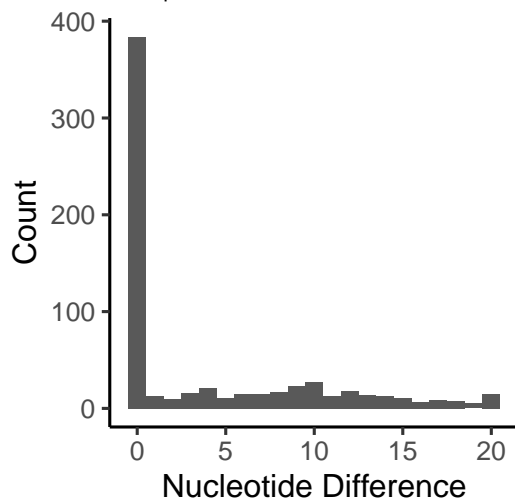


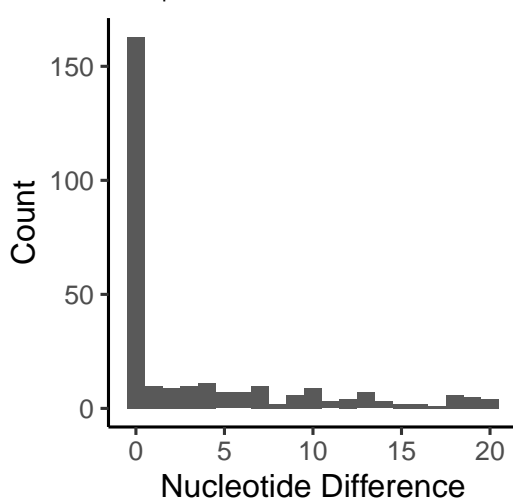
IGHV1-2*02

733 sequences assigned
384 (52.4%) exact matches, in which:
382 unique CDR3
7 unique J



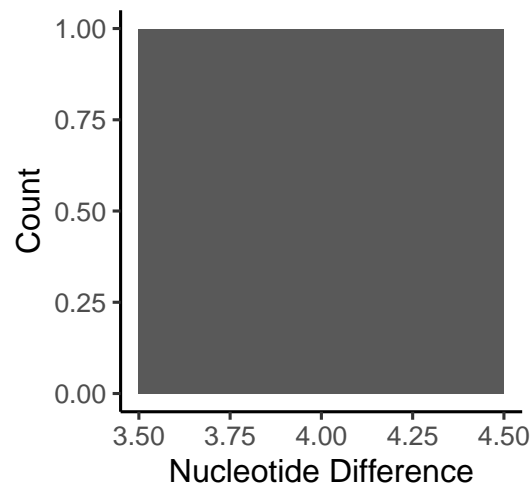
IGHV1-8*01

300 sequences assigned
163 (54.3%) exact matches, in which:
163 unique CDR3
6 unique J



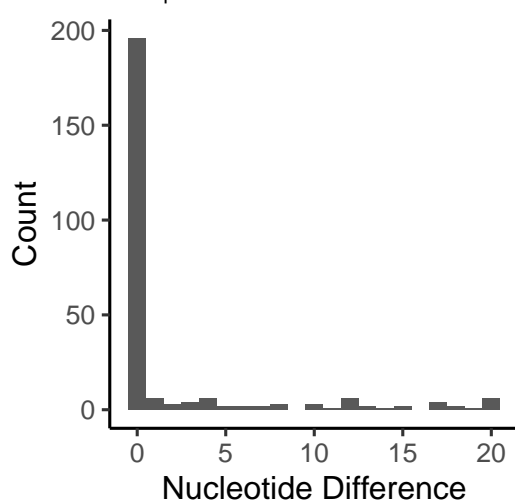
IGHV1-45*02

1 sequences assigned
No exact matches.



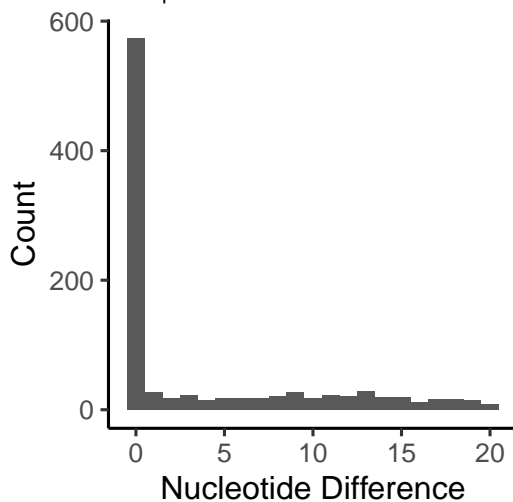
IGHV1-2*04

257 sequences assigned
196 (76.3%) exact matches, in which:
194 unique CDR3
6 unique J



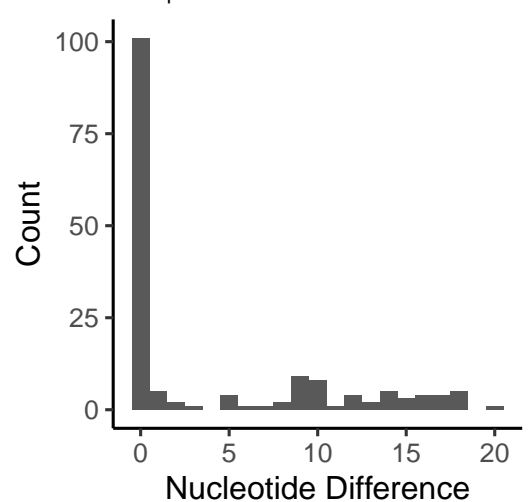
IGHV1-18*01

1071 sequences assigned
574 (53.6%) exact matches, in which:
571 unique CDR3
7 unique J



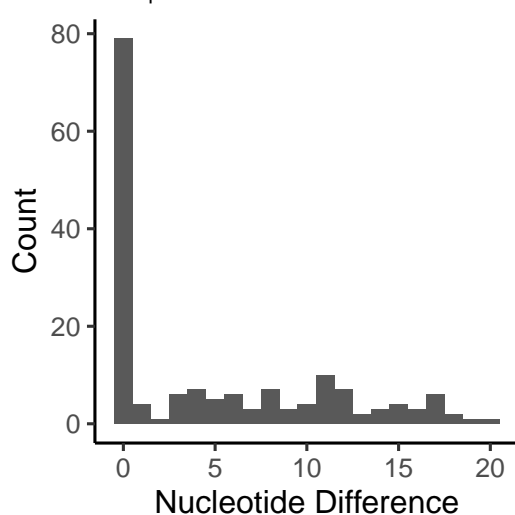
IGHV1-46*01

183 sequences assigned
101 (55.2%) exact matches, in which:
101 unique CDR3
6 unique J



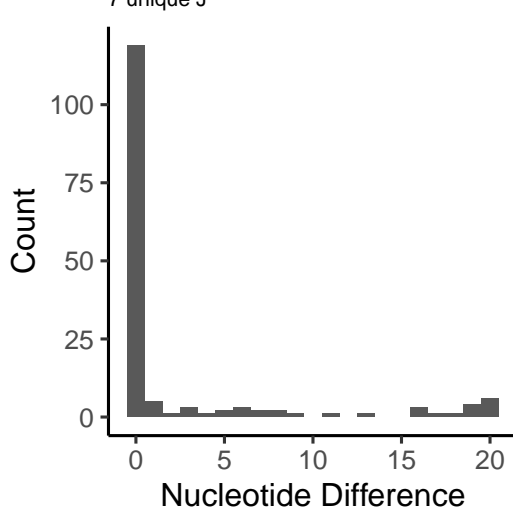
IGHV1-3*01_05

181 sequences assigned
79 (43.6%) exact matches, in which:
79 unique CDR3
4 unique J



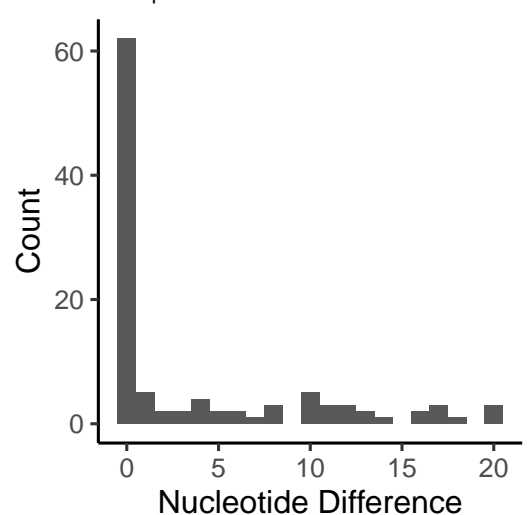
IGHV1-24*01

169 sequences assigned
119 (70.4%) exact matches, in which:
116 unique CDR3
7 unique J



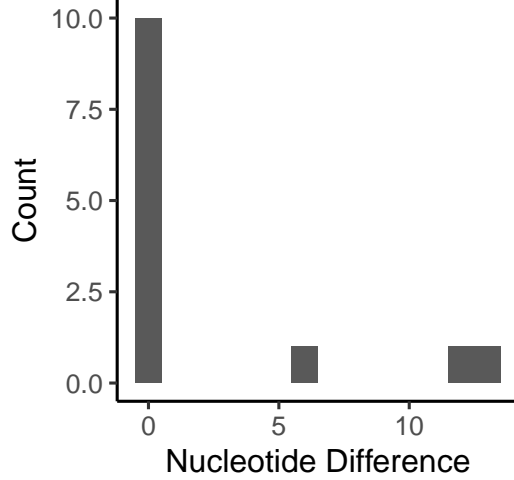
IGHV1-46*03

109 sequences assigned
62 (56.9%) exact matches, in which:
62 unique CDR3
6 unique J



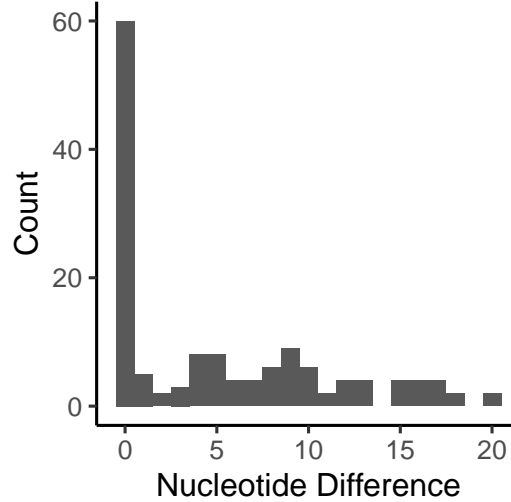
IGHV1–58*02

17 sequences assigned
10 (58.8%) exact matches, in which:
9 unique CDR3
4 unique J



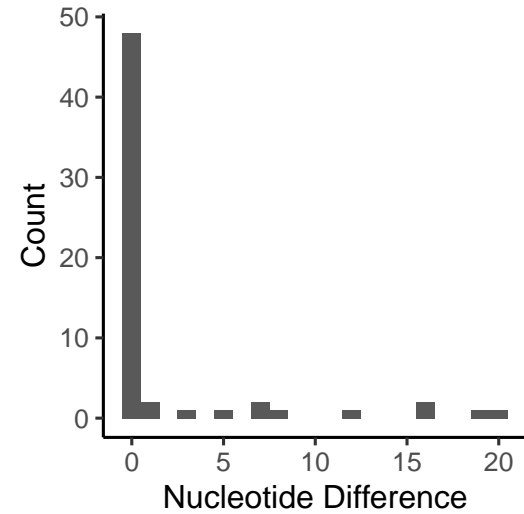
IGHV2–5*01

144 sequences assigned
60 (41.7%) exact matches, in which:
60 unique CDR3
5 unique J



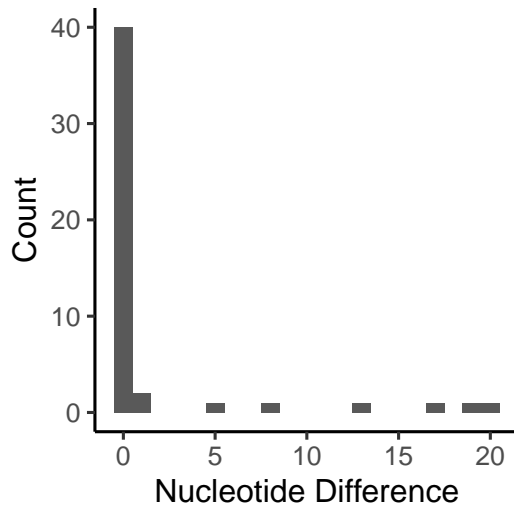
IGHV2–70*01

63 sequences assigned
48 (76.2%) exact matches, in which:
48 unique CDR3
5 unique J



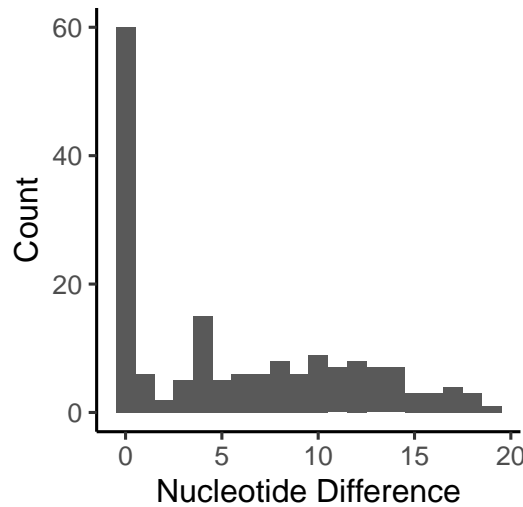
IGHV1–58*01_03

52 sequences assigned
40 (76.9%) exact matches, in which:
40 unique CDR3
5 unique J



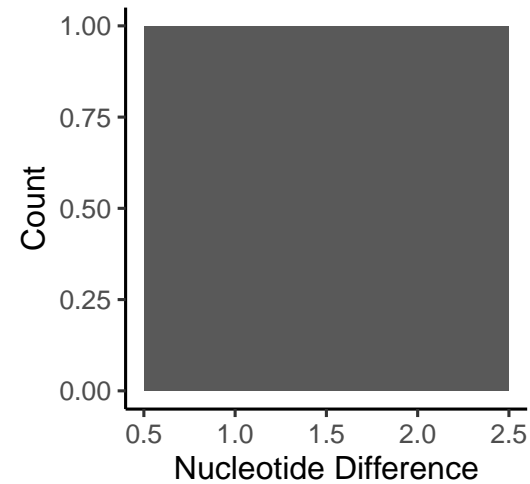
IGHV2–5*02

175 sequences assigned
60 (34.3%) exact matches, in which:
59 unique CDR3
5 unique J



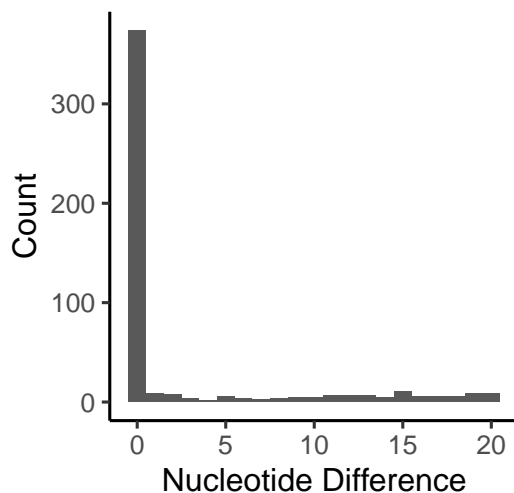
IGHV2–70D*04

3 sequences assigned
No exact matches.



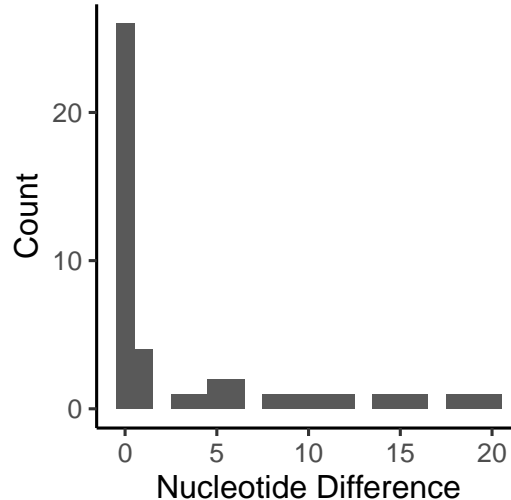
IGHV1–69*01_12_13

599 sequences assigned
374 (62.4%) exact matches, in which:
374 unique CDR3
6 unique J



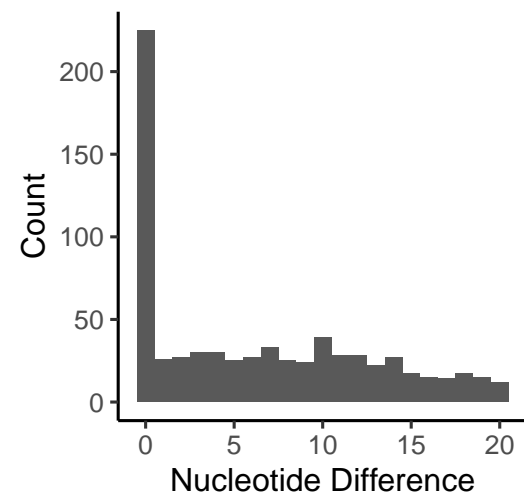
IGHV2–26*01

47 sequences assigned
26 (55.3%) exact matches, in which:
26 unique CDR3
6 unique J



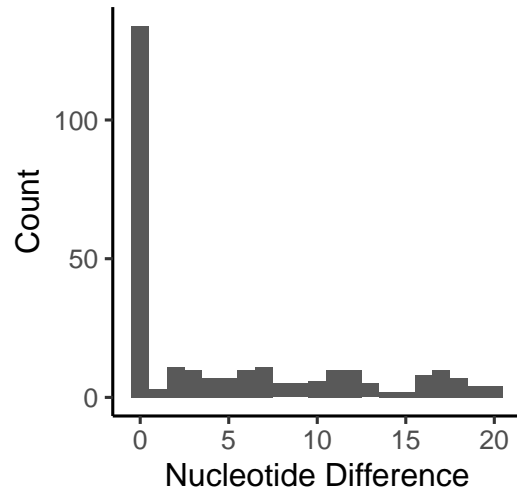
IGHV3–7*03

773 sequences assigned
225 (29.1%) exact matches, in which:
209 unique CDR3
6 unique J



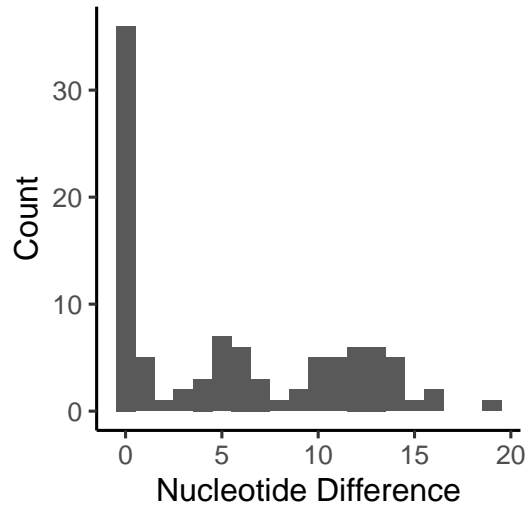
IGHV3-9*01

293 sequences assigned
134 (45.7%) exact matches, in which:
133 unique CDR3
6 unique J



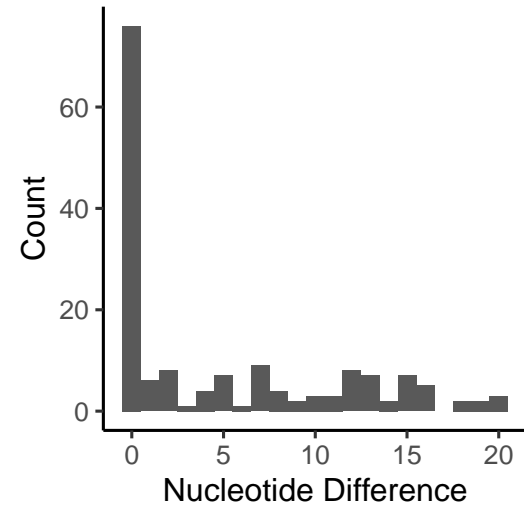
IGHV3-13*04

104 sequences assigned
36 (34.6%) exact matches, in which:
35 unique CDR3
5 unique J



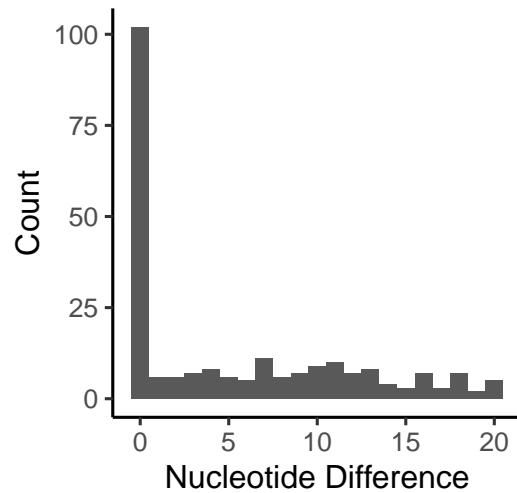
IGHV3-20*03_04

172 sequences assigned
76 (44.2%) exact matches, in which:
75 unique CDR3
5 unique J



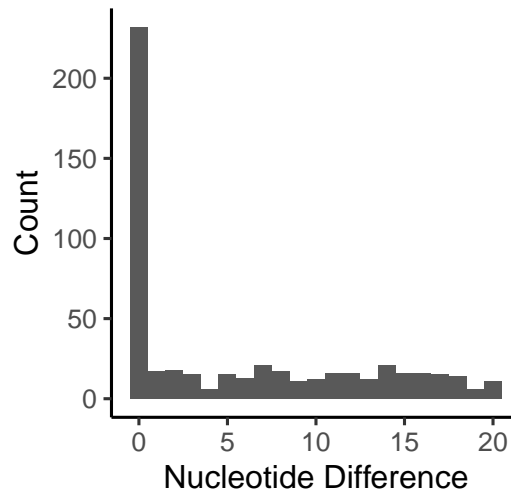
IGHV3-11*01

252 sequences assigned
102 (40.5%) exact matches, in which:
98 unique CDR3
5 unique J



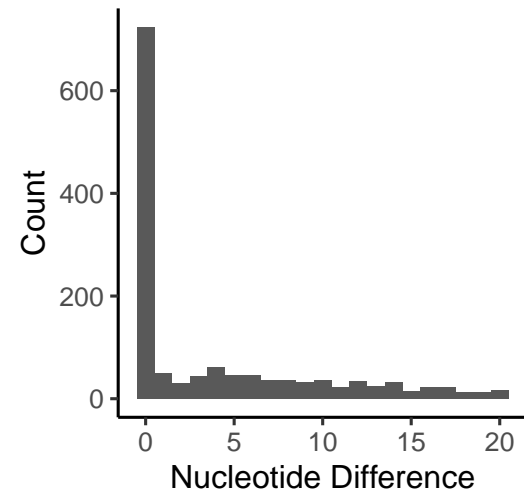
IGHV3-15*01_02

579 sequences assigned
232 (40.1%) exact matches, in which:
226 unique CDR3
7 unique J



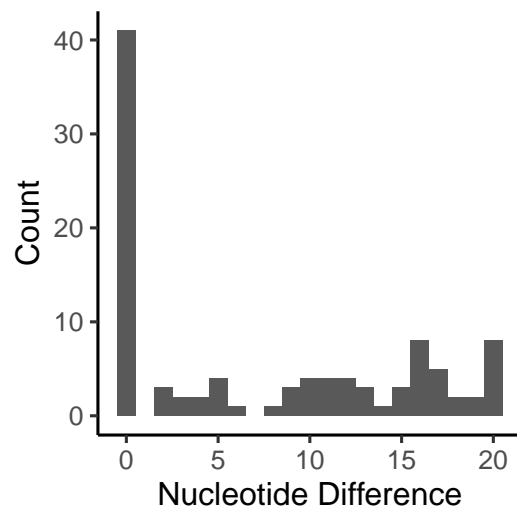
IGHV3-21*01_02

1499 sequences assigned
724 (48.3%) exact matches, in which:
710 unique CDR3
7 unique J



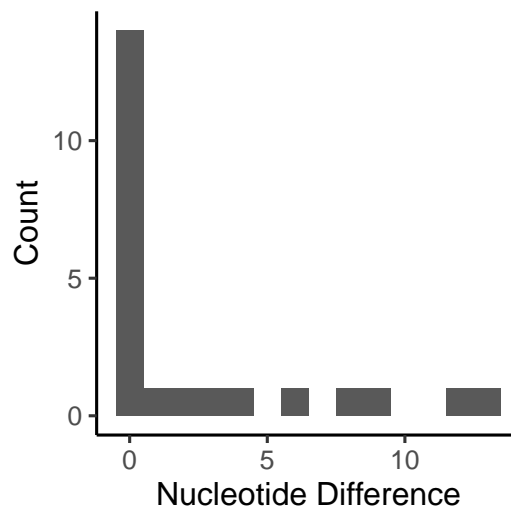
IGHV3-13*01

117 sequences assigned
41 (35%) exact matches, in which:
41 unique CDR3
5 unique J



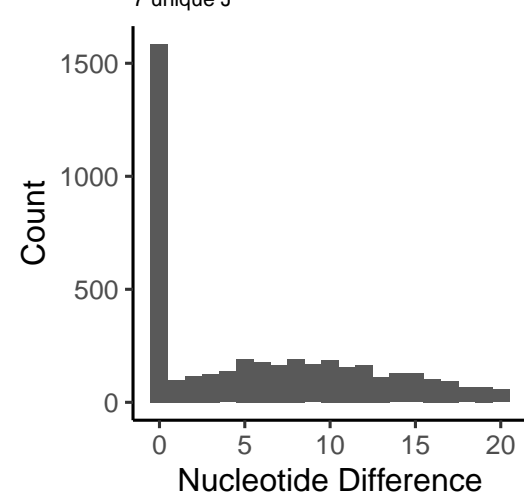
IGHV3-20*01_02

25 sequences assigned
14 (56%) exact matches, in which:
14 unique CDR3
5 unique J



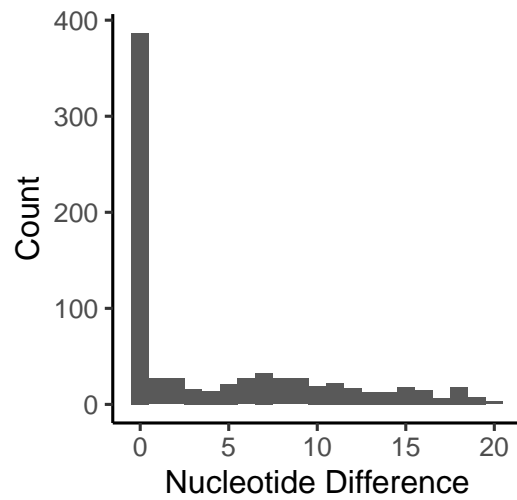
IGHV3-23*01_04

4724 sequences assigned
1585 (33.6%) exact matches, in which:
1543 unique CDR3
7 unique J



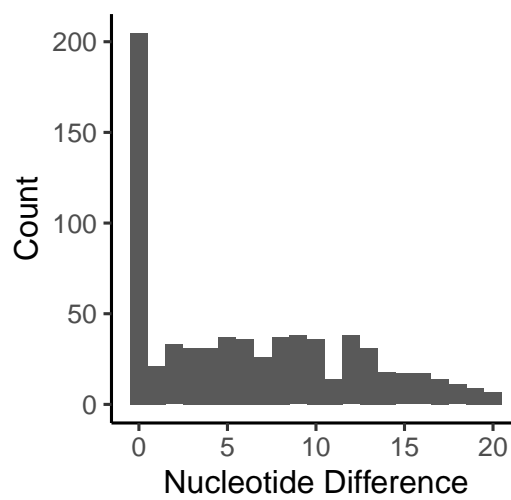
IGHV3-33*01

829 sequences assigned
387 (46.7%) exact matches, in which:
334 unique CDR3
6 unique J



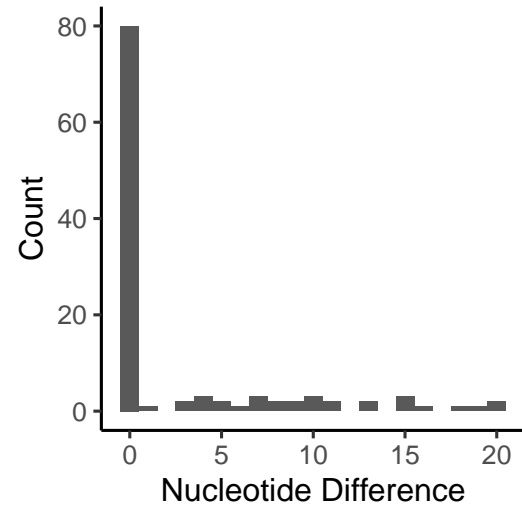
IGHV3-48*03

780 sequences assigned
205 (26.3%) exact matches, in which:
200 unique CDR3
6 unique J



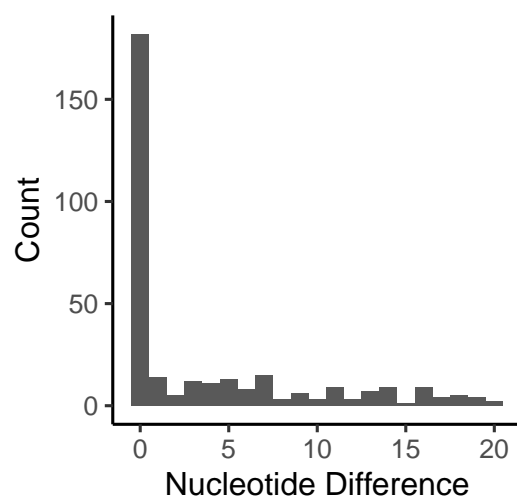
IGHV3-53*04

115 sequences assigned
80 (69.6%) exact matches, in which:
77 unique CDR3
6 unique J



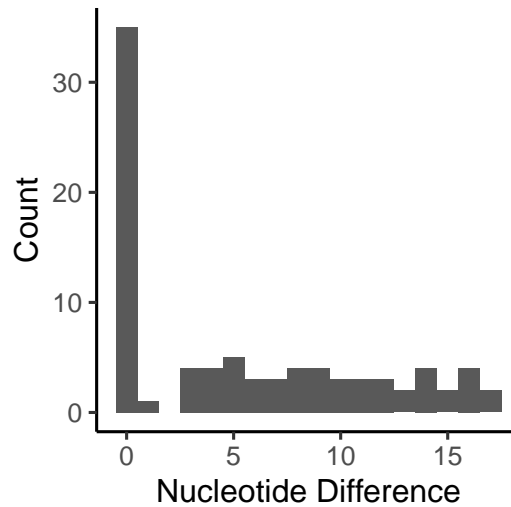
IGHV3-43*02

352 sequences assigned
182 (51.7%) exact matches, in which:
174 unique CDR3
6 unique J



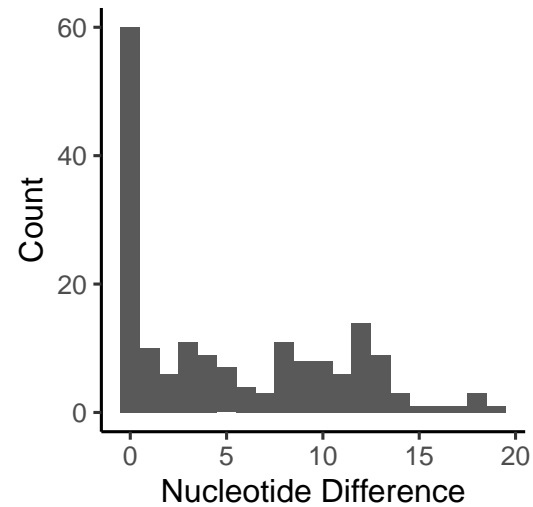
IGHV3-49*04

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



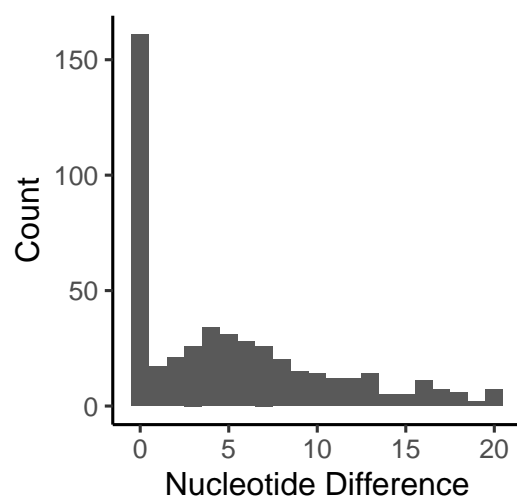
IGHV3-53*01_02

192 sequences assigned
60 (31.2%) exact matches, in which:
59 unique CDR3
5 unique J



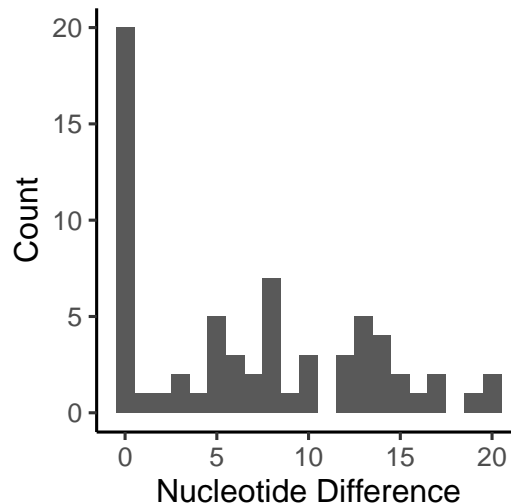
IGHV3-48*01

518 sequences assigned
161 (31.1%) exact matches, in which:
154 unique CDR3
6 unique J



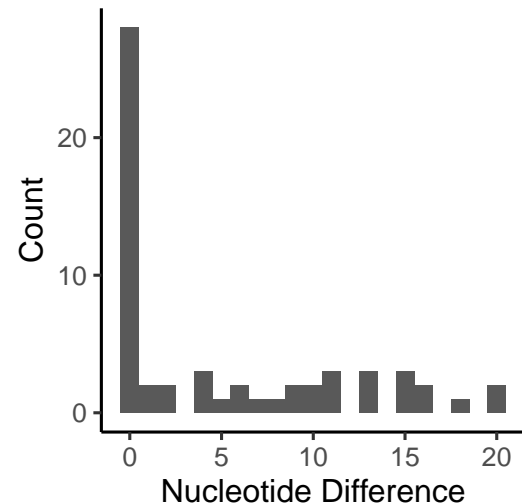
IGHV3-49*03_05

74 sequences assigned
20 (27%) exact matches, in which:
20 unique CDR3
4 unique J



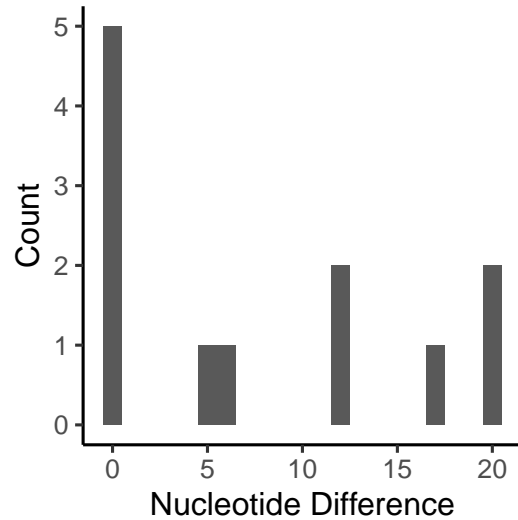
IGHV3-64*01

60 sequences assigned
28 (46.7%) exact matches, in which:
25 unique CDR3
5 unique J



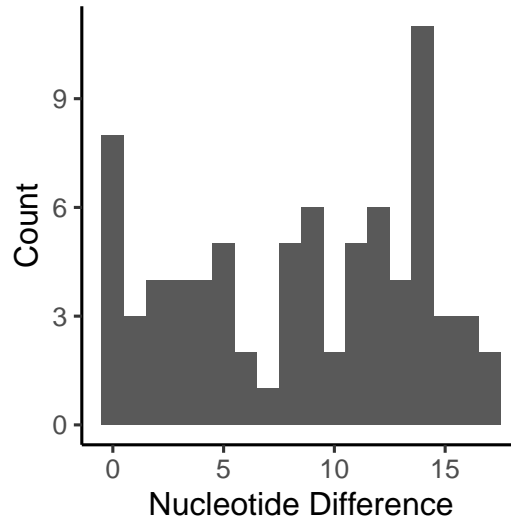
IGHV3-64*02_07

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



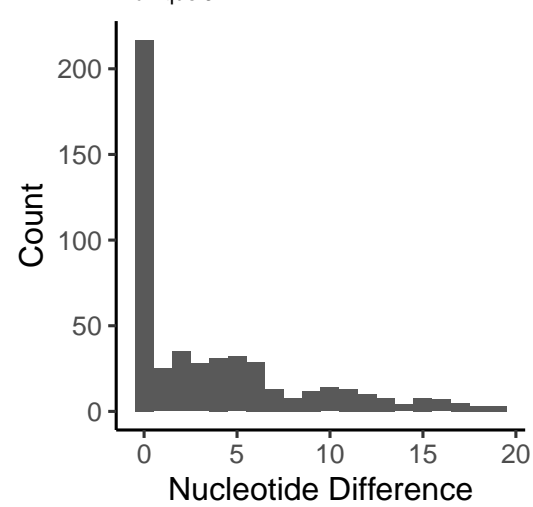
IGHV3-72*01

80 sequences assigned
8 (10%) exact matches, in which:
8 unique CDR3
4 unique J



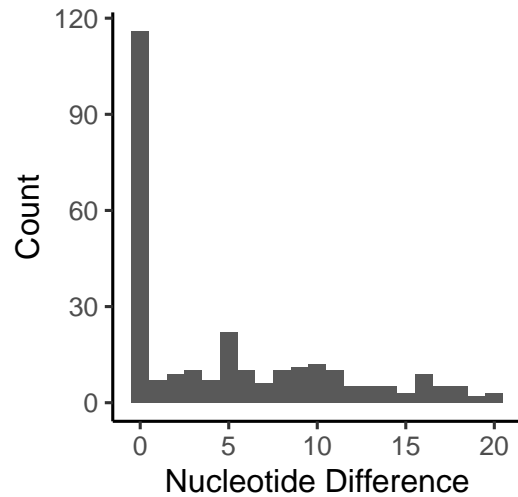
IGHV3-74*01_02

525 sequences assigned
217 (41.3%) exact matches, in which:
206 unique CDR3
7 unique J



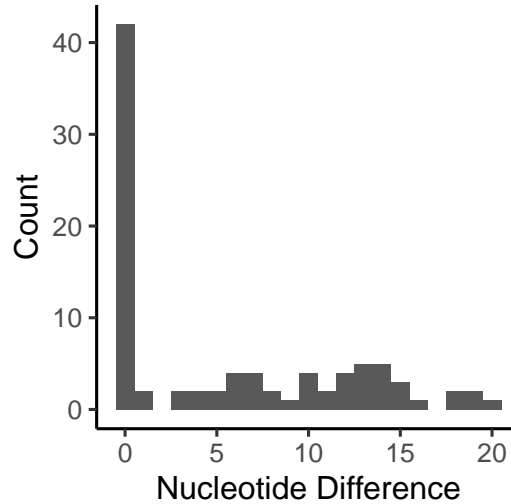
IGHV3-66*02

286 sequences assigned
116 (40.6%) exact matches, in which:
111 unique CDR3
7 unique J



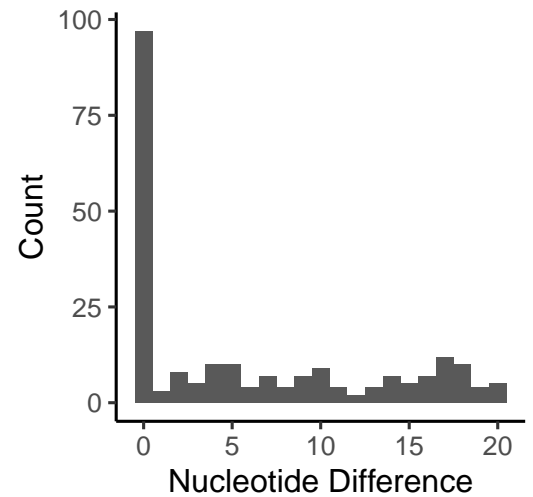
IGHV3-73*01_02

98 sequences assigned
42 (42.9%) exact matches, in which:
41 unique CDR3
6 unique J



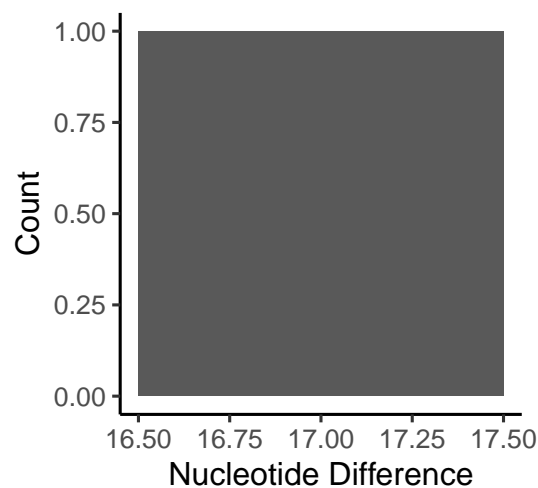
IGHV3-64D*06

288 sequences assigned
97 (33.7%) exact matches, in which:
91 unique CDR3
5 unique J



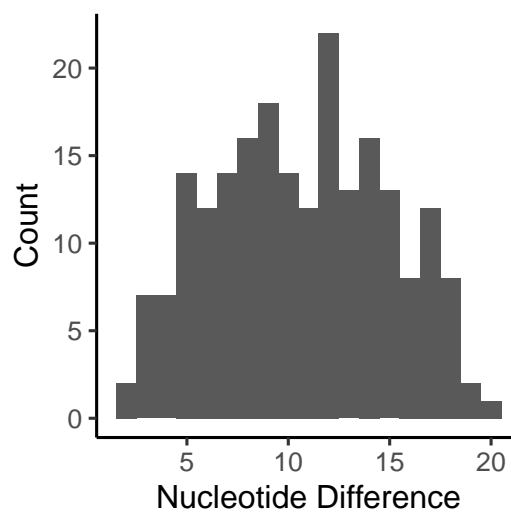
IGHV3-69-1*01

2 sequences assigned
No exact matches.



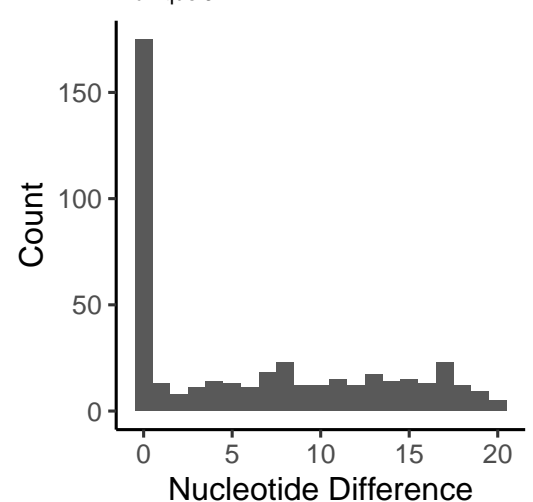
IGHV3-74*03

235 sequences assigned
No exact matches.



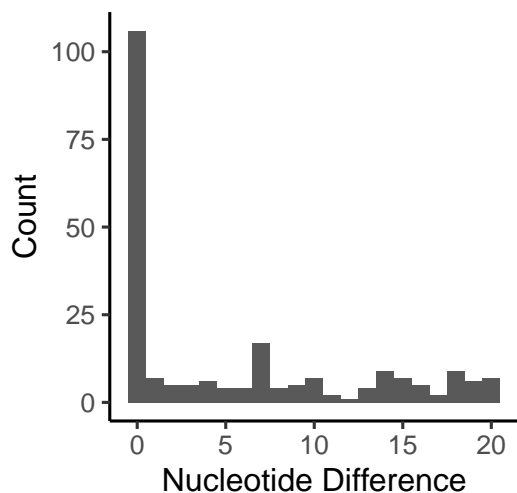
IGHV4-4*07

480 sequences assigned
175 (36.5%) exact matches, in which:
173 unique CDR3
7 unique J



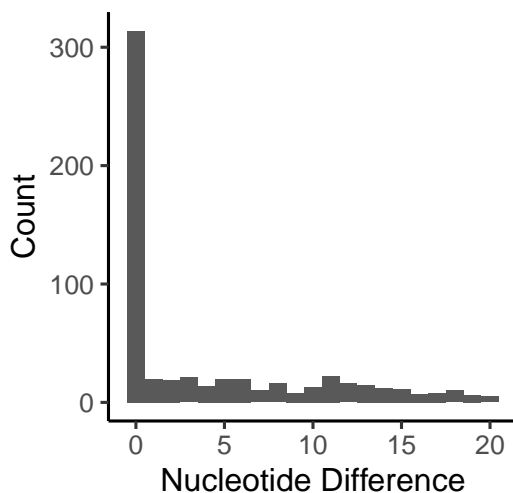
IGHV4-4*02_03

252 sequences assigned
106 (42.1%) exact matches, in which:
104 unique CDR3
6 unique J



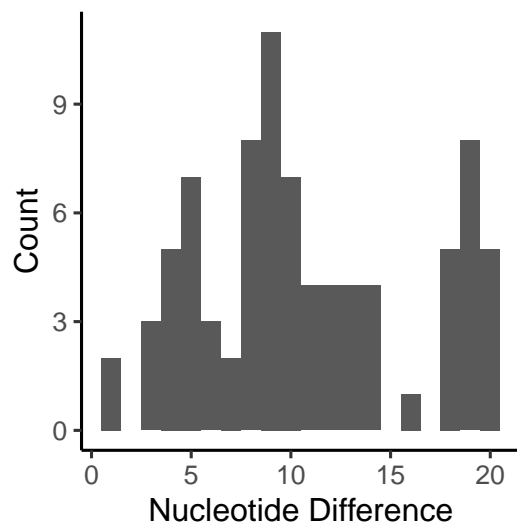
IGHV4-31*02

659 sequences assigned
314 (47.6%) exact matches, in which:
312 unique CDR3
6 unique J



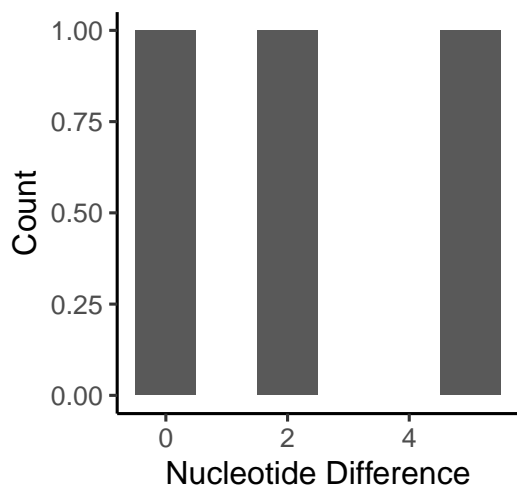
IGHV4-39*02

114 sequences assigned
No exact matches.



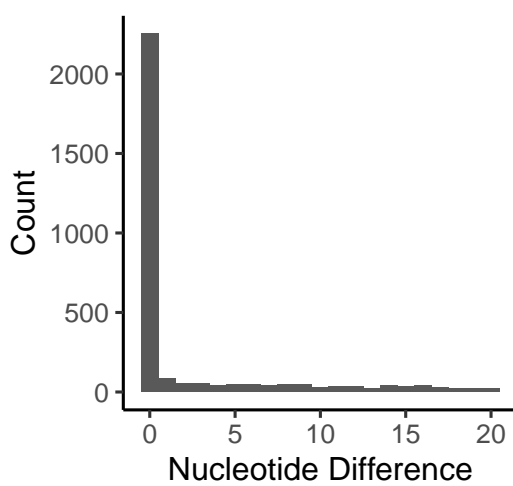
IGHV4-28*01_07

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



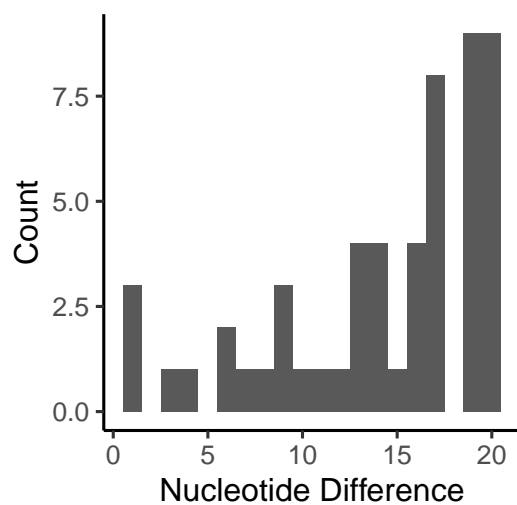
IGHV4-34*01_02

3182 sequences assigned
2253 (70.8%) exact matches, in which:
2211 unique CDR3
7 unique J



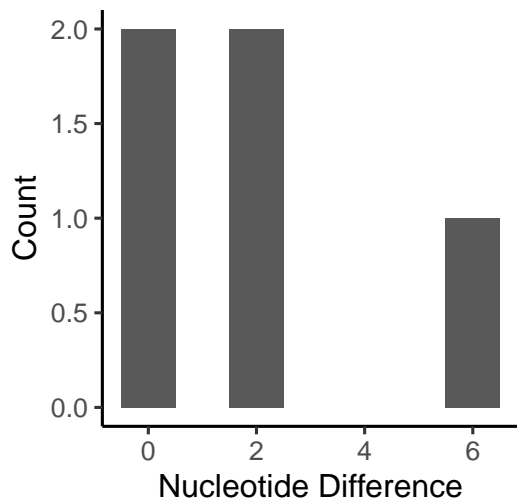
IGHV4-59*02

90 sequences assigned
No exact matches.



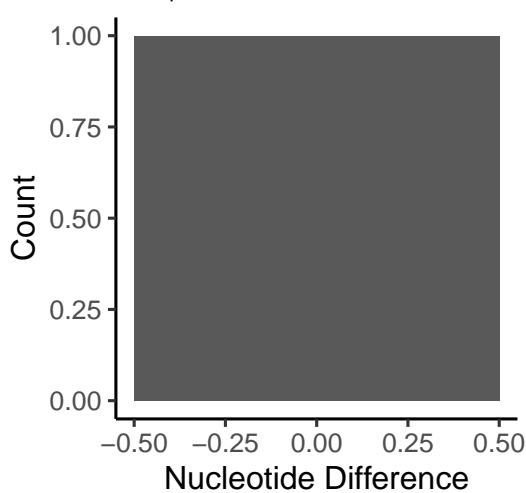
IGHV4-28*02_05

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



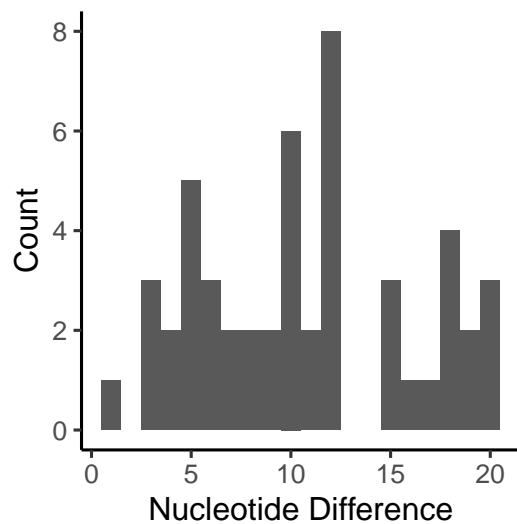
IGHV4-38-2*02

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



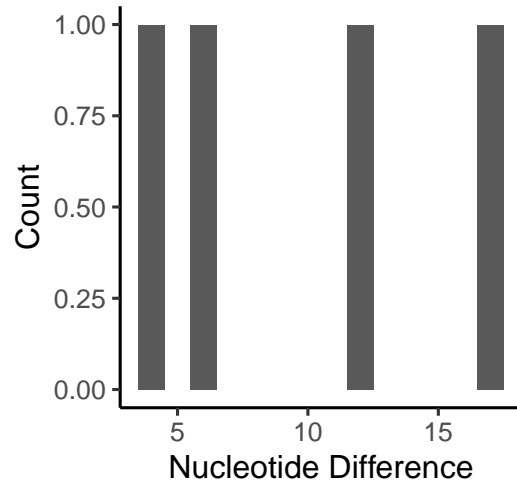
IGHV4-59*11

69 sequences assigned
No exact matches.



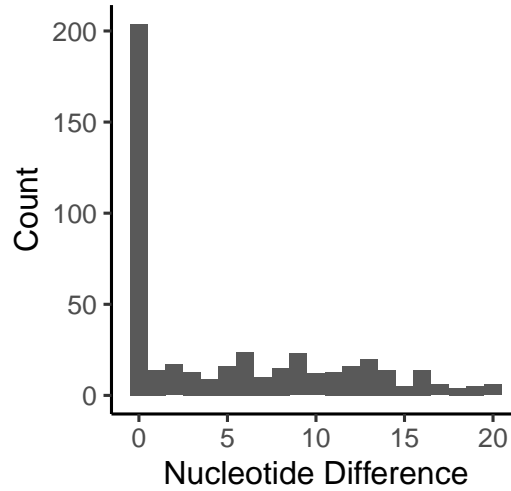
IGHV4-59*12

21 sequences assigned
No exact matches.



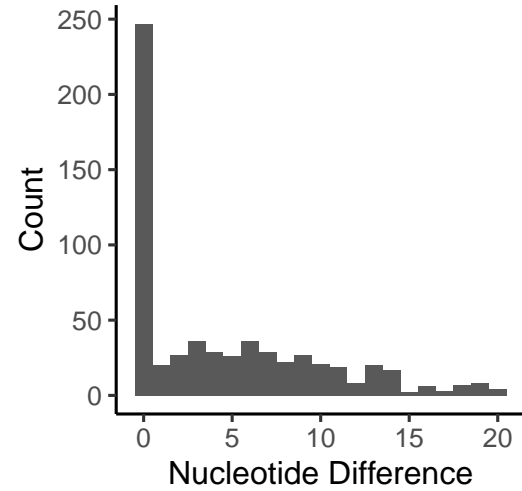
IGHV4-61*02

509 sequences assigned
204 (40.1%) exact matches, in which:
200 unique CDR3
5 unique J



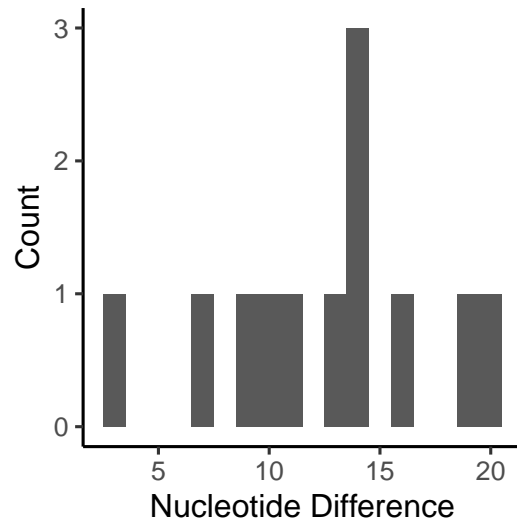
IGHV6-1*01_02

628 sequences assigned
247 (39.3%) exact matches, in which:
244 unique CDR3
6 unique J



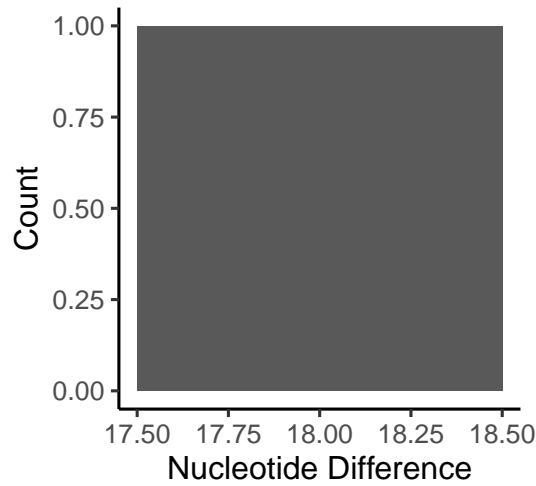
IGHV4-59*13

17 sequences assigned
No exact matches.



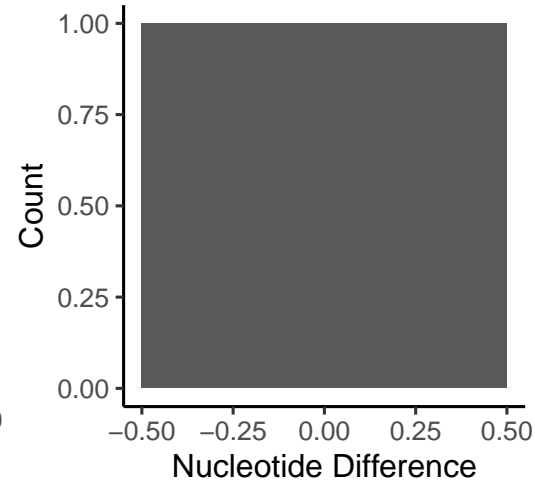
IGHV4/OR15-8*01

2 sequences assigned
No exact matches.



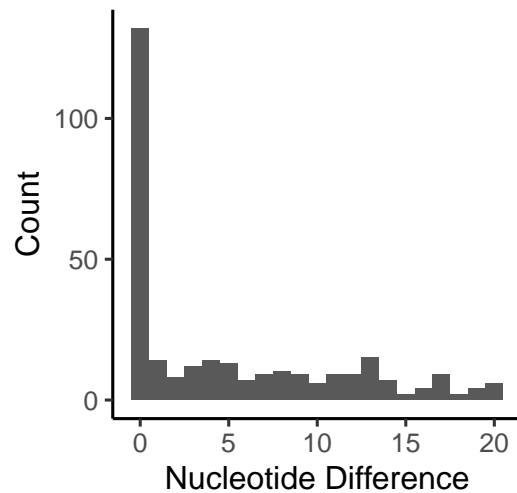
IGHV7-4-1*01

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



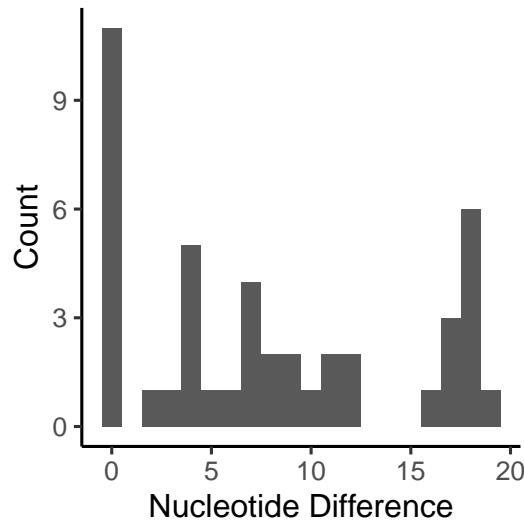
IGHV4-61*01

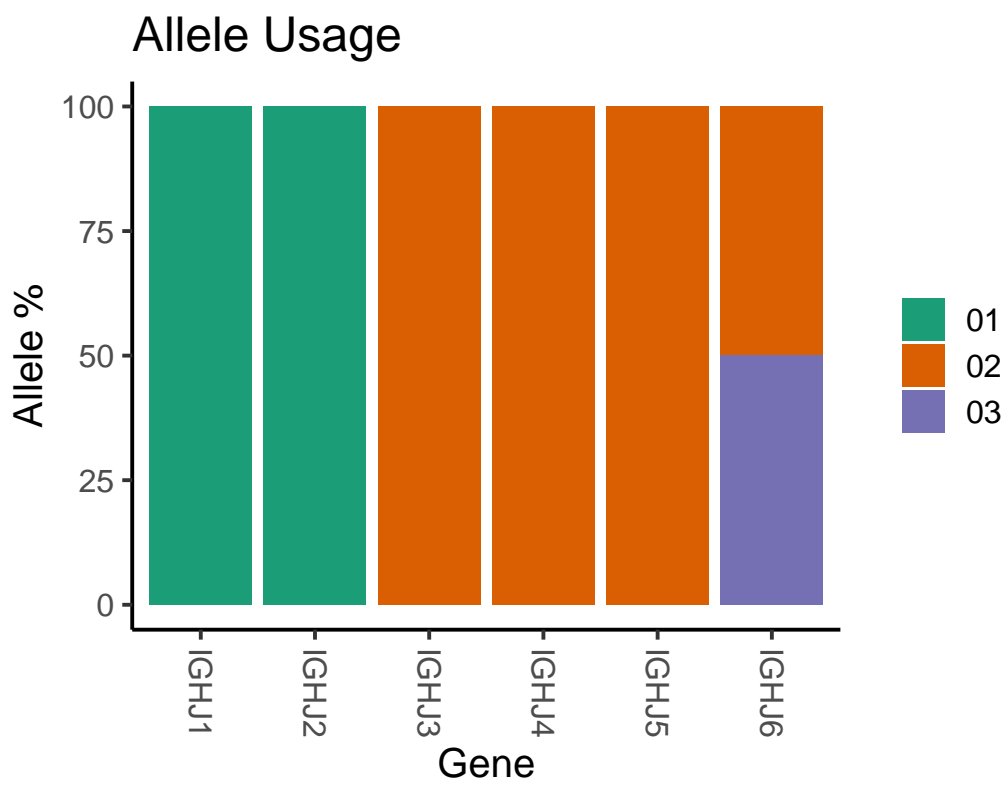
355 sequences assigned
132 (37.2%) exact matches, in which:
129 unique CDR3
6 unique J



IGHV5-10-1*01_03

55 sequences assigned
11 (20%) exact matches, in which:
11 unique CDR3
4 unique J





Sequence Count by IGHJ6 allele usage

