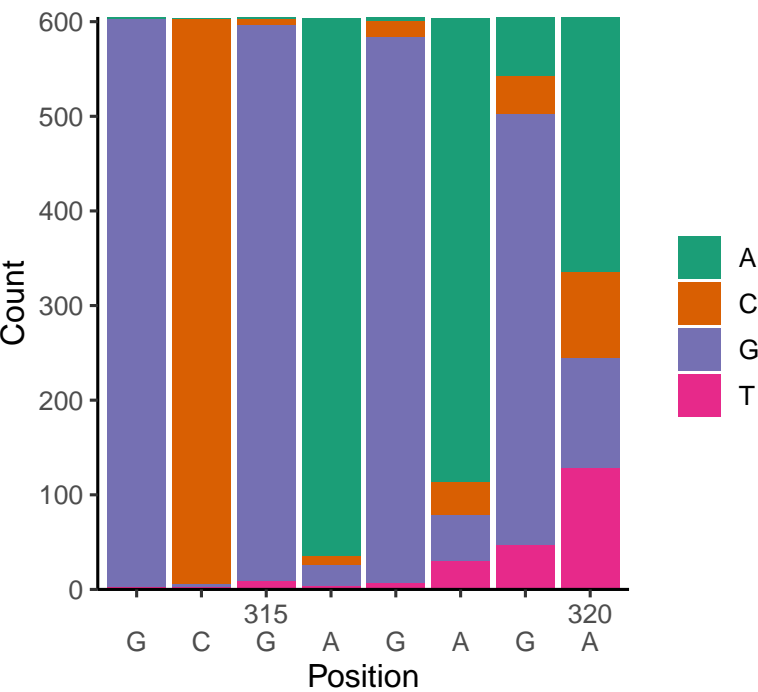
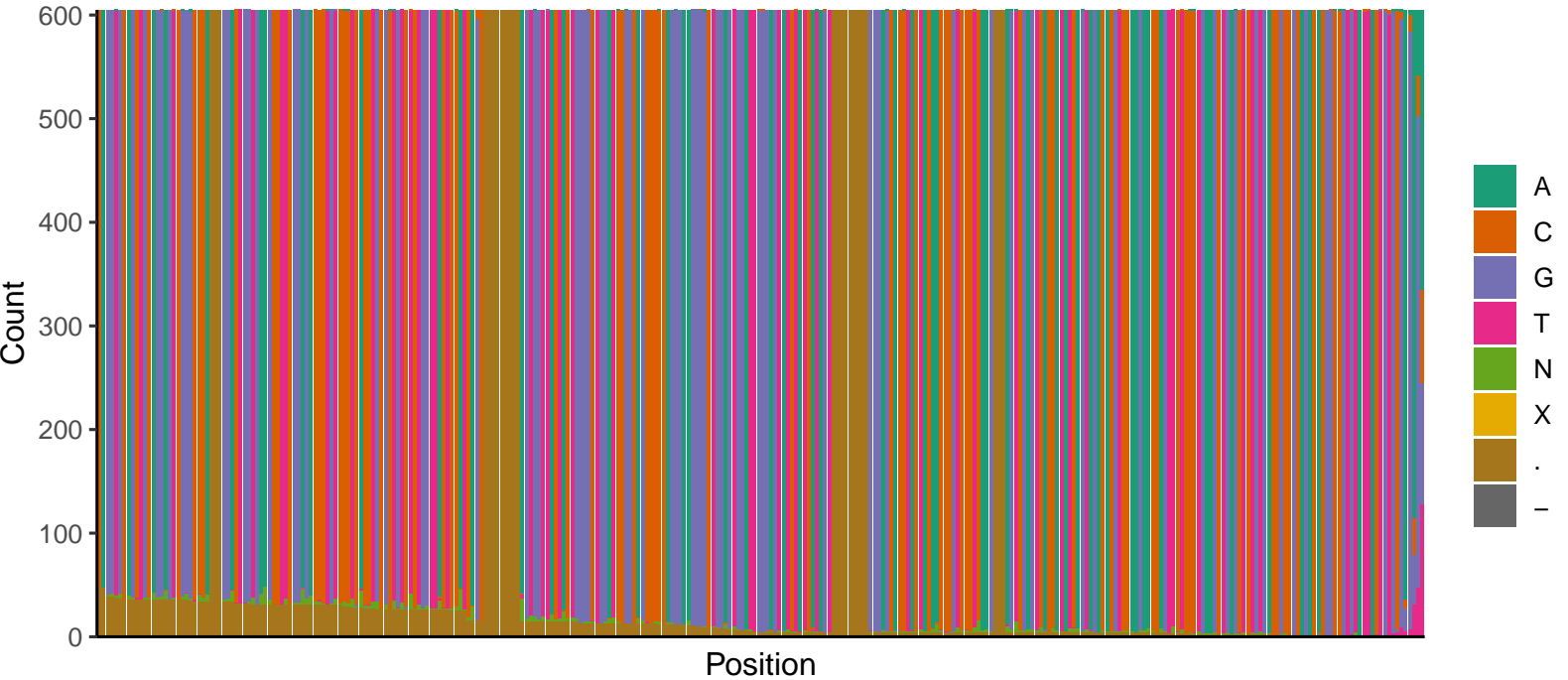


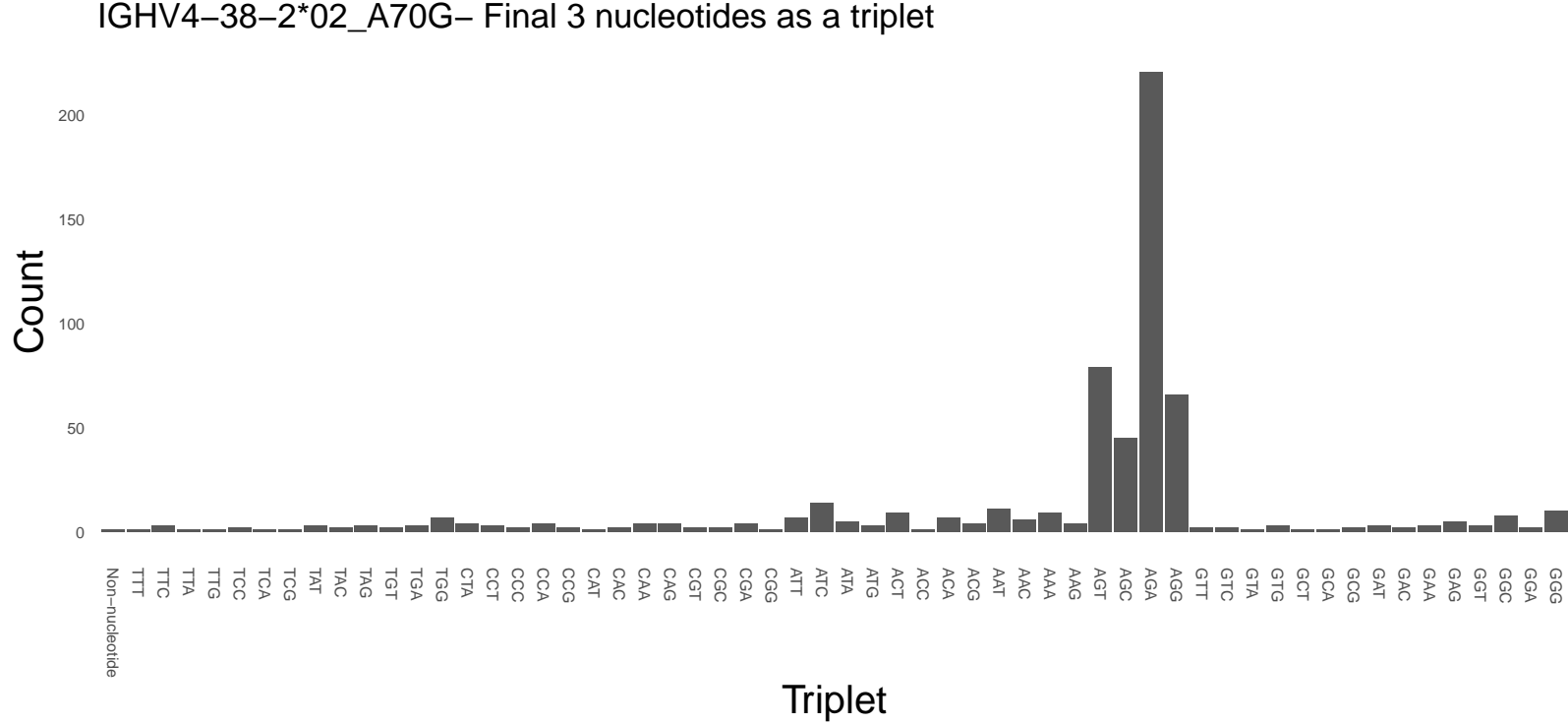
Gene IGHV4-38-2*02_A70G



Gene IGHV4-38-2*02_A70G

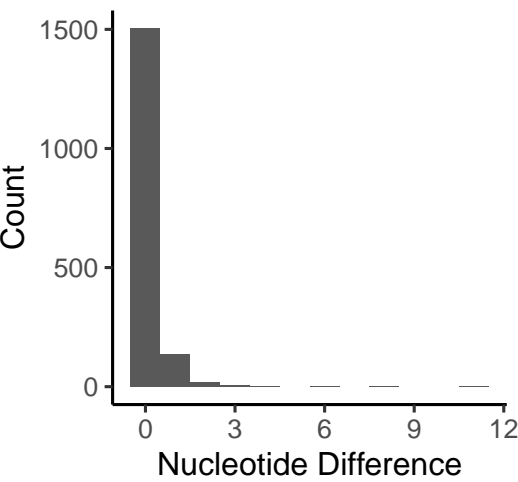


IGHV4-38-2*02_A70G- Final 3 nucleotides as a triplet



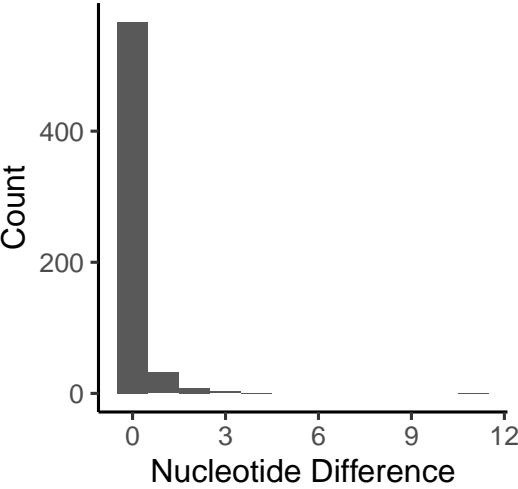
IGHV1-2*02

1667 sequences assigned
1504 (90.2%) exact matches, in which:
1478 unique CDR3
6 unique J



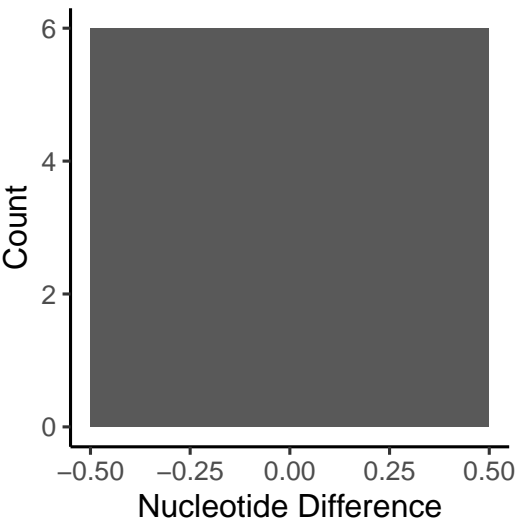
IGHV1-18*01

612 sequences assigned
567 (92.6%) exact matches, in which:
563 unique CDR3
6 unique J



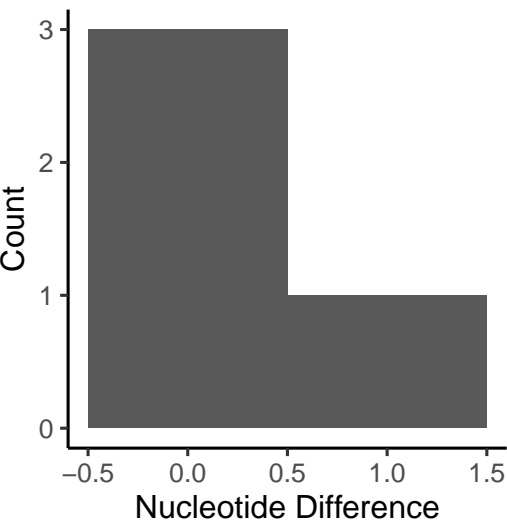
IGHV1-45*02

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



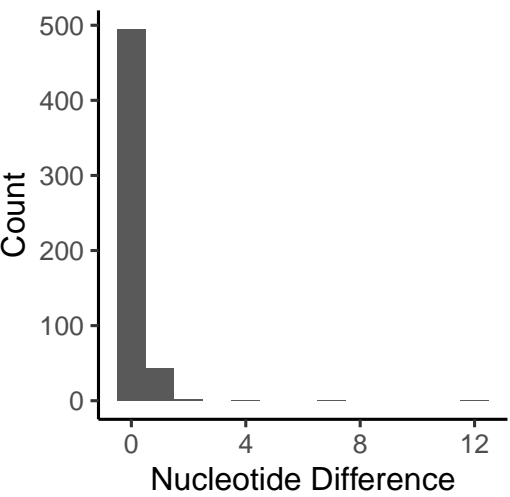
IGHV1-3*02

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



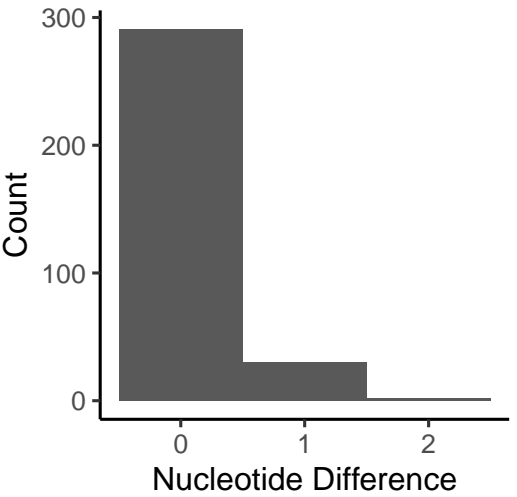
IGHV1-18*04

543 sequences assigned
495 (91.2%) exact matches, in which:
491 unique CDR3
6 unique J



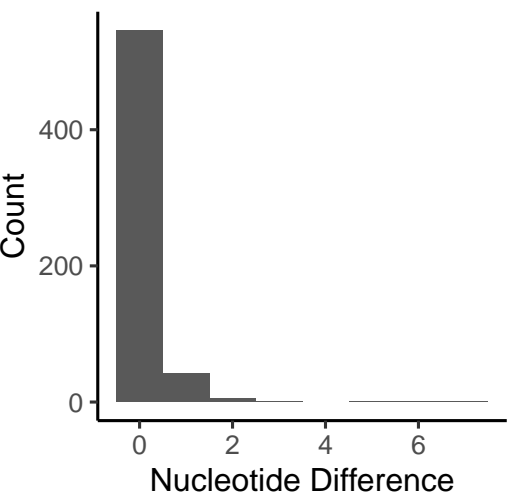
IGHV1-46*01

323 sequences assigned
291 (90.1%) exact matches, in which:
287 unique CDR3
6 unique J



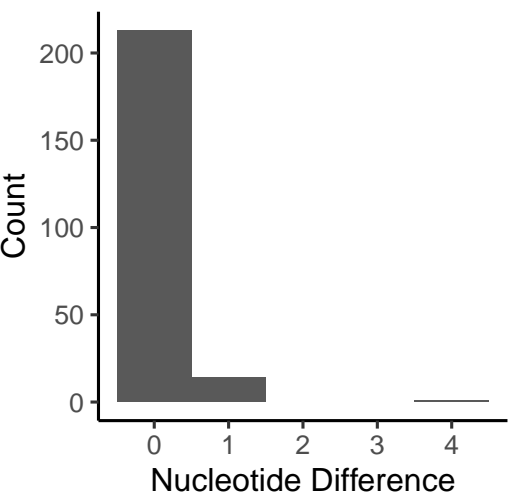
IGHV1-8*01

597 sequences assigned
546 (91.5%) exact matches, in which:
538 unique CDR3
6 unique J



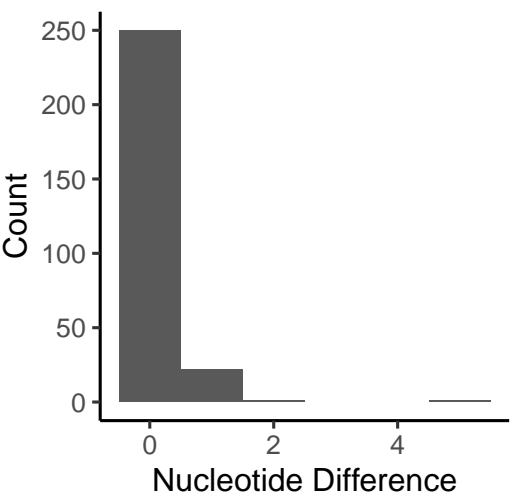
IGHV1-24*01

228 sequences assigned
213 (93.4%) exact matches, in which:
211 unique CDR3
6 unique J



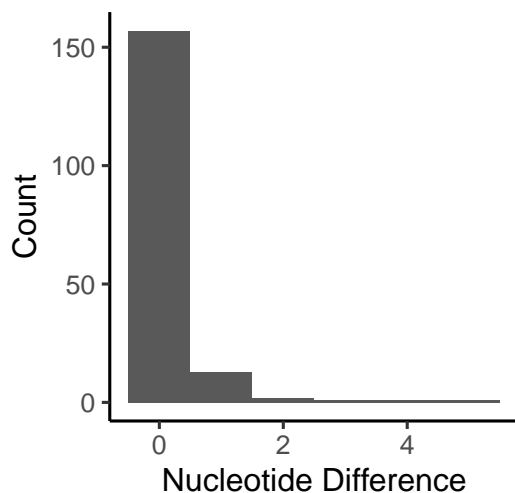
IGHV1-46*03

274 sequences assigned
250 (91.2%) exact matches, in which:
242 unique CDR3
6 unique J



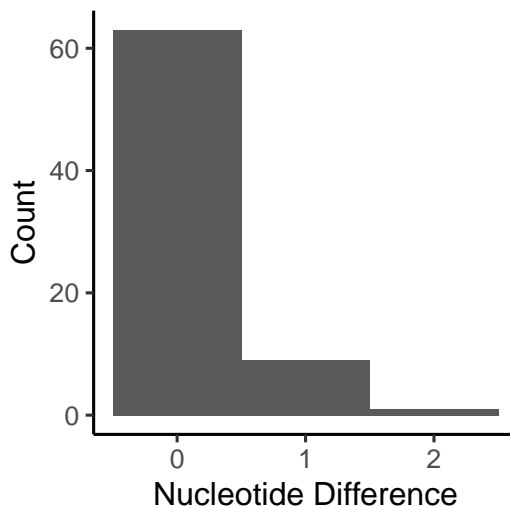
IGHV1–58*01

175 sequences assigned
157 (89.7%) exact matches, in which:
155 unique CDR3
5 unique J



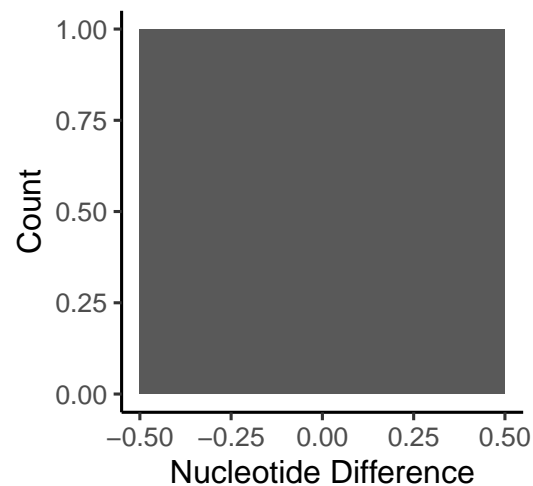
IGHV1–69–2*01

73 sequences assigned
63 (86.3%) exact matches, in which:
63 unique CDR3
6 unique J



IGHV2–10*01

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



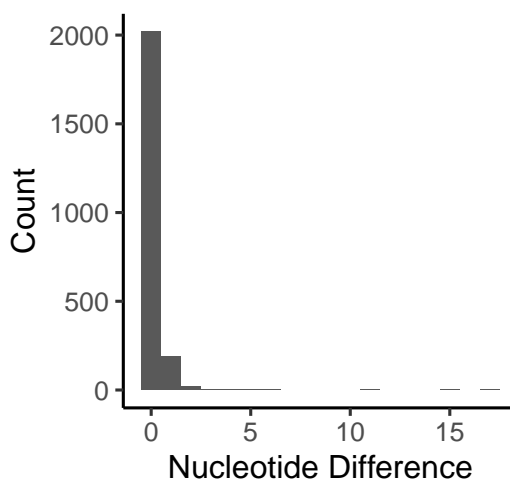
IGHV1–68*02

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



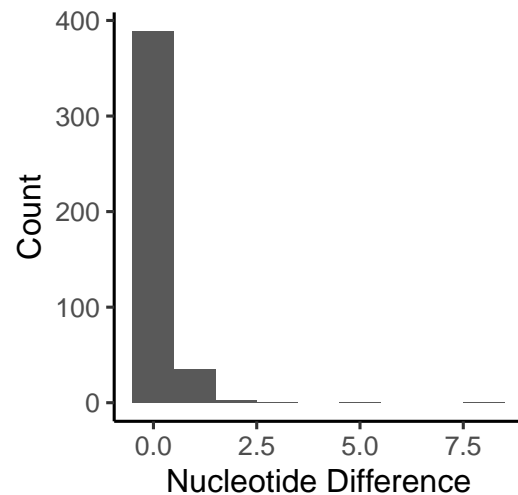
IGHV1–69*06

2236 sequences assigned
2019 (90.3%) exact matches, in which:
1977 unique CDR3
6 unique J



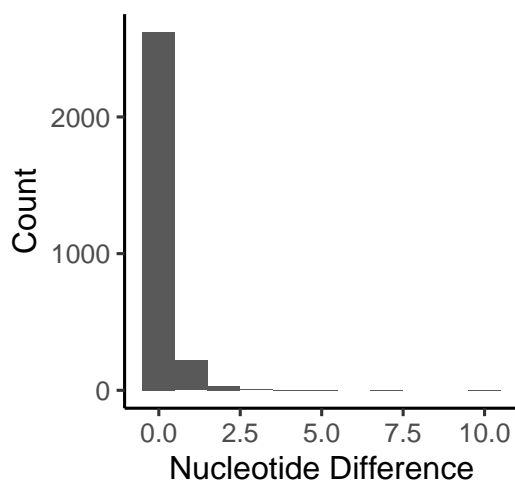
IGHV2–26*01

430 sequences assigned
389 (90.5%) exact matches, in which:
386 unique CDR3
5 unique J



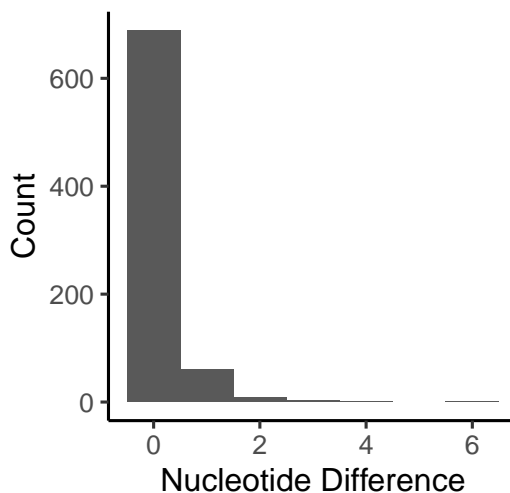
IGHV1–69*01

2884 sequences assigned
2621 (90.9%) exact matches, in which:
2570 unique CDR3
6 unique J



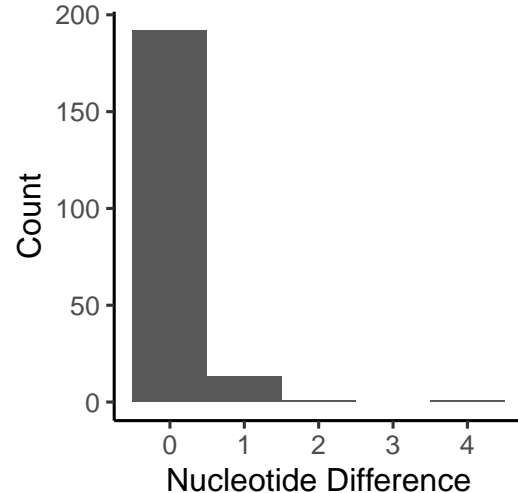
IGHV2–5*01

763 sequences assigned
689 (90.3%) exact matches, in which:
676 unique CDR3
6 unique J



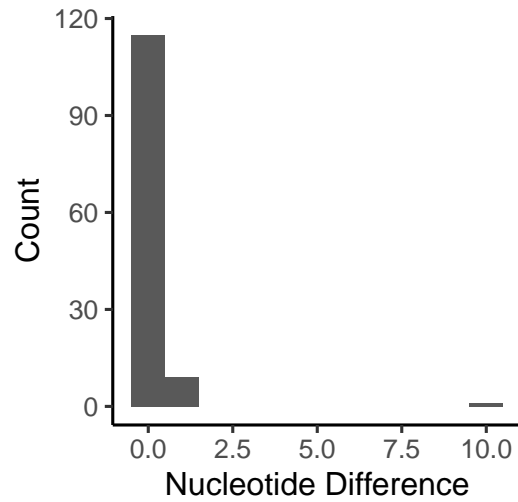
IGHV2–70*01

207 sequences assigned
192 (92.8%) exact matches, in which:
191 unique CDR3
5 unique J



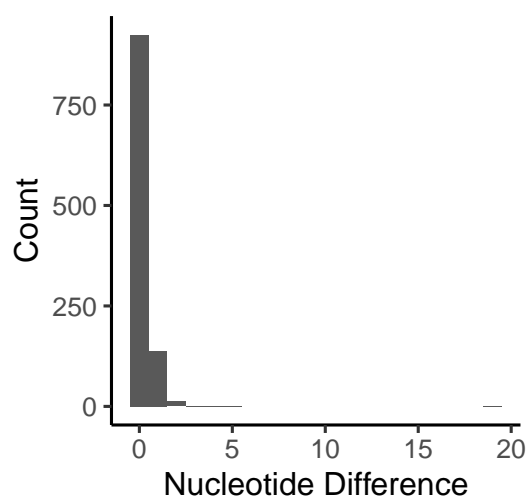
IGHV2–70*04

125 sequences assigned
115 (92%) exact matches, in which:
115 unique CDR3
5 unique J



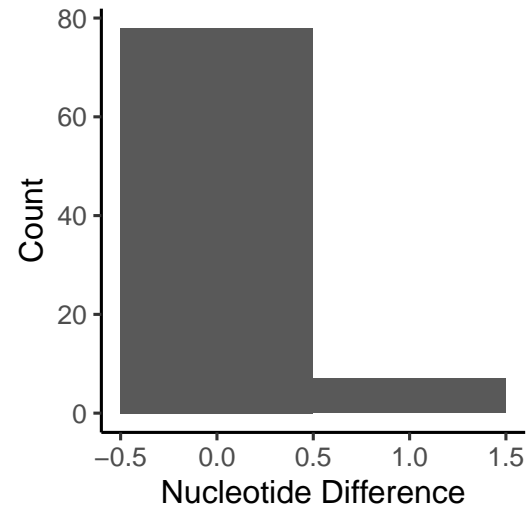
IGHV3–9*01

1081 sequences assigned
925 (85.6%) exact matches, in which:
899 unique CDR3
6 unique J



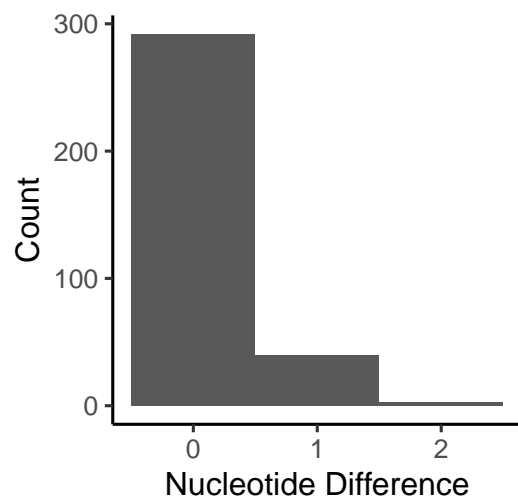
IGHV3–13*01

85 sequences assigned
78 (91.8%) exact matches, in which:
76 unique CDR3
4 unique J



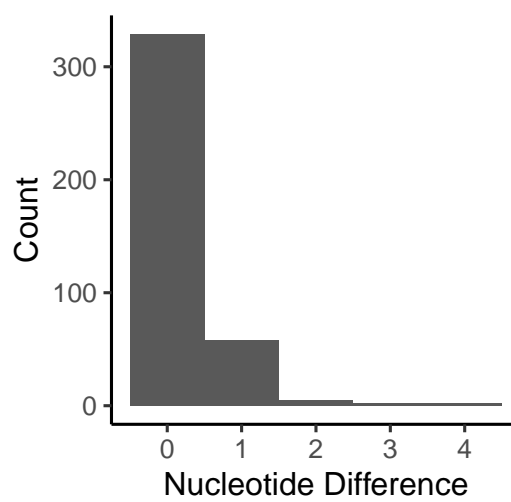
IGHV3–7*01

335 sequences assigned
292 (87.2%) exact matches, in which:
289 unique CDR3
6 unique J



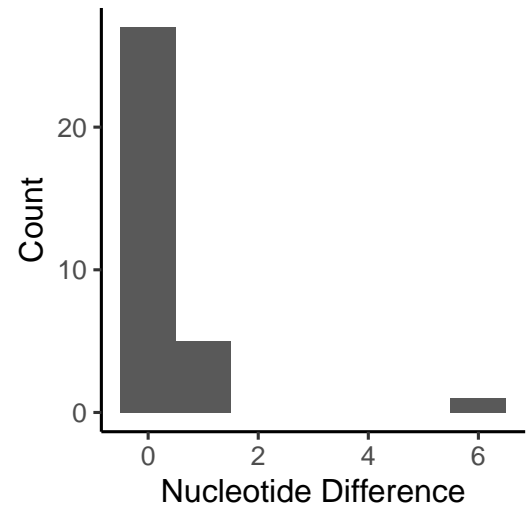
IGHV3–11*01

396 sequences assigned
329 (83.1%) exact matches, in which:
327 unique CDR3
6 unique J



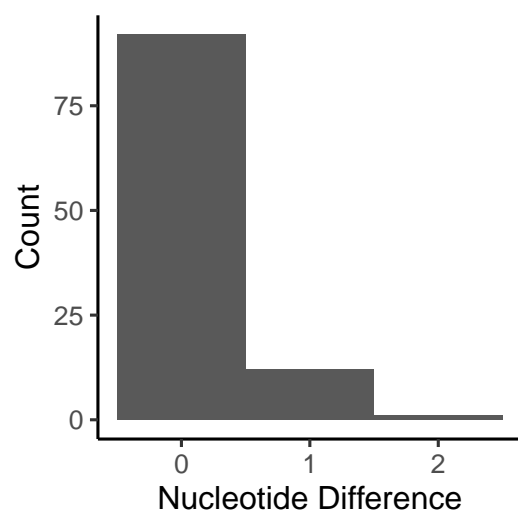
IGHV3–13*05

33 sequences assigned
27 (81.8%) exact matches, in which:
27 unique CDR3
4 unique J



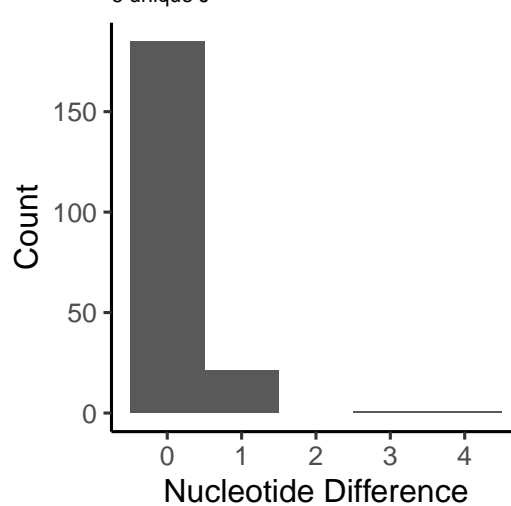
IGHV3–7*05

105 sequences assigned
92 (87.6%) exact matches, in which:
91 unique CDR3
6 unique J



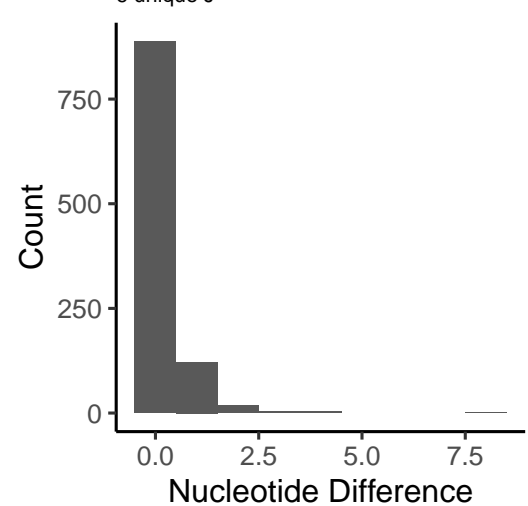
IGHV3–11*06

208 sequences assigned
185 (88.9%) exact matches, in which:
185 unique CDR3
6 unique J



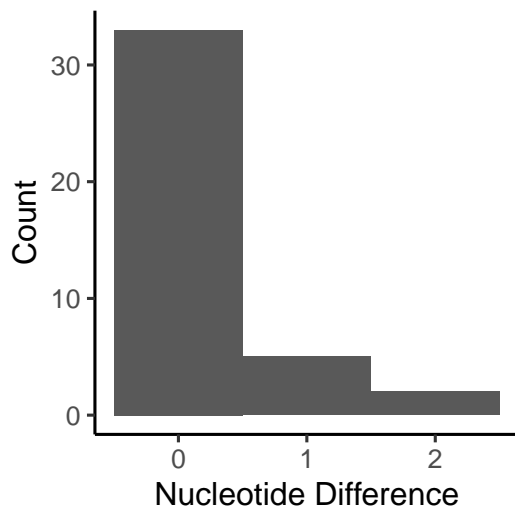
IGHV3–15*01

1035 sequences assigned
888 (85.8%) exact matches, in which:
871 unique CDR3
6 unique J



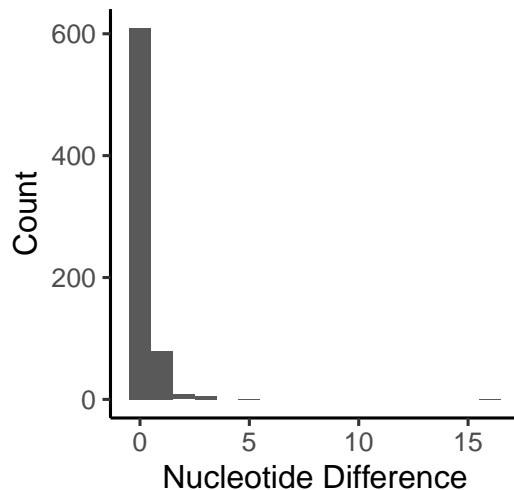
IGHV3-20*01

40 sequences assigned
33 (82.5%) exact matches, in which:
33 unique CDR3
5 unique J



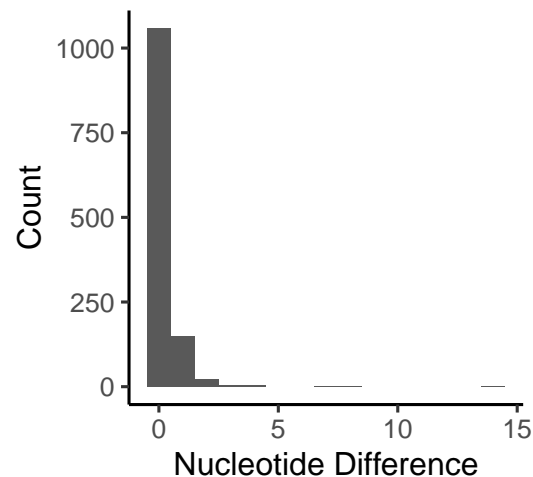
IGHV3-30*01

706 sequences assigned
610 (86.4%) exact matches, in which:
599 unique CDR3
6 unique J



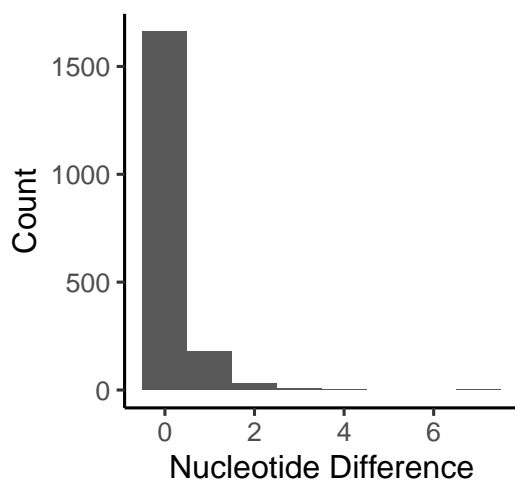
IGHV3-33*01

1239 sequences assigned
1058 (85.4%) exact matches, in which:
1040 unique CDR3
6 unique J



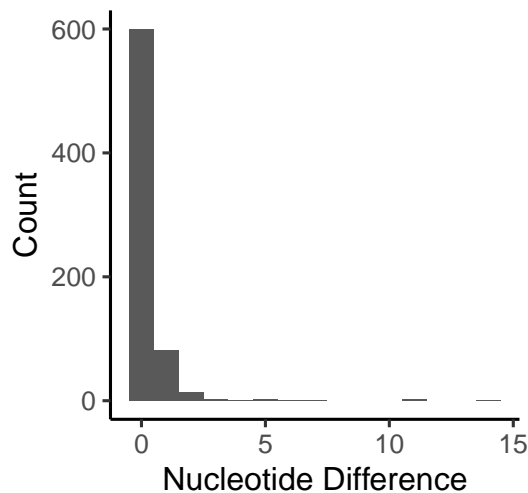
IGHV3-21*01

1879 sequences assigned
1661 (88.4%) exact matches, in which:
1627 unique CDR3
6 unique J



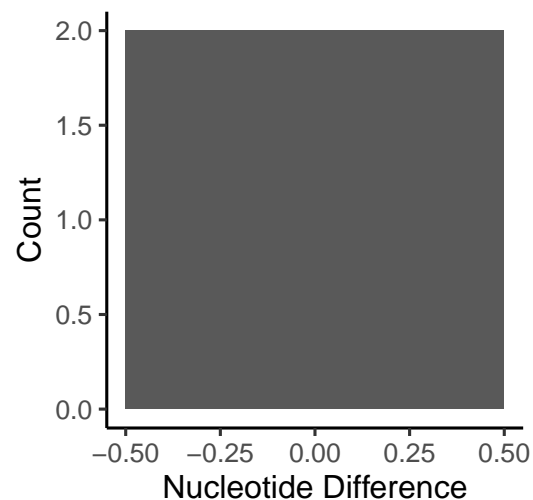
IGHV3-30-3*01

706 sequences assigned
600 (85%) exact matches, in which:
589 unique CDR3
6 unique J



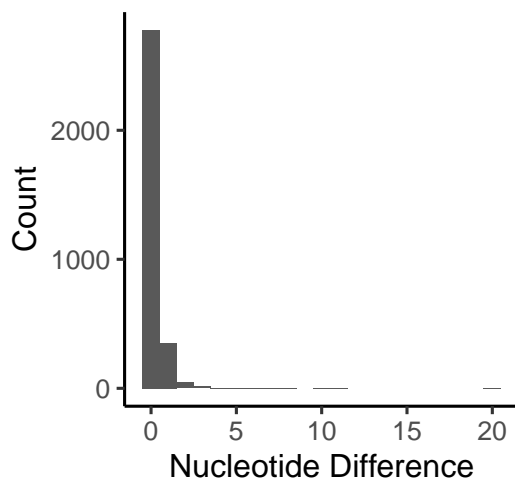
IGHV3-35*01

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



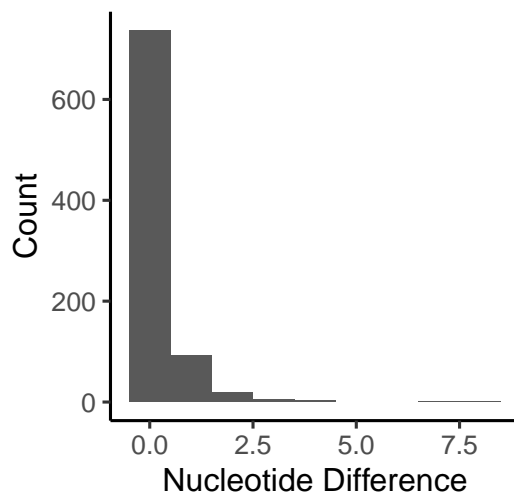
IGHV3-23*01

3200 sequences assigned
2777 (86.8%) exact matches, in which:
2728 unique CDR3
6 unique J



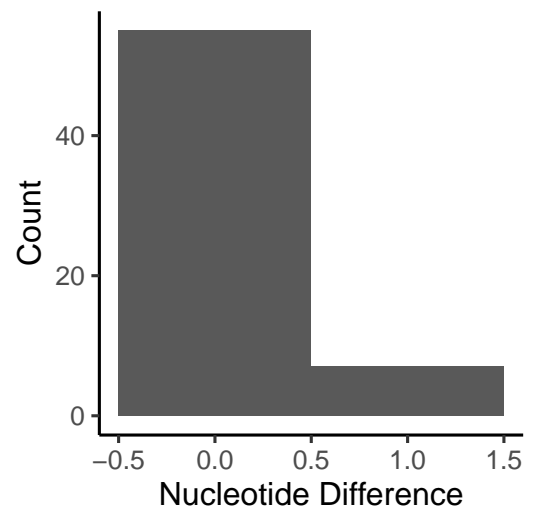
IGHV3-30*18

859 sequences assigned
737 (85.8%) exact matches, in which:
725 unique CDR3
6 unique J



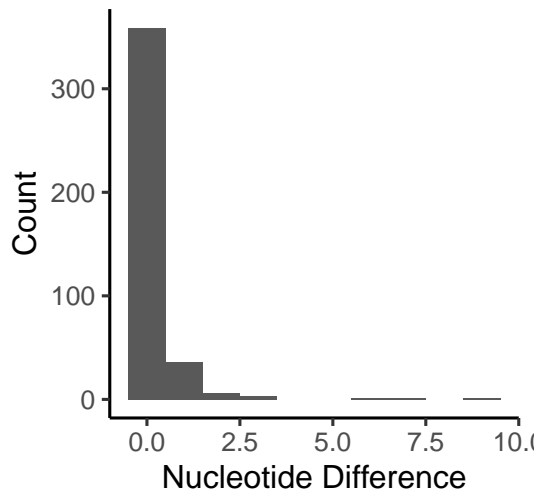
IGHV3-43*01

62 sequences assigned
55 (88.7%) exact matches, in which:
55 unique CDR3
6 unique J



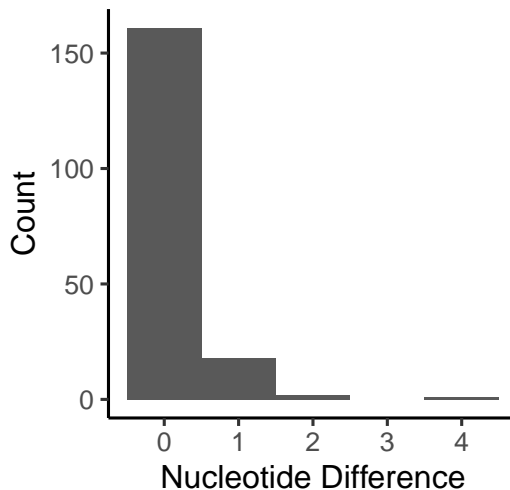
IGHV3-48*02

407 sequences assigned
359 (88.2%) exact matches, in which:
352 unique CDR3
6 unique J



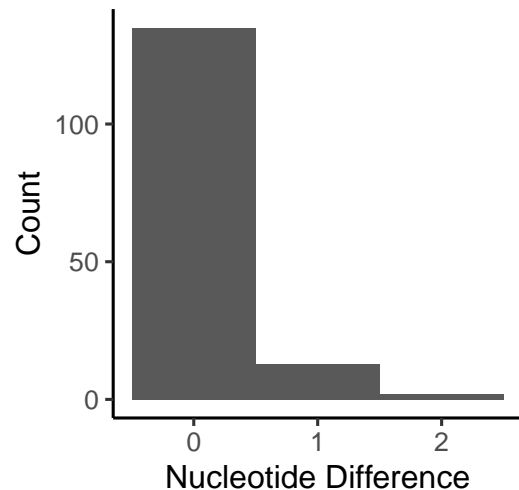
IGHV3-49*05

182 sequences assigned
161 (88.5%) exact matches, in which:
161 unique CDR3
6 unique J



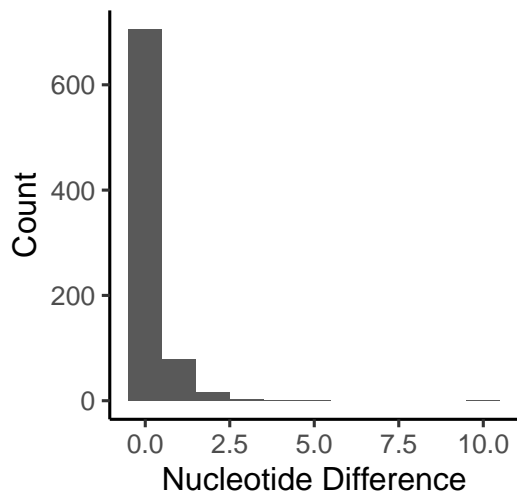
IGHV3-53*02

150 sequences assigned
135 (90%) exact matches, in which:
134 unique CDR3
6 unique J



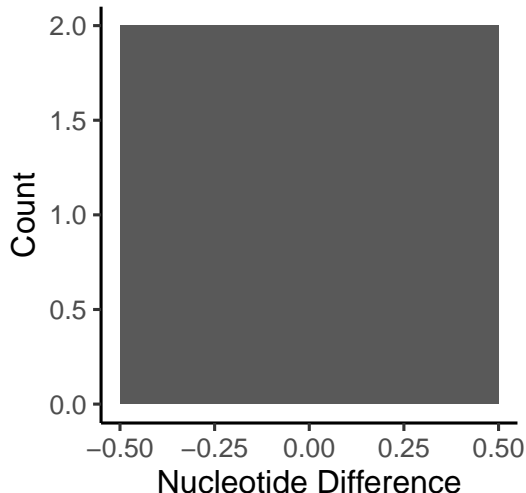
IGHV3-48*03

806 sequences assigned
706 (87.6%) exact matches, in which:
692 unique CDR3
6 unique J



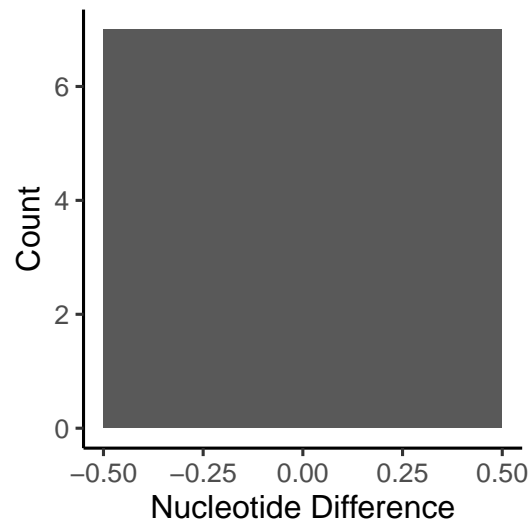
IGHV3-52*01

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



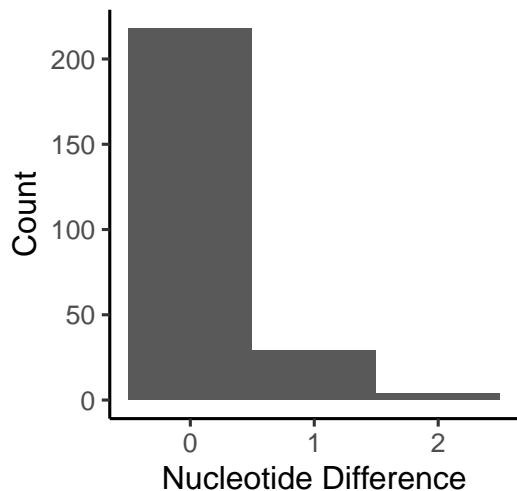
IGHV3-64*02

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



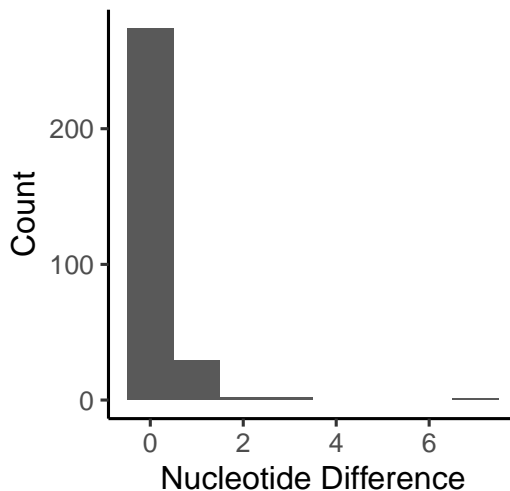
IGHV3-49*04

251 sequences assigned
218 (86.9%) exact matches, in which:
217 unique CDR3
6 unique J



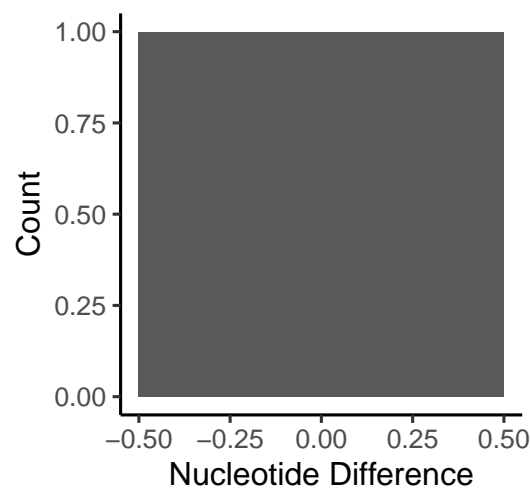
IGHV3-53*01

308 sequences assigned
274 (89%) exact matches, in which:
268 unique CDR3
6 unique J



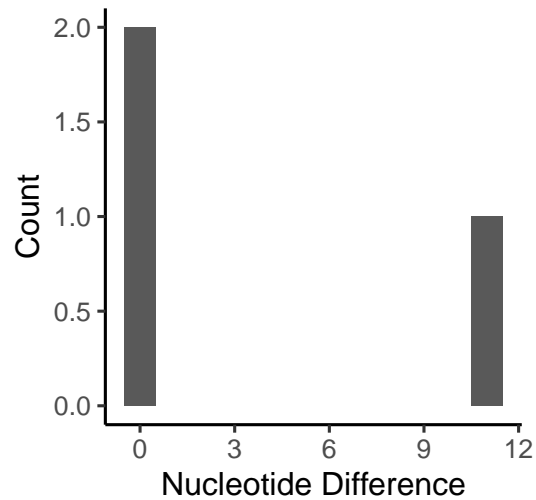
IGHV3-64*04

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



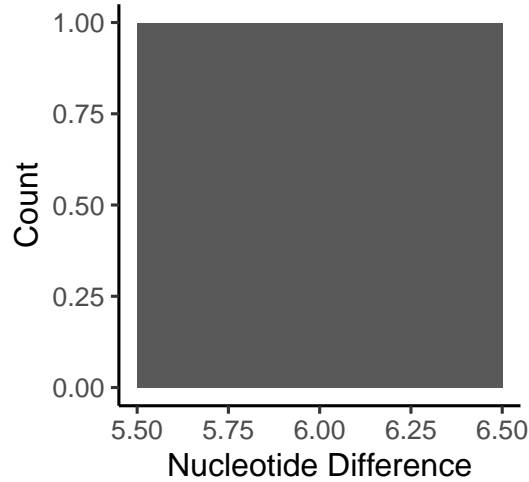
IGHV3-66*03

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



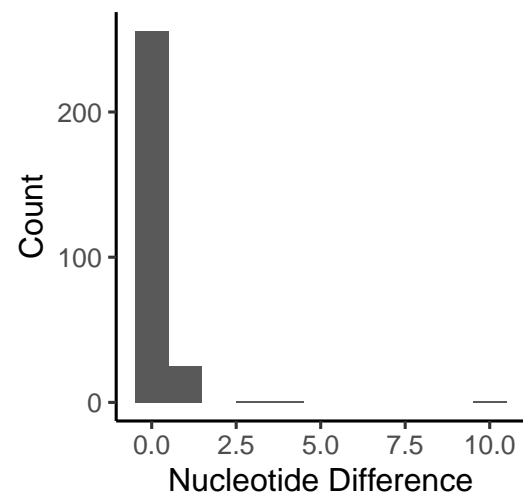
IGHV3-71*03

1 sequences assigned
No exact matches.



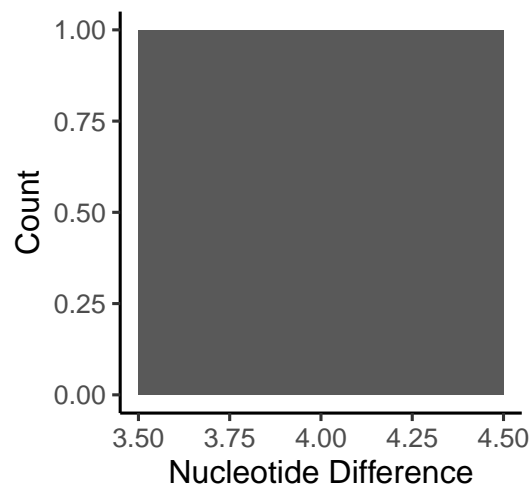
IGHV3-74*01

284 sequences assigned
256 (90.1%) exact matches, in which:
254 unique CDR3
6 unique J



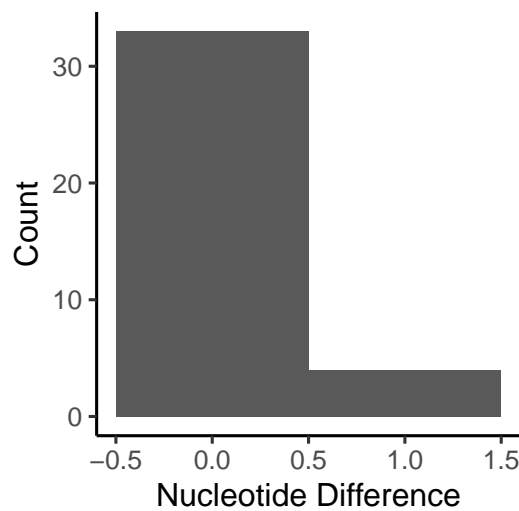
IGHV3-66*04

1 sequences assigned
No exact matches.



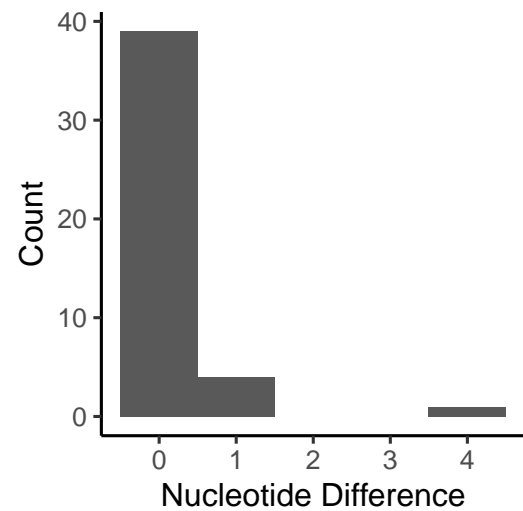
IGHV3-72*01

37 sequences assigned
33 (89.2%) exact matches, in which:
32 unique CDR3
5 unique J



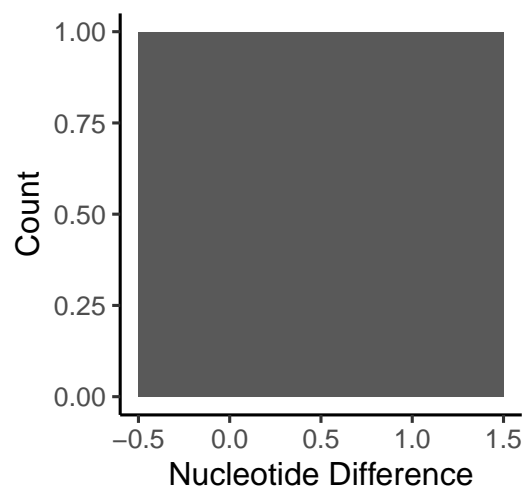
IGHV3-43D*04

44 sequences assigned
39 (88.6%) exact matches, in which:
39 unique CDR3
4 unique J



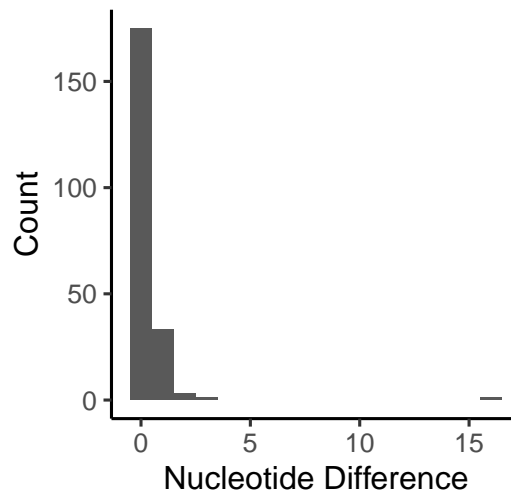
IGHV3-69-1*01

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



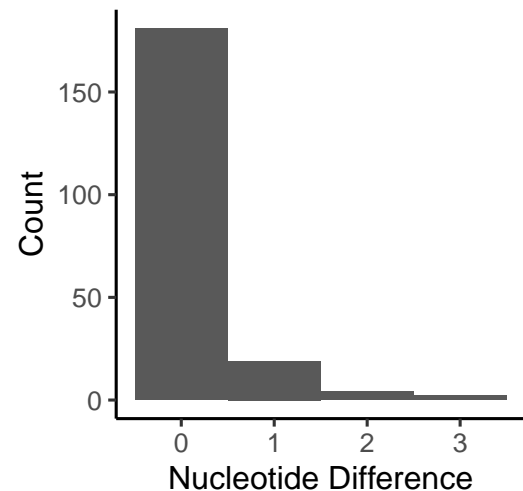
IGHV3-73*02

213 sequences assigned
175 (82.2%) exact matches, in which:
174 unique CDR3
6 unique J



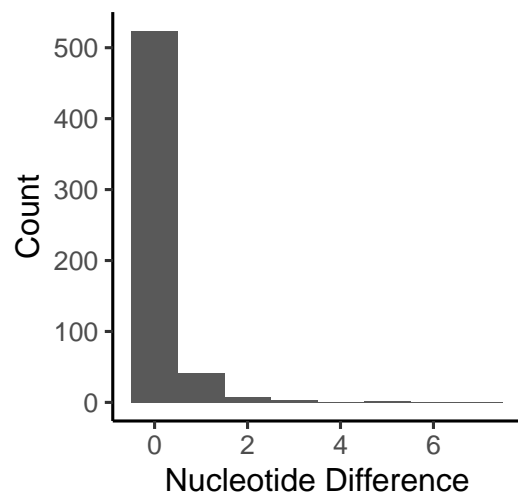
IGHV3-64D*08

206 sequences assigned
181 (87.9%) exact matches, in which:
176 unique CDR3
6 unique J



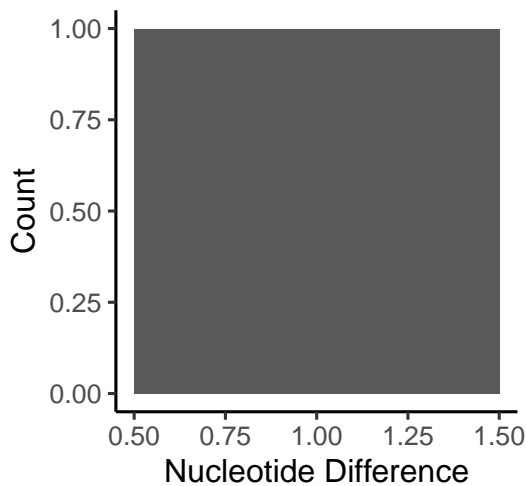
IGHV4-4*07

585 sequences assigned
524 (89.6%) exact matches, in which:
518 unique CDR3
6 unique J



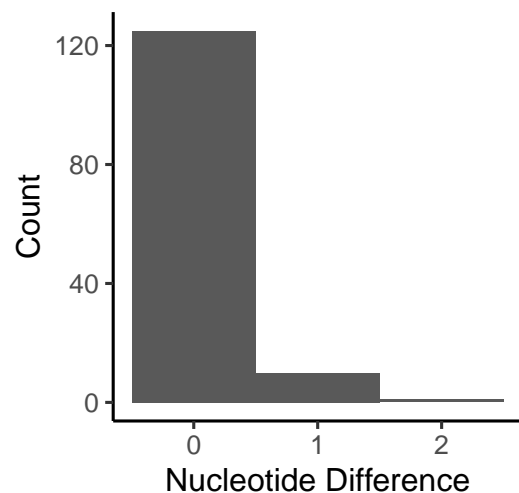
IGHV4-28*04

1 sequences assigned
No exact matches.



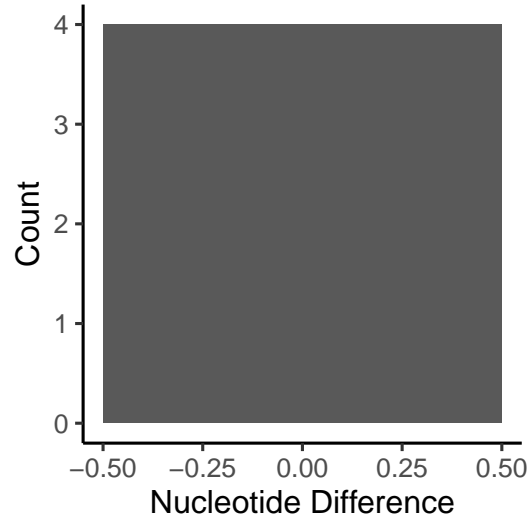
IGHV4-31*01

136 sequences assigned
125 (91.9%) exact matches, in which:
124 unique CDR3
6 unique J



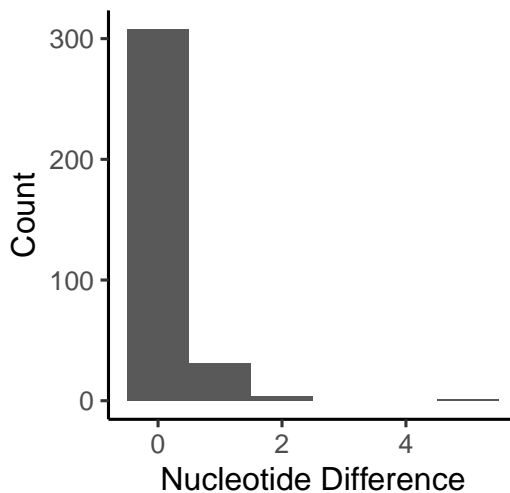
IGHV4-28*01

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



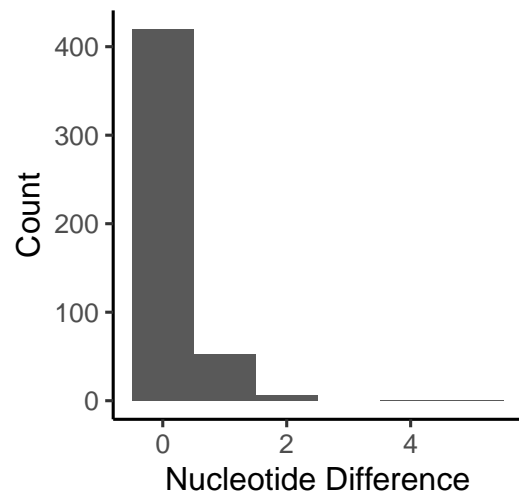
IGHV4-30-4*01

344 sequences assigned
308 (89.5%) exact matches, in which:
302 unique CDR3
6 unique J



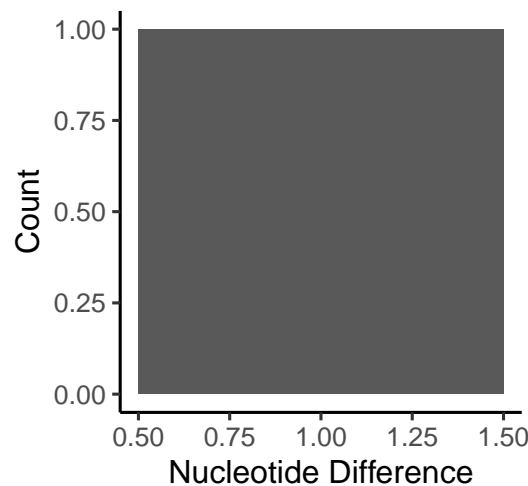
IGHV4-31*03

480 sequences assigned
420 (87.5%) exact matches, in which:
415 unique CDR3
6 unique J



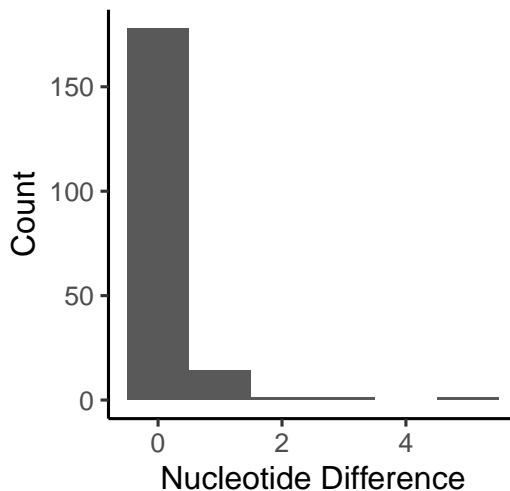
IGHV4-28*02

1 sequences assigned
No exact matches.



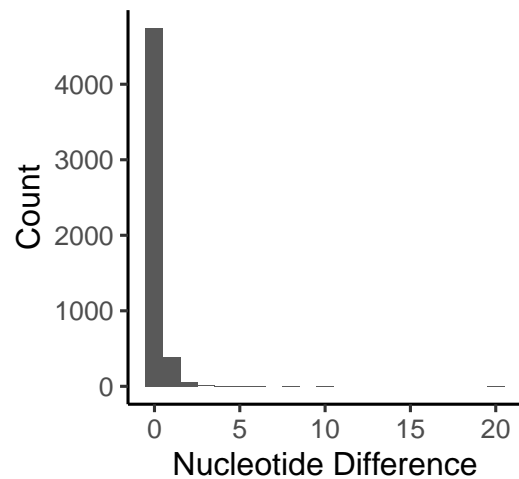
IGHV4-30-2*01

195 sequences assigned
178 (91.3%) exact matches, in which:
169 unique CDR3
6 unique J



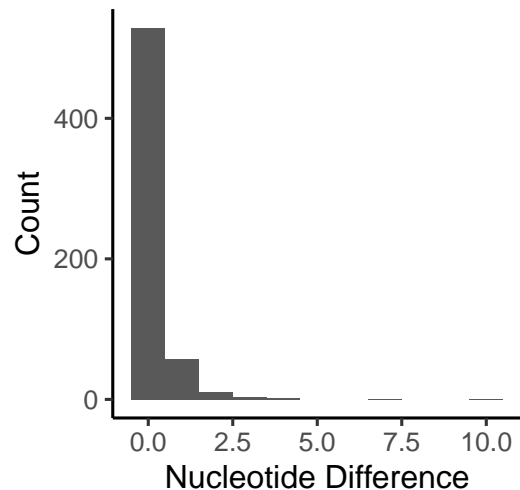
IGHV4-34*01

5224 sequences assigned
4744 (90.8%) exact matches, in which:
4621 unique CDR3
6 unique J



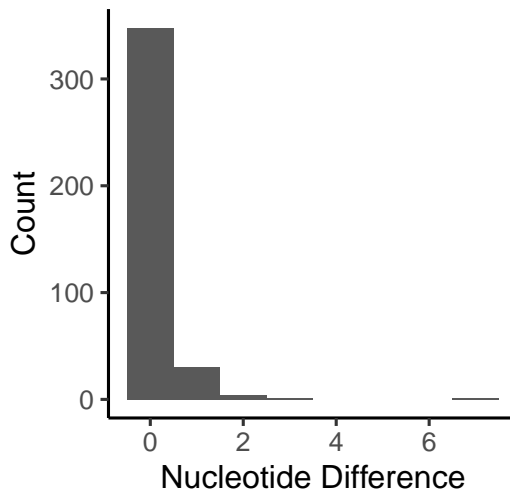
IGHV4-38-2*02_A70G

605 sequences assigned
529 (87.4%) exact matches, in which:
513 unique CDR3
6 unique J



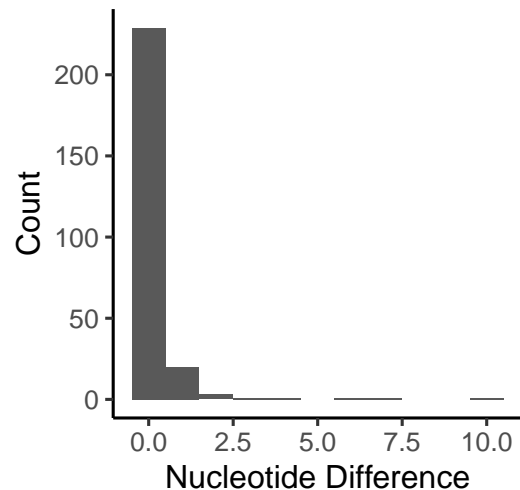
IGHV4-61*01

384 sequences assigned
348 (90.6%) exact matches, in which:
341 unique CDR3
6 unique J



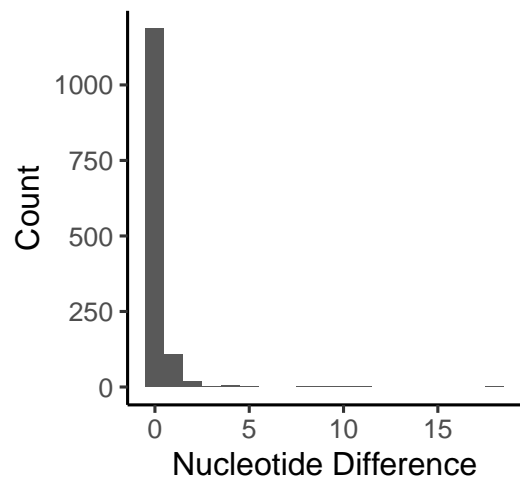
IGHV6-1*01

257 sequences assigned
229 (89.1%) exact matches, in which:
221 unique CDR3
5 unique J



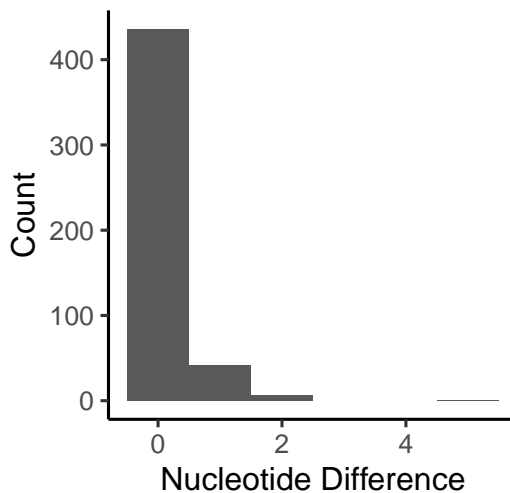
IGHV4-39*01

1326 sequences assigned
1186 (89.4%) exact matches, in which:
1165 unique CDR3
6 unique J



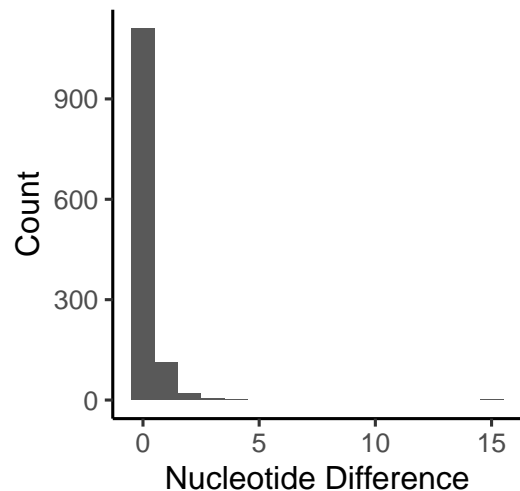
IGHV5-10-1*03

485 sequences assigned
436 (89.9%) exact matches, in which:
425 unique CDR3
6 unique J



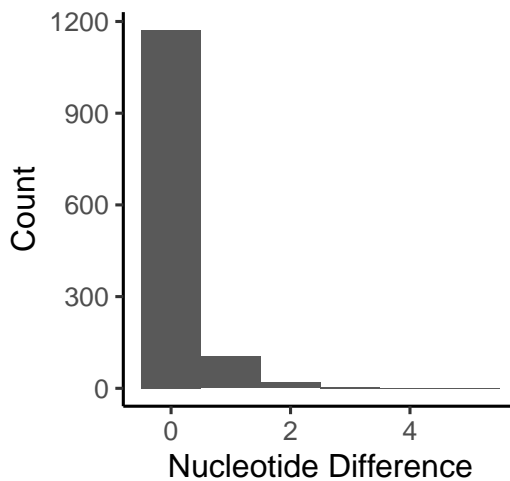
IGHV4-59*01

1249 sequences assigned
1111 (89%) exact matches, in which:
1103 unique CDR3
6 unique J



IGHV5-51*01

1303 sequences assigned
1172 (89.9%) exact matches, in which:
1154 unique CDR3
6 unique J



IGHV4-38-2*02_A70G

