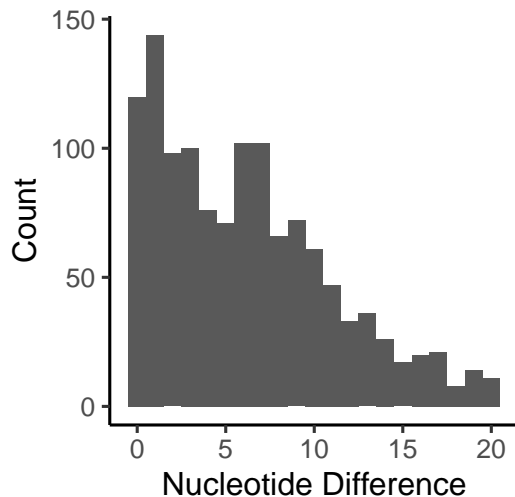


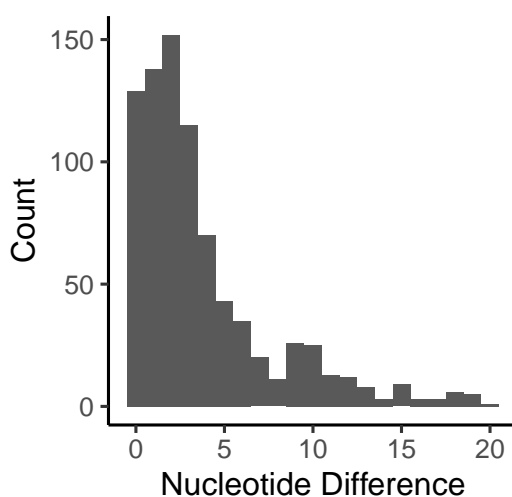
IGHV1-60*01_S1918

1280 sequences assigned
120 (9.4%) exact matches, in which:
79 unique CDR3
5 unique J



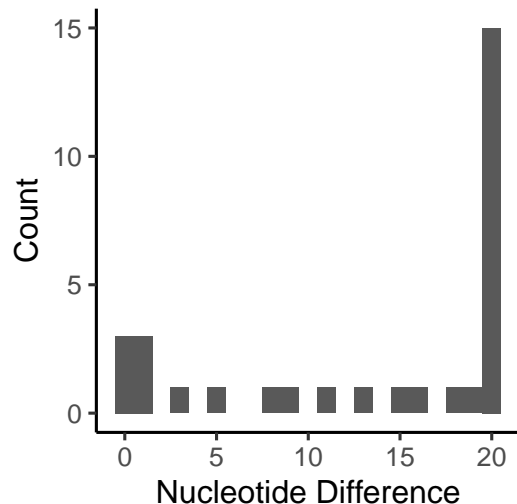
IGHV1-138*01_S8860

836 sequences assigned
129 (15.4%) exact matches, in which:
86 unique CDR3
6 unique J



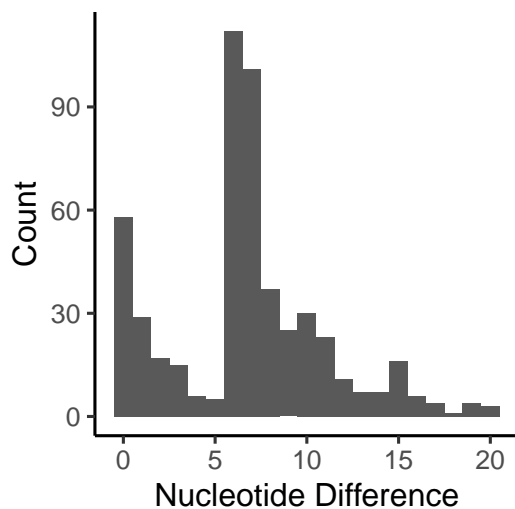
IGHV2-7*02_S1732

168 sequences assigned
3 (1.8%) exact matches, in which:
3 unique CDR3
1 unique J



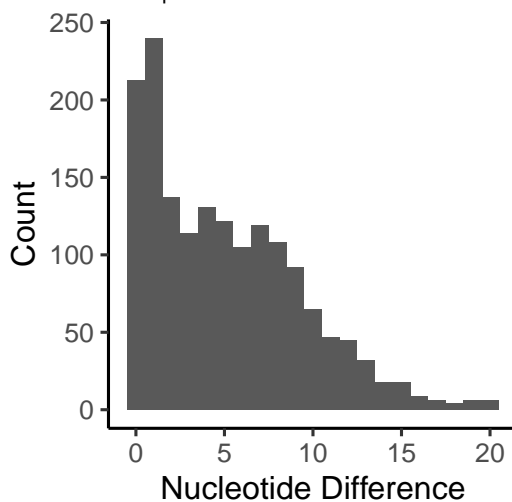
IGHV1-84*01_S4663

655 sequences assigned
58 (8.9%) exact matches, in which:
32 unique CDR3
4 unique J



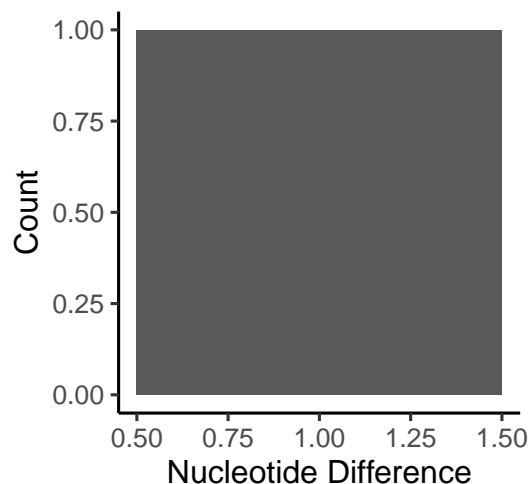
IGHV1-NL_1*01_S2052

1662 sequences assigned
213 (12.8%) exact matches, in which:
134 unique CDR3
5 unique J



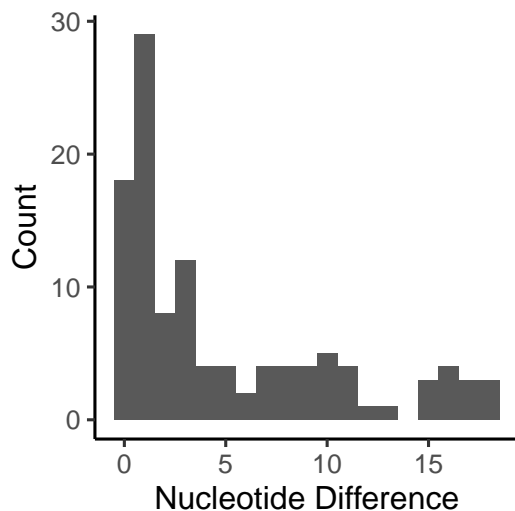
IGHV2-7*02_S3534

13 sequences assigned
No exact matches.



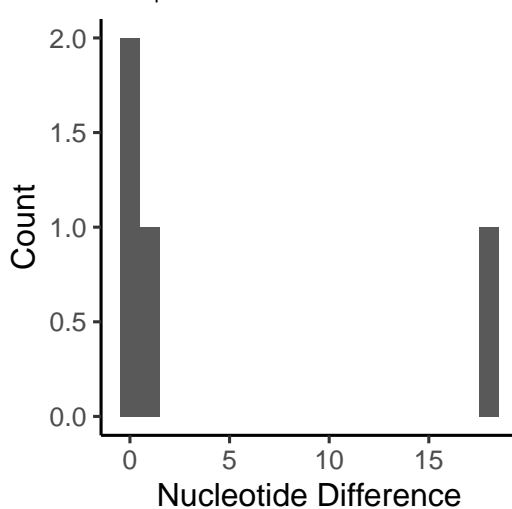
IGHV1-124*01_S7834

114 sequences assigned
18 (15.8%) exact matches, in which:
12 unique CDR3
3 unique J



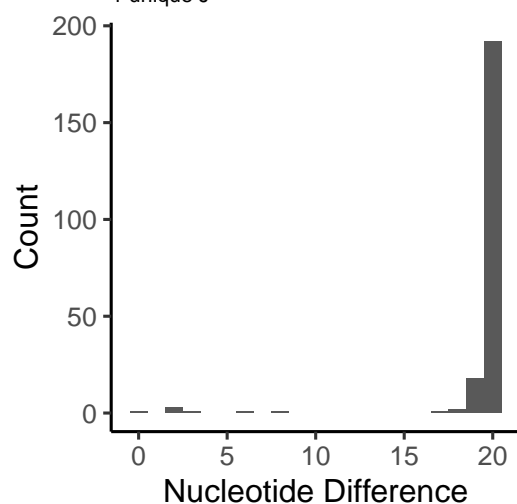
IGHV1-NL_2*01_S5797

6 sequences assigned
2 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



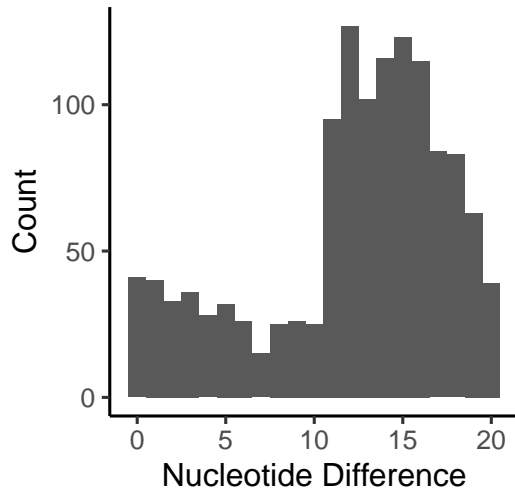
IGHV2-7*02_S4285

1111 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



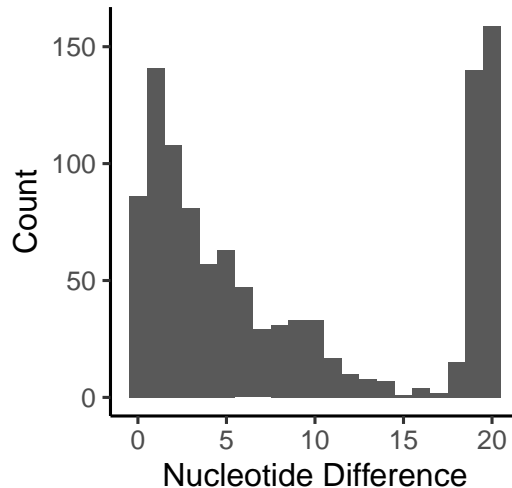
IGHV2–NL_1*01_S2488

1419 sequences assigned
41 (2.9%) exact matches, in which:
28 unique CDR3
5 unique J



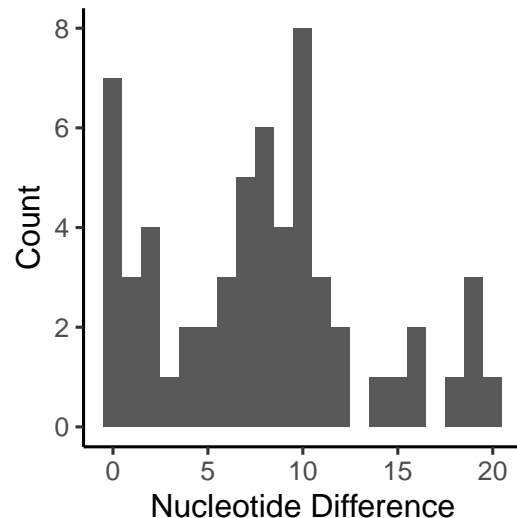
IGHV2–NL_2*01_S8873

1592 sequences assigned
86 (5.4%) exact matches, in which:
49 unique CDR3
5 unique J



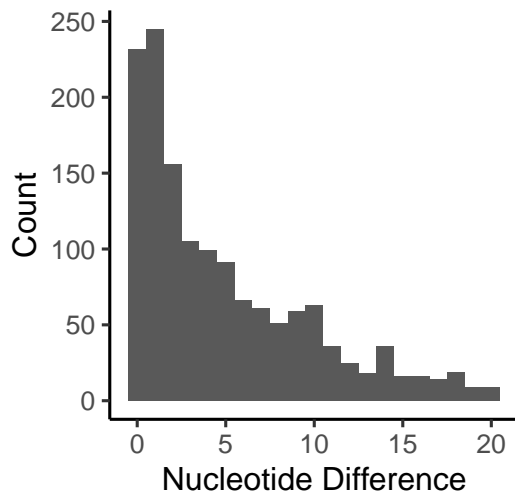
IGHV3–28*01_S7540

62 sequences assigned
7 (11.3%) exact matches, in which:
5 unique CDR3
2 unique J



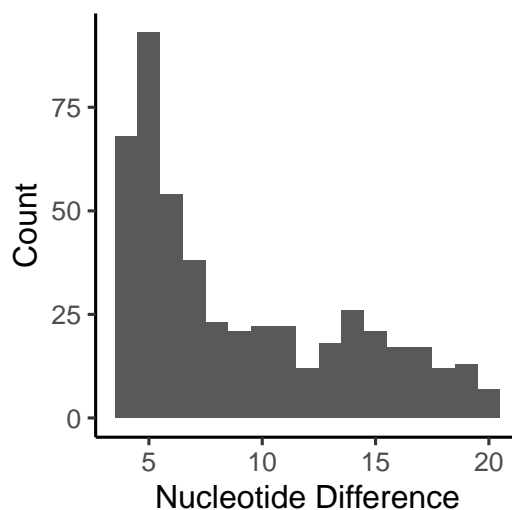
IGHV2–NL_1*01_S3296

1459 sequences assigned
232 (15.9%) exact matches, in which:
147 unique CDR3
7 unique J



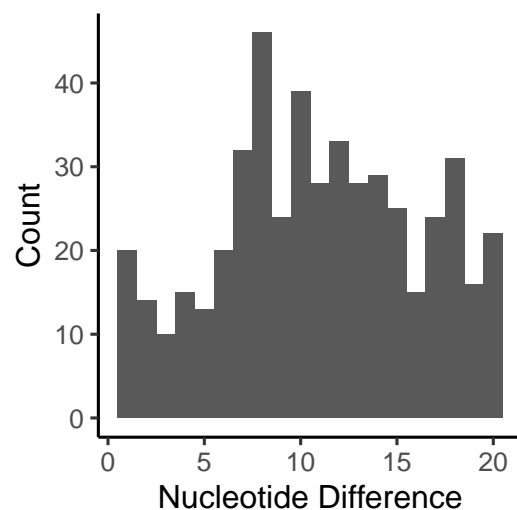
IGHV3–5*01_S0969

566 sequences assigned
No exact matches.



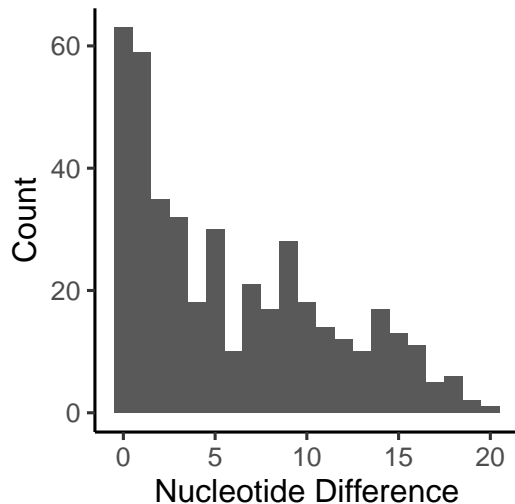
IGHV3–37*01_S4420

547 sequences assigned
No exact matches.



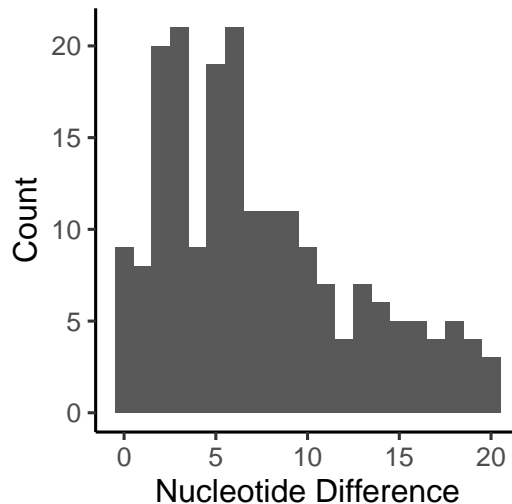
IGHV2–NL_1*01_S3296_C

447 sequences assigned
63 (14.1%) exact matches, in which:
60 unique CDR3
5 unique J



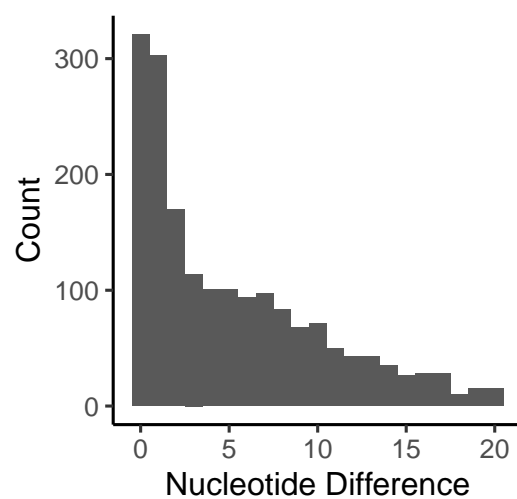
IGHV3–9*01_S0778

213 sequences assigned
9 (4.2%) exact matches, in which:
9 unique CDR3
4 unique J



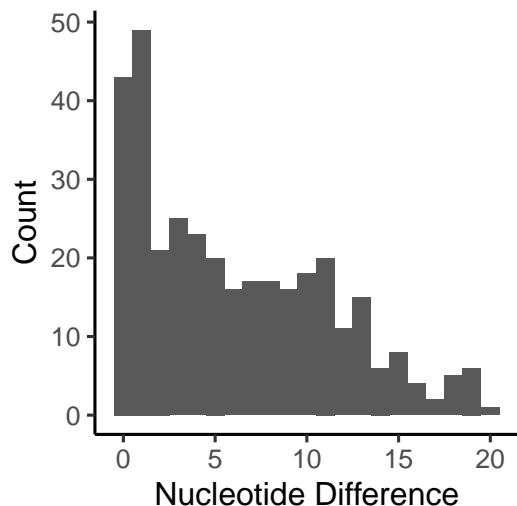
IGHV3–50*01_S4628

1866 sequences assigned
321 (17.2%) exact matches, in which:
241 unique CDR3
6 unique J



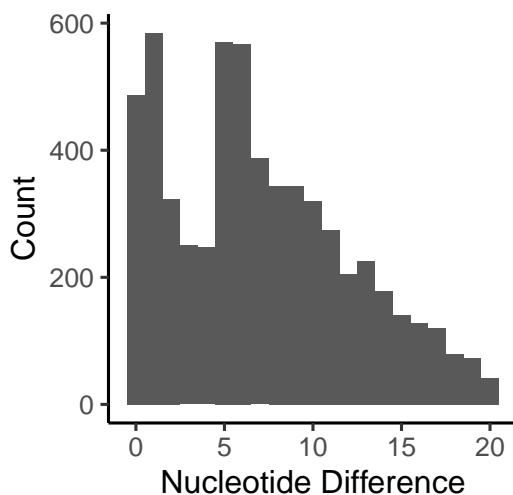
IGHV3-50*02_S9583

383 sequences assigned
43 (11.2%) exact matches, in which:
37 unique CDR3
4 unique J



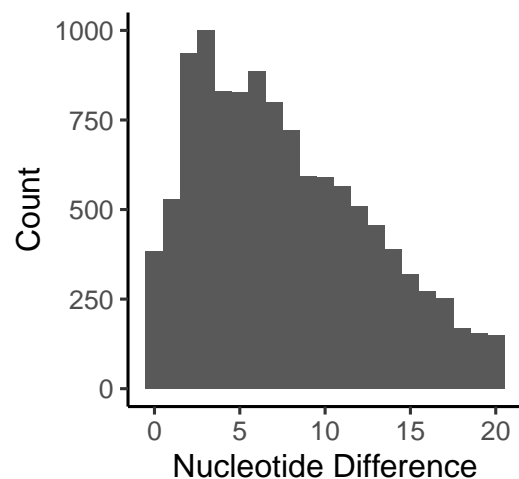
IGHV3-76*01_S4285

6332 sequences assigned
487 (7.7%) exact matches, in which:
371 unique CDR3
6 unique J



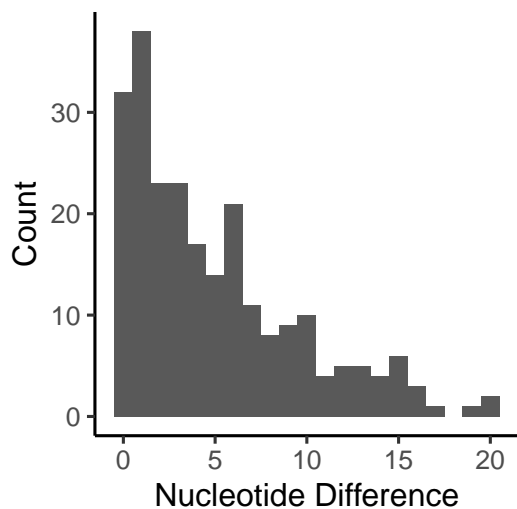
IGHV3-88*01_S9155

12029 sequences assigned
383 (3.2%) exact matches, in which:
270 unique CDR3
6 unique J



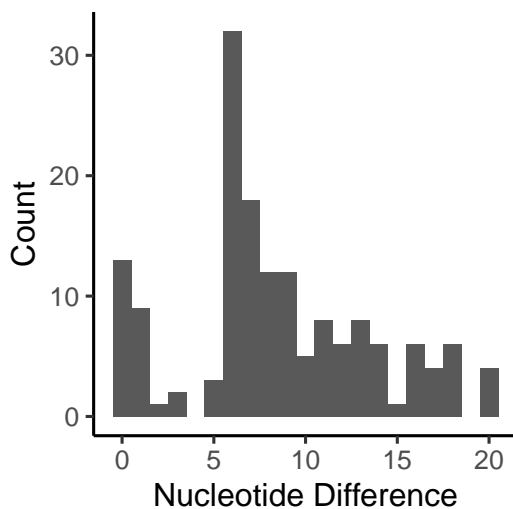
IGHV3-52*01_S8160

241 sequences assigned
32 (13.3%) exact matches, in which:
21 unique CDR3
4 unique J



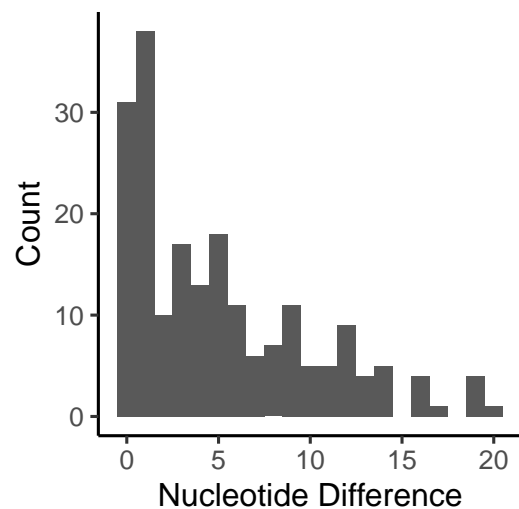
IGHV3-83*02_S9518

164 sequences assigned
13 (7.9%) exact matches, in which:
10 unique CDR3
3 unique J



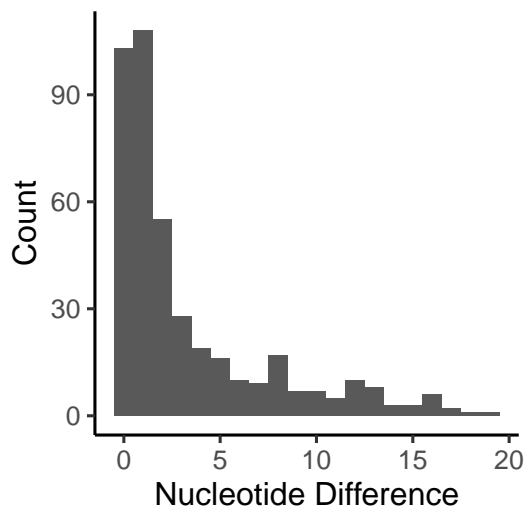
IGHV3-94*01_S7982

207 sequences assigned
31 (15%) exact matches, in which:
27 unique CDR3
5 unique J



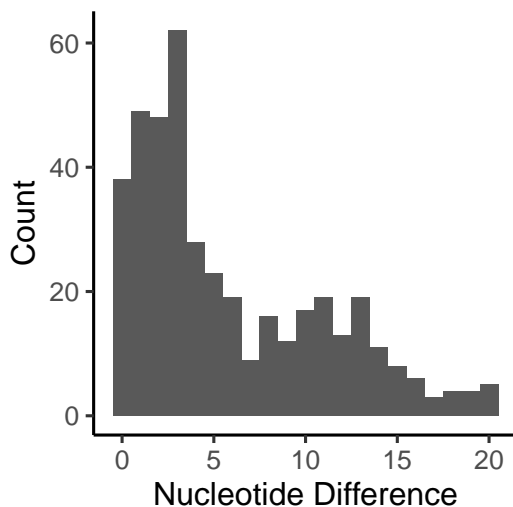
IGHV3-73*01_S6942

420 sequences assigned
103 (24.5%) exact matches, in which:
79 unique CDR3
6 unique J



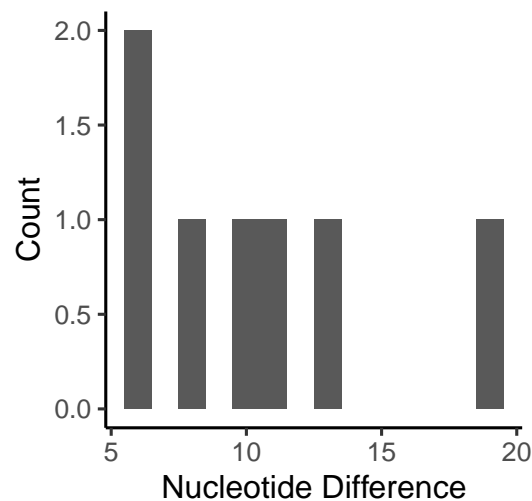
IGHV3-87*01_S6311

493 sequences assigned
38 (7.7%) exact matches, in which:
28 unique CDR3
4 unique J



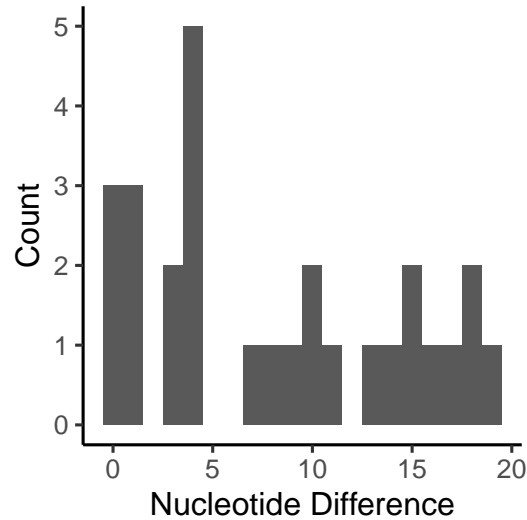
IGHV3-100*01_S4205

12 sequences assigned
No exact matches.



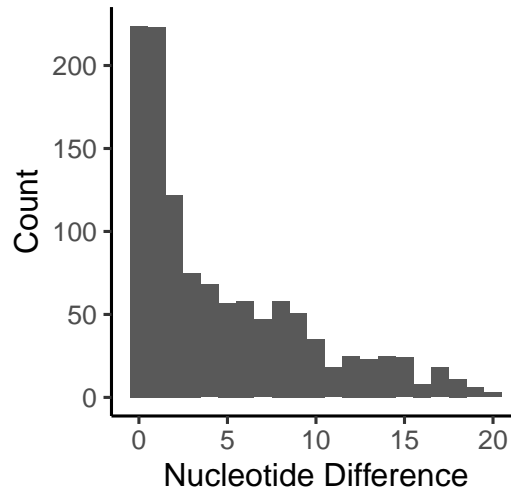
IGHV3-100*01_S4375

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



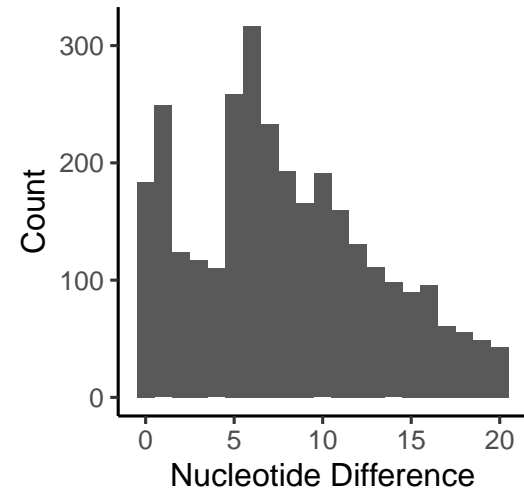
IGHV3-122*01_S8125

1211 sequences assigned
224 (18.5%) exact matches, in which:
171 unique CDR3
5 unique J



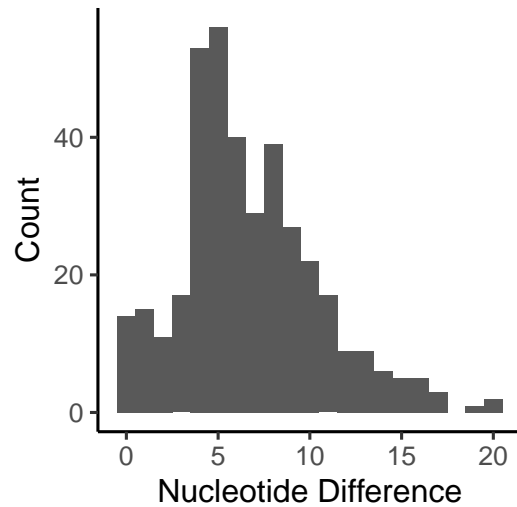
IGHV3-128*02_S3121

3395 sequences assigned
184 (5.4%) exact matches, in which:
132 unique CDR3
6 unique J



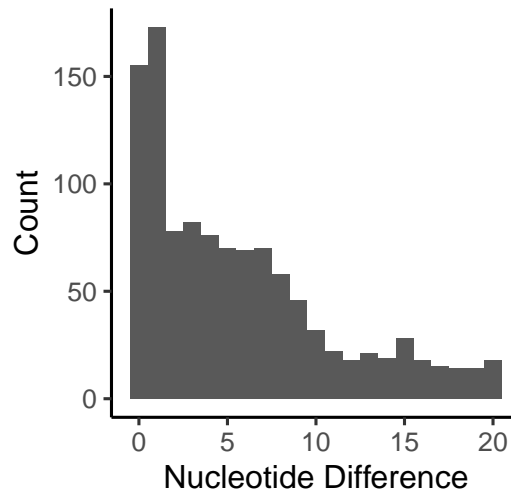
IGHV3-119*01_S9769

403 sequences assigned
14 (3.5%) exact matches, in which:
11 unique CDR3
2 unique J



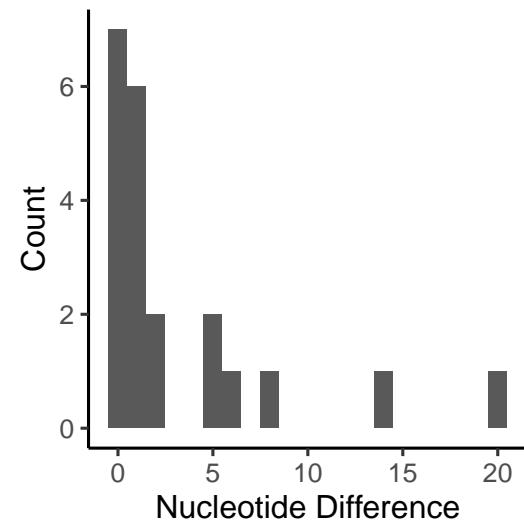
IGHV3-122*01_S8388

1146 sequences assigned
155 (13.5%) exact matches, in which:
120 unique CDR3
5 unique J



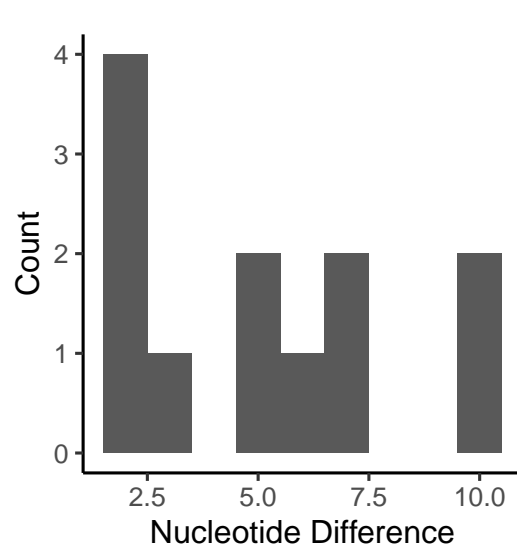
IGHV3-141*01_S4264

21 sequences assigned
7 (33.3%) exact matches, in which:
7 unique CDR3
3 unique J



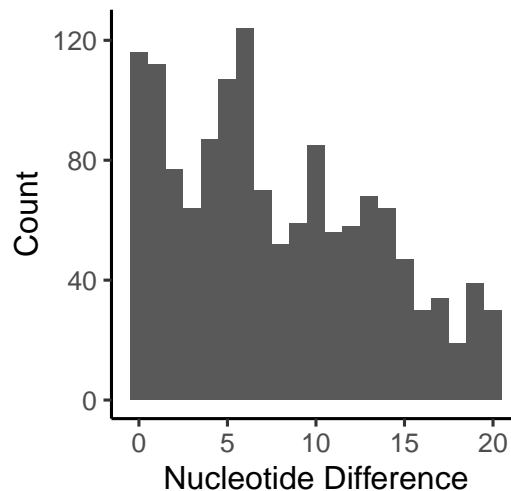
IGHV3-120*01_S4231

16 sequences assigned
No exact matches.



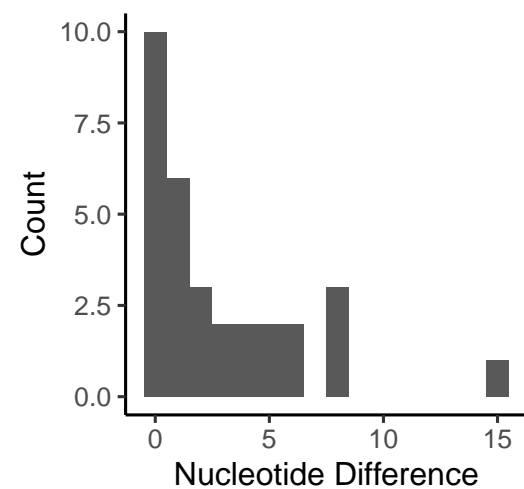
IGHV3-127*01_S1834

1546 sequences assigned
116 (7.5%) exact matches, in which:
93 unique CDR3
6 unique J



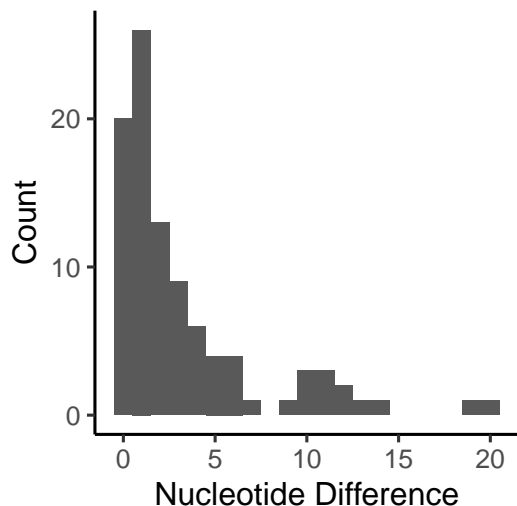
IGHV3-141*01_S8690

31 sequences assigned
10 (32.3%) exact matches, in which:
8 unique CDR3
3 unique J



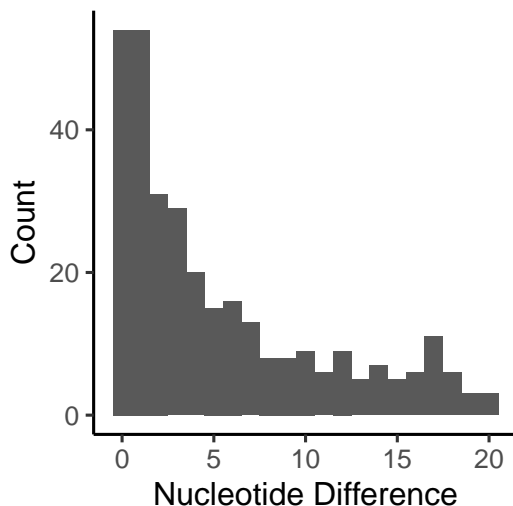
IGHV3-141*02_S1149

96 sequences assigned
20 (20.8%) exact matches, in which:
16 unique CDR3
5 unique J



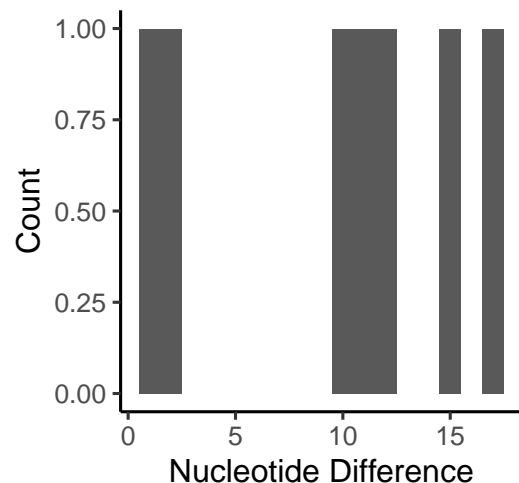
IGHV3-177*01_S6408

335 sequences assigned
54 (16.1%) exact matches, in which:
38 unique CDR3
4 unique J



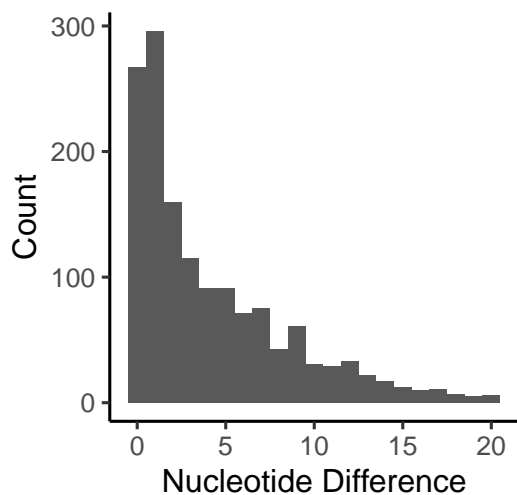
IGHV3-NL_10*02_S2212

7 sequences assigned
No exact matches.



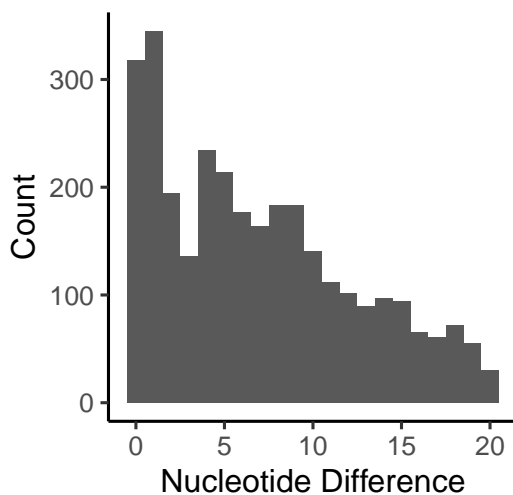
IGHV3-172*01_S2175

1498 sequences assigned
267 (17.8%) exact matches, in which:
185 unique CDR3
5 unique J



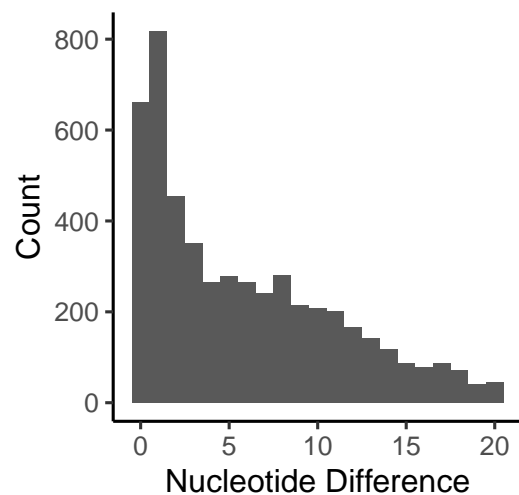
IGHV3-187*01_S1387

3416 sequences assigned
318 (9.3%) exact matches, in which:
228 unique CDR3
6 unique J



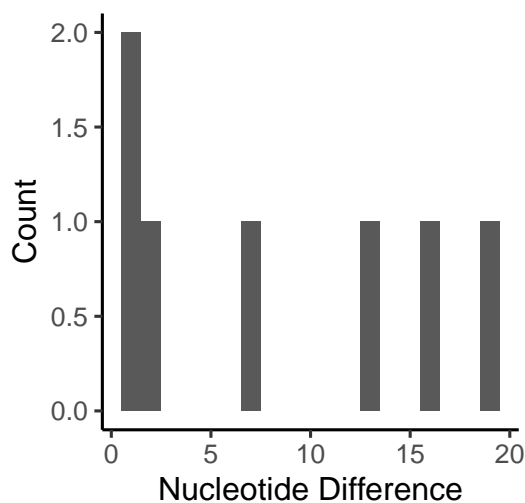
IGHV3-NL_11*01_S5714

5379 sequences assigned
661 (12.3%) exact matches, in which:
495 unique CDR3
7 unique J



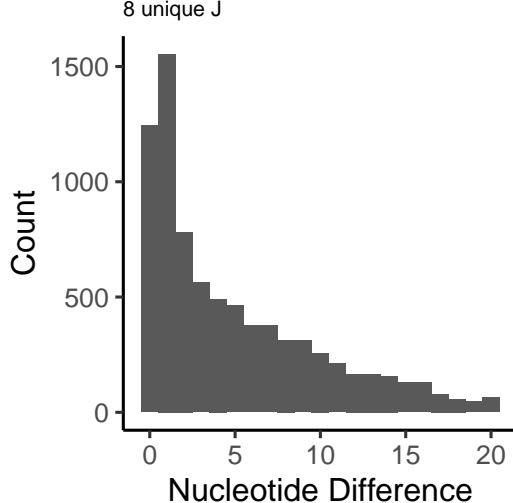
IGHV3-175*01_S1614

8 sequences assigned
No exact matches.



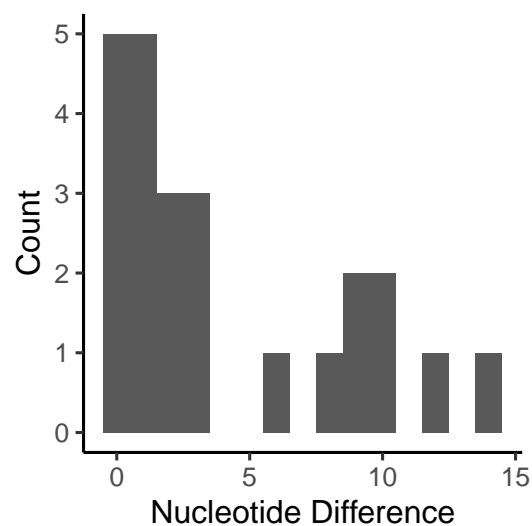
IGHV3-NL_1*01_S9854

8336 sequences assigned
1244 (14.9%) exact matches, in which:
848 unique CDR3
8 unique J



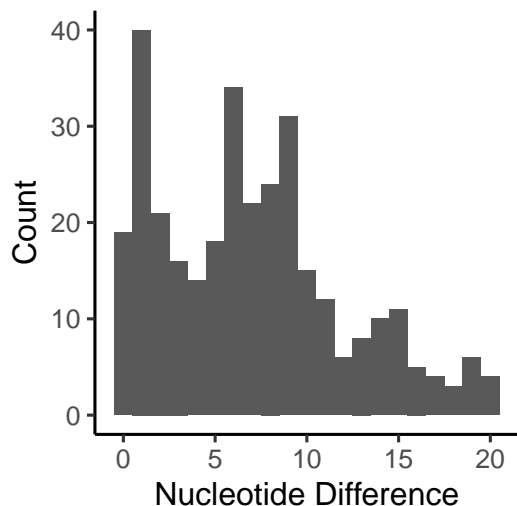
IGHV3-NL_12*02_S5864

26 sequences assigned
5 (19.2%) exact matches, in which:
3 unique CDR3
2 unique J



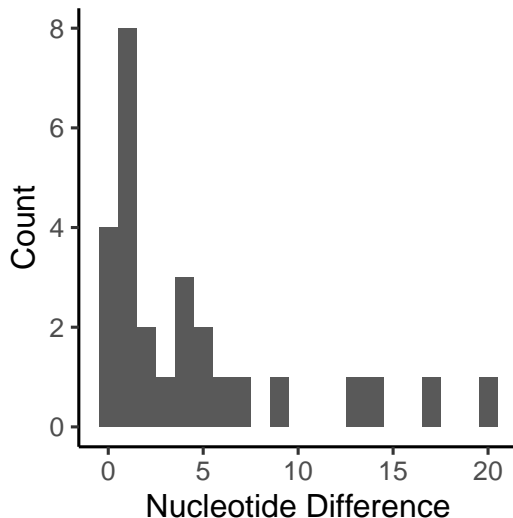
IGHV3-NL_13*01_S3277

337 sequences assigned
19 (5.6%) exact matches, in which:
18 unique CDR3
2 unique J



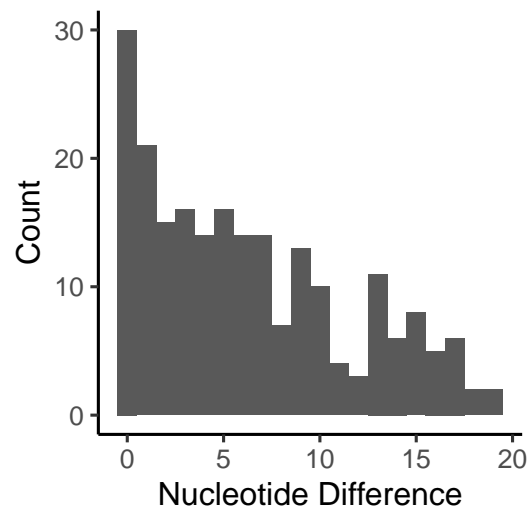
IGHV3-NL_16*01_S5133

27 sequences assigned
4 (14.8%) exact matches, in which:
4 unique CDR3
1 unique J



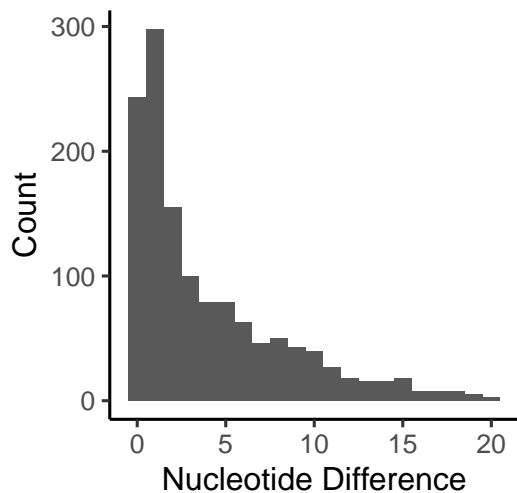
IGHV3-NL_18*01_S3867

220 sequences assigned
30 (13.6%) exact matches, in which:
23 unique CDR3
4 unique J



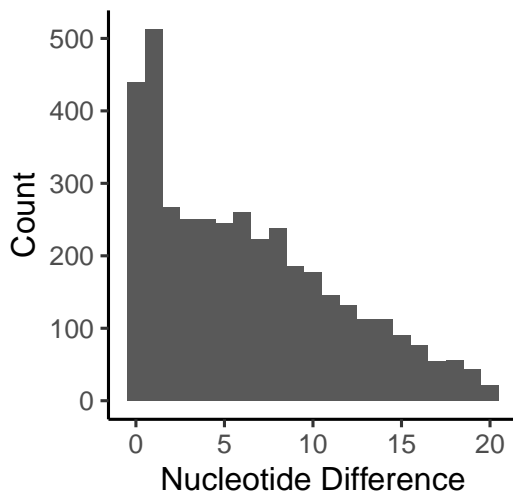
IGHV3-NL_14*01_S1113

1344 sequences assigned
243 (18.1%) exact matches, in which:
197 unique CDR3
6 unique J



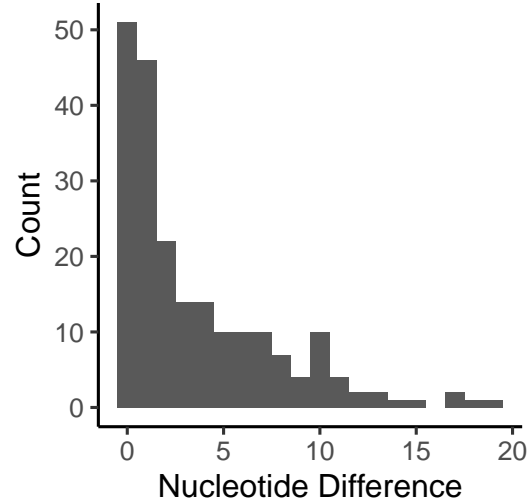
IGHV3-NL_17*01_S4250

4090 sequences assigned
440 (10.8%) exact matches, in which:
298 unique CDR3
6 unique J



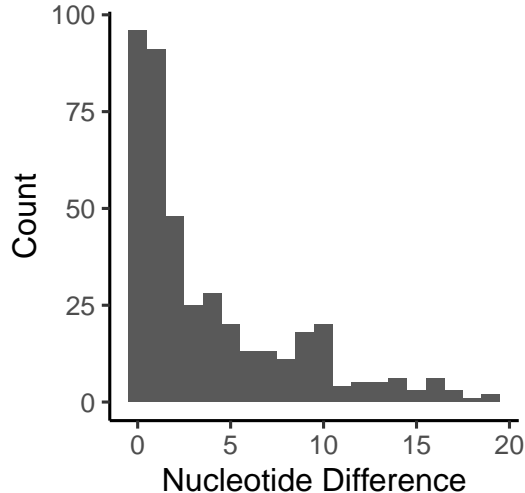
IGHV3-NL_19*01_S6635

213 sequences assigned
51 (23.9%) exact matches, in which:
39 unique CDR3
5 unique J



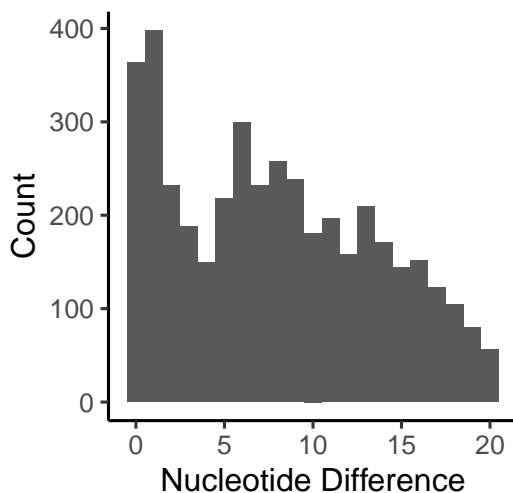
IGHV3-NL_15*01_S2828

422 sequences assigned
96 (22.7%) exact matches, in which:
79 unique CDR3
5 unique J



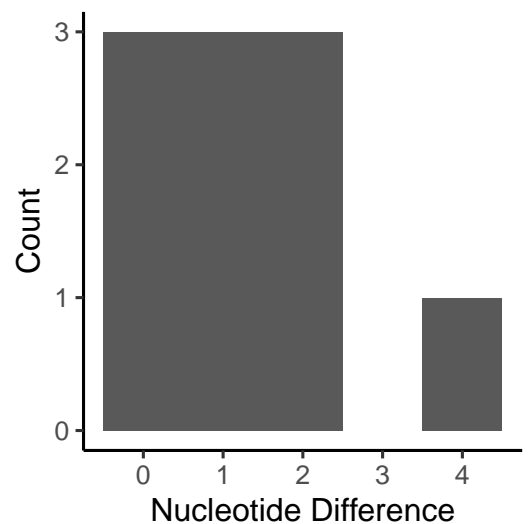
IGHV3-NL_17*01_S9589

4476 sequences assigned
364 (8.1%) exact matches, in which:
249 unique CDR3
5 unique J



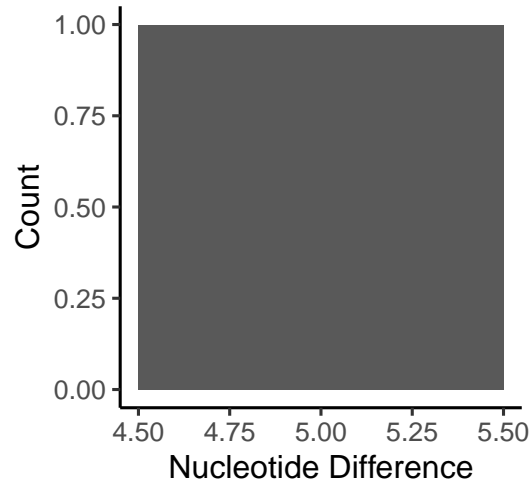
IGHV3-NL_2*01_S1693

10 sequences assigned
3 (30%) exact matches, in which:
3 unique CDR3
1 unique J



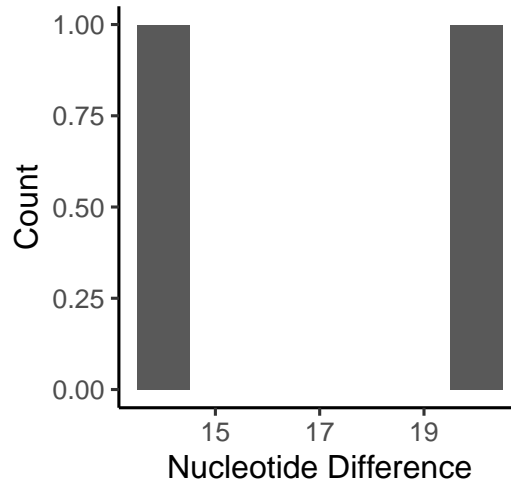
IGHV3–NL_4*01_S9635

1 sequences assigned
No exact matches.



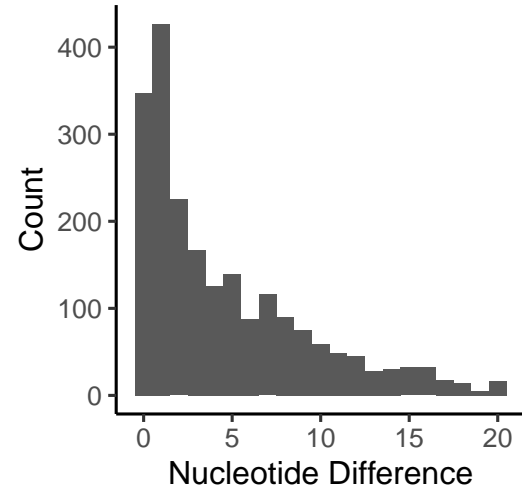
IGHV3–NL_7*01_S0199

2 sequences assigned
No exact matches.



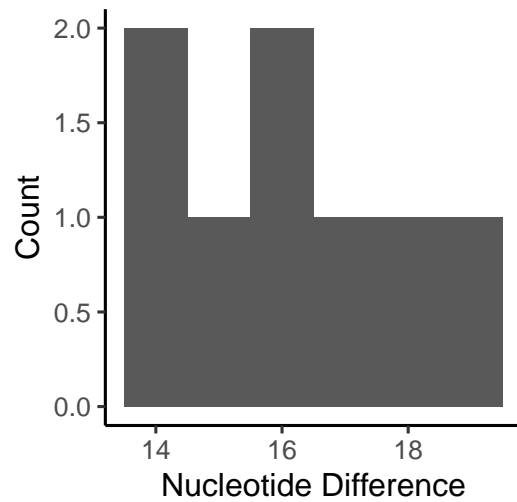
IGHV4–93*01_S5203

2205 sequences assigned
347 (15.7%) exact matches, in which:
306 unique CDR3
6 unique J



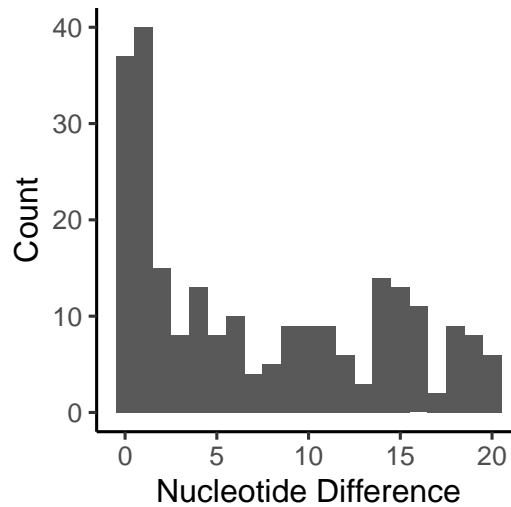
IGHV3–NL_5*01_S8361

12 sequences assigned
No exact matches.



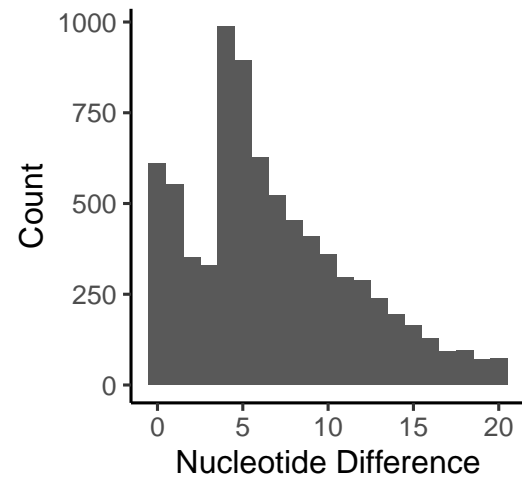
IGHV3–NL_8*01_S7860

290 sequences assigned
37 (12.8%) exact matches, in which:
26 unique CDR3
4 unique J



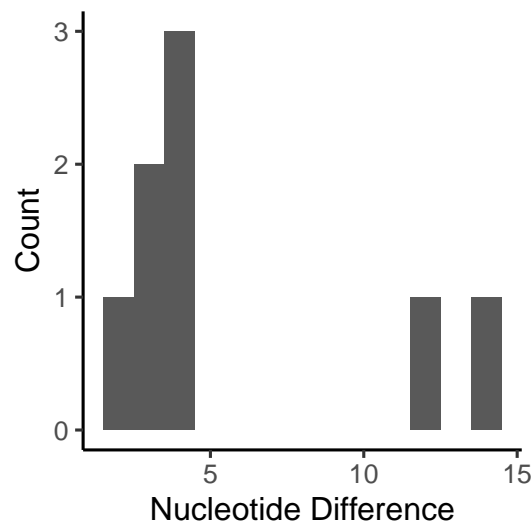
IGHV4–117*01_S4879

8031 sequences assigned
610 (7.6%) exact matches, in which:
517 unique CDR3
6 unique J



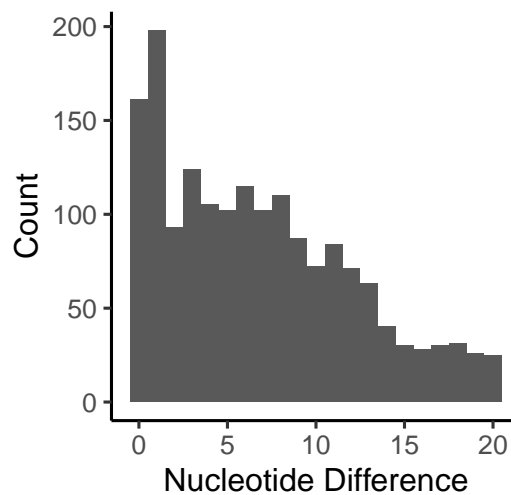
IGHV3–NL_6*02_S7808

8 sequences assigned
No exact matches.



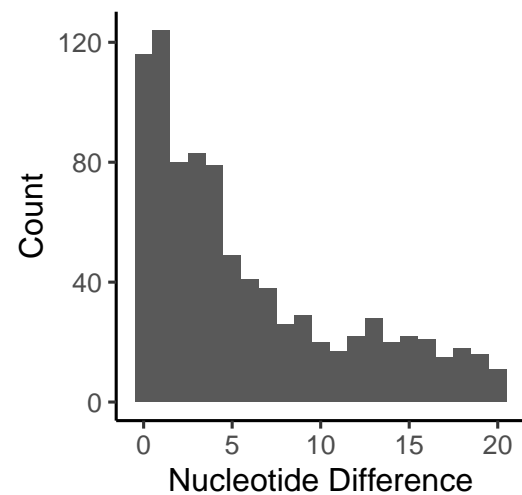
IGHV3–NL_9*01_S6098

1848 sequences assigned
161 (8.7%) exact matches, in which:
113 unique CDR3
5 unique J



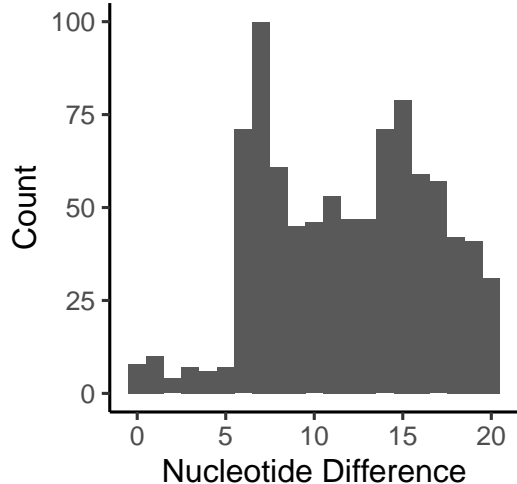
IGHV4–144*01_S5374

1108 sequences assigned
116 (10.5%) exact matches, in which:
100 unique CDR3
5 unique J



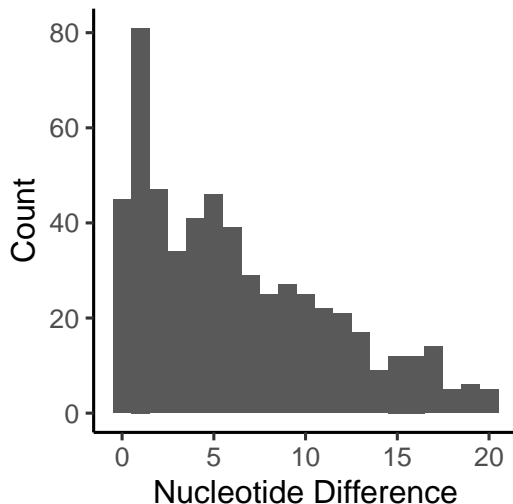
IGHV4-149*02_S8521

1040 sequences assigned
8 (0.8%) exact matches, in which:
8 unique CDR3
2 unique J



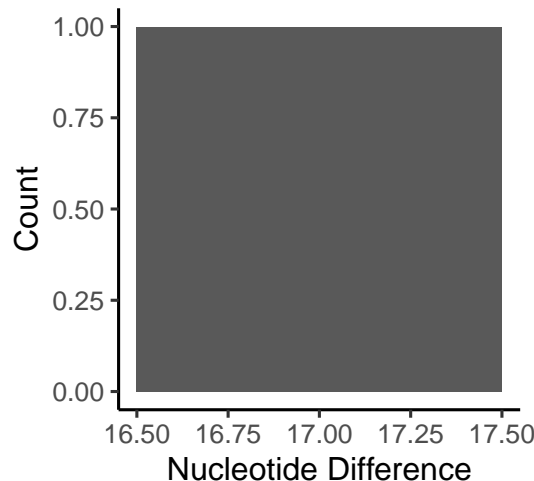
IGHV4-NL_1*02_S5220_A0050

585 sequences assigned
45 (7.7%) exact matches, in which:
42 unique CDR3
4 unique J



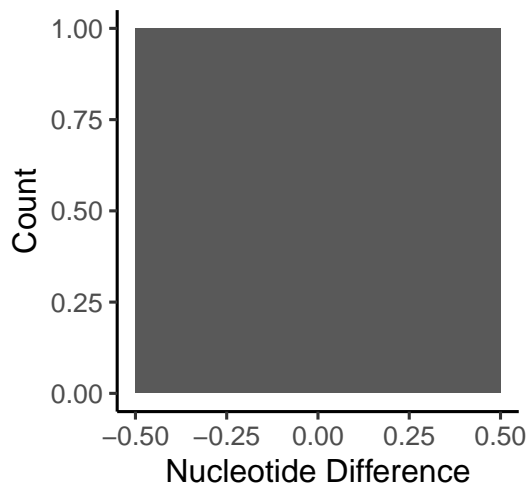
IGHV4-NL_11*01_S5570

2 sequences assigned
No exact matches.



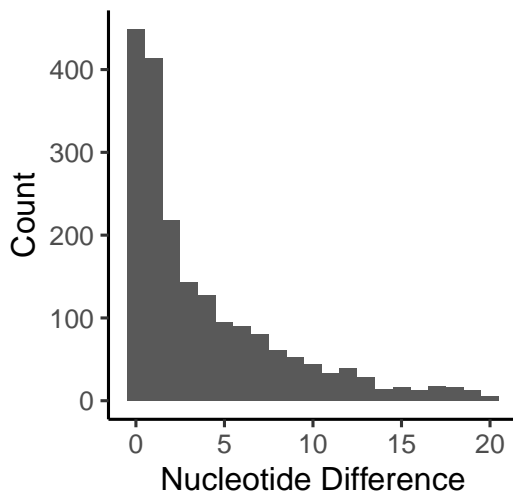
IGHV4-150*01_S0749

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



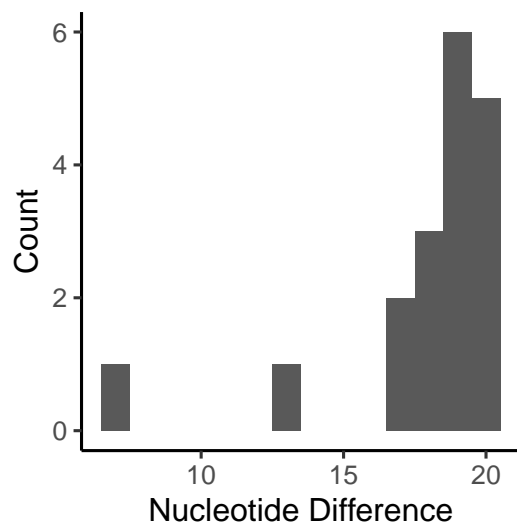
IGHV4-NL_1*02_S8887

2002 sequences assigned
449 (22.4%) exact matches, in which:
376 unique CDR3
6 unique J



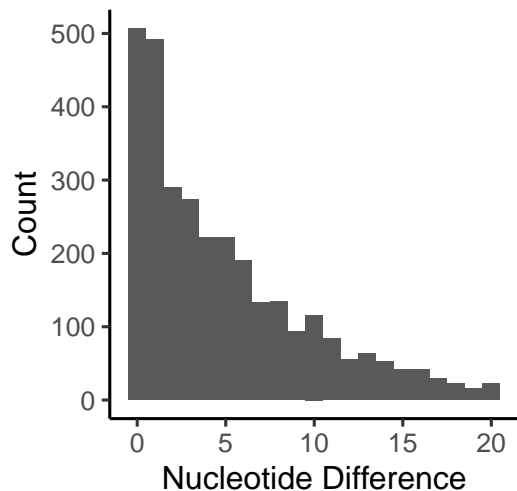
IGHV4-NL_11*01_S9942

25 sequences assigned
No exact matches.



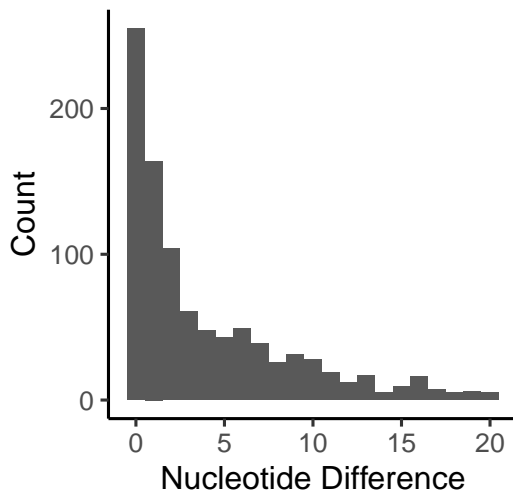
IGHV4-174*02_S5400

3228 sequences assigned
507 (15.7%) exact matches, in which:
427 unique CDR3
6 unique J



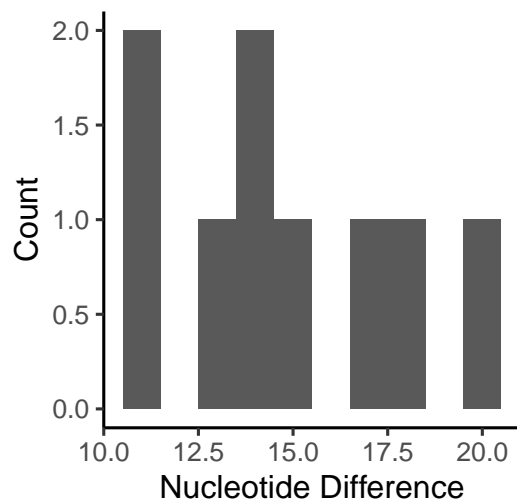
IGHV4-NL_1*02_S8977

967 sequences assigned
255 (26.4%) exact matches, in which:
241 unique CDR3
6 unique J



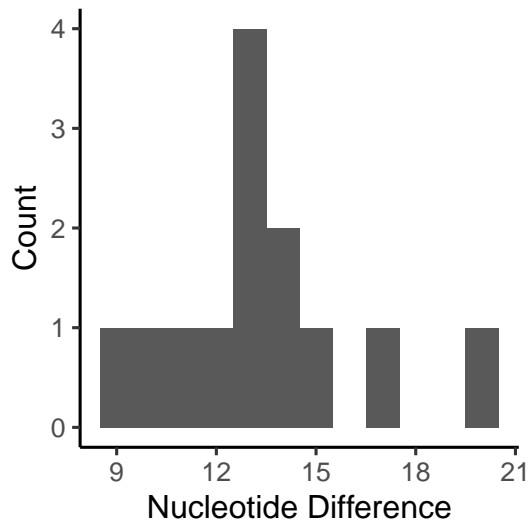
IGHV4-NL_12*01_S5174

38 sequences assigned
No exact matches.



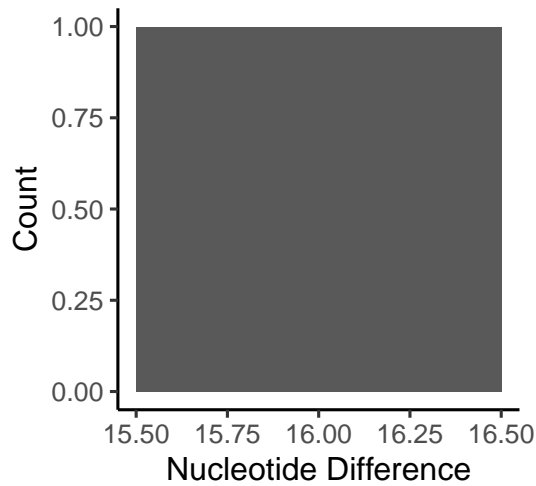
IGHV4–NL_12*01_S8068

18 sequences assigned
No exact matches.



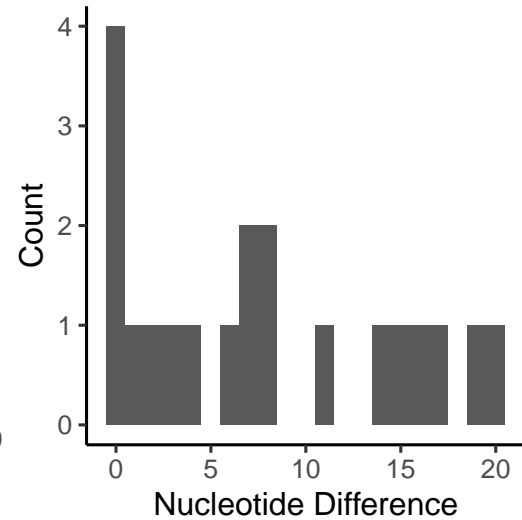
IGHV4–NL_19*01_S1944

1 sequences assigned
No exact matches.



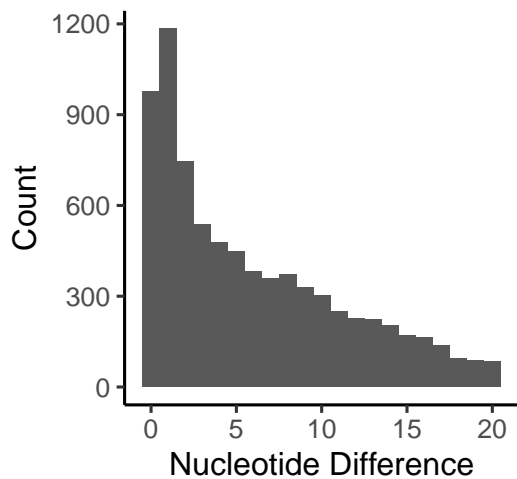
IGHV4–NL_21*01_S0138

24 sequences assigned
4 (16.7%) exact matches, in which:
4 unique CDR3
2 unique J



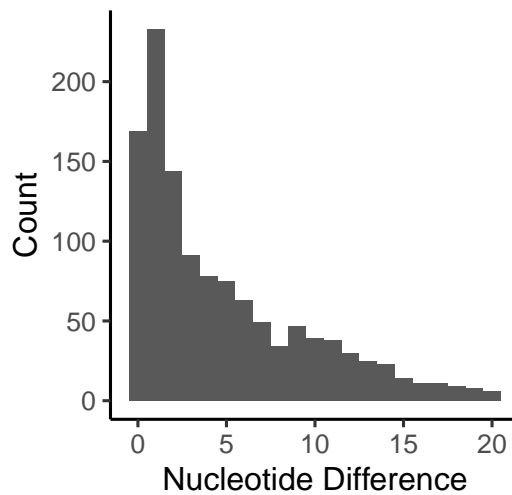
IGHV4–NL_16*01_S213

8156 sequences assigned
975 (12%) exact matches, in which:
836 unique CDR3
6 unique J



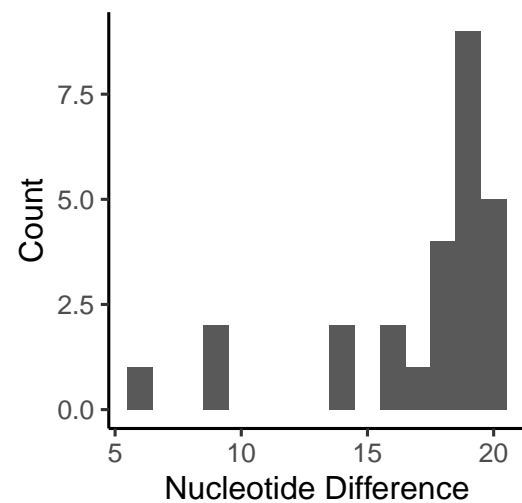
IGHV4–NL_20*01_S4754

1256 sequences assigned
169 (13.5%) exact matches, in which:
134 unique CDR3
5 unique J



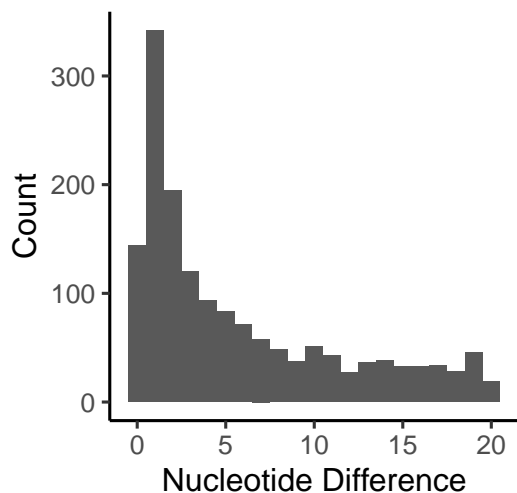
IGHV4–NL_21*01_S6468

59 sequences assigned
No exact matches.



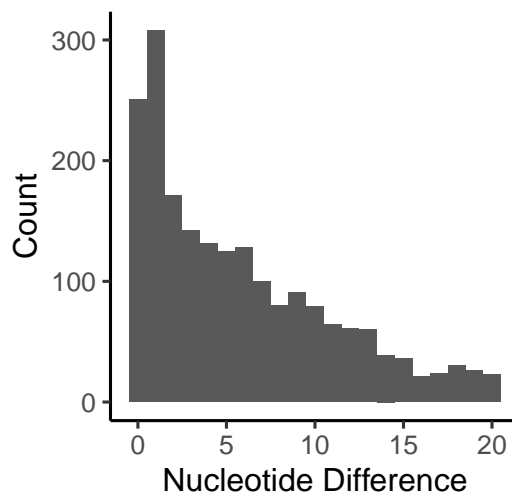
IGHV4–NL_17*01_S2080

1792 sequences assigned
144 (8%) exact matches, in which:
132 unique CDR3
6 unique J



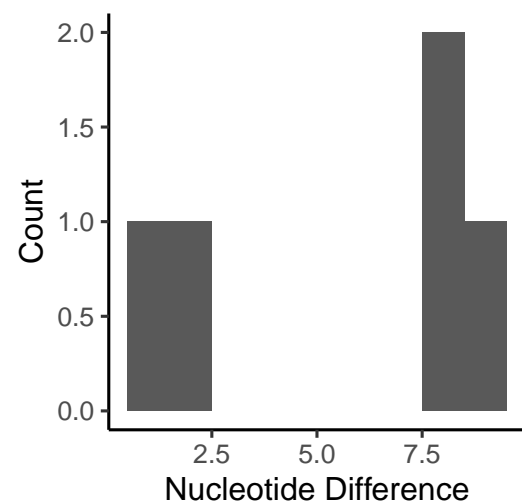
IGHV4–NL_20*01_S7244

2097 sequences assigned
251 (12%) exact matches, in which:
217 unique CDR3
6 unique J



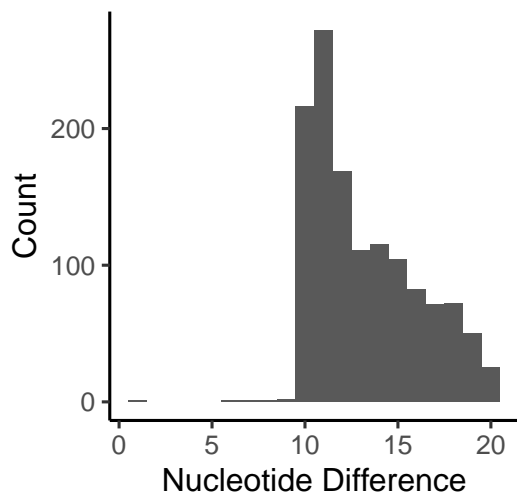
IGHV4–NL_21*01_S6650

8 sequences assigned
No exact matches.



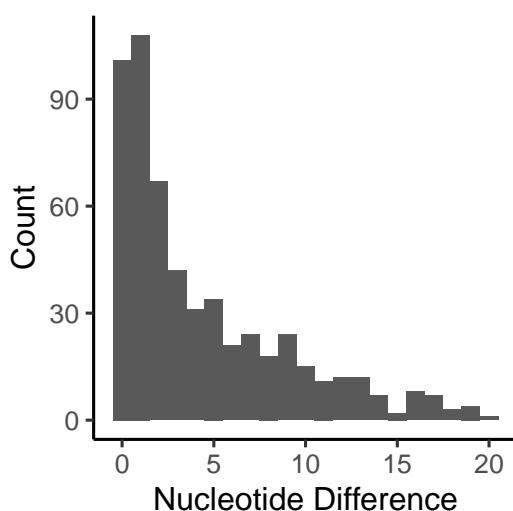
IGHV4–NL_21*01_S9849

1497 sequences assigned
No exact matches.



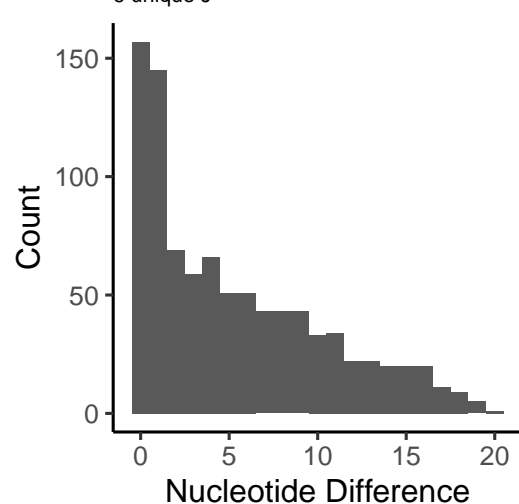
IGHV4–NL_24*01_S8809

559 sequences assigned
101 (18.1%) exact matches, in which:
84 unique CDR3
6 unique J



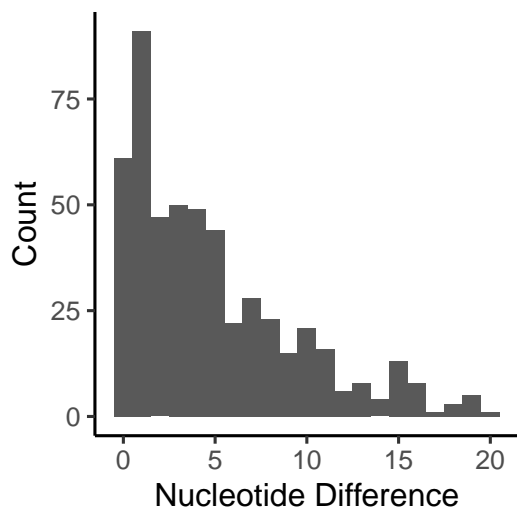
IGHV4–NL_27*01_S7431

979 sequences assigned
157 (16%) exact matches, in which:
130 unique CDR3
6 unique J



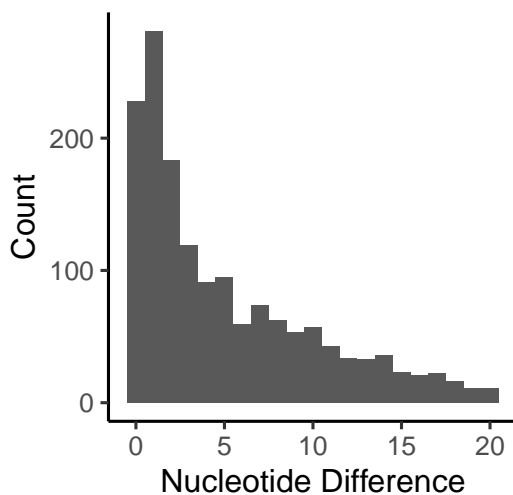
IGHV4–NL_22*01_S2980

538 sequences assigned
61 (11.3%) exact matches, in which:
58 unique CDR3
5 unique J



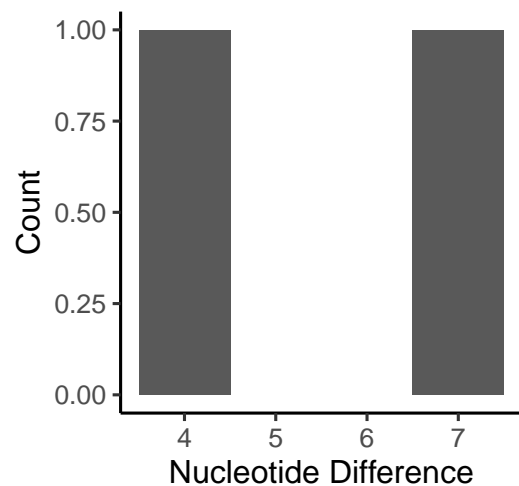
IGHV4–NL_25*01_S6604

1657 sequences assigned
228 (13.8%) exact matches, in which:
191 unique CDR3
6 unique J



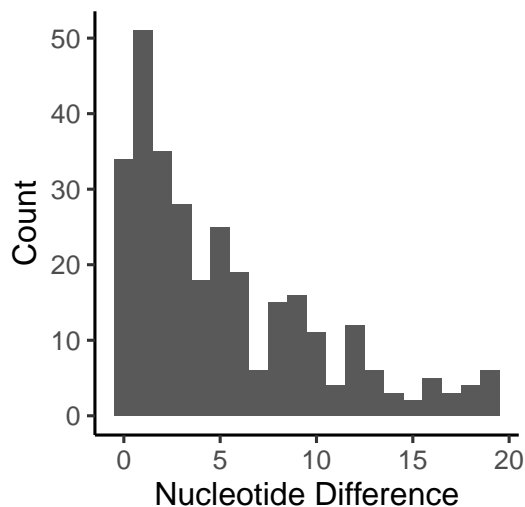
IGHV4–NL_28*01_S2610

2 sequences assigned
No exact matches.



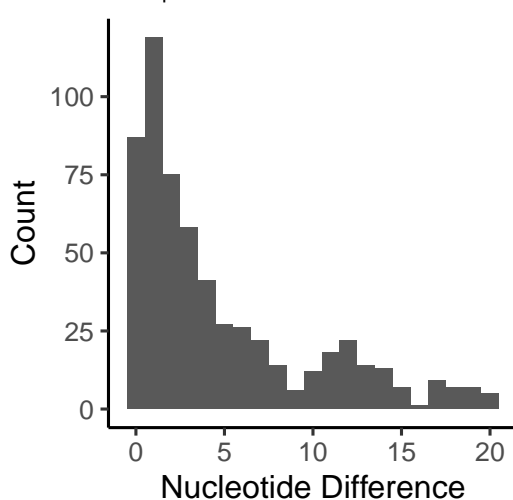
IGHV4–NL_23*01_S7678

341 sequences assigned
34 (10%) exact matches, in which:
31 unique CDR3
3 unique J



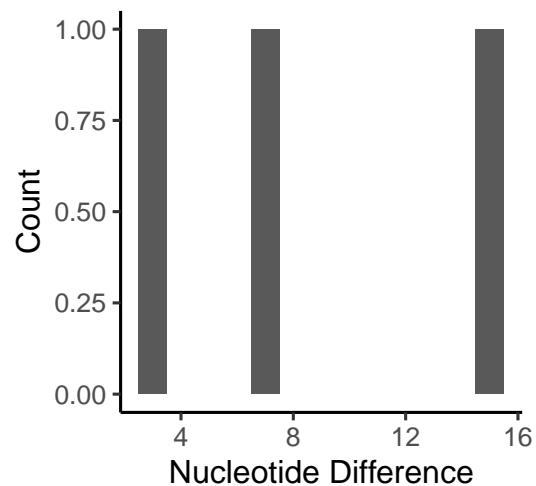
IGHV4–NL_27*01_S4348

607 sequences assigned
87 (14.3%) exact matches, in which:
73 unique CDR3
6 unique J



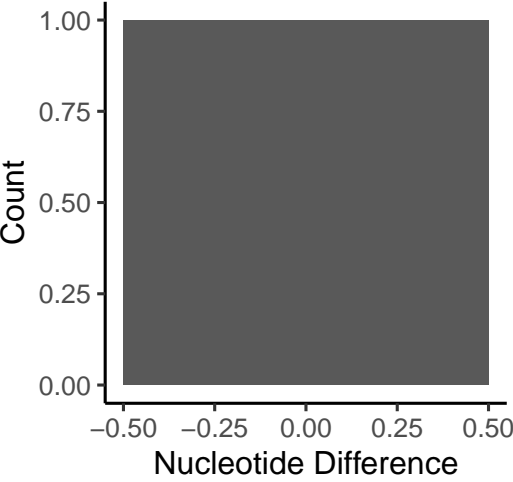
IGHV4–NL_29*01_S3761

5 sequences assigned
No exact matches.



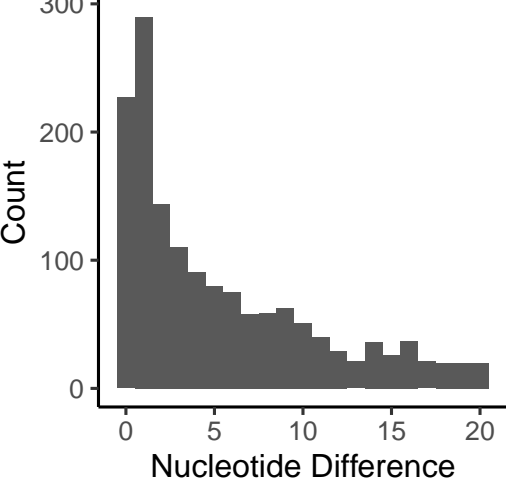
IGHV4–NL_29*01_S9610

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



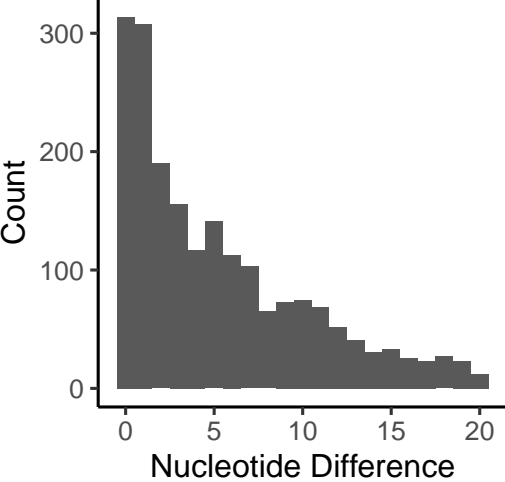
IGHV4–NL_33*01_S5535

1634 sequences assigned
227 (13.9%) exact matches, in which:
196 unique CDR3
6 unique J



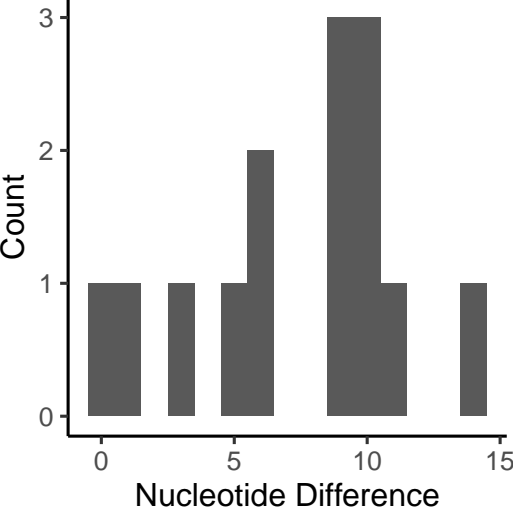
IGHV4–NL_36*01_S6687

2042 sequences assigned
314 (15.4%) exact matches, in which:
261 unique CDR3
7 unique J



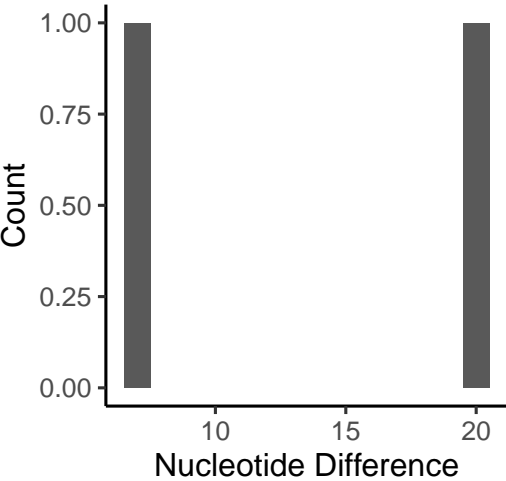
IGHV4–NL_3*01_S7576

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



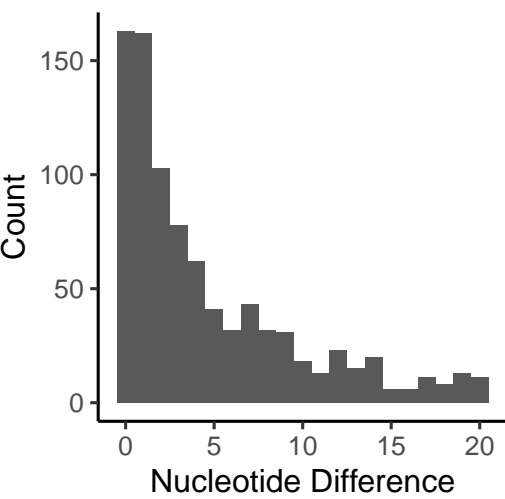
IGHV4–NL_34*01_S4637

3 sequences assigned
No exact matches.



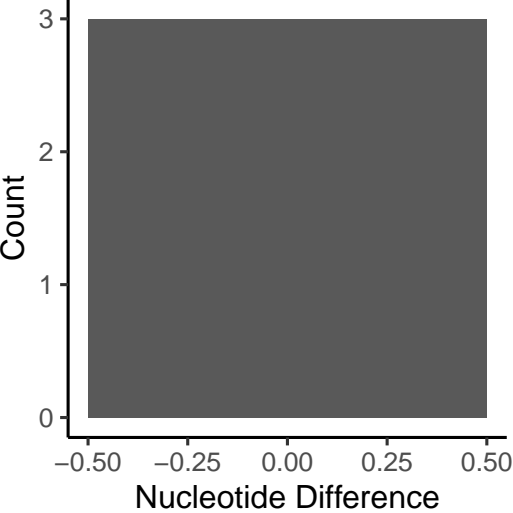
IGHV4–NL_36*01_S6973

927 sequences assigned
163 (17.6%) exact matches, in which:
133 unique CDR3
6 unique J



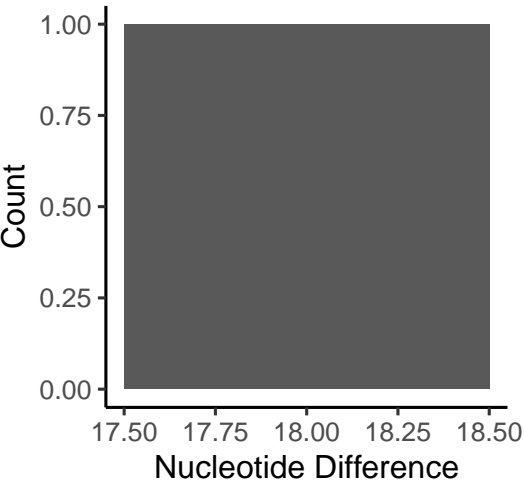
IGHV4–NL_31*01_S7693

3 sequences assigned
3 (100%) exact matches, in which:
3 unique CDR3
2 unique J



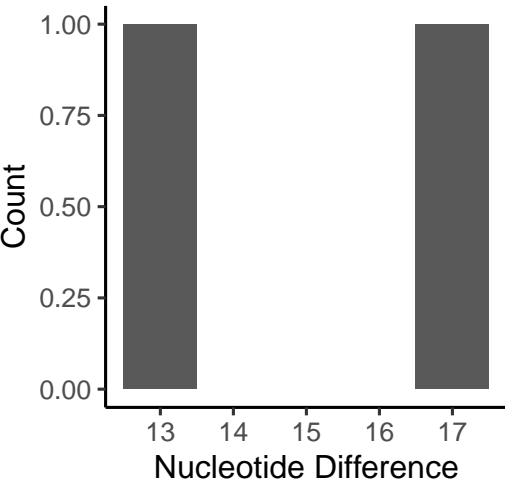
IGHV4–NL_34*01_S4745

12 sequences assigned
No exact matches.



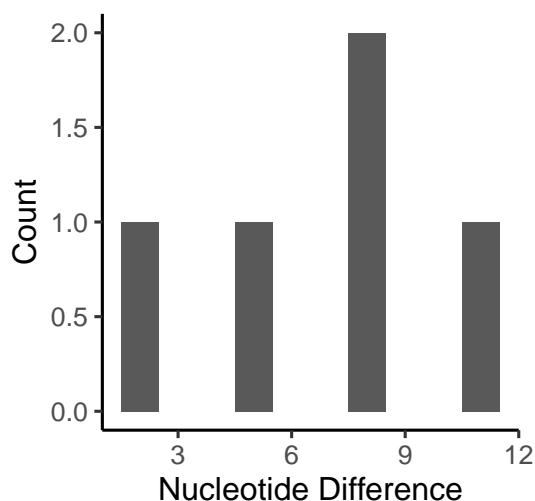
IGHV4–NL_38*01_S0980

9 sequences assigned
No exact matches.



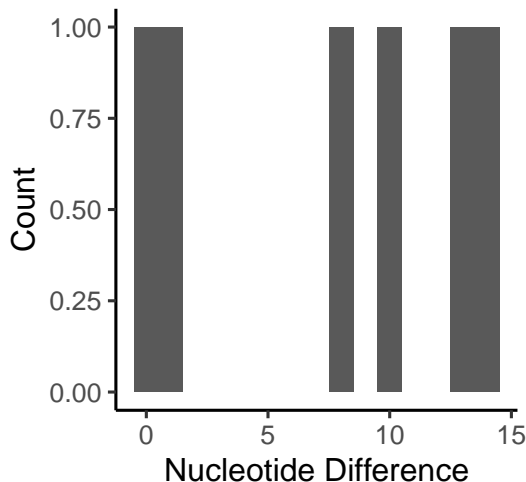
IGHV4-NL_38*01_S5467

7 sequences assigned
No exact matches.



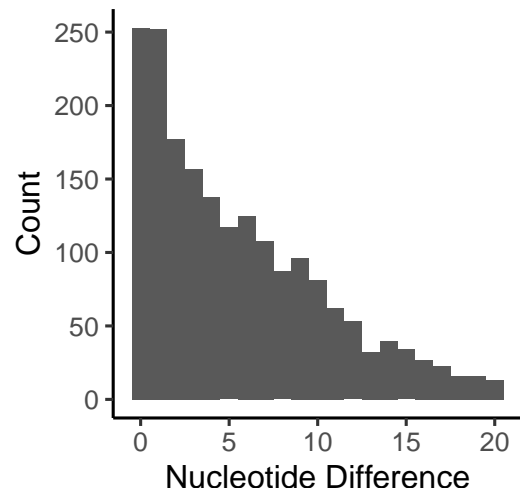
IGHV4-NL_4*01_S8866

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



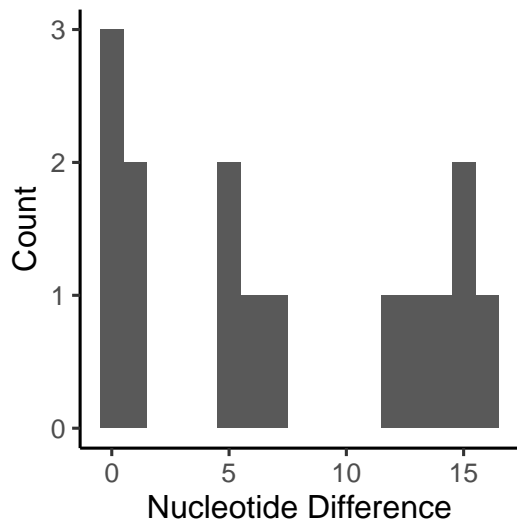
IGHV4-NL_42*01_S3076

1971 sequences assigned
253 (12.8%) exact matches, in which:
216 unique CDR3
7 unique J



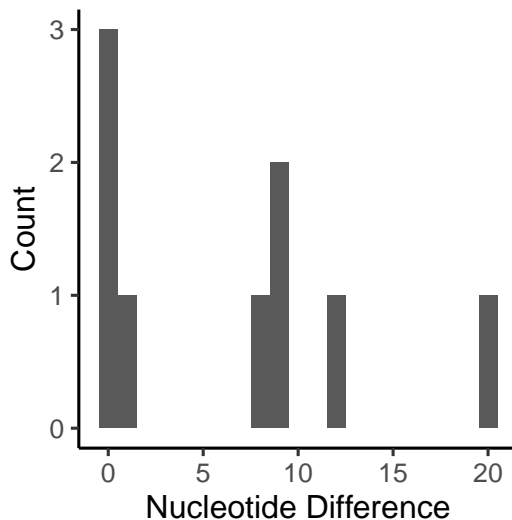
IGHV4-NL_38*01_S8437

15 sequences assigned
3 (20%) exact matches, in which:
3 unique CDR3
1 unique J



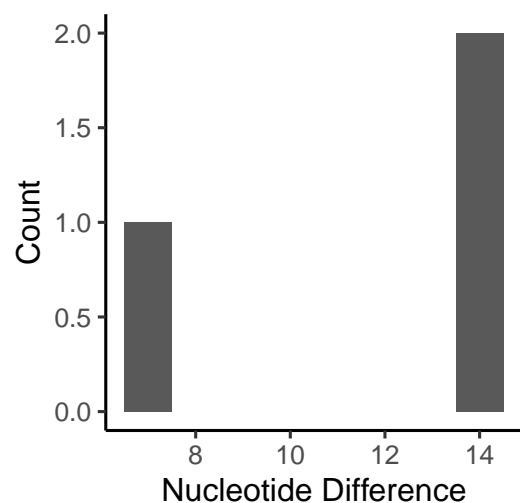
IGHV4-NL_40*01_S0696

11 sequences assigned
3 (27.3%) exact matches, in which:
3 unique CDR3
1 unique J



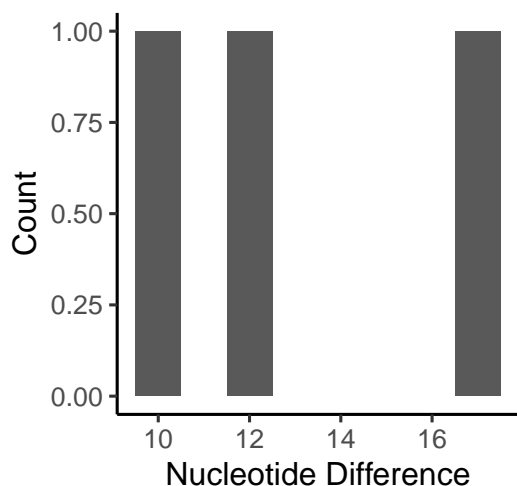
IGHV4-NL_43*01_S4510

4 sequences assigned
No exact matches.



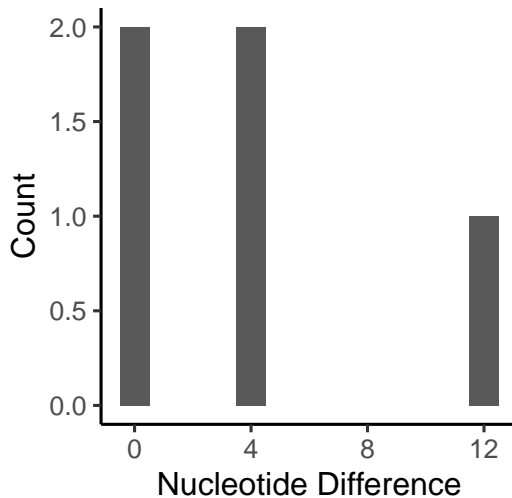
IGHV4-NL_4*01_S5211

4 sequences assigned
No exact matches.



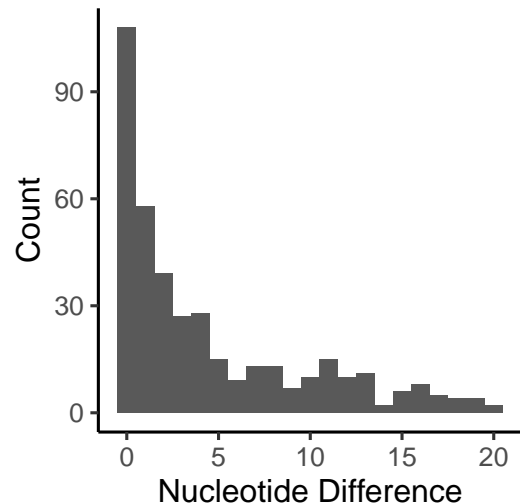
IGHV4-NL_40*01_S6921

5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



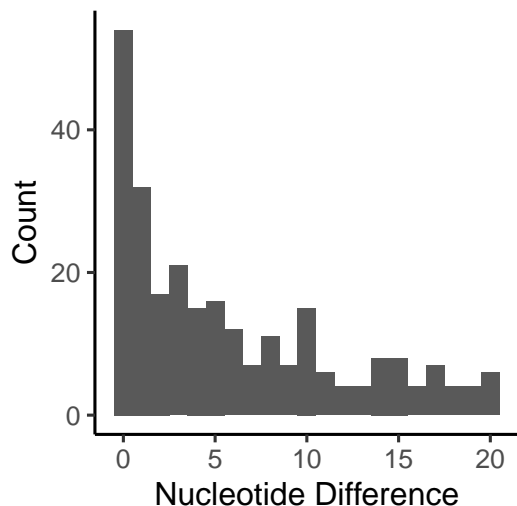
IGHV4-NL_5*01_S2528

415 sequences assigned
108 (26%) exact matches, in which:
102 unique CDR3
6 unique J



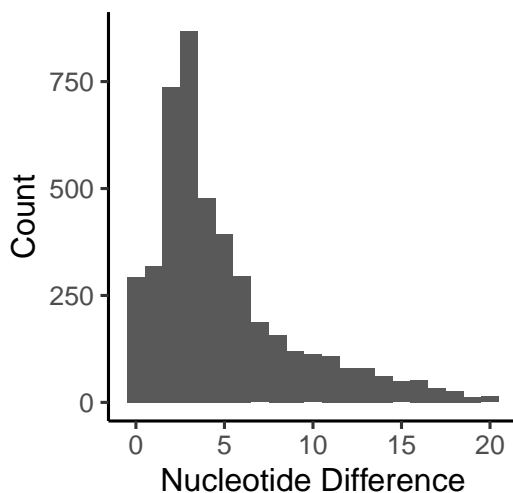
IGHV4–NL_9*01_S3502

272 sequences assigned
54 (19.9%) exact matches, in which:
47 unique CDR3
4 unique J



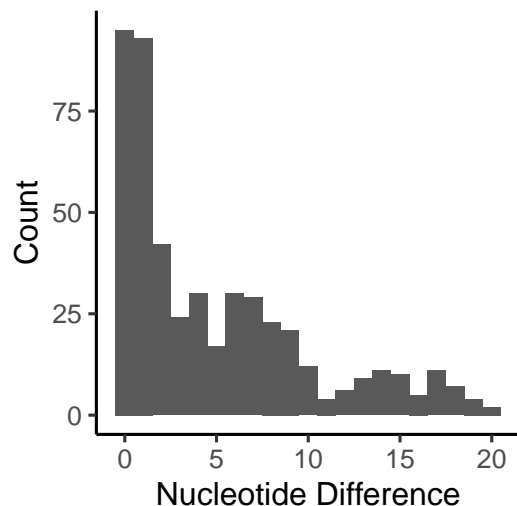
IGHV5–157*01_S6479

4539 sequences assigned
294 (6.5%) exact matches, in which:
183 unique CDR3
8 unique J



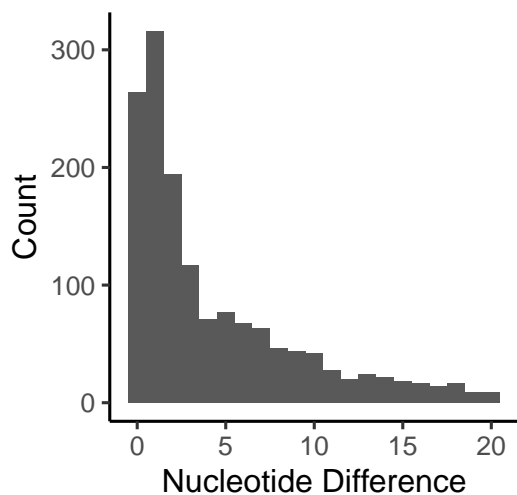
IGHV7–86*01_S6180

494 sequences assigned
95 (19.2%) exact matches, in which:
47 unique CDR3
7 unique J



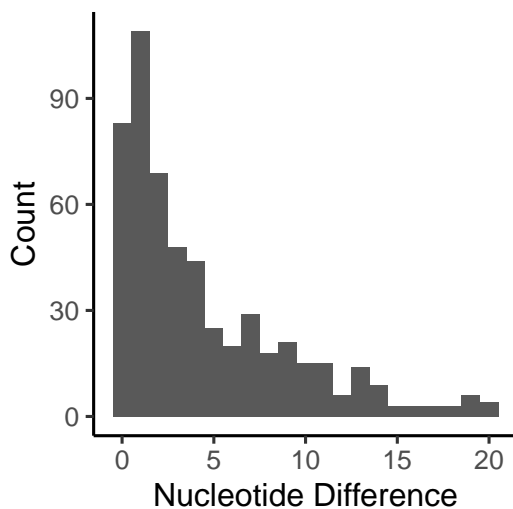
IGHV4–NL_9*01_S4990

1538 sequences assigned
264 (17.2%) exact matches, in which:
223 unique CDR3
6 unique J



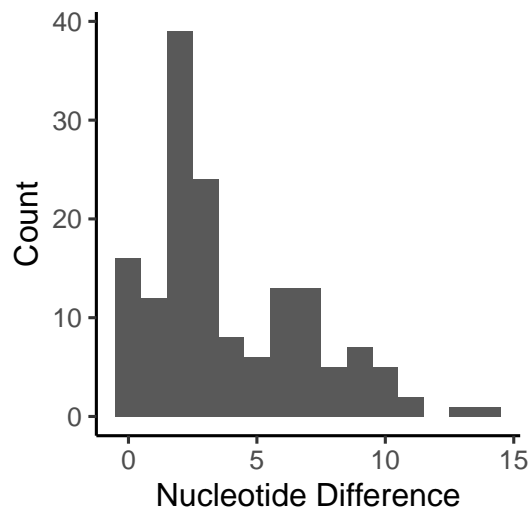
IGHV6–1*02_C167T_G281

556 sequences assigned
83 (14.9%) exact matches, in which:
69 unique CDR3
6 unique J



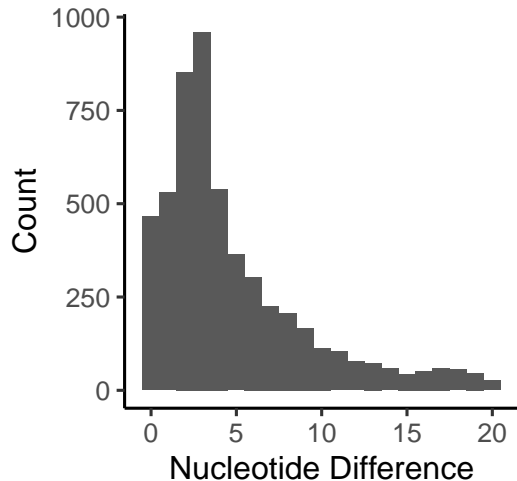
IGHV7–135*01_S4281

154 sequences assigned
16 (10.4%) exact matches, in which:
13 unique CDR3
5 unique J



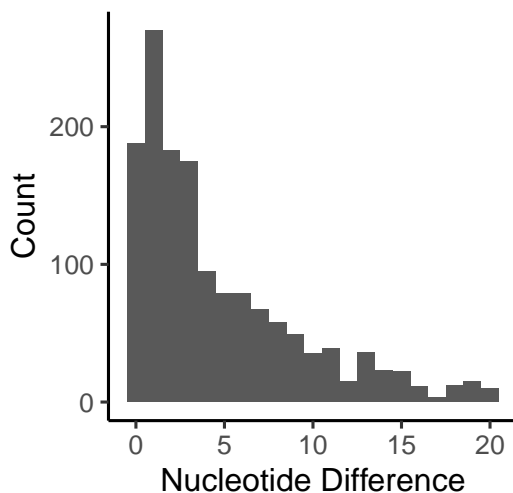
IGHV5–15*01_S9061

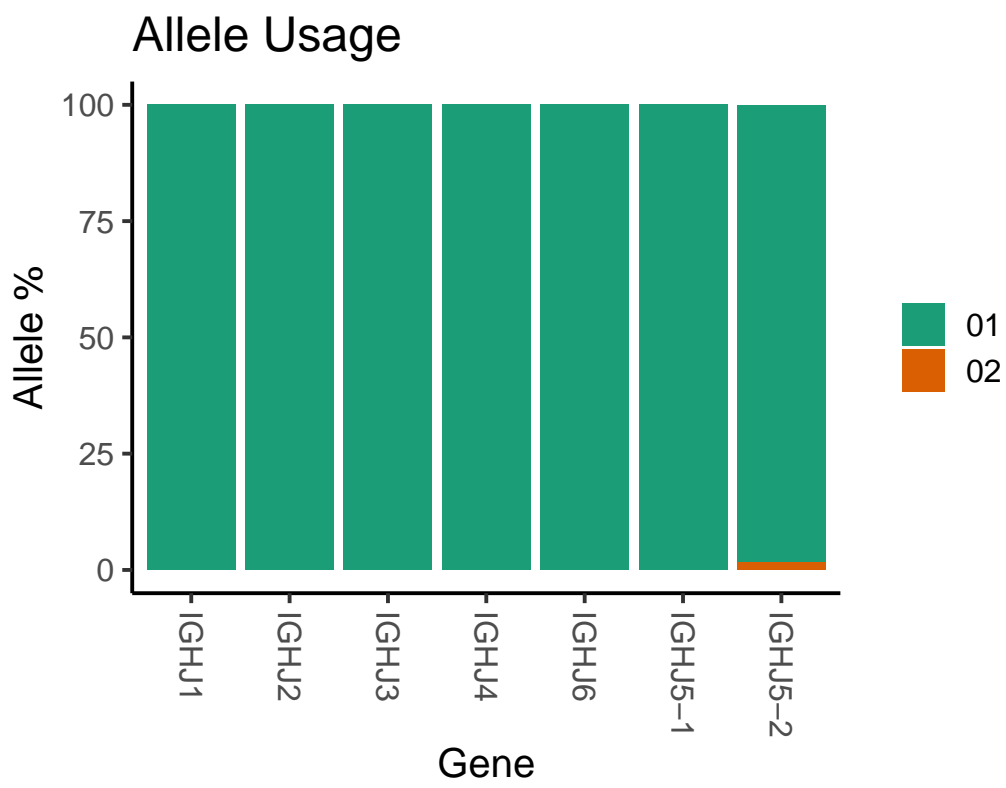
5513 sequences assigned
466 (8.5%) exact matches, in which:
268 unique CDR3
5 unique J



IGHV6–1*02_S1768

1498 sequences assigned
188 (12.6%) exact matches, in which:
96 unique CDR3
6 unique J





Warning – no inferred sequences found.