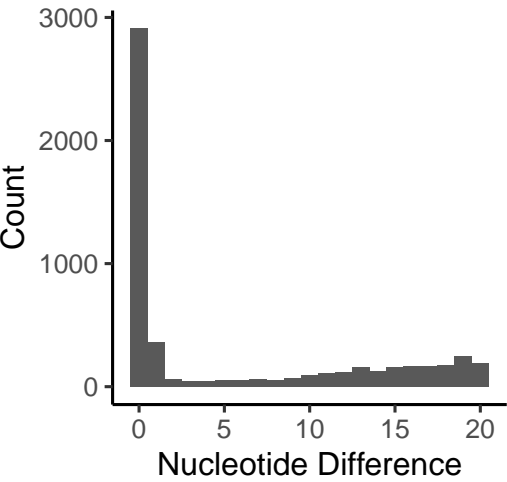


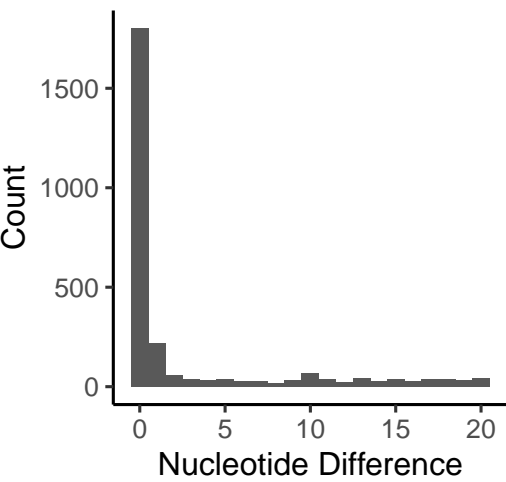
IGHV1-2*02

7608 sequences assigned
2911 (38.3%) exact matches, in which:
2847 unique CDR3
6 unique J



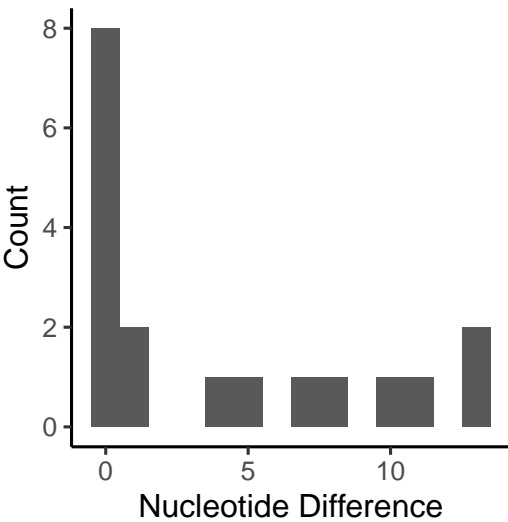
IGHV1-8*01

3456 sequences assigned
1801 (52.1%) exact matches, in which:
1781 unique CDR3
6 unique J



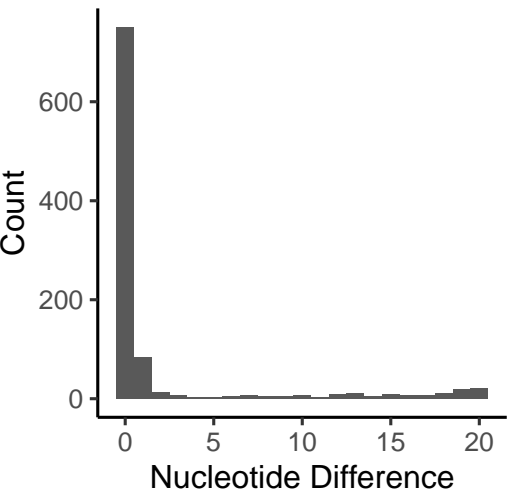
IGHV1-45*02

126 sequences assigned
8 (6.3%) exact matches, in which:
7 unique CDR3
4 unique J



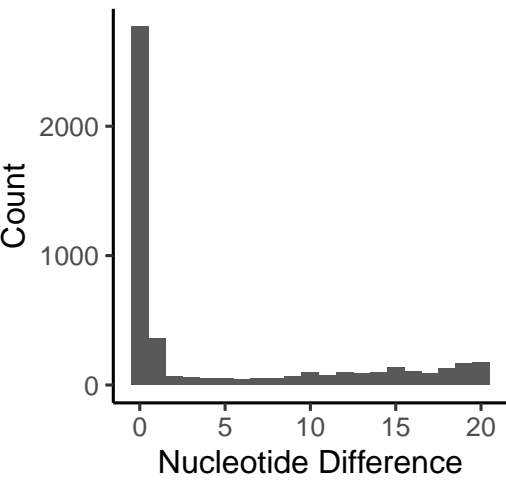
IGHV1-2*04

1106 sequences assigned
751 (67.9%) exact matches, in which:
735 unique CDR3
6 unique J



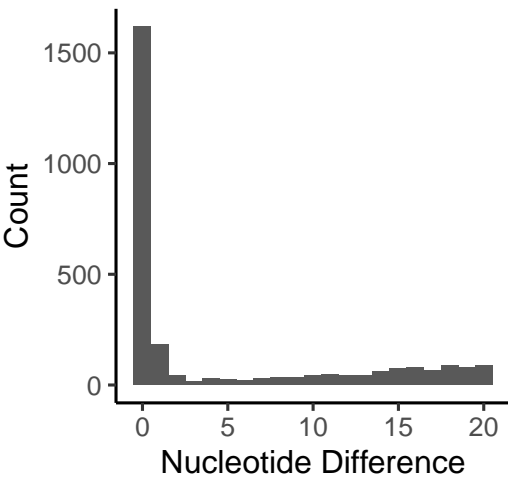
IGHV1-18*01

7358 sequences assigned
2769 (37.6%) exact matches, in which:
2718 unique CDR3
6 unique J



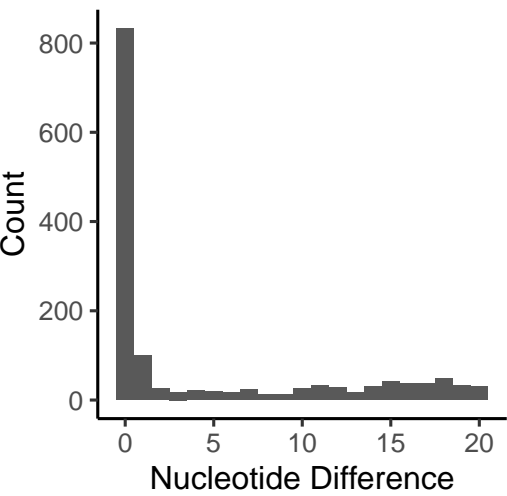
IGHV1-46*01

4671 sequences assigned
1618 (34.6%) exact matches, in which:
1591 unique CDR3
6 unique J



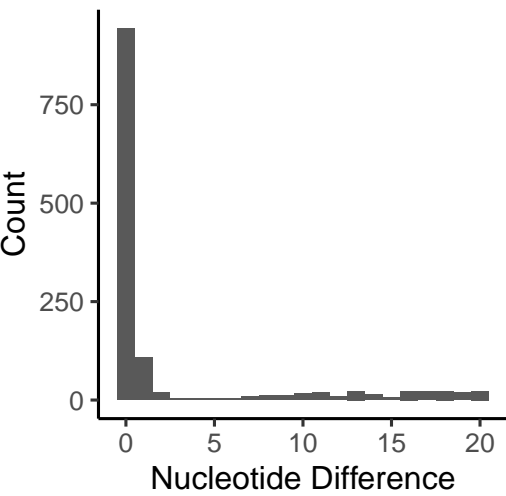
IGHV1-3*01

2519 sequences assigned
833 (33.1%) exact matches, in which:
813 unique CDR3
6 unique J



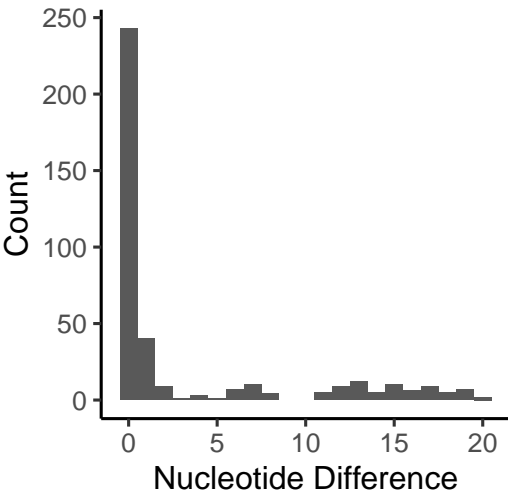
IGHV1-24*01

1724 sequences assigned
944 (54.8%) exact matches, in which:
928 unique CDR3
6 unique J



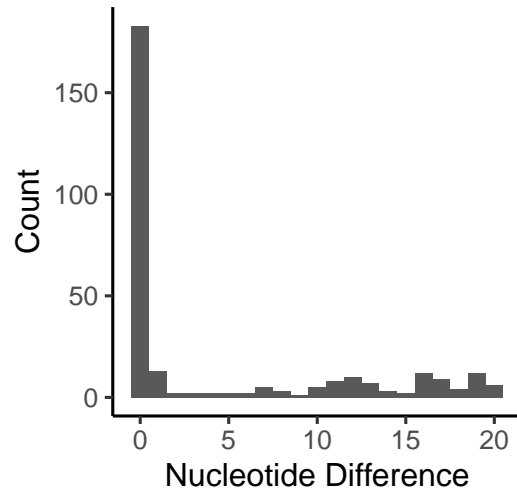
IGHV1-58*02

450 sequences assigned
243 (54%) exact matches, in which:
241 unique CDR3
6 unique J



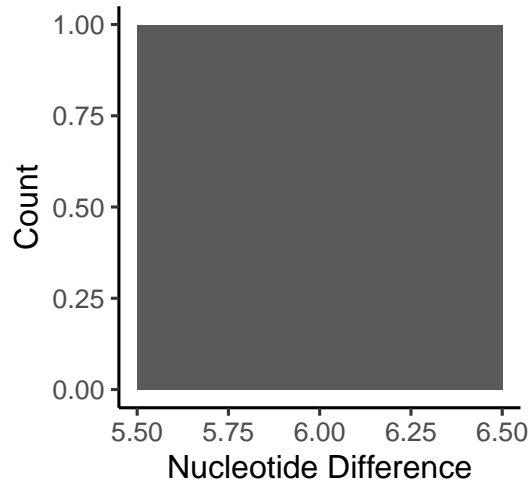
IGHV1-69-2*01

489 sequences assigned
183 (37.4%) exact matches, in which:
182 unique CDR3
6 unique J



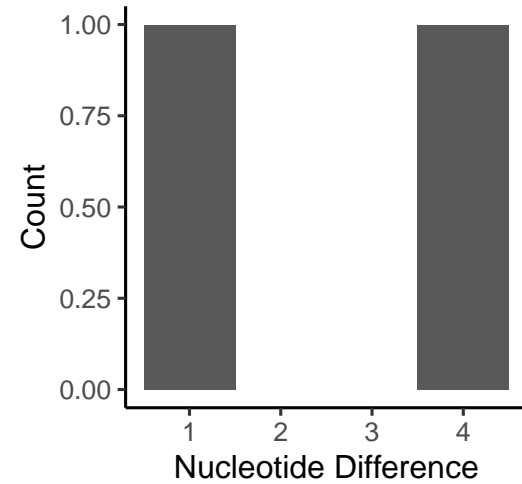
IGHV1-NL1*01

1 sequences assigned
No exact matches.



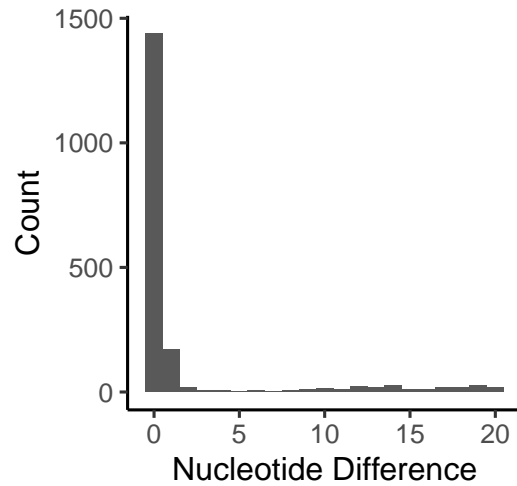
IGHV2-10*01

2 sequences assigned
No exact matches.



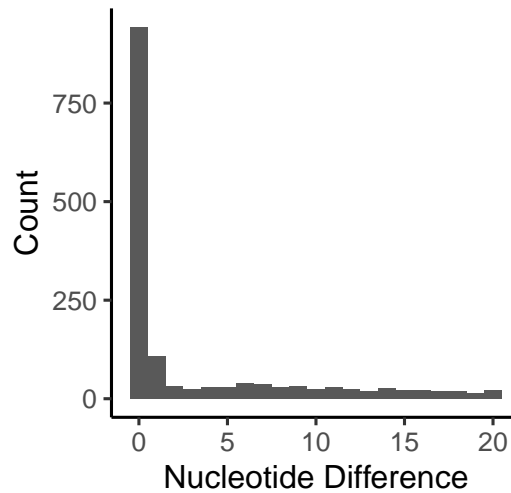
IGHV1-69*02

2715 sequences assigned
1438 (53%) exact matches, in which:
1422 unique CDR3
6 unique J



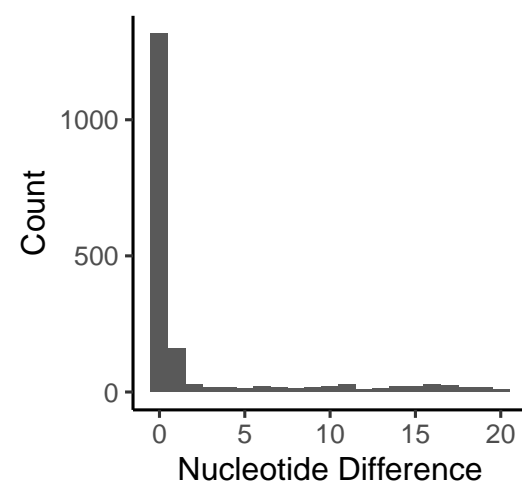
IGHV2-5*01

1718 sequences assigned
943 (54.9%) exact matches, in which:
935 unique CDR3
6 unique J



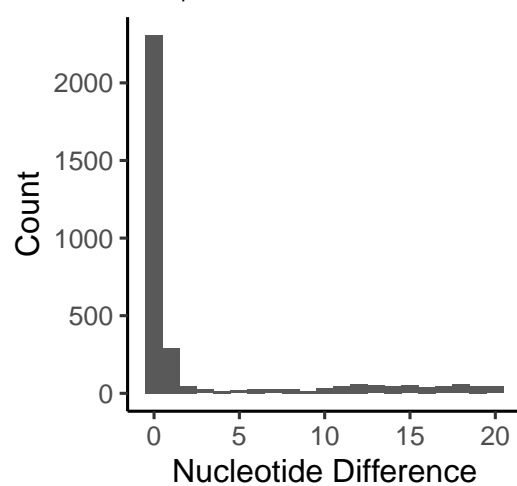
IGHV2-26*01

1971 sequences assigned
1316 (66.8%) exact matches, in which:
1300 unique CDR3
6 unique J



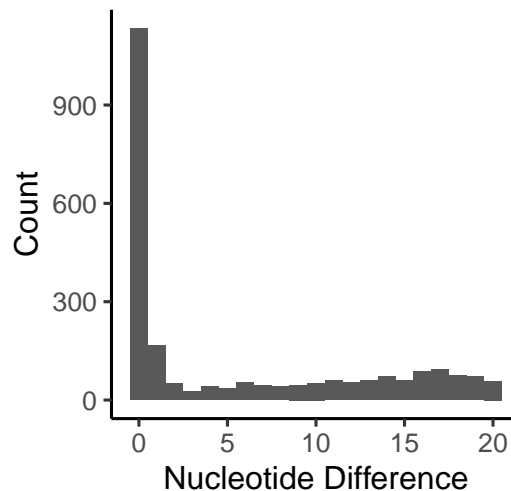
IGHV1-69*06

4575 sequences assigned
2308 (50.4%) exact matches, in which:
2282 unique CDR3
6 unique J



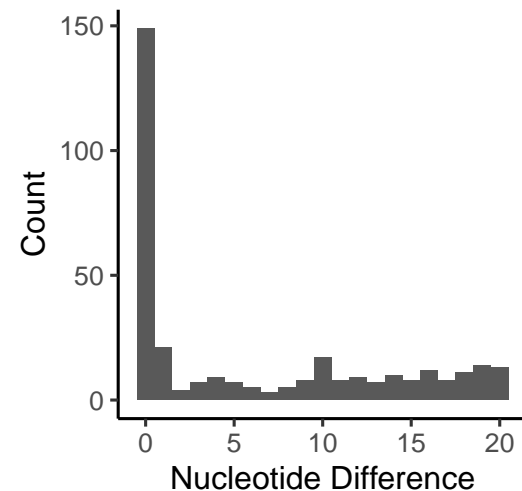
IGHV2-5*02

3065 sequences assigned
1134 (37%) exact matches, in which:
1114 unique CDR3
6 unique J



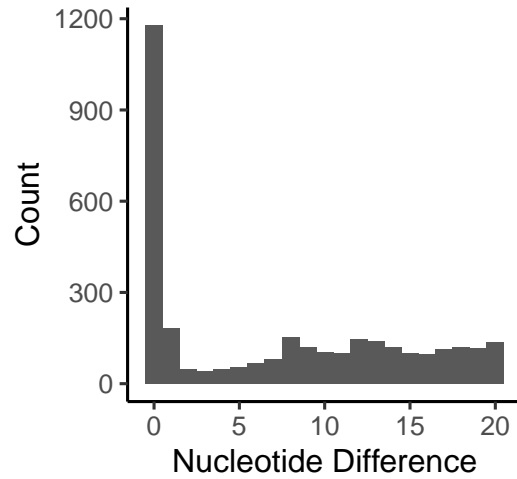
IGHV2-70*01

465 sequences assigned
149 (32%) exact matches, in which:
147 unique CDR3
5 unique J



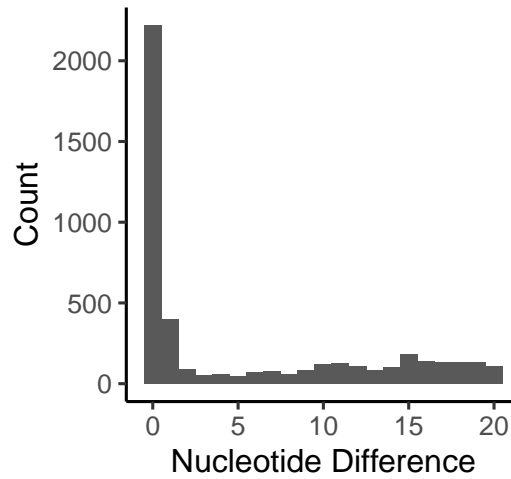
IGHV3-7*01

5022 sequences assigned
1178 (23.5%) exact matches, in which:
1131 unique CDR3
6 unique J



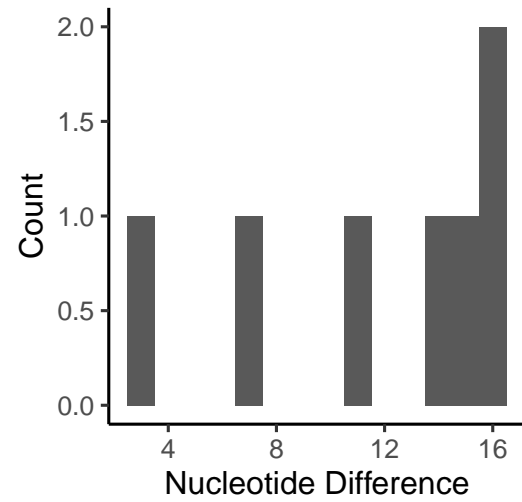
IGHV3-9*01

6076 sequences assigned
2219 (36.5%) exact matches, in which:
2111 unique CDR3
6 unique J



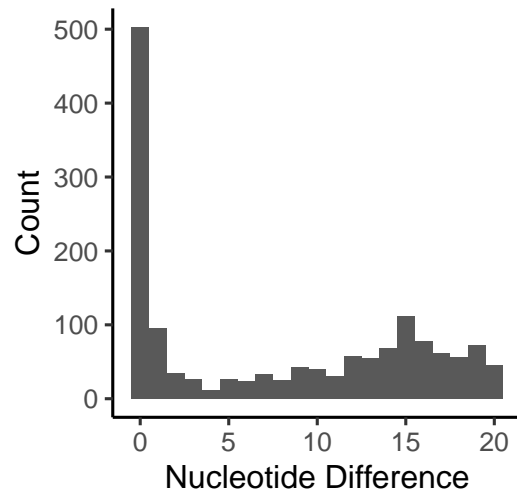
IGHV3-11*06

7 sequences assigned
No exact matches.



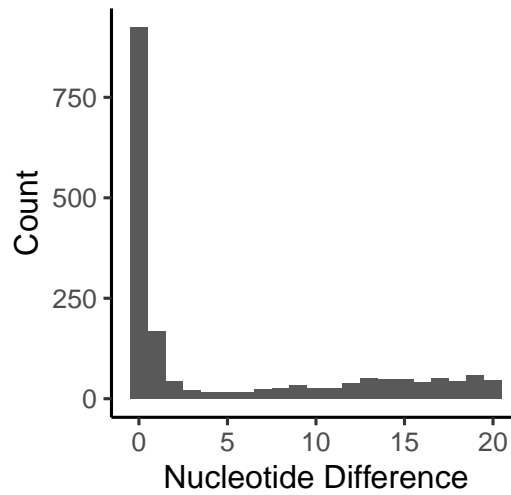
IGHV3-7*04

2035 sequences assigned
503 (24.7%) exact matches, in which:
484 unique CDR3
6 unique J



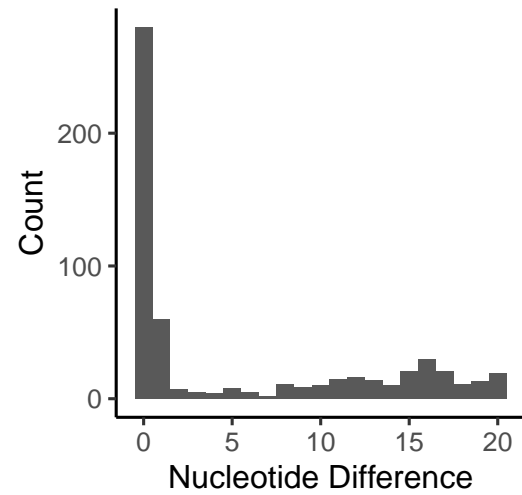
IGHV3-11*01

2387 sequences assigned
925 (38.8%) exact matches, in which:
908 unique CDR3
6 unique J



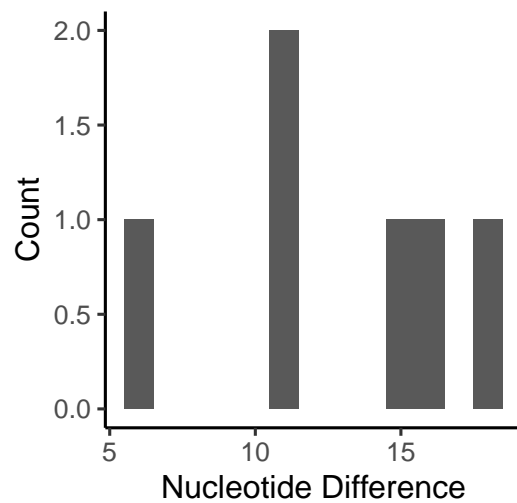
IGHV3-13*01

1166 sequences assigned
280 (24%) exact matches, in which:
262 unique CDR3
5 unique J



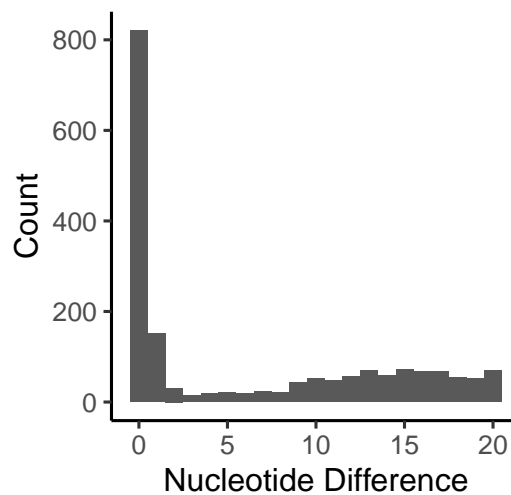
IGHV3-7*05

18 sequences assigned
No exact matches.



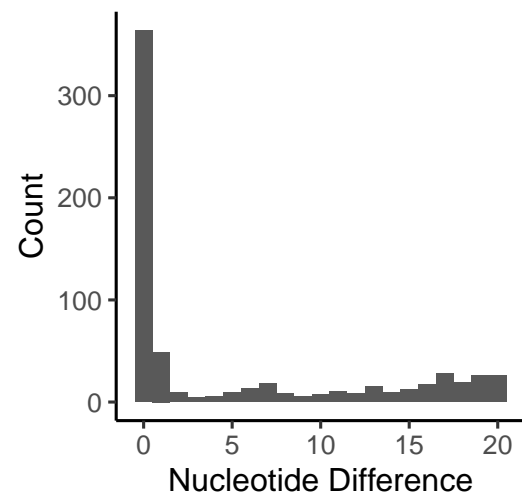
IGHV3-11*05

2547 sequences assigned
821 (32.2%) exact matches, in which:
798 unique CDR3
6 unique J



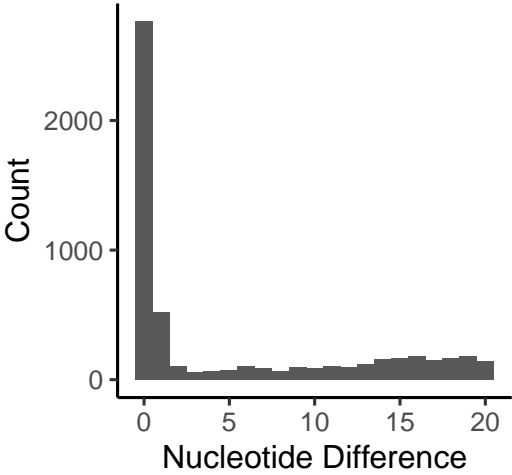
IGHV3-13*04

859 sequences assigned
364 (42.4%) exact matches, in which:
359 unique CDR3
6 unique J



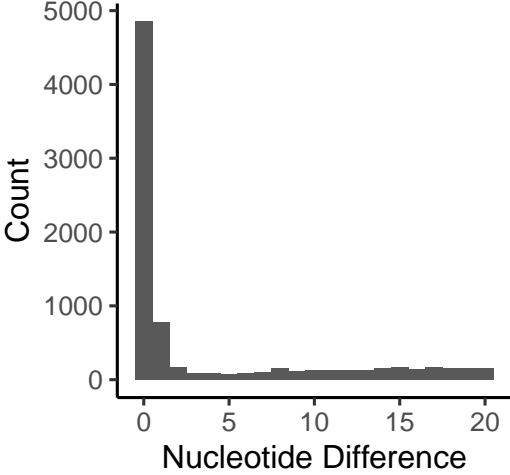
IGHV3-15*01

7476 sequences assigned
2765 (37%) exact matches, in which:
2655 unique CDR3
6 unique J



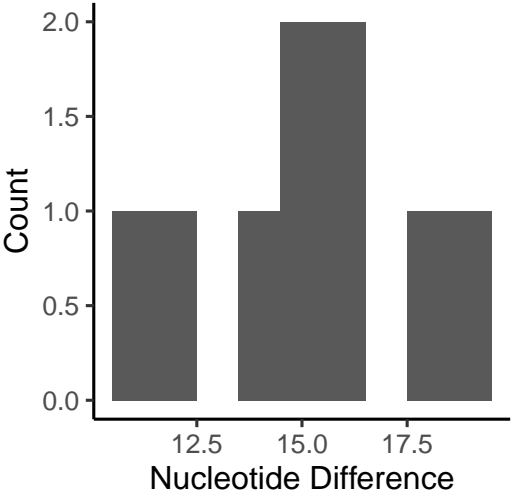
IGHV3-21*01

10611 sequences assigned
4854 (45.7%) exact matches, in which:
4627 unique CDR3
6 unique J



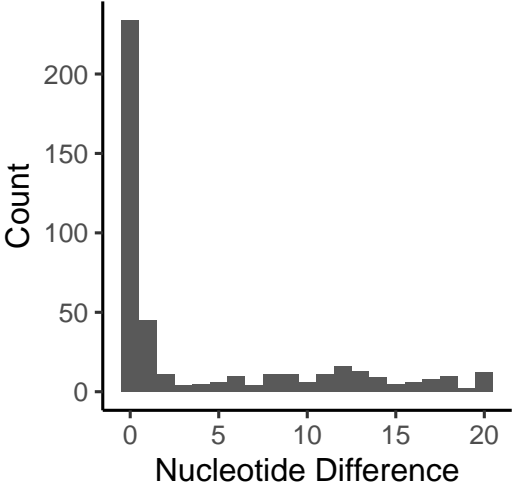
IGHV3-30-3*03

65 sequences assigned
No exact matches.



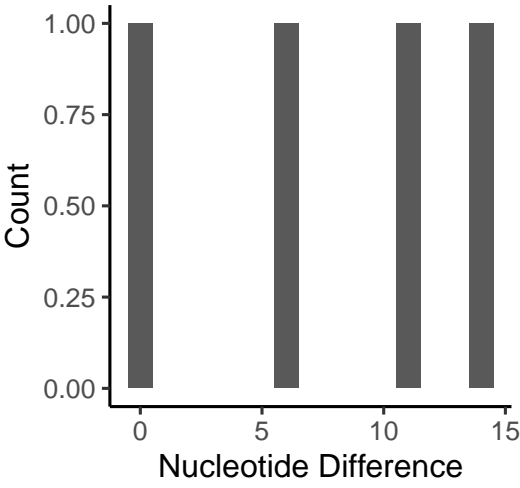
IGHV3-20*01

474 sequences assigned
234 (49.4%) exact matches, in which:
226 unique CDR3
6 unique J



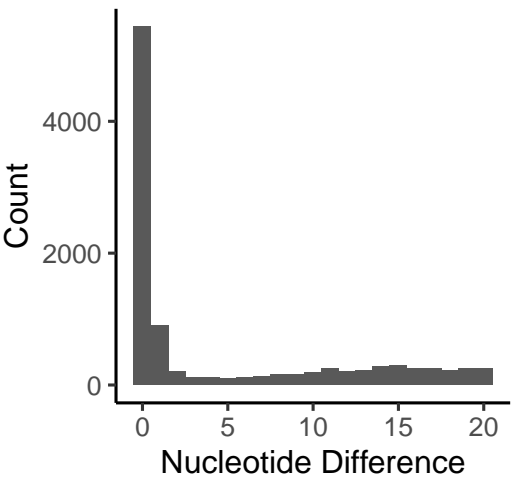
IGHV3-30-3*01

22 sequences assigned
1 (4.5%) exact matches, in which:
1 unique CDR3
1 unique J



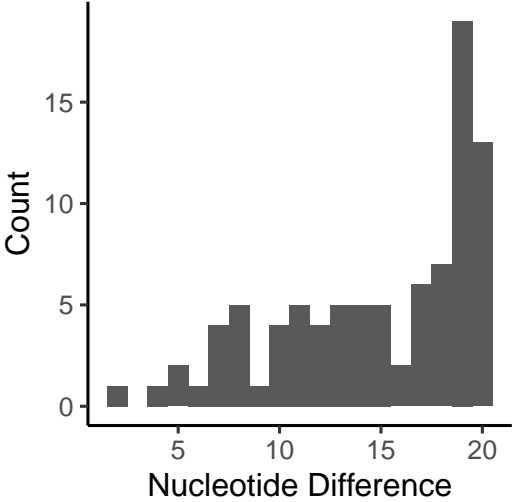
IGHV3-33*01

13344 sequences assigned
5435 (40.7%) exact matches, in which:
5322 unique CDR3
6 unique J



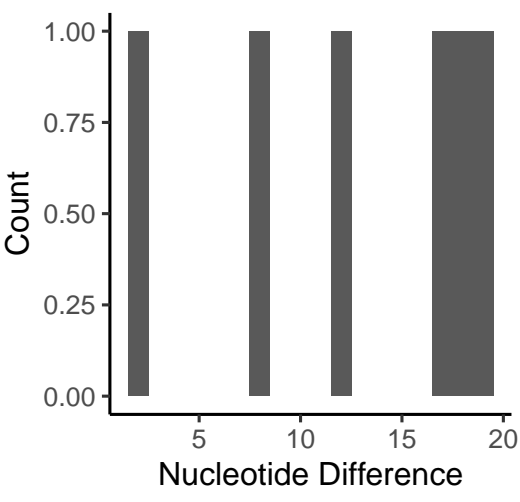
IGHV3-20*04

225 sequences assigned
No exact matches.



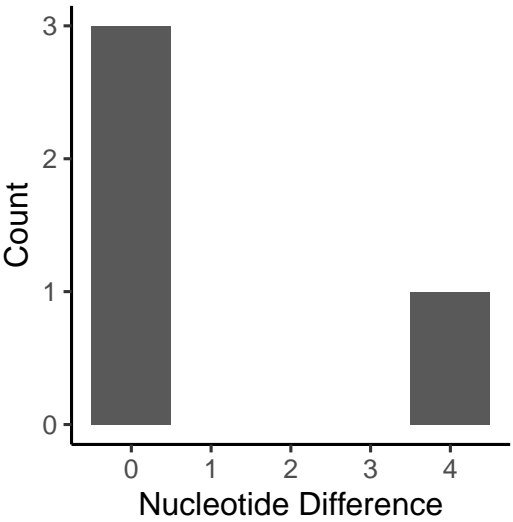
IGHV3-30-3*02

14 sequences assigned
No exact matches.



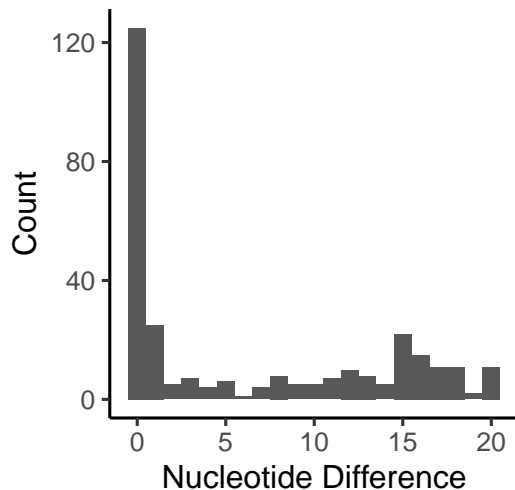
IGHV3-35*01

4 sequences assigned
3 (75%) exact matches, in which:
3 unique CDR3
3 unique J



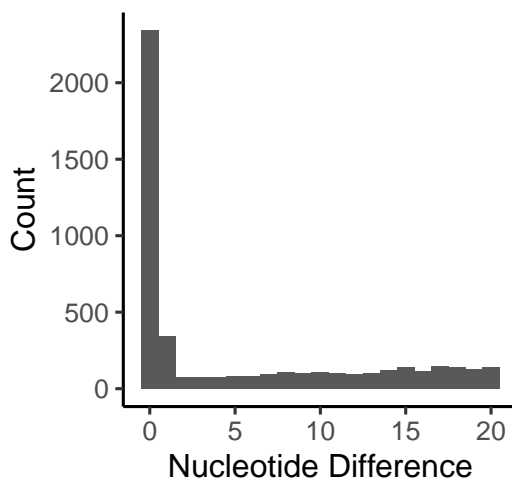
IGHV3-43*01

434 sequences assigned
125 (28.8%) exact matches, in which:
124 unique CDR3
6 unique J



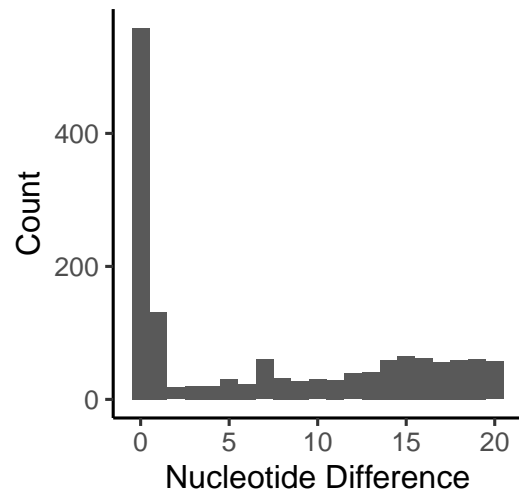
IGHV3-48*03

6299 sequences assigned
2342 (37.2%) exact matches, in which:
2243 unique CDR3
6 unique J



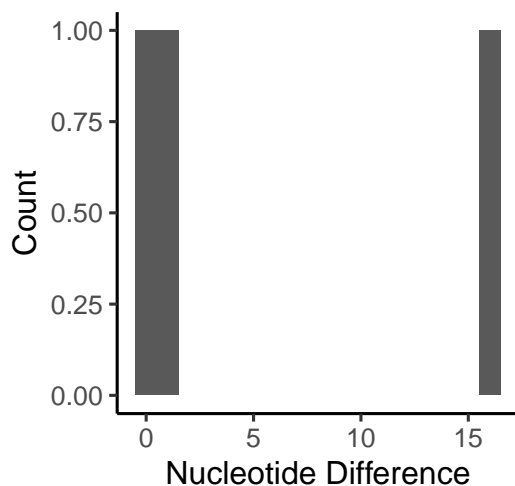
IGHV3-49*04

2160 sequences assigned
559 (25.9%) exact matches, in which:
519 unique CDR3
6 unique J



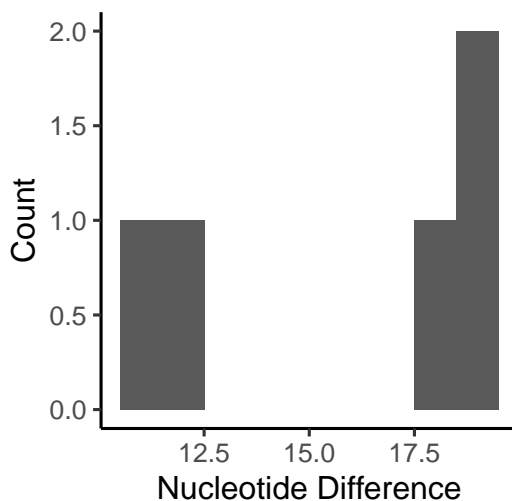
IGHV3-47*02

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



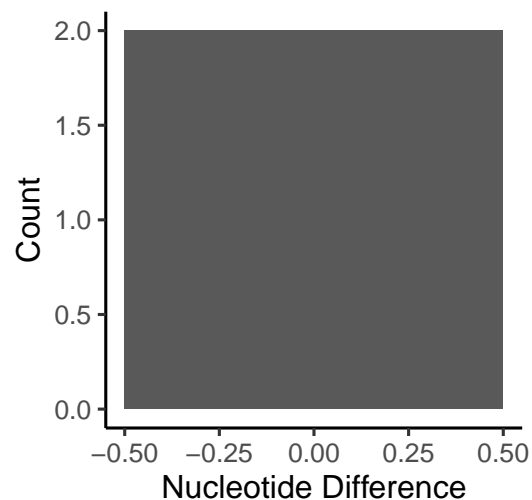
IGHV3-48*04

34 sequences assigned
No exact matches.



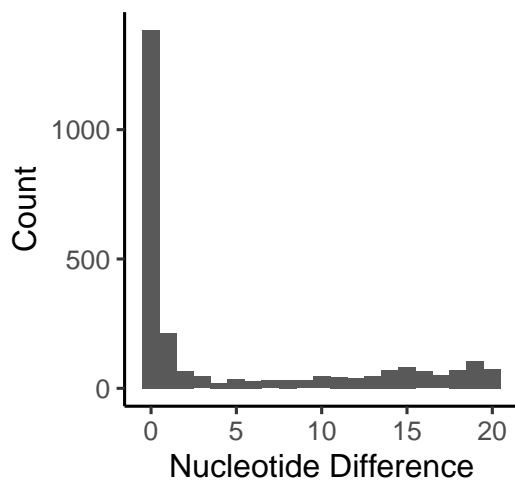
IGHV3-52*01

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



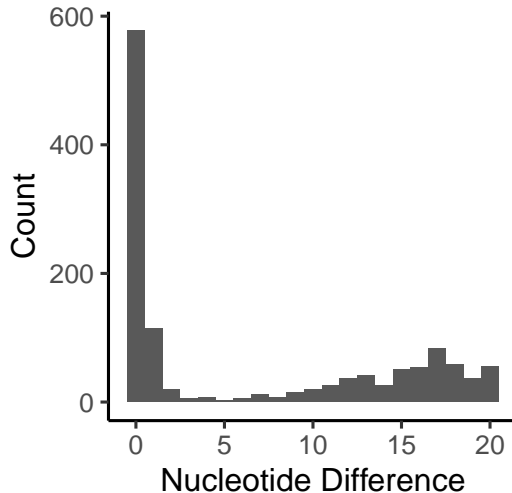
IGHV3-48*02

3238 sequences assigned
1385 (42.8%) exact matches, in which:
1333 unique CDR3
6 unique J



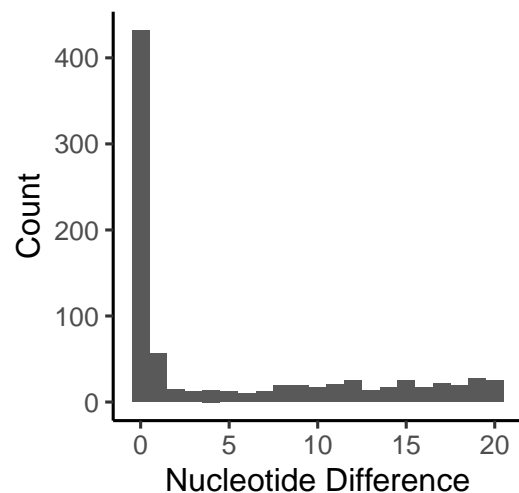
IGHV3-49*03

1712 sequences assigned
578 (33.8%) exact matches, in which:
568 unique CDR3
6 unique J



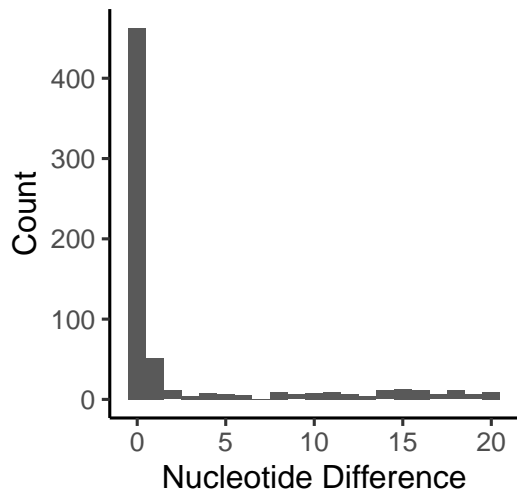
IGHV3-53*02

1181 sequences assigned
432 (36.6%) exact matches, in which:
424 unique CDR3
6 unique J



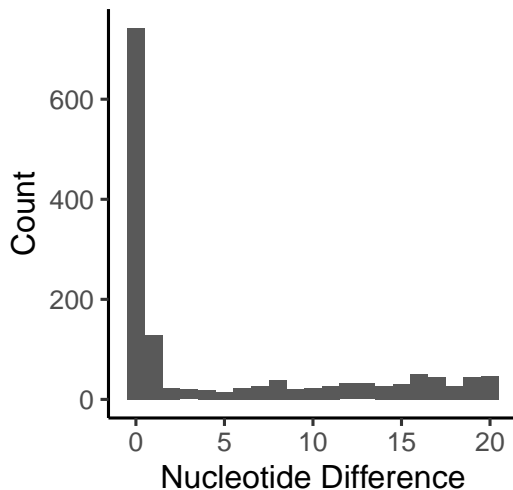
IGHV3–53*04

821 sequences assigned
463 (56.4%) exact matches, in which:
455 unique CDR3
5 unique J



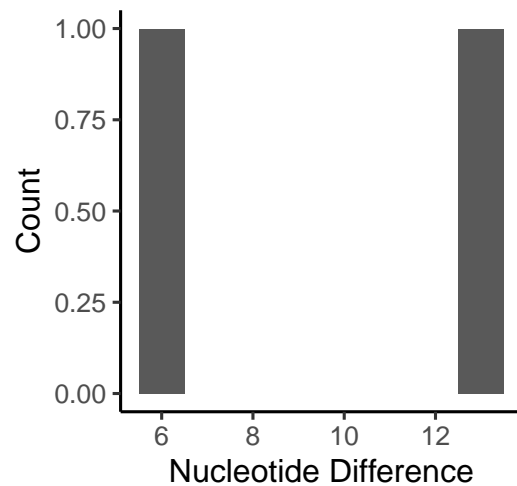
IGHV3–66*02

1863 sequences assigned
743 (39.9%) exact matches, in which:
732 unique CDR3
6 unique J



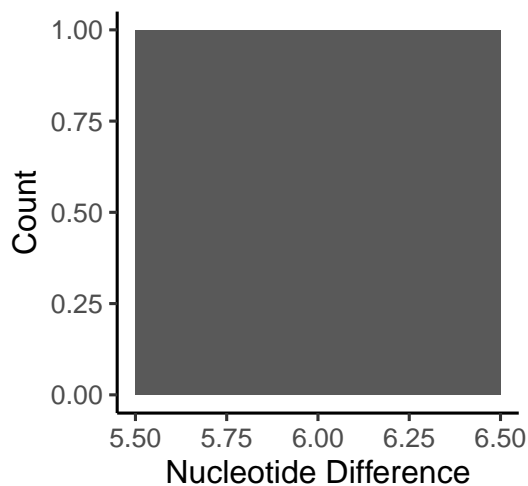
IGHV3–71*01

2 sequences assigned
No exact matches.



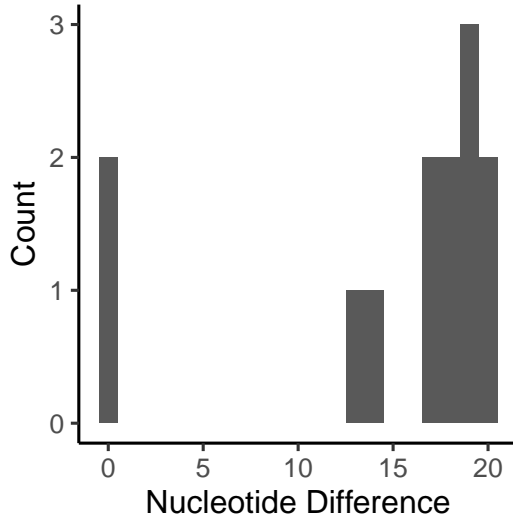
IGHV3–62*03

1 sequences assigned
No exact matches.



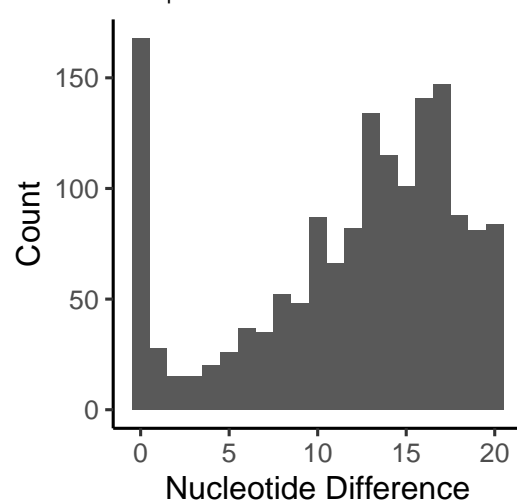
IGHV3–69–1*01

666 sequences assigned
2 (0.3%) exact matches, in which:
2 unique CDR3
1 unique J



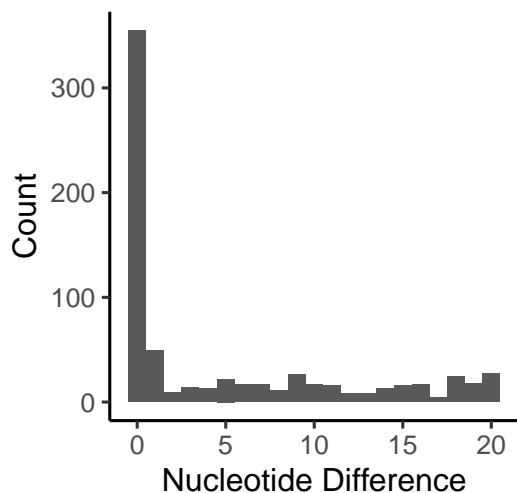
IGHV3–72*01

2399 sequences assigned
168 (7%) exact matches, in which:
155 unique CDR3
5 unique J



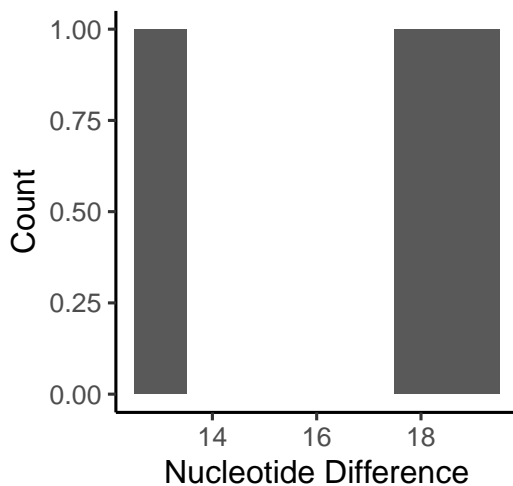
IGHV3–64*01

913 sequences assigned
355 (38.9%) exact matches, in which:
347 unique CDR3
6 unique J



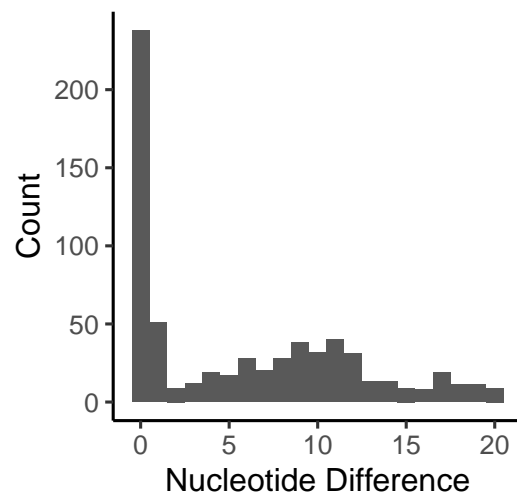
IGHV3–69–1*02

14 sequences assigned
No exact matches.



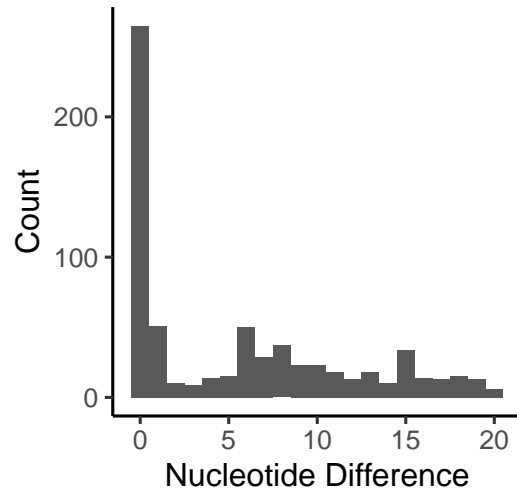
IGHV3–73*01

788 sequences assigned
238 (30.2%) exact matches, in which:
219 unique CDR3
5 unique J



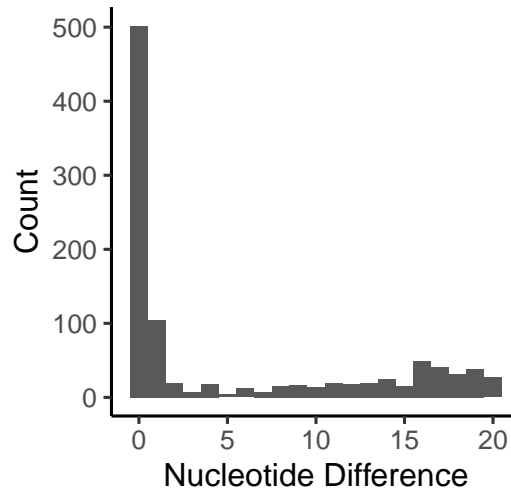
IGHV3-73*02

974 sequences assigned
265 (27.2%) exact matches, in which:
254 unique CDR3
5 unique J



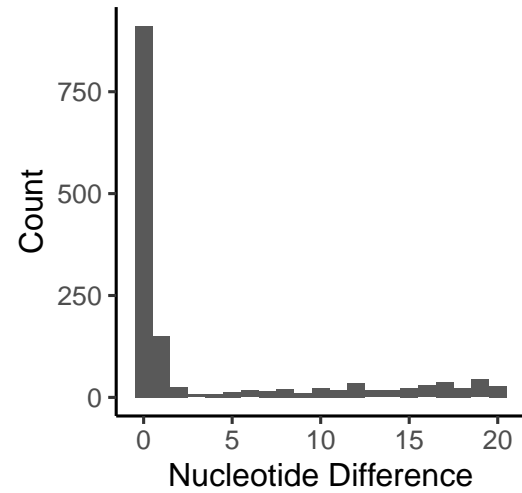
IGHV3-64D*06

1580 sequences assigned
502 (31.8%) exact matches, in which:
476 unique CDR3
6 unique J



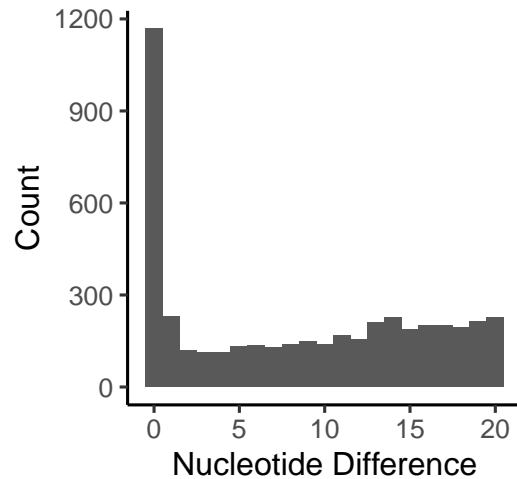
IGHV4-4*07

2093 sequences assigned
912 (43.6%) exact matches, in which:
902 unique CDR3
6 unique J



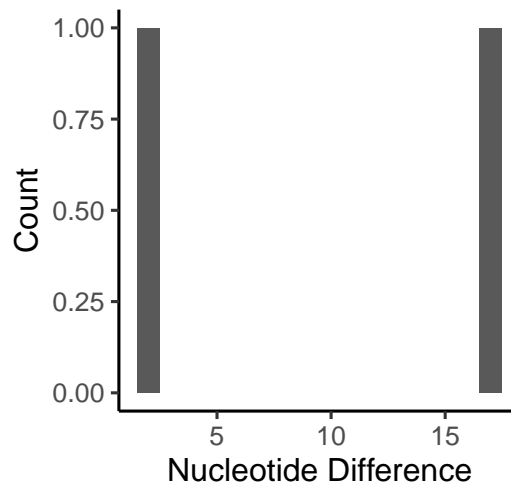
IGHV3-74*01

6366 sequences assigned
1168 (18.3%) exact matches, in which:
1094 unique CDR3
6 unique J



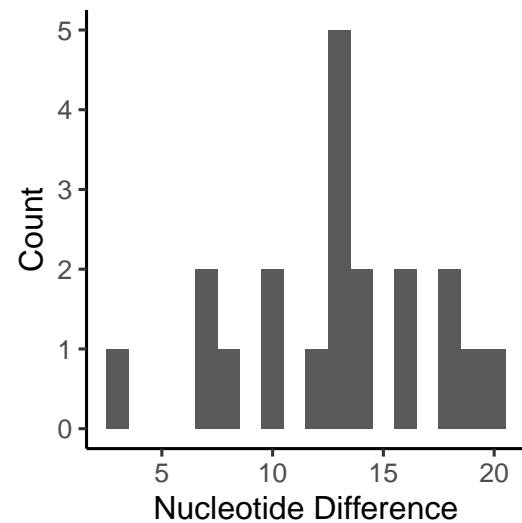
IGHV3-NL1*01

8 sequences assigned
No exact matches.



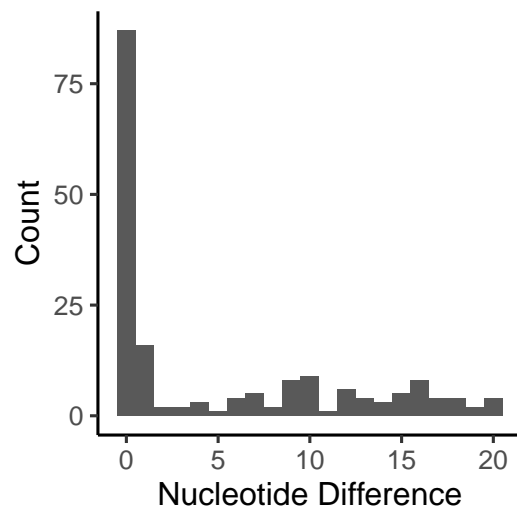
IGHV4-4*08

79 sequences assigned
No exact matches.



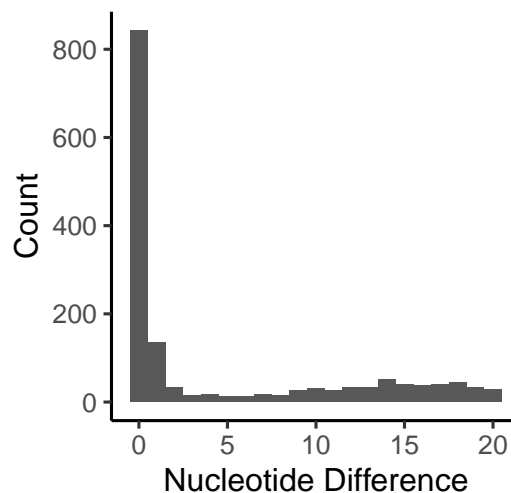
IGHV3-43D*04

210 sequences assigned
87 (41.4%) exact matches, in which:
86 unique CDR3
6 unique J



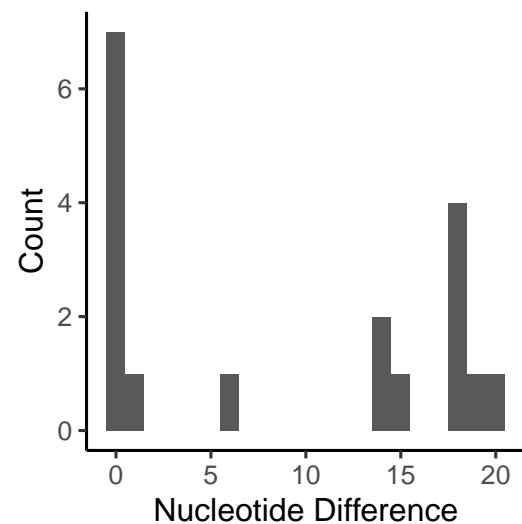
IGHV4-4*02

2017 sequences assigned
843 (41.8%) exact matches, in which:
819 unique CDR3
6 unique J



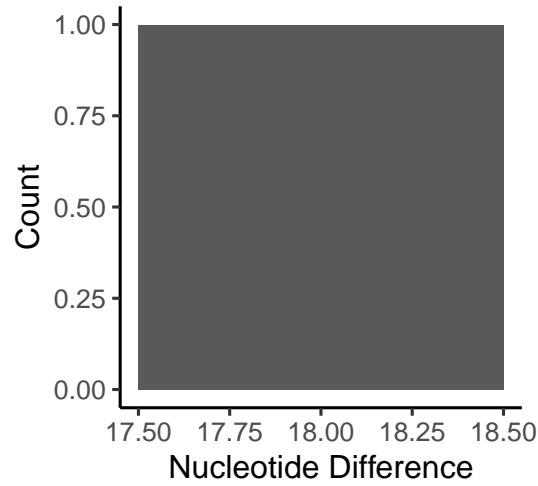
IGHV4-28*01

24 sequences assigned
7 (29.2%) exact matches, in which:
7 unique CDR3
4 unique J



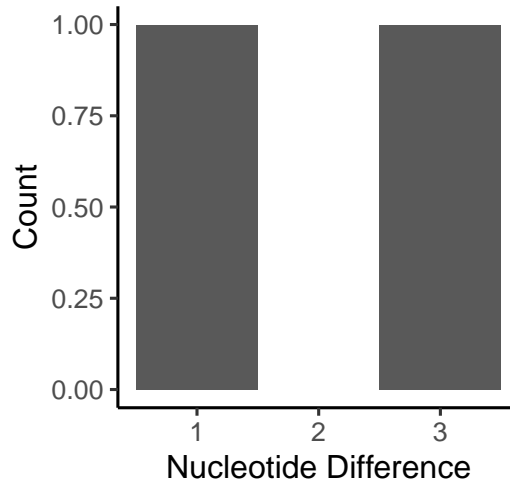
IGHV4-28*03

2 sequences assigned
No exact matches.



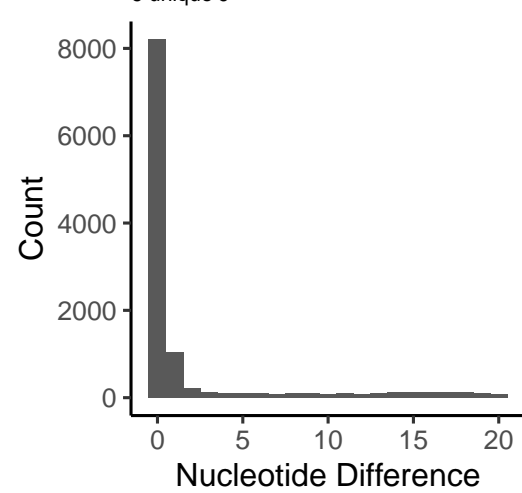
IGHV4-30-4*07

2 sequences assigned
No exact matches.



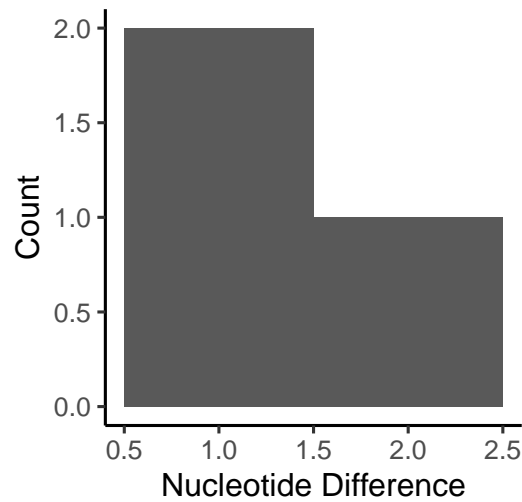
IGHV4-34*01

12934 sequences assigned
8206 (63.4%) exact matches, in which:
8111 unique CDR3
6 unique J



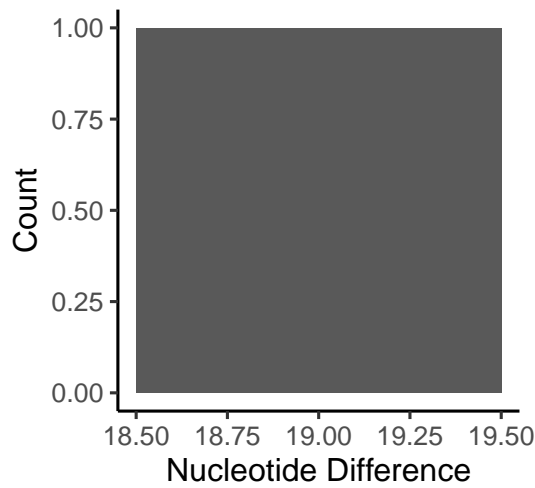
IGHV4-28*04

3 sequences assigned
No exact matches.



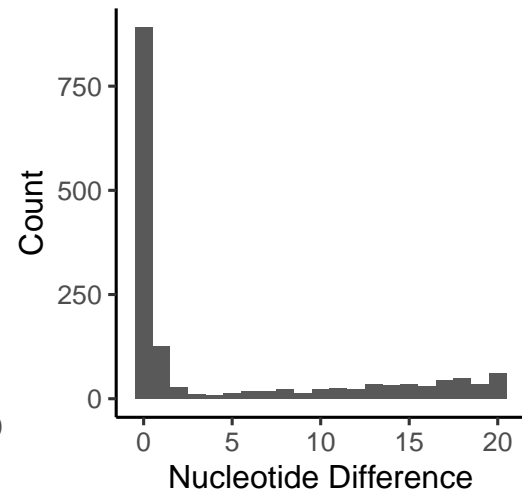
IGHV4-30-4*08

6 sequences assigned
No exact matches.



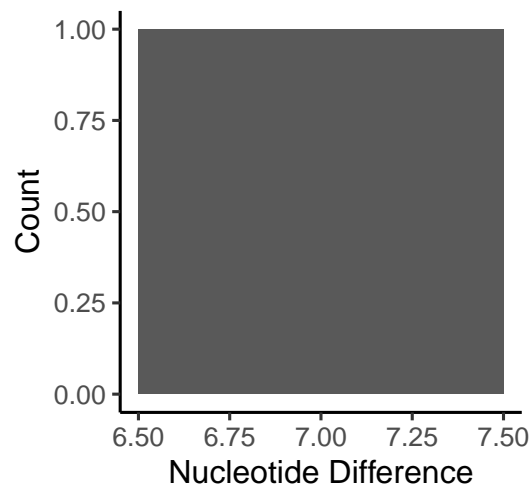
IGHV4-38-2*01

2165 sequences assigned
892 (41.2%) exact matches, in which:
870 unique CDR3
6 unique J



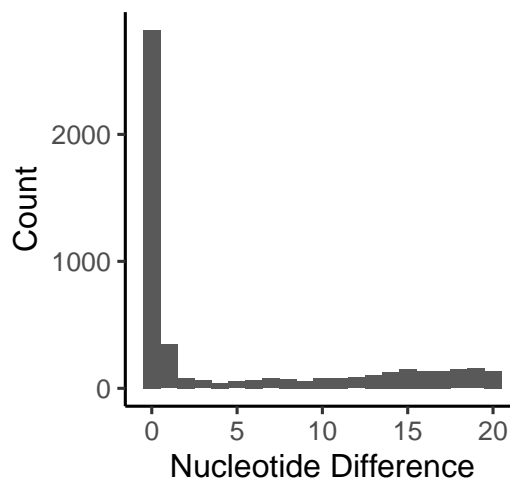
IGHV4-30-4*01

42 sequences assigned
No exact matches.



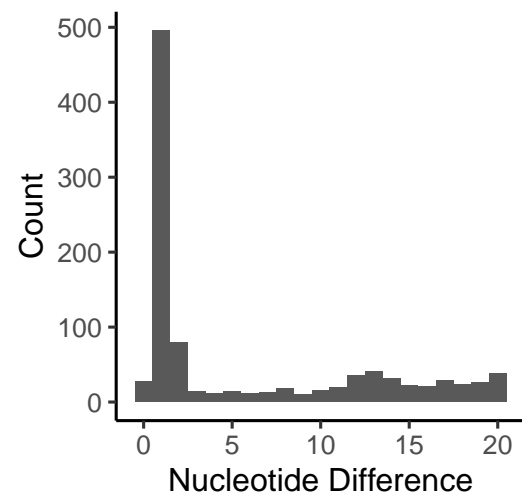
IGHV4-31*03

7404 sequences assigned
2822 (38.1%) exact matches, in which:
2762 unique CDR3
6 unique J



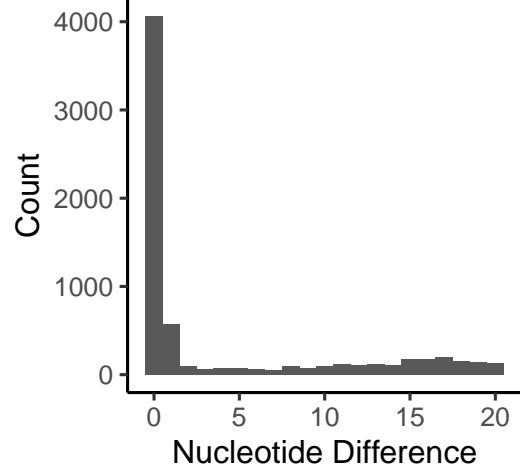
IGHV4-38-2*02

1536 sequences assigned
27 (1.8%) exact matches, in which:
27 unique CDR3
5 unique J



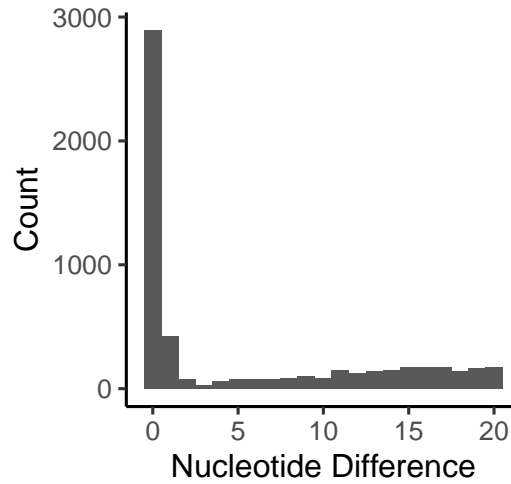
IGHV4-39*01

9659 sequences assigned
4060 (42%) exact matches, in which:
3959 unique CDR3
6 unique J



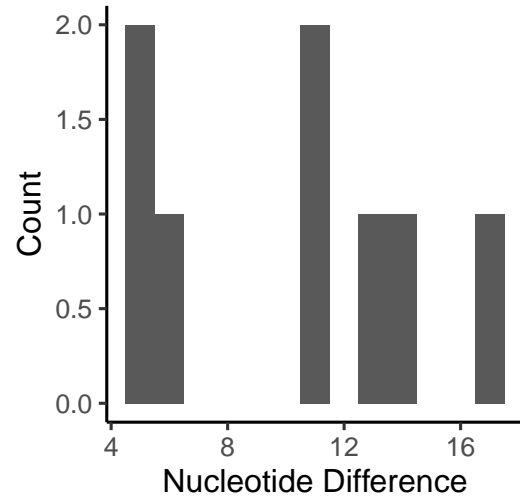
IGHV4-59*01

7671 sequences assigned
2892 (37.7%) exact matches, in which:
2823 unique CDR3
6 unique J



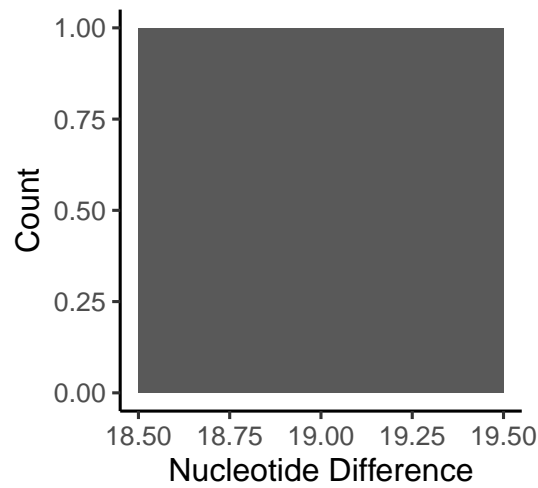
IGHV1/OR15-1*04

9 sequences assigned
No exact matches.



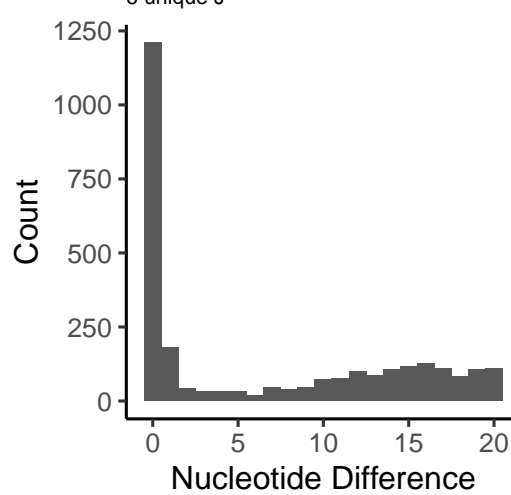
IGHV4-55*01

1 sequences assigned
No exact matches.



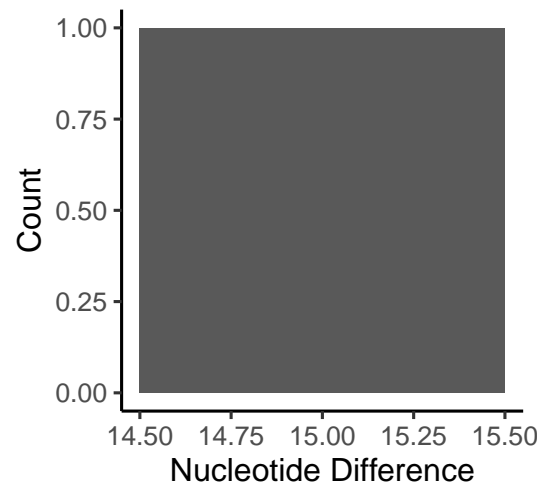
IGHV4-59*08

3957 sequences assigned
1210 (30.6%) exact matches, in which:
1191 unique CDR3
6 unique J



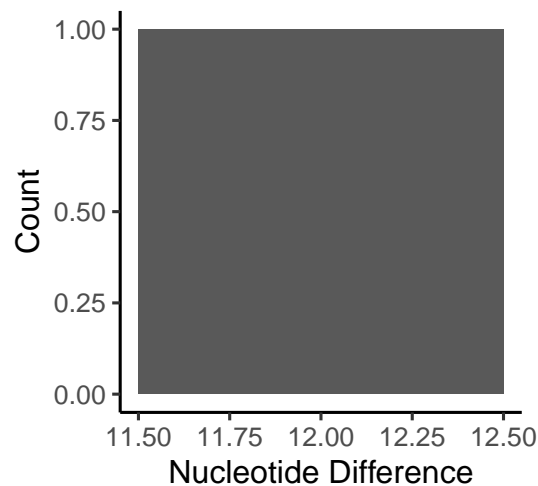
IGHV1/OR15-2*02

1 sequences assigned
No exact matches.



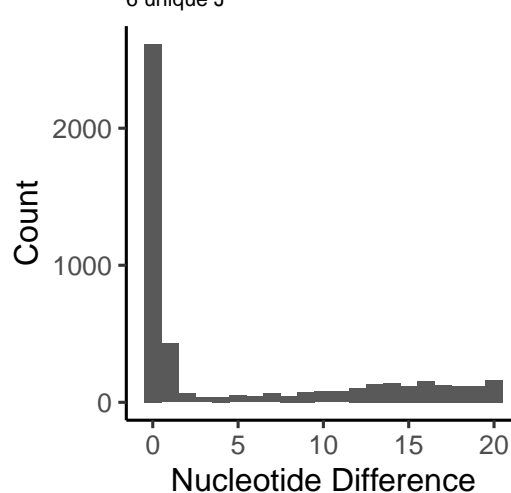
IGHV4-55*08

2 sequences assigned
No exact matches.



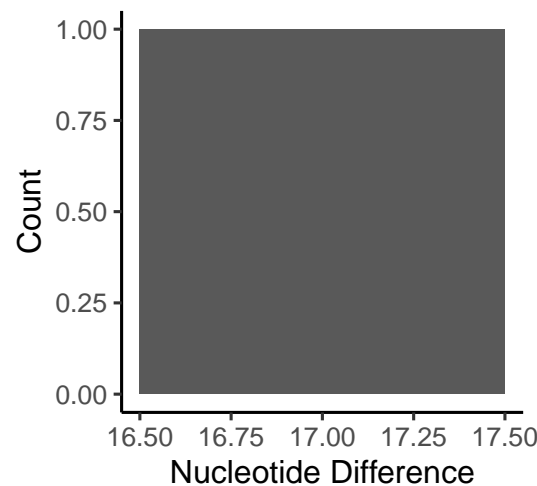
IGHV4-61*02

6812 sequences assigned
2614 (38.4%) exact matches, in which:
2583 unique CDR3
6 unique J



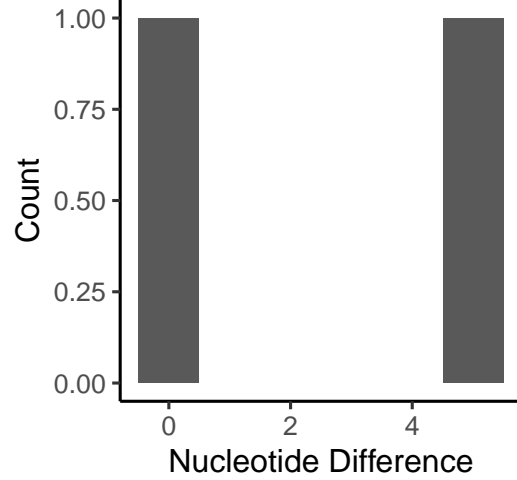
IGHV1/OR15-3*03

1 sequences assigned
No exact matches.



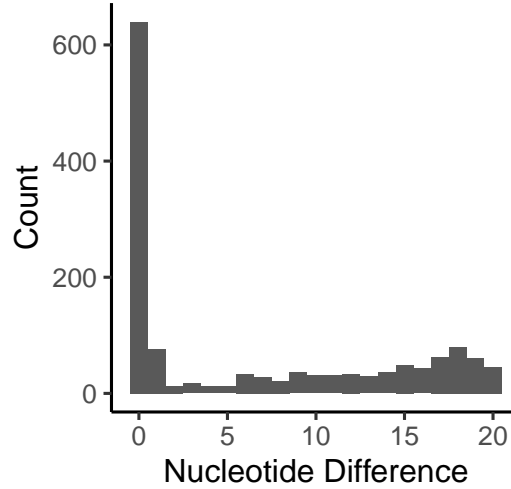
IGHV1/OR15-4*01

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



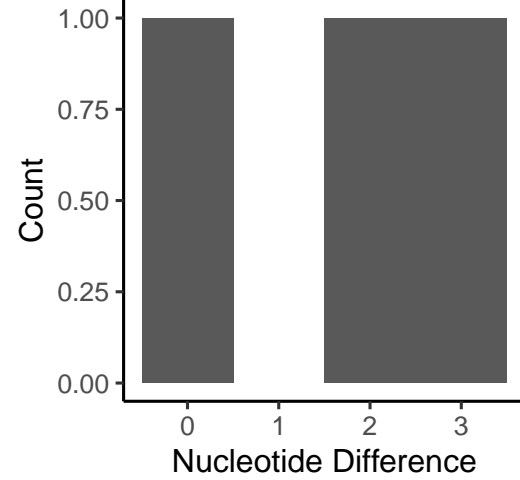
IGHV5-10-1*01

1946 sequences assigned
640 (32.9%) exact matches, in which:
624 unique CDR3
6 unique J



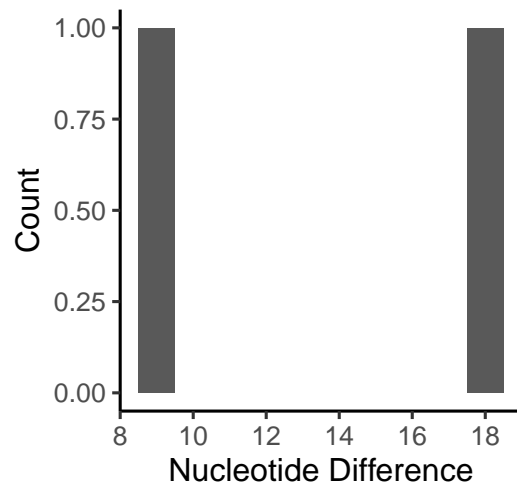
IGHV5-78*01

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



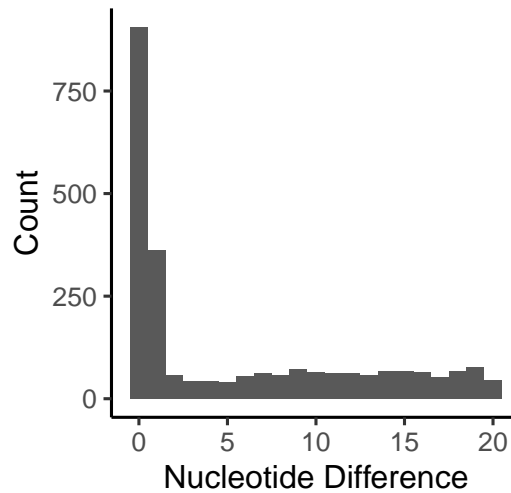
IGHV4/OR15-8*01

6 sequences assigned
No exact matches.



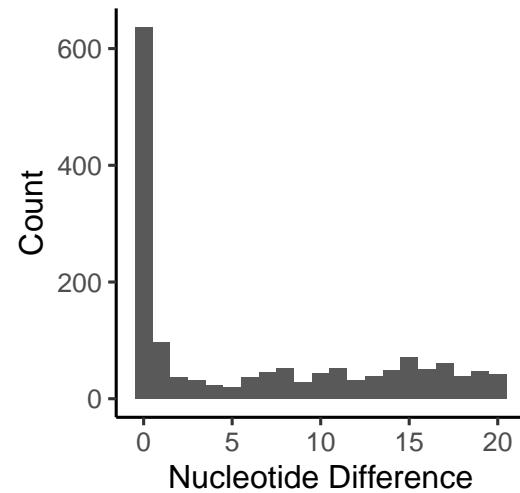
IGHV5-51*01

3171 sequences assigned
906 (28.6%) exact matches, in which:
895 unique CDR3
6 unique J



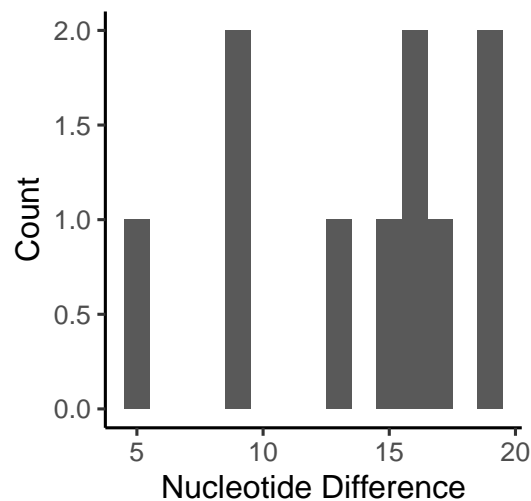
IGHV6-1*01

1739 sequences assigned
637 (36.6%) exact matches, in which:
634 unique CDR3
6 unique J



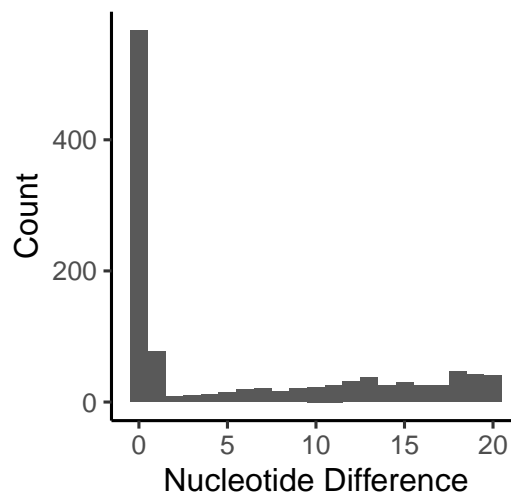
IGHV4/OR15-8*02

28 sequences assigned
No exact matches.



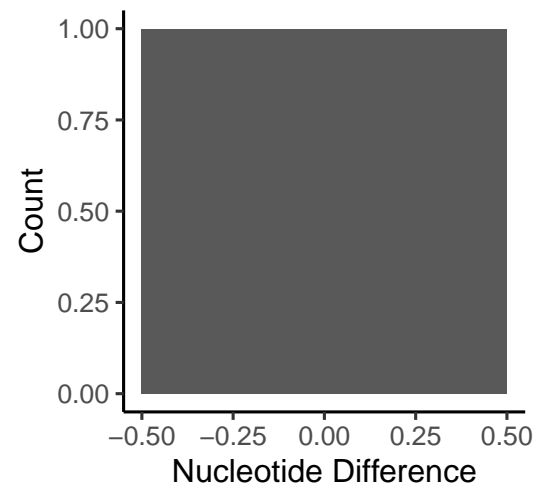
IGHV5-51*03

1639 sequences assigned
567 (34.6%) exact matches, in which:
561 unique CDR3
6 unique J



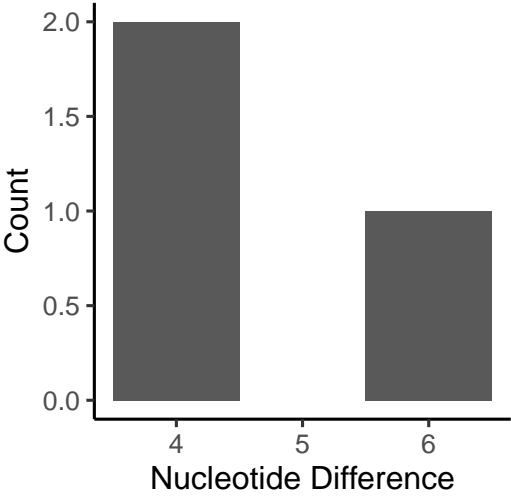
IGHV3/OR16-6*02

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



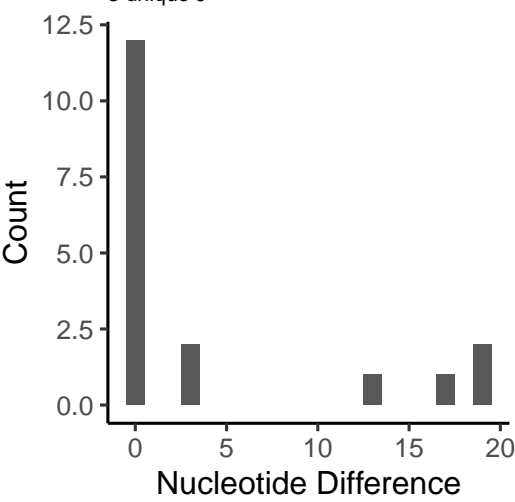
IGHV3/OR16-8*01

3 sequences assigned
No exact matches.



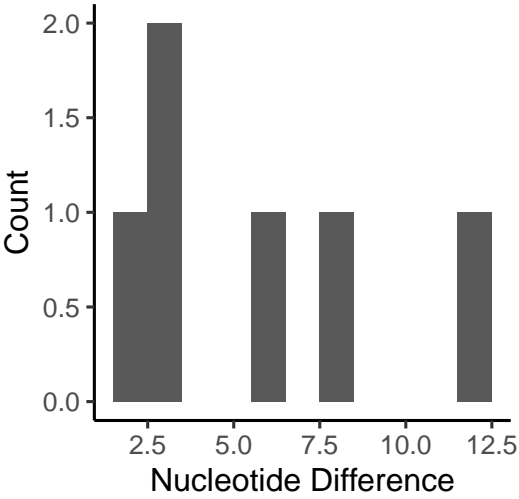
IGHV7-4-1*01

19 sequences assigned
12 (63.2%) exact matches, in which:
12 unique CDR3
3 unique J



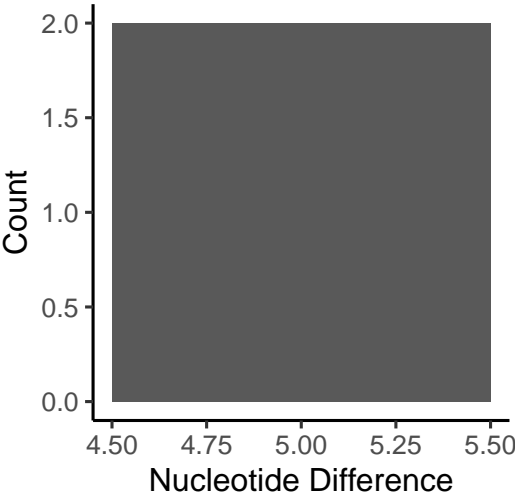
IGHV3/OR16-9*01

6 sequences assigned
No exact matches.



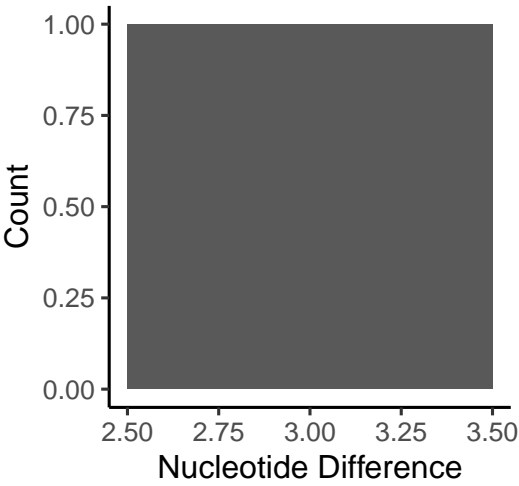
IGHV7-81*01

2 sequences assigned
No exact matches.



IGHV3/OR16-12*01

1 sequences assigned
No exact matches.





Novel sequence(s) IGHV1-69*08_C191T are not listed in the genotype and will be ignored.