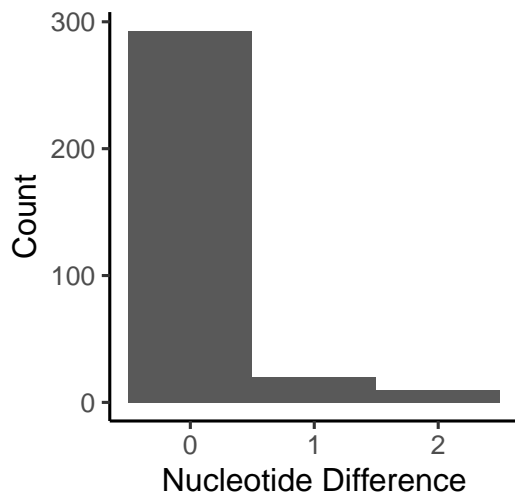


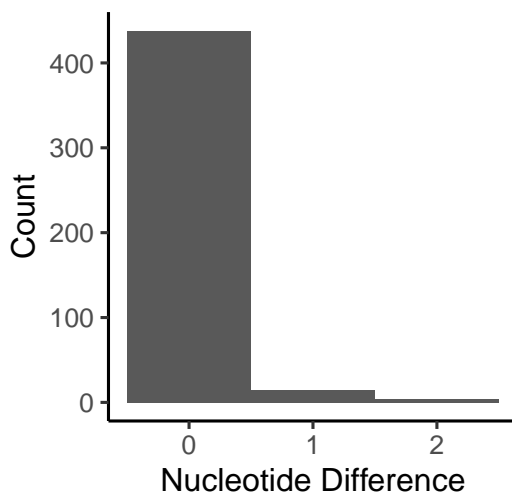
IGHV1-2*02

323 sequences assigned
293 (90.7%) exact matches, in which:
293 unique CDR3
6 unique J



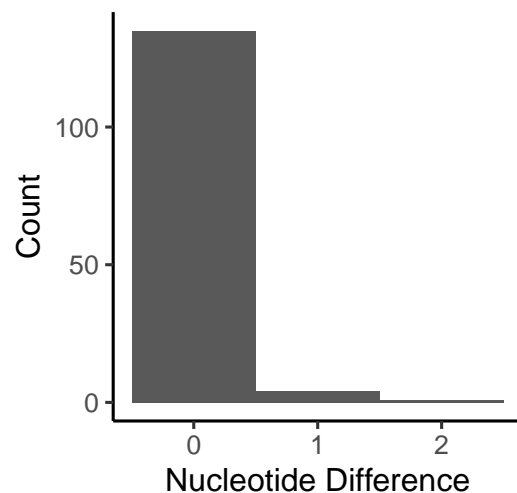
IGHV1-8*01

457 sequences assigned
438 (95.8%) exact matches, in which:
433 unique CDR3
6 unique J



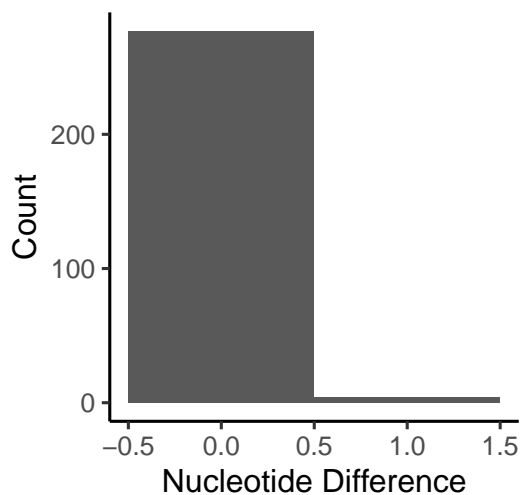
IGHV1-46*01

140 sequences assigned
135 (96.4%) exact matches, in which:
135 unique CDR3
6 unique J



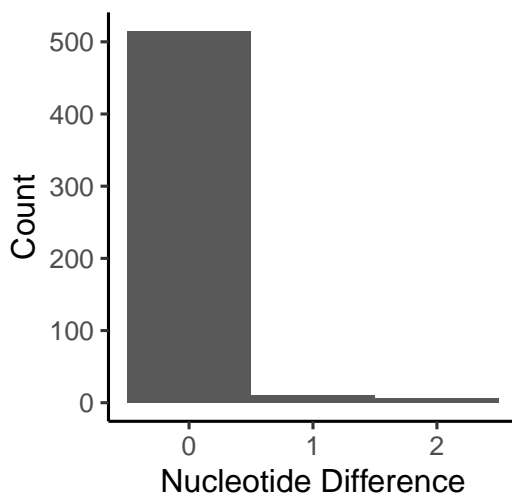
IGHV1-2*06

281 sequences assigned
277 (98.6%) exact matches, in which:
275 unique CDR3
6 unique J



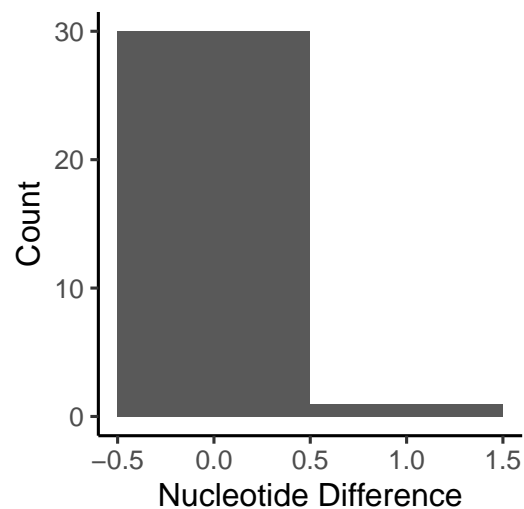
IGHV1-18*01

532 sequences assigned
515 (96.8%) exact matches, in which:
512 unique CDR3
6 unique J



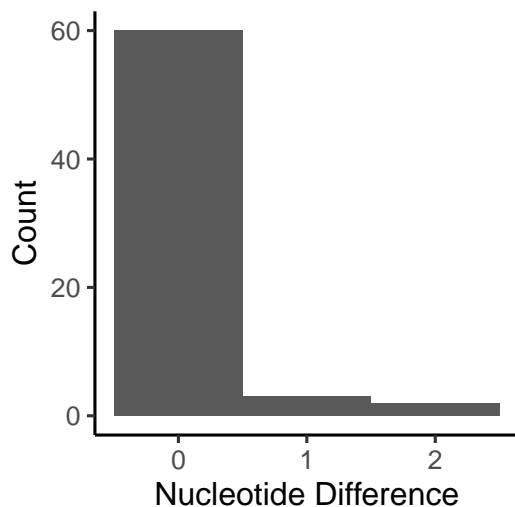
IGHV1-58*01_03

31 sequences assigned
30 (96.8%) exact matches, in which:
30 unique CDR3
5 unique J



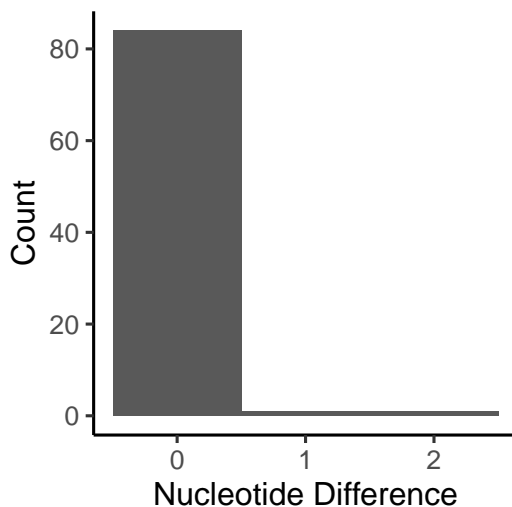
IGHV1-3*01_05

65 sequences assigned
60 (92.3%) exact matches, in which:
60 unique CDR3
6 unique J



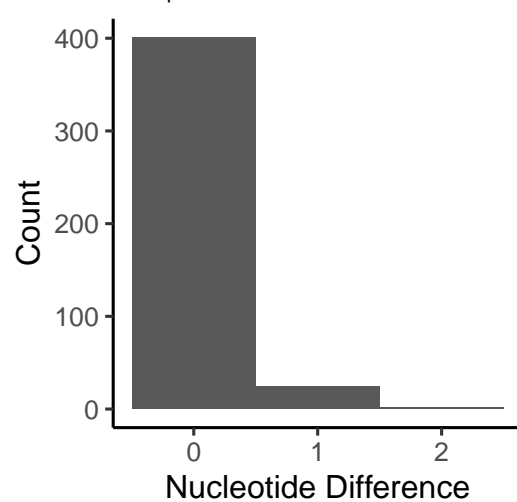
IGHV1-24*01

86 sequences assigned
84 (97.7%) exact matches, in which:
83 unique CDR3
6 unique J



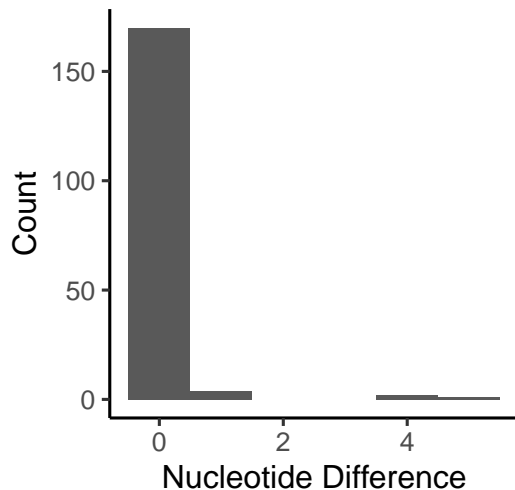
IGHV1-69*01_12_13

427 sequences assigned
401 (93.9%) exact matches, in which:
401 unique CDR3
6 unique J



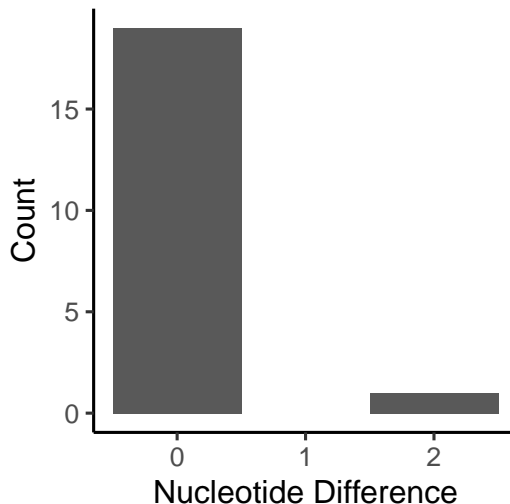
IGHV1–69*06_14

177 sequences assigned
170 (96%) exact matches, in which:
170 unique CDR3
6 unique J



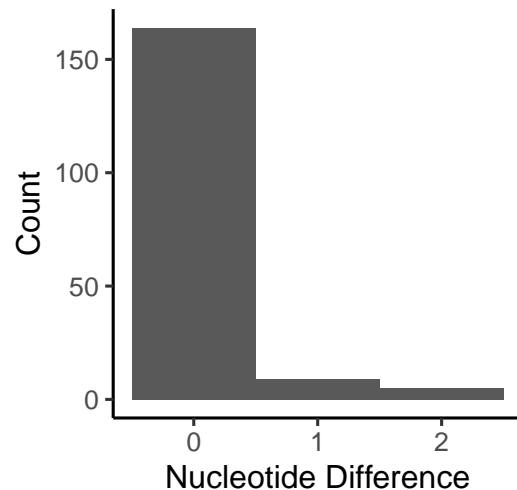
IGHV2–26*01

20 sequences assigned
19 (95%) exact matches, in which:
19 unique CDR3
5 unique J



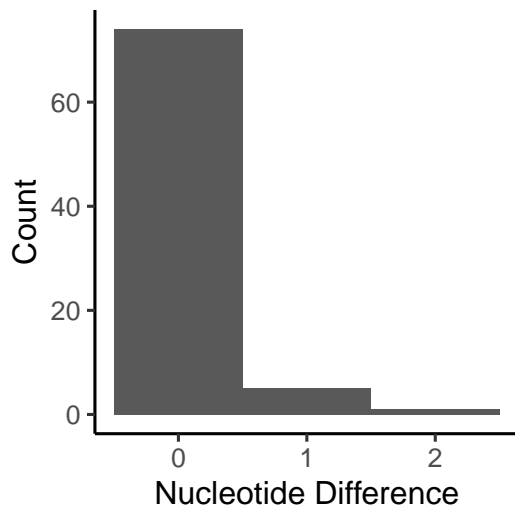
IGHV3–9*01

178 sequences assigned
164 (92.1%) exact matches, in which:
162 unique CDR3
6 unique J



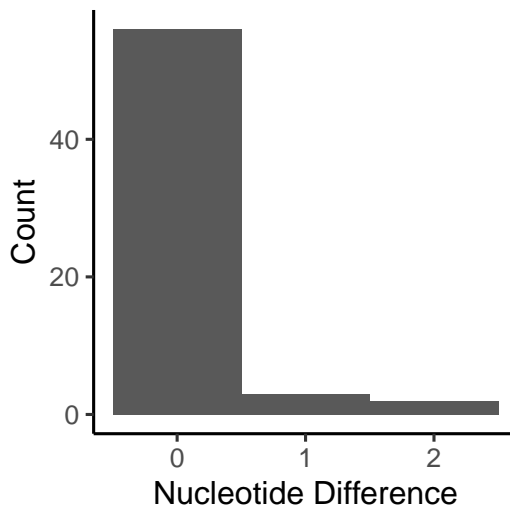
IGHV2–5*01

80 sequences assigned
74 (92.5%) exact matches, in which:
73 unique CDR3
6 unique J



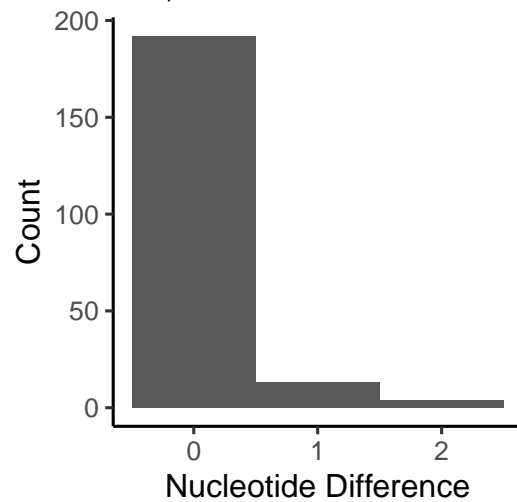
IGHV2–70*01

61 sequences assigned
56 (91.8%) exact matches, in which:
54 unique CDR3
5 unique J



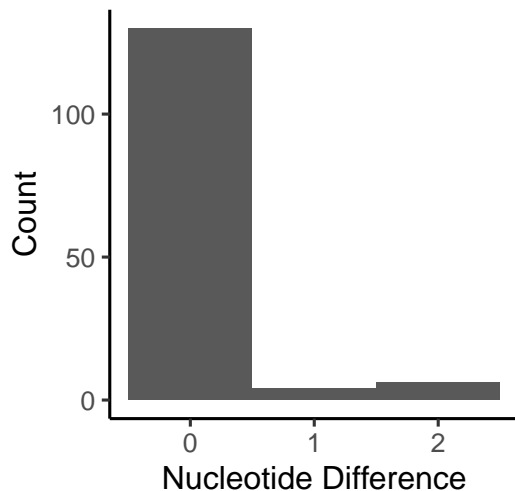
IGHV3–11*01

209 sequences assigned
192 (91.9%) exact matches, in which:
192 unique CDR3
6 unique J



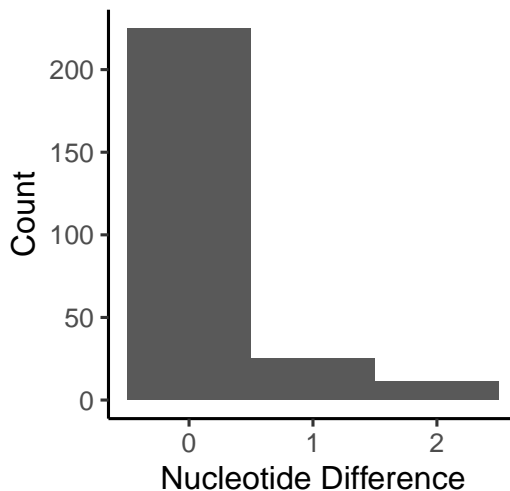
IGHV2–5*02

140 sequences assigned
130 (92.9%) exact matches, in which:
130 unique CDR3
5 unique J



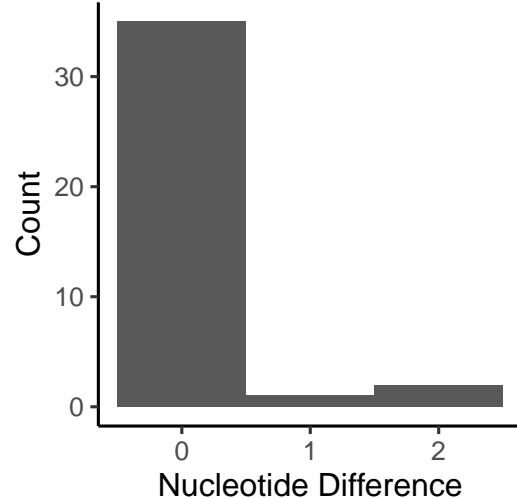
IGHV3–7*01

261 sequences assigned
225 (86.2%) exact matches, in which:
220 unique CDR3
6 unique J



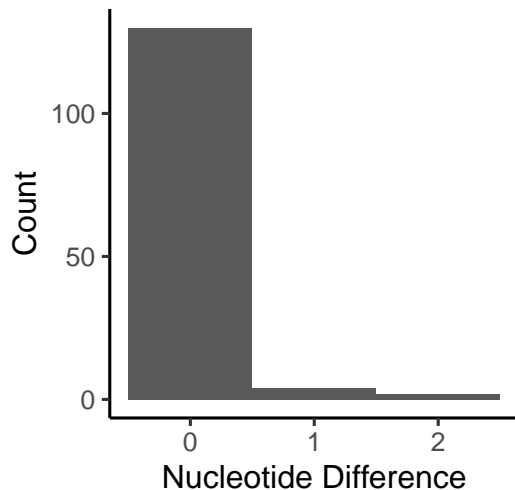
IGHV3–13*01

38 sequences assigned
35 (92.1%) exact matches, in which:
34 unique CDR3
5 unique J



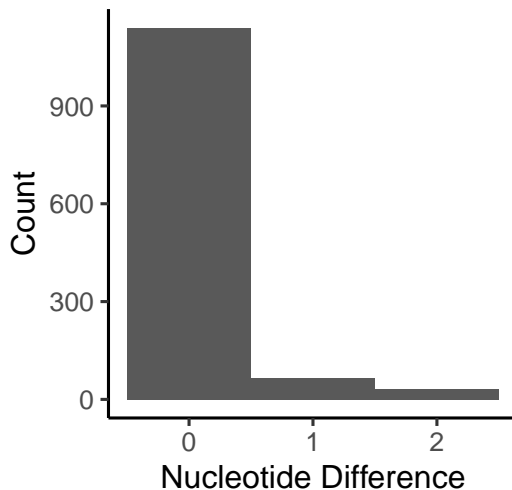
IGHV3-15*01_02

136 sequences assigned
130 (95.6%) exact matches, in which:
127 unique CDR3
6 unique J



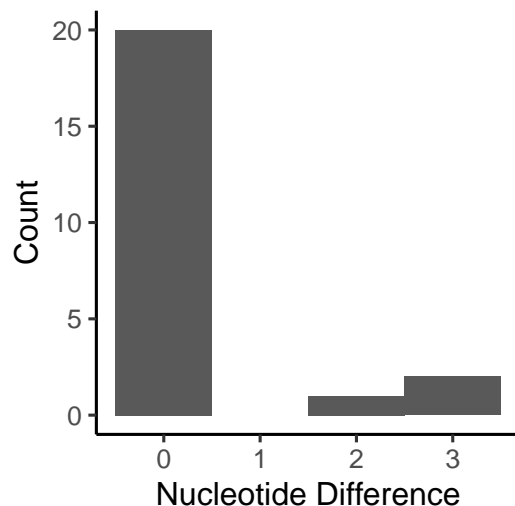
IGHV3-23*01_04

1238 sequences assigned
1140 (92.1%) exact matches, in which:
1114 unique CDR3
6 unique J



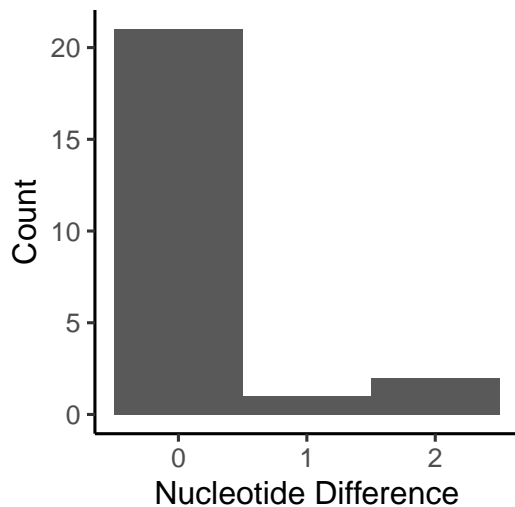
IGHV3-43*01

23 sequences assigned
20 (87%) exact matches, in which:
20 unique CDR3
3 unique J



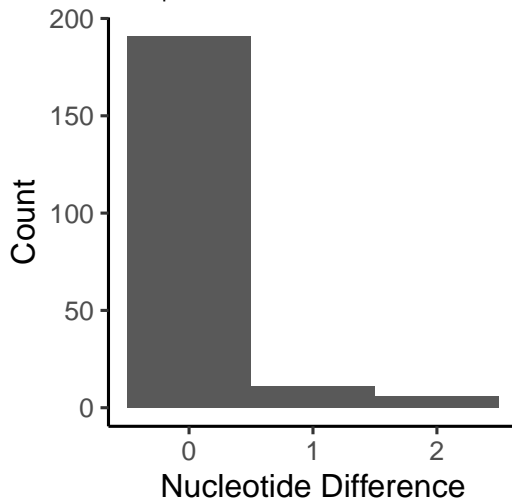
IGHV3-20*01_02

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



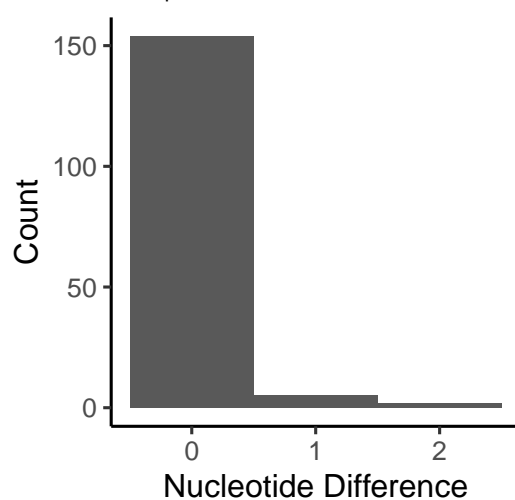
IGHV3-30-3*01

208 sequences assigned
191 (91.8%) exact matches, in which:
188 unique CDR3
6 unique J



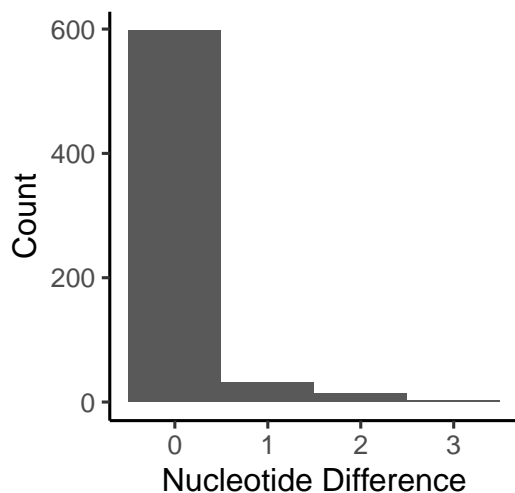
IGHV3-48*03

161 sequences assigned
154 (95.7%) exact matches, in which:
151 unique CDR3
5 unique J



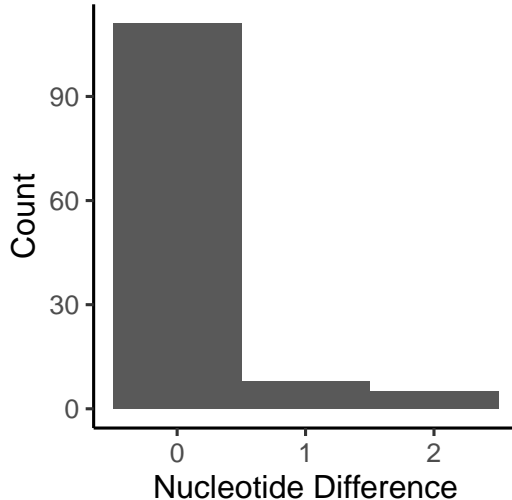
IGHV3-21*01_02

645 sequences assigned
598 (92.7%) exact matches, in which:
580 unique CDR3
6 unique J



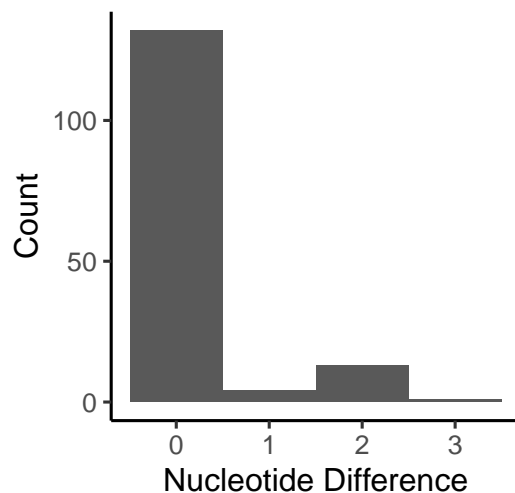
IGHV3-33*01

124 sequences assigned
111 (89.5%) exact matches, in which:
110 unique CDR3
6 unique J



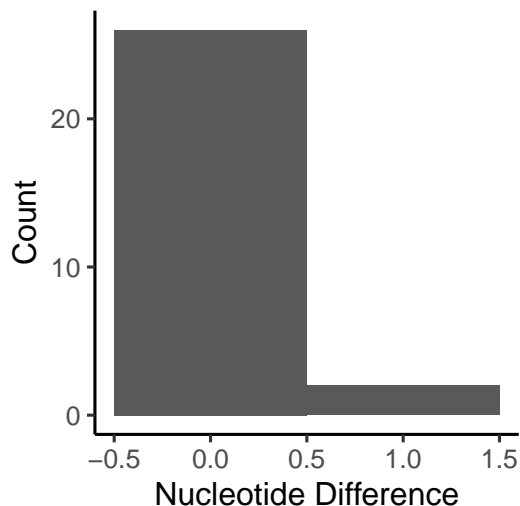
IGHV3-48*04

150 sequences assigned
132 (88%) exact matches, in which:
131 unique CDR3
5 unique J



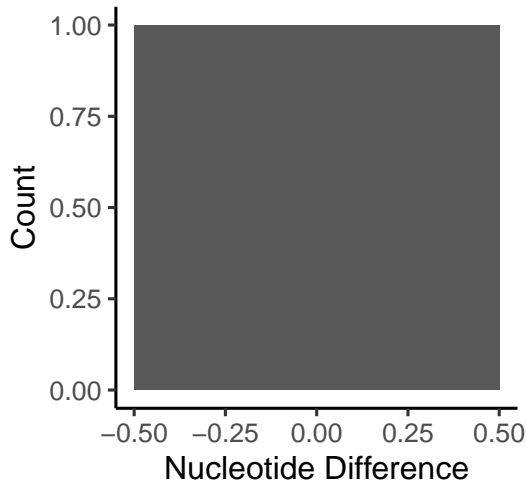
IGHV3-49*04

28 sequences assigned
26 (92.9%) exact matches, in which:
26 unique CDR3
4 unique J



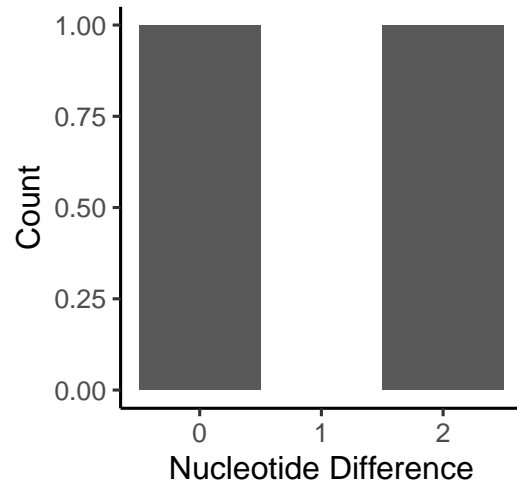
IGHV3-64*01

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



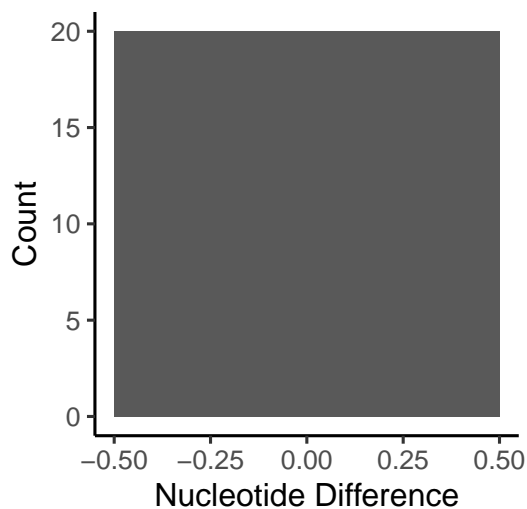
IGHV3-69-1*01

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



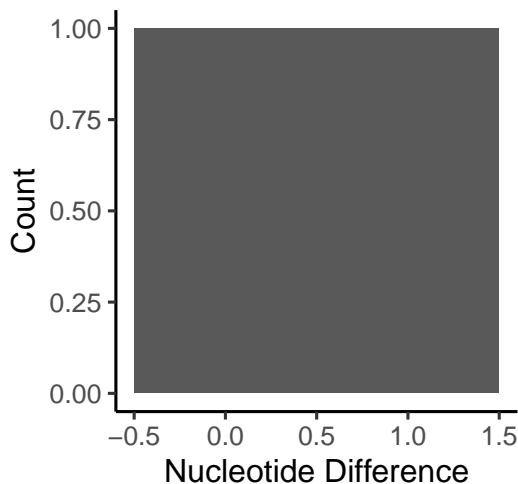
IGHV3-49*03_05

20 sequences assigned
20 (100%) exact matches, in which:
20 unique CDR3
5 unique J



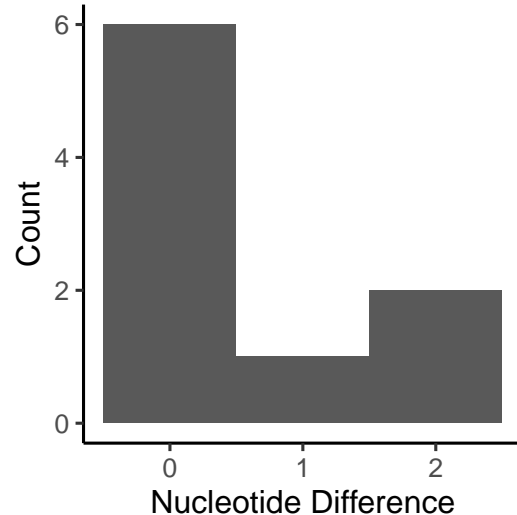
IGHV3-64*02_07

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



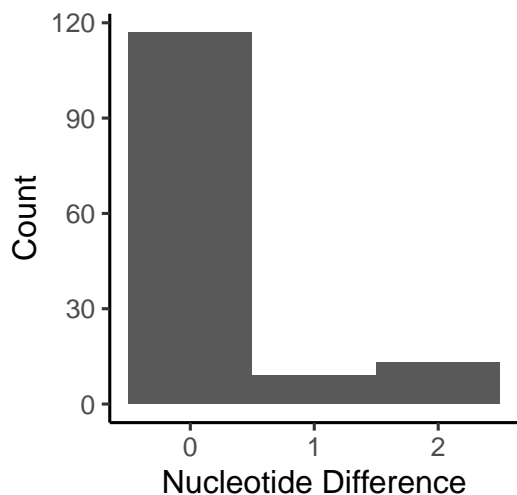
IGHV3-72*01

9 sequences assigned
6 (66.7%) exact matches, in which:
6 unique CDR3
3 unique J



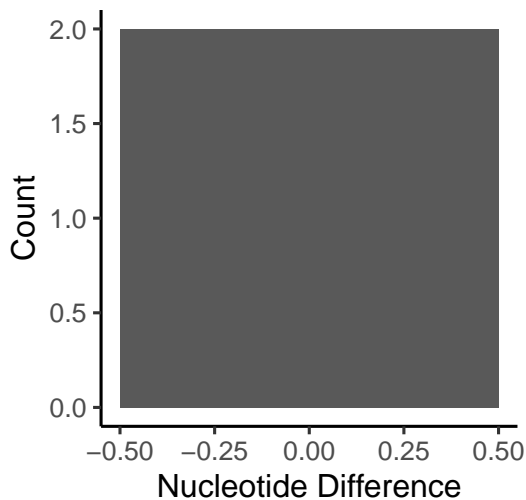
IGHV3-53*01_02

139 sequences assigned
117 (84.2%) exact matches, in which:
113 unique CDR3
6 unique J



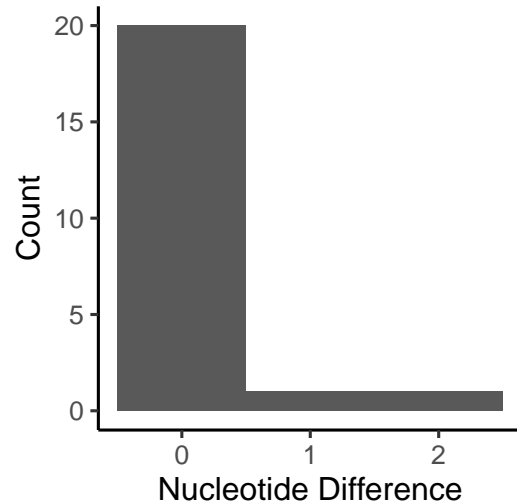
IGHV3-66*02

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



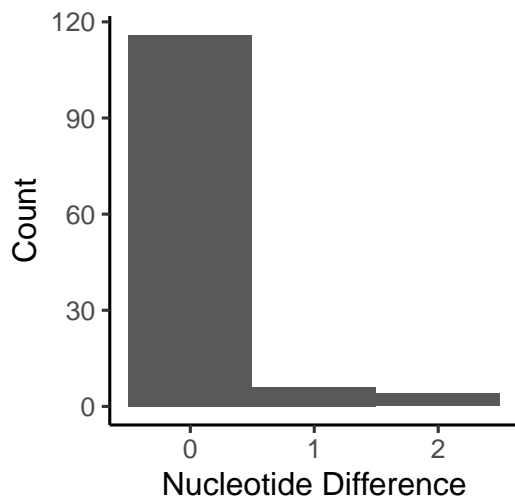
IGHV3-73*01_02

22 sequences assigned
20 (90.9%) exact matches, in which:
20 unique CDR3
4 unique J



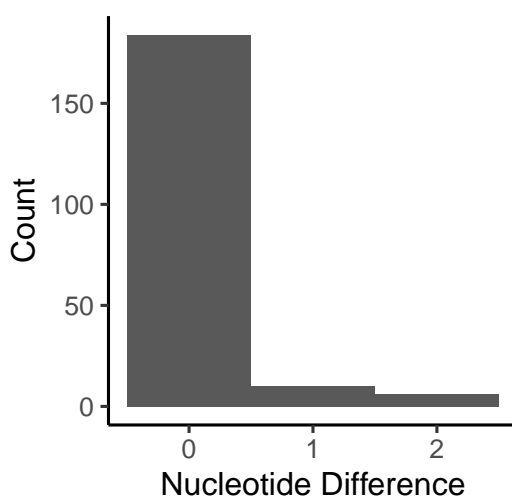
IGHV3-74*01_02

126 sequences assigned
116 (92.1%) exact matches, in which:
115 unique CDR3
6 unique J



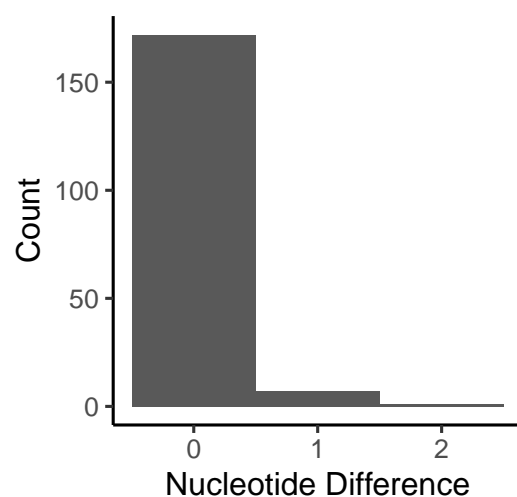
IGHV4-4*07

200 sequences assigned
184 (92%) exact matches, in which:
180 unique CDR3
6 unique J



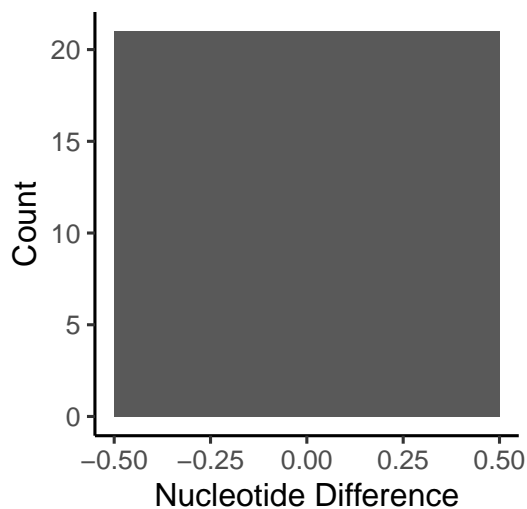
IGHV4-30-4*01

180 sequences assigned
172 (95.6%) exact matches, in which:
170 unique CDR3
6 unique J



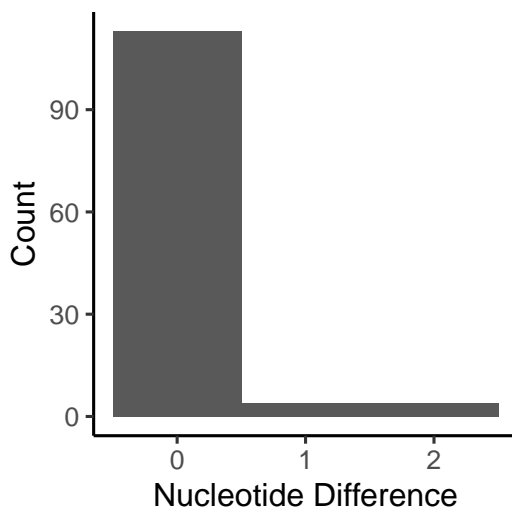
IGHV3-43D*03

21 sequences assigned
21 (100%) exact matches, in which:
21 unique CDR3
4 unique J



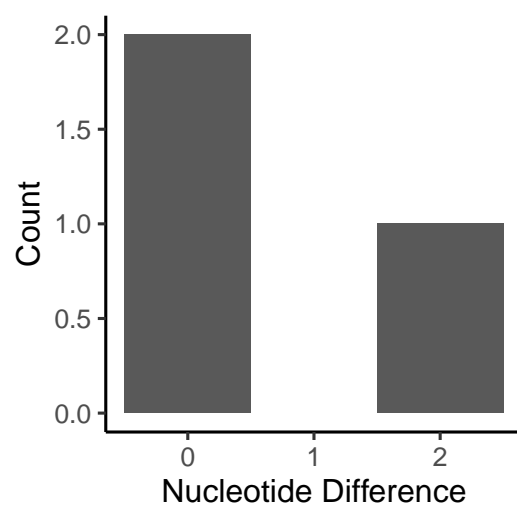
IGHV4-4*02_03

121 sequences assigned
113 (93.4%) exact matches, in which:
113 unique CDR3
5 unique J



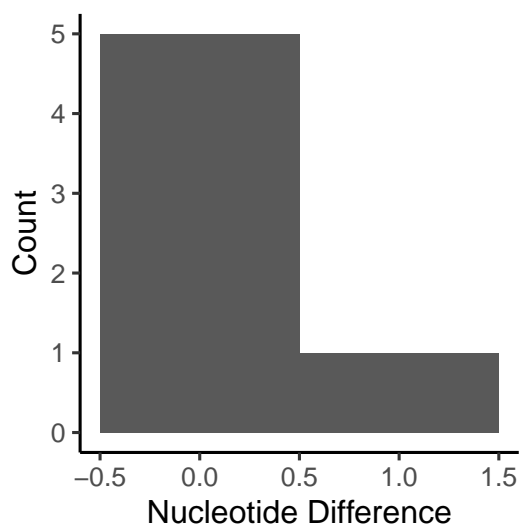
IGHV4-30-2*01

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
1 unique J



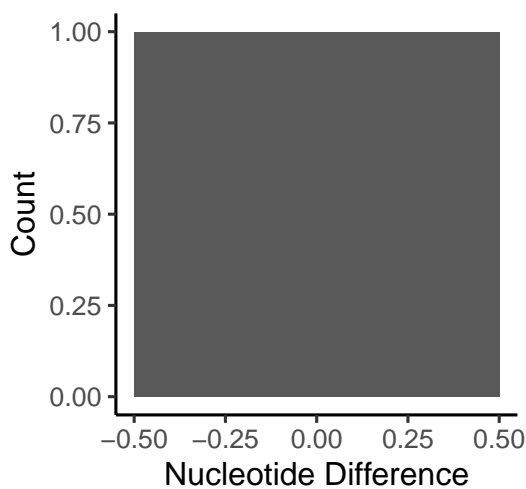
IGHV3-43D*04

6 sequences assigned
5 (83.3%) exact matches, in which:
5 unique CDR3
1 unique J



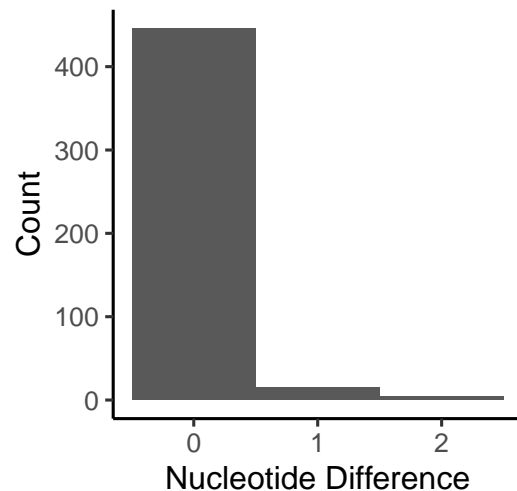
IGHV4-28*01_07

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



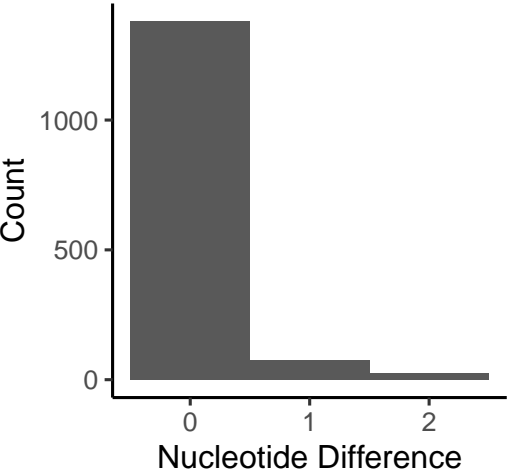
IGHV4-31*02

465 sequences assigned
446 (95.9%) exact matches, in which:
438 unique CDR3
6 unique J



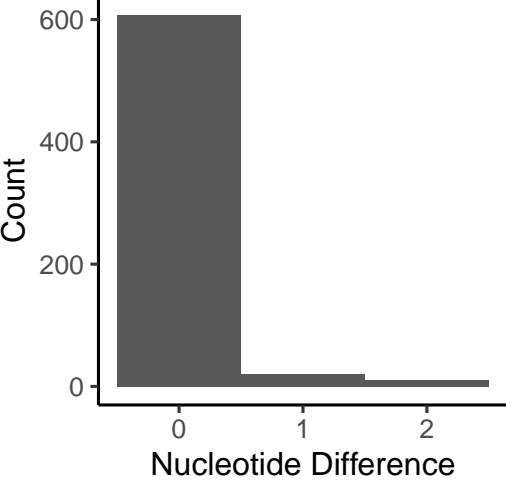
IGHV4-34*01_02

1478 sequences assigned
1380 (93.4%) exact matches, in which:
1336 unique CDR3
6 unique J



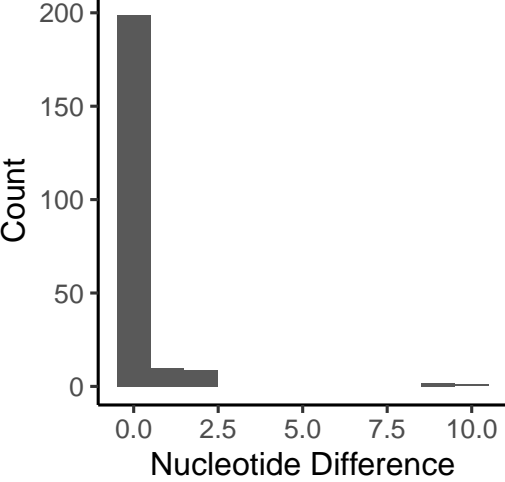
IGHV4-39*07

638 sequences assigned
608 (95.3%) exact matches, in which:
594 unique CDR3
6 unique J



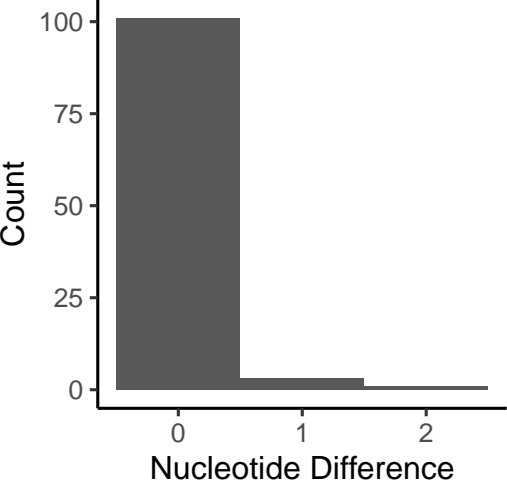
IGHV4-61*01

221 sequences assigned
199 (90%) exact matches, in which:
196 unique CDR3
6 unique J



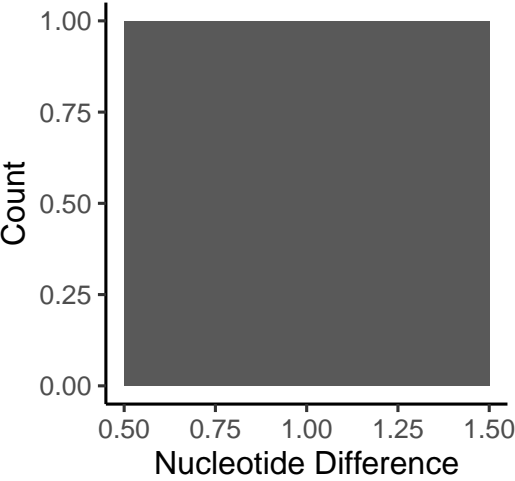
IGHV4-38-2*01

105 sequences assigned
101 (96.2%) exact matches, in which:
101 unique CDR3
6 unique J



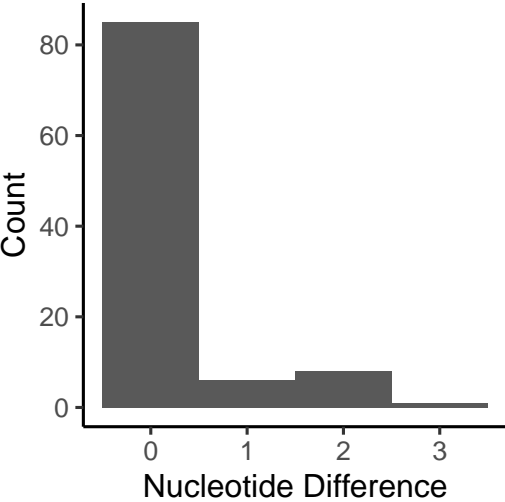
IGHV4-59*08

1 sequences assigned
No exact matches.



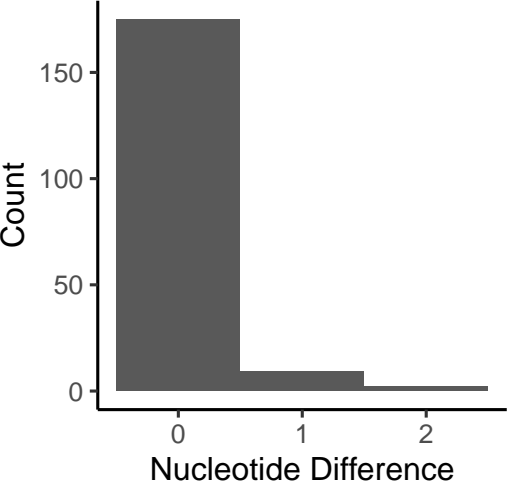
IGHV6-1*01_02

100 sequences assigned
85 (85%) exact matches, in which:
84 unique CDR3
6 unique J



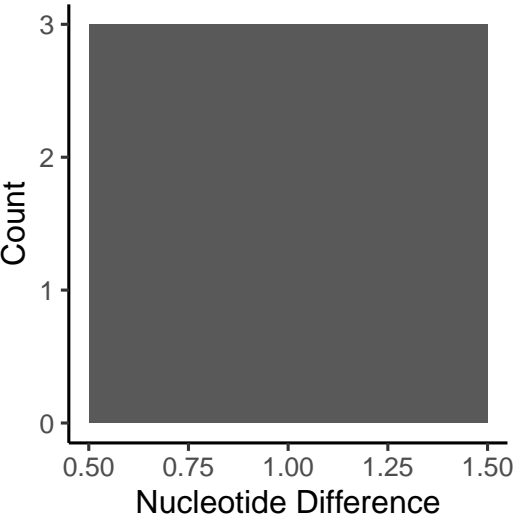
IGHV4-38-2*02

186 sequences assigned
175 (94.1%) exact matches, in which:
173 unique CDR3
5 unique J



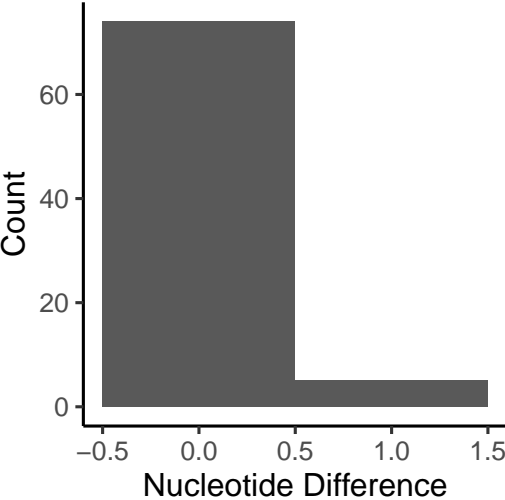
IGHV4-59*12

3 sequences assigned
No exact matches.



IGHV7-4-1*02

79 sequences assigned
74 (93.7%) exact matches, in which:
73 unique CDR3
5 unique J





[illegible]