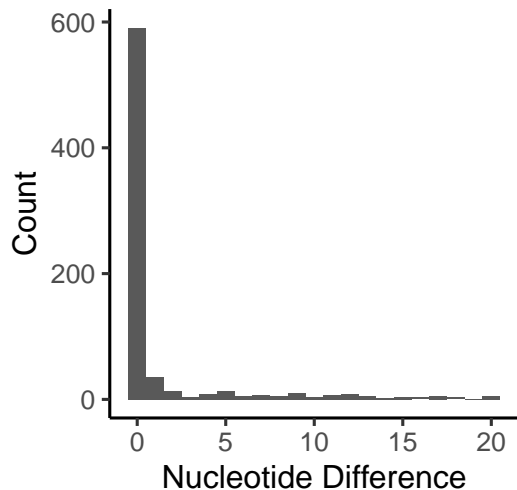


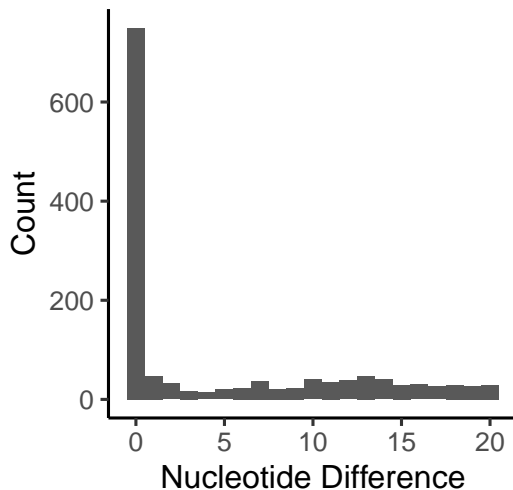
IGHV1-2*04

764 sequences assigned
591 (77.4%) exact matches, in which:
590 unique CDR3
6 unique J



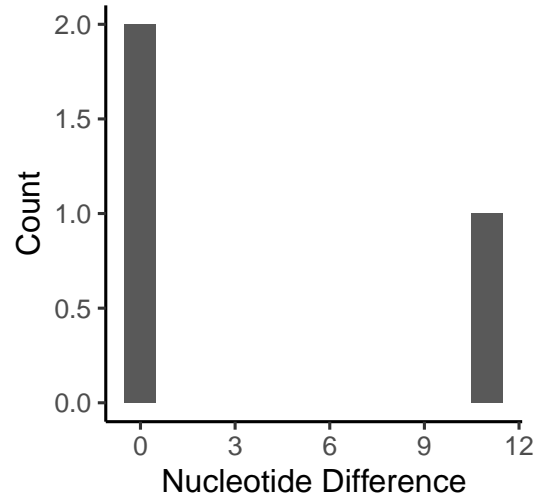
IGHV1-18*01

1477 sequences assigned
750 (50.8%) exact matches, in which:
748 unique CDR3
6 unique J



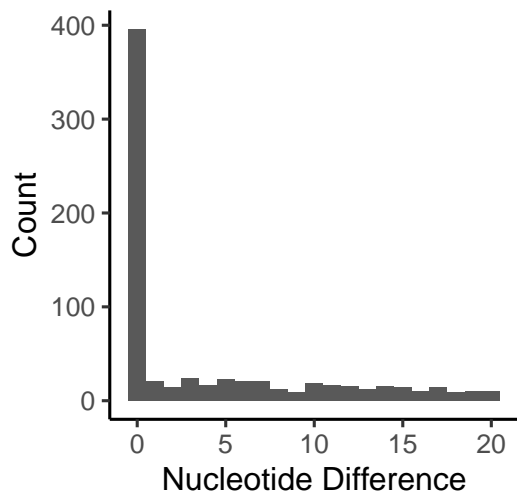
IGHV1-45*02

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
1 unique J



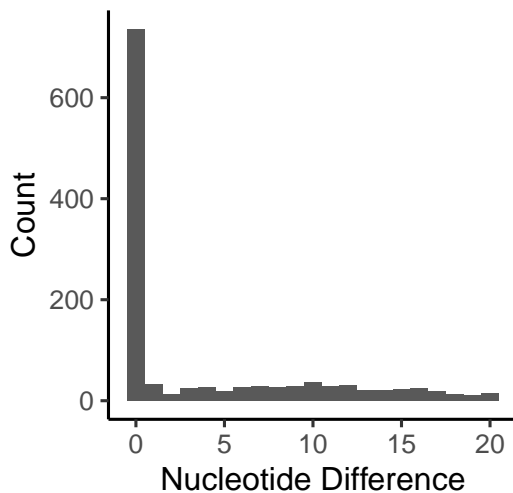
IGHV1-3*01_05

751 sequences assigned
396 (52.7%) exact matches, in which:
394 unique CDR3
6 unique J



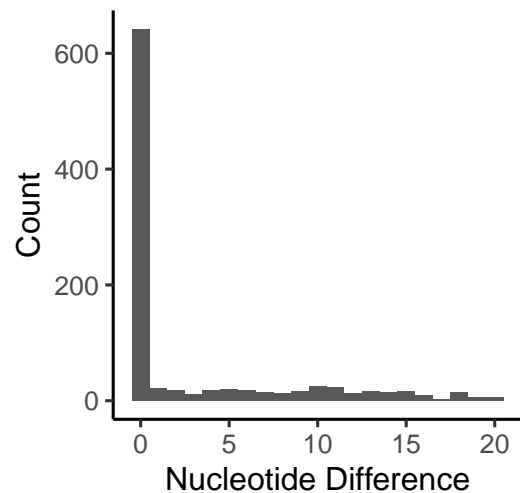
IGHV1-18*04

1272 sequences assigned
736 (57.9%) exact matches, in which:
734 unique CDR3
6 unique J



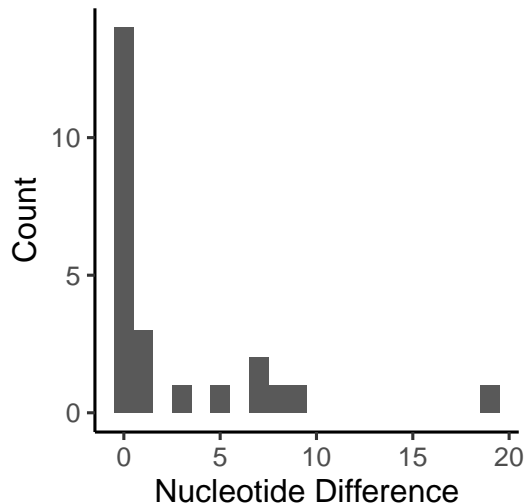
IGHV1-46*01

988 sequences assigned
642 (65%) exact matches, in which:
639 unique CDR3
6 unique J



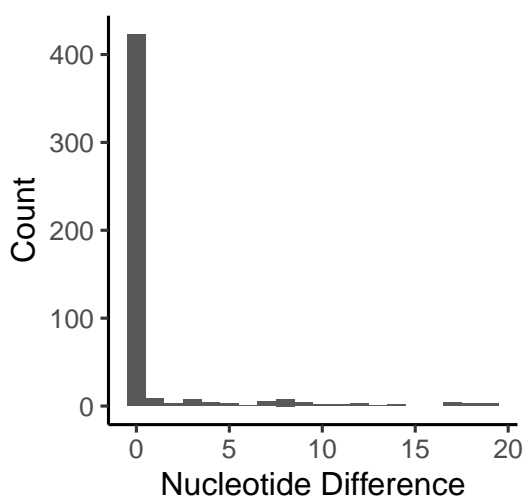
IGHV1-8*01

25 sequences assigned
14 (56%) exact matches, in which:
14 unique CDR3
5 unique J



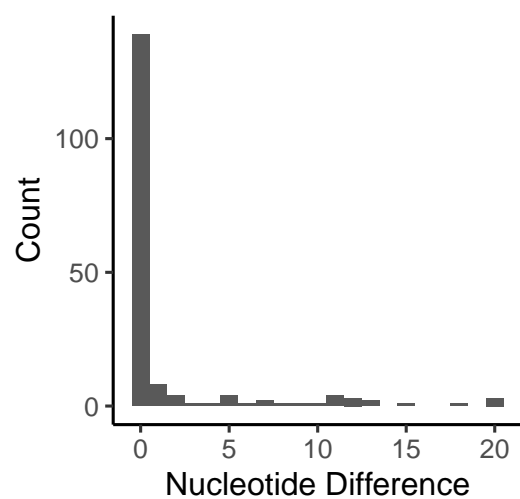
IGHV1-24*01

495 sequences assigned
423 (85.5%) exact matches, in which:
422 unique CDR3
6 unique J



IGHV1-58*01_03

180 sequences assigned
139 (77.2%) exact matches, in which:
139 unique CDR3
6 unique J



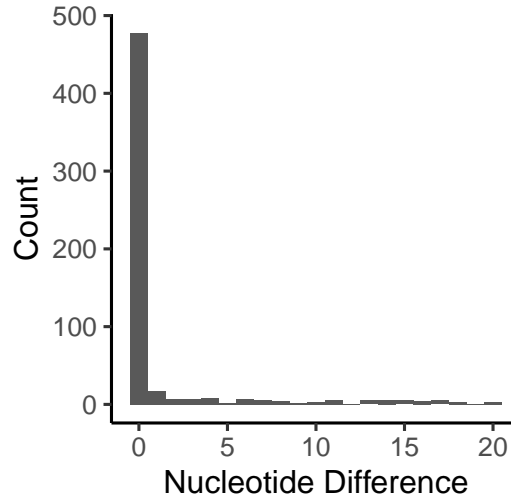
IGHV1-68*01

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



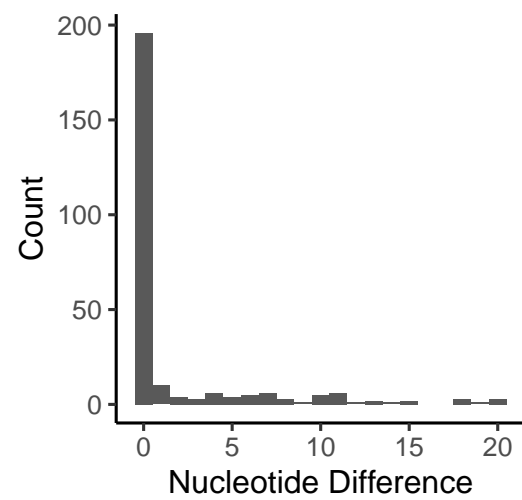
IGHV1-69*06_14

615 sequences assigned
478 (77.7%) exact matches, in which:
476 unique CDR3
6 unique J



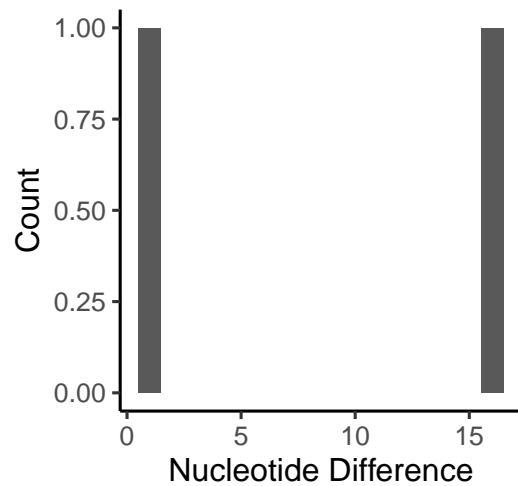
IGHV2-70*01

266 sequences assigned
196 (73.7%) exact matches, in which:
195 unique CDR3
5 unique J



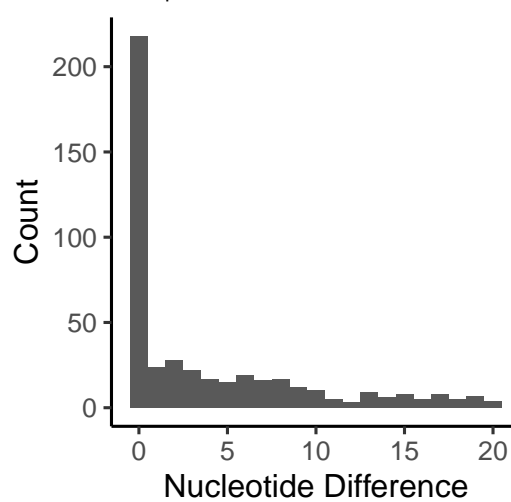
IGHV1-69-2*01

4 sequences assigned
No exact matches.



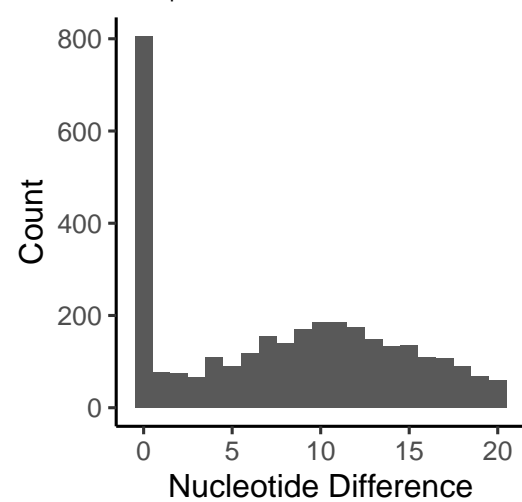
IGHV2-5*02

479 sequences assigned
218 (45.5%) exact matches, in which:
217 unique CDR3
6 unique J



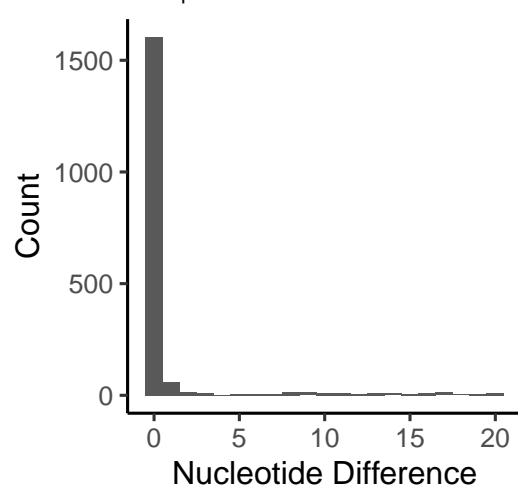
IGHV3-7*03

3453 sequences assigned
806 (23.3%) exact matches, in which:
793 unique CDR3
6 unique J



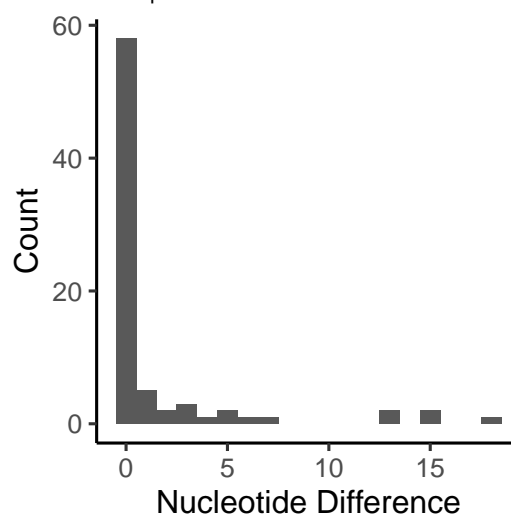
IGHV1-69*01_12_13

1948 sequences assigned
1604 (82.3%) exact matches, in which:
1600 unique CDR3
6 unique J



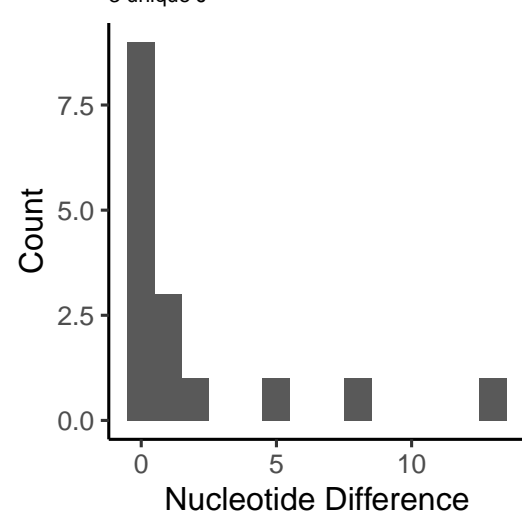
IGHV2-26*01

80 sequences assigned
58 (72.5%) exact matches, in which:
58 unique CDR3
5 unique J



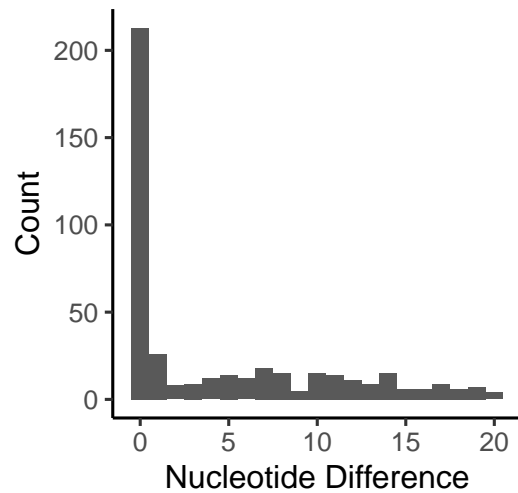
IGHV3-9*01

16 sequences assigned
9 (56.2%) exact matches, in which:
9 unique CDR3
3 unique J



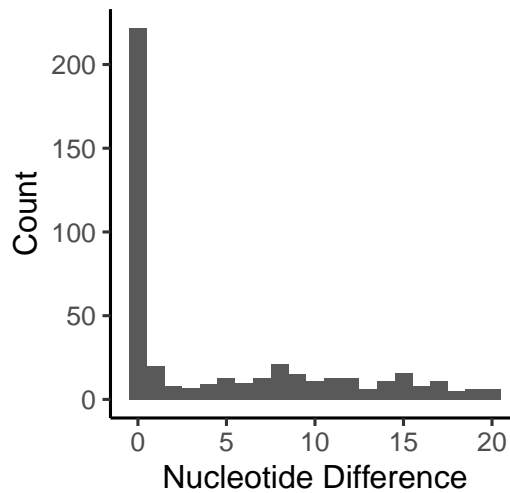
IGHV3-11*06

473 sequences assigned
213 (45%) exact matches, in which:
210 unique CDR3
6 unique J



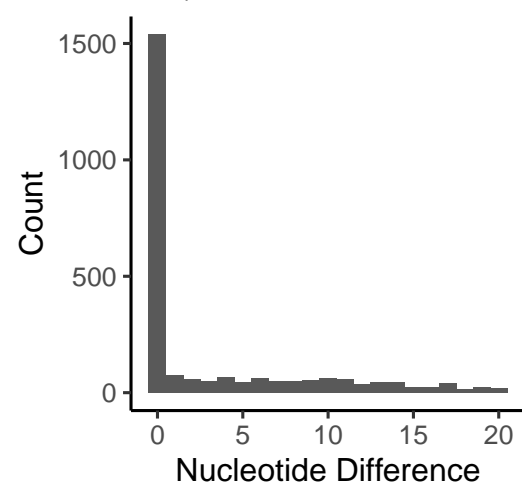
IGHV3-15*01_02

481 sequences assigned
222 (46.2%) exact matches, in which:
218 unique CDR3
6 unique J



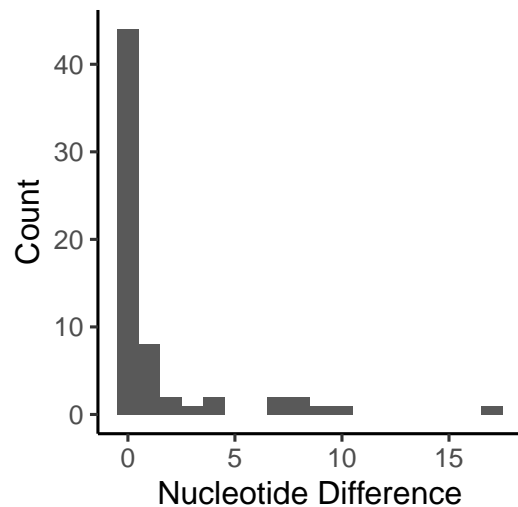
IGHV3-21*01_02

2518 sequences assigned
1539 (61.1%) exact matches, in which:
1504 unique CDR3
6 unique J



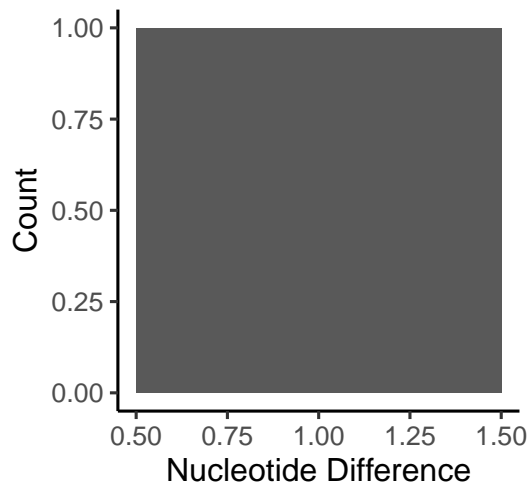
IGHV3-13*05

69 sequences assigned
44 (63.8%) exact matches, in which:
44 unique CDR3
4 unique J



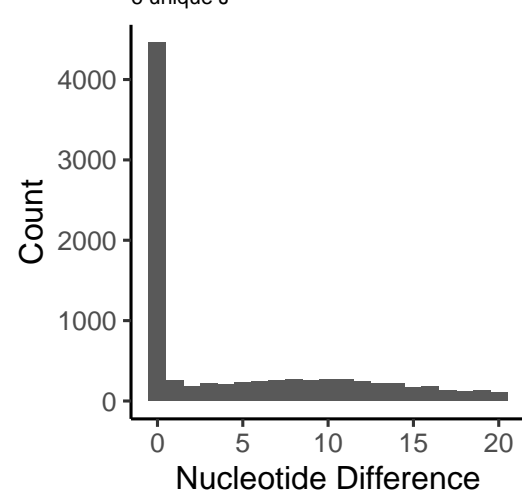
IGHV3-19*01

1 sequences assigned
No exact matches.



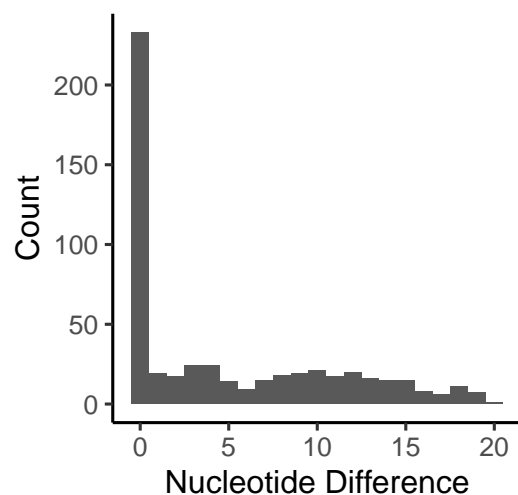
IGHV3-23*01_04

9149 sequences assigned
4458 (48.7%) exact matches, in which:
4378 unique CDR3
6 unique J



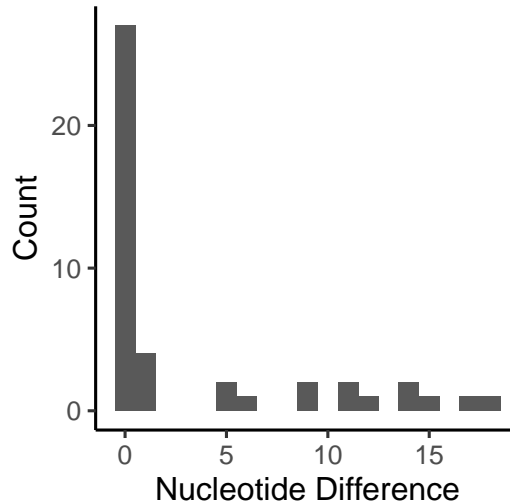
IGHV3-15*07

559 sequences assigned
233 (41.7%) exact matches, in which:
231 unique CDR3
6 unique J



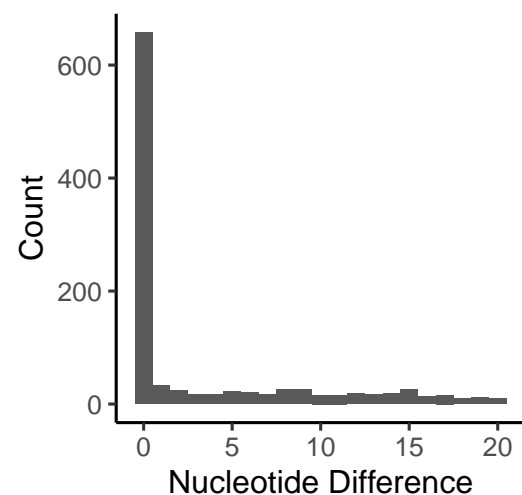
IGHV3-20*03_04

46 sequences assigned
27 (58.7%) exact matches, in which:
27 unique CDR3
4 unique J



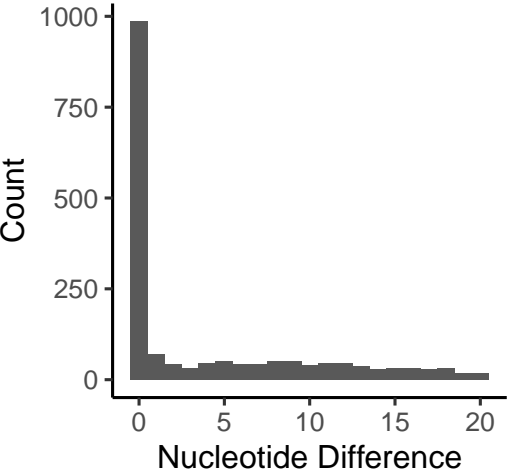
IGHV3-30-3*01

1072 sequences assigned
658 (61.4%) exact matches, in which:
648 unique CDR3
6 unique J



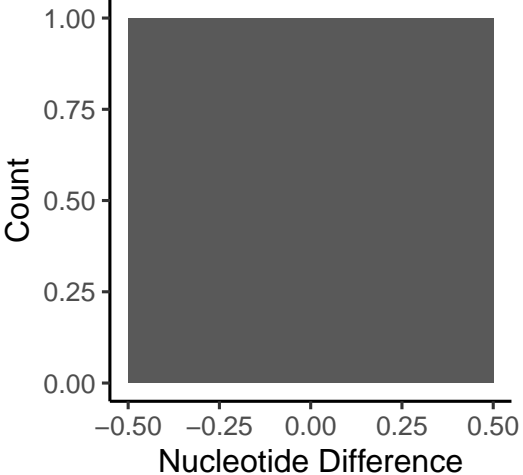
IGHV3-33*01

1845 sequences assigned
986 (53.4%) exact matches, in which:
975 unique CDR3
6 unique J



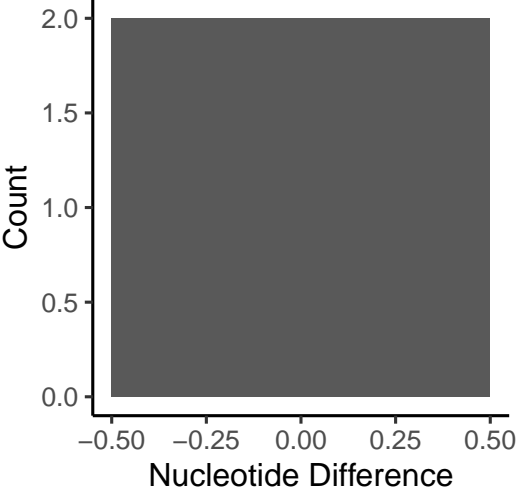
IGHV3-47*02

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



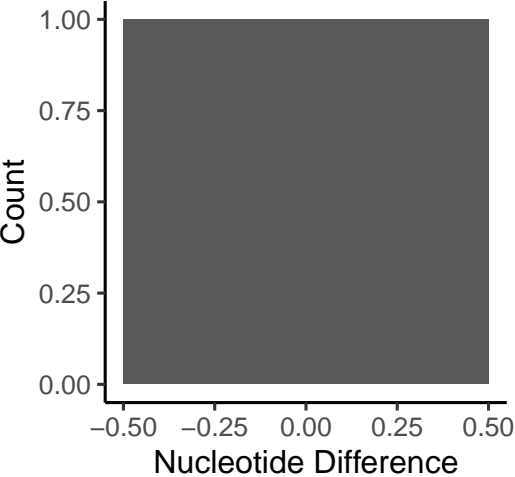
IGHV3-52*01_03

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



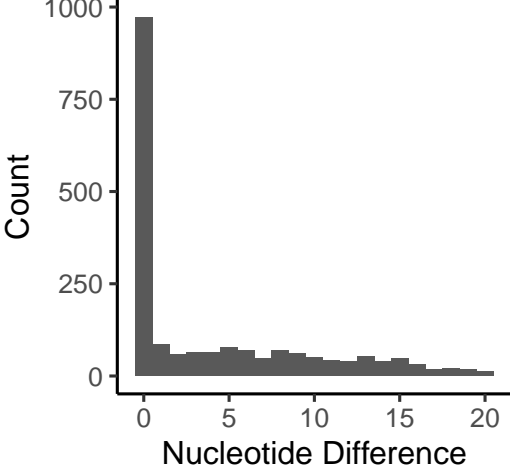
IGHV3-35*01

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



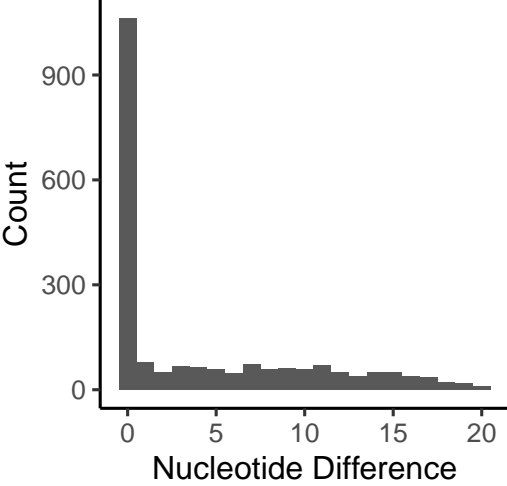
IGHV3-48*02

2017 sequences assigned
971 (48.1%) exact matches, in which:
952 unique CDR3
6 unique J



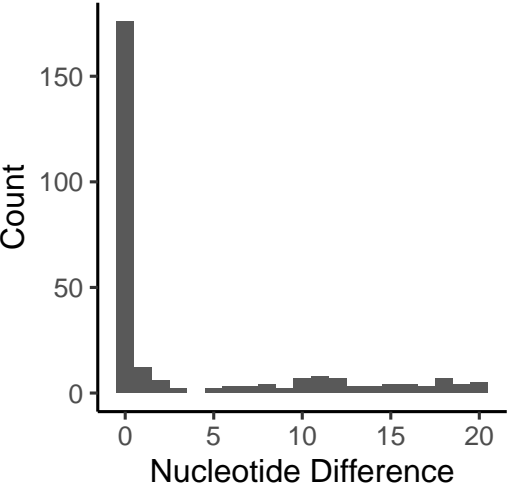
IGHV3-53*01_02

2147 sequences assigned
1063 (49.5%) exact matches, in which:
1045 unique CDR3
6 unique J



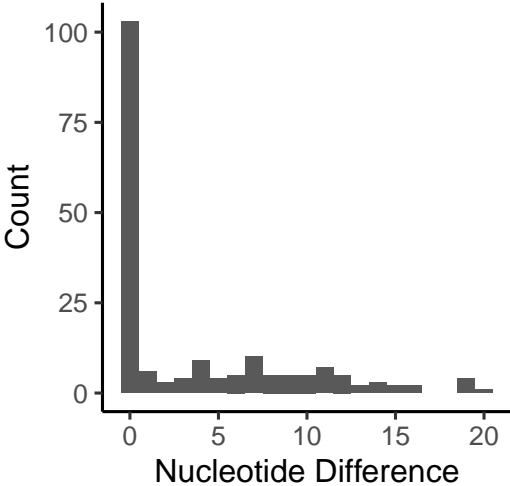
IGHV3-43*01

276 sequences assigned
176 (63.8%) exact matches, in which:
175 unique CDR3
6 unique J



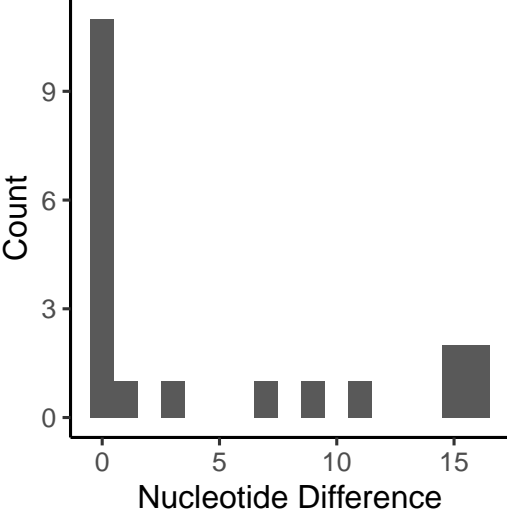
IGHV3-49*03_05

191 sequences assigned
103 (53.9%) exact matches, in which:
103 unique CDR3
4 unique J



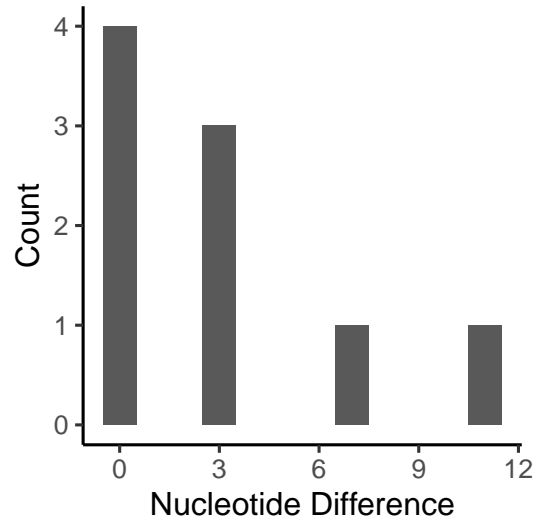
IGHV3-64*02_07

20 sequences assigned
11 (55%) exact matches, in which:
11 unique CDR3
4 unique J



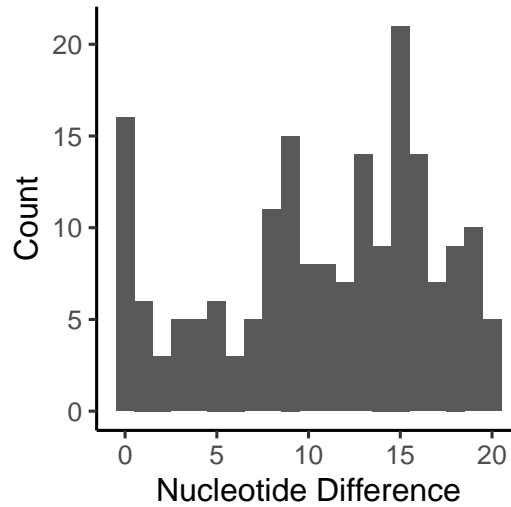
IGHV3-66*03

9 sequences assigned
4 (44.4%) exact matches, in which:
4 unique CDR3
3 unique J



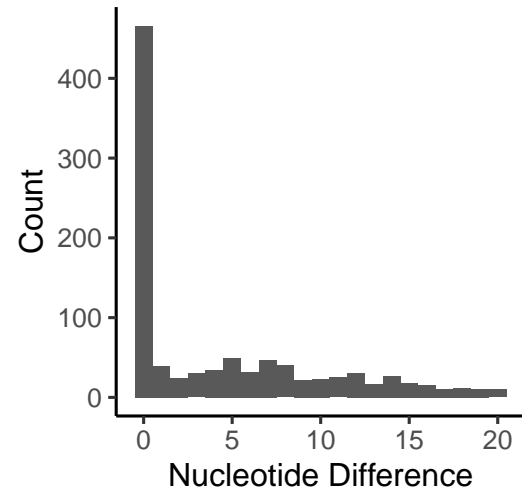
IGHV3-72*01

196 sequences assigned
16 (8.2%) exact matches, in which:
14 unique CDR3
5 unique J



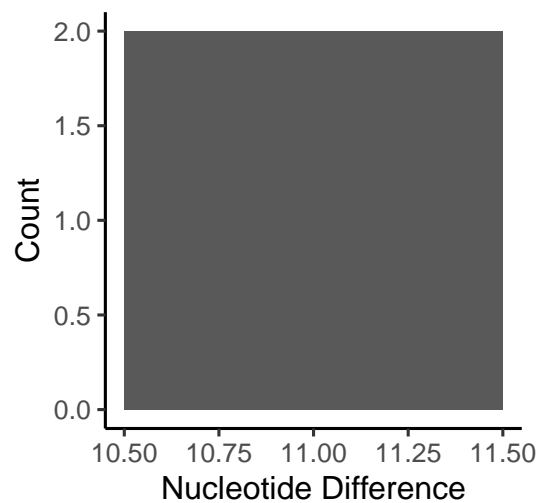
IGHV3-74*01_02

1016 sequences assigned
466 (45.9%) exact matches, in which:
451 unique CDR3
6 unique J



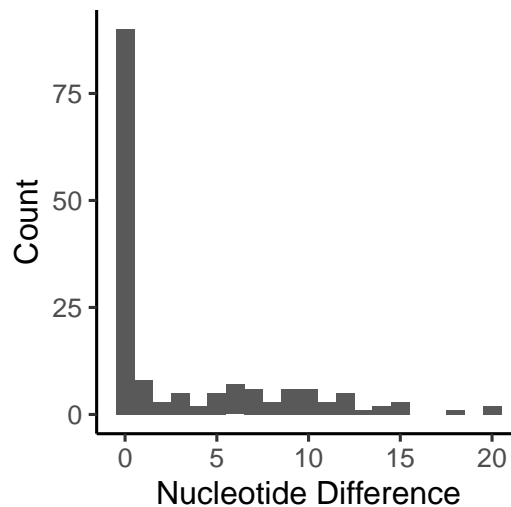
IGHV3-66*04

2 sequences assigned
No exact matches.



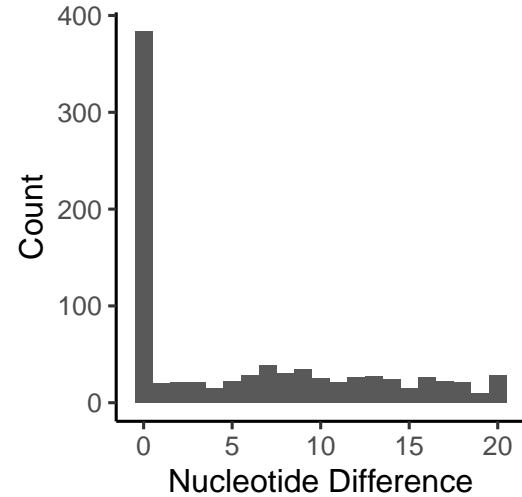
IGHV3-73*01_02

161 sequences assigned
90 (55.9%) exact matches, in which:
90 unique CDR3
5 unique J



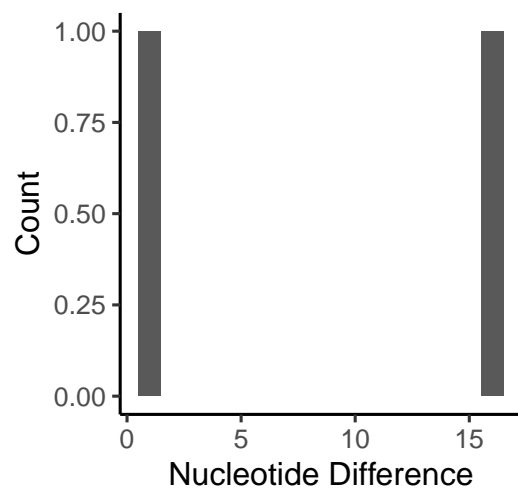
IGHV3-64D*06

932 sequences assigned
384 (41.2%) exact matches, in which:
381 unique CDR3
6 unique J



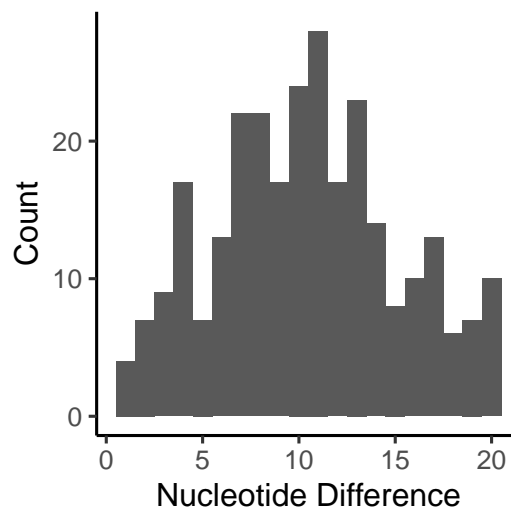
IGHV3-69-1*02

2 sequences assigned
No exact matches.



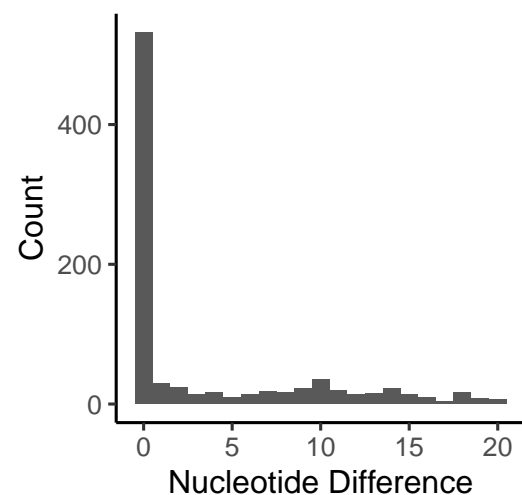
IGHV3-74*03

317 sequences assigned
No exact matches.



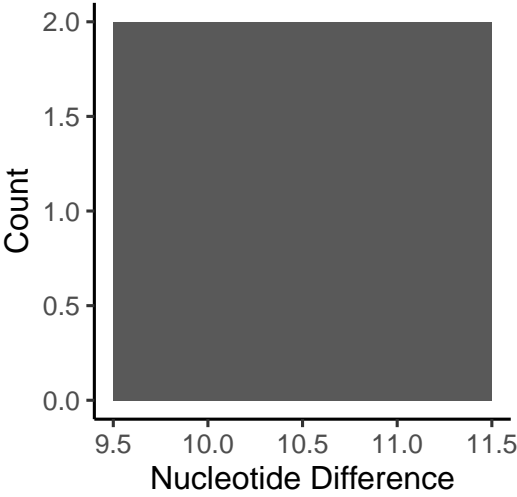
IGHV4-4*02_03

924 sequences assigned
532 (57.6%) exact matches, in which:
528 unique CDR3
6 unique J



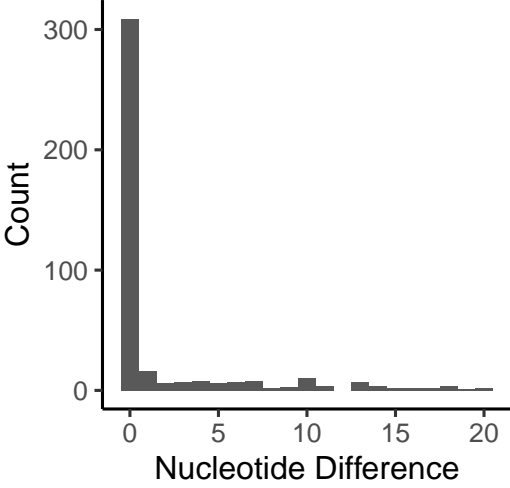
IGHV4-28*03

4 sequences assigned
No exact matches.



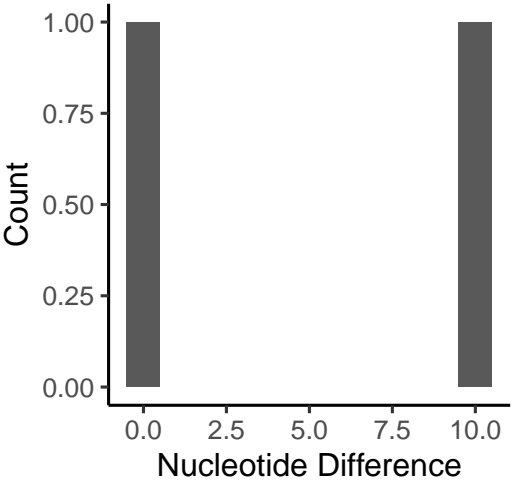
IGHV4-30-2*01

420 sequences assigned
309 (73.6%) exact matches, in which:
305 unique CDR3
6 unique J



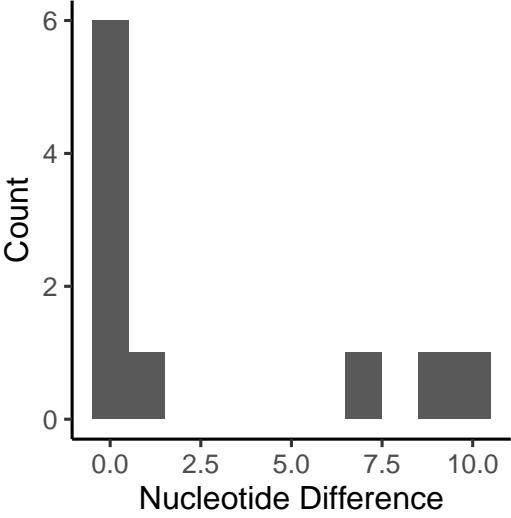
IGHV4-38-2*01

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



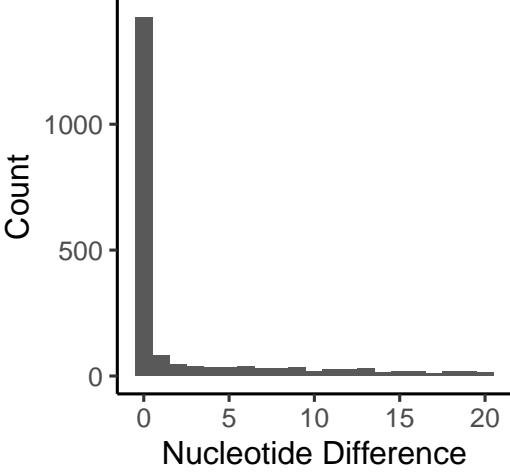
IGHV4-28*01_07

10 sequences assigned
6 (60%) exact matches, in which:
6 unique CDR3
4 unique J



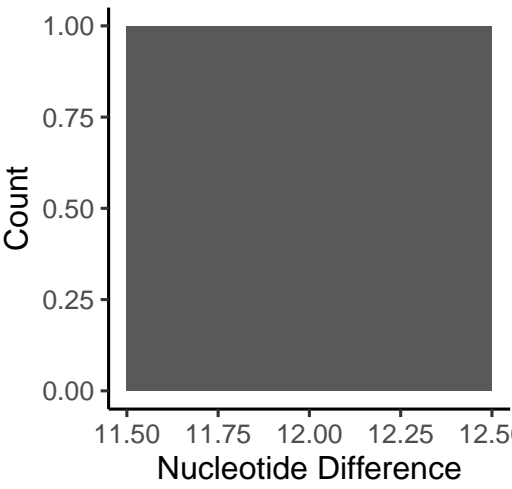
IGHV4-31*02

2081 sequences assigned
1423 (68.4%) exact matches, in which:
1408 unique CDR3
6 unique J



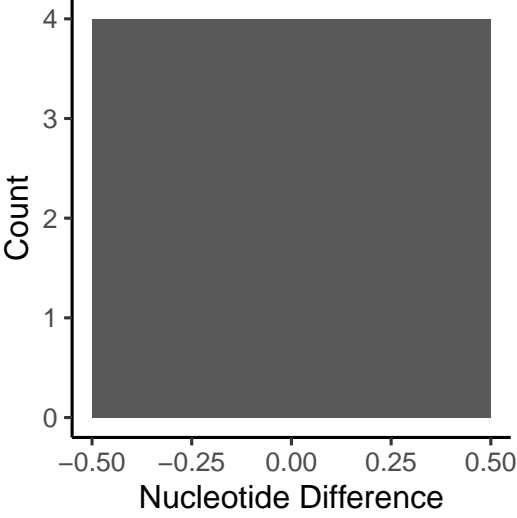
IGHV4-38-2*02

3 sequences assigned
No exact matches.



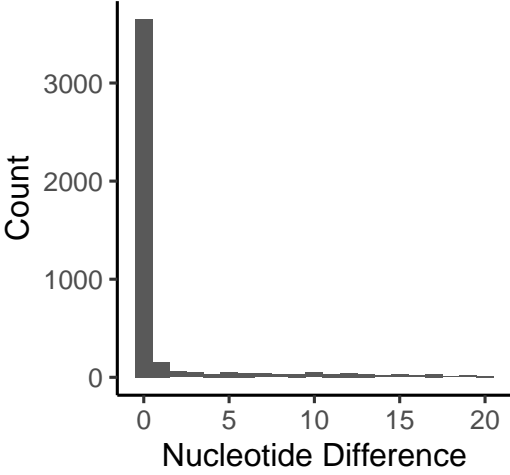
IGHV4-28*02_05

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



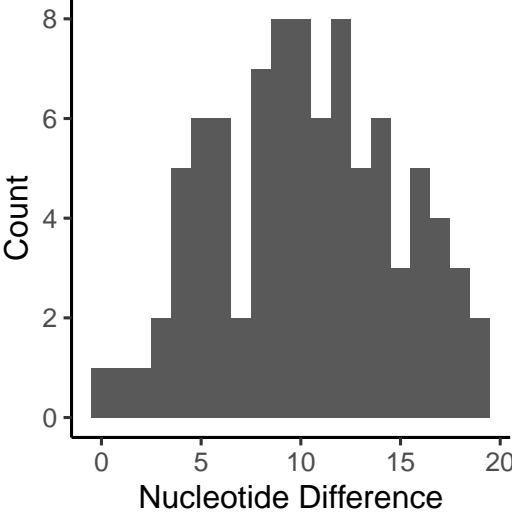
IGHV4-34*01_02

4595 sequences assigned
3652 (79.5%) exact matches, in which:
3590 unique CDR3
6 unique J



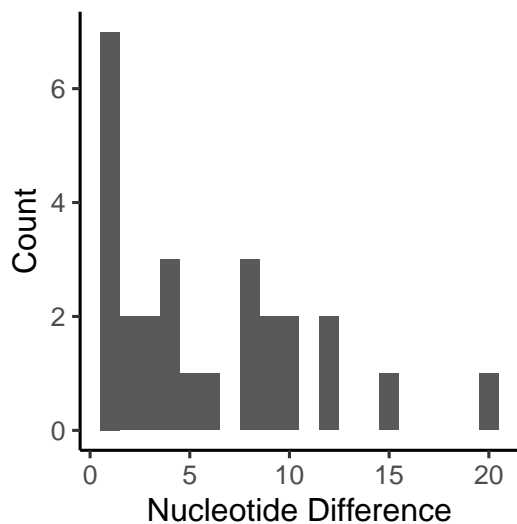
IGHV4-39*02

124 sequences assigned
1 (0.8%) exact matches, in which:
1 unique CDR3
1 unique J



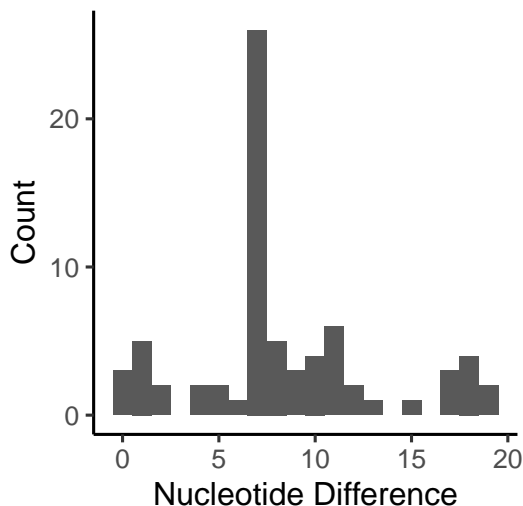
IGHV4–39*07

29 sequences assigned
No exact matches.



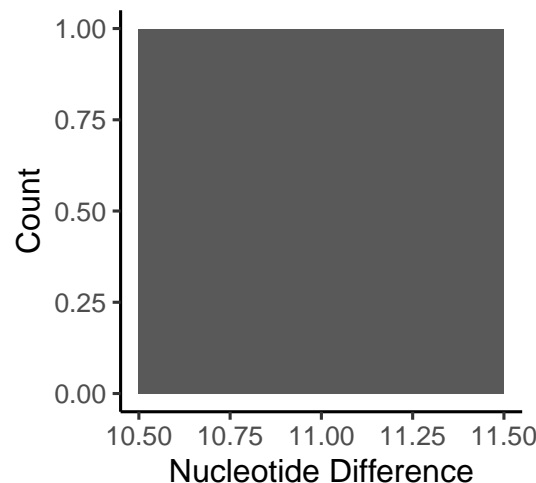
IGHV4–59*12

82 sequences assigned
3 (3.7%) exact matches, in which:
3 unique CDR3
2 unique J



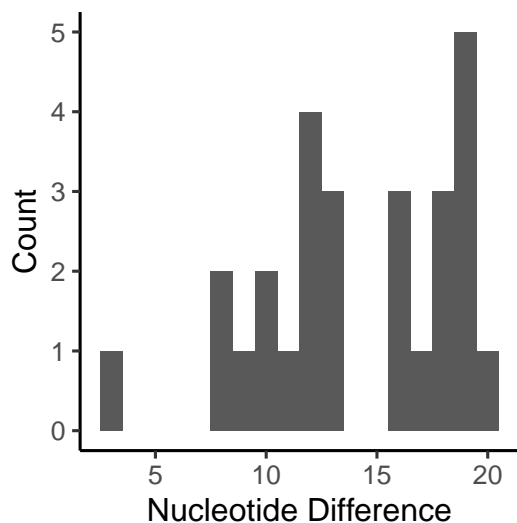
IGHV4/OR15–8*02

10 sequences assigned
No exact matches.



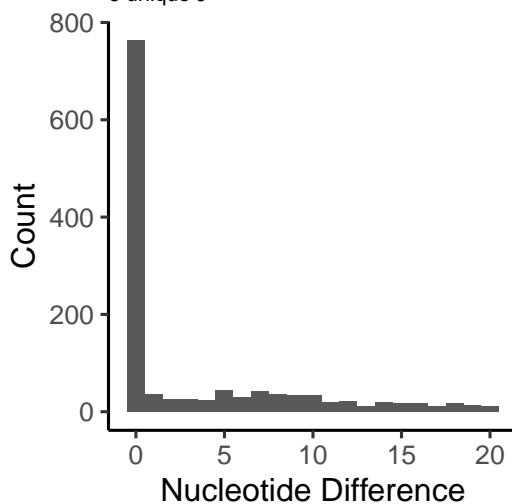
IGHV4–59*02

33 sequences assigned
No exact matches.



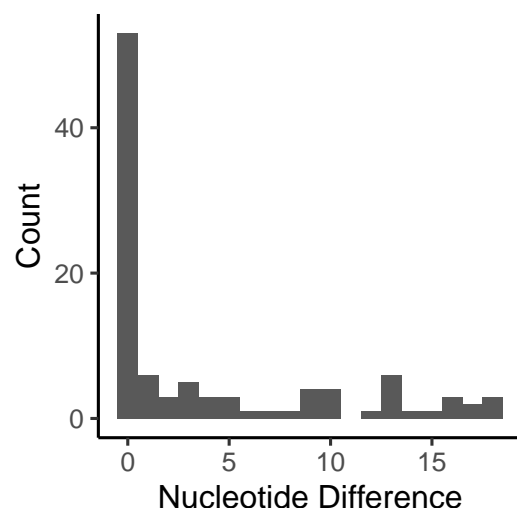
IGHV4–61*01

1327 sequences assigned
764 (57.6%) exact matches, in which:
747 unique CDR3
6 unique J



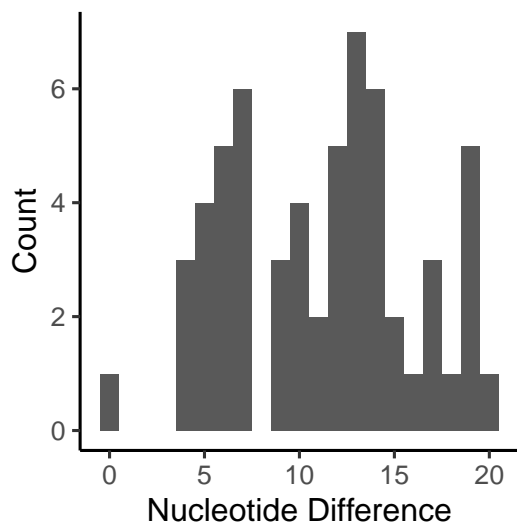
IGHV5–10–1*01_03

108 sequences assigned
53 (49.1%) exact matches, in which:
53 unique CDR3
6 unique J



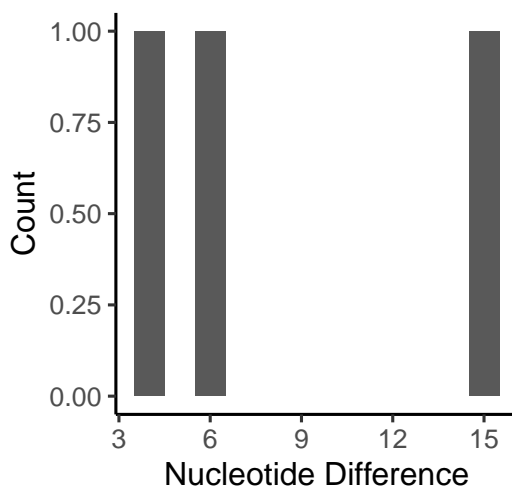
IGHV4–59*11

78 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



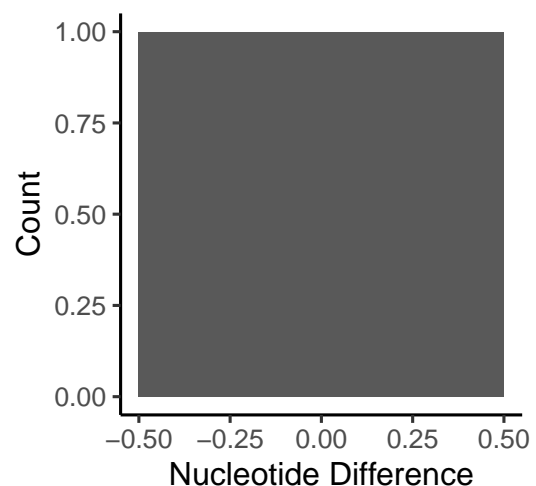
IGHV4/OR15–8*01

4 sequences assigned
No exact matches.



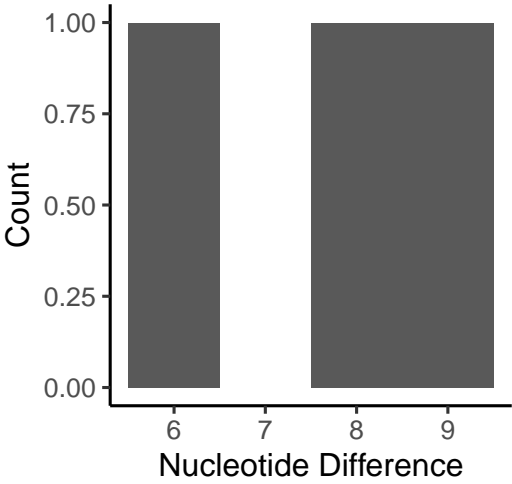
IGHV5–51*04

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



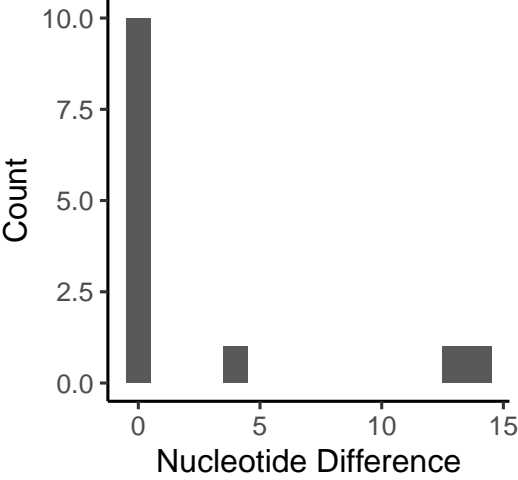
IGHV5-51*06

3 sequences assigned
No exact matches.



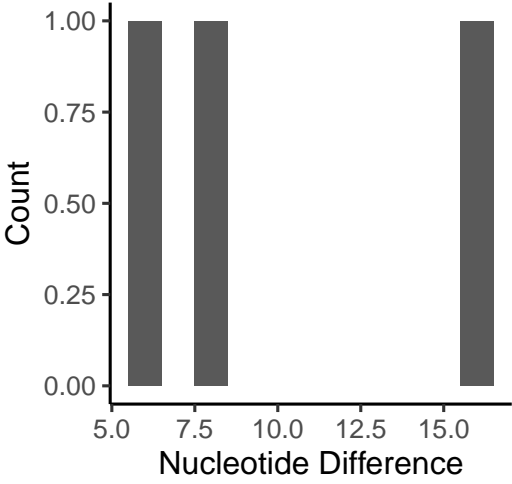
IGHV7-4-1*01

13 sequences assigned
10 (76.9%) exact matches, in which:
10 unique CDR3
4 unique J



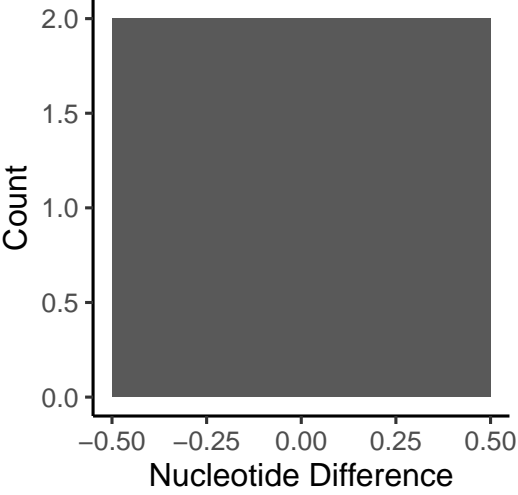
IGHV5-51*07

4 sequences assigned
No exact matches.



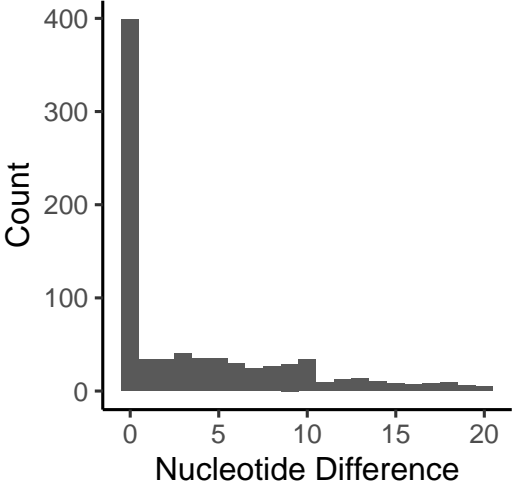
IGHV7-81*01

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



IGHV6-1*01_02

836 sequences assigned
399 (47.7%) exact matches, in which:
398 unique CDR3
6 unique J





[illegible]