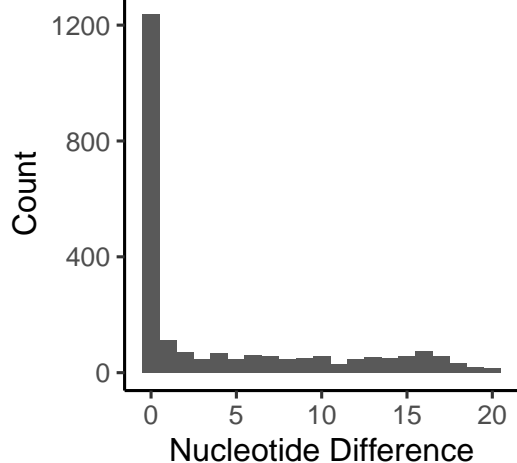


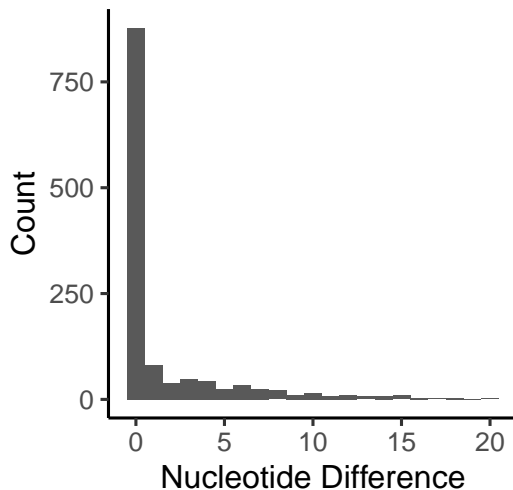
IGHV1-2*02

2344 sequences assigned
1237 (52.8%) exact matches, in which:
1228 unique CDR3
6 unique J



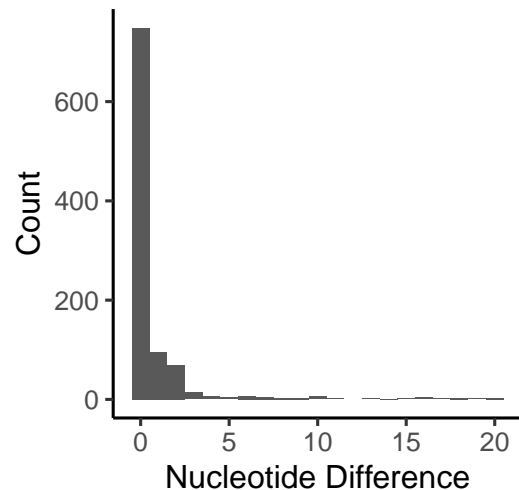
IGHV1-8*01

1286 sequences assigned
878 (68.3%) exact matches, in which:
871 unique CDR3
6 unique J



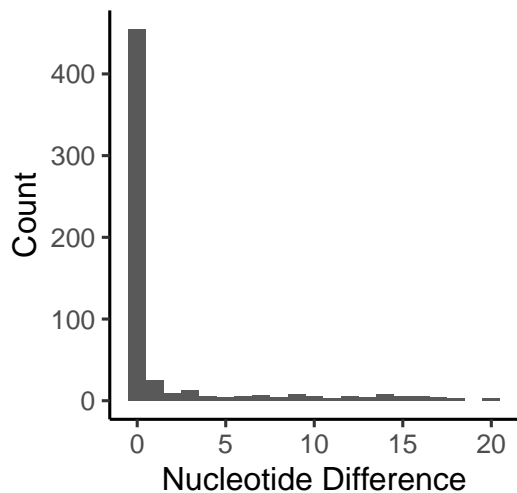
IGHV1-24*01

991 sequences assigned
749 (75.6%) exact matches, in which:
741 unique CDR3
6 unique J



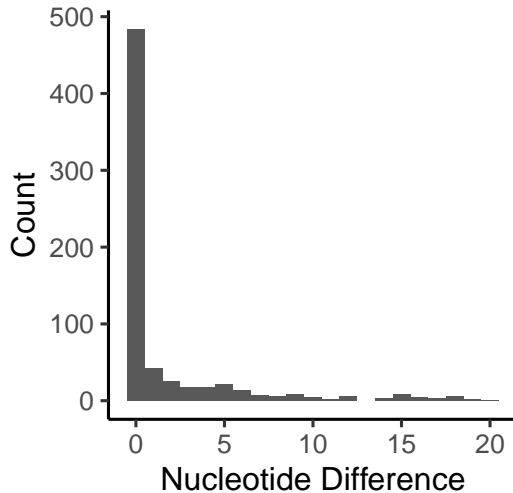
IGHV1-2*04

594 sequences assigned
455 (76.6%) exact matches, in which:
450 unique CDR3
6 unique J



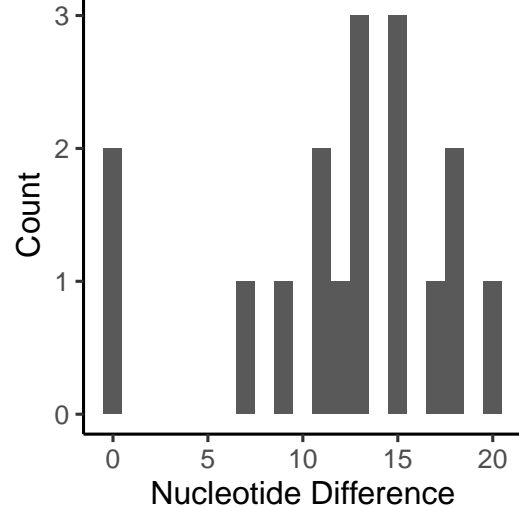
IGHV1-8*03

692 sequences assigned
484 (69.9%) exact matches, in which:
483 unique CDR3
6 unique J



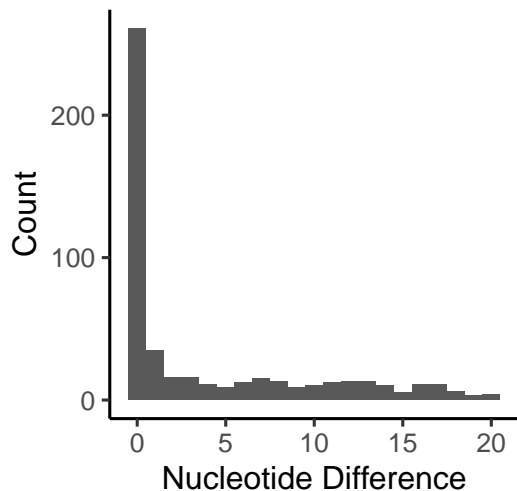
IGHV1-45*02

30 sequences assigned
2 (6.7%) exact matches, in which:
2 unique CDR3
2 unique J



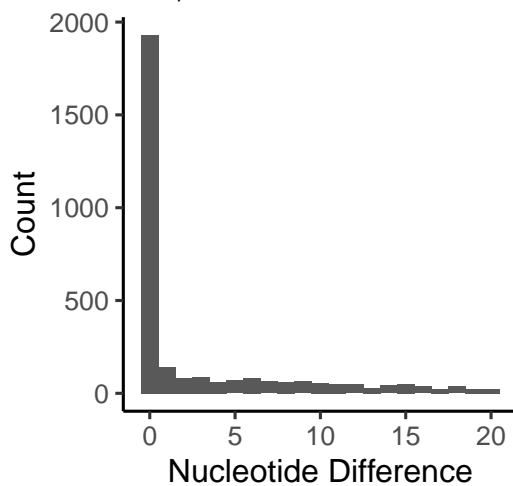
IGHV1-3*01_05

514 sequences assigned
261 (50.8%) exact matches, in which:
255 unique CDR3
6 unique J



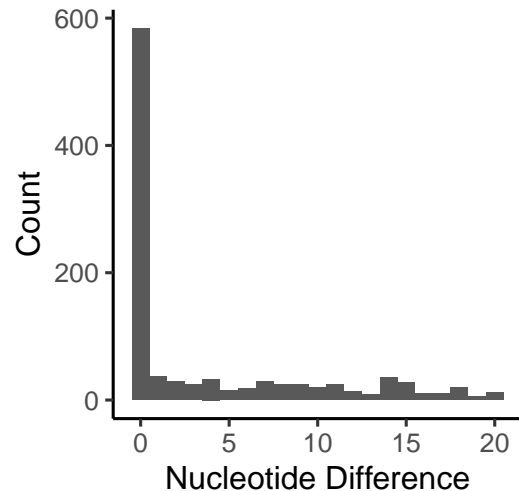
IGHV1-18*04

3181 sequences assigned
1930 (60.7%) exact matches, in which:
1918 unique CDR3
6 unique J



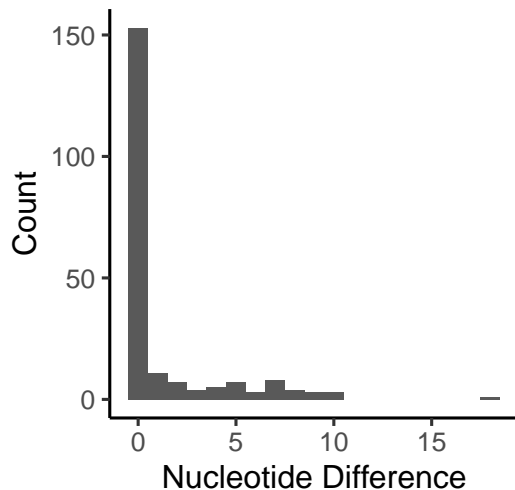
IGHV1-46*01

1085 sequences assigned
584 (53.8%) exact matches, in which:
578 unique CDR3
6 unique J



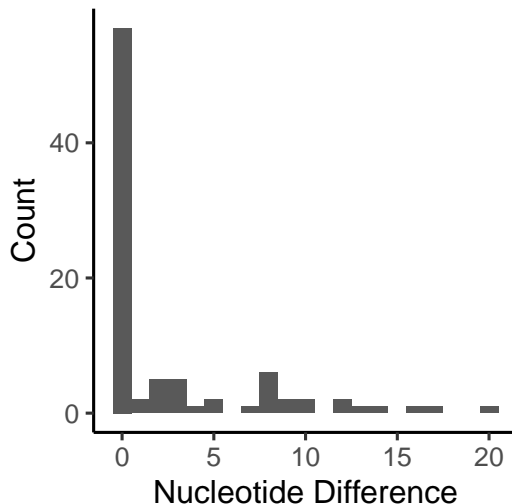
IGHV1–58*01_03

210 sequences assigned
153 (72.9%) exact matches, in which:
153 unique CDR3
6 unique J



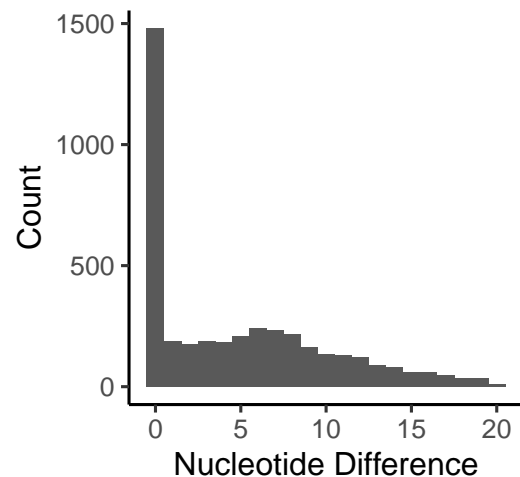
IGHV2–26*01

93 sequences assigned
57 (61.3%) exact matches, in which:
57 unique CDR3
6 unique J



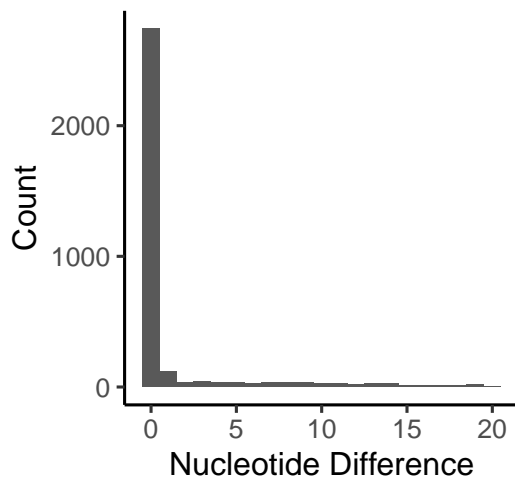
IGHV3–7*01

4143 sequences assigned
1480 (35.7%) exact matches, in which:
1419 unique CDR3
6 unique J



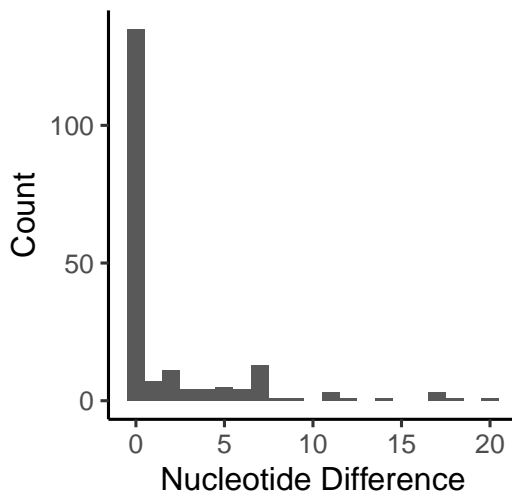
IGHV1–69*01_12_13

3428 sequences assigned
2742 (80%) exact matches, in which:
2730 unique CDR3
6 unique J



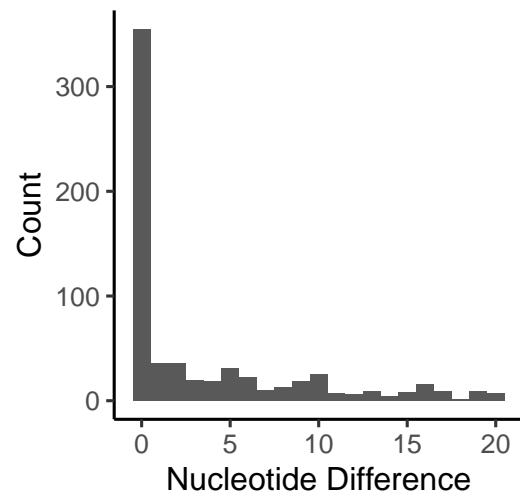
IGHV2–70*01

195 sequences assigned
135 (69.2%) exact matches, in which:
125 unique CDR3
5 unique J



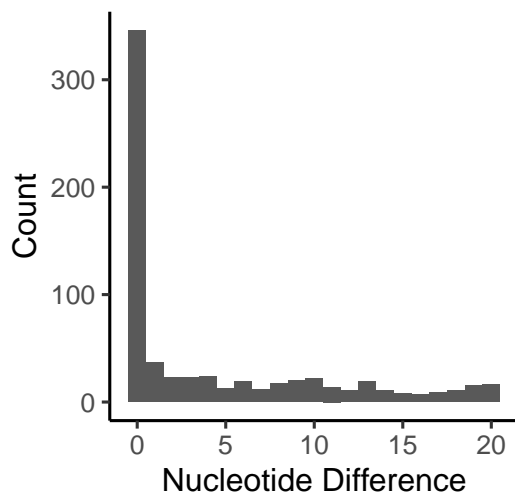
IGHV3–9*01

678 sequences assigned
355 (52.4%) exact matches, in which:
337 unique CDR3
6 unique J



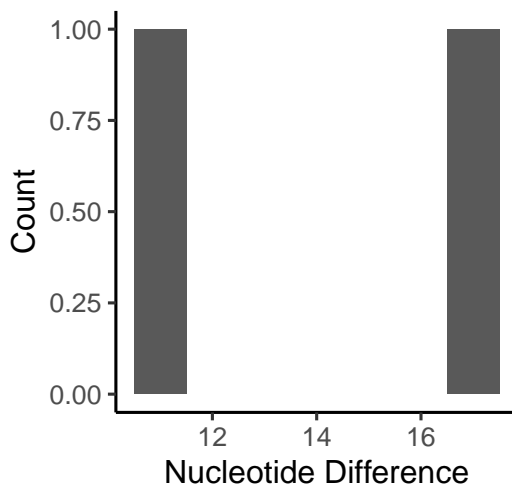
IGHV2–5*01

724 sequences assigned
346 (47.8%) exact matches, in which:
341 unique CDR3
6 unique J



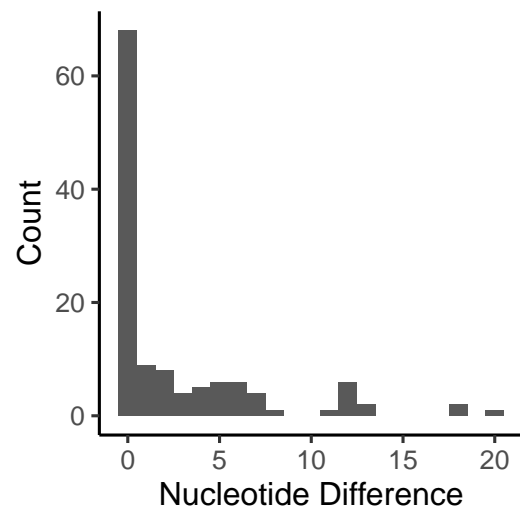
IGHV2–70D*04

2 sequences assigned
No exact matches.



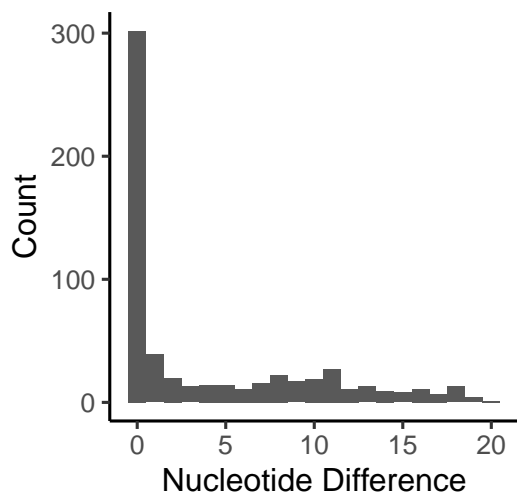
IGHV3–9*03

124 sequences assigned
68 (54.8%) exact matches, in which:
67 unique CDR3
5 unique J



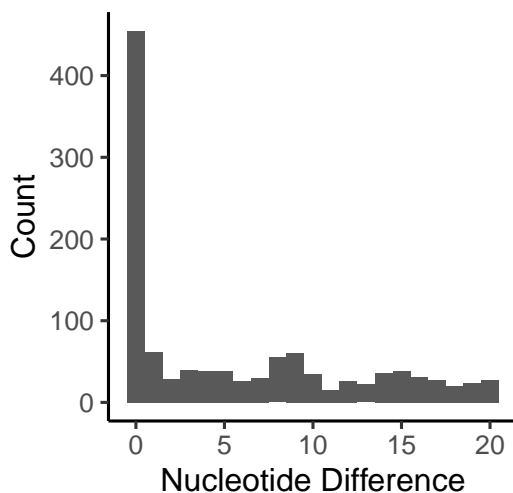
IGHV3-11*01

615 sequences assigned
302 (49.1%) exact matches, in which:
273 unique CDR3
6 unique J



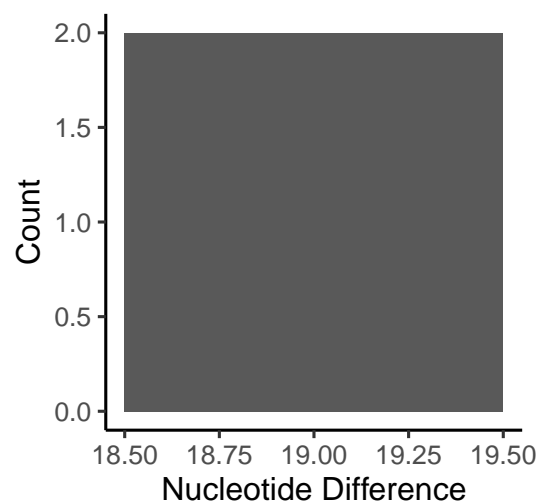
IGHV3-15*01_02

1235 sequences assigned
455 (36.8%) exact matches, in which:
419 unique CDR3
6 unique J



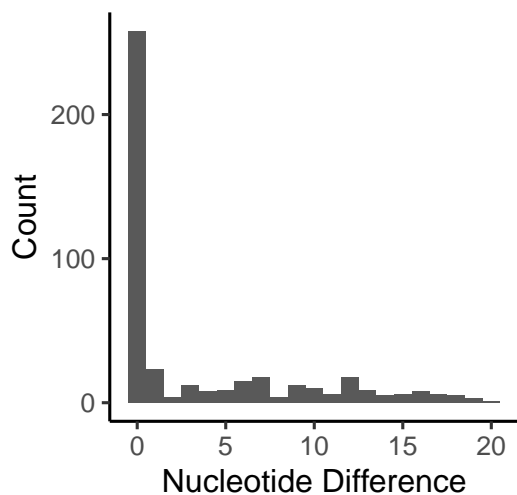
IGHV3-22*01_02

2 sequences assigned
No exact matches.



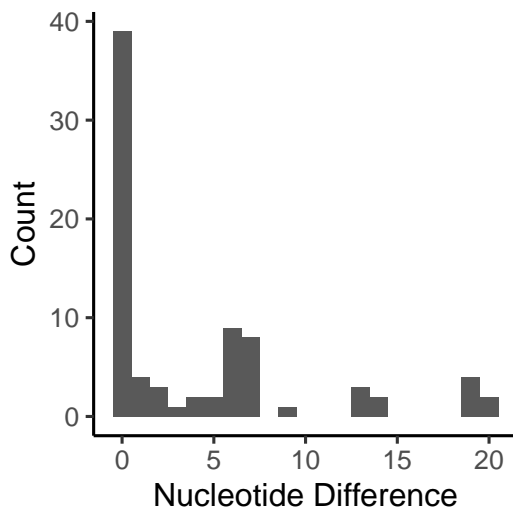
IGHV3-11*04

467 sequences assigned
258 (55.2%) exact matches, in which:
236 unique CDR3
6 unique J



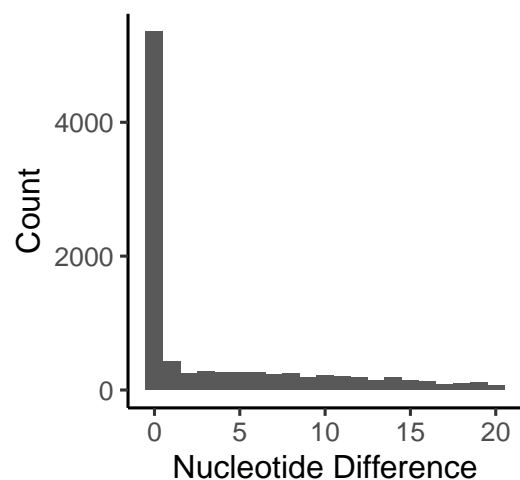
IGHV3-20*01_02

80 sequences assigned
39 (48.8%) exact matches, in which:
36 unique CDR3
5 unique J



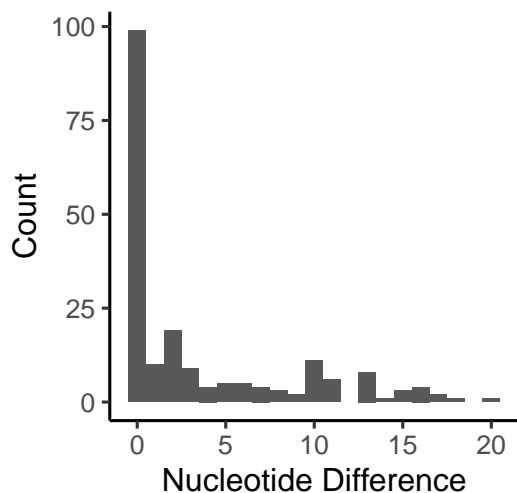
IGHV3-23*01_04

9675 sequences assigned
5353 (55.3%) exact matches, in which:
5178 unique CDR3
6 unique J



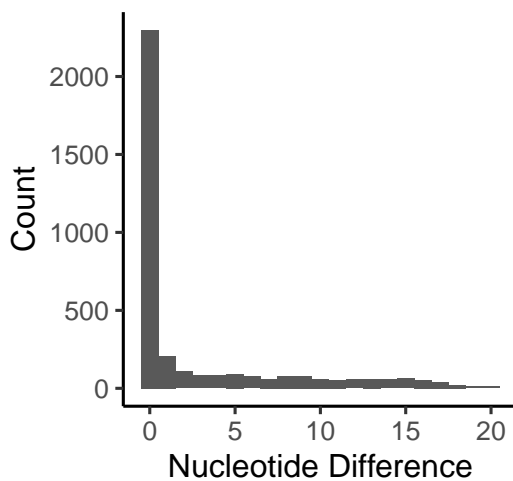
IGHV3-13*01

200 sequences assigned
99 (49.5%) exact matches, in which:
95 unique CDR3
5 unique J



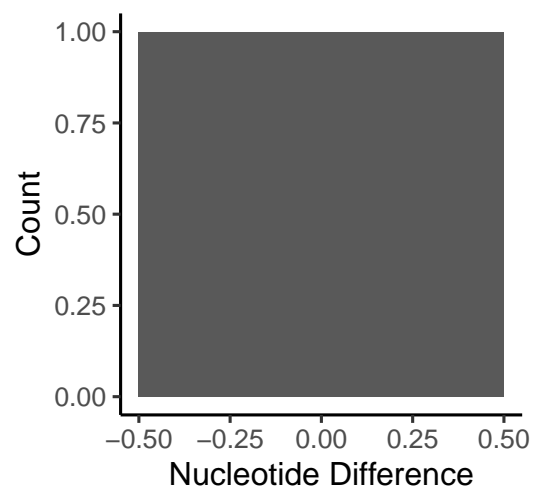
IGHV3-21*01_02

3905 sequences assigned
2298 (58.8%) exact matches, in which:
2208 unique CDR3
6 unique J



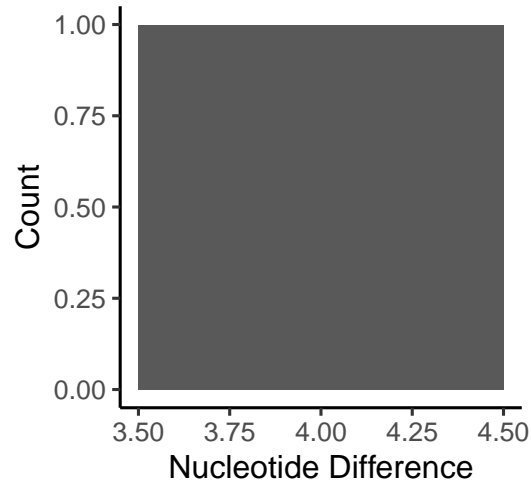
IGHV3-30-3*01

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



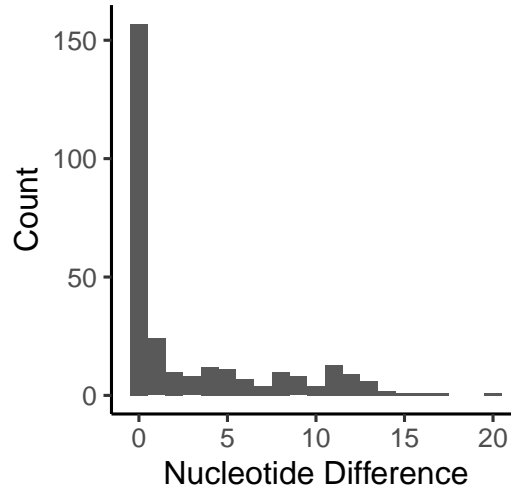
IGHV3-30-3*03

2 sequences assigned
No exact matches.



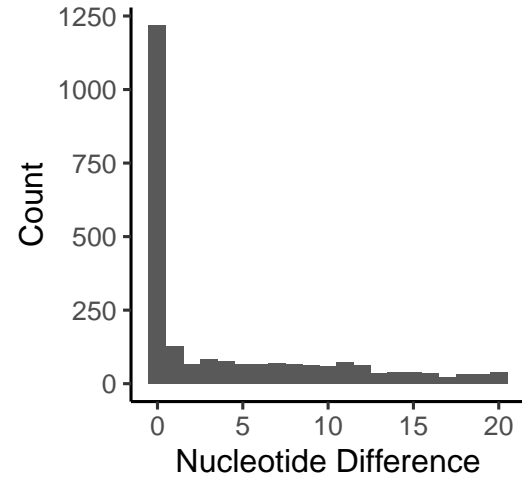
IGHV3-43*01

291 sequences assigned
157 (54%) exact matches, in which:
143 unique CDR3
6 unique J



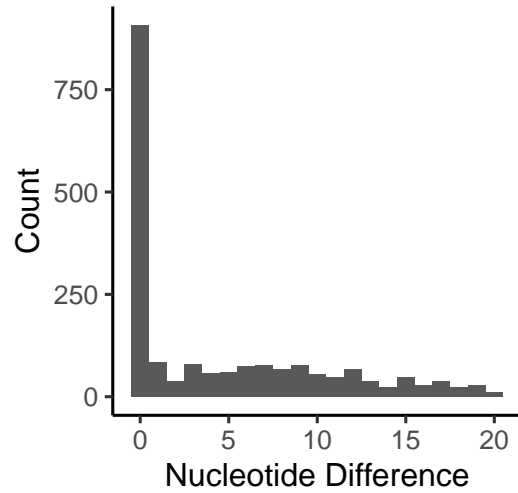
IGHV3-53*01_02

2504 sequences assigned
1218 (48.6%) exact matches, in which:
1169 unique CDR3
6 unique J



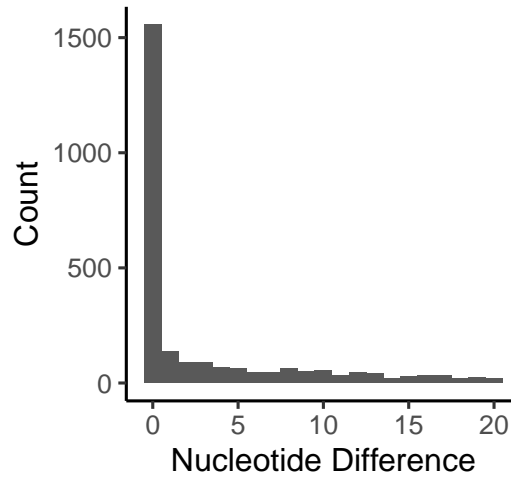
IGHV3-33*01

2032 sequences assigned
908 (44.7%) exact matches, in which:
873 unique CDR3
6 unique J



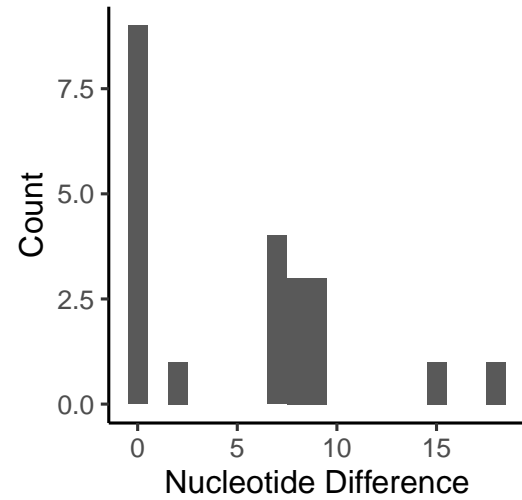
IGHV3-48*02

2609 sequences assigned
1556 (59.6%) exact matches, in which:
1459 unique CDR3
6 unique J



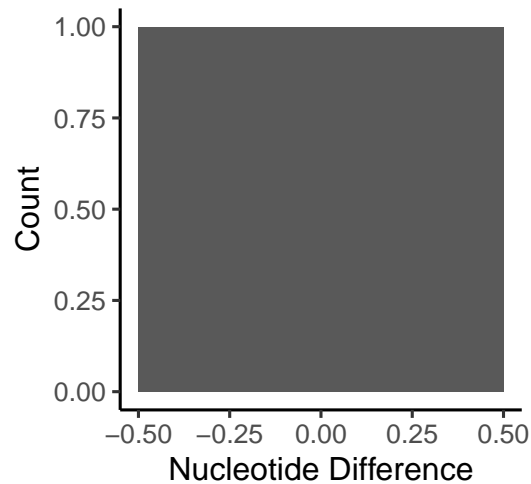
IGHV3-64*02_07

22 sequences assigned
9 (40.9%) exact matches, in which:
9 unique CDR3
3 unique J



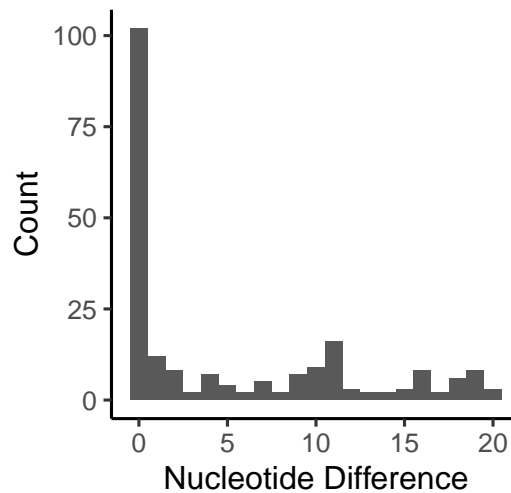
IGHV3-35*01

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



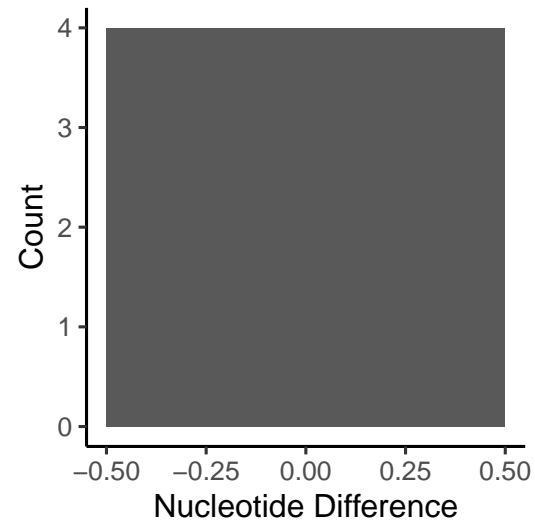
IGHV3-49*03_05

235 sequences assigned
102 (43.4%) exact matches, in which:
95 unique CDR3
5 unique J



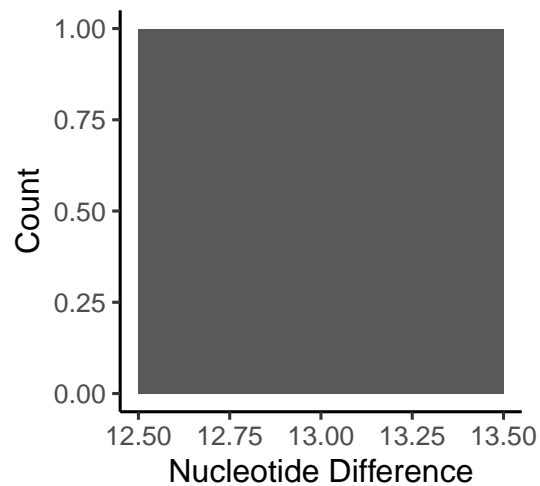
IGHV3-66*03

4 sequences assigned
4 (100%) exact matches, in which:
4 unique CDR3
2 unique J



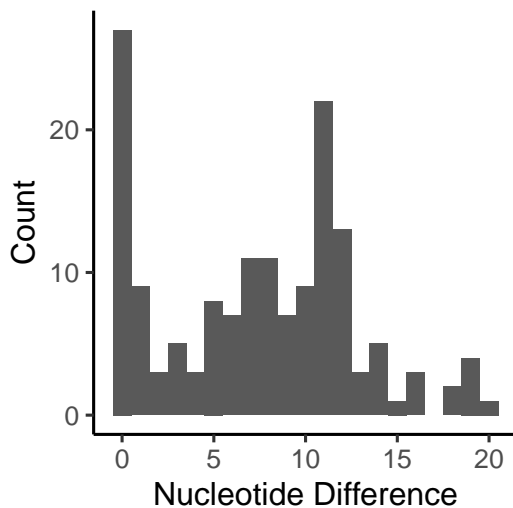
IGHV3-66*04

1 sequences assigned
No exact matches.



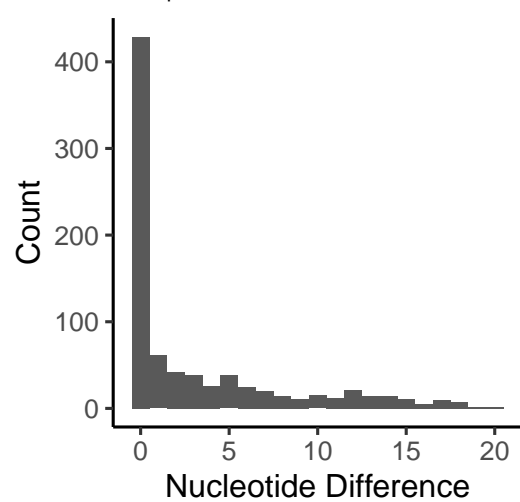
IGHV3-72*01

159 sequences assigned
27 (17%) exact matches, in which:
23 unique CDR3
5 unique J



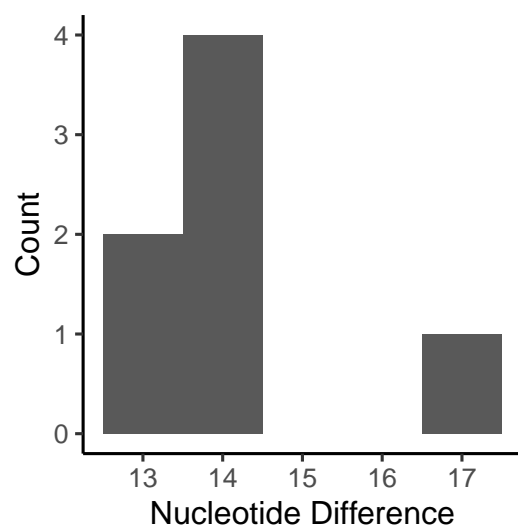
IGHV3-74*01_02

835 sequences assigned
429 (51.4%) exact matches, in which:
406 unique CDR3
6 unique J



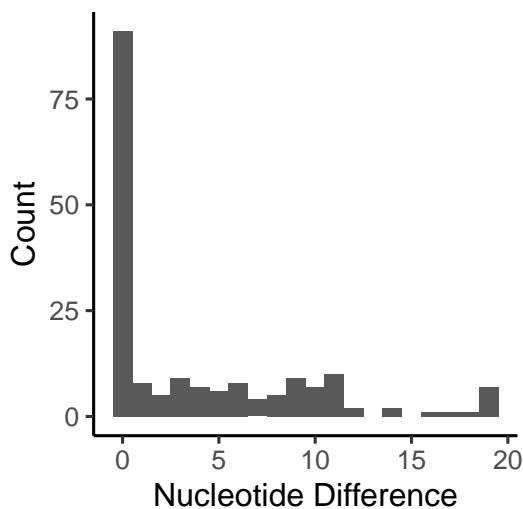
IGHV3-69-1*01

21 sequences assigned
No exact matches.



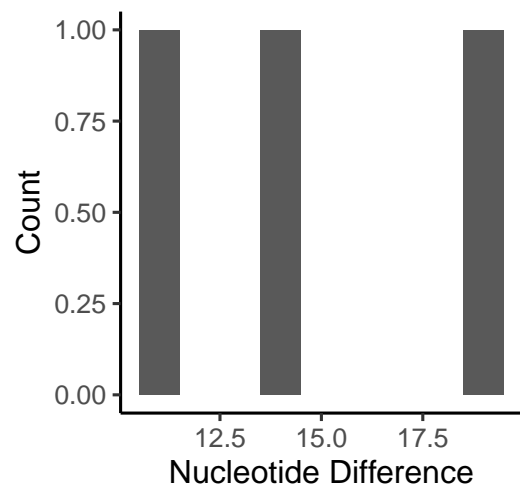
IGHV3-73*01_02

186 sequences assigned
91 (48.9%) exact matches, in which:
90 unique CDR3
6 unique J



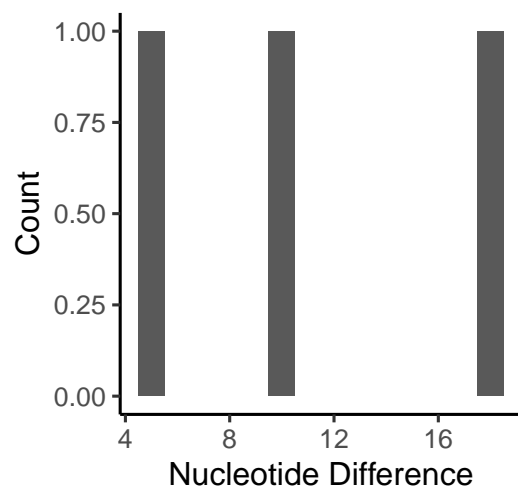
IGHV3-64D*06

3 sequences assigned
No exact matches.



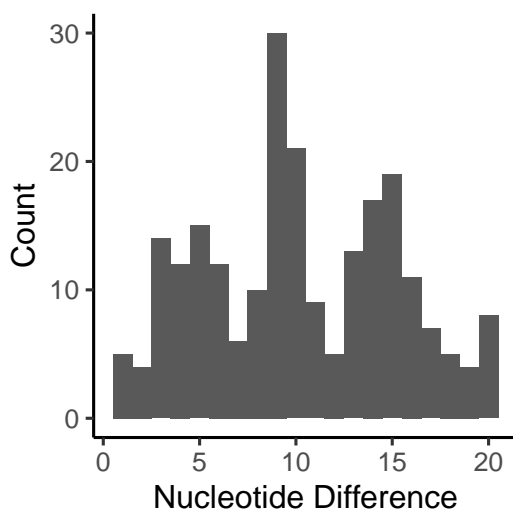
IGHV3-69-1*02

4 sequences assigned
No exact matches.



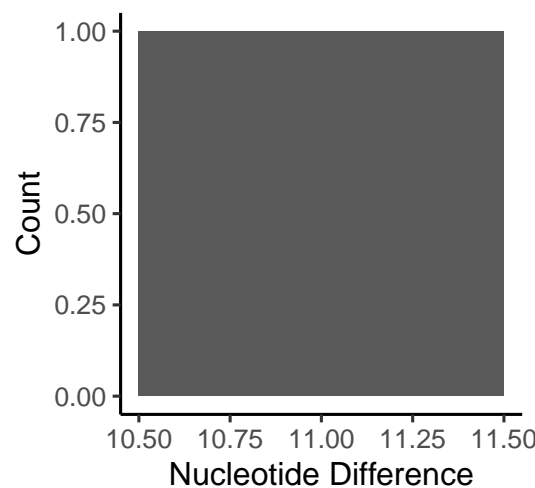
IGHV3-74*03

268 sequences assigned
No exact matches.



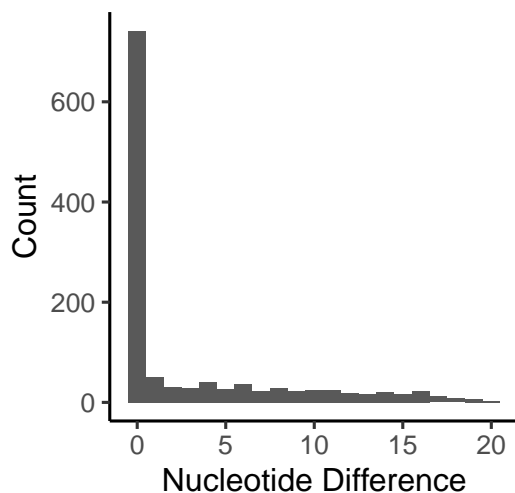
IGHV3-64D*09

1 sequences assigned
No exact matches.



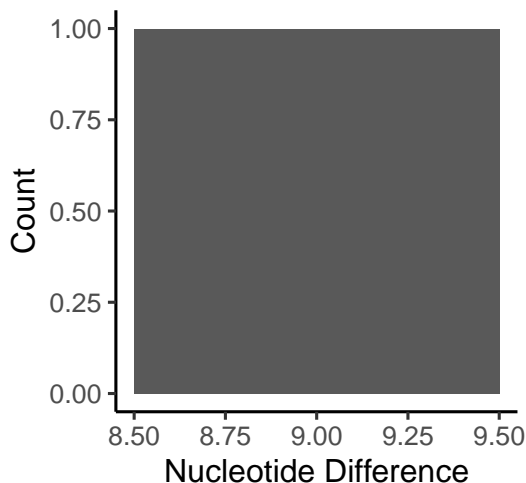
IGHV4-4*07

1240 sequences assigned
742 (59.8%) exact matches, in which:
709 unique CDR3
6 unique J



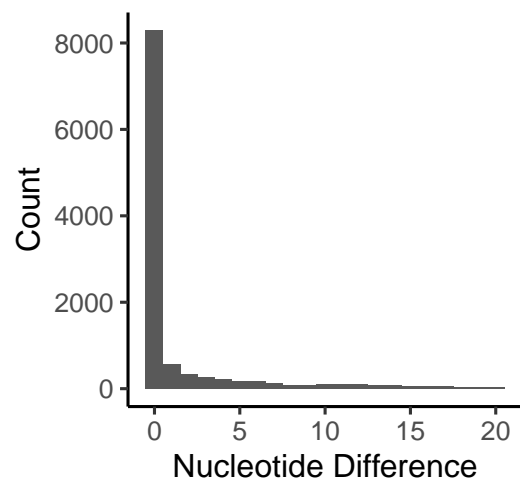
IGHV4-30-4*01

2 sequences assigned
No exact matches.



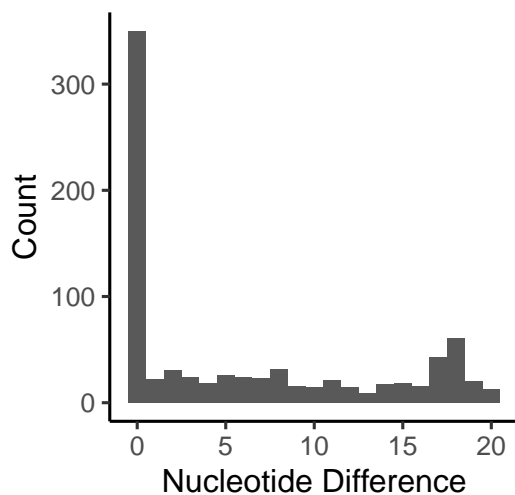
IGHV4-34*01_02

11253 sequences assigned
8291 (73.7%) exact matches, in which:
8107 unique CDR3
6 unique J



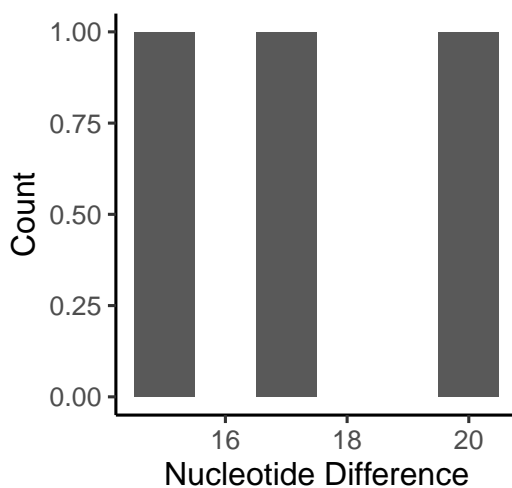
IGHV4-4*02_03

887 sequences assigned
350 (39.5%) exact matches, in which:
345 unique CDR3
6 unique J



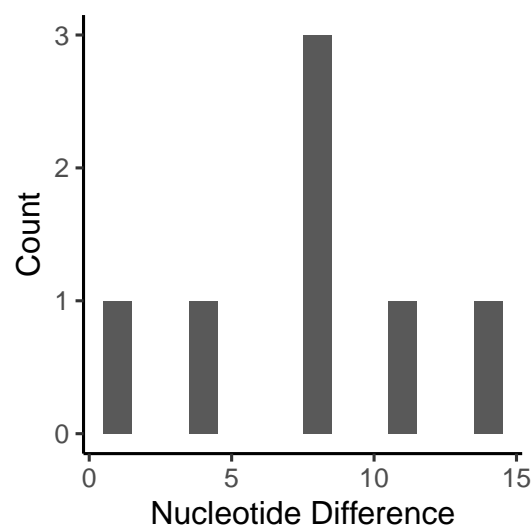
IGHV4-30-2*03

5 sequences assigned
No exact matches.



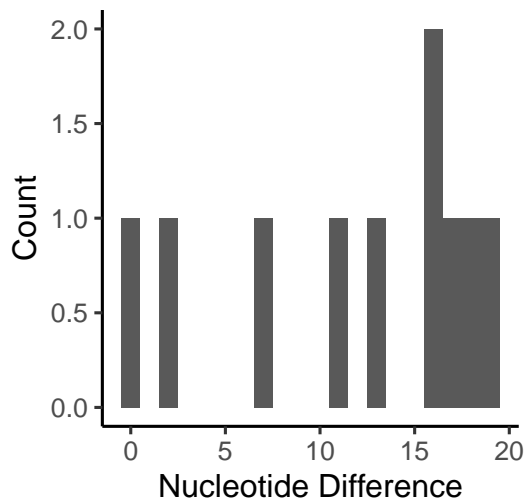
IGHV4-38-2*02

10 sequences assigned
No exact matches.



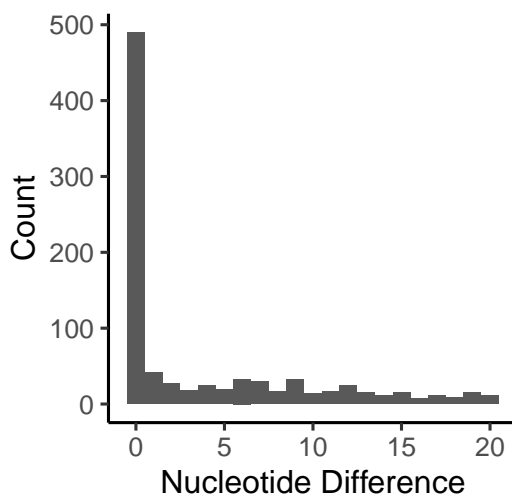
IGHV4-28*01_07

14 sequences assigned
1 (7.1%) exact matches, in which:
1 unique CDR3
1 unique J



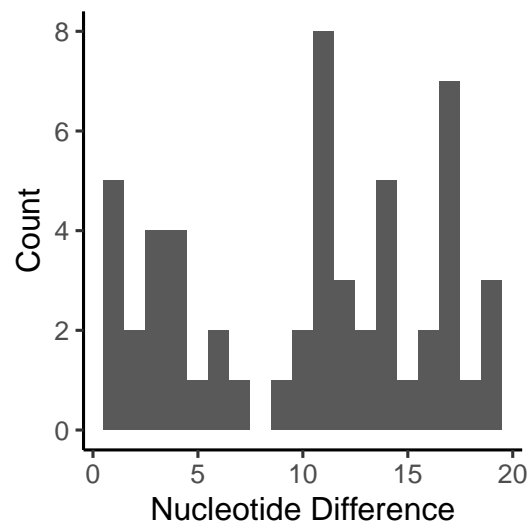
IGHV4-31*02

927 sequences assigned
490 (52.9%) exact matches, in which:
482 unique CDR3
6 unique J



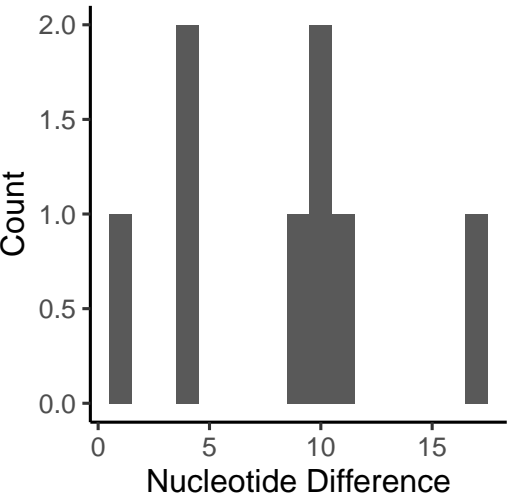
IGHV4-39*02

77 sequences assigned
No exact matches.



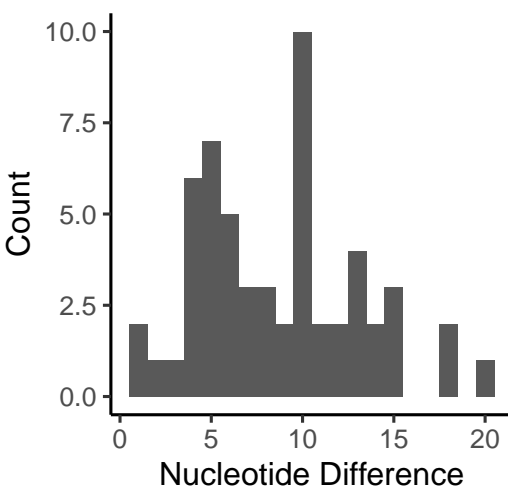
IGHV4-39*07

13 sequences assigned
No exact matches.



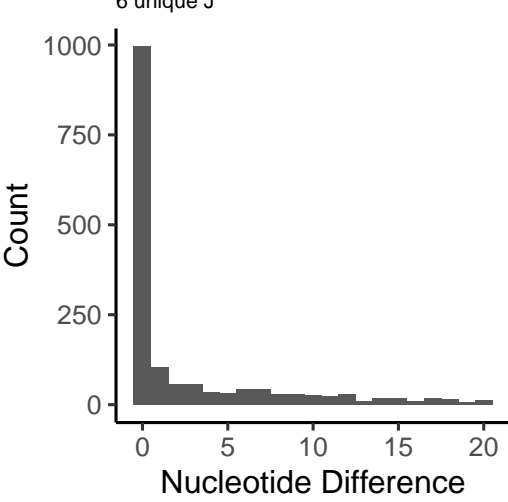
IGHV4-59*11

61 sequences assigned
No exact matches.



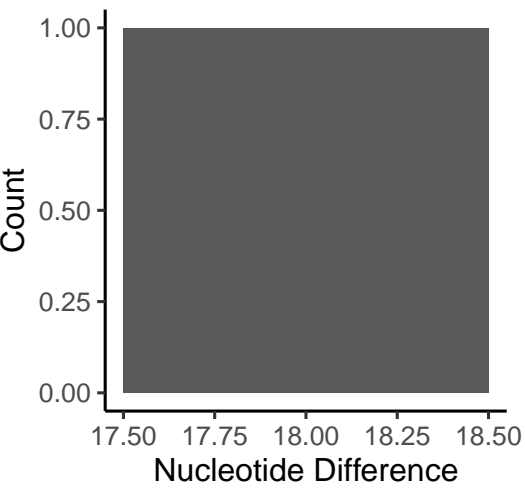
IGHV4-61*01

1680 sequences assigned
996 (59.3%) exact matches, in which:
964 unique CDR3
6 unique J



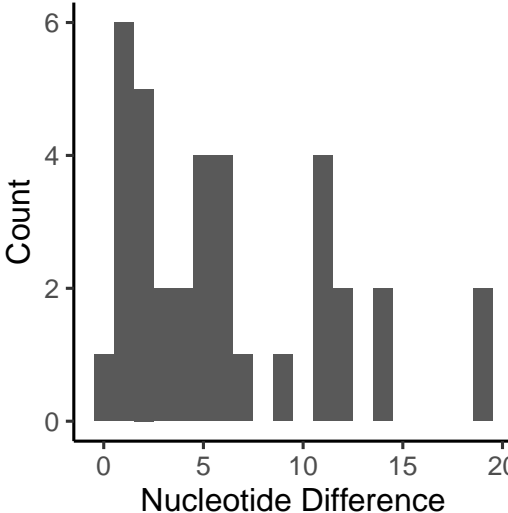
IGHV4-55*07

1 sequences assigned
No exact matches.



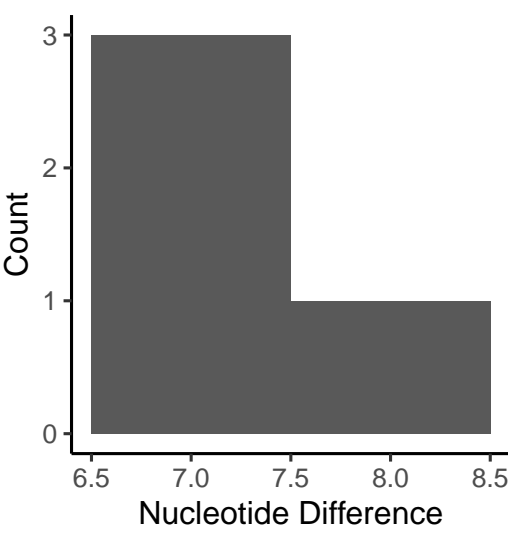
IGHV4-59*12

40 sequences assigned
1 (2.5%) exact matches, in which:
1 unique CDR3
1 unique J



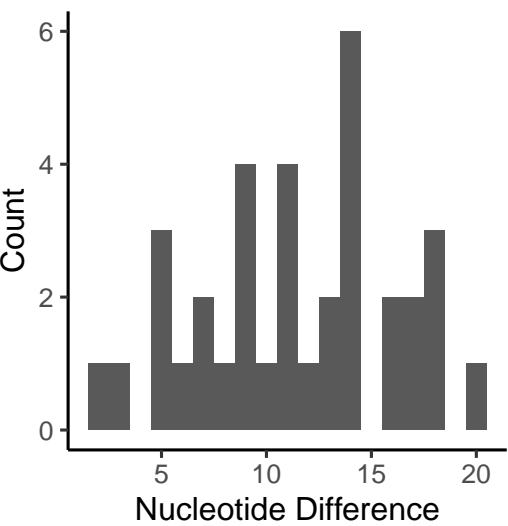
IGHV4/OR15-8*01

8 sequences assigned
No exact matches.



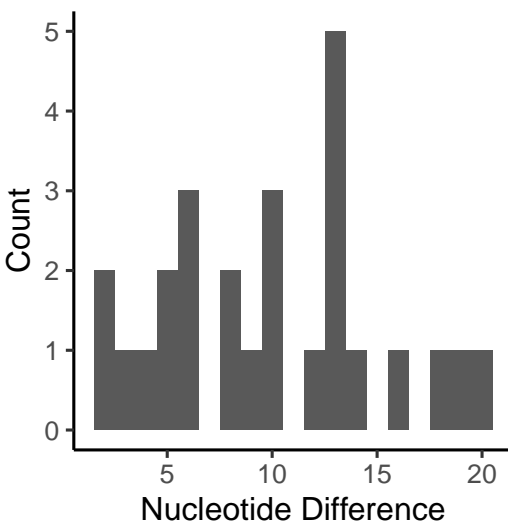
IGHV4-59*02

42 sequences assigned
No exact matches.



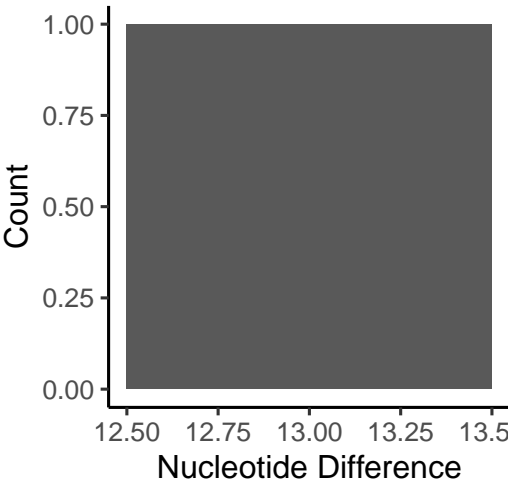
IGHV4-59*13

33 sequences assigned
No exact matches.



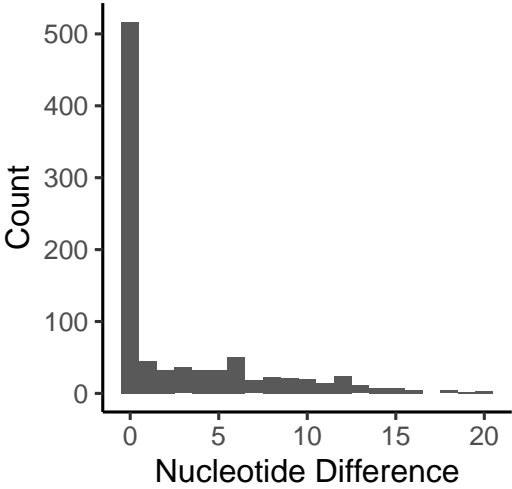
IGHV4/OR15-8*03

1 sequences assigned
No exact matches.



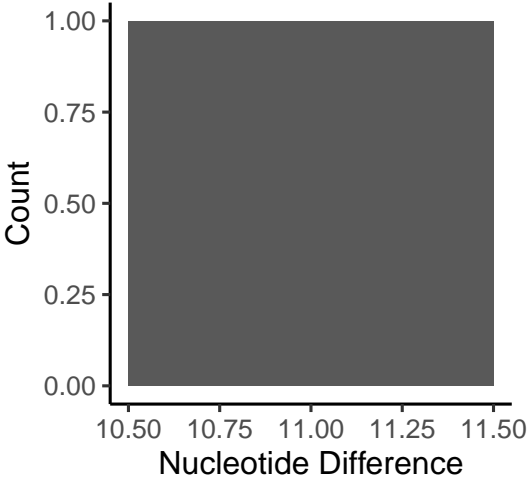
IGHV6-1*01_02

934 sequences assigned
517 (55.4%) exact matches, in which:
512 unique CDR3
6 unique J



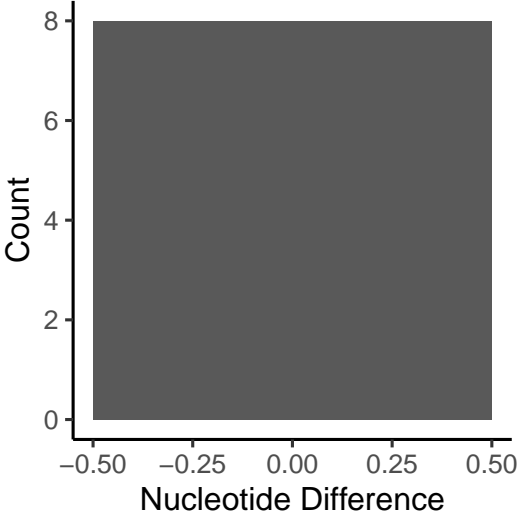
IGHV3/OR16-6*02

1 sequences assigned
No exact matches.



IGHV7-4-1*01

8 sequences assigned
8 (100%) exact matches, in which:
8 unique CDR3
4 unique J





[illegible]