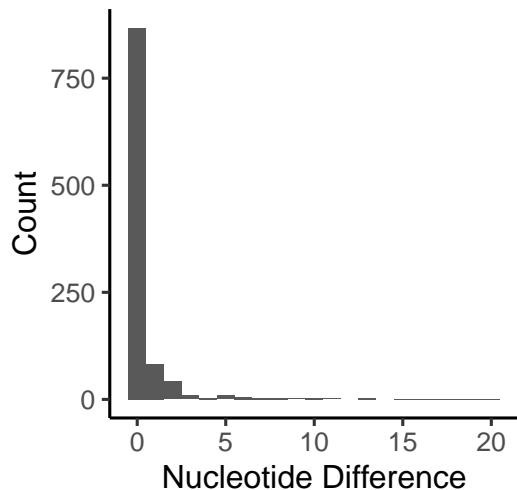


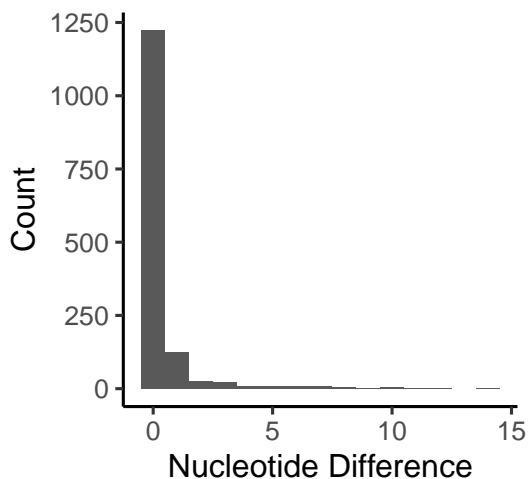
IGHV1-2*02

1043 sequences assigned
868 (83.2%) exact matches, in which:
806 unique CDR3
6 unique J



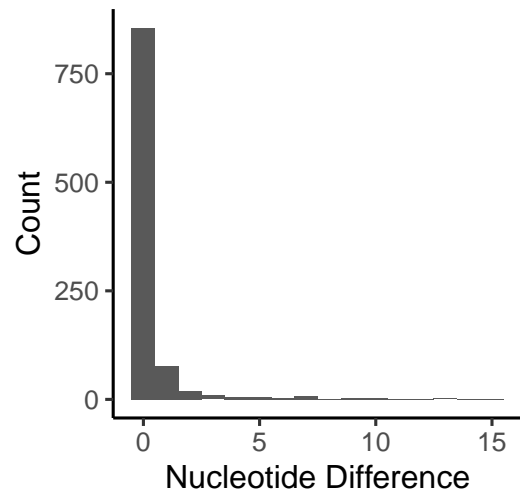
IGHV1-18*01

1455 sequences assigned
1223 (84.1%) exact matches, in which:
1156 unique CDR3
7 unique J



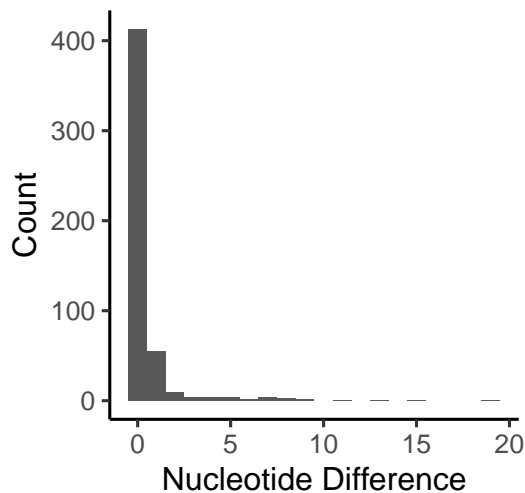
IGHV1-46*01

1004 sequences assigned
856 (85.3%) exact matches, in which:
797 unique CDR3
7 unique J



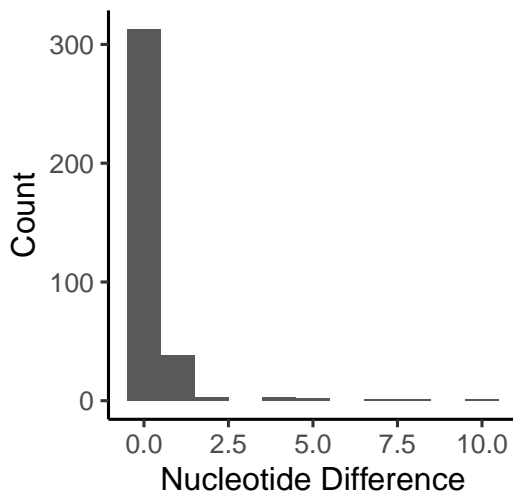
IGHV1-3*01

504 sequences assigned
413 (81.9%) exact matches, in which:
398 unique CDR3
6 unique J



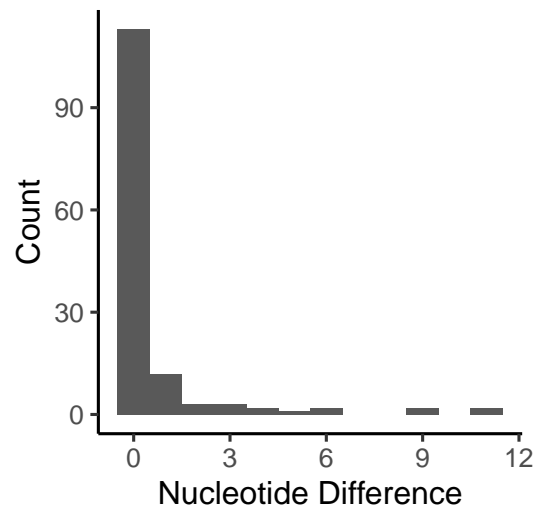
IGHV1-24*01

362 sequences assigned
313 (86.5%) exact matches, in which:
293 unique CDR3
7 unique J



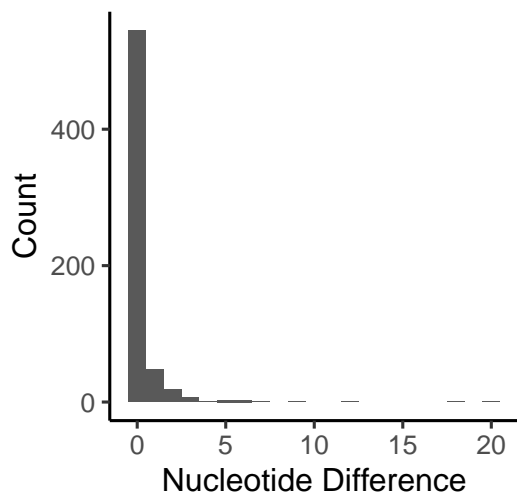
IGHV1-58*01

140 sequences assigned
113 (80.7%) exact matches, in which:
102 unique CDR3
7 unique J



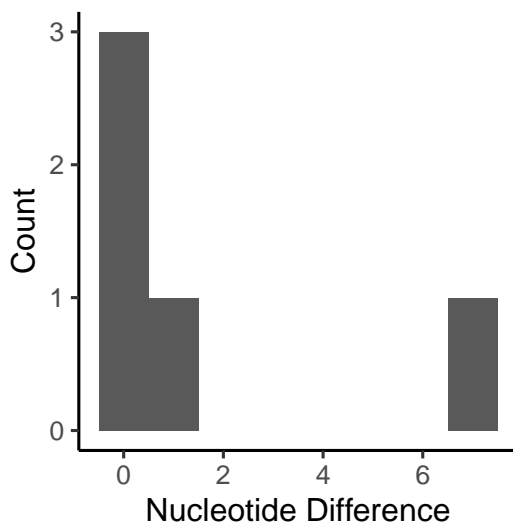
IGHV1-8*01

630 sequences assigned
545 (86.5%) exact matches, in which:
513 unique CDR3
7 unique J



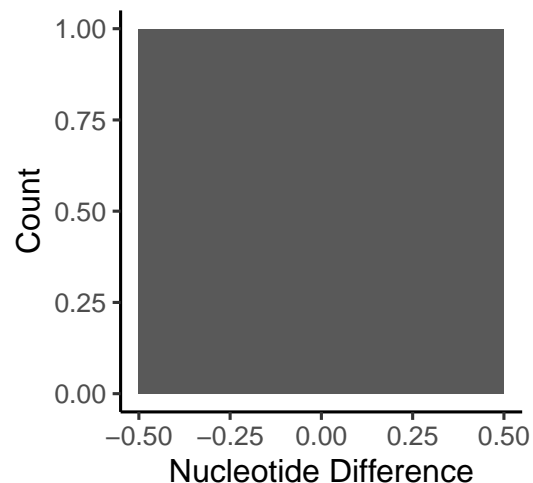
IGHV1-45*02

5 sequences assigned
3 (60%) exact matches, in which:
2 unique CDR3
2 unique J



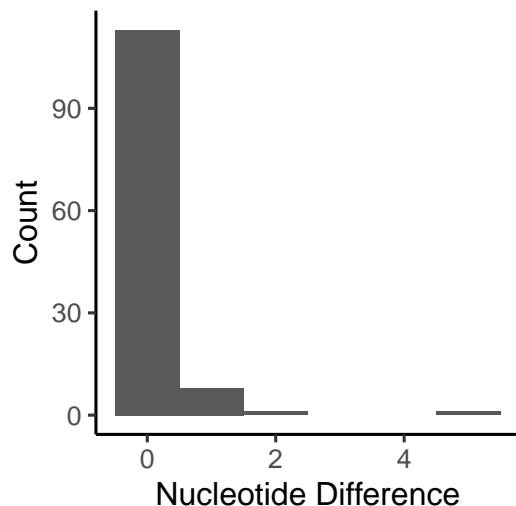
IGHV1-68*01

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



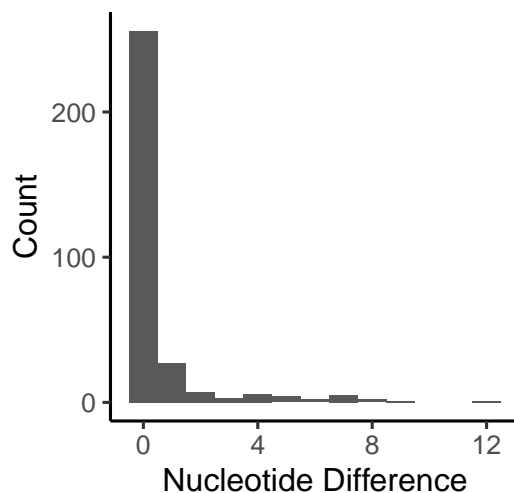
IGHV1-69-2*01

123 sequences assigned
113 (91.9%) exact matches, in which:
110 unique CDR3
7 unique J



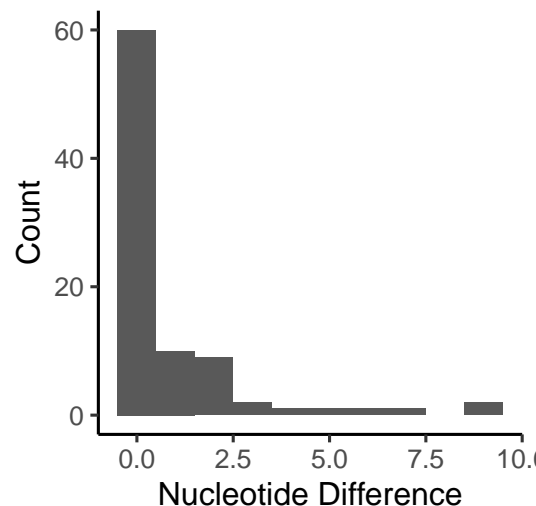
IGHV2-5*01

314 sequences assigned
256 (81.5%) exact matches, in which:
244 unique CDR3
6 unique J



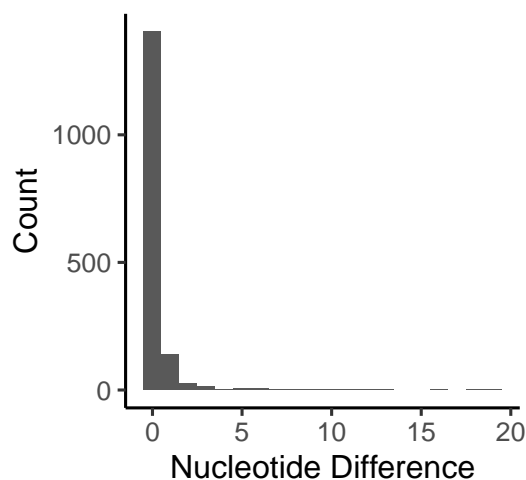
IGHV2-70*01

87 sequences assigned
60 (69%) exact matches, in which:
60 unique CDR3
5 unique J



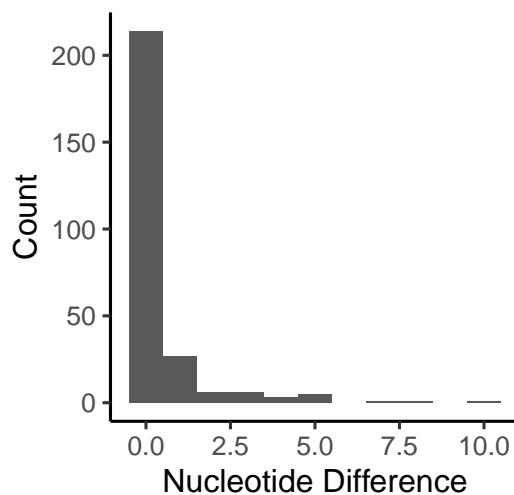
IGHV1-69*06

1612 sequences assigned
1404 (87.1%) exact matches, in which:
1296 unique CDR3
7 unique J



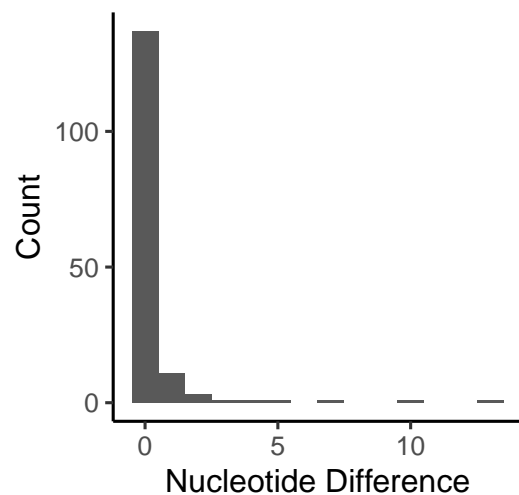
IGHV2-5*02

266 sequences assigned
214 (80.5%) exact matches, in which:
205 unique CDR3
6 unique J



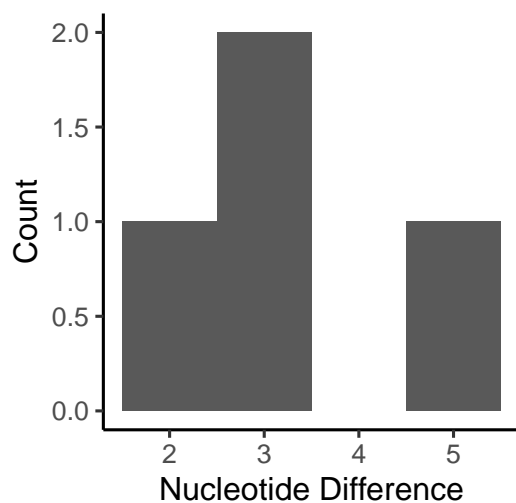
IGHV2-70*15

157 sequences assigned
137 (87.3%) exact matches, in which:
133 unique CDR3
5 unique J



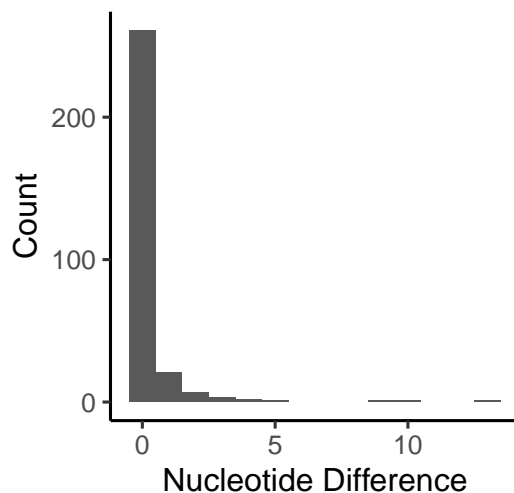
IGHV1-NL1*01

4 sequences assigned
No exact matches.



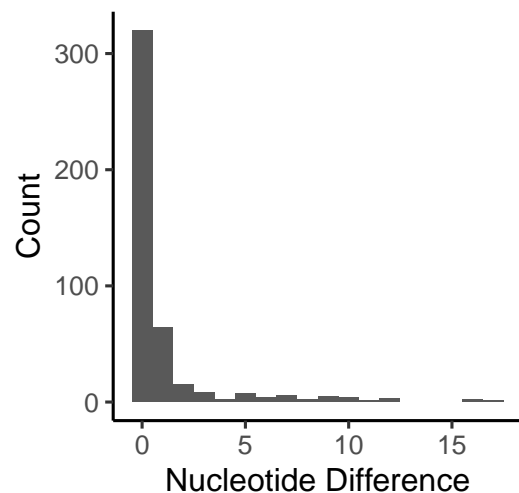
IGHV2-26*01

298 sequences assigned
261 (87.6%) exact matches, in which:
252 unique CDR3
7 unique J



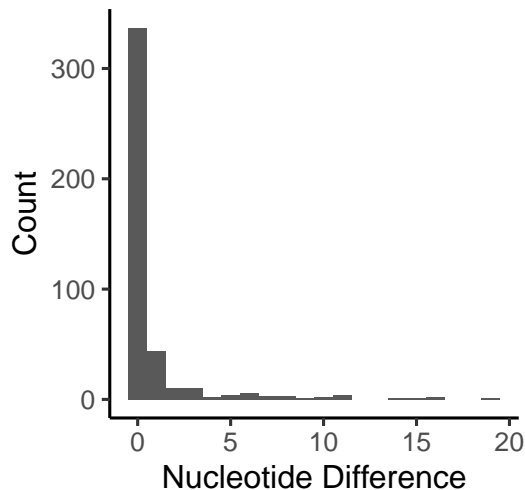
IGHV3-7*01

448 sequences assigned
320 (71.4%) exact matches, in which:
303 unique CDR3
6 unique J



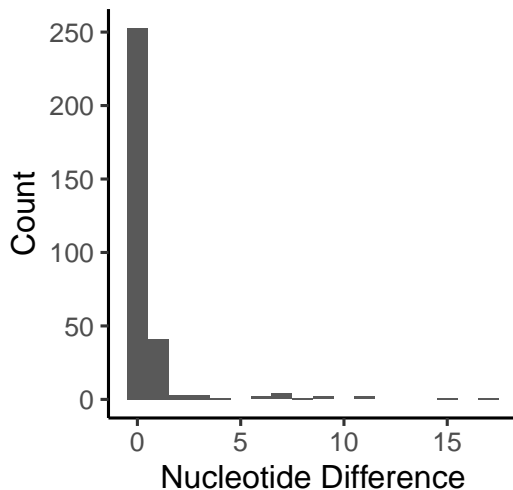
IGHV3-7*03

434 sequences assigned
337 (77.6%) exact matches, in which:
311 unique CDR3
6 unique J



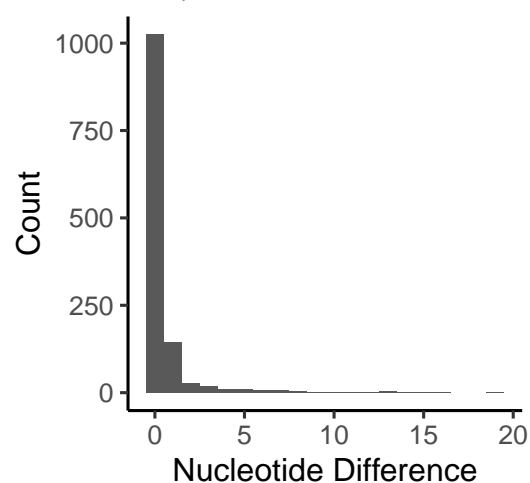
IGHV3-11*06

316 sequences assigned
253 (80.1%) exact matches, in which:
231 unique CDR3
6 unique J



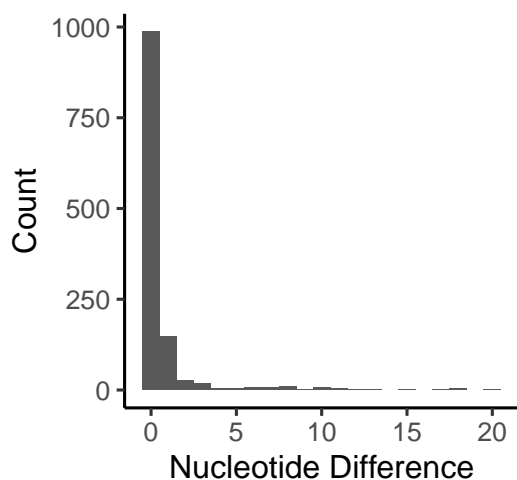
IGHV3-15*01

1276 sequences assigned
1025 (80.3%) exact matches, in which:
954 unique CDR3
7 unique J



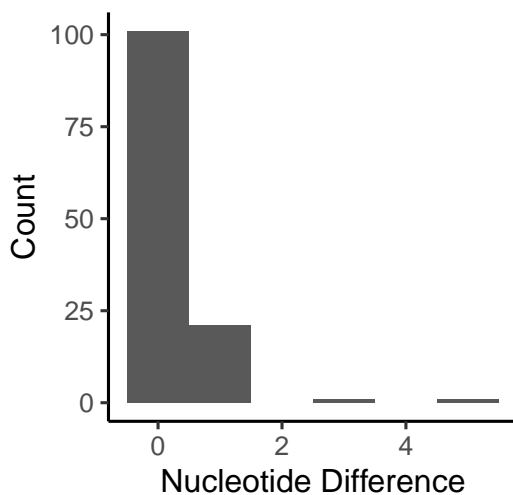
IGHV3-9*01

1229 sequences assigned
987 (80.3%) exact matches, in which:
902 unique CDR3
6 unique J



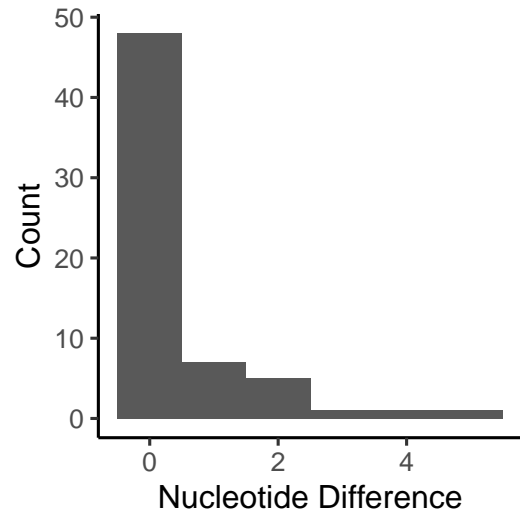
IGHV3-13*01

124 sequences assigned
101 (81.5%) exact matches, in which:
94 unique CDR3
6 unique J



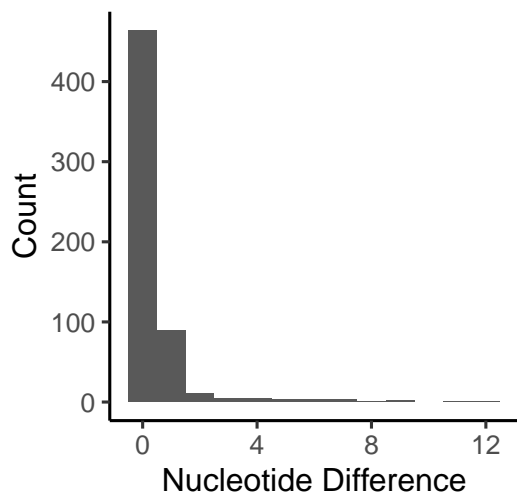
IGHV3-20*01

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



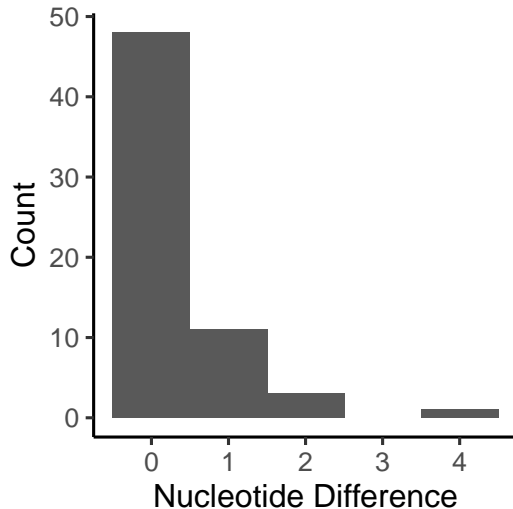
IGHV3-11*01

589 sequences assigned
464 (78.8%) exact matches, in which:
447 unique CDR3
7 unique J



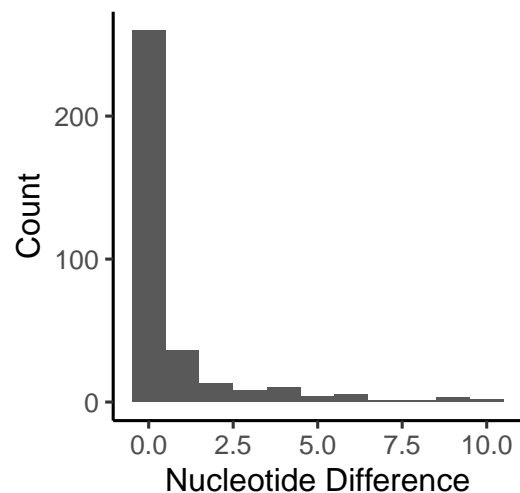
IGHV3-13*05

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



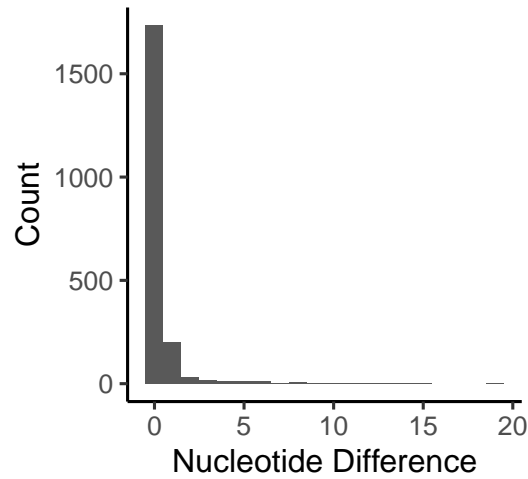
IGHV3-20*04

343 sequences assigned
260 (75.8%) exact matches, in which:
237 unique CDR3
6 unique J



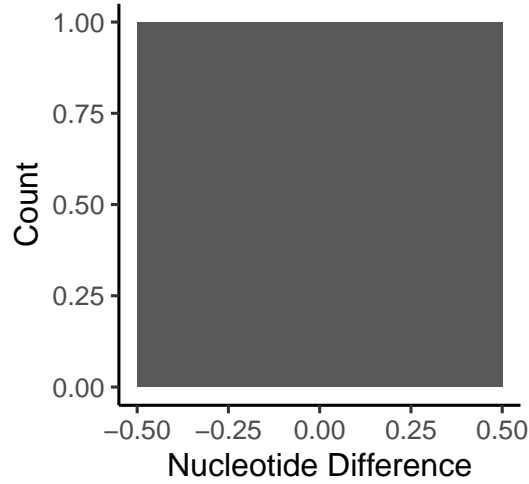
IGHV3-21*01

2062 sequences assigned
1734 (84.1%) exact matches, in which:
1618 unique CDR3
7 unique J



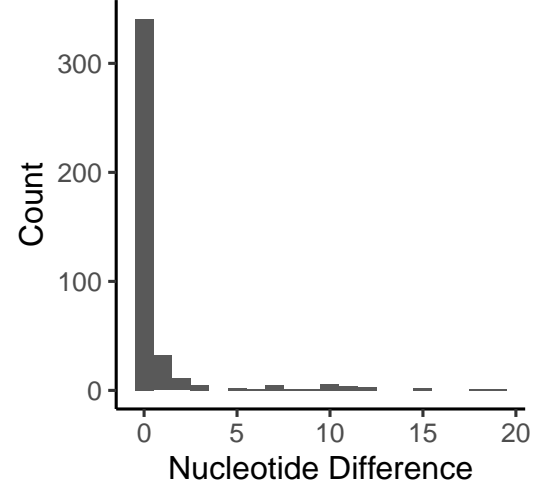
IGHV3-35*01

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



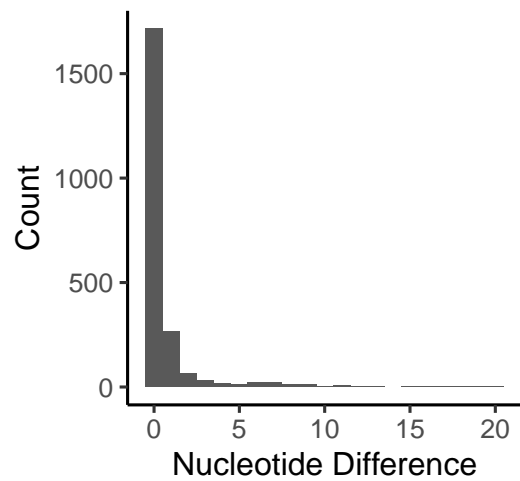
IGHV3-48*01

420 sequences assigned
341 (81.2%) exact matches, in which:
318 unique CDR3
7 unique J



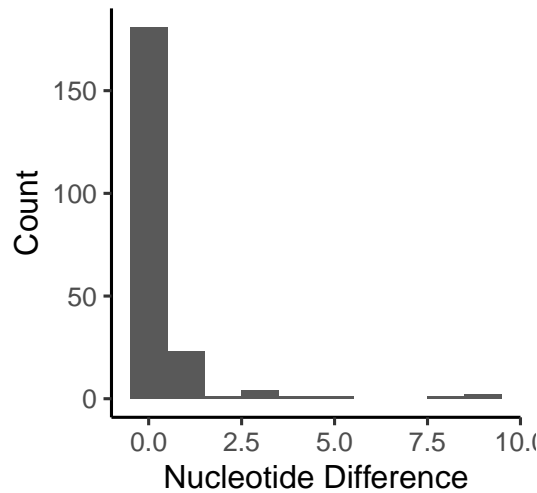
IGHV3-30-3*01

2200 sequences assigned
1715 (78%) exact matches, in which:
1591 unique CDR3
7 unique J



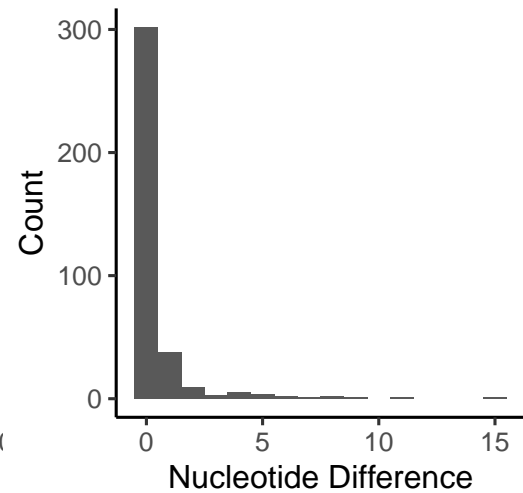
IGHV3-43*01

214 sequences assigned
181 (84.6%) exact matches, in which:
168 unique CDR3
7 unique J



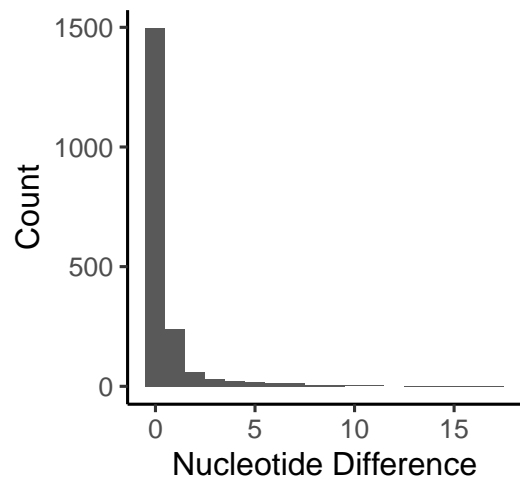
IGHV3-48*02

374 sequences assigned
302 (80.7%) exact matches, in which:
282 unique CDR3
6 unique J



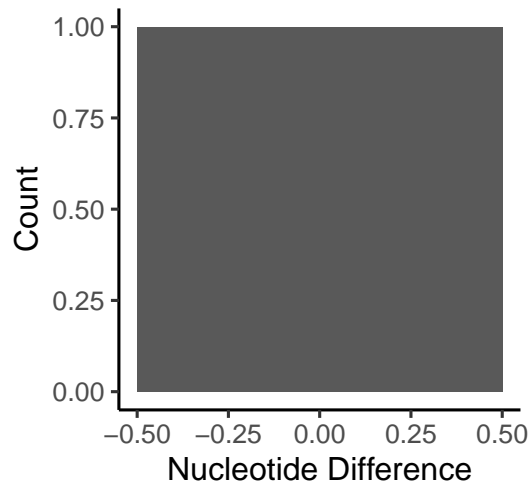
IGHV3-33*01

1920 sequences assigned
1497 (78%) exact matches, in which:
1367 unique CDR3
7 unique J



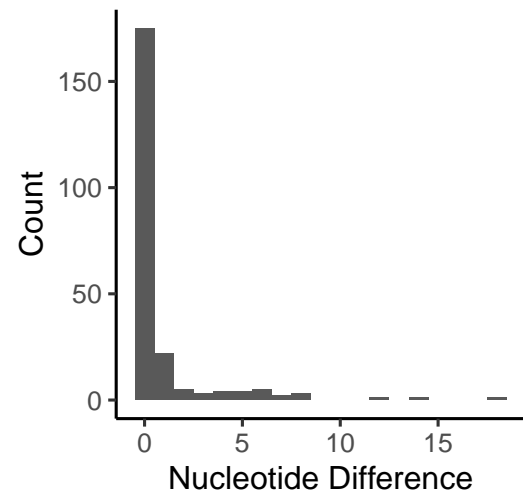
IGHV3-47*02

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



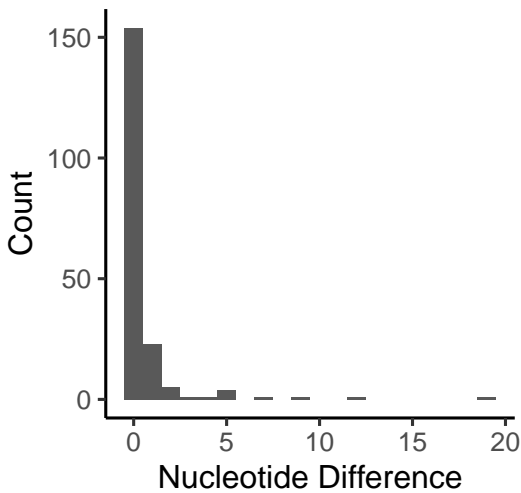
IGHV3-49*03

226 sequences assigned
175 (77.4%) exact matches, in which:
164 unique CDR3
6 unique J



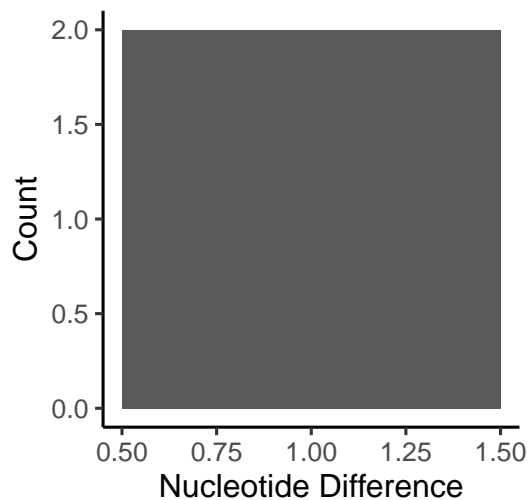
IGHV3-49*05

192 sequences assigned
154 (80.2%) exact matches, in which:
151 unique CDR3
6 unique J



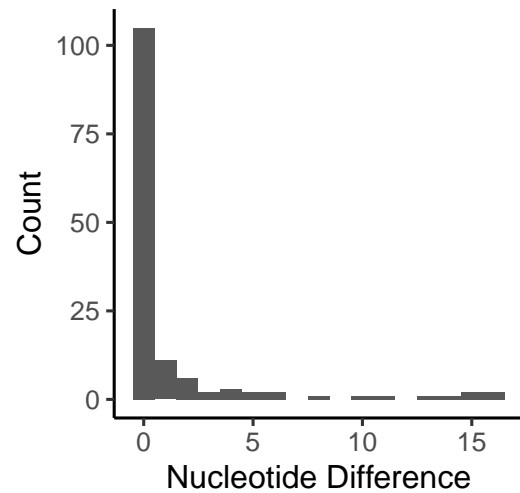
IGHV3-66*03

2 sequences assigned
No exact matches.



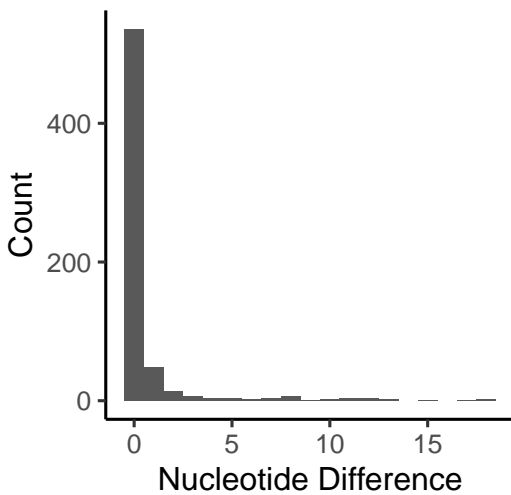
IGHV3-73*02

140 sequences assigned
105 (75%) exact matches, in which:
96 unique CDR3
6 unique J



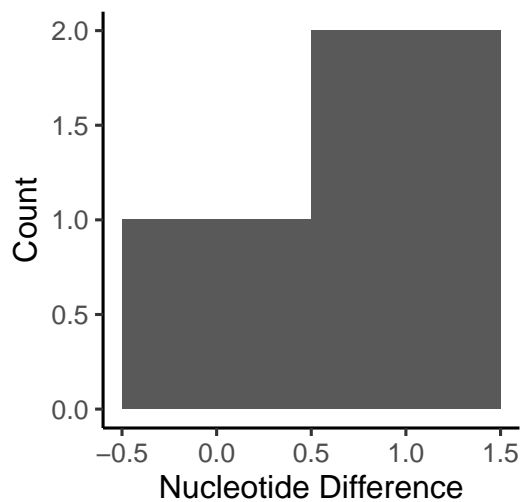
IGHV3-53*01

641 sequences assigned
536 (83.6%) exact matches, in which:
497 unique CDR3
7 unique J



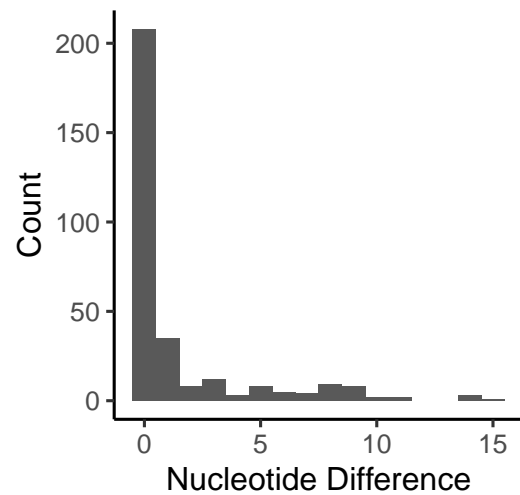
IGHV3-66*04

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



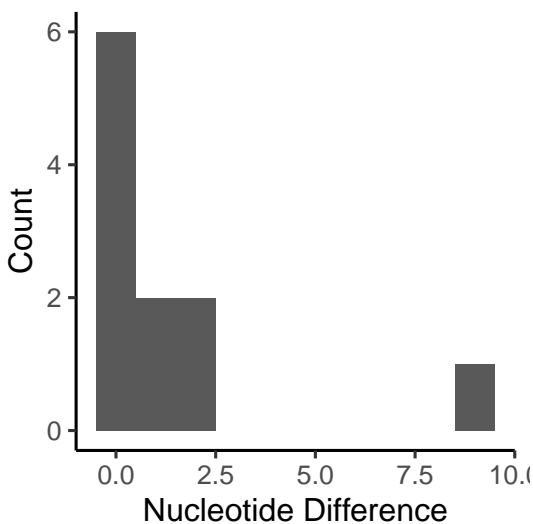
IGHV3-74*01

310 sequences assigned
208 (67.1%) exact matches, in which:
198 unique CDR3
7 unique J



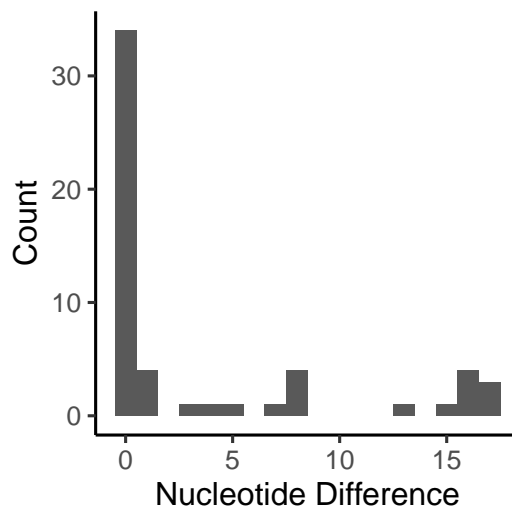
IGHV3-64*02

11 sequences assigned
6 (54.5%) exact matches, in which:
6 unique CDR3
2 unique J



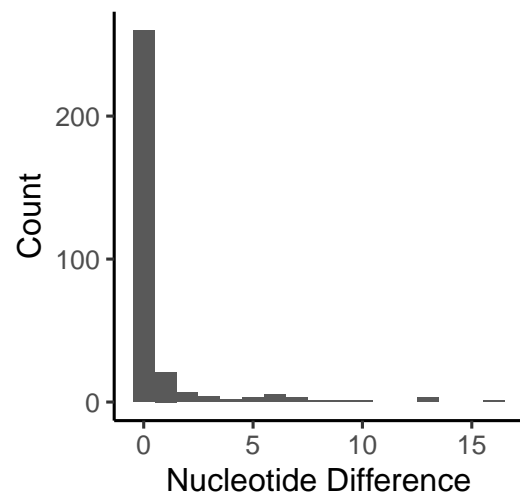
IGHV3-72*01

55 sequences assigned
34 (61.8%) exact matches, in which:
31 unique CDR3
6 unique J



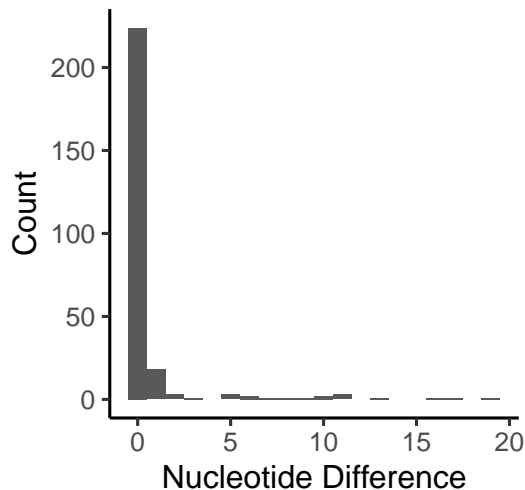
IGHV3-64D*06

324 sequences assigned
260 (80.2%) exact matches, in which:
238 unique CDR3
6 unique J



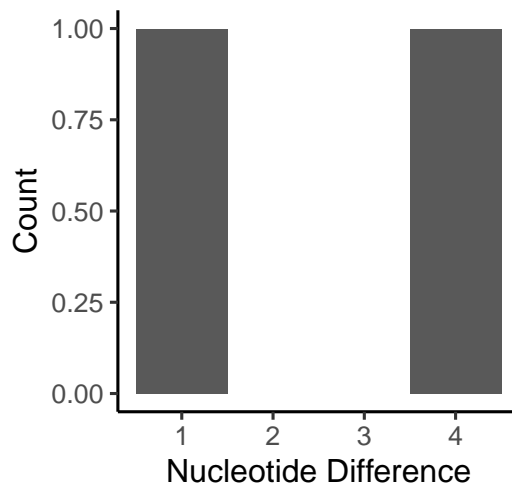
IGHV4-4*07

285 sequences assigned
224 (78.6%) exact matches, in which:
219 unique CDR3
6 unique J



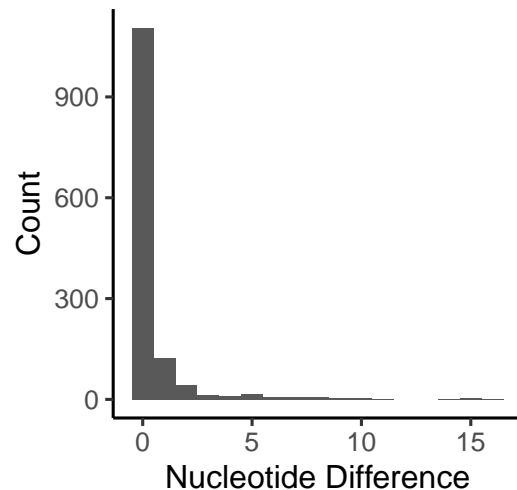
IGHV4-28*04

2 sequences assigned
No exact matches.



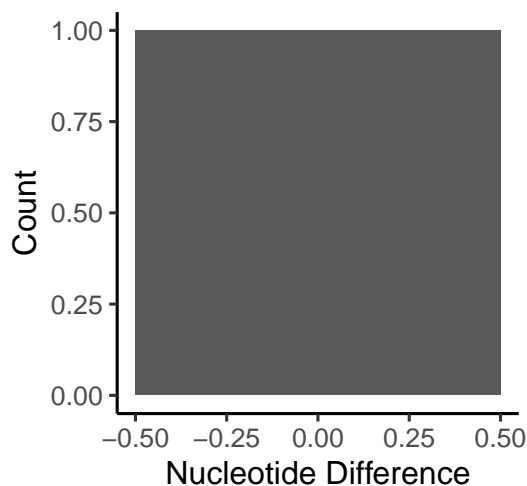
IGHV4-31*03

1350 sequences assigned
1106 (81.9%) exact matches, in which:
1049 unique CDR3
7 unique J



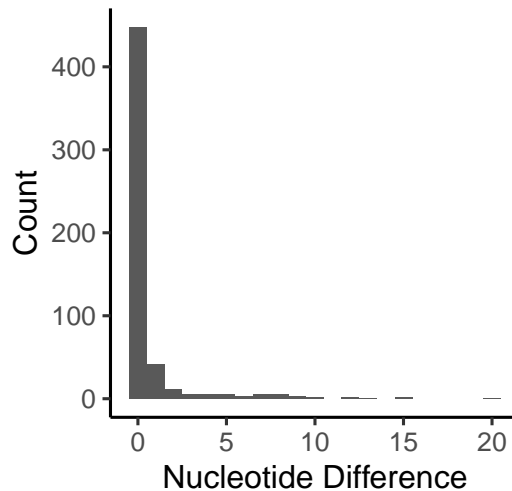
IGHV4-28*01

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



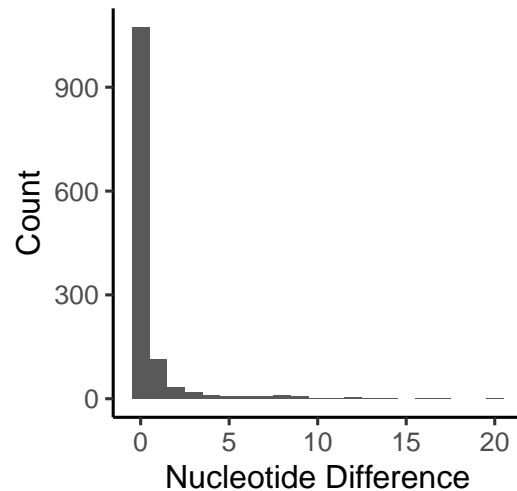
IGHV4-30-4*01

541 sequences assigned
448 (82.8%) exact matches, in which:
430 unique CDR3
7 unique J



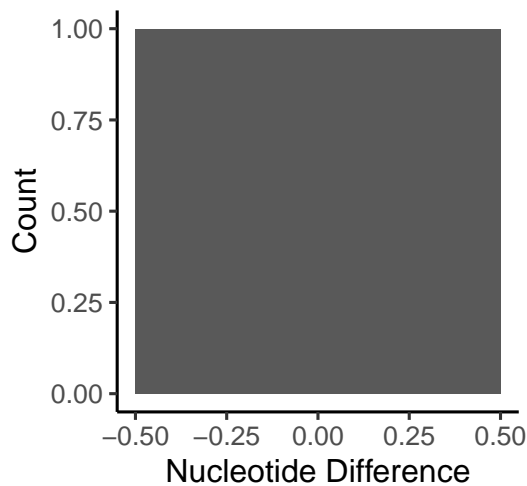
IGHV4-34*01

1300 sequences assigned
1074 (82.6%) exact matches, in which:
993 unique CDR3
7 unique J



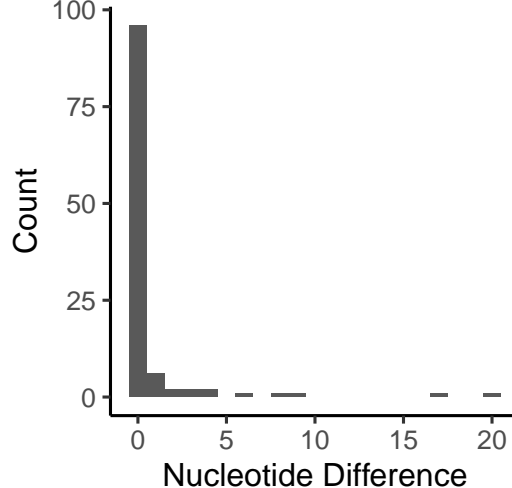
IGHV4-28*02

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



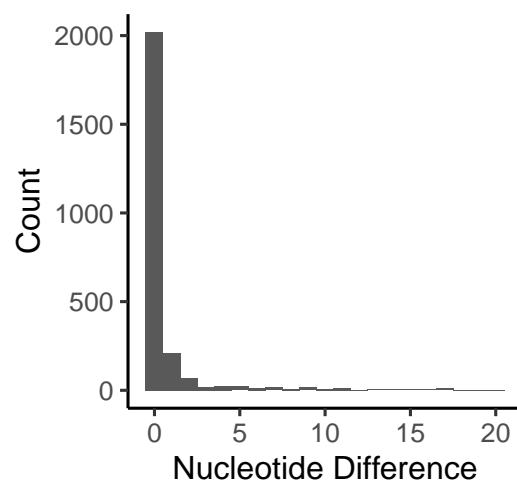
IGHV4-30-2*01

115 sequences assigned
96 (83.5%) exact matches, in which:
89 unique CDR3
5 unique J



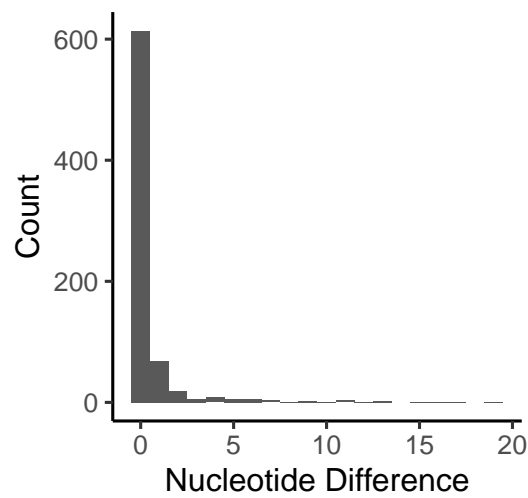
IGHV4-39*01

2481 sequences assigned
2020 (81.4%) exact matches, in which:
1861 unique CDR3
7 unique J



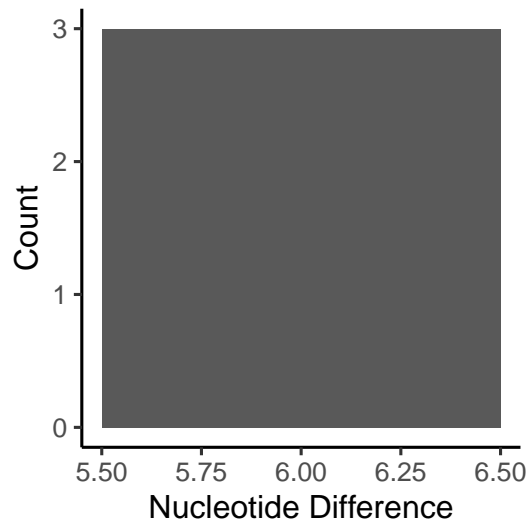
IGHV4–59*01

744 sequences assigned
614 (82.5%) exact matches, in which:
596 unique CDR3
7 unique J



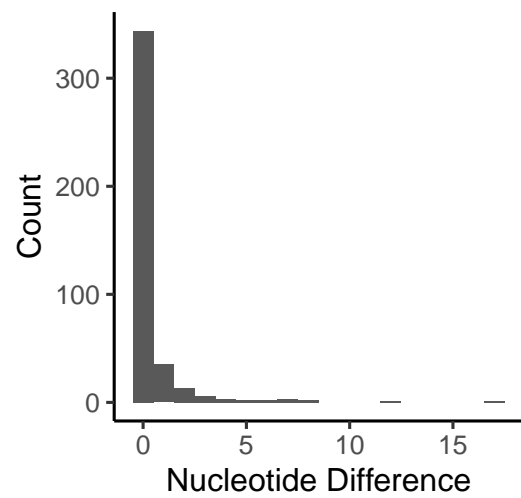
IGHV4/OR15–8*01

3 sequences assigned
No exact matches.



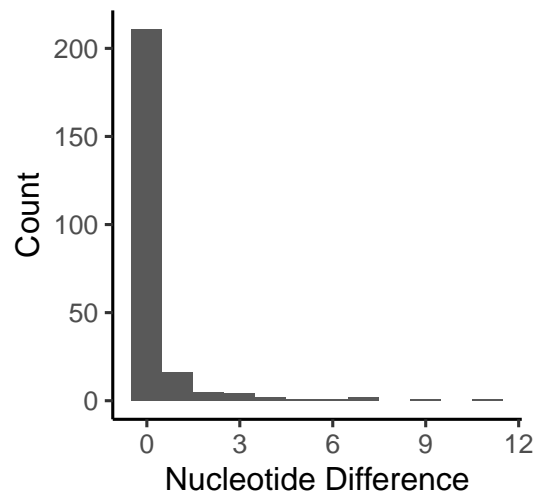
IGHV6–1*01

412 sequences assigned
344 (83.5%) exact matches, in which:
325 unique CDR3
6 unique J



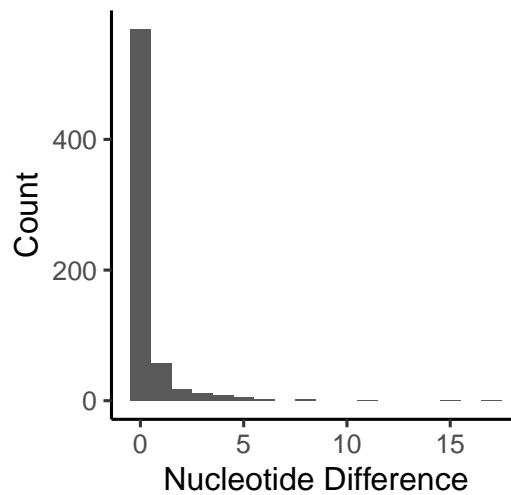
IGHV4–61*01

244 sequences assigned
211 (86.5%) exact matches, in which:
198 unique CDR3
7 unique J



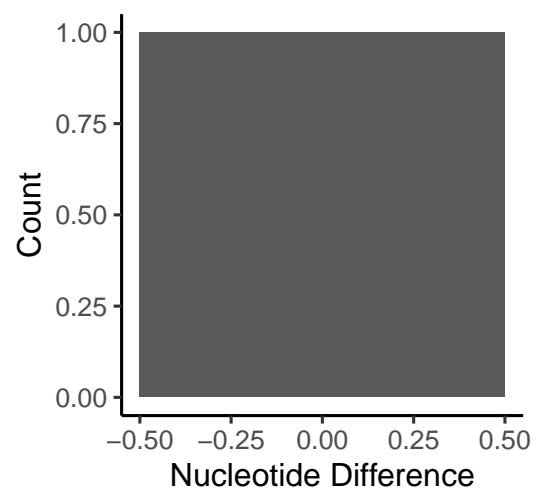
IGHV5–10–1*03

675 sequences assigned
569 (84.3%) exact matches, in which:
527 unique CDR3
6 unique J



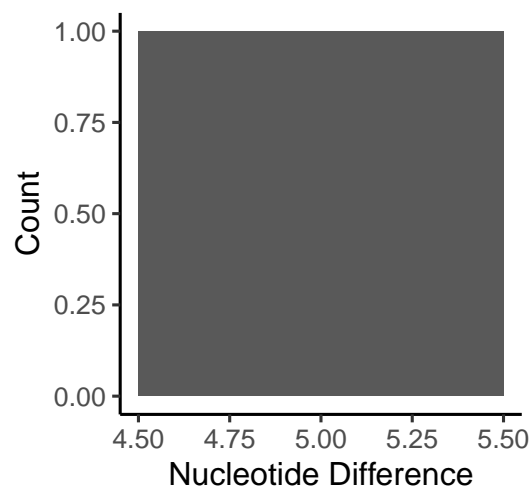
IGHV3/OR16–12*01

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



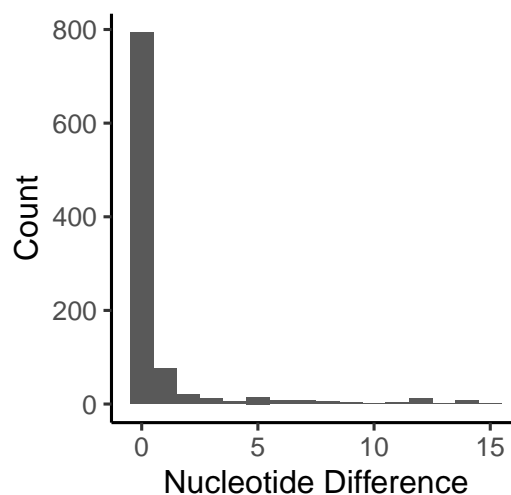
IGHV1/OR15–4*01

1 sequences assigned
No exact matches.



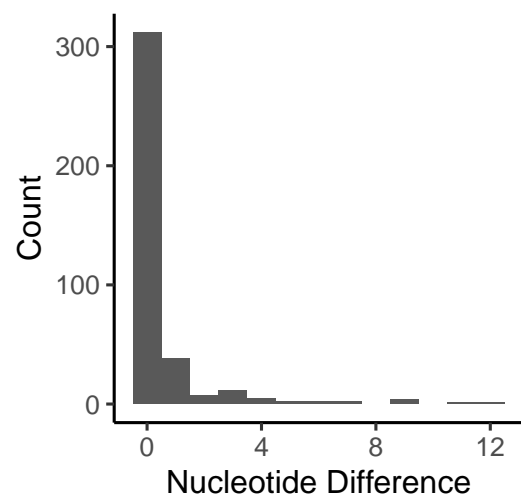
IGHV5–51*01

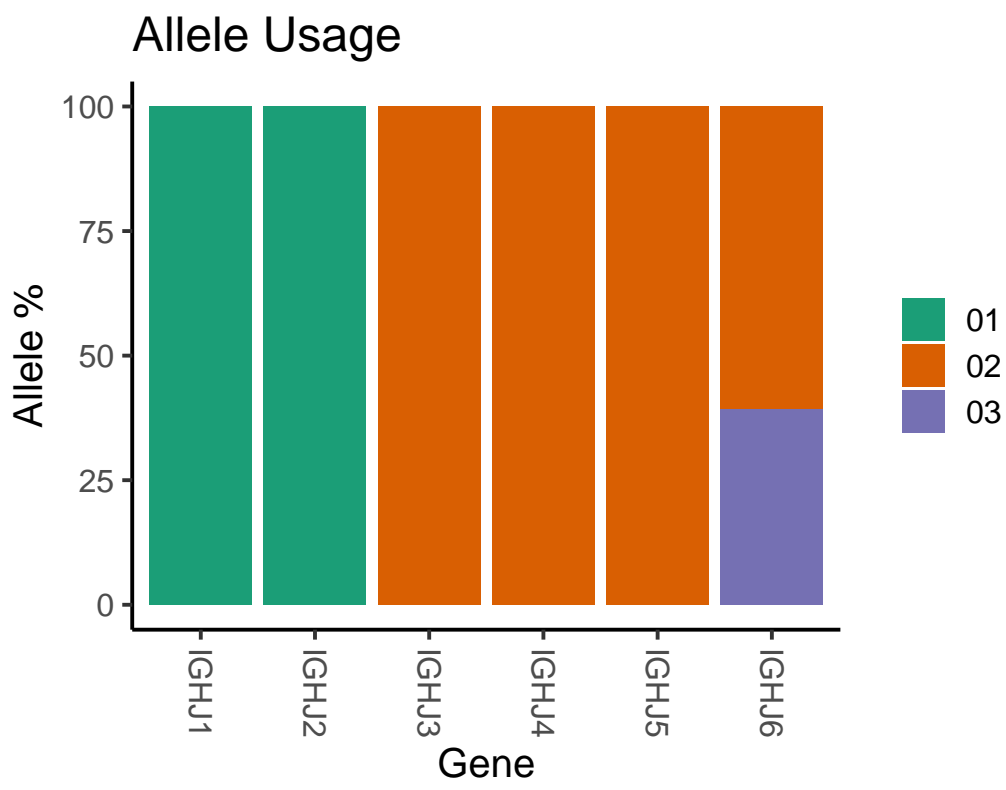
973 sequences assigned
794 (81.6%) exact matches, in which:
752 unique CDR3
7 unique J



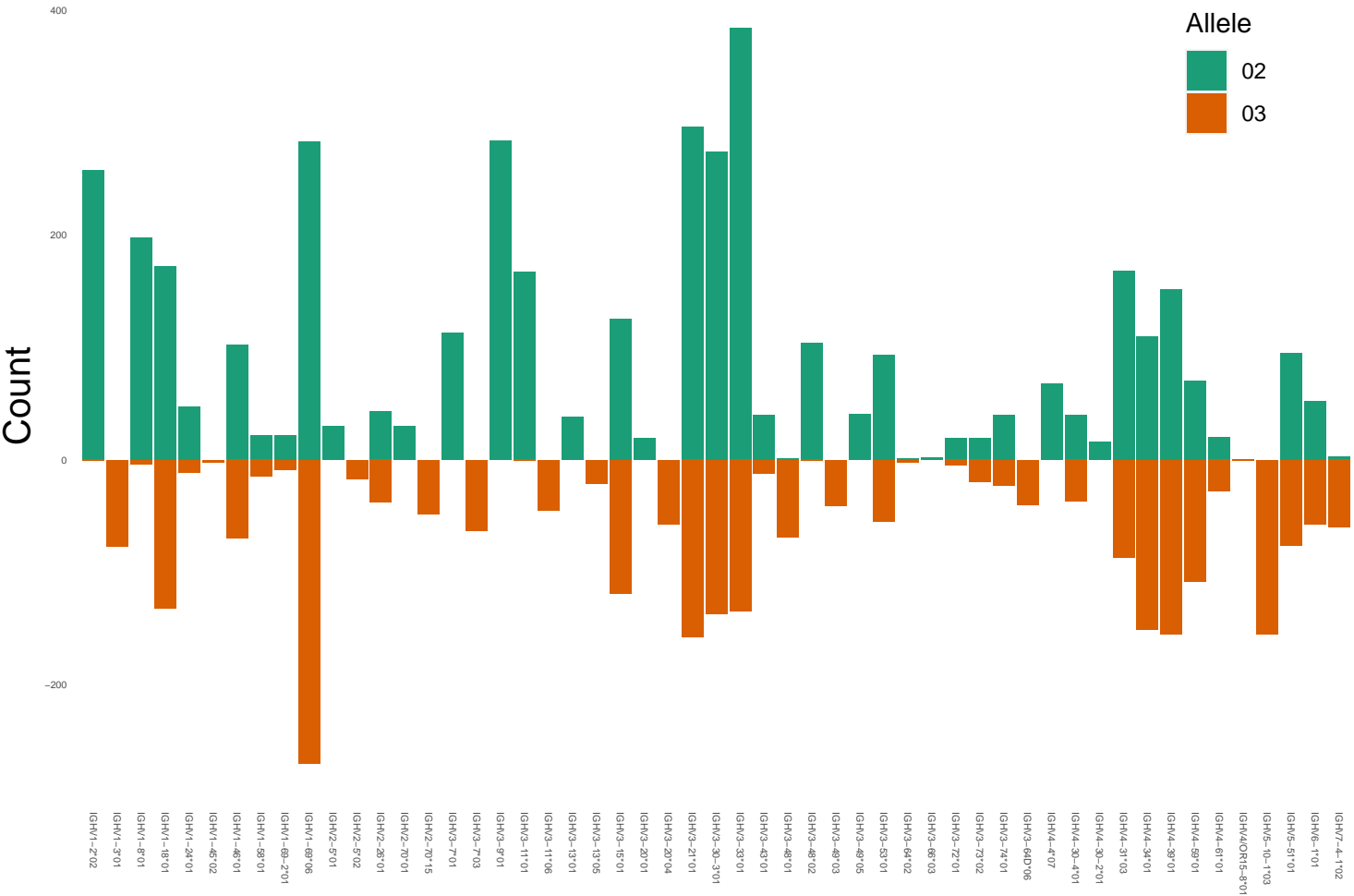
IGHV7–4–1*02

385 sequences assigned
312 (81%) exact matches, in which:
300 unique CDR3
7 unique J





Sequence Count by IGHJ6 allele usage



[illegible]