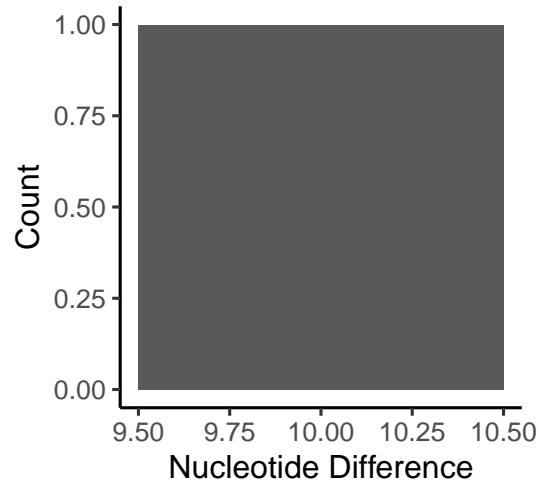


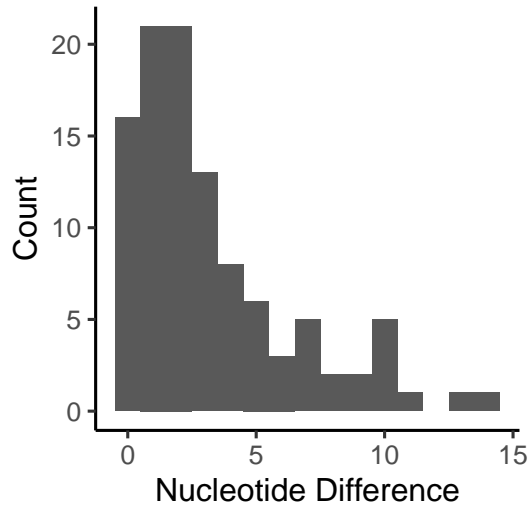
IGHV1-60*01_S7772

1 sequences assigned
No exact matches.



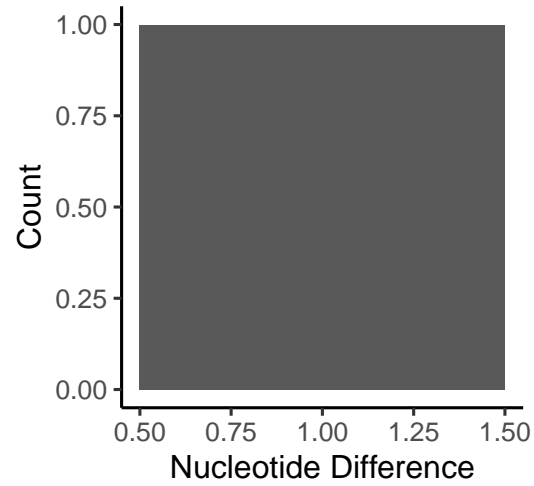
IGHV1-138*01_S2054

109 sequences assigned
16 (14.7%) exact matches, in which:
13 unique CDR3
5 unique J



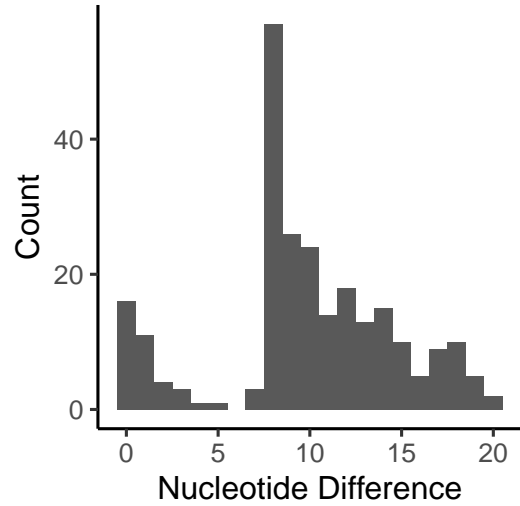
IGHV1-NL_2*01_S3477

4 sequences assigned
No exact matches.



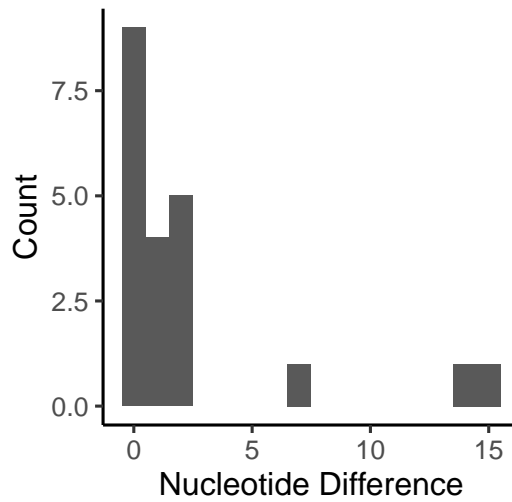
IGHV1-84*01_S5842

293 sequences assigned
16 (5.5%) exact matches, in which:
7 unique CDR3
1 unique J



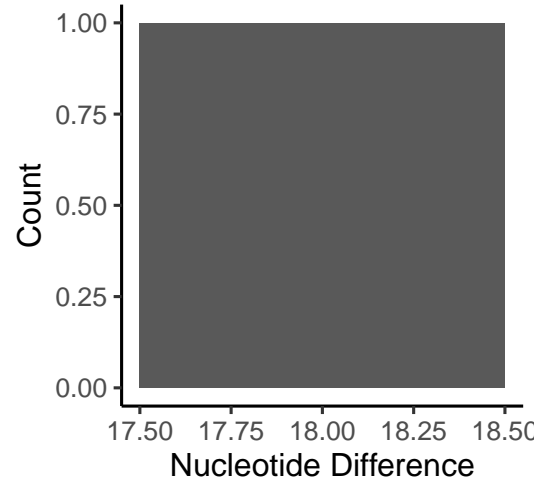
IGHV1-138*01_S6073

29 sequences assigned
9 (31%) exact matches, in which:
9 unique CDR3
4 unique J



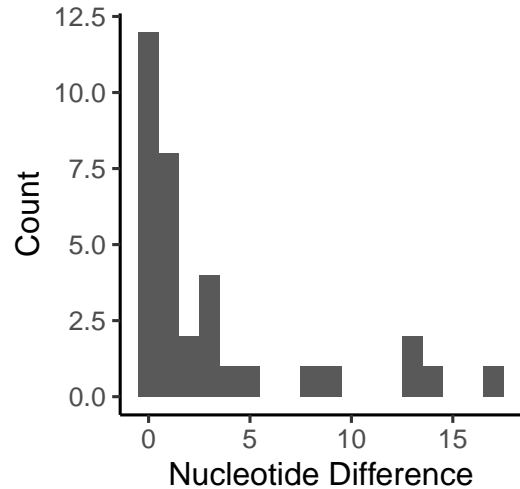
IGHV1-NL_2*01_S5797

5 sequences assigned
No exact matches.



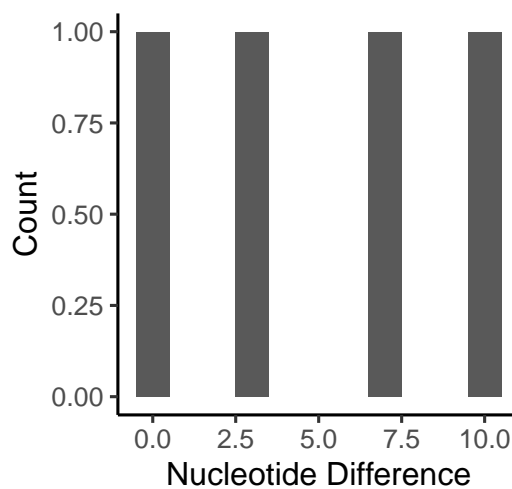
IGHV1-124*01_S7834

34 sequences assigned
12 (35.3%) exact matches, in which:
7 unique CDR3
1 unique J



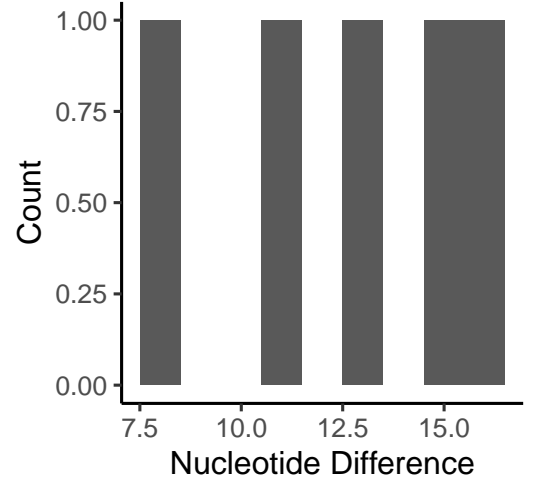
IGHV1-NL_1*01_S2052

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



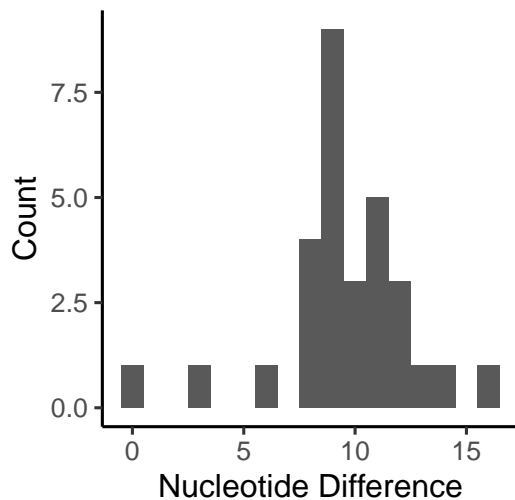
IGHV2-7*02_S1732

5 sequences assigned
No exact matches.



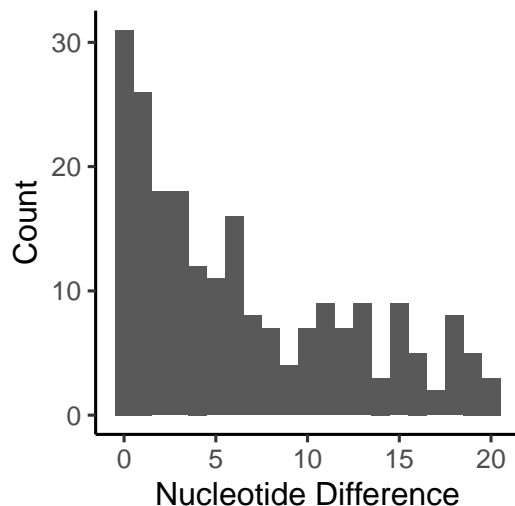
IGHV2-7*02_S4285

32 sequences assigned
1 (3.1%) exact matches, in which:
1 unique CDR3
1 unique J



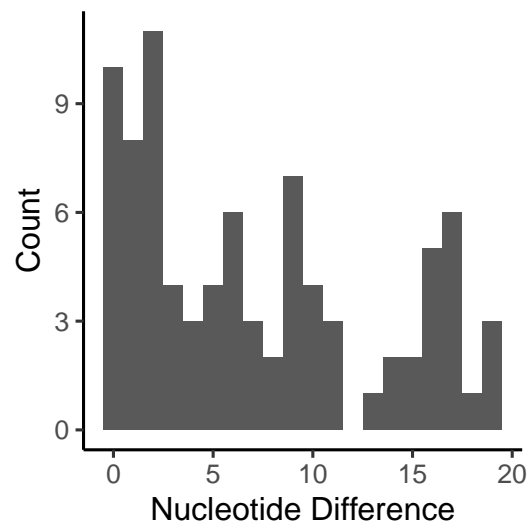
IGHV2-118*01_A289T

233 sequences assigned
31 (13.3%) exact matches, in which:
28 unique CDR3
4 unique J



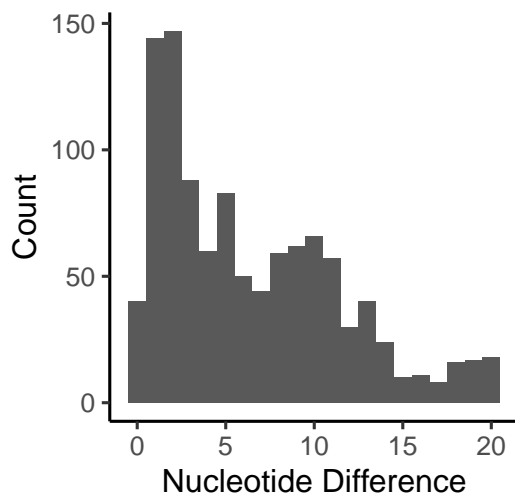
IGHV2-NL_1*01_S4514

87 sequences assigned
10 (11.5%) exact matches, in which:
6 unique CDR3
2 unique J



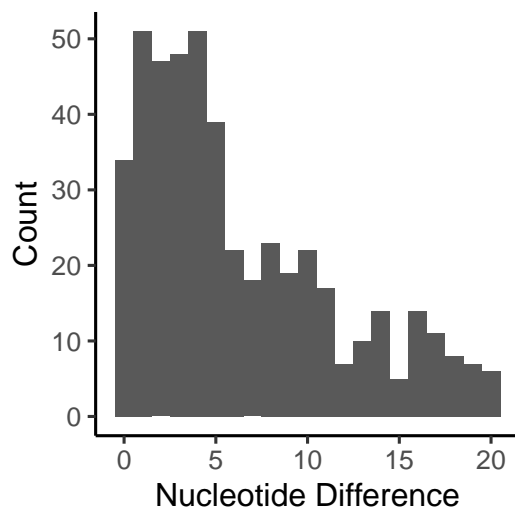
IGHV2-69*01_G289T

1237 sequences assigned
40 (3.2%) exact matches, in which:
38 unique CDR3
5 unique J



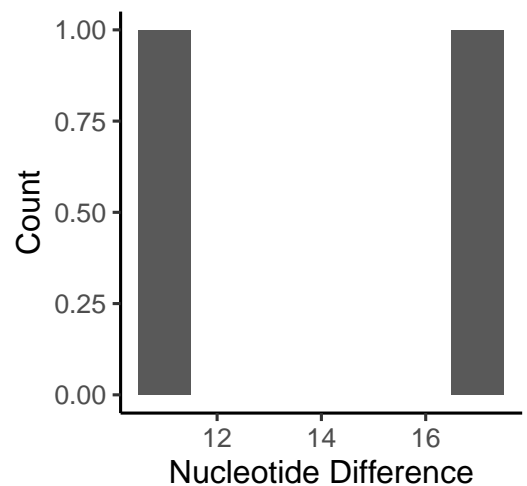
IGHV2-118*01_S4632

500 sequences assigned
34 (6.8%) exact matches, in which:
23 unique CDR3
4 unique J



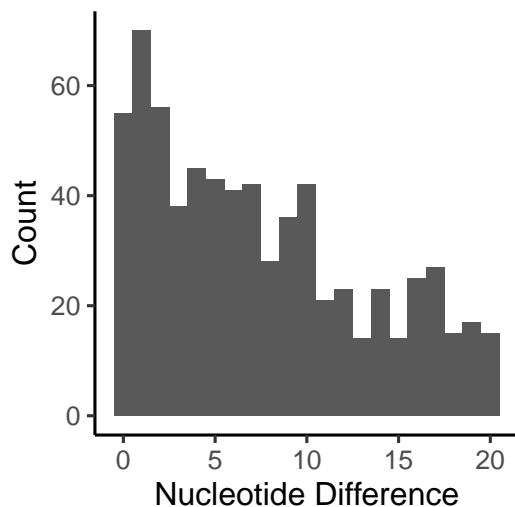
IGHV2-NL_2*01_S8873

3 sequences assigned
No exact matches.



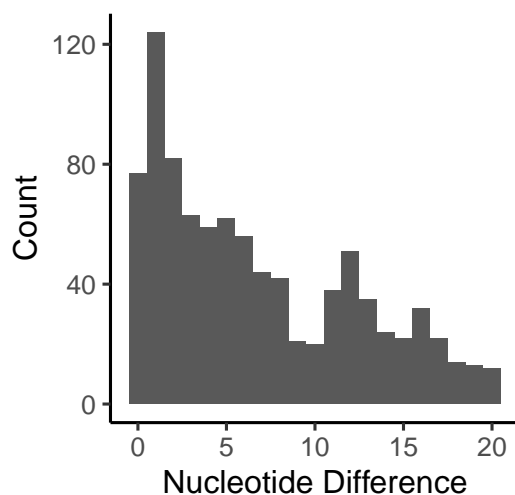
IGHV2-69*02_S0779

762 sequences assigned
55 (7.2%) exact matches, in which:
34 unique CDR3
5 unique J



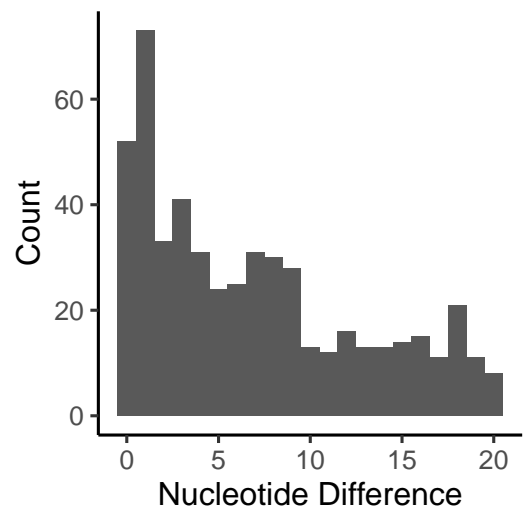
IGHV2-118*01_S8501

983 sequences assigned
77 (7.8%) exact matches, in which:
62 unique CDR3
4 unique J



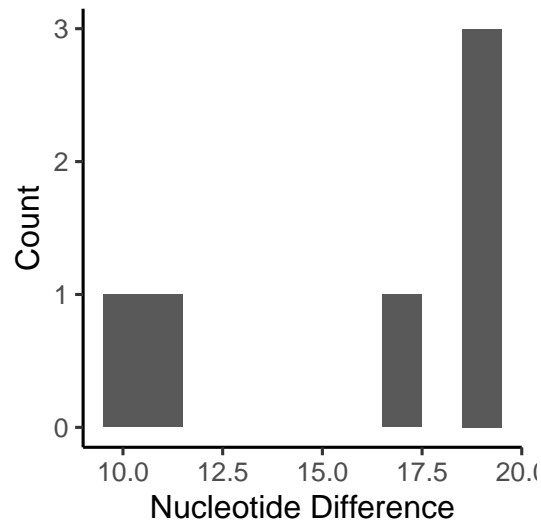
IGHV3-5*01_S6059

646 sequences assigned
52 (8%) exact matches, in which:
40 unique CDR3
3 unique J



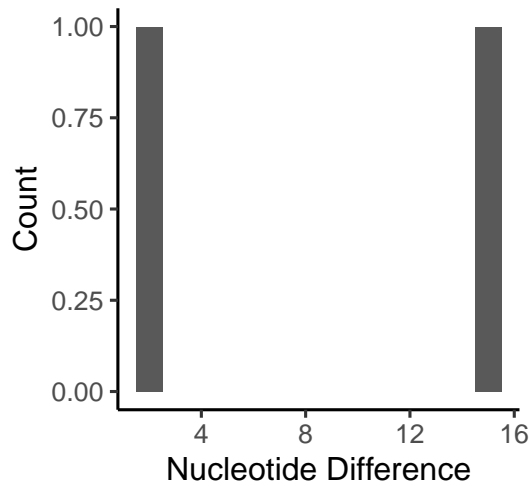
IGHV3-28*01_S3792

8 sequences assigned
No exact matches.



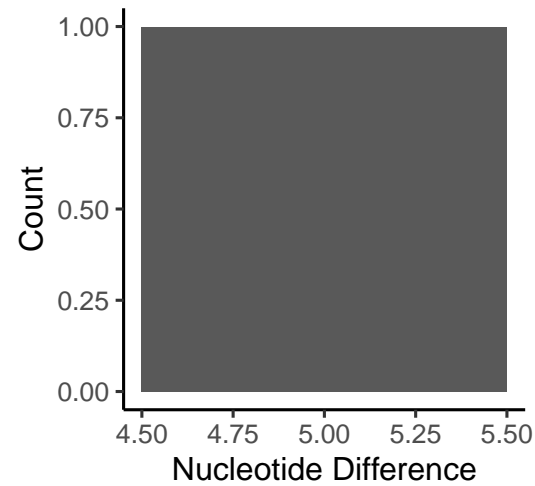
IGHV3-37*01_S4420

9 sequences assigned
No exact matches.



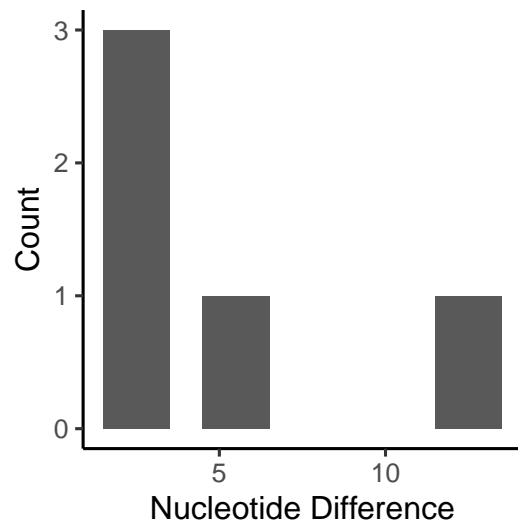
IGHV3-52*01_S8160

1 sequences assigned
No exact matches.



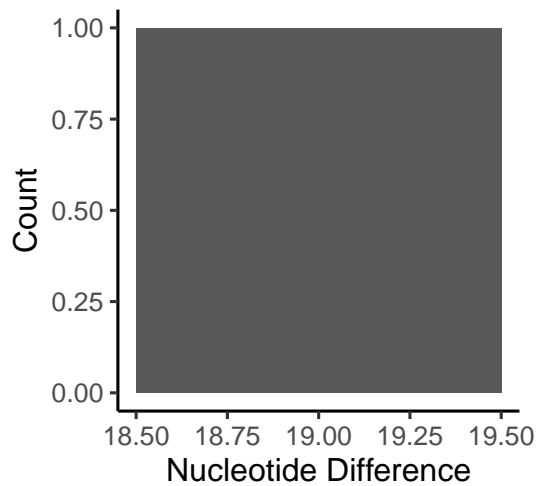
IGHV3-34*01_S2915

10 sequences assigned
No exact matches.



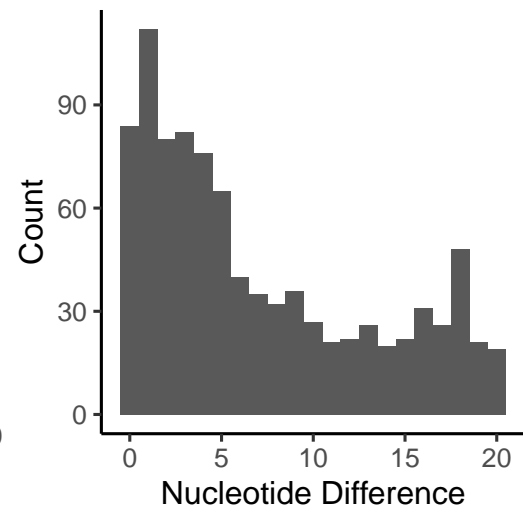
IGHV3-37*01_S9699

167 sequences assigned
No exact matches.



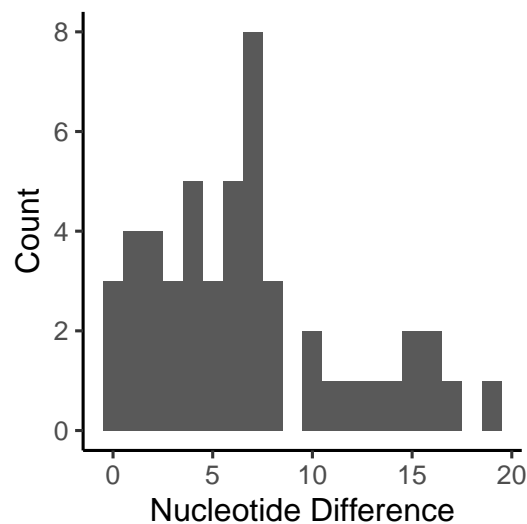
IGHV3-53*01_S2000

1028 sequences assigned
84 (8.2%) exact matches, in which:
54 unique CDR3
5 unique J



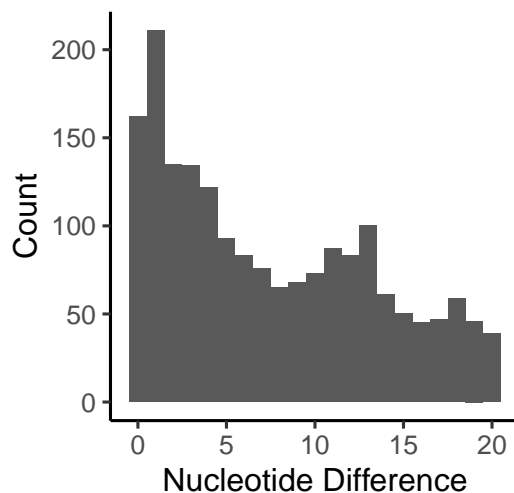
IGHV3-36*01_S7141

51 sequences assigned
3 (5.9%) exact matches, in which:
3 unique CDR3
3 unique J



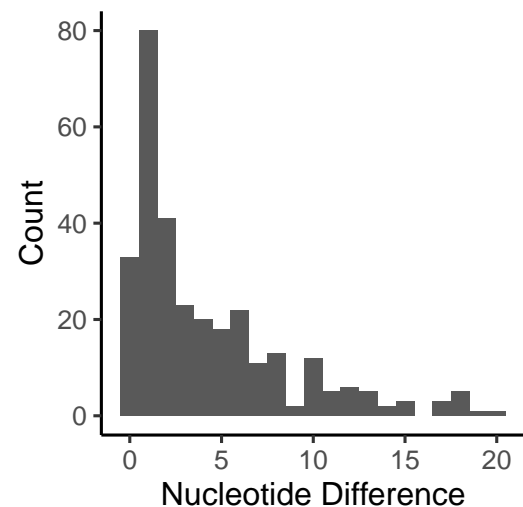
IGHV3-50*01_S1879

2061 sequences assigned
162 (7.9%) exact matches, in which:
114 unique CDR3
5 unique J



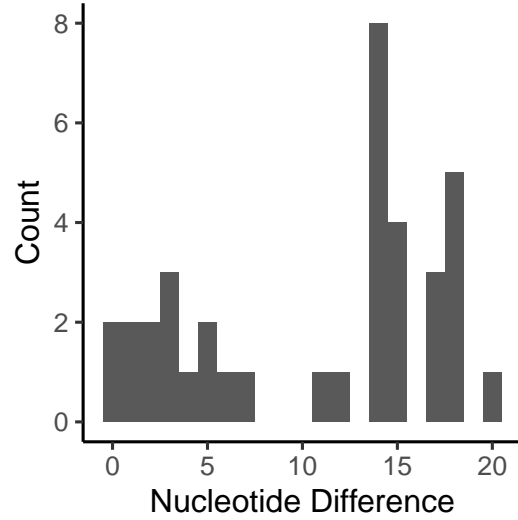
IGHV3-73*01_S3636

332 sequences assigned
33 (9.9%) exact matches, in which:
25 unique CDR3
4 unique J



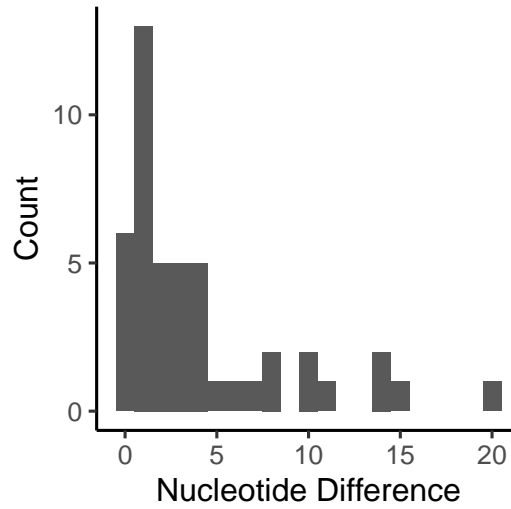
IGHV3-100*01_S4375

45 sequences assigned
2 (4.4%) exact matches, in which:
2 unique CDR3
2 unique J



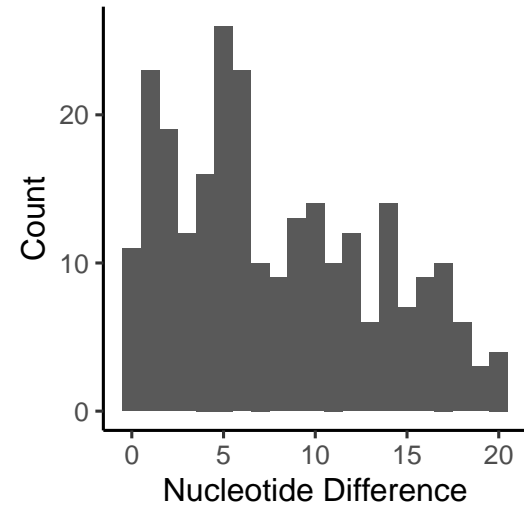
IGHV3-119*01_S9769

46 sequences assigned
6 (13%) exact matches, in which:
4 unique CDR3
1 unique J



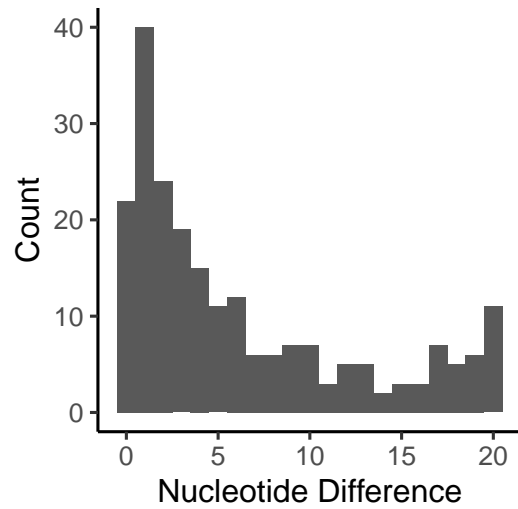
IGHV3-127*01_S6769

288 sequences assigned
11 (3.8%) exact matches, in which:
8 unique CDR3
2 unique J



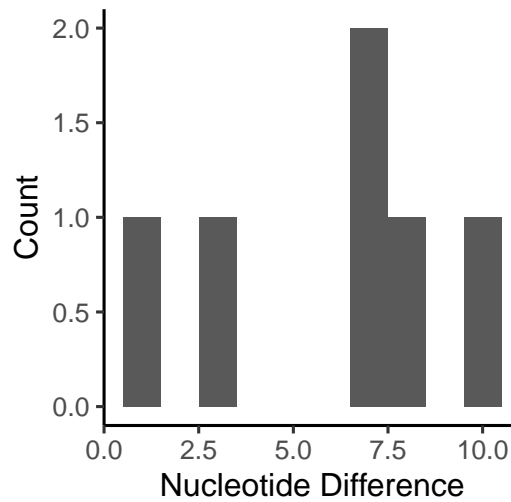
IGHV3-100*02_S9884

257 sequences assigned
22 (8.6%) exact matches, in which:
17 unique CDR3
5 unique J



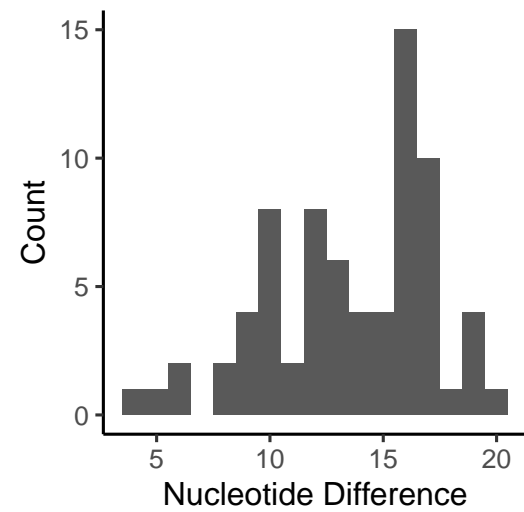
IGHV3-120*01_S4231

6 sequences assigned
No exact matches.



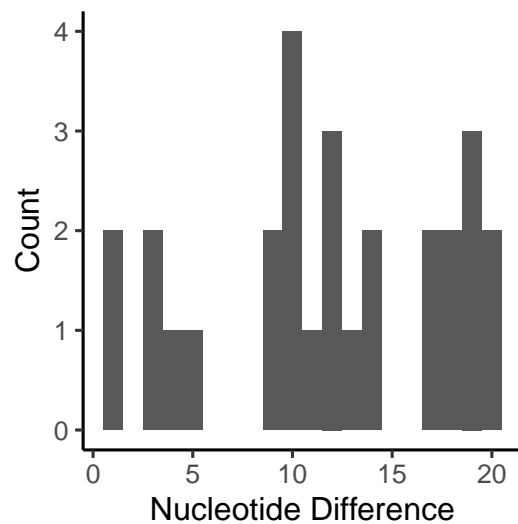
IGHV3-127*01_S7059

107 sequences assigned
No exact matches.



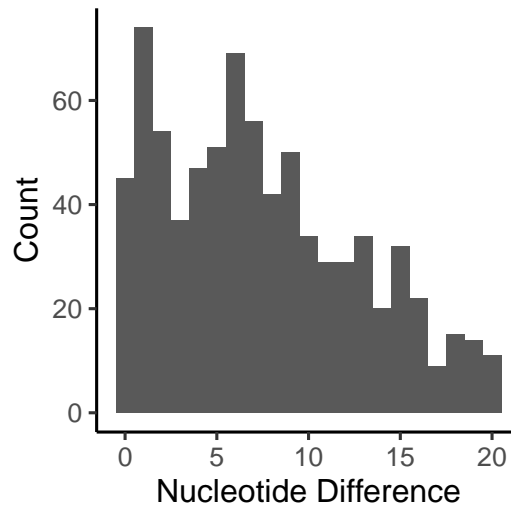
IGHV3-103*01_S2756

34 sequences assigned
No exact matches.



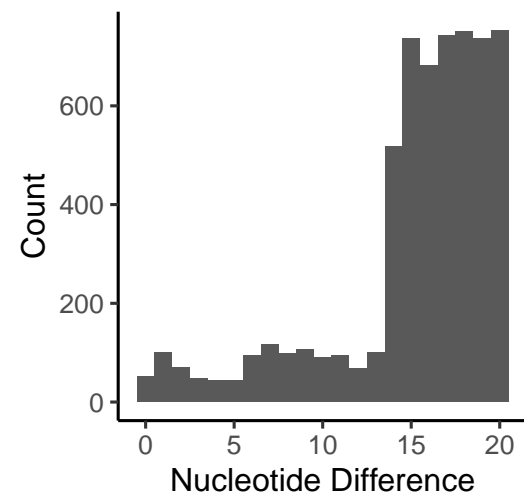
IGHV3-122*01_S8388

983 sequences assigned
45 (4.6%) exact matches, in which:
33 unique CDR3
5 unique J



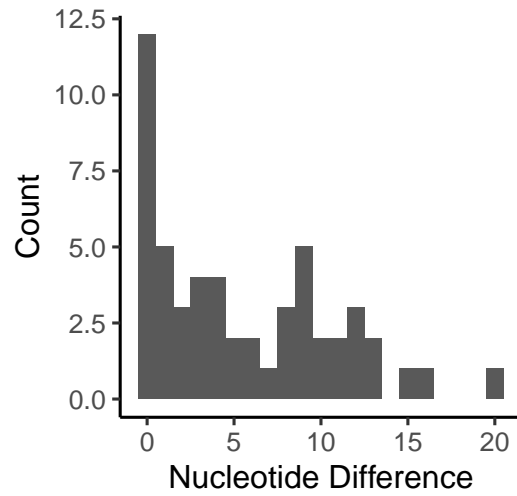
IGHV3-128*02_S1375

12613 sequences assigned
51 (0.4%) exact matches, in which:
32 unique CDR3
5 unique J



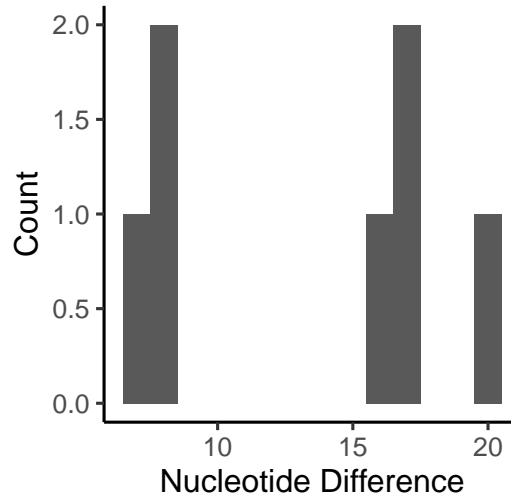
IGHV3-141*01_S4264

55 sequences assigned
12 (21.8%) exact matches, in which:
8 unique CDR3
3 unique J



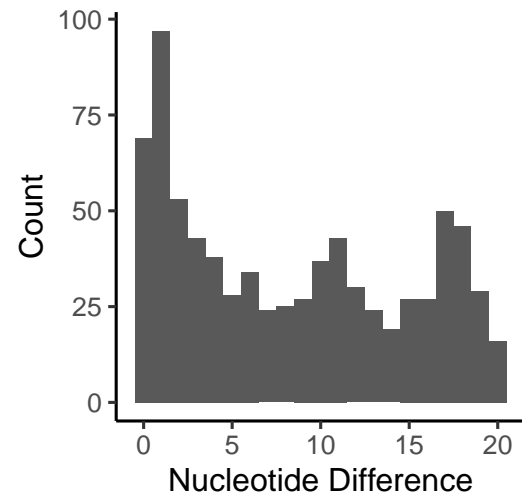
IGHV3-175*01_S1248

11 sequences assigned
No exact matches.



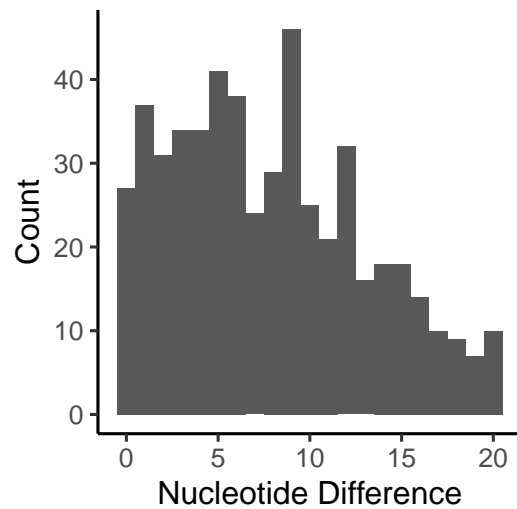
IGHV3-187*02_S8458

993 sequences assigned
69 (6.9%) exact matches, in which:
45 unique CDR3
6 unique J



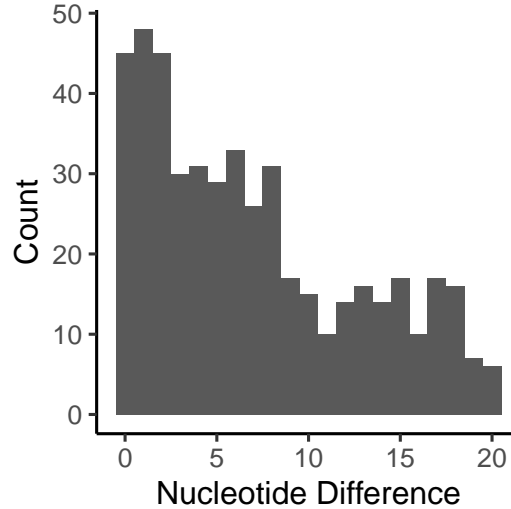
IGHV3-152*01_S1340

786 sequences assigned
27 (3.4%) exact matches, in which:
17 unique CDR3
3 unique J



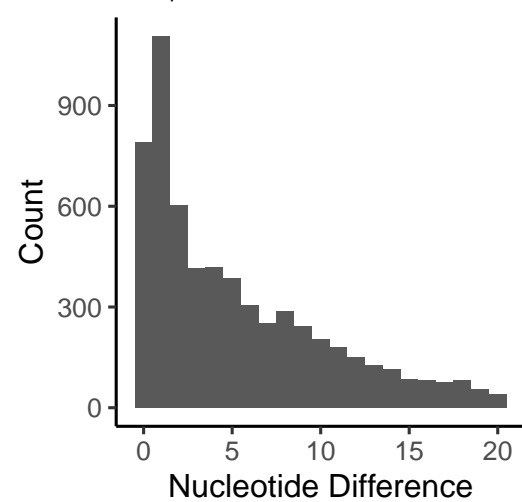
IGHV3-177*01_S5369

552 sequences assigned
45 (8.2%) exact matches, in which:
33 unique CDR3
3 unique J



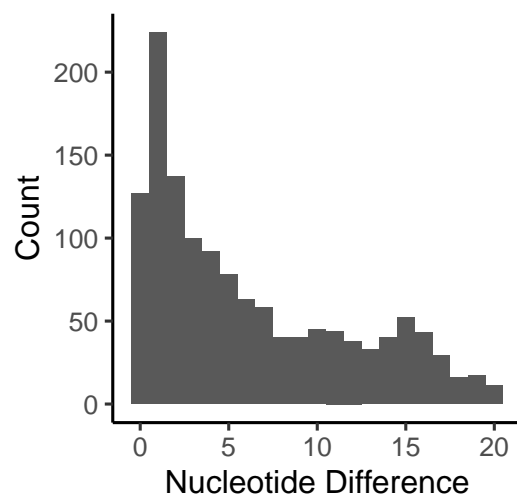
IGHV3-NL_1*01_S3947

6446 sequences assigned
792 (12.3%) exact matches, in which:
540 unique CDR3
6 unique J



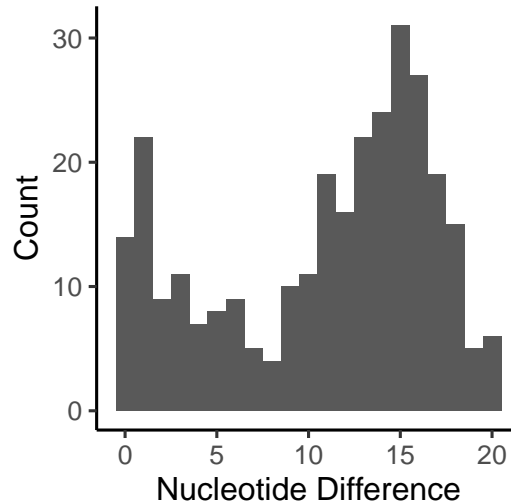
IGHV3-172*01_S2175

1383 sequences assigned
127 (9.2%) exact matches, in which:
74 unique CDR3
4 unique J



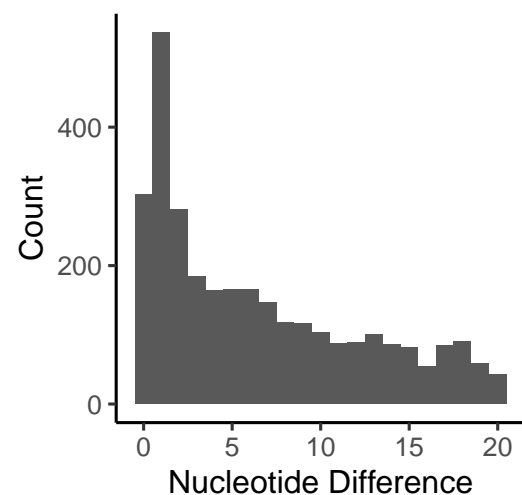
IGHV3-177*01_S6408

365 sequences assigned
14 (3.8%) exact matches, in which:
8 unique CDR3
3 unique J



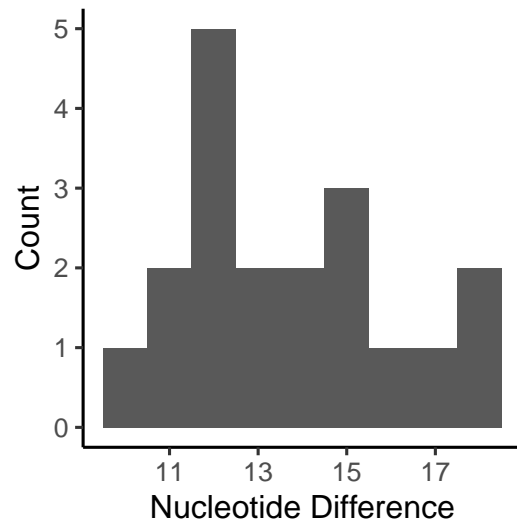
IGHV3-NL_1*01_S9854

3831 sequences assigned
303 (7.9%) exact matches, in which:
202 unique CDR3
5 unique J



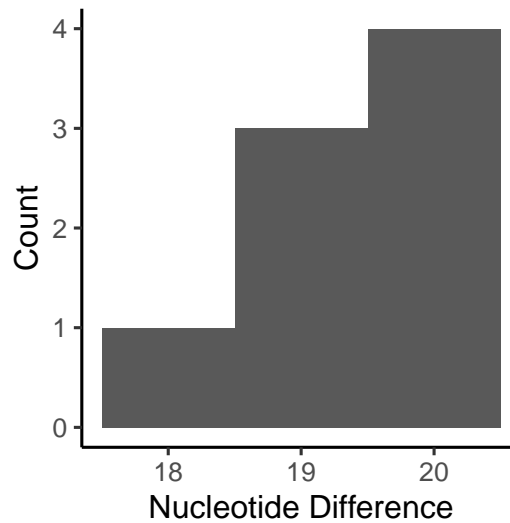
IGHV3–NL_10*02_S2212

151 sequences assigned
No exact matches.



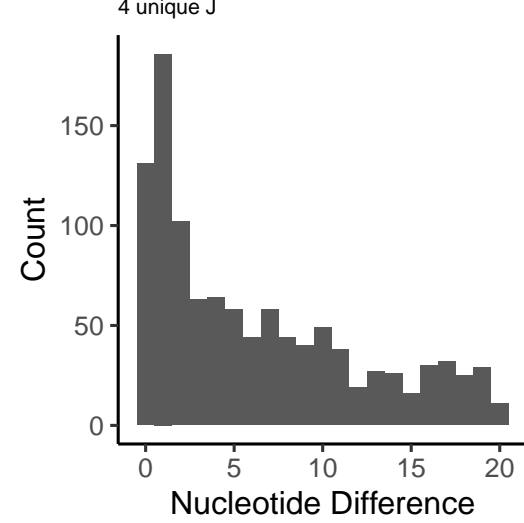
IGHV3–NL_12*02_S1760

138 sequences assigned
No exact matches.



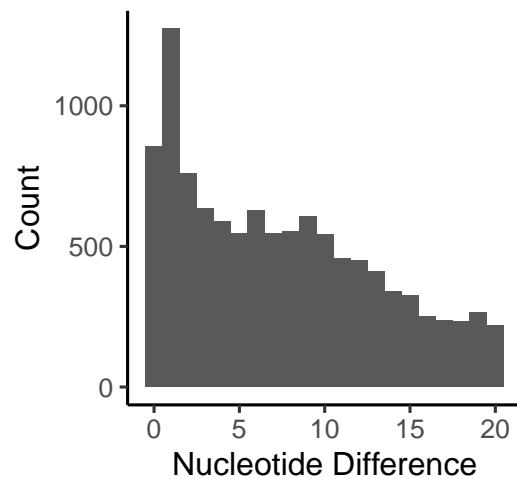
IGHV3–NL_14*01_S1113

1188 sequences assigned
131 (11%) exact matches, in which:
104 unique CDR3
4 unique J



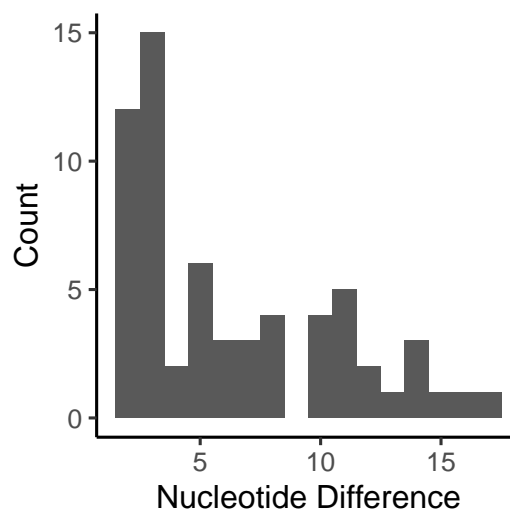
IGHV3–NL_11*01_S461

13556 sequences assigned
854 (6.3%) exact matches, in which:
607 unique CDR3
5 unique J



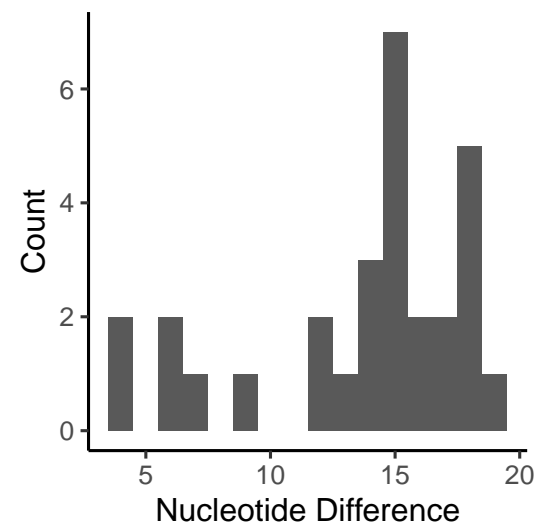
IGHV3–NL_13*01_S5767

65 sequences assigned
No exact matches.



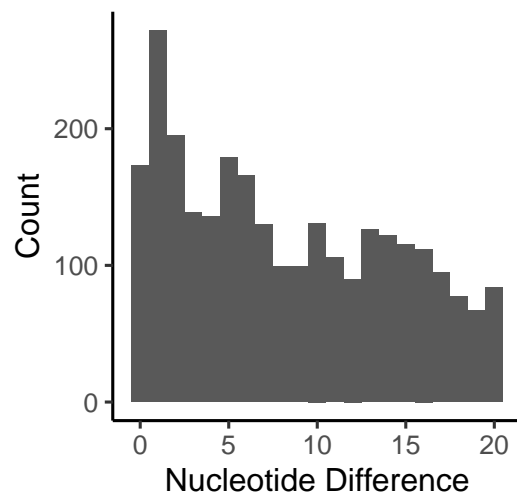
IGHV3–NL_16*01_S5133

52 sequences assigned
No exact matches.



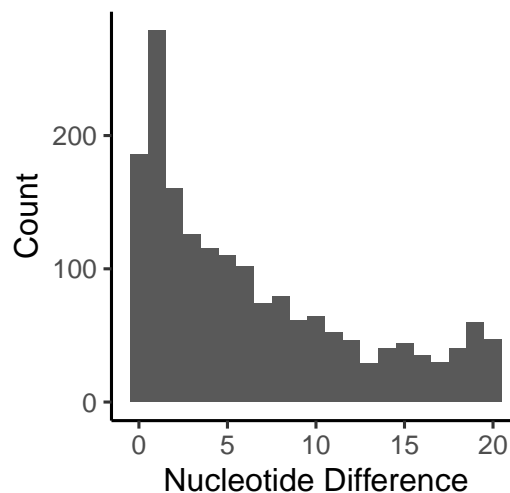
IGHV3–NL_11*01_S9627

3587 sequences assigned
173 (4.8%) exact matches, in which:
120 unique CDR3
4 unique J



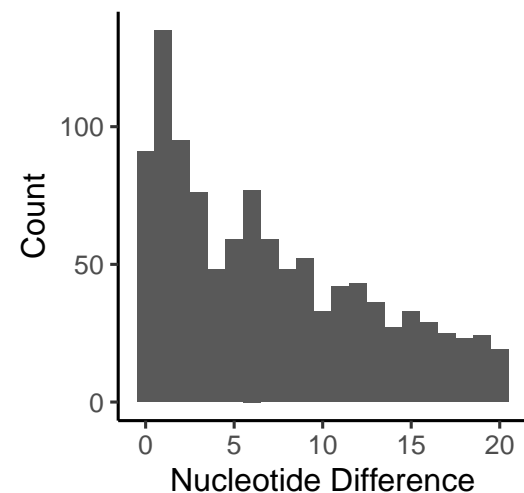
IGHV3–NL_14*01_S0721

1916 sequences assigned
186 (9.7%) exact matches, in which:
135 unique CDR3
6 unique J



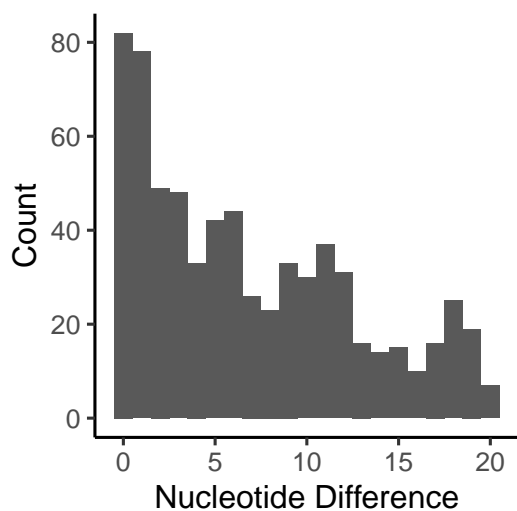
IGHV3–NL_17*01_S4257

1155 sequences assigned
91 (7.9%) exact matches, in which:
59 unique CDR3
3 unique J



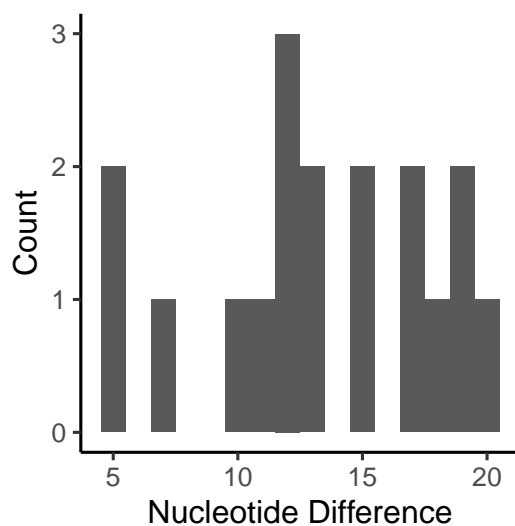
IGHV3–NL_18*01_S3867

710 sequences assigned
82 (11.5%) exact matches, in which:
65 unique CDR3
5 unique J



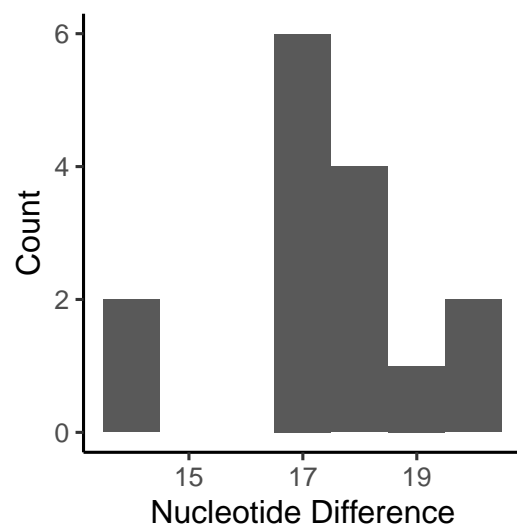
IGHV3–NL_4*01_S6405

33 sequences assigned
No exact matches.



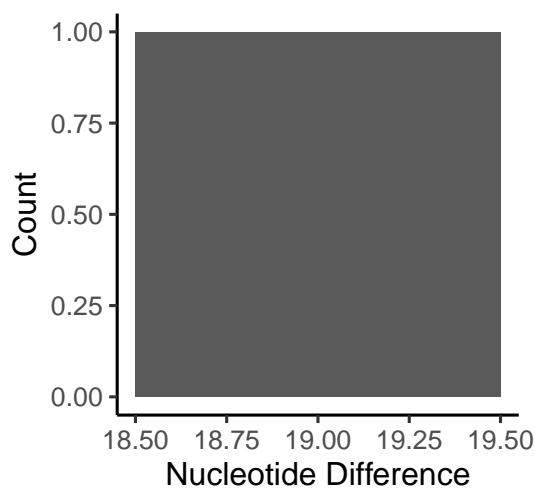
IGHV3–NL_6*02_S7808

75 sequences assigned
No exact matches.



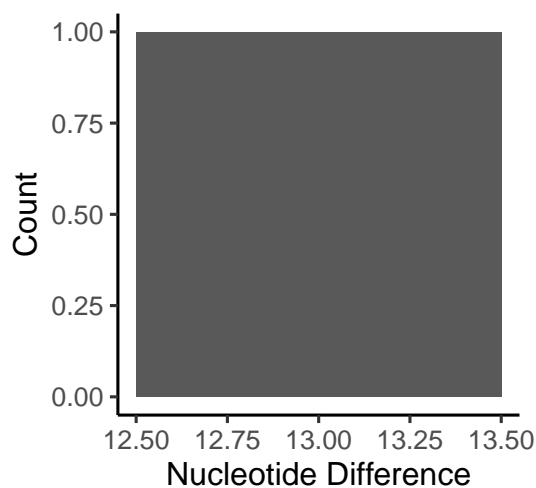
IGHV3–NL_2*01_S1693

1 sequences assigned
No exact matches.



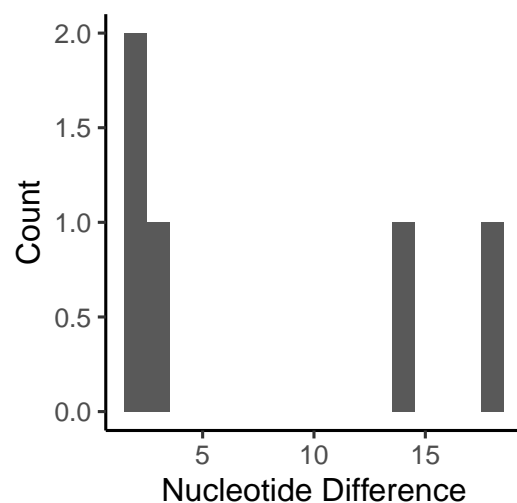
IGHV3–NL_4*01_S9067

5 sequences assigned
No exact matches.



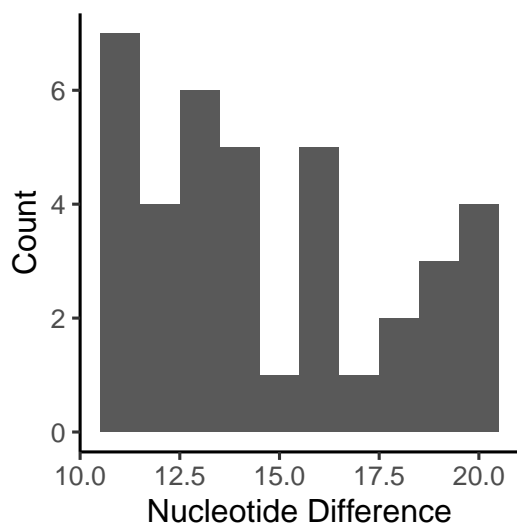
IGHV3–NL_7*01_S0199

8 sequences assigned
No exact matches.



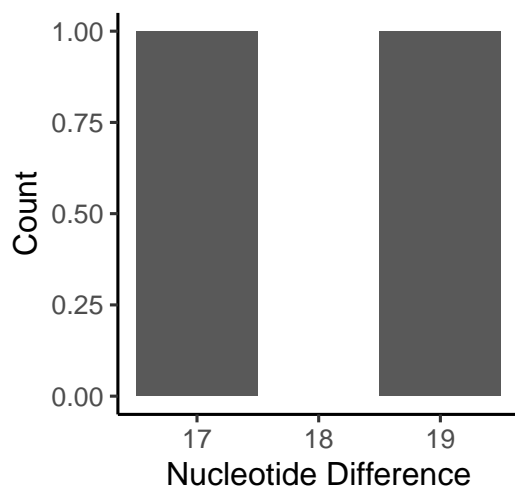
IGHV3–NL_4*01_S2727

53 sequences assigned
No exact matches.



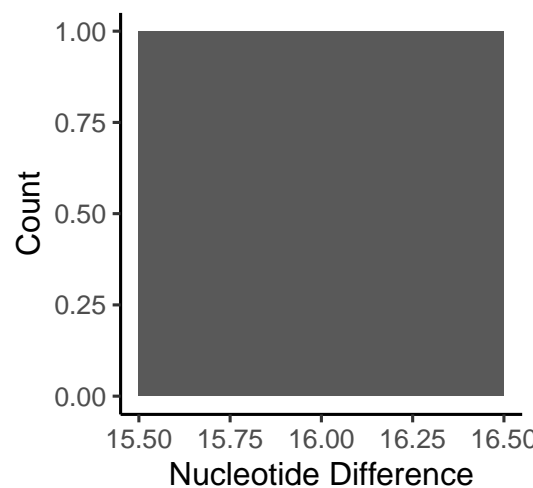
IGHV3–NL_5*01_S8361

10 sequences assigned
No exact matches.



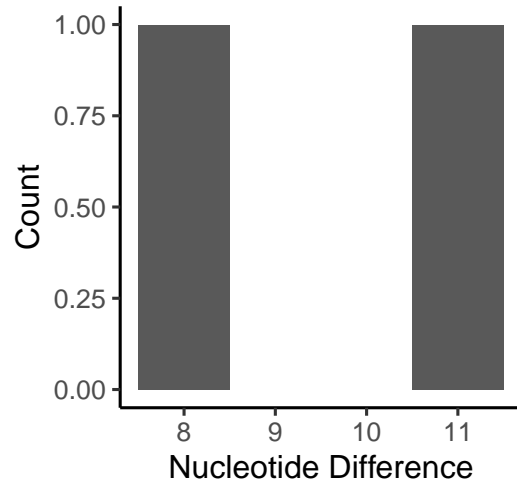
IGHV3–NL_8*01_S7474

1 sequences assigned
No exact matches.



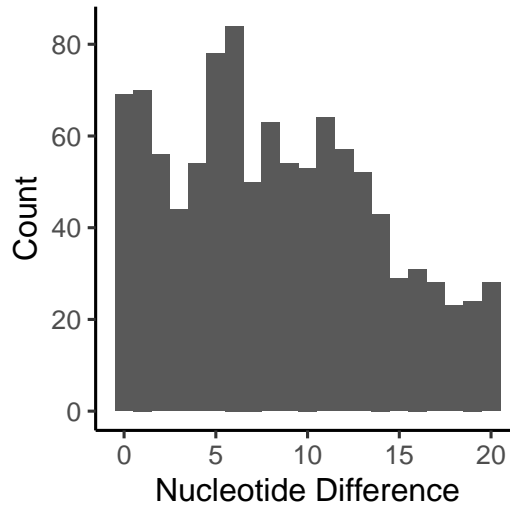
IGHV3-NL_8*01_S9578

4 sequences assigned
No exact matches.



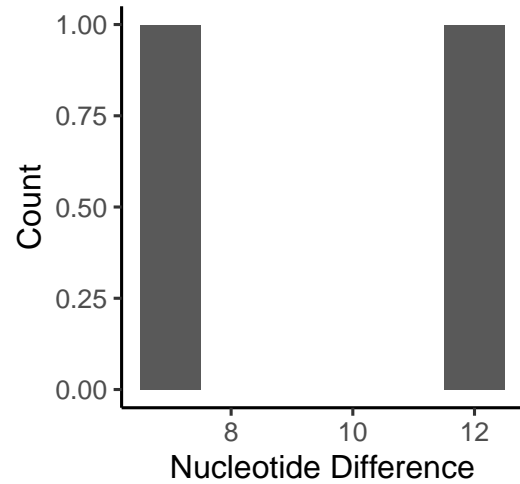
IGHV4-117*01_S3417

1219 sequences assigned
69 (5.7%) exact matches, in which:
57 unique CDR3
5 unique J



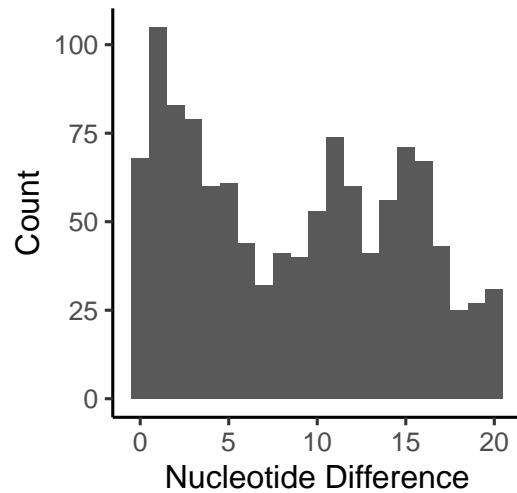
IGHV4-174*02_S3984

5 sequences assigned
No exact matches.



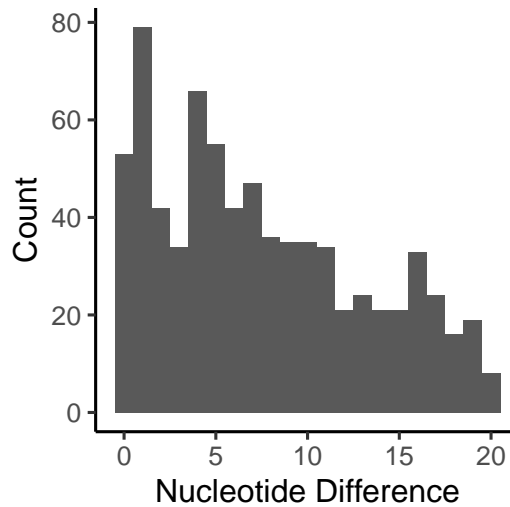
IGHV3-NL_9*01_S6098

1713 sequences assigned
68 (4%) exact matches, in which:
51 unique CDR3
5 unique J



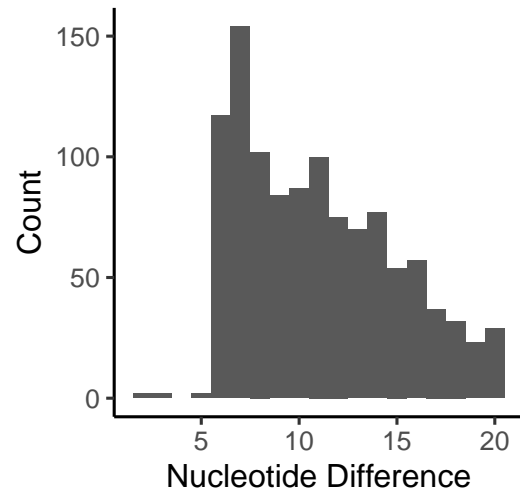
IGHV4-144*01_S3113

1365 sequences assigned
53 (3.9%) exact matches, in which:
38 unique CDR3
5 unique J



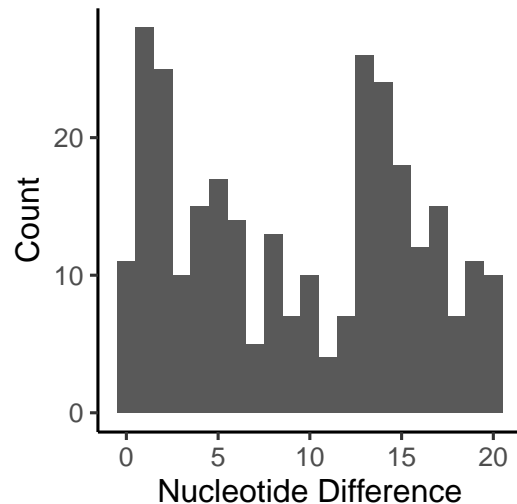
IGHV4-174*02_S5400

1273 sequences assigned
No exact matches.



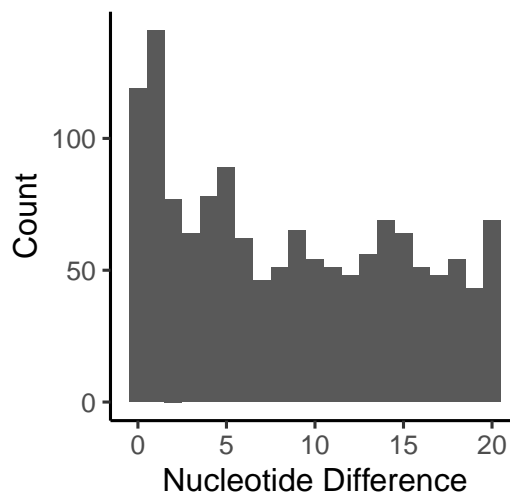
IGHV4-67*01_S8901

381 sequences assigned
11 (2.9%) exact matches, in which:
9 unique CDR3
4 unique J



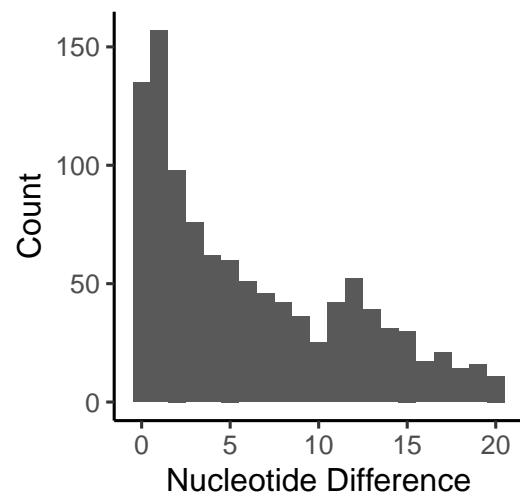
IGHV4-149*01_S0794

2015 sequences assigned
119 (5.9%) exact matches, in which:
88 unique CDR3
5 unique J



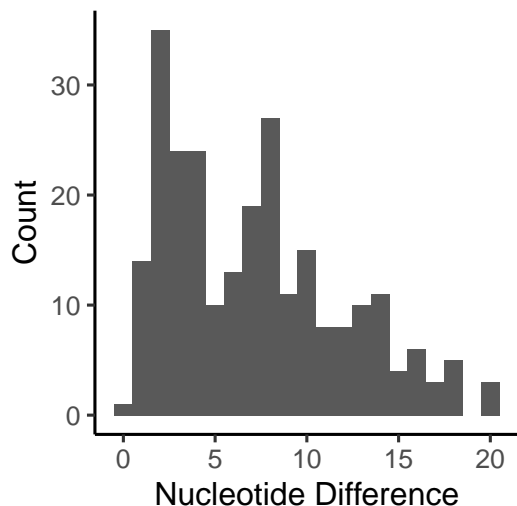
IGHV4-NL_1*01_S1593

1232 sequences assigned
135 (11%) exact matches, in which:
112 unique CDR3
5 unique J



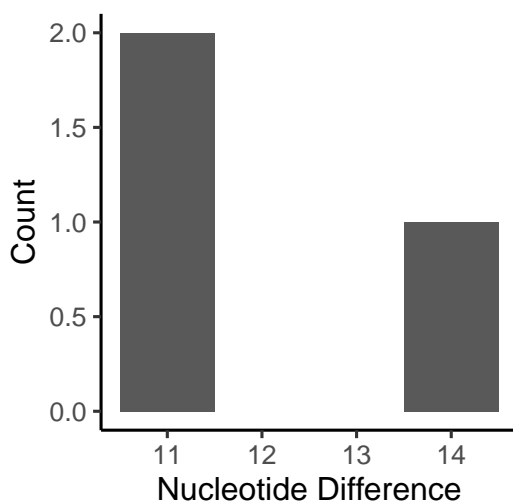
IGHV4–NL_1*01_S4155

317 sequences assigned
1 (0.3%) exact matches, in which:
1 unique CDR3
1 unique J



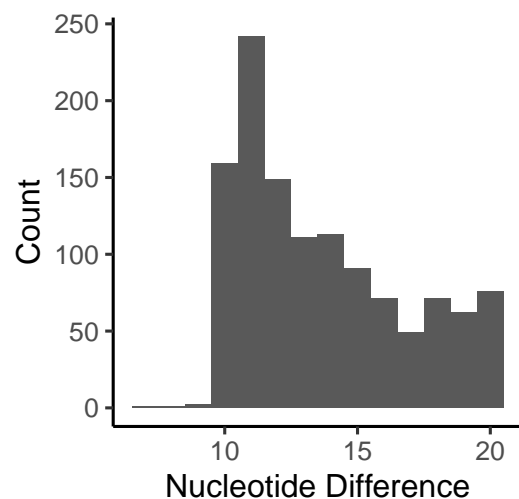
IGHV4–NL_11*01_S5570

4 sequences assigned
No exact matches.



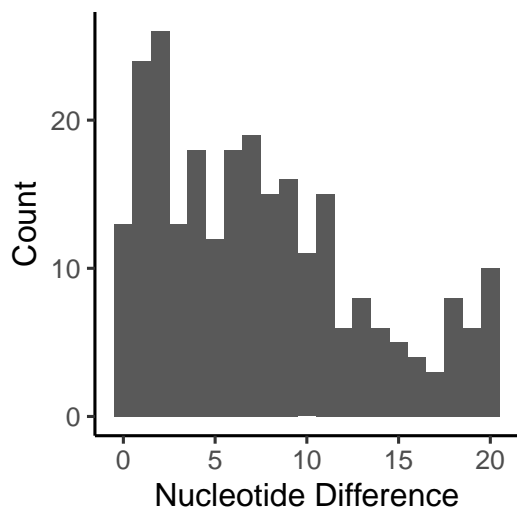
IGHV4–NL_13*01_S9744

1671 sequences assigned
No exact matches.



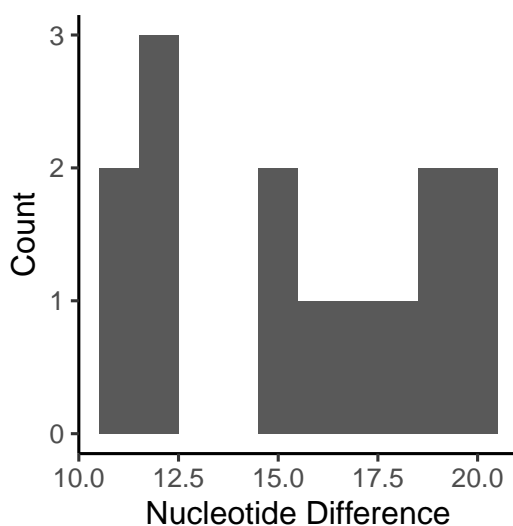
IGHV4–NL_1*02_S1777

318 sequences assigned
13 (4.1%) exact matches, in which:
11 unique CDR3
3 unique J



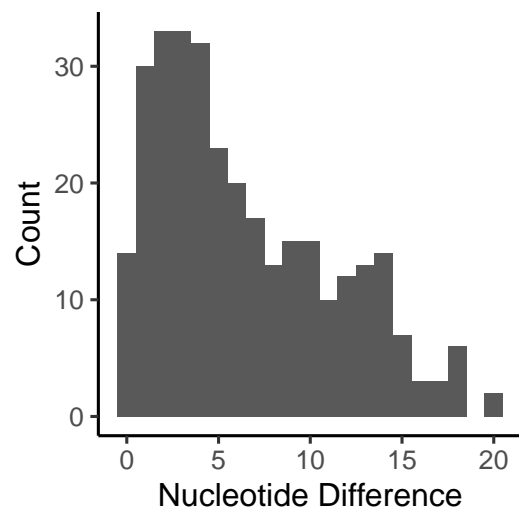
IGHV4–NL_12*01_S5174

57 sequences assigned
No exact matches.



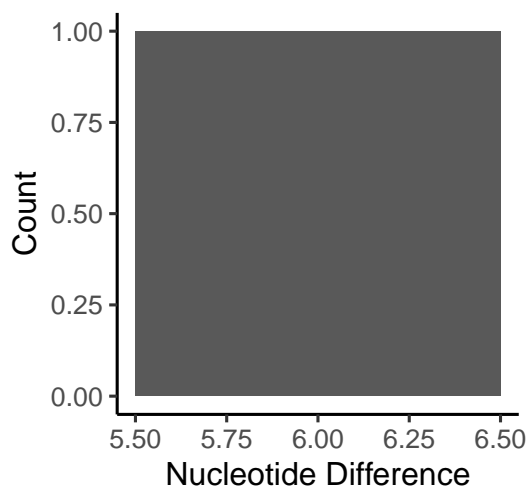
IGHV4–NL_16*01_S2324

350 sequences assigned
14 (4%) exact matches, in which:
13 unique CDR3
3 unique J



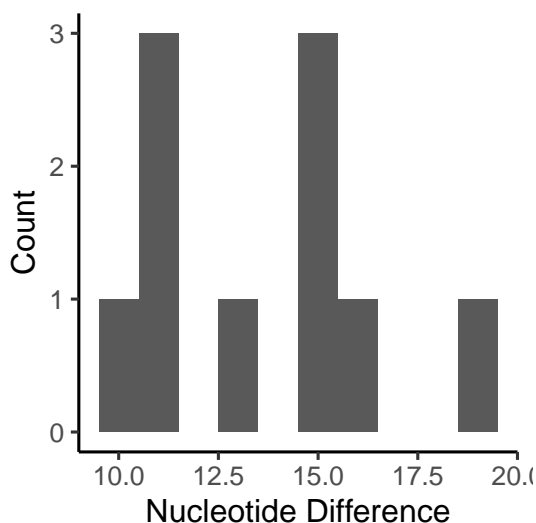
IGHV4–NL_10*01_S7684

1 sequences assigned
No exact matches.



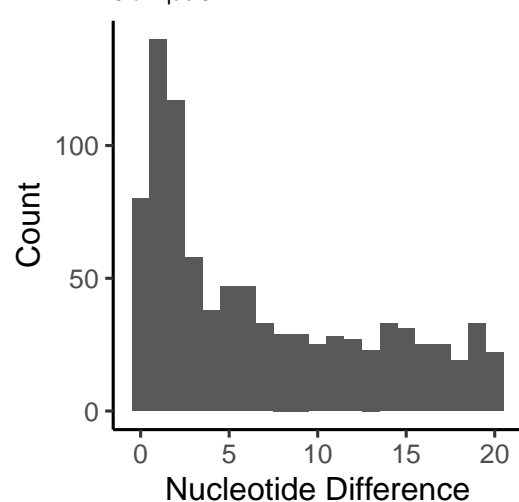
IGHV4–NL_12*01_S8068

14 sequences assigned
No exact matches.



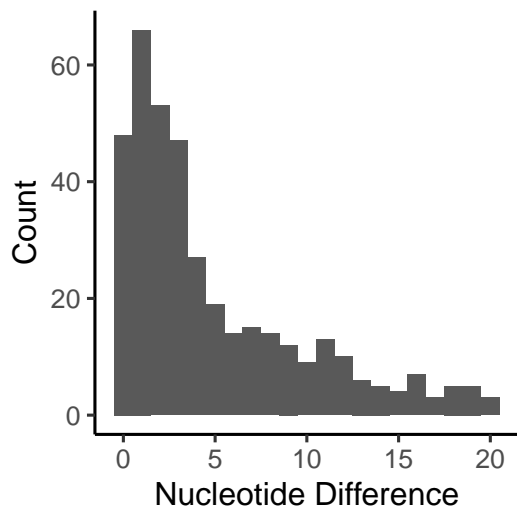
IGHV4–NL_17*01_S4099

1001 sequences assigned
80 (8%) exact matches, in which:
70 unique CDR3
5 unique J



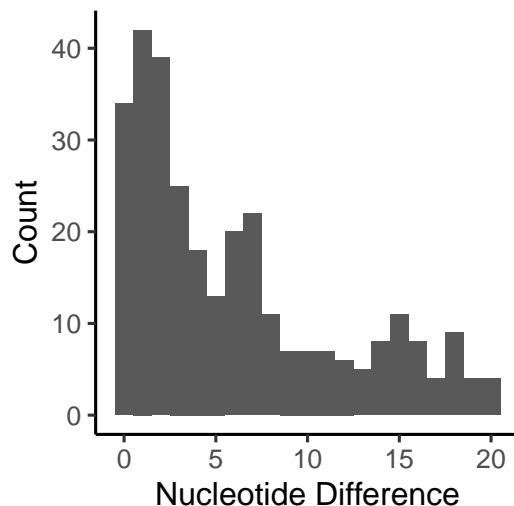
IGHV4–NL_20*01_S4754

428 sequences assigned
48 (11.2%) exact matches, in which:
41 unique CDR3
5 unique J



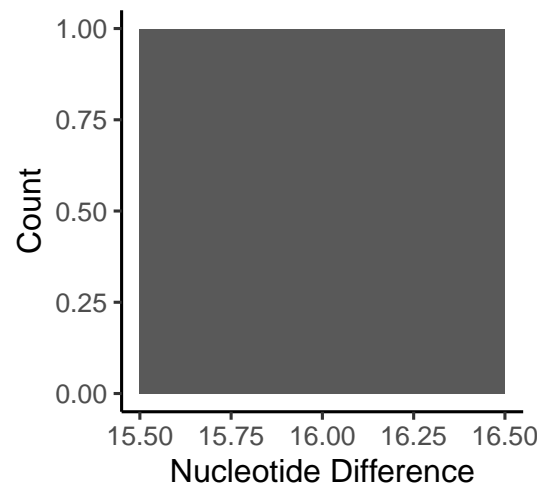
IGHV4–NL_22*01_S2393

400 sequences assigned
34 (8.5%) exact matches, in which:
29 unique CDR3
5 unique J



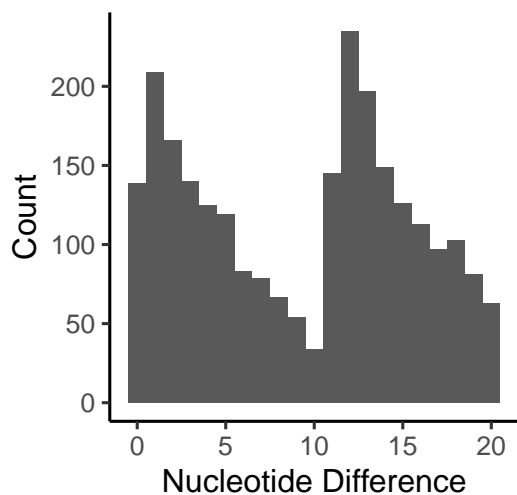
IGHV4–NL_27*01_S3510

1 sequences assigned
No exact matches.



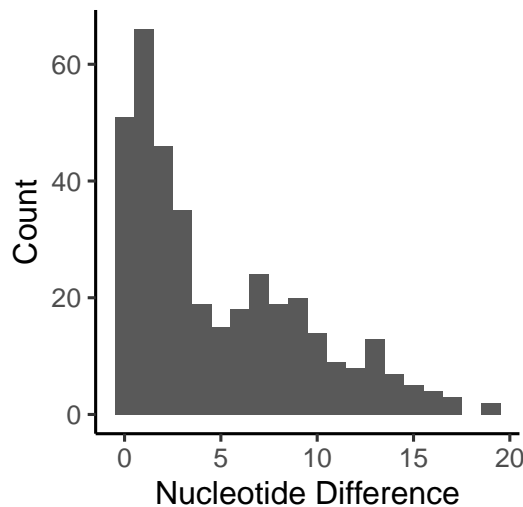
IGHV4–NL_21*01_S0138

3128 sequences assigned
139 (4.4%) exact matches, in which:
126 unique CDR3
5 unique J



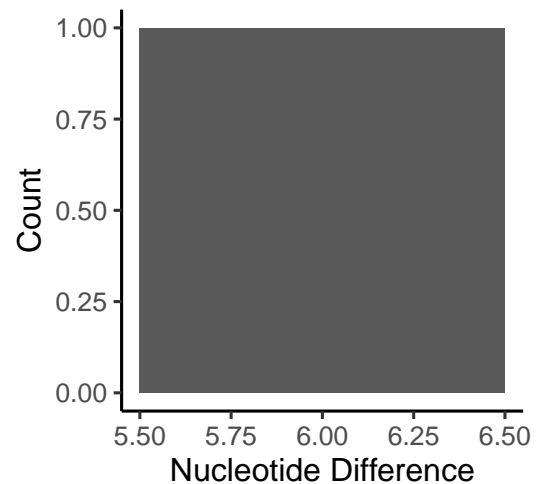
IGHV4–NL_23*01_S4212

408 sequences assigned
51 (12.5%) exact matches, in which:
40 unique CDR3
5 unique J



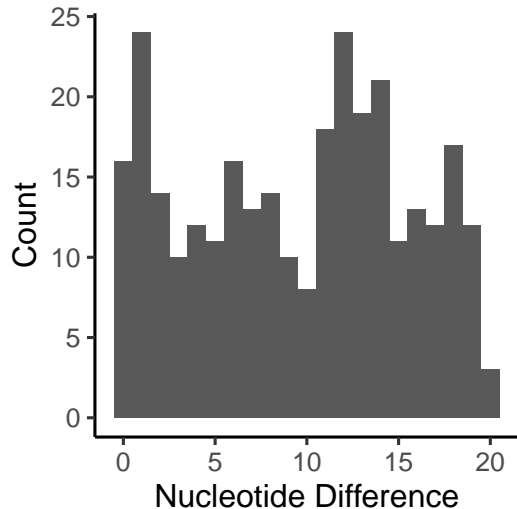
IGHV4–NL_27*01_S5720

1 sequences assigned
No exact matches.



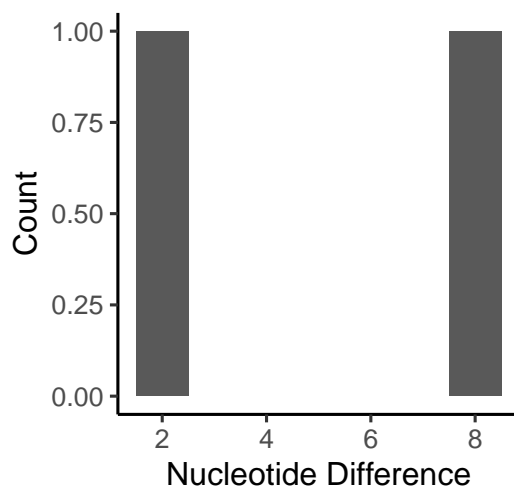
IGHV4–NL_21*01_S6308

424 sequences assigned
16 (3.8%) exact matches, in which:
12 unique CDR3
4 unique J



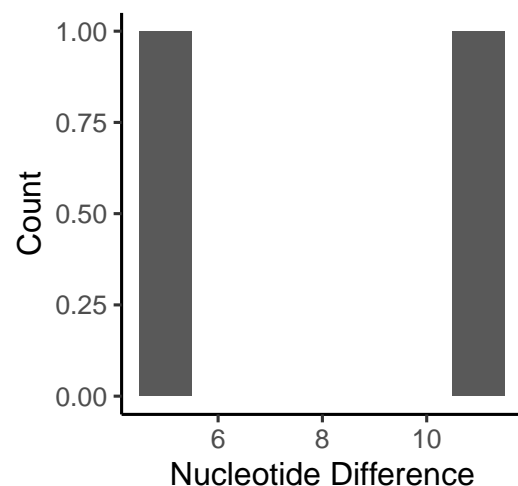
IGHV4–NL_24*01_S5697

2 sequences assigned
No exact matches.



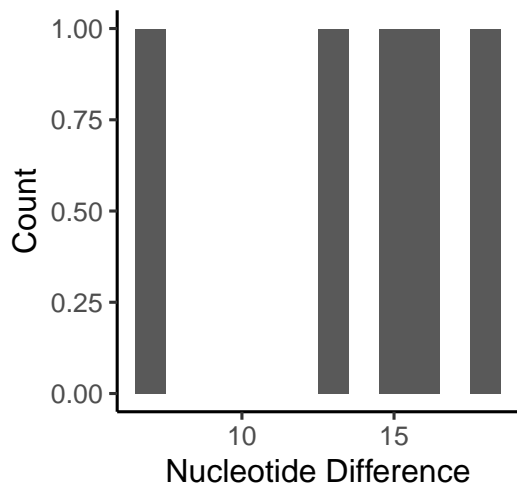
IGHV4–NL_27*01_S5829

3 sequences assigned
No exact matches.



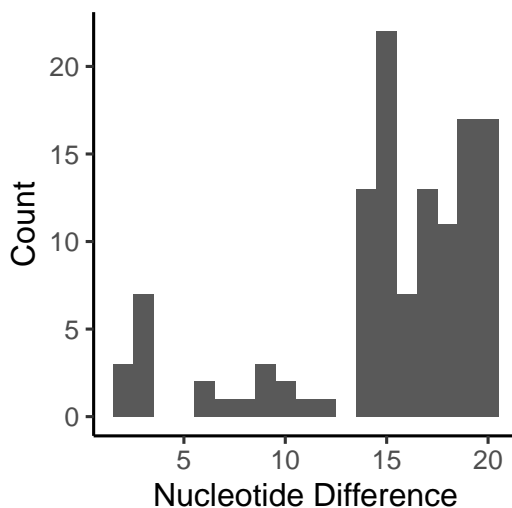
IGHV4–NL_27*01_S9007

5 sequences assigned
No exact matches.



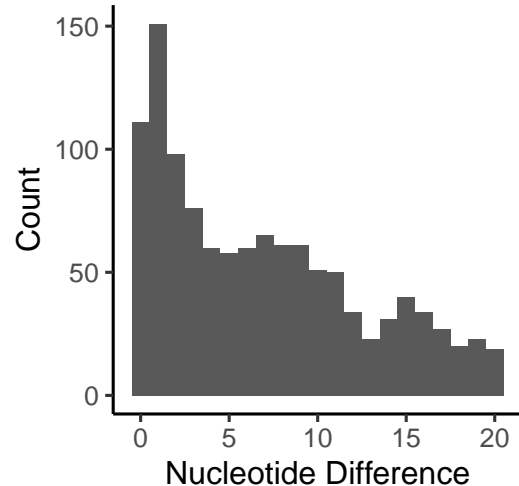
IGHV4–NL_3*01_S1577

172 sequences assigned
No exact matches.



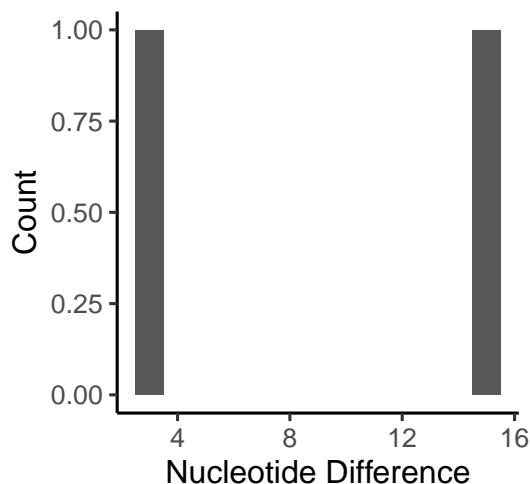
IGHV4–NL_33*01_S4377

1389 sequences assigned
111 (8%) exact matches, in which:
92 unique CDR3
5 unique J



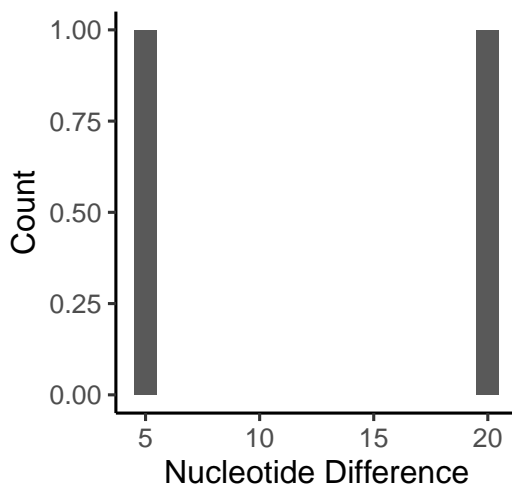
IGHV4–NL_28*01_S2610

3 sequences assigned
No exact matches.



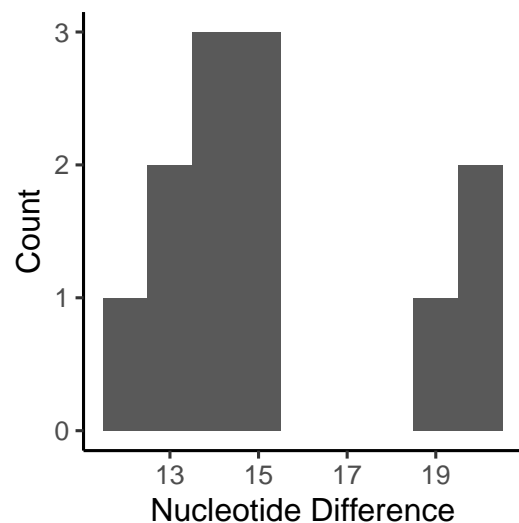
IGHV4–NL_31*01_S7693

9 sequences assigned
No exact matches.



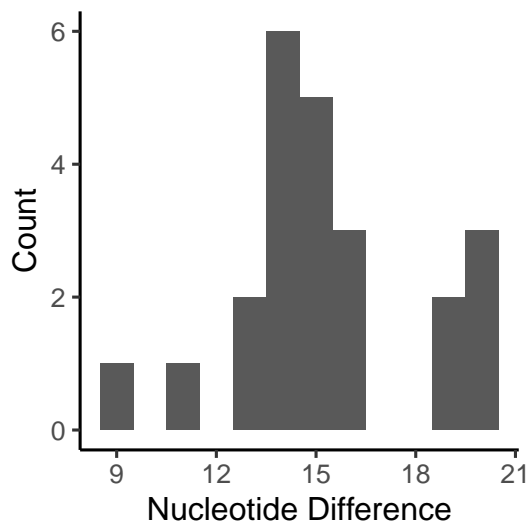
IGHV4–NL_34*01_S4637

16 sequences assigned
No exact matches.



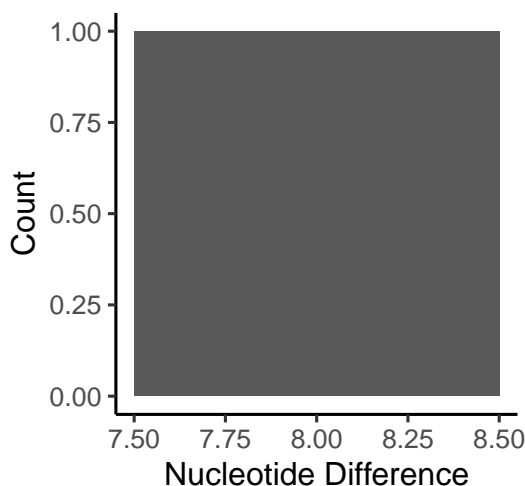
IGHV4–NL_29*01_S3761

32 sequences assigned
No exact matches.



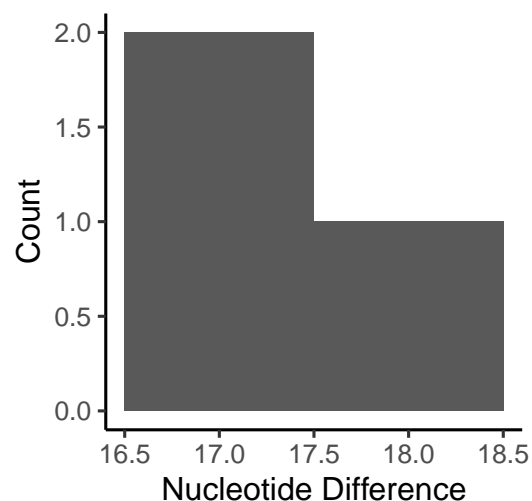
IGHV4–NL_32*01_S3033

2 sequences assigned
No exact matches.



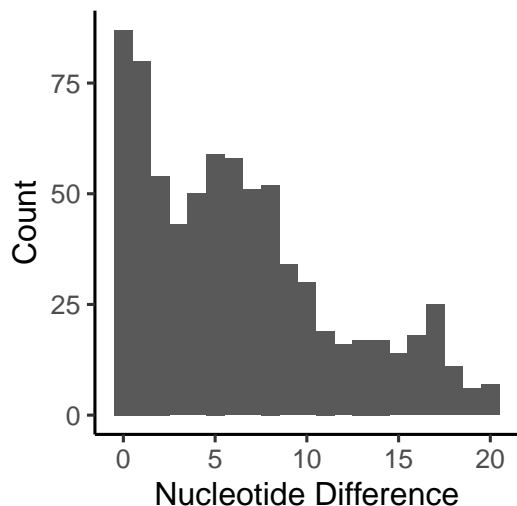
IGHV4–NL_34*01_S4749

17 sequences assigned
No exact matches.



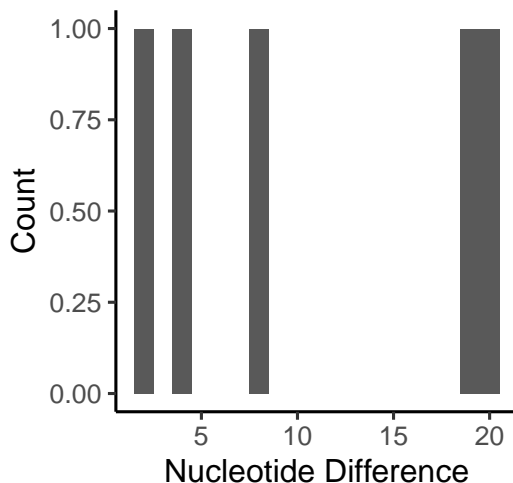
IGHV4–NL_36*01_S5847

936 sequences assigned
87 (9.3%) exact matches, in which:
74 unique CDR3
5 unique J



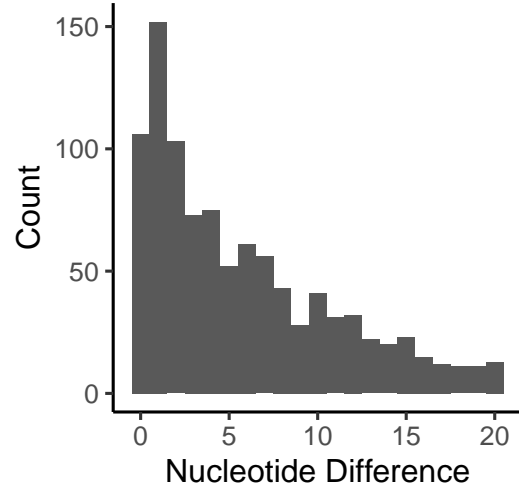
IGHV4–NL_38*01_S8437

9 sequences assigned
No exact matches.



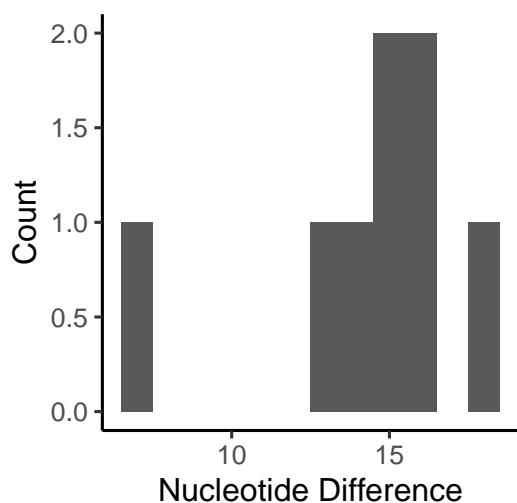
IGHV4–NL_40*01_S0696

1174 sequences assigned
106 (9%) exact matches, in which:
91 unique CDR3
5 unique J



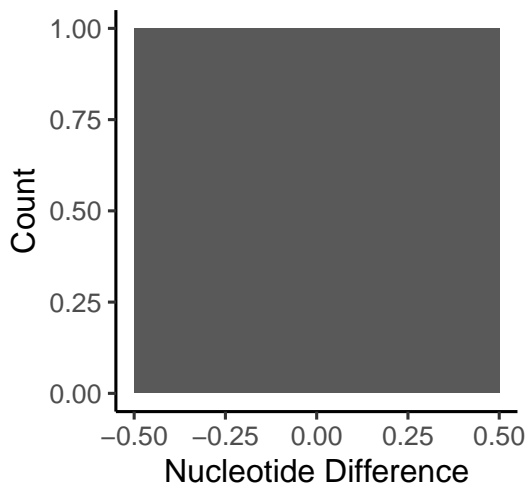
IGHV4–NL_38*01_S2187

18 sequences assigned
No exact matches.



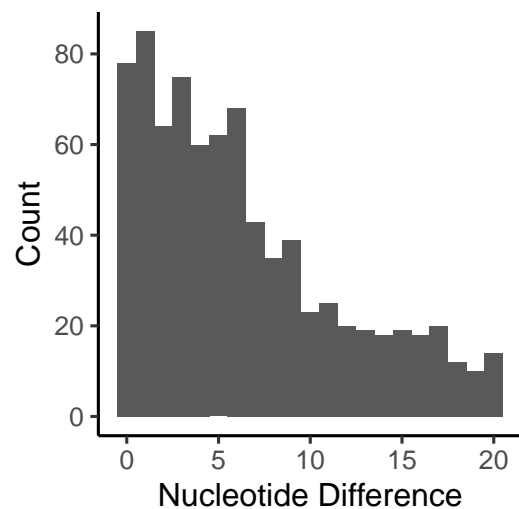
IGHV4–NL_38*01_S9247

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



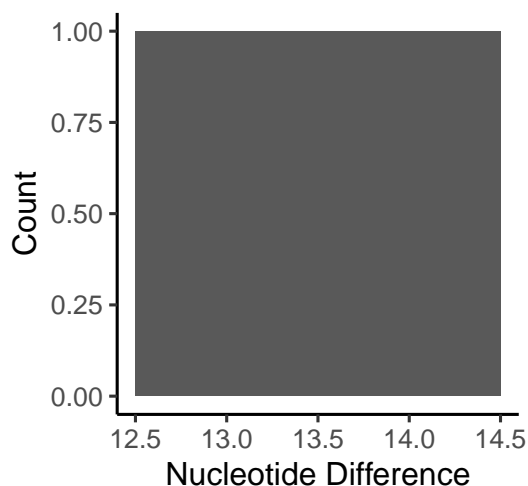
IGHV4–NL_42*01_S3666

872 sequences assigned
78 (8.9%) exact matches, in which:
60 unique CDR3
5 unique J



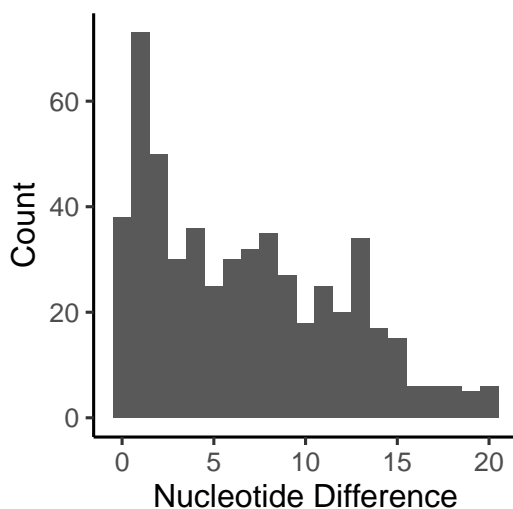
IGHV4–NL_38*01_S6937

2 sequences assigned
No exact matches.



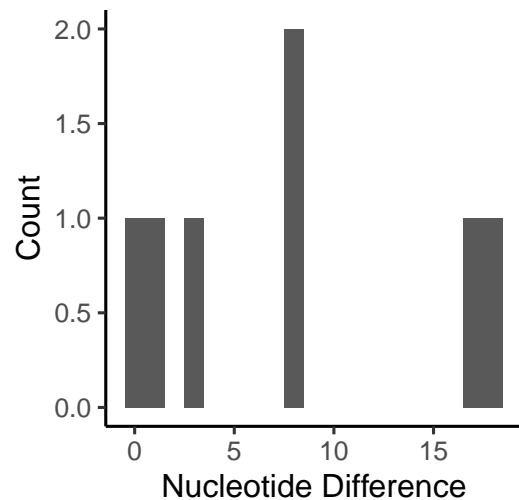
IGHV4–NL_4*01_S8866

614 sequences assigned
38 (6.2%) exact matches, in which:
32 unique CDR3
5 unique J



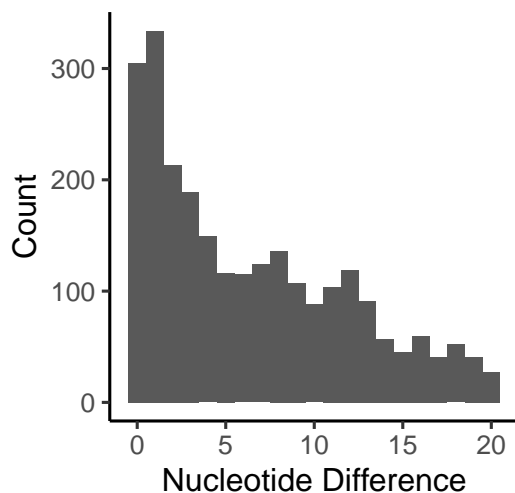
IGHV4–NL_43*01_S4510

29 sequences assigned
1 (3.4%) exact matches, in which:
1 unique CDR3
1 unique J



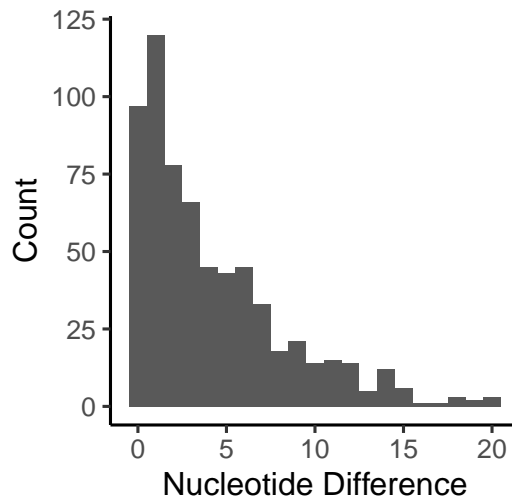
IGHV4–NL_5*01_S0876

2713 sequences assigned
305 (11.2%) exact matches, in which:
242 unique CDR3
5 unique J



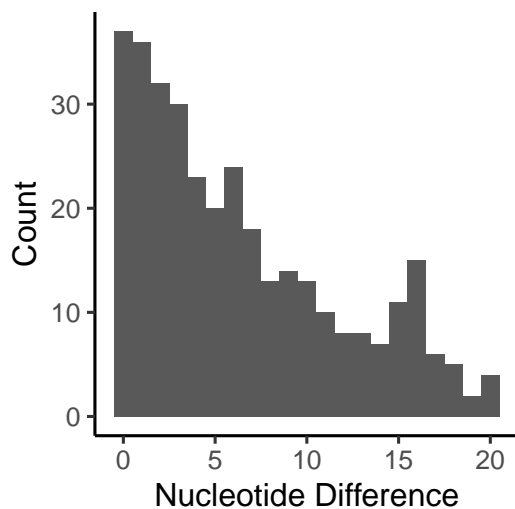
IGHV5–157*01_S5960

646 sequences assigned
97 (15%) exact matches, in which:
52 unique CDR3
5 unique J



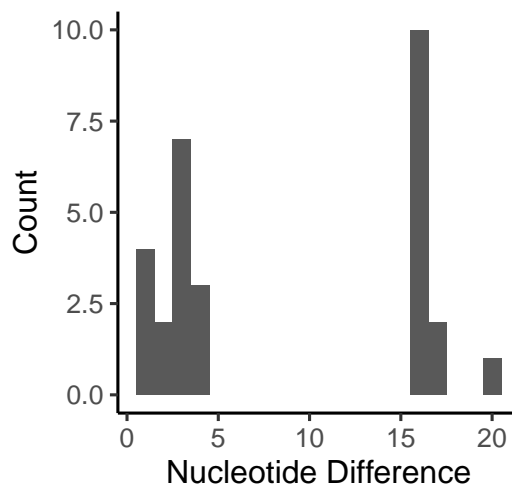
IGHV4–NL_9*01_S3502

367 sequences assigned
37 (10.1%) exact matches, in which:
26 unique CDR3
5 unique J



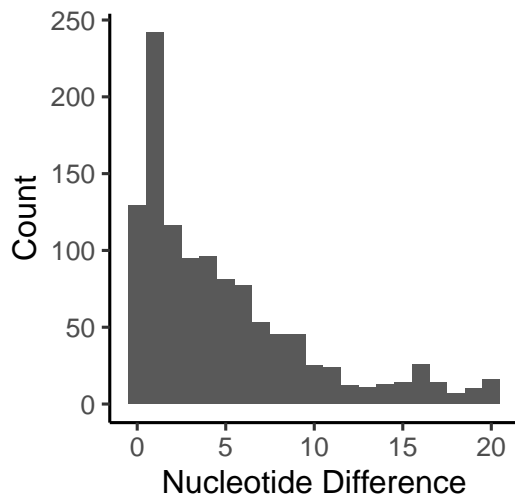
IGHV7–135*01_S9086

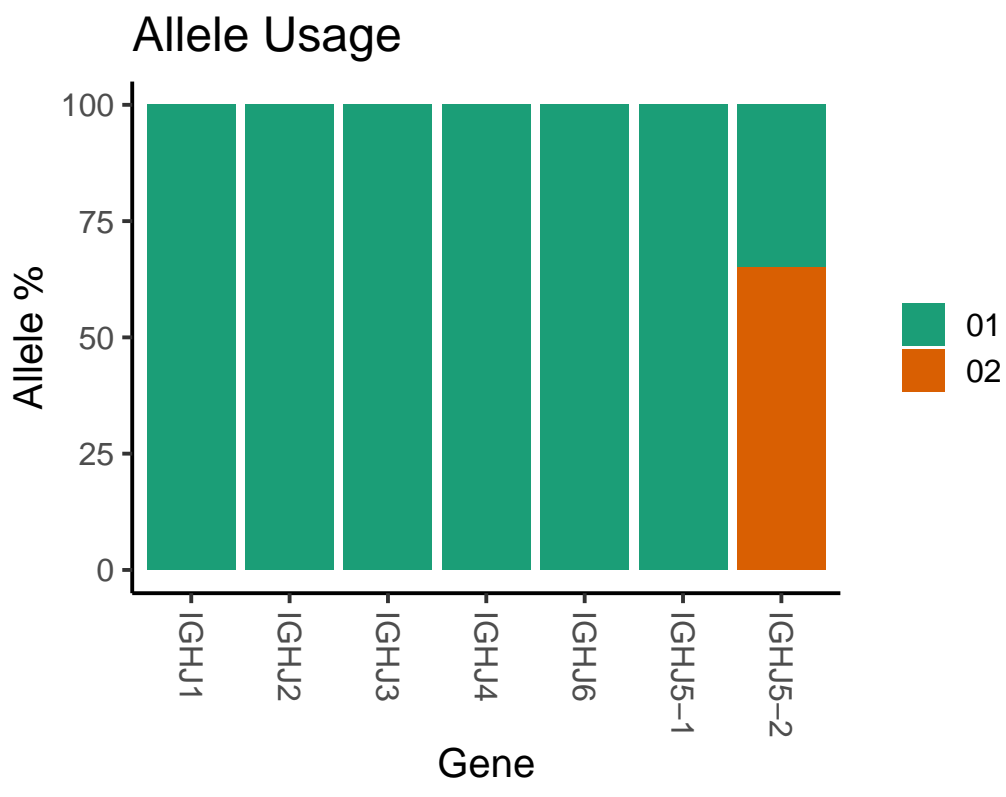
516 sequences assigned
No exact matches.



IGHV5–15*01_S4790

1195 sequences assigned
129 (10.8%) exact matches, in which:
89 unique CDR3
5 unique J





Sequence Count by IGHJ5–2 allele usage



Warning – no inferred sequences found.