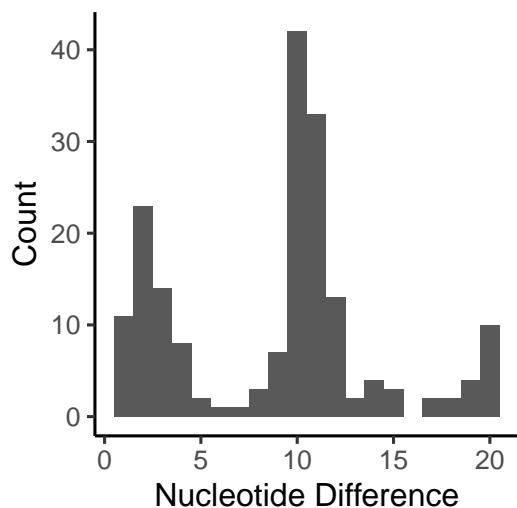


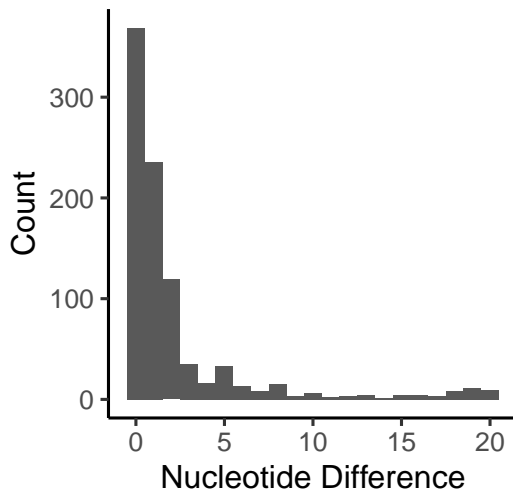
IGHV1-2*02

201 sequences assigned
No exact matches.



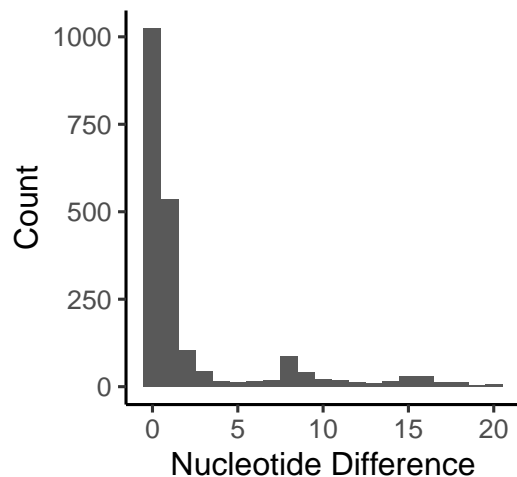
IGHV1-8*01

1125 sequences assigned
369 (32.8%) exact matches, in which:
357 unique CDR3
6 unique J



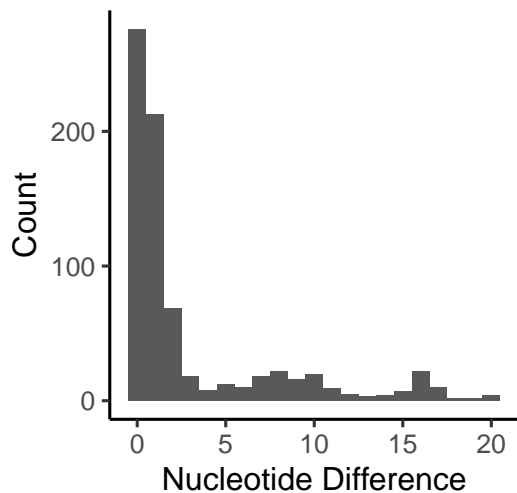
IGHV1-18*04

2375 sequences assigned
1024 (43.1%) exact matches, in which:
980 unique CDR3
6 unique J



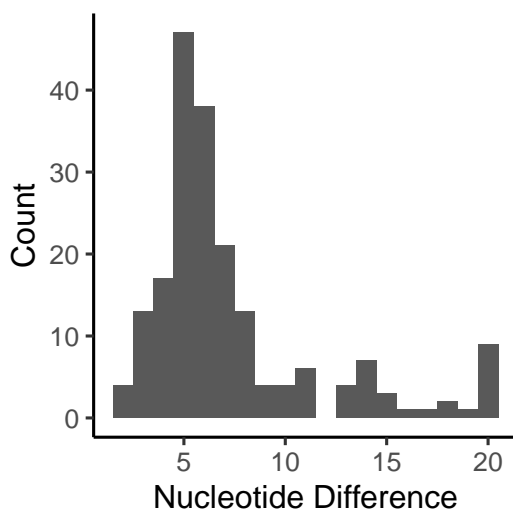
IGHV1-2*04

796 sequences assigned
276 (34.7%) exact matches, in which:
250 unique CDR3
6 unique J



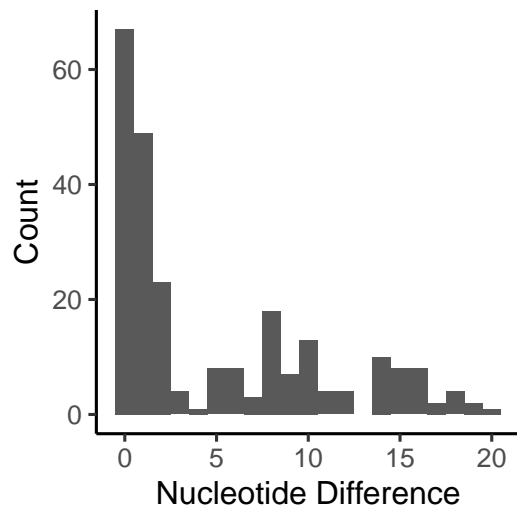
IGHV1-8*02

412 sequences assigned
No exact matches.



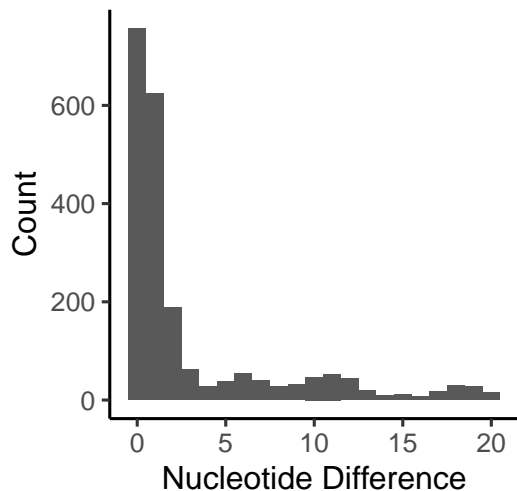
IGHV1-24*01

301 sequences assigned
67 (22.3%) exact matches, in which:
64 unique CDR3
6 unique J



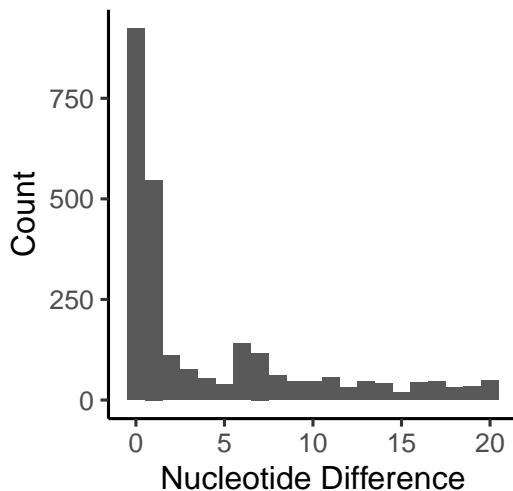
IGHV1-3*01_05

2551 sequences assigned
757 (29.7%) exact matches, in which:
679 unique CDR3
6 unique J



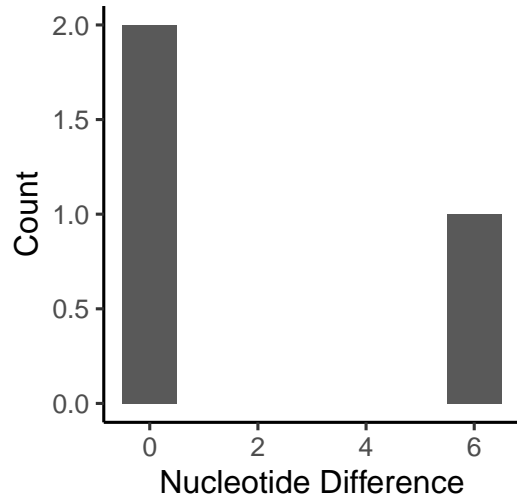
IGHV1-18*01

2968 sequences assigned
924 (31.1%) exact matches, in which:
887 unique CDR3
6 unique J



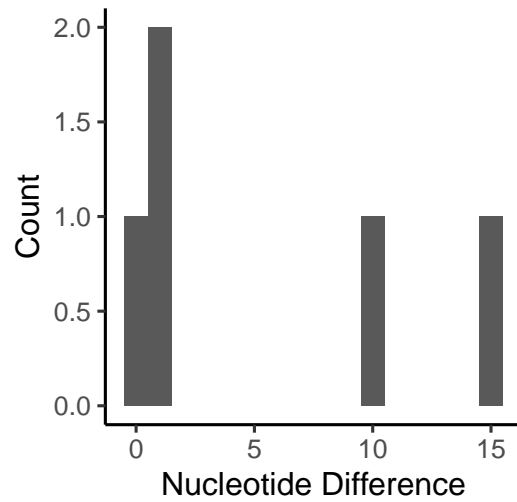
IGHV1-45*02

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



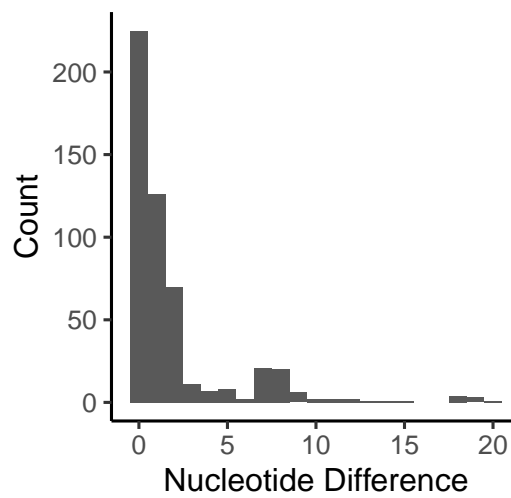
IGHV1-45*03

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



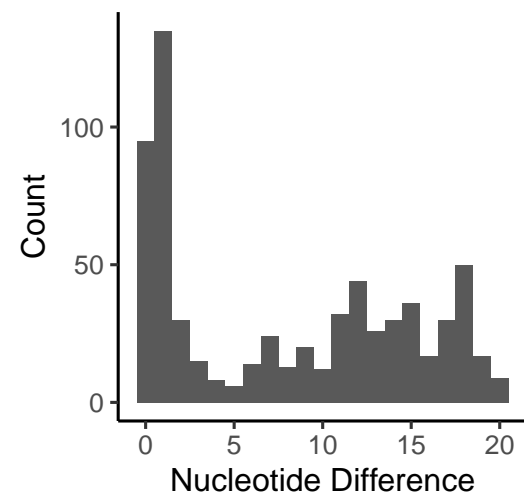
IGHV1-69*02

552 sequences assigned
225 (40.8%) exact matches, in which:
218 unique CDR3
6 unique J



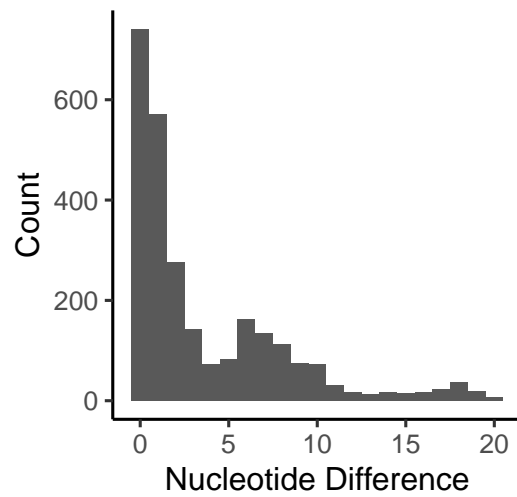
IGHV2-5*02

744 sequences assigned
95 (12.8%) exact matches, in which:
80 unique CDR3
5 unique J



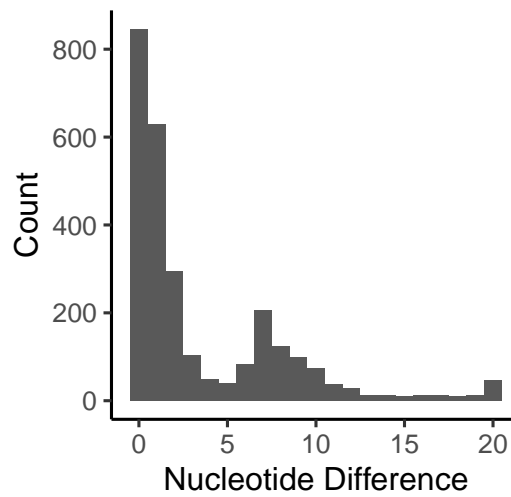
IGHV1-46*01

2957 sequences assigned
741 (25.1%) exact matches, in which:
696 unique CDR3
6 unique J



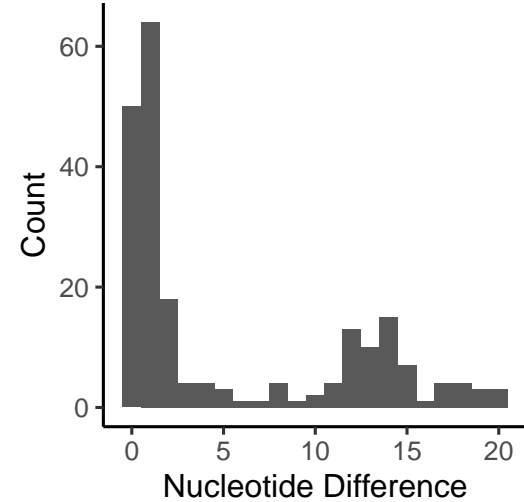
IGHV1-69*04_09

2983 sequences assigned
846 (28.4%) exact matches, in which:
796 unique CDR3
6 unique J



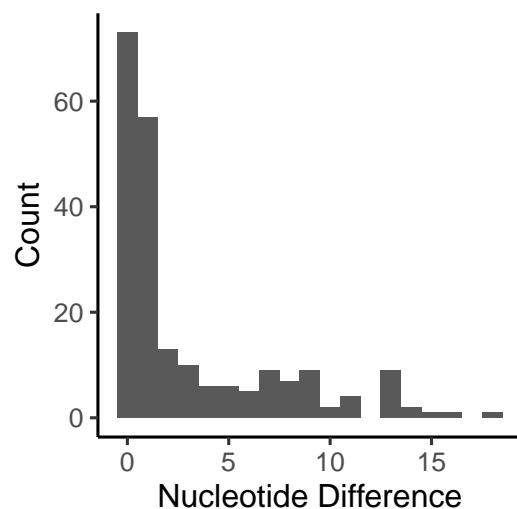
IGHV2-26*01

232 sequences assigned
50 (21.6%) exact matches, in which:
38 unique CDR3
4 unique J



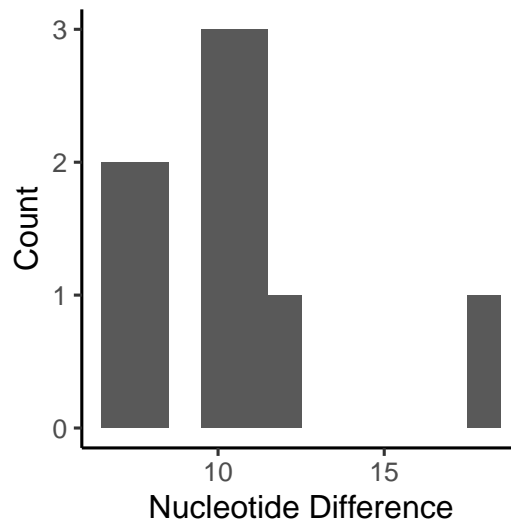
IGHV1-58*02

221 sequences assigned
73 (33%) exact matches, in which:
70 unique CDR3
5 unique J



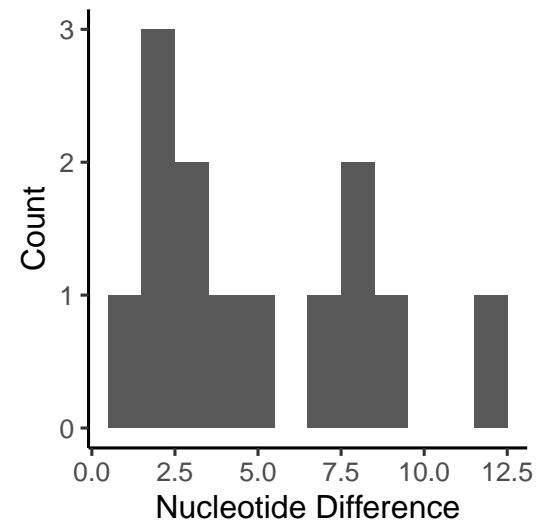
IGHV1-NL1*01

12 sequences assigned
No exact matches.



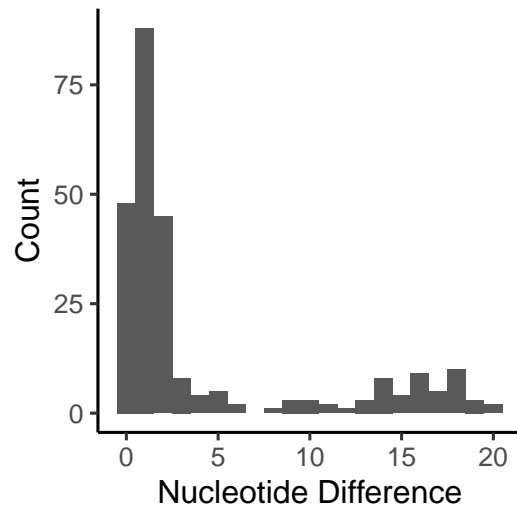
IGHV2-70*12

13 sequences assigned
No exact matches.



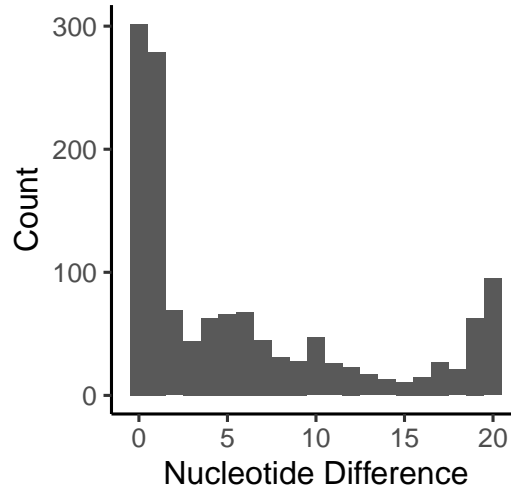
IGHV2-70*11_15

281 sequences assigned
48 (17.1%) exact matches, in which:
40 unique CDR3
5 unique J



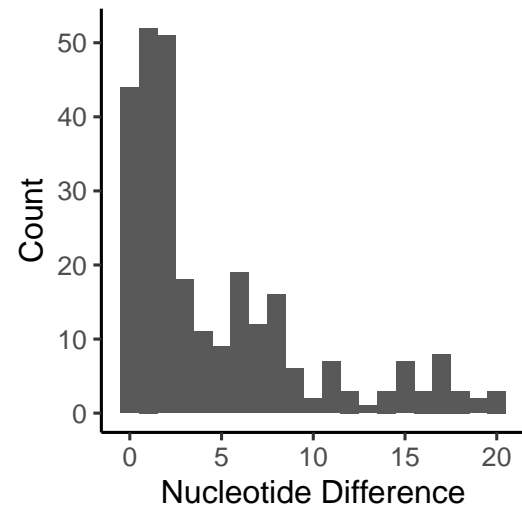
IGHV3-7*03

2237 sequences assigned
302 (13.5%) exact matches, in which:
242 unique CDR3
6 unique J



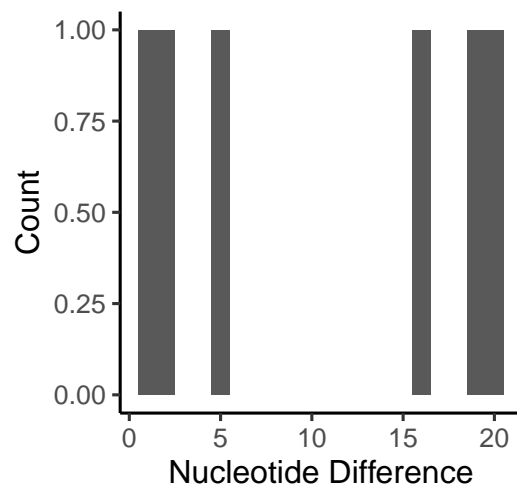
IGHV3-11*04

319 sequences assigned
44 (13.8%) exact matches, in which:
44 unique CDR3
4 unique J



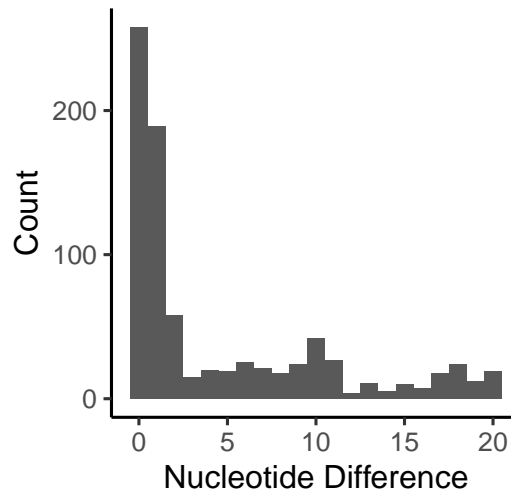
IGHV2-70D*04

11 sequences assigned
No exact matches.



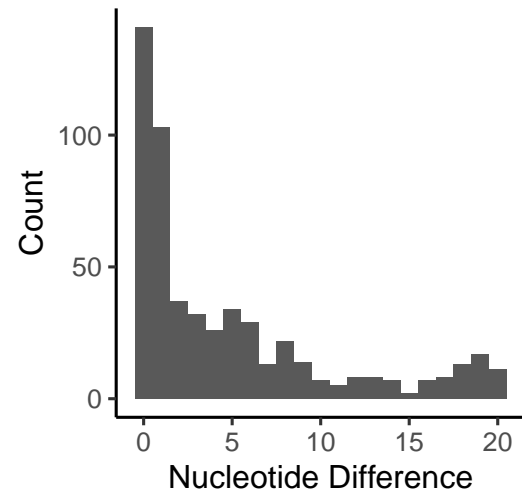
IGHV3-9*01

1130 sequences assigned
258 (22.8%) exact matches, in which:
196 unique CDR3
6 unique J



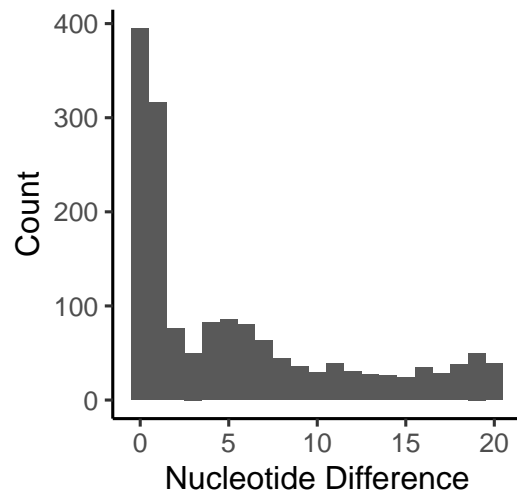
IGHV3-11*06

843 sequences assigned
141 (16.7%) exact matches, in which:
116 unique CDR3
5 unique J



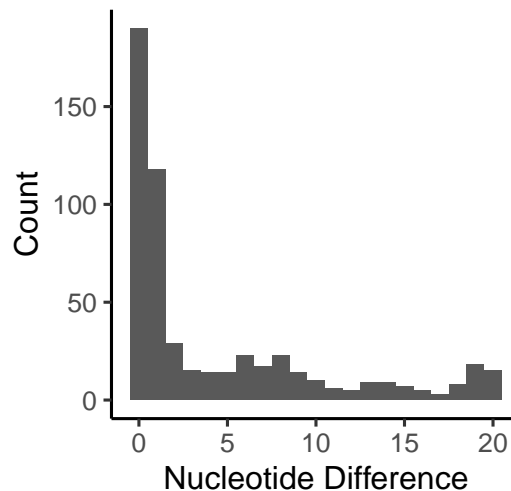
IGHV3-7*01

2424 sequences assigned
395 (16.3%) exact matches, in which:
341 unique CDR3
6 unique J



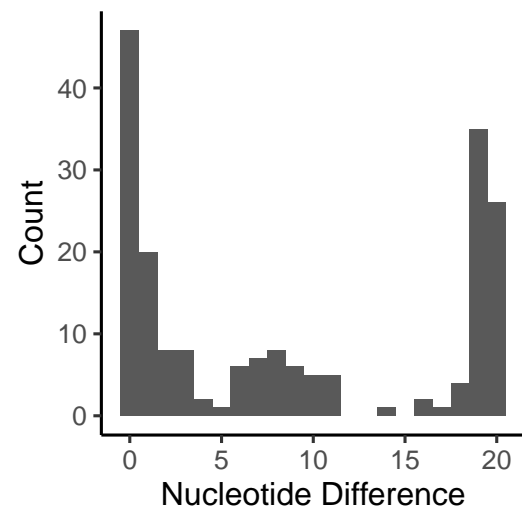
IGHV3-11*01

762 sequences assigned
190 (24.9%) exact matches, in which:
155 unique CDR3
6 unique J



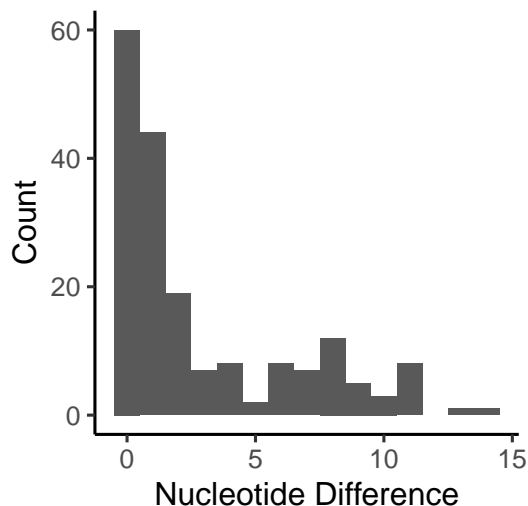
IGHV3-13*01

280 sequences assigned
47 (16.8%) exact matches, in which:
43 unique CDR3
4 unique J



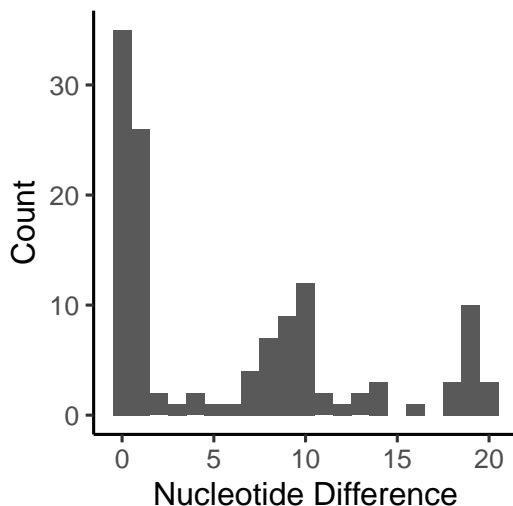
IGHV3-13*05

186 sequences assigned
60 (32.3%) exact matches, in which:
50 unique CDR3
5 unique J



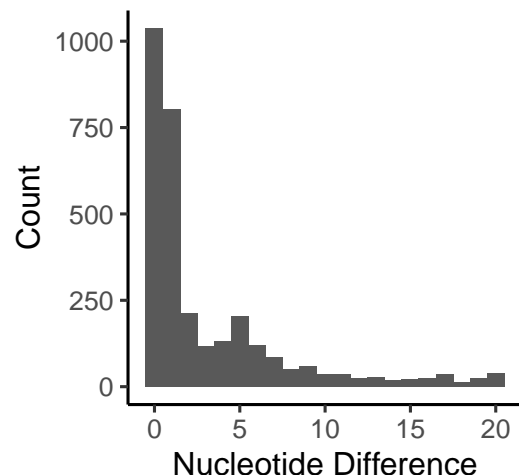
IGHV3-20*01_02

170 sequences assigned
35 (20.6%) exact matches, in which:
25 unique CDR3
4 unique J



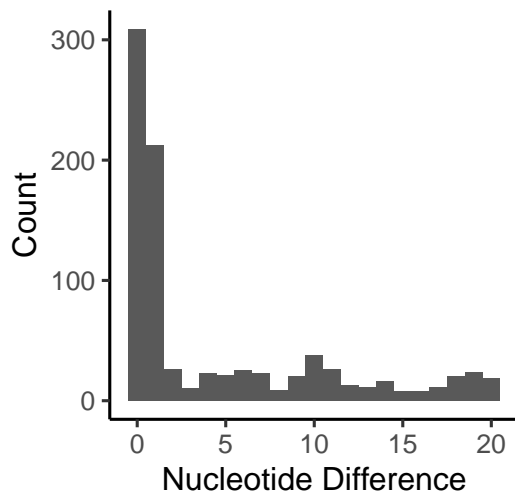
IGHV3-21*01_02

3934 sequences assigned
1037 (26.4%) exact matches, in which:
819 unique CDR3
6 unique J



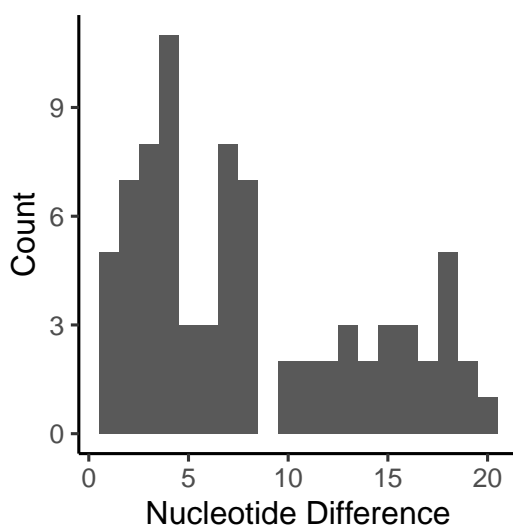
IGHV3-15*01_02

1182 sequences assigned
309 (26.1%) exact matches, in which:
202 unique CDR3
6 unique J



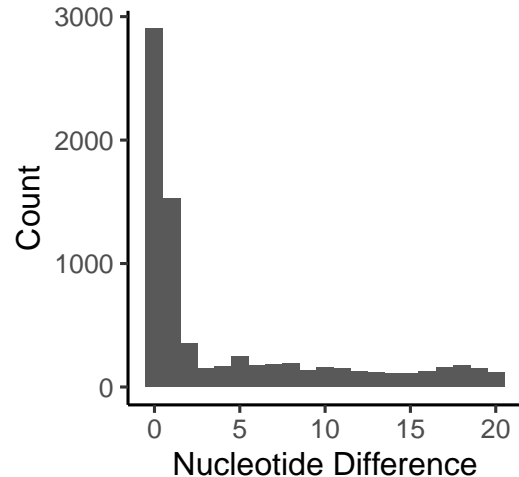
IGHV3-20*03_04

124 sequences assigned
No exact matches.



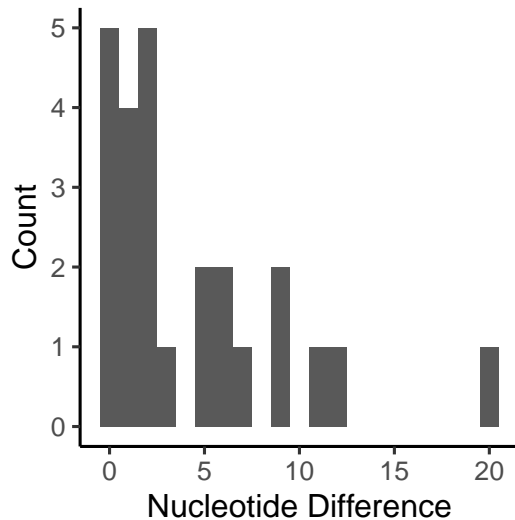
IGHV3-23*01_04

10541 sequences assigned
2902 (27.5%) exact matches, in which:
2290 unique CDR3
6 unique J



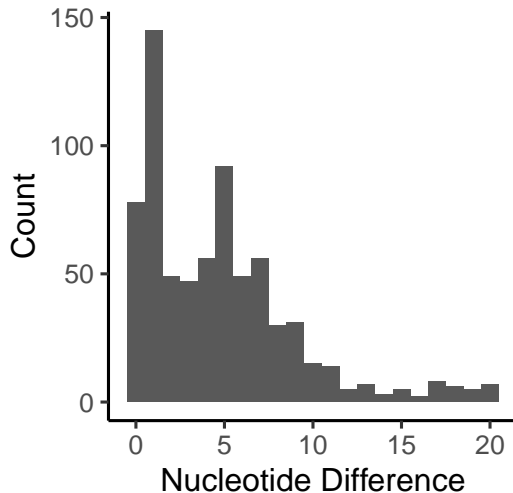
IGHV3-19*01

25 sequences assigned
5 (20%) exact matches, in which:
5 unique CDR3
2 unique J



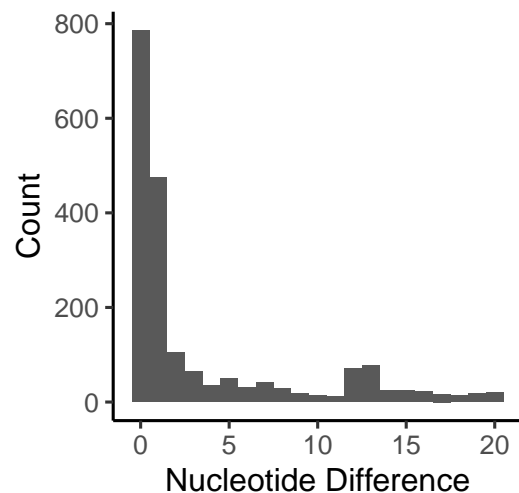
IGHV3-21*04

864 sequences assigned
78 (9%) exact matches, in which:
72 unique CDR3
5 unique J



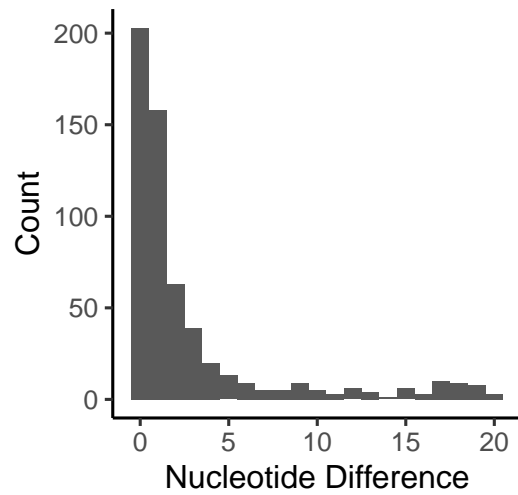
IGHV3-30-3*01

2280 sequences assigned
786 (34.5%) exact matches, in which:
642 unique CDR3
6 unique J



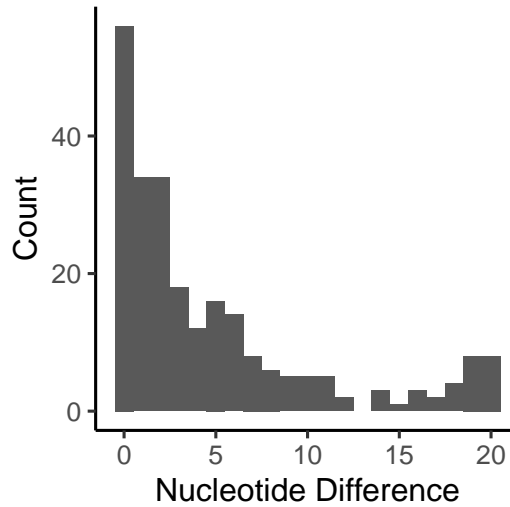
IGHV3-30*03

721 sequences assigned
203 (28.2%) exact matches, in which:
194 unique CDR3
5 unique J



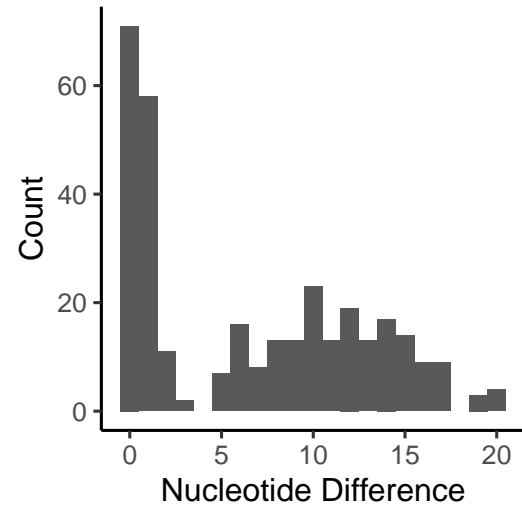
IGHV3-33*08

427 sequences assigned
56 (13.1%) exact matches, in which:
46 unique CDR3
5 unique J



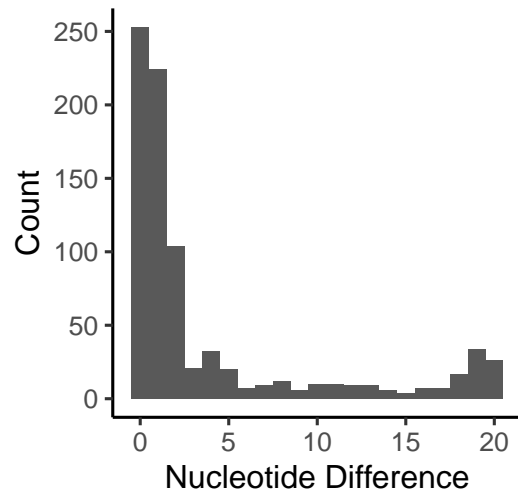
IGHV3-43*02

422 sequences assigned
71 (16.8%) exact matches, in which:
53 unique CDR3
5 unique J



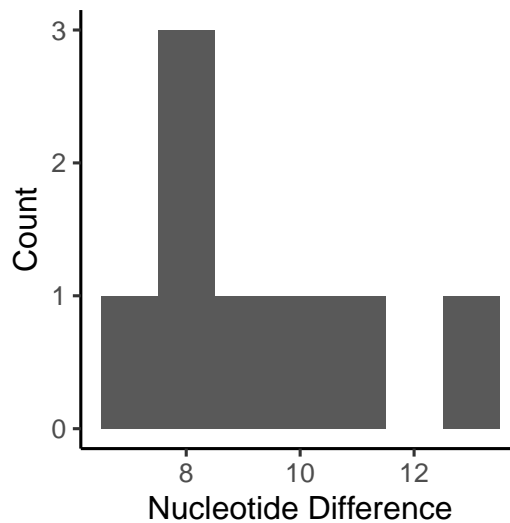
IGHV3-33*01

1103 sequences assigned
253 (22.9%) exact matches, in which:
203 unique CDR3
6 unique J



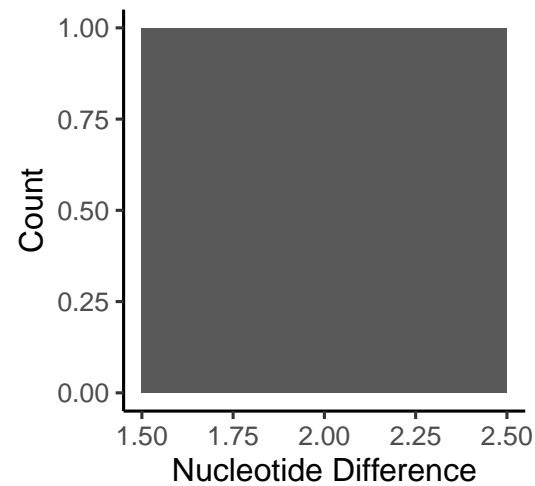
IGHV3-35*01

8 sequences assigned
No exact matches.



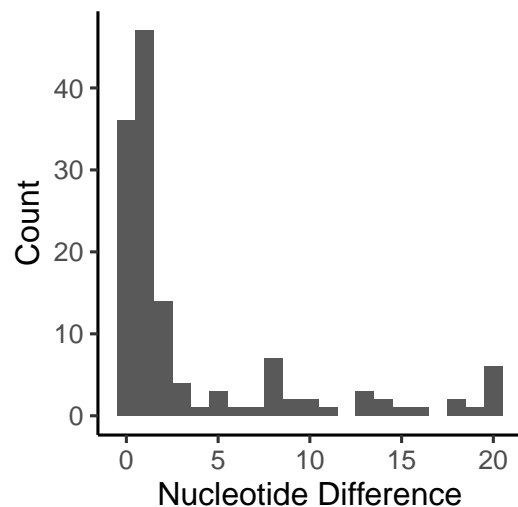
IGHV3-47*01

1 sequences assigned
No exact matches.



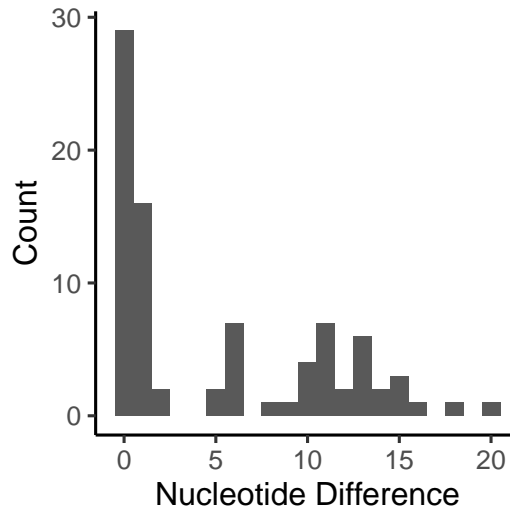
IGHV3-33*06

148 sequences assigned
36 (24.3%) exact matches, in which:
33 unique CDR3
6 unique J



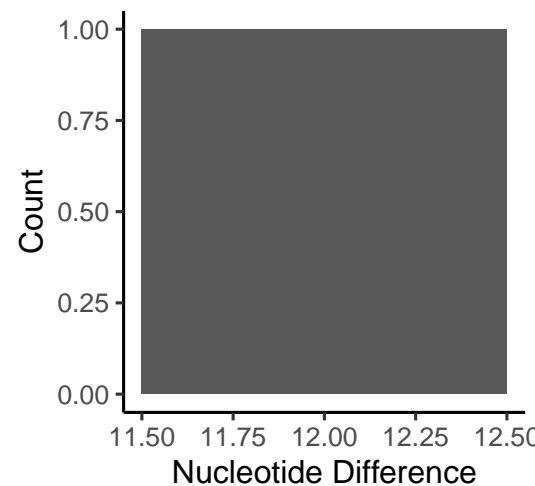
IGHV3-43*01

146 sequences assigned
29 (19.9%) exact matches, in which:
23 unique CDR3
4 unique J



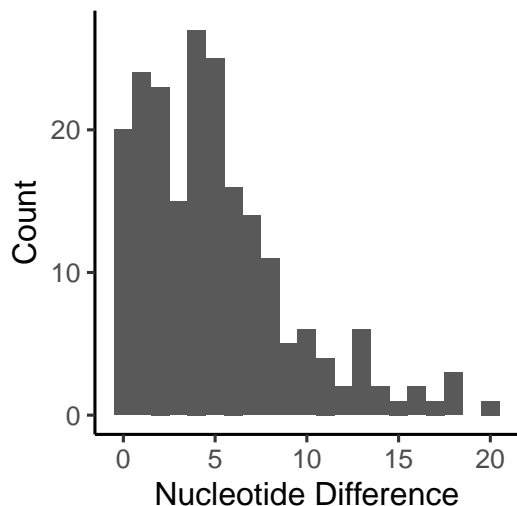
IGHV3-47*02

1 sequences assigned
No exact matches.



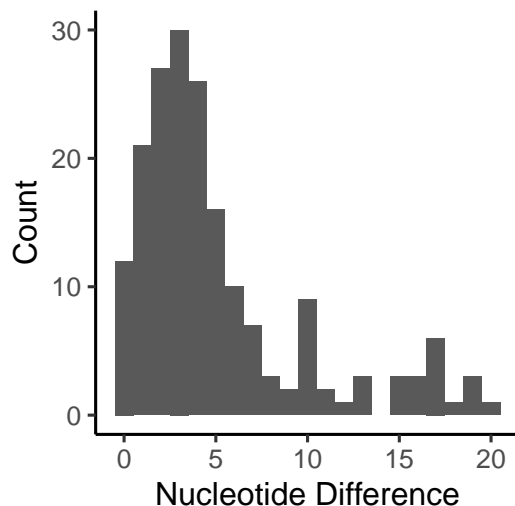
IGHV3-48*01

238 sequences assigned
20 (8.4%) exact matches, in which:
20 unique CDR3
3 unique J



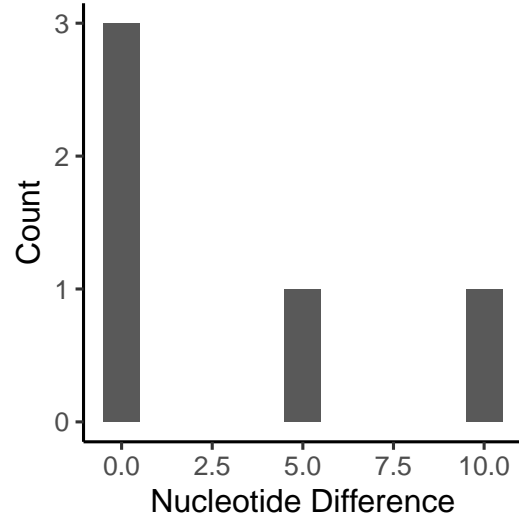
IGHV3-48*04

230 sequences assigned
12 (5.2%) exact matches, in which:
11 unique CDR3
4 unique J



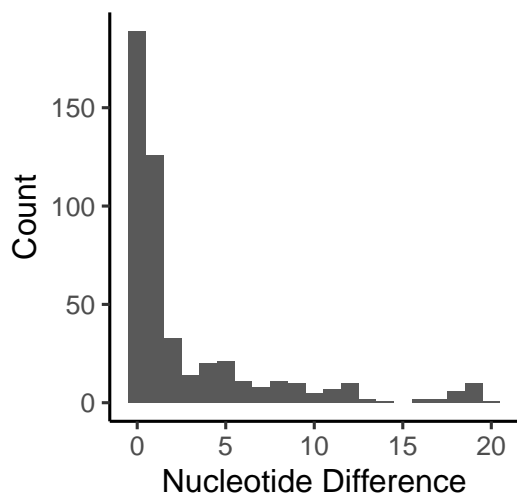
IGHV3-52*01_03

5 sequences assigned
3 (60%) exact matches, in which:
3 unique CDR3
2 unique J



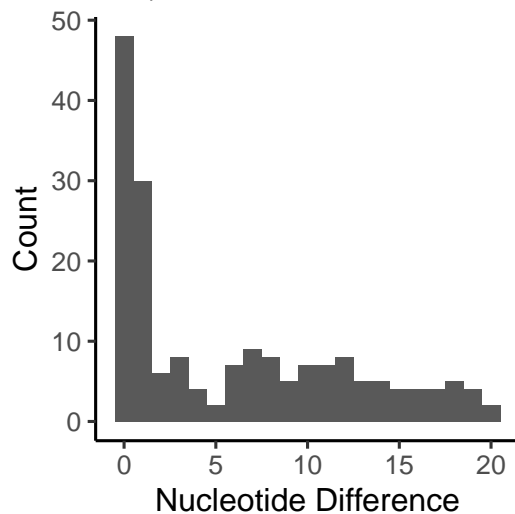
IGHV3-48*02

588 sequences assigned
189 (32.1%) exact matches, in which:
142 unique CDR3
6 unique J



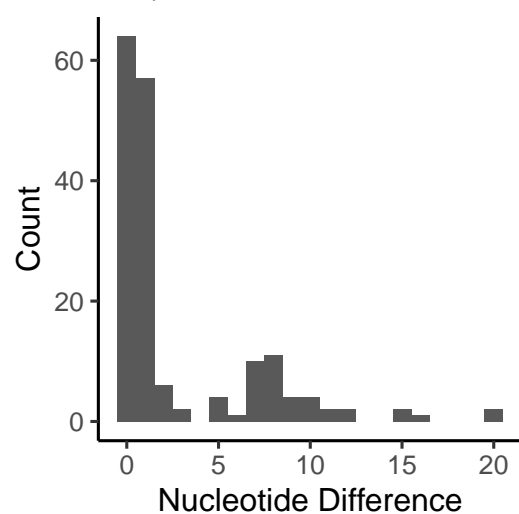
IGHV3-49*04

292 sequences assigned
48 (16.4%) exact matches, in which:
39 unique CDR3
4 unique J



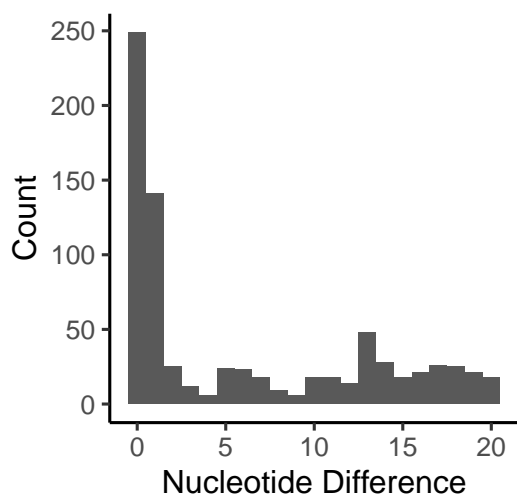
IGHV3-53*04

200 sequences assigned
64 (32%) exact matches, in which:
54 unique CDR3
6 unique J



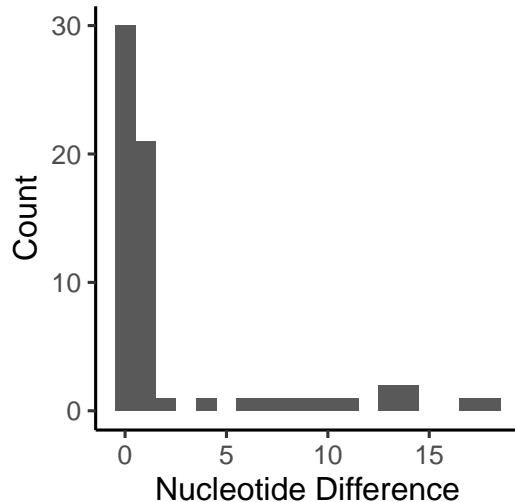
IGHV3-48*03

967 sequences assigned
249 (25.7%) exact matches, in which:
182 unique CDR3
6 unique J



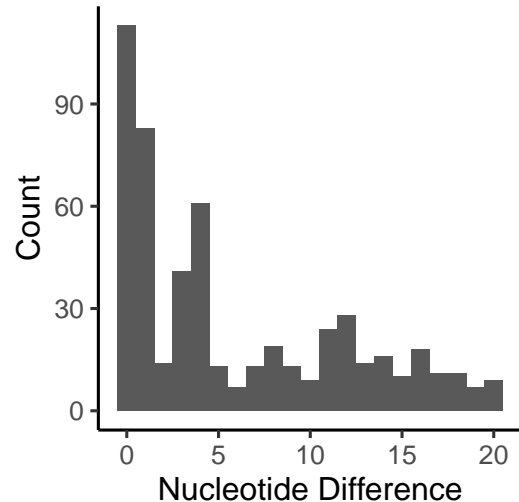
IGHV3-49*03_05

142 sequences assigned
30 (21.1%) exact matches, in which:
24 unique CDR3
4 unique J



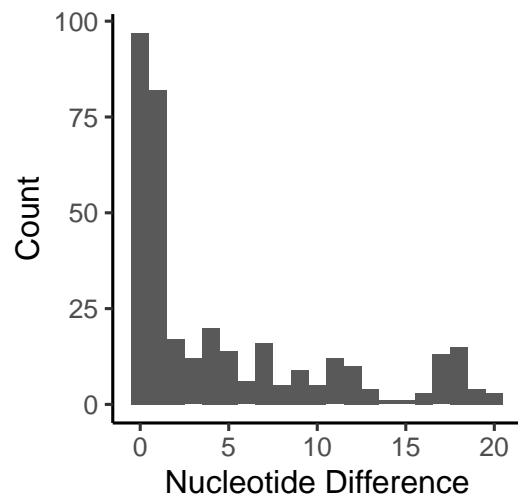
IGHV3-53*01_02

685 sequences assigned
113 (16.5%) exact matches, in which:
99 unique CDR3
5 unique J



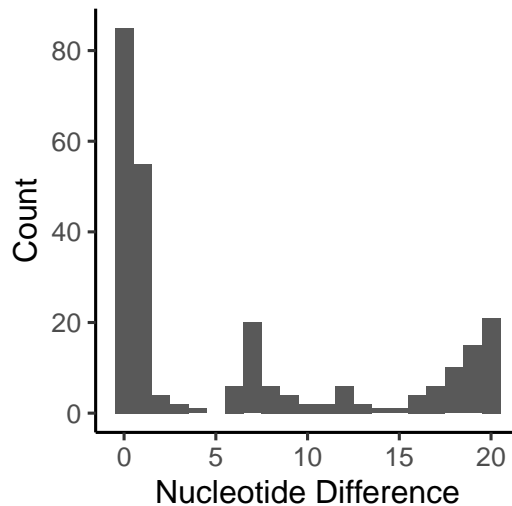
IGHV3-64*01

436 sequences assigned
97 (22.2%) exact matches, in which:
75 unique CDR3
4 unique J



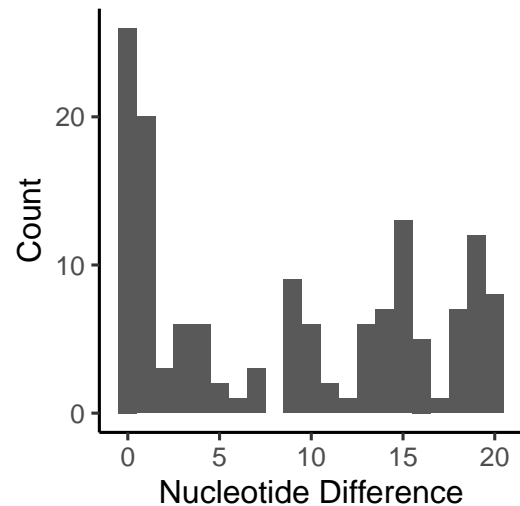
IGHV3-66*02

446 sequences assigned
85 (19.1%) exact matches, in which:
69 unique CDR3
5 unique J



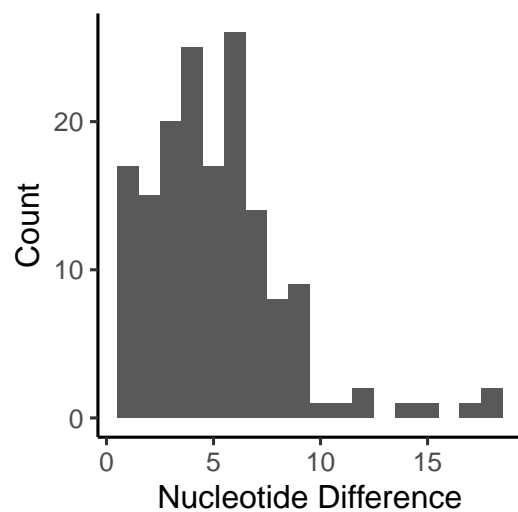
IGHV3-72*01

221 sequences assigned
26 (11.8%) exact matches, in which:
19 unique CDR3
3 unique J



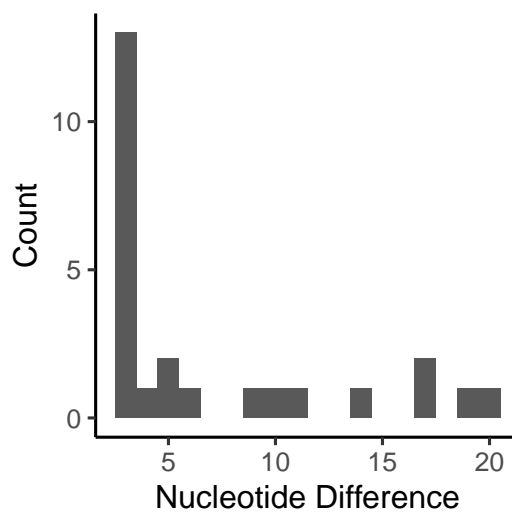
IGHV3-64*04

184 sequences assigned
No exact matches.



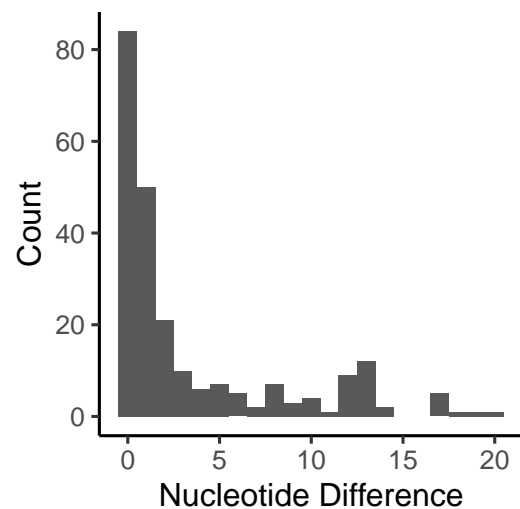
IGHV3-69-1*01

35 sequences assigned
No exact matches.



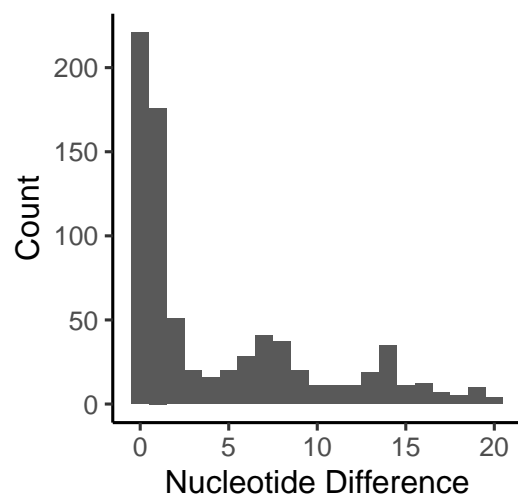
IGHV3-73*01_02

355 sequences assigned
84 (23.7%) exact matches, in which:
63 unique CDR3
4 unique J



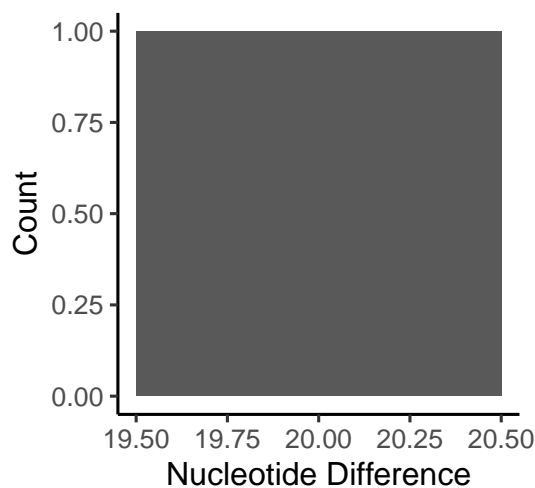
IGHV3-66*01

1028 sequences assigned
221 (21.5%) exact matches, in which:
183 unique CDR3
6 unique J



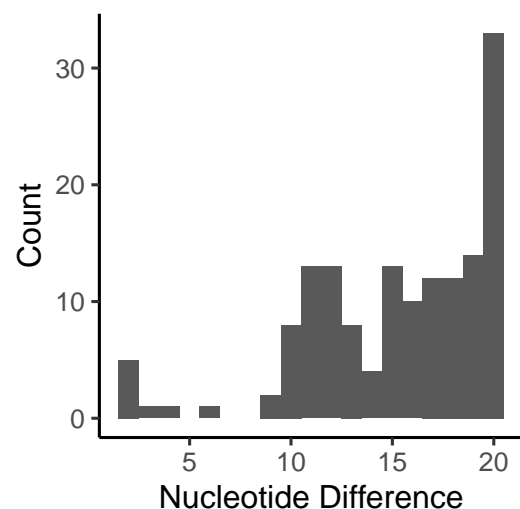
IGHV3-69-1*02

13 sequences assigned
No exact matches.



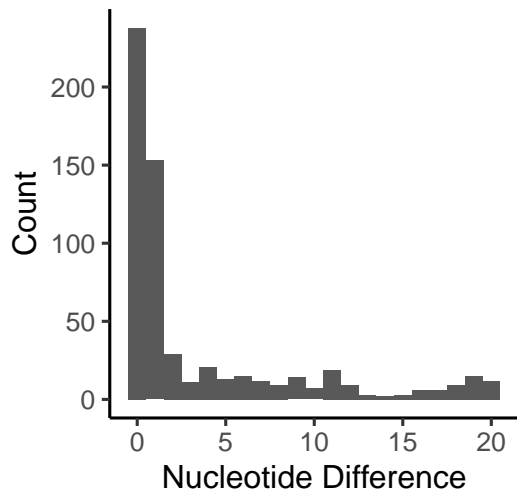
IGHV3-74*03

553 sequences assigned
No exact matches.



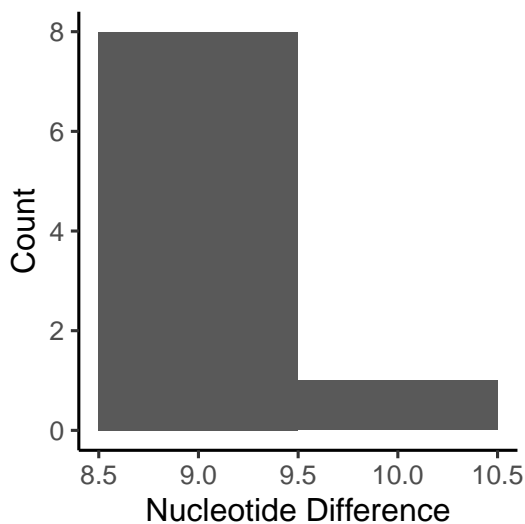
IGHV3-74*01_02

773 sequences assigned
238 (30.8%) exact matches, in which:
197 unique CDR3
6 unique J



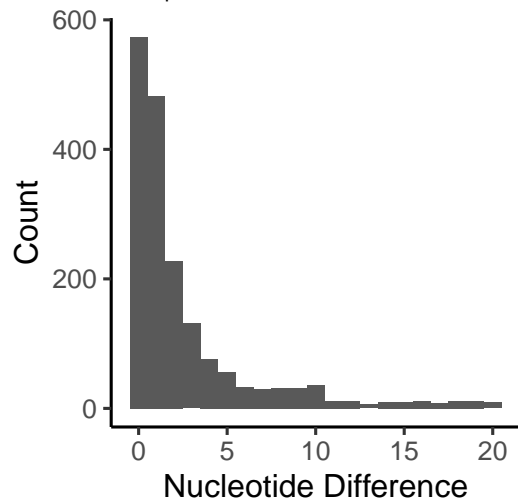
IGHV3-64D*08

20 sequences assigned
No exact matches.



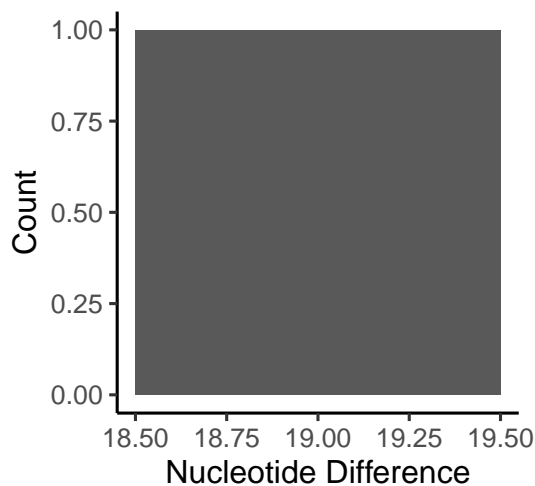
IGHV4-4*02_03

2064 sequences assigned
574 (27.8%) exact matches, in which:
494 unique CDR3
6 unique J



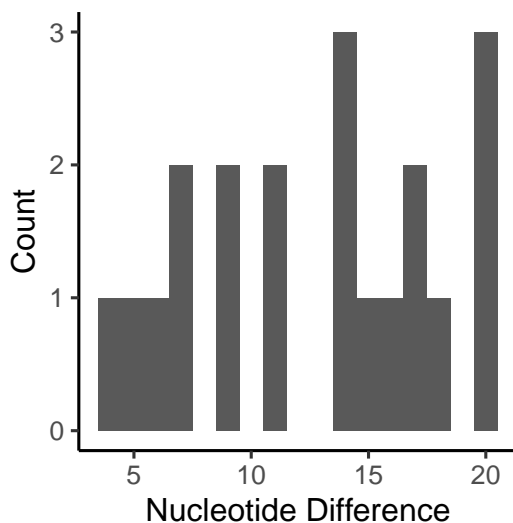
IGHV3-43D*04

28 sequences assigned
No exact matches.



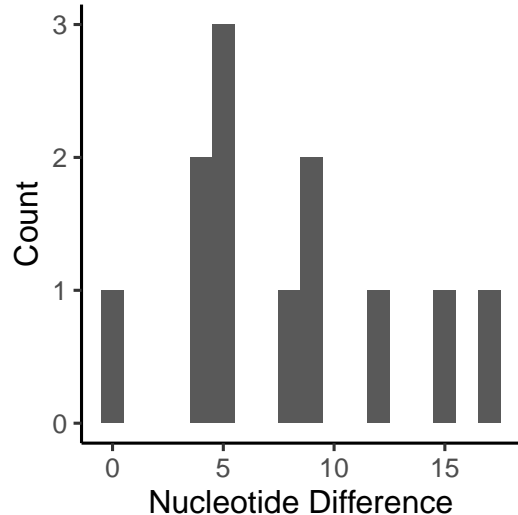
IGHV3-NL1*01

39 sequences assigned
No exact matches.



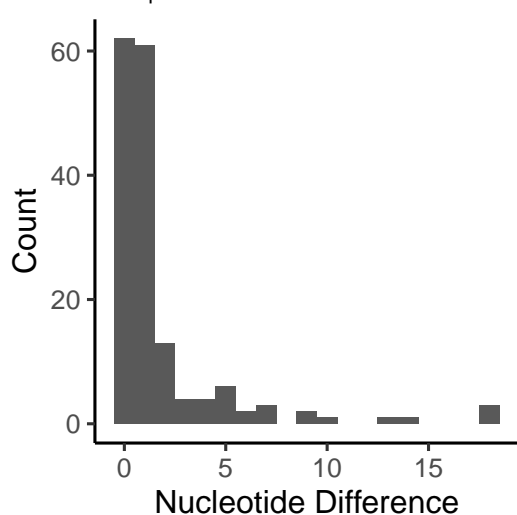
IGHV4-28*03

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J



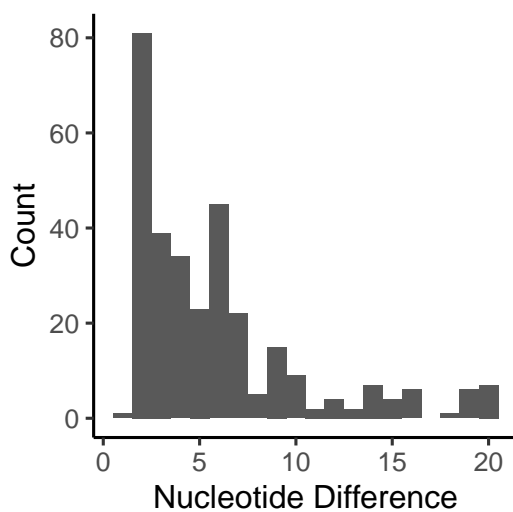
IGHV3-64D*06

167 sequences assigned
62 (37.1%) exact matches, in which:
42 unique CDR3
5 unique J



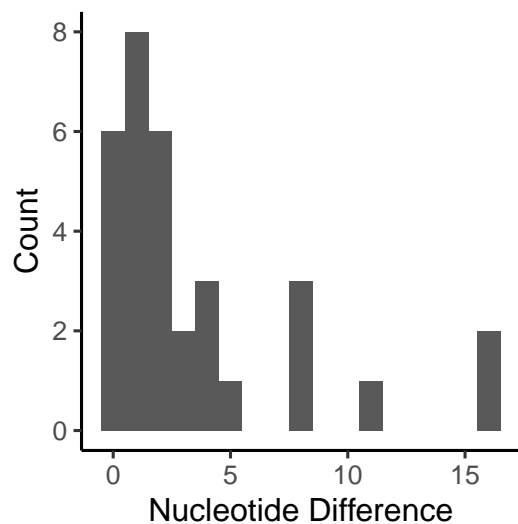
IGHV4-4*07

341 sequences assigned
No exact matches.



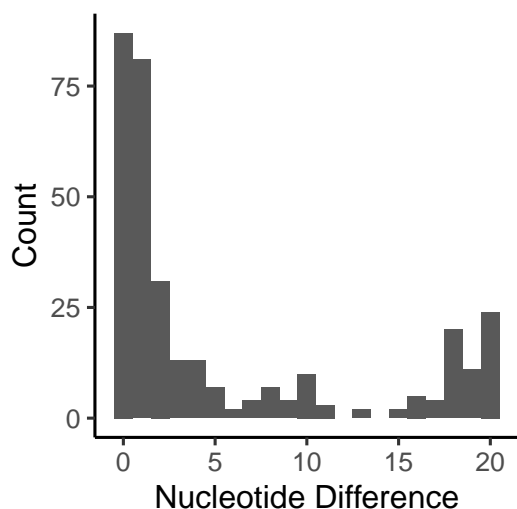
IGHV4-28*02_05

39 sequences assigned
6 (15.4%) exact matches, in which:
6 unique CDR3
4 unique J



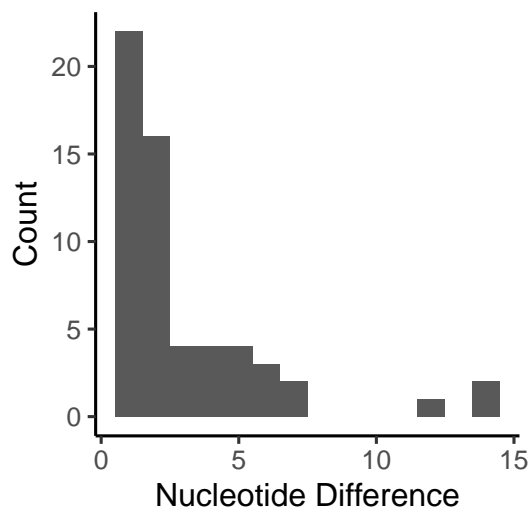
IGHV4-30-4*01

544 sequences assigned
87 (16%) exact matches, in which:
82 unique CDR3
6 unique J



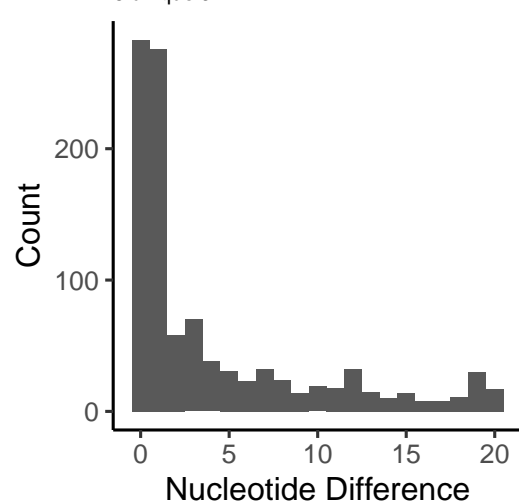
IGHV4-30-2*03

60 sequences assigned
No exact matches.



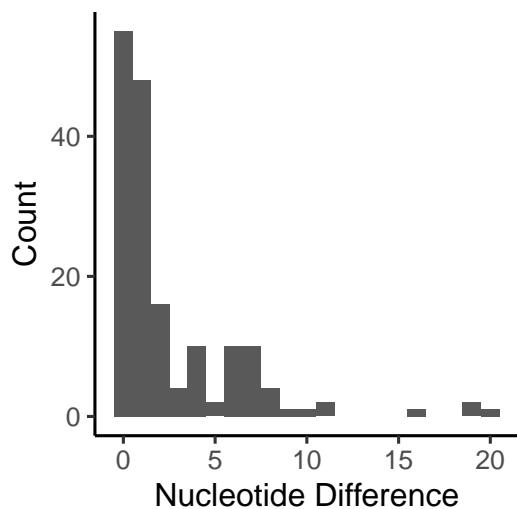
IGHV4-31*02

1298 sequences assigned
283 (21.8%) exact matches, in which:
241 unique CDR3
6 unique J



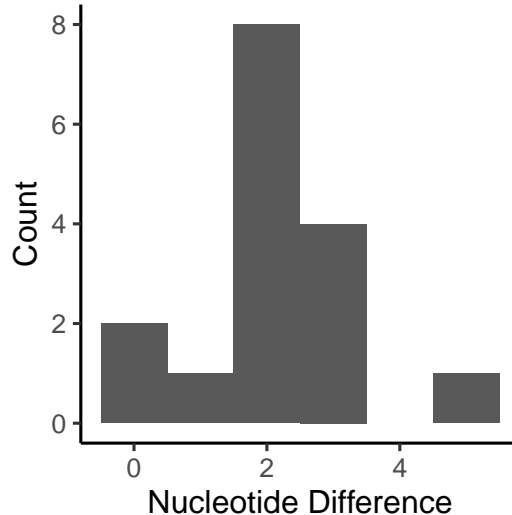
IGHV4-30-2*01

191 sequences assigned
55 (28.8%) exact matches, in which:
38 unique CDR3
5 unique J



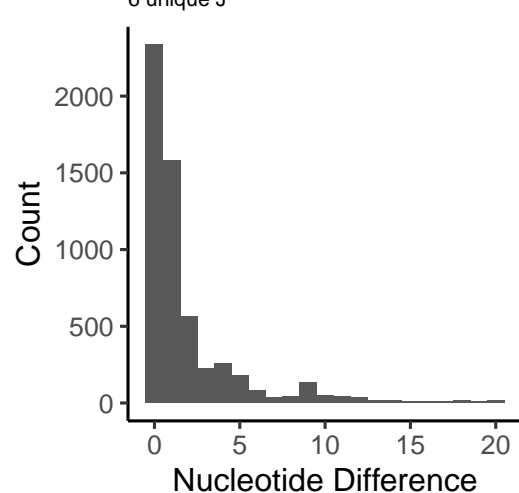
IGHV4-30-2*05

16 sequences assigned
2 (12.5%) exact matches, in which:
2 unique CDR3
2 unique J



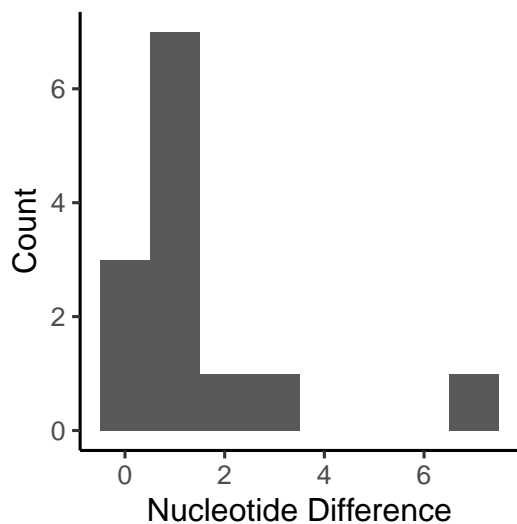
IGHV4-34*01_02

5911 sequences assigned
2335 (39.5%) exact matches, in which:
2023 unique CDR3
6 unique J



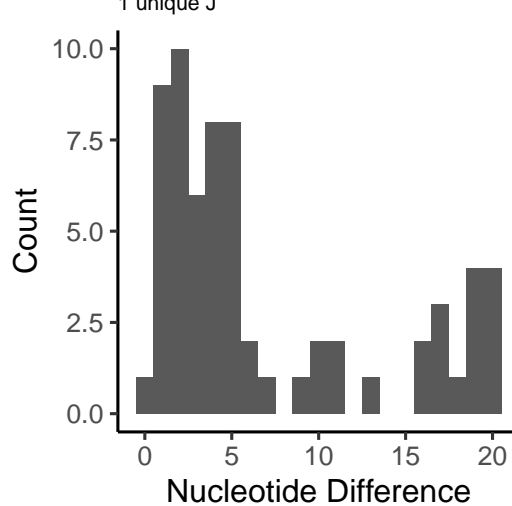
IGHV4-30-2*02

13 sequences assigned
3 (23.1%) exact matches, in which:
3 unique CDR3
3 unique J



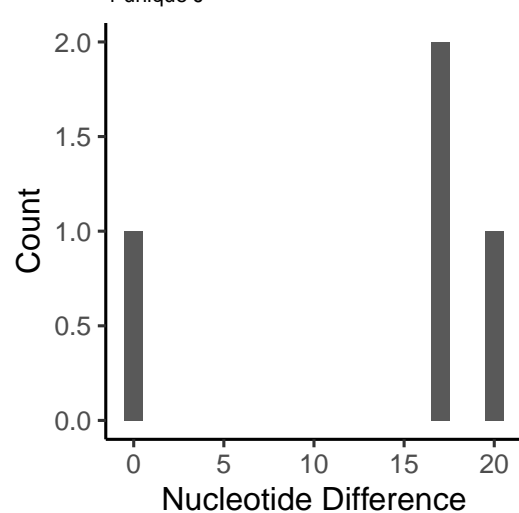
IGHV4-30-4*08

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



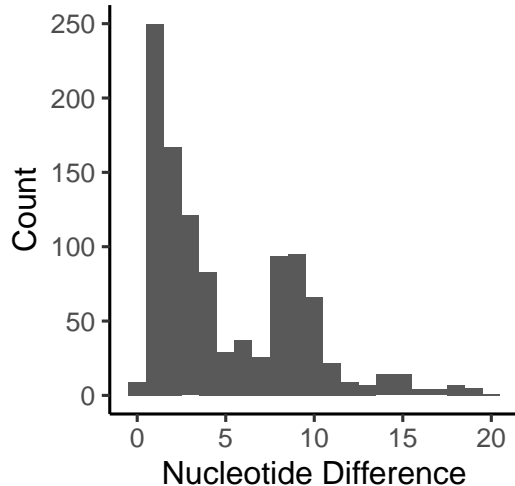
IGHV4-38-2*02

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



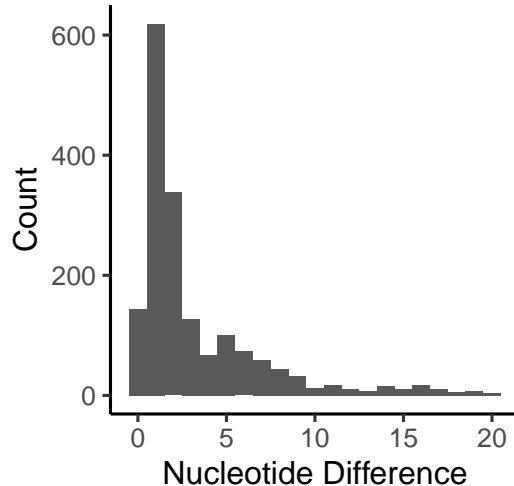
IGHV4-39*07

1131 sequences assigned
9 (0.8%) exact matches, in which:
9 unique CDR3
2 unique J



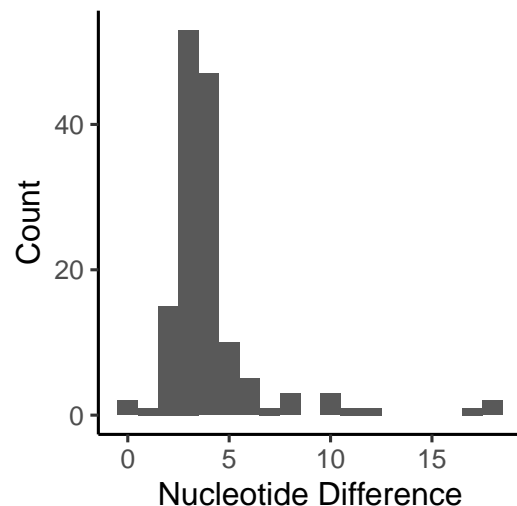
IGHV4-59*12

2112 sequences assigned
144 (6.8%) exact matches, in which:
144 unique CDR3
6 unique J



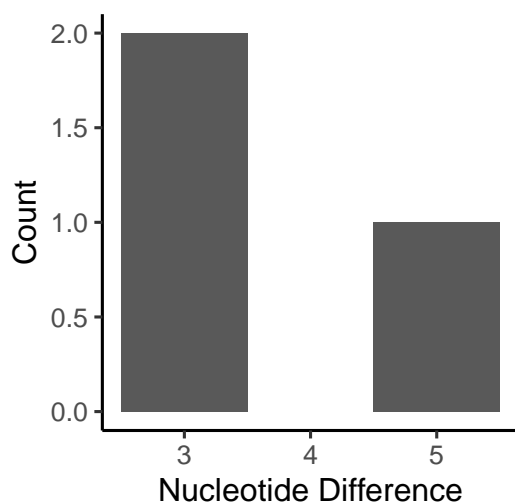
IGHV4-61*05

158 sequences assigned
2 (1.3%) exact matches, in which:
2 unique CDR3
2 unique J



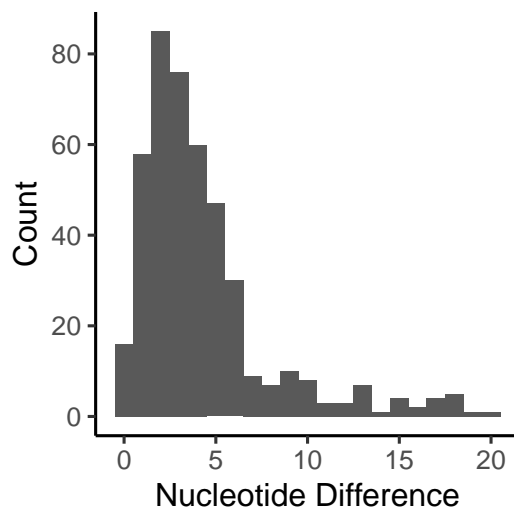
IGHV4-55*09

3 sequences assigned
No exact matches.



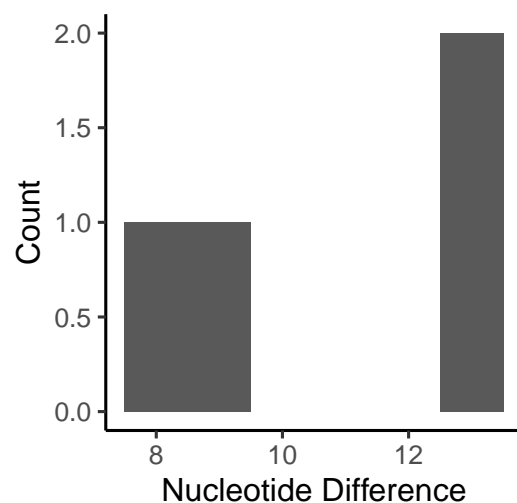
IGHV4-61*01

487 sequences assigned
16 (3.3%) exact matches, in which:
14 unique CDR3
2 unique J



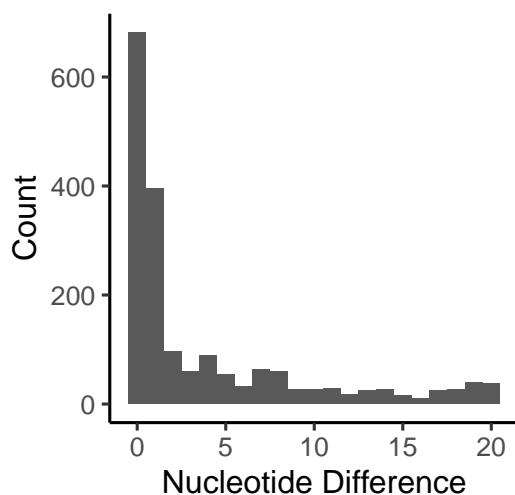
IGHV1/OR15-3*02

4 sequences assigned
No exact matches.



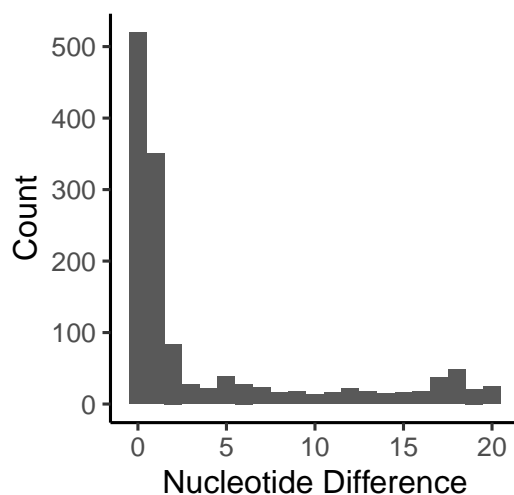
IGHV4-59*08

2699 sequences assigned
682 (25.3%) exact matches, in which:
627 unique CDR3
6 unique J



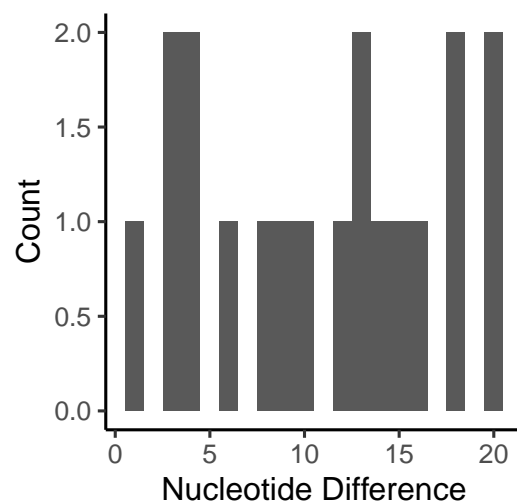
IGHV4-61*02

1705 sequences assigned
520 (30.5%) exact matches, in which:
465 unique CDR3
6 unique J



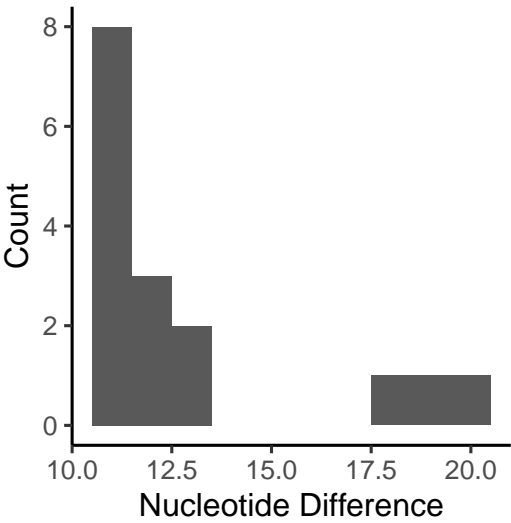
IGHV4/OR15-8*01

22 sequences assigned
No exact matches.



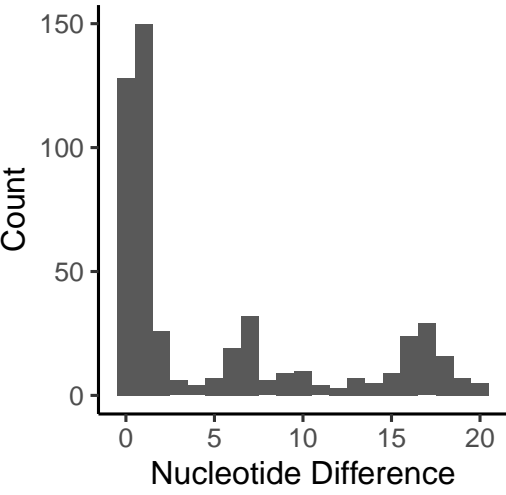
IGHV4/OR15-8*02

62 sequences assigned
No exact matches.



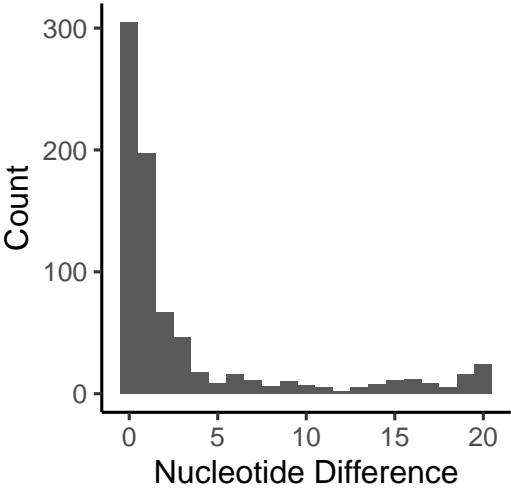
IGHV6-1*01_02

569 sequences assigned
128 (22.5%) exact matches, in which:
117 unique CDR3
6 unique J



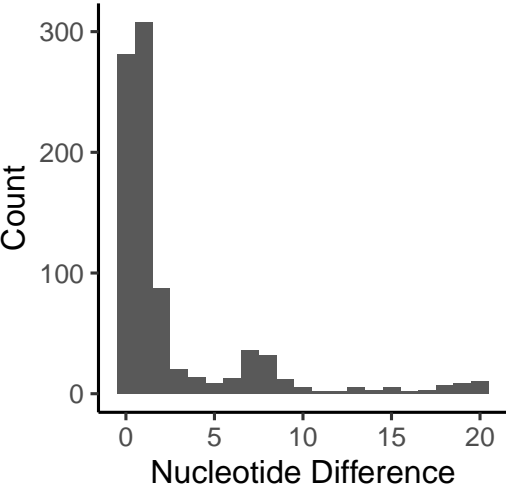
IGHV5-10-1*01_03

993 sequences assigned
305 (30.7%) exact matches, in which:
255 unique CDR3
6 unique J



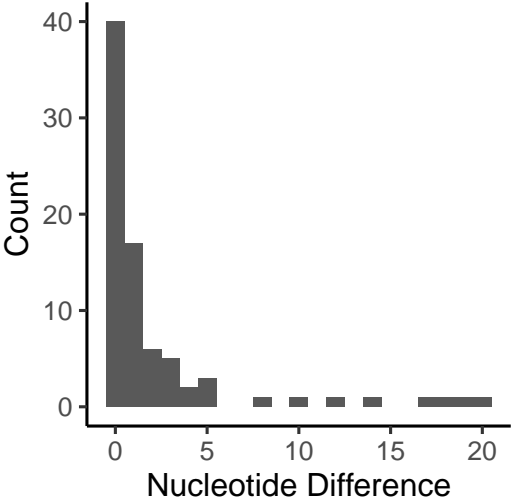
IGHV7-4-1*02

1181 sequences assigned
281 (23.8%) exact matches, in which:
243 unique CDR3
6 unique J



IGHV5-51*07

89 sequences assigned
40 (44.9%) exact matches, in which:
37 unique CDR3
5 unique J





Novel sequence(s)IGHV3-9*01_C246T_G247T_T256A_C258G_T279C_C300T_T301G are not listed in the genotype and will be ignored.