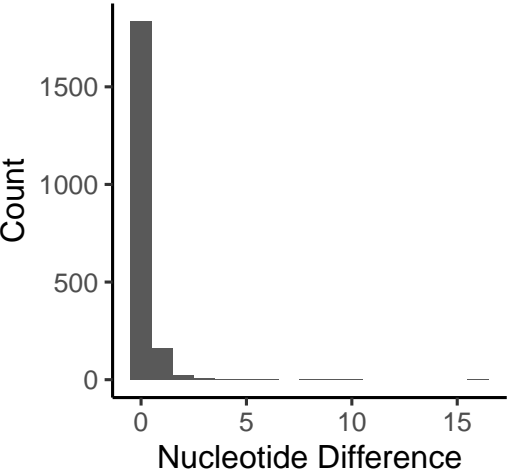


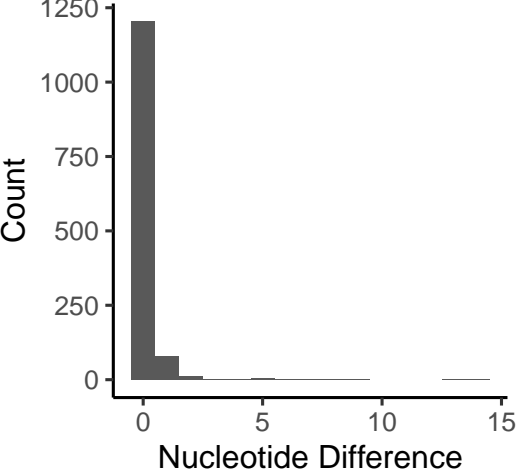
IGHV1-2*02

2044 sequences assigned
1835 (89.8%) exact matches, in which:
1728 unique CDR3
6 unique J



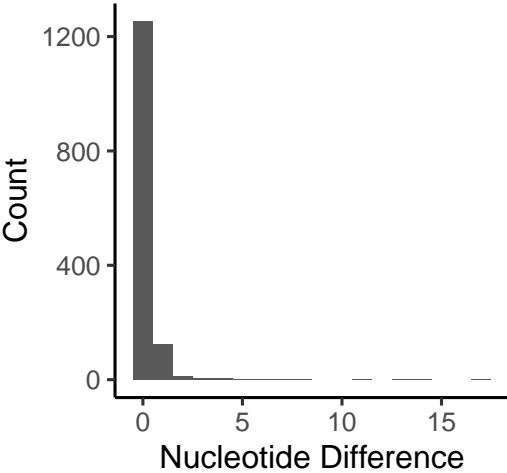
IGHV1-18*01

1315 sequences assigned
1204 (91.6%) exact matches, in which:
1148 unique CDR3
6 unique J



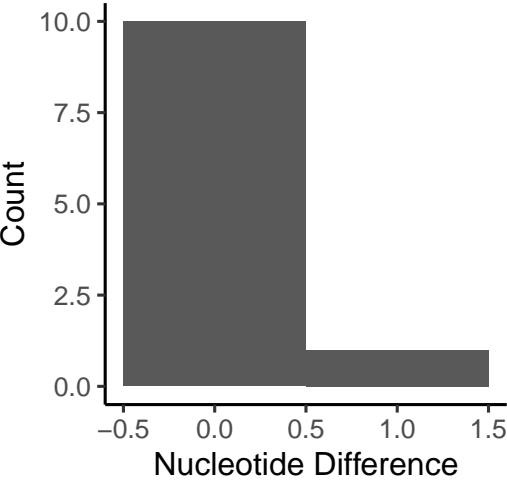
IGHV1-46*01

1412 sequences assigned
1253 (88.7%) exact matches, in which:
1178 unique CDR3
6 unique J



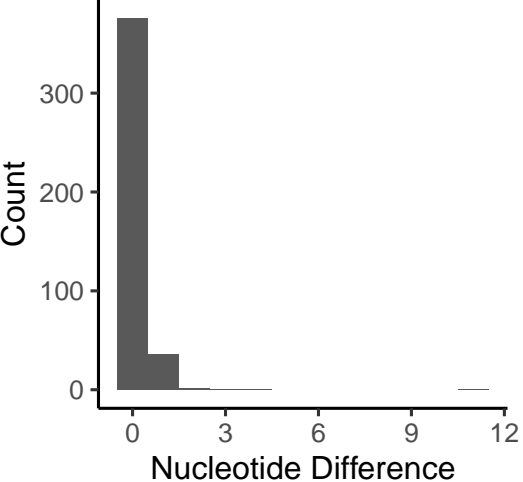
IGHV1-3*02

11 sequences assigned
10 (90.9%) exact matches, in which:
9 unique CDR3
3 unique J



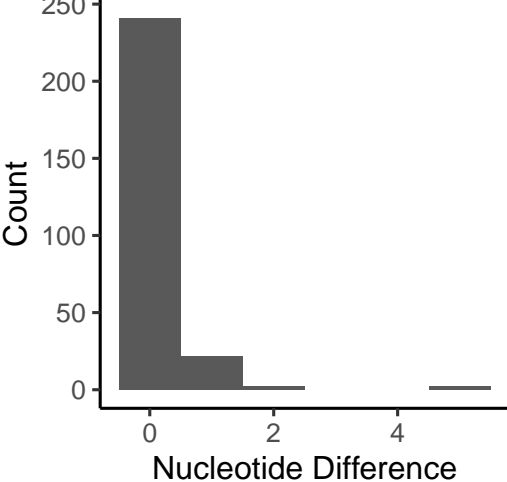
IGHV1-24*01

418 sequences assigned
376 (90%) exact matches, in which:
358 unique CDR3
6 unique J



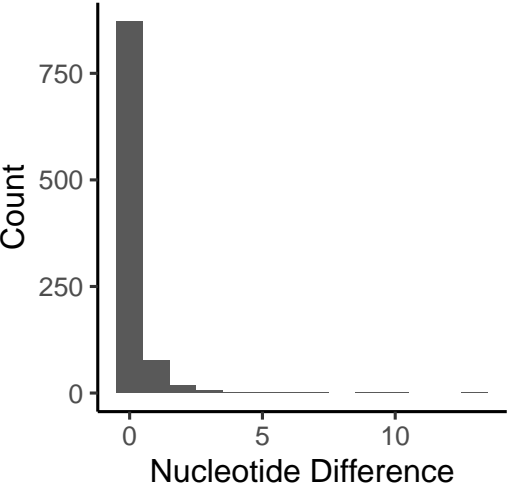
IGHV1-58*01

267 sequences assigned
241 (90.3%) exact matches, in which:
228 unique CDR3
6 unique J



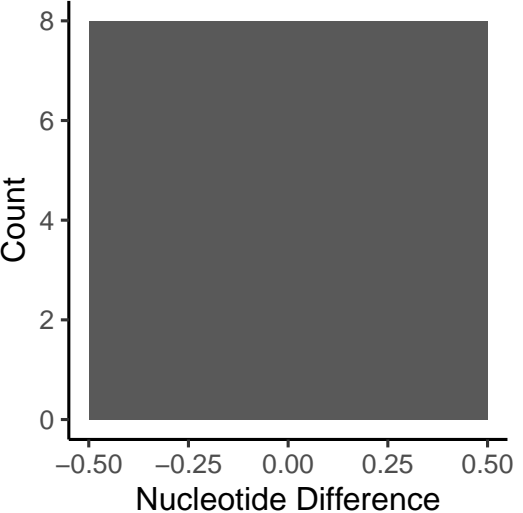
IGHV1-8*01

983 sequences assigned
872 (88.7%) exact matches, in which:
819 unique CDR3
6 unique J



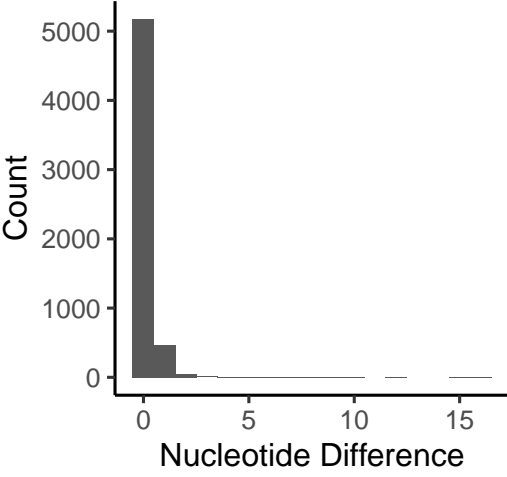
IGHV1-45*02

8 sequences assigned
8 (100%) exact matches, in which:
7 unique CDR3
3 unique J



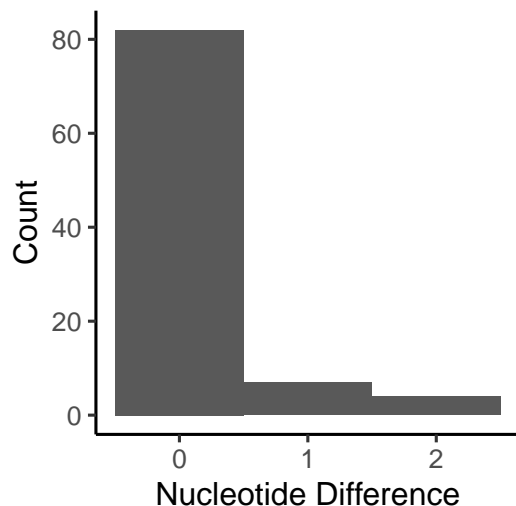
IGHV1-69*01

5741 sequences assigned
5175 (90.1%) exact matches, in which:
4791 unique CDR3
6 unique J



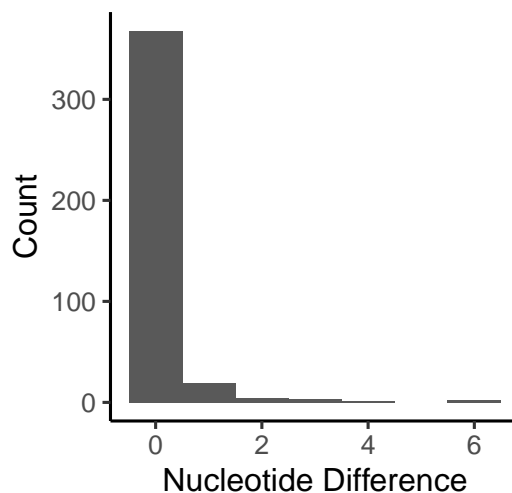
IGHV1-69-2*01

93 sequences assigned
82 (88.2%) exact matches, in which:
79 unique CDR3
4 unique J



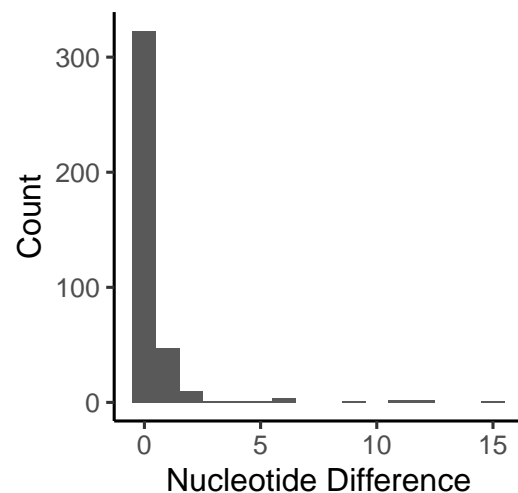
IGHV2-26*01

397 sequences assigned
368 (92.7%) exact matches, in which:
358 unique CDR3
6 unique J



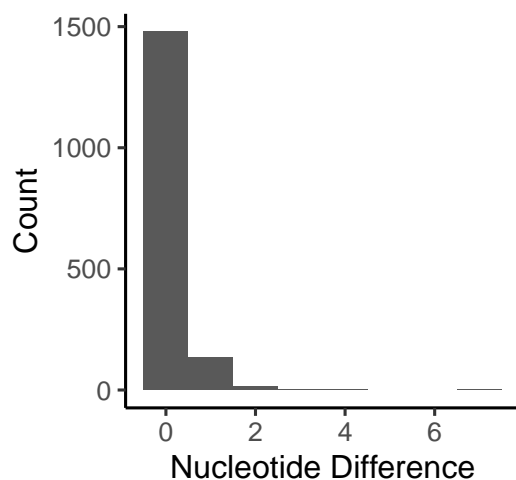
IGHV3-7*01

393 sequences assigned
323 (82.2%) exact matches, in which:
300 unique CDR3
6 unique J



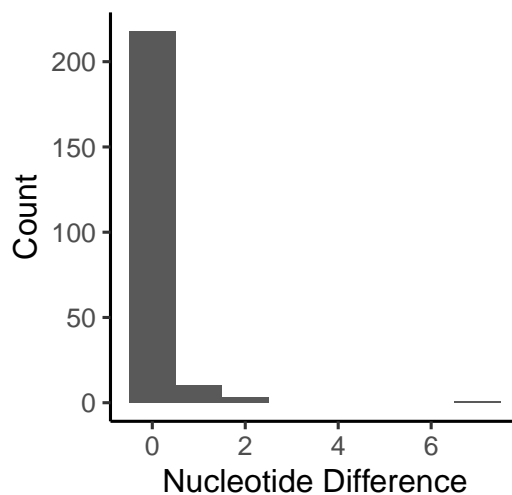
IGHV1-69*09

1638 sequences assigned
1479 (90.3%) exact matches, in which:
1367 unique CDR3
6 unique J



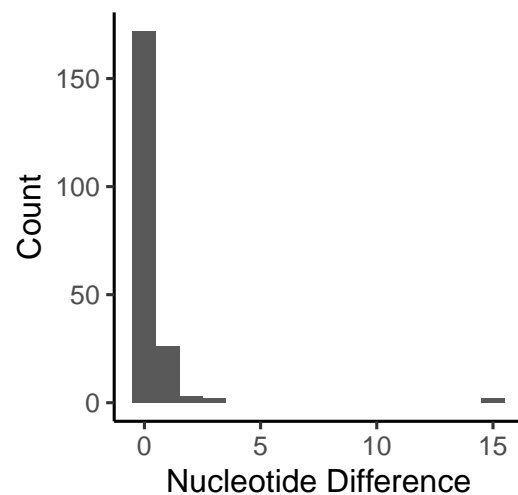
IGHV2-70*01

232 sequences assigned
218 (94%) exact matches, in which:
212 unique CDR3
5 unique J



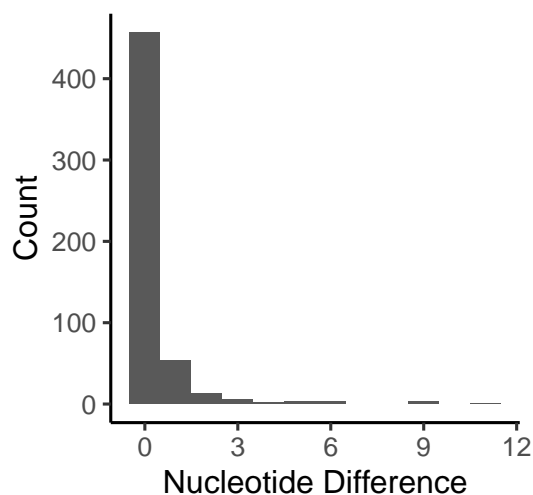
IGHV3-7*04

205 sequences assigned
172 (83.9%) exact matches, in which:
159 unique CDR3
6 unique J



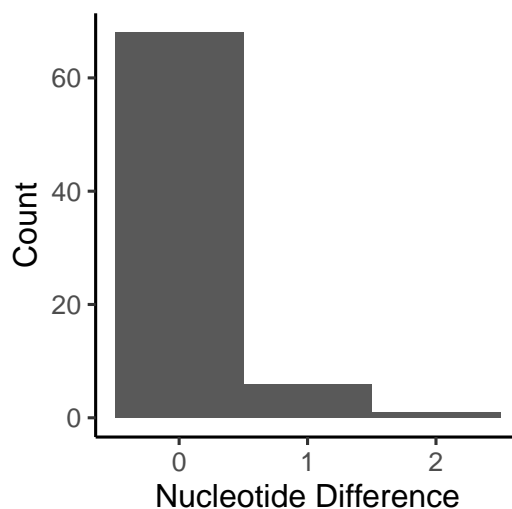
IGHV2-5*02

541 sequences assigned
457 (84.5%) exact matches, in which:
441 unique CDR3
6 unique J



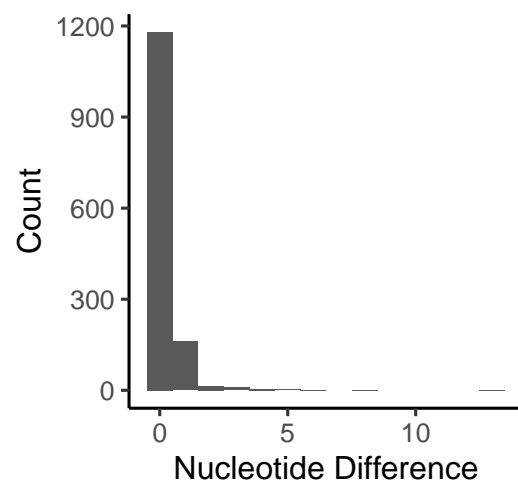
IGHV2-70*04

75 sequences assigned
68 (90.7%) exact matches, in which:
64 unique CDR3
5 unique J



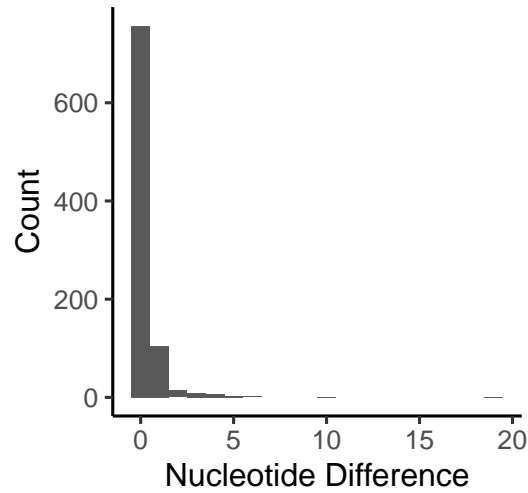
IGHV3-9*01

1376 sequences assigned
1180 (85.8%) exact matches, in which:
1054 unique CDR3
6 unique J



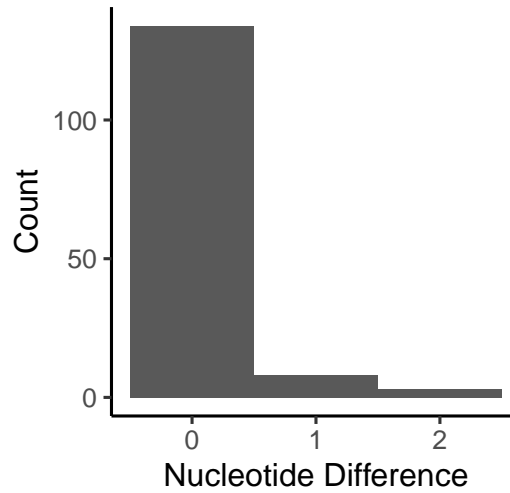
IGHV3–11*01

899 sequences assigned
757 (84.2%) exact matches, in which:
712 unique CDR3
6 unique J



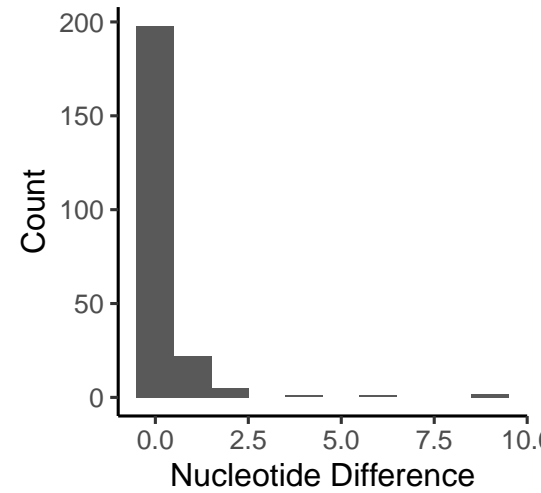
IGHV3–13*04

145 sequences assigned
134 (92.4%) exact matches, in which:
129 unique CDR3
5 unique J



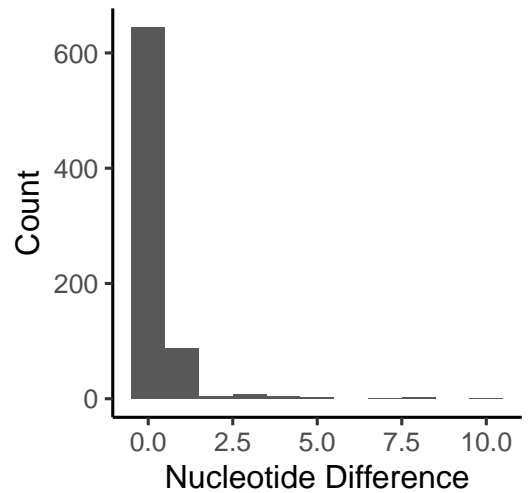
IGHV3–20*04

229 sequences assigned
198 (86.5%) exact matches, in which:
181 unique CDR3
6 unique J



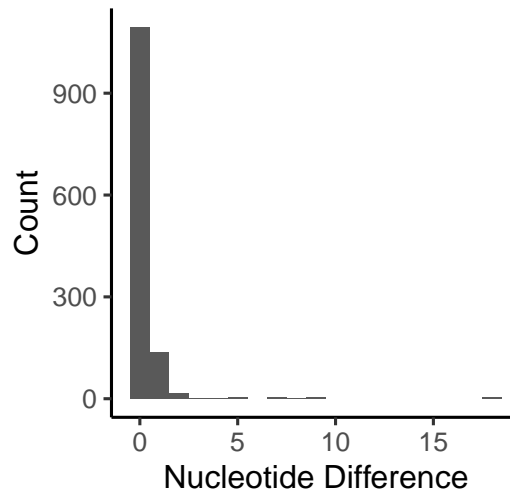
IGHV3–11*05

753 sequences assigned
645 (85.7%) exact matches, in which:
605 unique CDR3
6 unique J



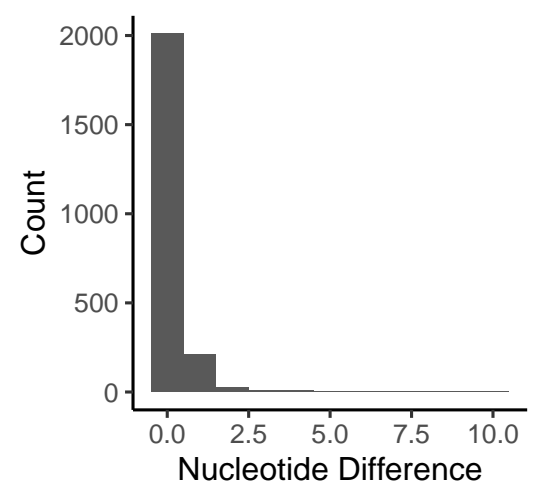
IGHV3–15*01

1268 sequences assigned
1095 (86.4%) exact matches, in which:
1028 unique CDR3
6 unique J



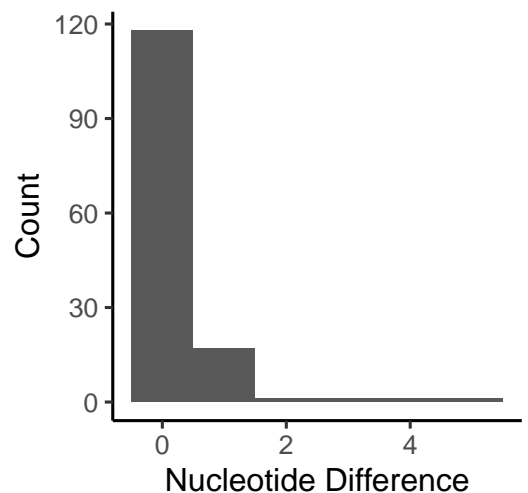
IGHV3–21*01

2275 sequences assigned
2010 (88.4%) exact matches, in which:
1834 unique CDR3
6 unique J



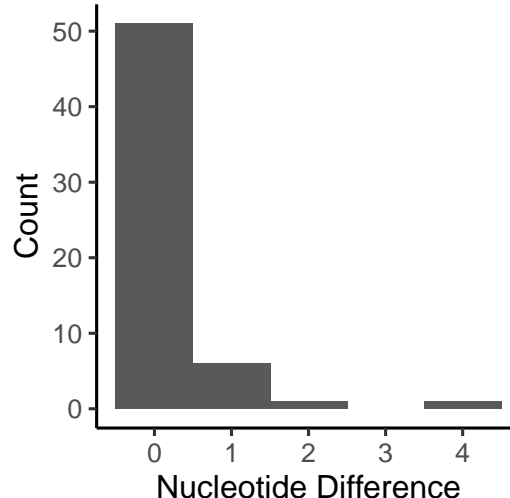
IGHV3–13*01

139 sequences assigned
118 (84.9%) exact matches, in which:
109 unique CDR3
5 unique J



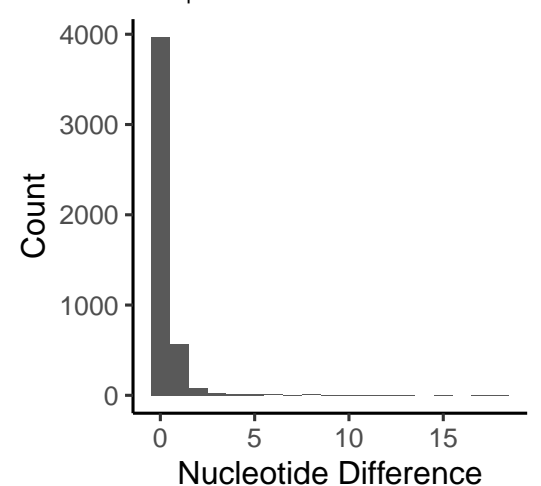
IGHV3–20*01

59 sequences assigned
51 (86.4%) exact matches, in which:
46 unique CDR3
5 unique J



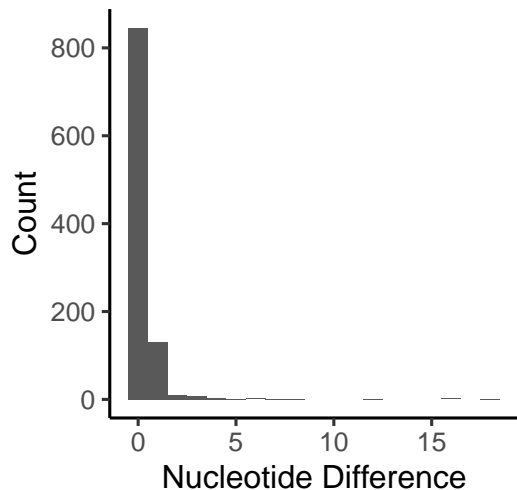
IGHV3–23*01

4714 sequences assigned
3969 (84.2%) exact matches, in which:
3572 unique CDR3
6 unique J



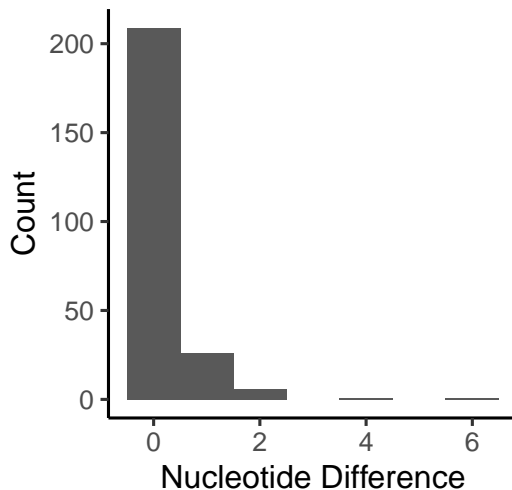
IGHV3–30–3*01

1006 sequences assigned
846 (84.1%) exact matches, in which:
770 unique CDR3
6 unique J



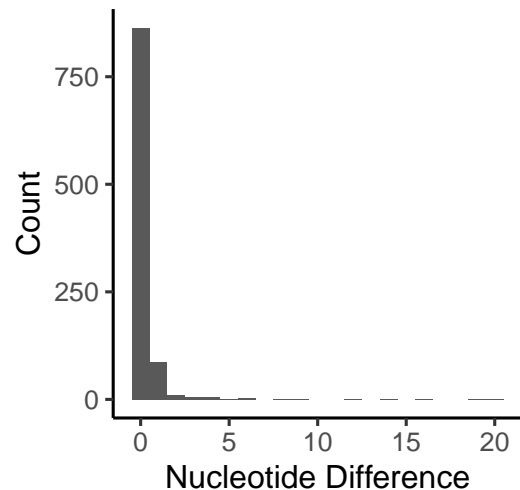
IGHV3–43*01

243 sequences assigned
209 (86%) exact matches, in which:
185 unique CDR3
6 unique J



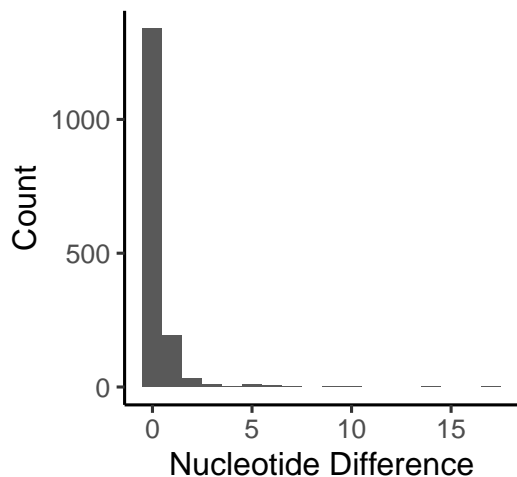
IGHV3–53*01

985 sequences assigned
864 (87.7%) exact matches, in which:
791 unique CDR3
6 unique J



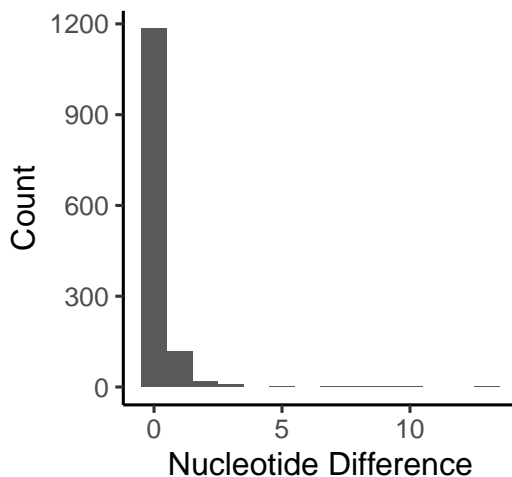
IGHV3–30*18

1597 sequences assigned
1339 (83.8%) exact matches, in which:
1219 unique CDR3
6 unique J



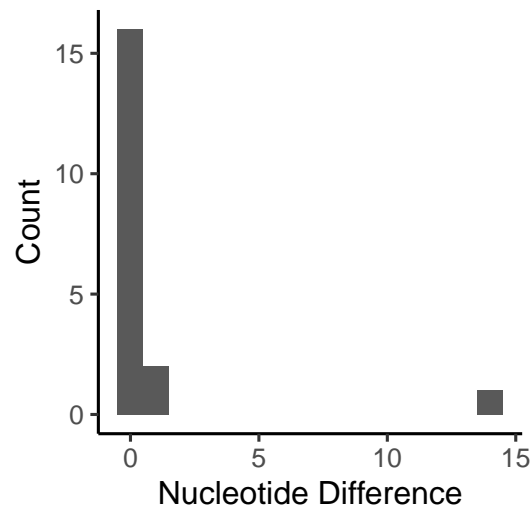
IGHV3–48*02

1340 sequences assigned
1184 (88.4%) exact matches, in which:
1092 unique CDR3
6 unique J



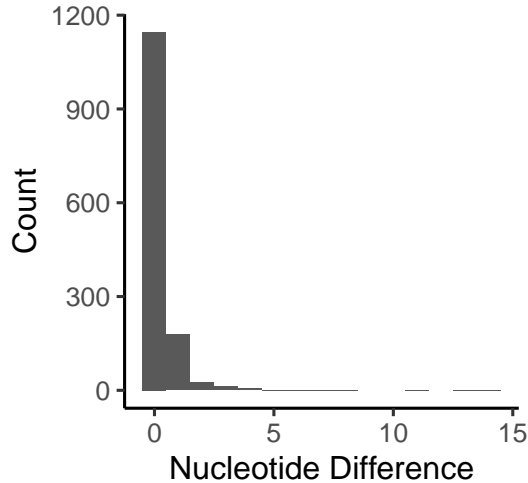
IGHV3–64*02

20 sequences assigned
16 (80%) exact matches, in which:
15 unique CDR3
4 unique J



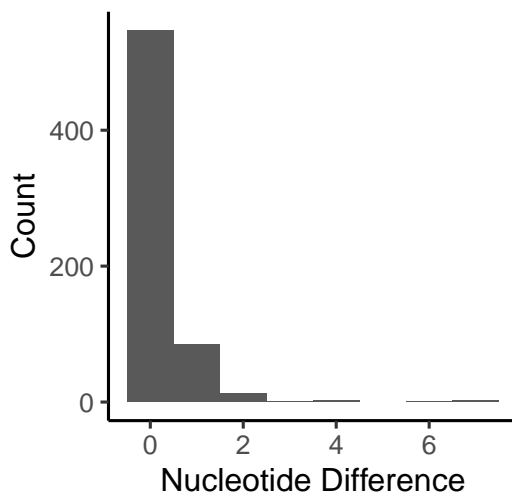
IGHV3–33*01

1378 sequences assigned
1146 (83.2%) exact matches, in which:
1039 unique CDR3
6 unique J



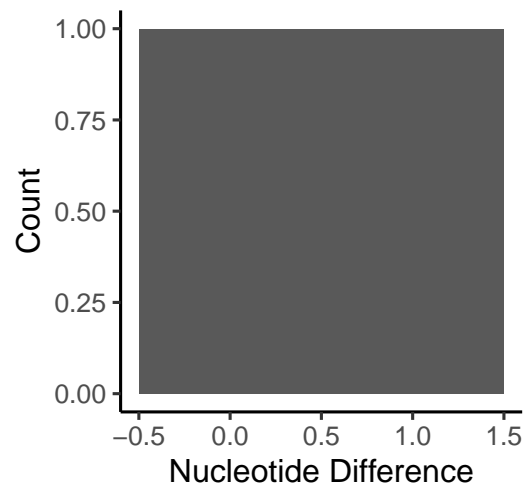
IGHV3–49*05

651 sequences assigned
547 (84%) exact matches, in which:
503 unique CDR3
6 unique J



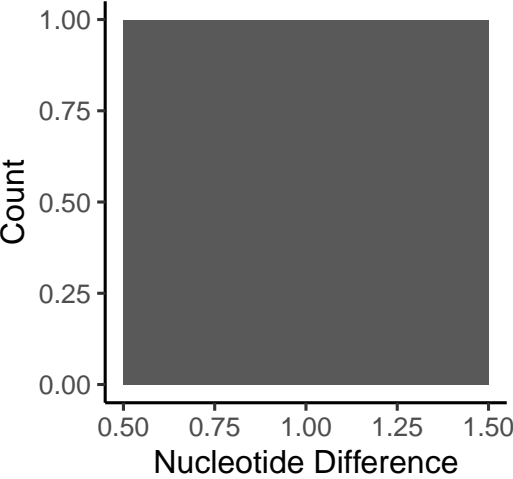
IGHV3–66*03

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



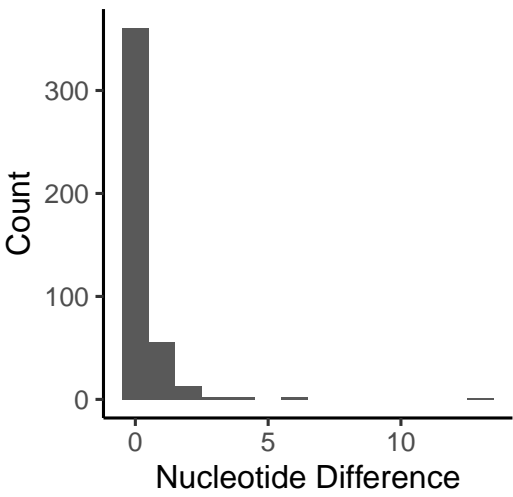
IGHV3-66*04

1 sequences assigned
No exact matches.



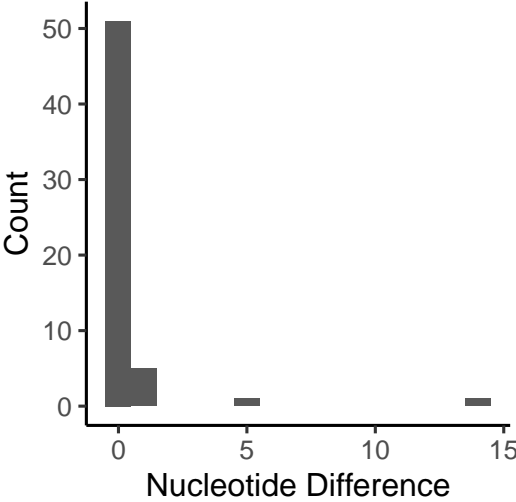
IGHV3-73*02

438 sequences assigned
361 (82.4%) exact matches, in which:
323 unique CDR3
6 unique J



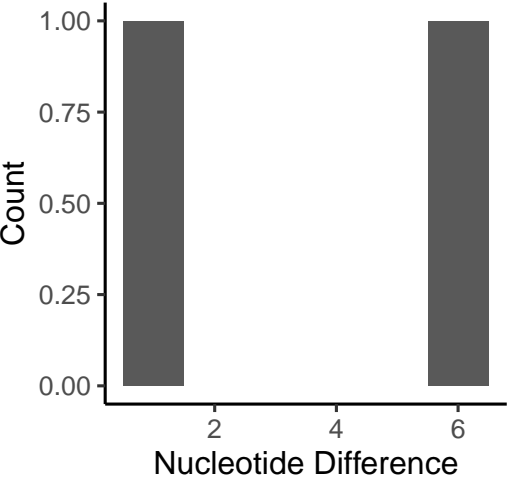
IGHV4-4*02

58 sequences assigned
51 (87.9%) exact matches, in which:
49 unique CDR3
5 unique J



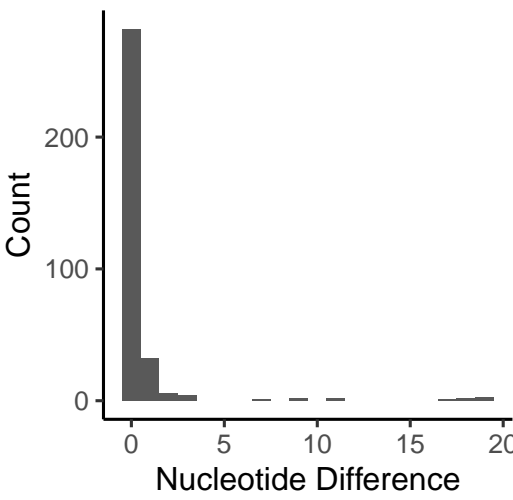
IGHV3-69-1*01

2 sequences assigned
No exact matches.



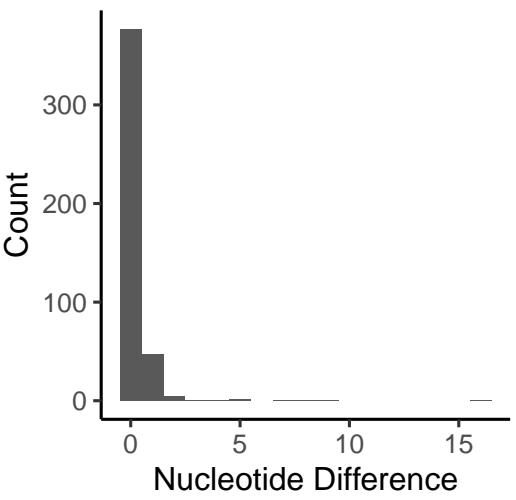
IGHV3-74*01

337 sequences assigned
282 (83.7%) exact matches, in which:
272 unique CDR3
6 unique J



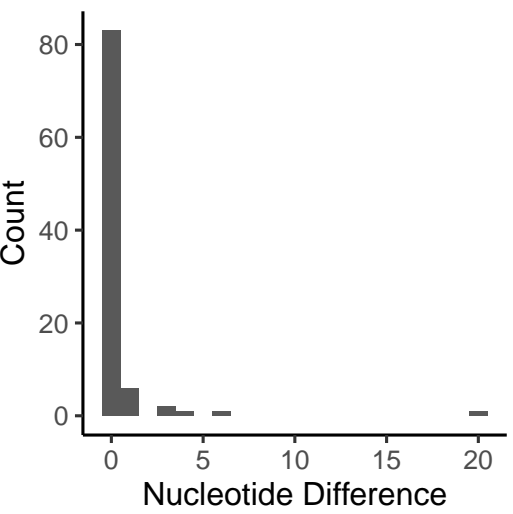
IGHV4-4*07

437 sequences assigned
377 (86.3%) exact matches, in which:
361 unique CDR3
6 unique J



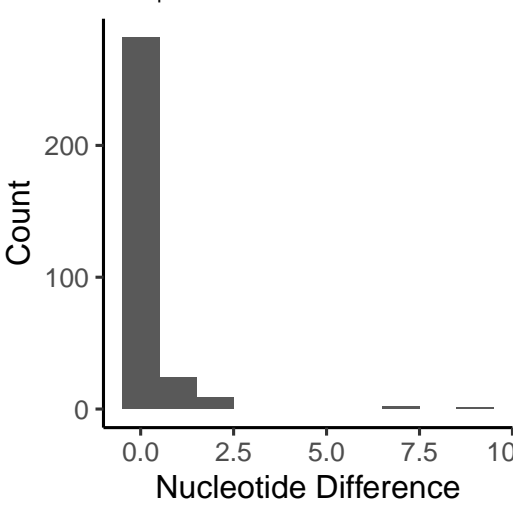
IGHV3-72*01

94 sequences assigned
83 (88.3%) exact matches, in which:
74 unique CDR3
5 unique J



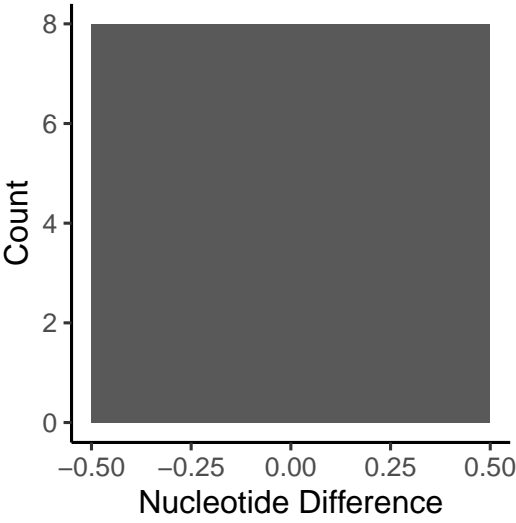
IGHV3-64D*06

318 sequences assigned
282 (88.7%) exact matches, in which:
259 unique CDR3
6 unique J



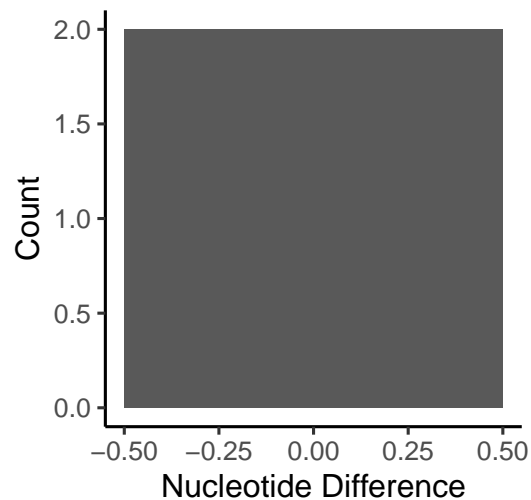
IGHV4-28*01

8 sequences assigned
8 (100%) exact matches, in which:
8 unique CDR3
4 unique J



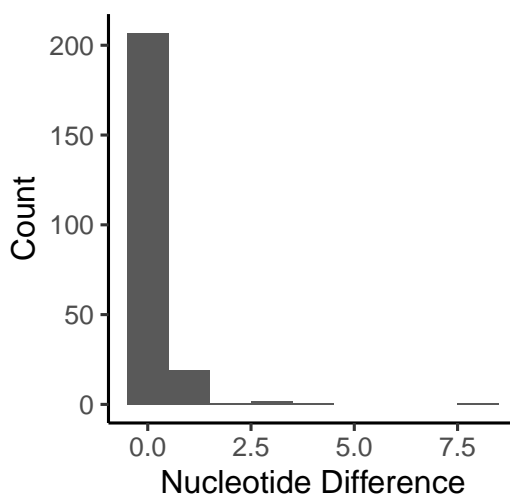
IGHV4-28*03

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



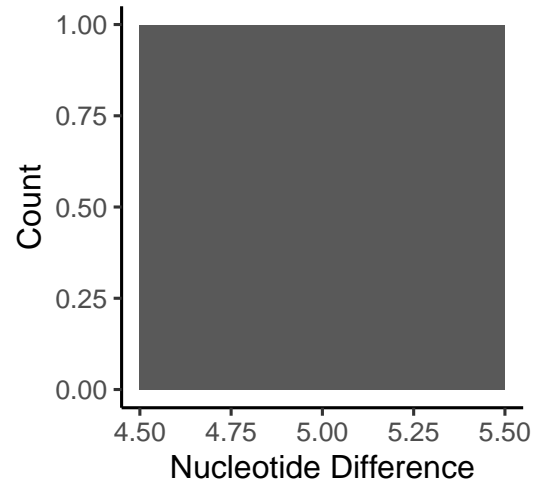
IGHV4-30-2*01

231 sequences assigned
207 (89.6%) exact matches, in which:
186 unique CDR3
5 unique J



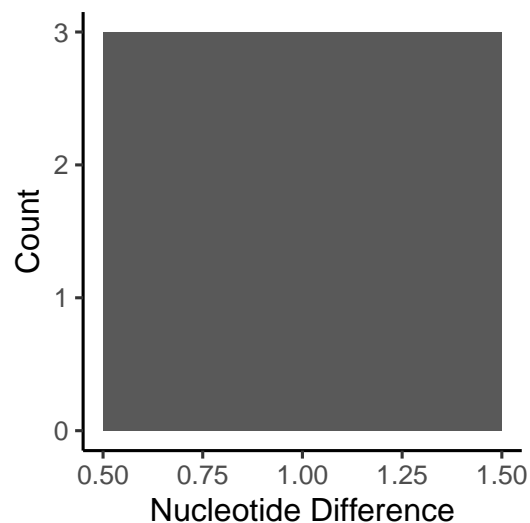
IGHV4-38-2*02

1 sequences assigned
No exact matches.



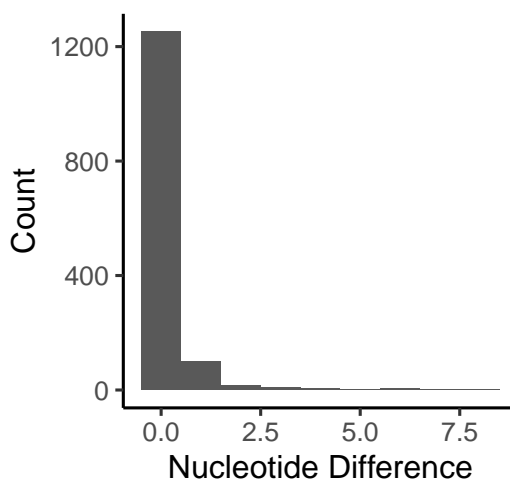
IGHV4-28*04

3 sequences assigned
No exact matches.



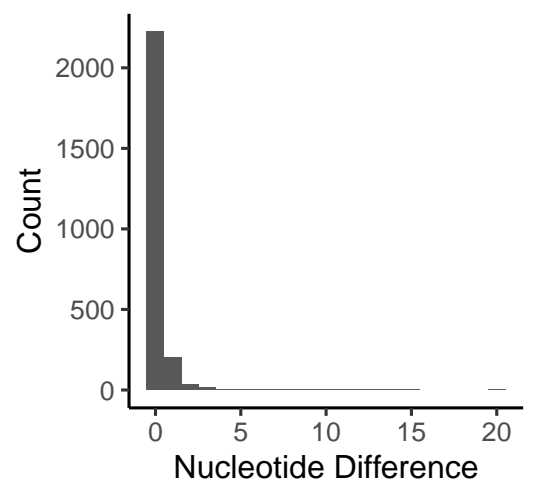
IGHV4-31*03

1392 sequences assigned
1252 (89.9%) exact matches, in which:
1180 unique CDR3
6 unique J



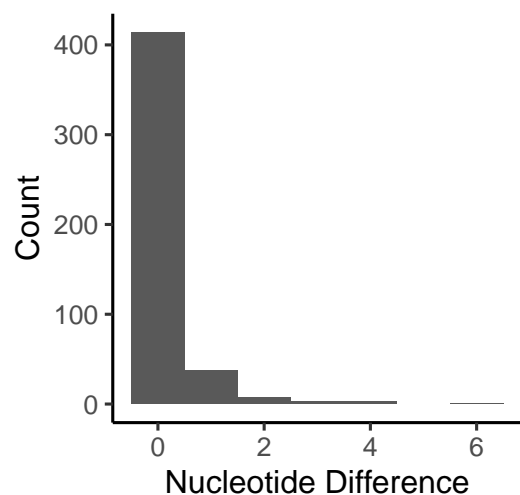
IGHV4-39*01

2511 sequences assigned
2224 (88.6%) exact matches, in which:
2052 unique CDR3
6 unique J



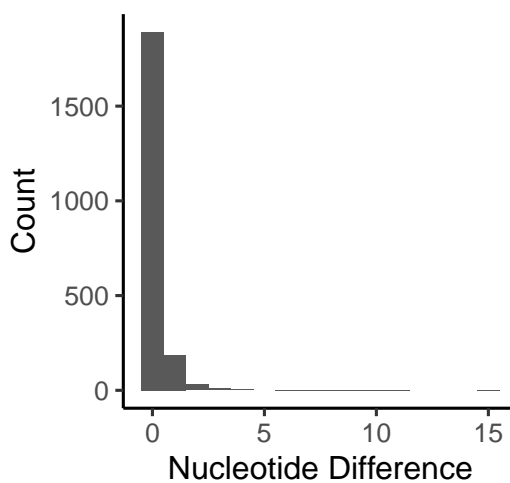
IGHV4-30-4*01

465 sequences assigned
414 (89%) exact matches, in which:
398 unique CDR3
6 unique J



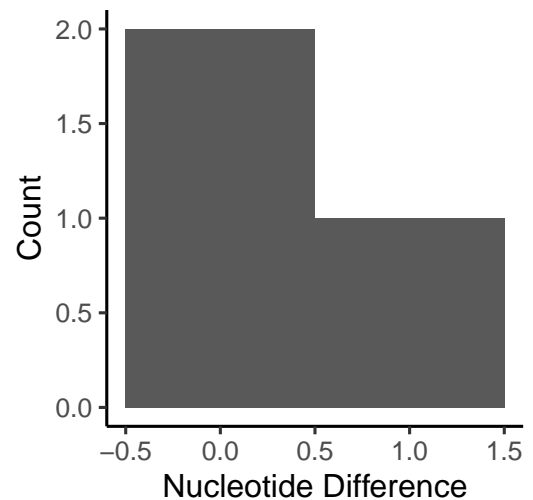
IGHV4-34*01

2134 sequences assigned
1891 (88.6%) exact matches, in which:
1754 unique CDR3
6 unique J



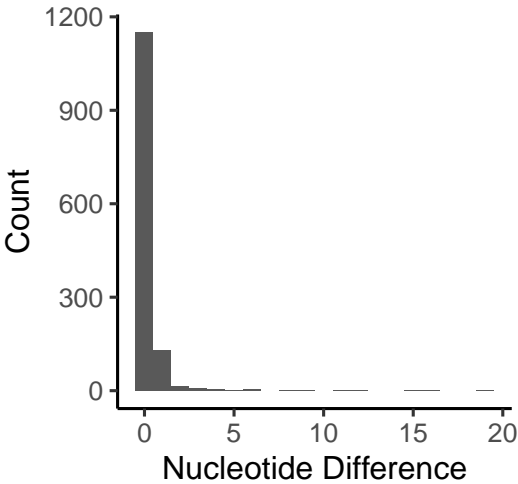
IGHV4-55*01

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



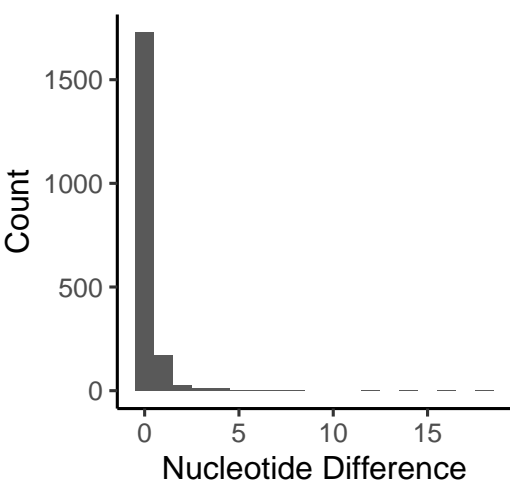
IGHV4–59*01

1324 sequences assigned
1150 (86.9%) exact matches, in which:
1097 unique CDR3
6 unique J



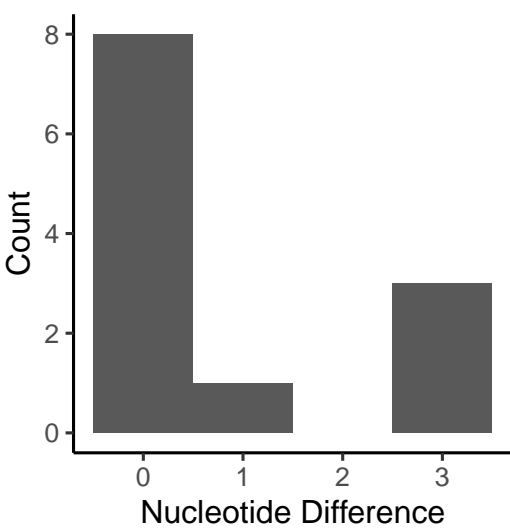
IGHV5–51*01

1969 sequences assigned
1728 (87.8%) exact matches, in which:
1619 unique CDR3
6 unique J



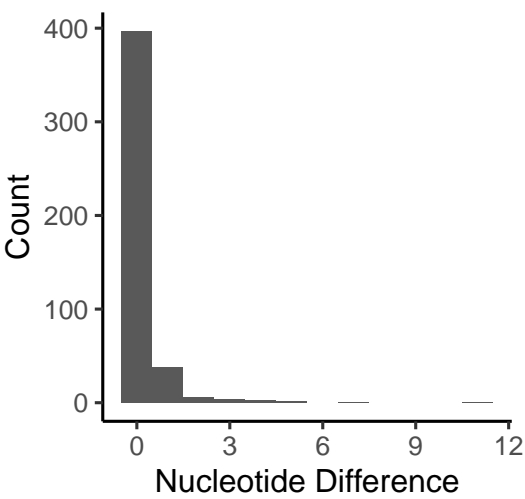
IGHV7–4–1*01

12 sequences assigned
8 (66.7%) exact matches, in which:
8 unique CDR3
3 unique J



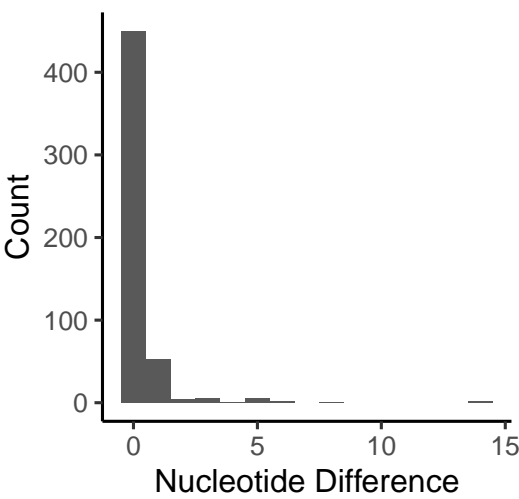
IGHV4–61*01

453 sequences assigned
397 (87.6%) exact matches, in which:
381 unique CDR3
6 unique J



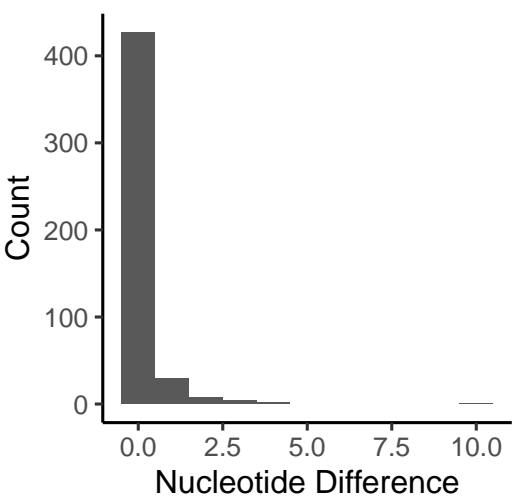
IGHV6–1*01

523 sequences assigned
450 (86%) exact matches, in which:
414 unique CDR3
6 unique J



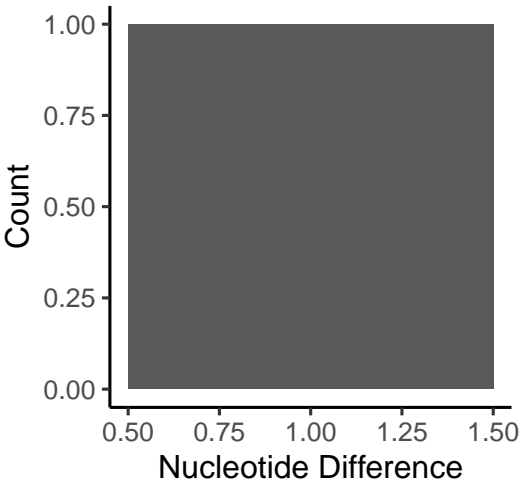
IGHV5–10–1*01

471 sequences assigned
427 (90.7%) exact matches, in which:
399 unique CDR3
6 unique J



IGHV3/OR16–12*01

1 sequences assigned
No exact matches.





Warning – no inferred sequences found.