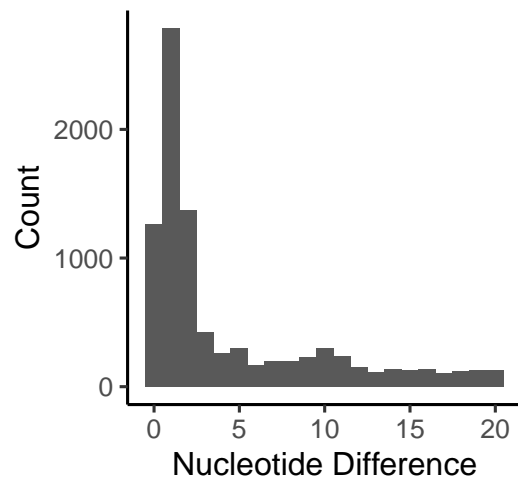


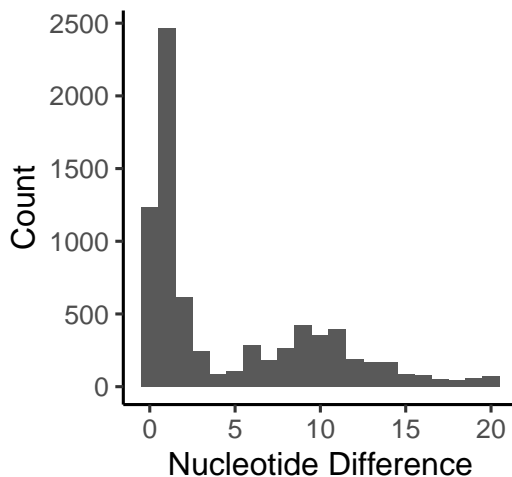
IGHV1-2*02

13058 sequences assigned
1264 (9.7%) exact matches, in which:
929 unique CDR3
7 unique J



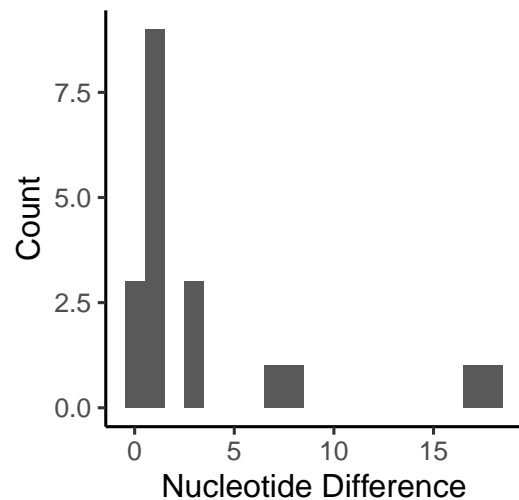
IGHV1-18*01

9288 sequences assigned
1234 (13.3%) exact matches, in which:
865 unique CDR3
6 unique J



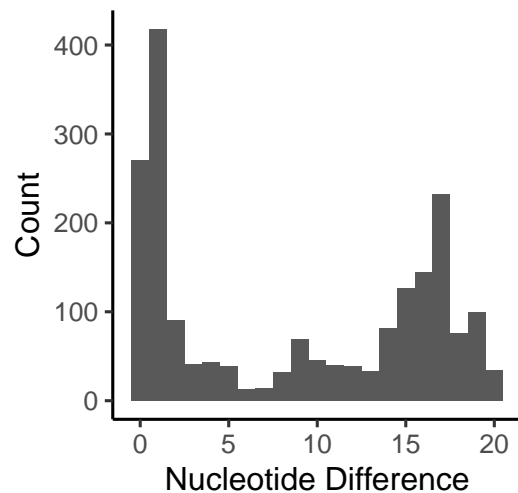
IGHV1-45*02

19 sequences assigned
3 (15.8%) exact matches, in which:
2 unique CDR3
1 unique J



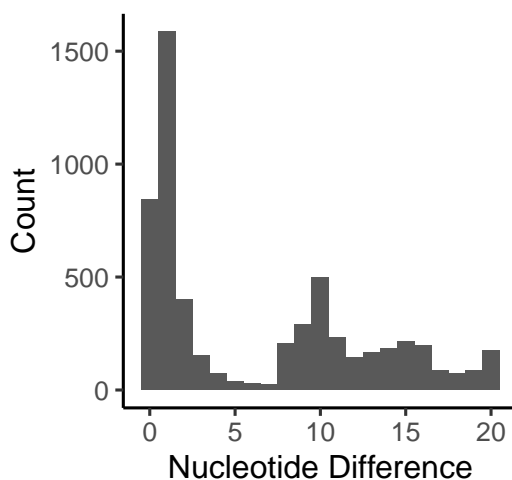
IGHV1-3*01_05

2905 sequences assigned
270 (9.3%) exact matches, in which:
194 unique CDR3
5 unique J



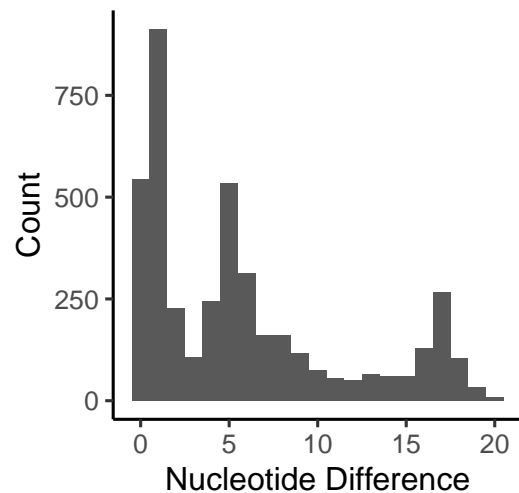
IGHV1-18*04

7777 sequences assigned
844 (10.9%) exact matches, in which:
601 unique CDR3
6 unique J



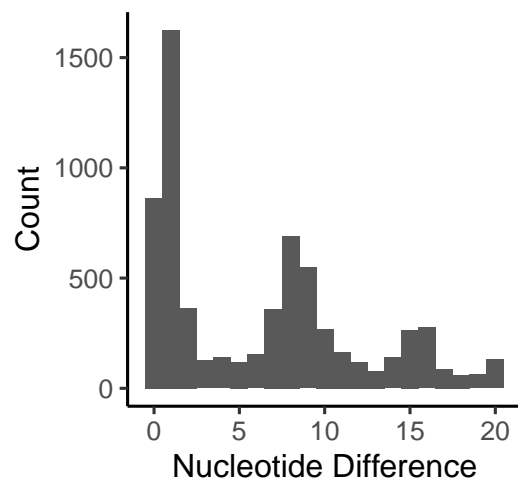
IGHV1-46*01

4828 sequences assigned
545 (11.3%) exact matches, in which:
413 unique CDR3
5 unique J



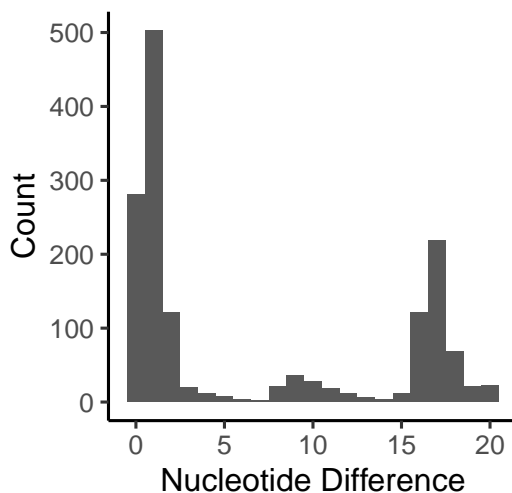
IGHV1-8*01

7661 sequences assigned
864 (11.3%) exact matches, in which:
629 unique CDR3
7 unique J



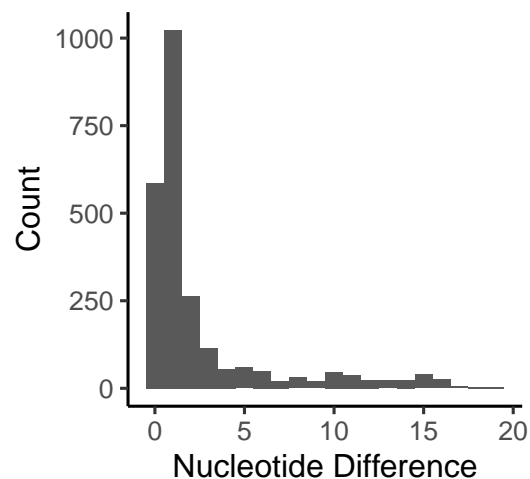
IGHV1-24*01

1981 sequences assigned
281 (14.2%) exact matches, in which:
197 unique CDR3
5 unique J



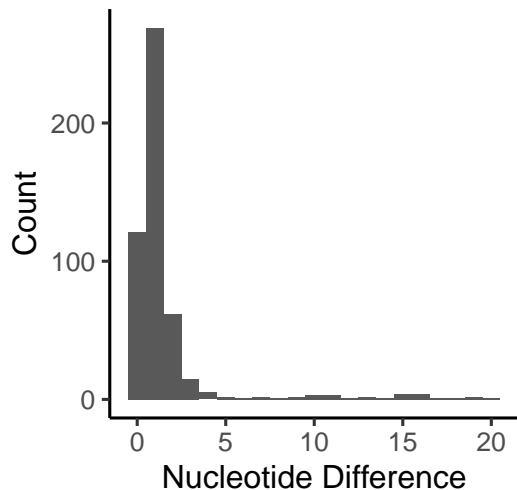
IGHV1-46*04

2740 sequences assigned
587 (21.4%) exact matches, in which:
431 unique CDR3
7 unique J



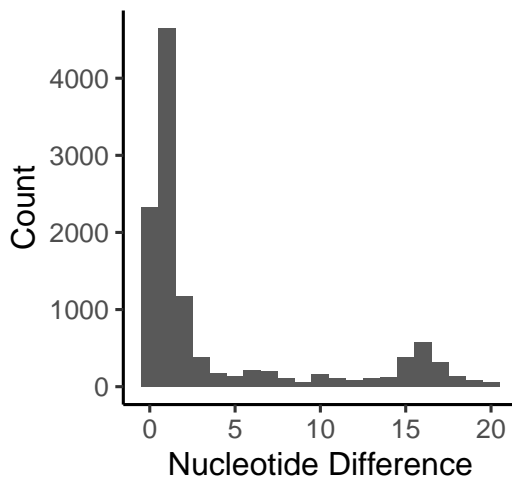
IGHV1–58*01_03

508 sequences assigned
121 (23.8%) exact matches, in which:
92 unique CDR3
5 unique J



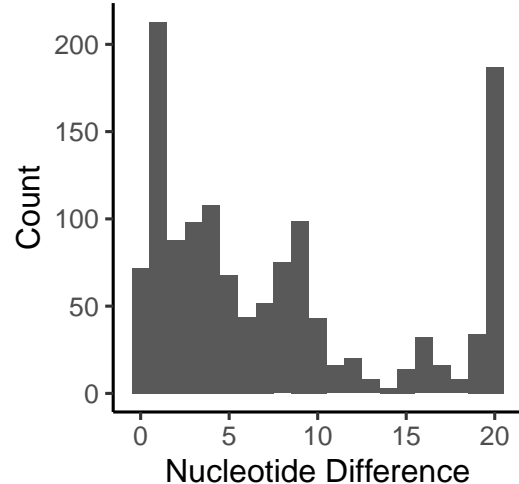
IGHV1–69*01_12_13

12730 sequences assigned
2331 (18.3%) exact matches, in which:
1632 unique CDR3
7 unique J



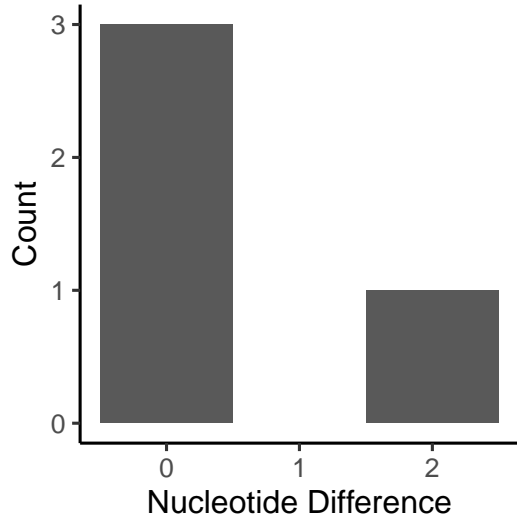
IGHV2–5*02

2283 sequences assigned
72 (3.2%) exact matches, in which:
51 unique CDR3
6 unique J



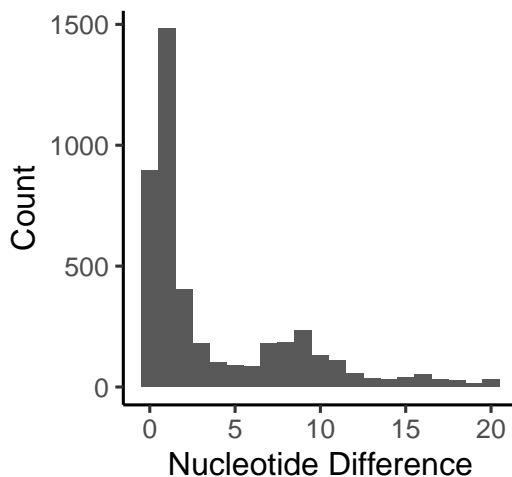
IGHV1–68*01

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



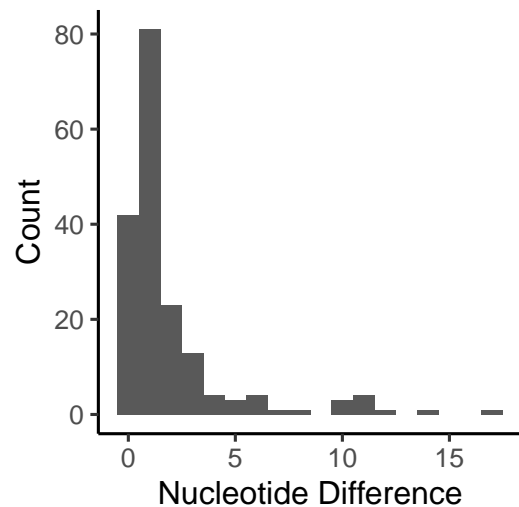
IGHV1–69*06_14

5113 sequences assigned
894 (17.5%) exact matches, in which:
697 unique CDR3
6 unique J



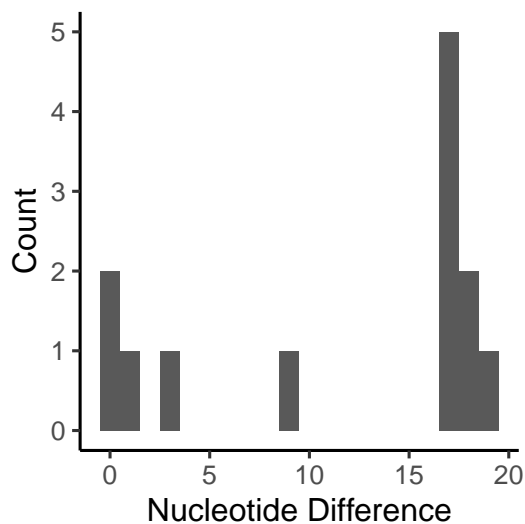
IGHV2–26*01

268 sequences assigned
42 (15.7%) exact matches, in which:
23 unique CDR3
5 unique J



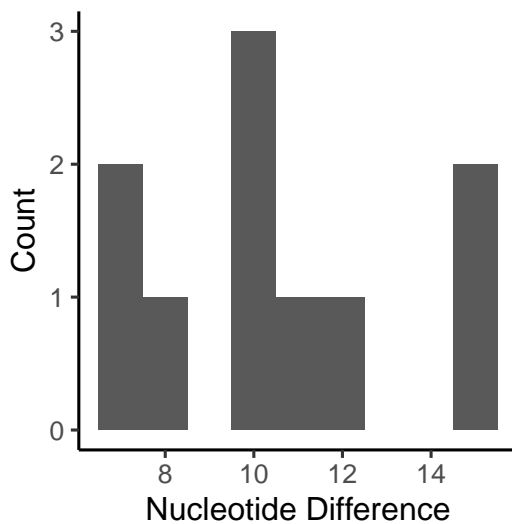
IGHV1–69–2*01

15 sequences assigned
2 (13.3%) exact matches, in which:
2 unique CDR3
2 unique J



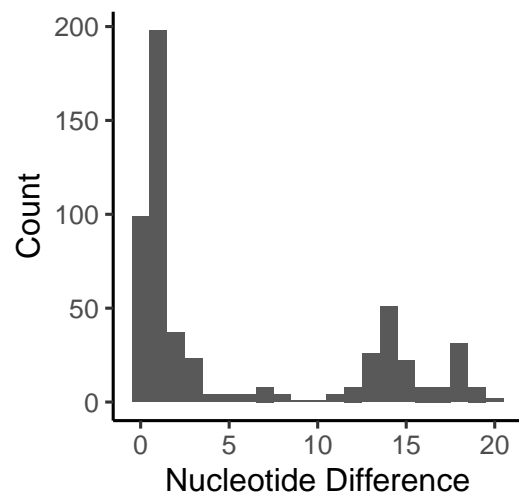
IGHV1–NL1*01

10 sequences assigned
No exact matches.



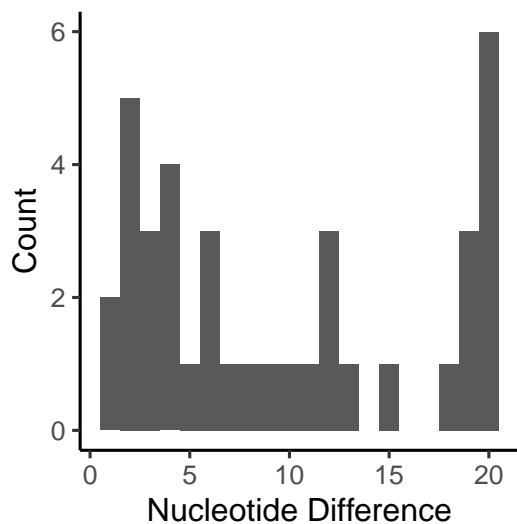
IGHV2–70*01

579 sequences assigned
99 (17.1%) exact matches, in which:
71 unique CDR3
5 unique J



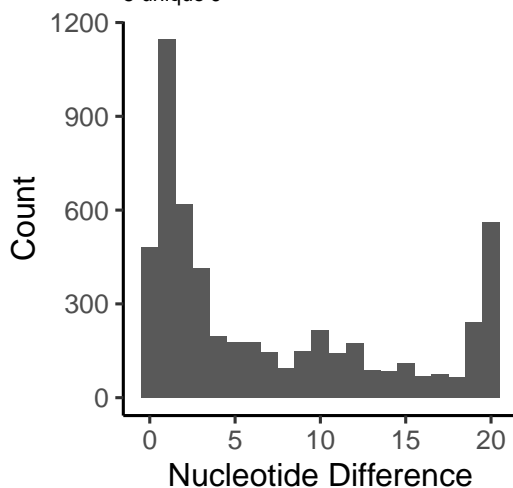
IGHV2-70*12

43 sequences assigned
No exact matches.



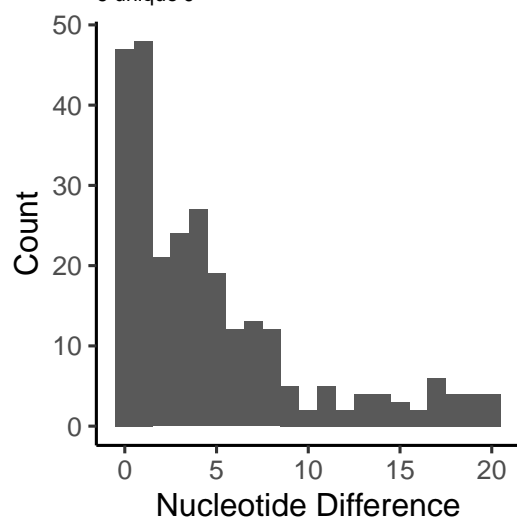
IGHV3-7*03

8653 sequences assigned
482 (5.6%) exact matches, in which:
293 unique CDR3
5 unique J



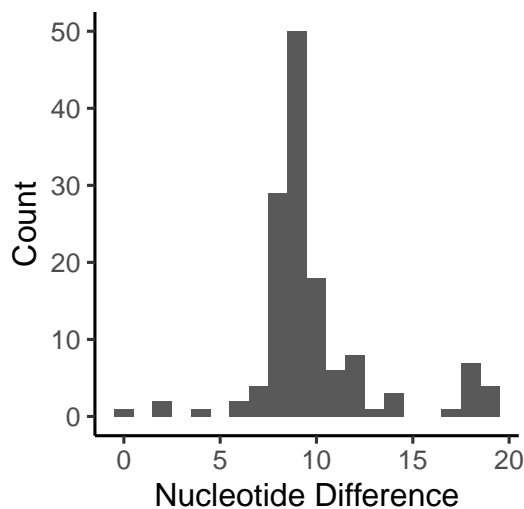
IGHV3-11*04

297 sequences assigned
47 (15.8%) exact matches, in which:
44 unique CDR3
6 unique J



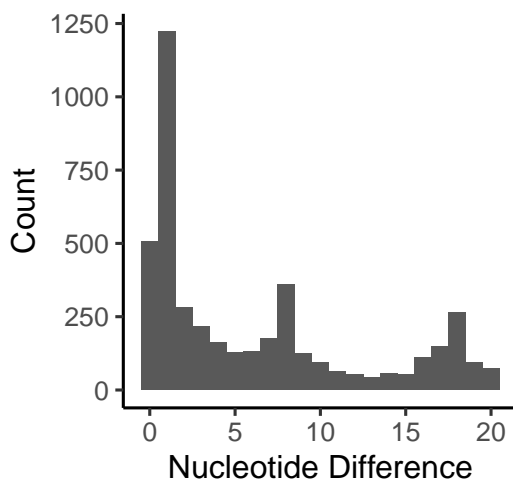
IGHV2-70*13

142 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



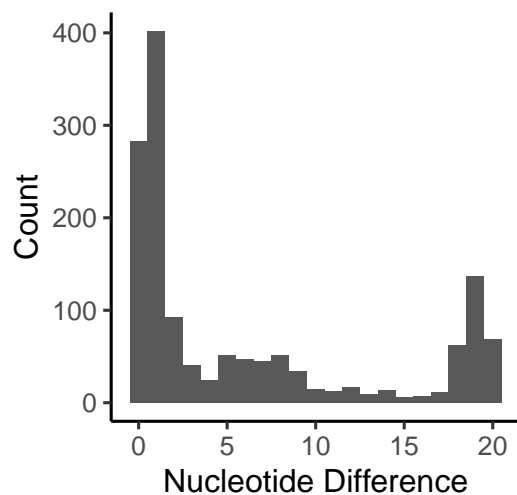
IGHV3-9*01

5022 sequences assigned
505 (10.1%) exact matches, in which:
281 unique CDR3
7 unique J



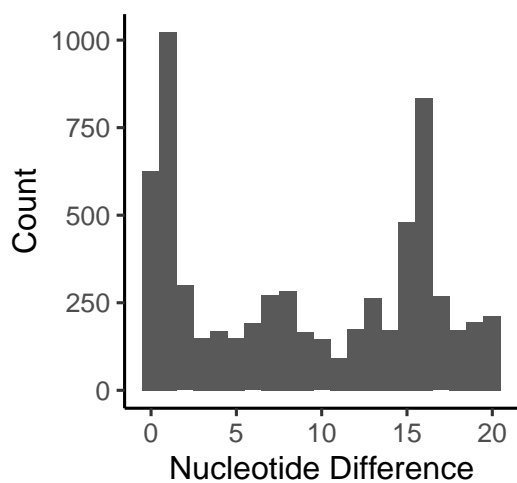
IGHV3-11*06

1659 sequences assigned
283 (17.1%) exact matches, in which:
176 unique CDR3
7 unique J



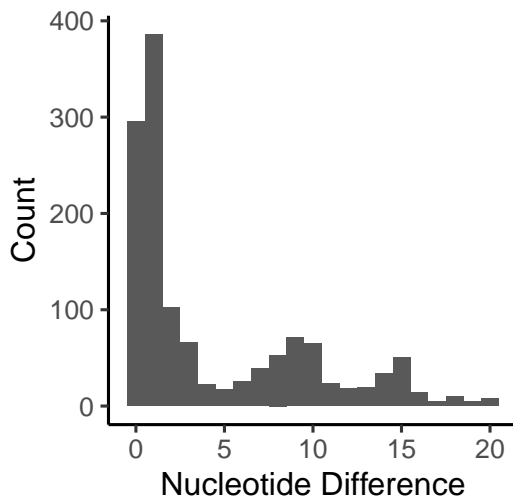
IGHV3-7*01

8748 sequences assigned
626 (7.2%) exact matches, in which:
404 unique CDR3
7 unique J



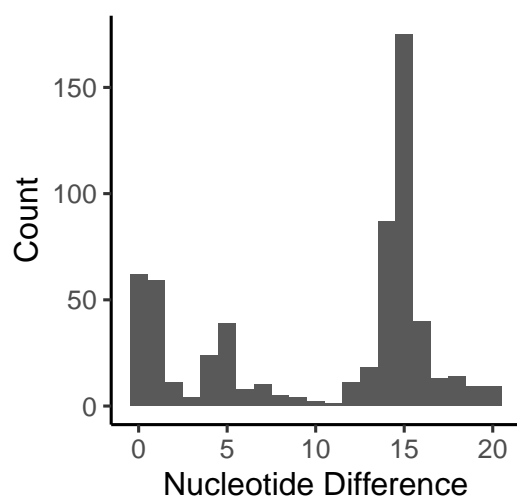
IGHV3-11*01

2077 sequences assigned
295 (14.2%) exact matches, in which:
195 unique CDR3
6 unique J



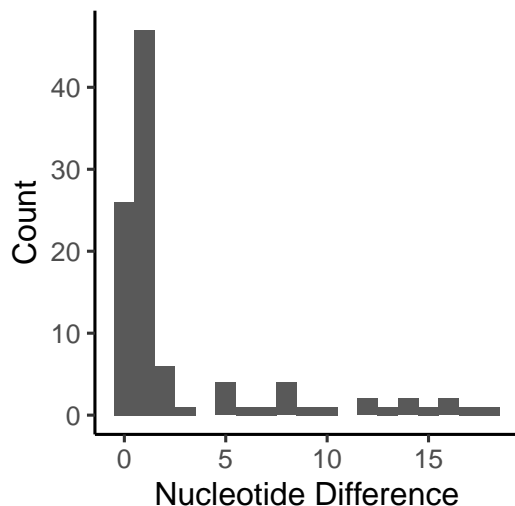
IGHV3-13*01

671 sequences assigned
62 (9.2%) exact matches, in which:
43 unique CDR3
5 unique J



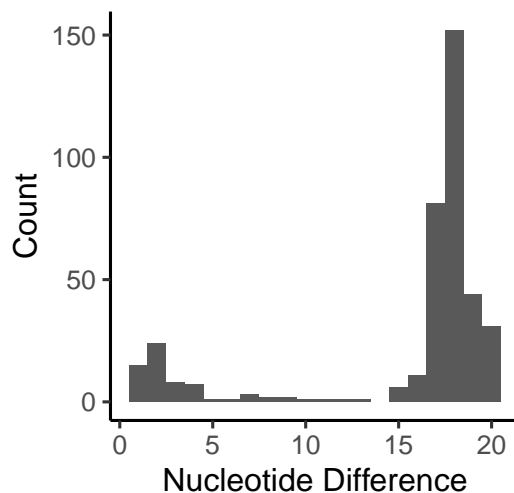
IGHV3-13*05

105 sequences assigned
26 (24.8%) exact matches, in which:
21 unique CDR3
4 unique J



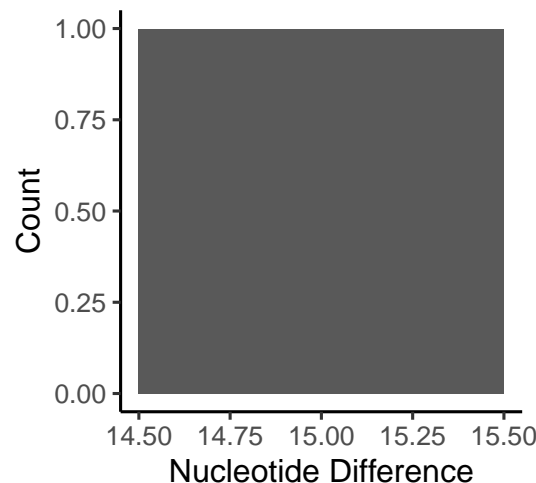
IGHV3-20*03_04

497 sequences assigned
No exact matches.



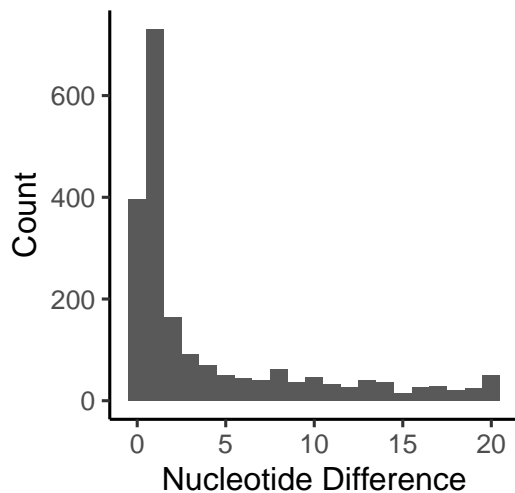
IGHV3-22*01_02

1 sequences assigned
No exact matches.



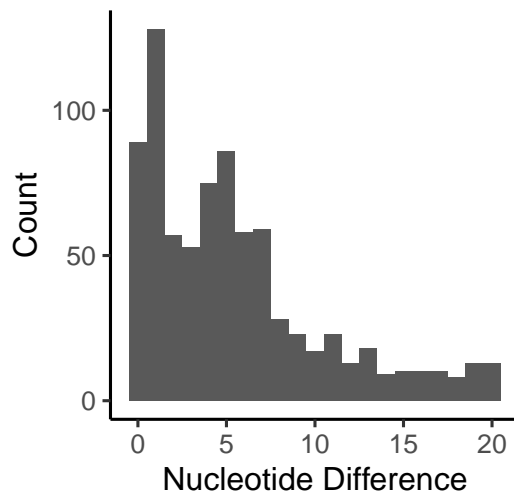
IGHV3-15*01_02

2874 sequences assigned
397 (13.8%) exact matches, in which:
225 unique CDR3
7 unique J



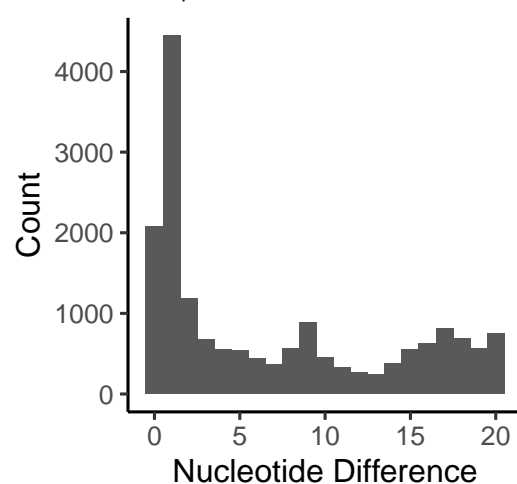
IGHV3-21*04

922 sequences assigned
89 (9.7%) exact matches, in which:
68 unique CDR3
6 unique J



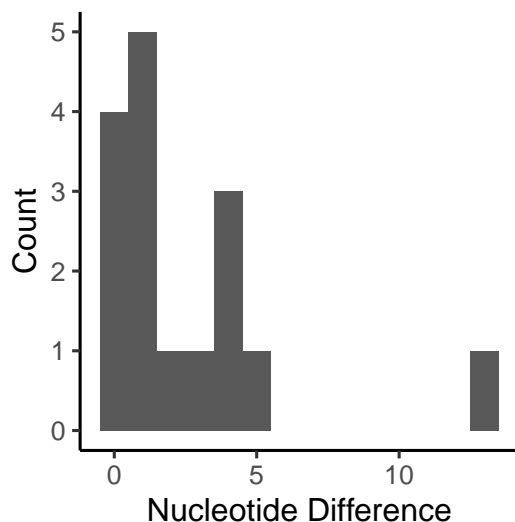
IGHV3-23*01_04

25413 sequences assigned
2079 (8.2%) exact matches, in which:
1165 unique CDR3
7 unique J



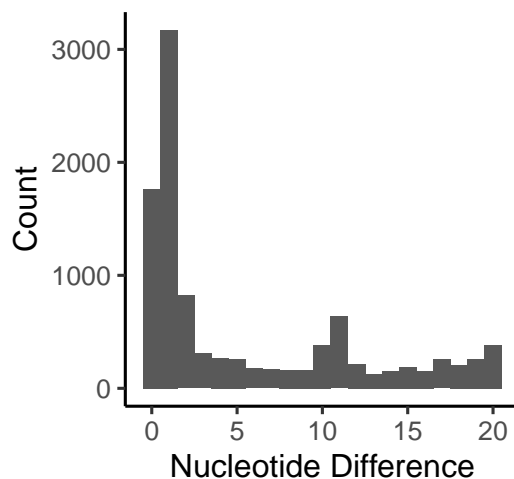
IGHV3-19*01

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



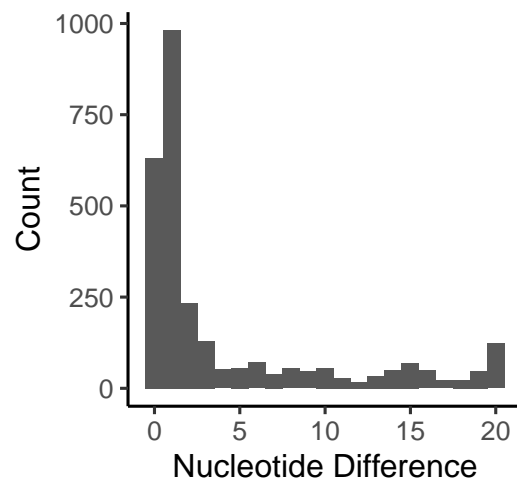
IGHV3-21*01_02

13037 sequences assigned
1767 (13.6%) exact matches, in which:
993 unique CDR3
7 unique J



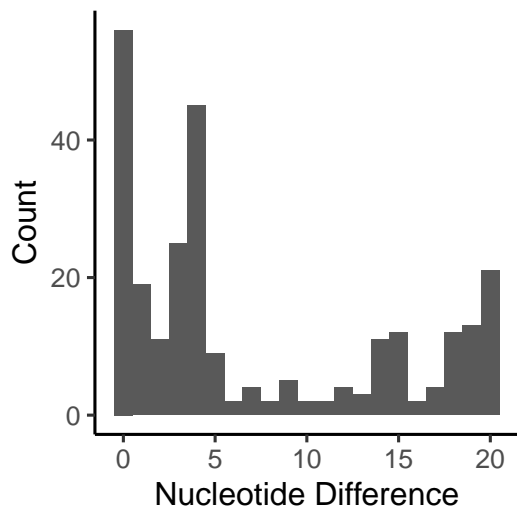
IGHV3-30-3*01

3493 sequences assigned
632 (18.1%) exact matches, in which:
401 unique CDR3
7 unique J



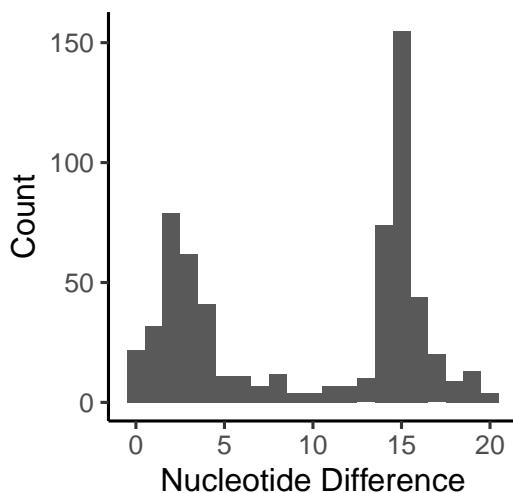
IGHV3-30*03

316 sequences assigned
56 (17.7%) exact matches, in which:
52 unique CDR3
7 unique J



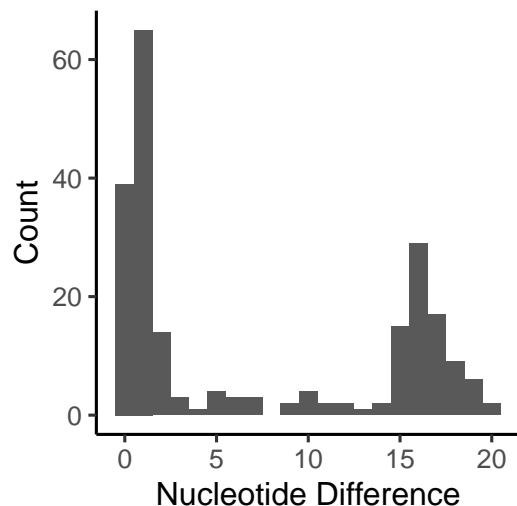
IGHV3-33*06

643 sequences assigned
22 (3.4%) exact matches, in which:
21 unique CDR3
4 unique J



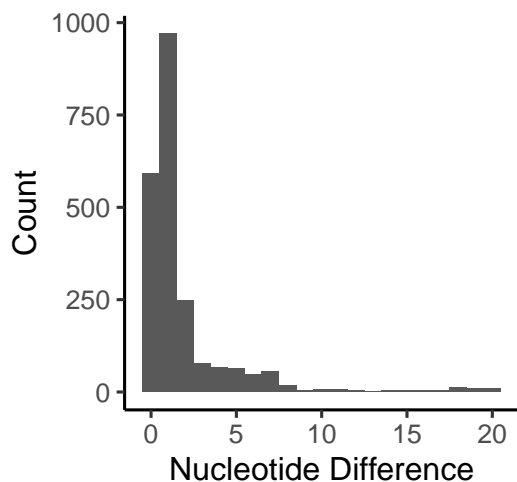
IGHV3-43*01

532 sequences assigned
39 (7.3%) exact matches, in which:
21 unique CDR3
2 unique J



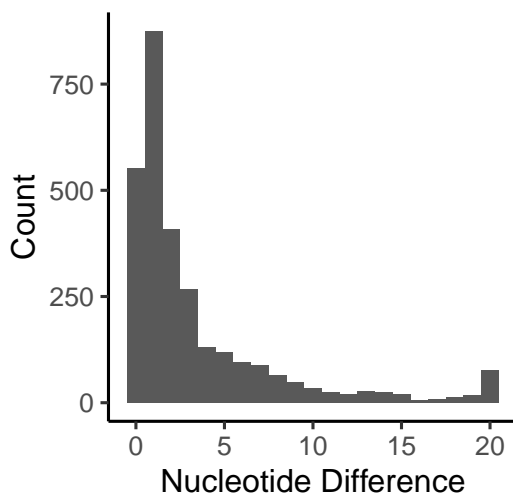
IGHV3-33*01

2629 sequences assigned
592 (22.5%) exact matches, in which:
380 unique CDR3
7 unique J



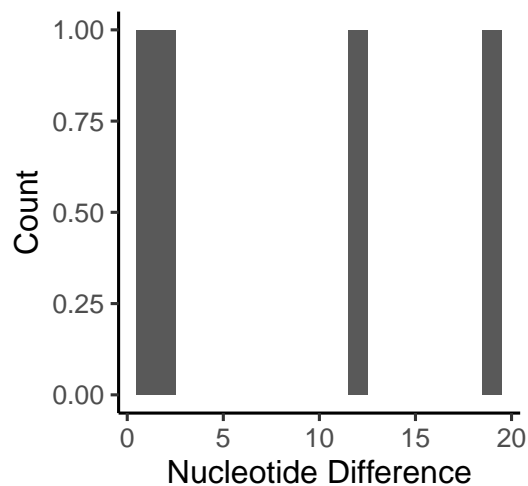
IGHV3-33*08

3791 sequences assigned
553 (14.6%) exact matches, in which:
339 unique CDR3
7 unique J



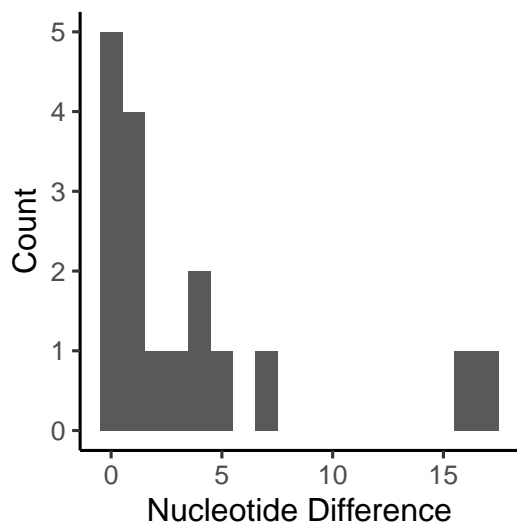
IGHV3-47*02

4 sequences assigned
No exact matches.



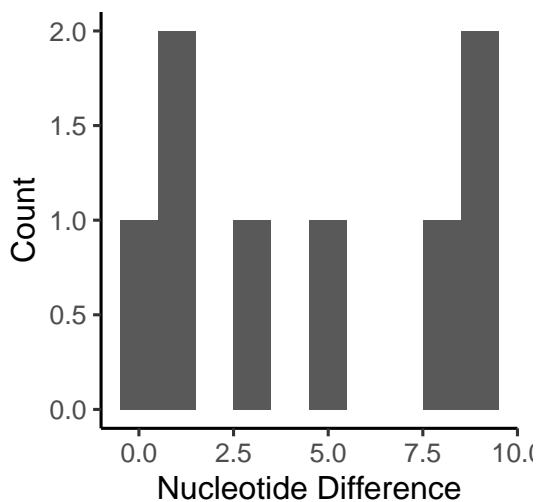
IGHV3-33*05

18 sequences assigned
5 (27.8%) exact matches, in which:
5 unique CDR3
4 unique J



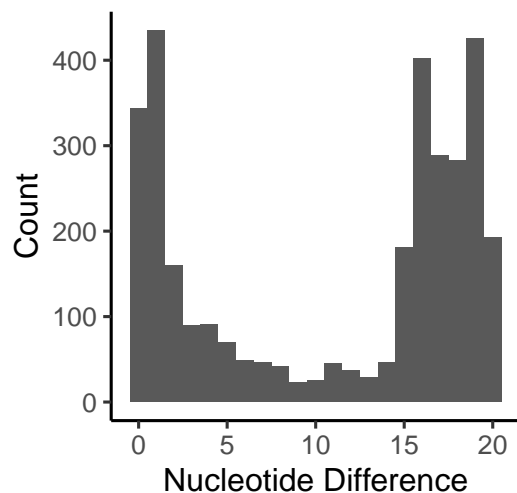
IGHV3-35*01

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



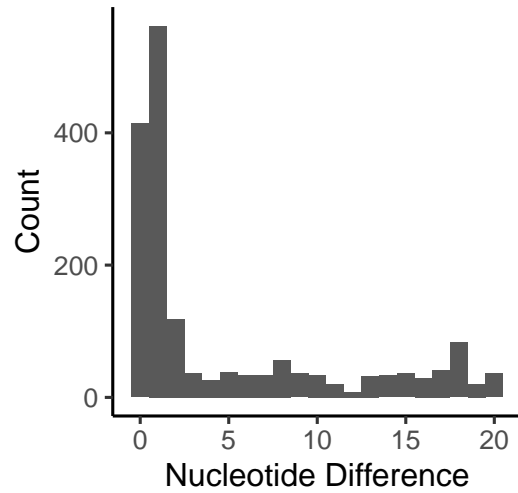
IGHV3-48*01

4564 sequences assigned
343 (7.5%) exact matches, in which:
240 unique CDR3
7 unique J



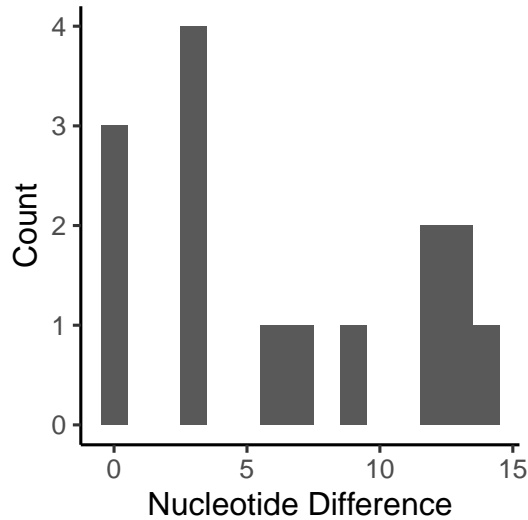
IGHV3-48*02

2821 sequences assigned
414 (14.7%) exact matches, in which:
242 unique CDR3
7 unique J



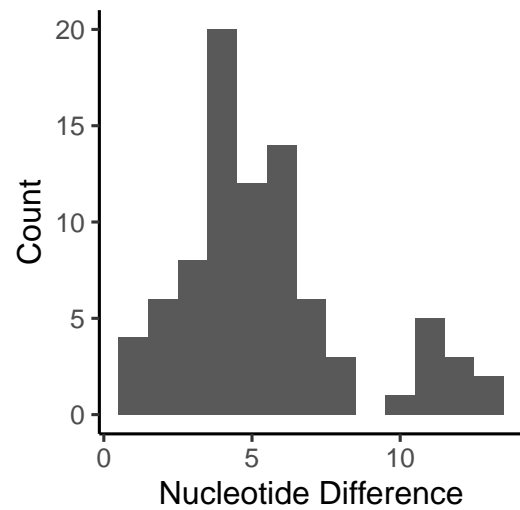
IGHV3-52*01_03

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



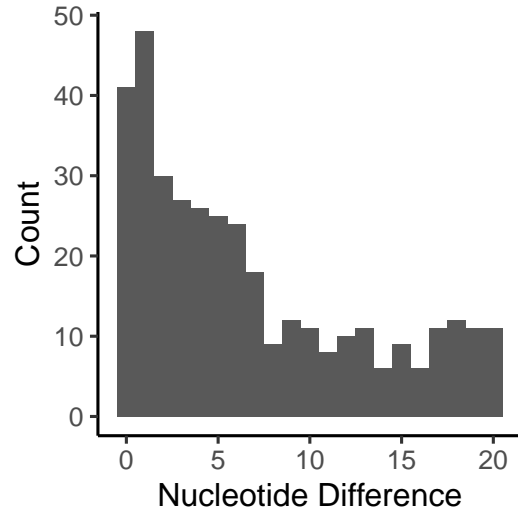
IGHV3-64*04

88 sequences assigned
No exact matches.



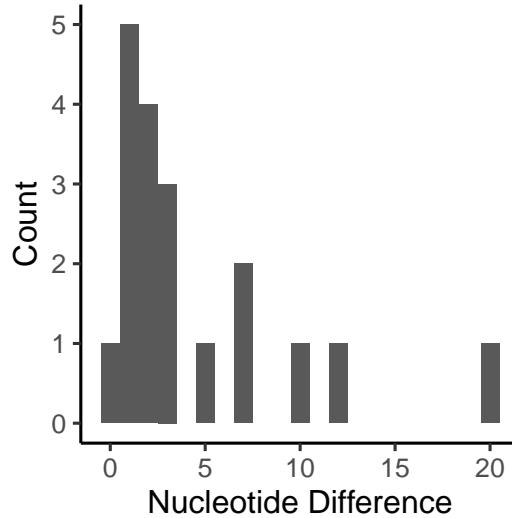
IGHV3-48*04

668 sequences assigned
41 (6.1%) exact matches, in which:
36 unique CDR3
6 unique J



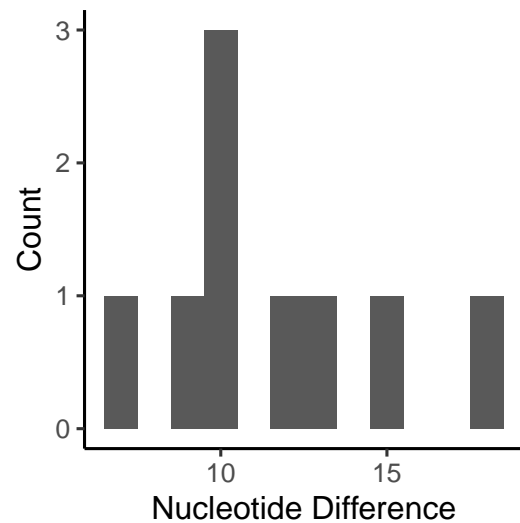
IGHV3-53*05

21 sequences assigned
1 (4.8%) exact matches, in which:
1 unique CDR3
1 unique J



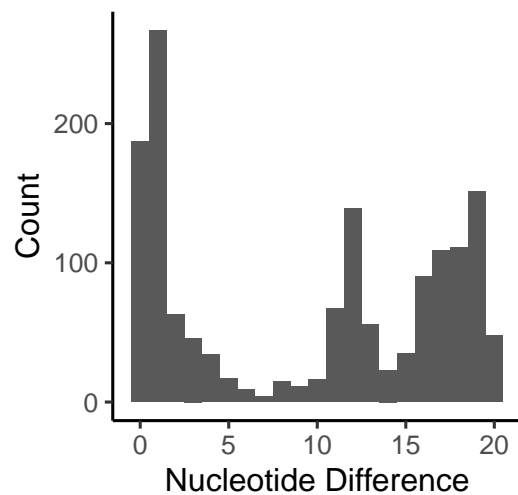
IGHV3-66*01

13 sequences assigned
No exact matches.



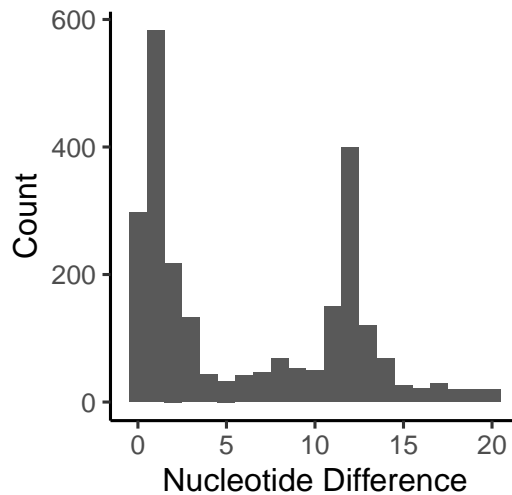
IGHV3-49*03_05

2139 sequences assigned
187 (8.7%) exact matches, in which:
110 unique CDR3
6 unique J



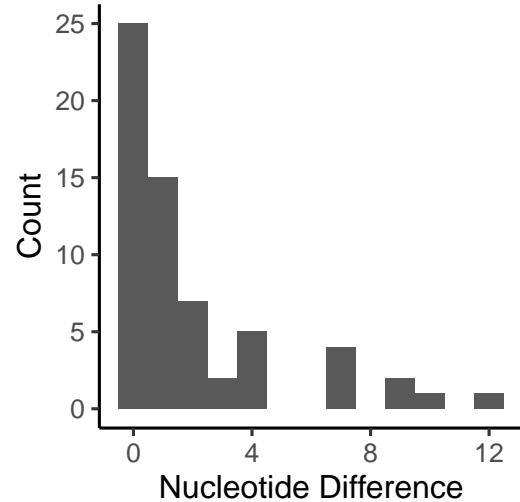
IGHV3-53*01_02

3051 sequences assigned
298 (9.8%) exact matches, in which:
181 unique CDR3
7 unique J



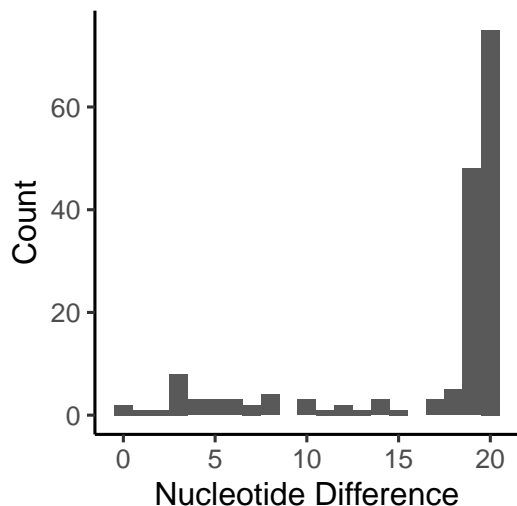
IGHV3-66*03

62 sequences assigned
25 (40.3%) exact matches, in which:
25 unique CDR3
5 unique J



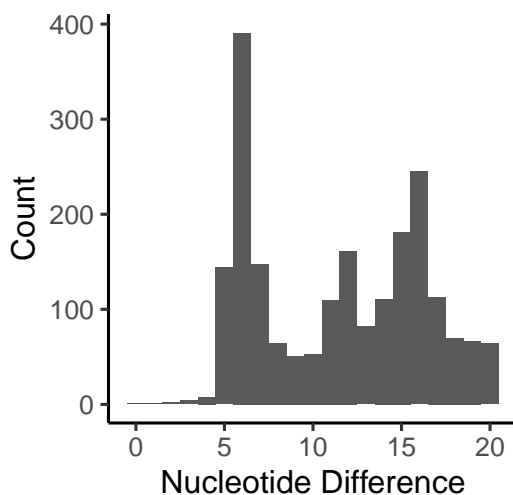
IGHV3-69-1*01

240 sequences assigned
2 (0.8%) exact matches, in which:
2 unique CDR3
2 unique J



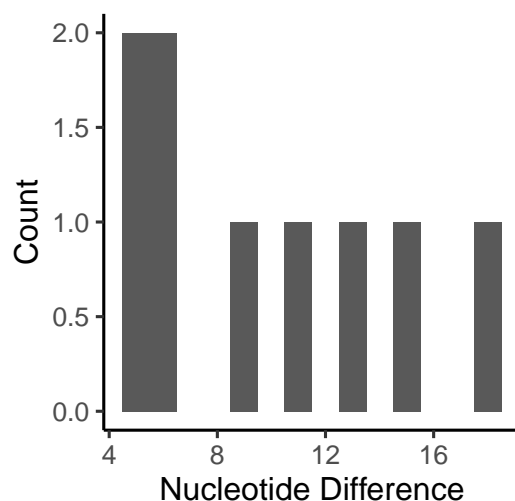
IGHV3-74*03

5328 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



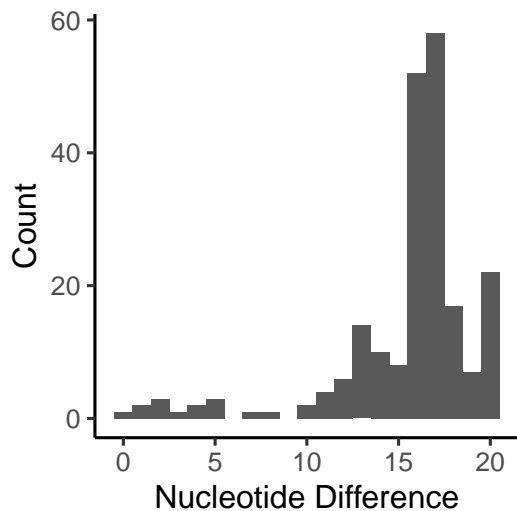
IGHV3-NL1*01

20 sequences assigned
No exact matches.



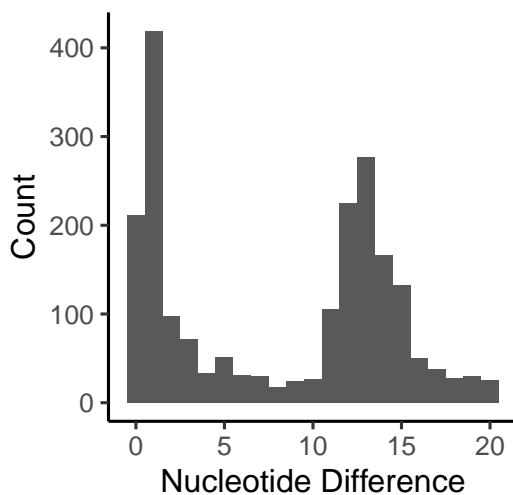
IGHV3-72*01

1093 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



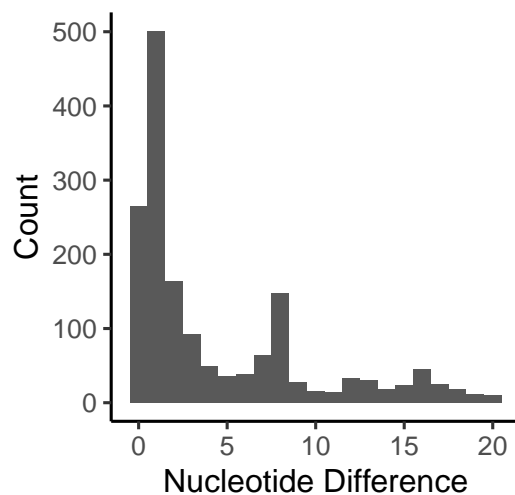
IGHV3-74*01_02

2731 sequences assigned
211 (7.7%) exact matches, in which:
137 unique CDR3
7 unique J



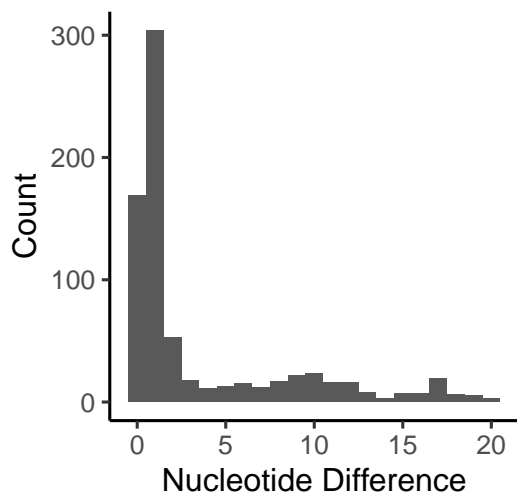
IGHV4-4*07

2408 sequences assigned
265 (11%) exact matches, in which:
188 unique CDR3
6 unique J



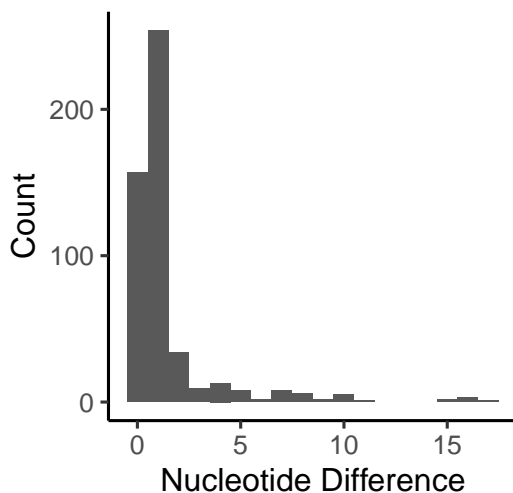
IGHV3-73*01_02

1672 sequences assigned
169 (10.1%) exact matches, in which:
104 unique CDR3
5 unique J



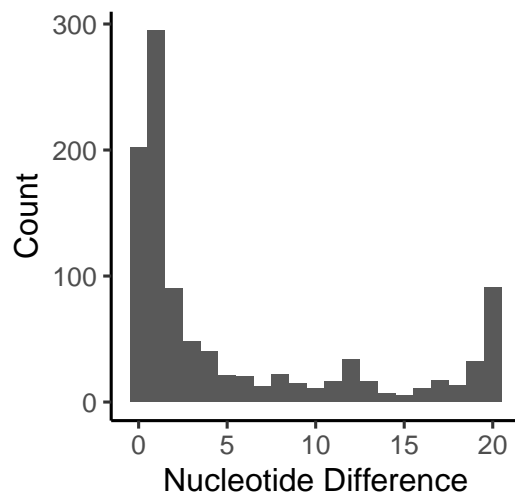
IGHV3-64D*06

624 sequences assigned
157 (25.2%) exact matches, in which:
90 unique CDR3
5 unique J



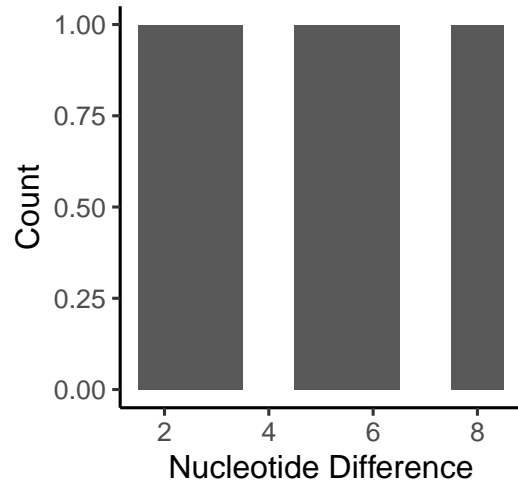
IGHV4-4*02_03

1377 sequences assigned
202 (14.7%) exact matches, in which:
150 unique CDR3
6 unique J



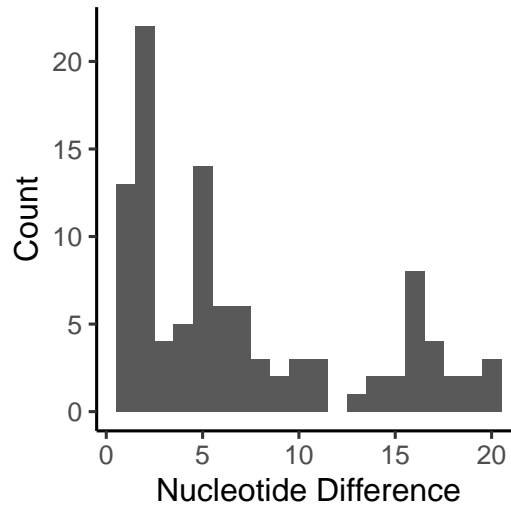
IGHV4-28*03

5 sequences assigned
No exact matches.



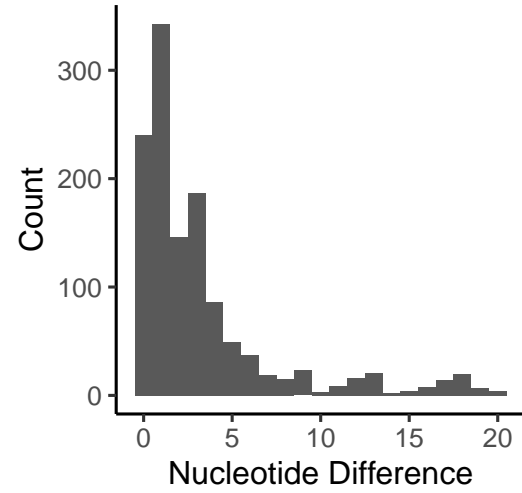
IGHV4-30-2*03

891 sequences assigned
No exact matches.



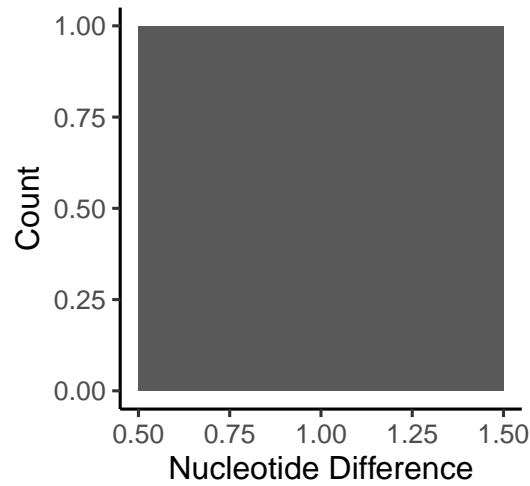
IGHV4-31*02

1830 sequences assigned
240 (13.1%) exact matches, in which:
191 unique CDR3
6 unique J



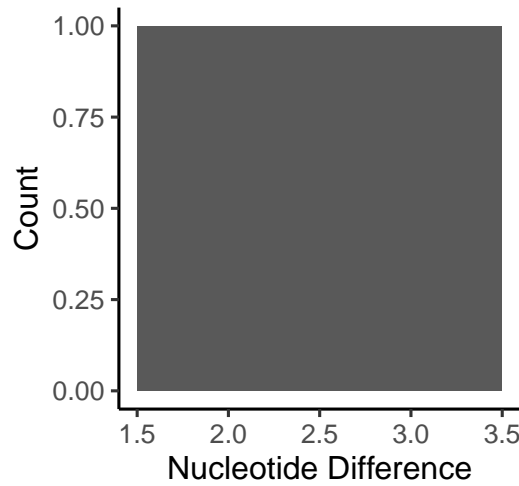
IGHV4-30-4*01

257 sequences assigned
No exact matches.



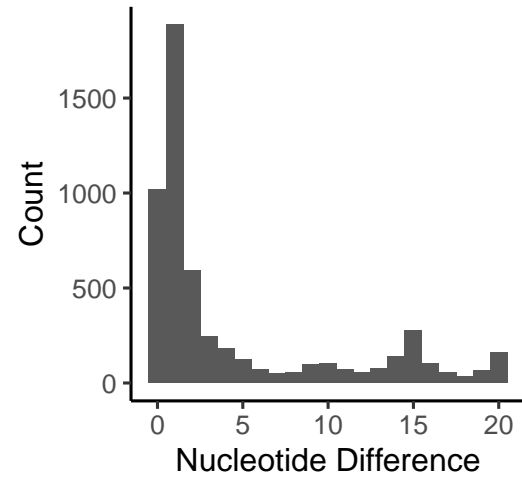
IGHV4-30-4*05

2 sequences assigned
No exact matches.



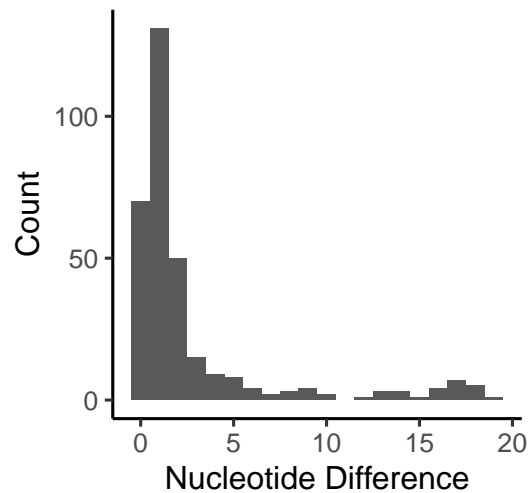
IGHV4-34*01_02

6125 sequences assigned
1017 (16.6%) exact matches, in which:
636 unique CDR3
7 unique J



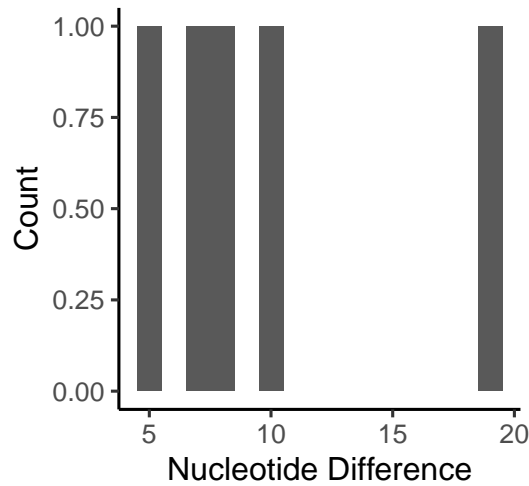
IGHV4-30-2*01

1164 sequences assigned
70 (6%) exact matches, in which:
47 unique CDR3
5 unique J



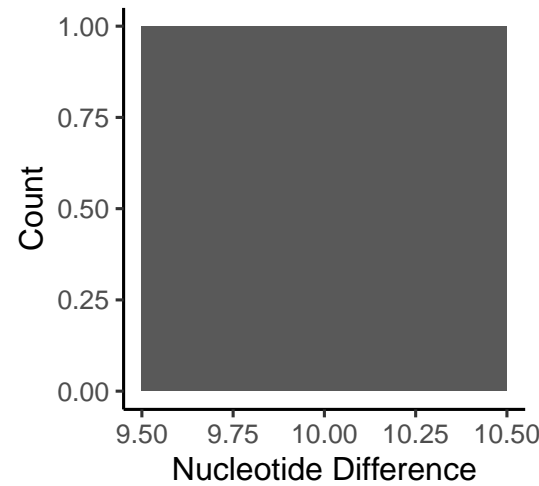
IGHV4-30-4*08

7 sequences assigned
No exact matches.



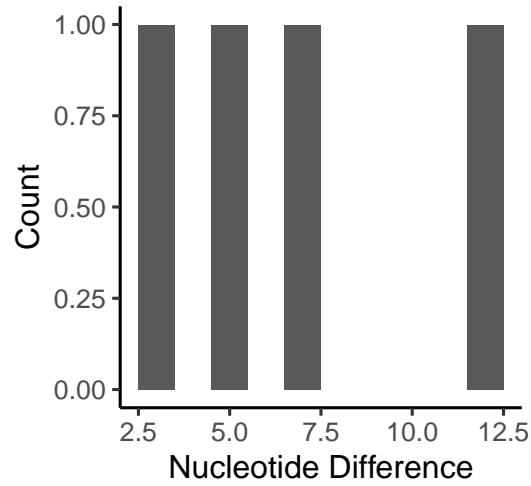
IGHV4-38-2*01

5 sequences assigned
No exact matches.



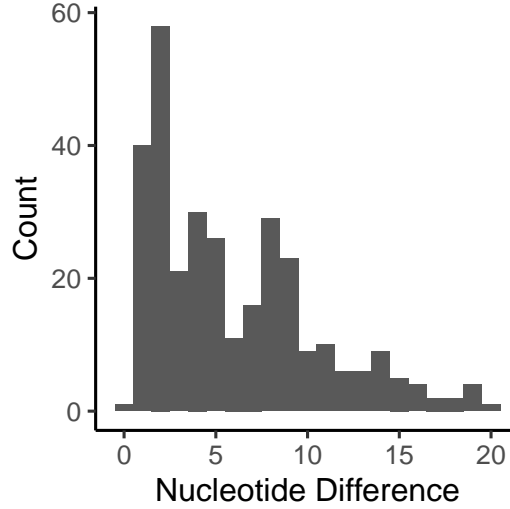
IGHV4-38-2*02

5 sequences assigned
No exact matches.



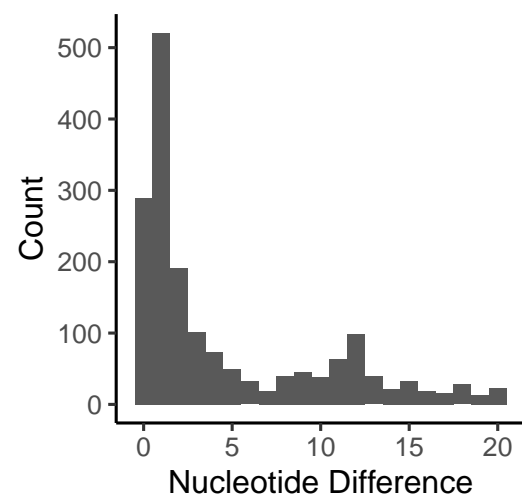
IGHV4-59*08

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



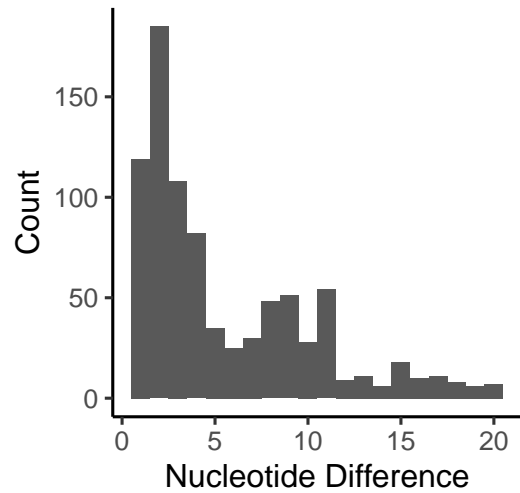
IGHV4-61*01

1994 sequences assigned
289 (14.5%) exact matches, in which:
195 unique CDR3
6 unique J



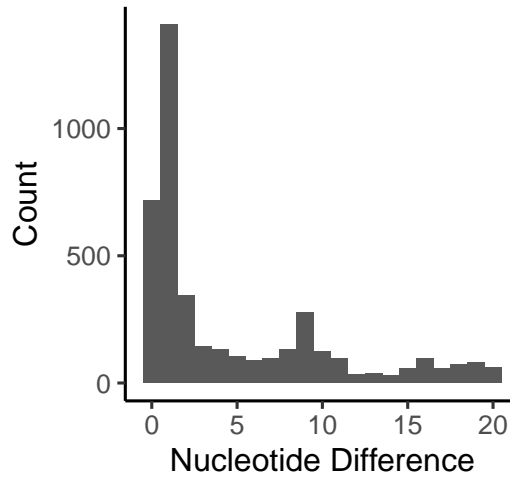
IGHV4-39*07

1269 sequences assigned
No exact matches.



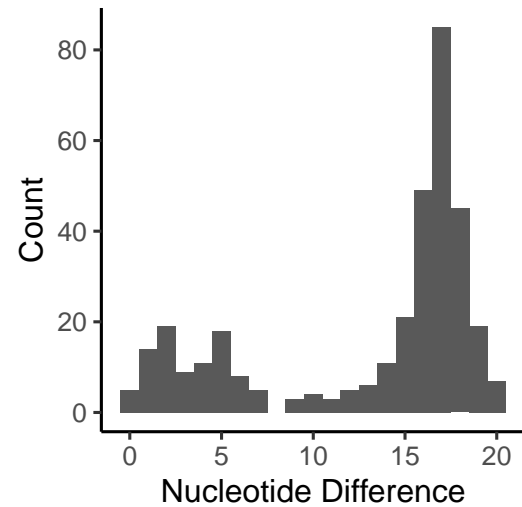
IGHV4-59*01_07

5610 sequences assigned
718 (12.8%) exact matches, in which:
507 unique CDR3
7 unique J



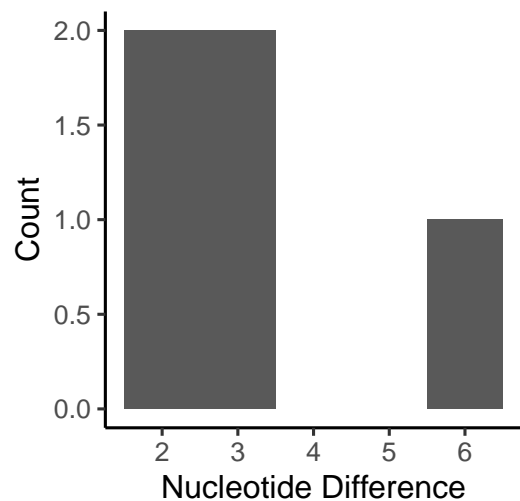
IGHV4-61*08

408 sequences assigned
5 (1.2%) exact matches, in which:
5 unique CDR3
3 unique J



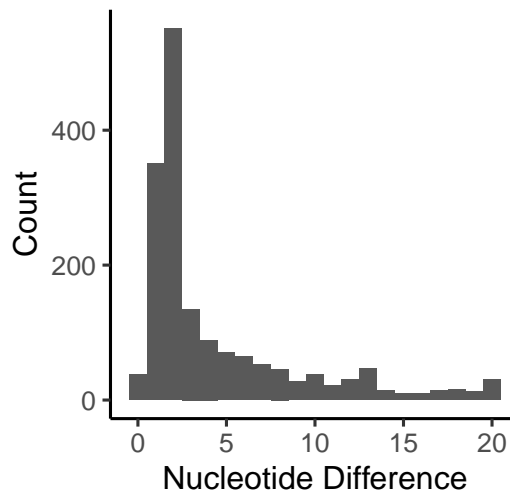
IGHV4-55*09

5 sequences assigned
No exact matches.



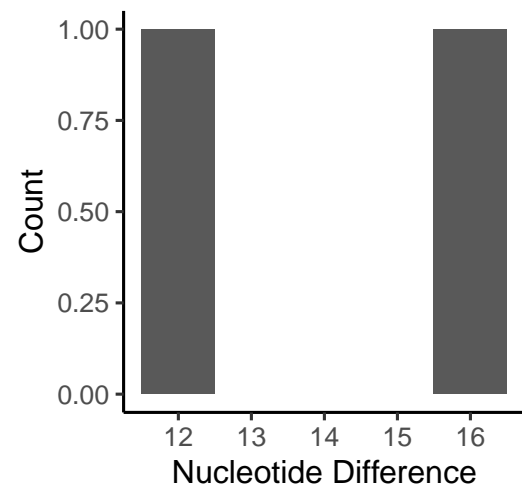
IGHV4-59*12

2212 sequences assigned
38 (1.7%) exact matches, in which:
37 unique CDR3
6 unique J



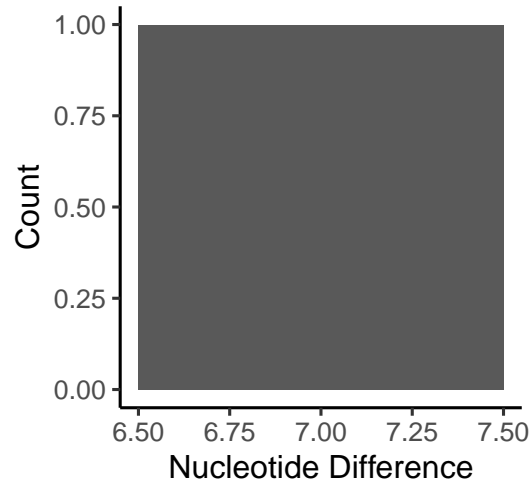
IGHV1/OR15-2*02_03

2 sequences assigned
No exact matches.



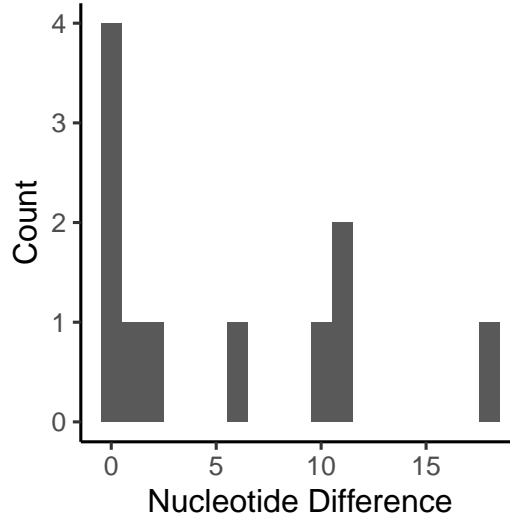
IGHV1/OR15-3*02

1 sequences assigned
No exact matches.



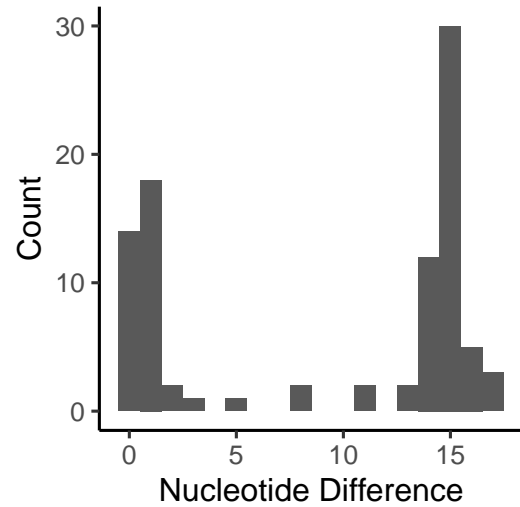
IGHV5-51*06

11 sequences assigned
4 (36.4%) exact matches, in which:
4 unique CDR3
3 unique J



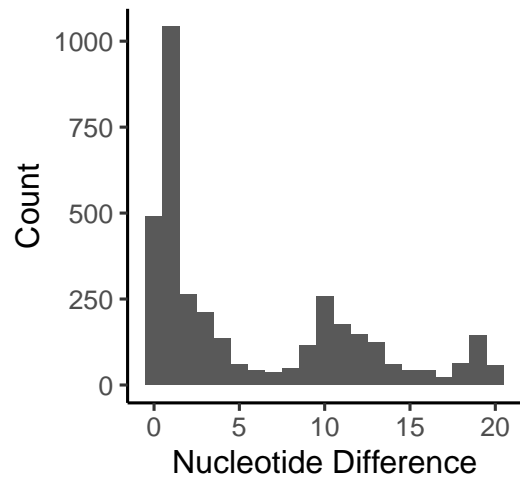
IGHV7-4-1*01

92 sequences assigned
14 (15.2%) exact matches, in which:
10 unique CDR3
1 unique J



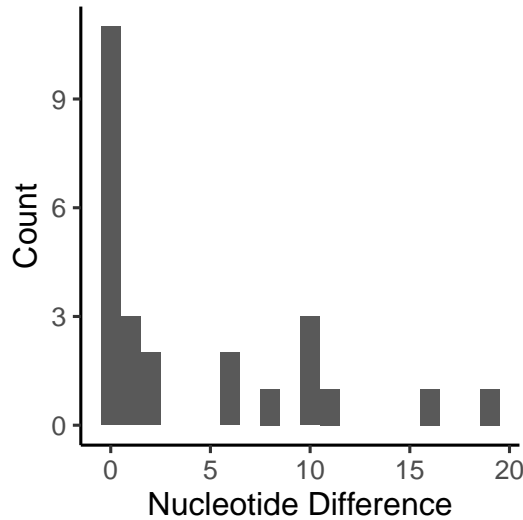
IGHV5-10-1*01_03

3970 sequences assigned
490 (12.3%) exact matches, in which:
286 unique CDR3
5 unique J



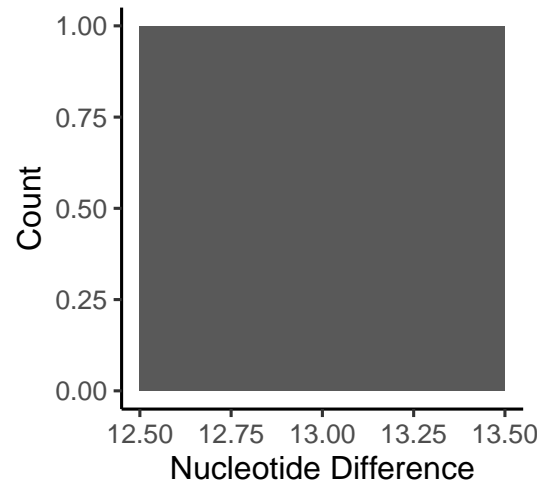
IGHV5-51*07

33 sequences assigned
11 (33.3%) exact matches, in which:
10 unique CDR3
4 unique J



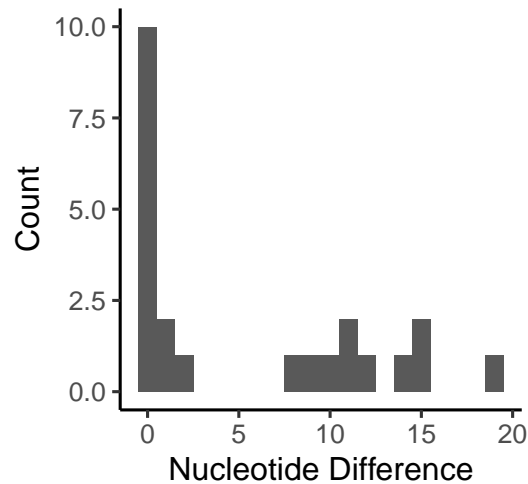
IGHV7-4-1*02

1 sequences assigned
No exact matches.



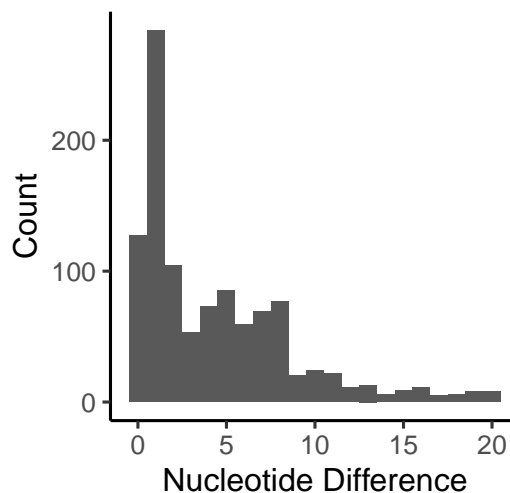
IGHV5-51*04

34 sequences assigned
10 (29.4%) exact matches, in which:
9 unique CDR3
4 unique J



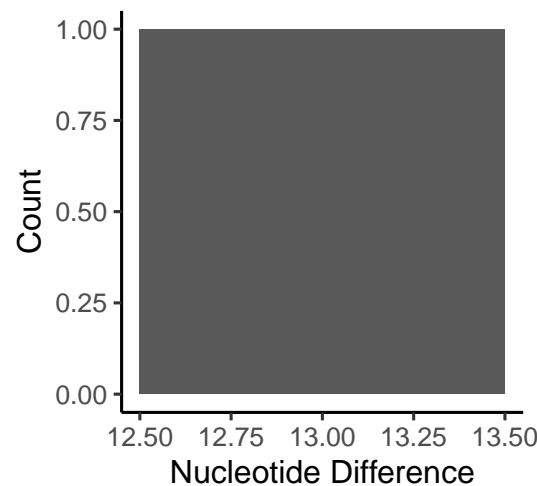
IGHV6-1*01_02

1131 sequences assigned
127 (11.2%) exact matches, in which:
102 unique CDR3
6 unique J

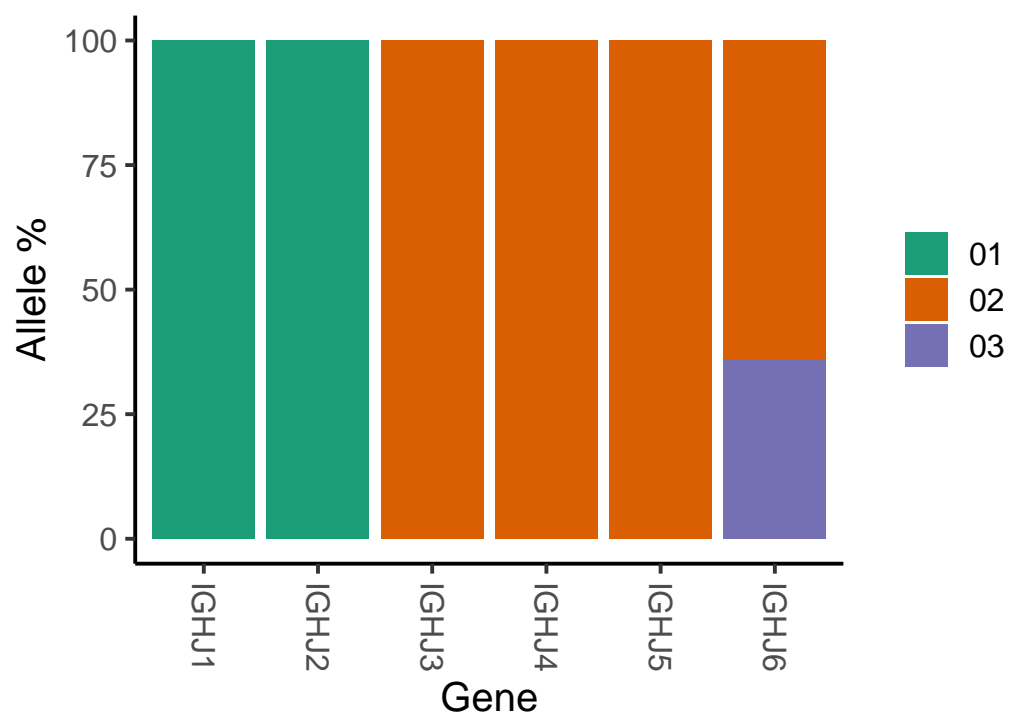


IGHV7-81*01

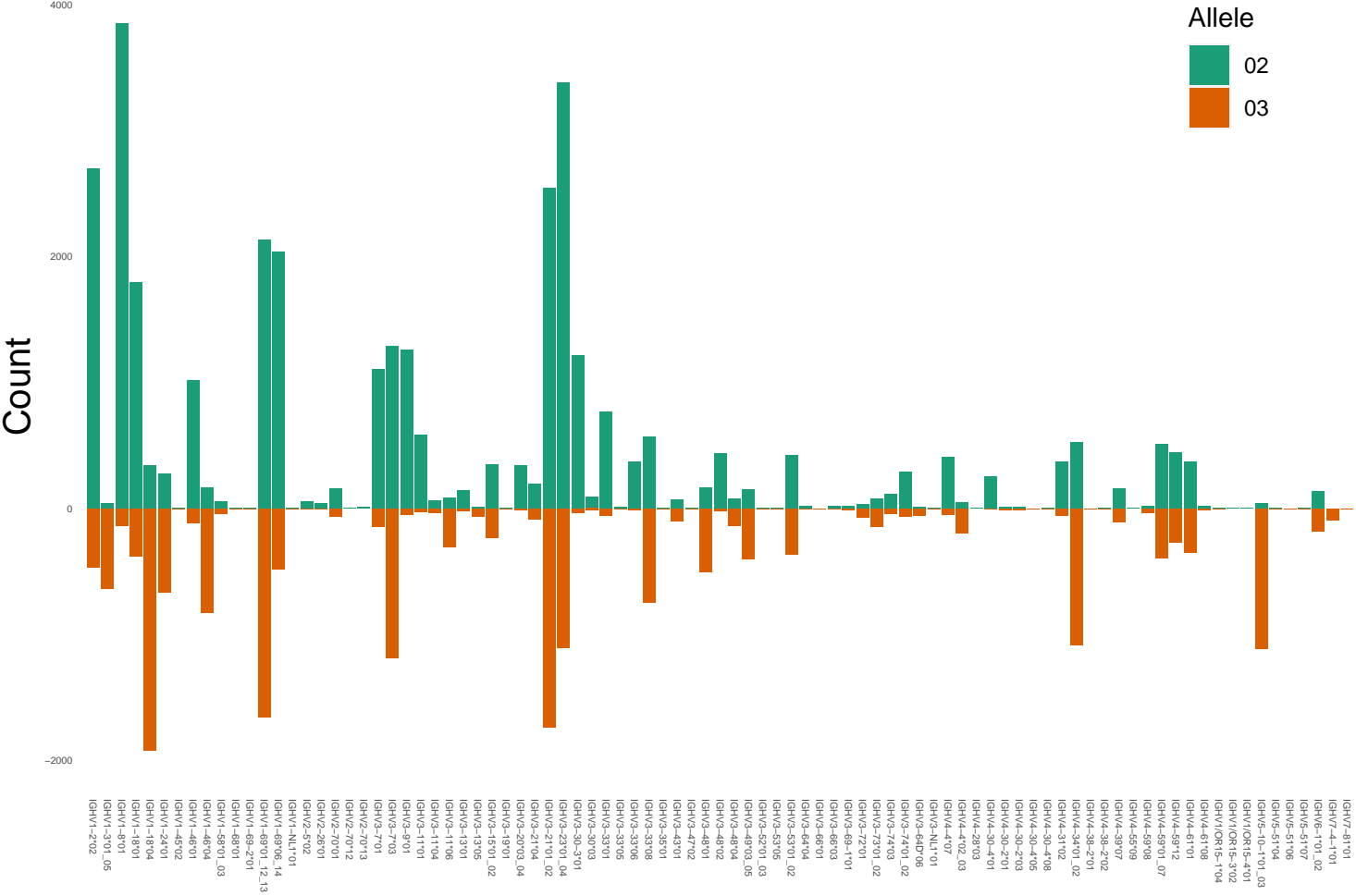
1 sequences assigned
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



Novel sequence(s)IGHV3-20*03_04_C87G_T105C_T108C_G119A_C120T_C134T_G150C_G164C_T189A_C192T_C194T_T201C_G202T_C207G_G252T_T279C_T301C are not listed in the genotype and will be ignored.