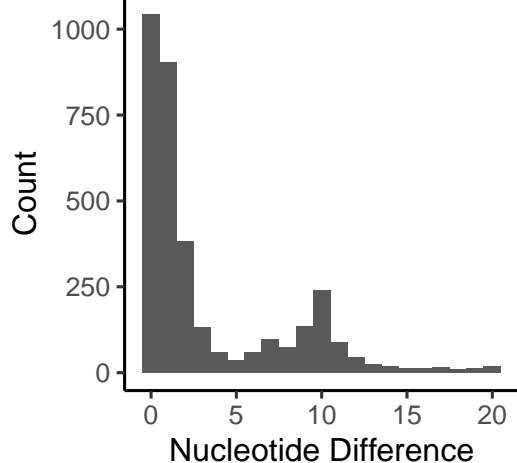


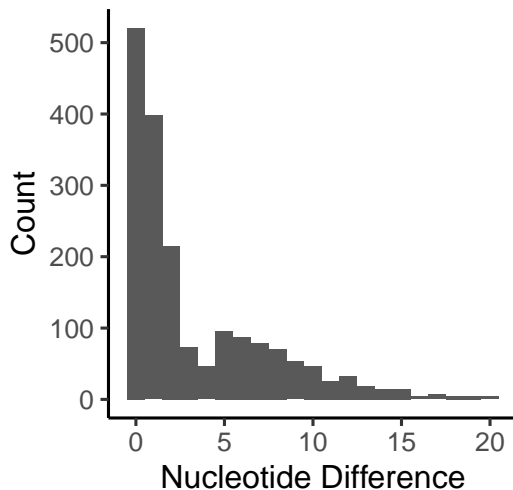
IGHV1-2*02

3821 sequences assigned
1043 (27.3%) exact matches, in which:
985 unique CDR3
6 unique J



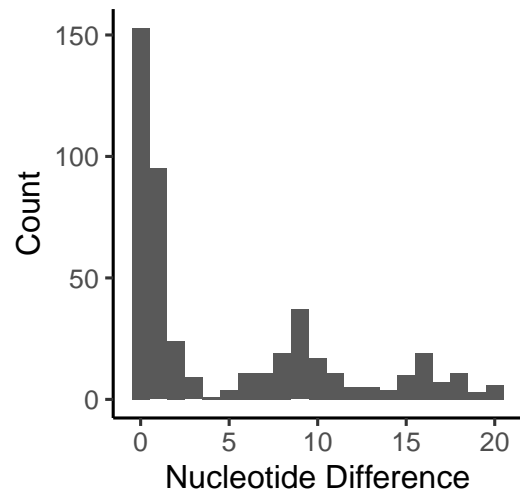
IGHV1-8*01

1856 sequences assigned
521 (28.1%) exact matches, in which:
503 unique CDR3
6 unique J



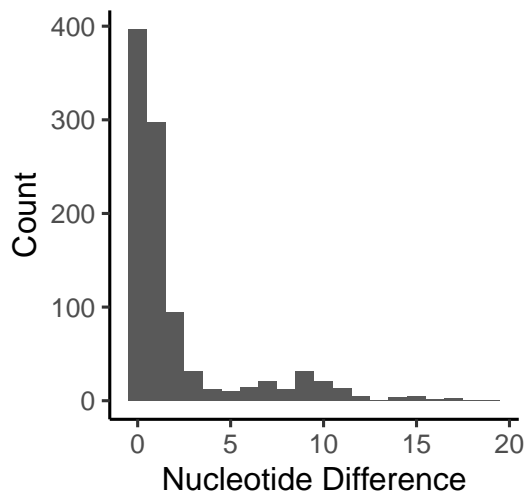
IGHV1-24*01

465 sequences assigned
153 (32.9%) exact matches, in which:
148 unique CDR3
6 unique J



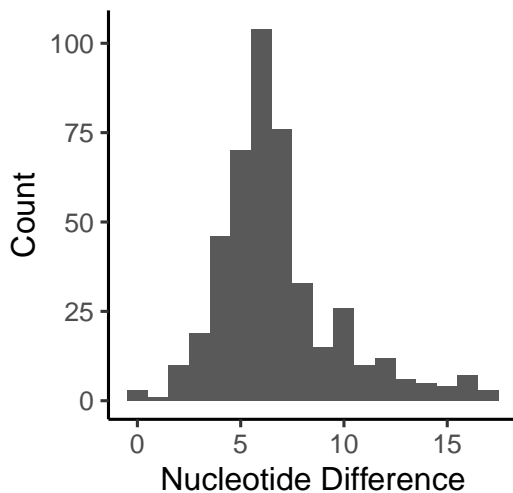
IGHV1-2*04

982 sequences assigned
397 (40.4%) exact matches, in which:
376 unique CDR3
6 unique J



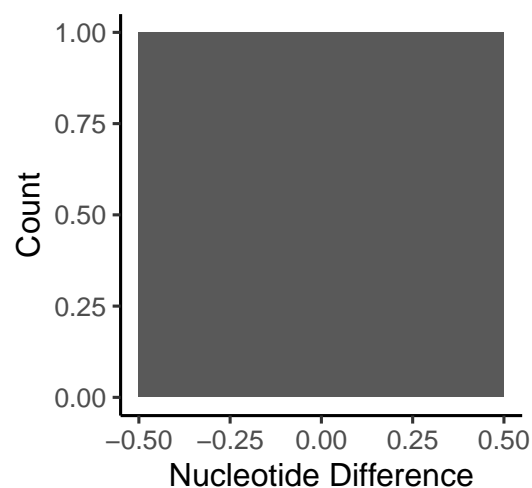
IGHV1-8*02

454 sequences assigned
3 (0.7%) exact matches, in which:
3 unique CDR3
3 unique J



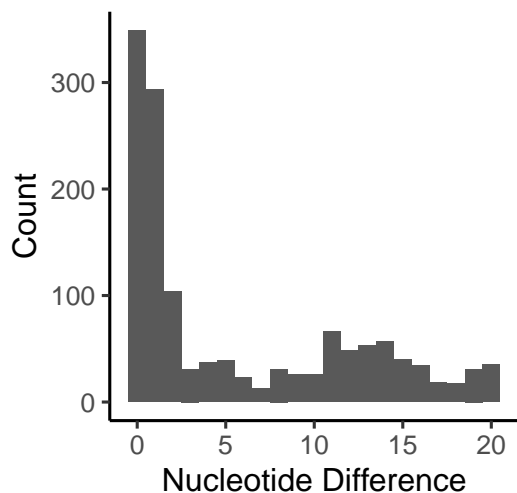
IGHV1-38-4*01

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



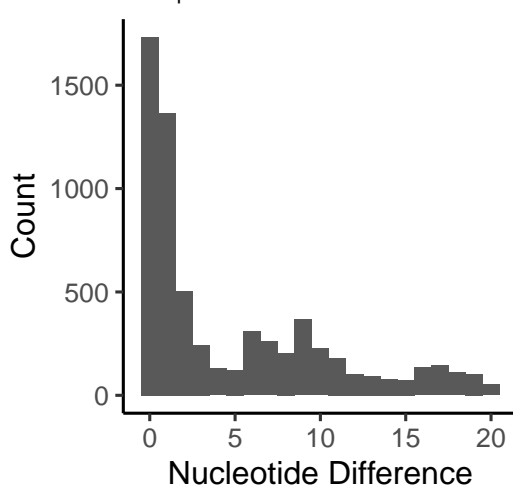
IGHV1-3*01_05

1505 sequences assigned
349 (23.2%) exact matches, in which:
328 unique CDR3
6 unique J



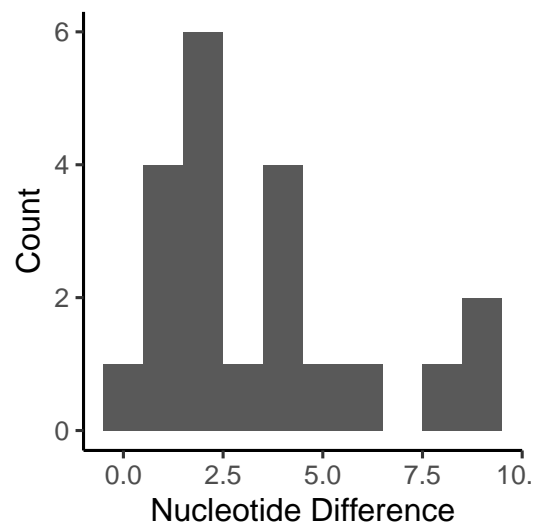
IGHV1-18*01

6877 sequences assigned
1733 (25.2%) exact matches, in which:
1624 unique CDR3
6 unique J



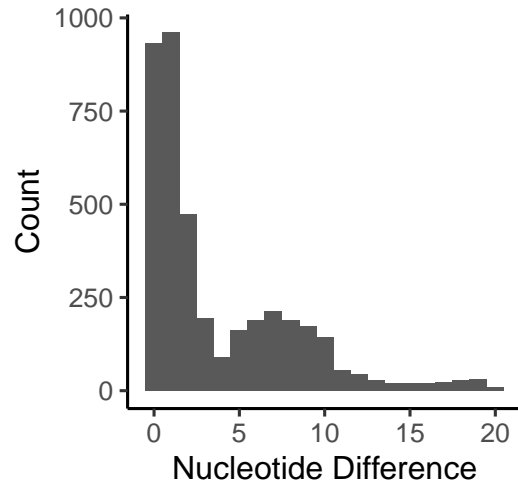
IGHV1-45*02

23 sequences assigned
1 (4.3%) exact matches, in which:
1 unique CDR3
1 unique J



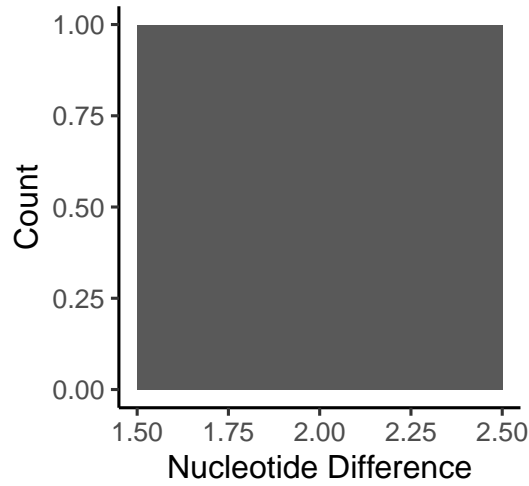
IGHV1-46*01

4035 sequences assigned
932 (23.1%) exact matches, in which:
883 unique CDR3
6 unique J



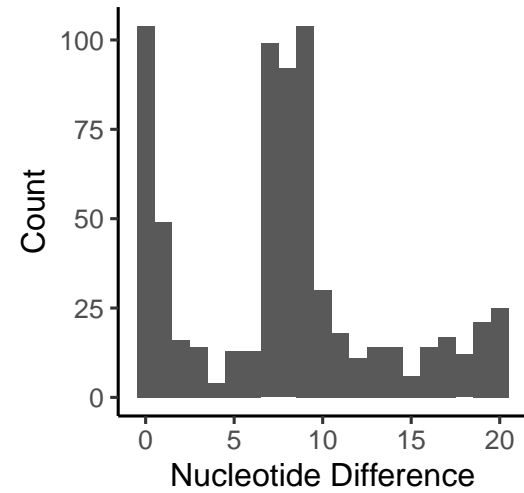
IGHV1-68*01

2 sequences assigned
No exact matches.



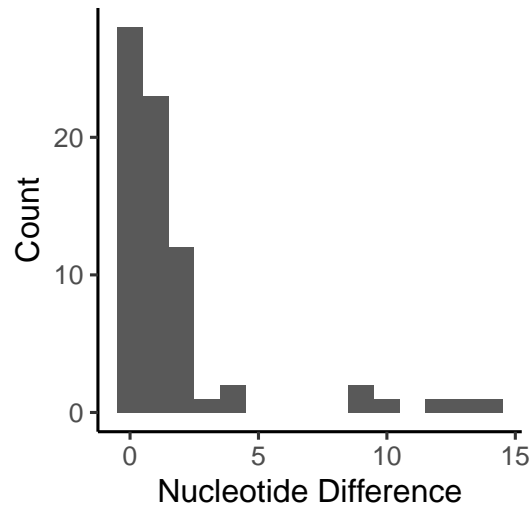
IGHV1-69*06_14

732 sequences assigned
104 (14.2%) exact matches, in which:
103 unique CDR3
5 unique J



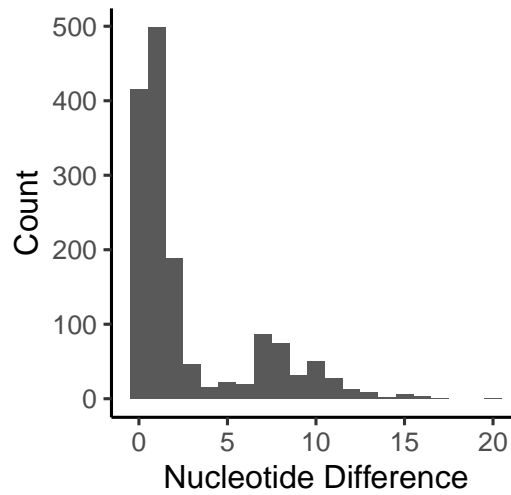
IGHV1-58*02

73 sequences assigned
28 (38.4%) exact matches, in which:
28 unique CDR3
4 unique J



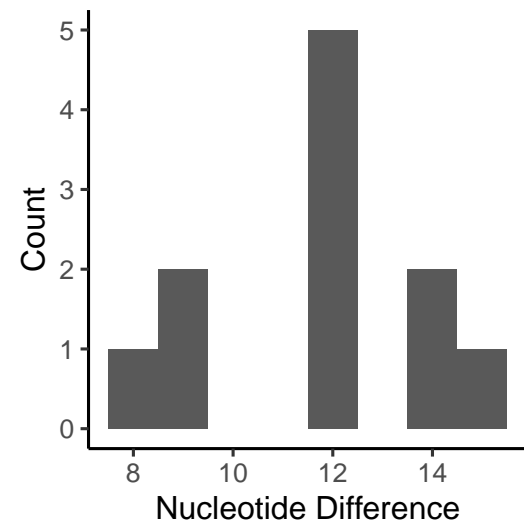
IGHV1-69*02

1517 sequences assigned
415 (27.4%) exact matches, in which:
398 unique CDR3
6 unique J



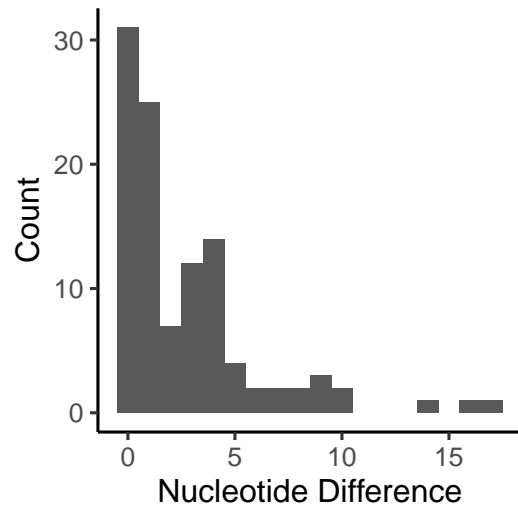
IGHV1-NL1*01

11 sequences assigned
No exact matches.



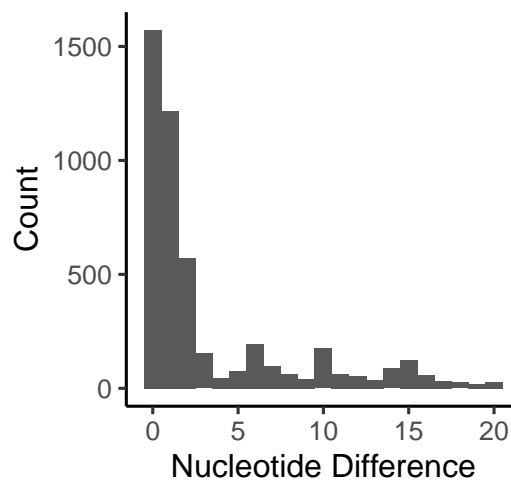
IGHV1-58*01_03

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



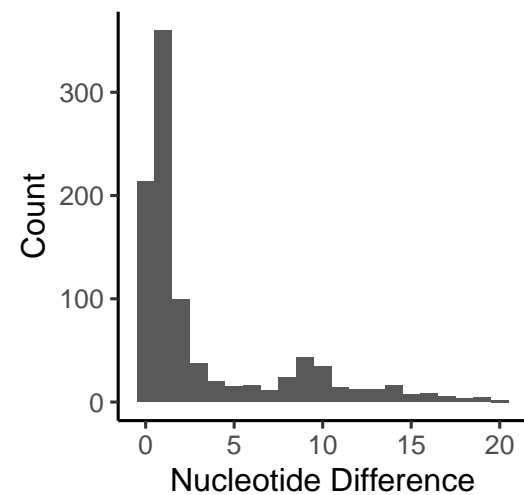
IGHV1-69*01_12_13

4844 sequences assigned
1572 (32.5%) exact matches, in which:
1488 unique CDR3
6 unique J



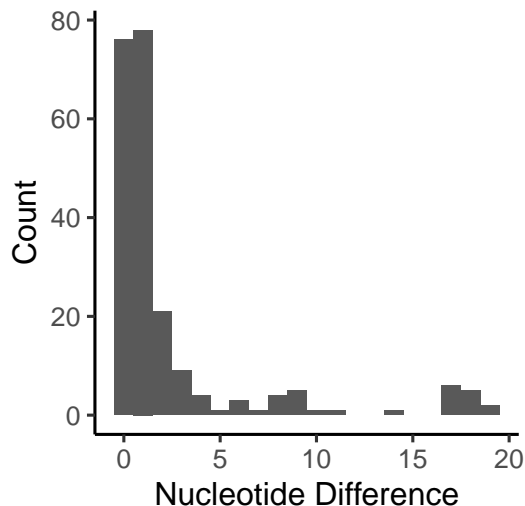
IGHV2-5*02

989 sequences assigned
214 (21.6%) exact matches, in which:
185 unique CDR3
6 unique J



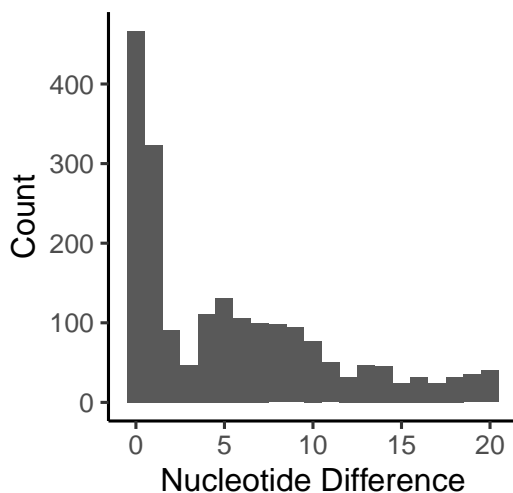
IGHV2-26*01

220 sequences assigned
76 (34.5%) exact matches, in which:
63 unique CDR3
5 unique J



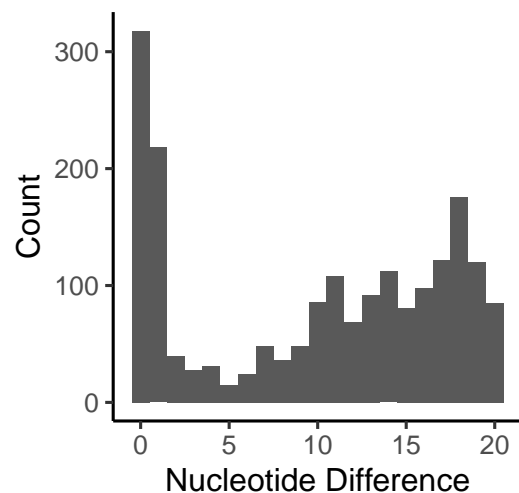
IGHV3-7*01

2151 sequences assigned
467 (21.7%) exact matches, in which:
387 unique CDR3
6 unique J



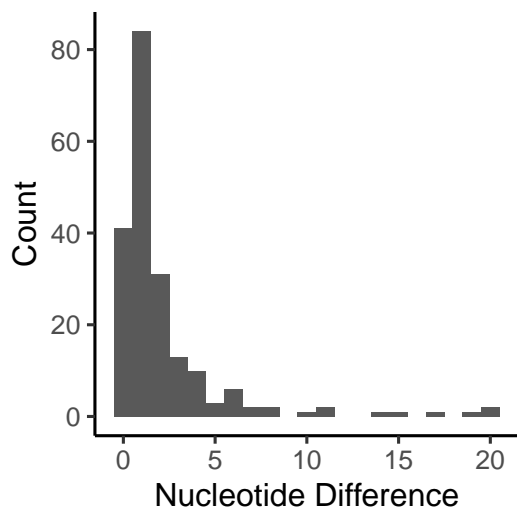
IGHV3-9*01

2517 sequences assigned
318 (12.6%) exact matches, in which:
249 unique CDR3
6 unique J



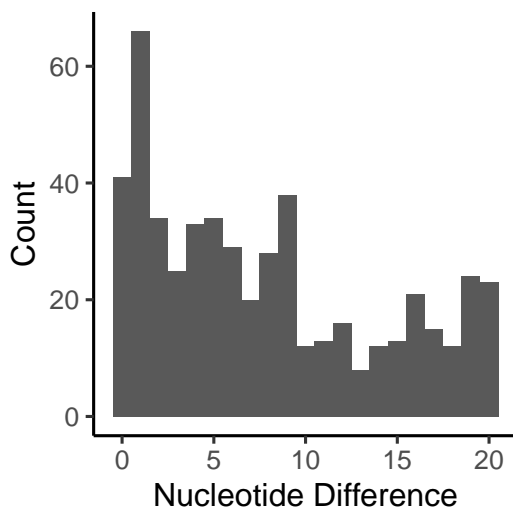
IGHV2-70*01

201 sequences assigned
41 (20.4%) exact matches, in which:
34 unique CDR3
4 unique J



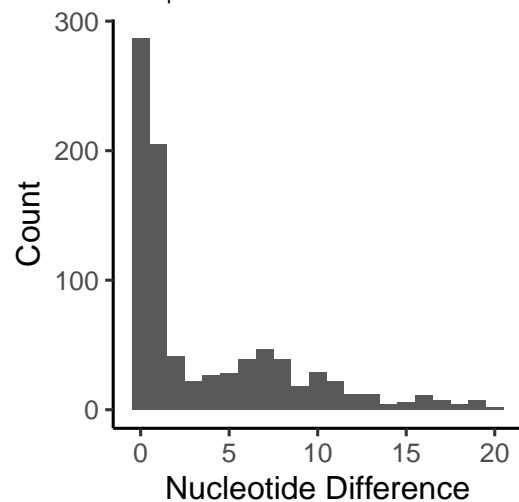
IGHV3-7*03

775 sequences assigned
41 (5.3%) exact matches, in which:
34 unique CDR3
4 unique J



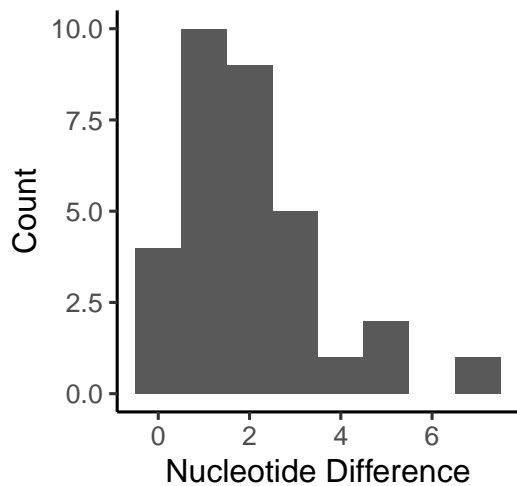
IGHV3-11*01

891 sequences assigned
287 (32.2%) exact matches, in which:
233 unique CDR3
6 unique J



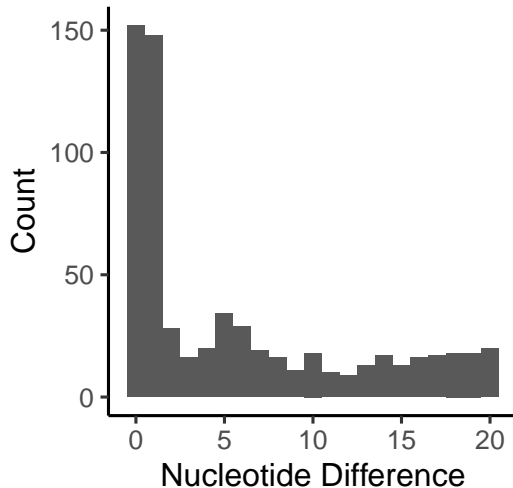
IGHV2-70*12

32 sequences assigned
4 (12.5%) exact matches, in which:
4 unique CDR3
2 unique J



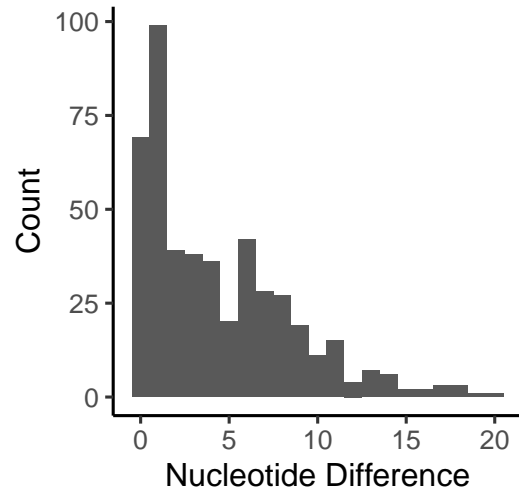
IGHV3-7*04

790 sequences assigned
152 (19.2%) exact matches, in which:
112 unique CDR3
6 unique J



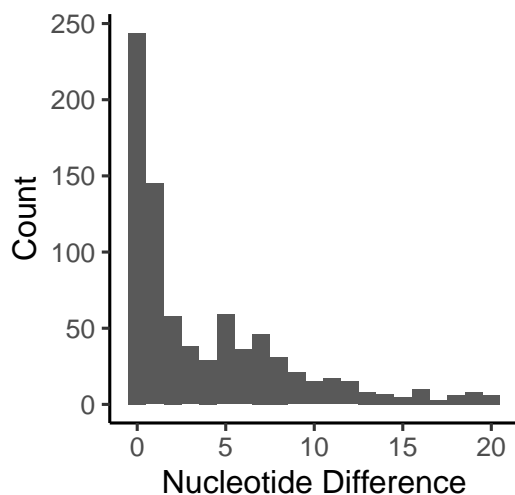
IGHV3-11*04

482 sequences assigned
69 (14.3%) exact matches, in which:
67 unique CDR3
4 unique J



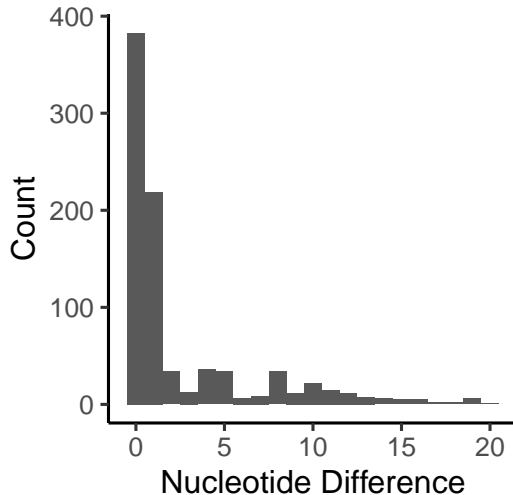
IGHV3-11*06

900 sequences assigned
244 (27.1%) exact matches, in which:
204 unique CDR3
6 unique J



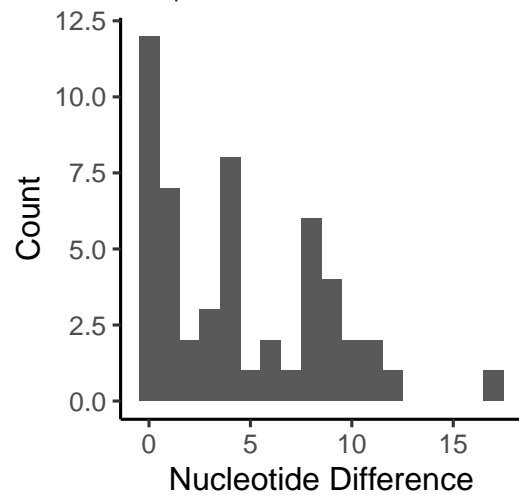
IGHV3-15*07

891 sequences assigned
383 (43%) exact matches, in which:
262 unique CDR3
6 unique J



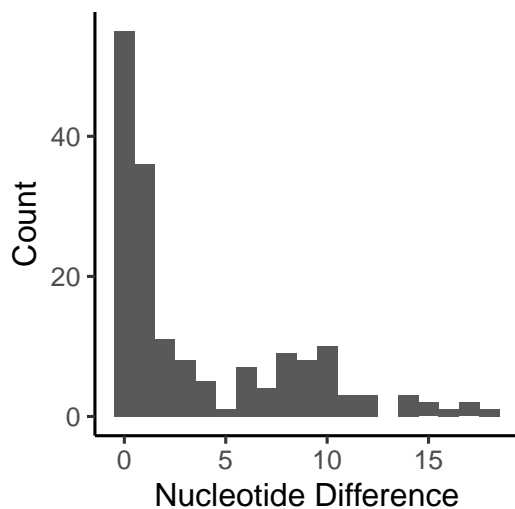
IGHV3-20*03_04

57 sequences assigned
12 (21.1%) exact matches, in which:
10 unique CDR3
2 unique J



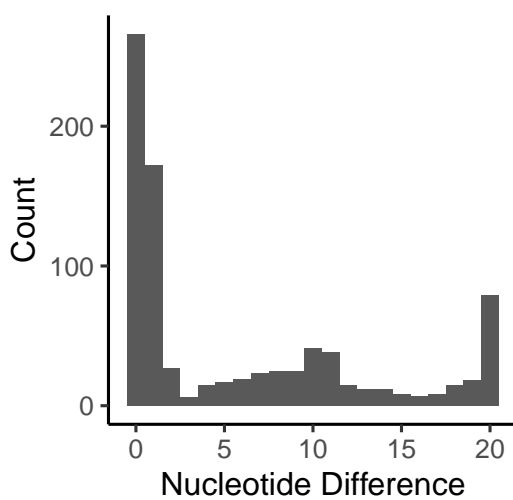
IGHV3-13*01

178 sequences assigned
55 (30.9%) exact matches, in which:
47 unique CDR3
5 unique J



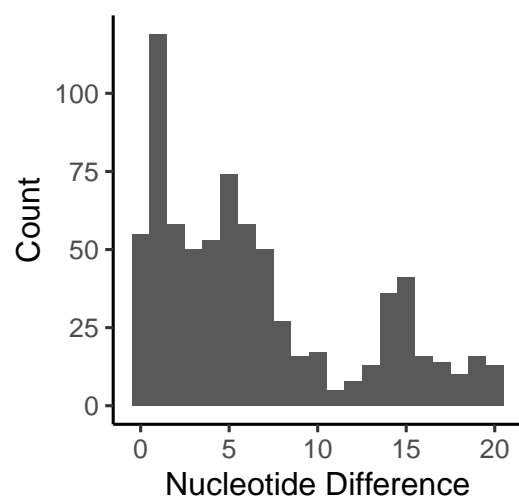
IGHV3-15*01_02

1524 sequences assigned
266 (17.5%) exact matches, in which:
197 unique CDR3
5 unique J



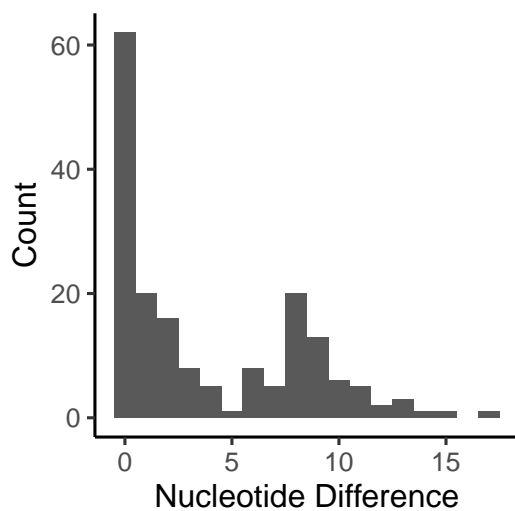
IGHV3-21*04

826 sequences assigned
55 (6.7%) exact matches, in which:
53 unique CDR3
5 unique J



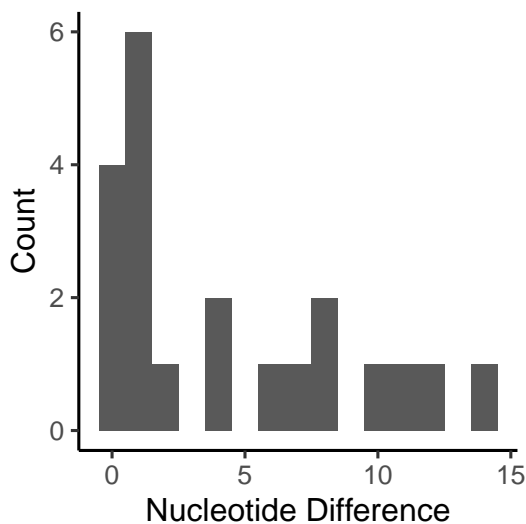
IGHV3-13*05

177 sequences assigned
62 (35%) exact matches, in which:
60 unique CDR3
5 unique J



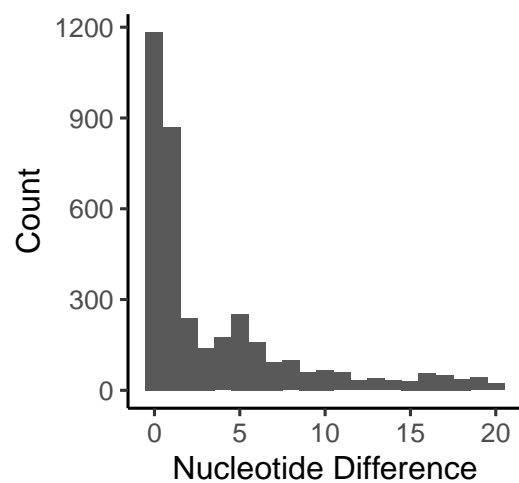
IGHV3-19*01

21 sequences assigned
4 (19%) exact matches, in which:
4 unique CDR3
2 unique J



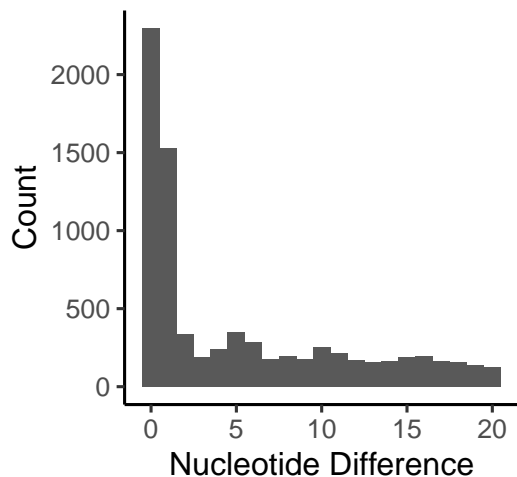
IGHV3-21*01_02

3998 sequences assigned
1184 (29.6%) exact matches, in which:
950 unique CDR3
6 unique J



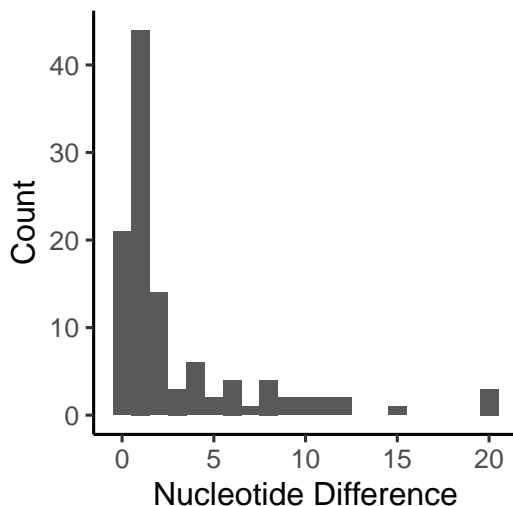
IGHV3-23*01_04

8757 sequences assigned
2296 (26.2%) exact matches, in which:
1791 unique CDR3
6 unique J



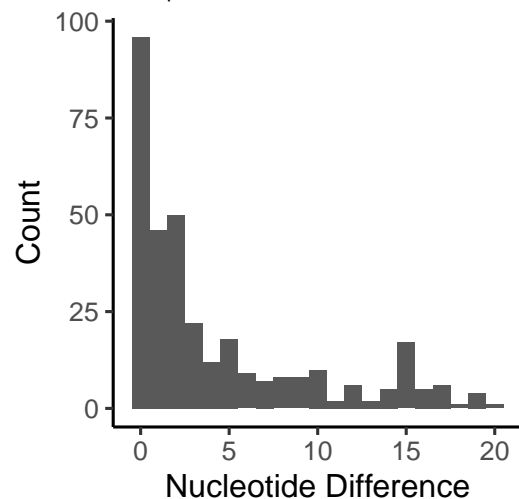
IGHV3-30*19

127 sequences assigned
21 (16.5%) exact matches, in which:
21 unique CDR3
4 unique J



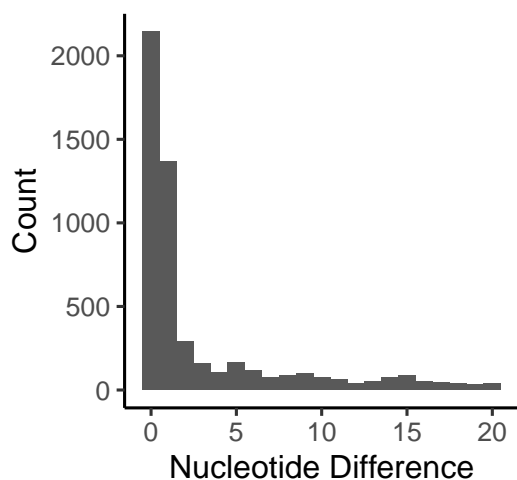
IGHV3-33*08

348 sequences assigned
96 (27.6%) exact matches, in which:
78 unique CDR3
5 unique J



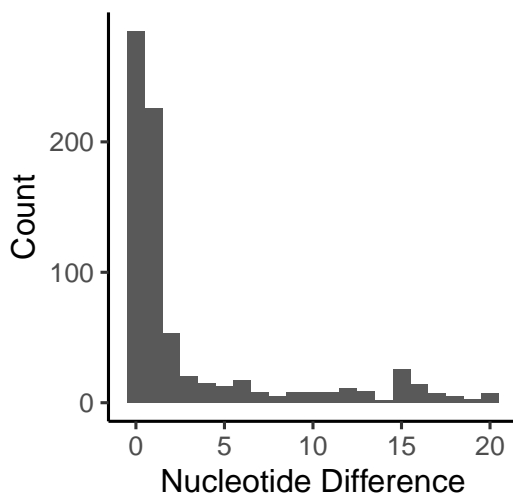
IGHV3-30-3*01

5528 sequences assigned
2144 (38.8%) exact matches, in which:
1653 unique CDR3
6 unique J



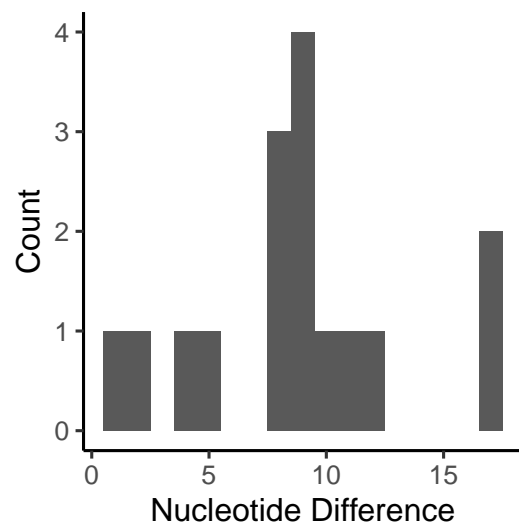
IGHV3-33*01

763 sequences assigned
285 (37.4%) exact matches, in which:
228 unique CDR3
6 unique J



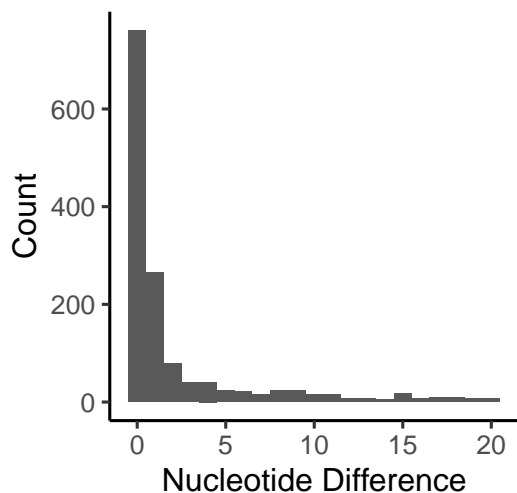
IGHV3-35*01

16 sequences assigned
No exact matches.



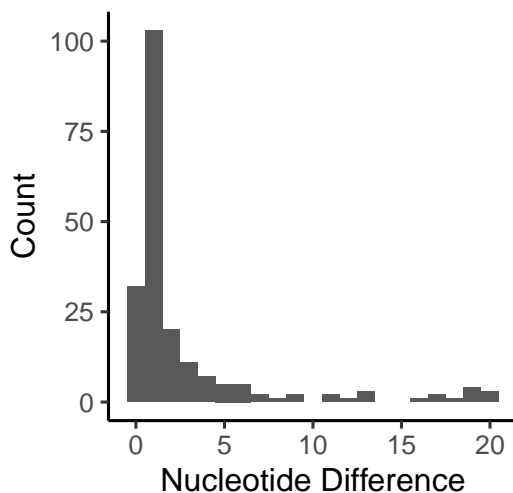
IGHV3-30*03

1530 sequences assigned
761 (49.7%) exact matches, in which:
661 unique CDR3
6 unique J



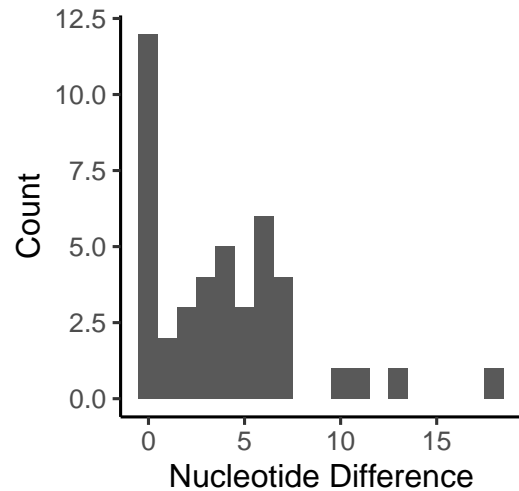
IGHV3-33*06

208 sequences assigned
32 (15.4%) exact matches, in which:
31 unique CDR3
4 unique J



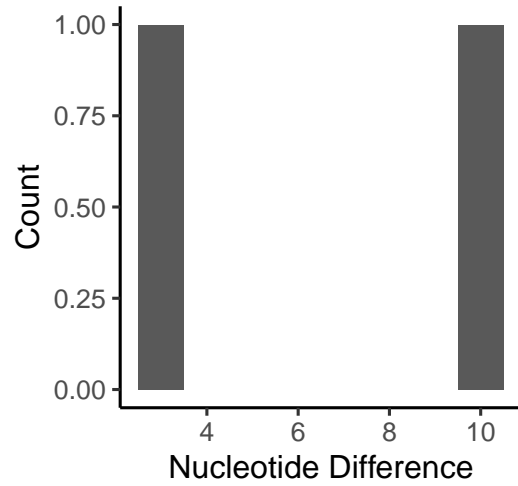
IGHV3-38-3*01

43 sequences assigned
12 (27.9%) exact matches, in which:
12 unique CDR3
3 unique J



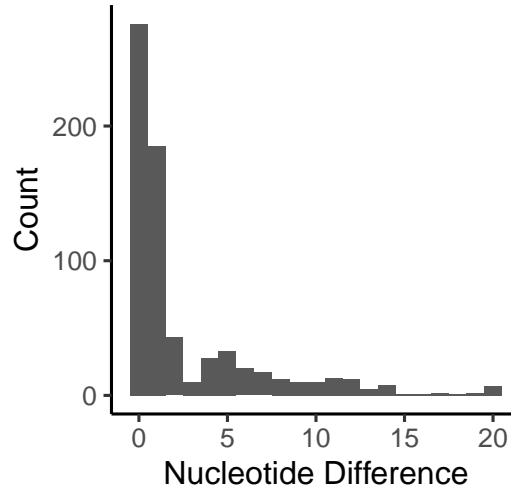
IGHV3-38*03

2 sequences assigned
No exact matches.



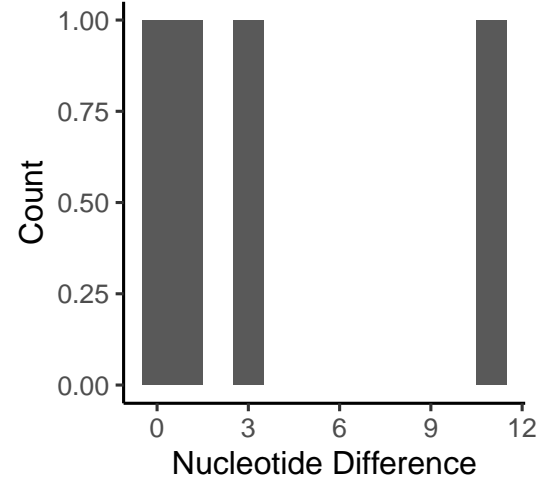
IGHV3-48*02

815 sequences assigned
276 (33.9%) exact matches, in which:
212 unique CDR3
6 unique J



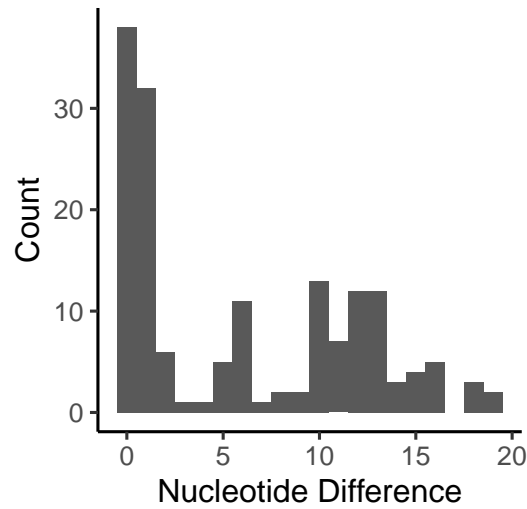
IGHV3-52*02

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



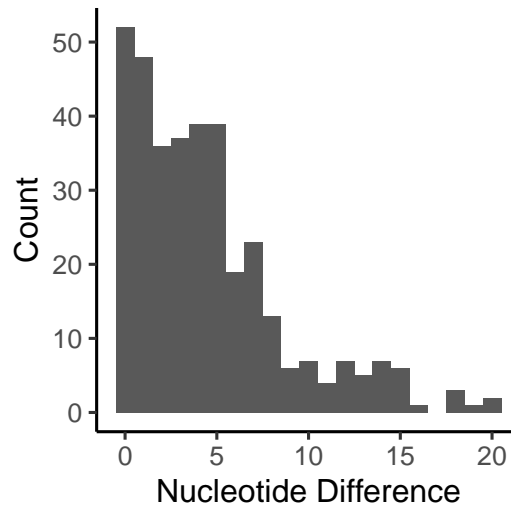
IGHV3-43*01

194 sequences assigned
38 (19.6%) exact matches, in which:
27 unique CDR3
3 unique J



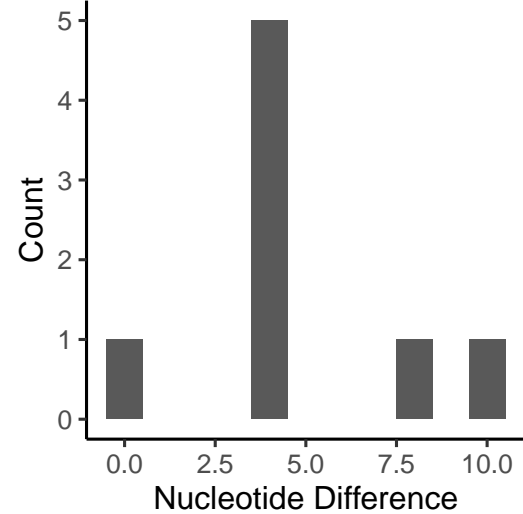
IGHV3-48*04

371 sequences assigned
52 (14%) exact matches, in which:
52 unique CDR3
5 unique J



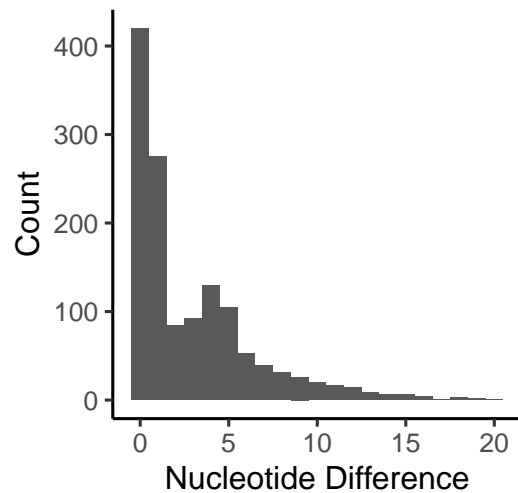
IGHV3-52*01_03

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



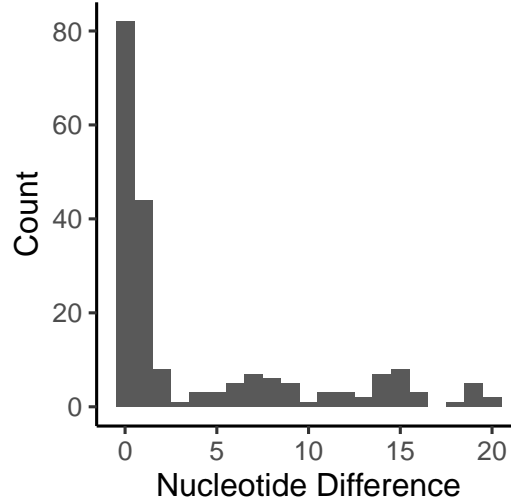
IGHV3-48*01

1379 sequences assigned
420 (30.5%) exact matches, in which:
340 unique CDR3
6 unique J



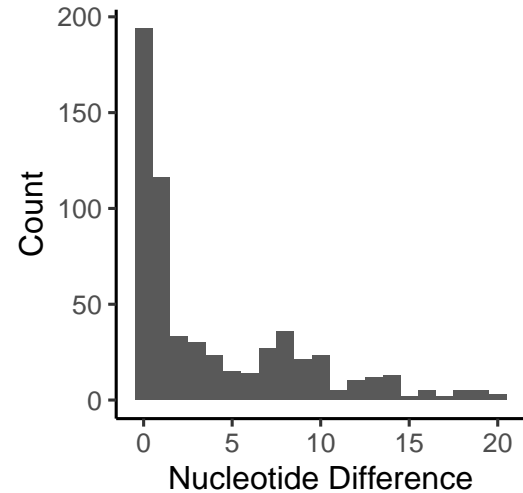
IGHV3-49*03_05

210 sequences assigned
82 (39%) exact matches, in which:
59 unique CDR3
5 unique J



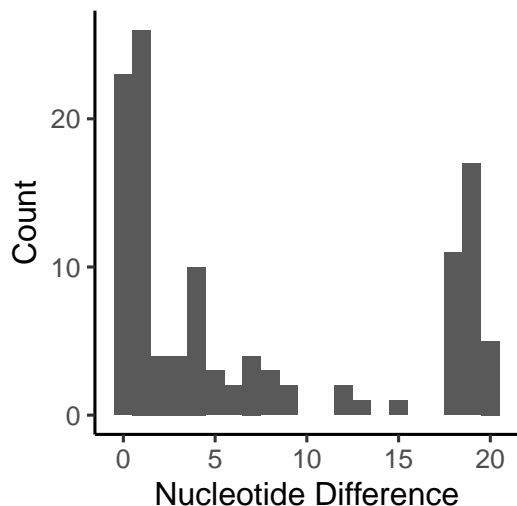
IGHV3-53*01_02

599 sequences assigned
194 (32.4%) exact matches, in which:
161 unique CDR3
5 unique J



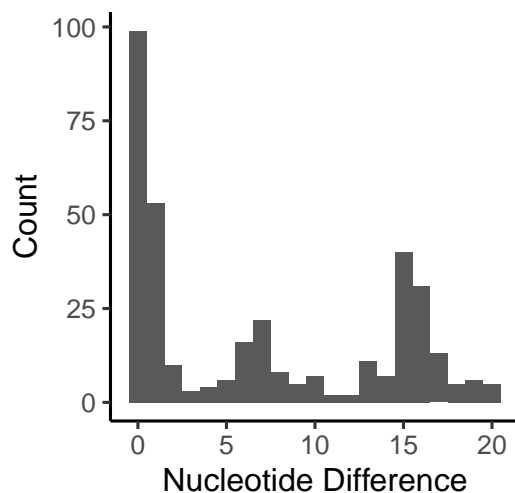
IGHV3-64*01

141 sequences assigned
23 (16.3%) exact matches, in which:
19 unique CDR3
4 unique J



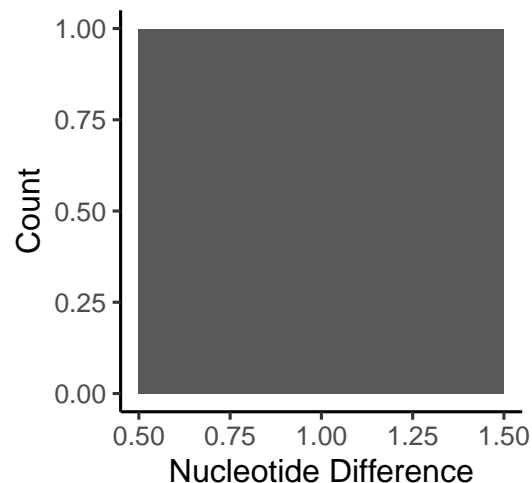
IGHV3-66*02

399 sequences assigned
99 (24.8%) exact matches, in which:
88 unique CDR3
6 unique J



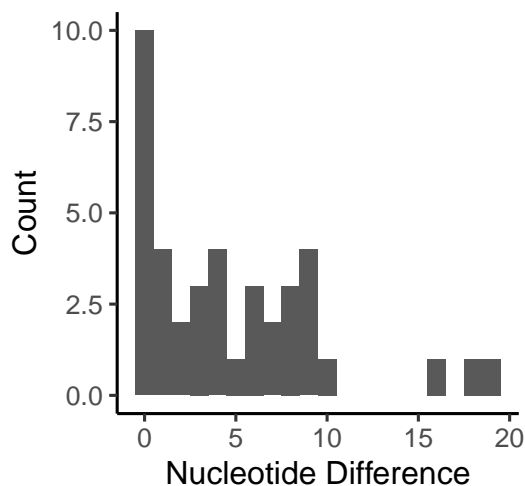
IGHV3-71*01_04

2 sequences assigned
No exact matches.



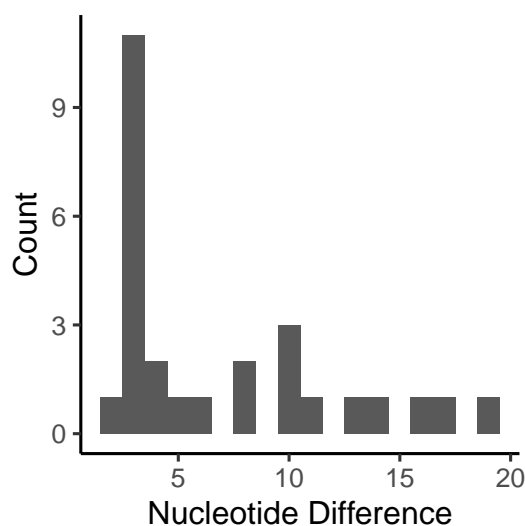
IGHV3-64*02_07

50 sequences assigned
10 (20%) exact matches, in which:
10 unique CDR3
3 unique J



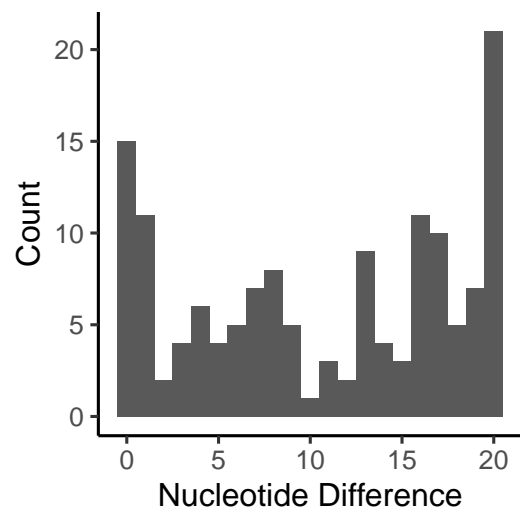
IGHV3-69-1*01

33 sequences assigned
No exact matches.



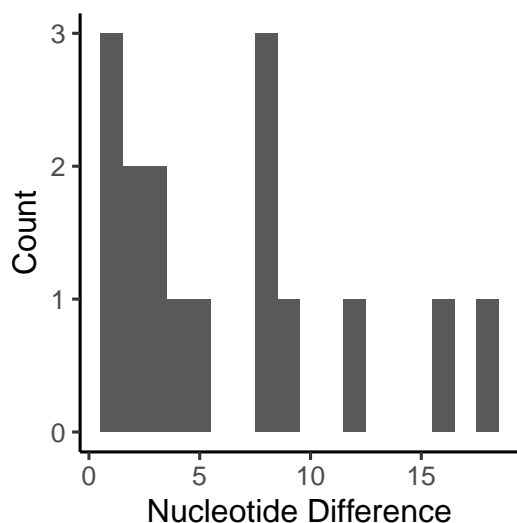
IGHV3-72*01

173 sequences assigned
15 (8.7%) exact matches, in which:
12 unique CDR3
3 unique J



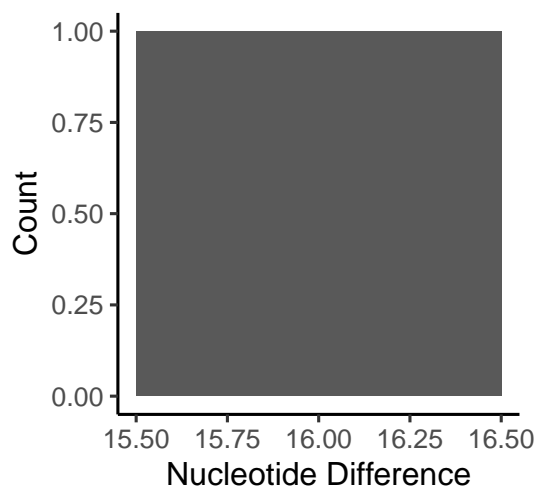
IGHV3-66*01

18 sequences assigned
No exact matches.



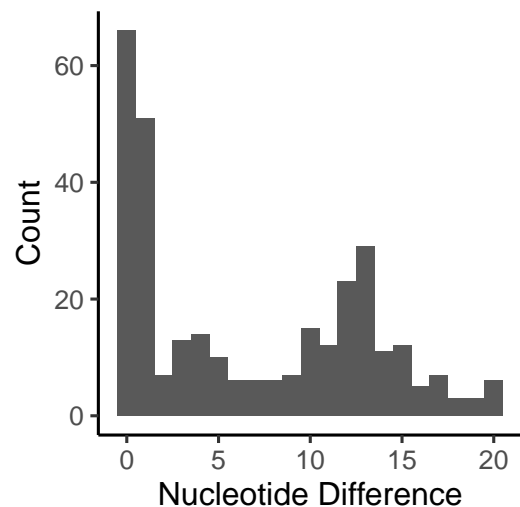
IGHV3-71*03

1 sequences assigned
No exact matches.



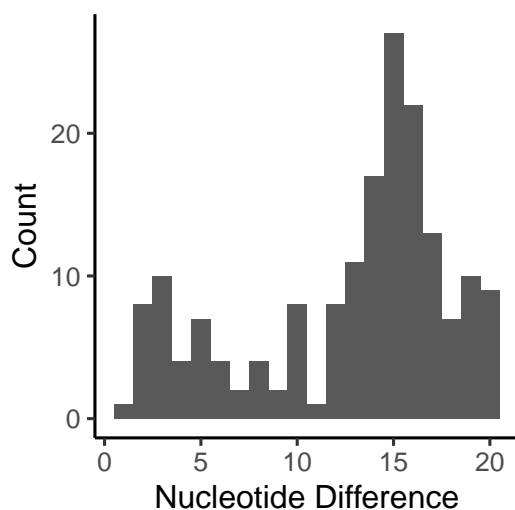
IGHV3-73*01_02

334 sequences assigned
66 (19.8%) exact matches, in which:
53 unique CDR3
4 unique J



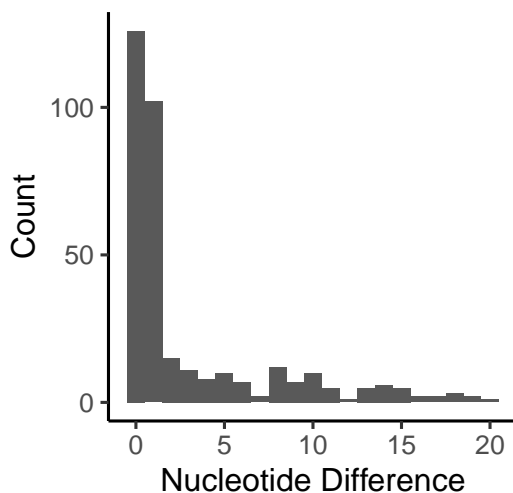
IGHV3-74*03

240 sequences assigned
No exact matches.



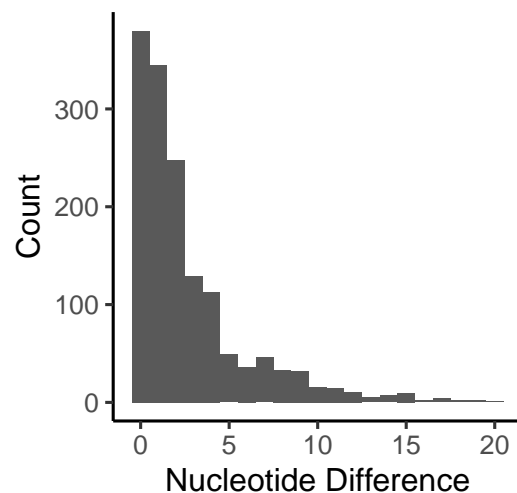
IGHV3-64D*06

391 sequences assigned
126 (32.2%) exact matches, in which:
85 unique CDR3
5 unique J



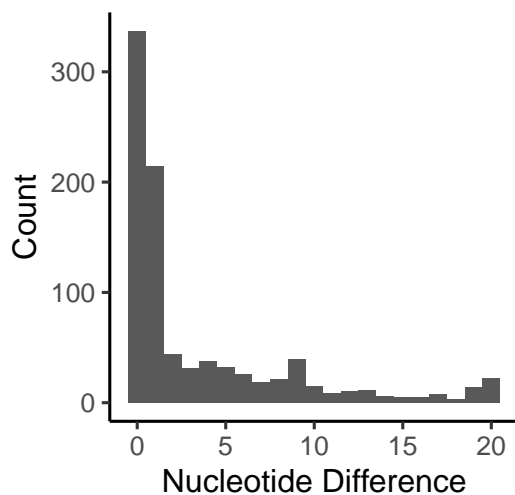
IGHV4-4*02_03

1526 sequences assigned
380 (24.9%) exact matches, in which:
328 unique CDR3
6 unique J



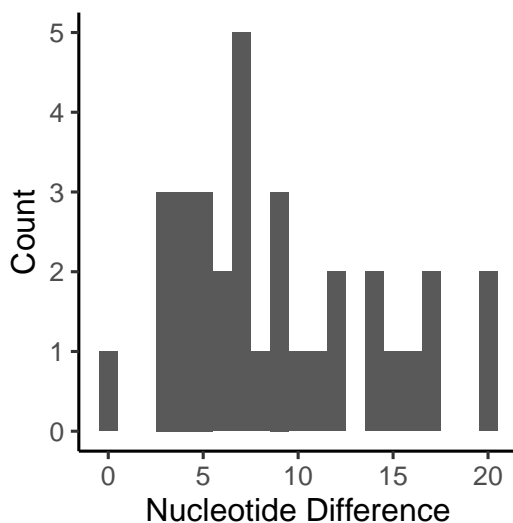
IGHV3-74*01_02

1026 sequences assigned
337 (32.8%) exact matches, in which:
260 unique CDR3
5 unique J



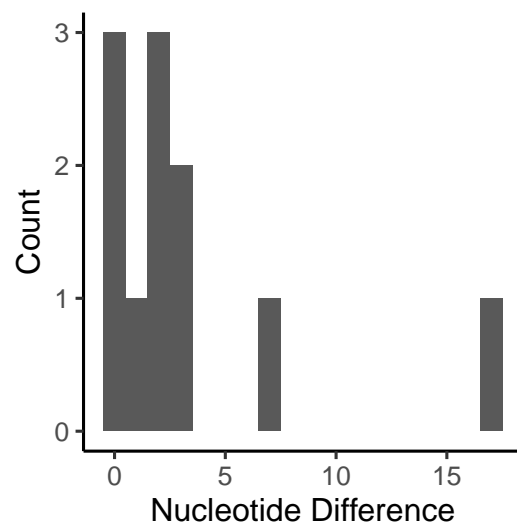
IGHV3-NL1*01

34 sequences assigned
1 (2.9%) exact matches, in which:
1 unique CDR3
1 unique J



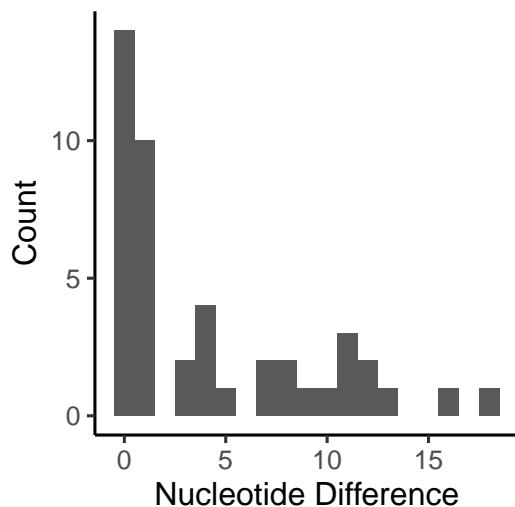
IGHV4-28*03

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



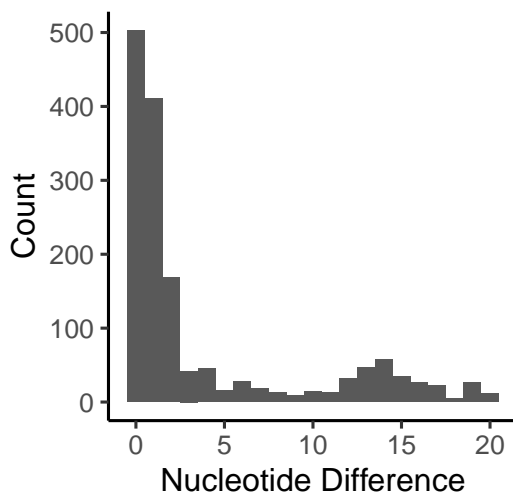
IGHV3-43D*03

49 sequences assigned
14 (28.6%) exact matches, in which:
12 unique CDR3
2 unique J



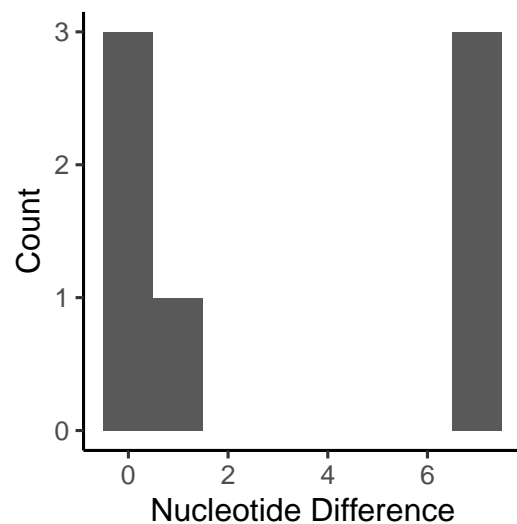
IGHV4-4*07

1736 sequences assigned
503 (29%) exact matches, in which:
466 unique CDR3
6 unique J



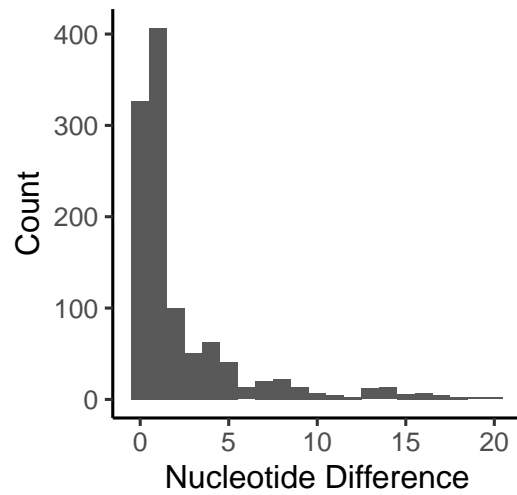
IGHV4-28*01_07

7 sequences assigned
3 (42.9%) exact matches, in which:
2 unique CDR3
1 unique J



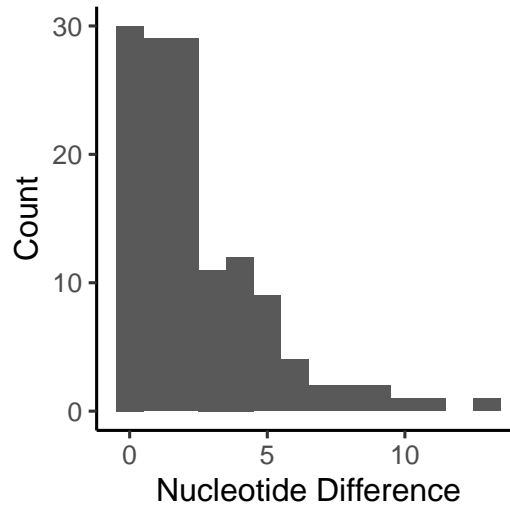
IGHV4-30-4*01

1157 sequences assigned
327 (28.3%) exact matches, in which:
269 unique CDR3
5 unique J



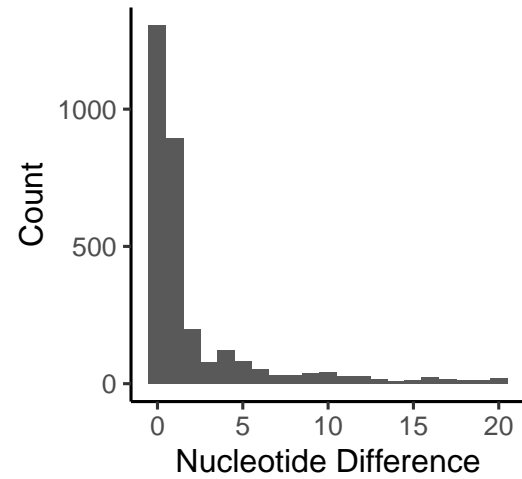
IGHV4-30-2*05

134 sequences assigned
30 (22.4%) exact matches, in which:
30 unique CDR3
5 unique J



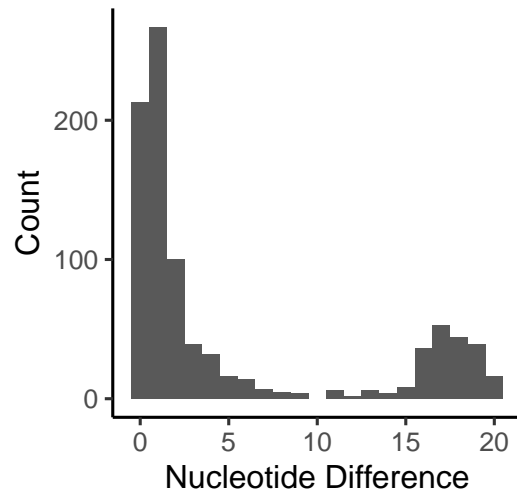
IGHV4-34*01_02

3126 sequences assigned
1305 (41.7%) exact matches, in which:
1098 unique CDR3
6 unique J



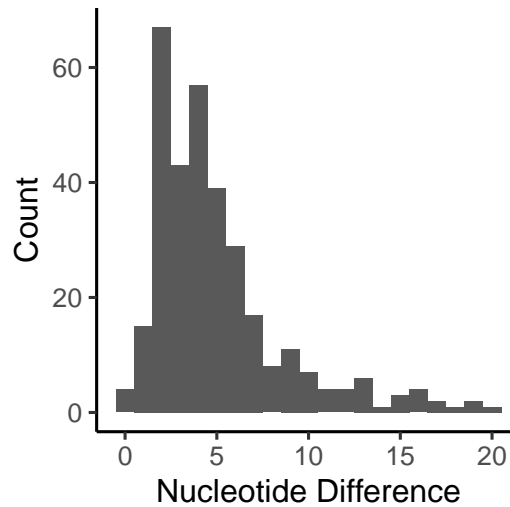
IGHV4-30-2*01

939 sequences assigned
213 (22.7%) exact matches, in which:
149 unique CDR3
5 unique J



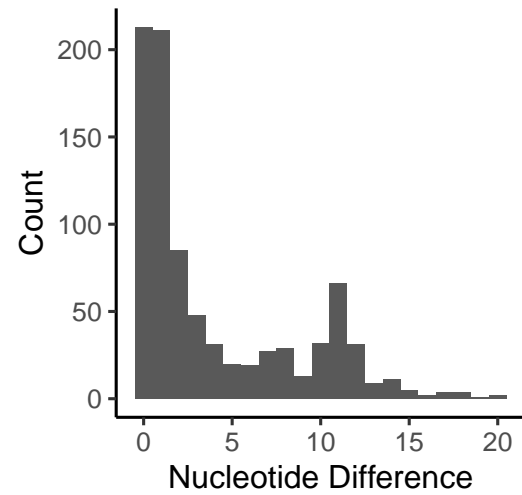
IGHV4-30-4*08

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



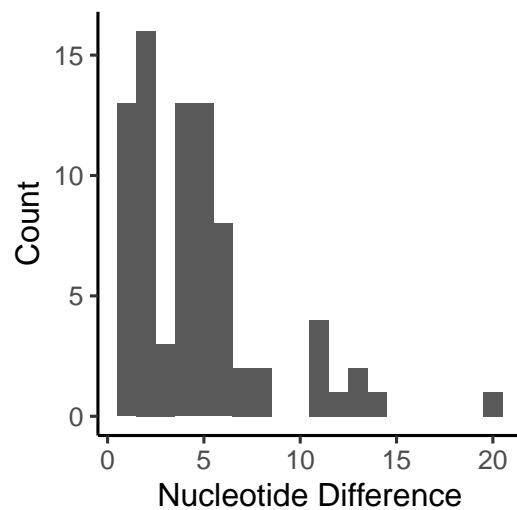
IGHV4-38-2*02

901 sequences assigned
213 (23.6%) exact matches, in which:
199 unique CDR3
6 unique J



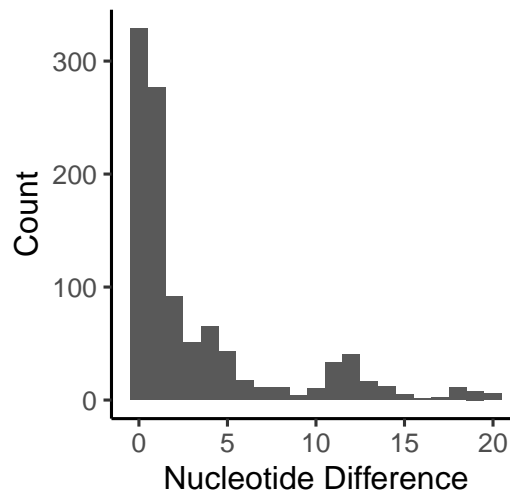
IGHV4-30-2*03

80 sequences assigned
No exact matches.



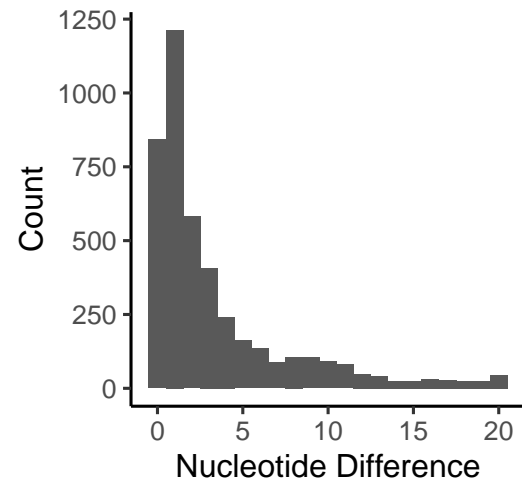
IGHV4-31*02

1160 sequences assigned
329 (28.4%) exact matches, in which:
291 unique CDR3
6 unique J



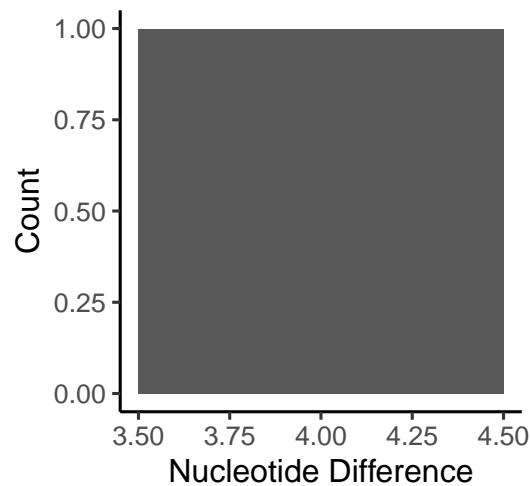
IGHV4-39*07

4712 sequences assigned
842 (17.9%) exact matches, in which:
750 unique CDR3
6 unique J



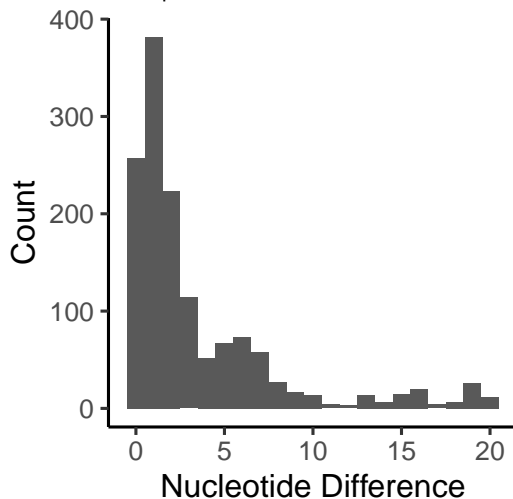
IGHV4-55*09

1 sequences assigned
No exact matches.



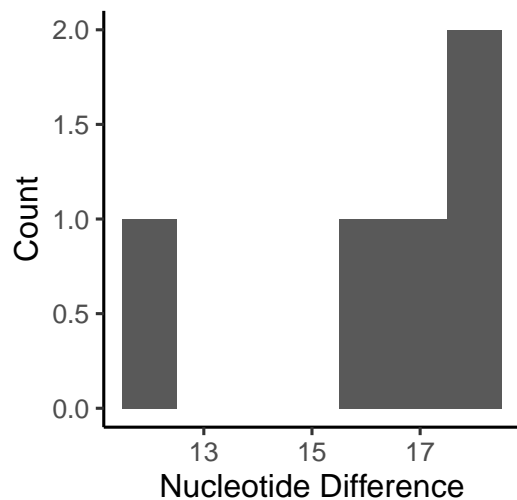
IGHV4-59*12

1714 sequences assigned
257 (15%) exact matches, in which:
250 unique CDR3
6 unique J



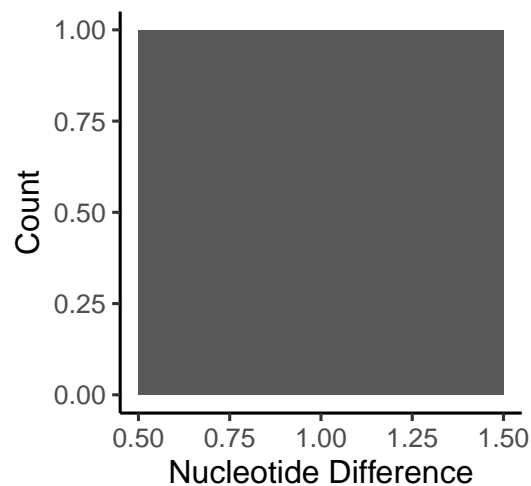
IGHV1/OR15-2*02_03

6 sequences assigned
No exact matches.



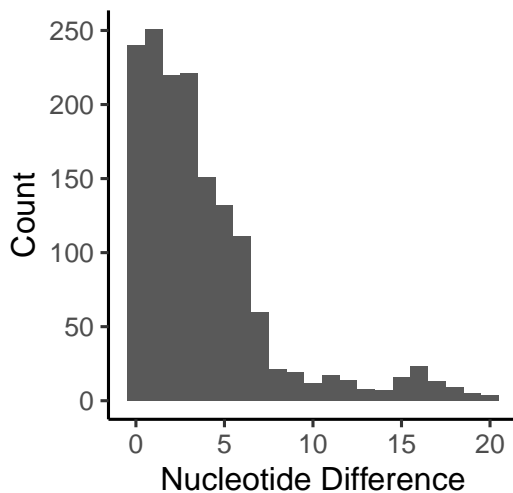
IGHV4-55*01_05

1 sequences assigned
No exact matches.



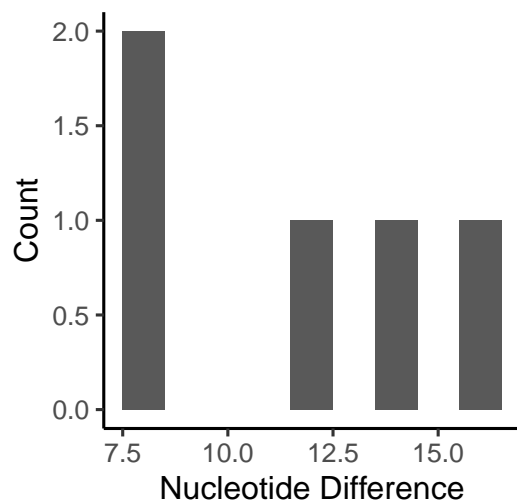
IGHV4-61*01

1583 sequences assigned
240 (15.2%) exact matches, in which:
227 unique CDR3
6 unique J



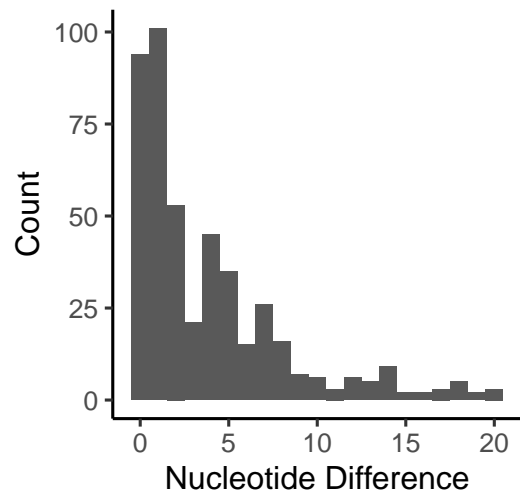
IGHV1/OR15-3*02

6 sequences assigned
No exact matches.



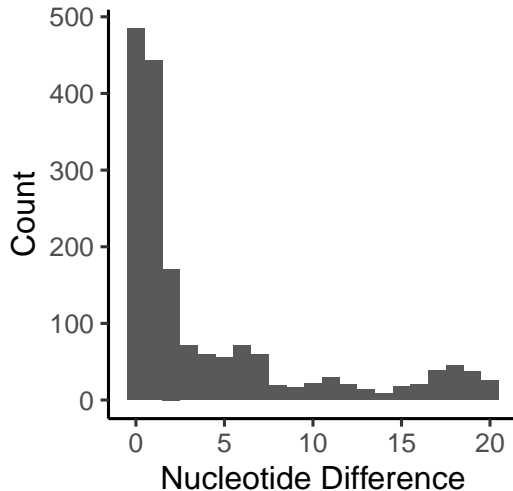
IGHV4-59*08

472 sequences assigned
94 (19.9%) exact matches, in which:
92 unique CDR3
6 unique J



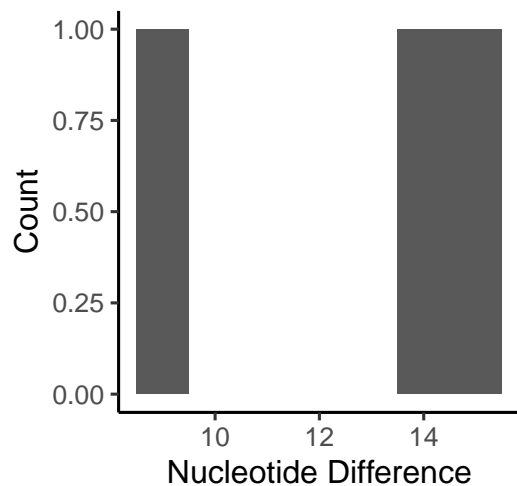
IGHV4-61*02

1882 sequences assigned
485 (25.8%) exact matches, in which:
444 unique CDR3
6 unique J



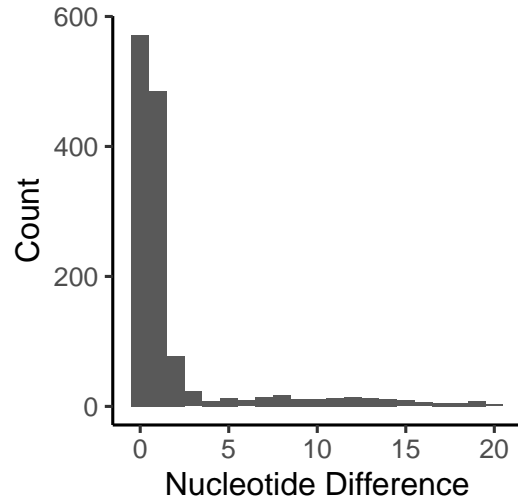
IGHV4/OR15-8*01

7 sequences assigned
No exact matches.



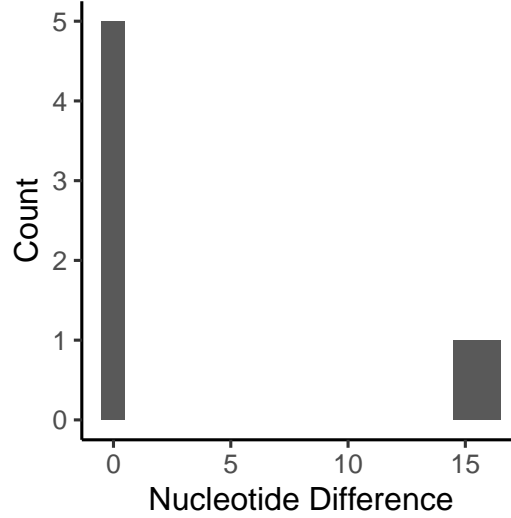
IGHV5-10-1*01_03

1353 sequences assigned
572 (42.3%) exact matches, in which:
476 unique CDR3
6 unique J



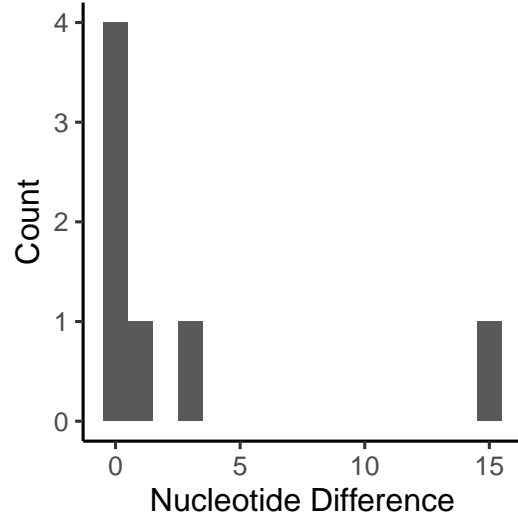
IGHV5-51*07

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
3 unique J



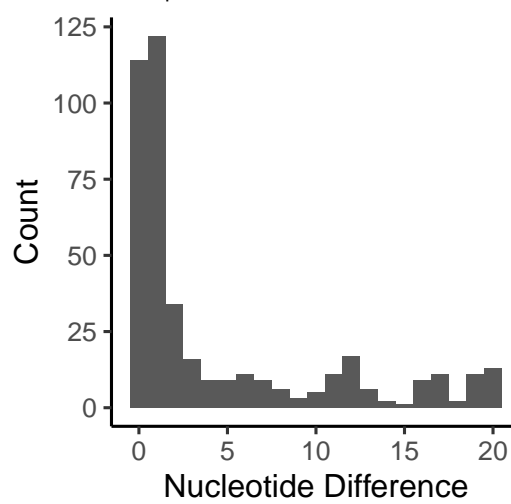
IGHV5-51*04

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
3 unique J



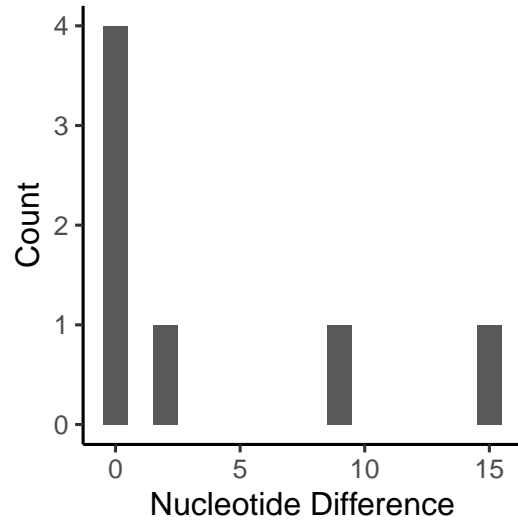
IGHV6-1*01_02

435 sequences assigned
114 (26.2%) exact matches, in which:
100 unique CDR3
6 unique J



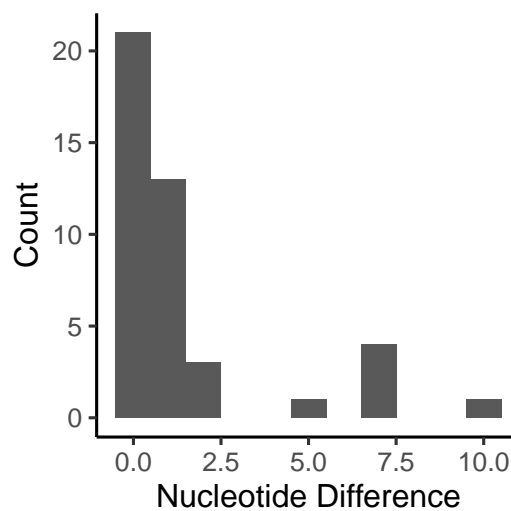
IGHV5-51*06

7 sequences assigned
4 (57.1%) exact matches, in which:
4 unique CDR3
1 unique J



IGHV7-4-1*01

44 sequences assigned
21 (47.7%) exact matches, in which:
18 unique CDR3
3 unique J





[illegible]