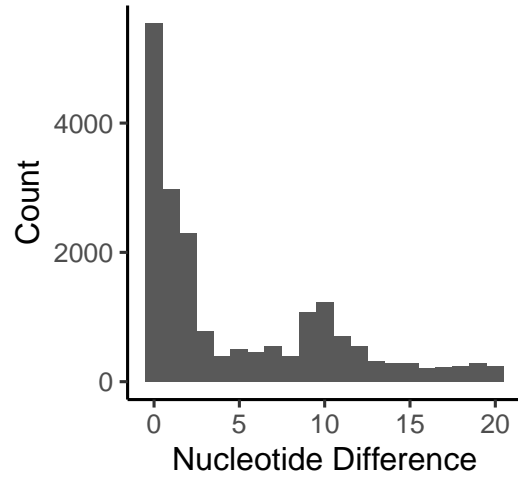


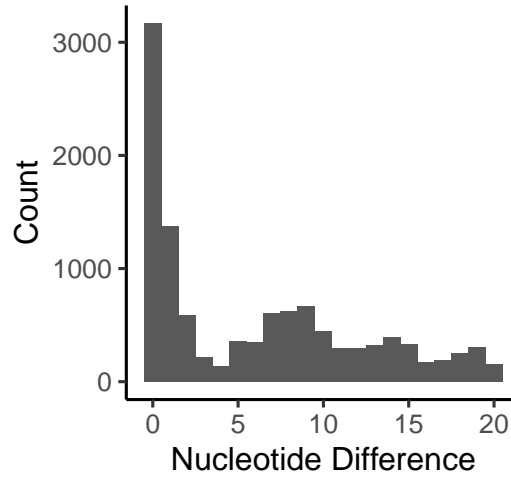
IGHV1-2*02

23636 sequences assigned
5542 (23.4%) exact matches, in which:
5161 unique CDR3
6 unique J



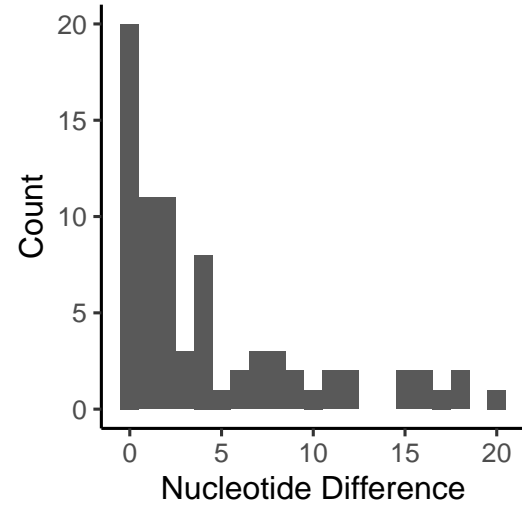
IGHV1-8*01

12982 sequences assigned
3167 (24.4%) exact matches, in which:
3034 unique CDR3
6 unique J



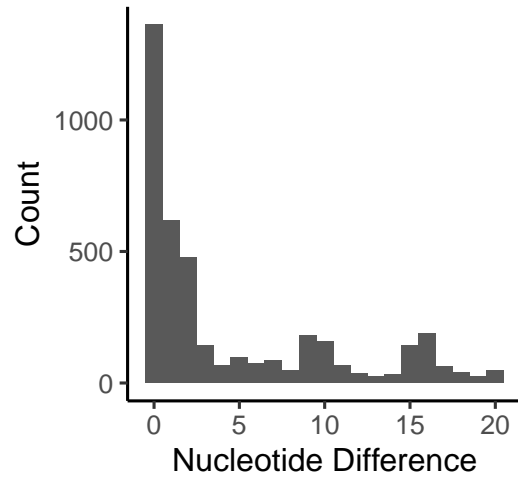
IGHV1-45*02

79 sequences assigned
20 (25.3%) exact matches, in which:
19 unique CDR3
4 unique J



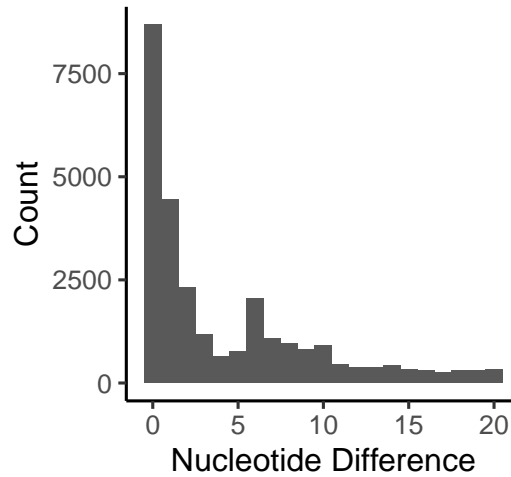
IGHV1-2*04

4411 sequences assigned
1362 (30.9%) exact matches, in which:
1303 unique CDR3
6 unique J



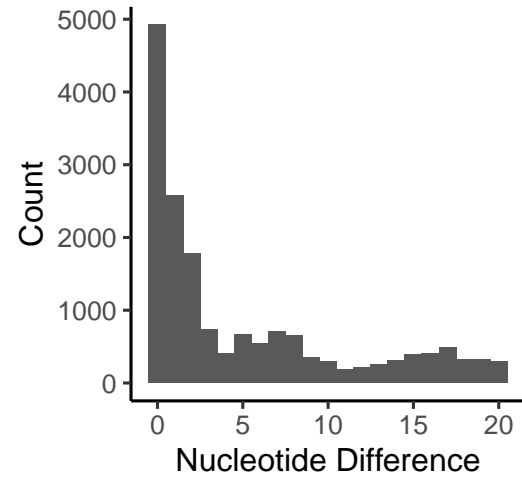
IGHV1-18*01

34166 sequences assigned
8686 (25.4%) exact matches, in which:
8115 unique CDR3
6 unique J



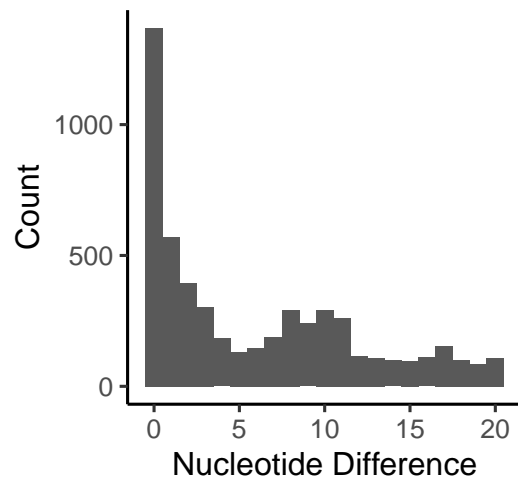
IGHV1-46*01

23035 sequences assigned
4924 (21.4%) exact matches, in which:
4666 unique CDR3
6 unique J



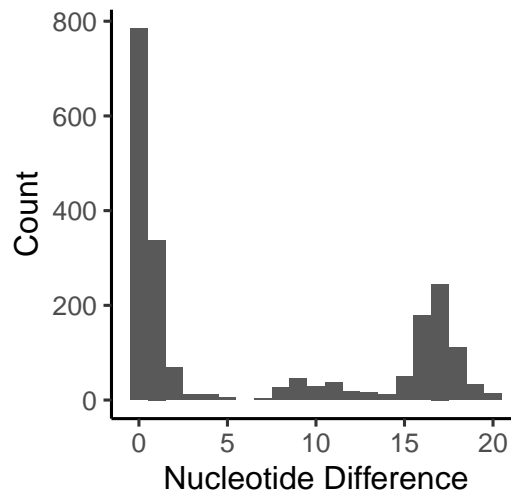
IGHV1-3*01_05

7137 sequences assigned
1369 (19.2%) exact matches, in which:
1293 unique CDR3
6 unique J



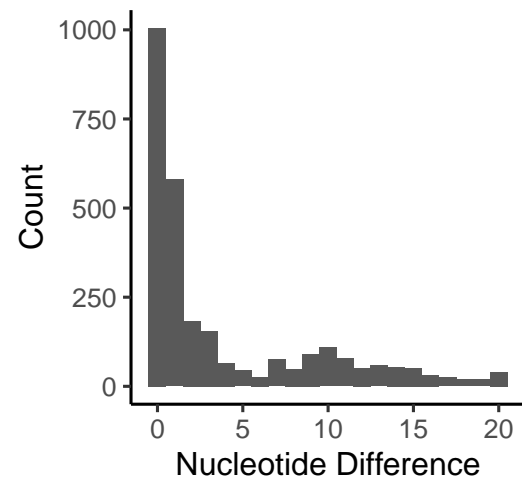
IGHV1-24*01

2252 sequences assigned
785 (34.9%) exact matches, in which:
737 unique CDR3
6 unique J



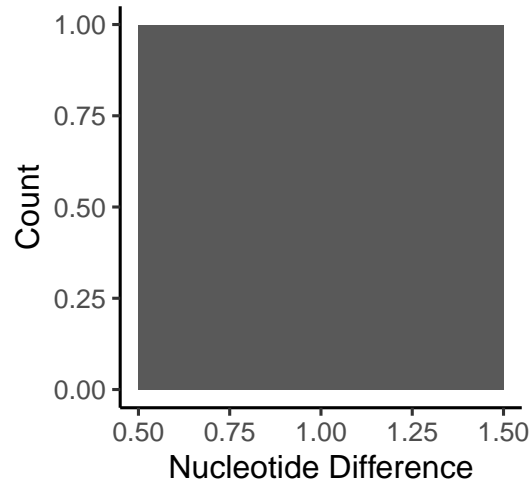
IGHV1-58*01_03

3401 sequences assigned
1005 (29.6%) exact matches, in which:
947 unique CDR3
6 unique J



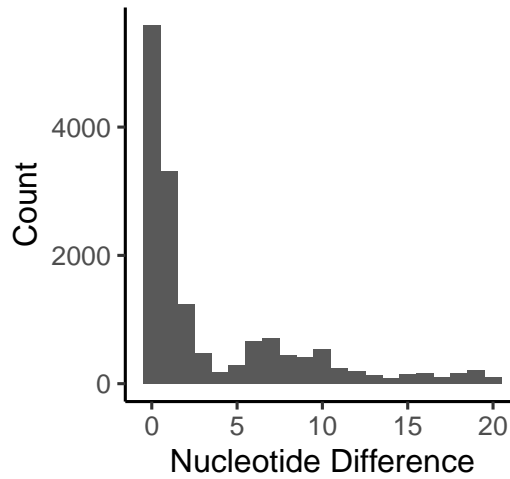
IGHV1-68*01

1 sequences assigned
No exact matches.



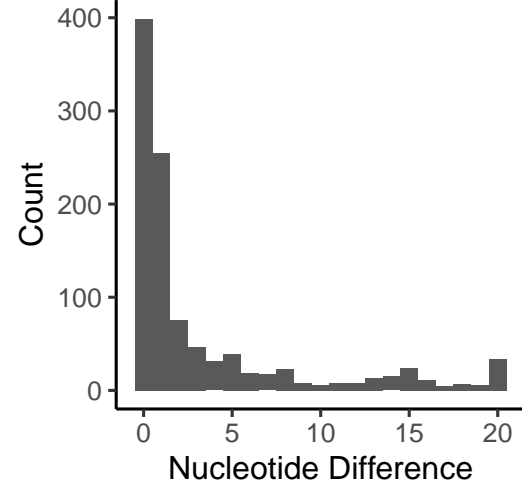
IGHV1-69*04_09

16100 sequences assigned
5585 (34.7%) exact matches, in which:
5338 unique CDR3
6 unique J



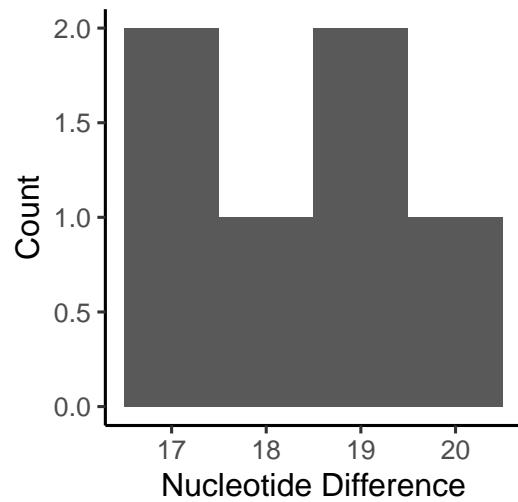
IGHV2-5*01

1218 sequences assigned
399 (32.8%) exact matches, in which:
371 unique CDR3
6 unique J



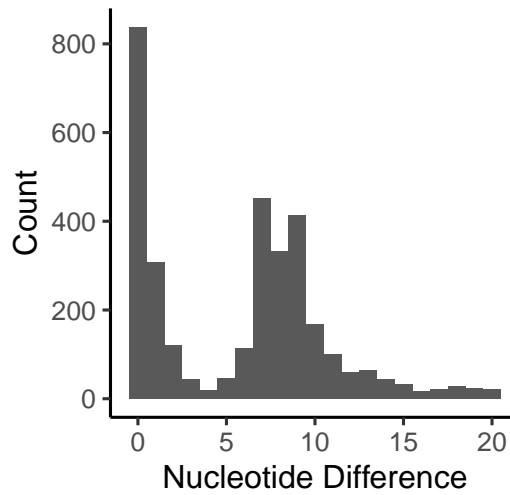
IGHV1-69-2*01

8 sequences assigned
No exact matches.



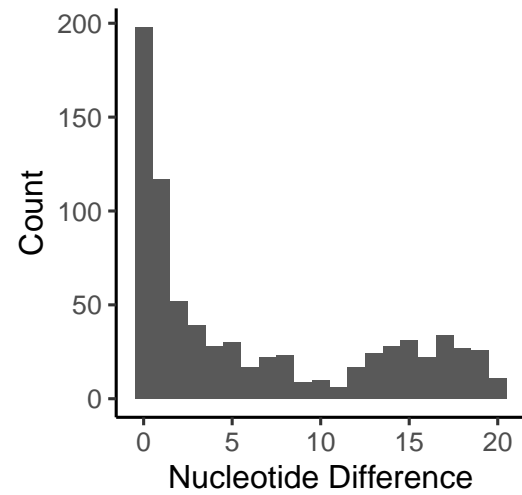
IGHV1-69*06_14

3695 sequences assigned
838 (22.7%) exact matches, in which:
828 unique CDR3
6 unique J



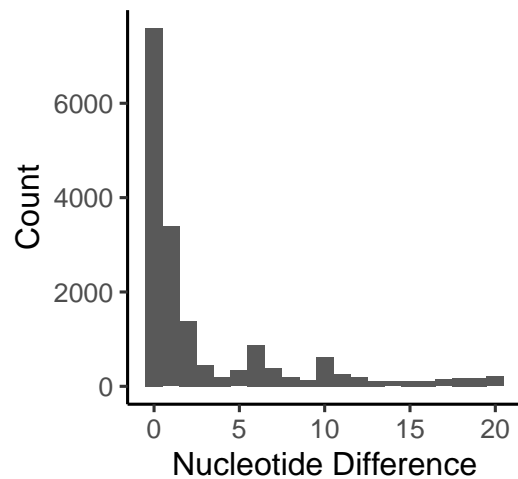
IGHV2-5*02

1060 sequences assigned
198 (18.7%) exact matches, in which:
184 unique CDR3
6 unique J



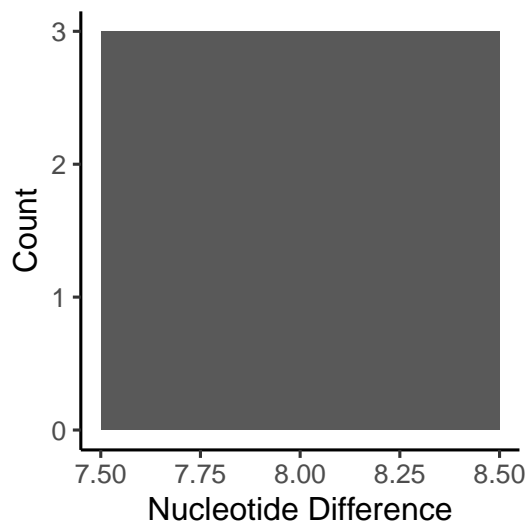
IGHV1-69*01_12_13

20414 sequences assigned
7595 (37.2%) exact matches, in which:
7261 unique CDR3
6 unique J



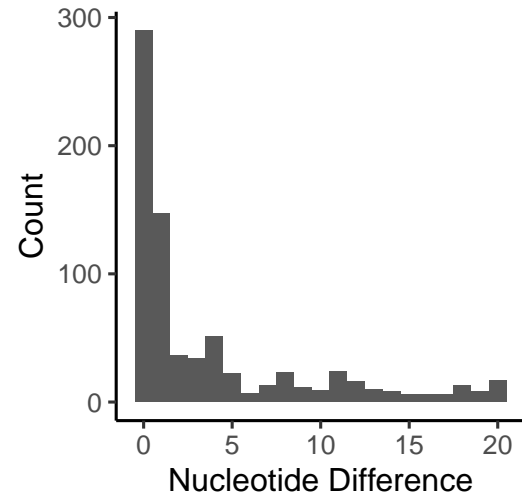
IGHV1-NL1*01

3 sequences assigned
No exact matches.



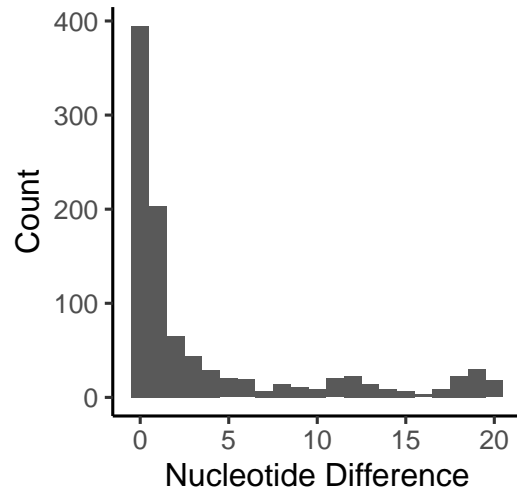
IGHV2-26*01

931 sequences assigned
290 (31.1%) exact matches, in which:
270 unique CDR3
6 unique J



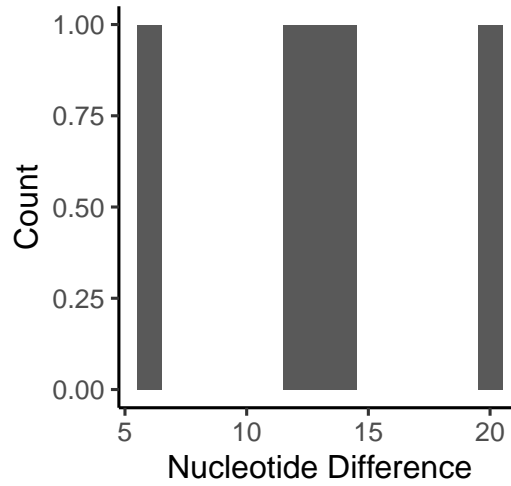
IGHV2-70*01

1094 sequences assigned
395 (36.1%) exact matches, in which:
370 unique CDR3
6 unique J



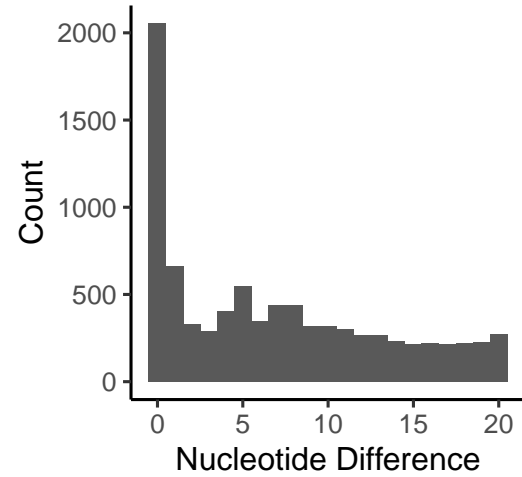
IGHV2-70D*14

10 sequences assigned
No exact matches.



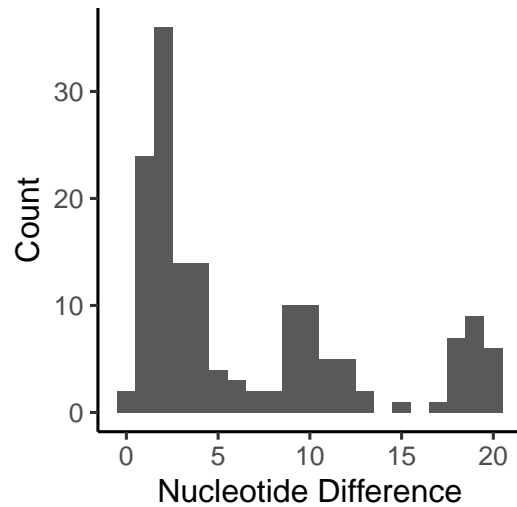
IGHV3-9*01

10940 sequences assigned
2054 (18.8%) exact matches, in which:
1615 unique CDR3
6 unique J



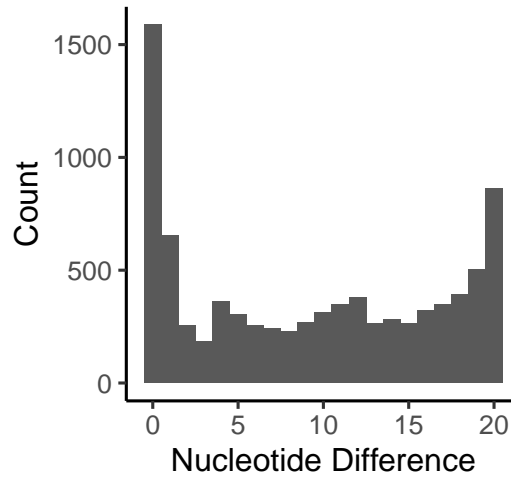
IGHV2-70*12

288 sequences assigned
2 (0.7%) exact matches, in which:
2 unique CDR3
2 unique J



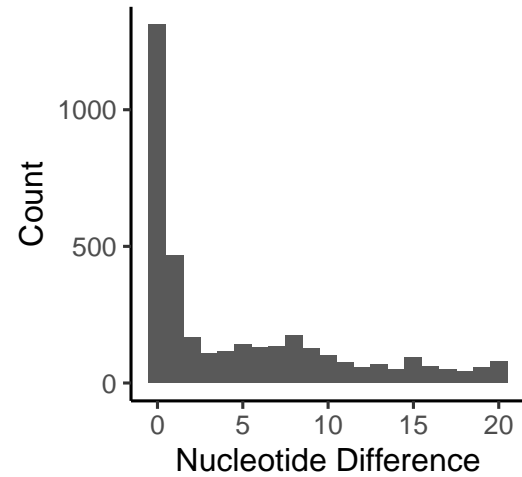
IGHV3-7*01

14943 sequences assigned
1588 (10.6%) exact matches, in which:
1367 unique CDR3
6 unique J



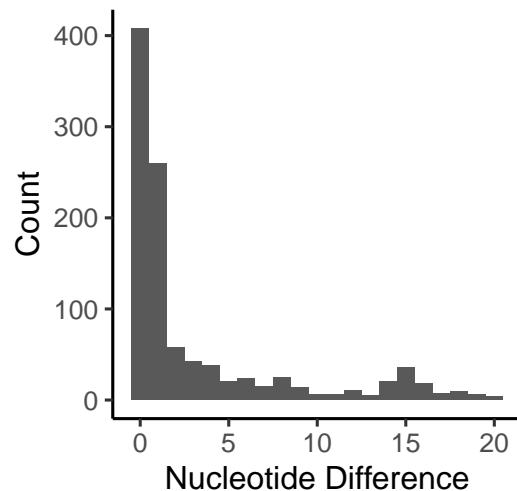
IGHV3-11*01

7393 sequences assigned
1311 (17.7%) exact matches, in which:
1114 unique CDR3
6 unique J



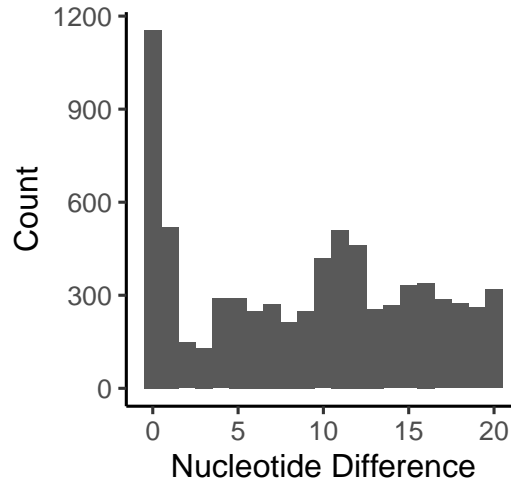
IGHV2-70*11_15

1156 sequences assigned
408 (35.3%) exact matches, in which:
379 unique CDR3
6 unique J



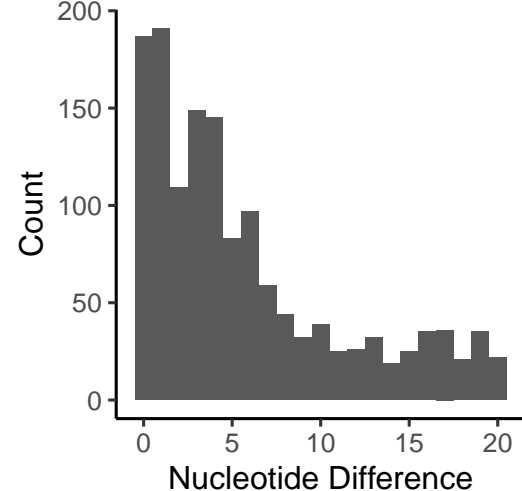
IGHV3-7*03

11134 sequences assigned
1155 (10.4%) exact matches, in which:
980 unique CDR3
6 unique J



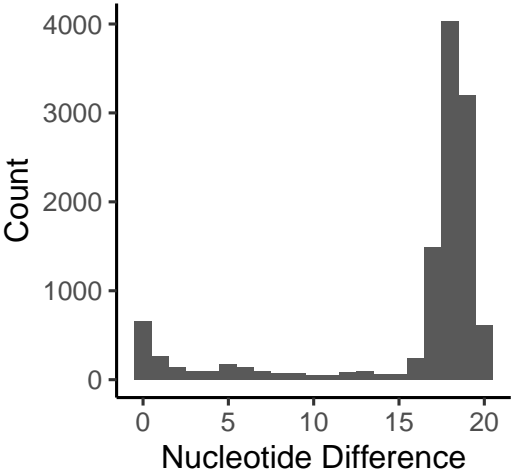
IGHV3-11*04

1880 sequences assigned
187 (9.9%) exact matches, in which:
182 unique CDR3
6 unique J



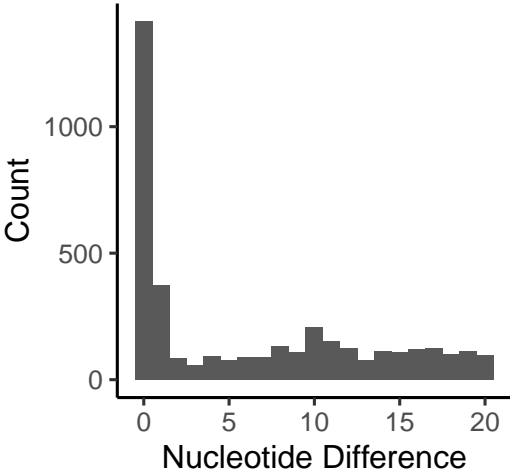
IGHV3-11*06

13421 sequences assigned
659 (4.9%) exact matches, in which:
574 unique CDR3
6 unique J



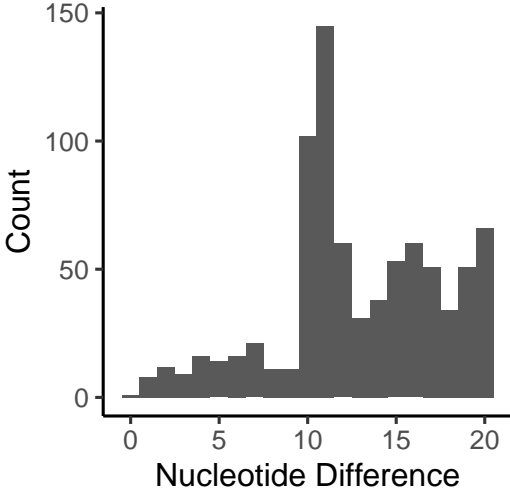
IGHV3-15*01_02

6644 sequences assigned
1416 (21.3%) exact matches, in which:
1177 unique CDR3
6 unique J



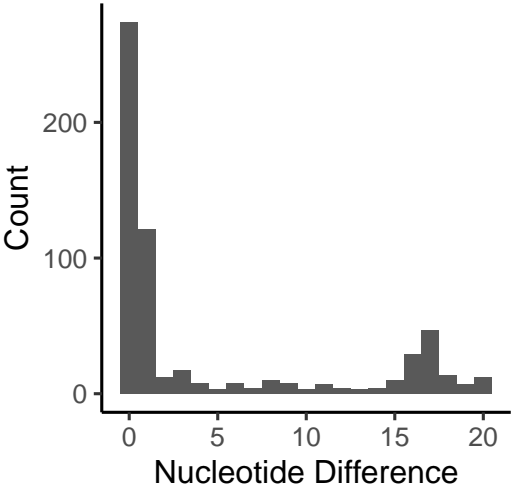
IGHV3-20*03_04

1318 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



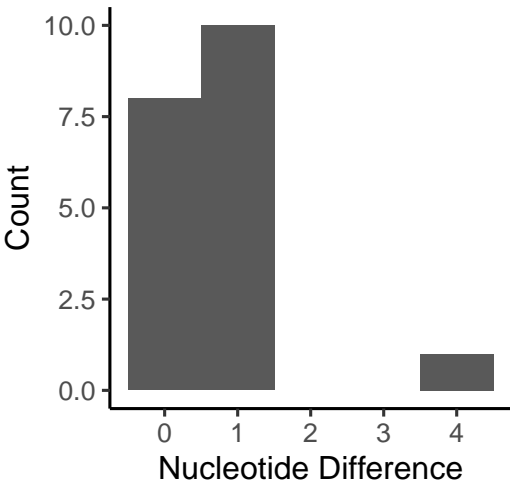
IGHV3-13*01

838 sequences assigned
274 (32.7%) exact matches, in which:
214 unique CDR3
5 unique J



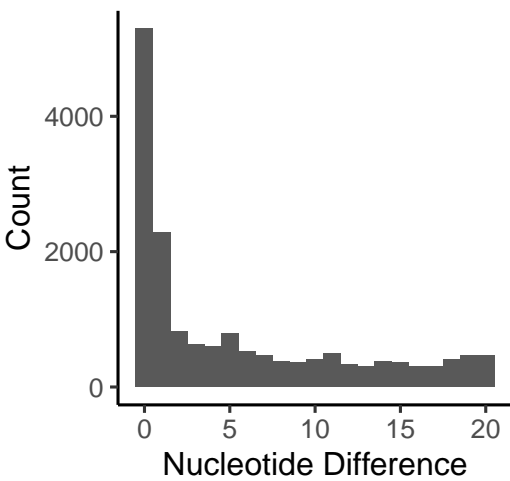
IGHV3-19*01

19 sequences assigned
8 (42.1%) exact matches, in which:
6 unique CDR3
1 unique J



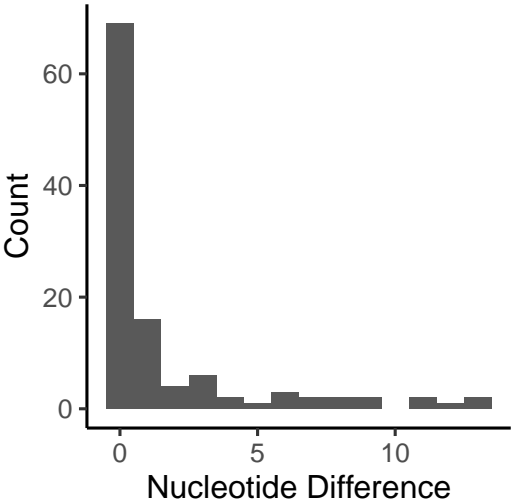
IGHV3-21*01_02

22289 sequences assigned
5294 (23.8%) exact matches, in which:
4294 unique CDR3
6 unique J



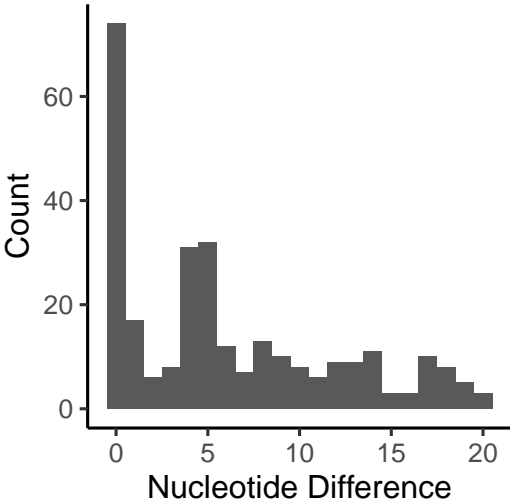
IGHV3-13*05

117 sequences assigned
69 (59%) exact matches, in which:
53 unique CDR3
5 unique J



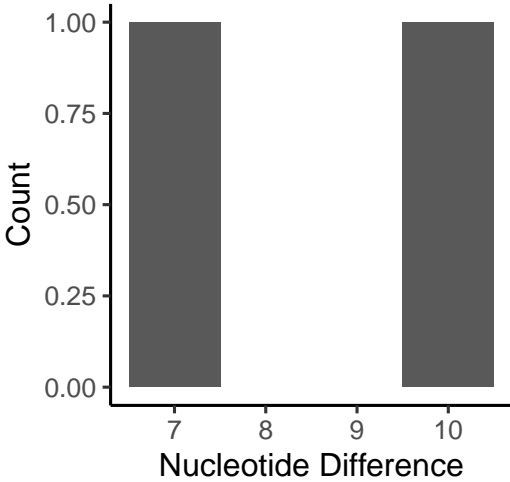
IGHV3-20*01_02

581 sequences assigned
74 (12.7%) exact matches, in which:
56 unique CDR3
6 unique J



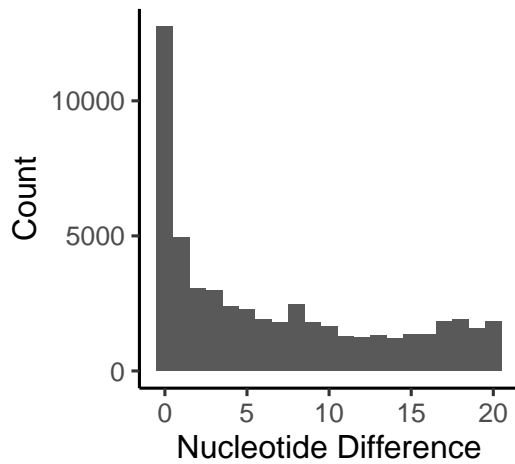
IGHV3-22*01_02

2 sequences assigned
No exact matches.



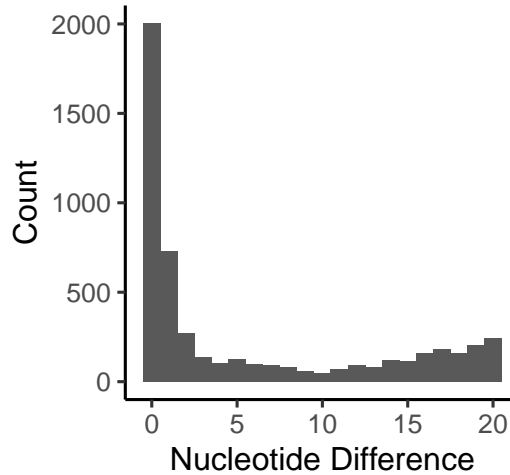
IGHV3-23*01_04

91475 sequences assigned
12765 (14%) exact matches, in which:
9743 unique CDR3
6 unique J



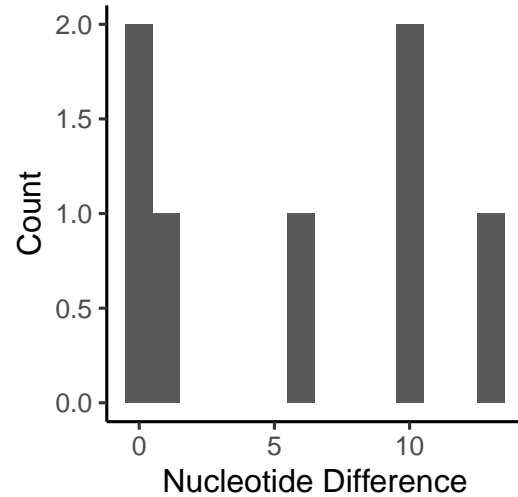
IGHV3-30*18

8816 sequences assigned
2003 (22.7%) exact matches, in which:
1656 unique CDR3
6 unique J



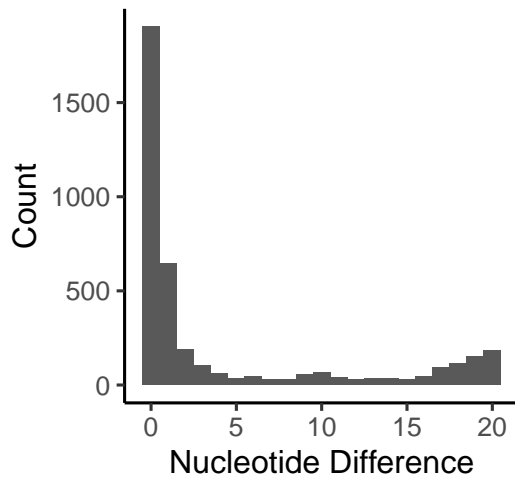
IGHV3-35*01

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
2 unique J



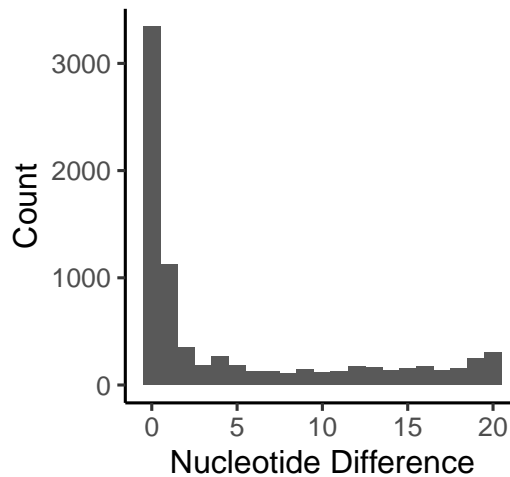
IGHV3-30-3*01

4849 sequences assigned
1903 (39.2%) exact matches, in which:
1612 unique CDR3
6 unique J



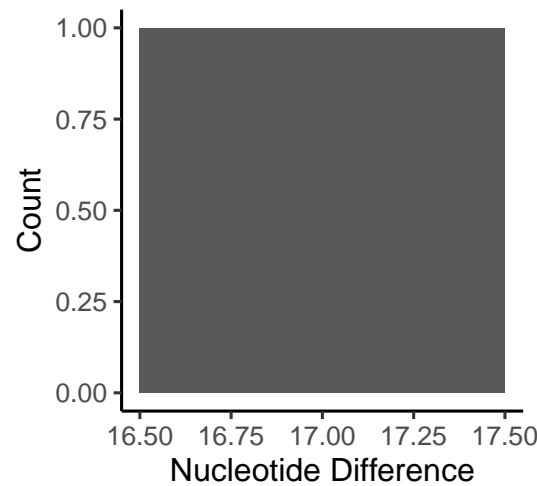
IGHV3-33*01

10157 sequences assigned
3342 (32.9%) exact matches, in which:
2871 unique CDR3
6 unique J



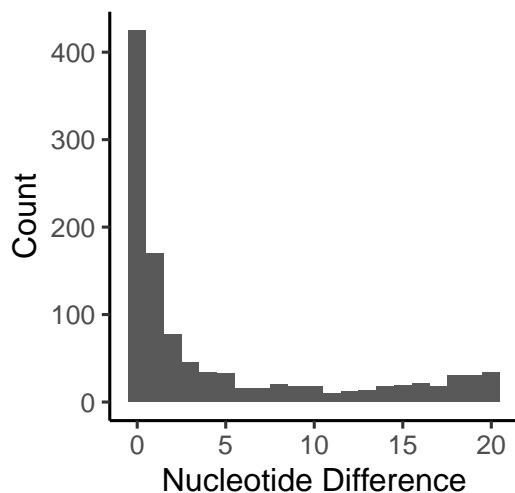
IGHV3-38-3*01

1 sequences assigned
No exact matches.



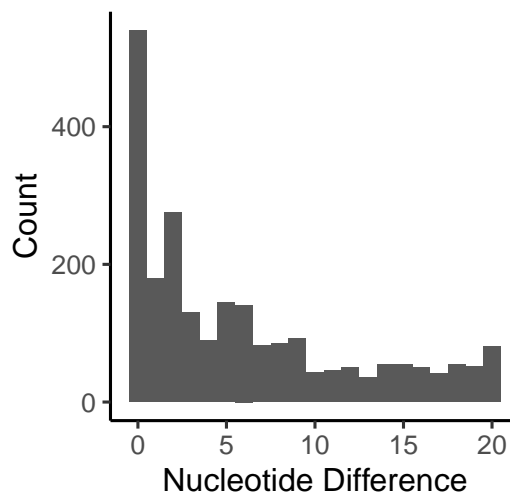
IGHV3-30*03

1853 sequences assigned
425 (22.9%) exact matches, in which:
408 unique CDR3
6 unique J



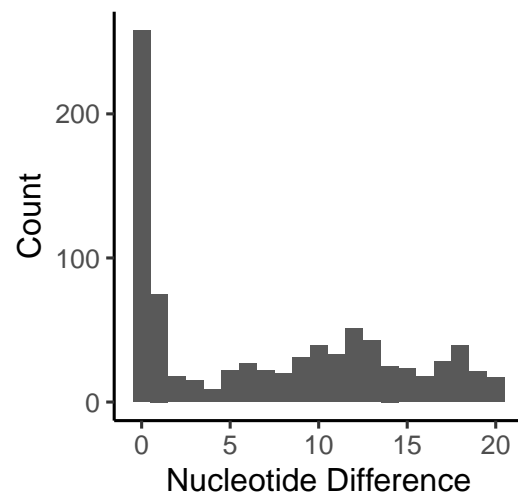
IGHV3-33*08

3142 sequences assigned
540 (17.2%) exact matches, in which:
523 unique CDR3
6 unique J



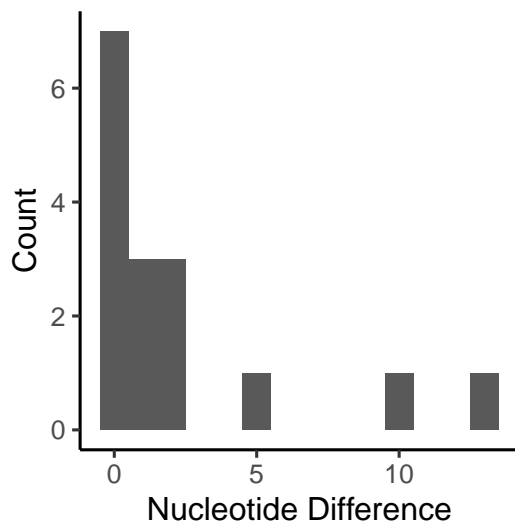
IGHV3-43*01

1252 sequences assigned
258 (20.6%) exact matches, in which:
215 unique CDR3
6 unique J



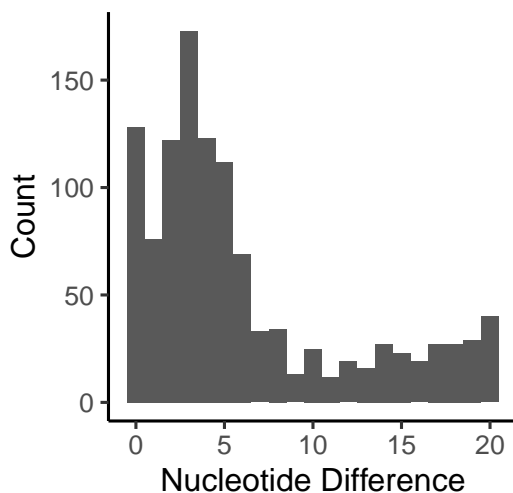
IGHV3-47*02

16 sequences assigned
7 (43.8%) exact matches, in which:
3 unique CDR3
2 unique J



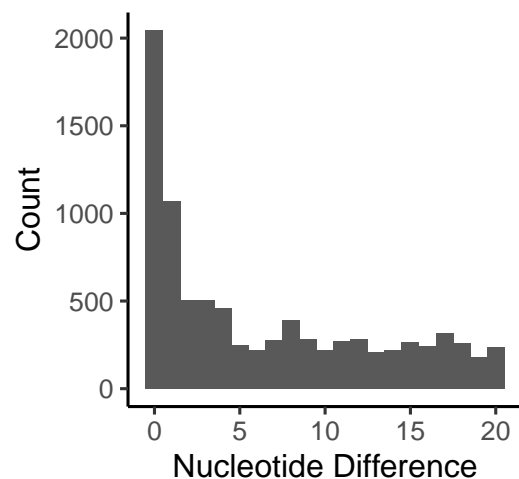
IGHV3-48*04

2063 sequences assigned
128 (6.2%) exact matches, in which:
128 unique CDR3
5 unique J



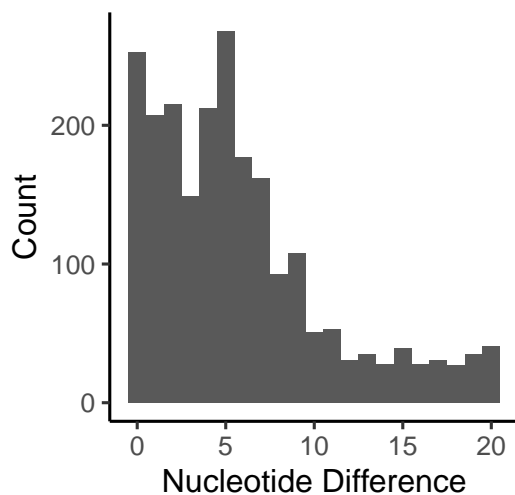
IGHV3-53*01_02

14875 sequences assigned
2044 (13.7%) exact matches, in which:
1733 unique CDR3
6 unique J



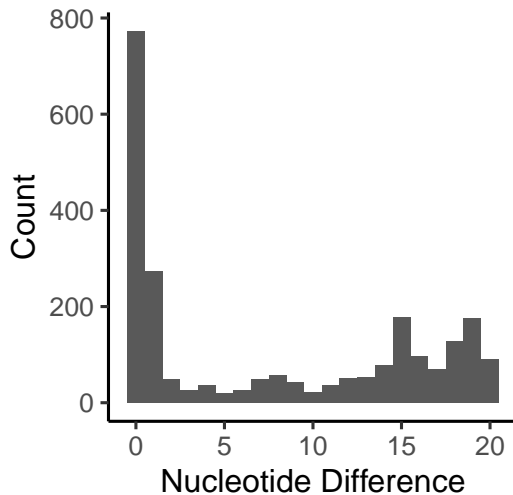
IGHV3-48*01

2753 sequences assigned
253 (9.2%) exact matches, in which:
251 unique CDR3
5 unique J



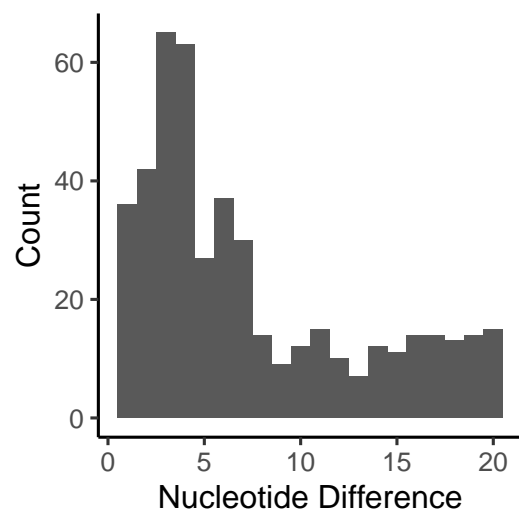
IGHV3-49*03_05

3400 sequences assigned
773 (22.7%) exact matches, in which:
667 unique CDR3
6 unique J



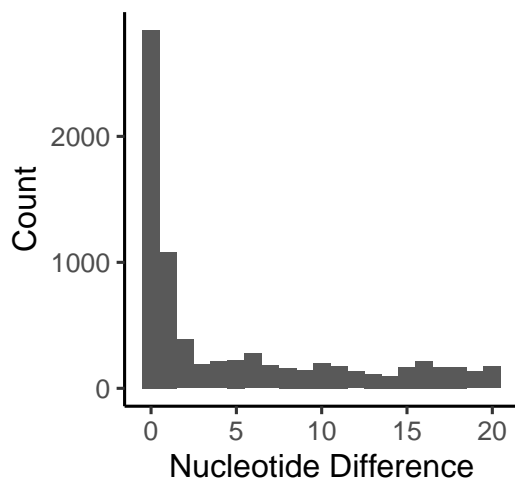
IGHV3-64*04

544 sequences assigned
No exact matches.



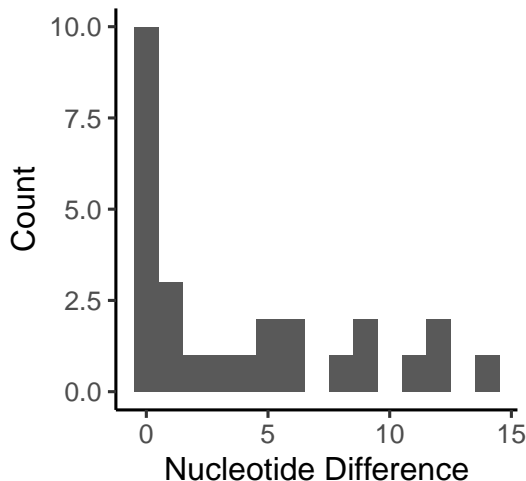
IGHV3-48*02

11557 sequences assigned
2844 (24.6%) exact matches, in which:
2301 unique CDR3
6 unique J



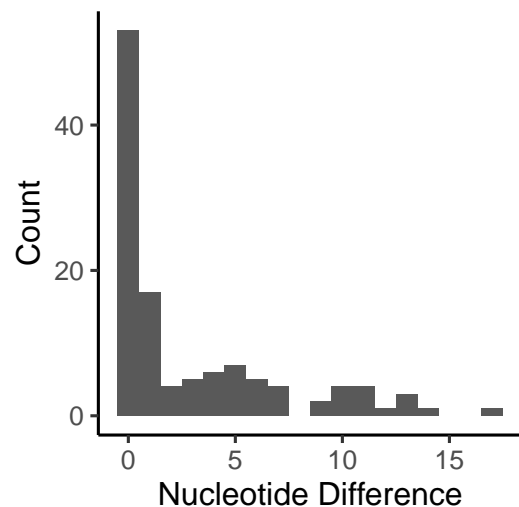
IGHV3-52*01_03

27 sequences assigned
10 (37%) exact matches, in which:
9 unique CDR3
3 unique J



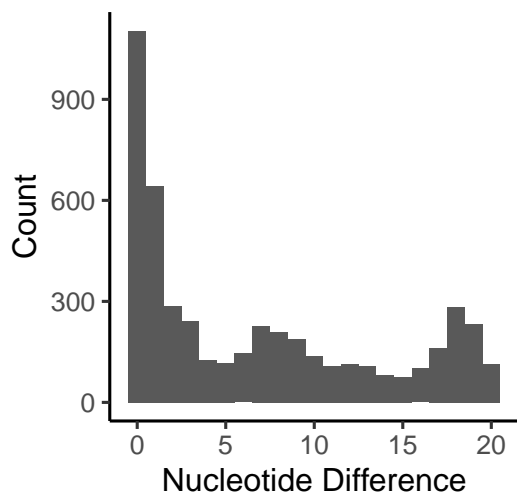
IGHV3-64*02_07

126 sequences assigned
53 (42.1%) exact matches, in which:
42 unique CDR3
5 unique J



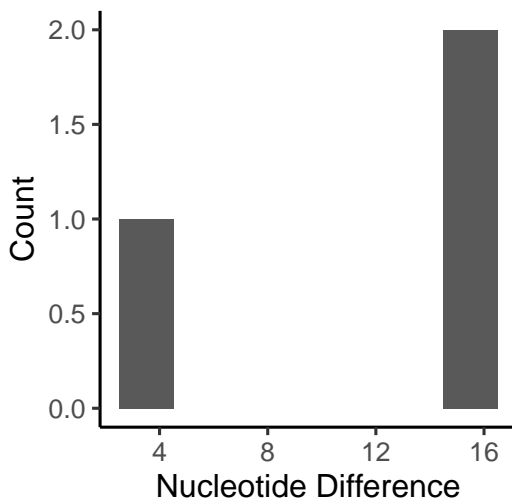
IGHV3-66*01

7521 sequences assigned
1104 (14.7%) exact matches, in which:
929 unique CDR3
6 unique J



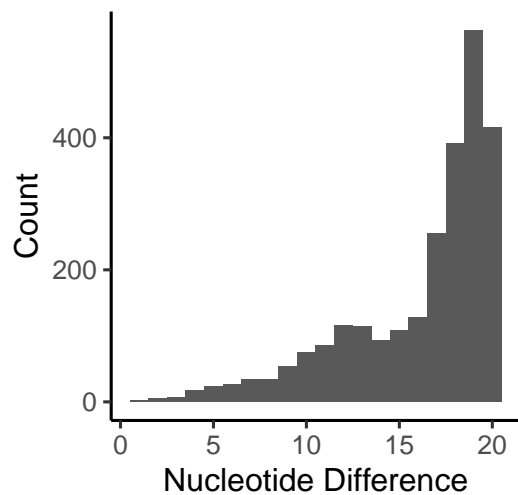
IGHV3-71*01_04

14 sequences assigned
No exact matches.



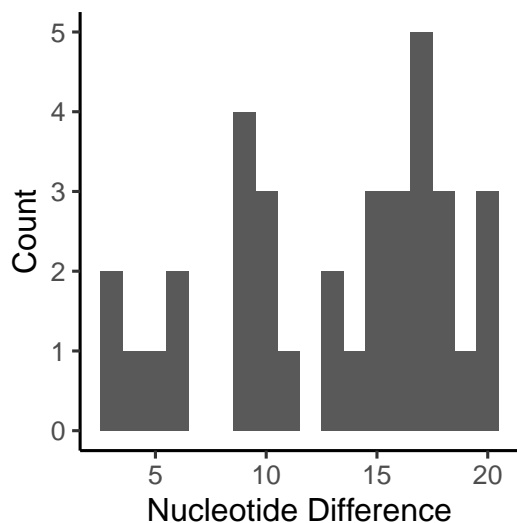
IGHV3-74*03

6340 sequences assigned
No exact matches.



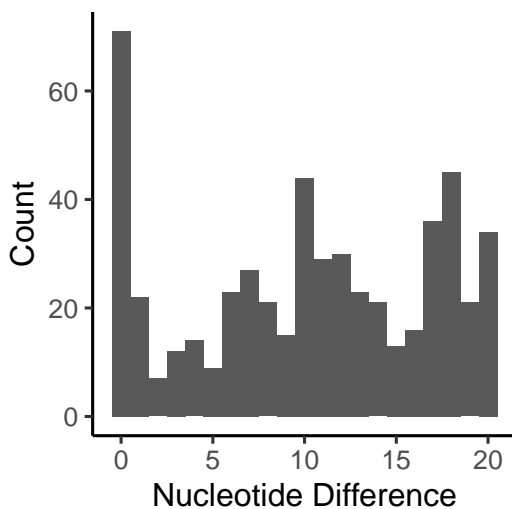
IGHV3-69-1*01

179 sequences assigned
No exact matches.



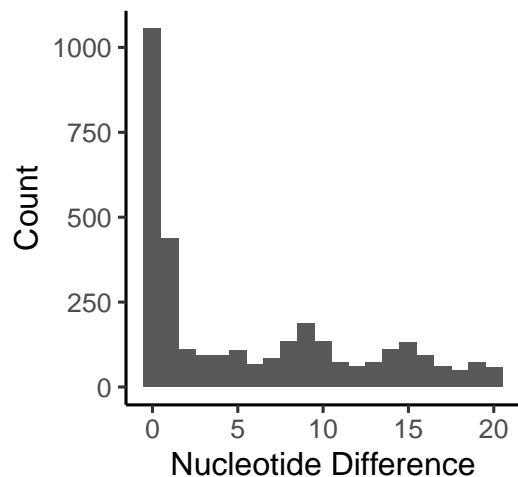
IGHV3-72*01

1292 sequences assigned
71 (5.5%) exact matches, in which:
63 unique CDR3
5 unique J



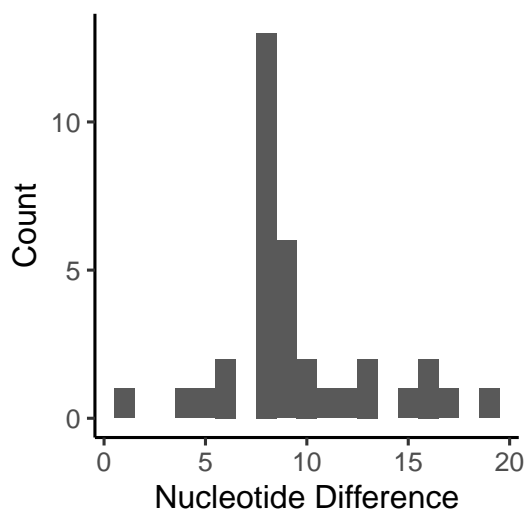
IGHV3-74*01_02

3707 sequences assigned
1055 (28.5%) exact matches, in which:
824 unique CDR3
6 unique J



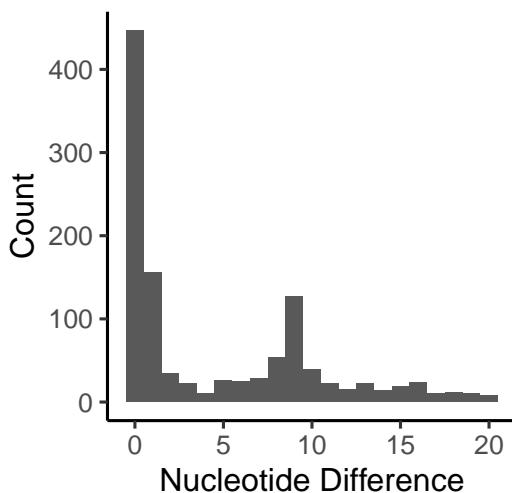
IGHV3-69-1*02

706 sequences assigned
No exact matches.



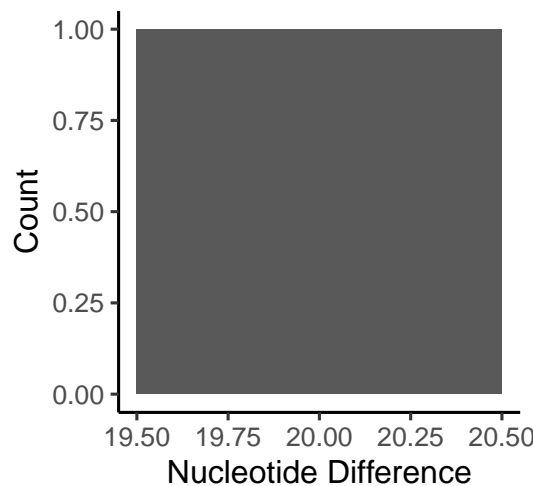
IGHV3-73*01_02

1243 sequences assigned
447 (36%) exact matches, in which:
361 unique CDR3
6 unique J



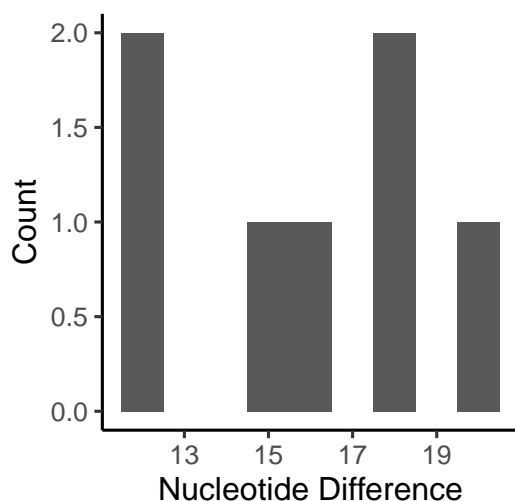
IGHV3-43D*03

3 sequences assigned
No exact matches.



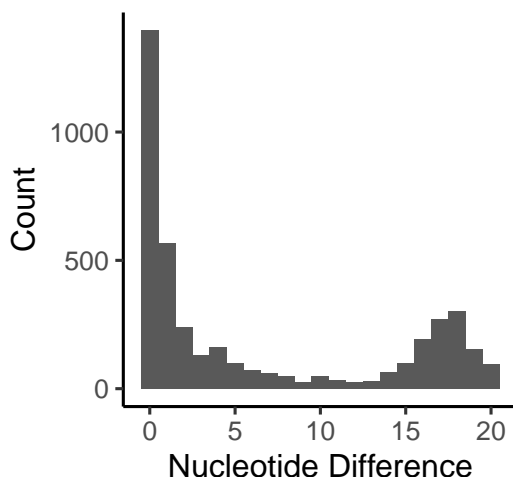
IGHV3-43D*04

31 sequences assigned
No exact matches.



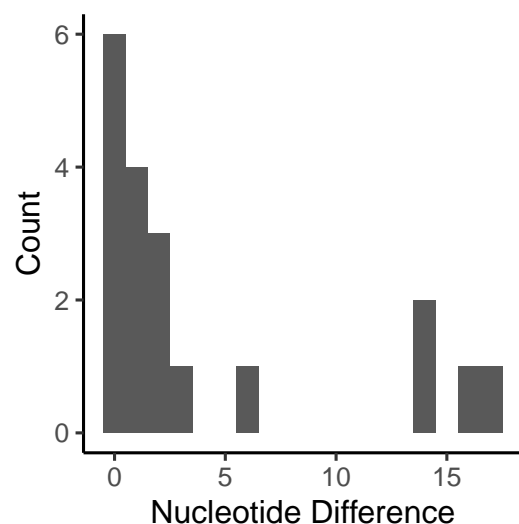
IGHV4-4*07

6196 sequences assigned
1396 (22.5%) exact matches, in which:
1323 unique CDR3
6 unique J



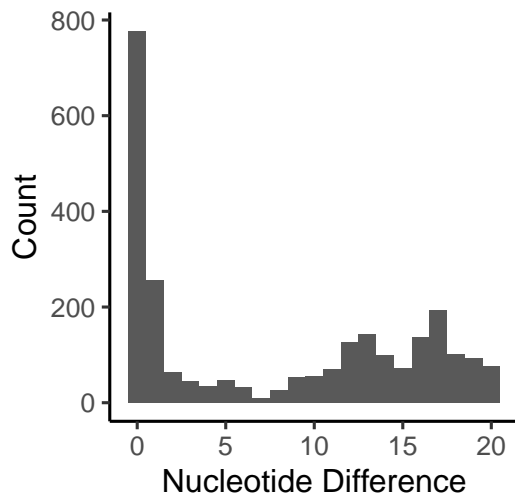
IGHV4-28*01_07

19 sequences assigned
6 (31.6%) exact matches, in which:
5 unique CDR3
3 unique J



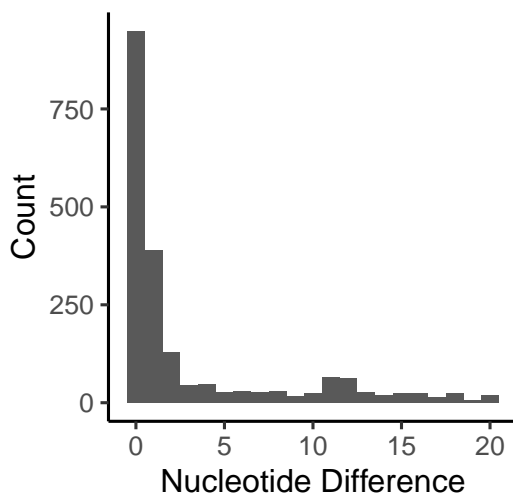
IGHV3-64D*06

3020 sequences assigned
777 (25.7%) exact matches, in which:
597 unique CDR3
6 unique J



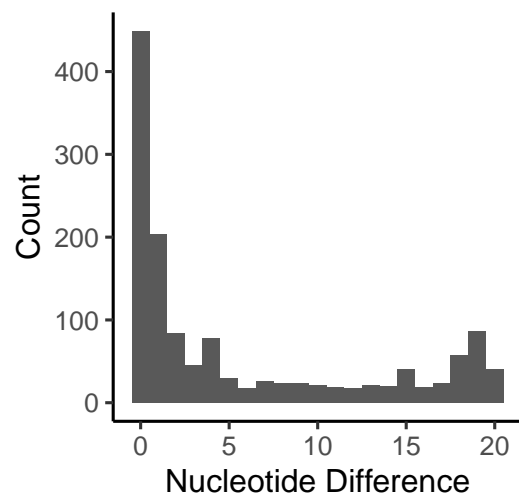
IGHV4-4*02_03

2597 sequences assigned
949 (36.5%) exact matches, in which:
880 unique CDR3
6 unique J



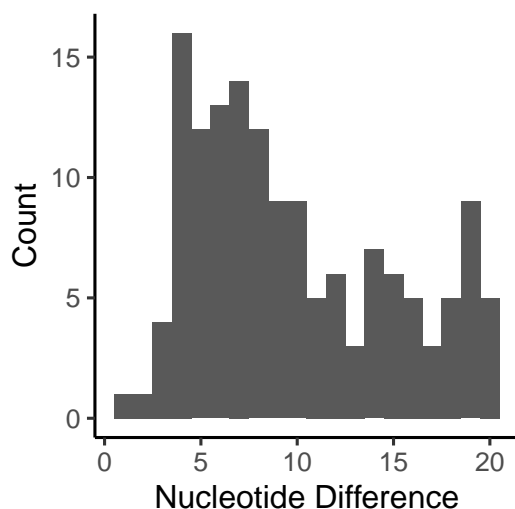
IGHV4-30-2*01

1666 sequences assigned
449 (27%) exact matches, in which:
374 unique CDR3
6 unique J



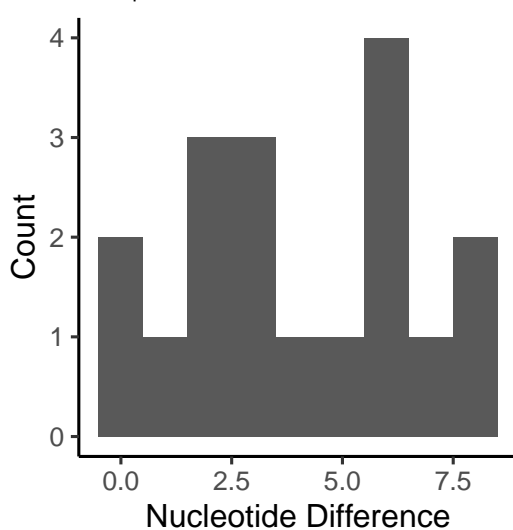
IGHV3-NL1*01

266 sequences assigned
No exact matches.



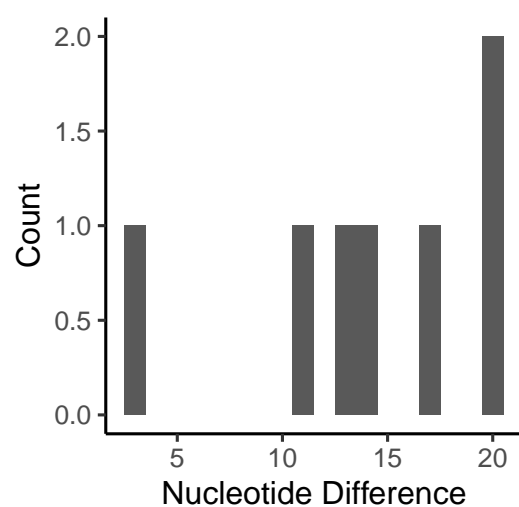
IGHV4-28*03

26 sequences assigned
2 (7.7%) exact matches, in which:
2 unique CDR3
2 unique J



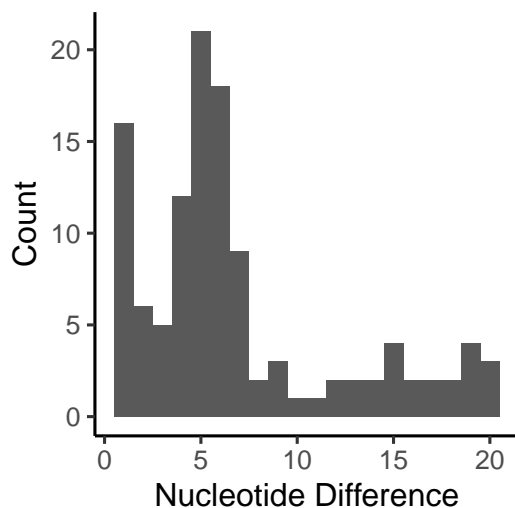
IGHV4-30-4*01

76 sequences assigned
No exact matches.



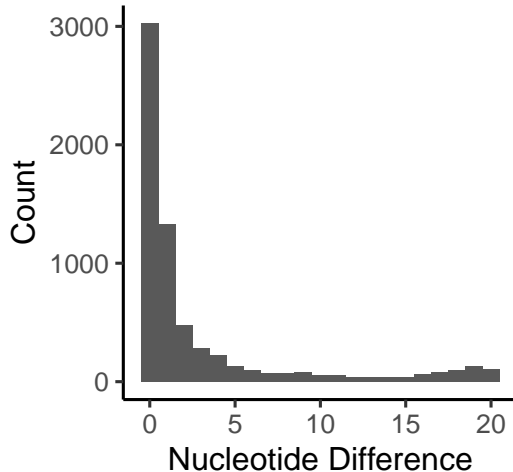
IGHV4-30-2*03

267 sequences assigned
No exact matches.



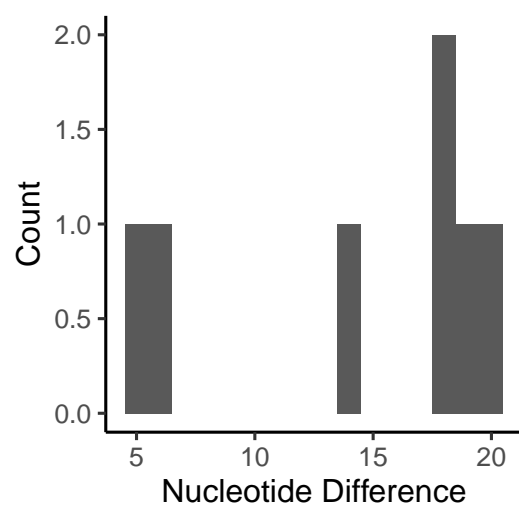
IGHV4-31*02

8594 sequences assigned
3025 (35.2%) exact matches, in which:
2883 unique CDR3
6 unique J



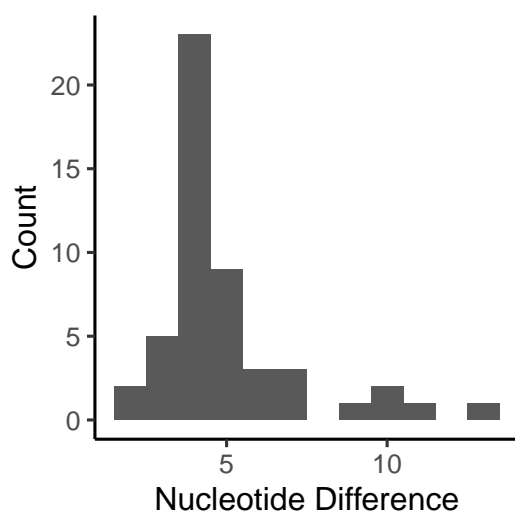
IGHV4-38-2*02

20 sequences assigned
No exact matches.



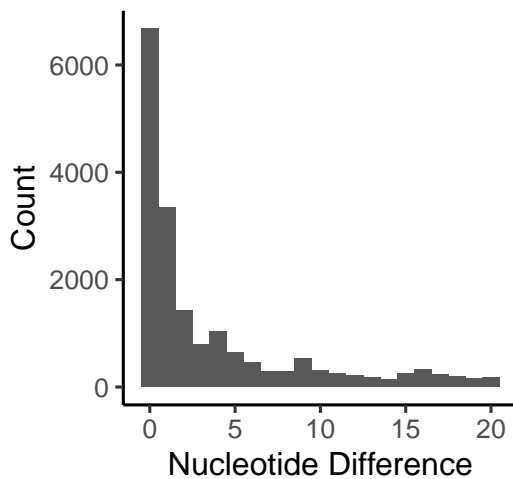
IGHV4-30-4*07

53 sequences assigned
No exact matches.



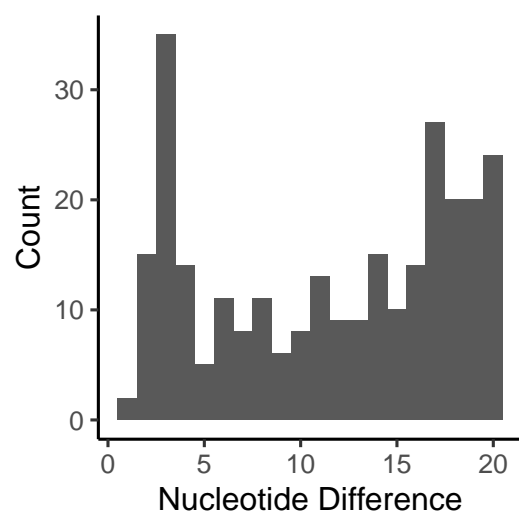
IGHV4-34*01_02

26334 sequences assigned
6675 (25.3%) exact matches, in which:
6097 unique CDR3
6 unique J



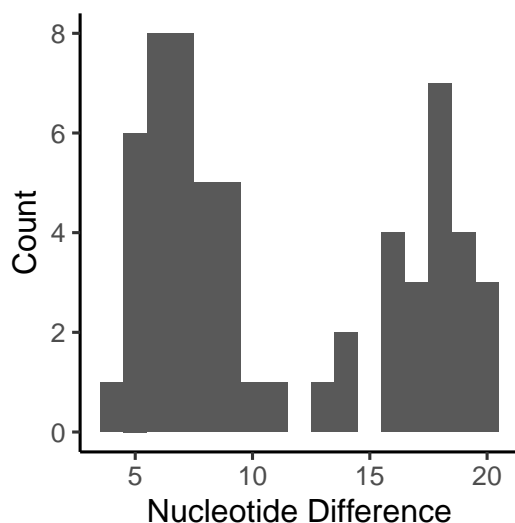
IGHV4-39*02

887 sequences assigned
No exact matches.



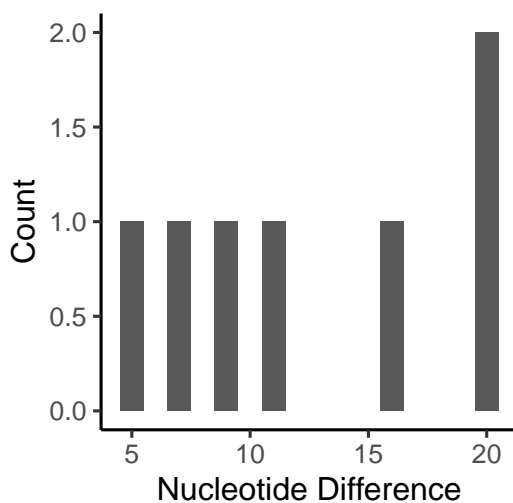
IGHV4-30-4*08

141 sequences assigned
No exact matches.



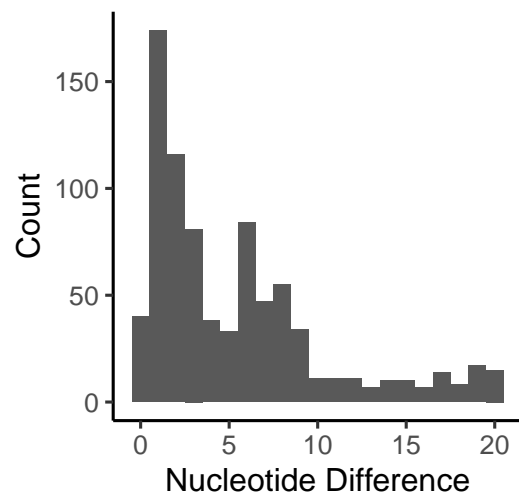
IGHV4-38-2*01

11 sequences assigned
No exact matches.



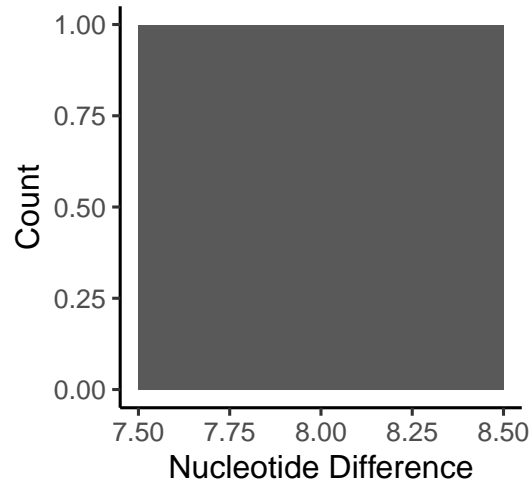
IGHV4-39*07

976 sequences assigned
40 (4.1%) exact matches, in which:
40 unique CDR3
5 unique J



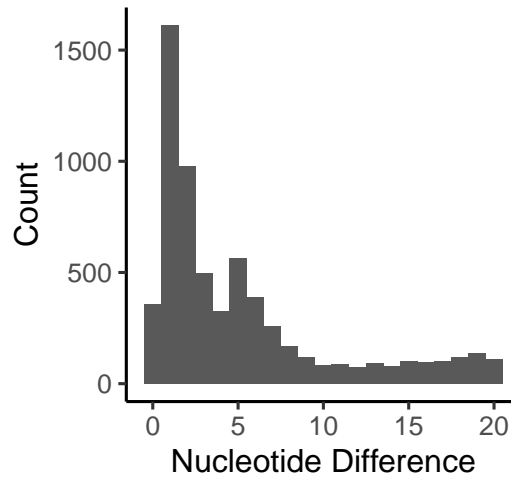
IGHV4-55*07

6 sequences assigned
No exact matches.



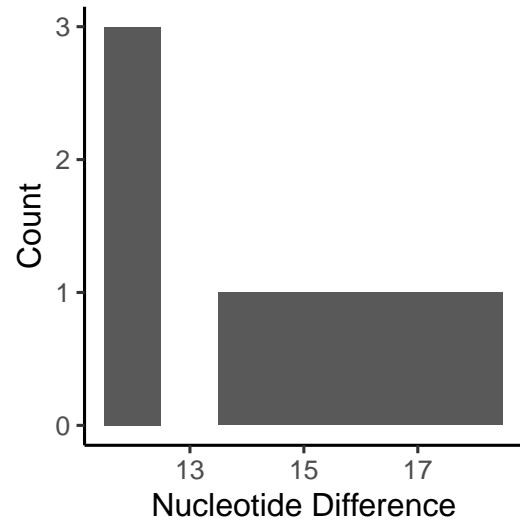
IGHV4-59*12

8556 sequences assigned
359 (4.2%) exact matches, in which:
358 unique CDR3
6 unique J



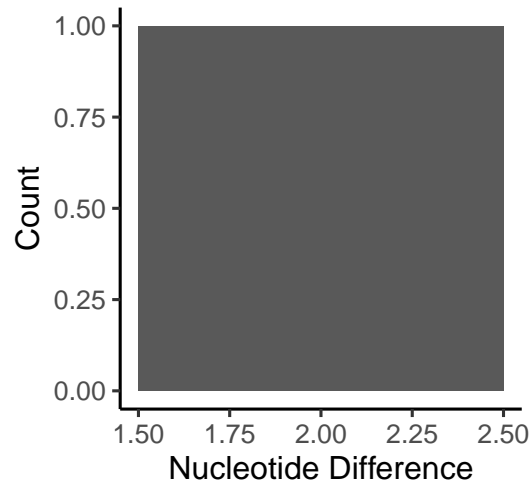
IGHV1/OR15-2*02_03

14 sequences assigned
No exact matches.



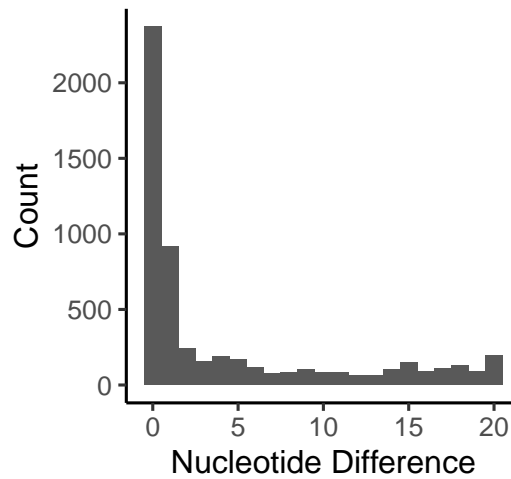
IGHV4-55*09

6 sequences assigned
No exact matches.



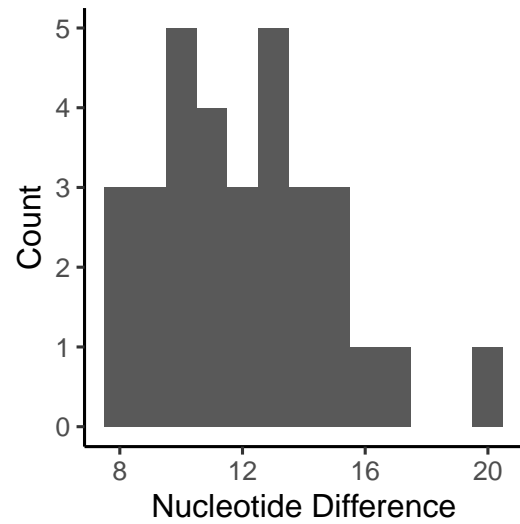
IGHV4-61*01

7678 sequences assigned
2371 (30.9%) exact matches, in which:
2292 unique CDR3
6 unique J



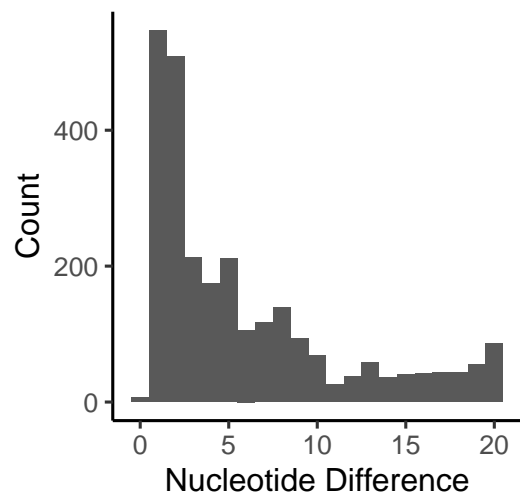
IGHV1/OR15-3*02

43 sequences assigned
No exact matches.



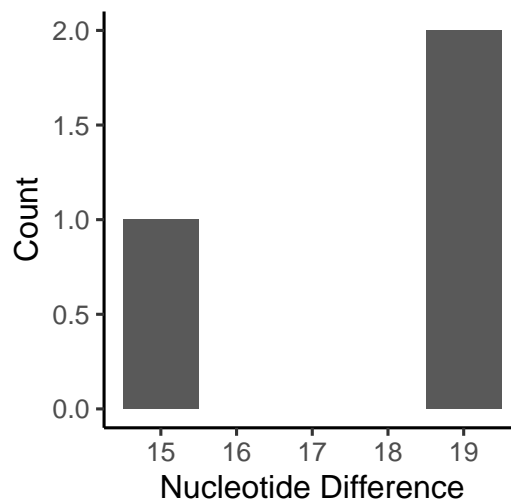
IGHV4-59*08

3662 sequences assigned
6 (0.2%) exact matches, in which:
6 unique CDR3
4 unique J



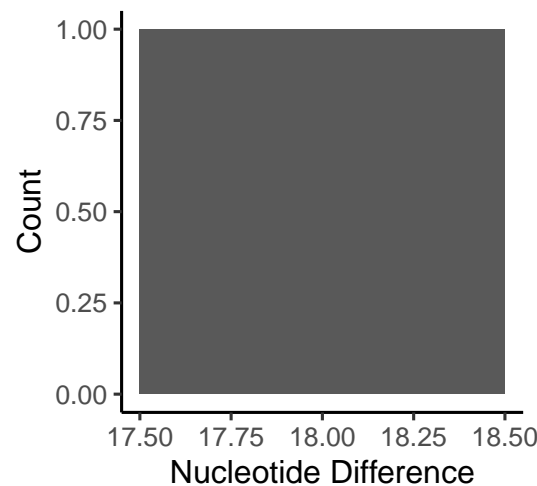
IGHV1/OR15-1*04

11 sequences assigned
No exact matches.



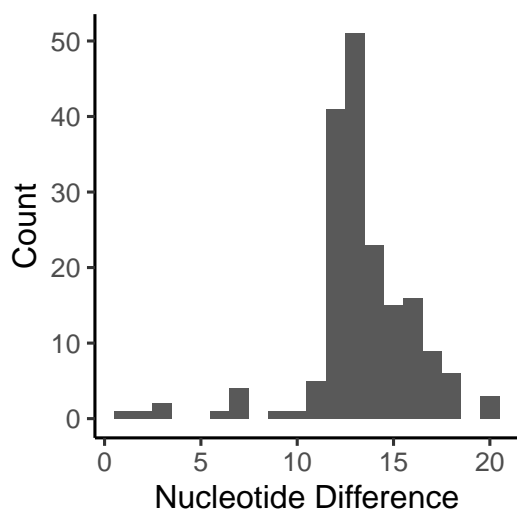
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



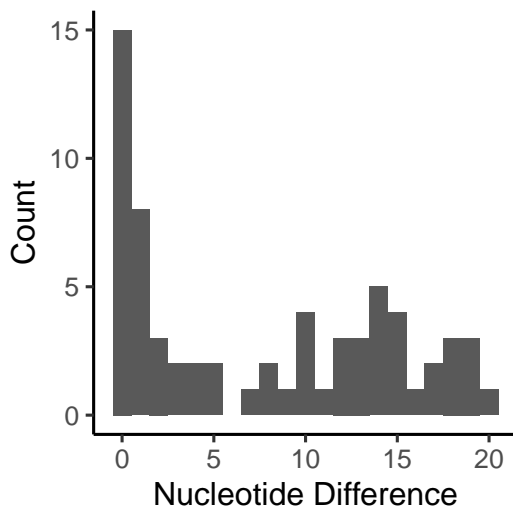
IGHV4/OR15–8*01

218 sequences assigned
No exact matches.



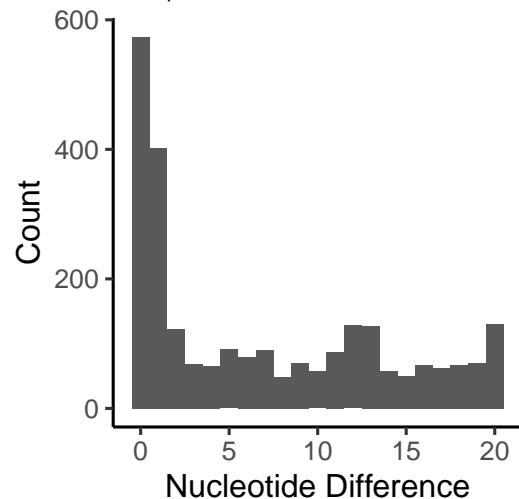
IGHV5–51*04

139 sequences assigned
15 (10.8%) exact matches, in which:
15 unique CDR3
4 unique J



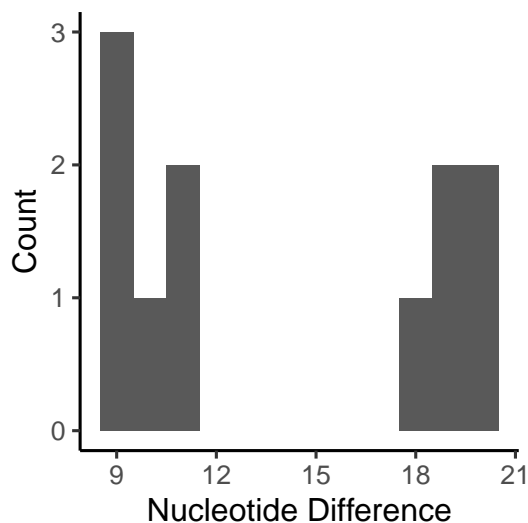
IGHV6–1*01_02

4301 sequences assigned
574 (13.3%) exact matches, in which:
547 unique CDR3
6 unique J



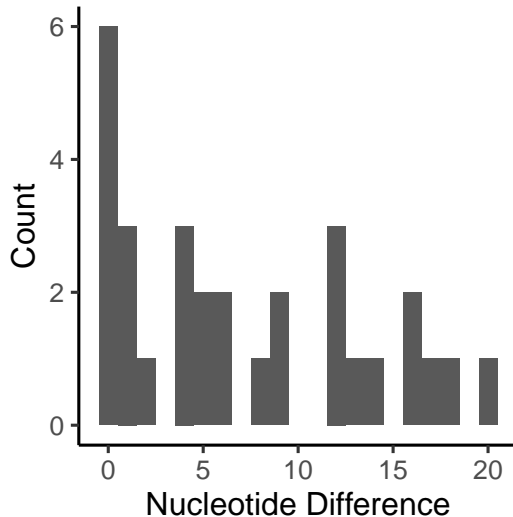
IGHV4/OR15–8*02

335 sequences assigned
No exact matches.



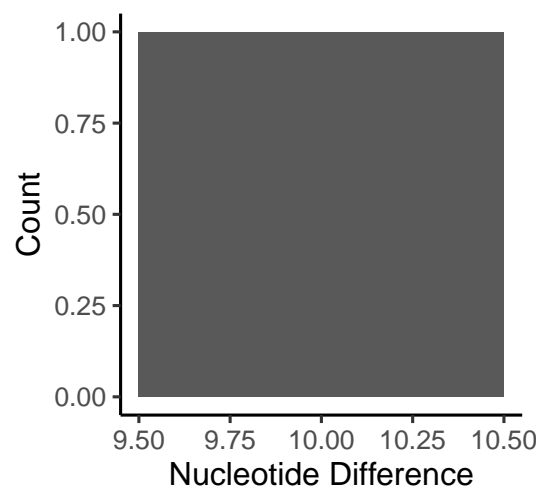
IGHV5–51*06

30 sequences assigned
6 (20%) exact matches, in which:
6 unique CDR3
3 unique J



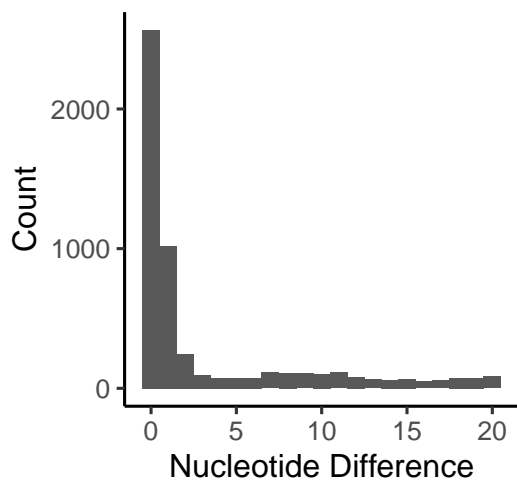
IGHV3/OR16–9*01

1 sequences assigned
No exact matches.



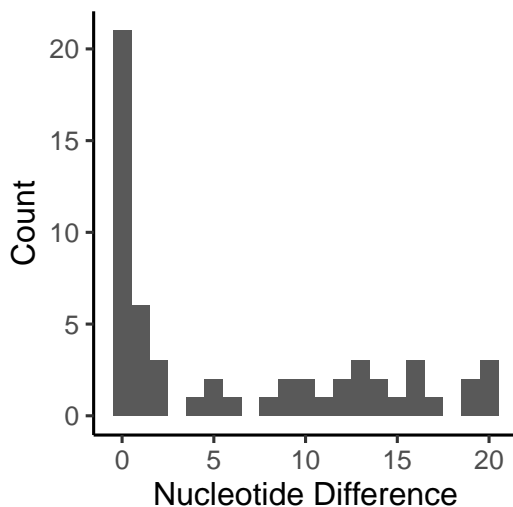
IGHV5–10–1*01_03

5966 sequences assigned
2565 (43%) exact matches, in which:
2161 unique CDR3
6 unique J



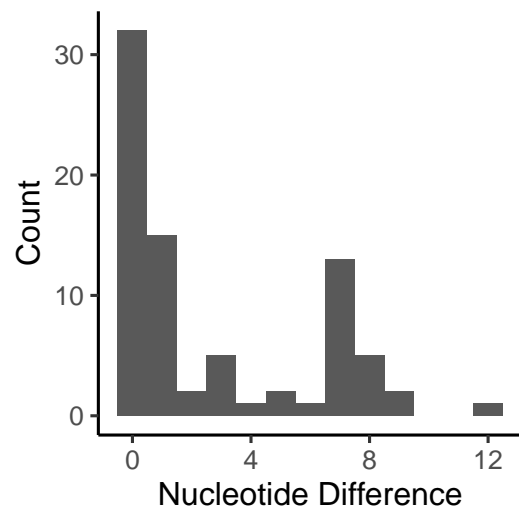
IGHV5–51*07

72 sequences assigned
21 (29.2%) exact matches, in which:
20 unique CDR3
5 unique J



IGHV7–4–1*01

79 sequences assigned
32 (40.5%) exact matches, in which:
31 unique CDR3
6 unique J





Warning – no inferred sequences found.