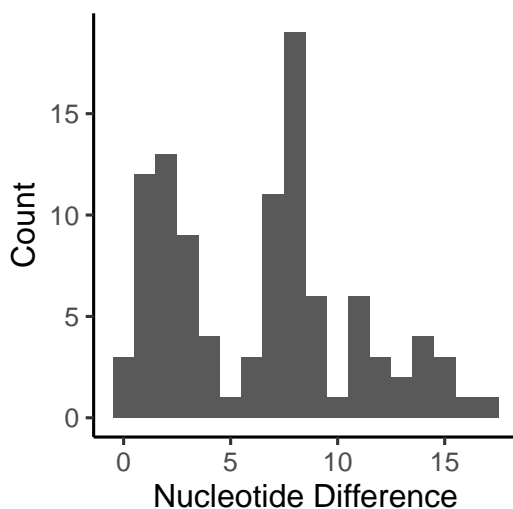
IGHV3-48*04

1308 sequences assigned
98 (7.5%) exact matches, in which:
85 unique CDR3
7 unique J



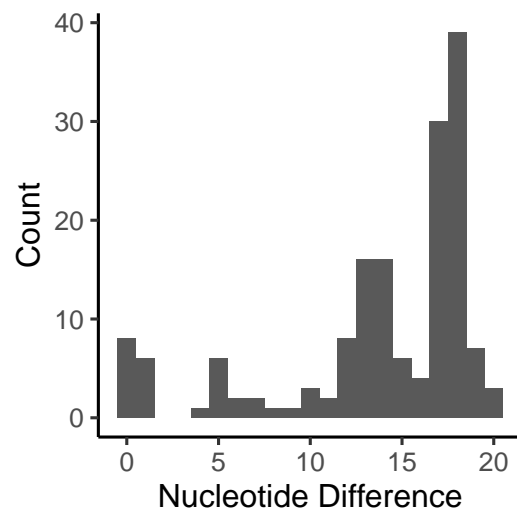
IGHV3-53*05

118 sequences assigned
3 (2.5%) exact matches, in which:
3 unique CDR3
3 unique J



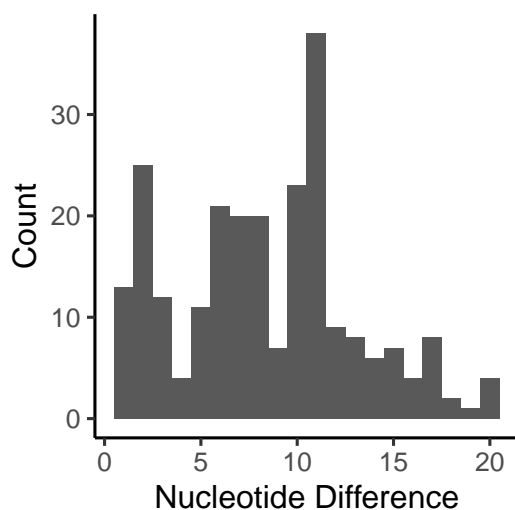
IGHV3-64*02_07

168 sequences assigned
8 (4.8%) exact matches, in which:
5 unique CDR3
3 unique J



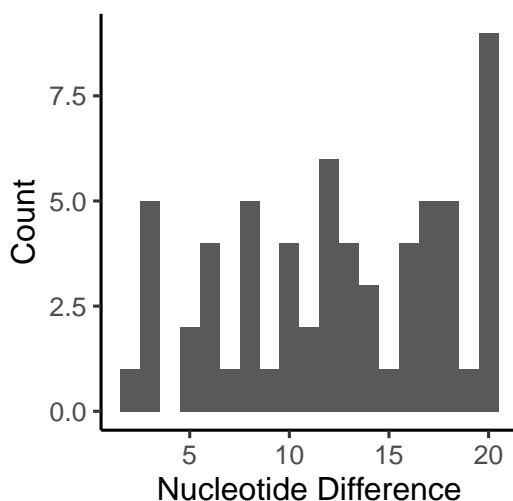
IGHV3-66*01

432 sequences assigned
No exact matches.



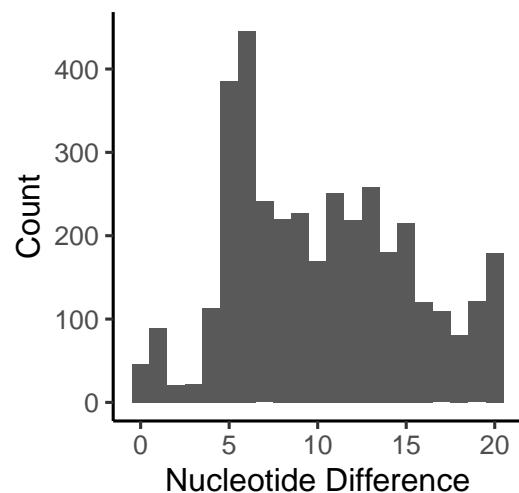
IGHV3-69-1*01

98 sequences assigned
No exact matches.



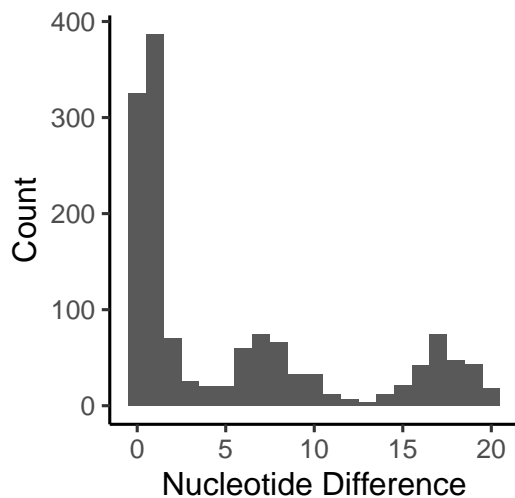
IGHV3-72*01

4724 sequences assigned
46 (1%) exact matches, in which:
31 unique CDR3
6 unique J



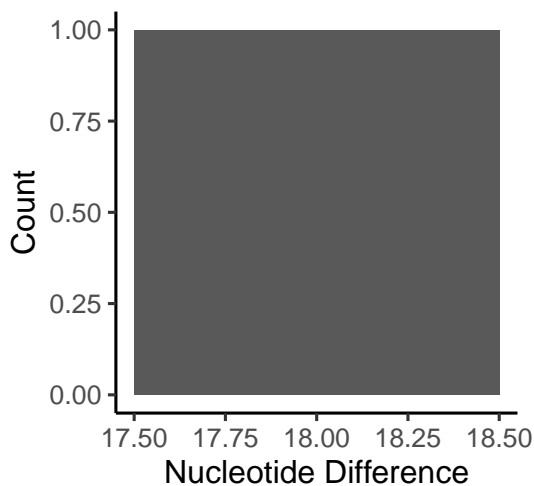
IGHV3-66*02

1963 sequences assigned
325 (16.6%) exact matches, in which:
233 unique CDR3
7 unique J



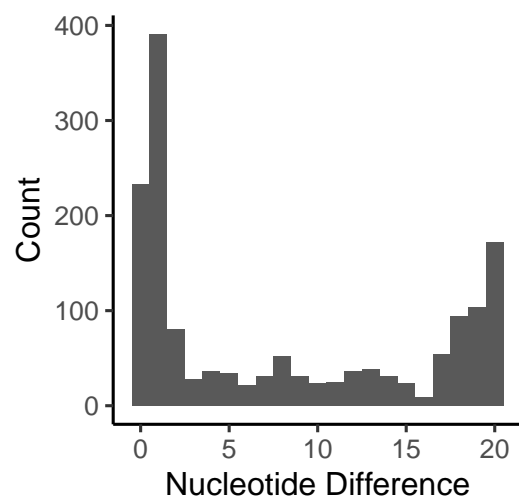
IGHV3-69-1*02

12 sequences assigned
No exact matches.



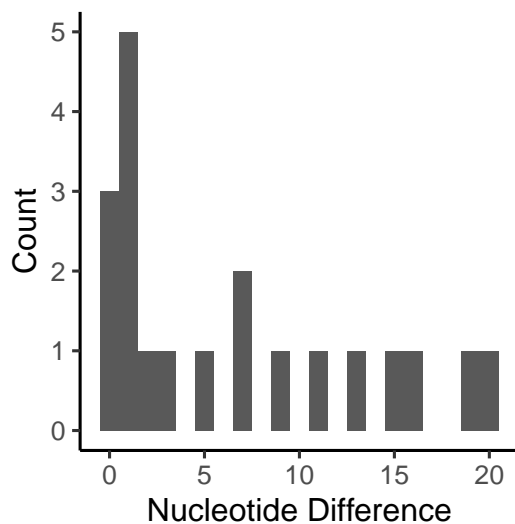
IGHV3-73*01_02

2087 sequences assigned
233 (11.2%) exact matches, in which:
155 unique CDR3
6 unique J



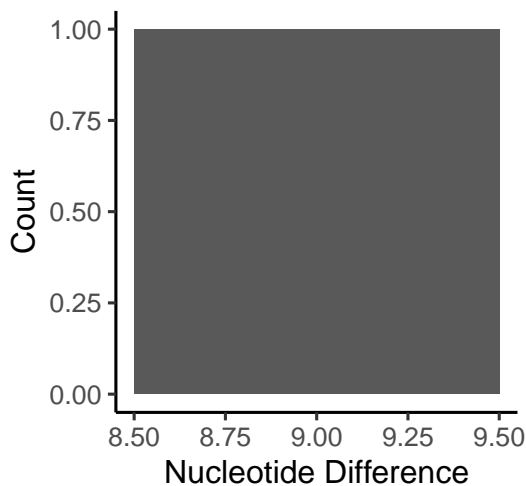
IGHV3-66*03

137 sequences assigned
3 (2.2%) exact matches, in which:
2 unique CDR3
2 unique J



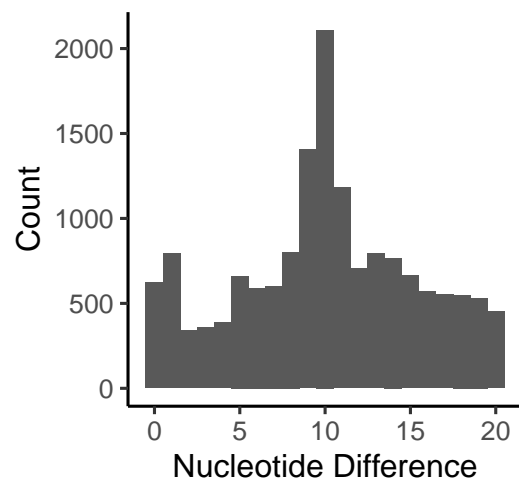
IGHV3-71*01_04

2 sequences assigned
No exact matches.



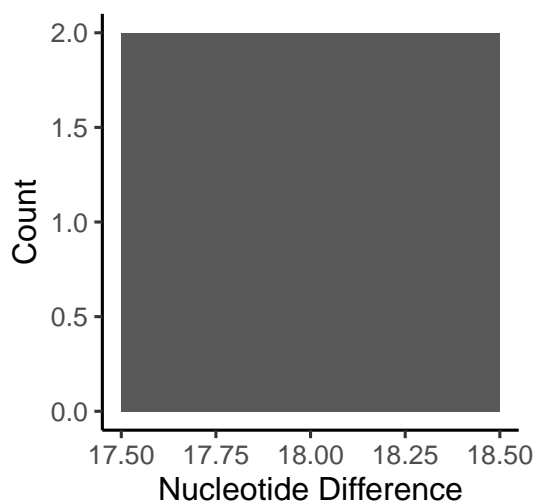
IGHV3-74*01_02

17867 sequences assigned
623 (3.5%) exact matches, in which:
440 unique CDR3
7 unique J



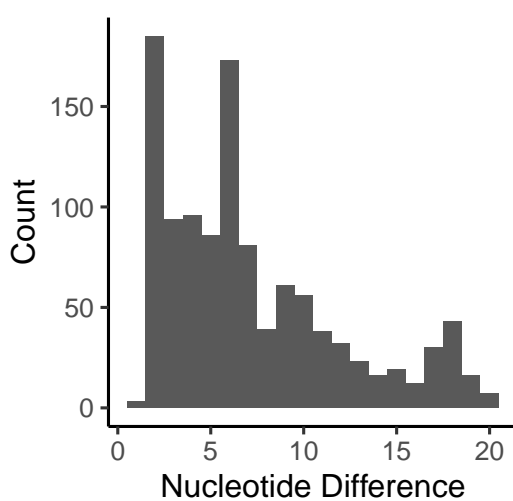
IGHV3-43D*04

2 sequences assigned
No exact matches.



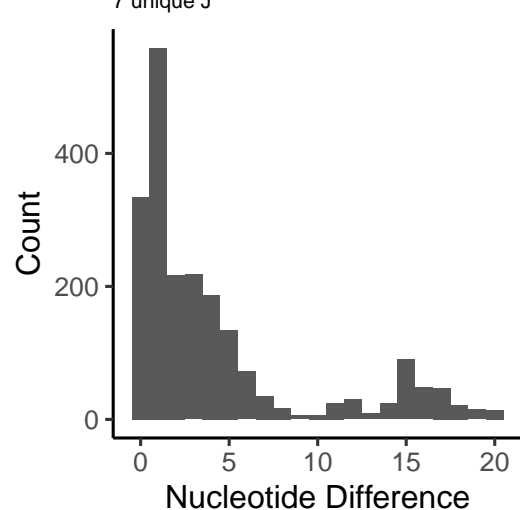
IGHV4-4*07

1170 sequences assigned
No exact matches.



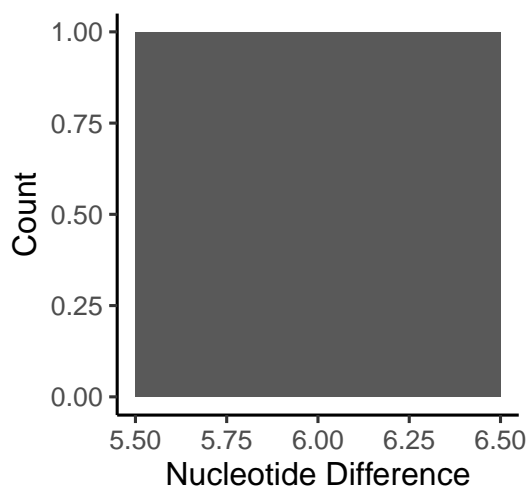
IGHV4-30-4*01

2228 sequences assigned
334 (15%) exact matches, in which:
255 unique CDR3
7 unique J



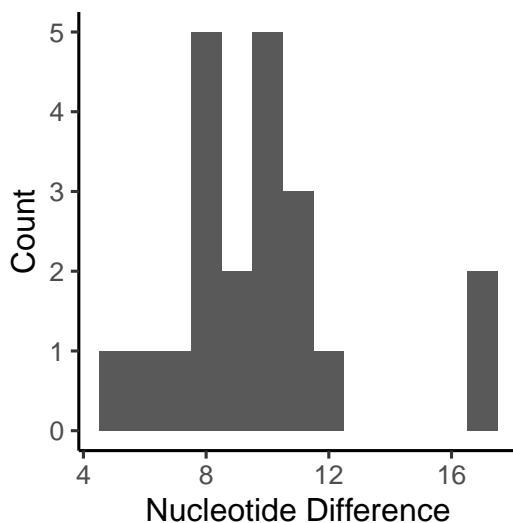
IGHV3-64D*06

2 sequences assigned
No exact matches.



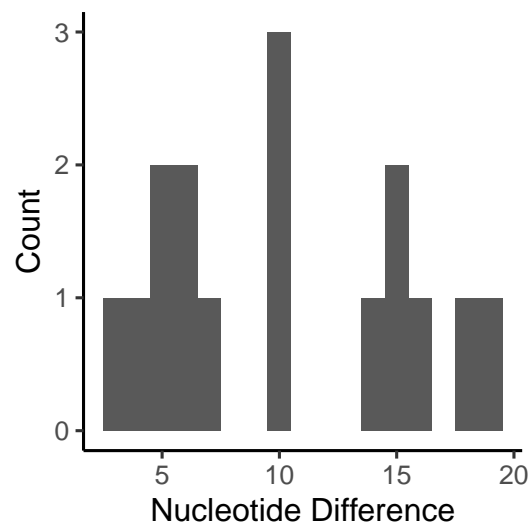
IGHV4-28*03

21 sequences assigned
No exact matches.



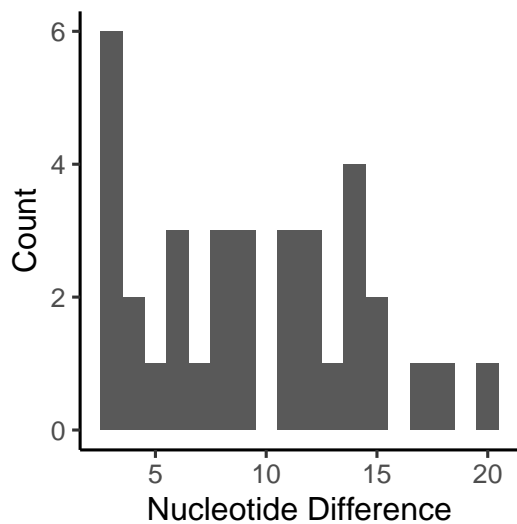
IGHV4-30-2*03

19 sequences assigned
No exact matches.



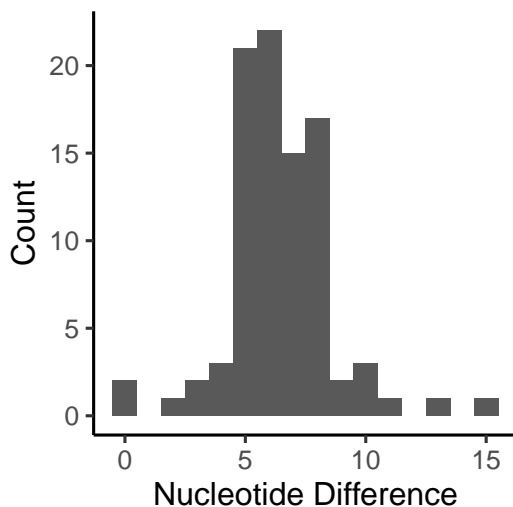
IGHV3-NL1*01

46 sequences assigned
No exact matches.



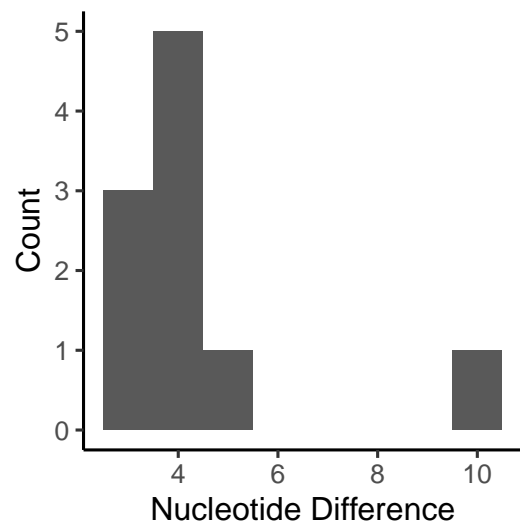
IGHV4-28*02_05

91 sequences assigned
2 (2.2%) exact matches, in which:
2 unique CDR3
1 unique J



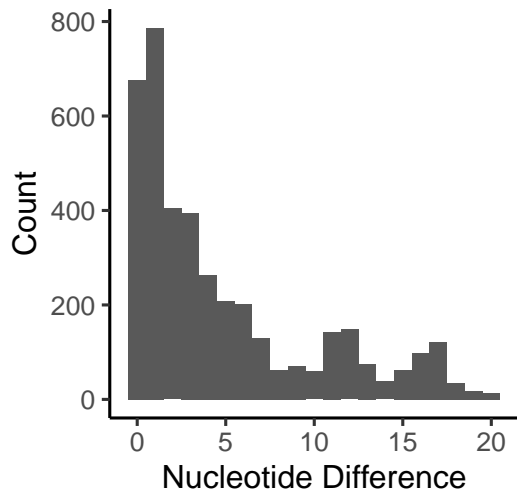
IGHV4-30-2*04

10 sequences assigned
No exact matches.



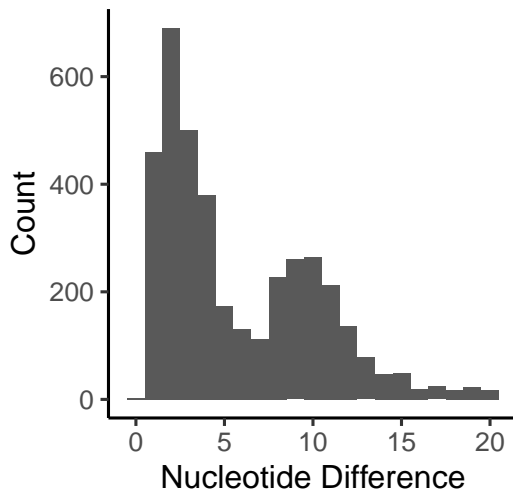
IGHV4-31*03_04

4677 sequences assigned
676 (14.5%) exact matches, in which:
531 unique CDR3
7 unique J



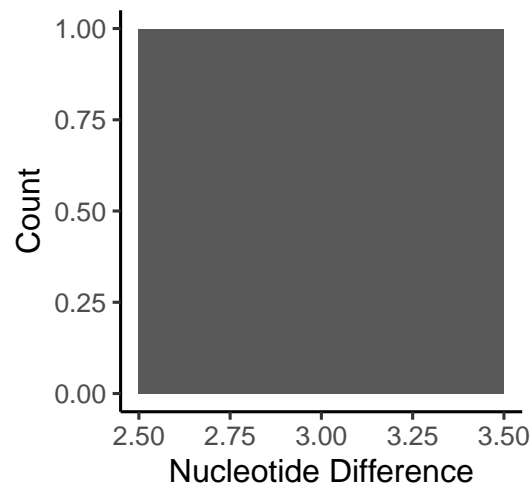
IGHV4-39*07

3953 sequences assigned
3 (0.1%) exact matches, in which:
3 unique CDR3
2 unique J



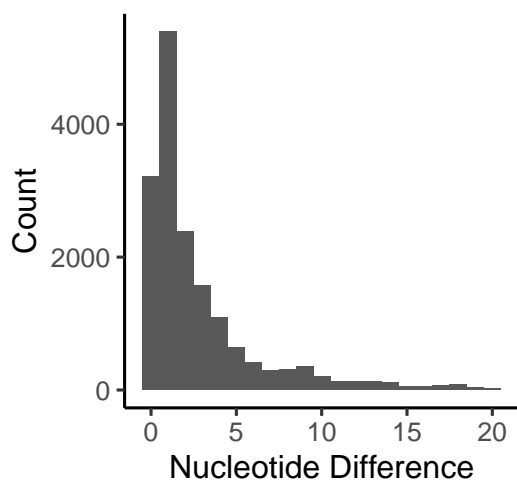
IGHV4-55*02_04_08

168 sequences assigned
No exact matches.



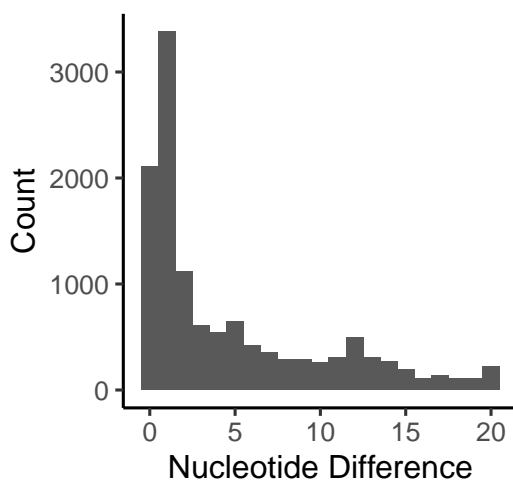
IGHV4-34*01_02

18554 sequences assigned
3212 (17.3%) exact matches, in which:
2079 unique CDR3
7 unique J



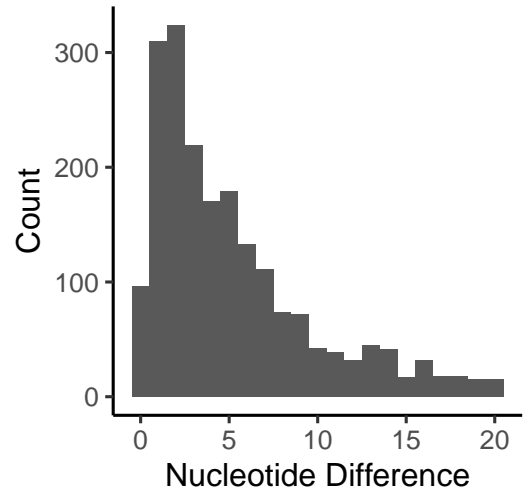
IGHV4-39*01_05

17247 sequences assigned
2106 (12.2%) exact matches, in which:
1460 unique CDR3
7 unique J



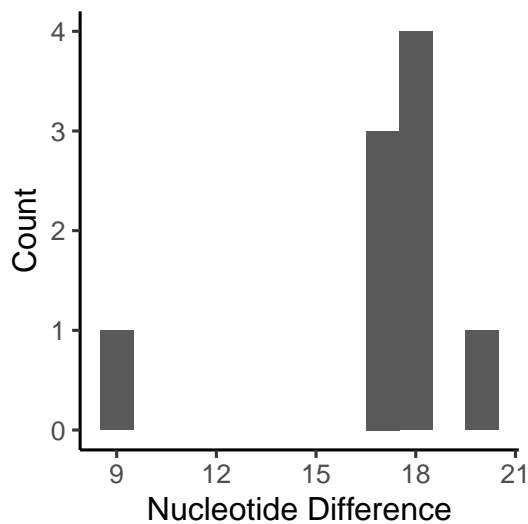
IGHV4-59*08

2248 sequences assigned
96 (4.3%) exact matches, in which:
89 unique CDR3
6 unique J



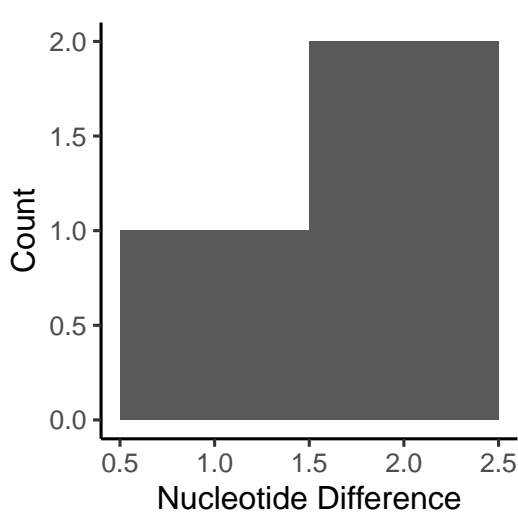
IGHV4-38-2*02

11 sequences assigned
No exact matches.



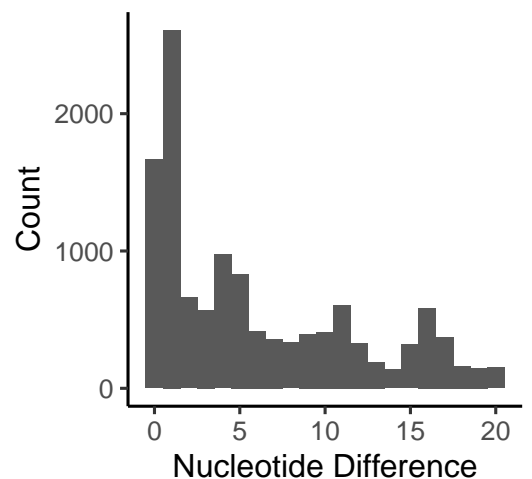
IGHV4-55*01_05

3 sequences assigned
No exact matches.



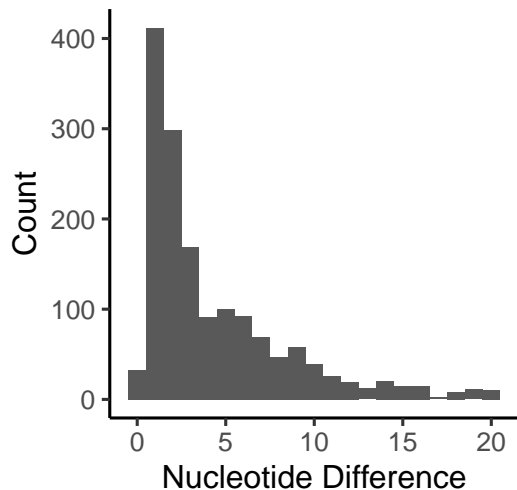
IGHV4-59*01_07

14528 sequences assigned
1666 (11.5%) exact matches, in which:
1240 unique CDR3
7 unique J



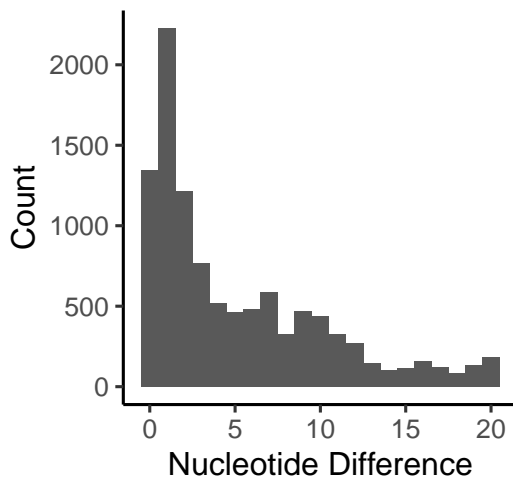
IGHV4-59*12

1597 sequences assigned
33 (2.1%) exact matches, in which:
32 unique CDR3
6 unique J



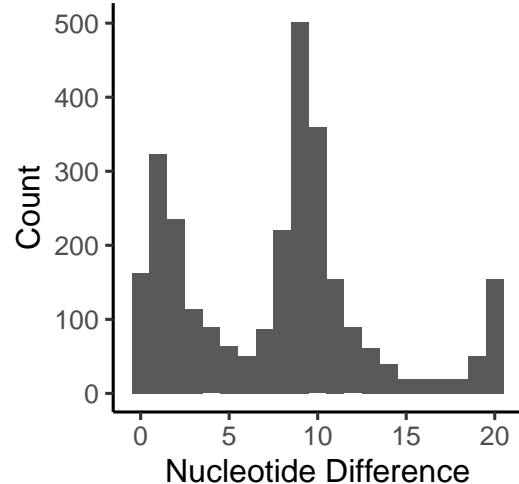
IGHV4-61*02

12423 sequences assigned
1345 (10.8%) exact matches, in which:
1043 unique CDR3
7 unique J



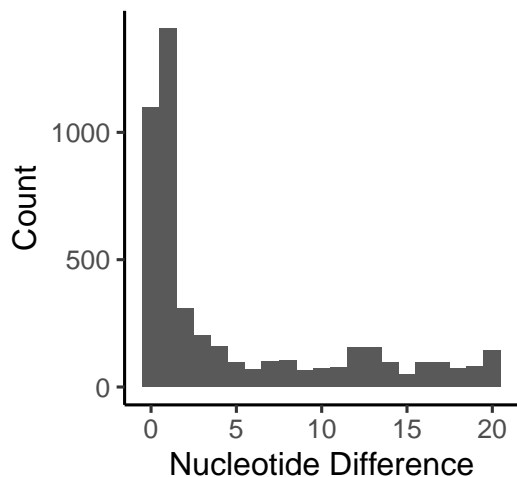
IGHV6-1*01_02

3286 sequences assigned
163 (5%) exact matches, in which:
143 unique CDR3
7 unique J



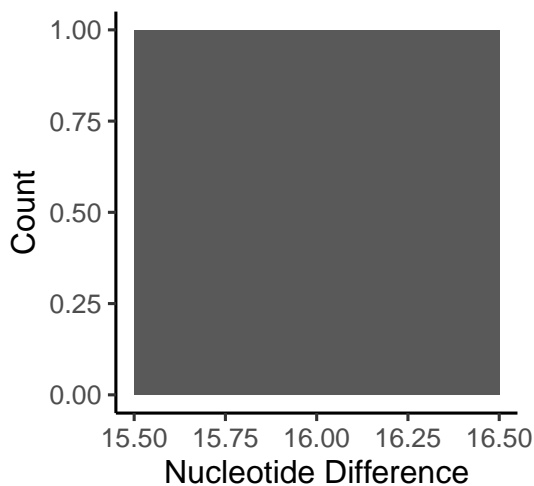
IGHV4-59*13

6121 sequences assigned
1096 (17.9%) exact matches, in which:
841 unique CDR3
7 unique J



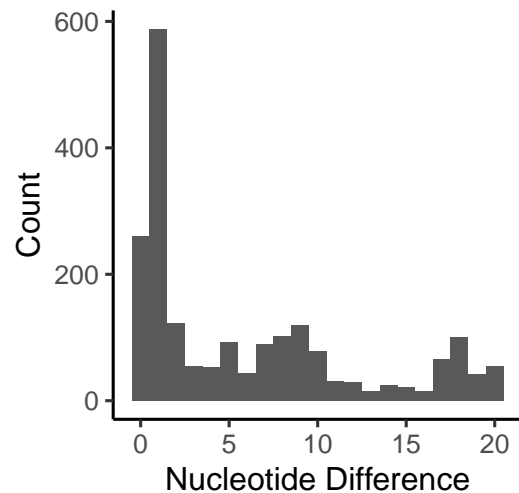
IGHV5-10-1*01_03

1 sequences assigned
No exact matches.



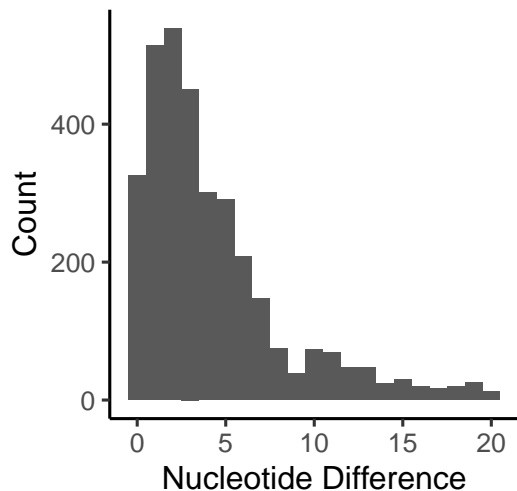
IGHV7-4-1*02

2588 sequences assigned
260 (10%) exact matches, in which:
197 unique CDR3
7 unique J



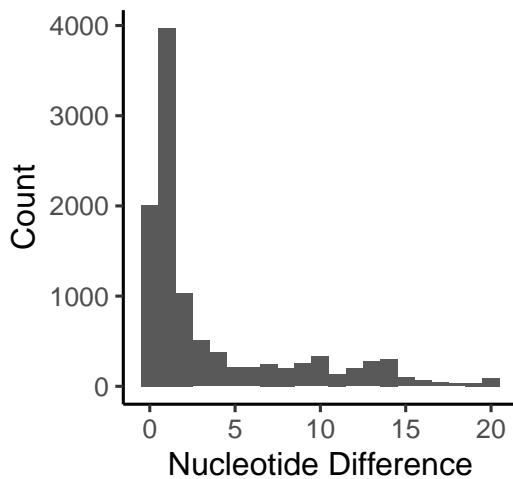
IGHV4-61*01

4253 sequences assigned
325 (7.6%) exact matches, in which:
290 unique CDR3
6 unique J



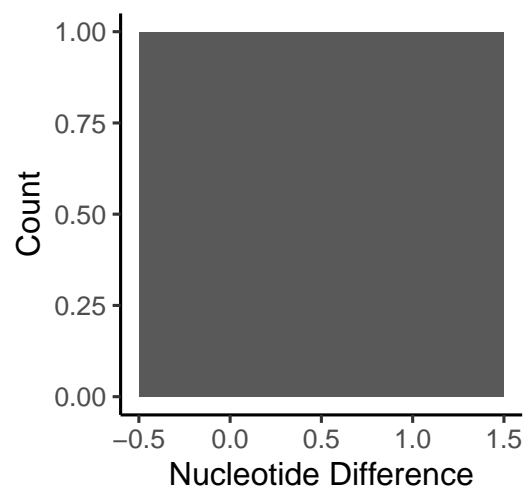
IGHV5-51*01_03

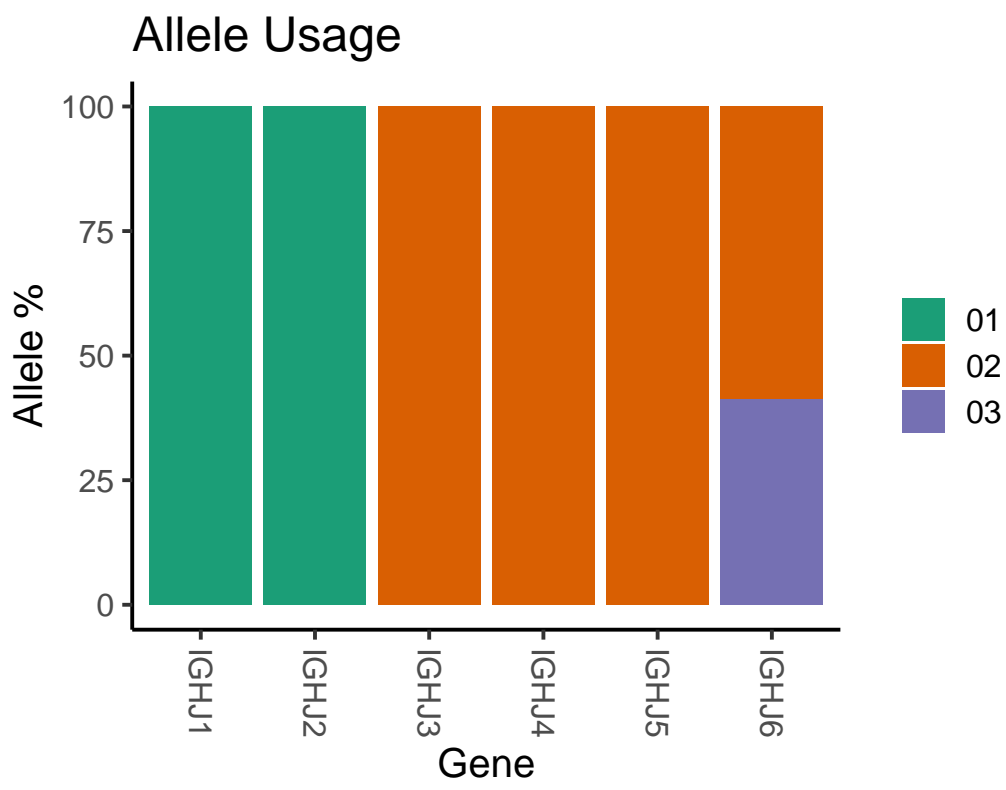
11419 sequences assigned
2010 (17.6%) exact matches, in which:
1060 unique CDR3
7 unique J



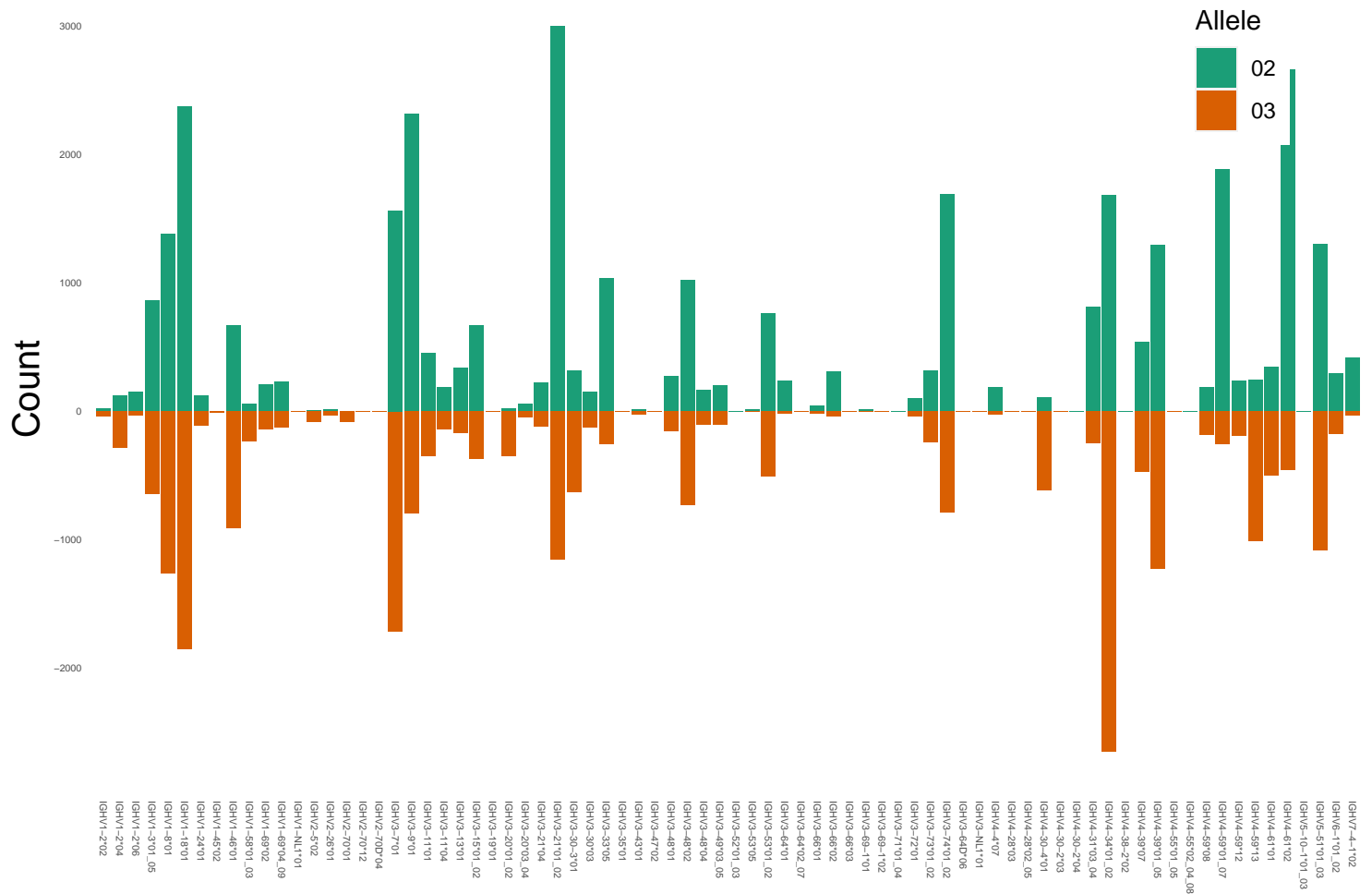
IGHV7-81*01

2 sequences assigned
1 (50%) exact matches, in which:
1 unique CDR3
1 unique J





Sequence Count by IGHJ6 allele usage



Novel sequence(s)IGHV1–69*01_12_13_G238AIGHV3–48*03_T303G 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_G88A are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30–3*01_T288CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30*03_T288C are not listed in the genotype and will be ignored.