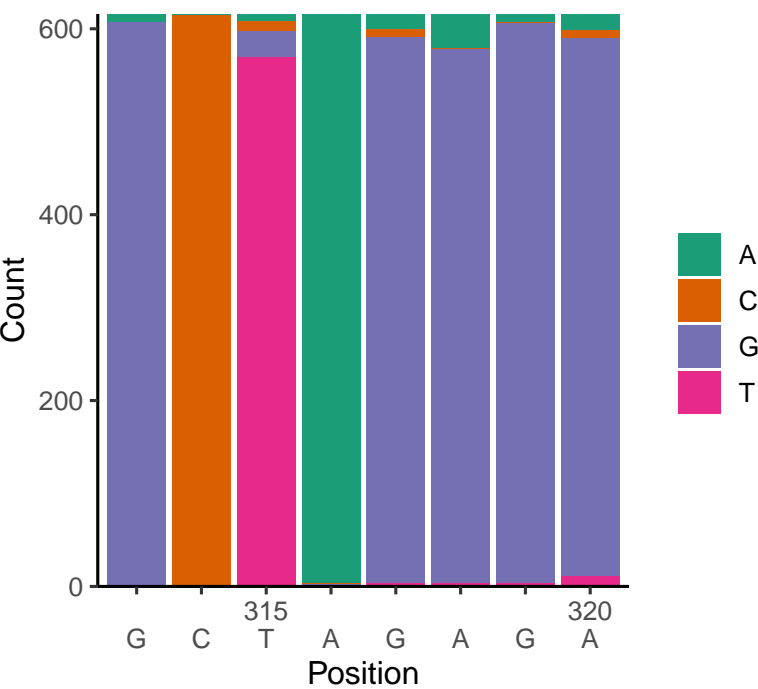
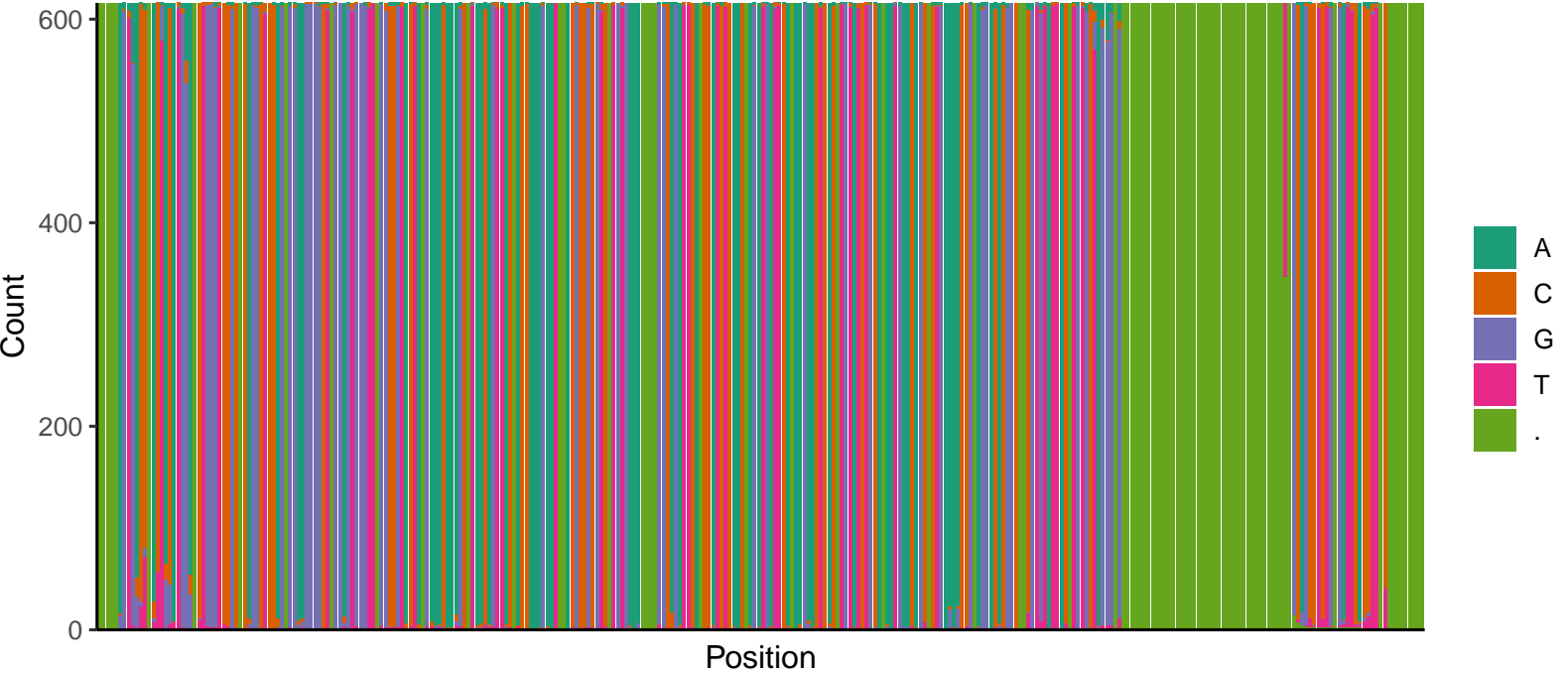


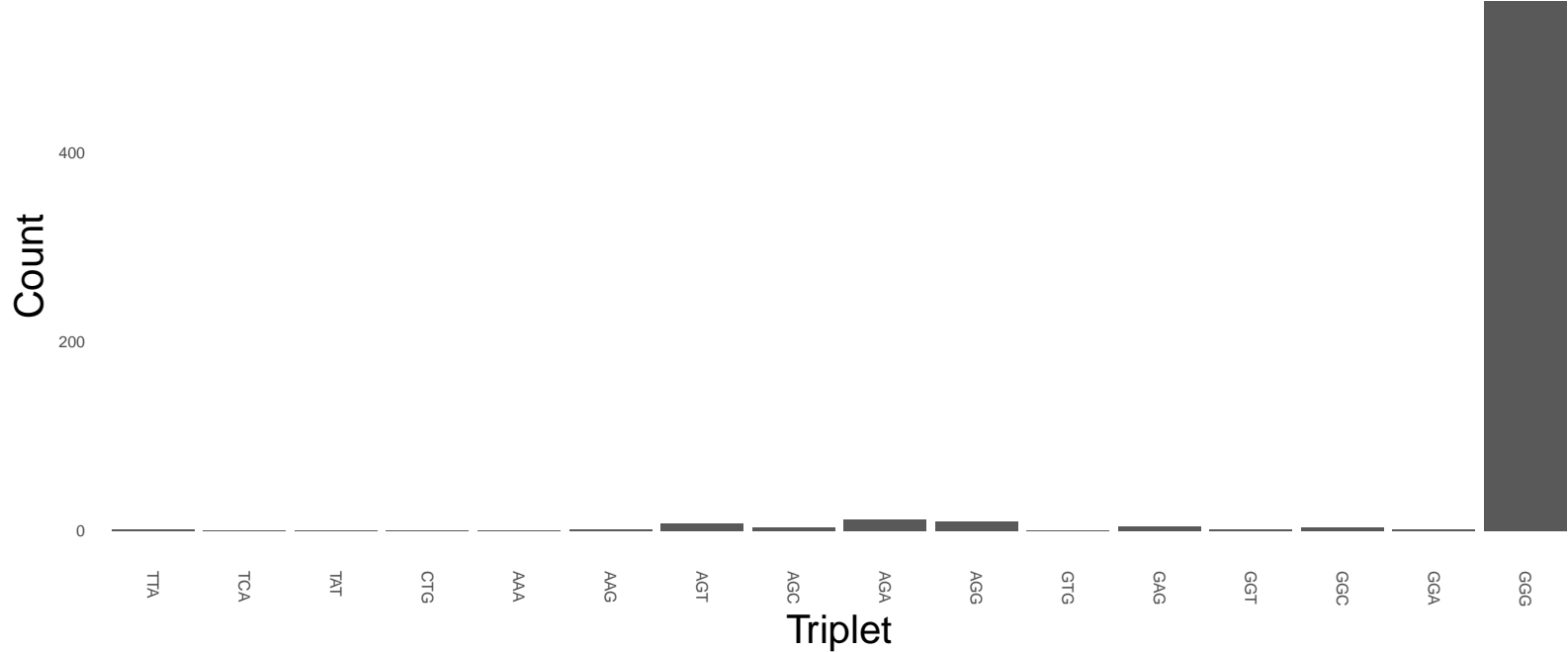
Gene IGHV3-72*01_C194A_G239C



Gene IGHV3-72*01_C194A_G239C

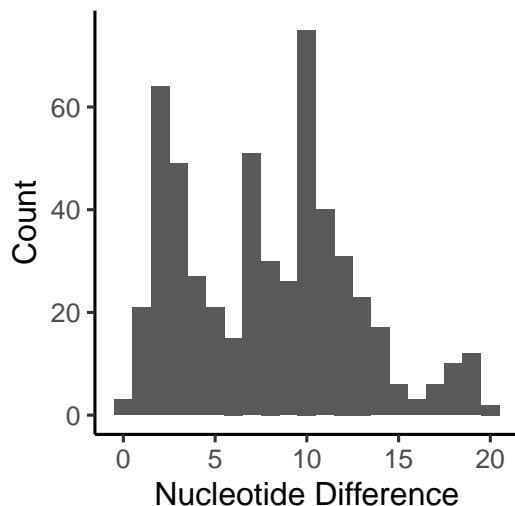


IGHV3-72*01_C194A_G239C- Final 3 nucleotides as a triplet



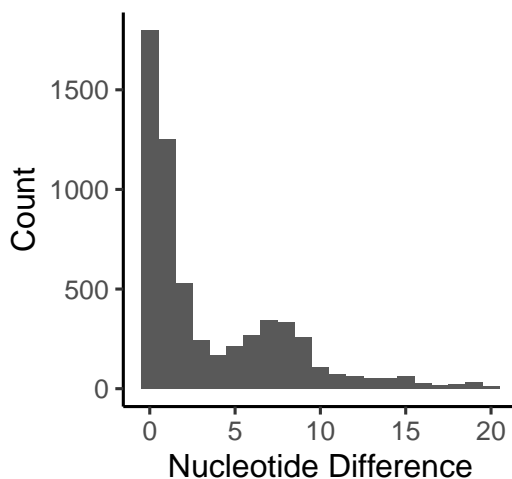
IGHV1-2*02

539 sequences assigned
3 (0.6%) exact matches, in which:
3 unique CDR3
2 unique J



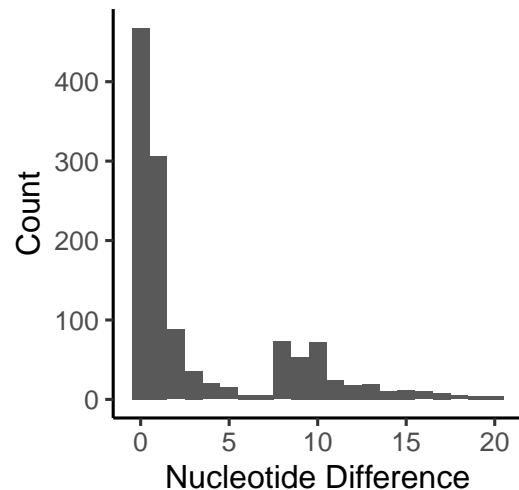
IGHV1-8*01

6201 sequences assigned
1798 (29%) exact matches, in which:
1589 unique CDR3
6 unique J



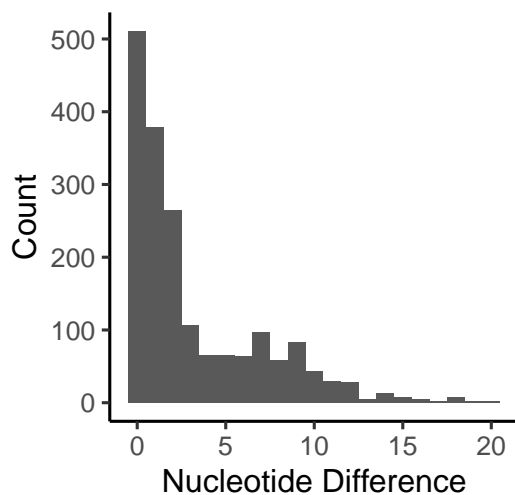
IGHV1-24*01

1283 sequences assigned
468 (36.5%) exact matches, in which:
414 unique CDR3
6 unique J



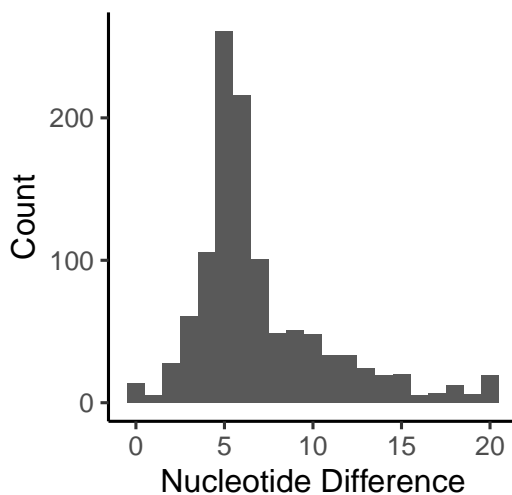
IGHV1-2*04

1850 sequences assigned
511 (27.6%) exact matches, in which:
452 unique CDR3
6 unique J



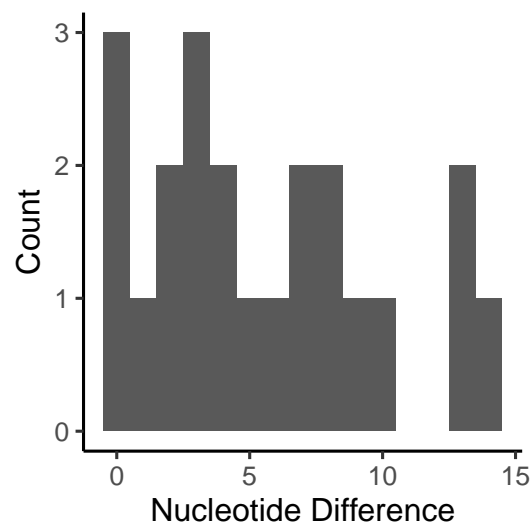
IGHV1-8*02

1163 sequences assigned
14 (1.2%) exact matches, in which:
14 unique CDR3
5 unique J



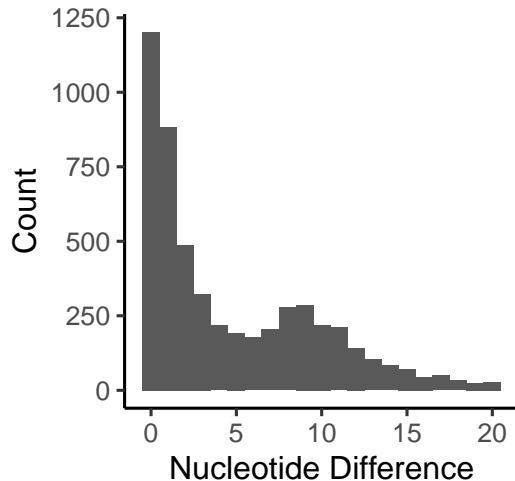
IGHV1-45*02

22 sequences assigned
3 (13.6%) exact matches, in which:
3 unique CDR3
3 unique J



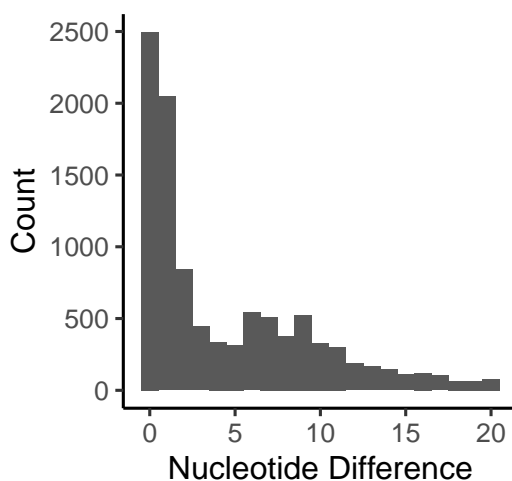
IGHV1-3*01_05

6141 sequences assigned
1202 (19.6%) exact matches, in which:
1007 unique CDR3
6 unique J



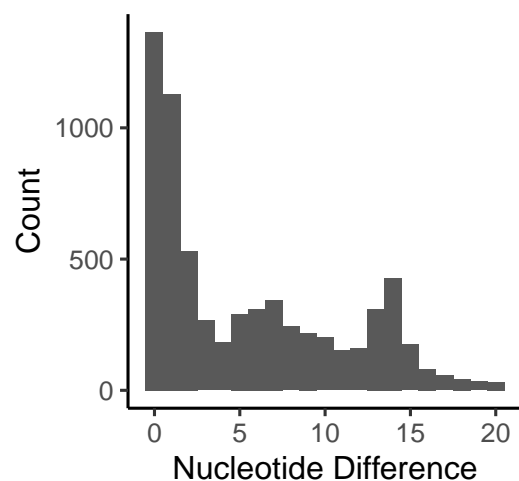
IGHV1-18*01

10893 sequences assigned
2496 (22.9%) exact matches, in which:
2190 unique CDR3
6 unique J



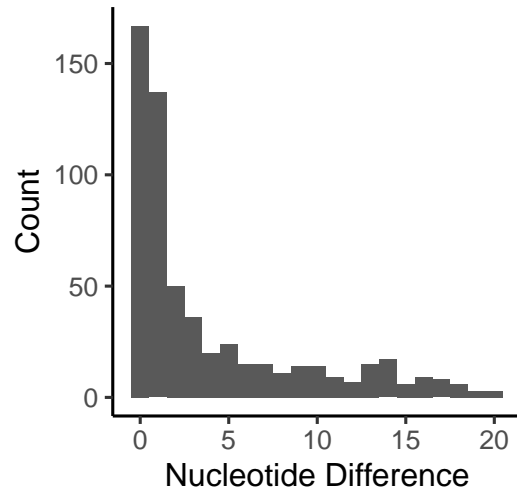
IGHV1-46*01

6744 sequences assigned
1365 (20.2%) exact matches, in which:
1228 unique CDR3
6 unique J



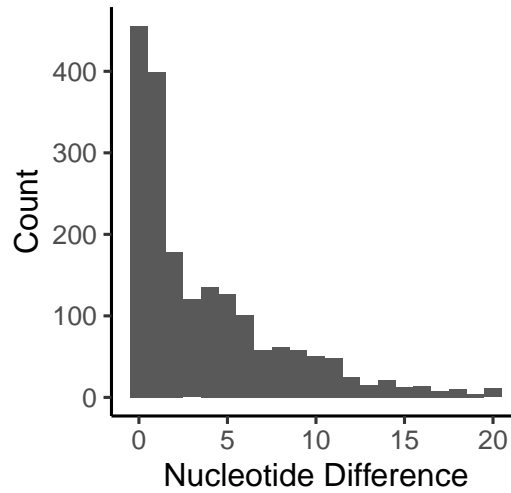
IGHV1–58*02

602 sequences assigned
167 (27.7%) exact matches, in which:
152 unique CDR3
5 unique J



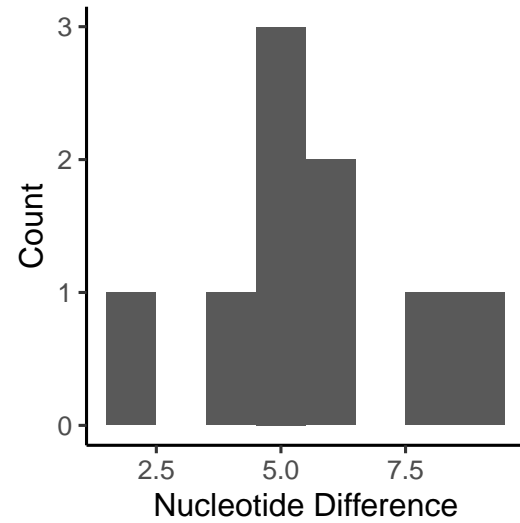
IGHV2–5*02

2356 sequences assigned
456 (19.4%) exact matches, in which:
399 unique CDR3
6 unique J



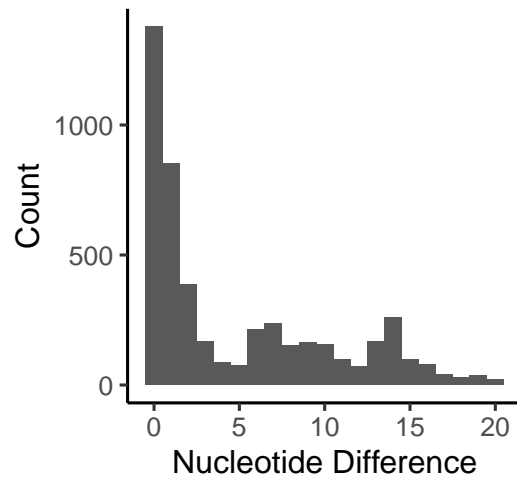
IGHV2–70D*04

9 sequences assigned
No exact matches.



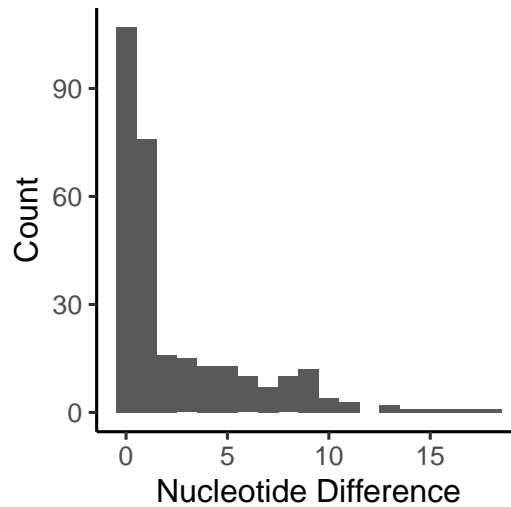
IGHV1–69*04_09

4945 sequences assigned
1378 (27.9%) exact matches, in which:
1268 unique CDR3
6 unique J



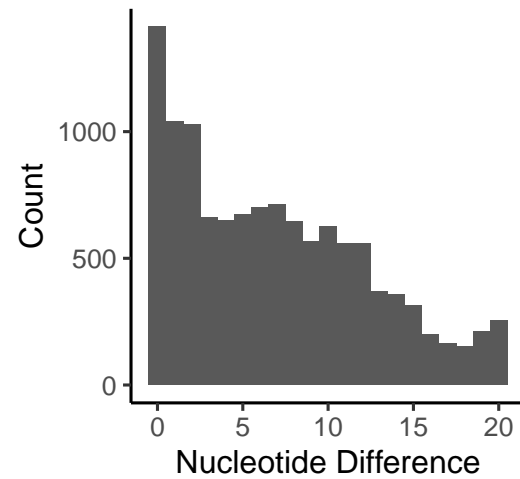
IGHV2–26*01

294 sequences assigned
107 (36.4%) exact matches, in which:
100 unique CDR3
5 unique J



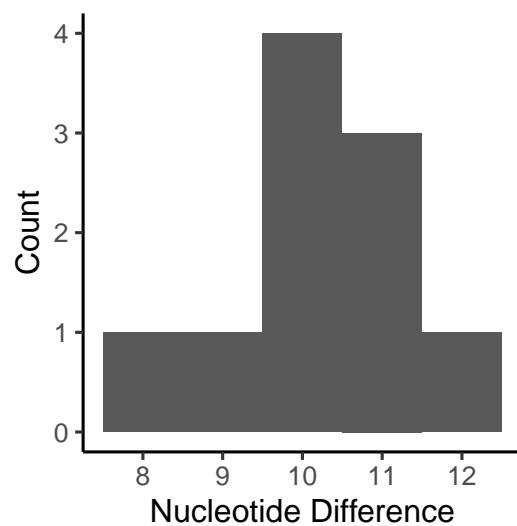
IGHV3–7*01

12696 sequences assigned
1414 (11.1%) exact matches, in which:
1044 unique CDR3
6 unique J



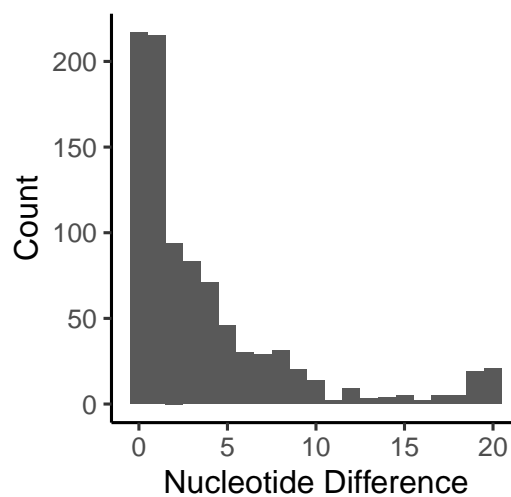
IGHV1–NL1*01

10 sequences assigned
No exact matches.



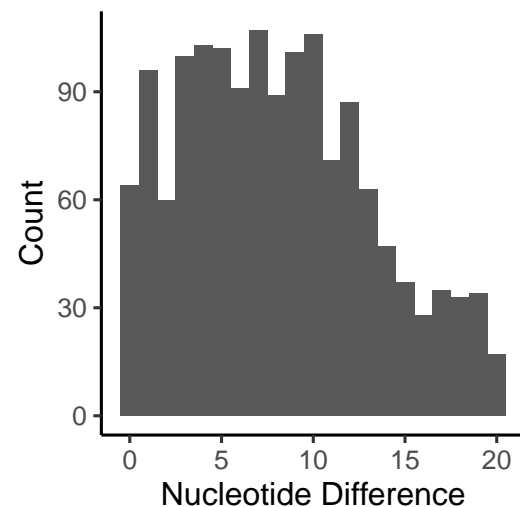
IGHV2–70*11_15

960 sequences assigned
217 (22.6%) exact matches, in which:
185 unique CDR3
5 unique J



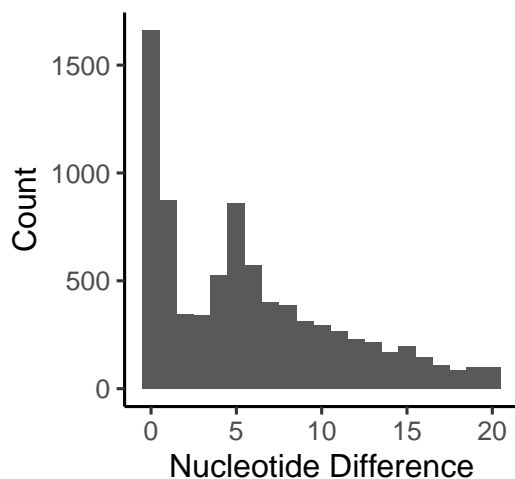
IGHV3–7*03

1578 sequences assigned
64 (4.1%) exact matches, in which:
59 unique CDR3
6 unique J



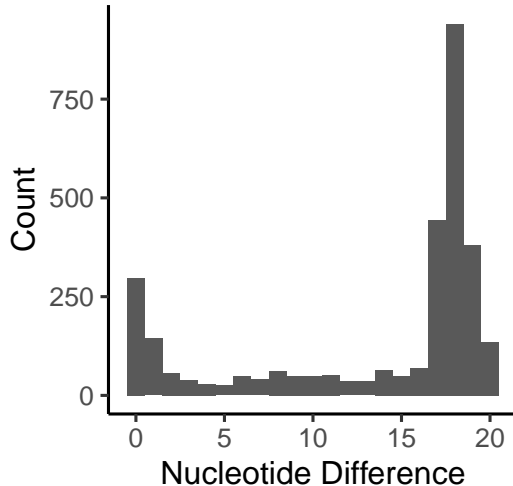
IGHV3-9*01

9385 sequences assigned
1661 (17.7%) exact matches, in which:
1110 unique CDR3
6 unique J



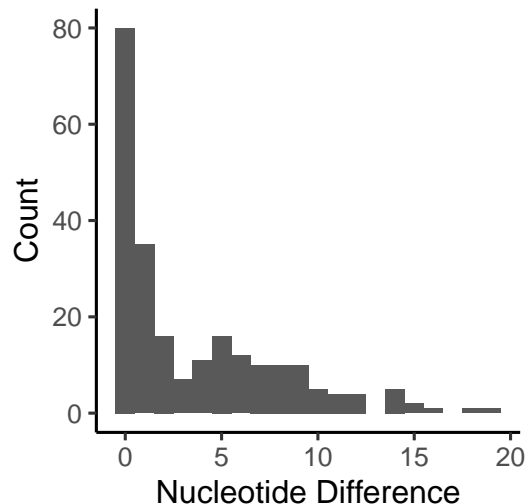
IGHV3-13*01

3342 sequences assigned
297 (8.9%) exact matches, in which:
215 unique CDR3
6 unique J



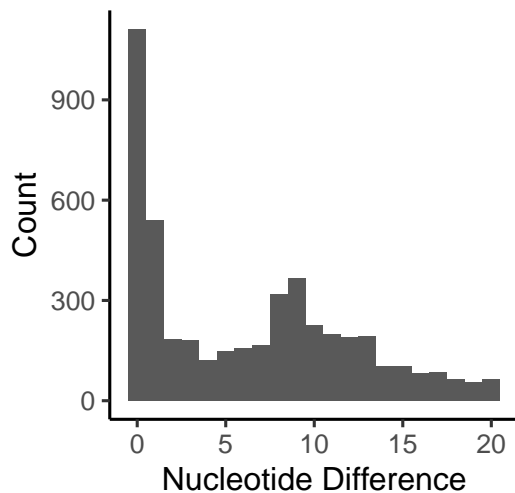
IGHV3-20*01_02

232 sequences assigned
80 (34.5%) exact matches, in which:
53 unique CDR3
5 unique J



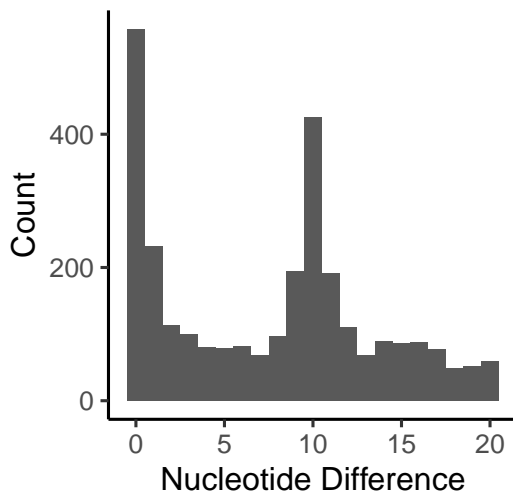
IGHV3-11*01

5348 sequences assigned
1112 (20.8%) exact matches, in which:
795 unique CDR3
6 unique J



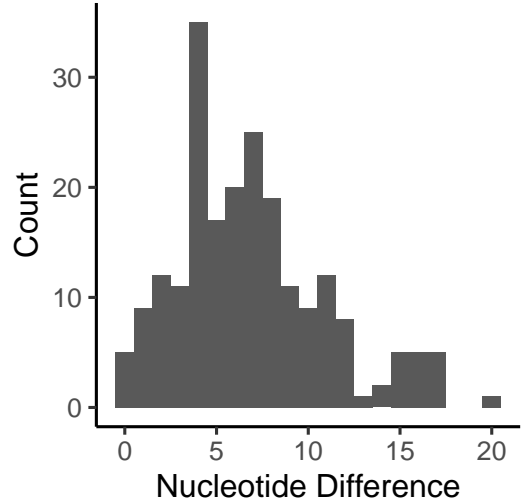
IGHV3-15*01_02

3114 sequences assigned
558 (17.9%) exact matches, in which:
405 unique CDR3
6 unique J



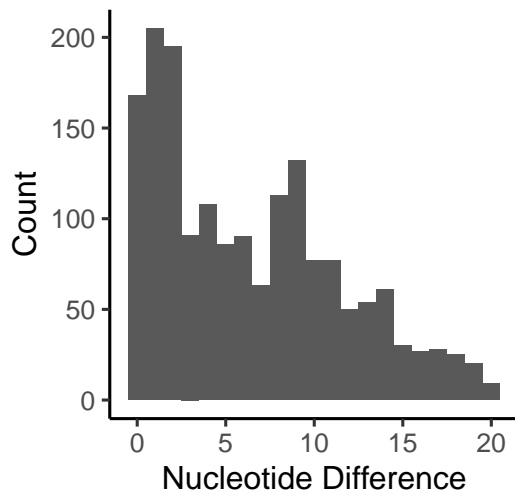
IGHV3-20*03_04

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



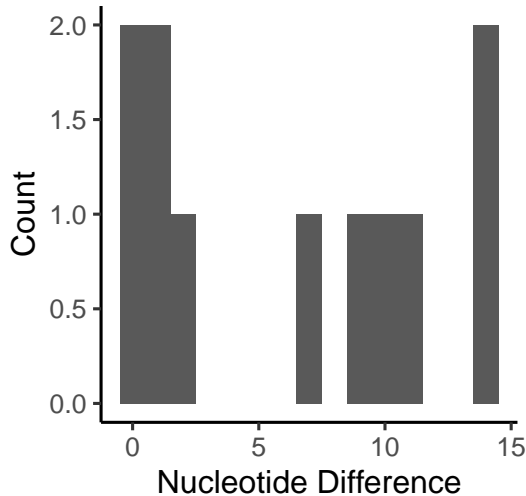
IGHV3-11*04

1786 sequences assigned
168 (9.4%) exact matches, in which:
162 unique CDR3
6 unique J



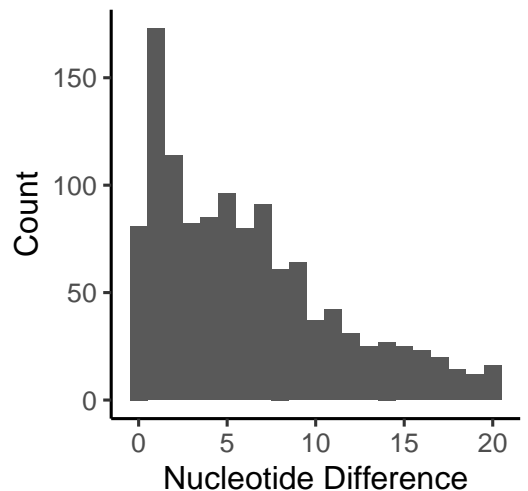
IGHV3-19*01

11 sequences assigned
2 (18.2%) exact matches, in which:
2 unique CDR3
2 unique J



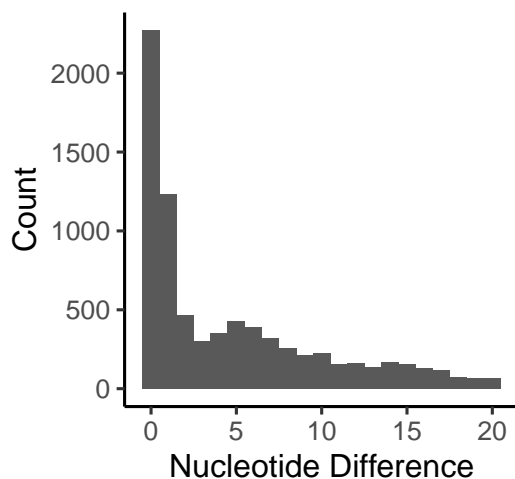
IGHV3-21*04

1294 sequences assigned
81 (6.3%) exact matches, in which:
77 unique CDR3
6 unique J



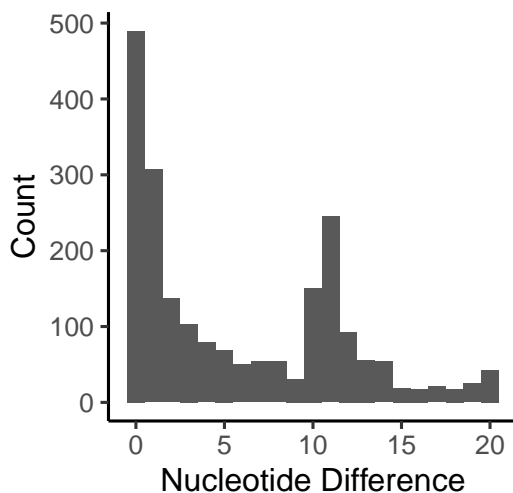
IGHV3-21*01_02

8568 sequences assigned
2271 (26.5%) exact matches, in which:
1595 unique CDR3
6 unique J



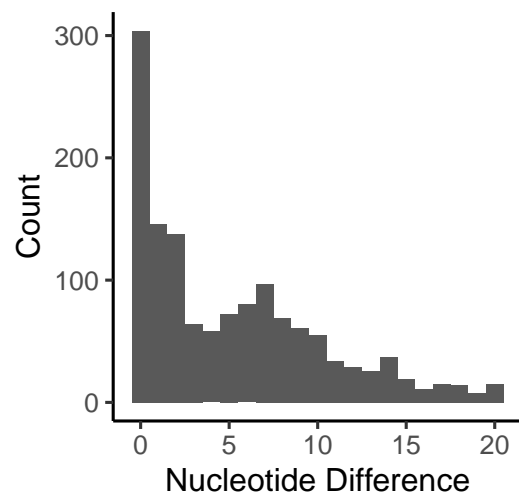
IGHV3-30*03

2610 sequences assigned
490 (18.8%) exact matches, in which:
455 unique CDR3
6 unique J



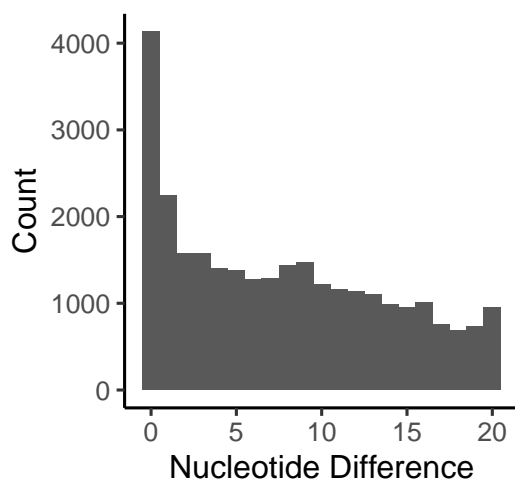
IGHV3-33*08

1518 sequences assigned
304 (20%) exact matches, in which:
274 unique CDR3
6 unique J



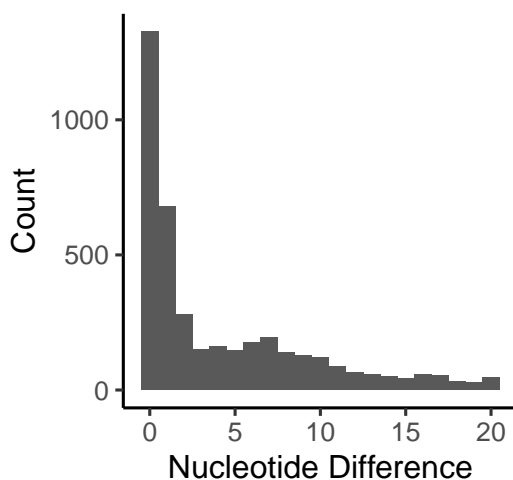
IGHV3-23*01_04

38238 sequences assigned
4132 (10.8%) exact matches, in which:
2738 unique CDR3
6 unique J



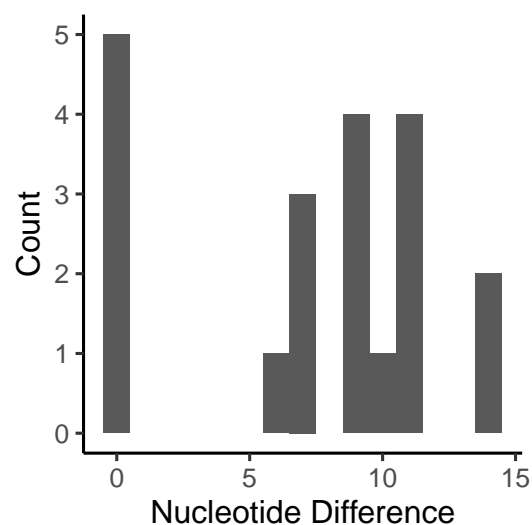
IGHV3-33*01

4384 sequences assigned
1326 (30.2%) exact matches, in which:
997 unique CDR3
6 unique J



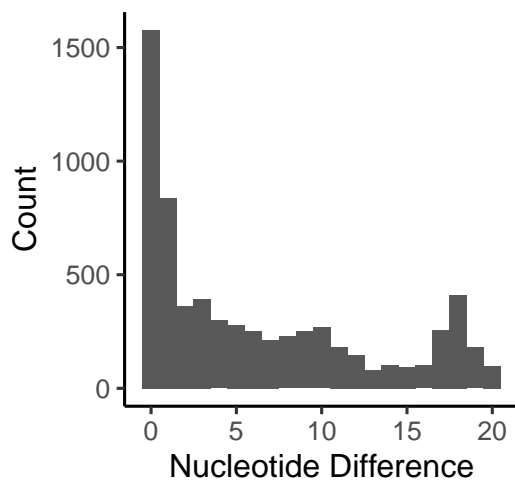
IGHV3-35*01

22 sequences assigned
5 (22.7%) exact matches, in which:
4 unique CDR3
3 unique J



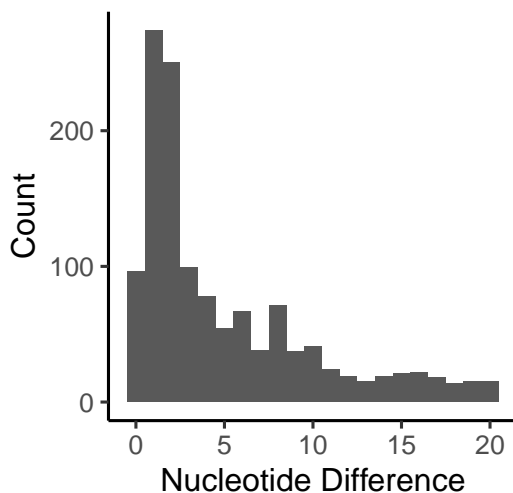
IGHV3-30-3*01

7051 sequences assigned
1577 (22.4%) exact matches, in which:
1199 unique CDR3
6 unique J



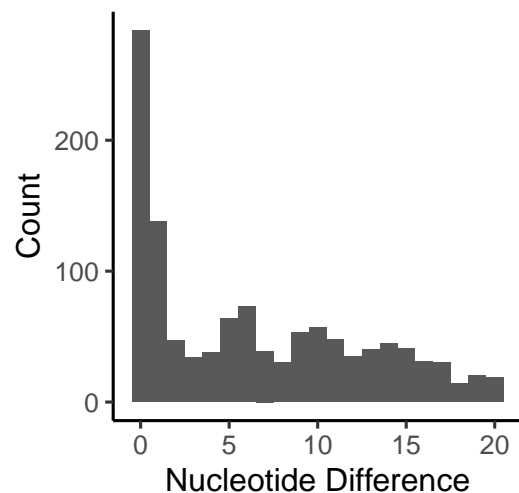
IGHV3-33*06

1344 sequences assigned
96 (7.1%) exact matches, in which:
94 unique CDR3
6 unique J



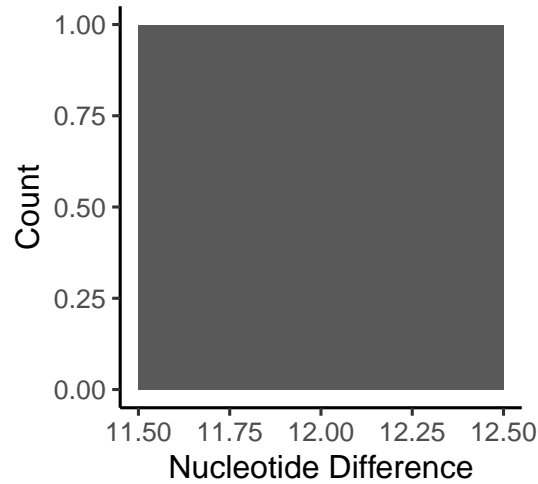
IGHV3-43*02

1570 sequences assigned
284 (18.1%) exact matches, in which:
197 unique CDR3
6 unique J



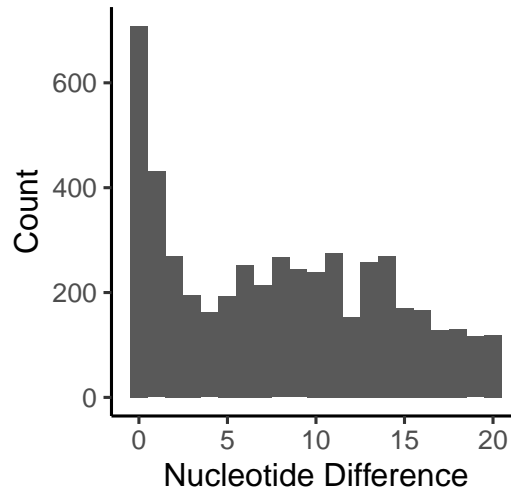
IGHV3-47*01

1 sequences assigned
No exact matches.



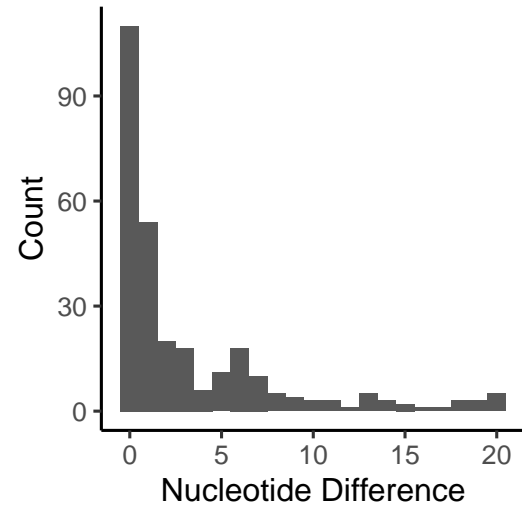
IGHV3-48*03

6705 sequences assigned
709 (10.6%) exact matches, in which:
510 unique CDR3
6 unique J



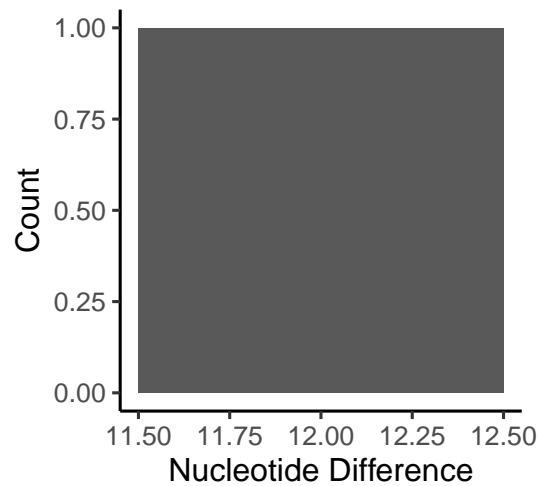
IGHV3-49*03_05

295 sequences assigned
110 (37.3%) exact matches, in which:
76 unique CDR3
5 unique J



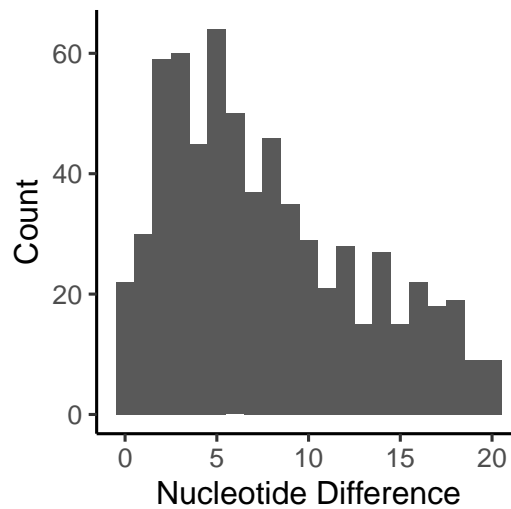
IGHV3-47*02

1 sequences assigned
No exact matches.



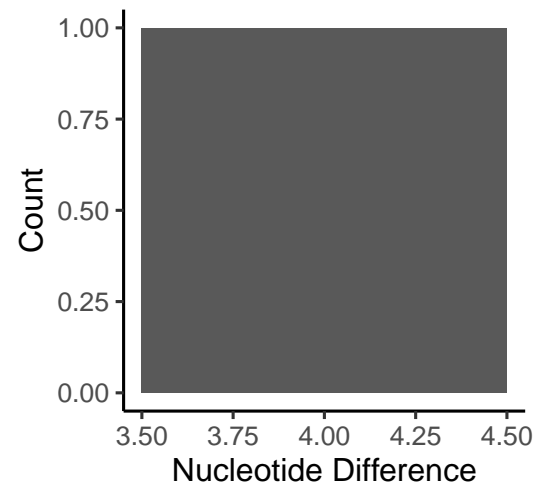
IGHV3-48*04

712 sequences assigned
22 (3.1%) exact matches, in which:
22 unique CDR3
3 unique J



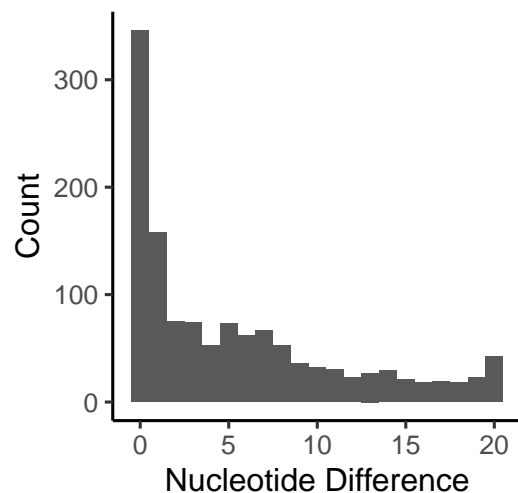
IGHV3-52*01_03

1 sequences assigned
No exact matches.



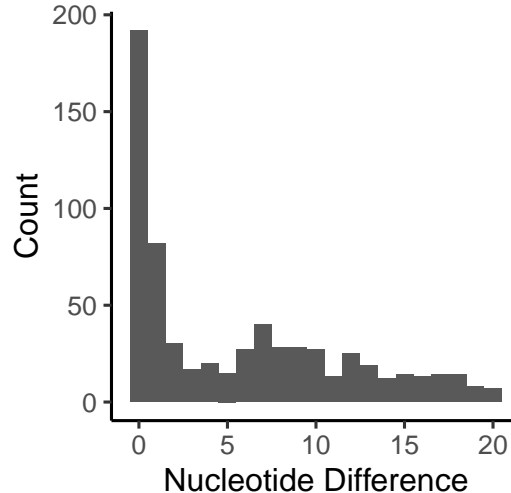
IGHV3-48*02

1369 sequences assigned
346 (25.3%) exact matches, in which:
244 unique CDR3
6 unique J



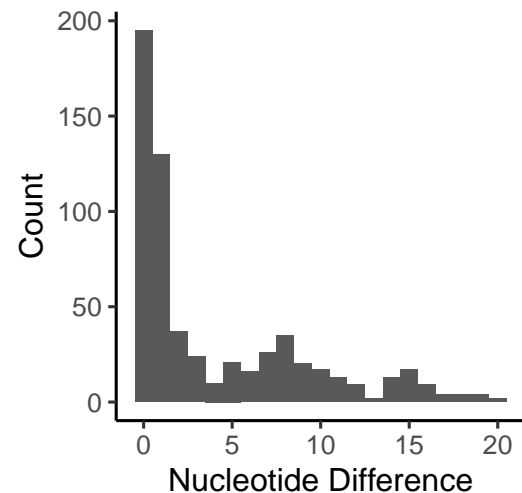
IGHV3-49*04

719 sequences assigned
192 (26.7%) exact matches, in which:
142 unique CDR3
5 unique J



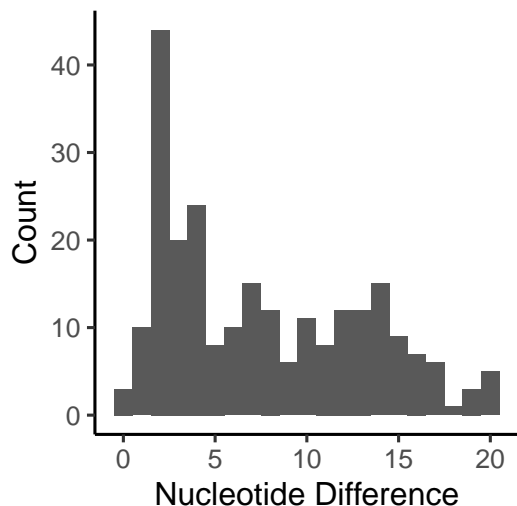
IGHV3-53*04

671 sequences assigned
195 (29.1%) exact matches, in which:
141 unique CDR3
5 unique J



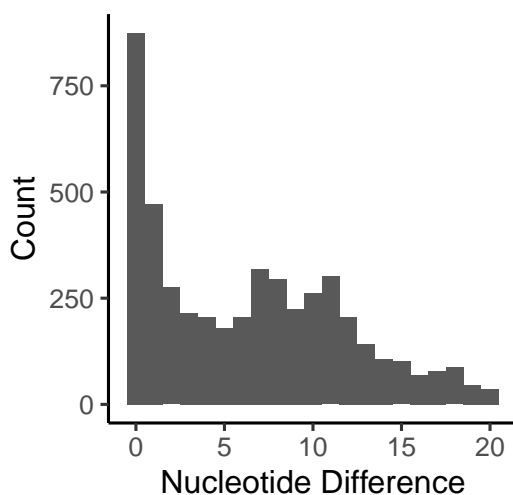
IGHV3-53*05

258 sequences assigned
3 (1.2%) exact matches, in which:
3 unique CDR3
3 unique J



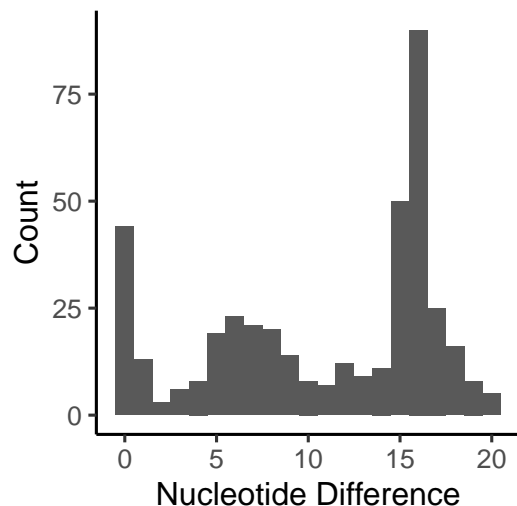
IGHV3-66*01

5120 sequences assigned
875 (17.1%) exact matches, in which:
646 unique CDR3
6 unique J



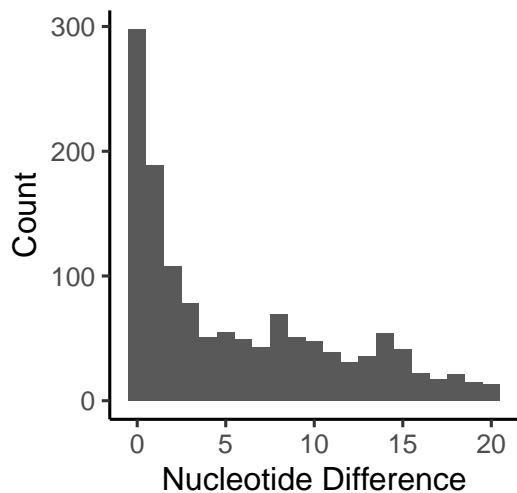
IGHV3-72*01

494 sequences assigned
44 (8.9%) exact matches, in which:
33 unique CDR3
4 unique J



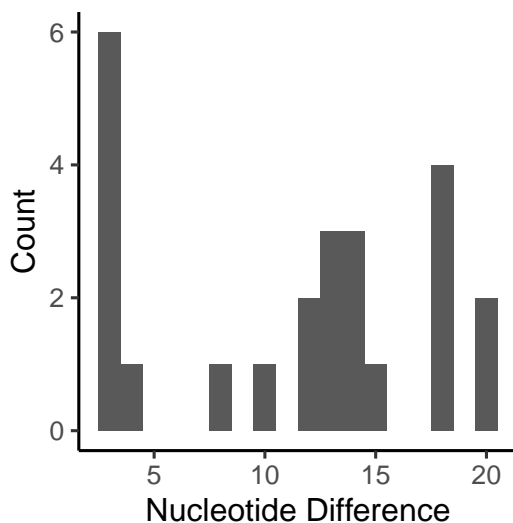
IGHV3-53*01_02

1369 sequences assigned
298 (21.8%) exact matches, in which:
211 unique CDR3
6 unique J



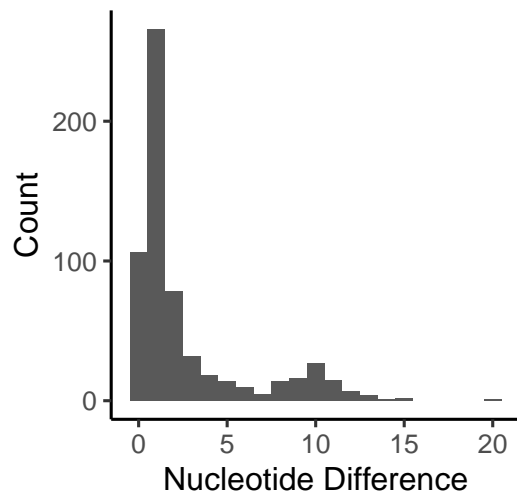
IGHV3-69-1*01

41 sequences assigned
No exact matches.



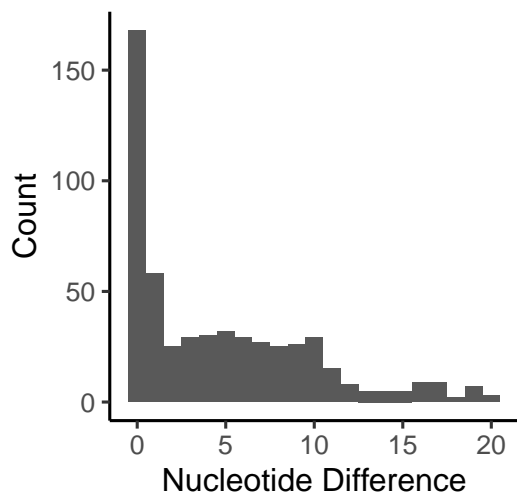
IGHV3-72*01_C194A_G2

616 sequences assigned
106 (17.2%) exact matches, in which:
49 unique CDR3
3 unique J



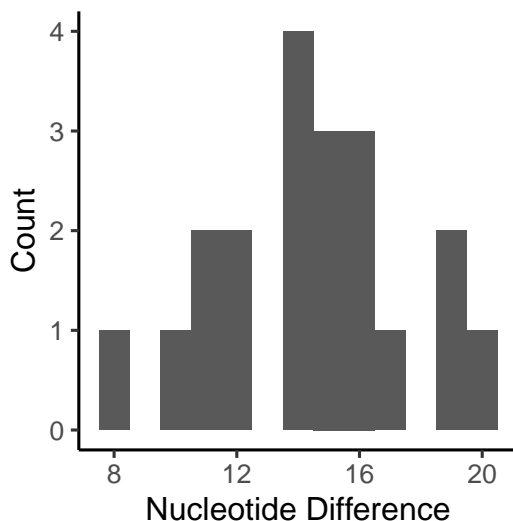
IGHV3-64*01

582 sequences assigned
168 (28.9%) exact matches, in which:
124 unique CDR3
6 unique J



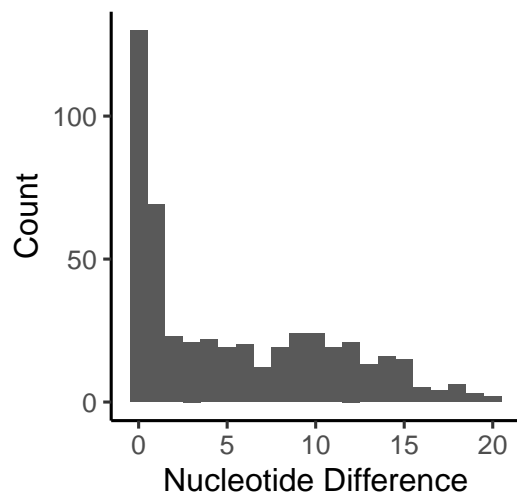
IGHV3-69-1*02

48 sequences assigned
No exact matches.



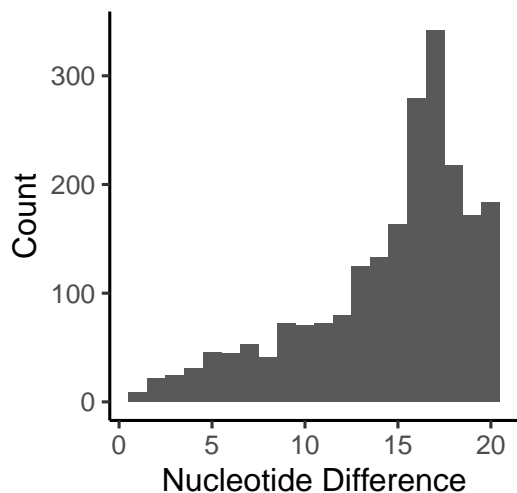
IGHV3-73*01_02

508 sequences assigned
130 (25.6%) exact matches, in which:
83 unique CDR3
5 unique J



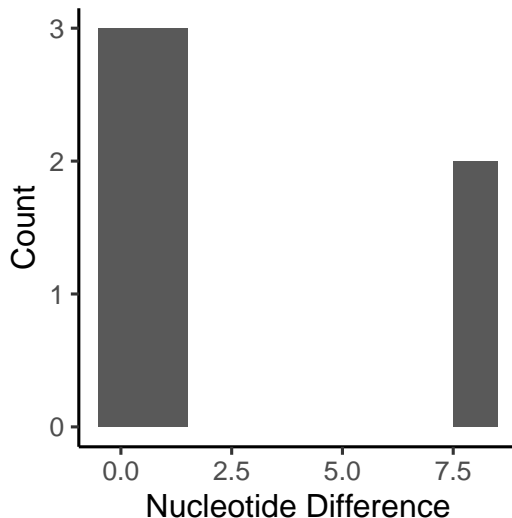
IGHV3-74*03

2691 sequences assigned
No exact matches.



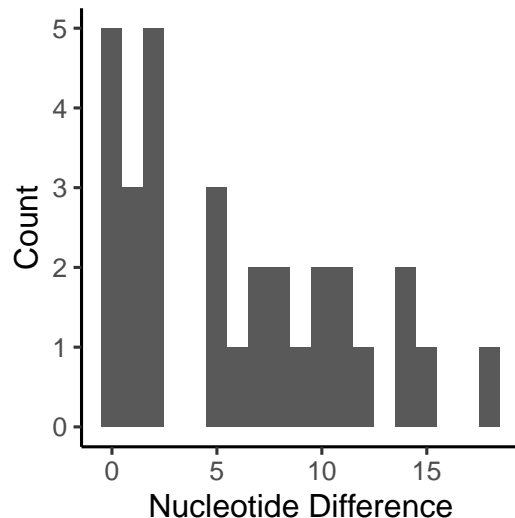
IGHV3-64D*06

28 sequences assigned
3 (10.7%) exact matches, in which:
2 unique CDR3
2 unique J



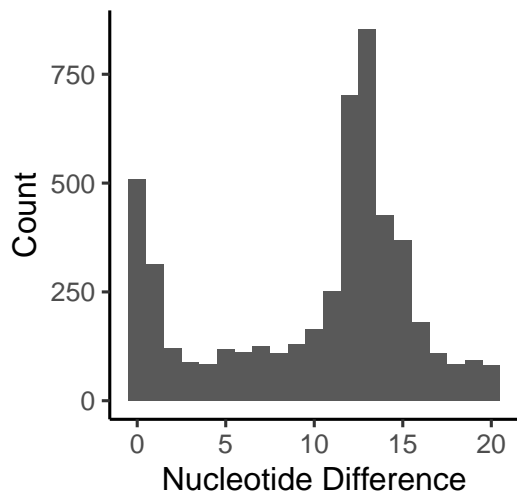
IGHV4-28*03

31 sequences assigned
5 (16.1%) exact matches, in which:
4 unique CDR3
3 unique J



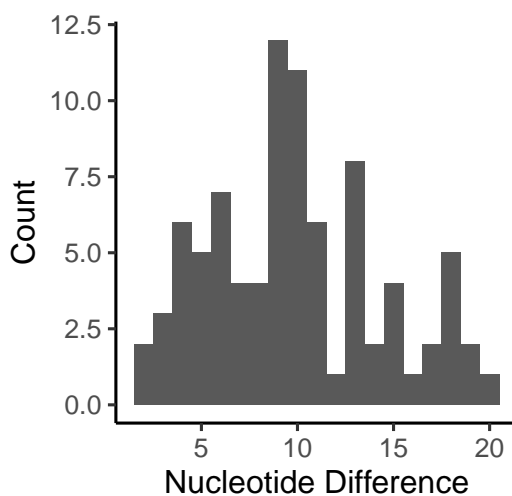
IGHV3-74*01_02

5586 sequences assigned
508 (9.1%) exact matches, in which:
363 unique CDR3
5 unique J



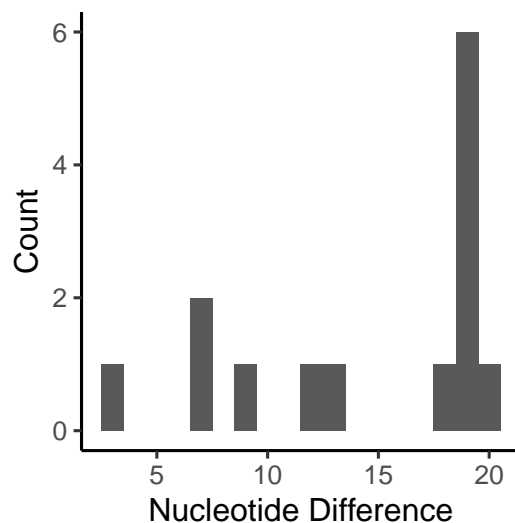
IGHV3-NL1*01

98 sequences assigned
No exact matches.



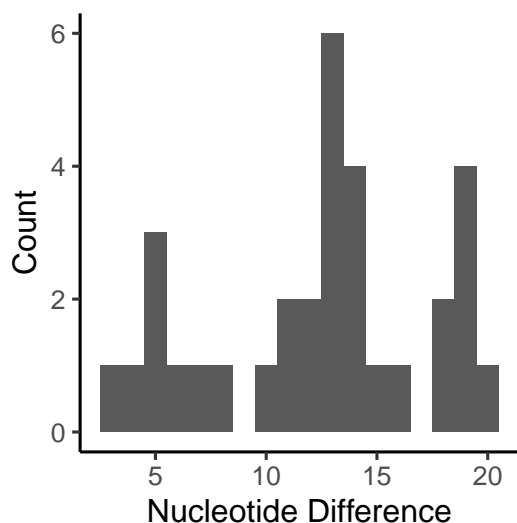
IGHV4-28*01_07

16 sequences assigned
No exact matches.



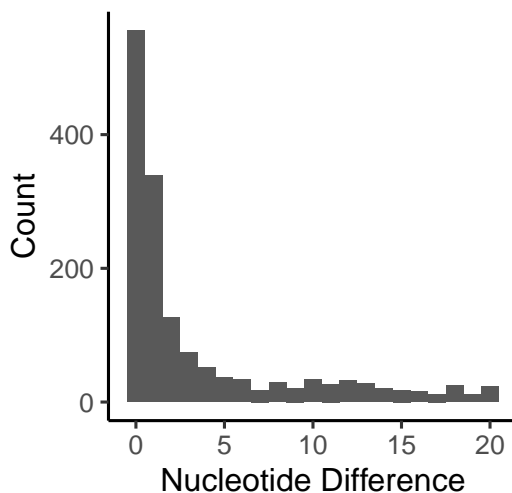
IGHV3-43D*04

34 sequences assigned
No exact matches.



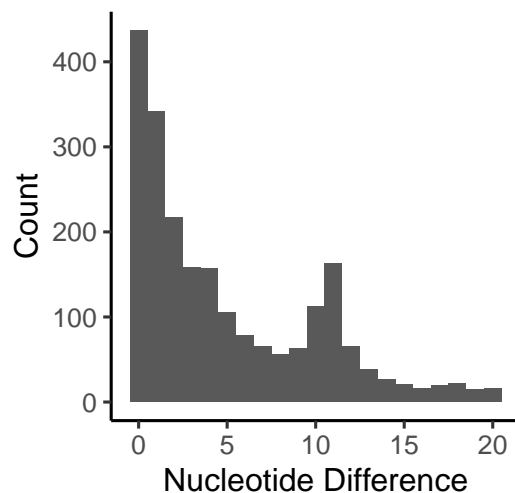
IGHV4-4*02_03

1671 sequences assigned
556 (33.3%) exact matches, in which:
503 unique CDR3
6 unique J



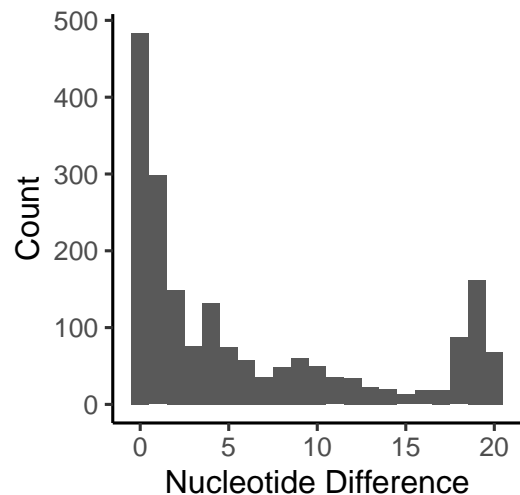
IGHV4-30-4*01

2313 sequences assigned
437 (18.9%) exact matches, in which:
393 unique CDR3
6 unique J



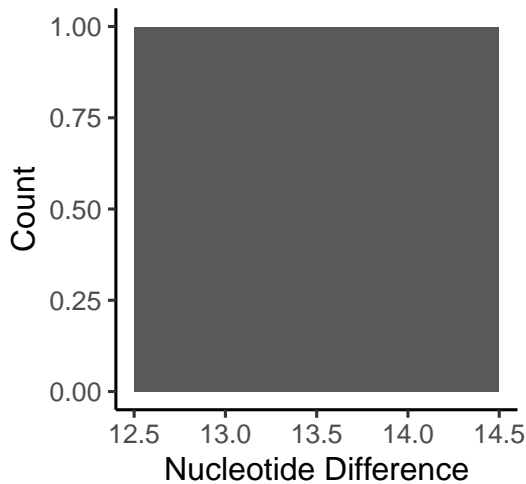
IGHV4-30-2*01

2186 sequences assigned
484 (22.1%) exact matches, in which:
364 unique CDR3
6 unique J



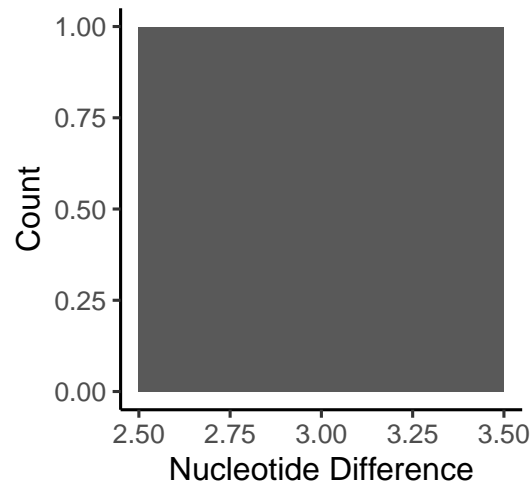
IGHV4-38-2*01

3 sequences assigned
No exact matches.



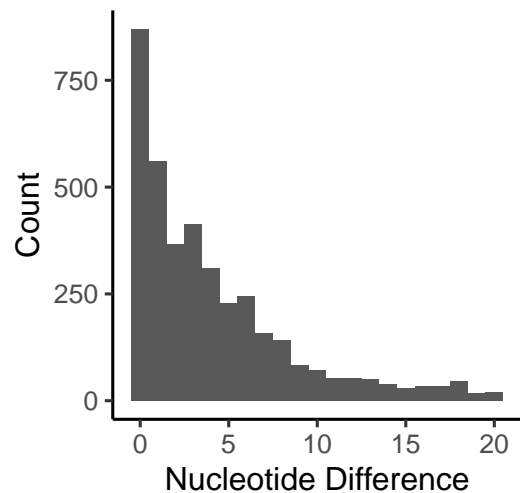
IGHV4-55*09

1 sequences assigned
No exact matches.



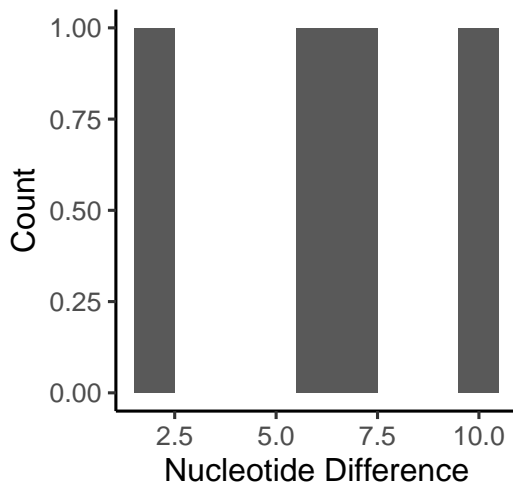
IGHV4-31*02

4398 sequences assigned
870 (19.8%) exact matches, in which:
776 unique CDR3
6 unique J



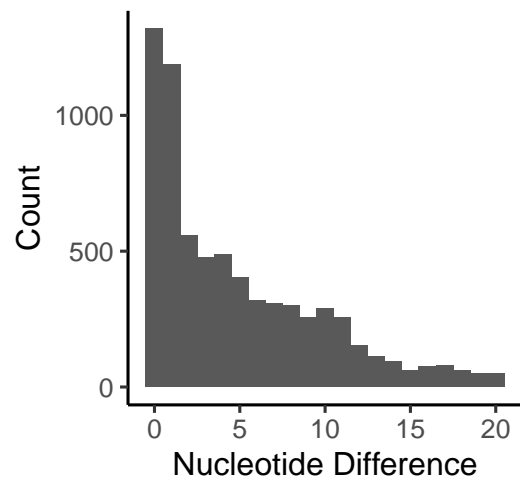
IGHV4-38-2*02

6 sequences assigned
No exact matches.



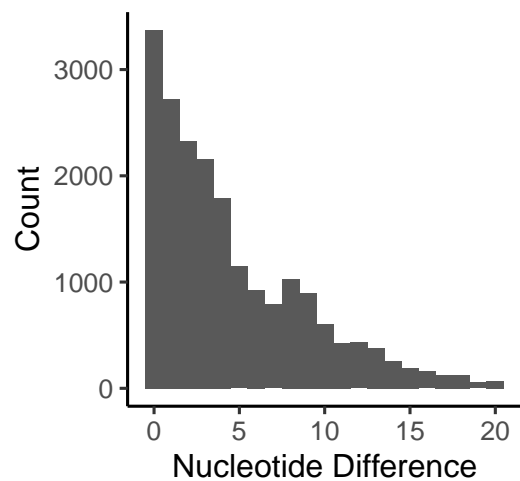
IGHV4-59*08

7734 sequences assigned
1319 (17.1%) exact matches, in which:
1150 unique CDR3
6 unique J



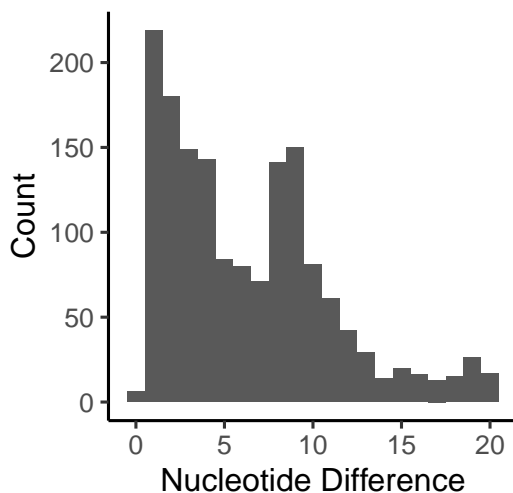
IGHV4-34*01_02

20390 sequences assigned
3372 (16.5%) exact matches, in which:
2747 unique CDR3
6 unique J



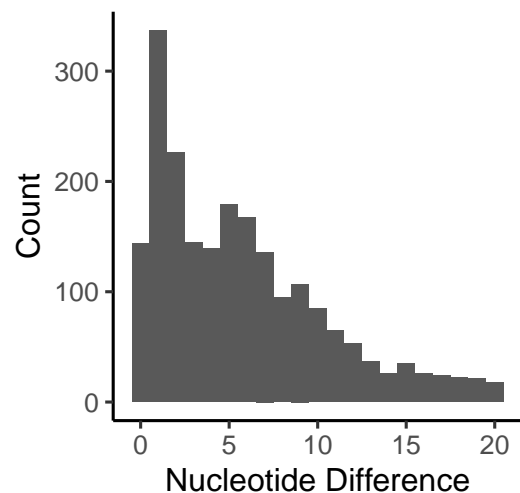
IGHV4-39*07

1827 sequences assigned
6 (0.3%) exact matches, in which:
6 unique CDR3
2 unique J



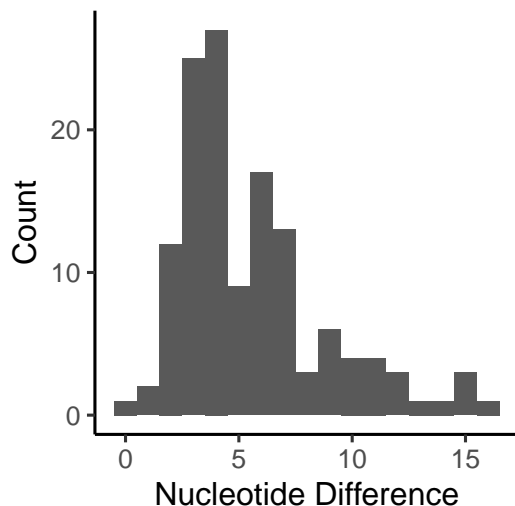
IGHV4-59*12

2258 sequences assigned
144 (6.4%) exact matches, in which:
144 unique CDR3
5 unique J



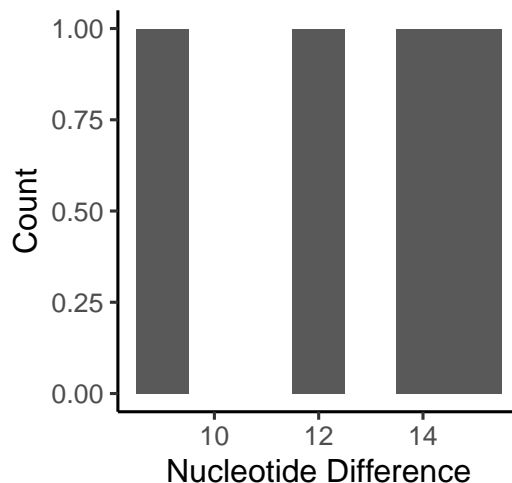
IGHV4-61*05

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



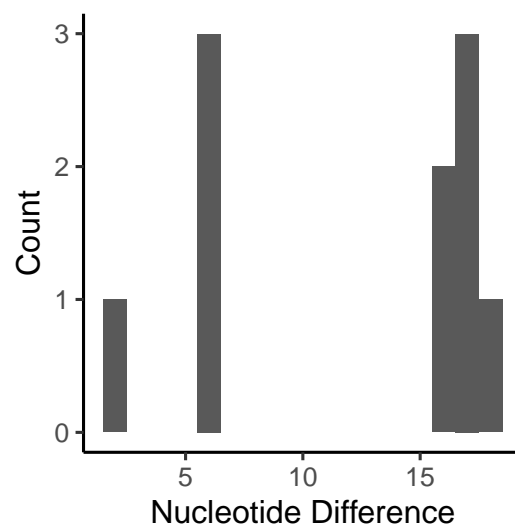
IGHV1/OR15-3*02

4 sequences assigned
No exact matches.



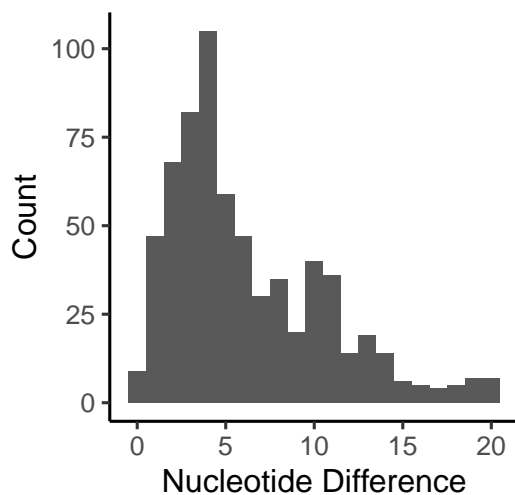
IGHV5-10-1*01_03

13 sequences assigned
No exact matches.



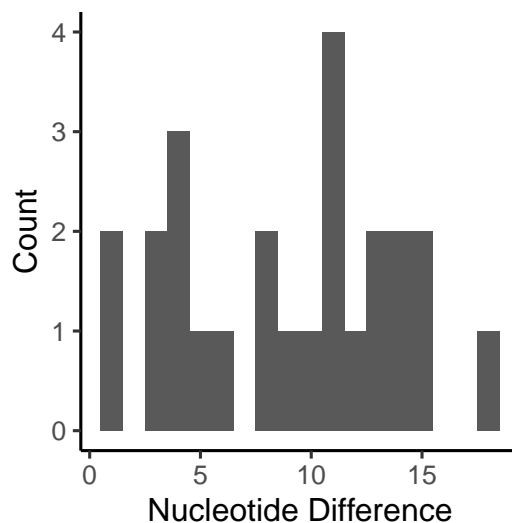
IGHV4-61*08

678 sequences assigned
9 (1.3%) exact matches, in which:
8 unique CDR3
3 unique J



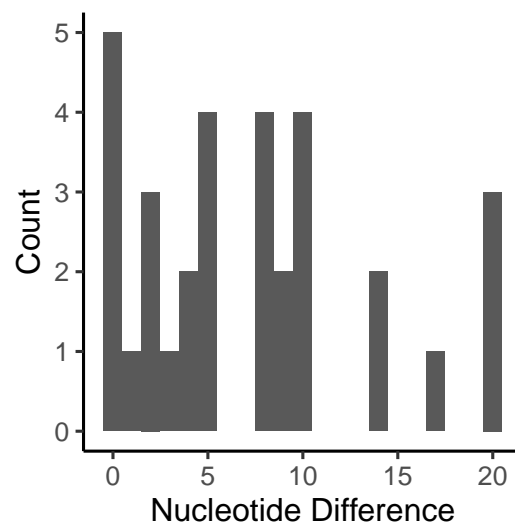
IGHV4/OR15-8*01

26 sequences assigned
No exact matches.



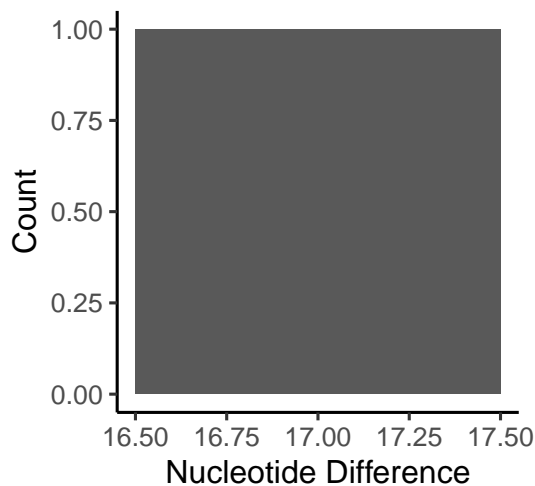
IGHV5-51*04

42 sequences assigned
5 (11.9%) exact matches, in which:
5 unique CDR3
2 unique J



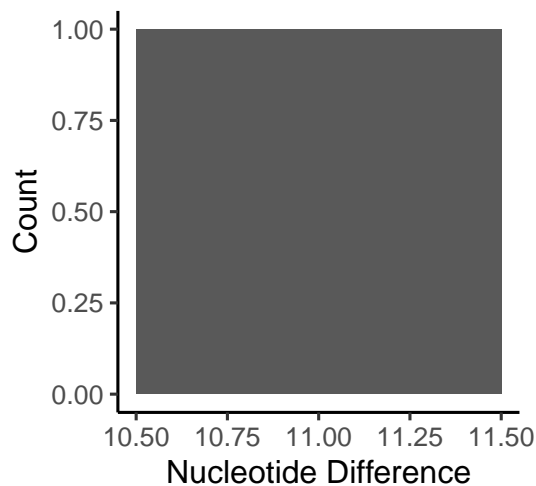
IGHV1/OR15-2*02_03

2 sequences assigned
No exact matches.



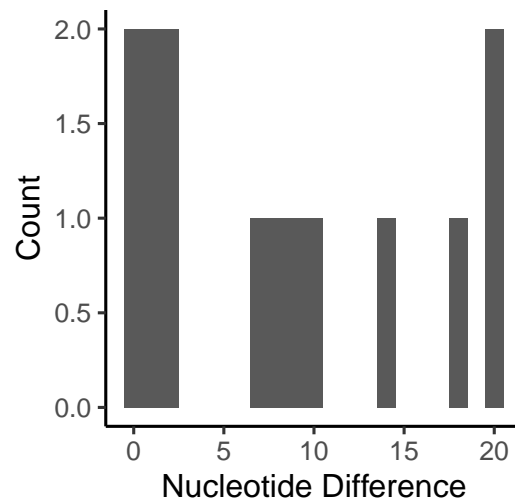
IGHV1/OR15-9*01

1 sequences assigned
No exact matches.



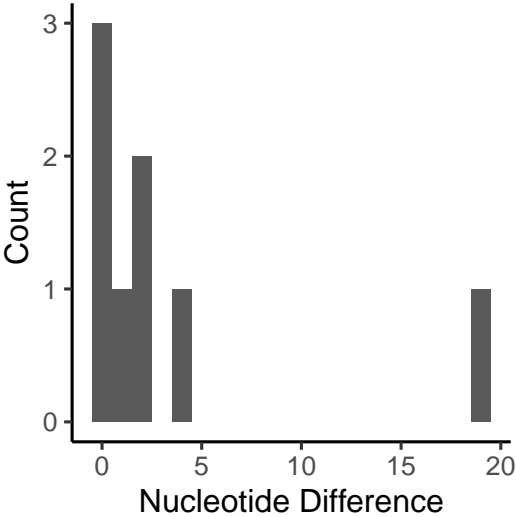
IGHV5-51*06

117 sequences assigned
2 (1.7%) exact matches, in which:
2 unique CDR3
2 unique J



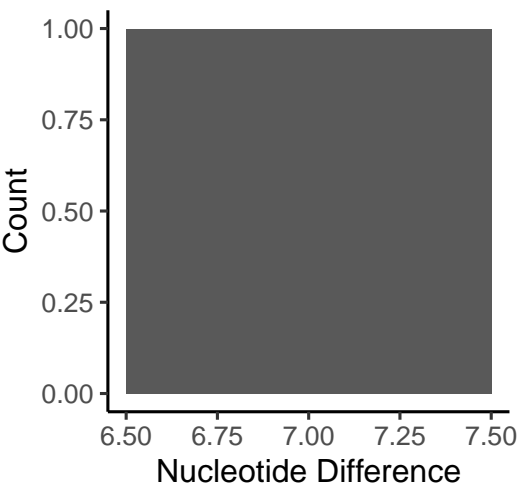
IGHV5-51*07

12 sequences assigned
3 (25%) exact matches, in which:
3 unique CDR3
3 unique J



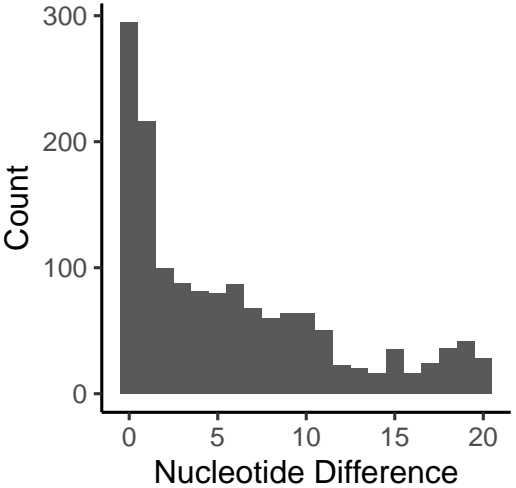
IGHV3/OR16-9*01

1 sequences assigned
No exact matches.



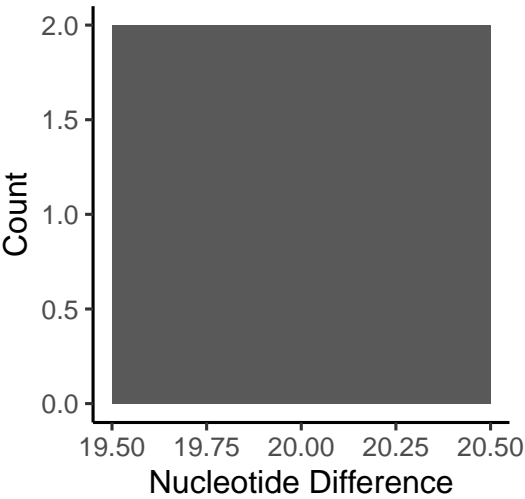
IGHV6-1*01_02

1737 sequences assigned
295 (17%) exact matches, in which:
261 unique CDR3
6 unique J



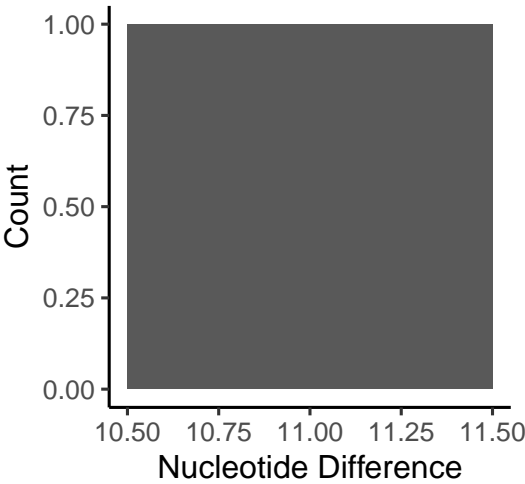
IGHV3/OR16-13*01

2 sequences assigned
No exact matches.



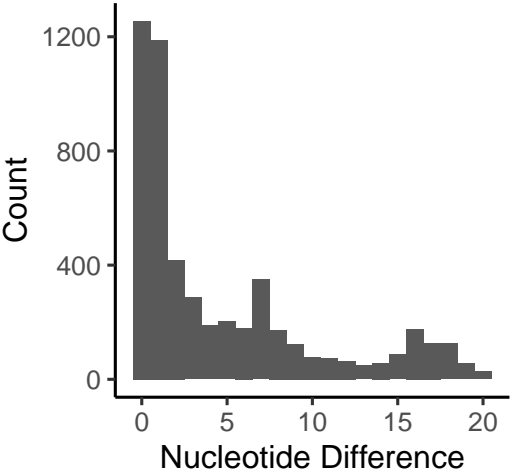
IGHV3/OR16-6*02

1 sequences assigned
No exact matches.

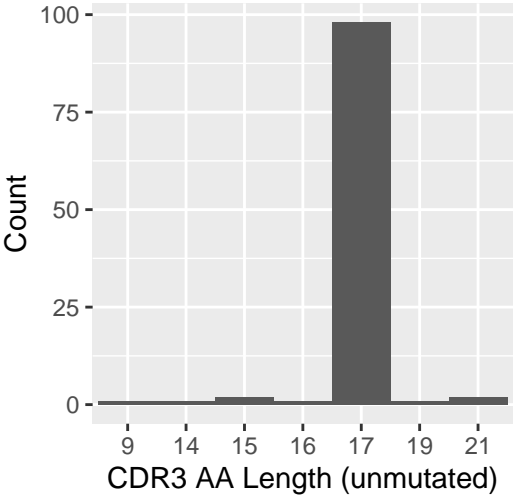


IGHV7-4-1*02

5361 sequences assigned
1255 (23.4%) exact matches, in which:
1077 unique CDR3
6 unique J



IGHV3-72*01_C194A_G239C





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