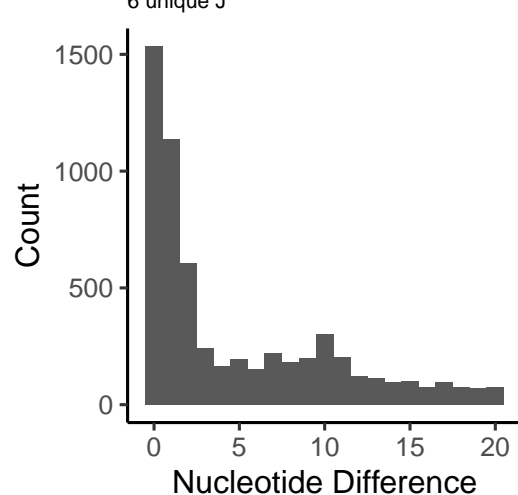


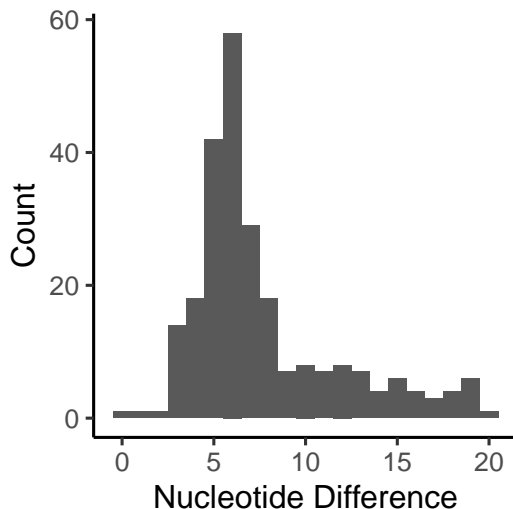
IGHV1-2*02

7267 sequences assigned
1534 (21.1%) exact matches, in which:
1431 unique CDR3
6 unique J



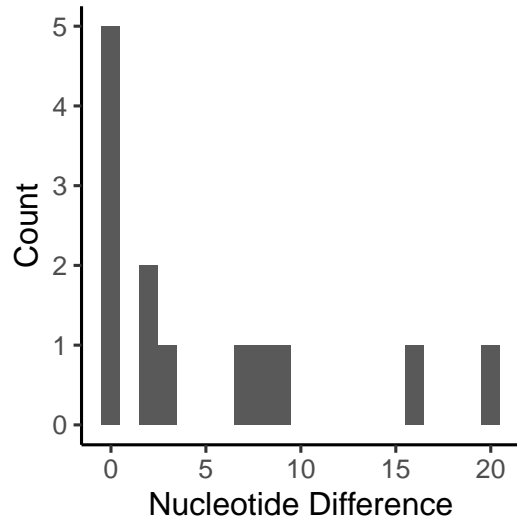
IGHV1-8*02

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



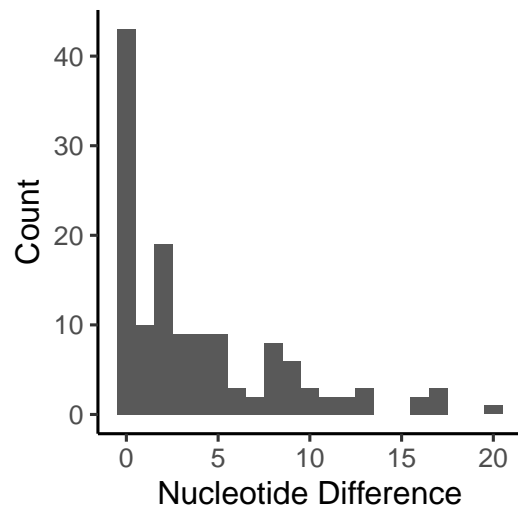
IGHV1-45*02

13 sequences assigned
5 (38.5%) exact matches, in which:
5 unique CDR3
3 unique J



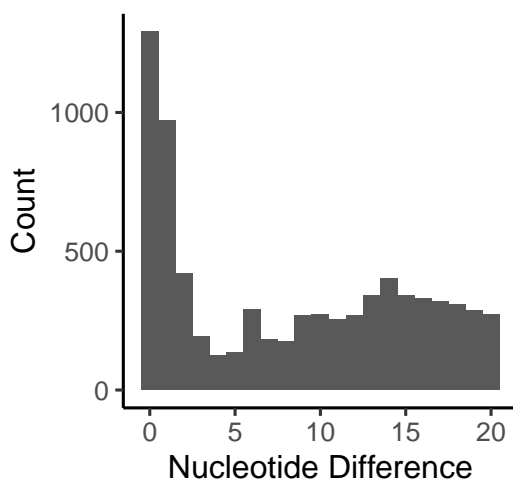
IGHV1-3*02

145 sequences assigned
43 (29.7%) exact matches, in which:
37 unique CDR3
5 unique J



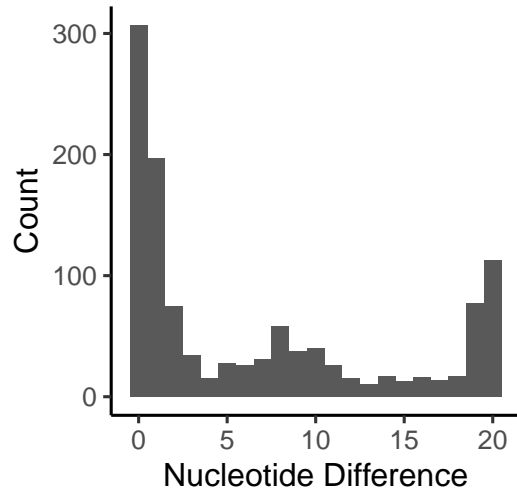
IGHV1-18*01

8946 sequences assigned
1291 (14.4%) exact matches, in which:
1201 unique CDR3
6 unique J



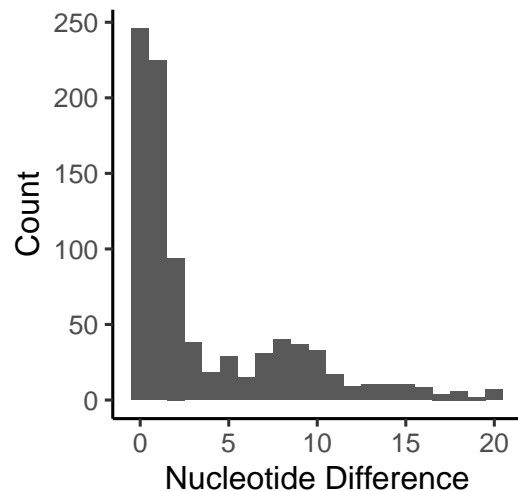
IGHV1-46*01

1343 sequences assigned
307 (22.9%) exact matches, in which:
297 unique CDR3
6 unique J



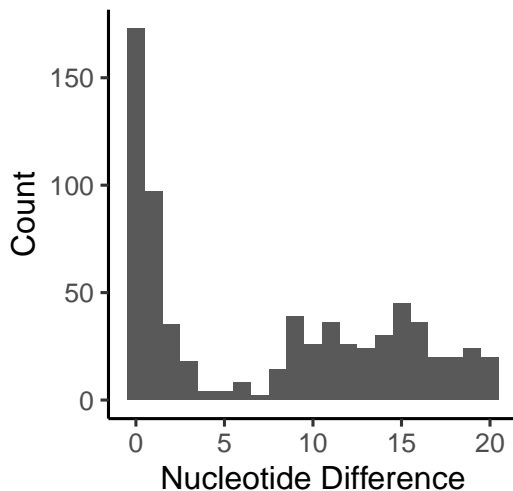
IGHV1-8*01

913 sequences assigned
246 (26.9%) exact matches, in which:
240 unique CDR3
5 unique J



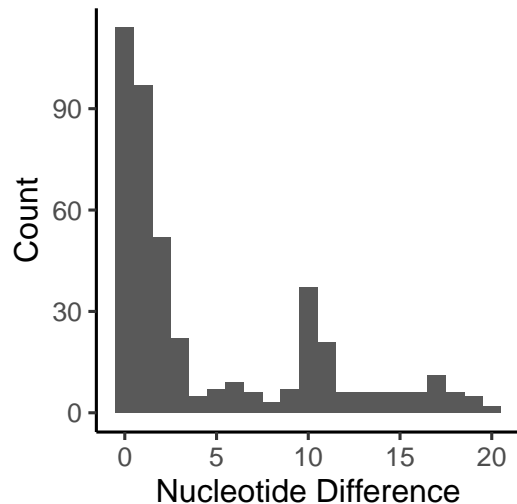
IGHV1-24*01

876 sequences assigned
173 (19.7%) exact matches, in which:
171 unique CDR3
6 unique J



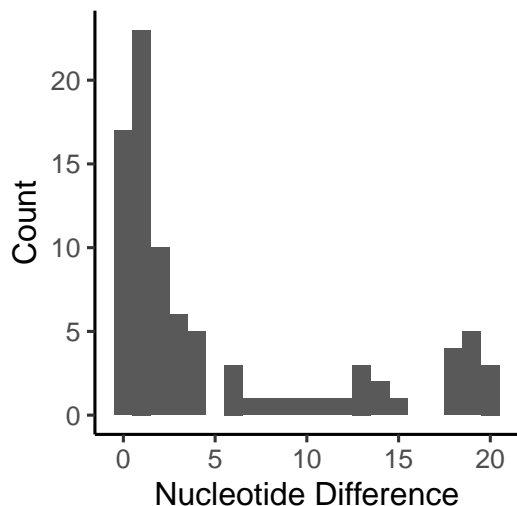
IGHV1-46*03

451 sequences assigned
114 (25.3%) exact matches, in which:
100 unique CDR3
5 unique J



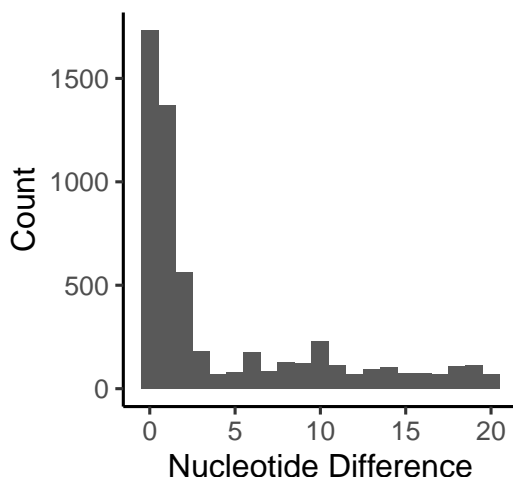
IGHV1-58*02

90 sequences assigned
17 (18.9%) exact matches, in which:
17 unique CDR3
4 unique J



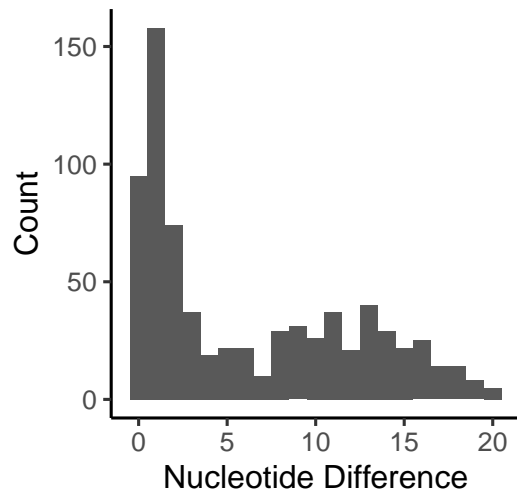
IGHV1-69*01_12_13

6282 sequences assigned
1732 (27.6%) exact matches, in which:
1616 unique CDR3
6 unique J



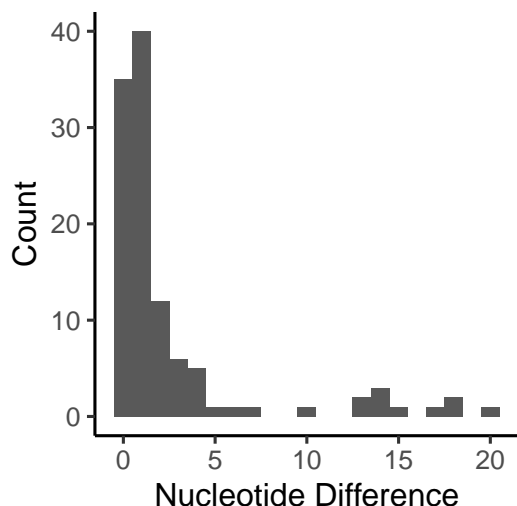
IGHV2-5*02

779 sequences assigned
95 (12.2%) exact matches, in which:
85 unique CDR3
5 unique J



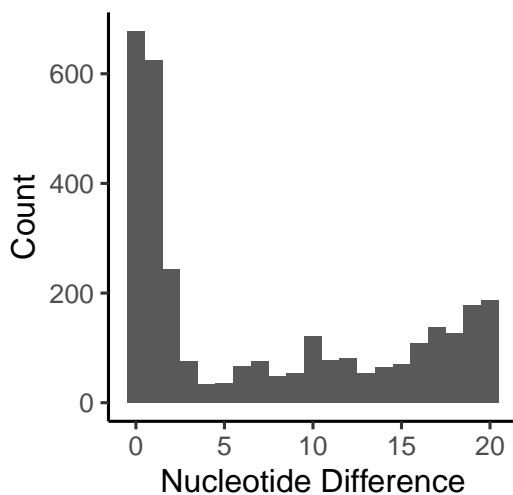
IGHV1-58*01_03

129 sequences assigned
35 (27.1%) exact matches, in which:
34 unique CDR3
5 unique J



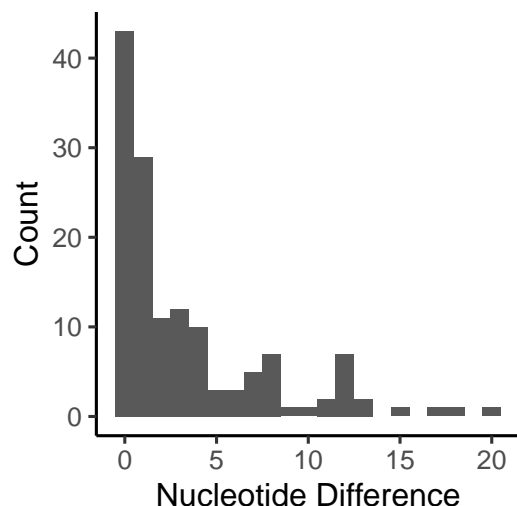
IGHV1-69*10

4278 sequences assigned
678 (15.8%) exact matches, in which:
648 unique CDR3
6 unique J



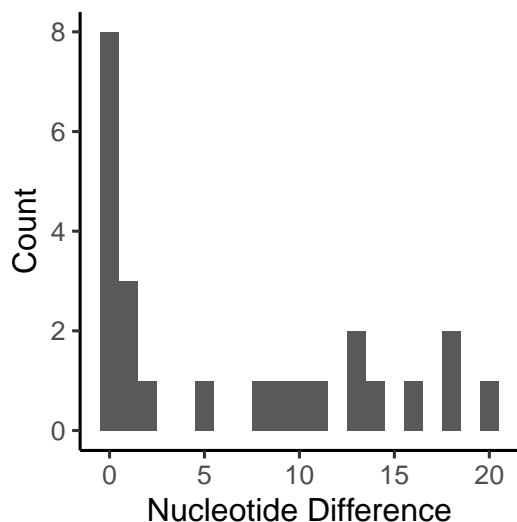
IGHV2-26*01

140 sequences assigned
43 (30.7%) exact matches, in which:
39 unique CDR3
5 unique J



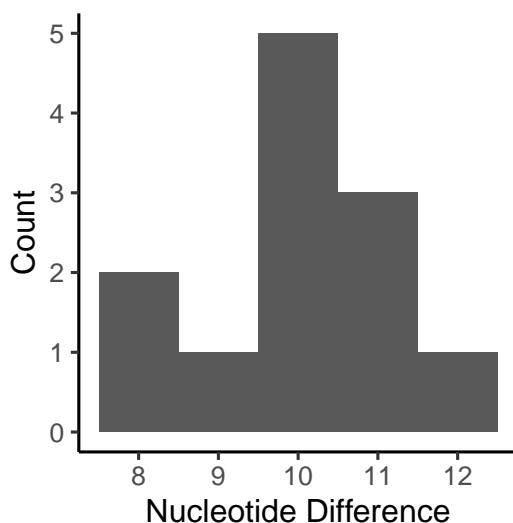
IGHV1-69-2*01

34 sequences assigned
8 (23.5%) exact matches, in which:
8 unique CDR3
2 unique J



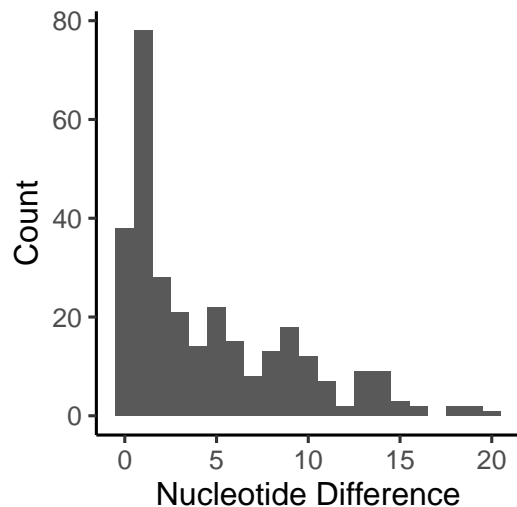
IGHV1-NL1*01

12 sequences assigned
No exact matches.



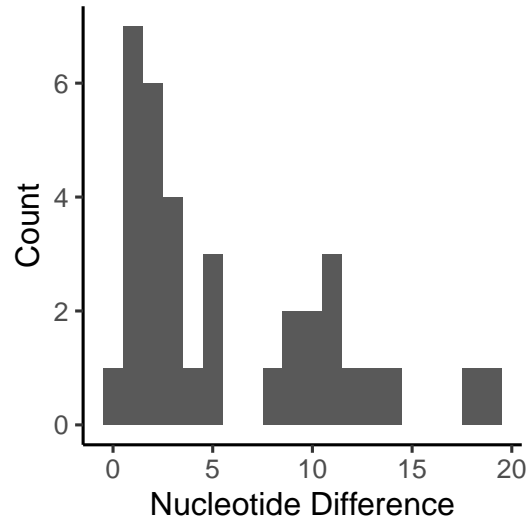
IGHV2-70*01

308 sequences assigned
38 (12.3%) exact matches, in which:
34 unique CDR3
4 unique J



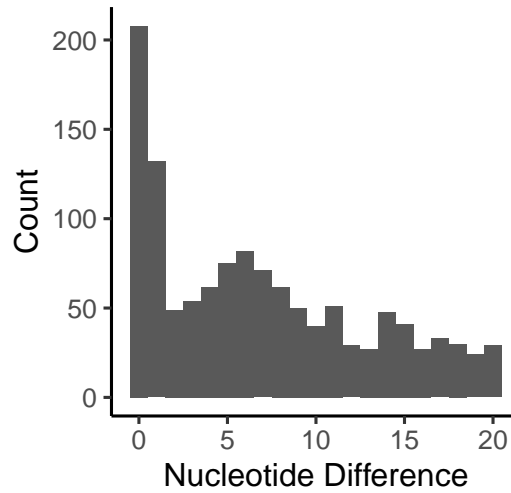
IGHV2-70*12

35 sequences assigned
1 (2.9%) exact matches, in which:
1 unique CDR3
1 unique J



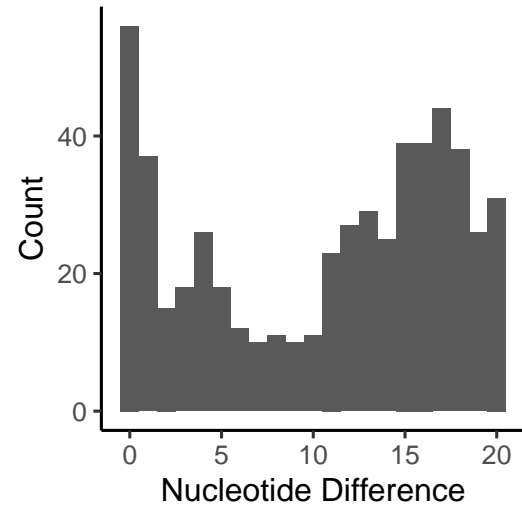
IGHV3-9*01

1442 sequences assigned
208 (14.4%) exact matches, in which:
159 unique CDR3
6 unique J



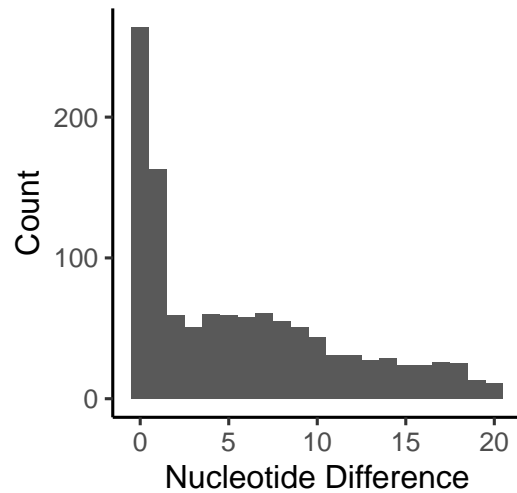
IGHV3-11*06

653 sequences assigned
56 (8.6%) exact matches, in which:
44 unique CDR3
5 unique J



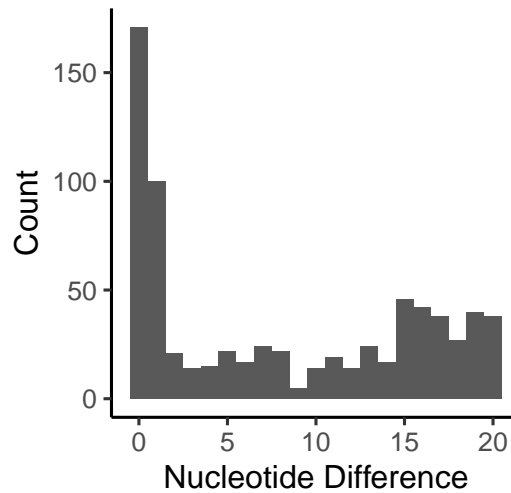
IGHV3-7*01

1222 sequences assigned
264 (21.6%) exact matches, in which:
236 unique CDR3
6 unique J



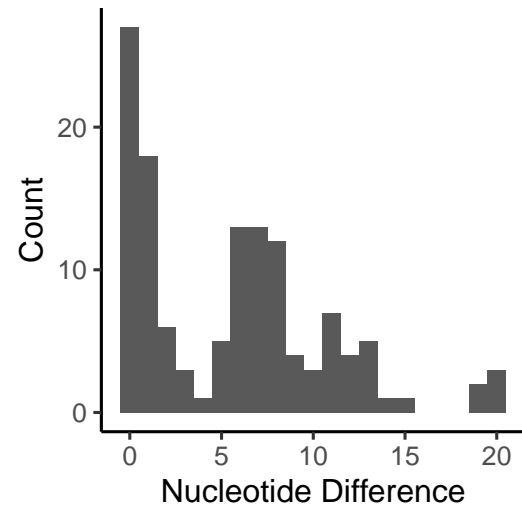
IGHV3-11*01

905 sequences assigned
171 (18.9%) exact matches, in which:
132 unique CDR3
5 unique J



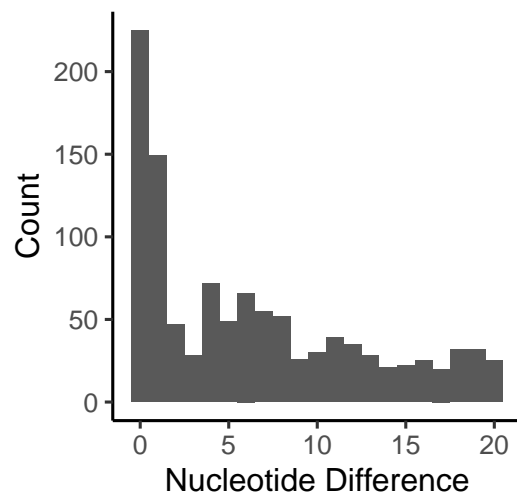
IGHV3-13*01

132 sequences assigned
27 (20.5%) exact matches, in which:
23 unique CDR3
3 unique J



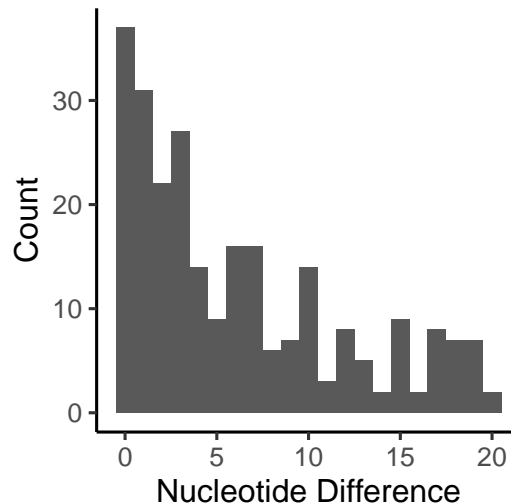
IGHV3-7*03

1284 sequences assigned
225 (17.5%) exact matches, in which:
188 unique CDR3
6 unique J



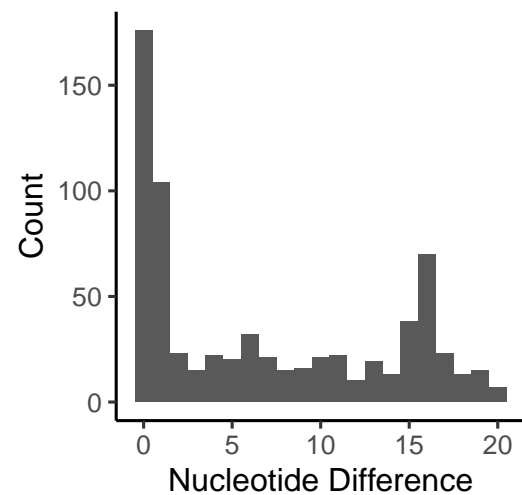
IGHV3-11*04

278 sequences assigned
37 (13.3%) exact matches, in which:
36 unique CDR3
4 unique J



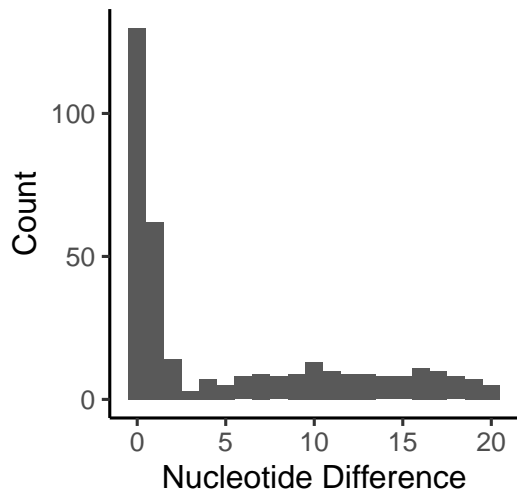
IGHV3-15*07

782 sequences assigned
176 (22.5%) exact matches, in which:
115 unique CDR3
5 unique J



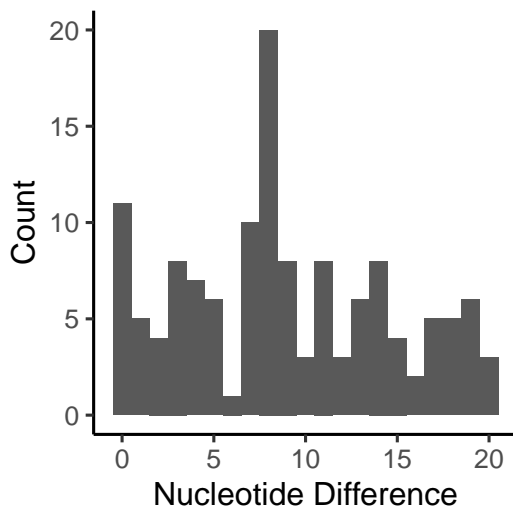
IGHV3-15*01_02

433 sequences assigned
130 (30%) exact matches, in which:
89 unique CDR3
5 unique J



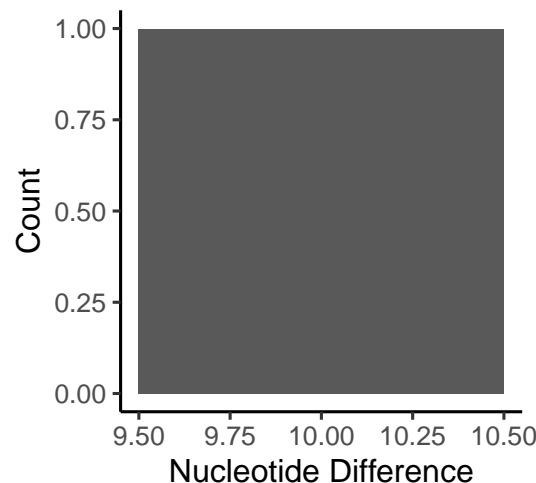
IGHV3-20*03_04

144 sequences assigned
11 (7.6%) exact matches, in which:
9 unique CDR3
2 unique J



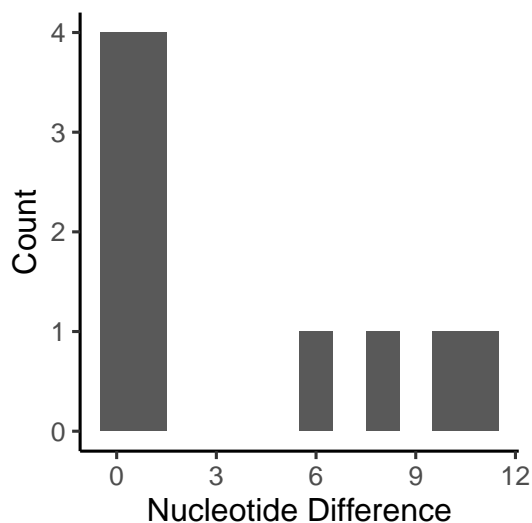
IGHV3-22*01_02

1 sequences assigned
No exact matches.



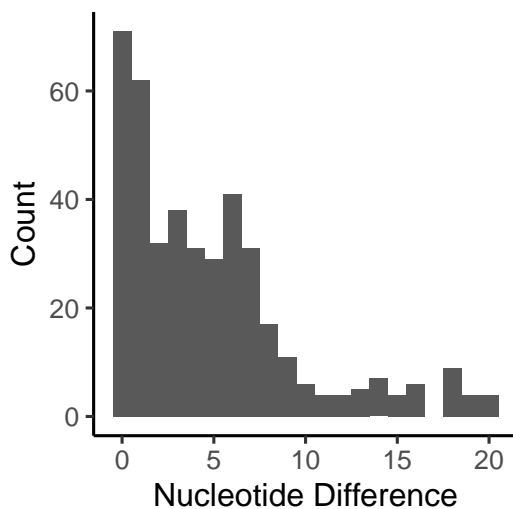
IGHV3-19*01

12 sequences assigned
4 (33.3%) exact matches, in which:
3 unique CDR3
1 unique J



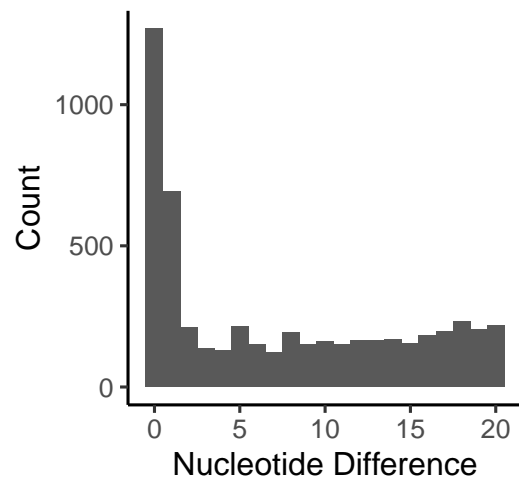
IGHV3-21*04

458 sequences assigned
71 (15.5%) exact matches, in which:
68 unique CDR3
5 unique J



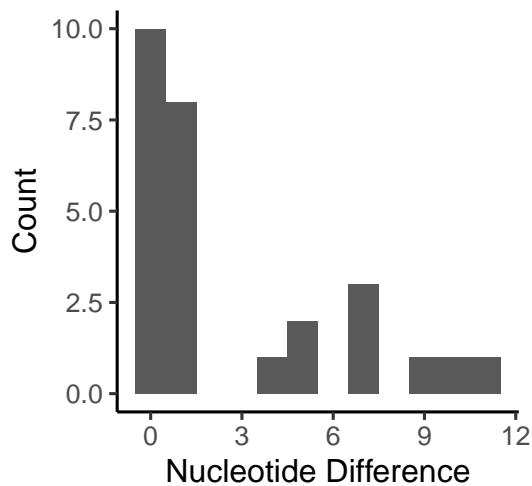
IGHV3-23*01_04

6978 sequences assigned
1269 (18.2%) exact matches, in which:
1000 unique CDR3
6 unique J



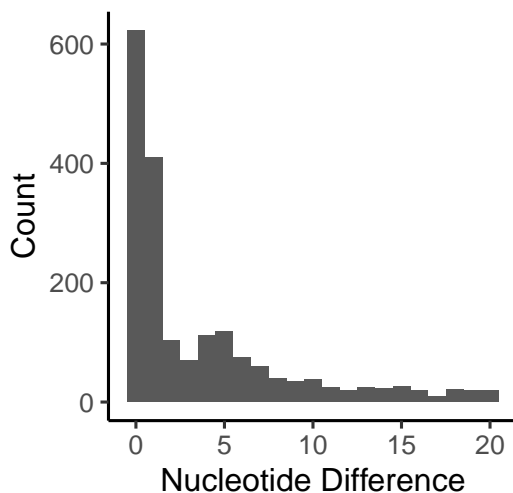
IGHV3-20*01_02

27 sequences assigned
10 (37%) exact matches, in which:
8 unique CDR3
3 unique J



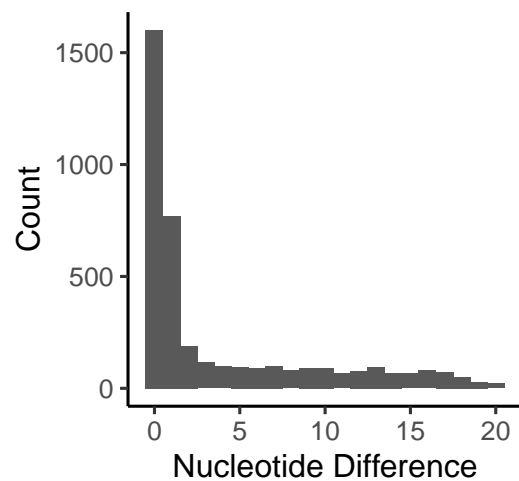
IGHV3-21*01_02

2021 sequences assigned
623 (30.8%) exact matches, in which:
491 unique CDR3
6 unique J



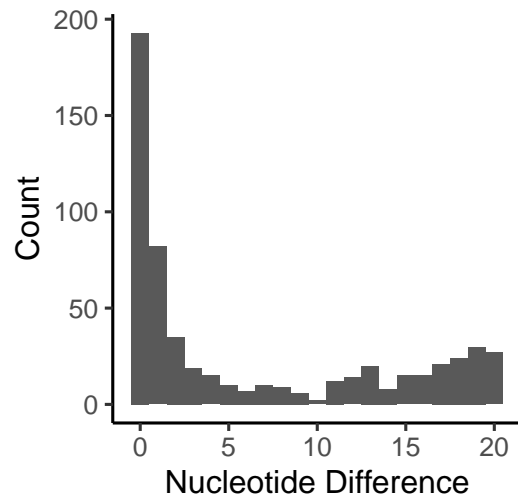
IGHV3-30-3*01

4100 sequences assigned
1601 (39%) exact matches, in which:
1254 unique CDR3
6 unique J



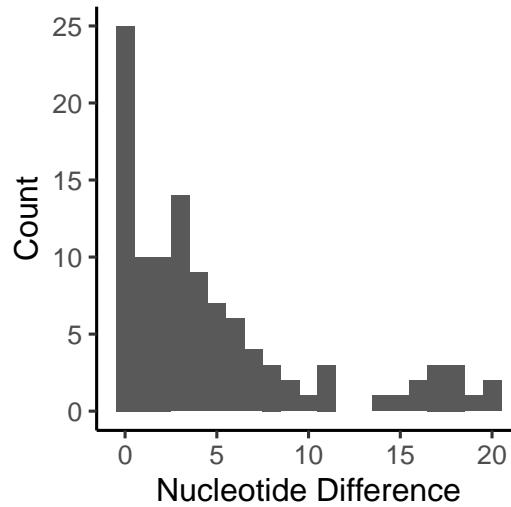
IGHV3-30*03

646 sequences assigned
193 (29.9%) exact matches, in which:
179 unique CDR3
6 unique J



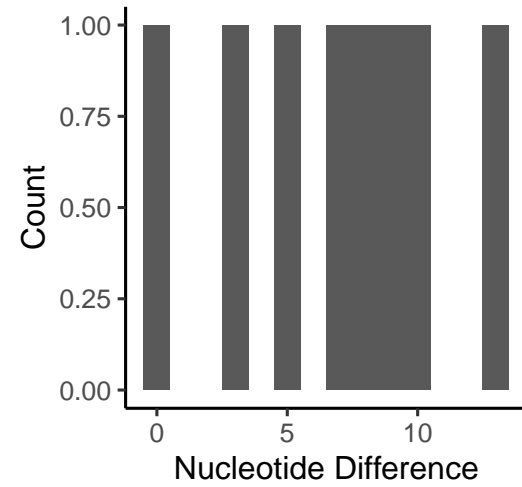
IGHV3-33*05

121 sequences assigned
25 (20.7%) exact matches, in which:
22 unique CDR3
3 unique J



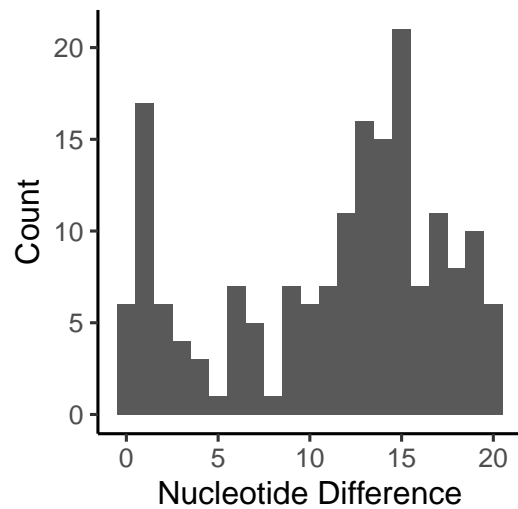
IGHV3-35*01

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



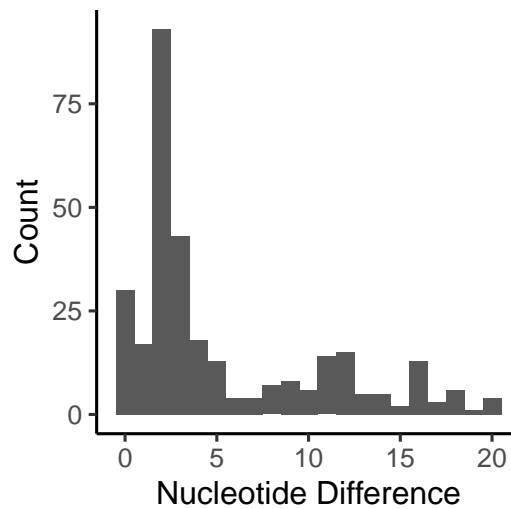
IGHV3-30*04

225 sequences assigned
6 (2.7%) exact matches, in which:
6 unique CDR3
2 unique J



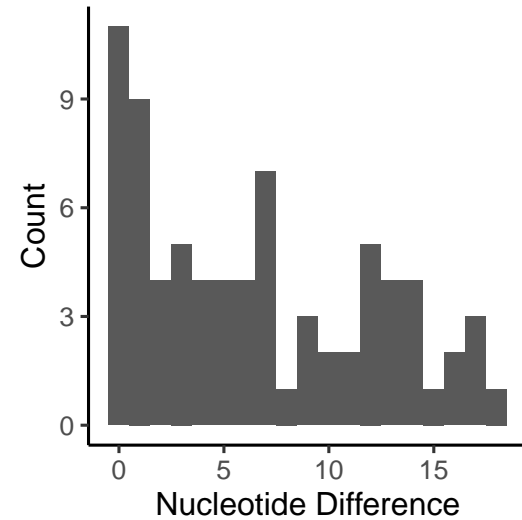
IGHV3-33*06

370 sequences assigned
30 (8.1%) exact matches, in which:
30 unique CDR3
6 unique J



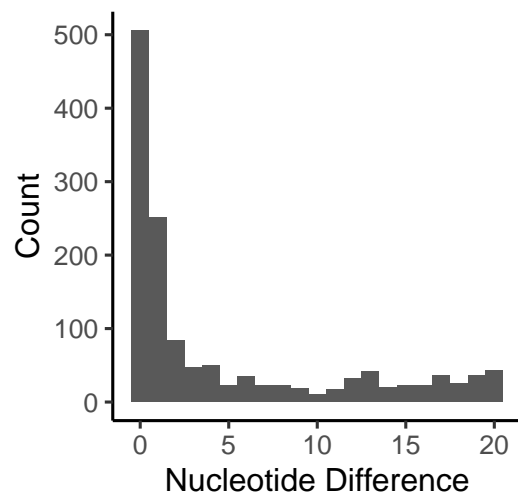
IGHV3-43*01

103 sequences assigned
11 (10.7%) exact matches, in which:
9 unique CDR3
3 unique J



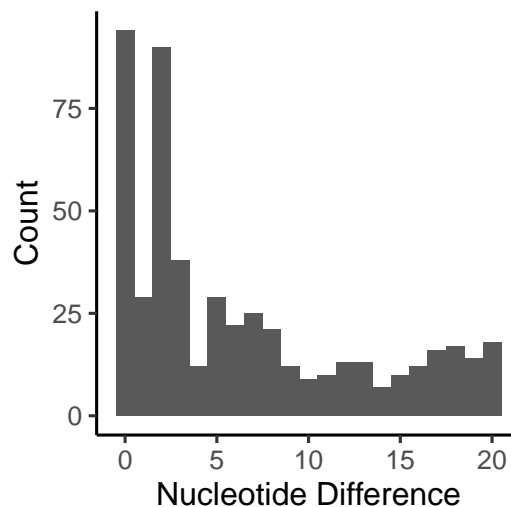
IGHV3-33*01

1665 sequences assigned
506 (30.4%) exact matches, in which:
402 unique CDR3
6 unique J



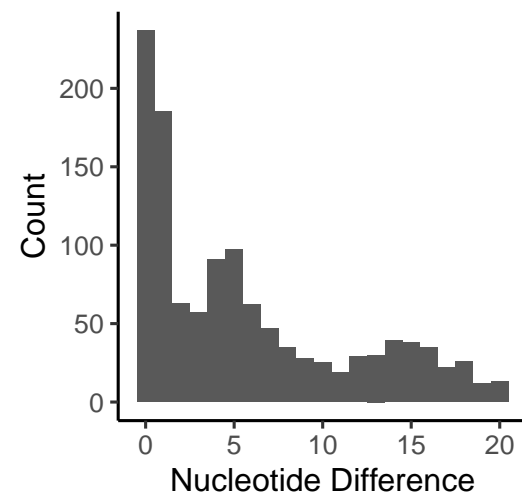
IGHV3-33*08

634 sequences assigned
94 (14.8%) exact matches, in which:
84 unique CDR3
5 unique J



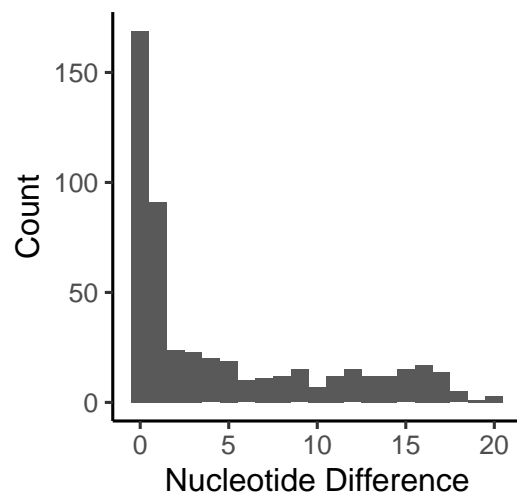
IGHV3-48*01

1240 sequences assigned
237 (19.1%) exact matches, in which:
193 unique CDR3
6 unique J



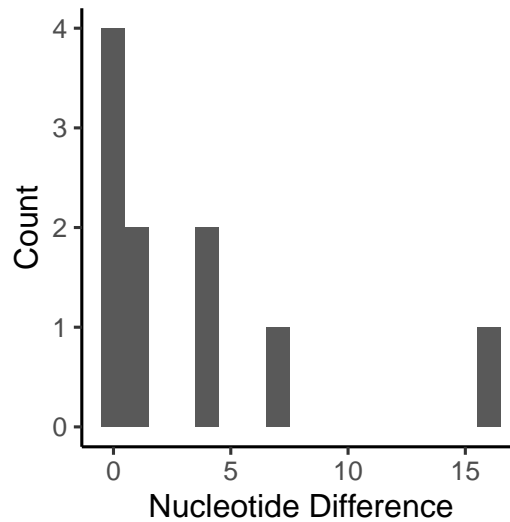
IGHV3-48*02

544 sequences assigned
169 (31.1%) exact matches, in which:
130 unique CDR3
5 unique J



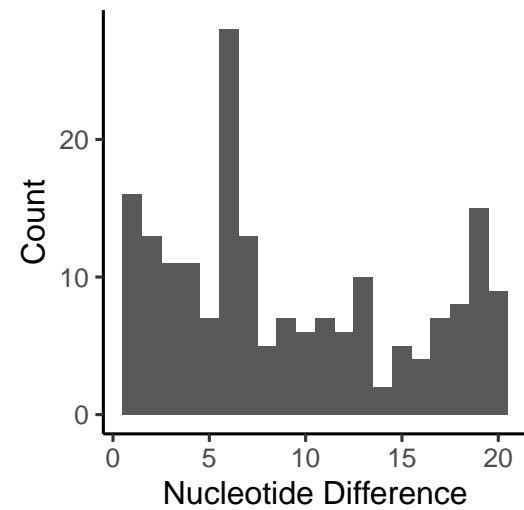
IGHV3-52*01_03

10 sequences assigned
4 (40%) exact matches, in which:
3 unique CDR3
1 unique J



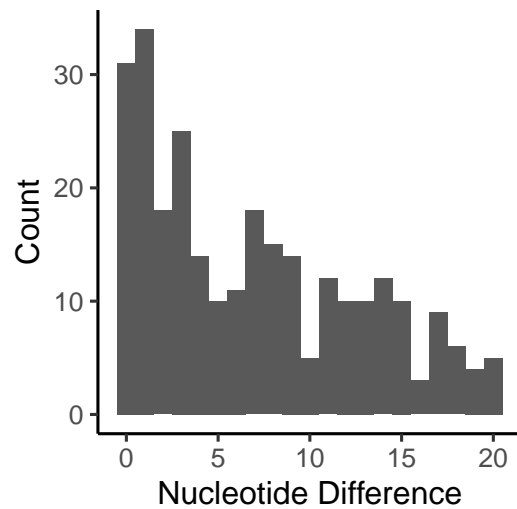
IGHV3-64*04

225 sequences assigned
No exact matches.



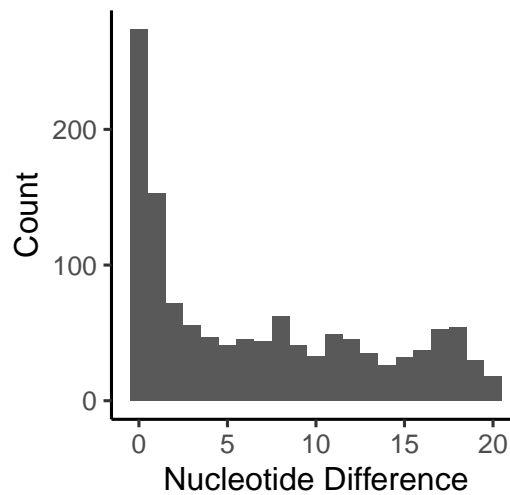
IGHV3-48*04

311 sequences assigned
31 (10%) exact matches, in which:
30 unique CDR3
3 unique J



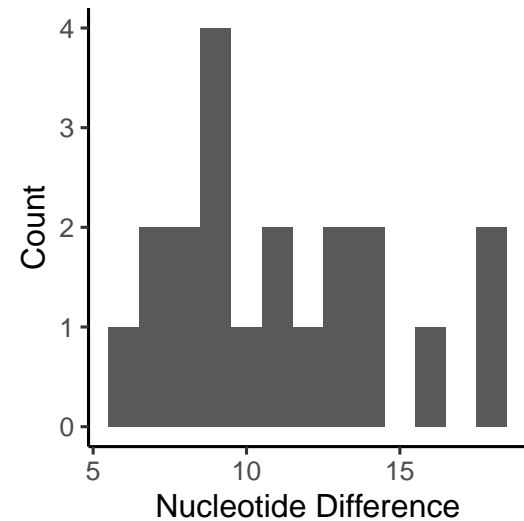
IGHV3-53*01_02

1427 sequences assigned
274 (19.2%) exact matches, in which:
225 unique CDR3
6 unique J



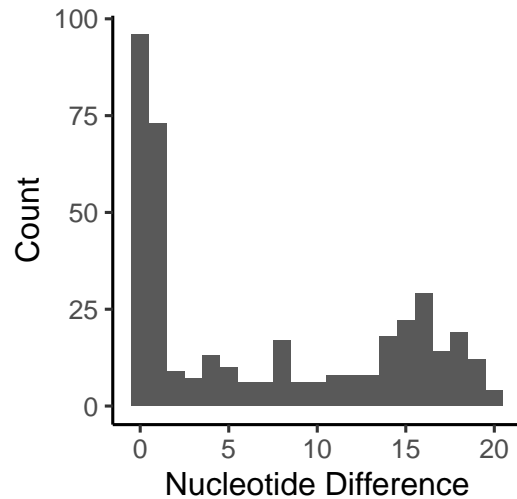
IGHV3-66*01

25 sequences assigned
No exact matches.



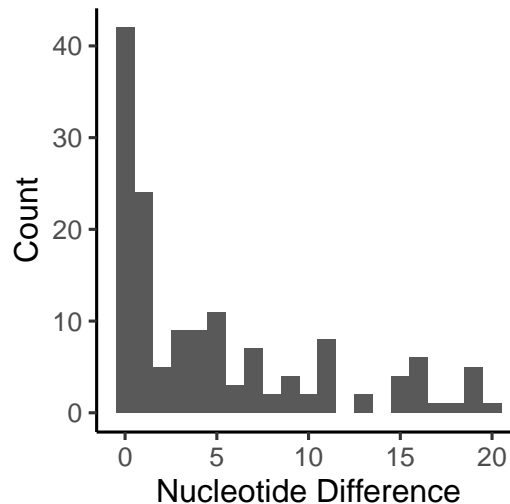
IGHV3-49*03_05

477 sequences assigned
96 (20.1%) exact matches, in which:
70 unique CDR3
4 unique J



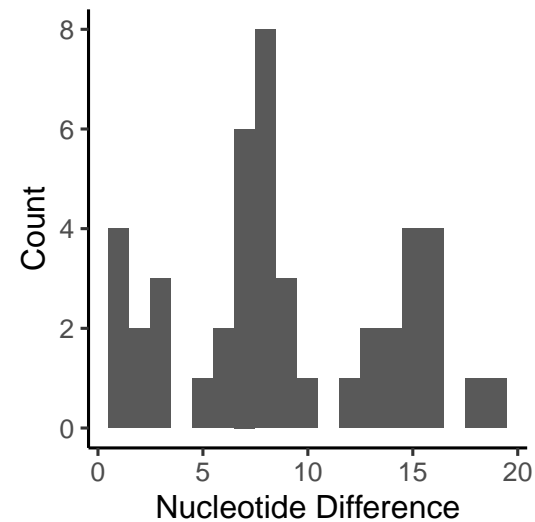
IGHV3-64*01

184 sequences assigned
42 (22.8%) exact matches, in which:
29 unique CDR3
5 unique J



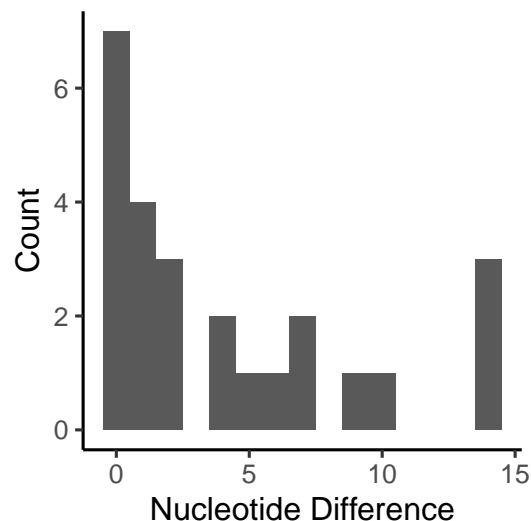
IGHV3-66*02

52 sequences assigned
No exact matches.



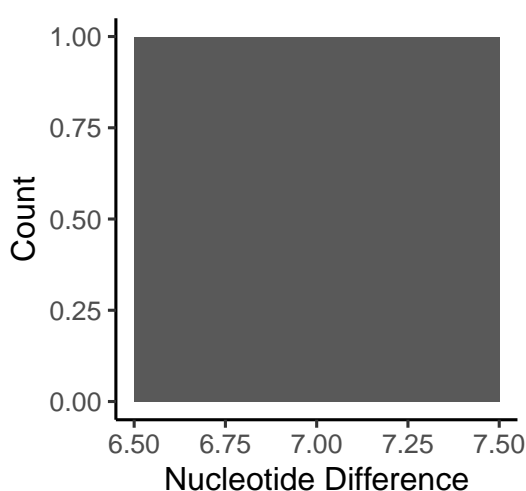
IGHV3-66*03

30 sequences assigned
7 (23.3%) exact matches, in which:
7 unique CDR3
2 unique J



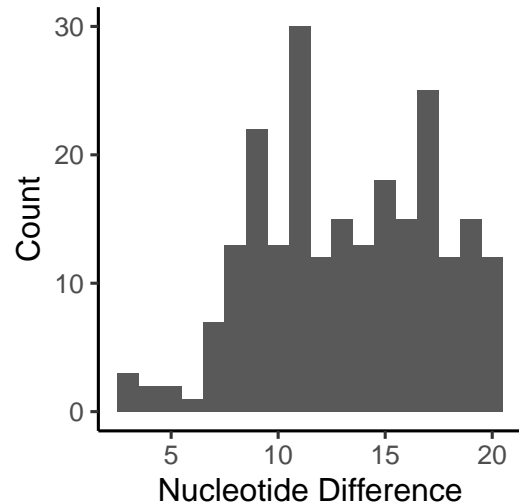
IGHV3-71*03

2 sequences assigned
No exact matches.



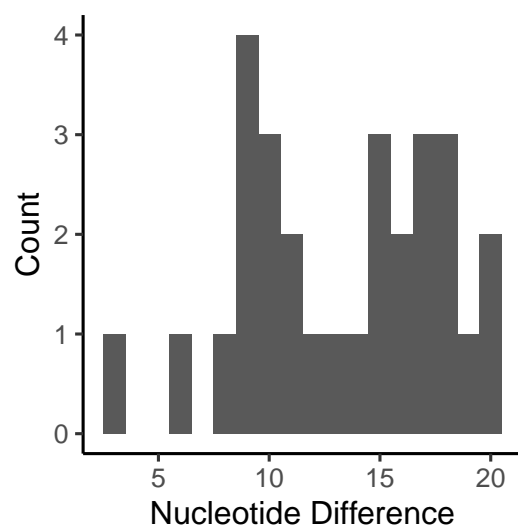
IGHV3-74*03

364 sequences assigned
No exact matches.



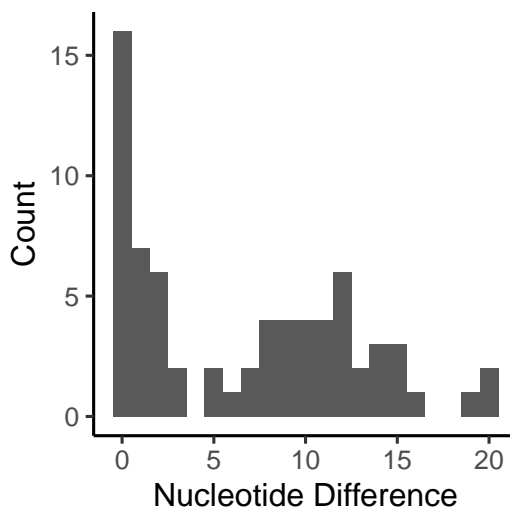
IGHV3-66*04

39 sequences assigned
No exact matches.



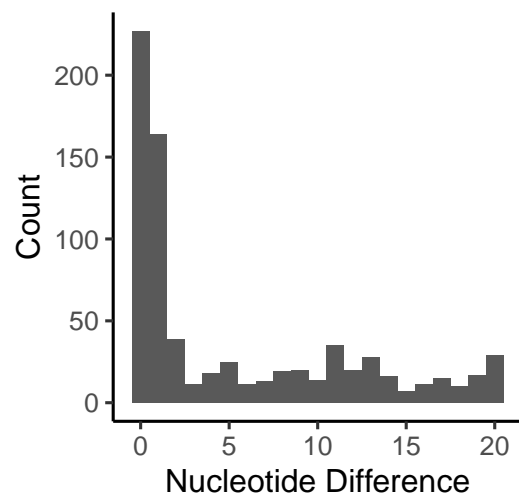
IGHV3-72*01

83 sequences assigned
16 (19.3%) exact matches, in which:
14 unique CDR3
4 unique J



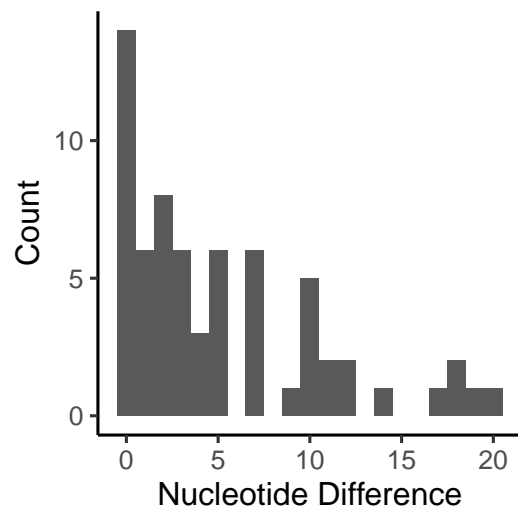
IGHV3-74*01_02

863 sequences assigned
227 (26.3%) exact matches, in which:
176 unique CDR3
6 unique J



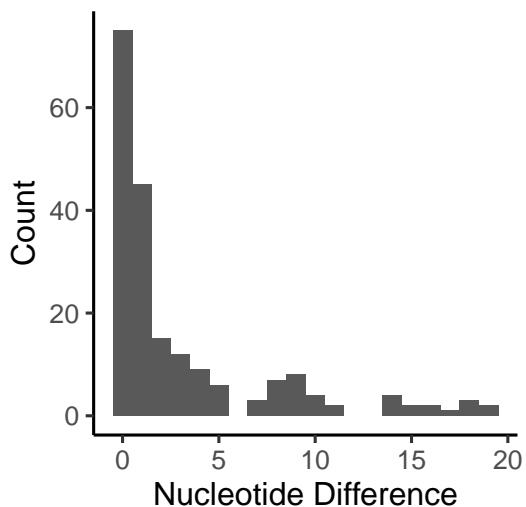
IGHV3-69-1*01

72 sequences assigned
14 (19.4%) exact matches, in which:
13 unique CDR3
4 unique J



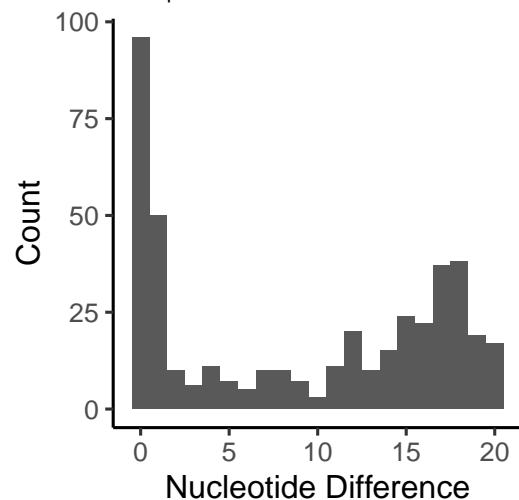
IGHV3-73*01_02

207 sequences assigned
75 (36.2%) exact matches, in which:
53 unique CDR3
4 unique J



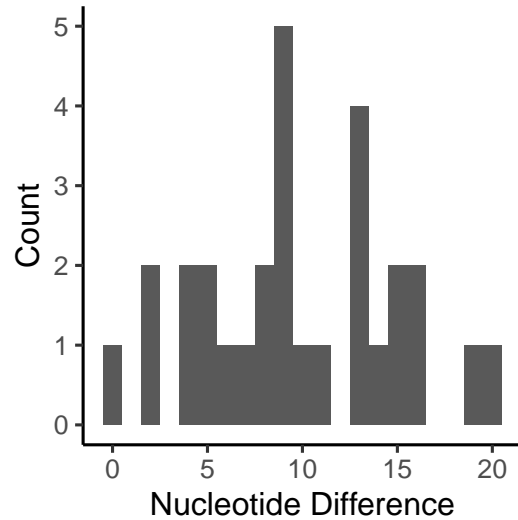
IGHV3-64D*06

854 sequences assigned
96 (11.2%) exact matches, in which:
66 unique CDR3
5 unique J



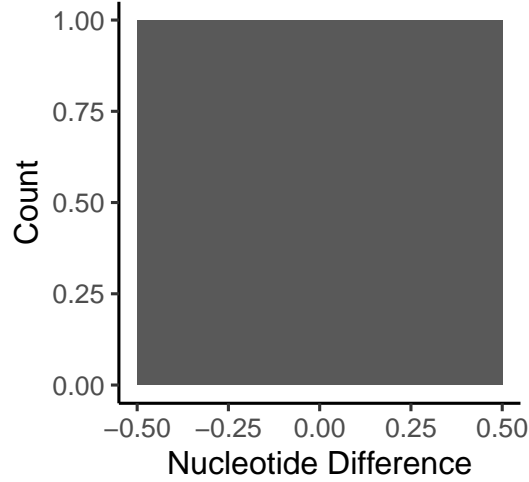
IGHV3–NL1*01

43 sequences assigned
1 (2.3%) exact matches, in which:
1 unique CDR3
1 unique J



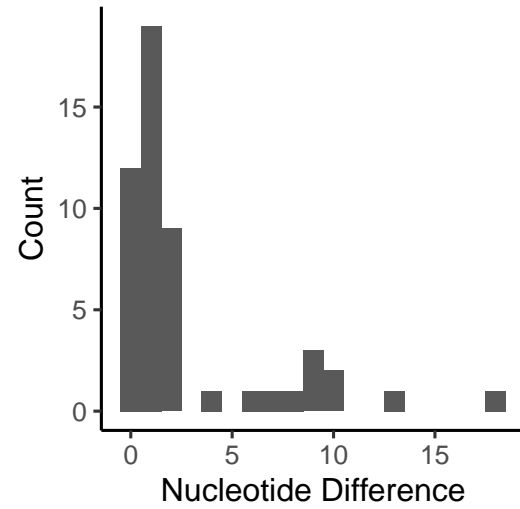
IGHV4–28*01_07

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



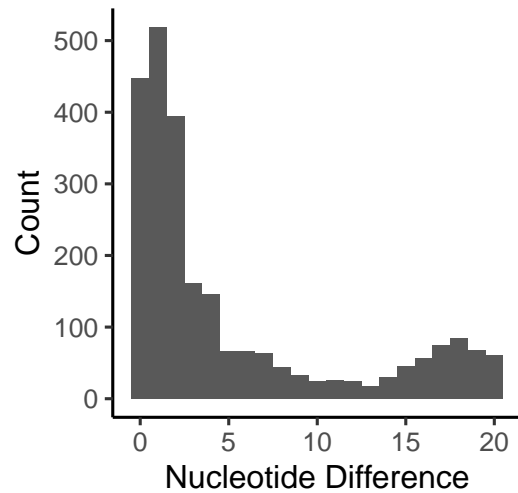
IGHV4–30–2*02

53 sequences assigned
12 (22.6%) exact matches, in which:
12 unique CDR3
4 unique J



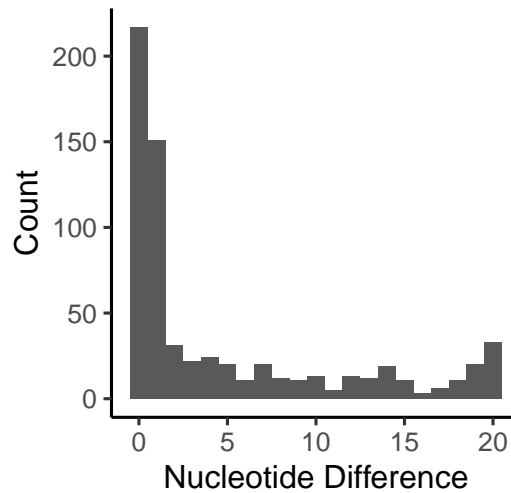
IGHV4–4*07

2666 sequences assigned
447 (16.8%) exact matches, in which:
412 unique CDR3
6 unique J



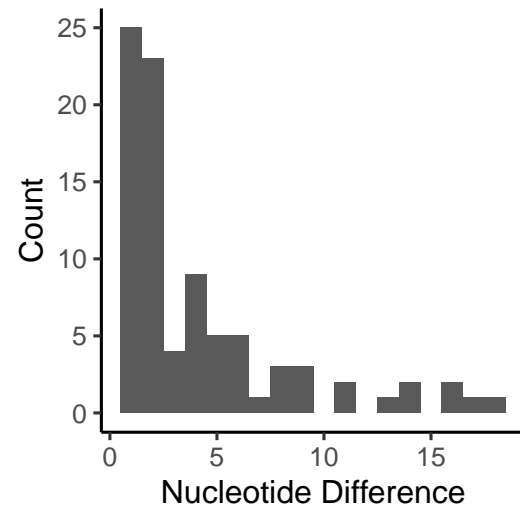
IGHV4–30–4*01

944 sequences assigned
217 (23%) exact matches, in which:
191 unique CDR3
6 unique J



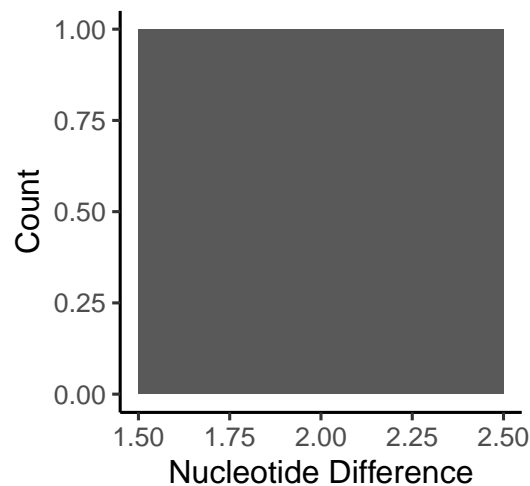
IGHV4–30–2*03

98 sequences assigned
No exact matches.



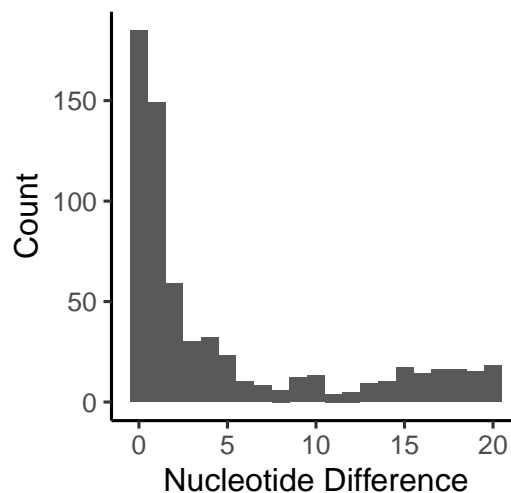
IGHV4–28*03

1 sequences assigned
No exact matches.



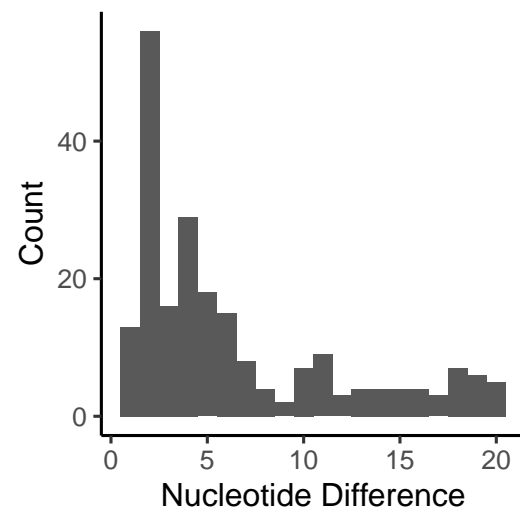
IGHV4–30–2*01

752 sequences assigned
185 (24.6%) exact matches, in which:
154 unique CDR3
5 unique J



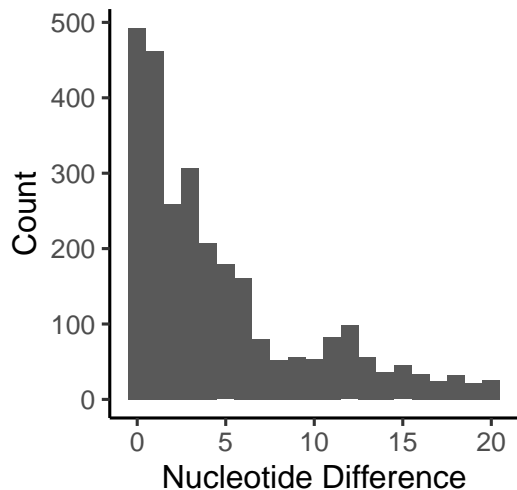
IGHV4–30–4*08

252 sequences assigned
No exact matches.



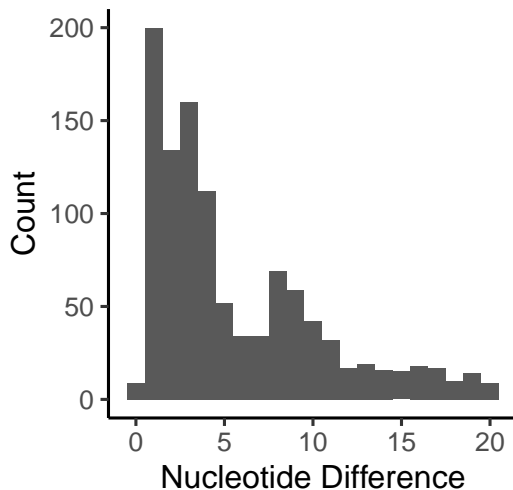
IGHV4-31*02

3444 sequences assigned
493 (14.3%) exact matches, in which:
431 unique CDR3
6 unique J



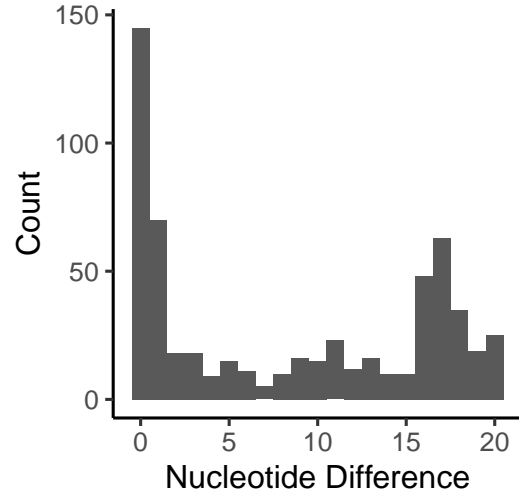
IGHV4-39*07

1172 sequences assigned
9 (0.8%) exact matches, in which:
9 unique CDR3
3 unique J



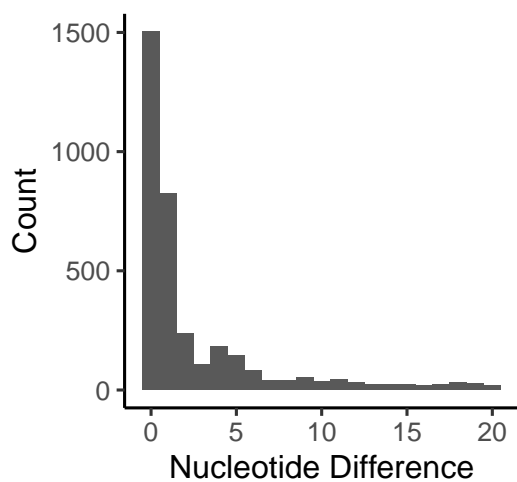
IGHV4-61*01

750 sequences assigned
145 (19.3%) exact matches, in which:
142 unique CDR3
6 unique J



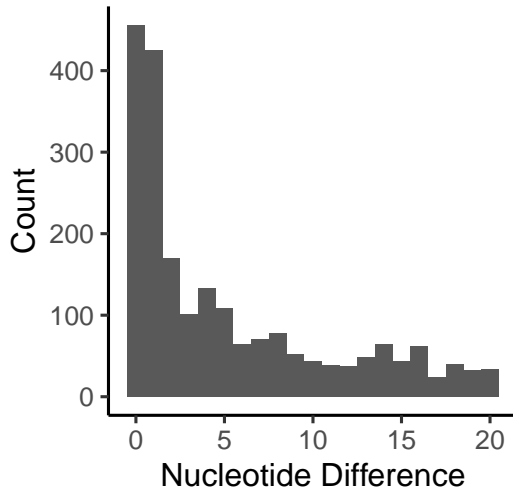
IGHV4-34*01_02

3719 sequences assigned
1503 (40.4%) exact matches, in which:
1268 unique CDR3
6 unique J



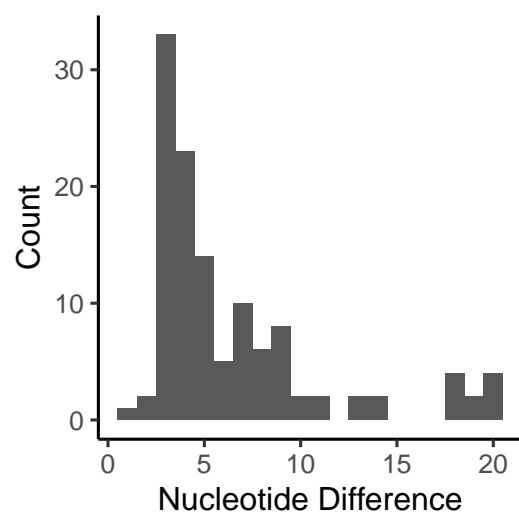
IGHV4-59*08

2417 sequences assigned
456 (18.9%) exact matches, in which:
415 unique CDR3
6 unique J



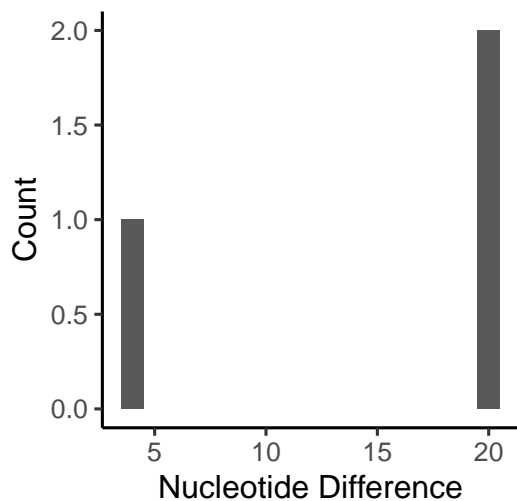
IGHV4-61*02

142 sequences assigned
No exact matches.



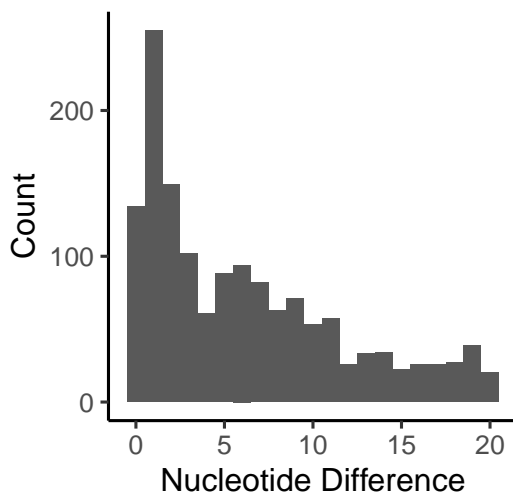
IGHV4-38-2*02

7 sequences assigned
No exact matches.



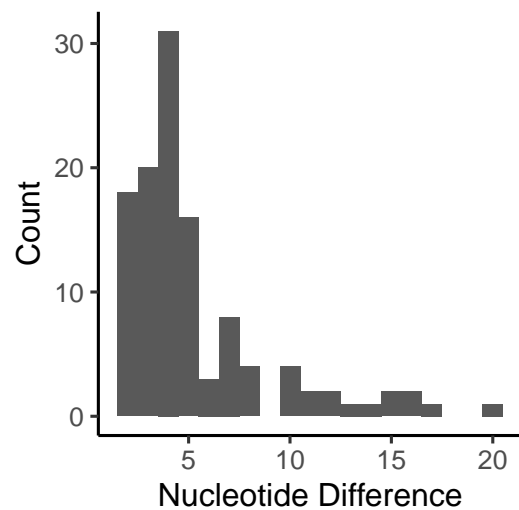
IGHV4-59*12

1673 sequences assigned
134 (8%) exact matches, in which:
131 unique CDR3
6 unique J



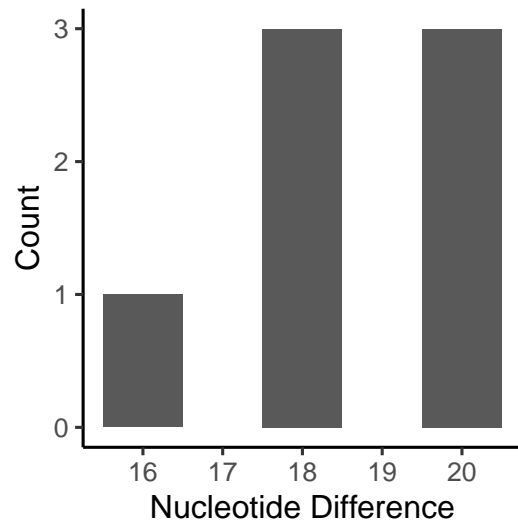
IGHV4-61*05

124 sequences assigned
No exact matches.



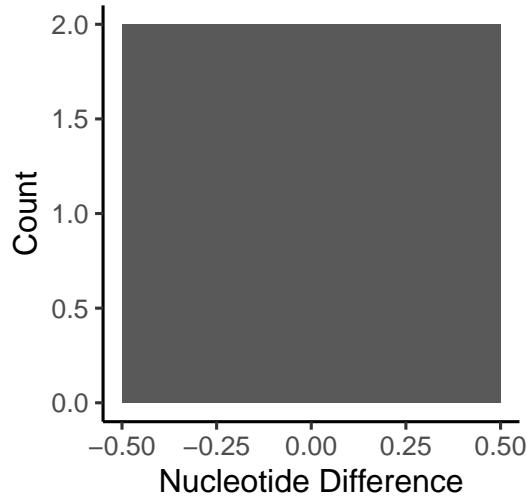
IGHV1/OR15-2*02_03

21 sequences assigned
No exact matches.



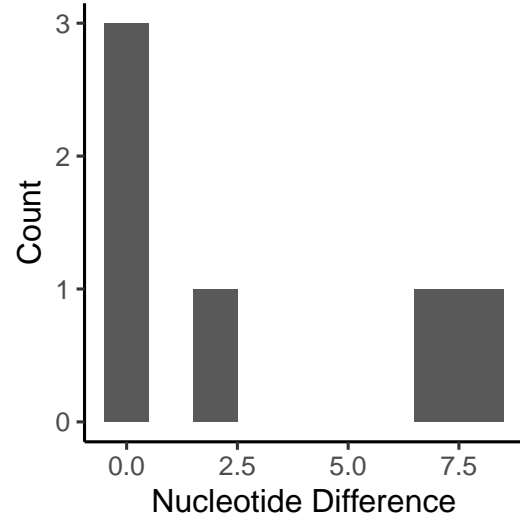
IGHV5-51*02

2 sequences assigned
2 (100%) exact matches, in which:
2 unique CDR3
1 unique J



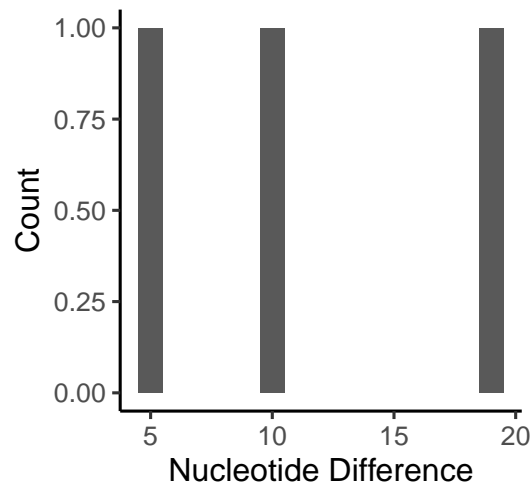
IGHV5-51*07

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



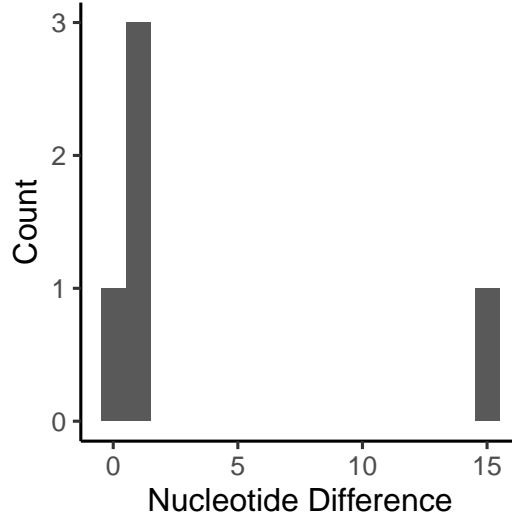
IGHV4/OR15-8*01

3 sequences assigned
No exact matches.



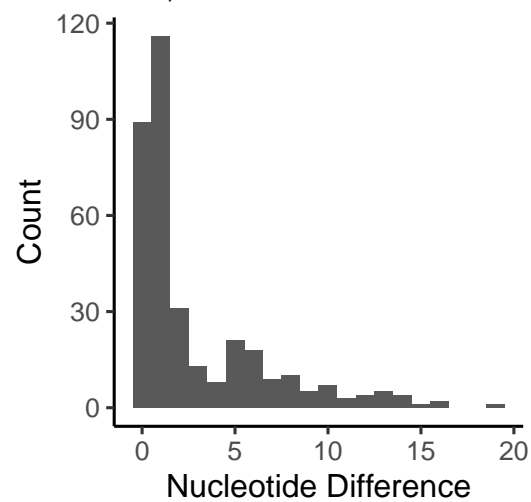
IGHV5-51*04

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



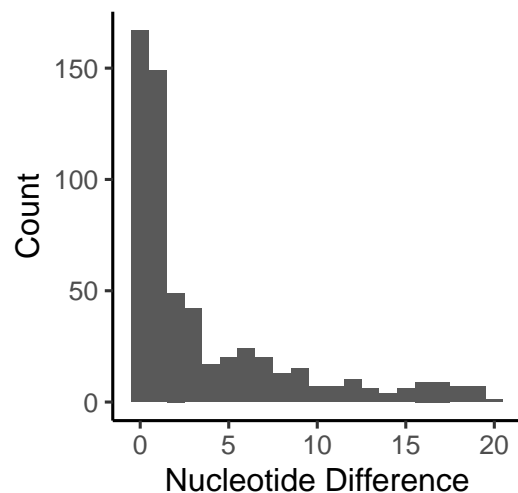
IGHV6-1*01_02

364 sequences assigned
89 (24.5%) exact matches, in which:
78 unique CDR3
5 unique J



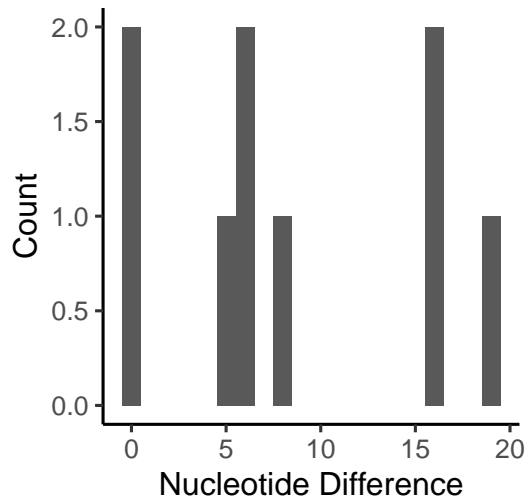
IGHV5-10-1*01_03

643 sequences assigned
167 (26%) exact matches, in which:
135 unique CDR3
5 unique J



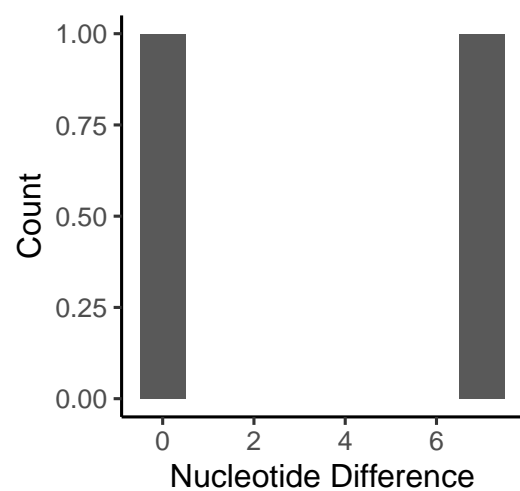
IGHV5-51*06

9 sequences assigned
2 (22.2%) exact matches, in which:
2 unique CDR3
2 unique J



IGHV7-4-1*01

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





Novel sequence(s)IGHV3-74*01_02_C246T_G247T_T279C_C288TIGHV4-30-2*01_G291A_C300T are not listed in the genotype and will be ignored.