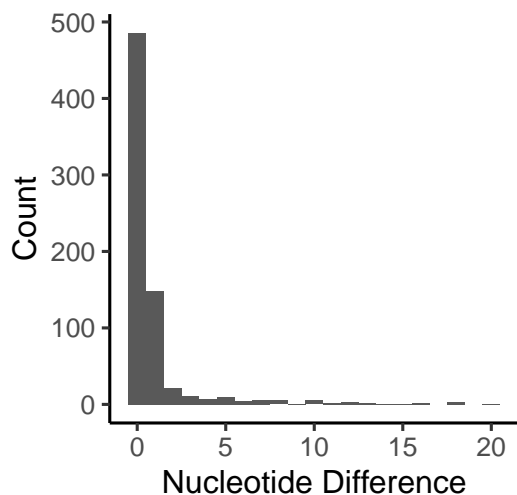


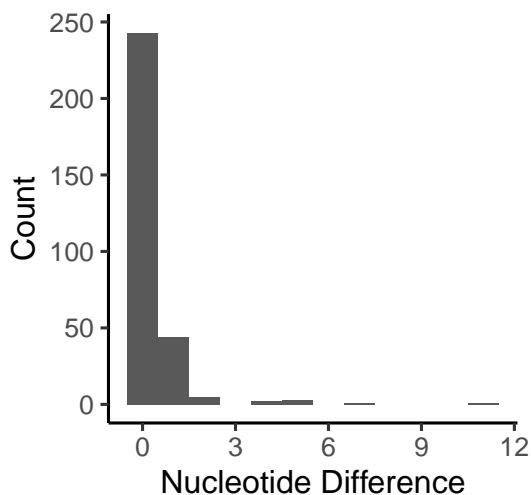
IGHV1-2*02

727 sequences assigned
486 (66.9%) exact matches, in which:
481 unique CDR3
6 unique J



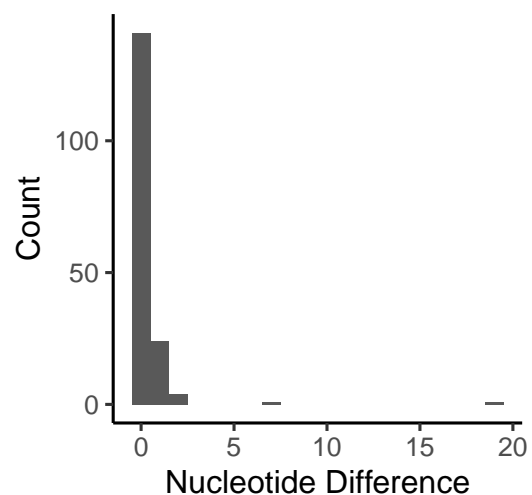
IGHV1-8*01

301 sequences assigned
243 (80.7%) exact matches, in which:
239 unique CDR3
6 unique J



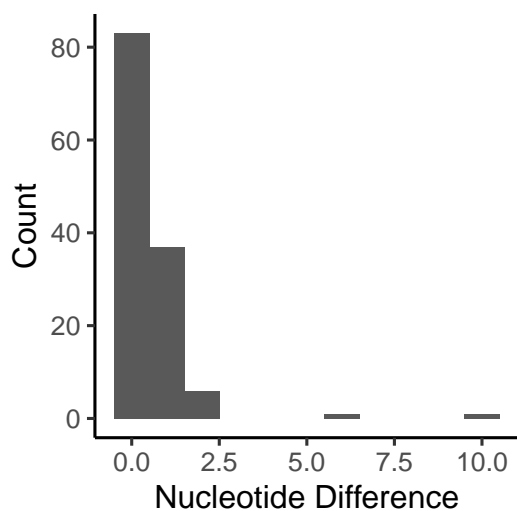
IGHV1-24*01

171 sequences assigned
141 (82.5%) exact matches, in which:
137 unique CDR3
6 unique J



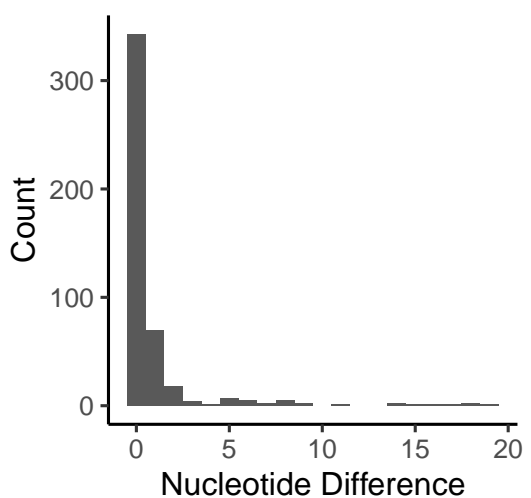
IGHV1-2*04

128 sequences assigned
83 (64.8%) exact matches, in which:
83 unique CDR3
4 unique J



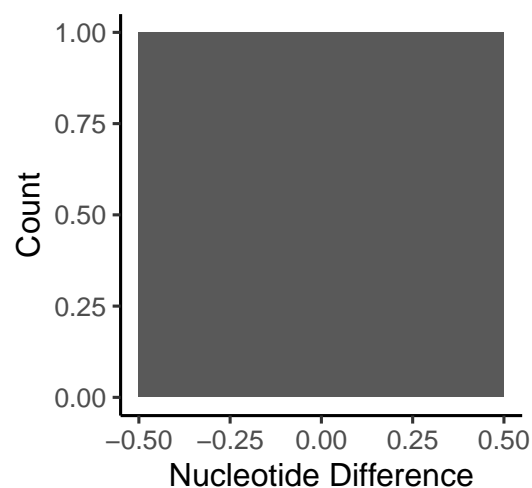
IGHV1-18*01

473 sequences assigned
343 (72.5%) exact matches, in which:
340 unique CDR3
6 unique J



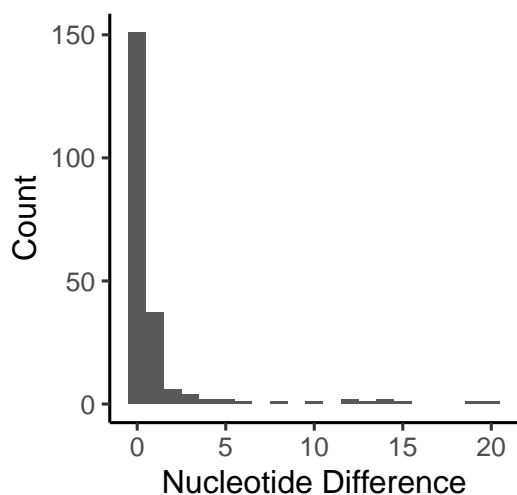
IGHV1-45*02

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



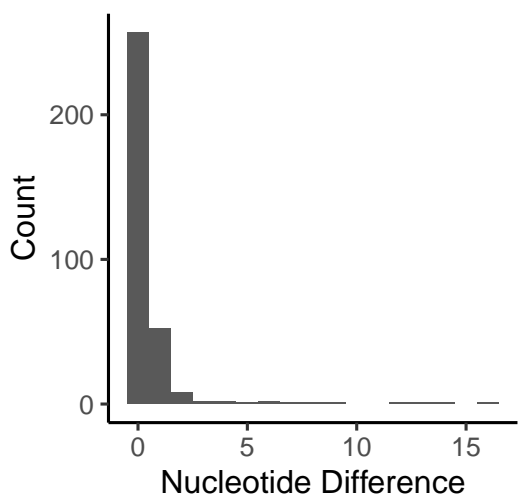
IGHV1-3*01

217 sequences assigned
151 (69.6%) exact matches, in which:
150 unique CDR3
6 unique J



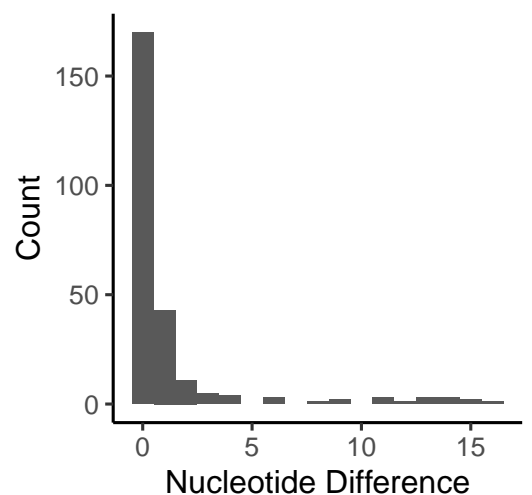
IGHV1-18*04

332 sequences assigned
257 (77.4%) exact matches, in which:
255 unique CDR3
6 unique J



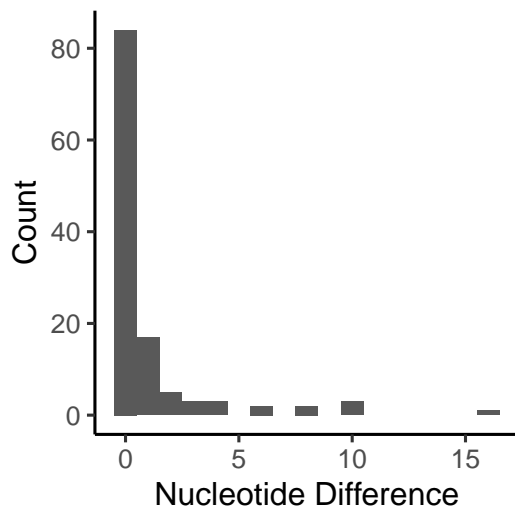
IGHV1-46*01

253 sequences assigned
170 (67.2%) exact matches, in which:
168 unique CDR3
6 unique J



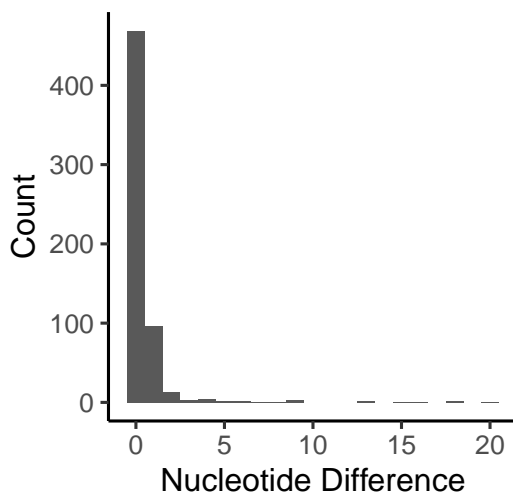
IGHV1-46*03

122 sequences assigned
84 (68.9%) exact matches, in which:
82 unique CDR3
5 unique J



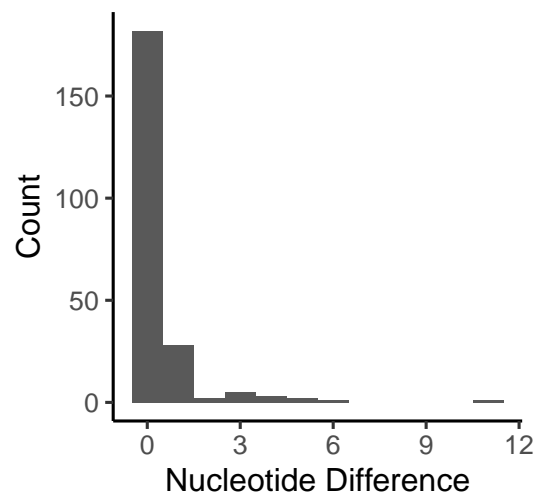
IGHV1-69*10

605 sequences assigned
469 (77.5%) exact matches, in which:
468 unique CDR3
6 unique J



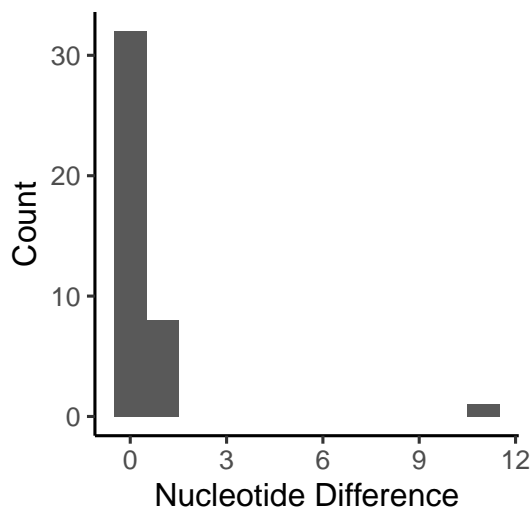
IGHV2-26*01

224 sequences assigned
182 (81.2%) exact matches, in which:
181 unique CDR3
5 unique J



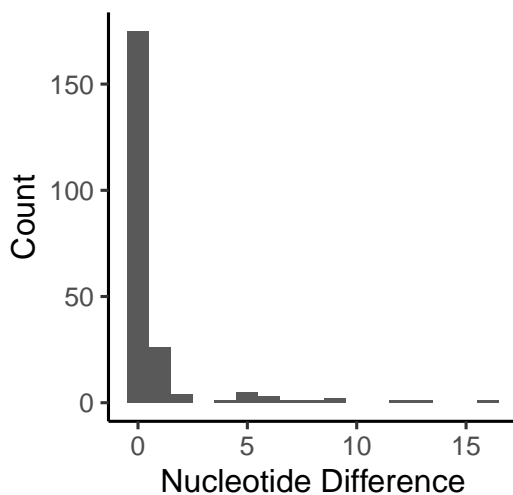
IGHV1-58*01

41 sequences assigned
32 (78%) exact matches, in which:
32 unique CDR3
4 unique J



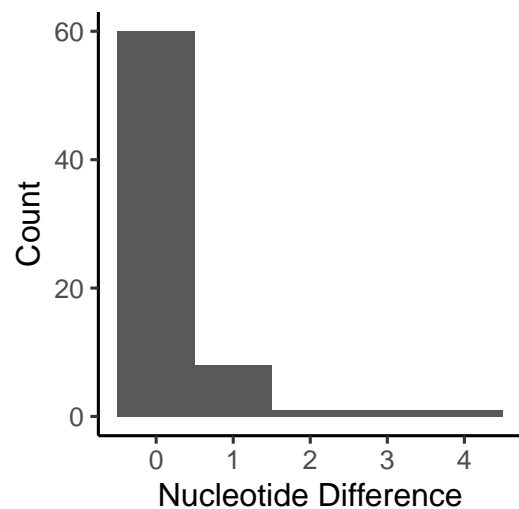
IGHV2-5*01

221 sequences assigned
175 (79.2%) exact matches, in which:
174 unique CDR3
6 unique J



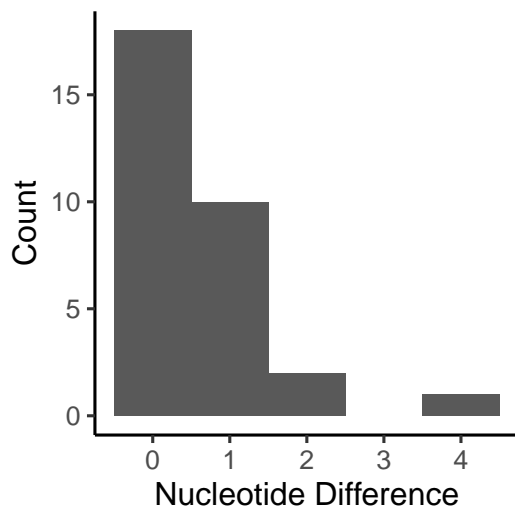
IGHV2-70*01

71 sequences assigned
60 (84.5%) exact matches, in which:
60 unique CDR3
5 unique J



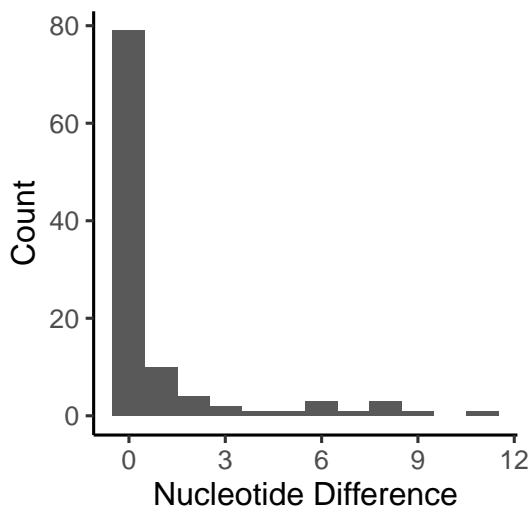
IGHV1-58*02

31 sequences assigned
18 (58.1%) exact matches, in which:
17 unique CDR3
3 unique J



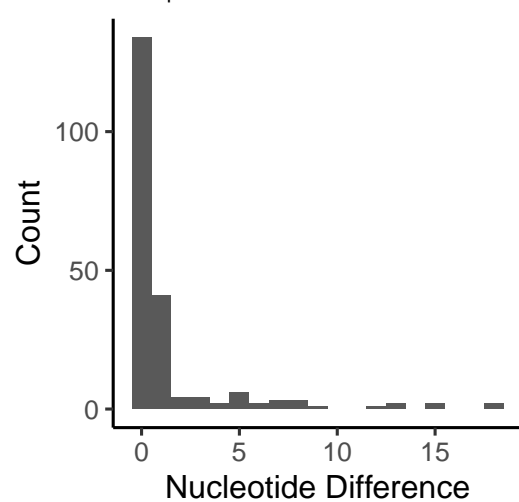
IGHV2-5*02

106 sequences assigned
79 (74.5%) exact matches, in which:
79 unique CDR3
6 unique J



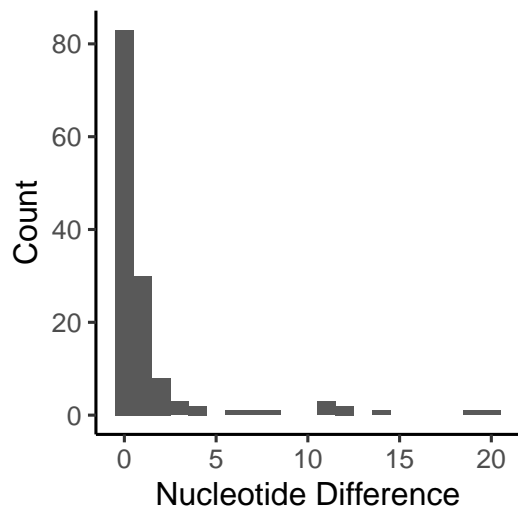
IGHV3-7*01

208 sequences assigned
134 (64.4%) exact matches, in which:
131 unique CDR3
6 unique J



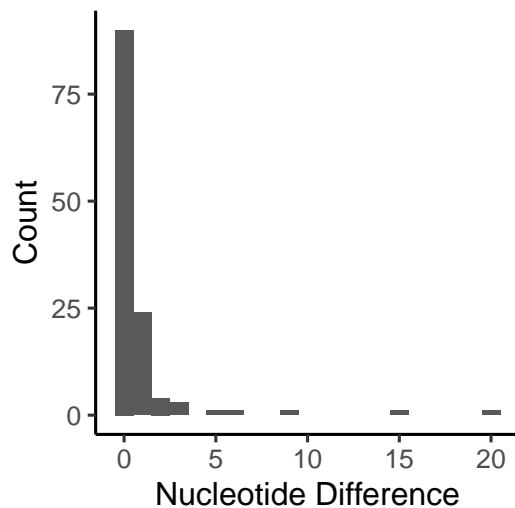
IGHV3-7*03

139 sequences assigned
83 (59.7%) exact matches, in which:
83 unique CDR3
5 unique J



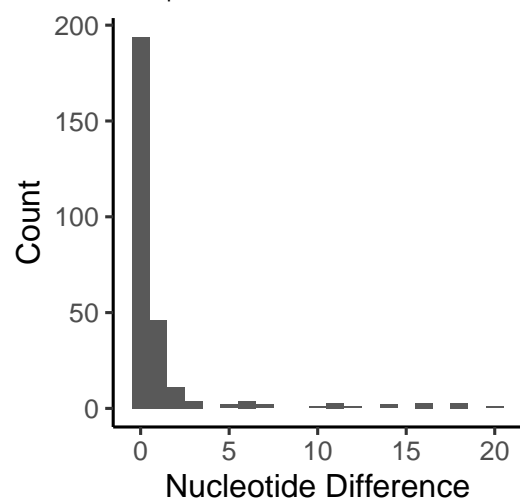
IGHV3-11*06

129 sequences assigned
90 (69.8%) exact matches, in which:
90 unique CDR3
5 unique J



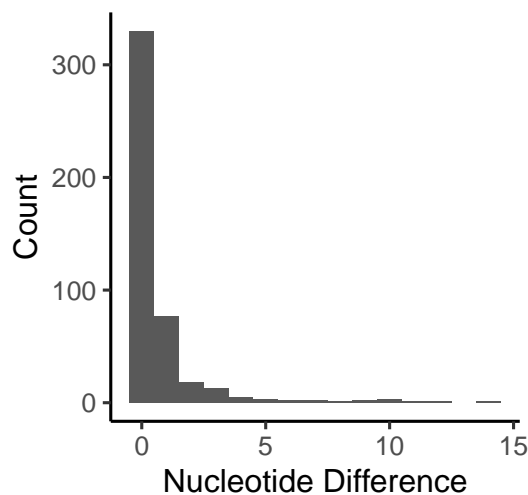
IGHV3-15*01

282 sequences assigned
194 (68.8%) exact matches, in which:
192 unique CDR3
6 unique J



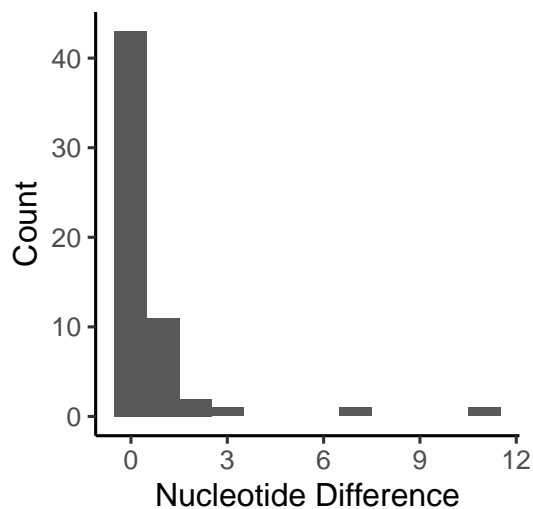
IGHV3-9*01

461 sequences assigned
330 (71.6%) exact matches, in which:
327 unique CDR3
6 unique J



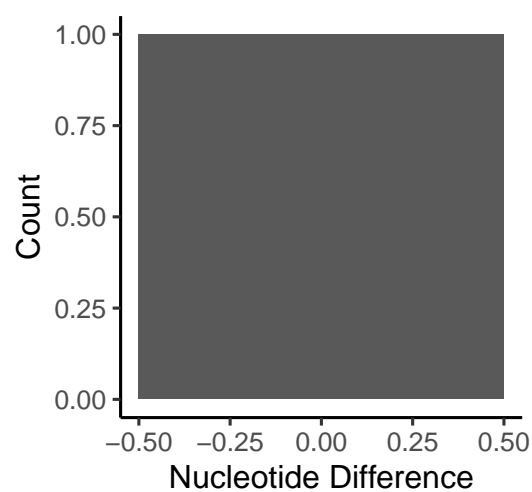
IGHV3-13*01

59 sequences assigned
43 (72.9%) exact matches, in which:
43 unique CDR3
5 unique J



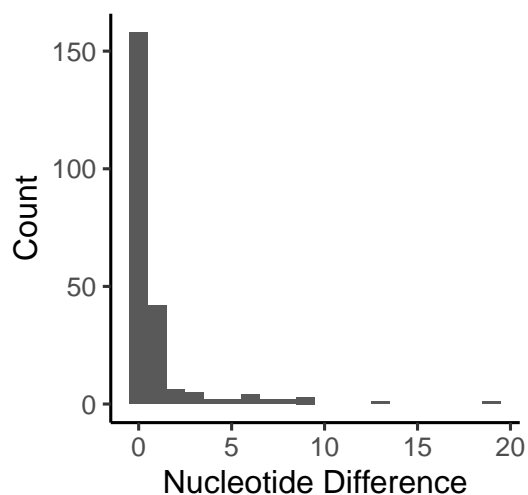
IGHV3-20*02

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



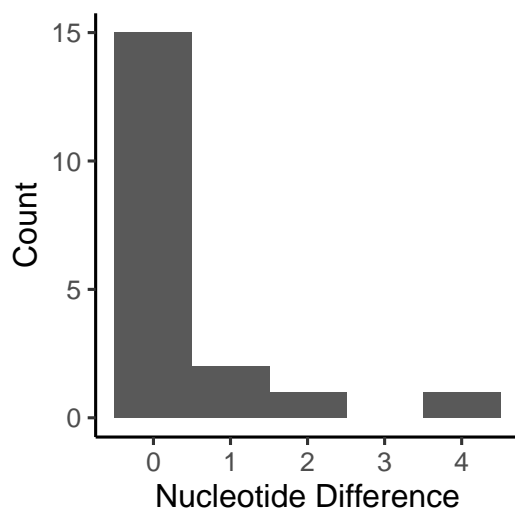
IGHV3-11*01

229 sequences assigned
158 (69%) exact matches, in which:
157 unique CDR3
6 unique J



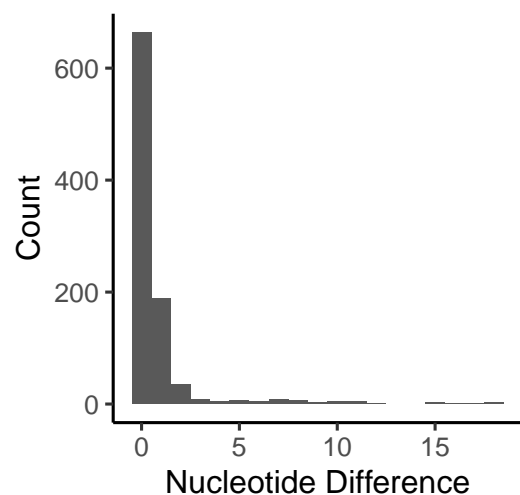
IGHV3-13*05

19 sequences assigned
15 (78.9%) exact matches, in which:
15 unique CDR3
4 unique J



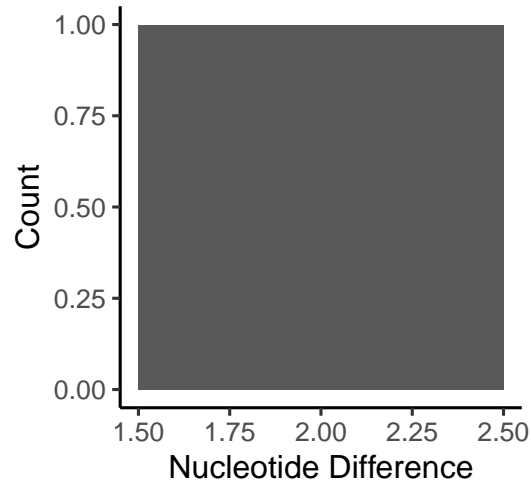
IGHV3-21*01

949 sequences assigned
664 (70%) exact matches, in which:
659 unique CDR3
6 unique J



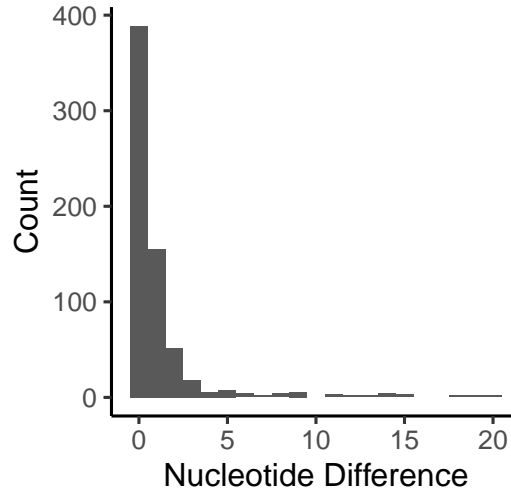
IGHV3-22*02

1 sequences assigned
No exact matches.



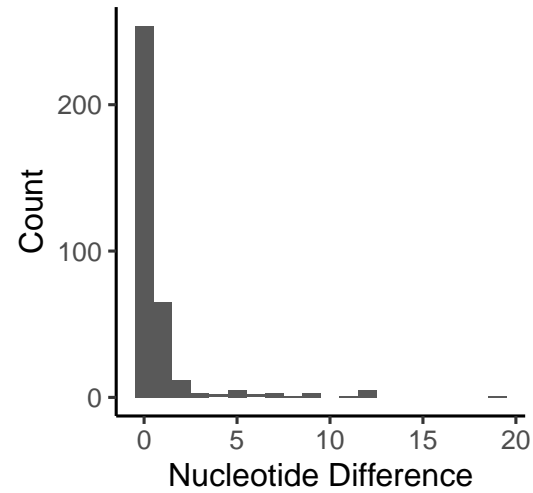
IGHV3-33*01

667 sequences assigned
389 (58.3%) exact matches, in which:
385 unique CDR3
6 unique J



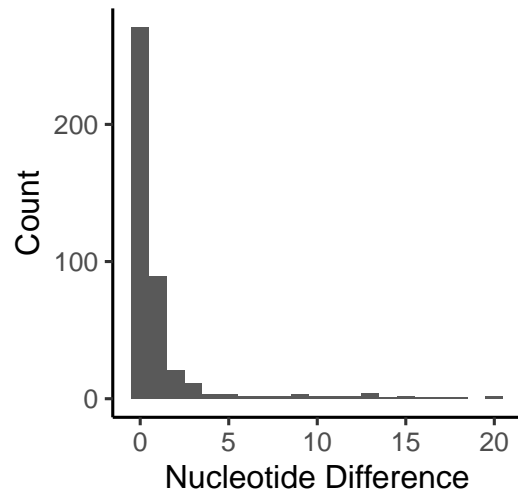
IGHV3-48*03

359 sequences assigned
254 (70.8%) exact matches, in which:
253 unique CDR3
6 unique J



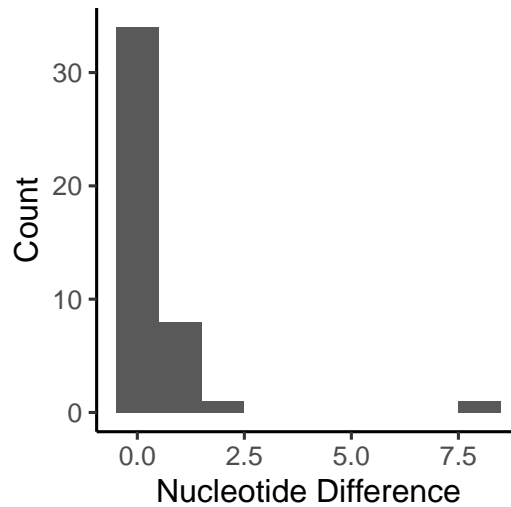
IGHV3-30*01

428 sequences assigned
271 (63.3%) exact matches, in which:
269 unique CDR3
6 unique J



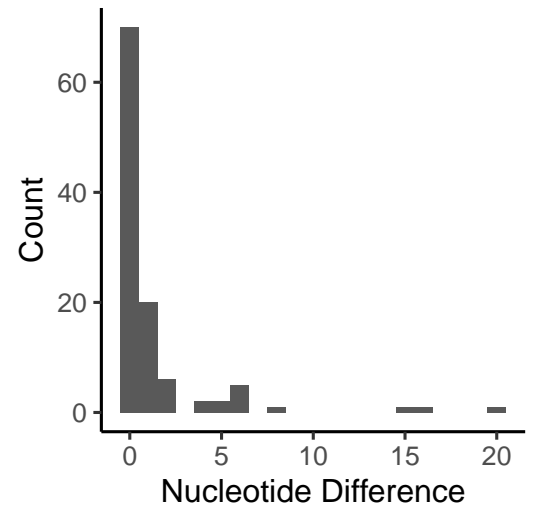
IGHV3-43*01

44 sequences assigned
34 (77.3%) exact matches, in which:
34 unique CDR3
3 unique J



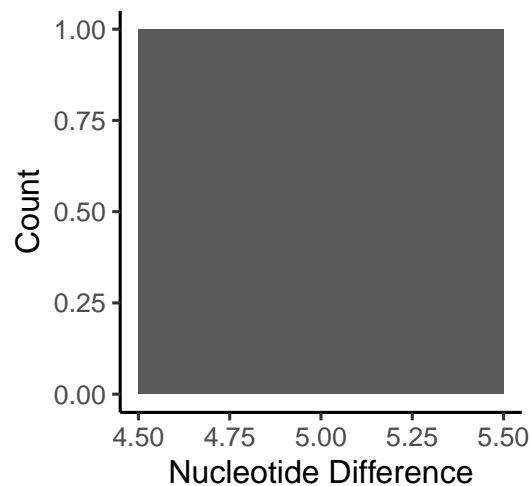
IGHV3-49*04

110 sequences assigned
70 (63.6%) exact matches, in which:
69 unique CDR3
5 unique J



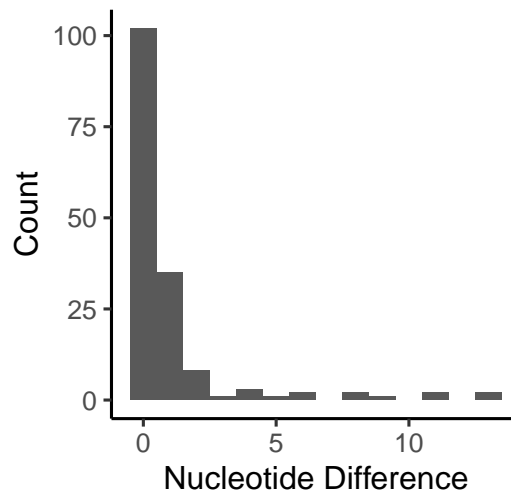
IGHV3-30-3*03

2 sequences assigned
No exact matches.



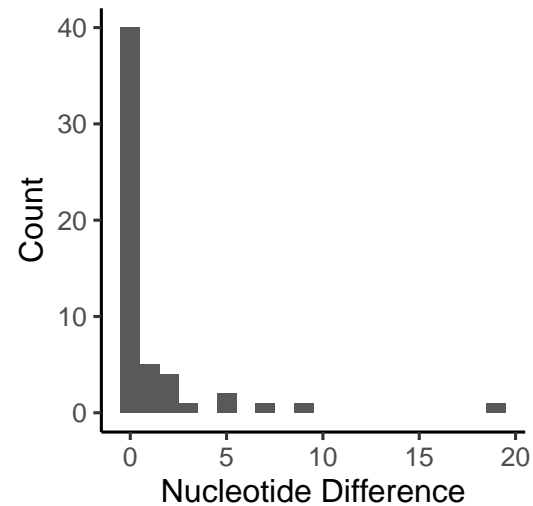
IGHV3-48*02

162 sequences assigned
102 (63%) exact matches, in which:
100 unique CDR3
6 unique J



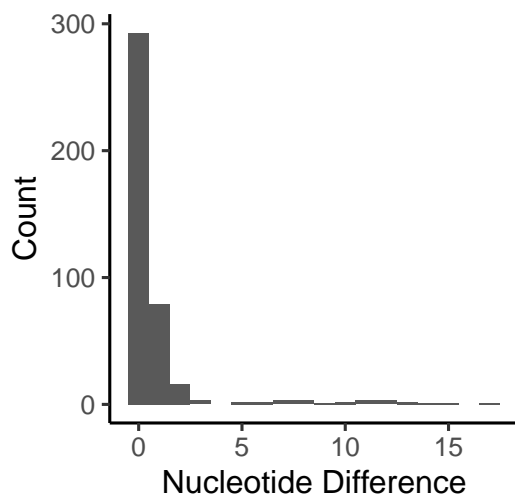
IGHV3-49*05

55 sequences assigned
40 (72.7%) exact matches, in which:
40 unique CDR3
5 unique J



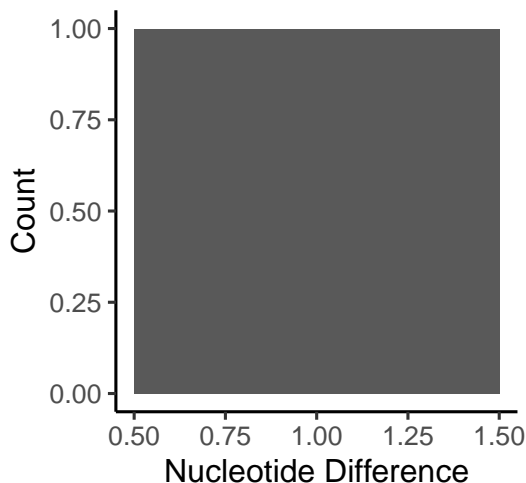
IGHV3-53*01

419 sequences assigned
293 (69.9%) exact matches, in which:
287 unique CDR3
6 unique J



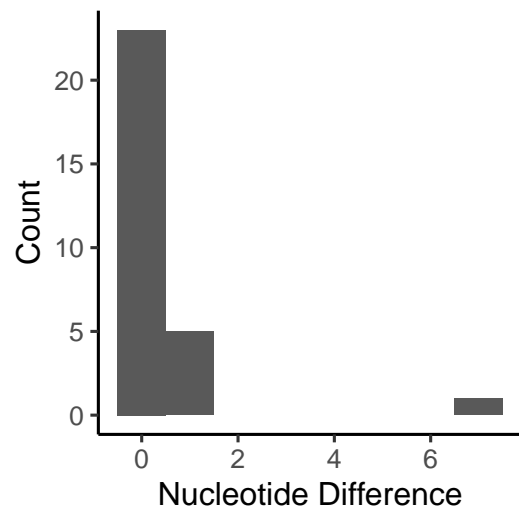
IGHV3-66*03

1 sequences assigned
No exact matches.



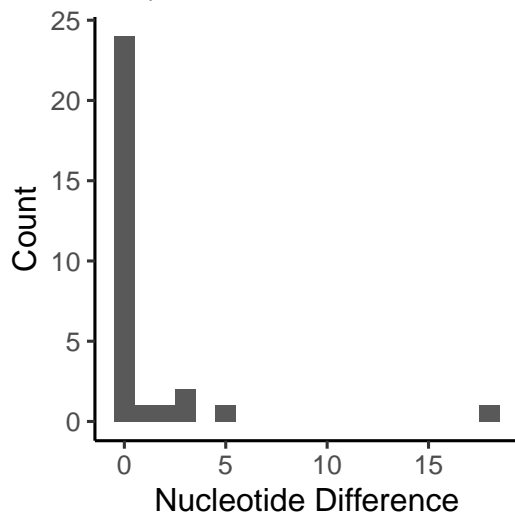
IGHV3-73*02

29 sequences assigned
23 (79.3%) exact matches, in which:
23 unique CDR3
4 unique J



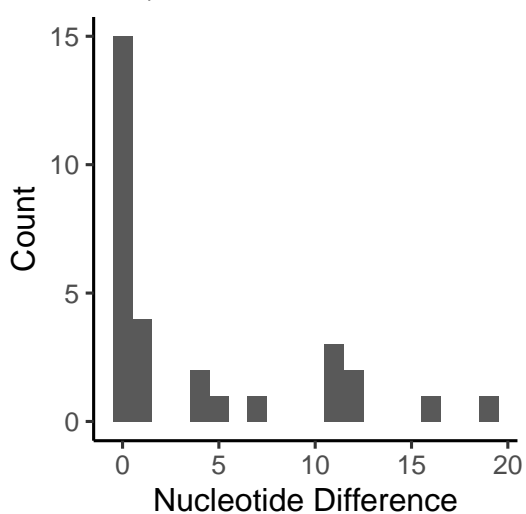
IGHV3-64*01

30 sequences assigned
24 (80%) exact matches, in which:
24 unique CDR3
6 unique J



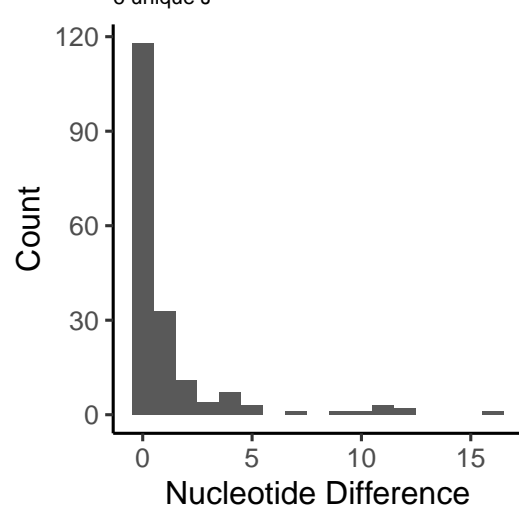
IGHV3-72*01

30 sequences assigned
15 (50%) exact matches, in which:
15 unique CDR3
5 unique J



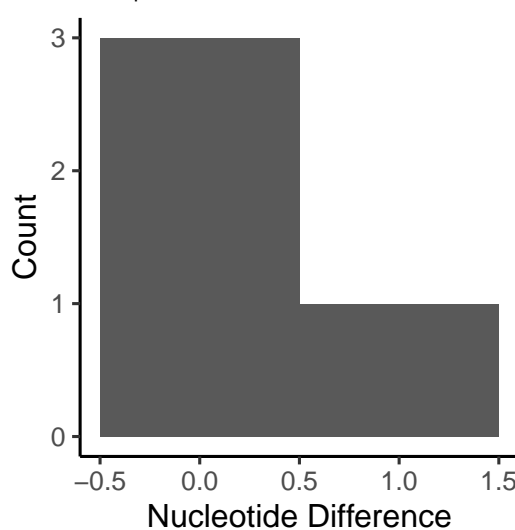
IGHV3-74*01

188 sequences assigned
118 (62.8%) exact matches, in which:
115 unique CDR3
6 unique J



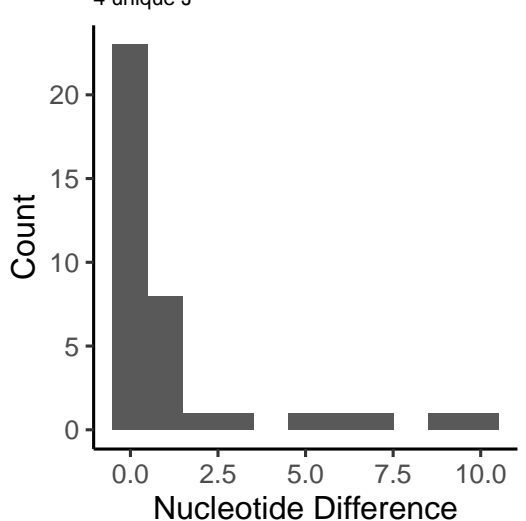
IGHV3-64*02

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



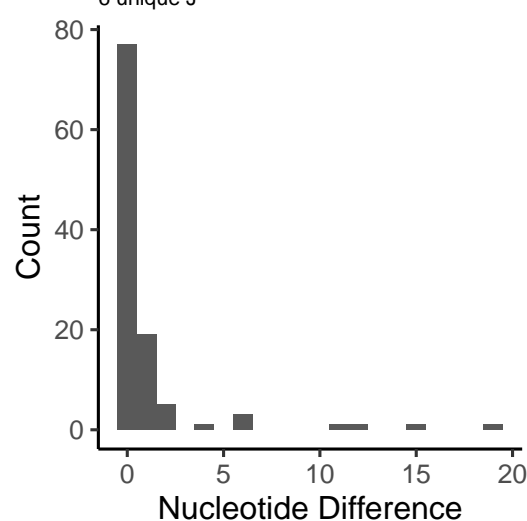
IGHV3-73*01

38 sequences assigned
23 (60.5%) exact matches, in which:
23 unique CDR3
4 unique J



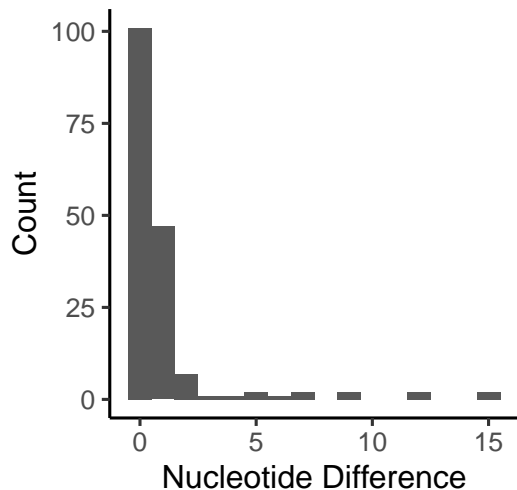
IGHV3-64D*06

110 sequences assigned
77 (70%) exact matches, in which:
76 unique CDR3
6 unique J



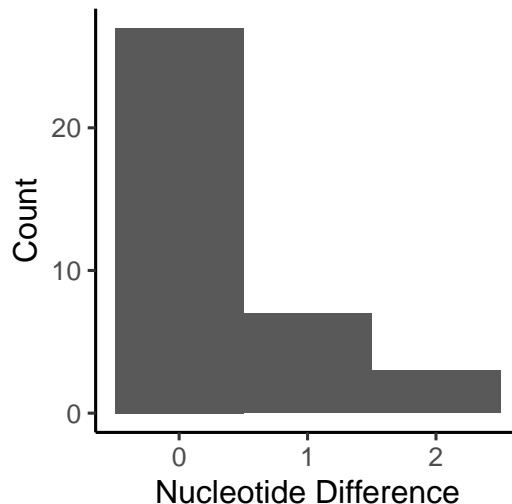
IGHV4-4*02

169 sequences assigned
101 (59.8%) exact matches, in which:
100 unique CDR3
5 unique J



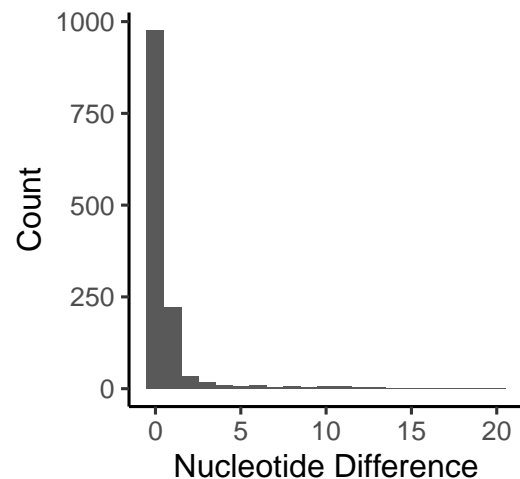
IGHV4-31*01

37 sequences assigned
27 (73%) exact matches, in which:
27 unique CDR3
6 unique J



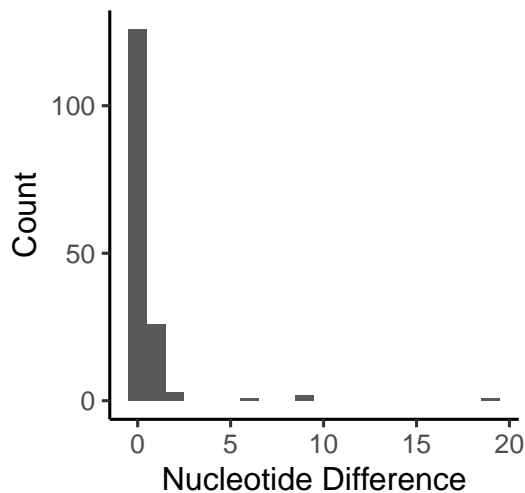
IGHV4-39*01

1339 sequences assigned
976 (72.9%) exact matches, in which:
970 unique CDR3
6 unique J



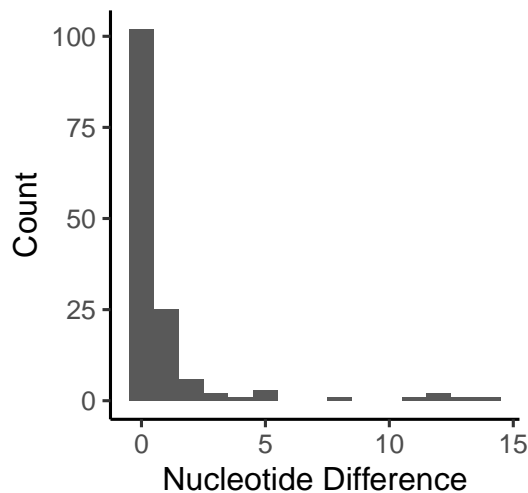
IGHV4-4*07

161 sequences assigned
126 (78.3%) exact matches, in which:
126 unique CDR3
6 unique J



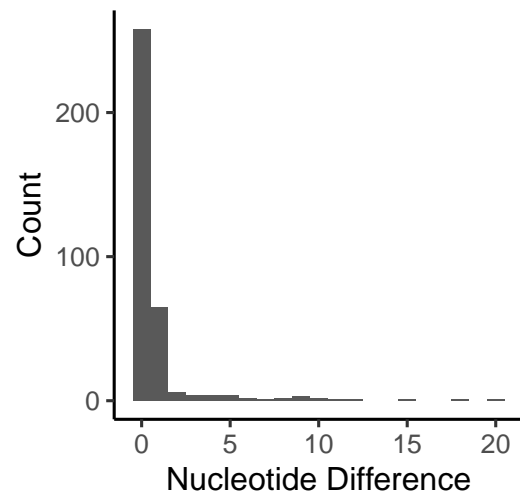
IGHV4-31*03

146 sequences assigned
102 (69.9%) exact matches, in which:
102 unique CDR3
5 unique J



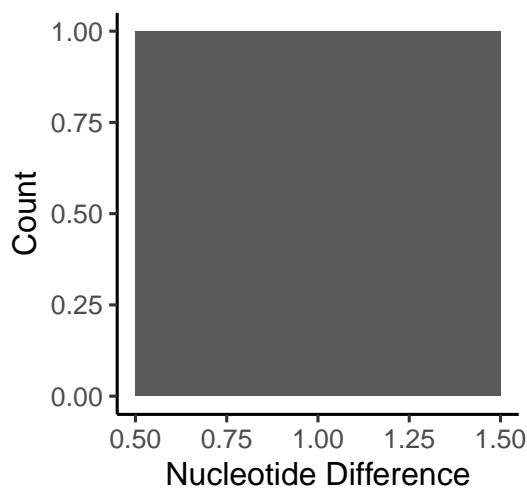
IGHV4-59*01

361 sequences assigned
258 (71.5%) exact matches, in which:
258 unique CDR3
6 unique J



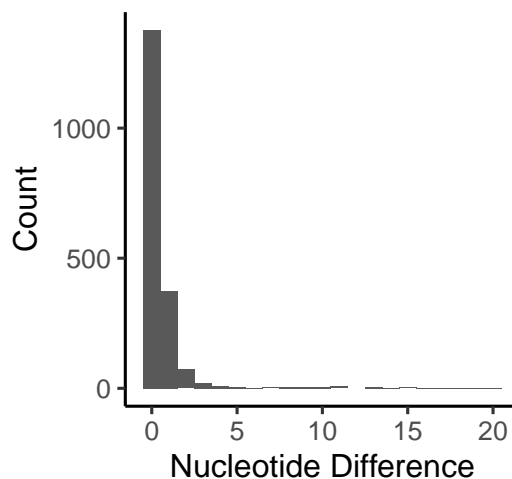
IGHV4-28*07

1 sequences assigned
No exact matches.



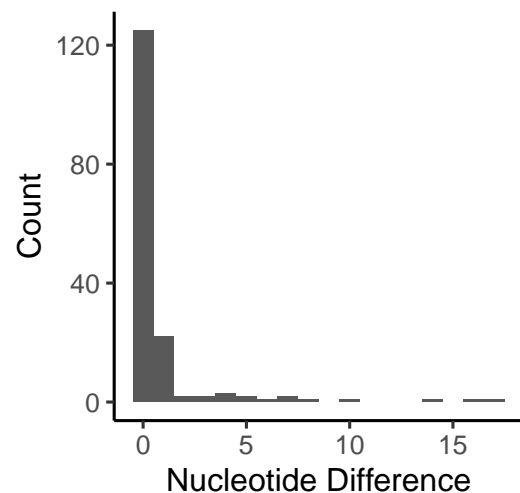
IGHV4-34*01

1910 sequences assigned
1377 (72.1%) exact matches, in which:
1362 unique CDR3
6 unique J



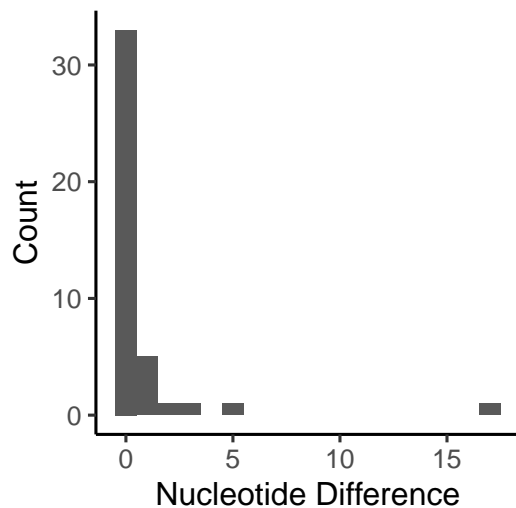
IGHV4-59*08

164 sequences assigned
125 (76.2%) exact matches, in which:
125 unique CDR3
6 unique J



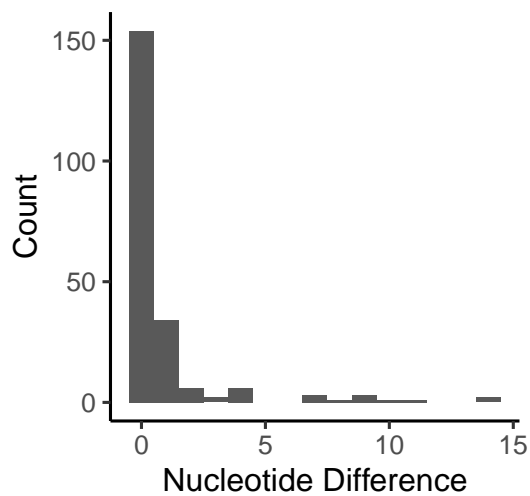
IGHV4-61*01

42 sequences assigned
33 (78.6%) exact matches, in which:
33 unique CDR3
4 unique J



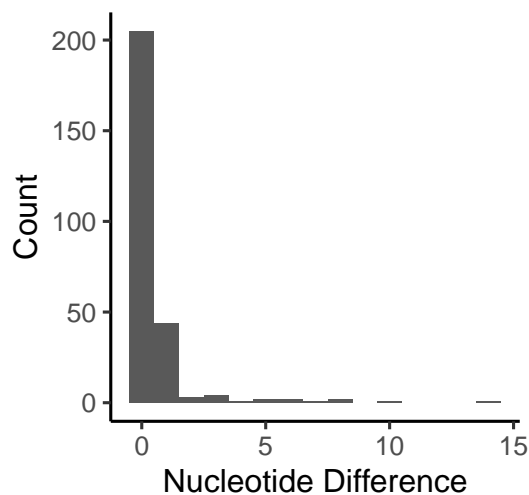
IGHV5-51*03

215 sequences assigned
154 (71.6%) exact matches, in which:
153 unique CDR3
5 unique J



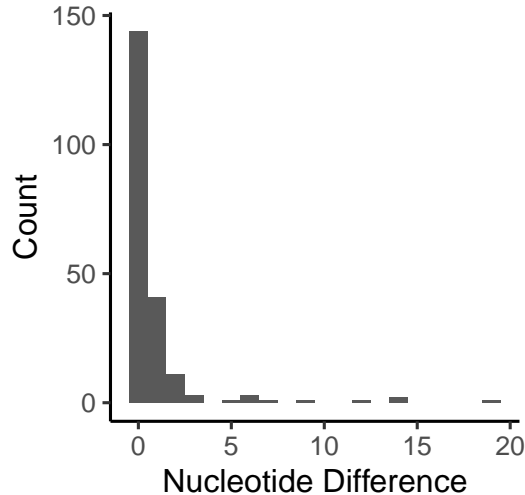
IGHV5-10-1*03

267 sequences assigned
205 (76.8%) exact matches, in which:
205 unique CDR3
6 unique J



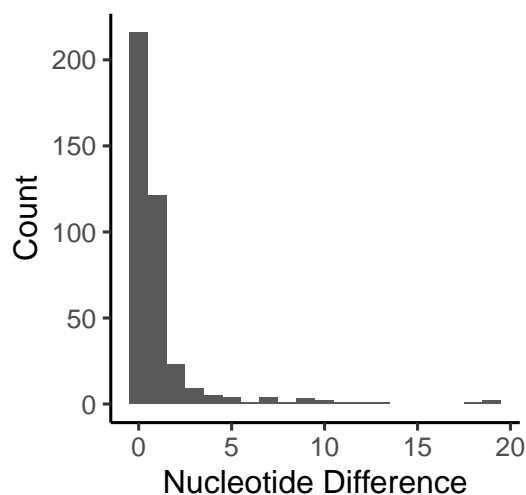
IGHV6-1*01

210 sequences assigned
144 (68.6%) exact matches, in which:
143 unique CDR3
6 unique J



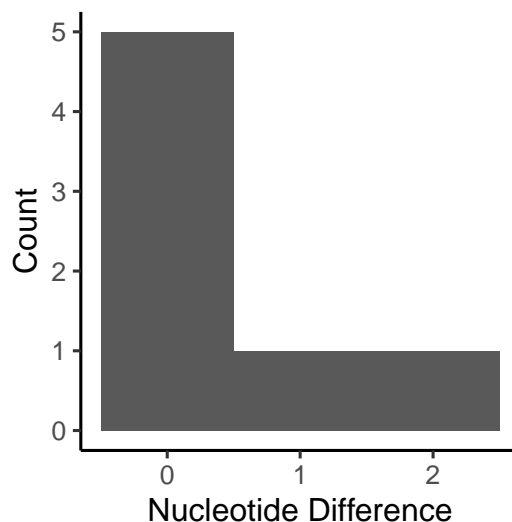
IGHV5-51*01

400 sequences assigned
216 (54%) exact matches, in which:
216 unique CDR3
6 unique J



IGHV7-4-1*01

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
3 unique J





[illegible]