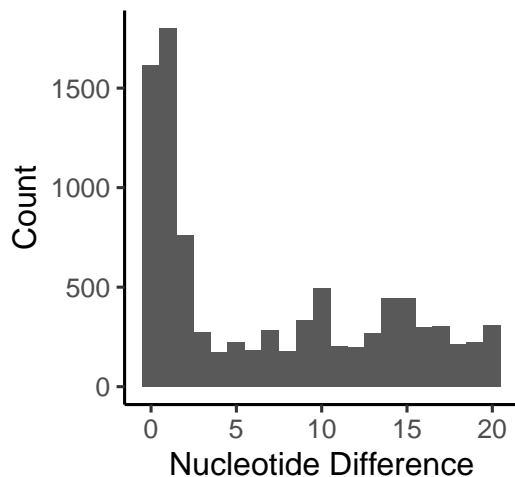


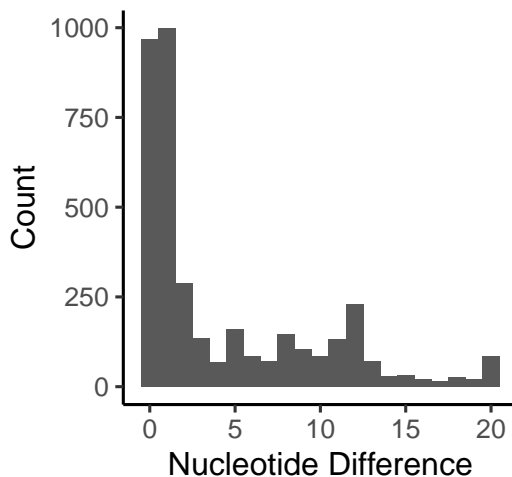
IGHV1-2*02

11988 sequences assigned
1614 (13.5%) exact matches, in which:
1339 unique CDR3
6 unique J



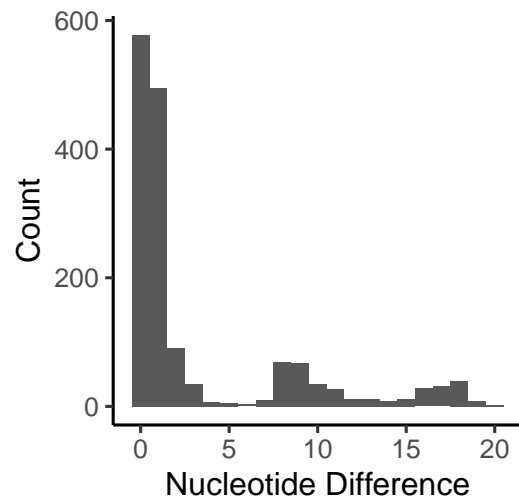
IGHV1-8*01

4256 sequences assigned
969 (22.8%) exact matches, in which:
803 unique CDR3
6 unique J



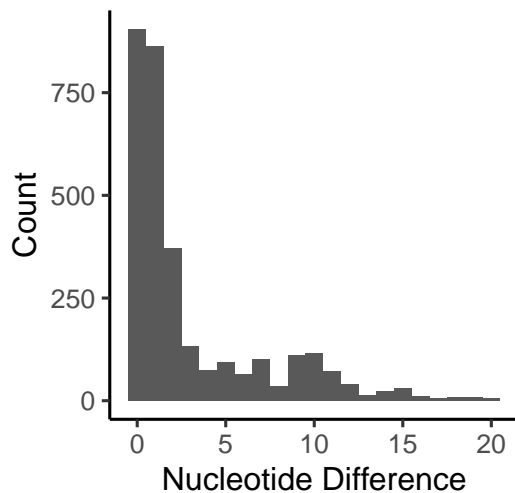
IGHV1-24*01

1699 sequences assigned
578 (34%) exact matches, in which:
484 unique CDR3
6 unique J



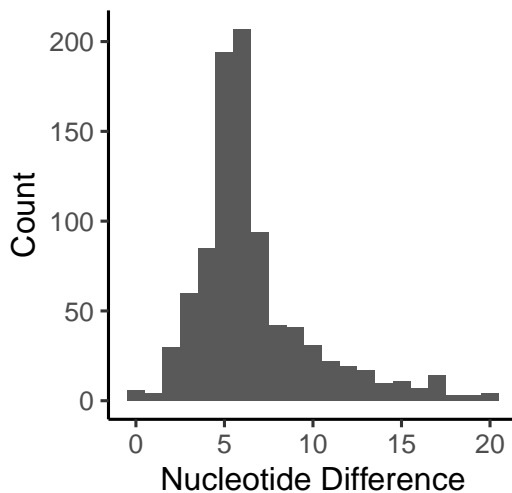
IGHV1-2*04

3127 sequences assigned
905 (28.9%) exact matches, in which:
762 unique CDR3
6 unique J



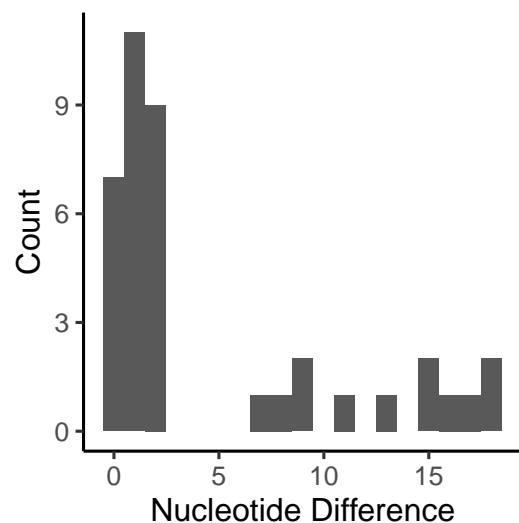
IGHV1-8*02

1004 sequences assigned
6 (0.6%) exact matches, in which:
6 unique CDR3
2 unique J



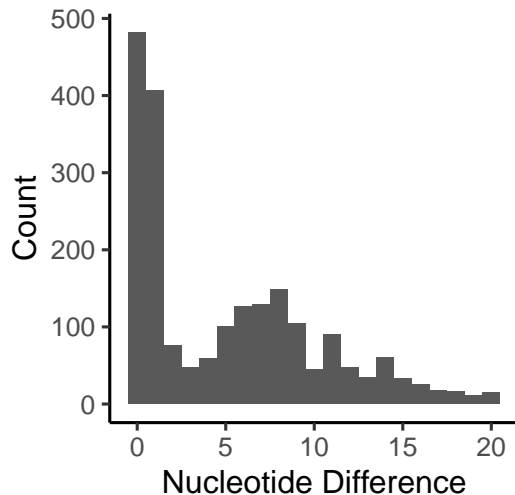
IGHV1-45*02

43 sequences assigned
7 (16.3%) exact matches, in which:
6 unique CDR3
2 unique J



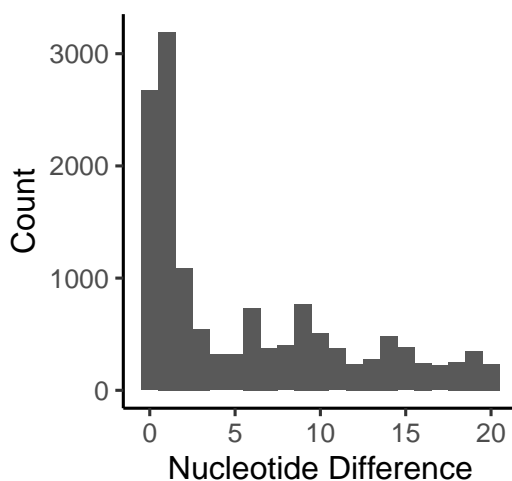
IGHV1-3*01_05

2810 sequences assigned
482 (17.2%) exact matches, in which:
400 unique CDR3
6 unique J



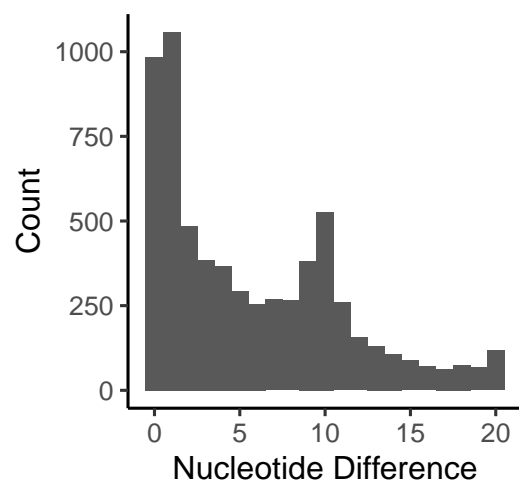
IGHV1-18*01

17698 sequences assigned
2672 (15.1%) exact matches, in which:
2145 unique CDR3
6 unique J



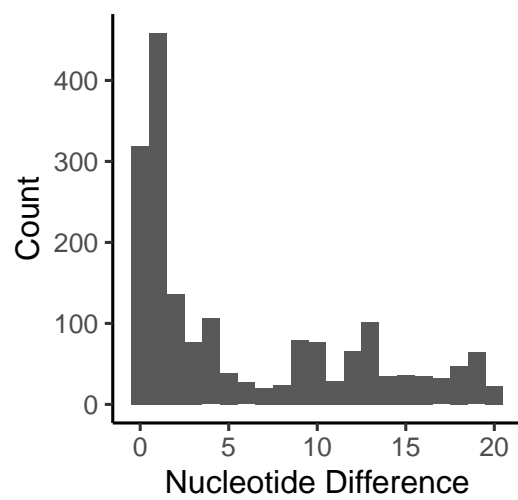
IGHV1-46*01

7023 sequences assigned
984 (14%) exact matches, in which:
838 unique CDR3
6 unique J



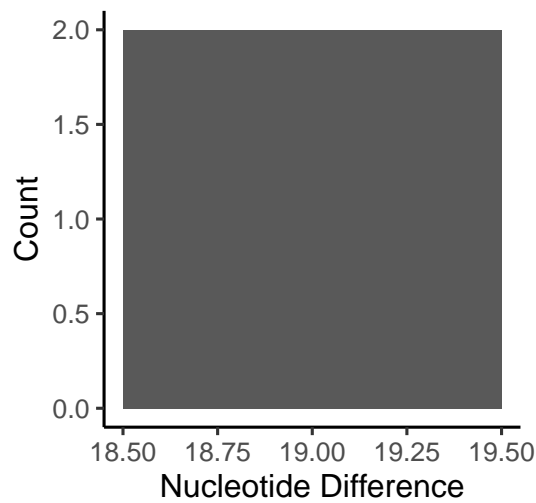
IGHV1-46*03

2618 sequences assigned
319 (12.2%) exact matches, in which:
238 unique CDR3
6 unique J



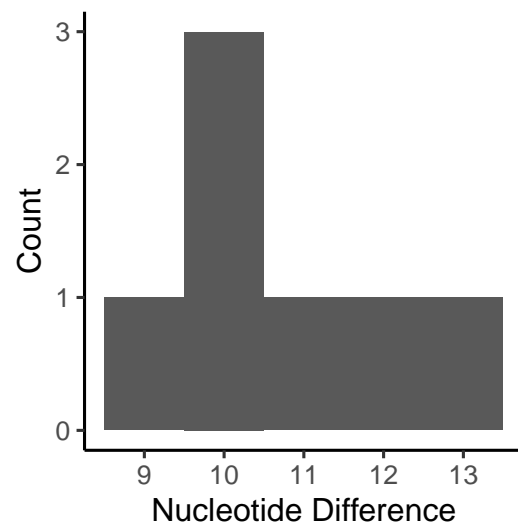
IGHV1-69-2*01

2 sequences assigned
No exact matches.



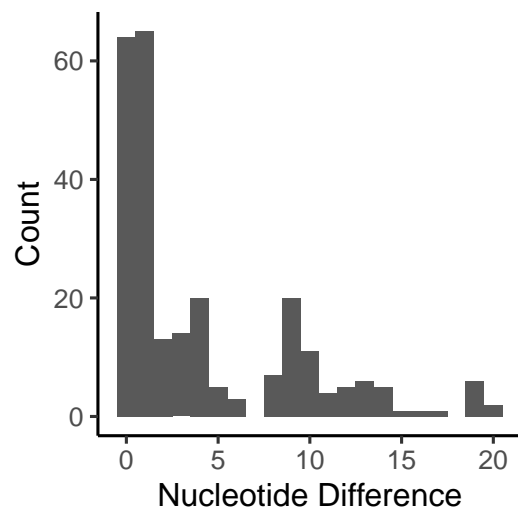
IGHV1-NL1*01

7 sequences assigned
No exact matches.



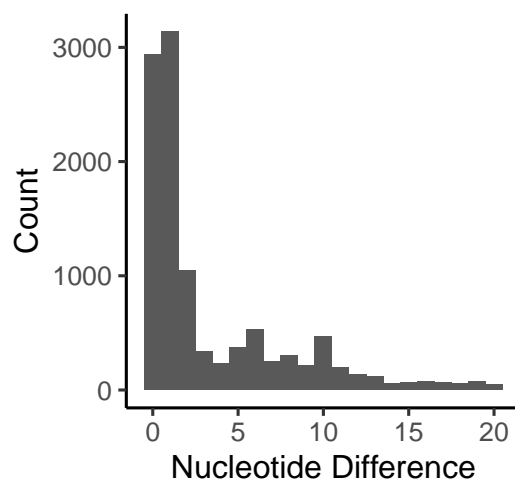
IGHV1-58*02

272 sequences assigned
64 (23.5%) exact matches, in which:
58 unique CDR3
4 unique J



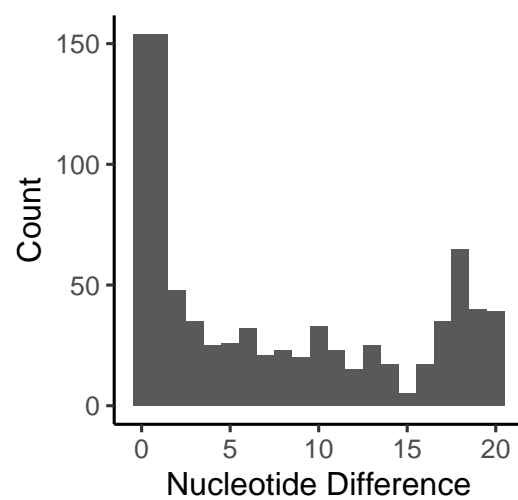
IGHV1-69*01_12_13

11796 sequences assigned
2939 (24.9%) exact matches, in which:
2498 unique CDR3
6 unique J



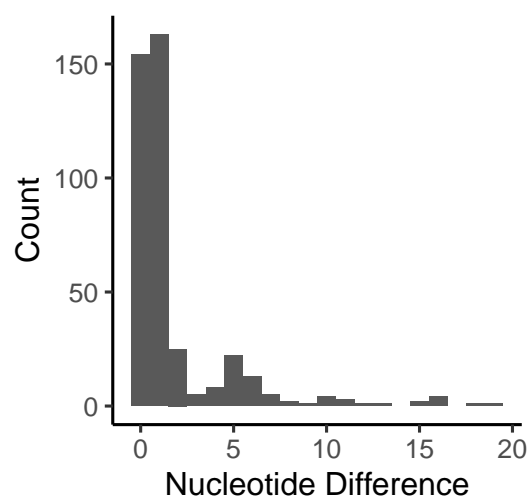
IGHV2-5*01

922 sequences assigned
154 (16.7%) exact matches, in which:
129 unique CDR3
6 unique J



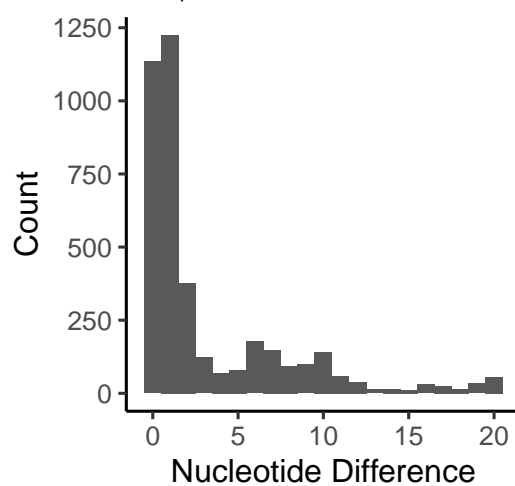
IGHV1-58*01_03

463 sequences assigned
154 (33.3%) exact matches, in which:
131 unique CDR3
5 unique J



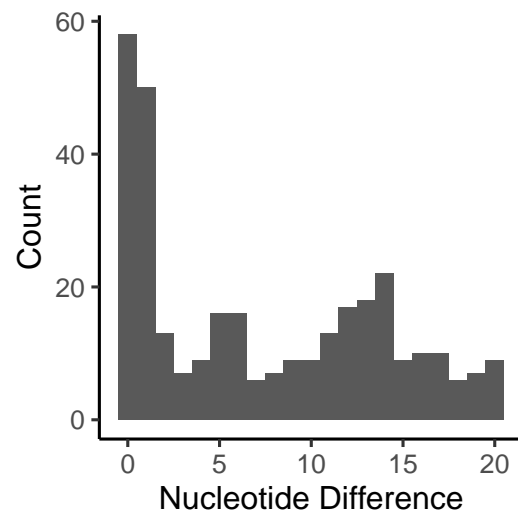
IGHV1-69*04_09

4242 sequences assigned
1134 (26.7%) exact matches, in which:
977 unique CDR3
6 unique J



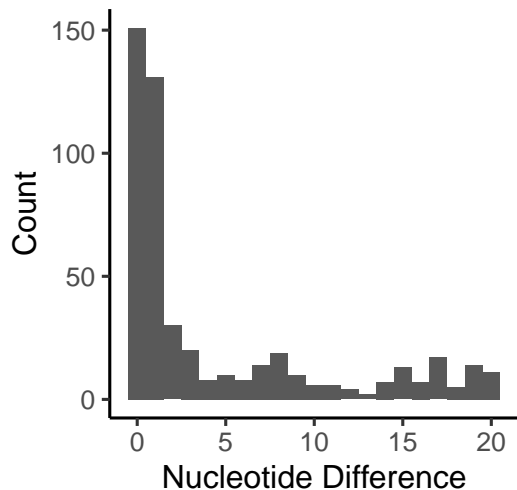
IGHV2-5*02

547 sequences assigned
58 (10.6%) exact matches, in which:
51 unique CDR3
6 unique J



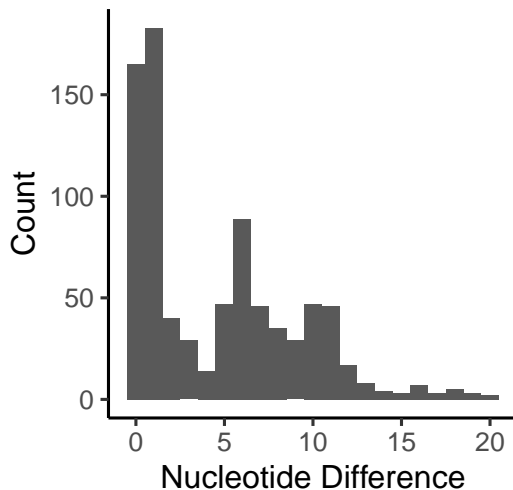
IGHV2-26*01

504 sequences assigned
151 (30%) exact matches, in which:
125 unique CDR3
6 unique J



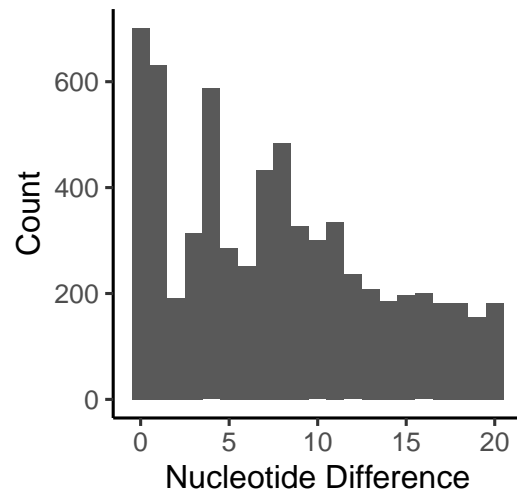
IGHV2-70*11_15

862 sequences assigned
165 (19.1%) exact matches, in which:
132 unique CDR3
6 unique J



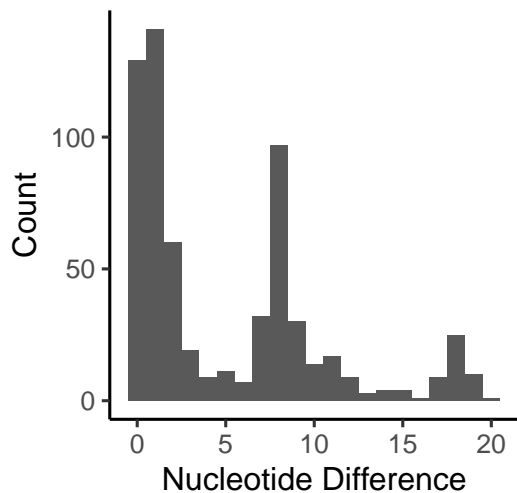
IGHV3-7*03

8144 sequences assigned
702 (8.6%) exact matches, in which:
470 unique CDR3
6 unique J



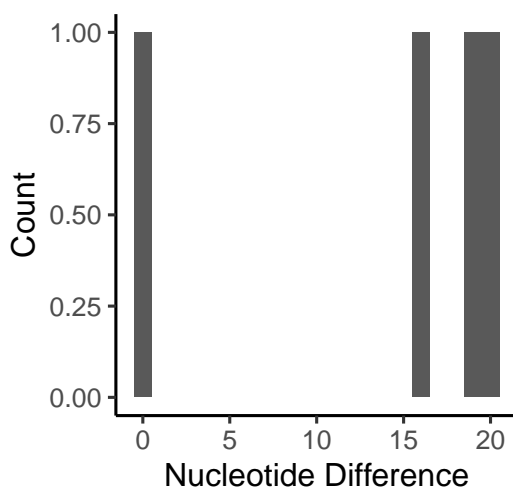
IGHV2-70*01

674 sequences assigned
129 (19.1%) exact matches, in which:
104 unique CDR3
5 unique J



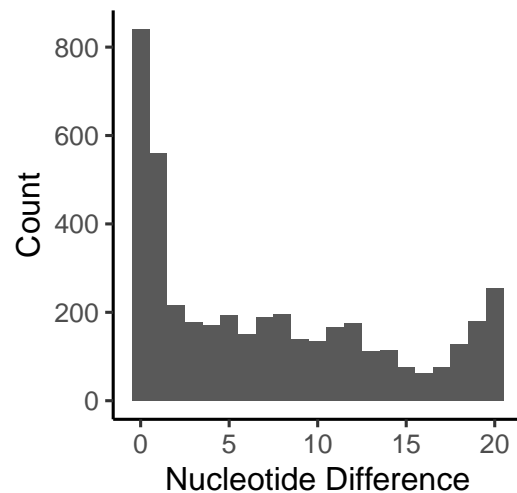
IGHV2-70D*04

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



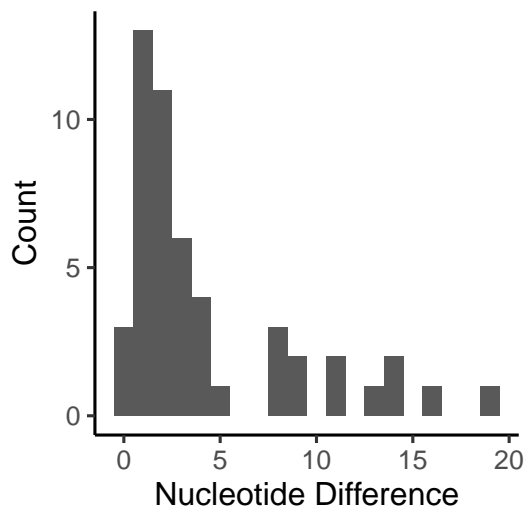
IGHV3-9*01

5593 sequences assigned
841 (15%) exact matches, in which:
494 unique CDR3
6 unique J



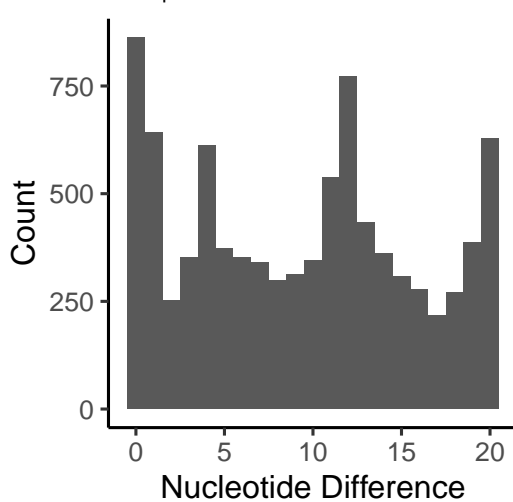
IGHV2-70*12

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



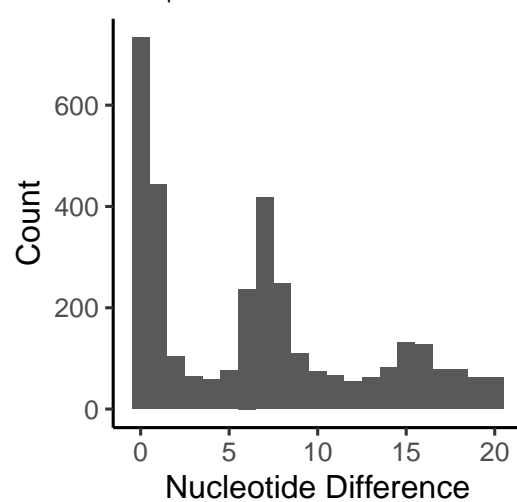
IGHV3-7*01

11616 sequences assigned
863 (7.4%) exact matches, in which:
614 unique CDR3
6 unique J



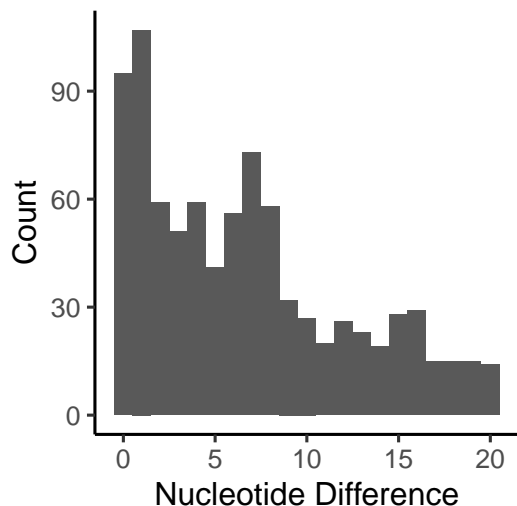
IGHV3-11*01

4110 sequences assigned
734 (17.9%) exact matches, in which:
490 unique CDR3
6 unique J



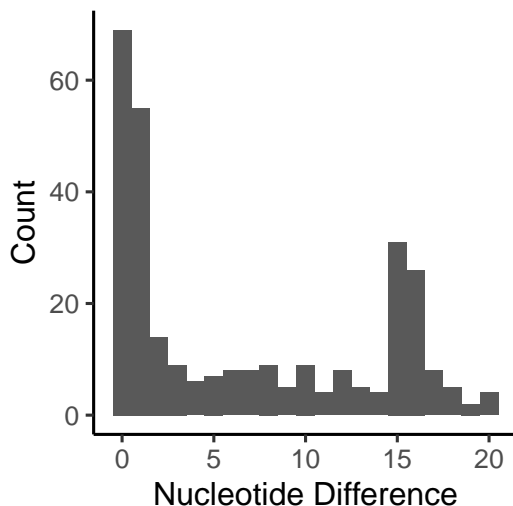
IGHV3-11*04

955 sequences assigned
95 (9.9%) exact matches, in which:
92 unique CDR3
6 unique J



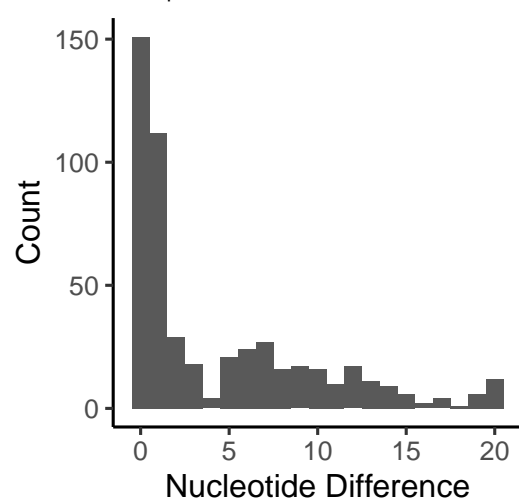
IGHV3-13*05

310 sequences assigned
69 (22.3%) exact matches, in which:
44 unique CDR3
5 unique J



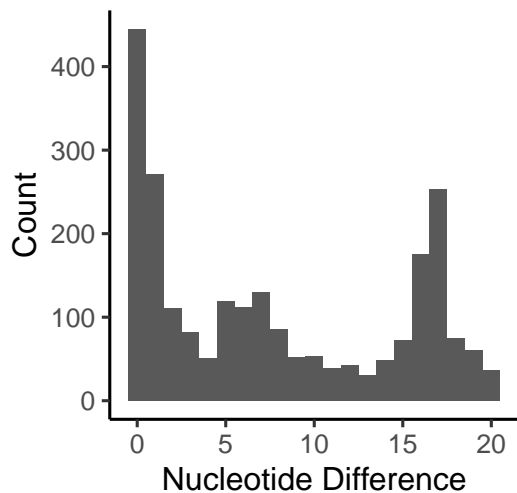
IGHV3-20*01_02

528 sequences assigned
151 (28.6%) exact matches, in which:
87 unique CDR3
5 unique J



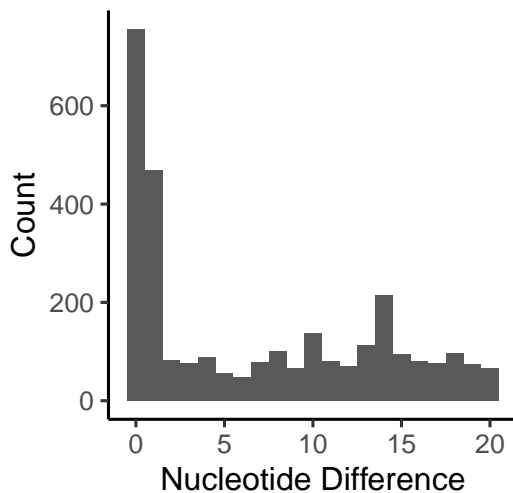
IGHV3-11*06

2907 sequences assigned
445 (15.3%) exact matches, in which:
314 unique CDR3
6 unique J



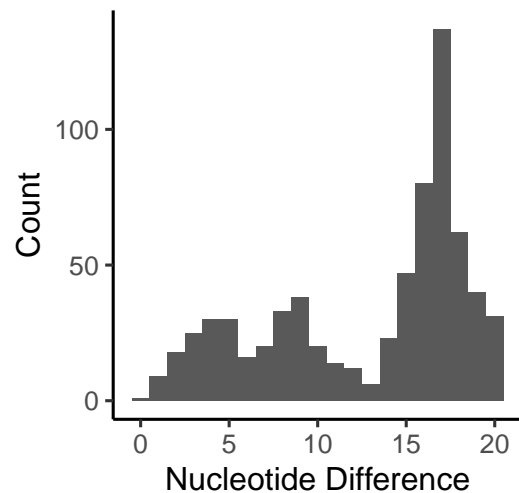
IGHV3-15*01_02

3353 sequences assigned
756 (22.5%) exact matches, in which:
469 unique CDR3
6 unique J



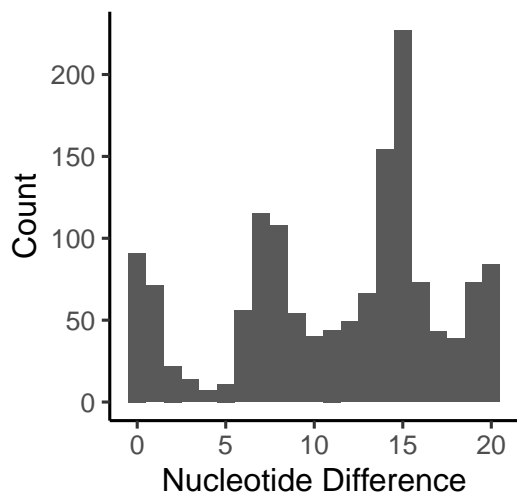
IGHV3-20*03_04

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



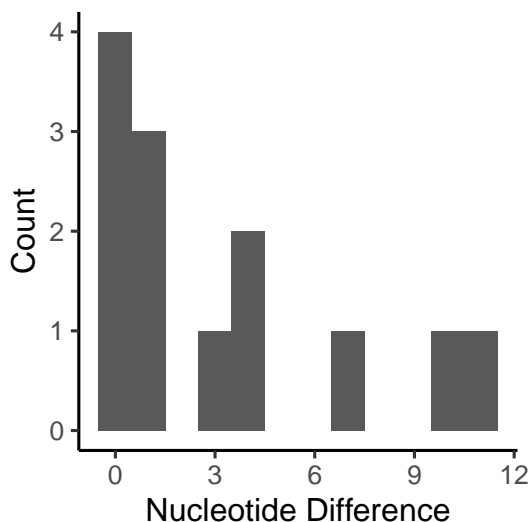
IGHV3-13*01

1845 sequences assigned
91 (4.9%) exact matches, in which:
58 unique CDR3
5 unique J



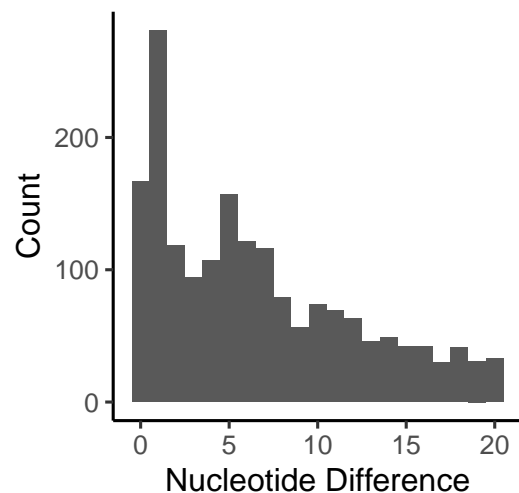
IGHV3-19*01

13 sequences assigned
4 (30.8%) exact matches, in which:
4 unique CDR3
2 unique J



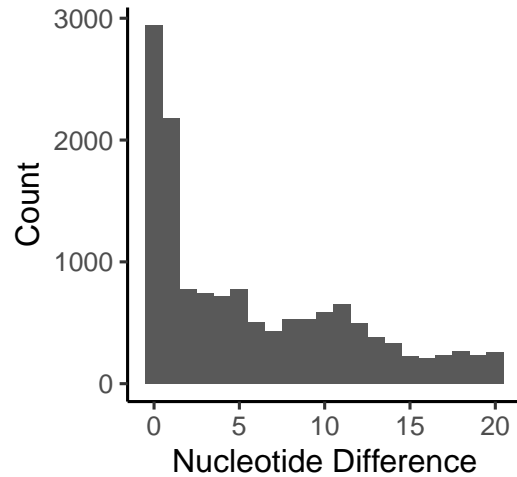
IGHV3-21*04

2129 sequences assigned
167 (7.8%) exact matches, in which:
155 unique CDR3
6 unique J



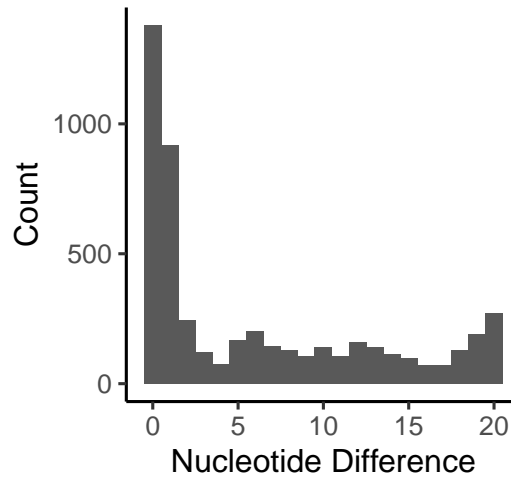
IGHV3-21*01_02

17690 sequences assigned
2941 (16.6%) exact matches, in which:
1837 unique CDR3
6 unique J



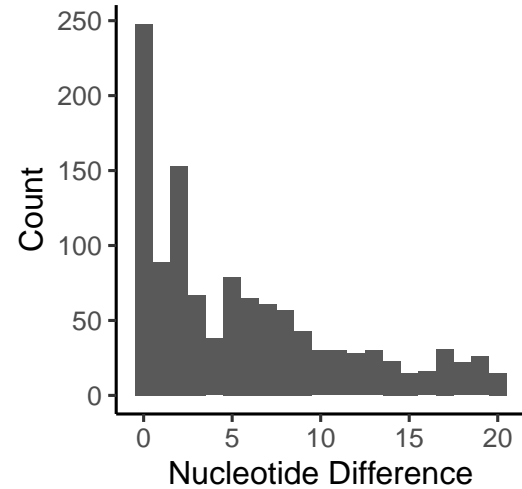
IGHV3-30*03

6515 sequences assigned
1379 (21.2%) exact matches, in which:
975 unique CDR3
6 unique J



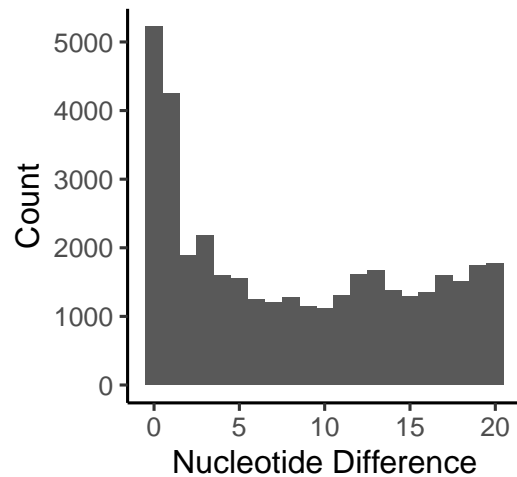
IGHV3-33*08

1386 sequences assigned
248 (17.9%) exact matches, in which:
204 unique CDR3
6 unique J



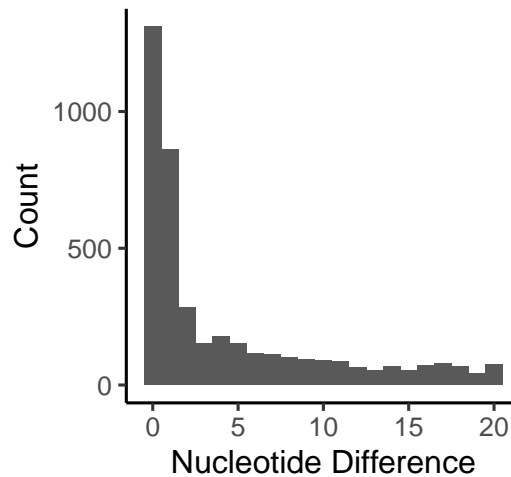
IGHV3-23*01_04

51102 sequences assigned
5222 (10.2%) exact matches, in which:
3003 unique CDR3
6 unique J



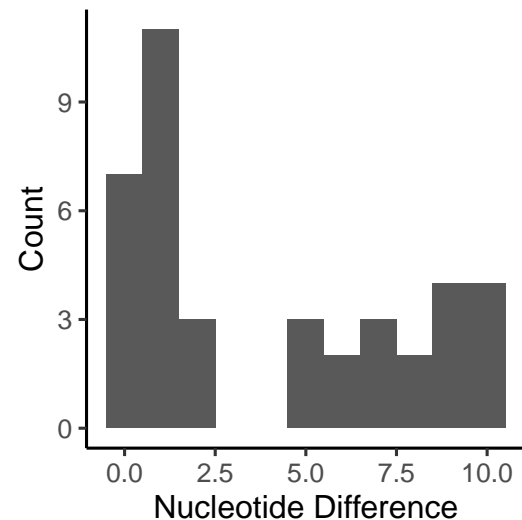
IGHV3-33*01

4729 sequences assigned
1310 (27.7%) exact matches, in which:
867 unique CDR3
6 unique J



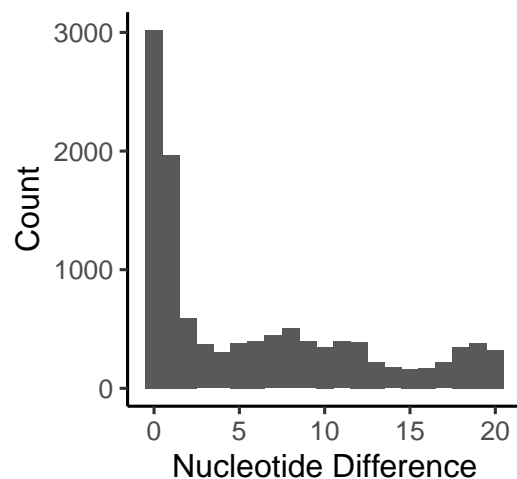
IGHV3-35*01

39 sequences assigned
7 (17.9%) exact matches, in which:
4 unique CDR3
2 unique J



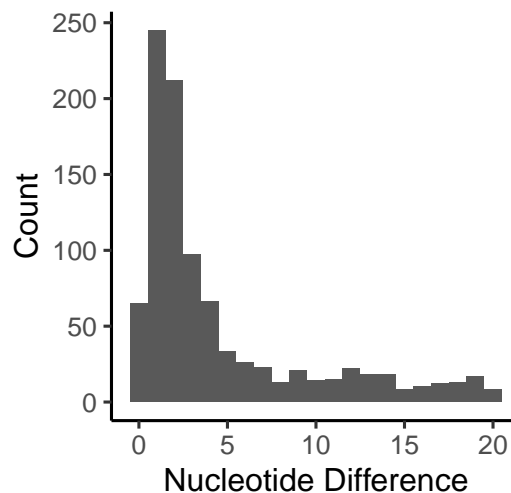
IGHV3-30-3*01

13406 sequences assigned
3020 (22.5%) exact matches, in which:
2017 unique CDR3
6 unique J



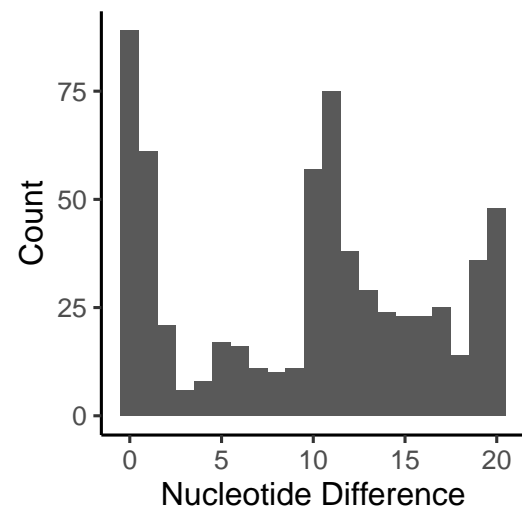
IGHV3-33*06

1032 sequences assigned
65 (6.3%) exact matches, in which:
62 unique CDR3
6 unique J



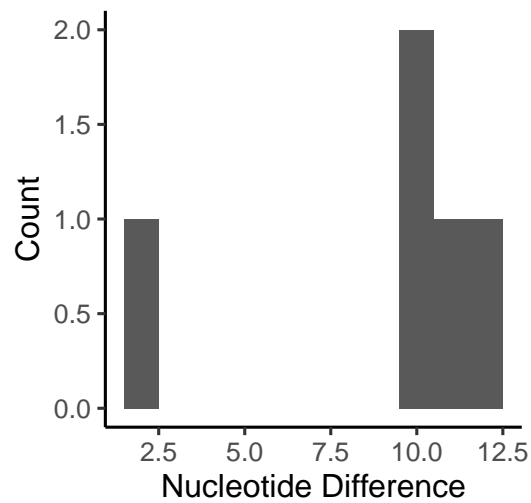
IGHV3-43*01

1001 sequences assigned
89 (8.9%) exact matches, in which:
52 unique CDR3
6 unique J



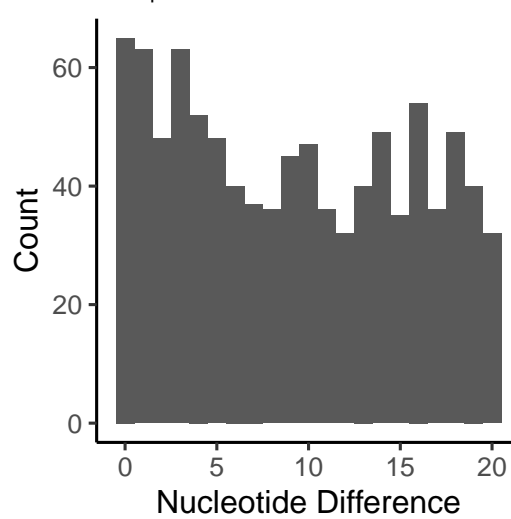
IGHV3-47*02

5 sequences assigned
No exact matches.



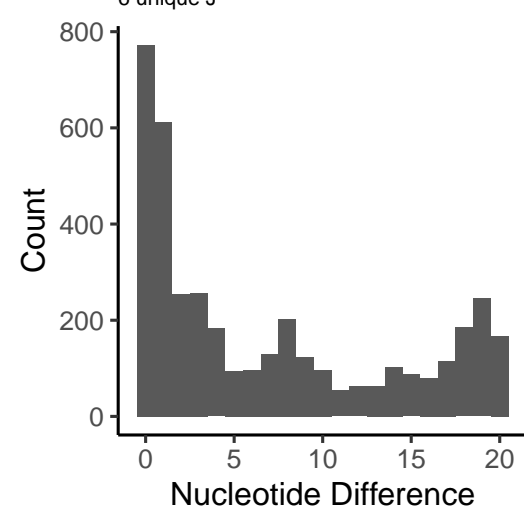
IGHV3-48*04

1383 sequences assigned
65 (4.7%) exact matches, in which:
63 unique CDR3
6 unique J



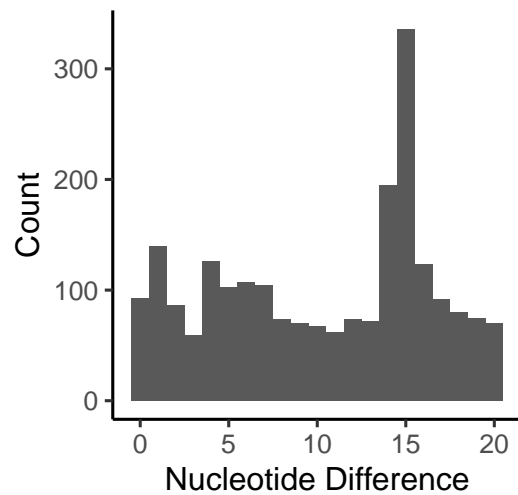
IGHV3-53*01_02

5488 sequences assigned
773 (14.1%) exact matches, in which:
470 unique CDR3
6 unique J



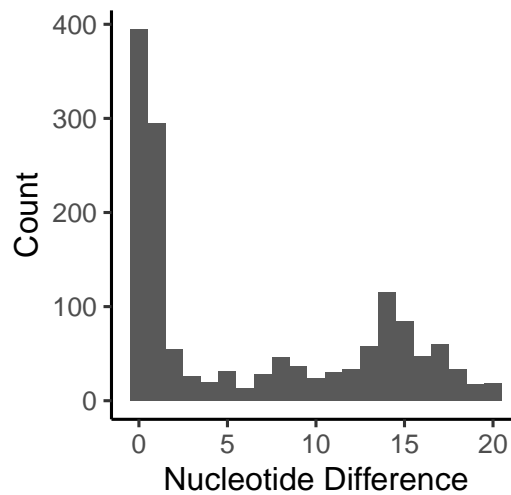
IGHV3-48*01

2412 sequences assigned
93 (3.9%) exact matches, in which:
89 unique CDR3
6 unique J



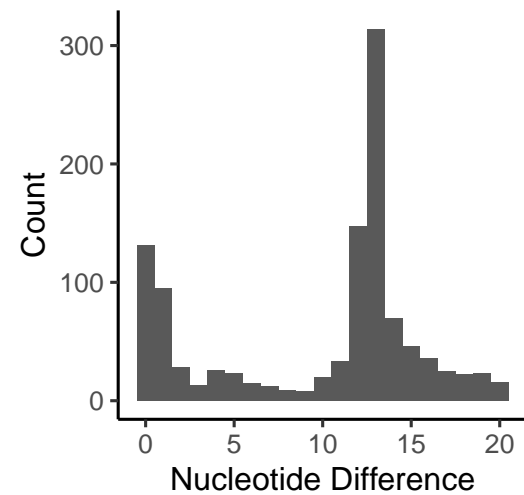
IGHV3-49*03_05

1539 sequences assigned
395 (25.7%) exact matches, in which:
231 unique CDR3
6 unique J



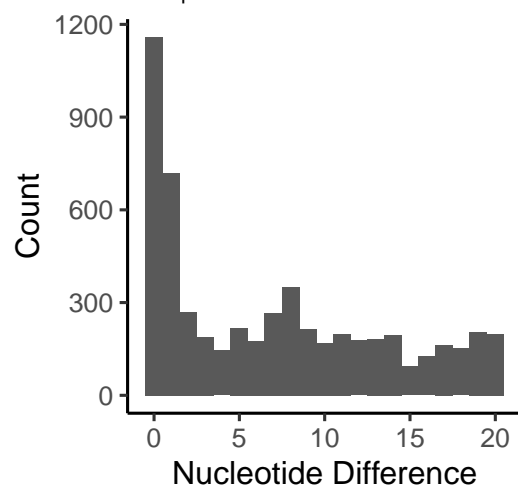
IGHV3-64*01

1185 sequences assigned
131 (11.1%) exact matches, in which:
80 unique CDR3
5 unique J



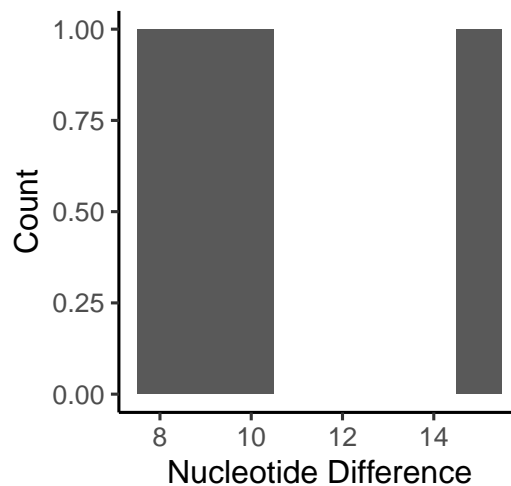
IGHV3-48*02

6223 sequences assigned
1159 (18.6%) exact matches, in which:
704 unique CDR3
6 unique J



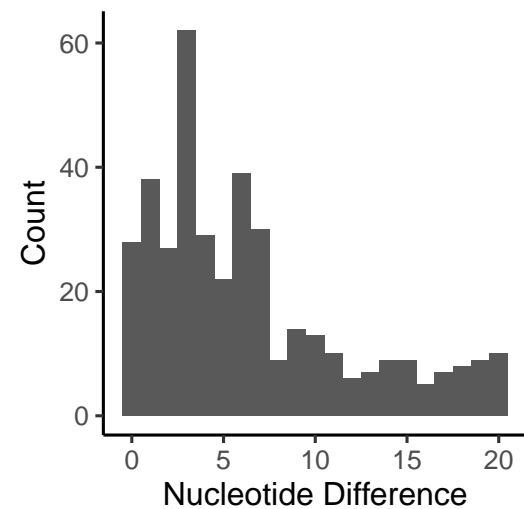
IGHV3-52*01_03

4 sequences assigned
No exact matches.



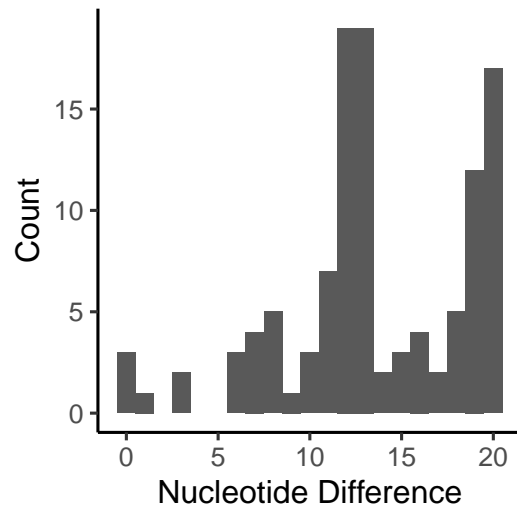
IGHV3-64*04

560 sequences assigned
28 (5%) exact matches, in which:
27 unique CDR3
5 unique J



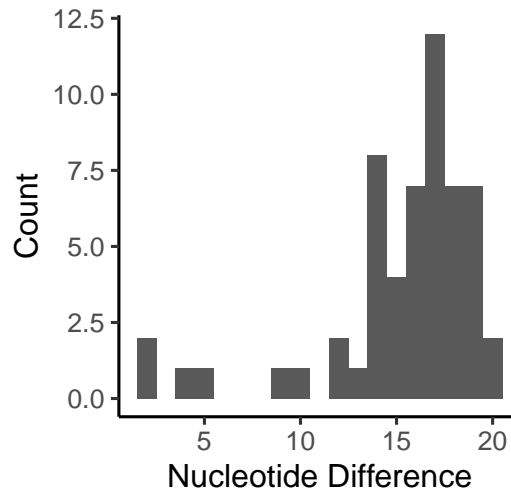
IGHV3-64*02_07

670 sequences assigned
3 (0.4%) exact matches, in which:
2 unique CDR3
1 unique J



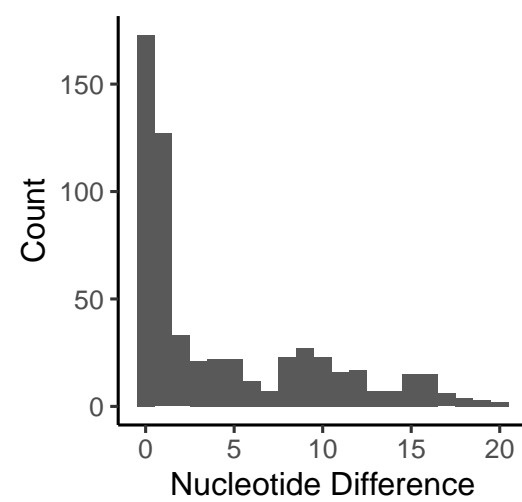
IGHV3-69-1*02

70 sequences assigned
No exact matches.



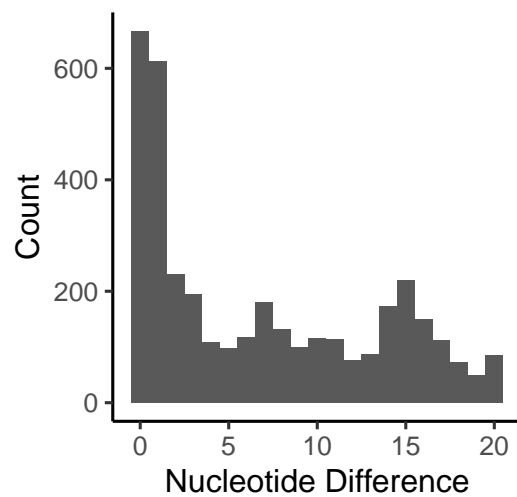
IGHV3-73*01_02

601 sequences assigned
173 (28.8%) exact matches, in which:
106 unique CDR3
5 unique J



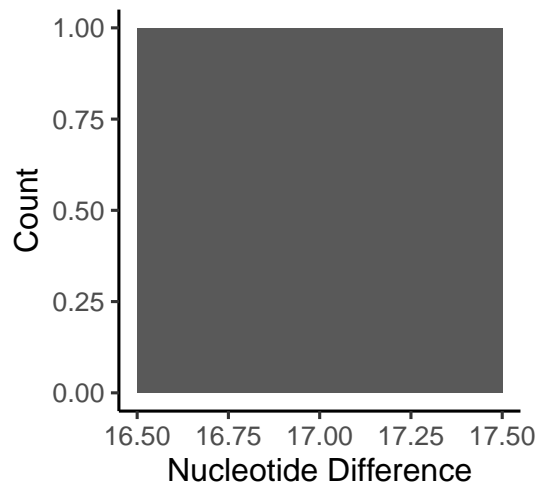
IGHV3-66*01

4647 sequences assigned
667 (14.4%) exact matches, in which:
444 unique CDR3
6 unique J



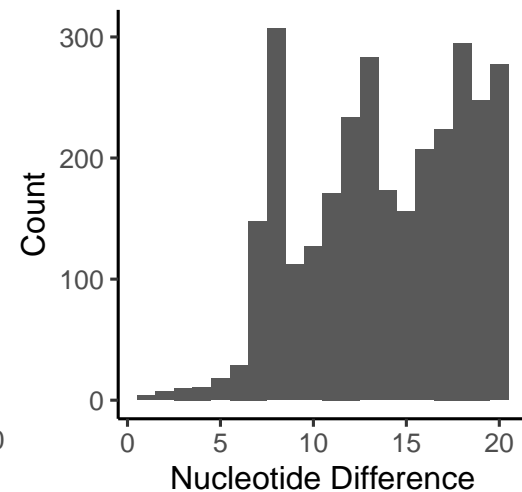
IGHV3-71*01_04

1 sequences assigned
No exact matches.



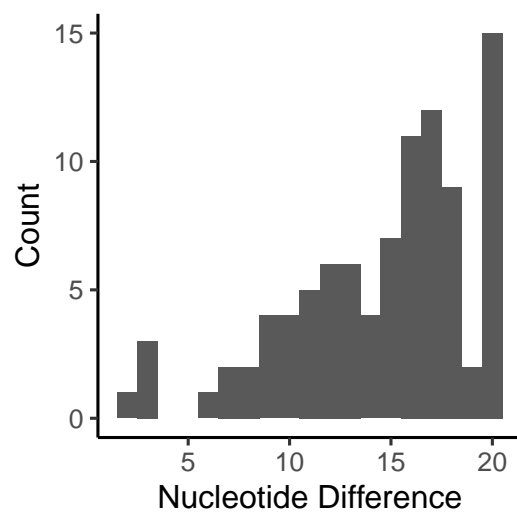
IGHV3-74*03

5515 sequences assigned
No exact matches.



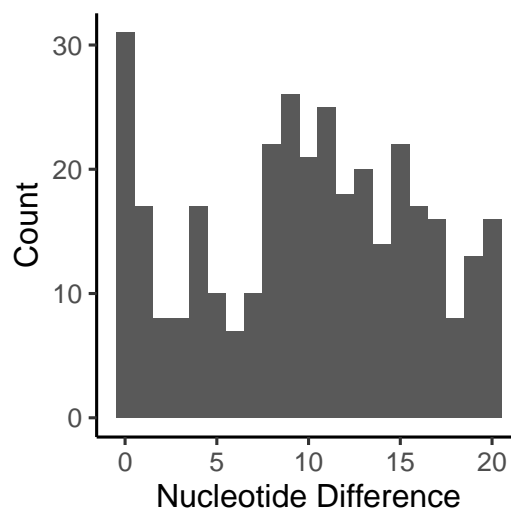
IGHV3-69-1*01

244 sequences assigned
No exact matches.



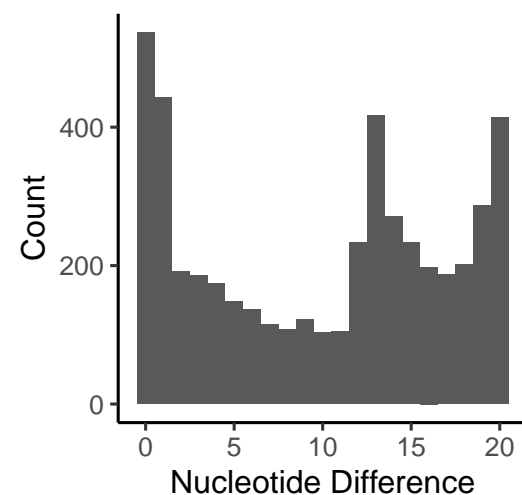
IGHV3-72*01

482 sequences assigned
31 (6.4%) exact matches, in which:
20 unique CDR3
4 unique J



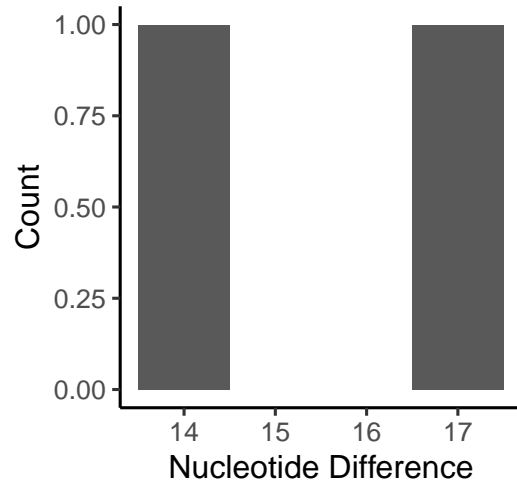
IGHV3-74*01_02

5713 sequences assigned
537 (9.4%) exact matches, in which:
357 unique CDR3
6 unique J



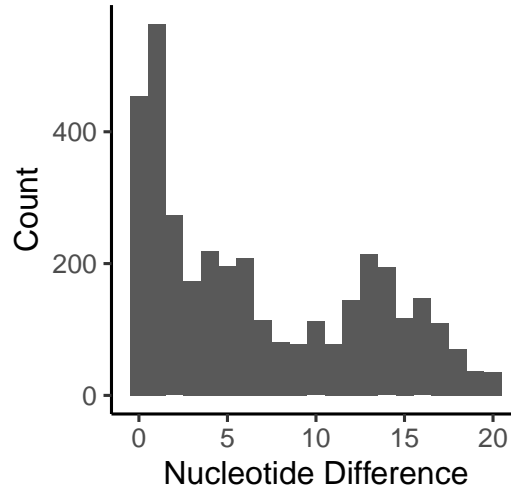
IGHV3-43D*04

3 sequences assigned
No exact matches.



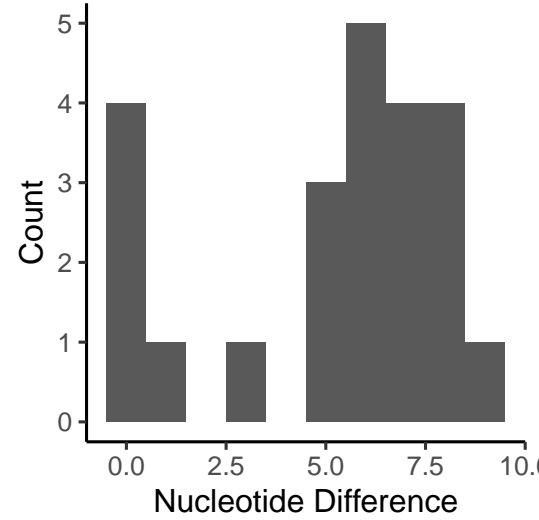
IGHV4-4*07

4622 sequences assigned
454 (9.8%) exact matches, in which:
379 unique CDR3
6 unique J



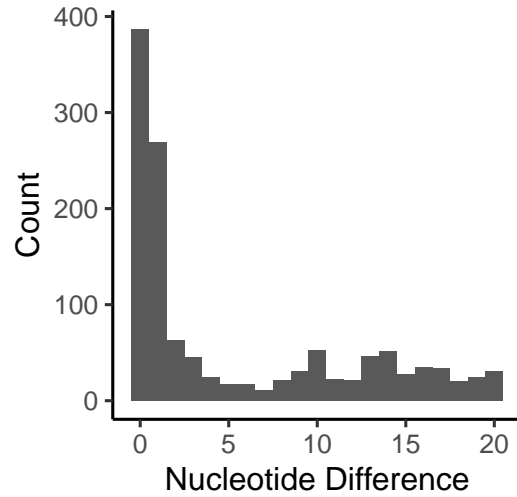
IGHV4-28*01_07

24 sequences assigned
4 (16.7%) exact matches, in which:
3 unique CDR3
1 unique J



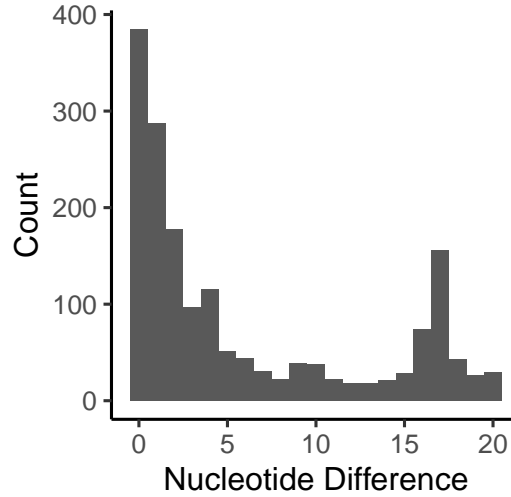
IGHV3-64D*09

2188 sequences assigned
387 (17.7%) exact matches, in which:
229 unique CDR3
6 unique J



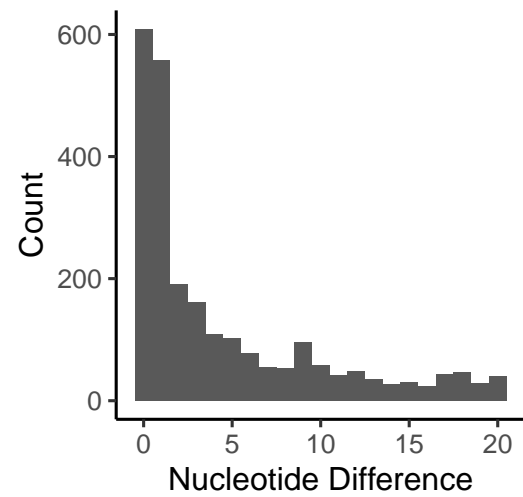
IGHV4-4*02_03

1944 sequences assigned
385 (19.8%) exact matches, in which:
326 unique CDR3
6 unique J



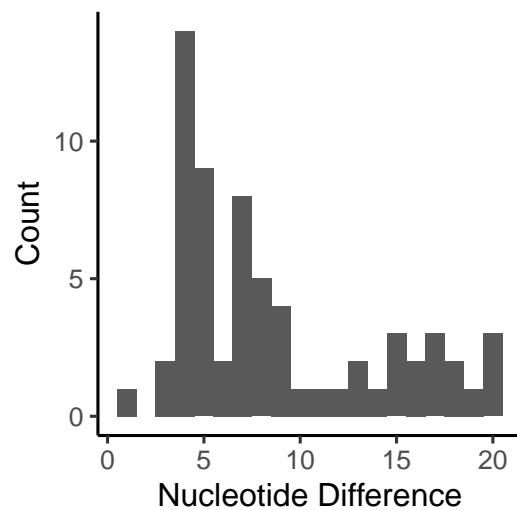
IGHV4-30-4*01

3052 sequences assigned
609 (20%) exact matches, in which:
508 unique CDR3
6 unique J



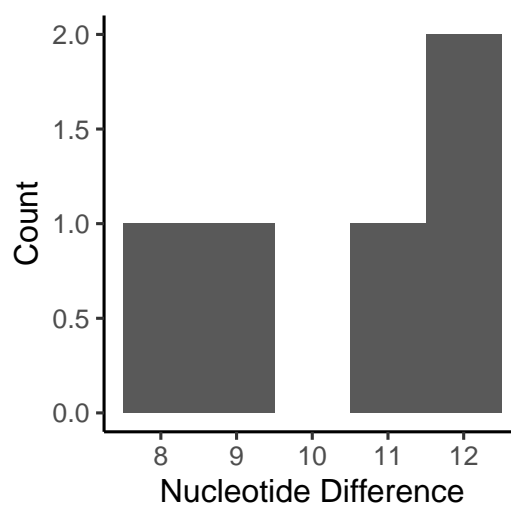
IGHV3-NL1*01

141 sequences assigned
No exact matches.



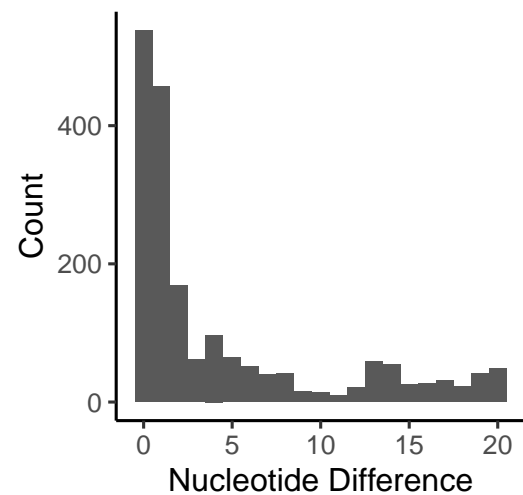
IGHV4-28*03

6 sequences assigned
No exact matches.



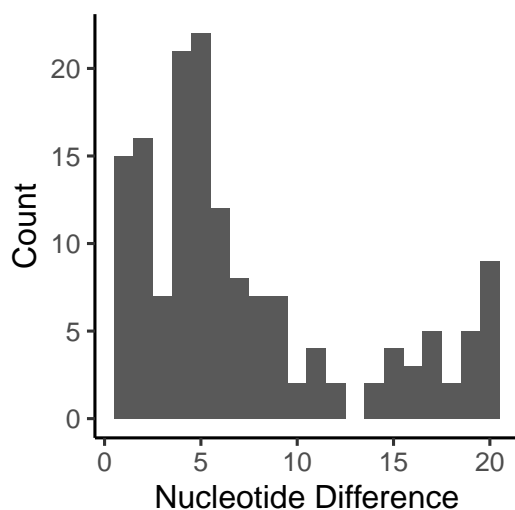
IGHV4-30-2*01

2042 sequences assigned
538 (26.3%) exact matches, in which:
383 unique CDR3
6 unique J



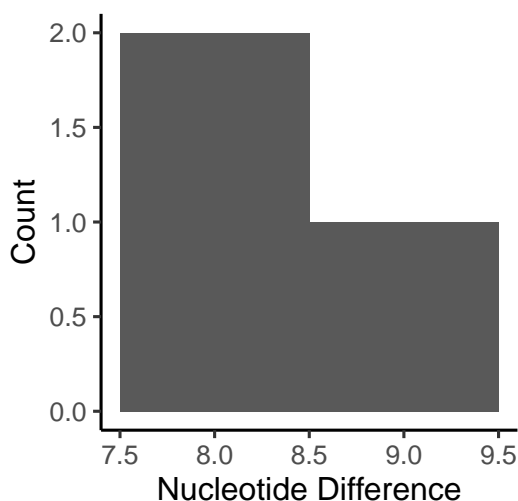
IGHV4-30-2*03

184 sequences assigned
No exact matches.



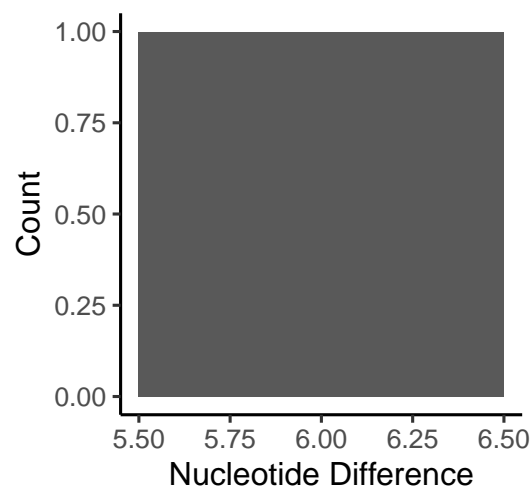
IGHV4-38-2*01

4 sequences assigned
No exact matches.



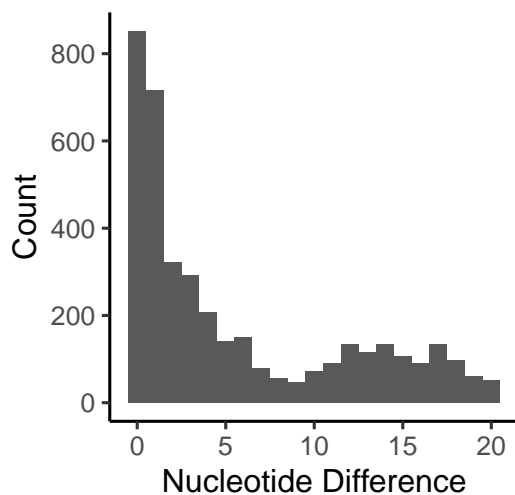
IGHV4-55*09

1 sequences assigned
No exact matches.



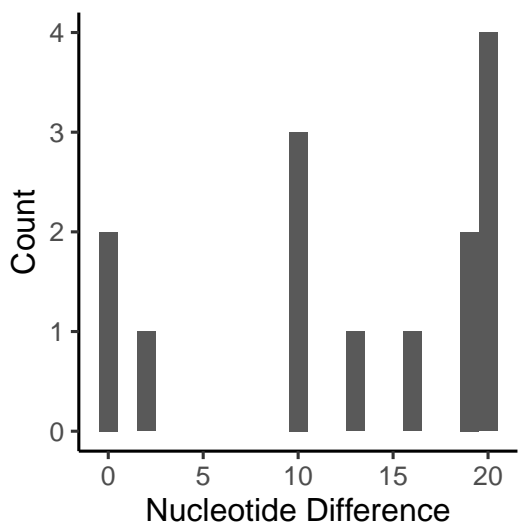
IGHV4-31*02

4795 sequences assigned
852 (17.8%) exact matches, in which:
725 unique CDR3
6 unique J



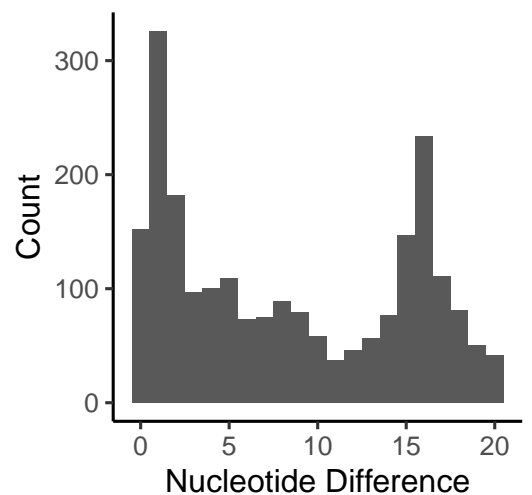
IGHV4-38-2*02

145 sequences assigned
2 (1.4%) exact matches, in which:
2 unique CDR3
2 unique J



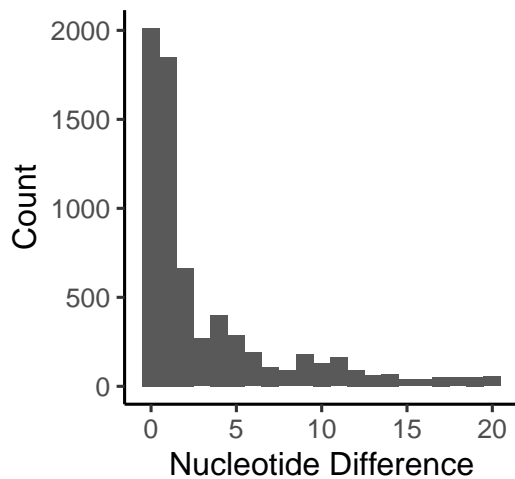
IGHV4-59*08

2845 sequences assigned
152 (5.3%) exact matches, in which:
129 unique CDR3
6 unique J



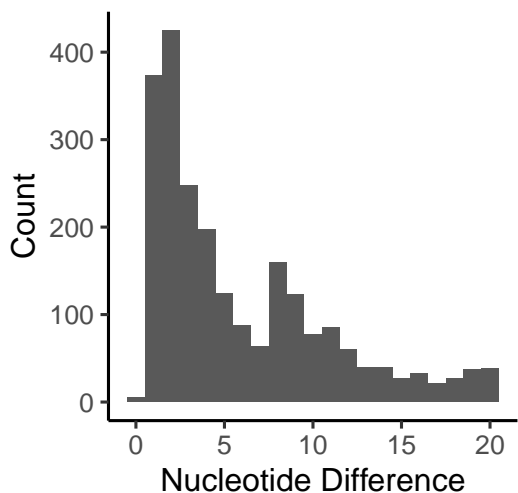
IGHV4-34*01_02

7724 sequences assigned
2013 (26.1%) exact matches, in which:
1605 unique CDR3
6 unique J



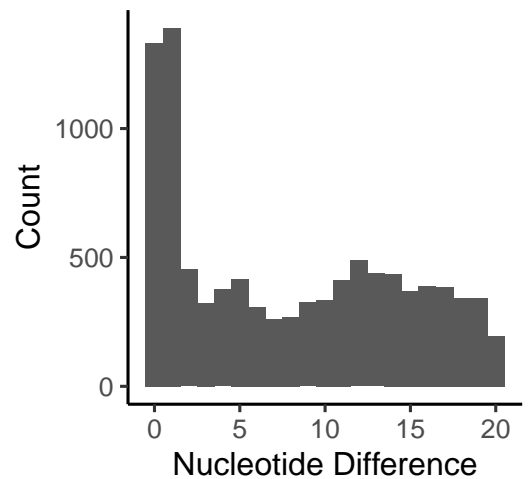
IGHV4-39*07

2886 sequences assigned
5 (0.2%) exact matches, in which:
5 unique CDR3
4 unique J



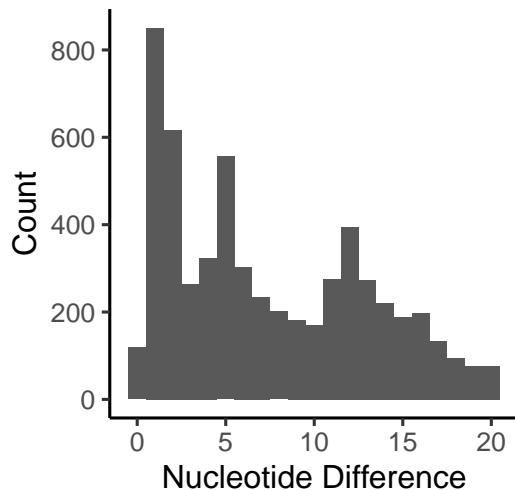
IGHV4-59*01_07

11068 sequences assigned
1332 (12%) exact matches, in which:
1112 unique CDR3
6 unique J



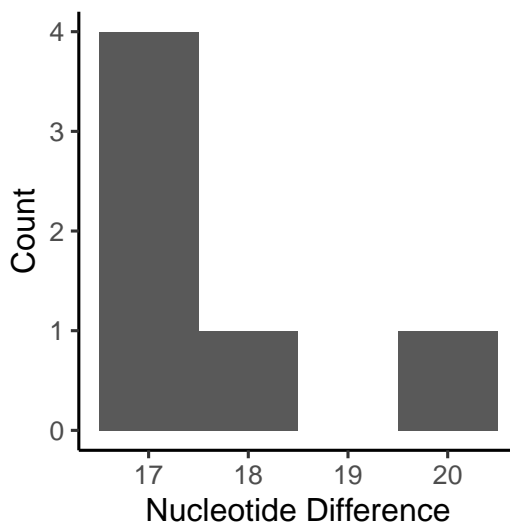
IGHV4–59*12

6452 sequences assigned
119 (1.8%) exact matches, in which:
116 unique CDR3
5 unique J



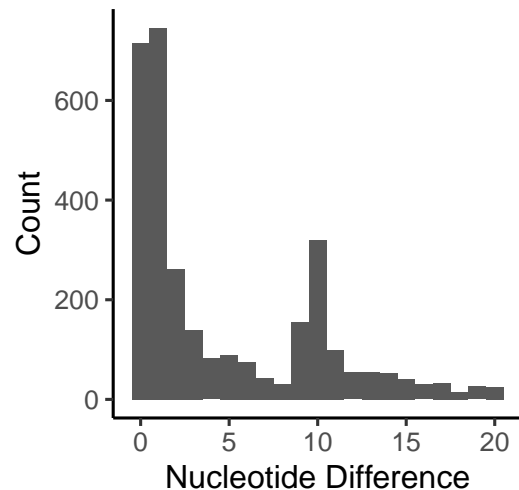
IGHV1/OR15–2*02_03

8 sequences assigned
No exact matches.



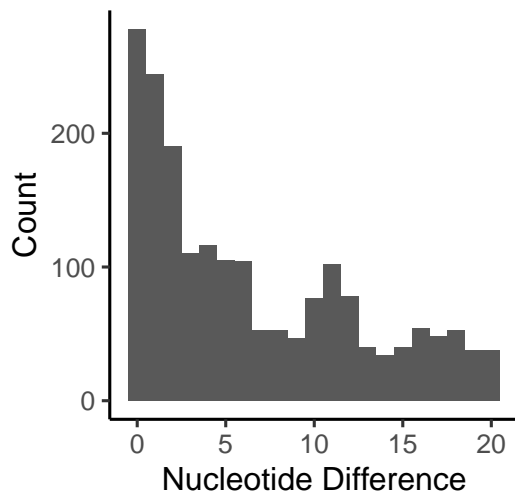
IGHV5–10–1*01_03

3181 sequences assigned
715 (22.5%) exact matches, in which:
452 unique CDR3
6 unique J



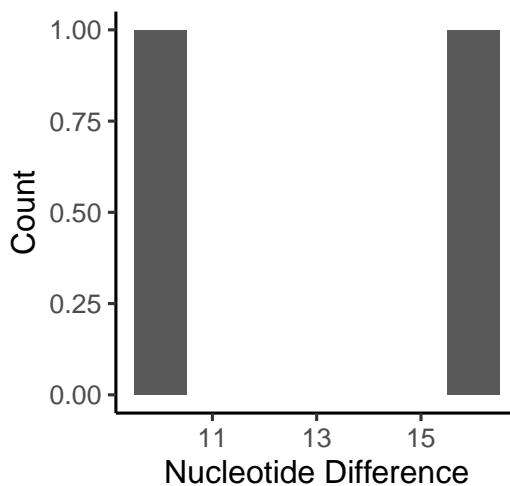
IGHV4–61*01

2223 sequences assigned
278 (12.5%) exact matches, in which:
259 unique CDR3
5 unique J



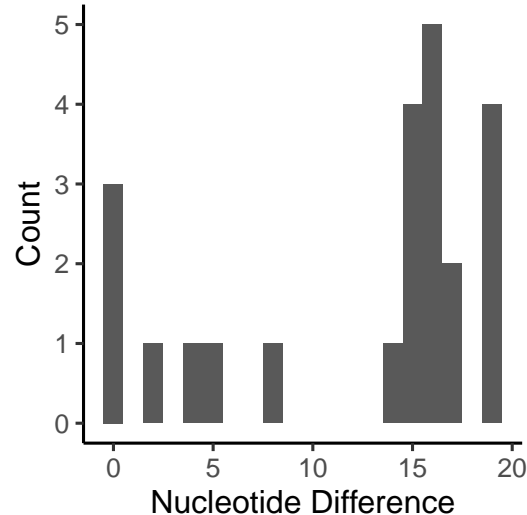
IGHV1/OR15–3*02

3 sequences assigned
No exact matches.



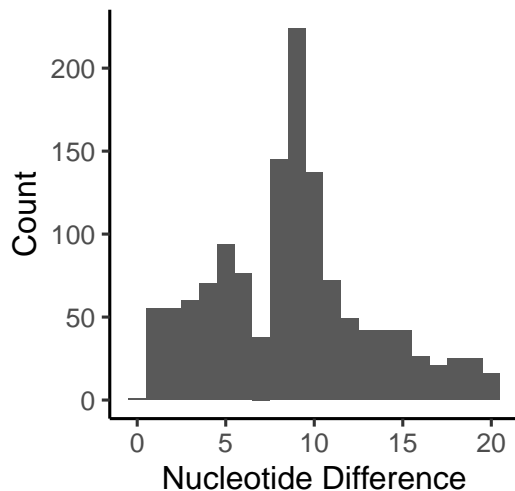
IGHV5–51*04

46 sequences assigned
3 (6.5%) exact matches, in which:
3 unique CDR3
2 unique J



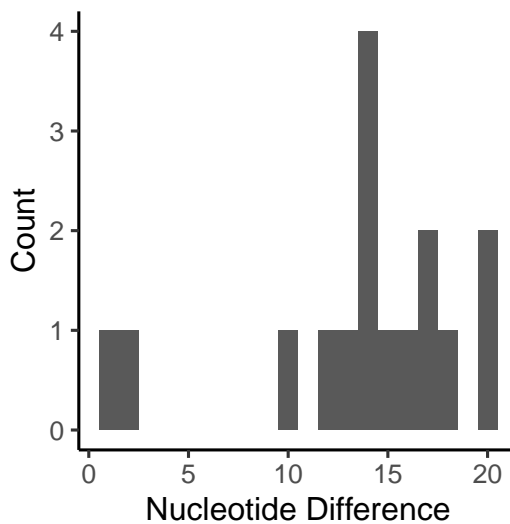
IGHV4–61*08

1479 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



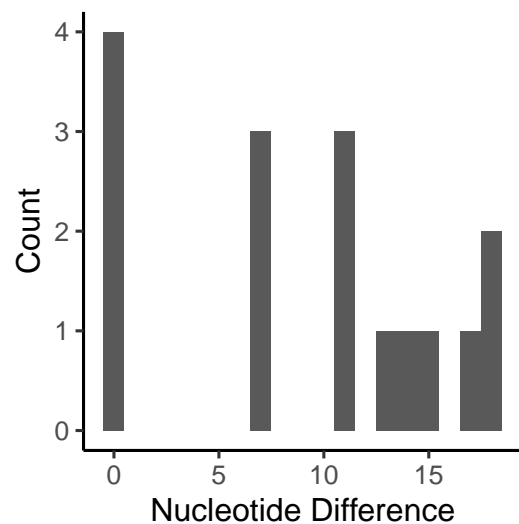
IGHV4/OR15–8*01

101 sequences assigned
No exact matches.



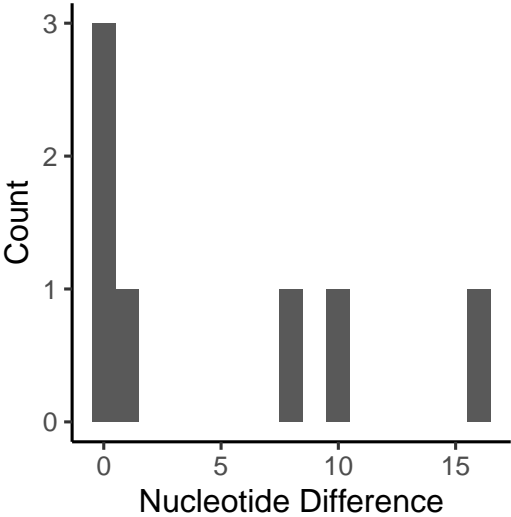
IGHV5–51*06

18 sequences assigned
4 (22.2%) exact matches, in which:
4 unique CDR3
3 unique J



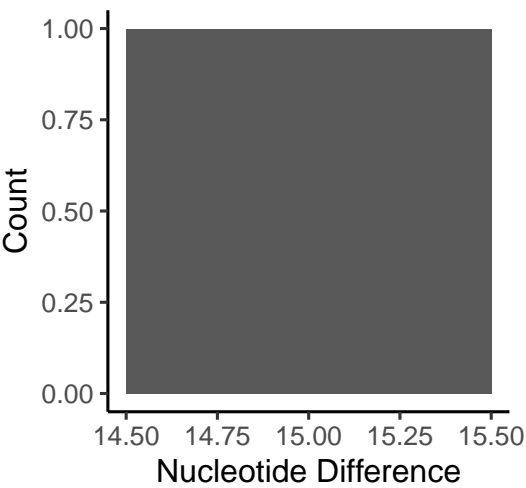
IGHV5-51*07

15 sequences assigned
3 (20%) exact matches, in which:
3 unique CDR3
2 unique J



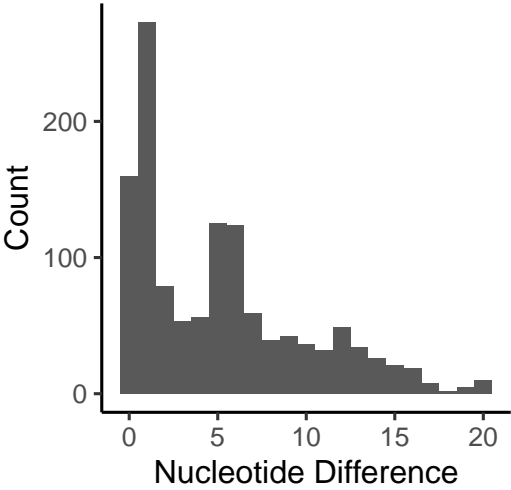
IGHV3/OR16-13*01

5 sequences assigned
No exact matches.



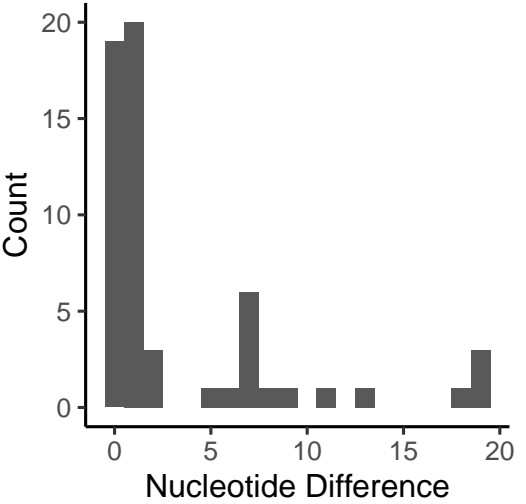
IGHV6-1*01_02

1309 sequences assigned
160 (12.2%) exact matches, in which:
142 unique CDR3
6 unique J



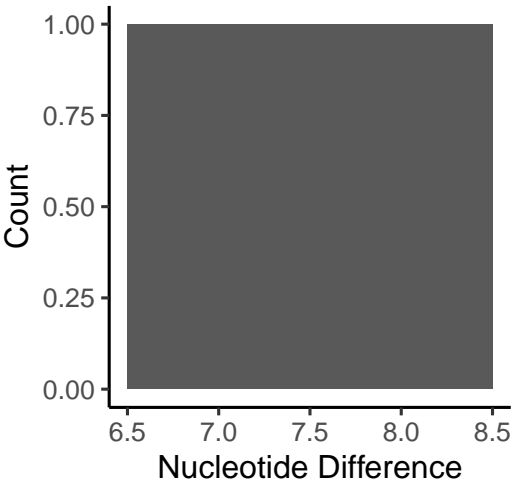
IGHV7-4-1*01

58 sequences assigned
19 (32.8%) exact matches, in which:
11 unique CDR3
4 unique J



IGHV3/OR16-9*01

2 sequences assigned
No exact matches.





Warning – no inferred sequences found.