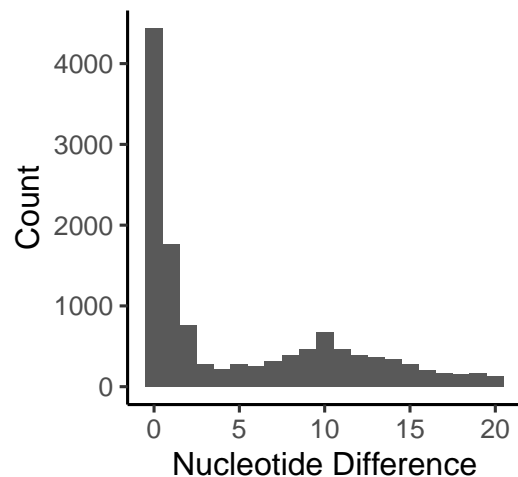


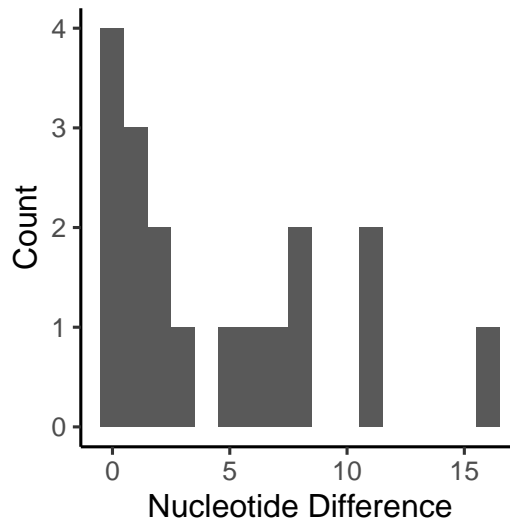
IGHV1-2*02

13733 sequences assigned
4436 (32.3%) exact matches, in which:
4210 unique CDR3
7 unique J



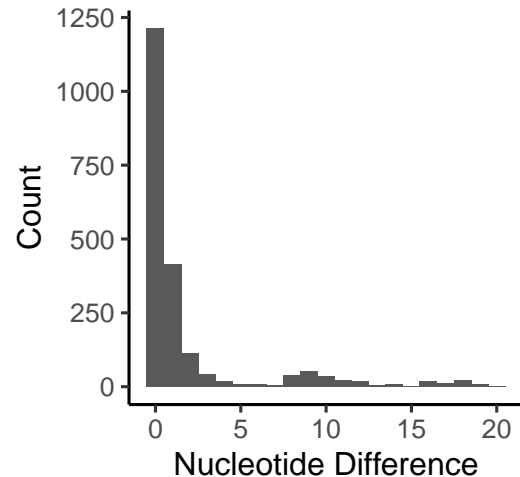
IGHV1-8*01

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



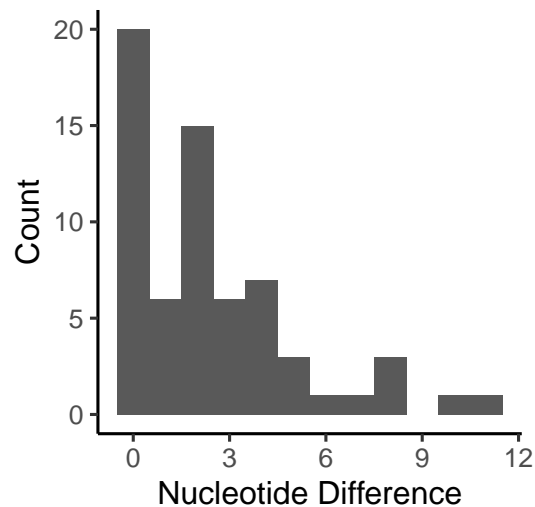
IGHV1-24*01

2512 sequences assigned
1213 (48.3%) exact matches, in which:
1179 unique CDR3
7 unique J



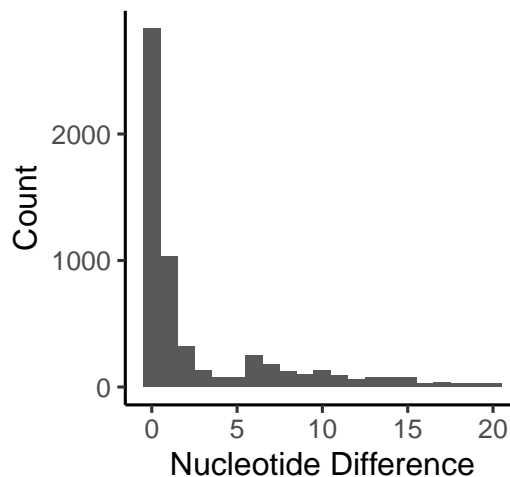
IGHV1-3*02

64 sequences assigned
20 (31.2%) exact matches, in which:
19 unique CDR3
4 unique J



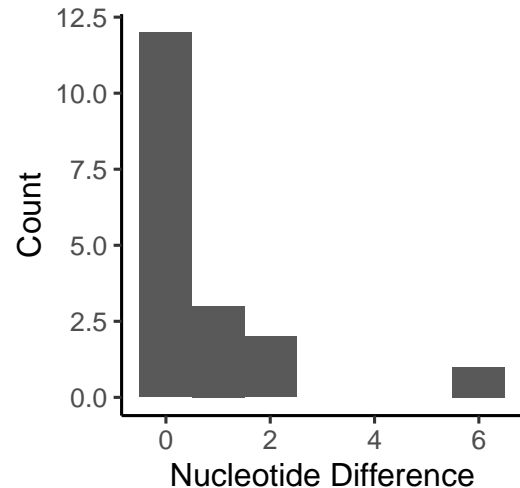
IGHV1-18*01

6420 sequences assigned
2832 (44.1%) exact matches, in which:
2715 unique CDR3
7 unique J



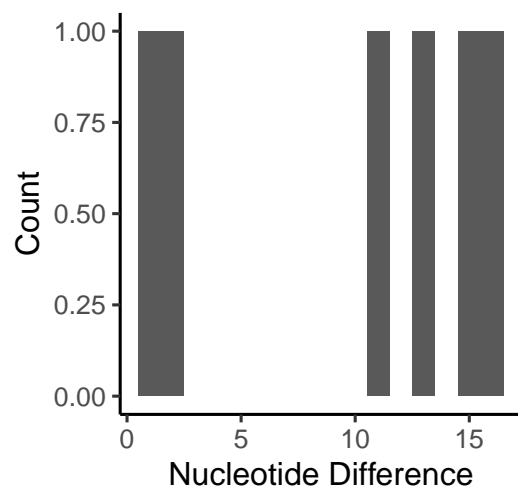
IGHV1-45*02

18 sequences assigned
12 (66.7%) exact matches, in which:
12 unique CDR3
3 unique J



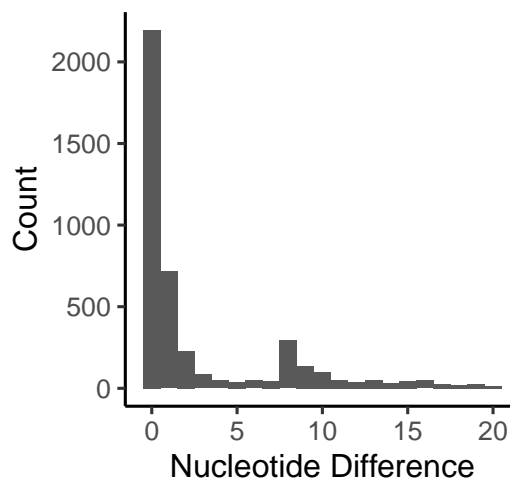
IGHV1-3*01_05

9 sequences assigned
No exact matches.



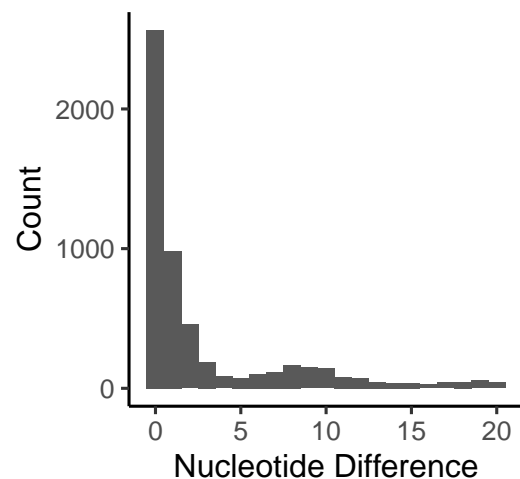
IGHV1-18*04

4739 sequences assigned
2195 (46.3%) exact matches, in which:
2105 unique CDR3
7 unique J



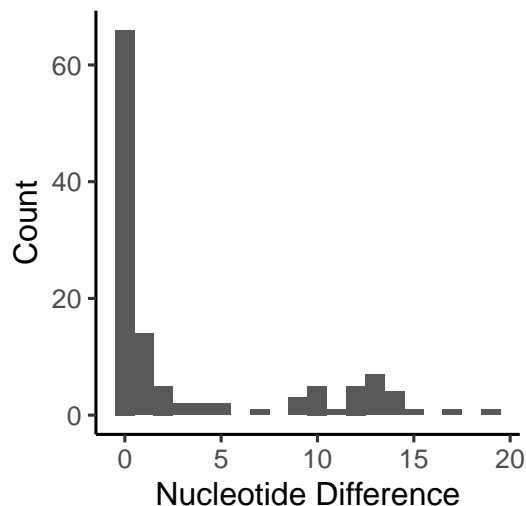
IGHV1-46*01

5982 sequences assigned
2565 (42.9%) exact matches, in which:
2459 unique CDR3
7 unique J



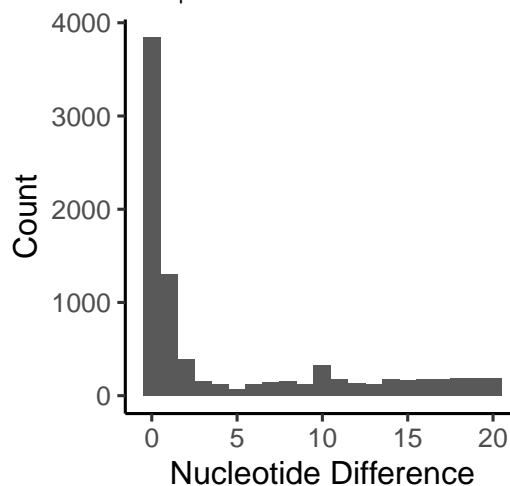
IGHV1-58*02

127 sequences assigned
66 (52%) exact matches, in which:
66 unique CDR3
7 unique J



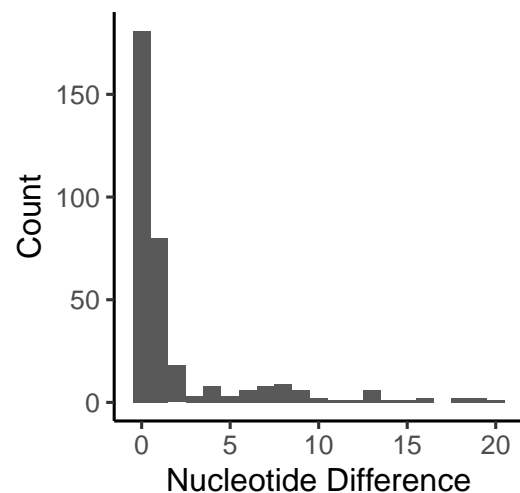
IGHV1-69*01_12_13

9845 sequences assigned
3843 (39%) exact matches, in which:
3718 unique CDR3
7 unique J



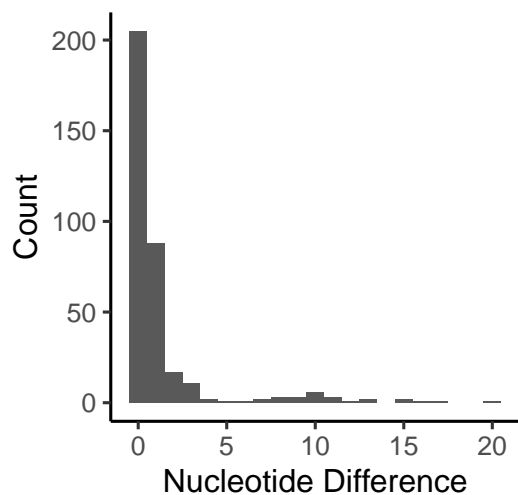
IGHV2-70*01

385 sequences assigned
181 (47%) exact matches, in which:
176 unique CDR3
6 unique J



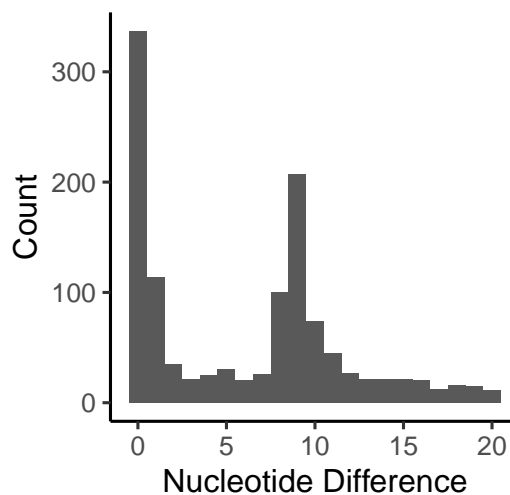
IGHV1-58*01_03

357 sequences assigned
205 (57.4%) exact matches, in which:
199 unique CDR3
7 unique J



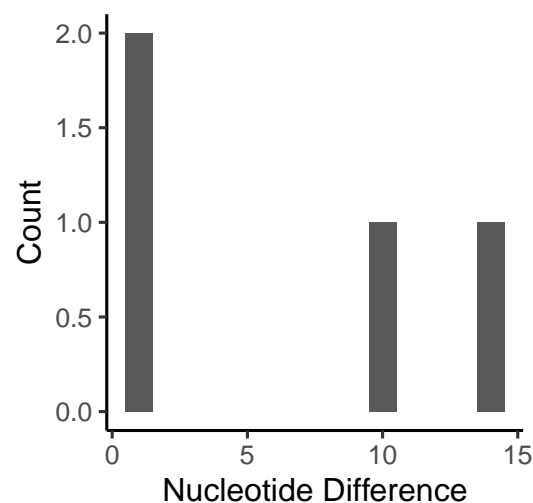
IGHV2-5*02

1311 sequences assigned
337 (25.7%) exact matches, in which:
331 unique CDR3
7 unique J



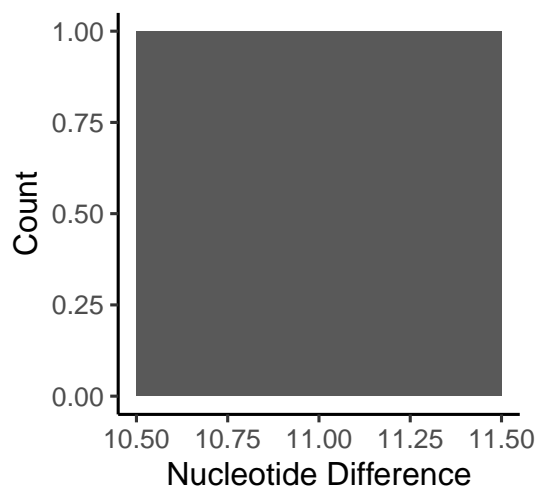
IGHV2-70D*04

4 sequences assigned
No exact matches.



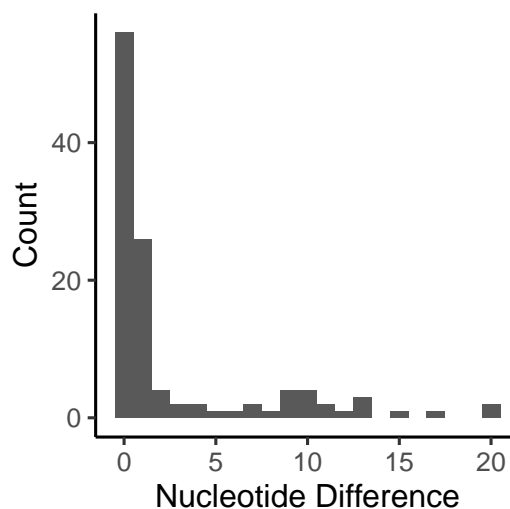
IGHV1-69-2*01

6 sequences assigned
No exact matches.



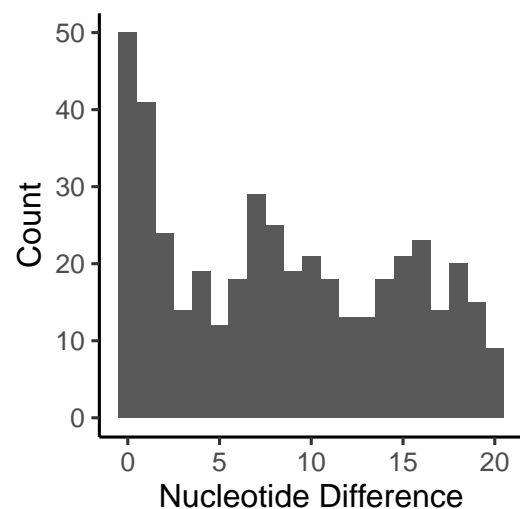
IGHV2-26*01

116 sequences assigned
56 (48.3%) exact matches, in which:
54 unique CDR3
5 unique J



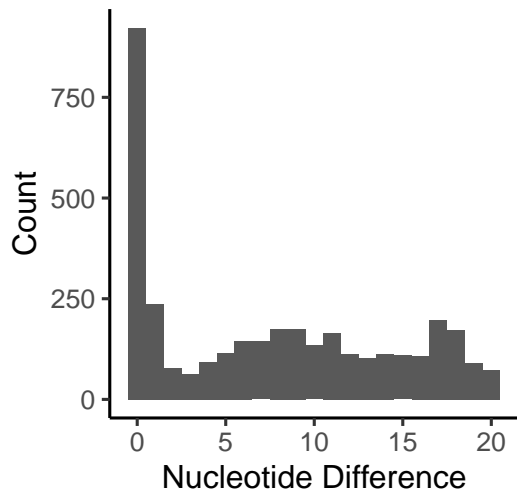
IGHV3-7*01

523 sequences assigned
50 (9.6%) exact matches, in which:
50 unique CDR3
5 unique J



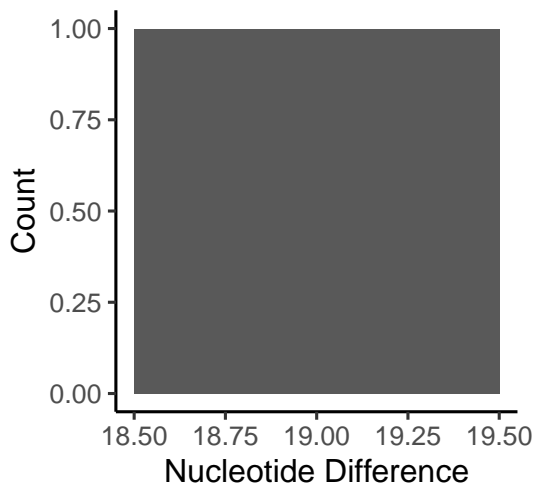
IGHV3-7*03

4411 sequences assigned
923 (20.9%) exact matches, in which:
752 unique CDR3
7 unique J



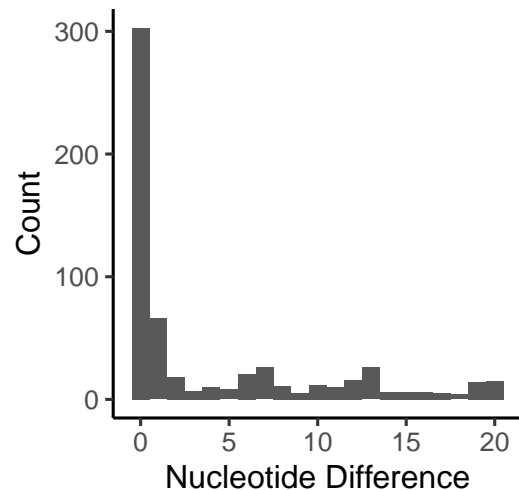
IGHV3-9*02

1 sequences assigned
No exact matches.



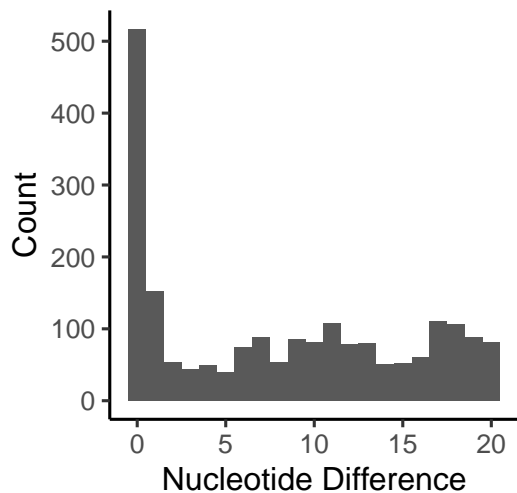
IGHV3-13*04

624 sequences assigned
303 (48.6%) exact matches, in which:
229 unique CDR3
6 unique J



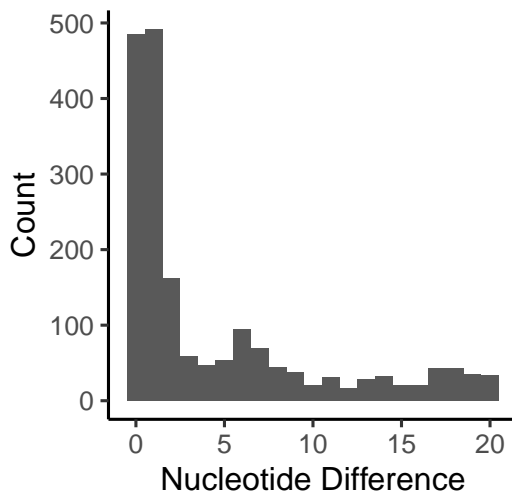
IGHV3-7*05

2643 sequences assigned
517 (19.6%) exact matches, in which:
426 unique CDR3
7 unique J



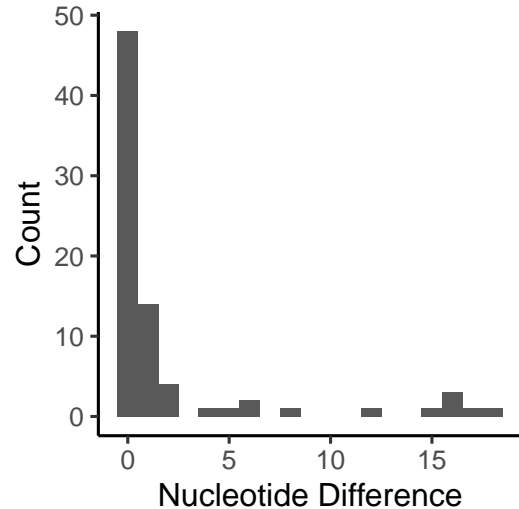
IGHV3-11*06

2978 sequences assigned
485 (16.3%) exact matches, in which:
414 unique CDR3
7 unique J



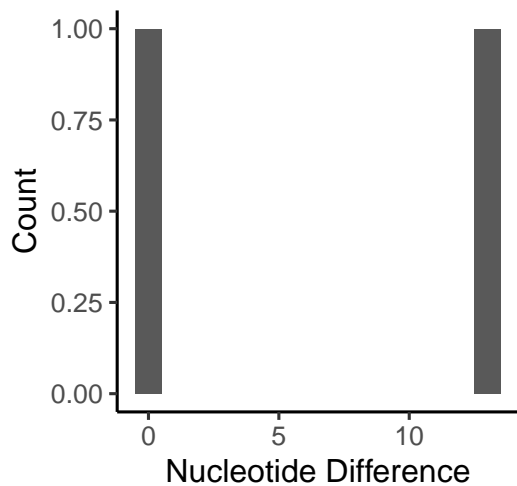
IGHV3-13*05

98 sequences assigned
48 (49%) exact matches, in which:
36 unique CDR3
4 unique J



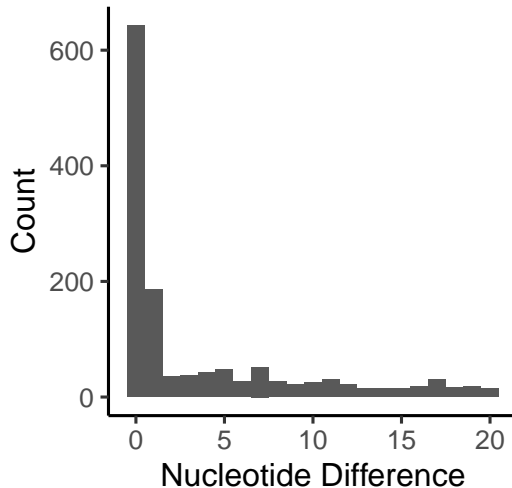
IGHV3-9*01

6 sequences assigned
1 (16.7%) exact matches, in which:
1 unique CDR3
1 unique J



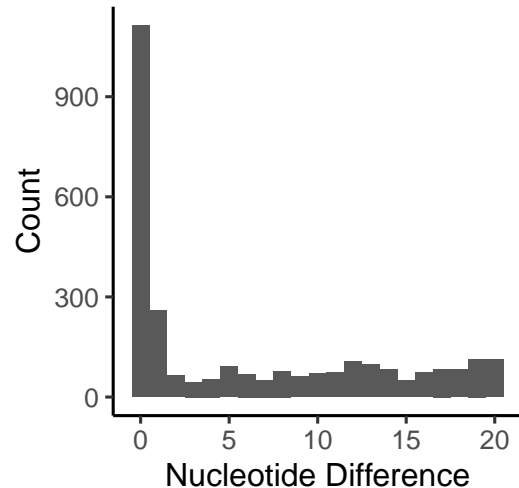
IGHV3-11*03_05

1906 sequences assigned
643 (33.7%) exact matches, in which:
525 unique CDR3
7 unique J



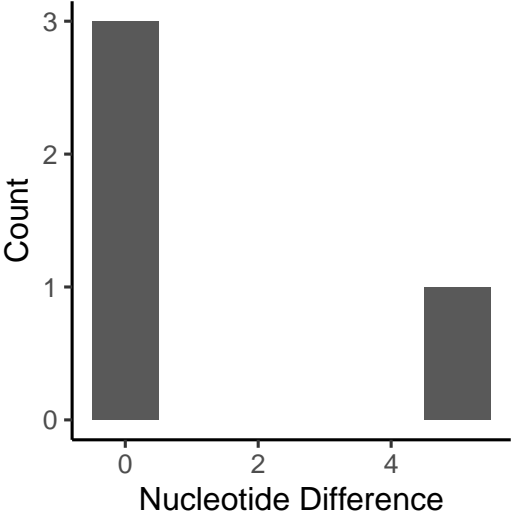
IGHV3-15*01_02

3812 sequences assigned
1114 (29.2%) exact matches, in which:
961 unique CDR3
7 unique J



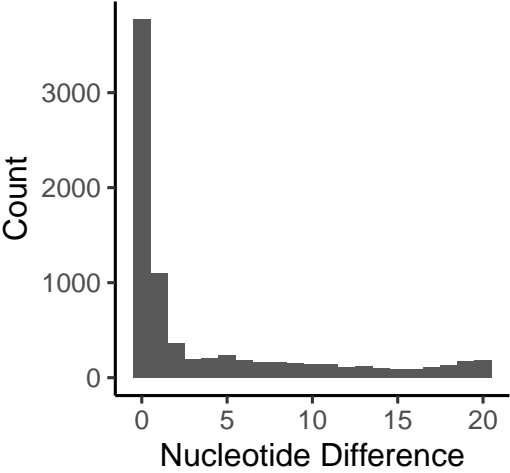
IGHV3-19*01

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



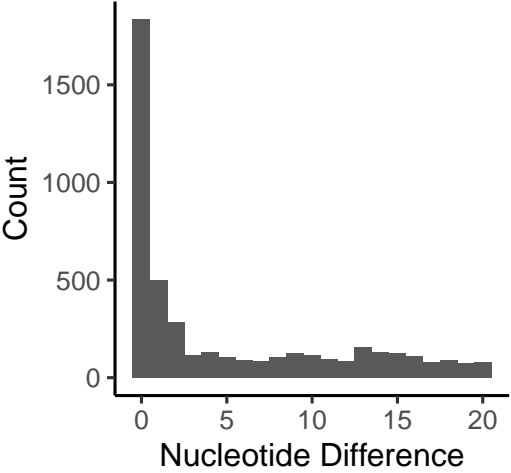
IGHV3-21*01_02

11673 sequences assigned
3771 (32.3%) exact matches, in which:
2989 unique CDR3
7 unique J



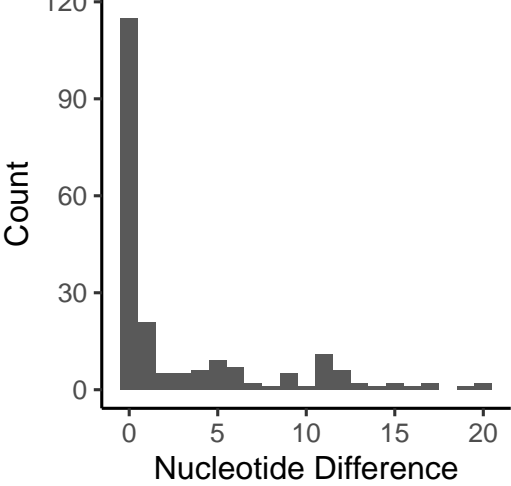
IGHV3-33*08

5330 sequences assigned
1835 (34.4%) exact matches, in which:
1550 unique CDR3
7 unique J



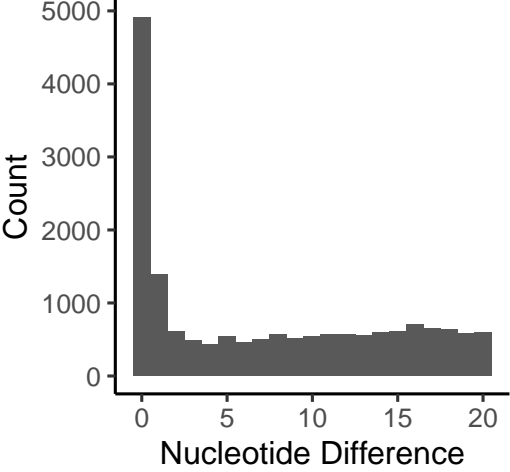
IGHV3-20*01_02

205 sequences assigned
115 (56.1%) exact matches, in which:
89 unique CDR3
7 unique J



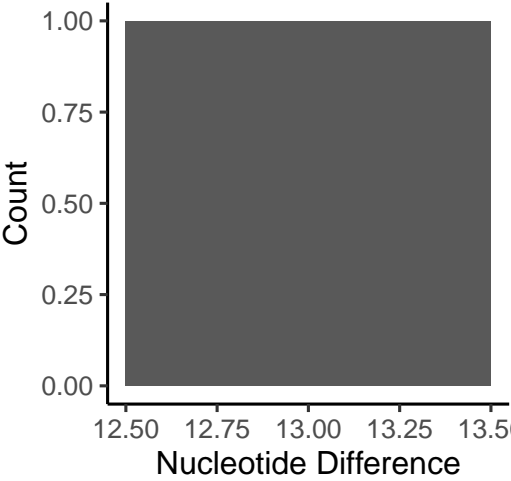
IGHV3-23*01_04

22585 sequences assigned
4906 (21.7%) exact matches, in which:
3893 unique CDR3
7 unique J



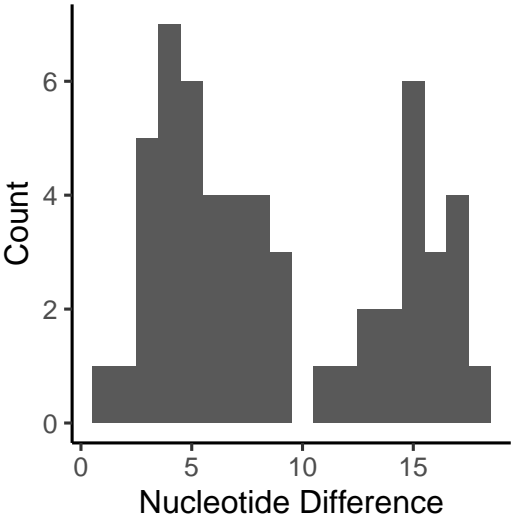
IGHV3-35*01

1 sequences assigned
No exact matches.



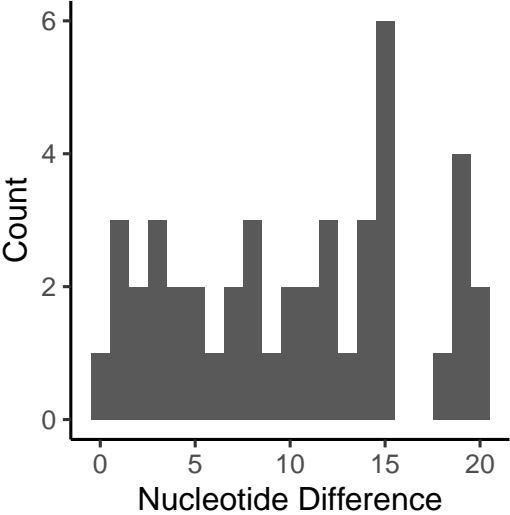
IGHV3-20*03_04

106 sequences assigned
No exact matches.



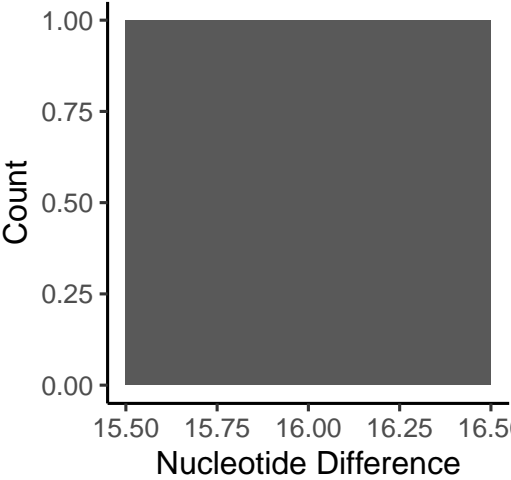
IGHV3-30-5*01

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



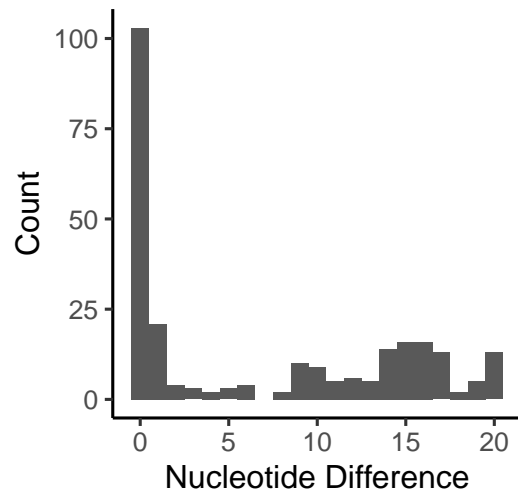
IGHV3-38*03

2 sequences assigned
No exact matches.



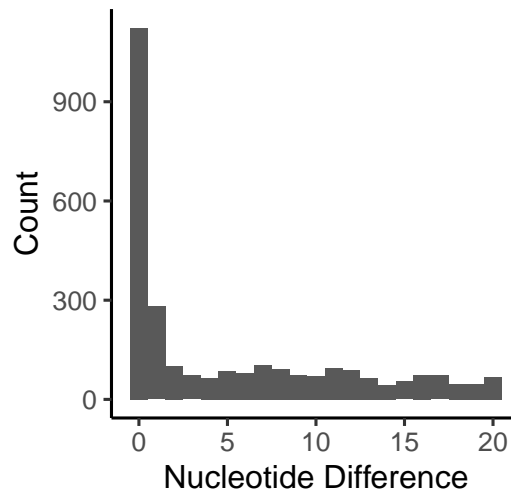
IGHV3-43*01

298 sequences assigned
103 (34.6%) exact matches, in which:
89 unique CDR3
7 unique J



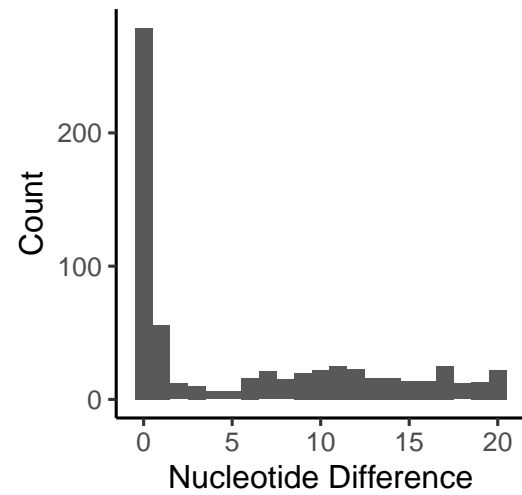
IGHV3-48*02

3613 sequences assigned
1124 (31.1%) exact matches, in which:
910 unique CDR3
7 unique J



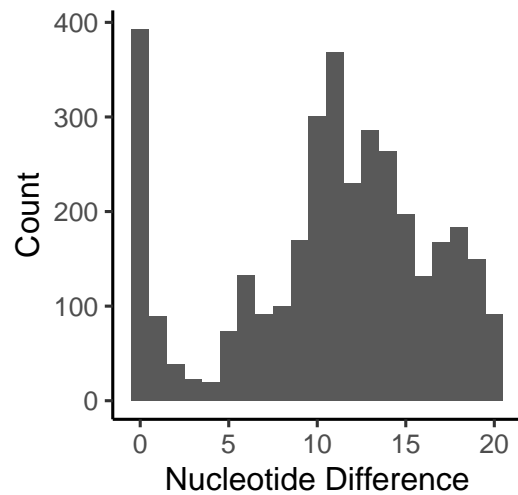
IGHV3-49*04

3709 sequences assigned
279 (7.5%) exact matches, in which:
240 unique CDR3
6 unique J



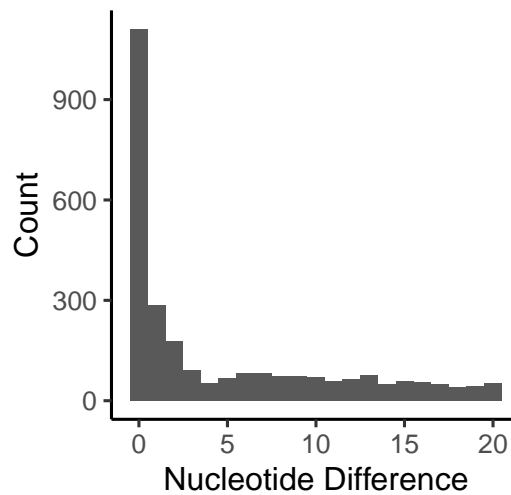
IGHV3-43*02

4093 sequences assigned
393 (9.6%) exact matches, in which:
317 unique CDR3
7 unique J



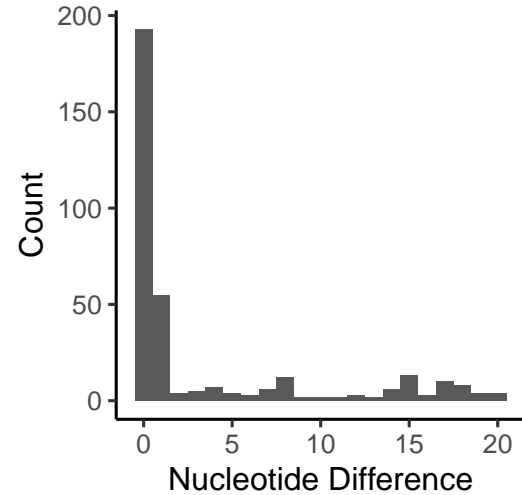
IGHV3-48*03

3179 sequences assigned
1111 (34.9%) exact matches, in which:
928 unique CDR3
7 unique J



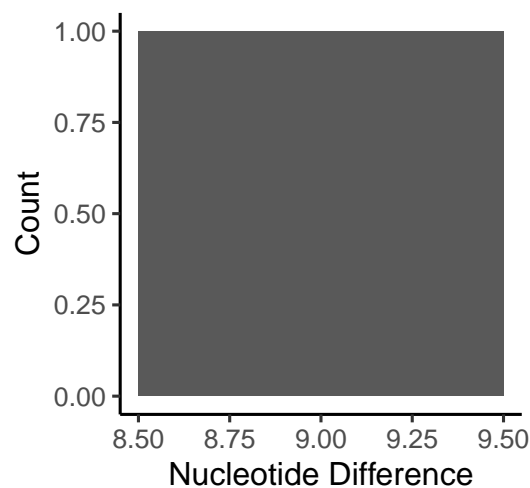
IGHV3-49*03_05

432 sequences assigned
193 (44.7%) exact matches, in which:
168 unique CDR3
6 unique J



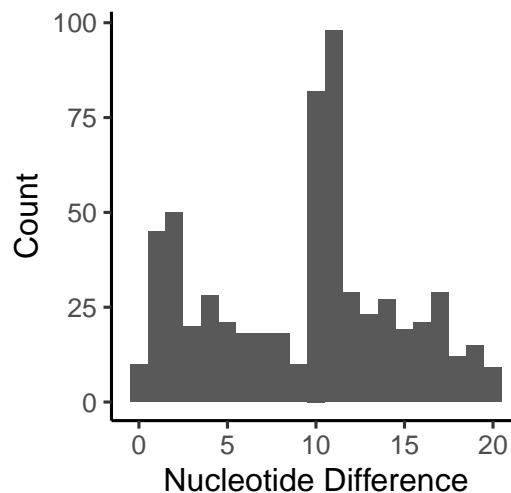
IGHV3-47*02

1 sequences assigned
No exact matches.



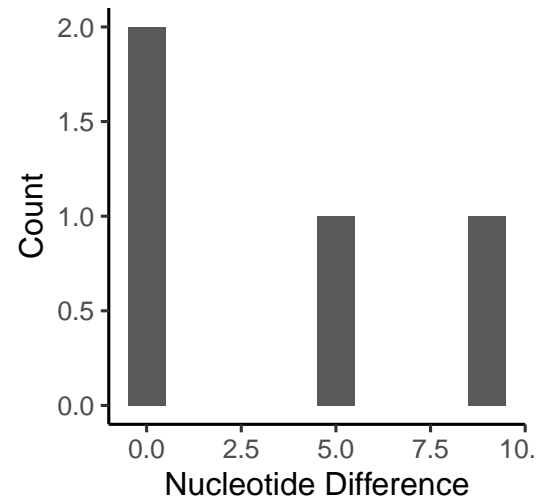
IGHV3-48*04

736 sequences assigned
10 (1.4%) exact matches, in which:
10 unique CDR3
3 unique J



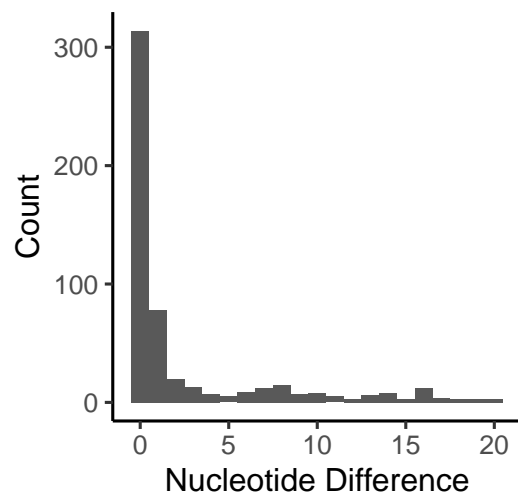
IGHV3-52*01_03

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



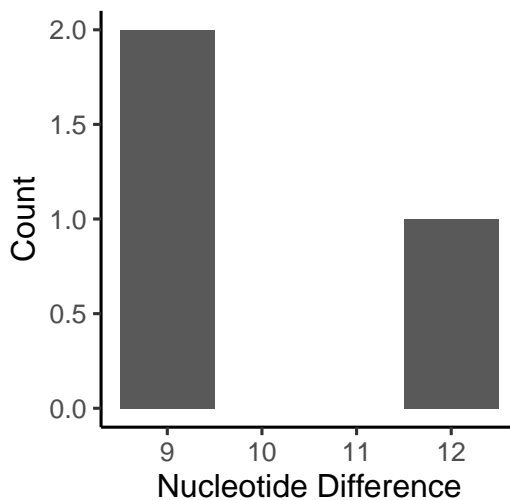
IGHV3-53*04

564 sequences assigned
314 (55.7%) exact matches, in which:
252 unique CDR3
7 unique J



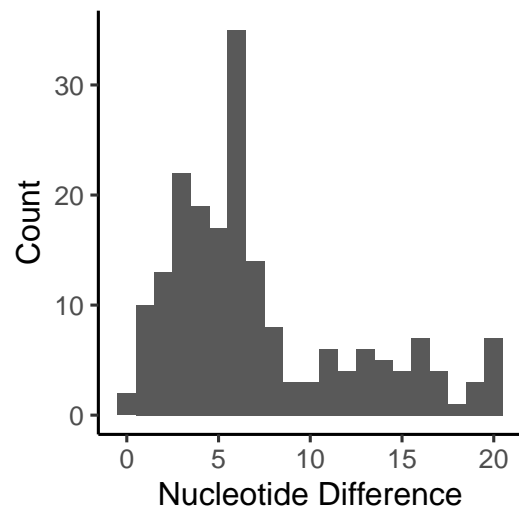
IGHV3-62*03

3 sequences assigned
No exact matches.



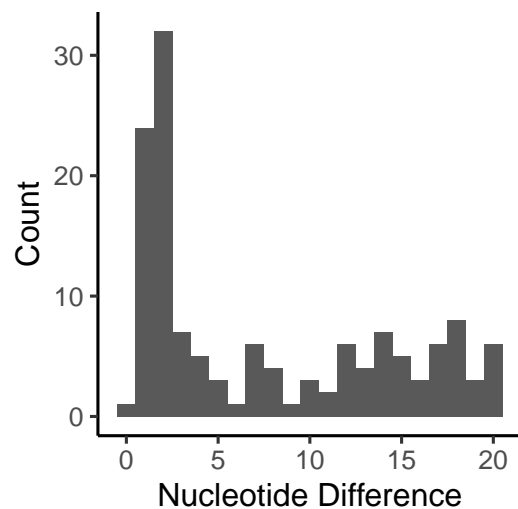
IGHV3-64*04

225 sequences assigned
2 (0.9%) exact matches, in which:
2 unique CDR3
1 unique J



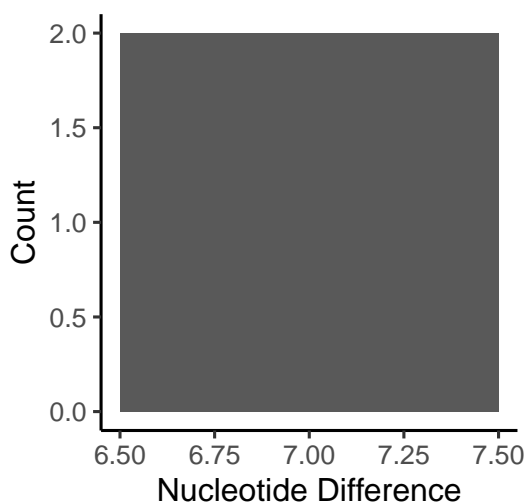
IGHV3-53*05

427 sequences assigned
1 (0.2%) exact matches, in which:
1 unique CDR3
1 unique J



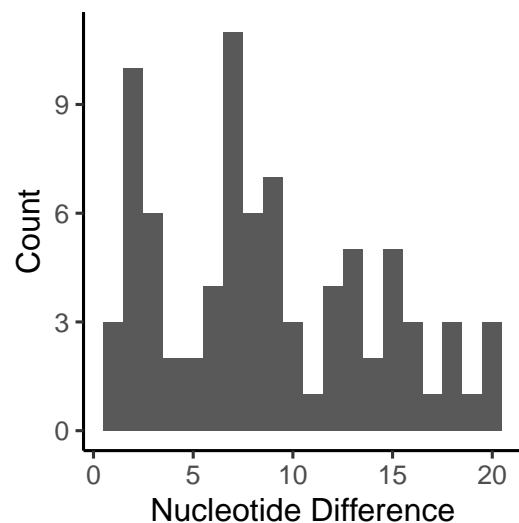
IGHV3-62*04

2 sequences assigned
No exact matches.



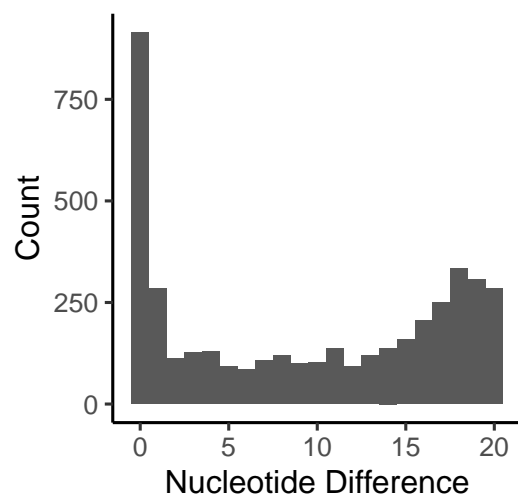
IGHV3-66*01

195 sequences assigned
No exact matches.



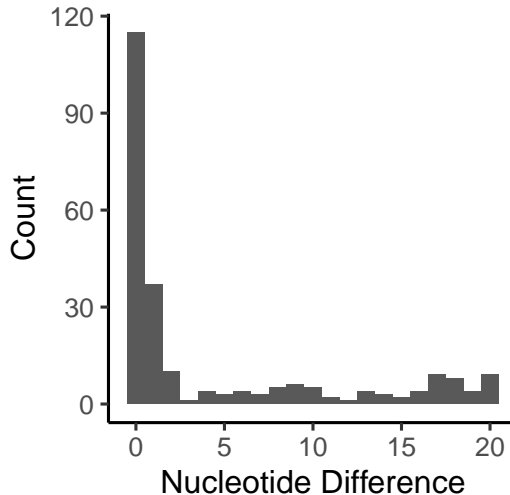
IGHV3-53*01_02

9797 sequences assigned
915 (9.3%) exact matches, in which:
759 unique CDR3
7 unique J



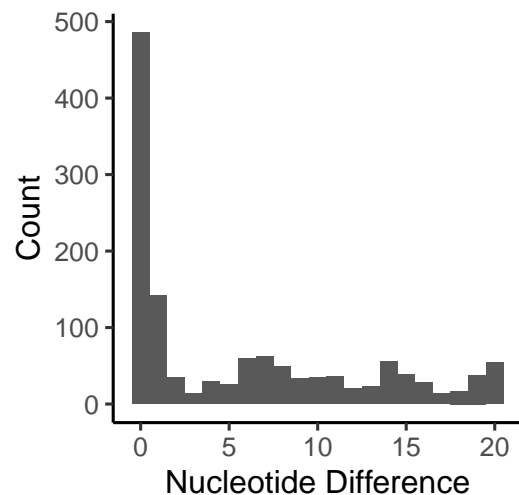
IGHV3-64*01

289 sequences assigned
115 (39.8%) exact matches, in which:
87 unique CDR3
6 unique J



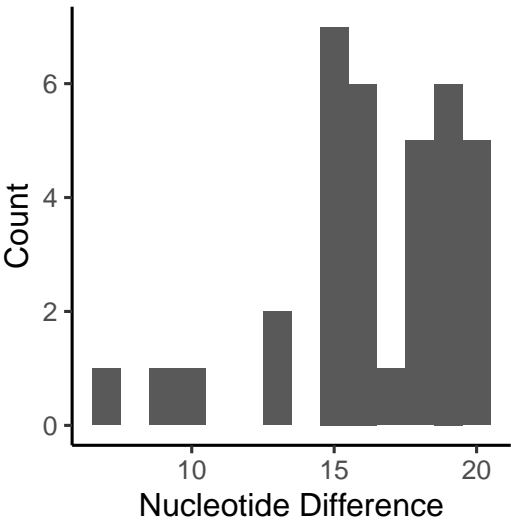
IGHV3-66*02

2203 sequences assigned
486 (22.1%) exact matches, in which:
404 unique CDR3
7 unique J



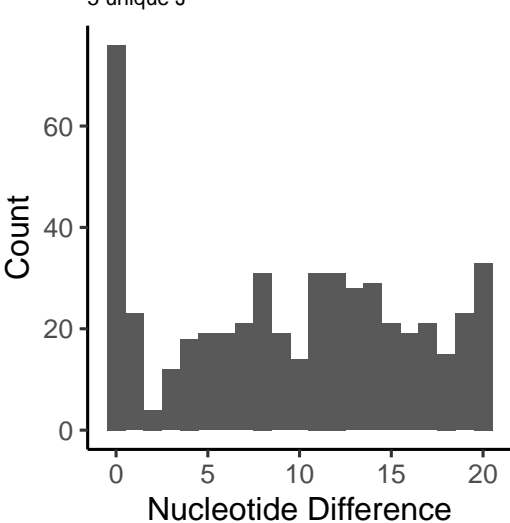
IGHV3-69-1*01

166 sequences assigned
No exact matches.



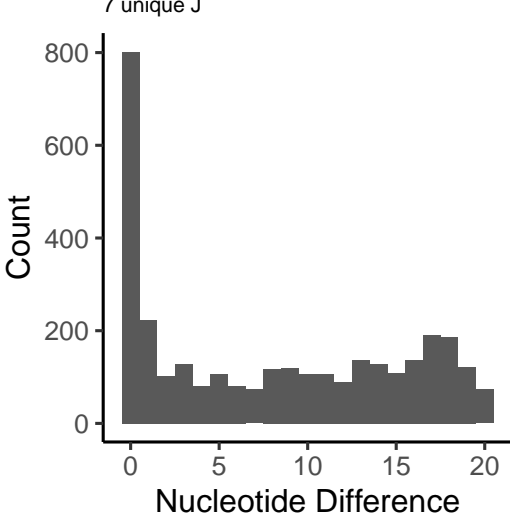
IGHV3-72*01

731 sequences assigned
76 (10.4%) exact matches, in which:
67 unique CDR3
5 unique J



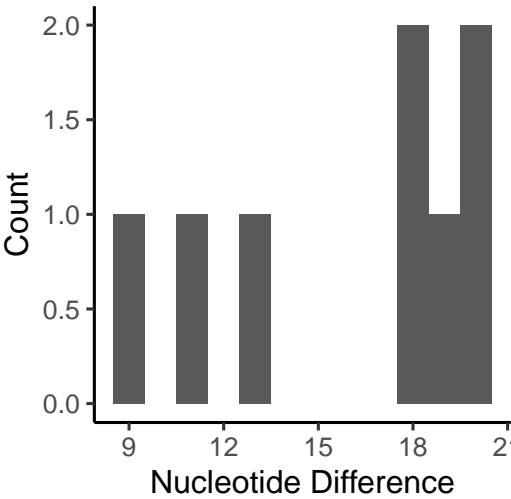
IGHV3-74*01_02

3708 sequences assigned
802 (21.6%) exact matches, in which:
639 unique CDR3
7 unique J



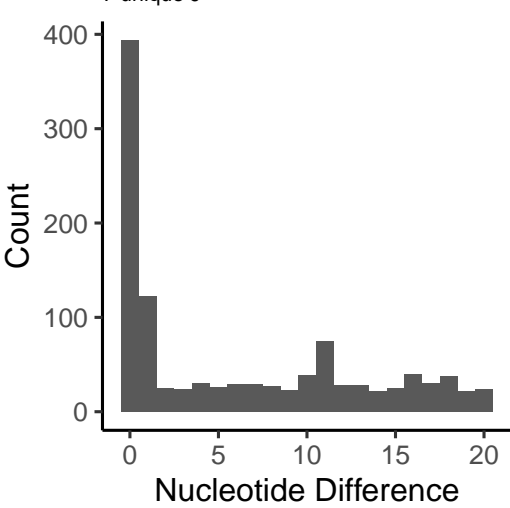
IGHV3-69-1*02

50 sequences assigned
No exact matches.



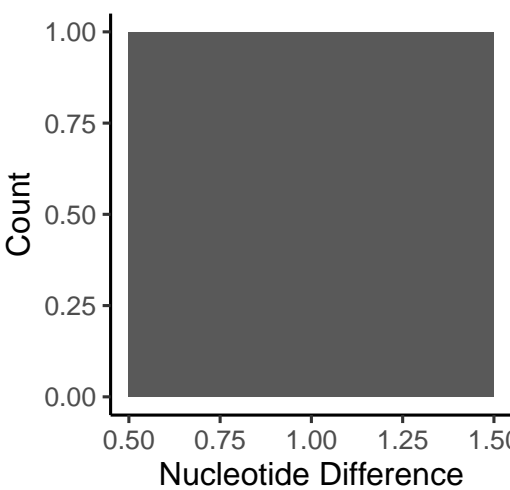
IGHV3-73*01_02

1321 sequences assigned
394 (29.8%) exact matches, in which:
324 unique CDR3
7 unique J



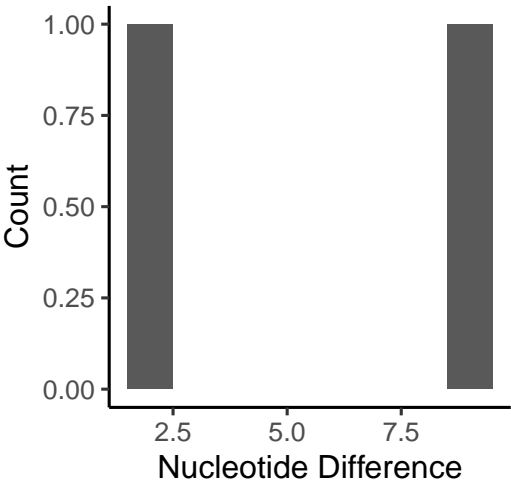
IGHV3-43D*03

1 sequences assigned
No exact matches.



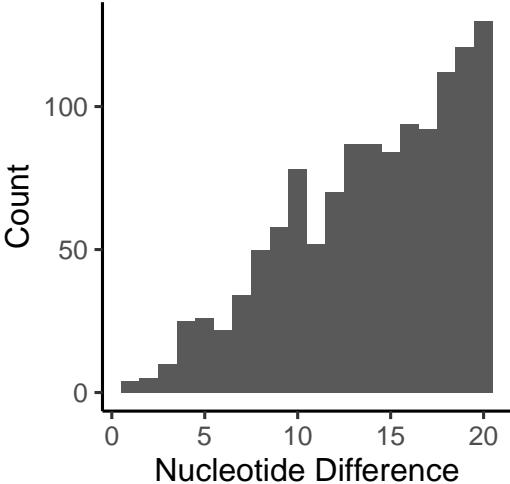
IGHV3-71*01_04

6 sequences assigned
No exact matches.



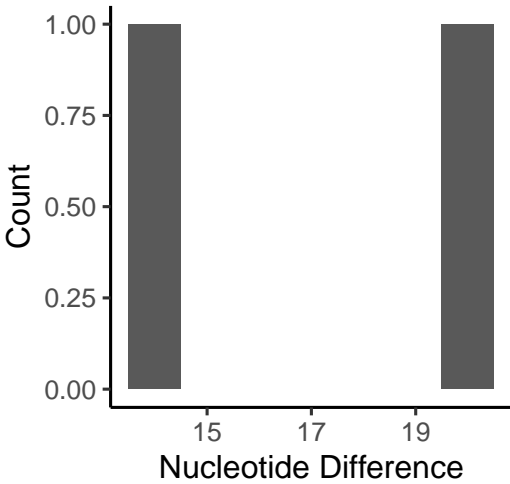
IGHV3-74*03

2681 sequences assigned
No exact matches.



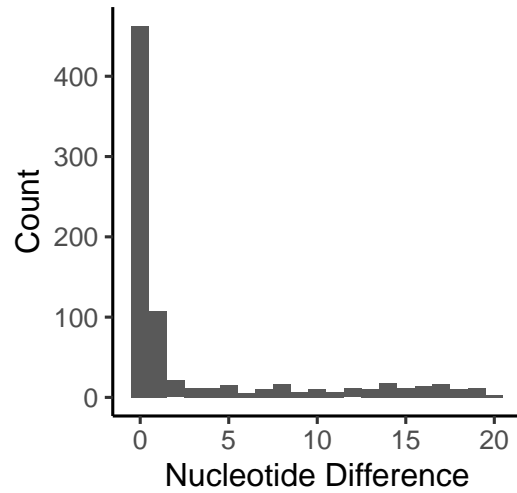
IGHV3-43D*04

3 sequences assigned
No exact matches.



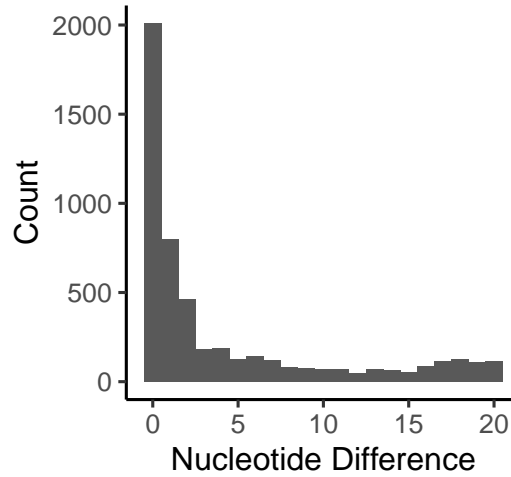
IGHV3–64D*06

915 sequences assigned
463 (50.6%) exact matches, in which:
360 unique CDR3
7 unique J



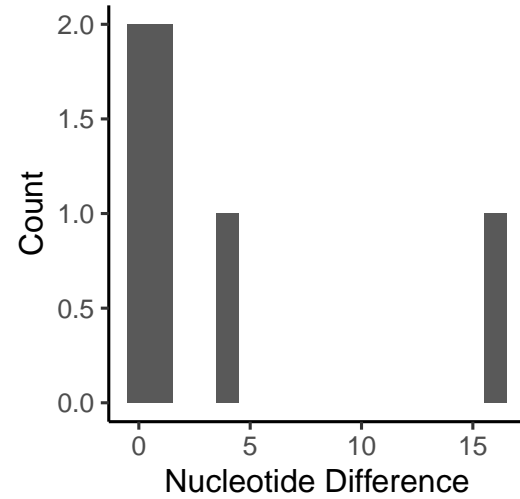
IGHV4–4*07

6741 sequences assigned
2009 (29.8%) exact matches, in which:
1933 unique CDR3
7 unique J



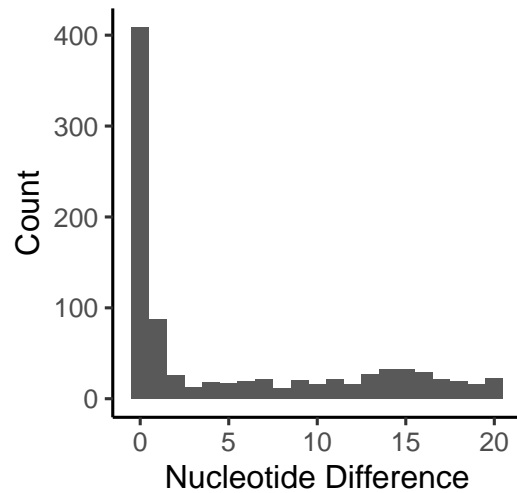
IGHV4–28*02_05

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



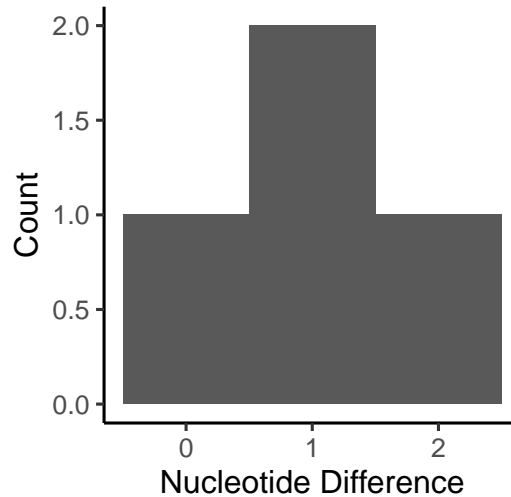
IGHV3–64D*09

1023 sequences assigned
409 (40%) exact matches, in which:
324 unique CDR3
7 unique J



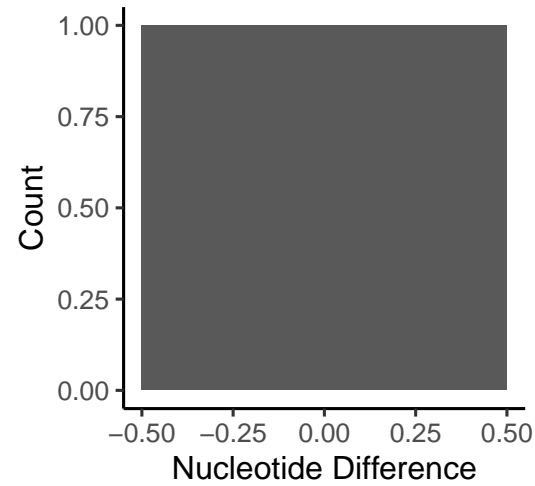
IGHV4–28*03

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



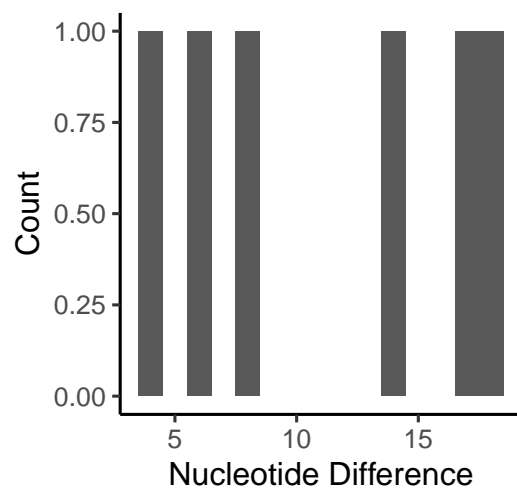
IGHV4–30–4*01

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



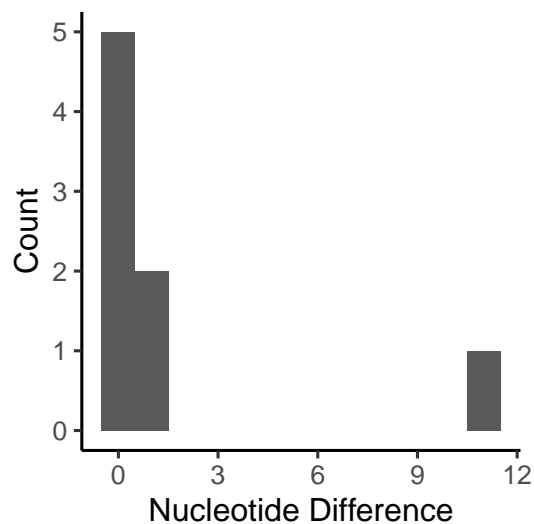
IGHV3–NL1*01

23 sequences assigned
No exact matches.



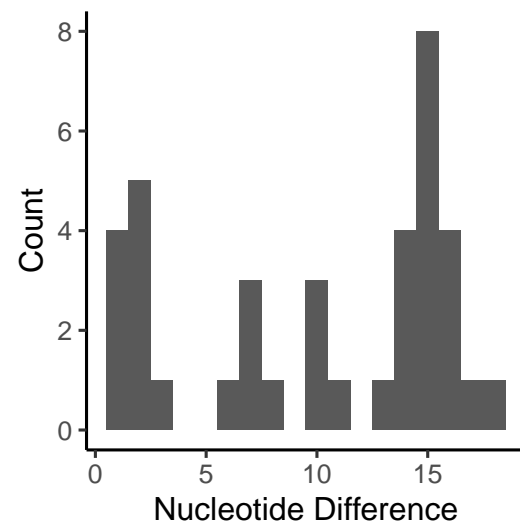
IGHV4–28*01_07

8 sequences assigned
5 (62.5%) exact matches, in which:
5 unique CDR3
2 unique J



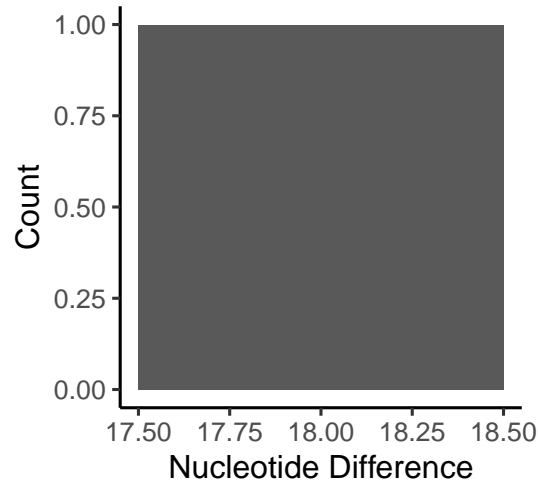
IGHV4–30–2*03

61 sequences assigned
No exact matches.



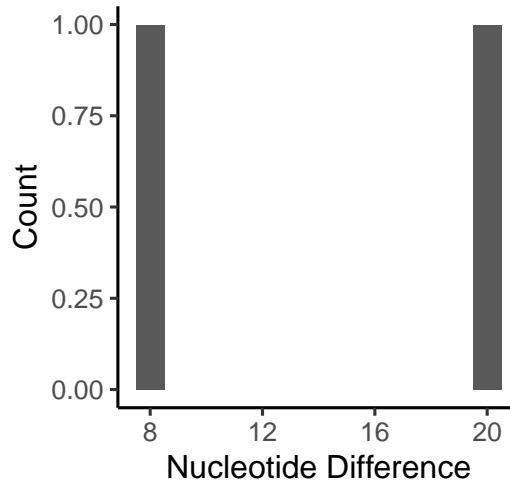
IGHV4-30-4*07

1 sequences assigned
No exact matches.



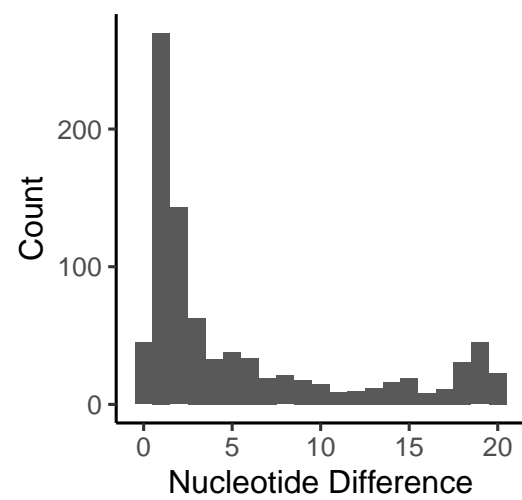
IGHV4-38-2*01

4 sequences assigned
No exact matches.



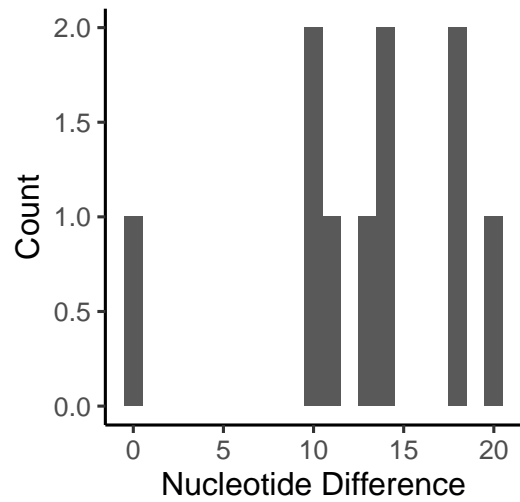
IGHV4-59*12

1110 sequences assigned
45 (4.1%) exact matches, in which:
45 unique CDR3
6 unique J



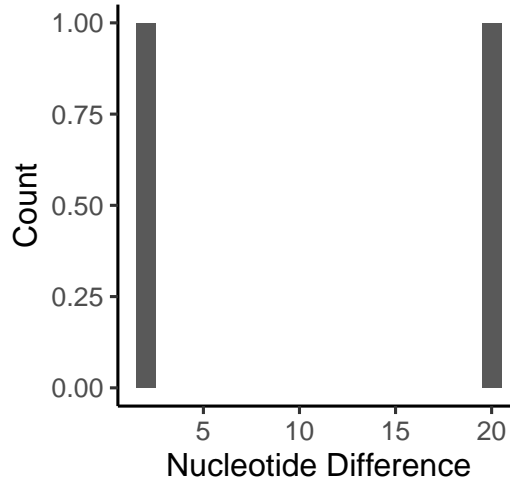
IGHV4-31*02

19 sequences assigned
1 (5.3%) exact matches, in which:
1 unique CDR3
1 unique J



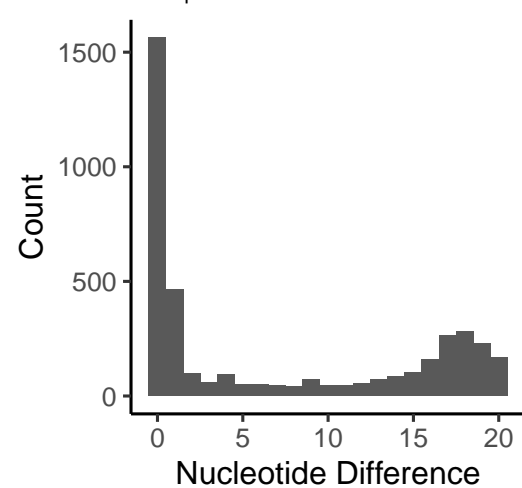
IGHV4-38-2*02

11 sequences assigned
No exact matches.



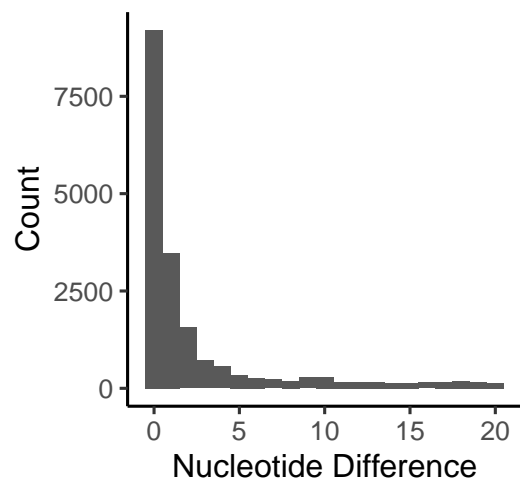
IGHV4-59*13

6034 sequences assigned
1563 (25.9%) exact matches, in which:
1527 unique CDR3
7 unique J



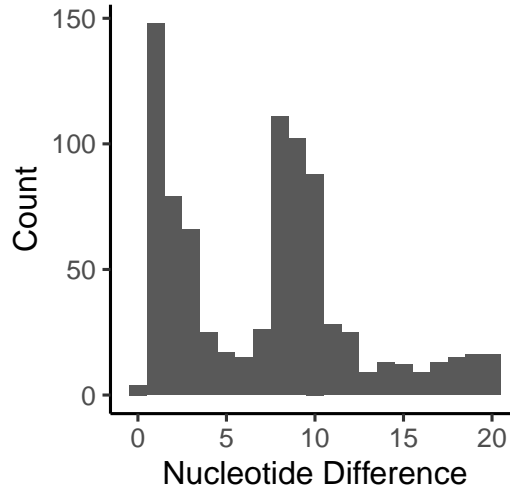
IGHV4-34*01_02

20834 sequences assigned
9202 (44.2%) exact matches, in which:
8739 unique CDR3
7 unique J



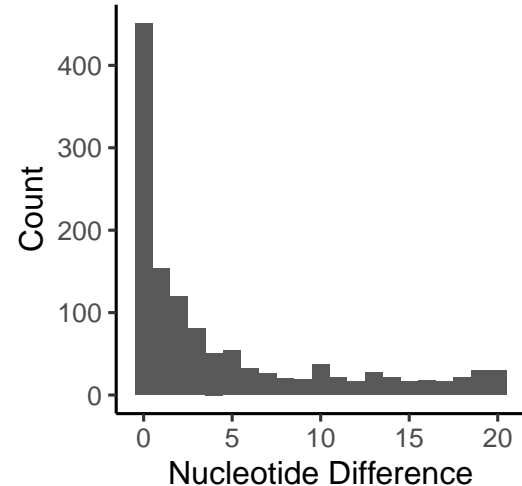
IGHV4-39*07

1168 sequences assigned
4 (0.3%) exact matches, in which:
4 unique CDR3
3 unique J



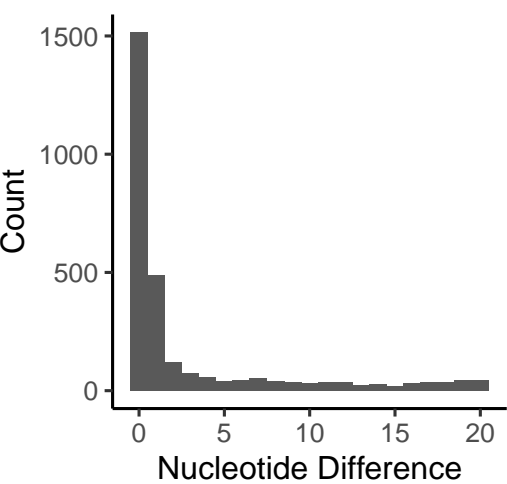
IGHV4-61*01

1541 sequences assigned
451 (29.3%) exact matches, in which:
437 unique CDR3
7 unique J



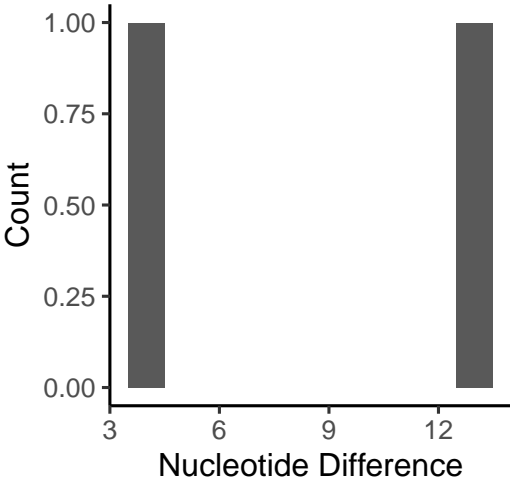
IGHV4-61*02

3405 sequences assigned
1515 (44.5%) exact matches, in which:
1479 unique CDR3
7 unique J



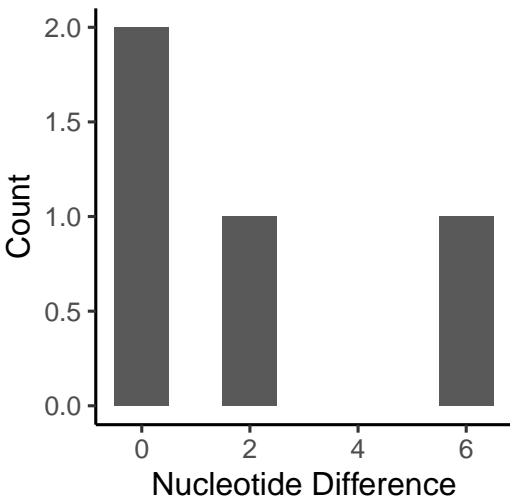
IGHV4/OR15-8*01

4 sequences assigned
No exact matches.



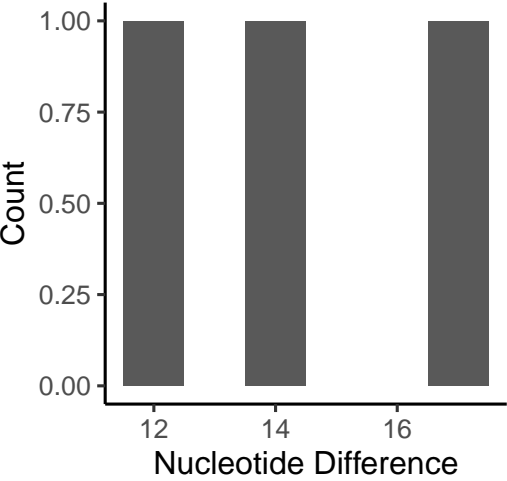
IGHV5-51*06

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



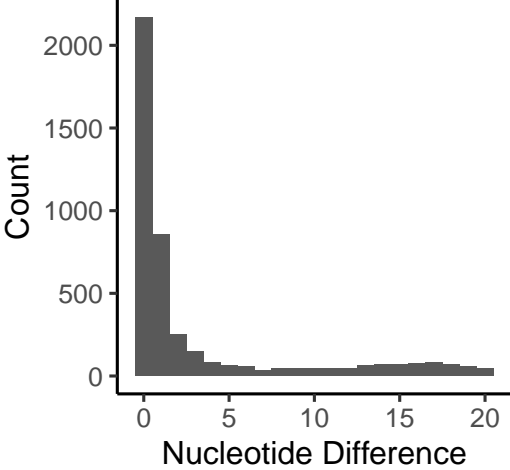
IGHV1/OR15-2*02_03

8 sequences assigned
No exact matches.



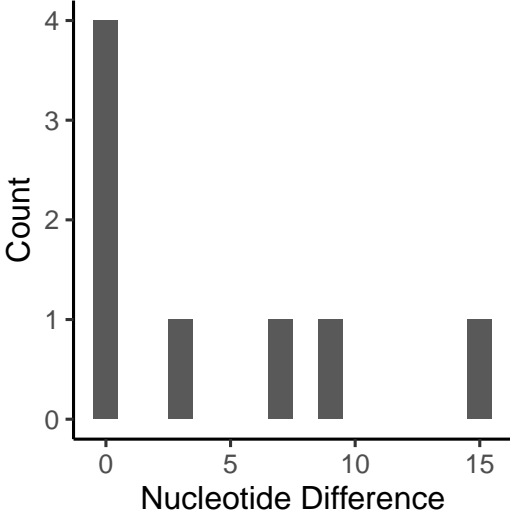
IGHV5-10-1*01_03

5020 sequences assigned
2167 (43.2%) exact matches, in which:
1973 unique CDR3
7 unique J



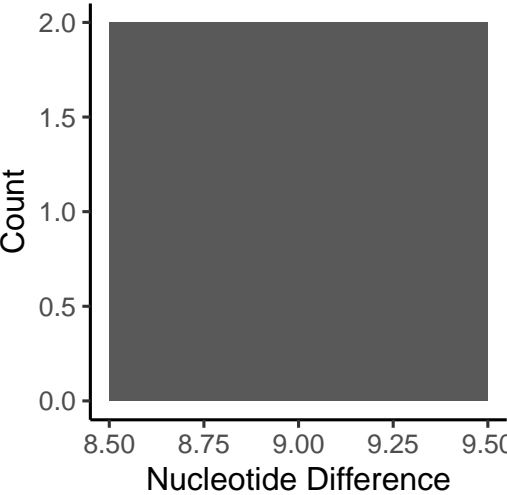
IGHV5-51*07

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



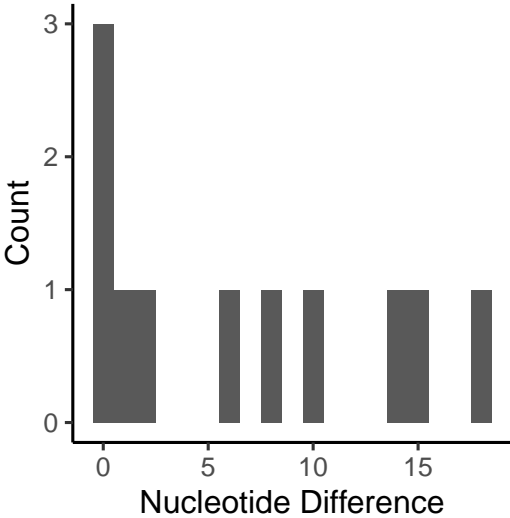
IGHV1/OR15-3*01

2 sequences assigned
No exact matches.



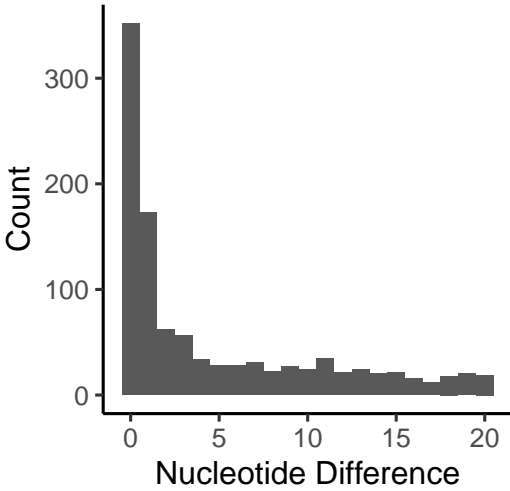
IGHV5-51*04

11 sequences assigned
3 (27.3%) exact matches, in which:
3 unique CDR3
2 unique J



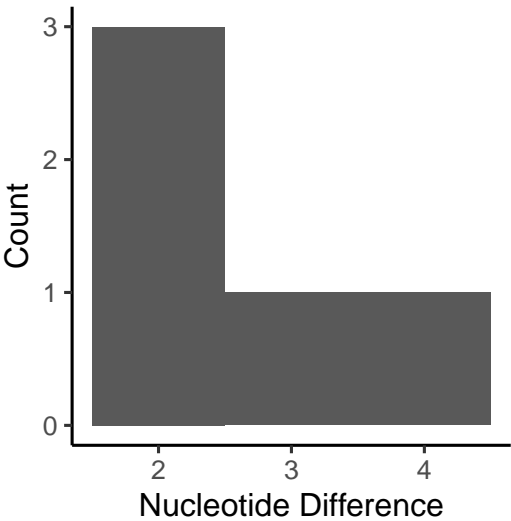
IGHV6-1*01_02

1196 sequences assigned
352 (29.4%) exact matches, in which:
339 unique CDR3
7 unique J



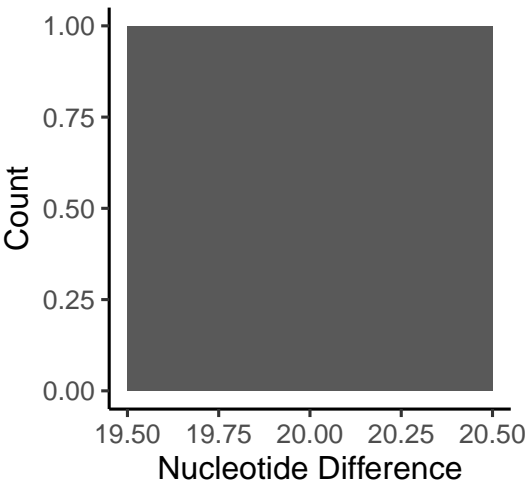
IGHV3/OR16-9*01

5 sequences assigned
No exact matches.



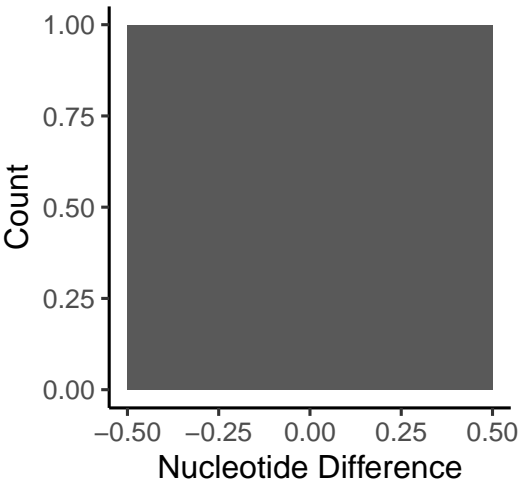
IGHV3/OR16-10*01_03

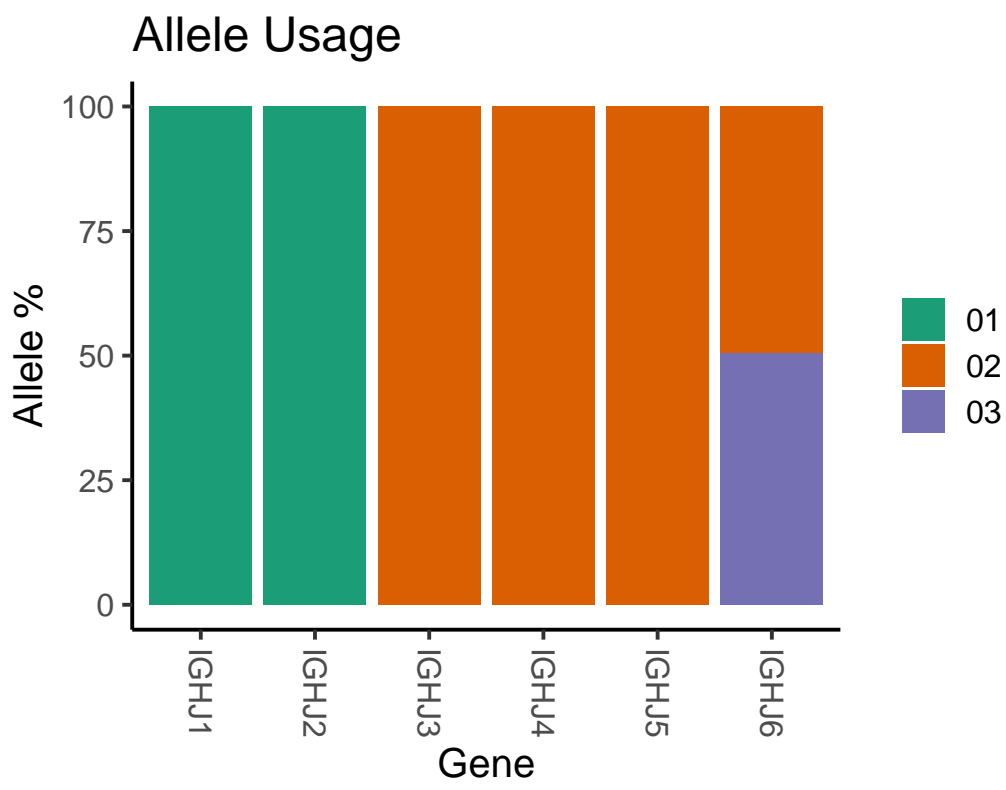
2 sequences assigned
No exact matches.



IGHV7-4-1*02

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





Sequence Count by IGHJ6 allele usage

