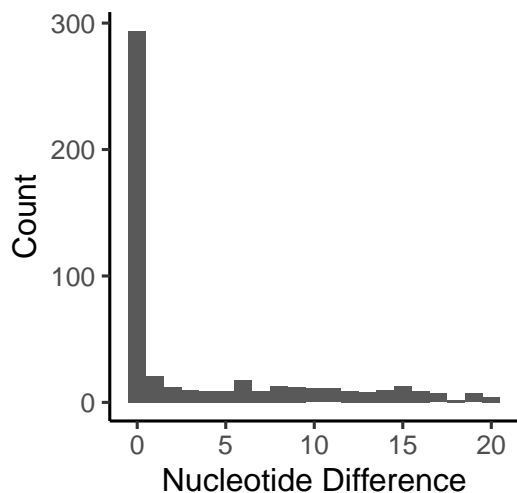


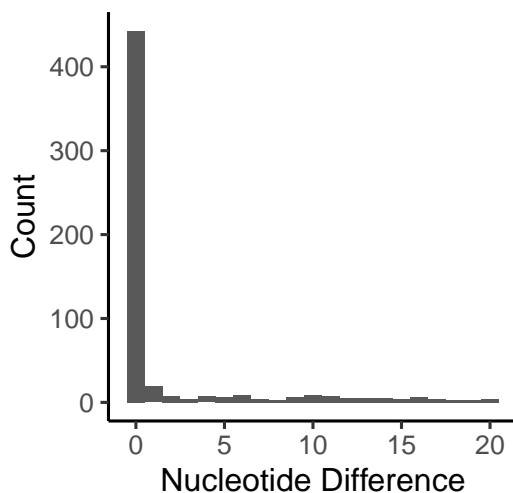
IGHV1-2*02

526 sequences assigned
294 (55.9%) exact matches, in which:
294 unique CDR3
6 unique J



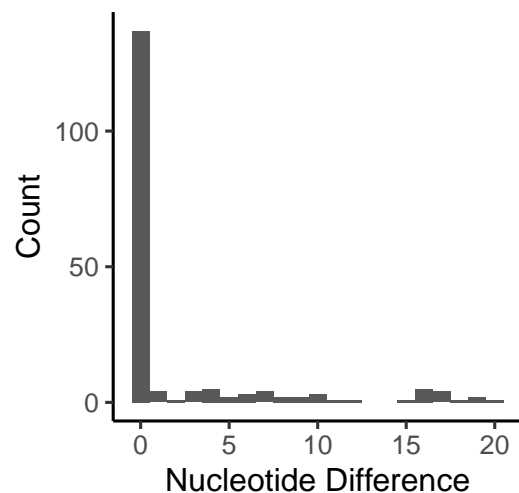
IGHV1-8*01

585 sequences assigned
443 (75.7%) exact matches, in which:
438 unique CDR3
6 unique J



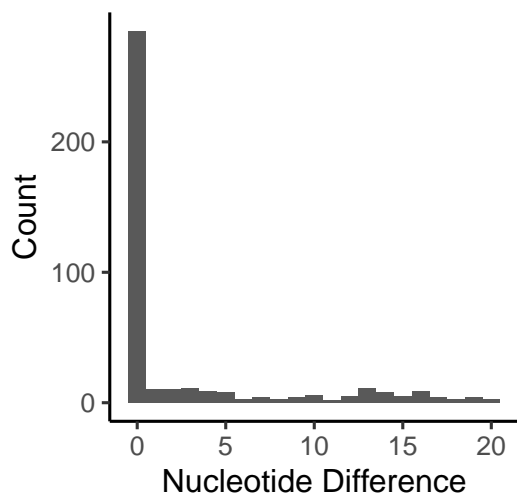
IGHV1-46*01

191 sequences assigned
137 (71.7%) exact matches, in which:
137 unique CDR3
6 unique J



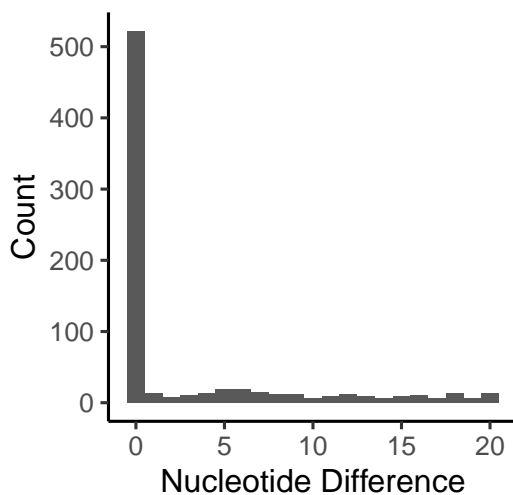
IGHV1-2*06

430 sequences assigned
285 (66.3%) exact matches, in which:
282 unique CDR3
6 unique J



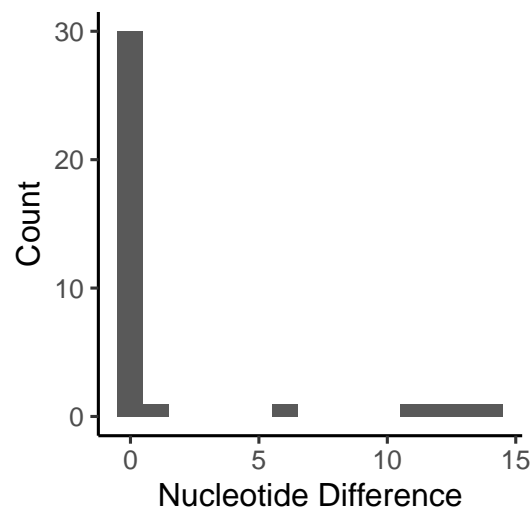
IGHV1-18*01

807 sequences assigned
522 (64.7%) exact matches, in which:
519 unique CDR3
6 unique J



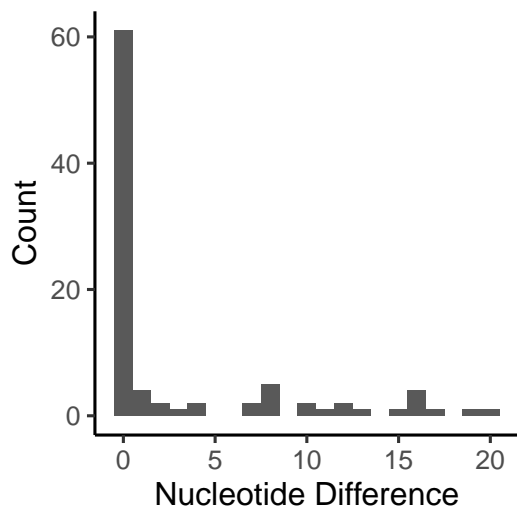
IGHV1-58*01_03

38 sequences assigned
30 (78.9%) exact matches, in which:
30 unique CDR3
5 unique J



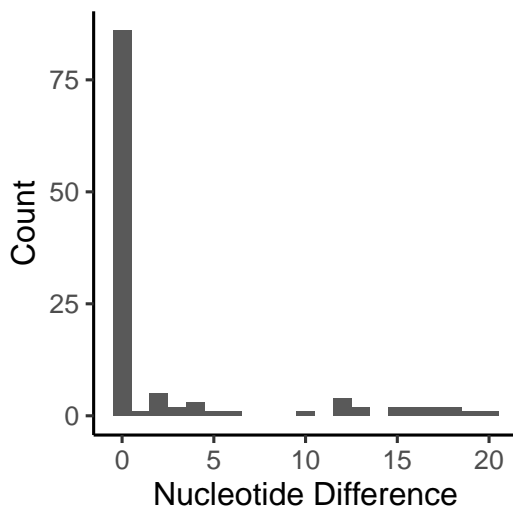
IGHV1-3*01_05

98 sequences assigned
61 (62.2%) exact matches, in which:
61 unique CDR3
6 unique J



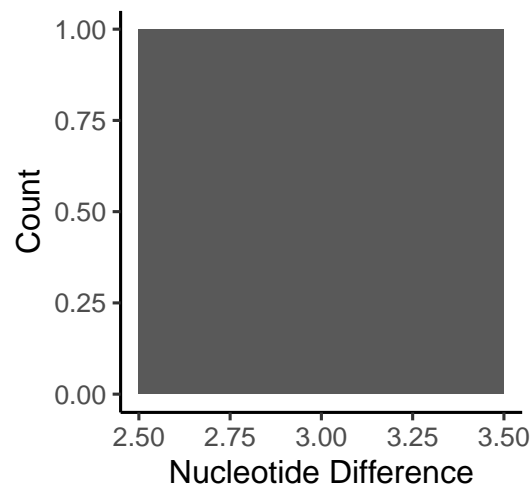
IGHV1-24*01

122 sequences assigned
86 (70.5%) exact matches, in which:
85 unique CDR3
6 unique J



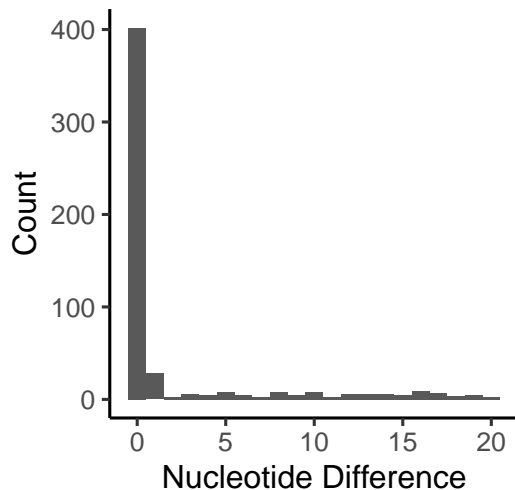
IGHV1-68*02_03

1 sequences assigned
No exact matches.



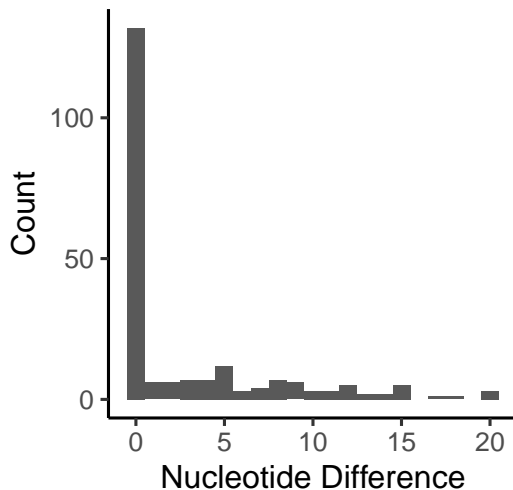
IGHV1-69*01_12_13

557 sequences assigned
402 (72.2%) exact matches, in which:
402 unique CDR3
6 unique J



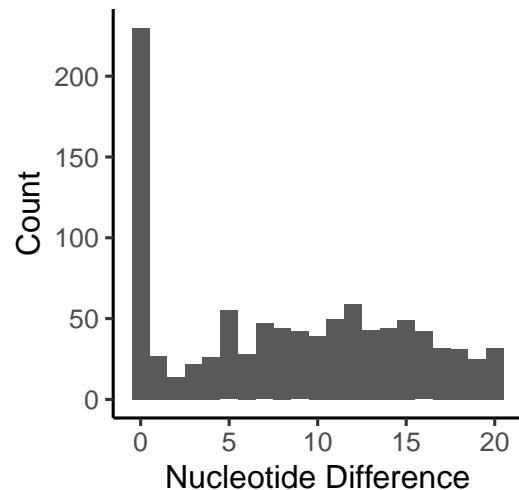
IGHV2-5*02

219 sequences assigned
132 (60.3%) exact matches, in which:
132 unique CDR3
6 unique J



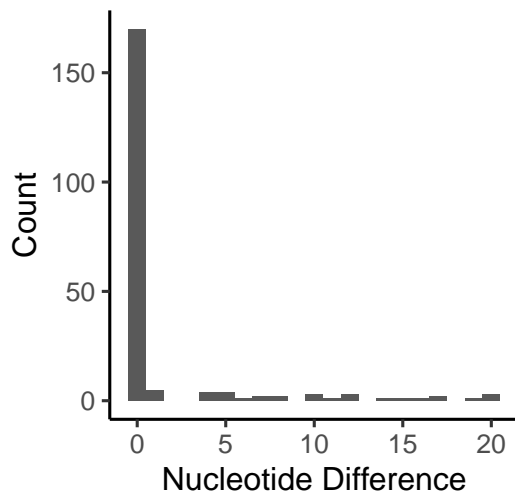
IGHV3-7*01

1069 sequences assigned
230 (21.5%) exact matches, in which:
224 unique CDR3
6 unique J



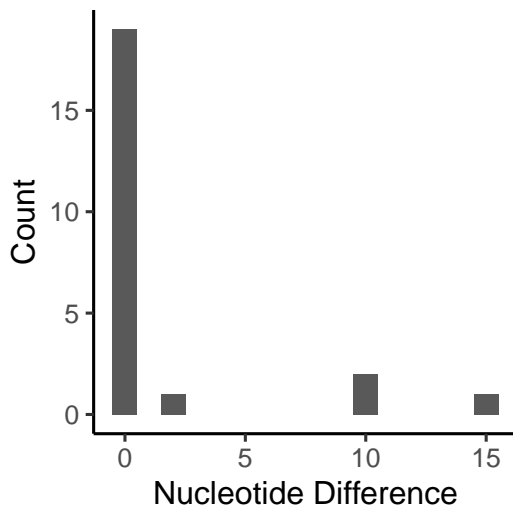
IGHV1-69*06_14

221 sequences assigned
170 (76.9%) exact matches, in which:
170 unique CDR3
6 unique J



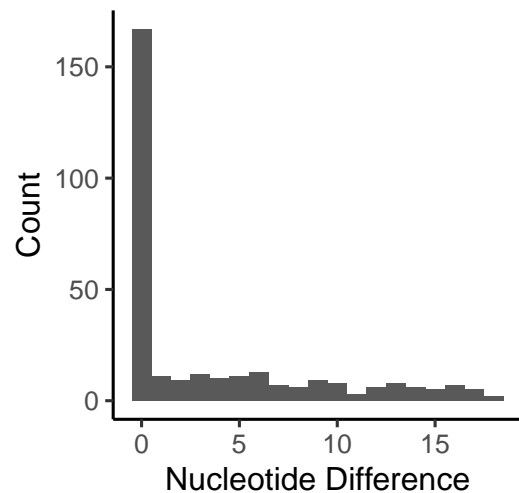
IGHV2-26*01

24 sequences assigned
19 (79.2%) exact matches, in which:
19 unique CDR3
5 unique J



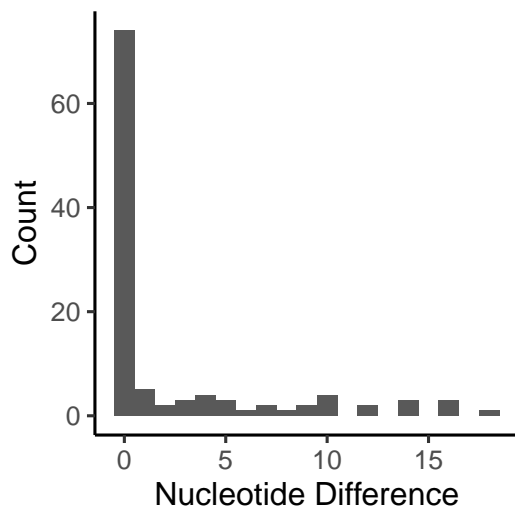
IGHV3-9*01

317 sequences assigned
167 (52.7%) exact matches, in which:
165 unique CDR3
6 unique J



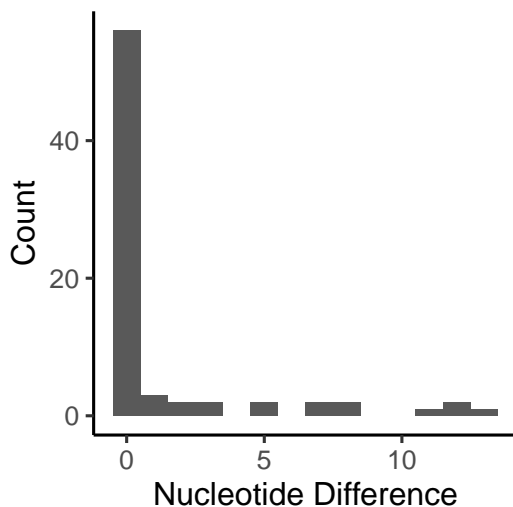
IGHV2-5*01

114 sequences assigned
74 (64.9%) exact matches, in which:
73 unique CDR3
6 unique J



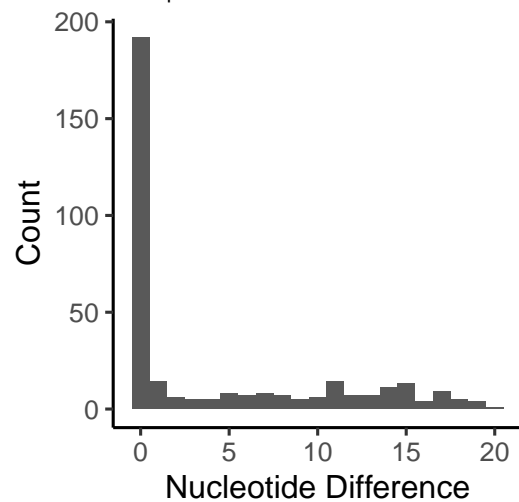
IGHV2-70*01

73 sequences assigned
56 (76.7%) exact matches, in which:
54 unique CDR3
5 unique J



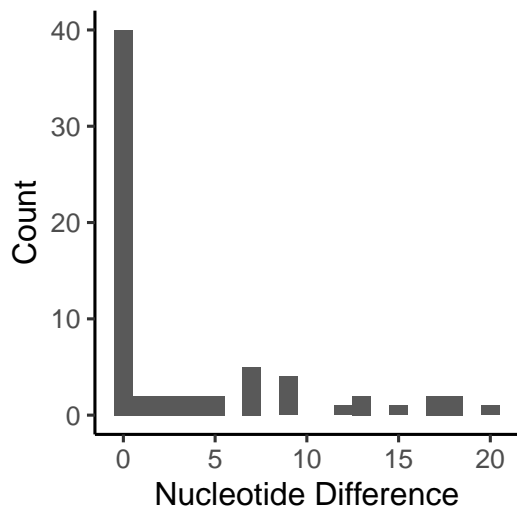
IGHV3-11*01

360 sequences assigned
192 (53.3%) exact matches, in which:
192 unique CDR3
6 unique J



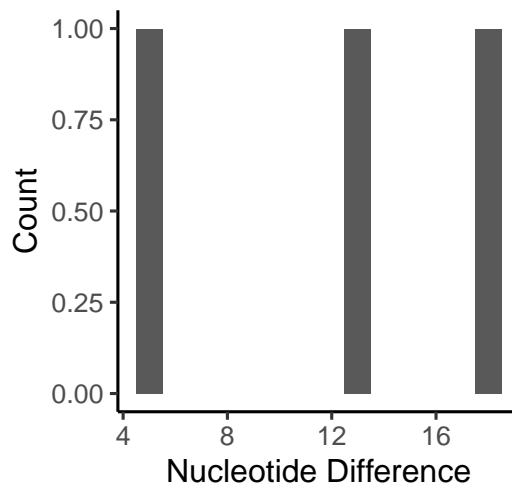
IGHV3-13*01

75 sequences assigned
40 (53.3%) exact matches, in which:
37 unique CDR3
5 unique J



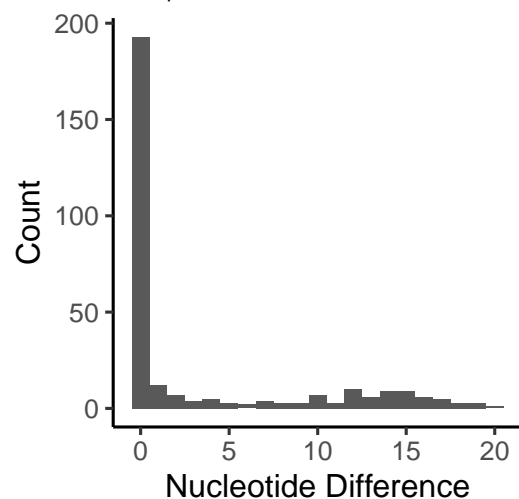
IGHV3-20*03_04

7 sequences assigned
No exact matches.



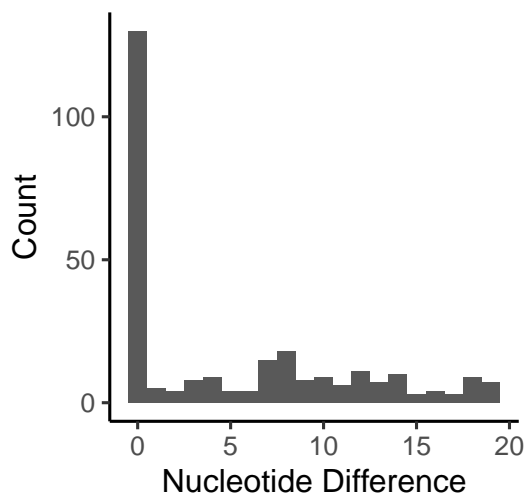
IGHV3-30-3*01

308 sequences assigned
193 (62.7%) exact matches, in which:
190 unique CDR3
6 unique J



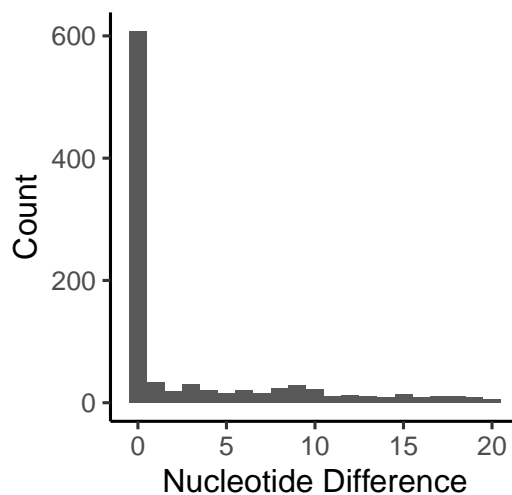
IGHV3-15*01_02

294 sequences assigned
130 (44.2%) exact matches, in which:
127 unique CDR3
6 unique J



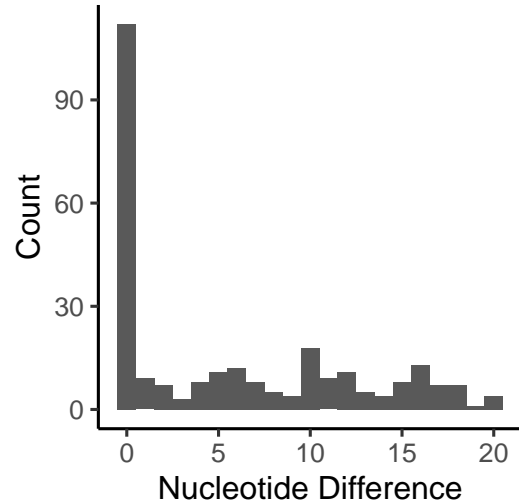
IGHV3-21*01_02

977 sequences assigned
608 (62.2%) exact matches, in which:
588 unique CDR3
6 unique J



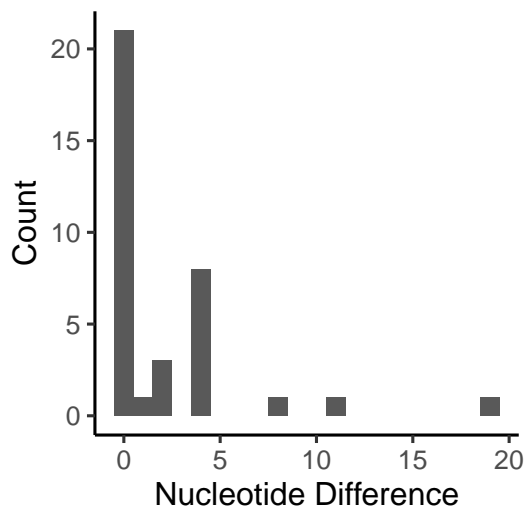
IGHV3-33*01

292 sequences assigned
112 (38.4%) exact matches, in which:
111 unique CDR3
6 unique J



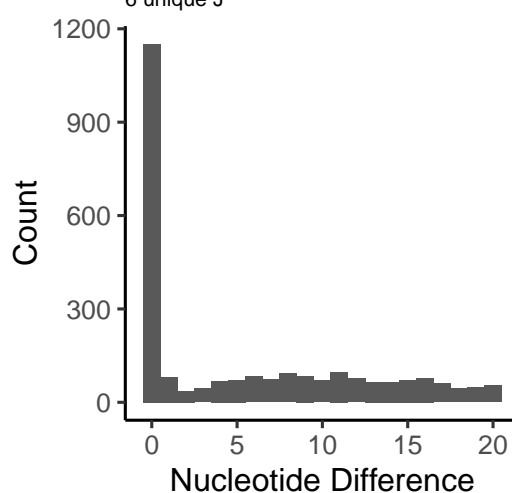
IGHV3-20*01_02

37 sequences assigned
21 (56.8%) exact matches, in which:
21 unique CDR3
5 unique J



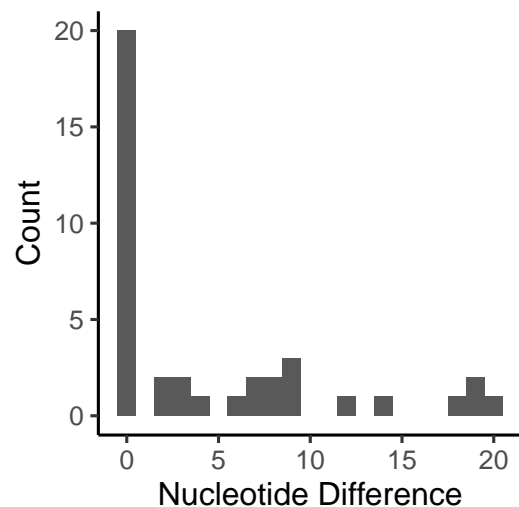
IGHV3-23*01_04

2789 sequences assigned
1151 (41.3%) exact matches, in which:
1123 unique CDR3
6 unique J



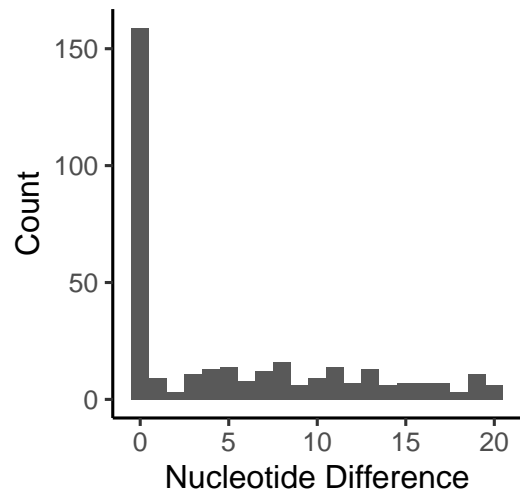
IGHV3-43*01

39 sequences assigned
20 (51.3%) exact matches, in which:
20 unique CDR3
3 unique J



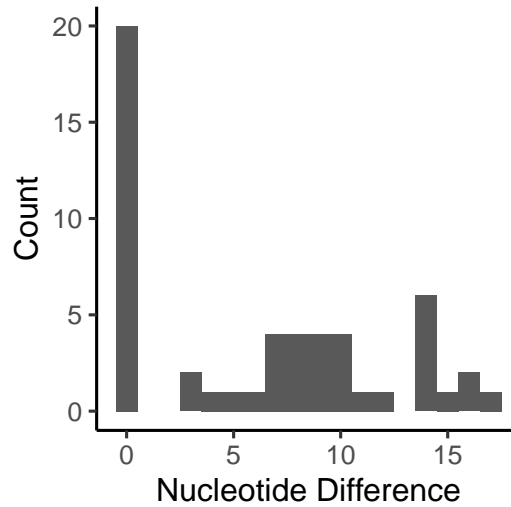
IGHV3-48*03

362 sequences assigned
159 (43.9%) exact matches, in which:
156 unique CDR3
5 unique J



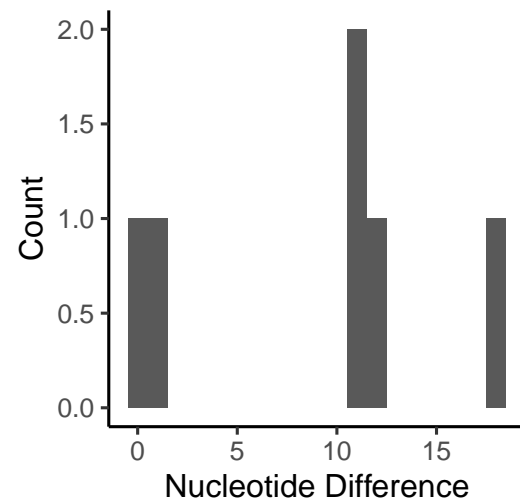
IGHV3-49*03_05

56 sequences assigned
20 (35.7%) exact matches, in which:
20 unique CDR3
5 unique J



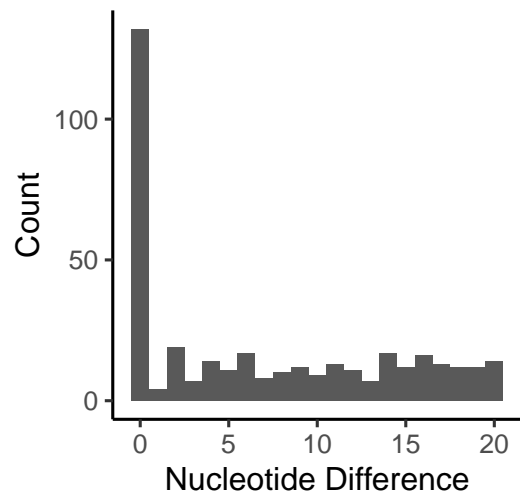
IGHV3-64*02_07

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



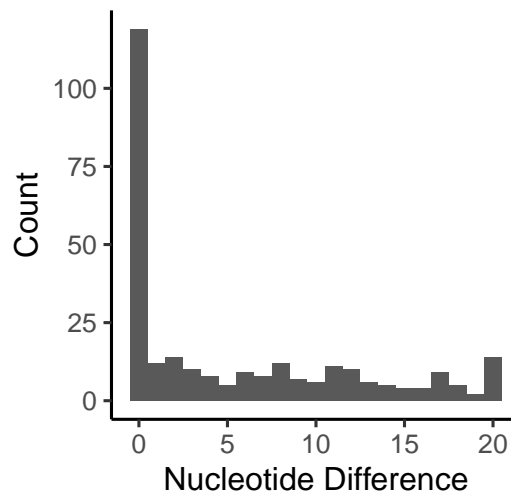
IGHV3-48*04

443 sequences assigned
132 (29.8%) exact matches, in which:
131 unique CDR3
5 unique J



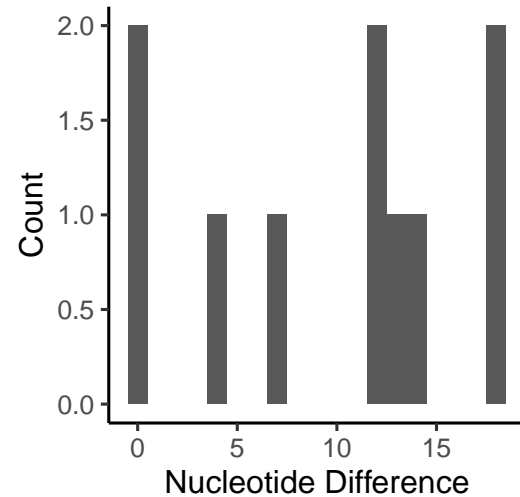
IGHV3-53*01_02

308 sequences assigned
119 (38.6%) exact matches, in which:
115 unique CDR3
6 unique J



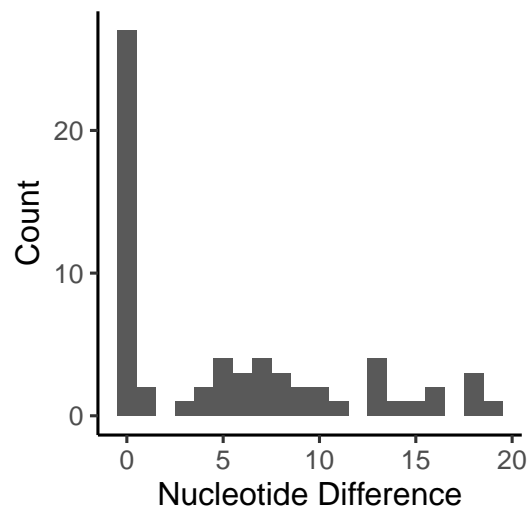
IGHV3-66*02

14 sequences assigned
2 (14.3%) exact matches, in which:
2 unique CDR3
2 unique J



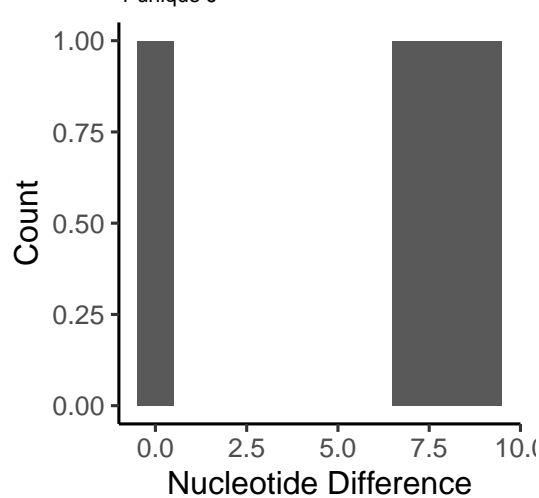
IGHV3-49*04

67 sequences assigned
27 (40.3%) exact matches, in which:
27 unique CDR3
4 unique J



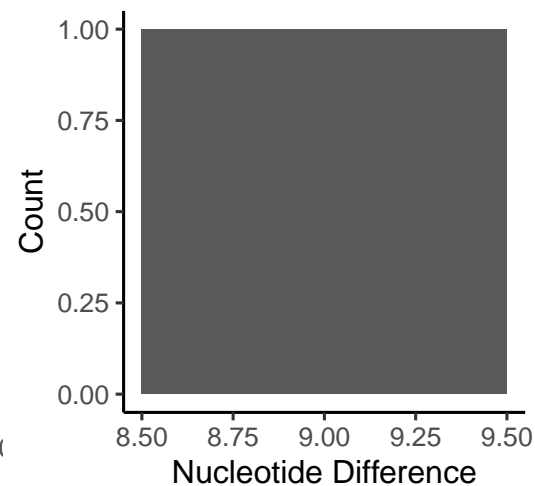
IGHV3-64*01

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



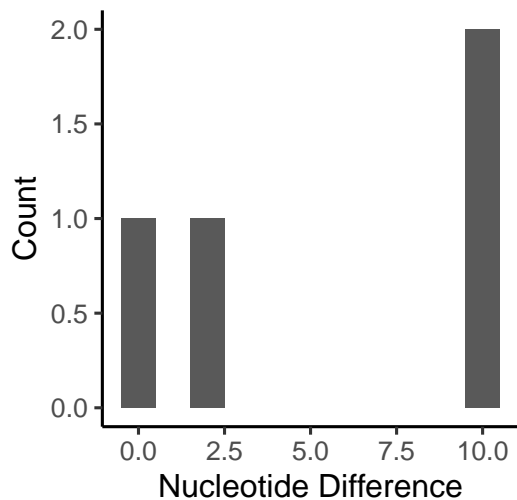
IGHV3-66*03

2 sequences assigned
No exact matches.



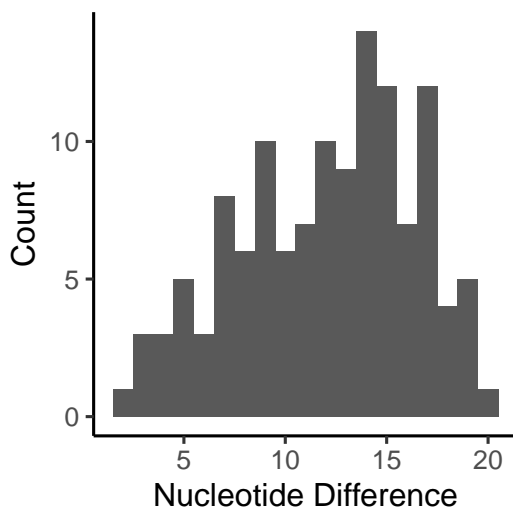
IGHV3-69-1*01

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



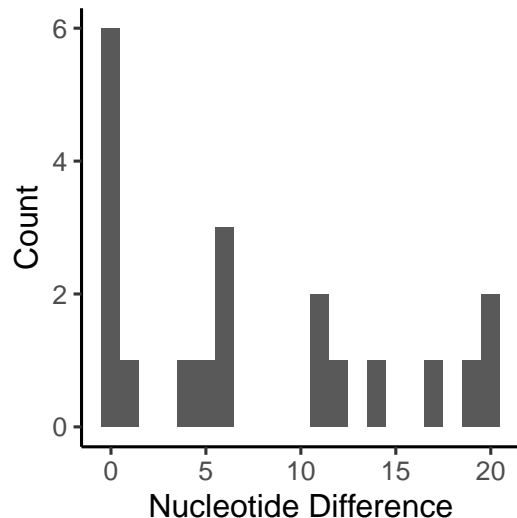
IGHV3-74*03

156 sequences assigned
No exact matches.



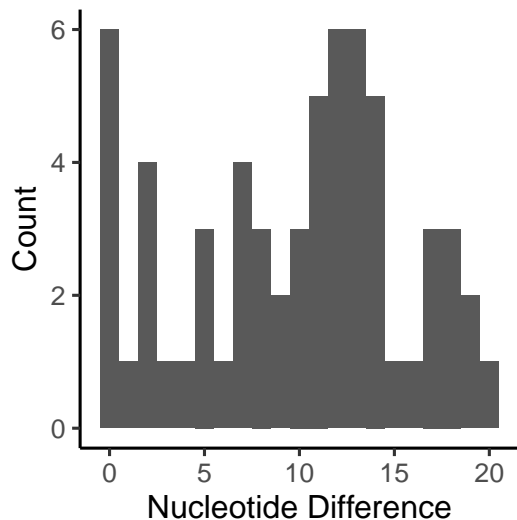
IGHV3-43D*04

22 sequences assigned
6 (27.3%) exact matches, in which:
6 unique CDR3
2 unique J



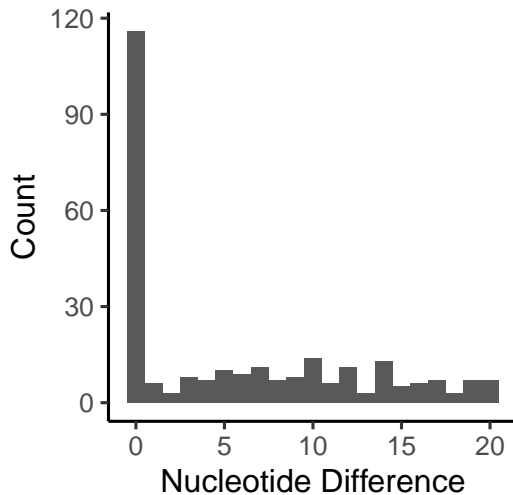
IGHV3-72*01

66 sequences assigned
6 (9.1%) exact matches, in which:
6 unique CDR3
3 unique J



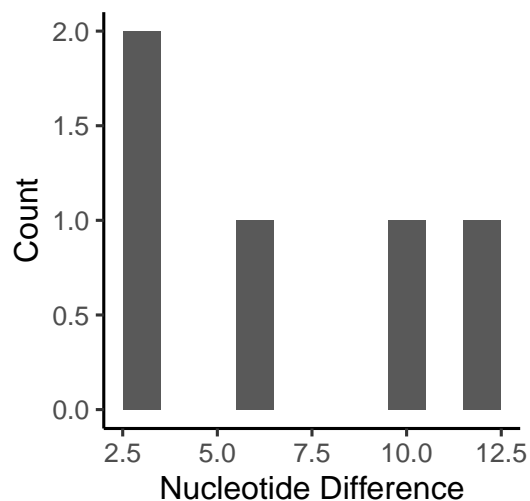
IGHV3-74*01_02

294 sequences assigned
116 (39.5%) exact matches, in which:
115 unique CDR3
6 unique J



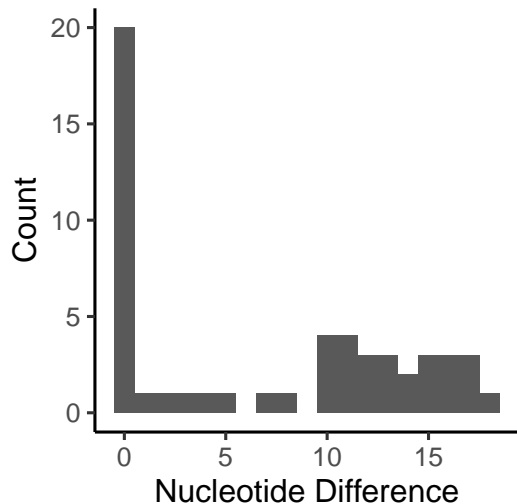
IGHV3-64D*09

8 sequences assigned
No exact matches.



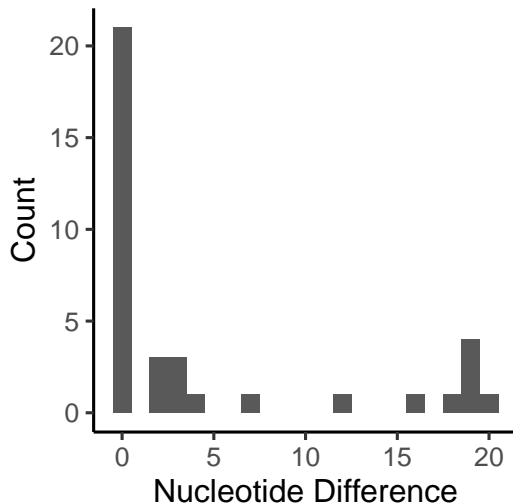
IGHV3-73*01_02

60 sequences assigned
20 (33.3%) exact matches, in which:
20 unique CDR3
4 unique J



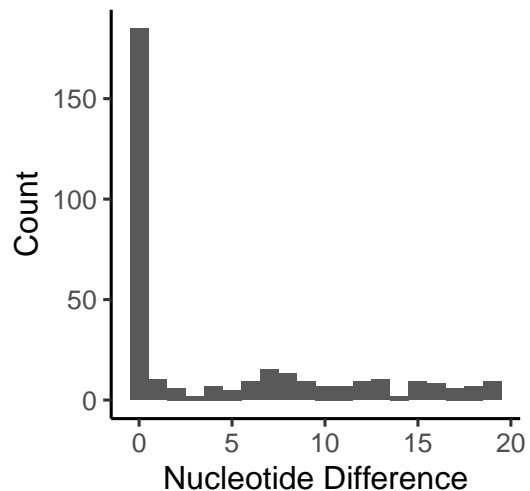
IGHV3-43D*03

39 sequences assigned
21 (53.8%) exact matches, in which:
21 unique CDR3
4 unique J



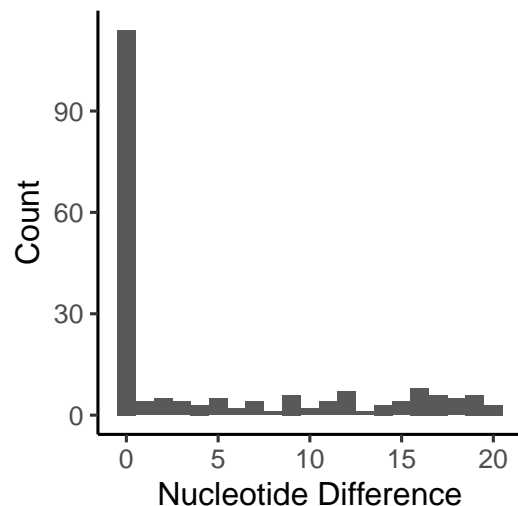
IGHV4-4*07

360 sequences assigned
185 (51.4%) exact matches, in which:
181 unique CDR3
6 unique J



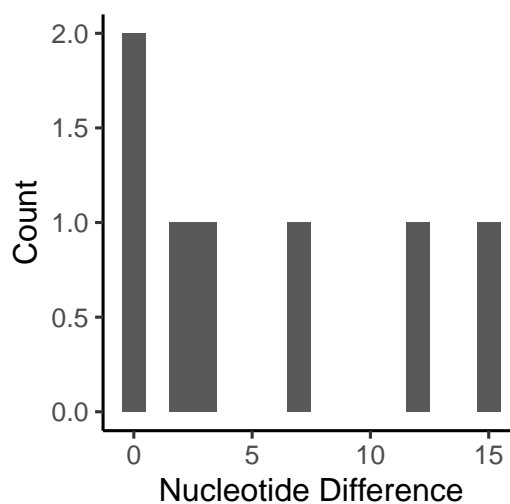
IGHV4-4*02_03

211 sequences assigned
114 (54%) exact matches, in which:
114 unique CDR3
5 unique J



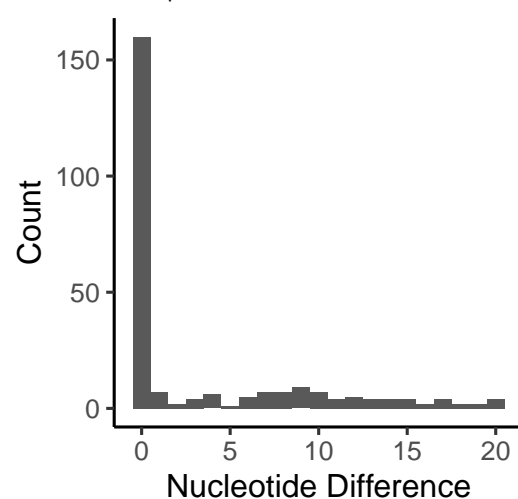
IGHV4-30-2*01

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
1 unique J



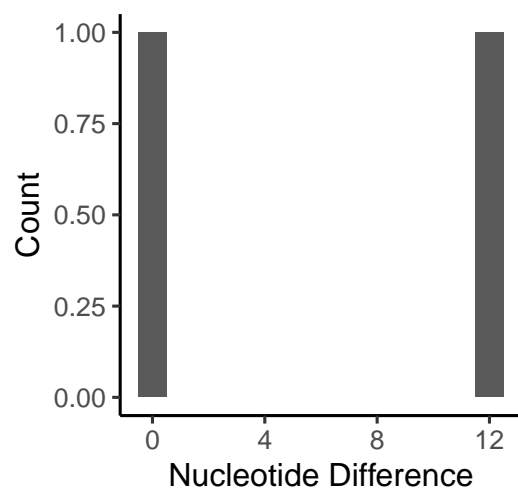
IGHV4-38-2*02

271 sequences assigned
160 (59%) exact matches, in which:
158 unique CDR3
5 unique J



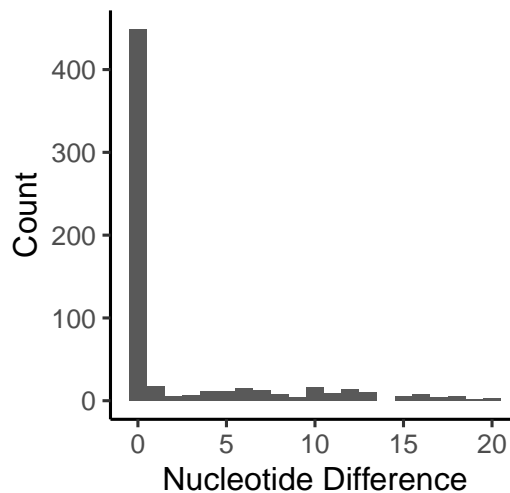
IGHV4-28*01_07

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



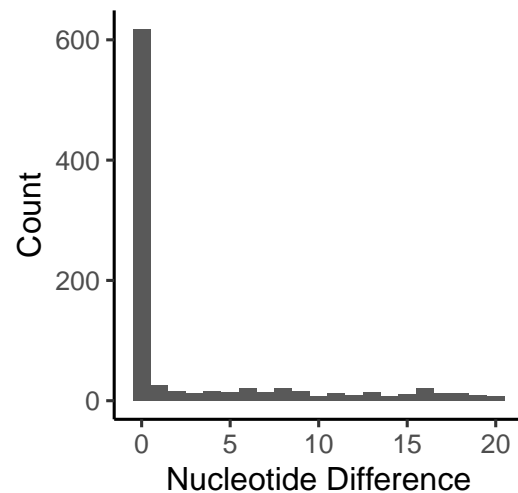
IGHV4-31*02

654 sequences assigned
449 (68.7%) exact matches, in which:
441 unique CDR3
6 unique J



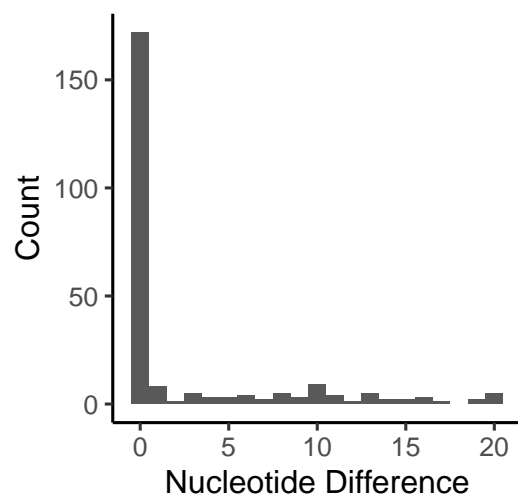
IGHV4-39*07

988 sequences assigned
618 (62.6%) exact matches, in which:
603 unique CDR3
6 unique J



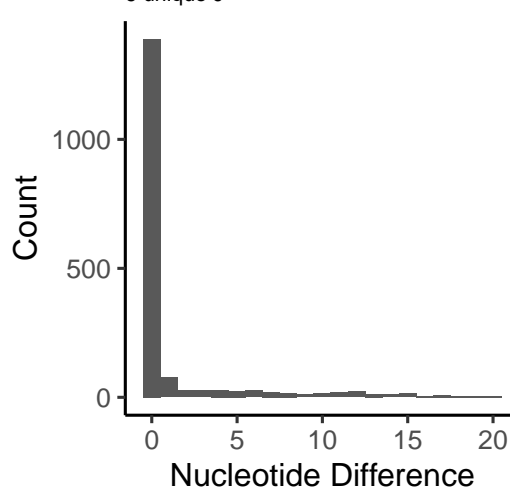
IGHV4-30-4*01

251 sequences assigned
172 (68.5%) exact matches, in which:
170 unique CDR3
6 unique J



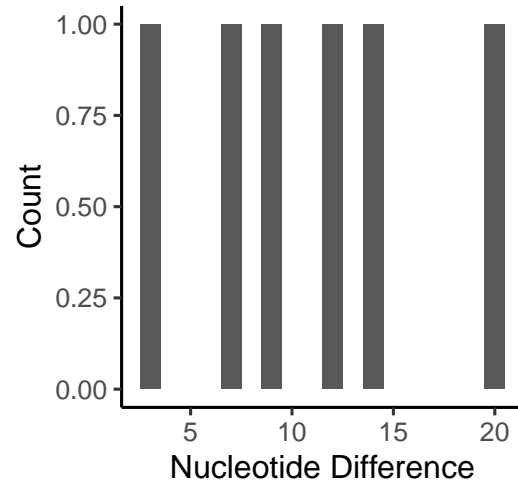
IGHV4-34*01_02

1832 sequences assigned
1389 (75.8%) exact matches, in which:
1343 unique CDR3
6 unique J



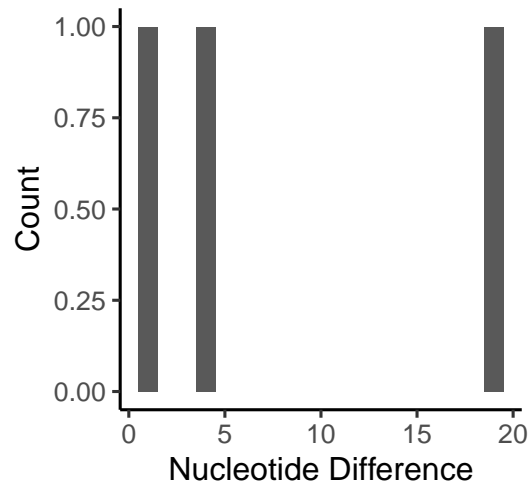
IGHV4-59*02

11 sequences assigned
No exact matches.



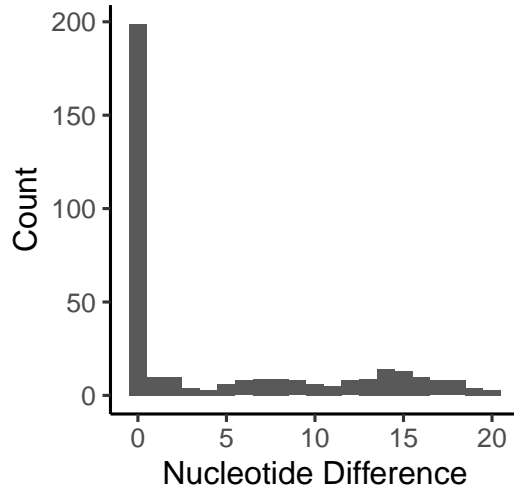
IGHV4-59*08

7 sequences assigned
No exact matches.



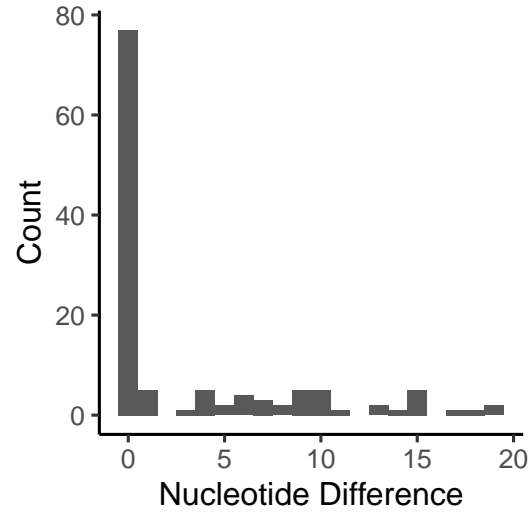
IGHV4-61*01

387 sequences assigned
199 (51.4%) exact matches, in which:
196 unique CDR3
6 unique J



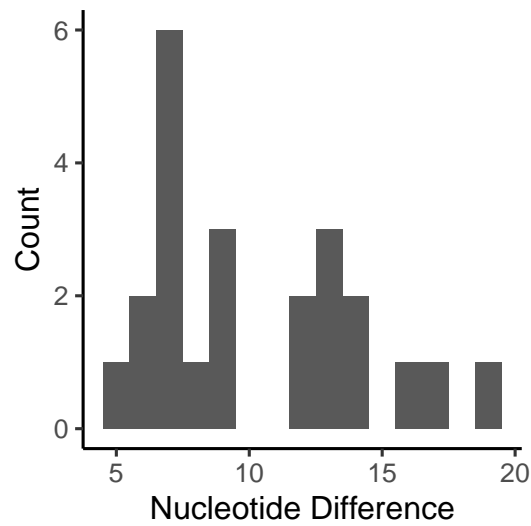
IGHV7-4-1*02

126 sequences assigned
77 (61.1%) exact matches, in which:
76 unique CDR3
5 unique J



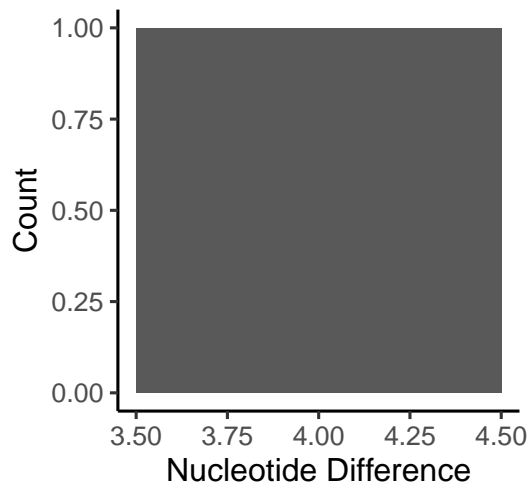
IGHV4-59*11

25 sequences assigned
No exact matches.



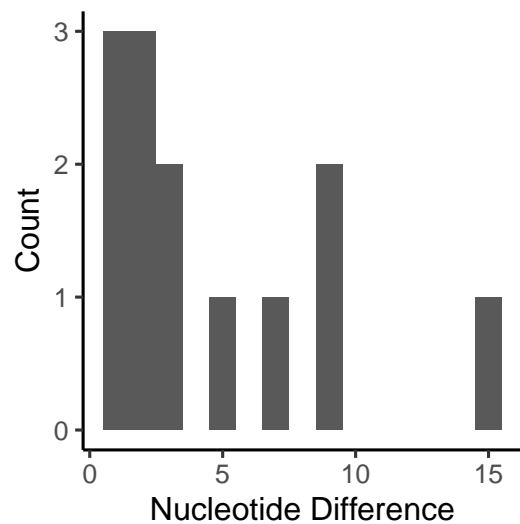
IGHV5-10-1*01_03

1 sequences assigned
No exact matches.



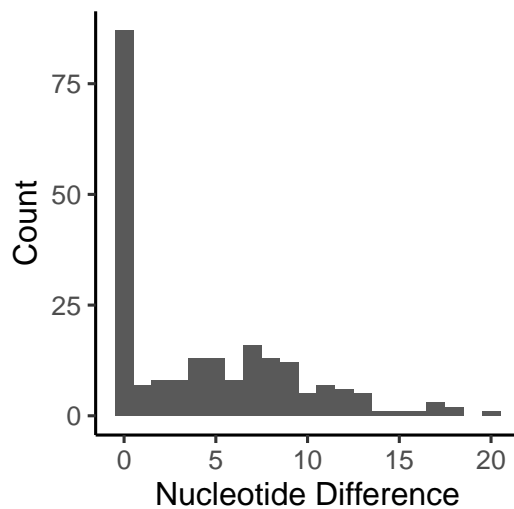
IGHV4-59*12

15 sequences assigned
No exact matches.



IGHV6-1*01_02

228 sequences assigned
87 (38.2%) exact matches, in which:
86 unique CDR3
6 unique J





[illegible]