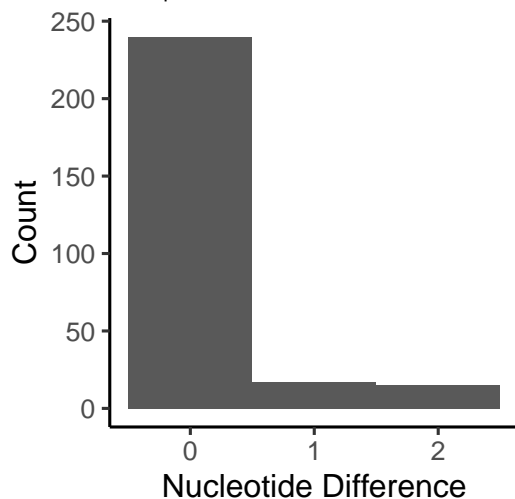


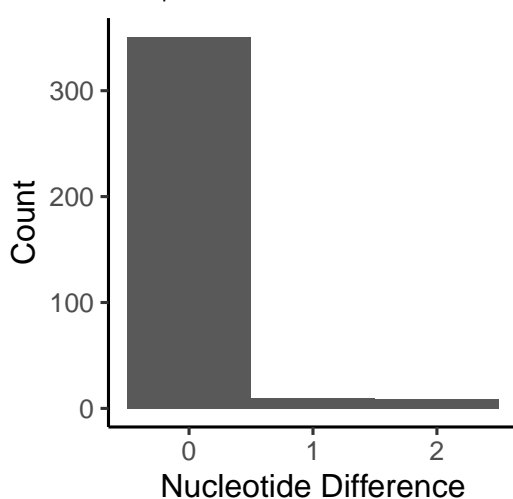
IGHV1-2*04

272 sequences assigned
240 (88.2%) exact matches, in which:
240 unique CDR3
5 unique J



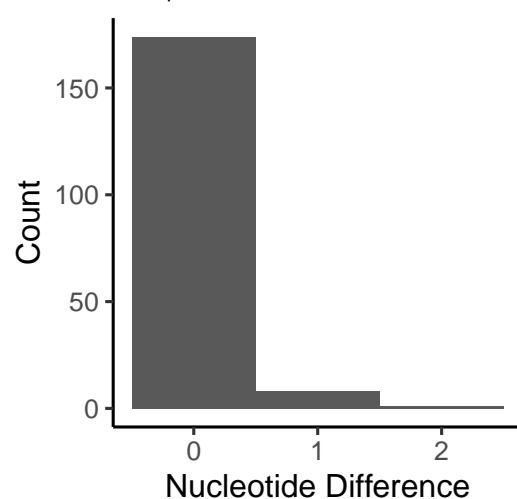
IGHV1-18*01

370 sequences assigned
351 (94.9%) exact matches, in which:
348 unique CDR3
6 unique J



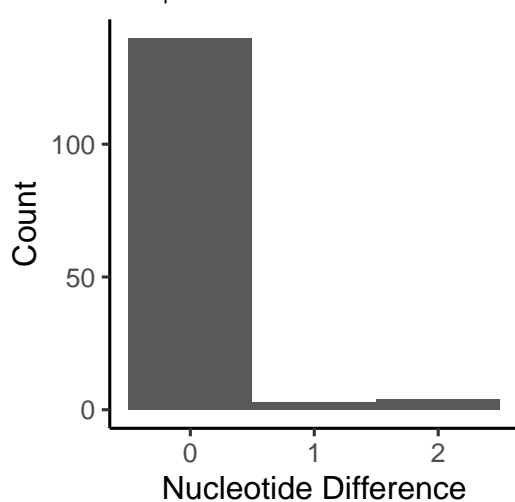
IGHV1-46*01

183 sequences assigned
174 (95.1%) exact matches, in which:
174 unique CDR3
5 unique J



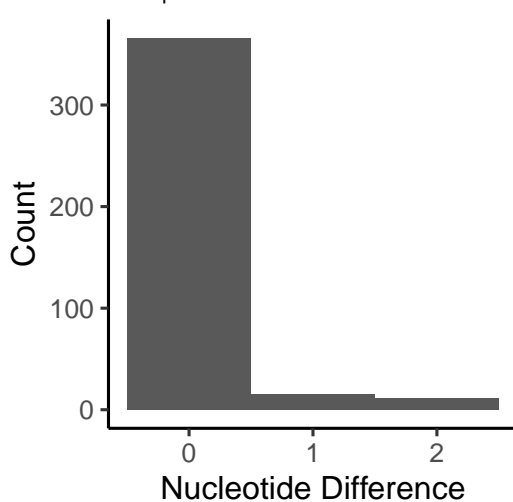
IGHV1-3*01_05

147 sequences assigned
140 (95.2%) exact matches, in which:
140 unique CDR3
6 unique J



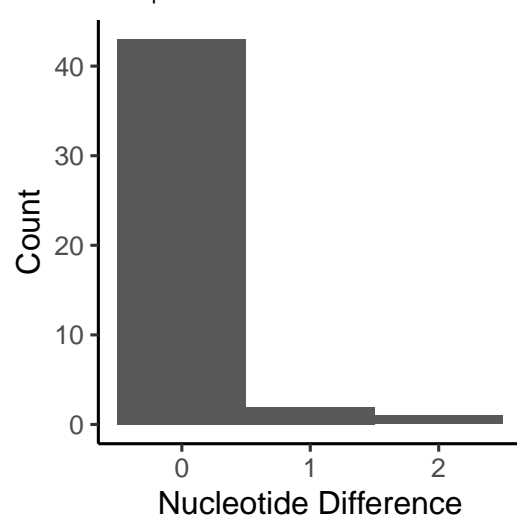
IGHV1-18*04

392 sequences assigned
366 (93.4%) exact matches, in which:
365 unique CDR3
6 unique J



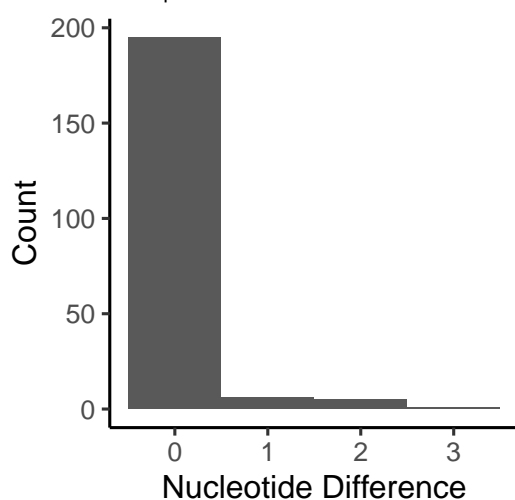
IGHV1-58*01_03

46 sequences assigned
43 (93.5%) exact matches, in which:
43 unique CDR3
4 unique J



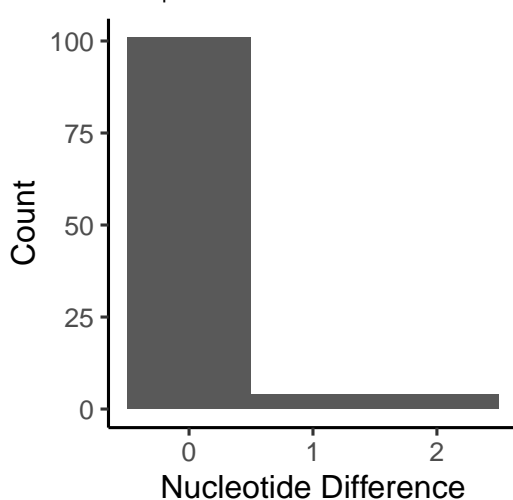
IGHV1-8*01

207 sequences assigned
195 (94.2%) exact matches, in which:
195 unique CDR3
6 unique J



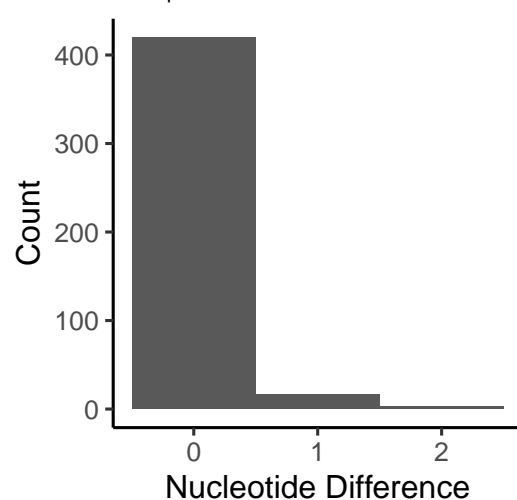
IGHV1-24*01

109 sequences assigned
101 (92.7%) exact matches, in which:
101 unique CDR3
6 unique J



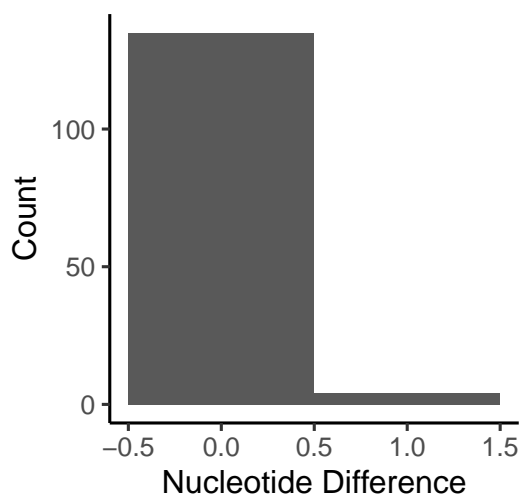
IGHV1-69*01_12_13

439 sequences assigned
420 (95.7%) exact matches, in which:
420 unique CDR3
6 unique J



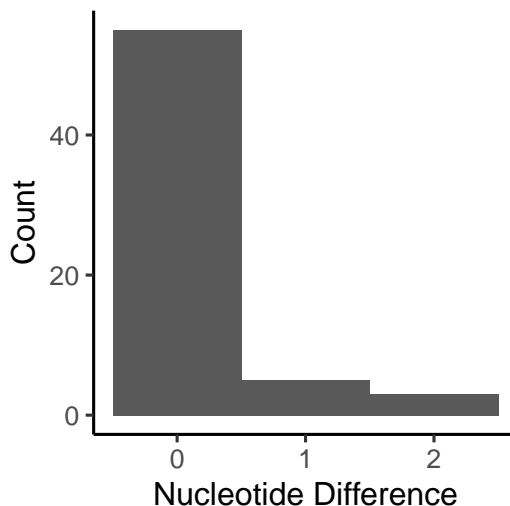
IGHV1–69*06_14

139 sequences assigned
135 (97.1%) exact matches, in which:
135 unique CDR3
5 unique J



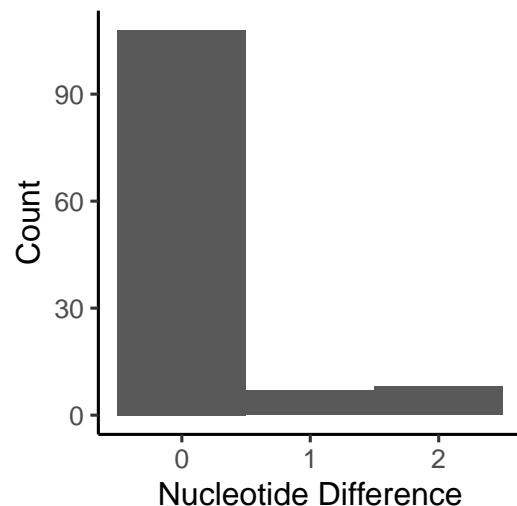
IGHV2–70*01

63 sequences assigned
55 (87.3%) exact matches, in which:
55 unique CDR3
5 unique J



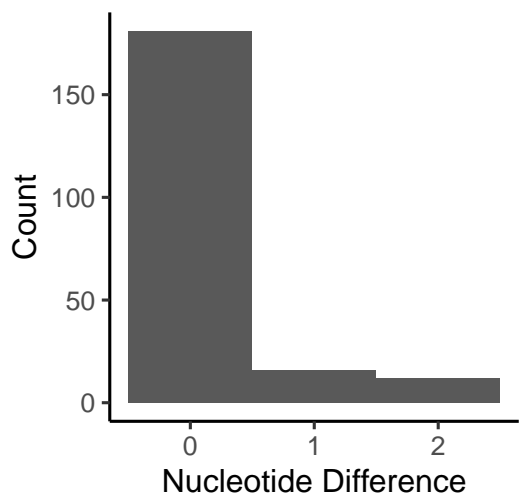
IGHV3–9*01

123 sequences assigned
108 (87.8%) exact matches, in which:
108 unique CDR3
5 unique J



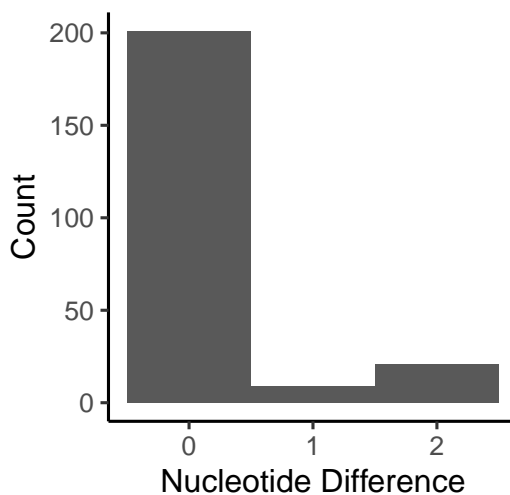
IGHV2–5*02

209 sequences assigned
181 (86.6%) exact matches, in which:
180 unique CDR3
6 unique J



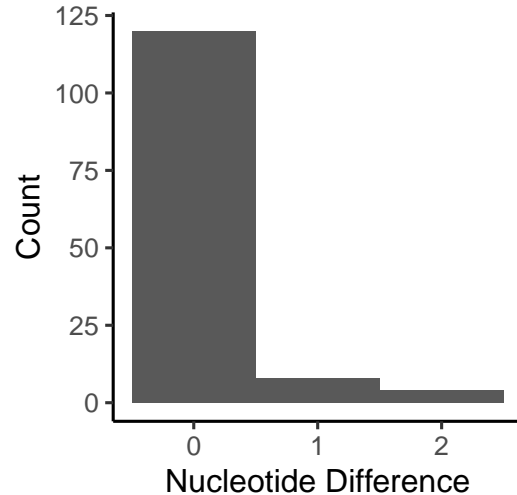
IGHV3–7*01

231 sequences assigned
201 (87%) exact matches, in which:
199 unique CDR3
6 unique J



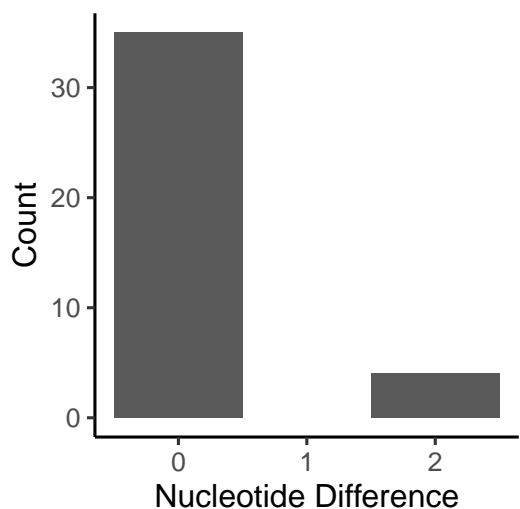
IGHV3–11*01

132 sequences assigned
120 (90.9%) exact matches, in which:
119 unique CDR3
5 unique J



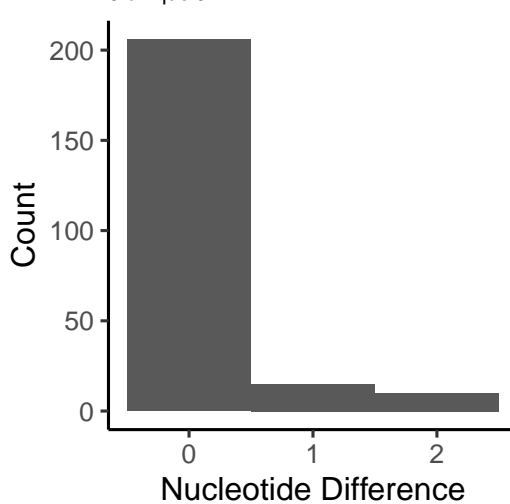
IGHV2–26*01

39 sequences assigned
35 (89.7%) exact matches, in which:
35 unique CDR3
5 unique J



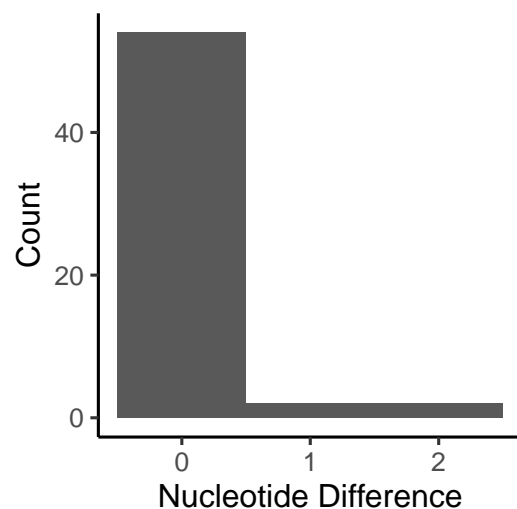
IGHV3–7*03

231 sequences assigned
206 (89.2%) exact matches, in which:
204 unique CDR3
5 unique J



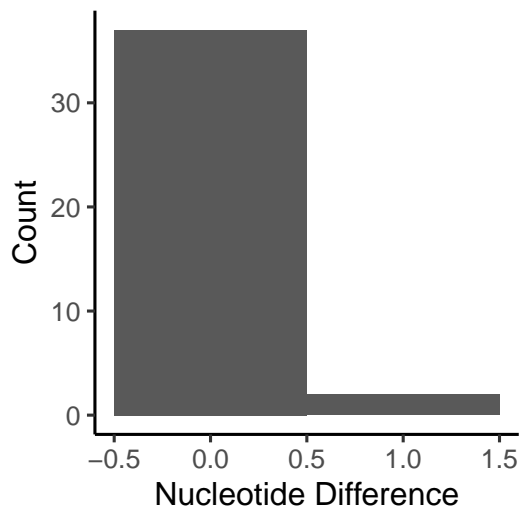
IGHV3–11*06

58 sequences assigned
54 (93.1%) exact matches, in which:
54 unique CDR3
4 unique J



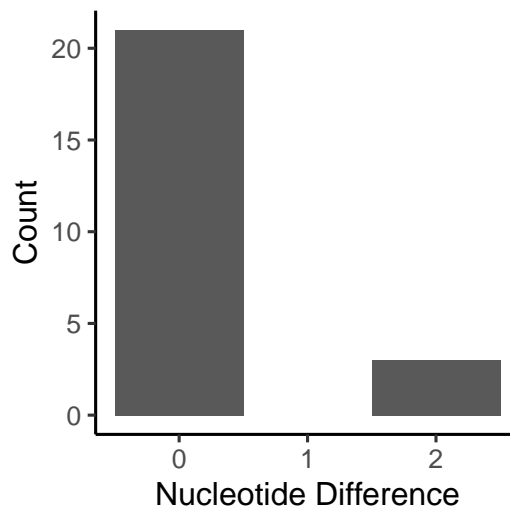
IGHV3-13*01

39 sequences assigned
37 (94.9%) exact matches, in which:
37 unique CDR3
5 unique J



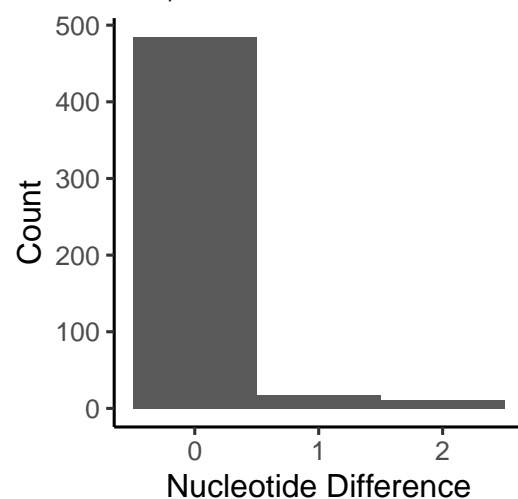
IGHV3-20*01_02

24 sequences assigned
21 (87.5%) exact matches, in which:
21 unique CDR3
5 unique J



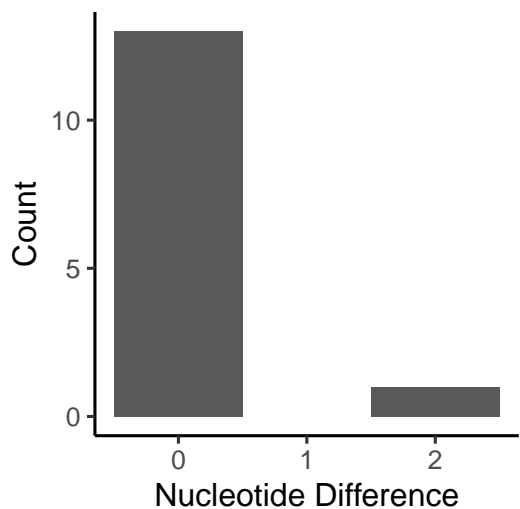
IGHV3-30-3*01

513 sequences assigned
485 (94.5%) exact matches, in which:
485 unique CDR3
6 unique J



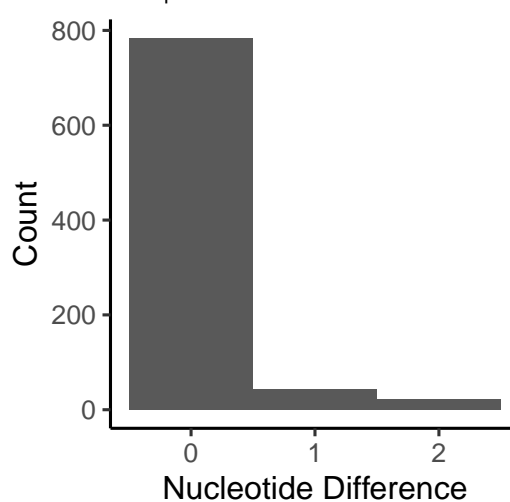
IGHV3-13*05

14 sequences assigned
13 (92.9%) exact matches, in which:
13 unique CDR3
4 unique J



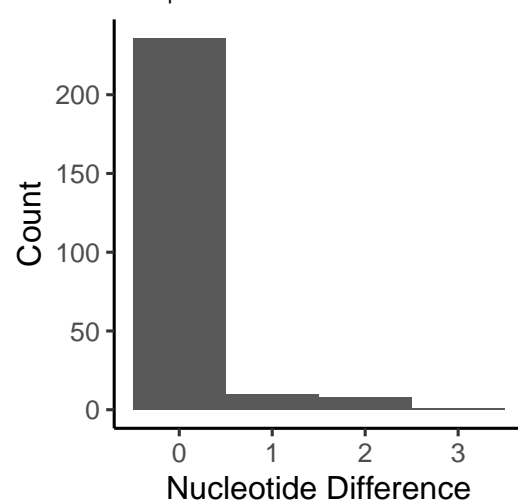
IGHV3-21*01_02

851 sequences assigned
784 (92.1%) exact matches, in which:
777 unique CDR3
6 unique J



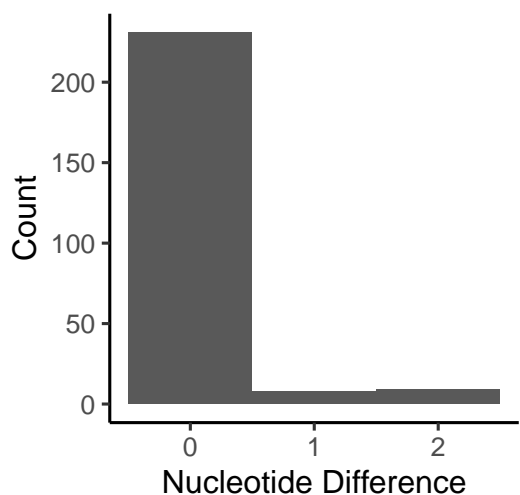
IGHV3-33*01

255 sequences assigned
236 (92.5%) exact matches, in which:
236 unique CDR3
6 unique J



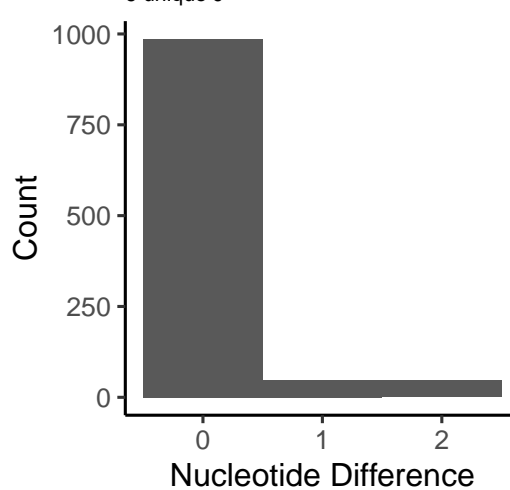
IGHV3-15*01_02

248 sequences assigned
231 (93.1%) exact matches, in which:
231 unique CDR3
6 unique J



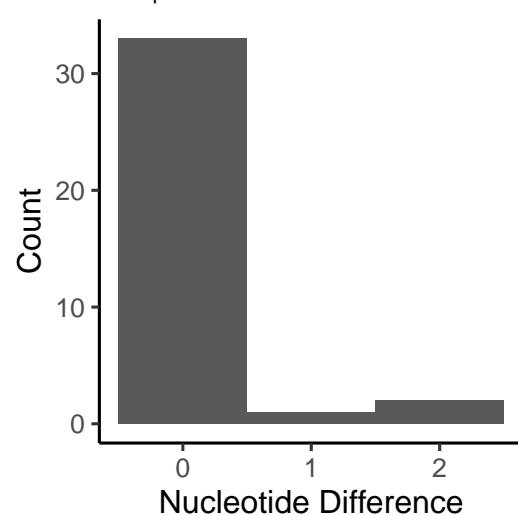
IGHV3-23*01_04

1079 sequences assigned
986 (91.4%) exact matches, in which:
980 unique CDR3
6 unique J



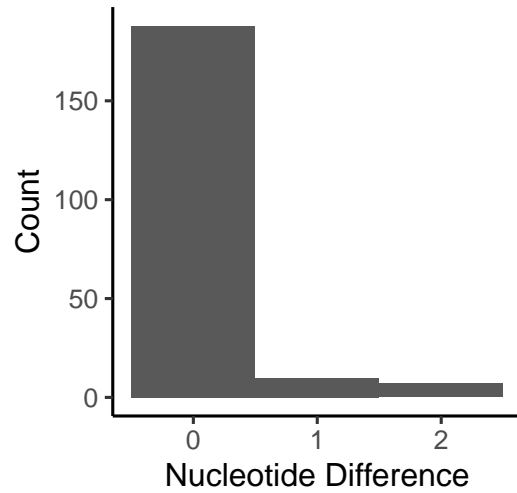
IGHV3-43*01

36 sequences assigned
33 (91.7%) exact matches, in which:
32 unique CDR3
4 unique J



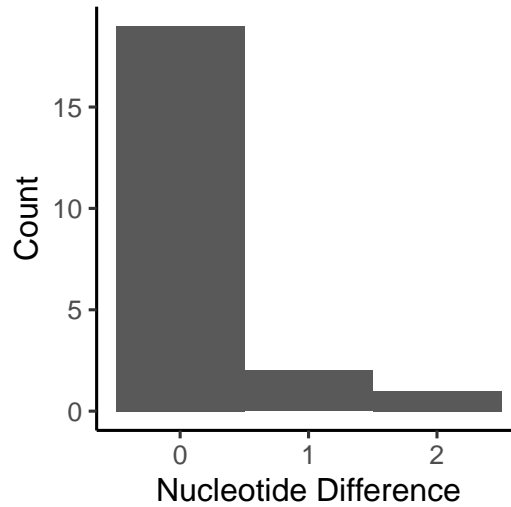
IGHV3-48*02

205 sequences assigned
188 (91.7%) exact matches, in which:
187 unique CDR3
6 unique J



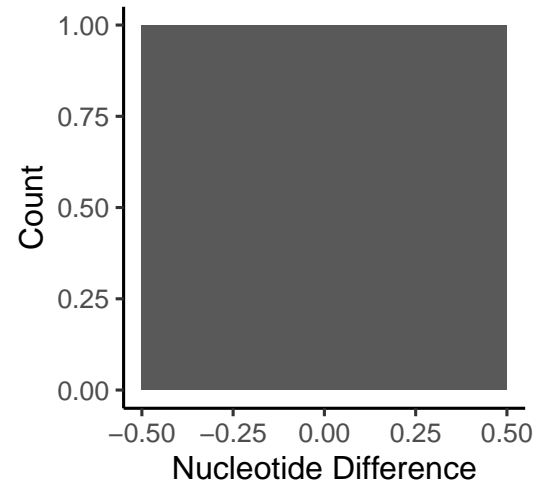
IGHV3-49*03_05

22 sequences assigned
19 (86.4%) exact matches, in which:
19 unique CDR3
4 unique J



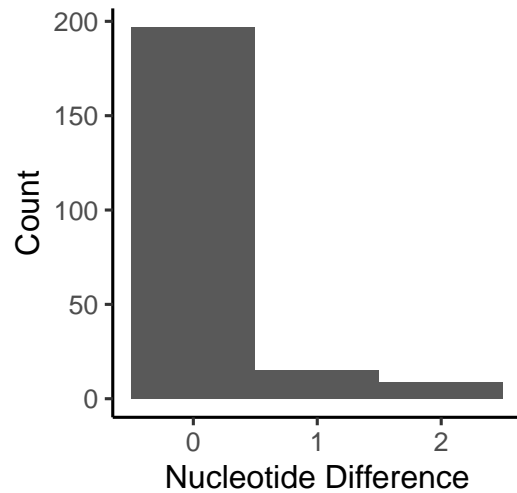
IGHV3-69-1*02

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



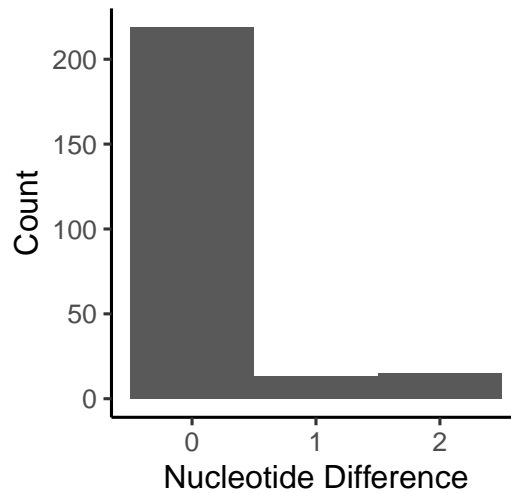
IGHV3-48*03

221 sequences assigned
197 (89.1%) exact matches, in which:
195 unique CDR3
6 unique J



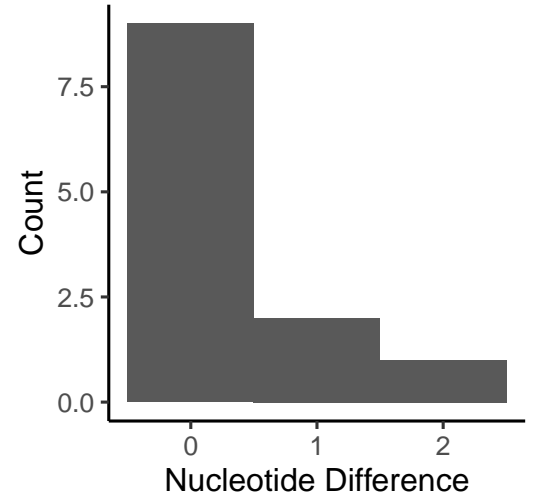
IGHV3-53*01_02

247 sequences assigned
219 (88.7%) exact matches, in which:
219 unique CDR3
6 unique J



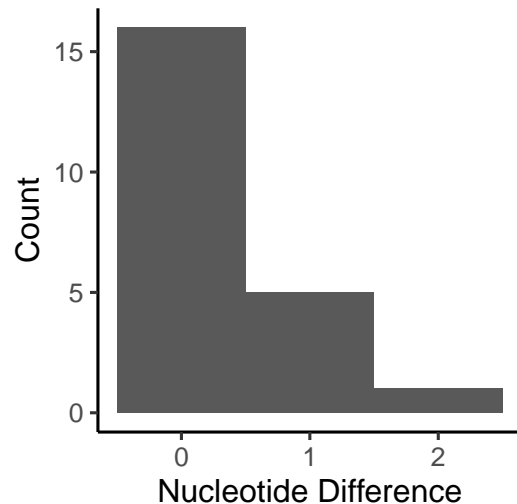
IGHV3-72*01

12 sequences assigned
9 (75%) exact matches, in which:
9 unique CDR3
3 unique J



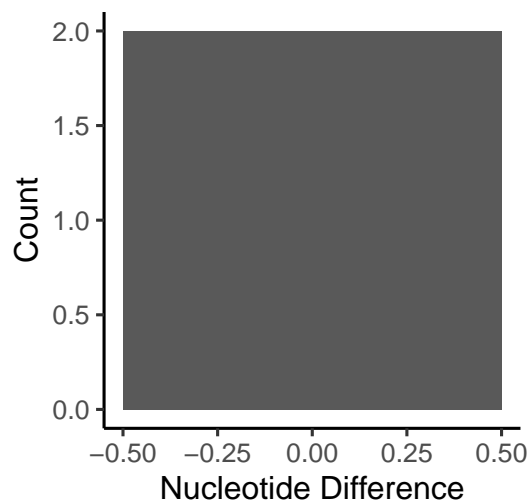
IGHV3-49*04

22 sequences assigned
16 (72.7%) exact matches, in which:
16 unique CDR3
4 unique J



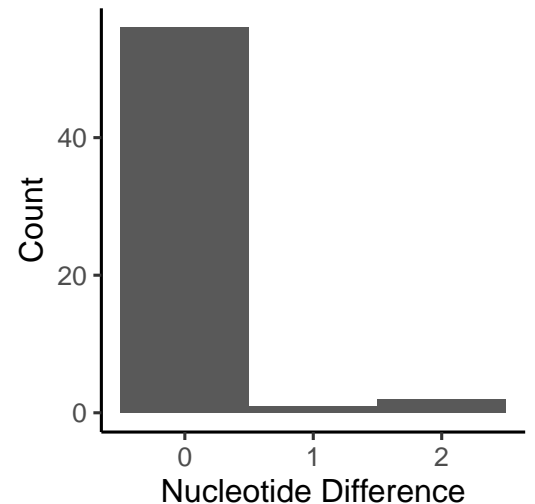
IGHV3-64*02_07

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



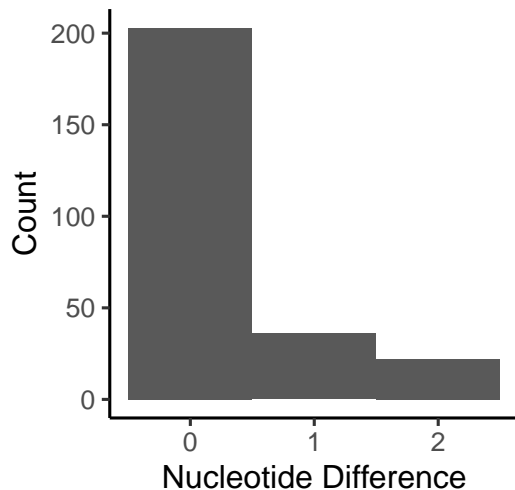
IGHV3-73*01_02

59 sequences assigned
56 (94.9%) exact matches, in which:
56 unique CDR3
5 unique J



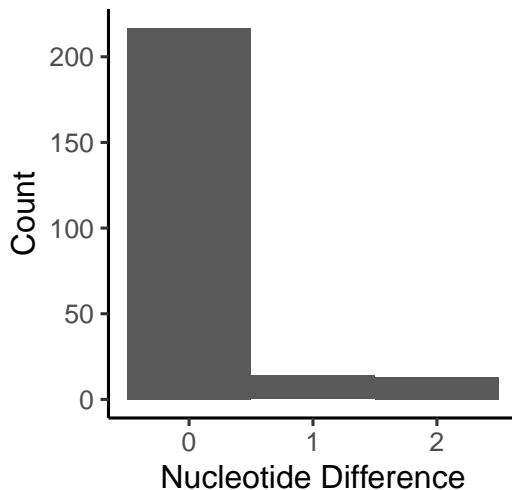
IGHV3-74*01_02

261 sequences assigned
203 (77.8%) exact matches, in which:
200 unique CDR3
6 unique J



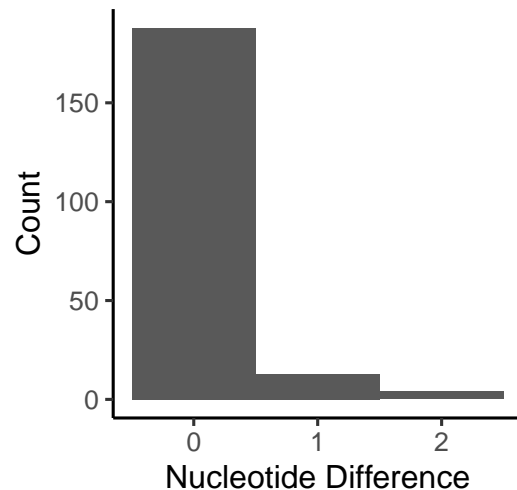
IGHV4-4*02_03

244 sequences assigned
217 (88.9%) exact matches, in which:
217 unique CDR3
6 unique J



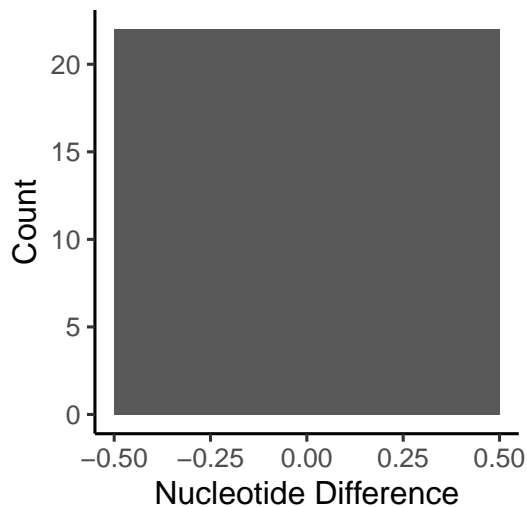
IGHV4-30-2*01

205 sequences assigned
188 (91.7%) exact matches, in which:
188 unique CDR3
6 unique J



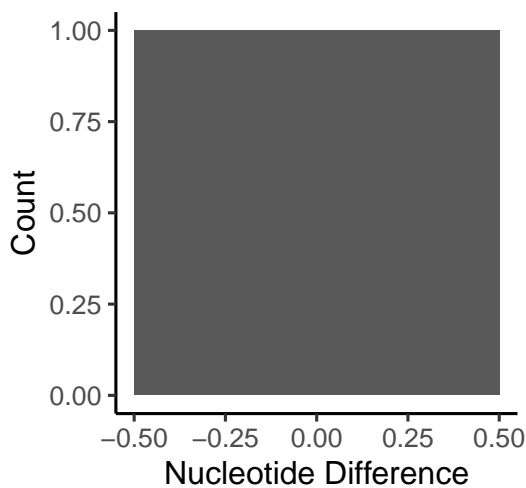
IGHV3-43D*04

22 sequences assigned
22 (100%) exact matches, in which:
22 unique CDR3
4 unique J



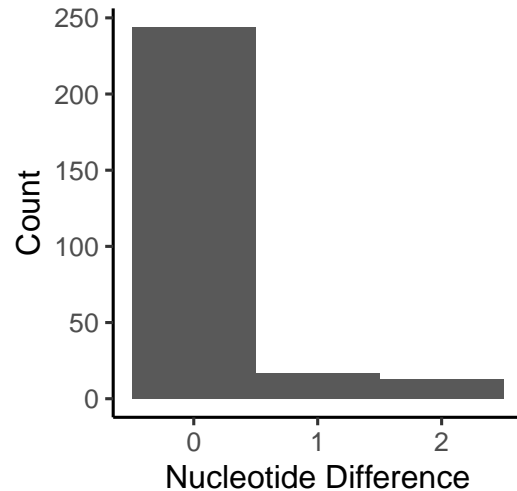
IGHV4-28*03

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



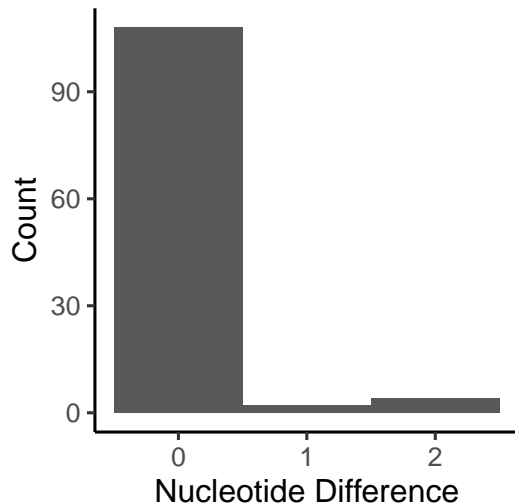
IGHV4-30-4*01

274 sequences assigned
244 (89.1%) exact matches, in which:
243 unique CDR3
5 unique J



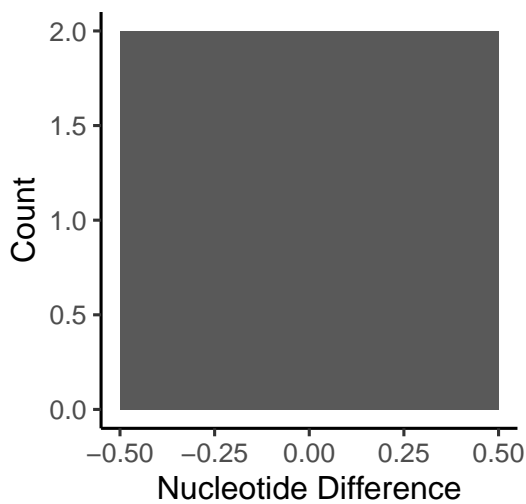
IGHV3-64D*06

114 sequences assigned
108 (94.7%) exact matches, in which:
108 unique CDR3
6 unique J



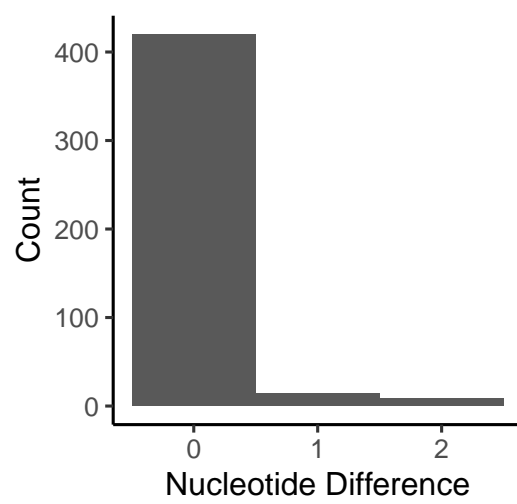
IGHV4-28*01_07

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



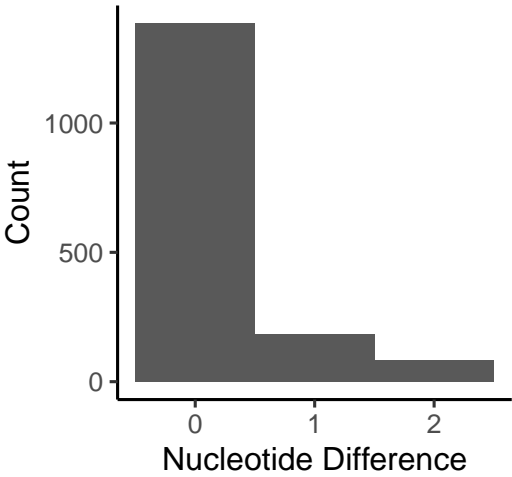
IGHV4-31*02

442 sequences assigned
420 (95%) exact matches, in which:
418 unique CDR3
6 unique J



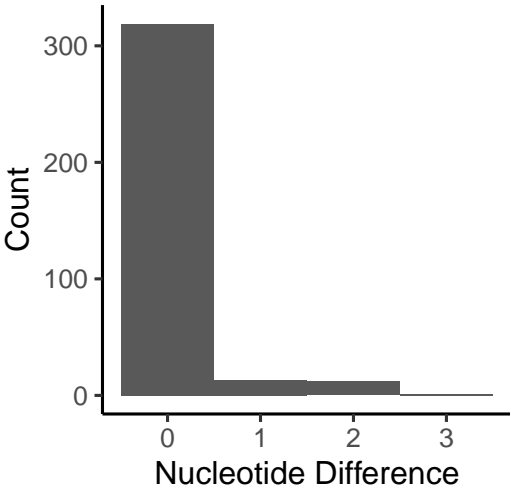
IGHV4-34*01_02

1649 sequences assigned
1385 (84%) exact matches, in which:
1369 unique CDR3
6 unique J



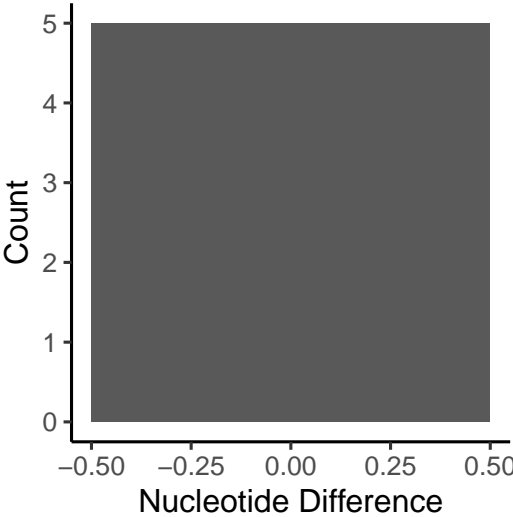
IGHV4-61*01

345 sequences assigned
319 (92.5%) exact matches, in which:
319 unique CDR3
6 unique J



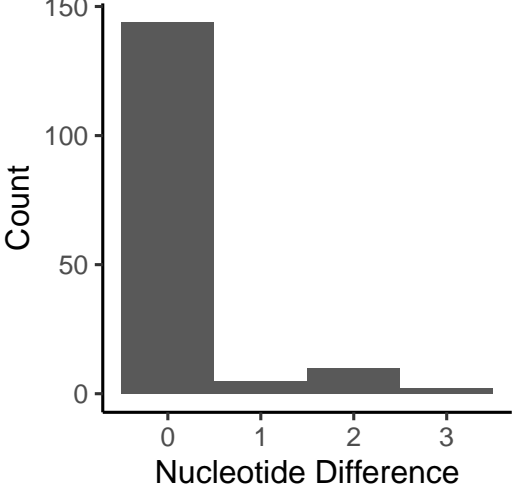
IGHV7-4-1*01

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



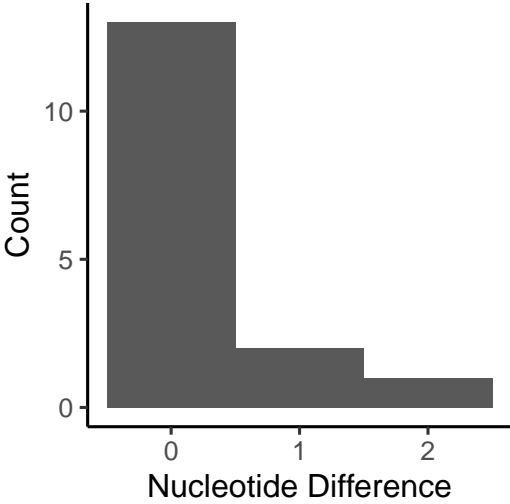
IGHV4-38-2*01

161 sequences assigned
144 (89.4%) exact matches, in which:
143 unique CDR3
5 unique J



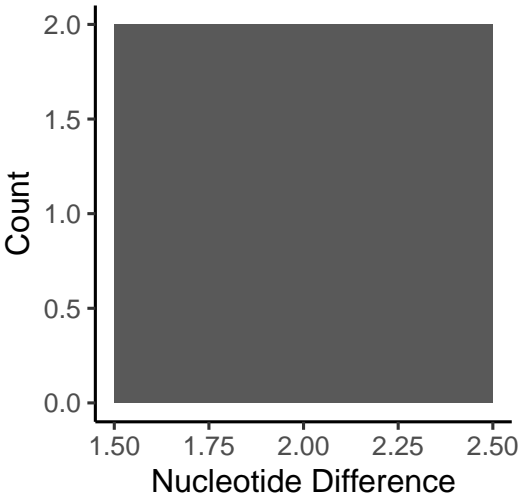
IGHV5-10-1*01_03

16 sequences assigned
13 (81.2%) exact matches, in which:
13 unique CDR3
4 unique J



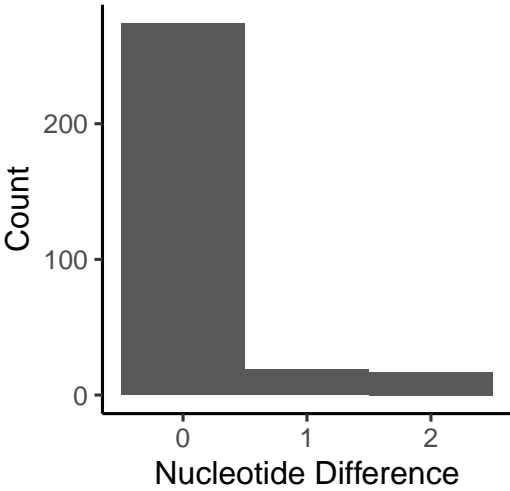
IGHV4-39*02

2 sequences assigned
No exact matches.



IGHV6-1*01_02

310 sequences assigned
274 (88.4%) exact matches, in which:
274 unique CDR3
6 unique J





[illegible]