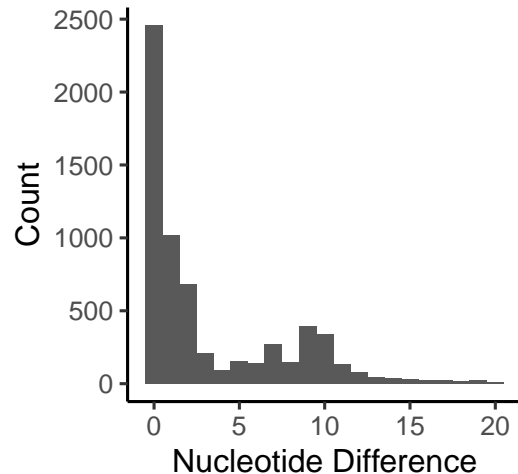


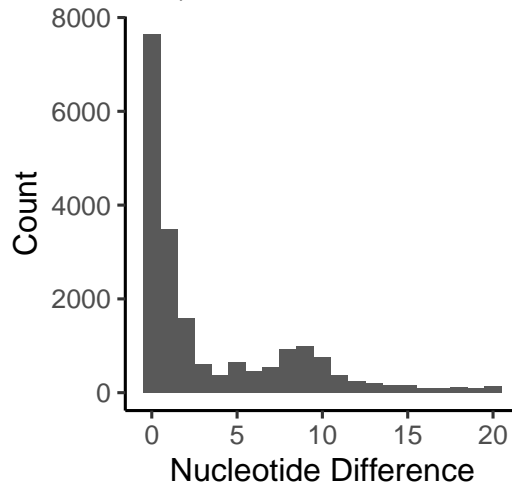
IGHV1-2*04

6428 sequences assigned
2457 (38.2%) exact matches, in which:
2341 unique CDR3
6 unique J



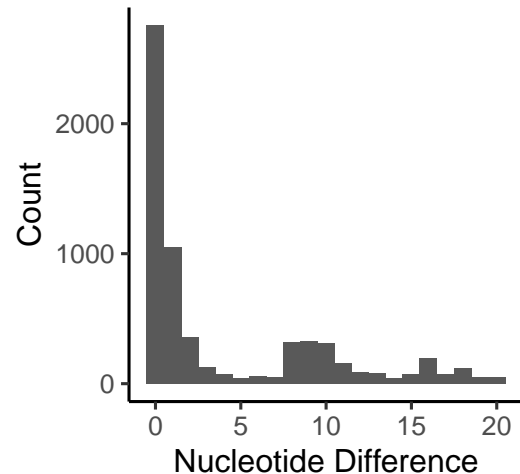
IGHV1-8*01

21532 sequences assigned
7640 (35.5%) exact matches, in which:
7233 unique CDR3
6 unique J



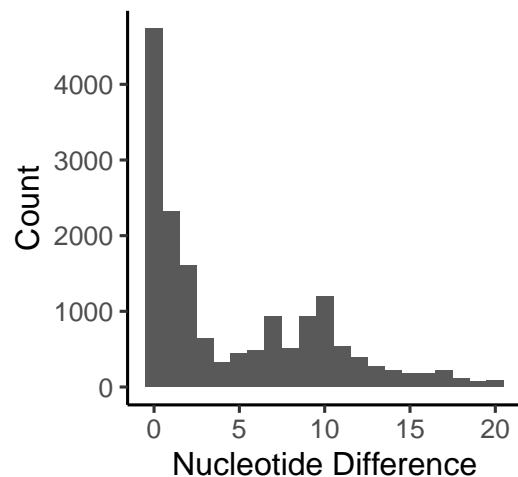
IGHV1-24*01

6478 sequences assigned
2756 (42.5%) exact matches, in which:
2618 unique CDR3
6 unique J



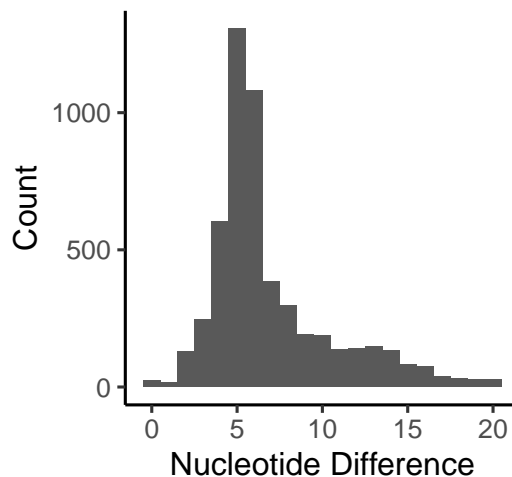
IGHV1-2*06

17210 sequences assigned
4735 (27.5%) exact matches, in which:
4472 unique CDR3
6 unique J



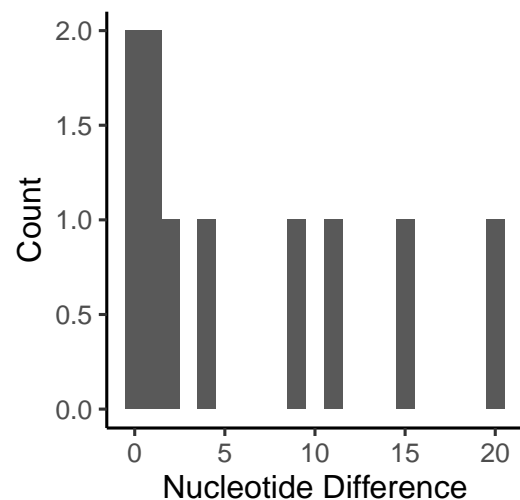
IGHV1-8*02

5609 sequences assigned
24 (0.4%) exact matches, in which:
24 unique CDR3
4 unique J



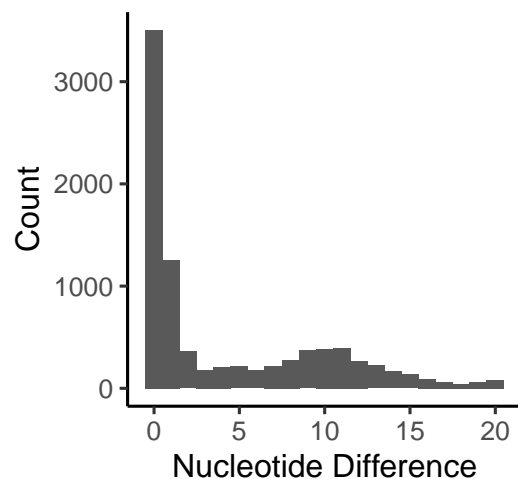
IGHV1-45*02

10 sequences assigned
2 (20%) exact matches, in which:
2 unique CDR3
2 unique J



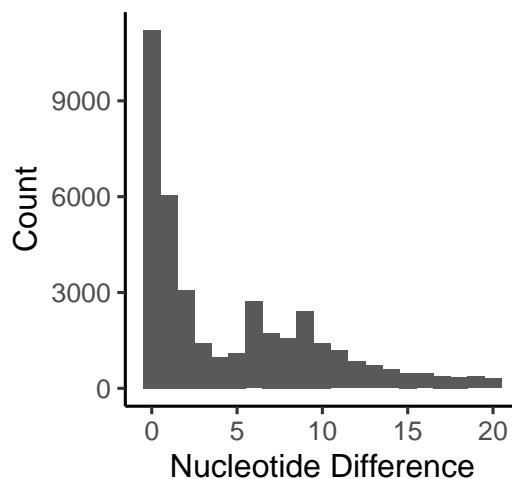
IGHV1-3*01_05

9271 sequences assigned
3505 (37.8%) exact matches, in which:
3270 unique CDR3
6 unique J



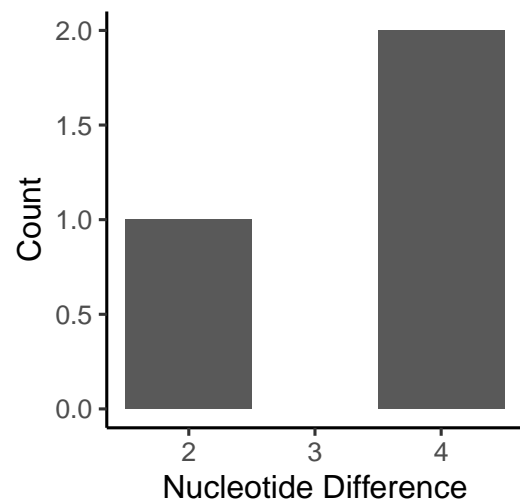
IGHV1-18*01

41836 sequences assigned
11216 (26.8%) exact matches, in which:
10381 unique CDR3
6 unique J



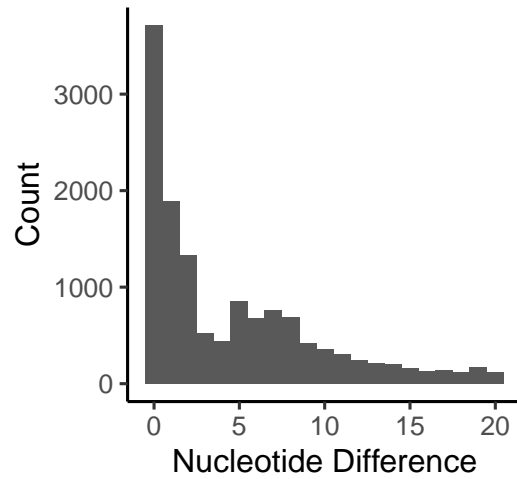
IGHV1-45*03

3 sequences assigned
No exact matches.



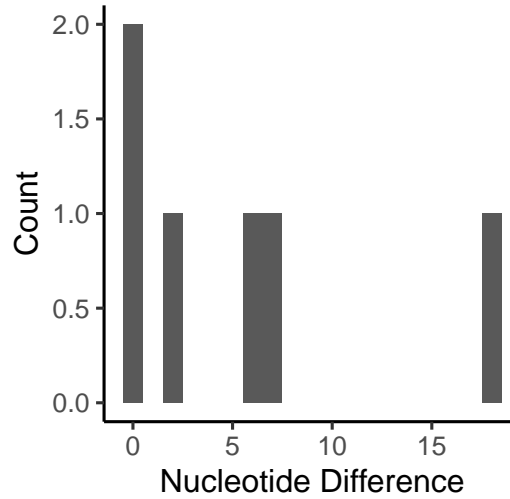
IGHV1-46*01

14281 sequences assigned
3712 (26%) exact matches, in which:
3544 unique CDR3
6 unique J



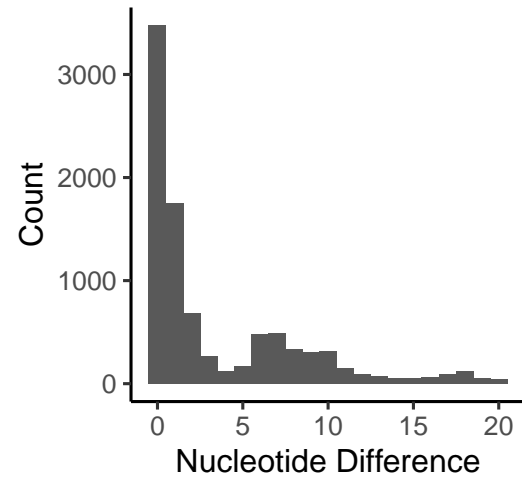
IGHV1-68*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
1 unique J



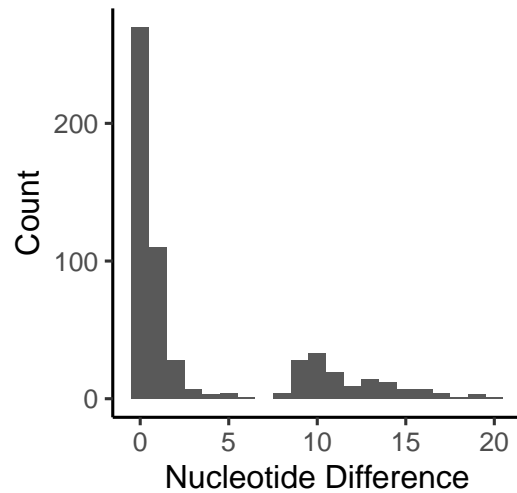
IGHV1-69*04_09

10064 sequences assigned
3476 (34.5%) exact matches, in which:
3355 unique CDR3
6 unique J



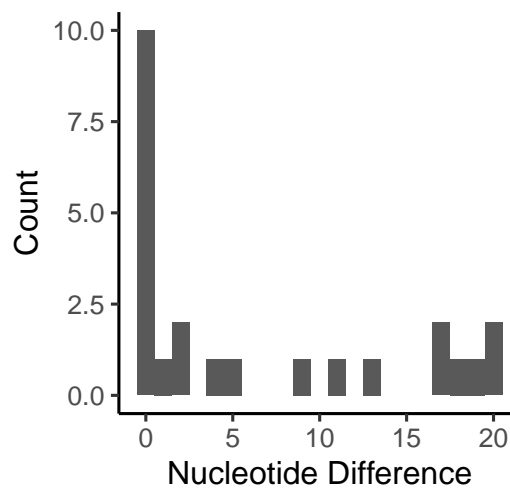
IGHV1-58*02

566 sequences assigned
270 (47.7%) exact matches, in which:
256 unique CDR3
6 unique J



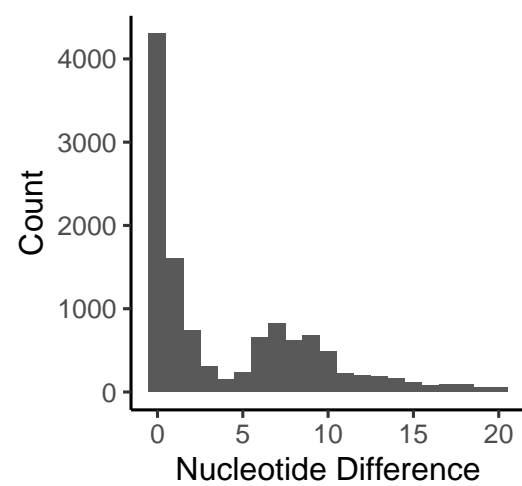
IGHV1-69-2*01

26 sequences assigned
10 (38.5%) exact matches, in which:
10 unique CDR3
4 unique J



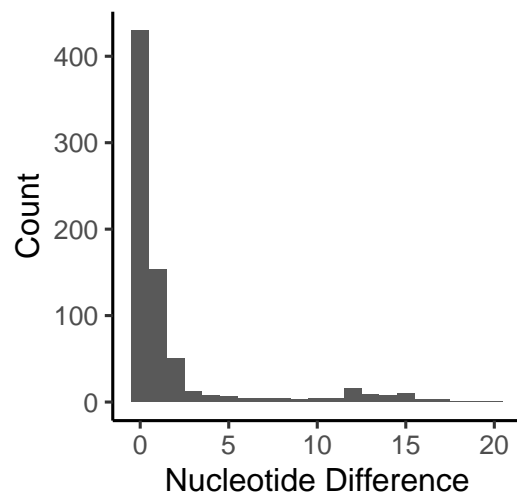
IGHV1-69*06_14

12271 sequences assigned
4302 (35.1%) exact matches, in which:
4169 unique CDR3
6 unique J



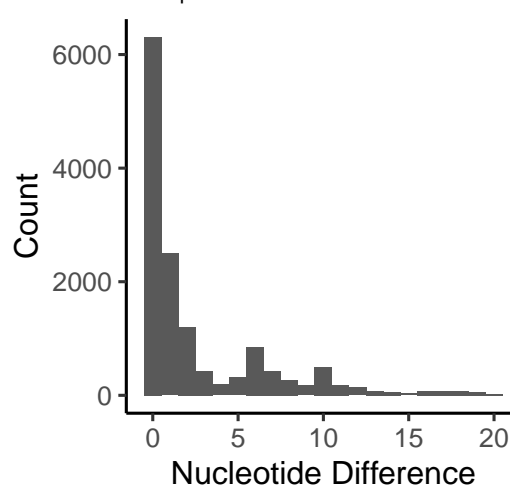
IGHV1-58*01_03

759 sequences assigned
430 (56.7%) exact matches, in which:
408 unique CDR3
6 unique J



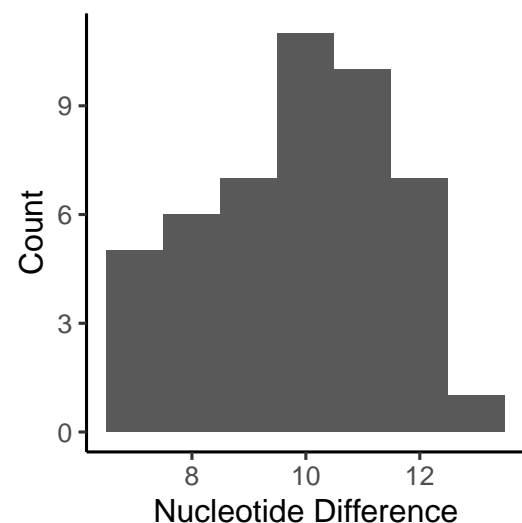
IGHV1-69*01_12_13

14359 sequences assigned
6308 (43.9%) exact matches, in which:
6084 unique CDR3
6 unique J



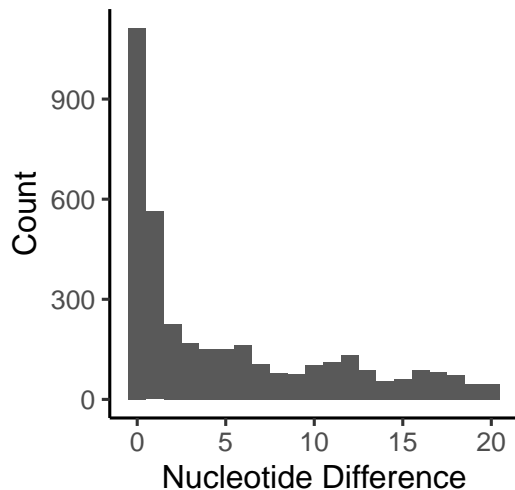
IGHV1-NL1*01

47 sequences assigned
No exact matches.



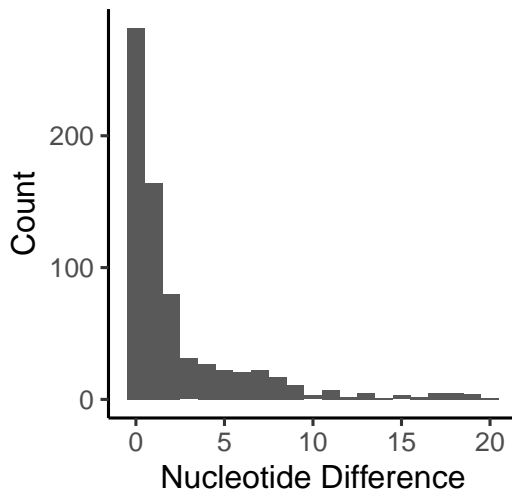
IGHV2-5*02

4016 sequences assigned
1114 (27.7%) exact matches, in which:
1050 unique CDR3
6 unique J



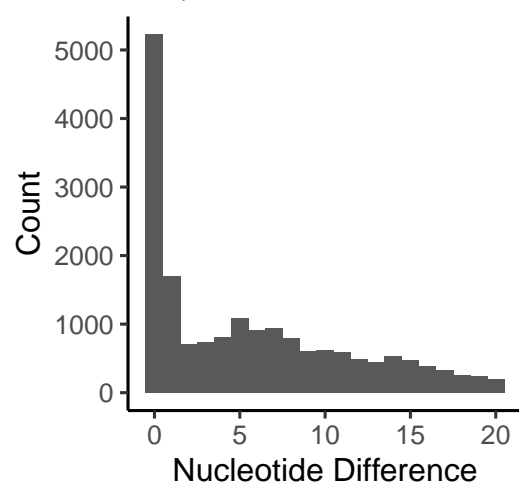
IGHV2-70*11_15

727 sequences assigned
282 (38.8%) exact matches, in which:
263 unique CDR3
6 unique J



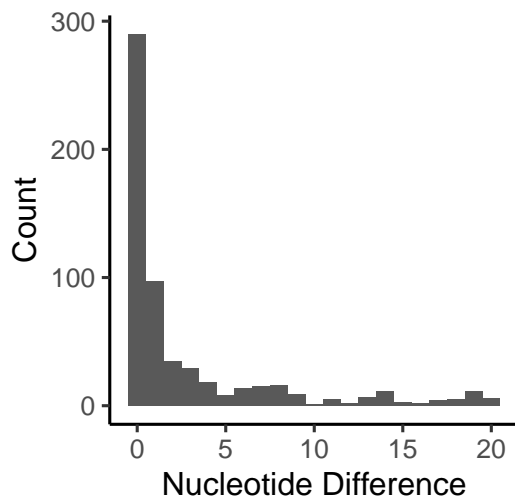
IGHV3-9*01

19584 sequences assigned
5227 (26.7%) exact matches, in which:
3982 unique CDR3
6 unique J



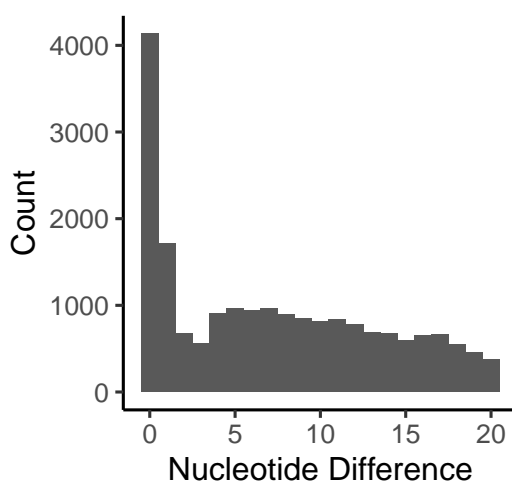
IGHV2-26*01

593 sequences assigned
290 (48.9%) exact matches, in which:
264 unique CDR3
5 unique J



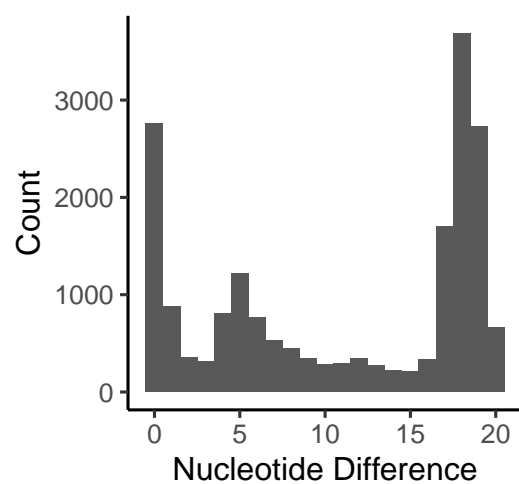
IGHV3-7*01

21937 sequences assigned
4134 (18.8%) exact matches, in which:
3364 unique CDR3
6 unique J



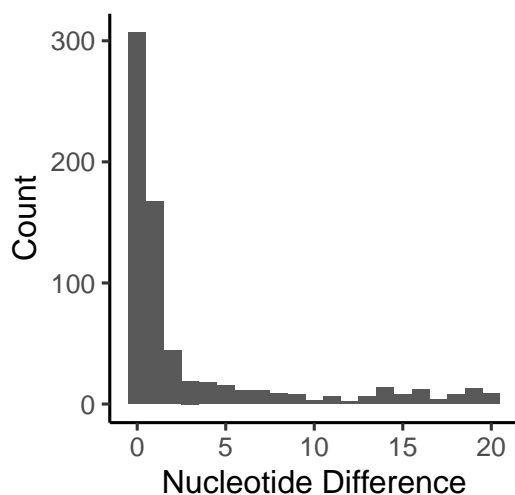
IGHV3-11*01

20220 sequences assigned
2758 (13.6%) exact matches, in which:
2238 unique CDR3
6 unique J



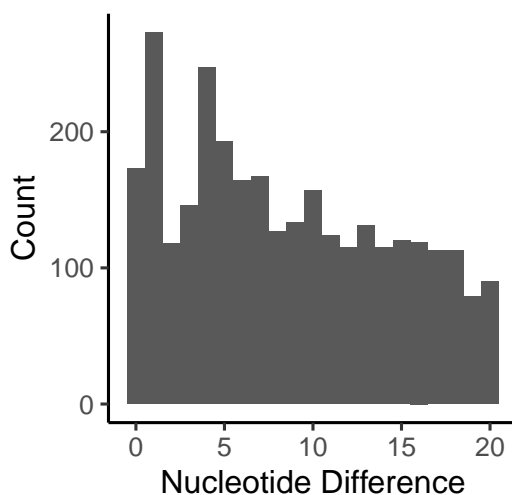
IGHV2-70*01

763 sequences assigned
307 (40.2%) exact matches, in which:
292 unique CDR3
5 unique J



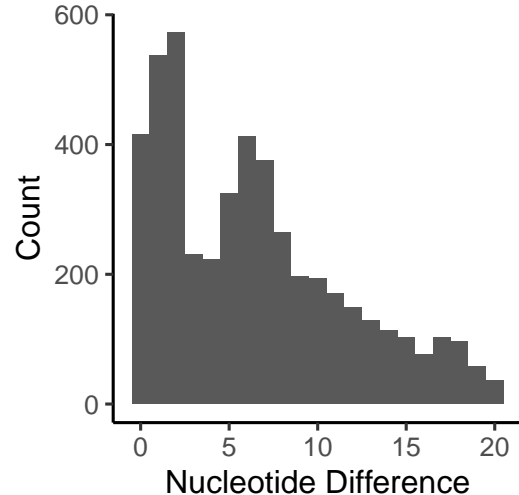
IGHV3-7*03

3427 sequences assigned
173 (5%) exact matches, in which:
170 unique CDR3
6 unique J



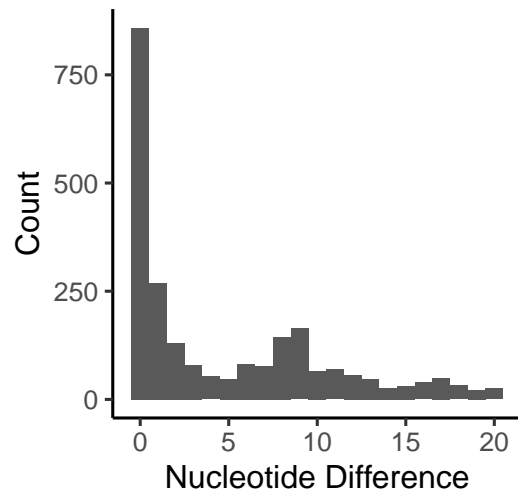
IGHV3-11*04

5001 sequences assigned
416 (8.3%) exact matches, in which:
409 unique CDR3
6 unique J



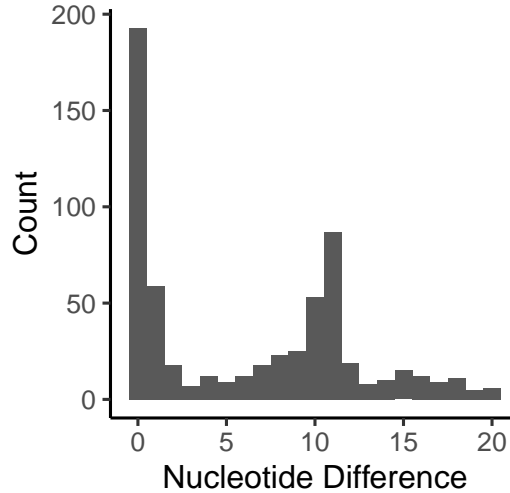
IGHV3-13*01

2490 sequences assigned
859 (34.5%) exact matches, in which:
679 unique CDR3
6 unique J



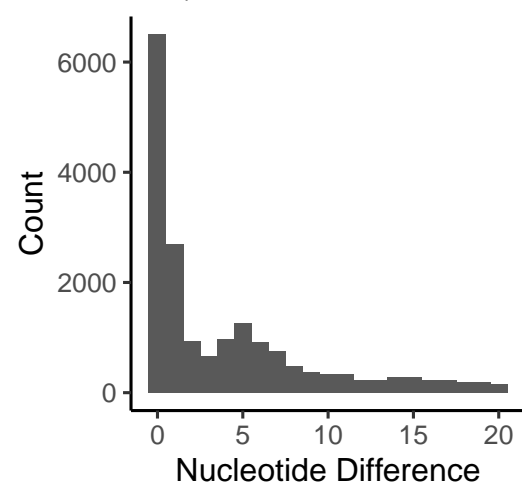
IGHV3-20*01_02

624 sequences assigned
193 (30.9%) exact matches, in which:
151 unique CDR3
5 unique J



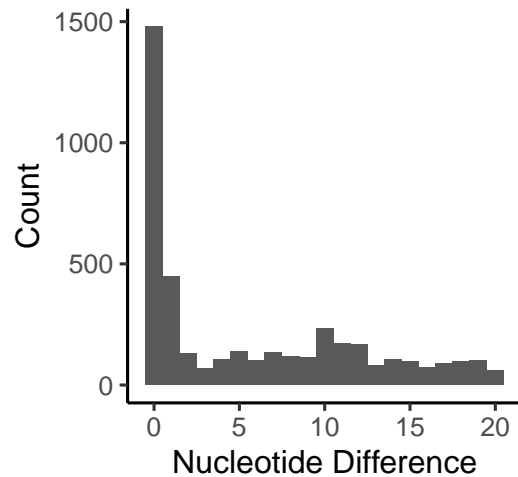
IGHV3-21*01_02

19263 sequences assigned
6502 (33.8%) exact matches, in which:
5157 unique CDR3
6 unique J



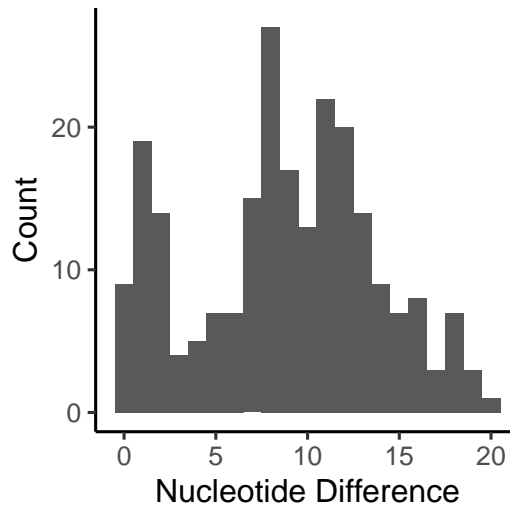
IGHV3-15*01_02

4674 sequences assigned
1479 (31.6%) exact matches, in which:
1212 unique CDR3
6 unique J



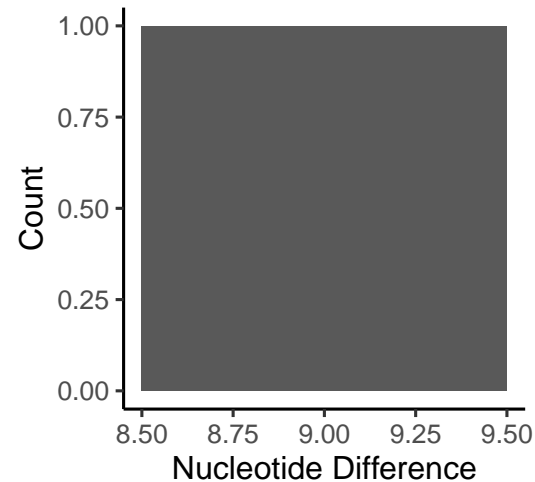
IGHV3-20*03_04

245 sequences assigned
9 (3.7%) exact matches, in which:
8 unique CDR3
5 unique J



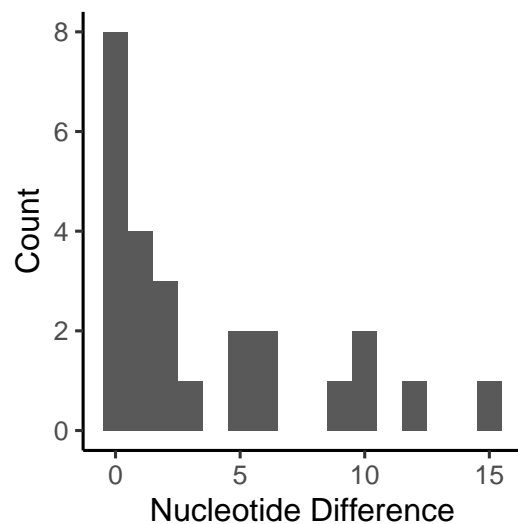
IGHV3-22*01_02

1 sequences assigned
No exact matches.



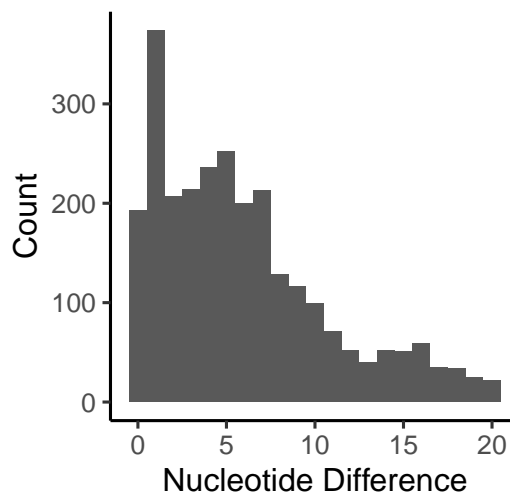
IGHV3-19*01

25 sequences assigned
8 (32%) exact matches, in which:
8 unique CDR3
3 unique J



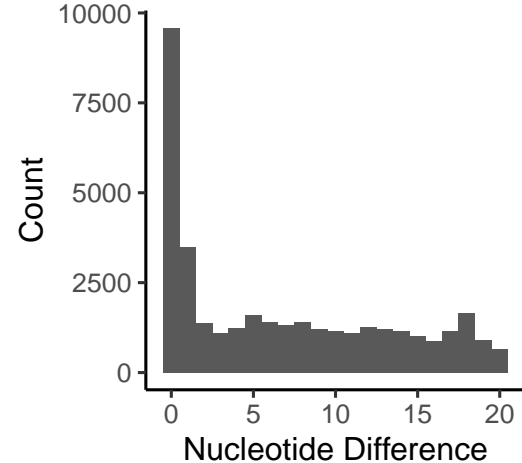
IGHV3-21*04

2794 sequences assigned
193 (6.9%) exact matches, in which:
190 unique CDR3
6 unique J



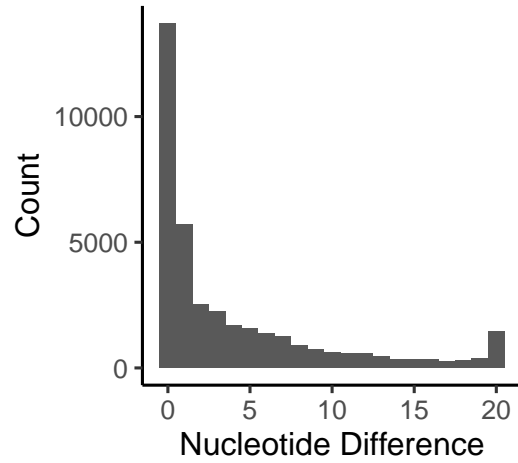
IGHV3-23*01_04

40178 sequences assigned
9587 (23.9%) exact matches, in which:
7235 unique CDR3
6 unique J



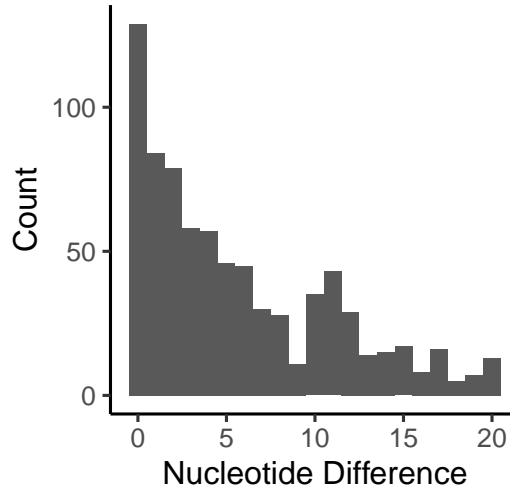
IGHV3-30-3*01

43185 sequences assigned
13717 (31.8%) exact matches, in which:
11057 unique CDR3
6 unique J



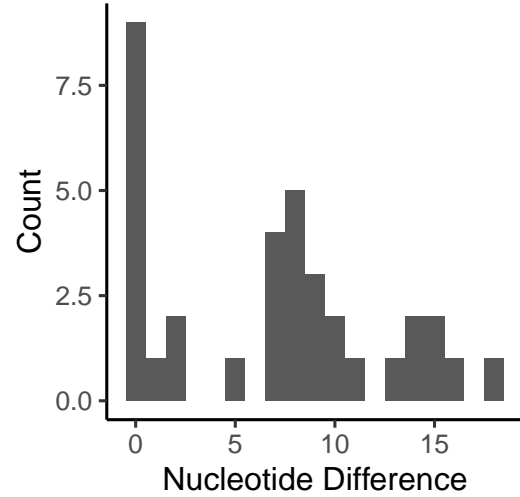
IGHV3-33*05

931 sequences assigned
129 (13.9%) exact matches, in which:
125 unique CDR3
6 unique J



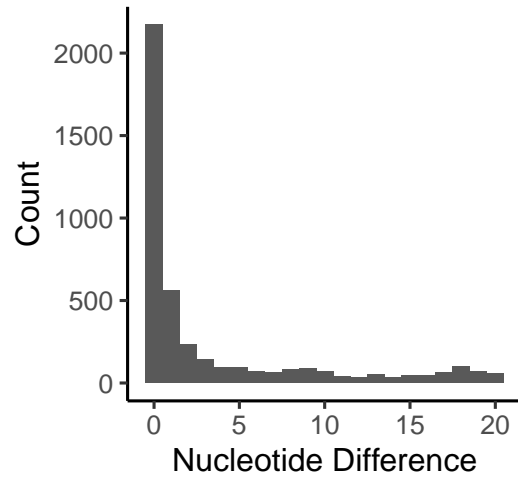
IGHV3-35*01

35 sequences assigned
9 (25.7%) exact matches, in which:
8 unique CDR3
4 unique J



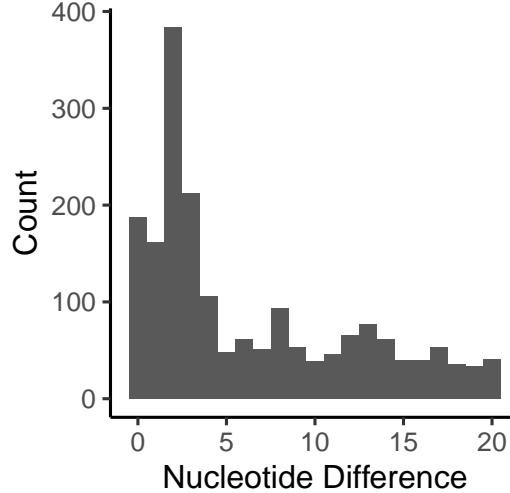
IGHV3-30*03

4412 sequences assigned
2172 (49.2%) exact matches, in which:
2056 unique CDR3
6 unique J



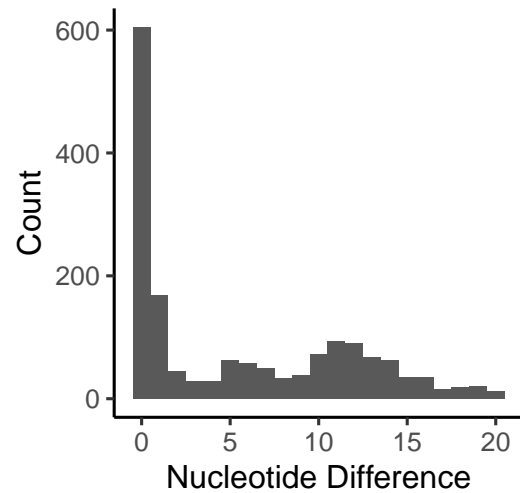
IGHV3-33*06

2203 sequences assigned
188 (8.5%) exact matches, in which:
187 unique CDR3
6 unique J



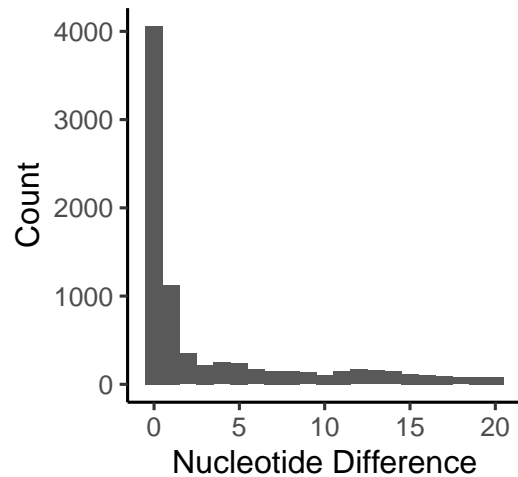
IGHV3-43*02

1947 sequences assigned
605 (31.1%) exact matches, in which:
492 unique CDR3
6 unique J



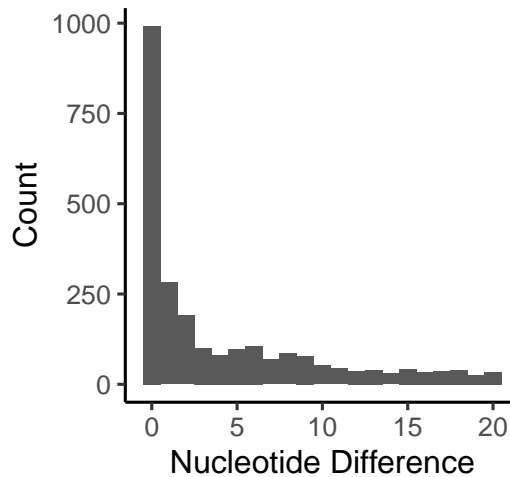
IGHV3-33*01

8864 sequences assigned
4060 (45.8%) exact matches, in which:
3397 unique CDR3
6 unique J



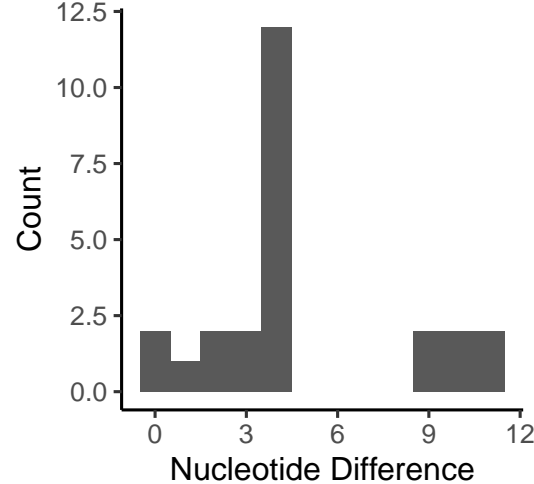
IGHV3-33*08

2786 sequences assigned
992 (35.6%) exact matches, in which:
925 unique CDR3
6 unique J



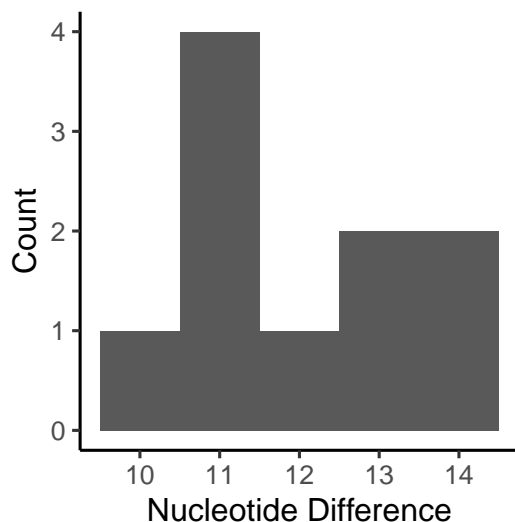
IGHV3-47*01

25 sequences assigned
2 (8%) exact matches, in which:
2 unique CDR3
2 unique J



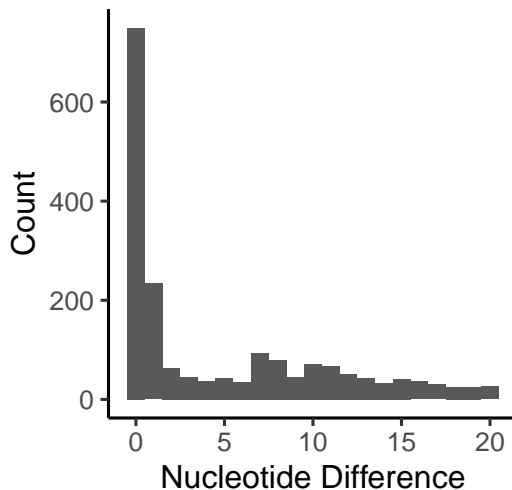
IGHV3-47*02

10 sequences assigned
No exact matches.



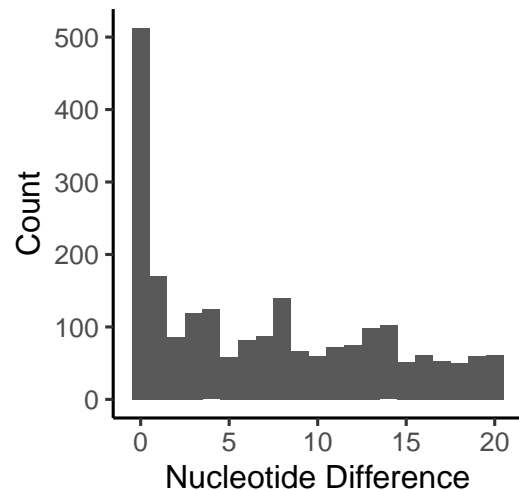
IGHV3-49*04

2045 sequences assigned
750 (36.7%) exact matches, in which:
634 unique CDR3
6 unique J



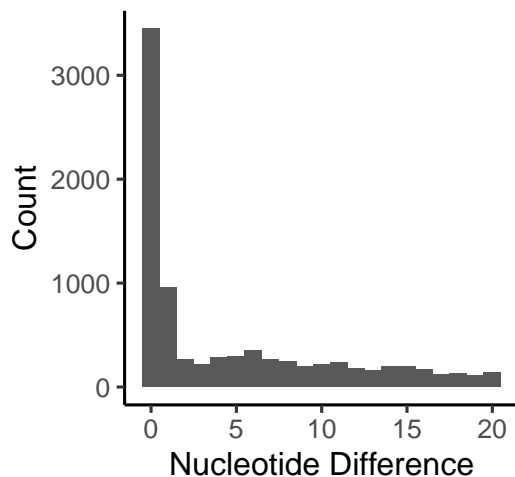
IGHV3-53*01_02

2935 sequences assigned
513 (17.5%) exact matches, in which:
426 unique CDR3
6 unique J



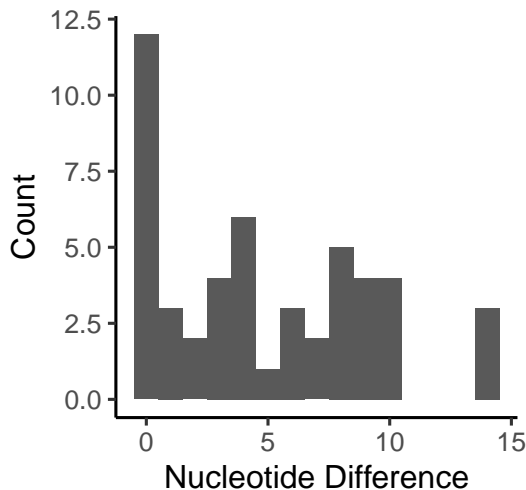
IGHV3-48*03

9159 sequences assigned
3448 (37.6%) exact matches, in which:
2803 unique CDR3
6 unique J



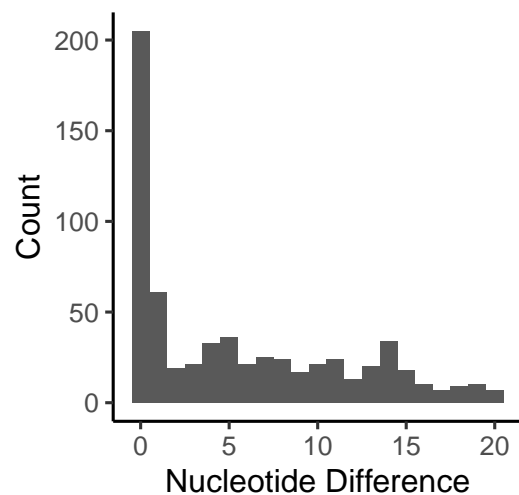
IGHV3-52*01_03

50 sequences assigned
12 (24%) exact matches, in which:
8 unique CDR3
4 unique J



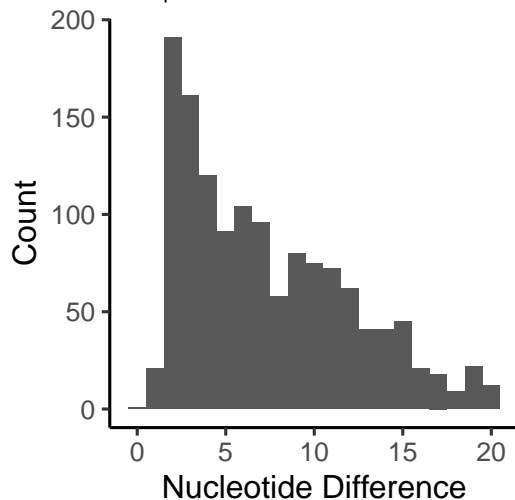
IGHV3-64*01

890 sequences assigned
205 (23%) exact matches, in which:
170 unique CDR3
6 unique J



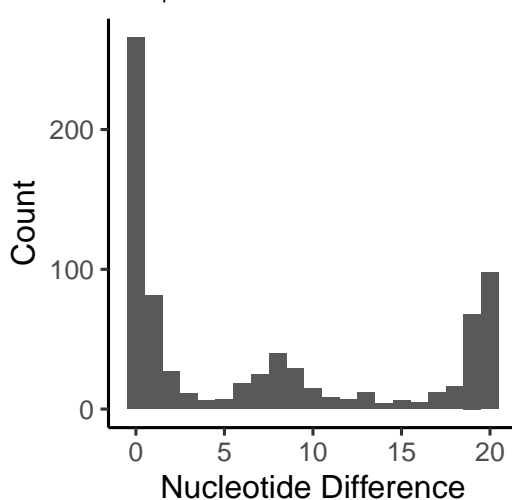
IGHV3-48*04

1433 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



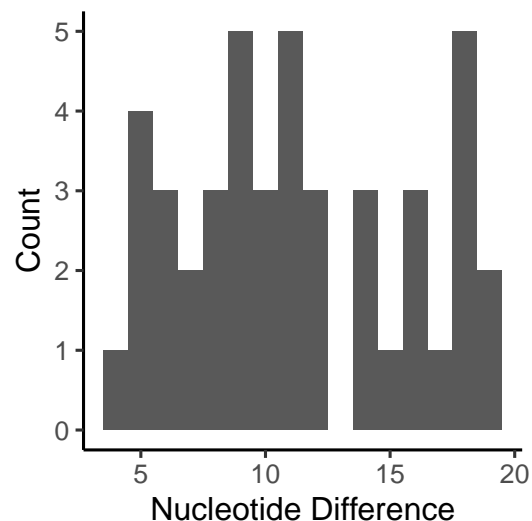
IGHV3-53*04

907 sequences assigned
266 (29.3%) exact matches, in which:
227 unique CDR3
6 unique J



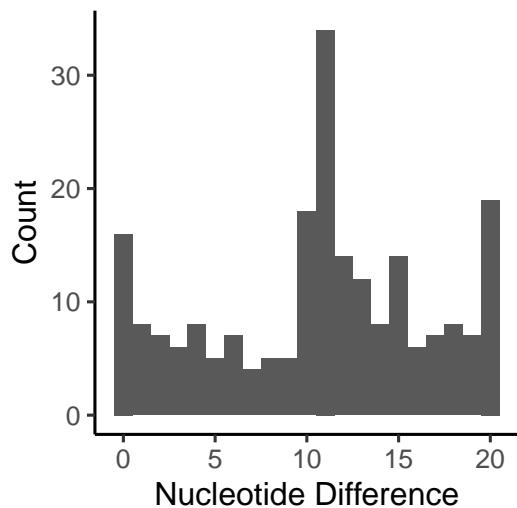
IGHV3-64*04

66 sequences assigned
No exact matches.



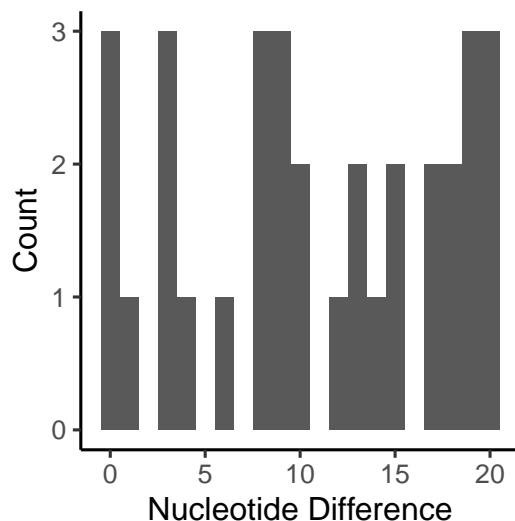
IGHV3-64*02_07

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



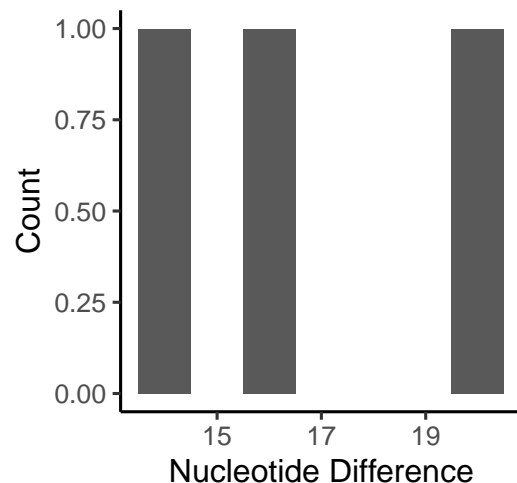
IGHV3-69-1*02

79 sequences assigned
3 (3.8%) exact matches, in which:
3 unique CDR3
2 unique J



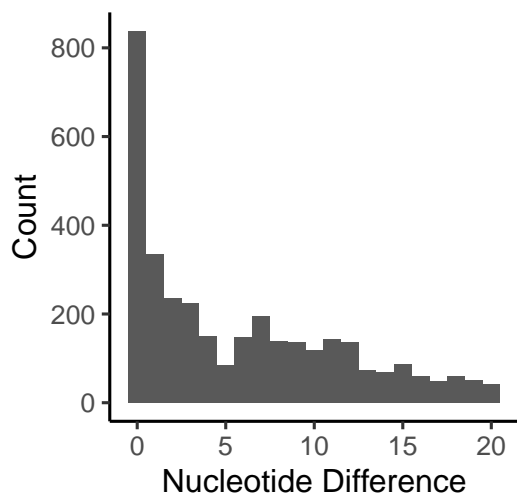
IGHV3-71*01_04

5 sequences assigned
No exact matches.



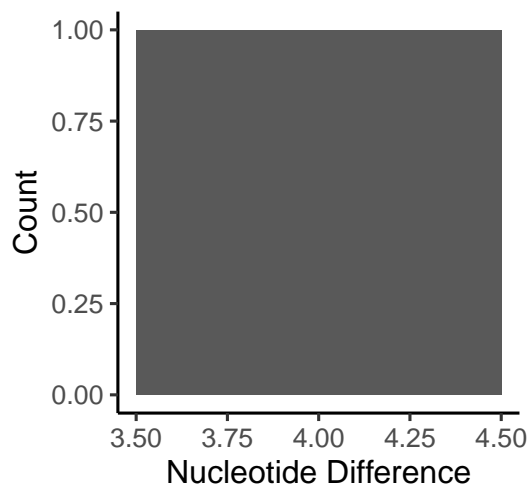
IGHV3-66*01

4120 sequences assigned
838 (20.3%) exact matches, in which:
693 unique CDR3
6 unique J



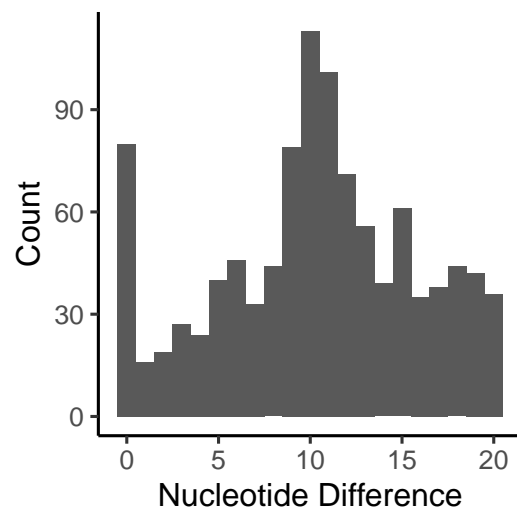
IGHV3-71*02

1 sequences assigned
No exact matches.



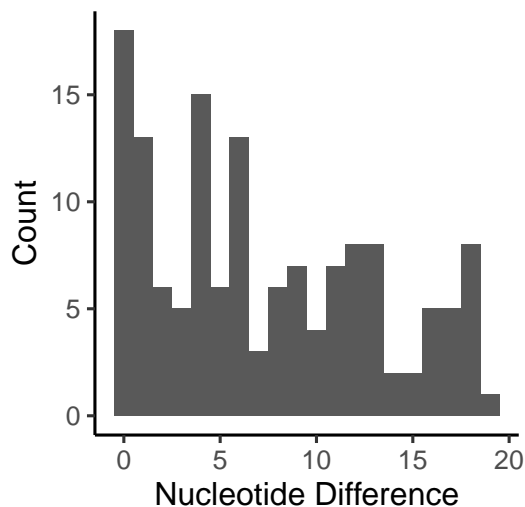
IGHV3-72*01

1395 sequences assigned
80 (5.7%) exact matches, in which:
64 unique CDR3
4 unique J



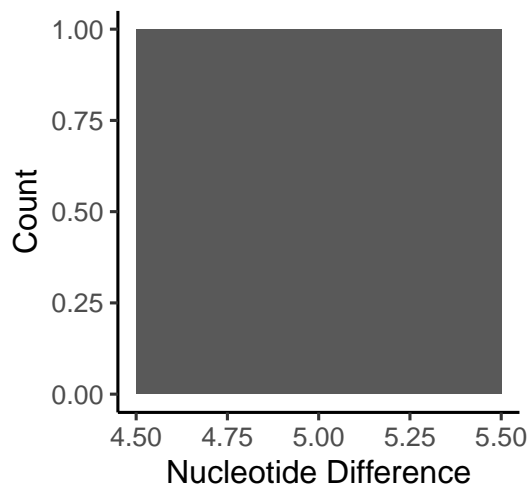
IGHV3-69-1*01

159 sequences assigned
18 (11.3%) exact matches, in which:
17 unique CDR3
4 unique J



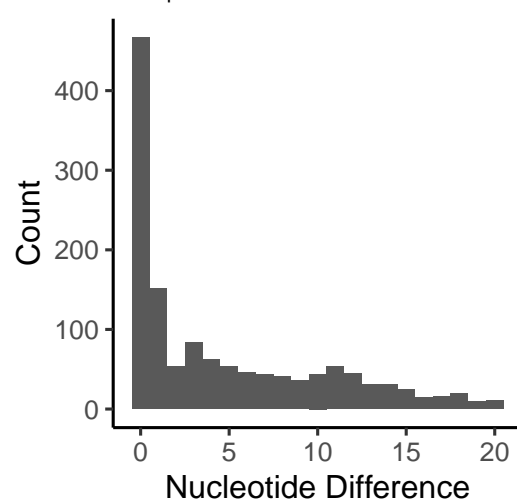
IGHV3-71*03

1 sequences assigned
No exact matches.



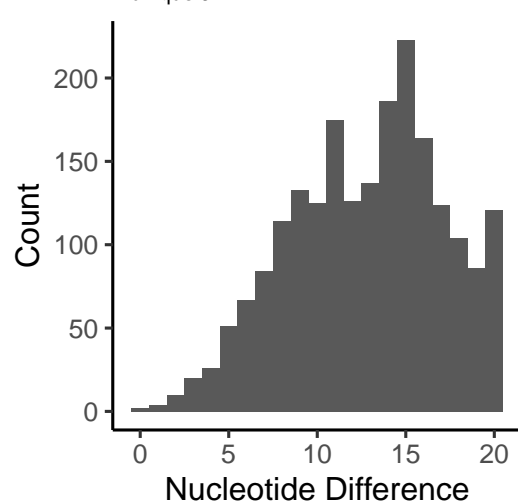
IGHV3-73*01_02

1371 sequences assigned
467 (34.1%) exact matches, in which:
372 unique CDR3
6 unique J



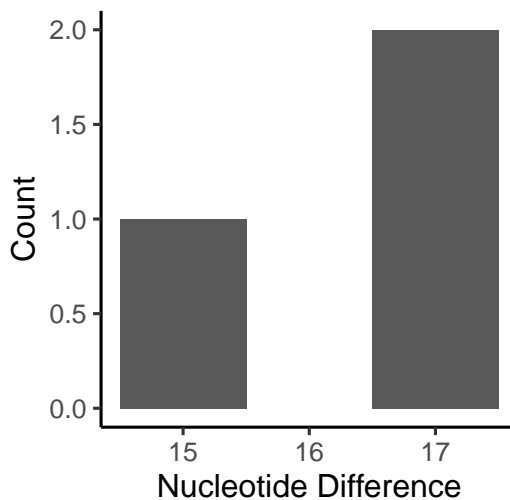
IGHV3-74*03

2967 sequences assigned
2 (0.1%) exact matches, in which:
2 unique CDR3
1 unique J



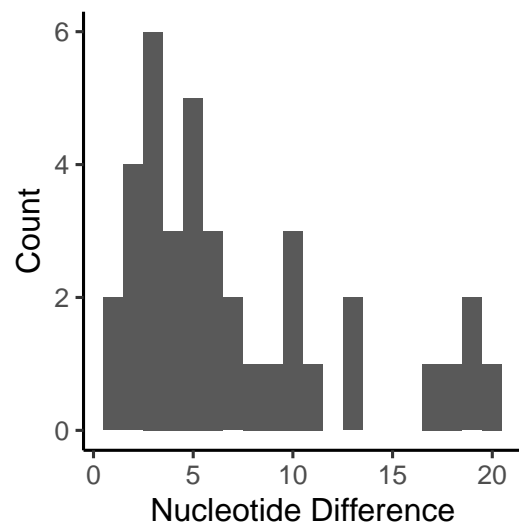
IGHV3-64D*08

9 sequences assigned
No exact matches.



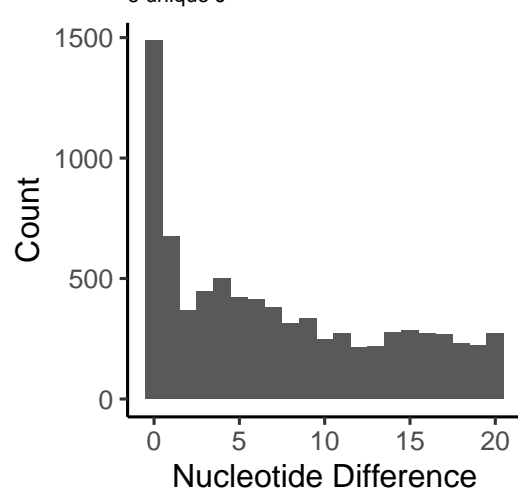
IGHV4-28*03

44 sequences assigned
No exact matches.



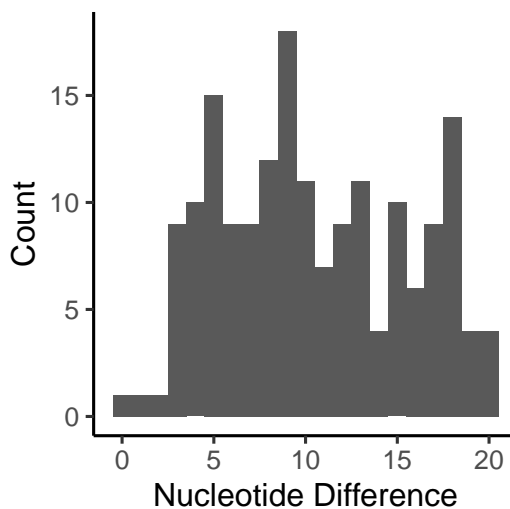
IGHV3-74*01_02

8848 sequences assigned
1487 (16.8%) exact matches, in which:
1184 unique CDR3
6 unique J



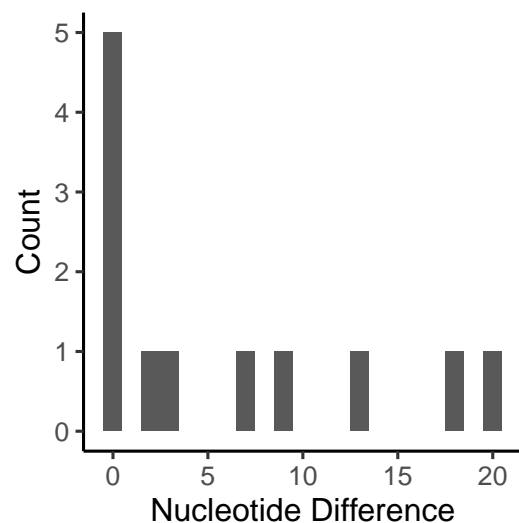
IGHV3-NL1*01

203 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



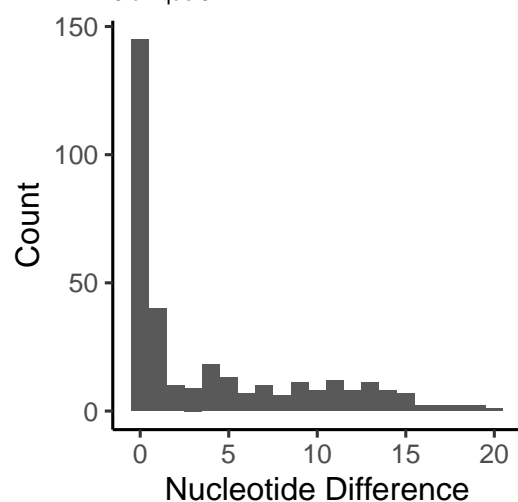
IGHV4-28*01_07

15 sequences assigned
5 (33.3%) exact matches, in which:
5 unique CDR3
3 unique J



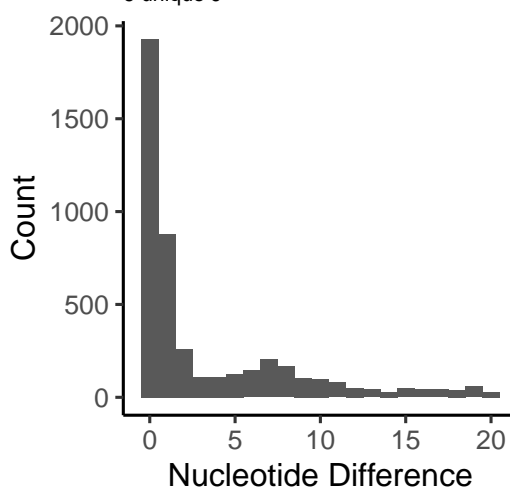
IGHV3-43D*04

334 sequences assigned
145 (43.4%) exact matches, in which:
118 unique CDR3
5 unique J



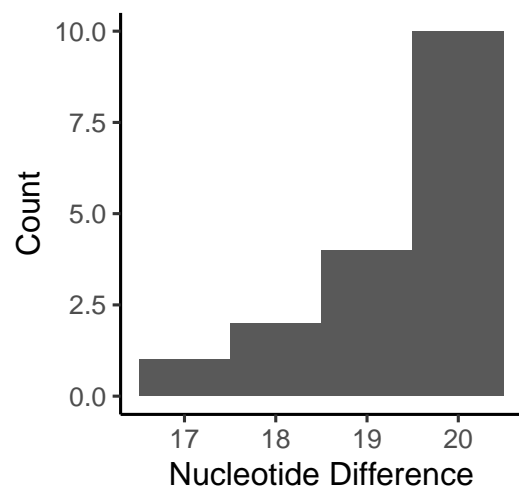
IGHV4-4*02_03

4814 sequences assigned
1929 (40.1%) exact matches, in which:
1791 unique CDR3
6 unique J



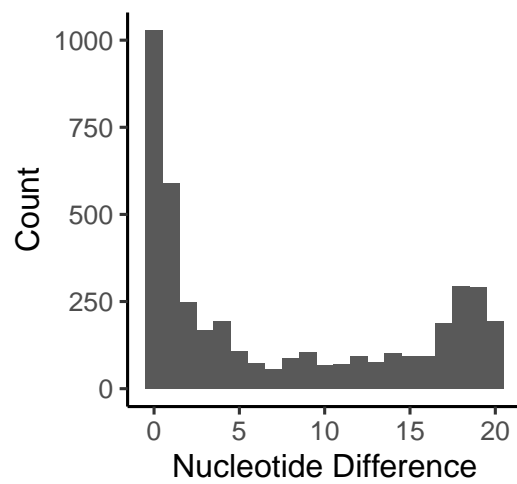
IGHV4-28*02_05

45 sequences assigned
No exact matches.



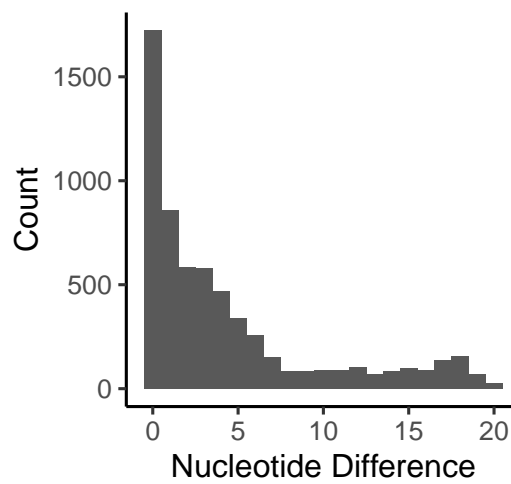
IGHV4-30-2*01

5197 sequences assigned
1028 (19.8%) exact matches, in which:
936 unique CDR3
6 unique J



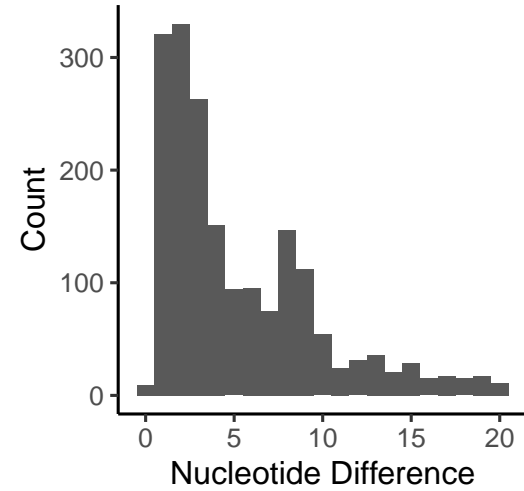
IGHV4-31*02

6892 sequences assigned
1723 (25%) exact matches, in which:
1618 unique CDR3
6 unique J



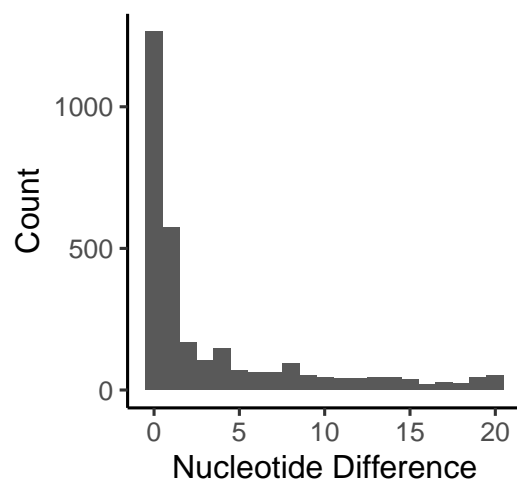
IGHV4-39*07

1951 sequences assigned
9 (0.5%) exact matches, in which:
9 unique CDR3
3 unique J



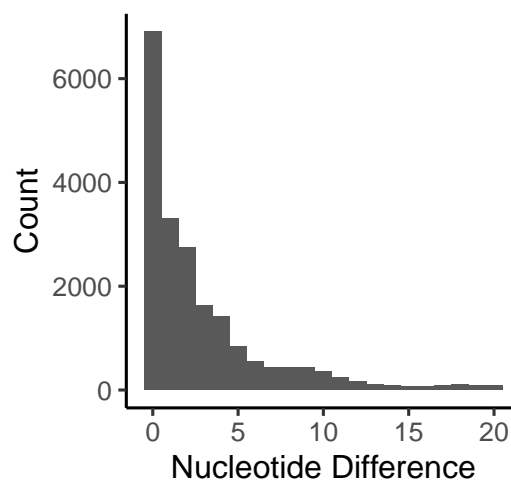
IGHV4-30-4*01

4532 sequences assigned
1265 (27.9%) exact matches, in which:
1194 unique CDR3
6 unique J



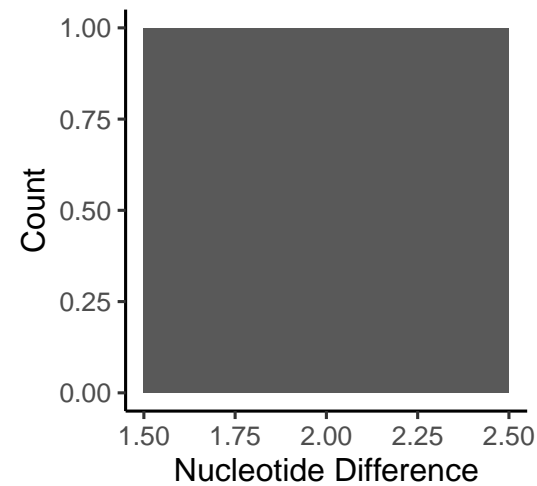
IGHV4-34*01_02

20833 sequences assigned
6904 (33.1%) exact matches, in which:
6405 unique CDR3
6 unique J



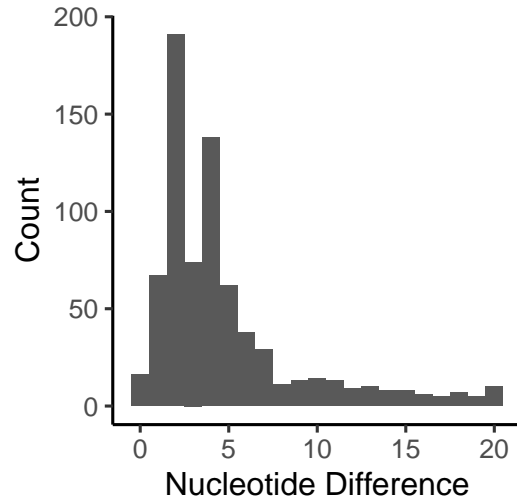
IGHV4-55*09

1 sequences assigned
No exact matches.



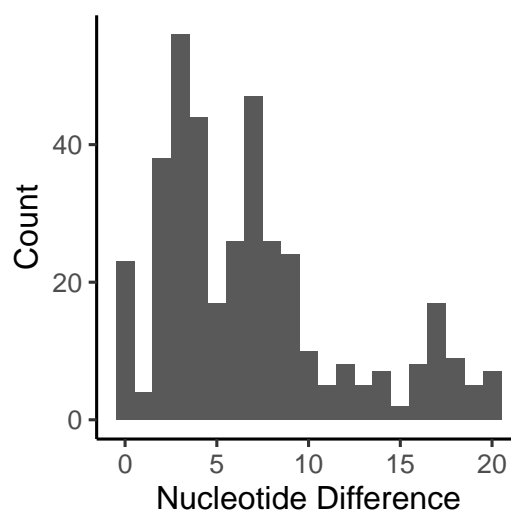
IGHV4-30-4*08

778 sequences assigned
16 (2.1%) exact matches, in which:
16 unique CDR3
4 unique J



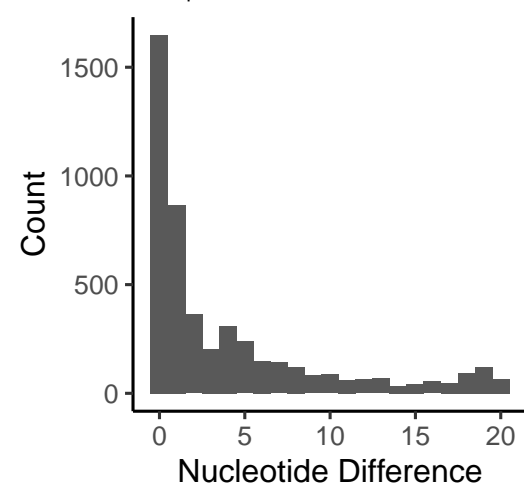
IGHV4-38-2*02

487 sequences assigned
23 (4.7%) exact matches, in which:
23 unique CDR3
5 unique J



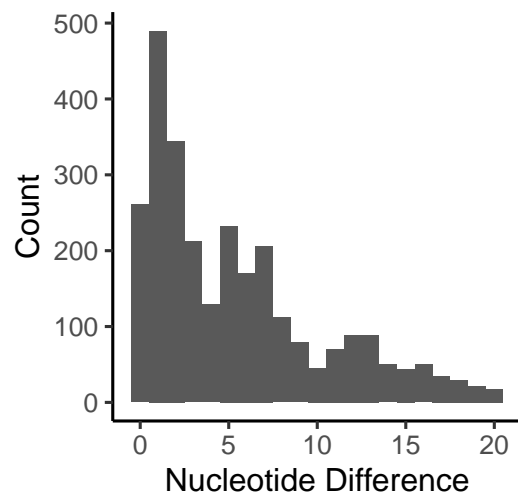
IGHV4-59*08

5272 sequences assigned
1648 (31.3%) exact matches, in which:
1556 unique CDR3
6 unique J



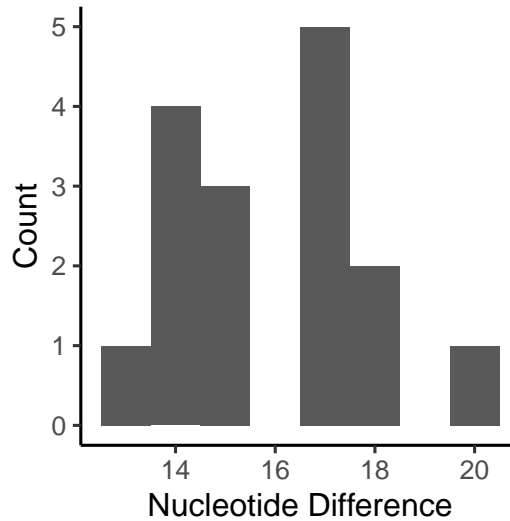
IGHV4–59*12

3090 sequences assigned
261 (8.4%) exact matches, in which:
261 unique CDR3
6 unique J



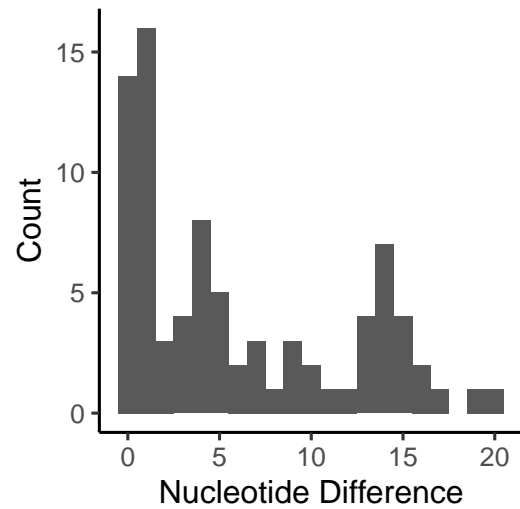
IGHV1/OR15–2*02_03

37 sequences assigned
No exact matches.



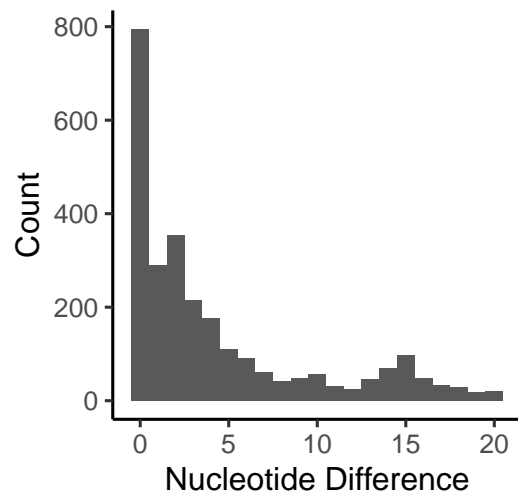
IGHV4/OR15–8*01

90 sequences assigned
14 (15.6%) exact matches, in which:
8 unique CDR3
1 unique J



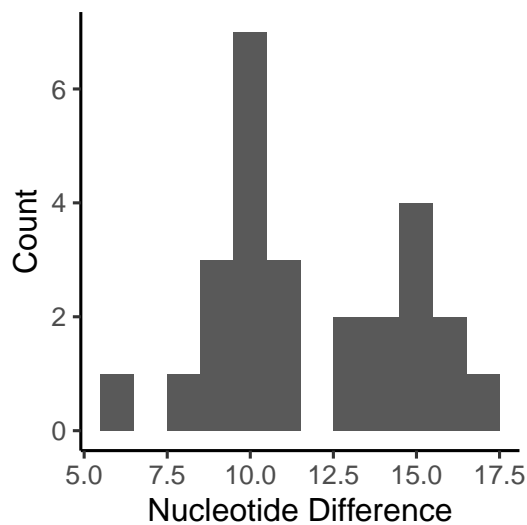
IGHV4–61*01

2894 sequences assigned
795 (27.5%) exact matches, in which:
777 unique CDR3
6 unique J



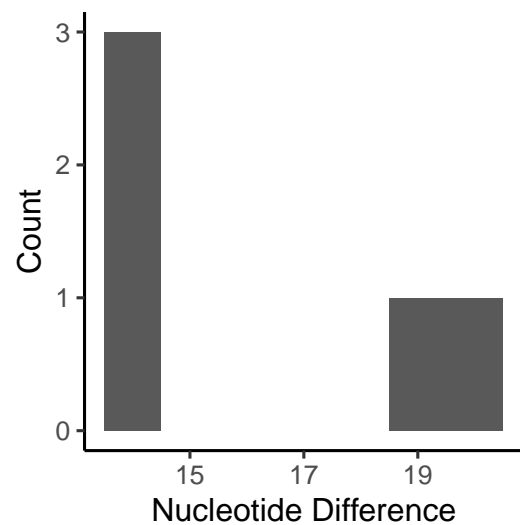
IGHV1/OR15–3*02

27 sequences assigned
No exact matches.



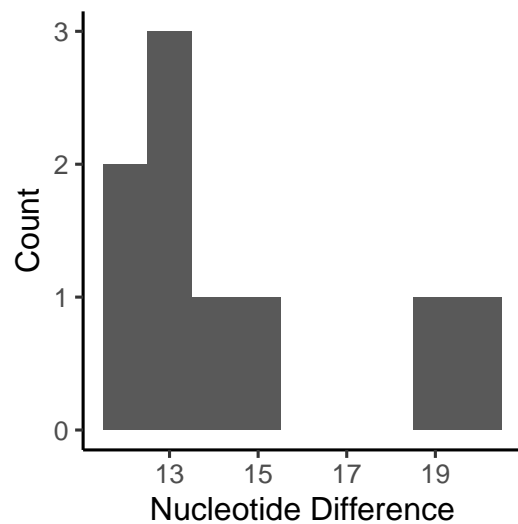
IGHV4/OR15–8*02

56 sequences assigned
No exact matches.



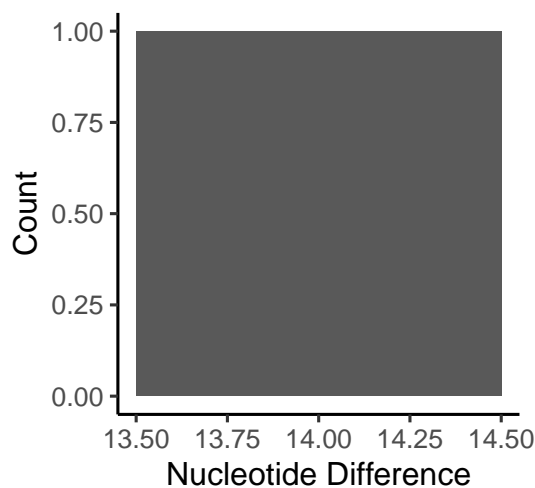
IGHV1/OR15–1*04

9 sequences assigned
No exact matches.



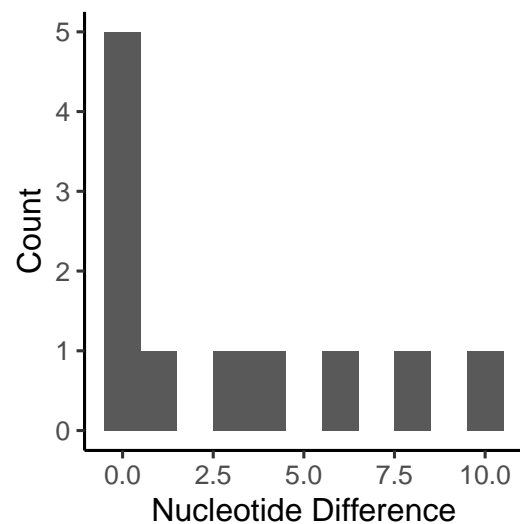
IGHV1/OR15–4*01

2 sequences assigned
No exact matches.



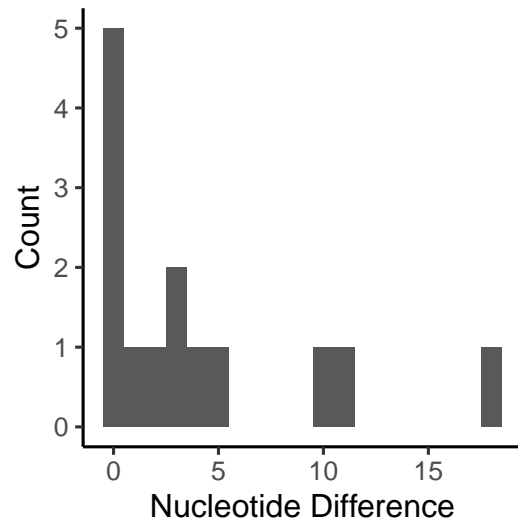
IGHV5–10–1*01_03

12 sequences assigned
5 (41.7%) exact matches, in which:
5 unique CDR3
3 unique J



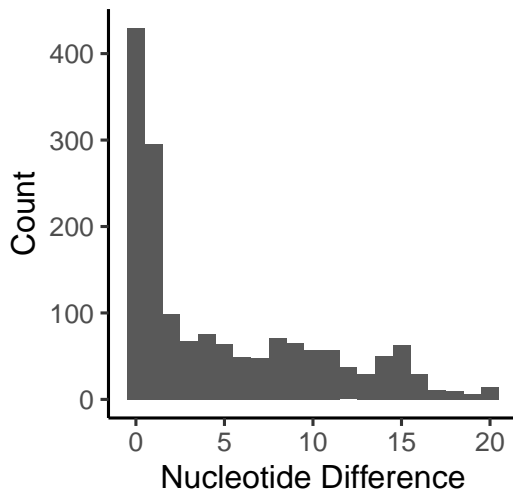
IGHV5-51*04

15 sequences assigned
5 (33.3%) exact matches, in which:
5 unique CDR3
3 unique J



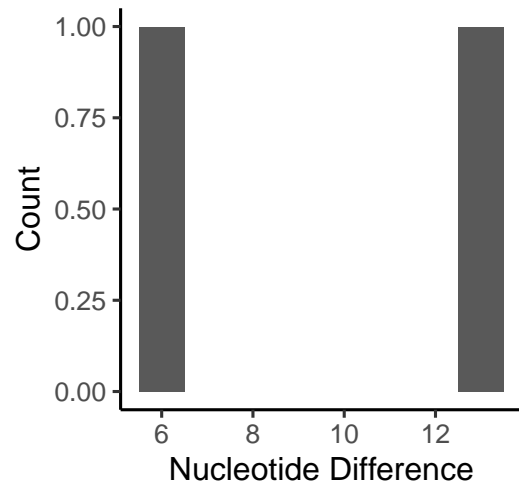
IGHV6-1*01_02

1686 sequences assigned
430 (25.5%) exact matches, in which:
406 unique CDR3
5 unique J



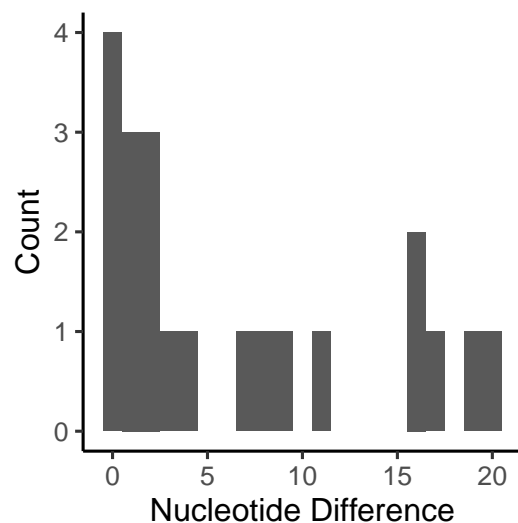
IGHV3/OR16-13*01

2 sequences assigned
No exact matches.



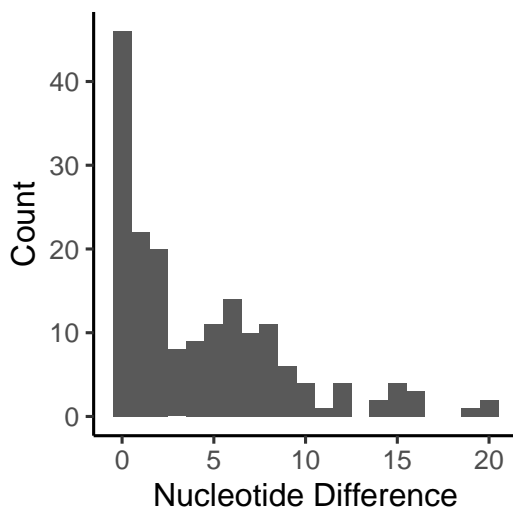
IGHV5-51*06

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



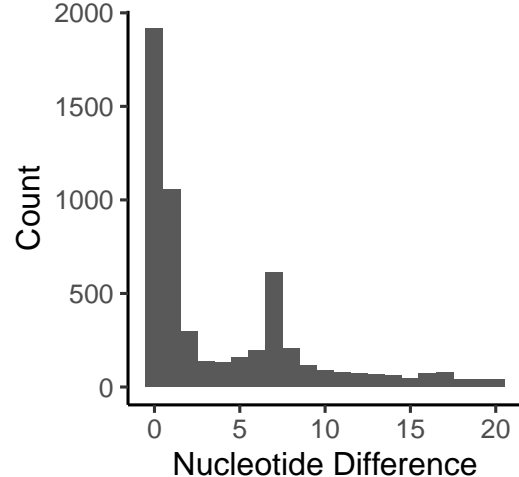
IGHV6-1*01_02_A315G

190 sequences assigned
46 (24.2%) exact matches, in which:
46 unique CDR3
5 unique J



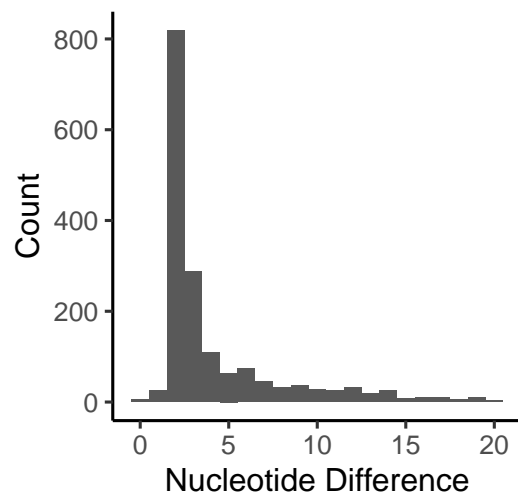
IGHV7-4-1*02

5840 sequences assigned
1915 (32.8%) exact matches, in which:
1797 unique CDR3
6 unique J



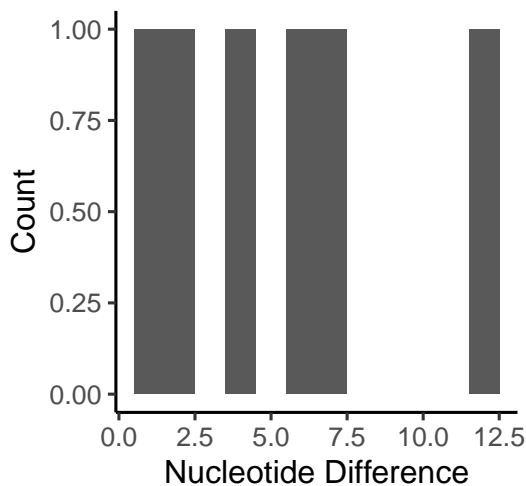
IGHV5-51*07

1742 sequences assigned
6 (0.3%) exact matches, in which:
6 unique CDR3
3 unique J



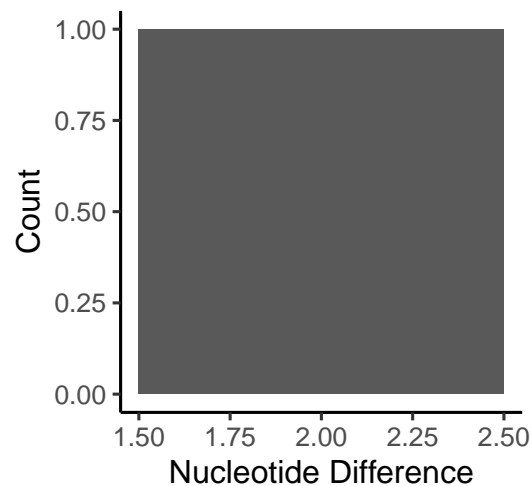
IGHV3/OR16-9*01

6 sequences assigned
No exact matches.



IGHV7-81*01

1 sequences assigned
No exact matches.





Warning – no inferred sequences found.