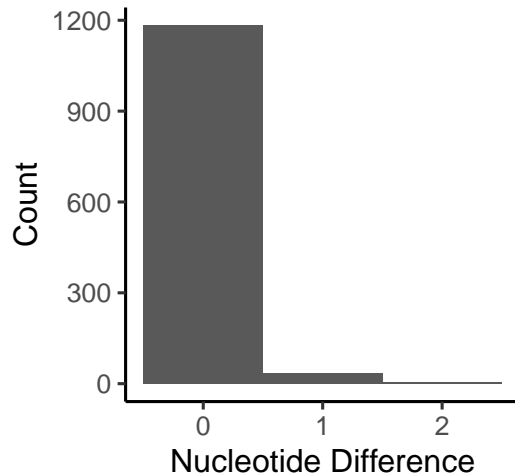


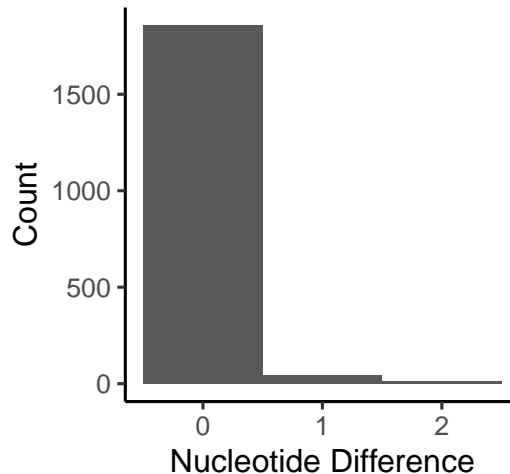
IGHV1-2*04

1223 sequences assigned
1183 (96.7%) exact matches, in which:
1178 unique CDR3
7 unique J



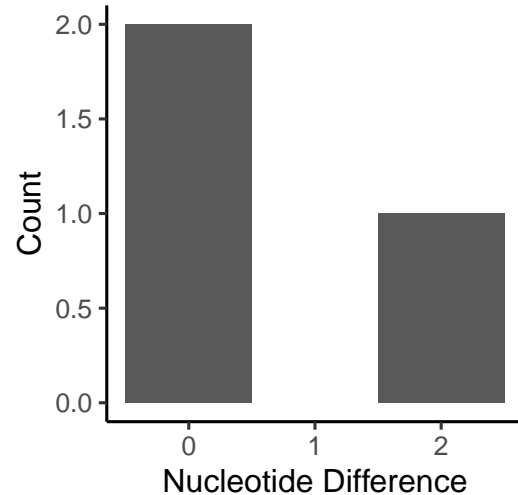
IGHV1-18*01

1913 sequences assigned
1857 (97.1%) exact matches, in which:
1844 unique CDR3
7 unique J



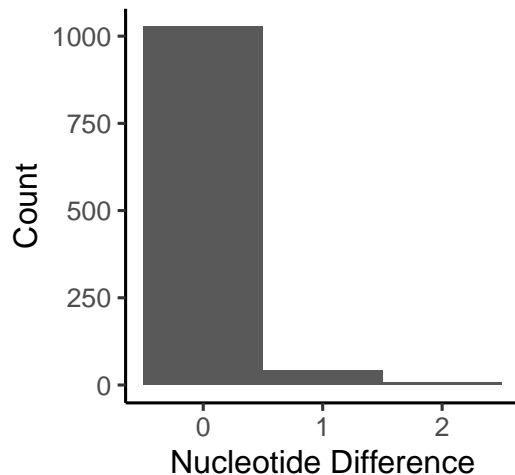
IGHV1-45*02

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



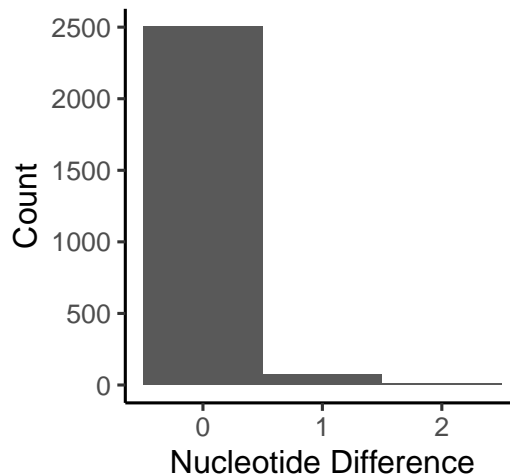
IGHV1-3*01_05

1076 sequences assigned
1027 (95.4%) exact matches, in which:
1023 unique CDR3
7 unique J



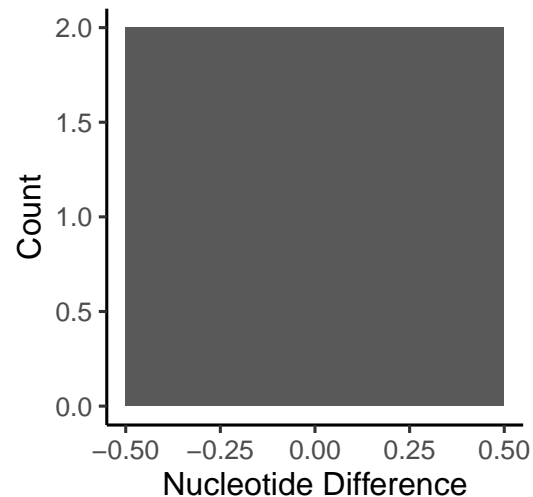
IGHV1-18*04

2583 sequences assigned
2503 (96.9%) exact matches, in which:
2484 unique CDR3
7 unique J



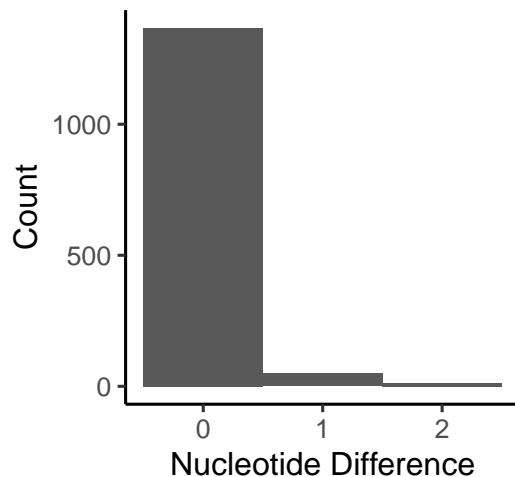
IGHV1-45*03

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



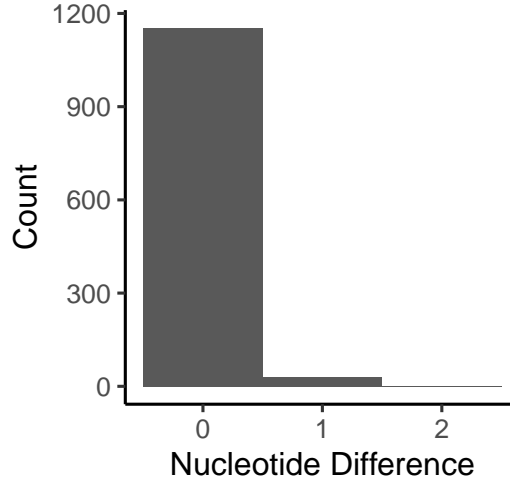
IGHV1-8*01

1428 sequences assigned
1367 (95.7%) exact matches, in which:
1362 unique CDR3
7 unique J



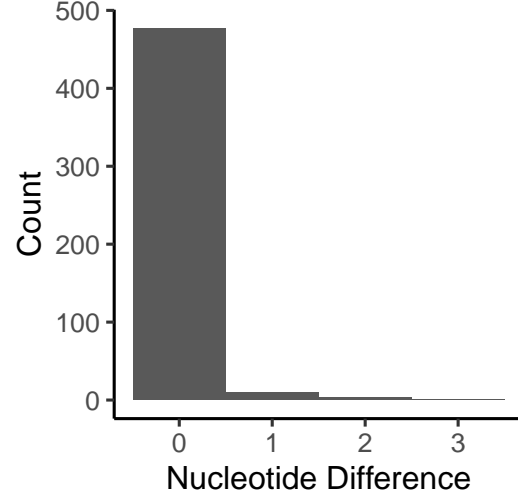
IGHV1-24*01

1184 sequences assigned
1153 (97.4%) exact matches, in which:
1146 unique CDR3
7 unique J



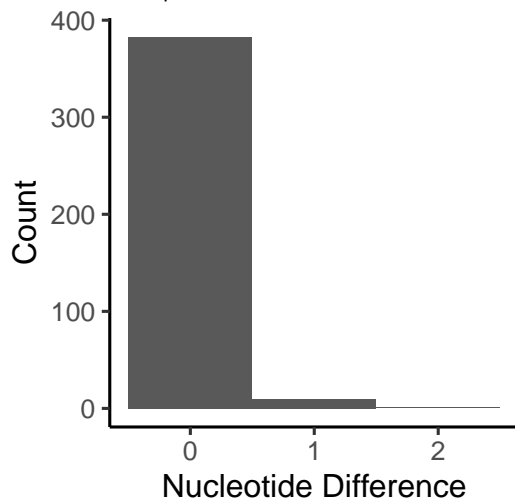
IGHV1-46*01

491 sequences assigned
477 (97.1%) exact matches, in which:
474 unique CDR3
7 unique J



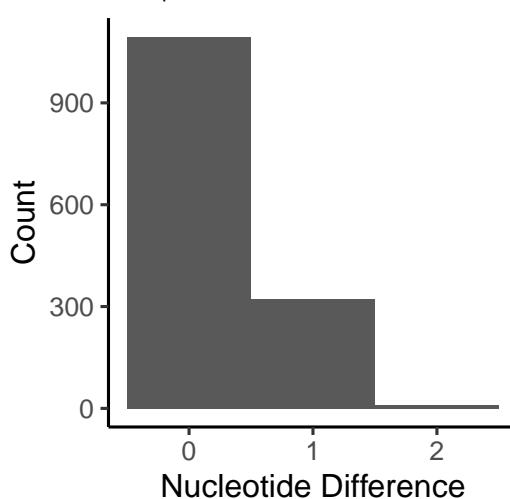
IGHV1–46*03

394 sequences assigned
383 (97.2%) exact matches, in which:
382 unique CDR3
6 unique J



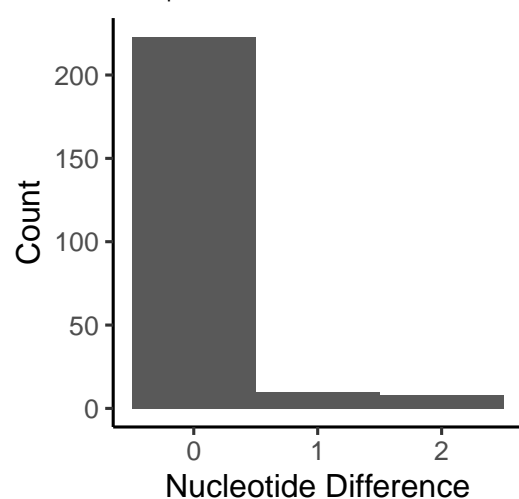
IGHV1–69*04_09

1427 sequences assigned
1095 (76.7%) exact matches, in which:
1089 unique CDR3
7 unique J



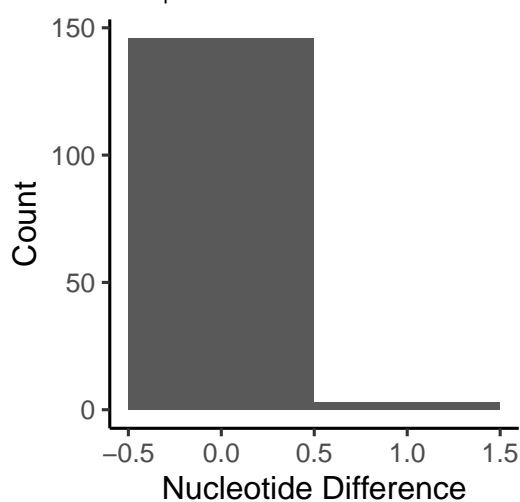
IGHV2–70*11_15

241 sequences assigned
223 (92.5%) exact matches, in which:
222 unique CDR3
6 unique J



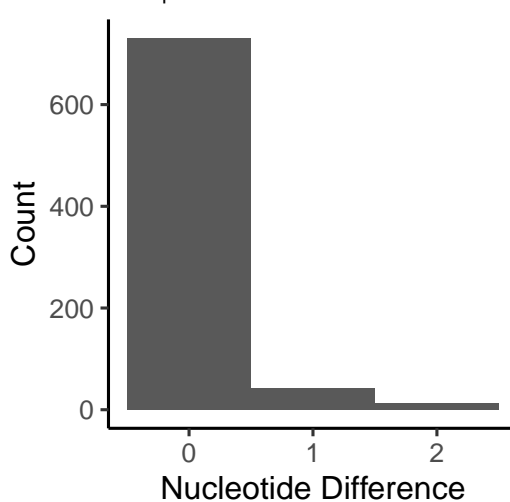
IGHV1–58*02

149 sequences assigned
146 (98%) exact matches, in which:
145 unique CDR3
6 unique J



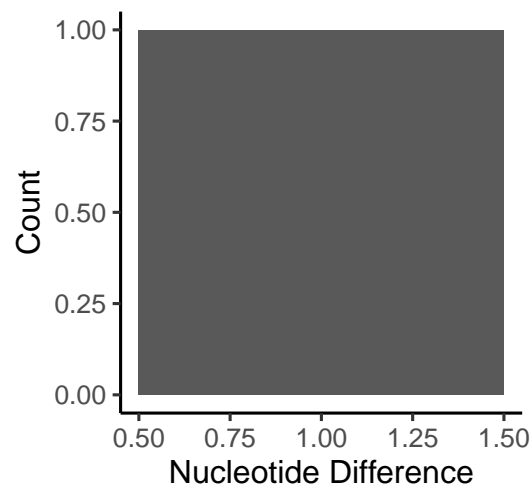
IGHV2–5*02

786 sequences assigned
731 (93%) exact matches, in which:
729 unique CDR3
7 unique J



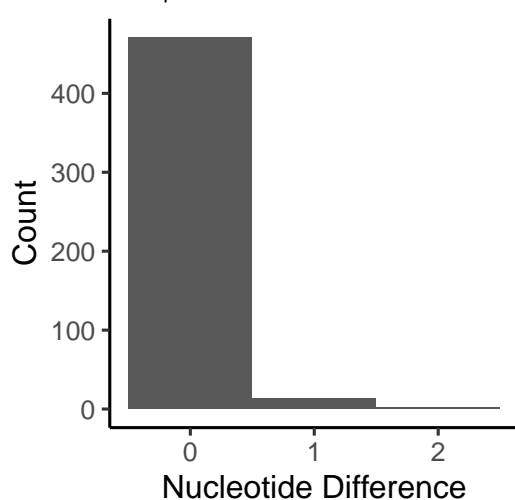
IGHV2–70D*04

1 sequences assigned
No exact matches.



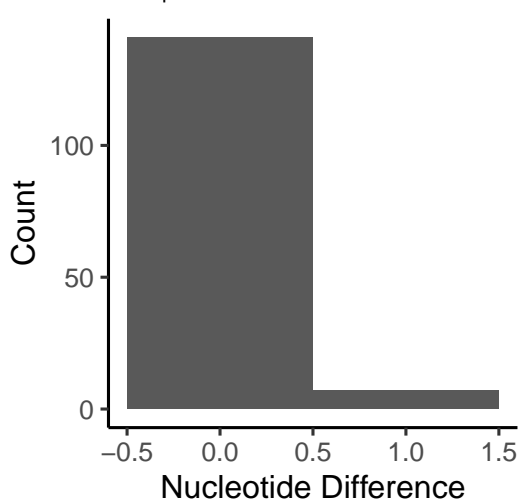
IGHV1–69*02

486 sequences assigned
471 (96.9%) exact matches, in which:
468 unique CDR3
7 unique J



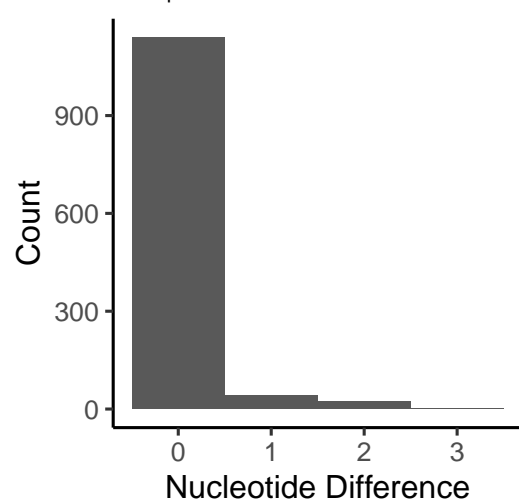
IGHV2–26*01

148 sequences assigned
141 (95.3%) exact matches, in which:
140 unique CDR3
7 unique J



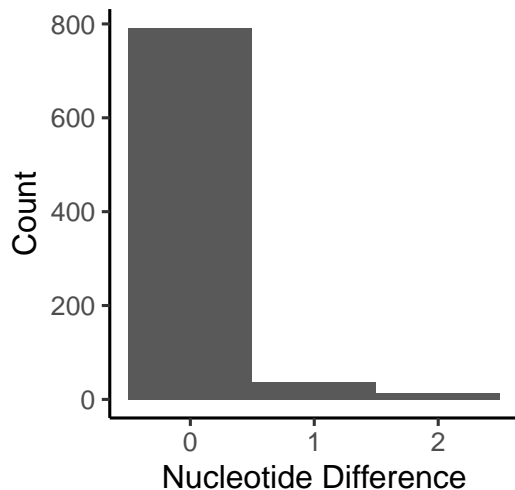
IGHV3–7*01

1207 sequences assigned
1140 (94.4%) exact matches, in which:
1115 unique CDR3
6 unique J



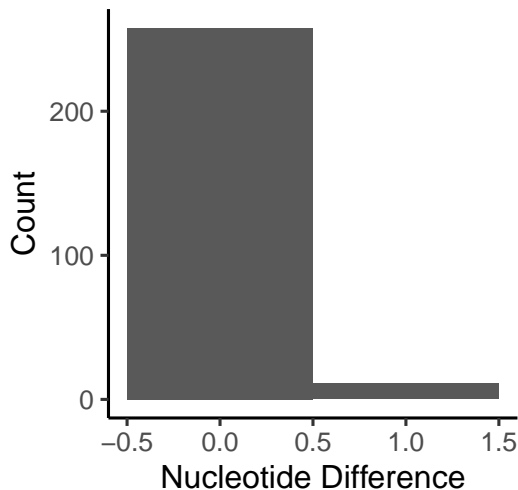
IGHV3-7*03

842 sequences assigned
792 (94.1%) exact matches, in which:
779 unique CDR3
7 unique J



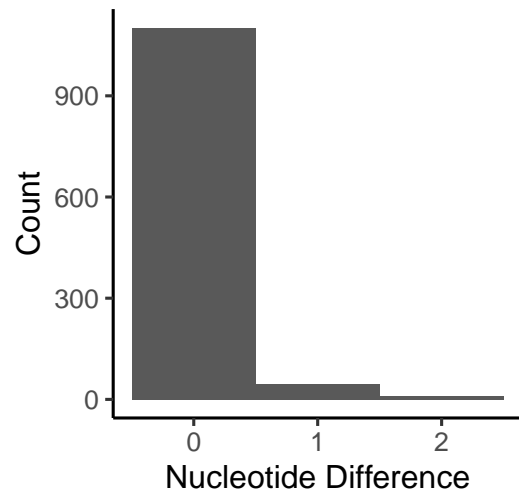
IGHV3-11*06

269 sequences assigned
258 (95.9%) exact matches, in which:
252 unique CDR3
7 unique J



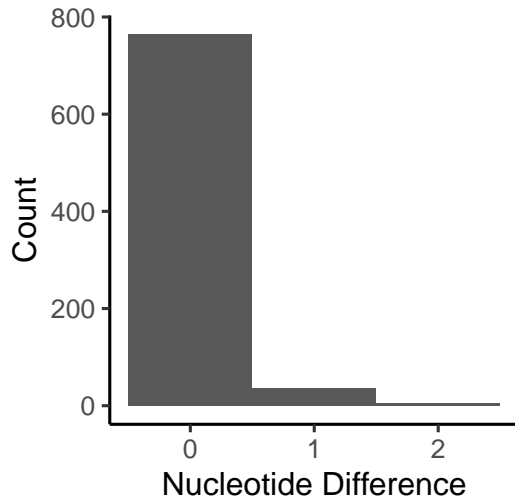
IGHV3-15*01_02

1157 sequences assigned
1102 (95.2%) exact matches, in which:
1090 unique CDR3
7 unique J



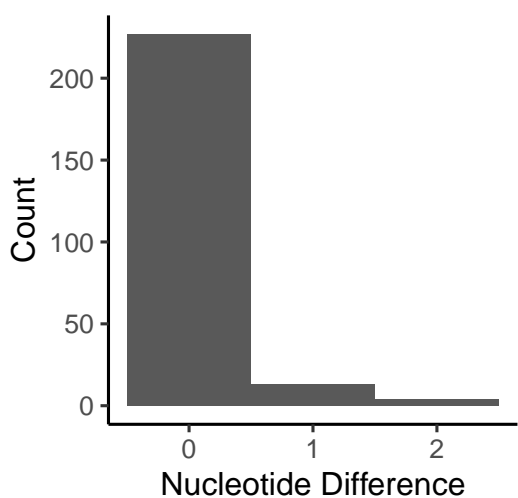
IGHV3-9*01

807 sequences assigned
765 (94.8%) exact matches, in which:
759 unique CDR3
6 unique J



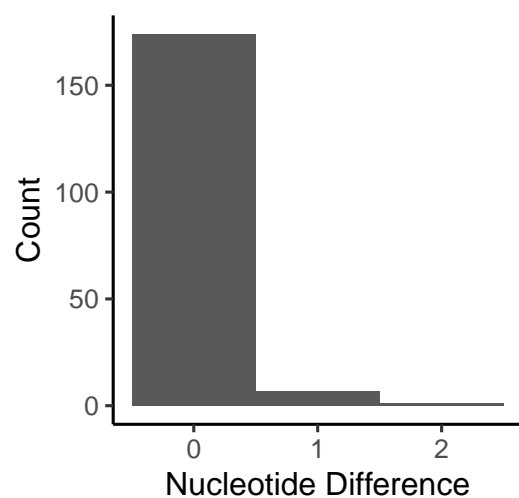
IGHV3-13*01

244 sequences assigned
227 (93%) exact matches, in which:
226 unique CDR3
6 unique J



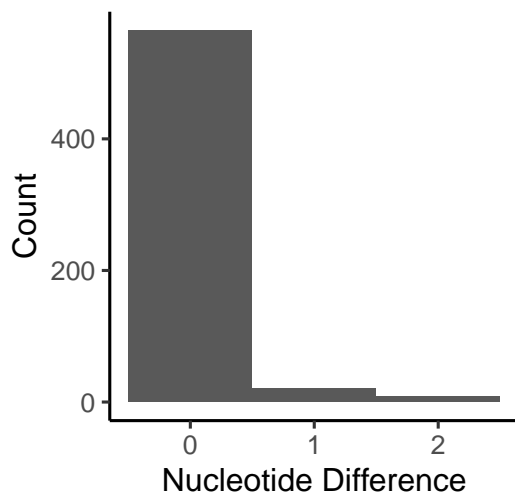
IGHV3-20*01_02

182 sequences assigned
174 (95.6%) exact matches, in which:
171 unique CDR3
6 unique J



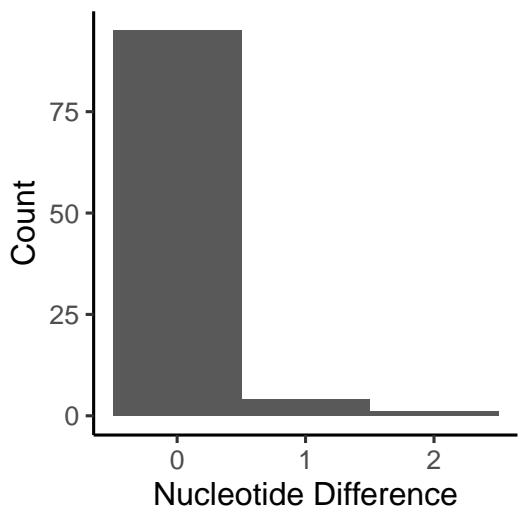
IGHV3-11*01

594 sequences assigned
565 (95.1%) exact matches, in which:
559 unique CDR3
7 unique J



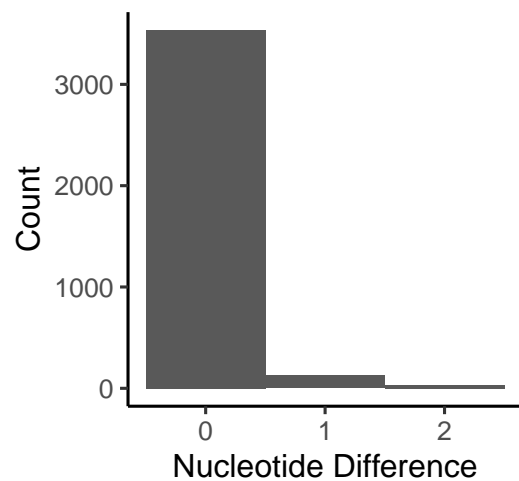
IGHV3-13*05

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



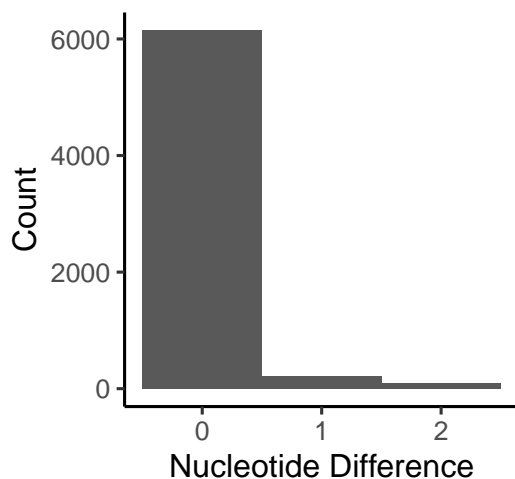
IGHV3-21*01_02

3693 sequences assigned
3536 (95.7%) exact matches, in which:
3495 unique CDR3
7 unique J



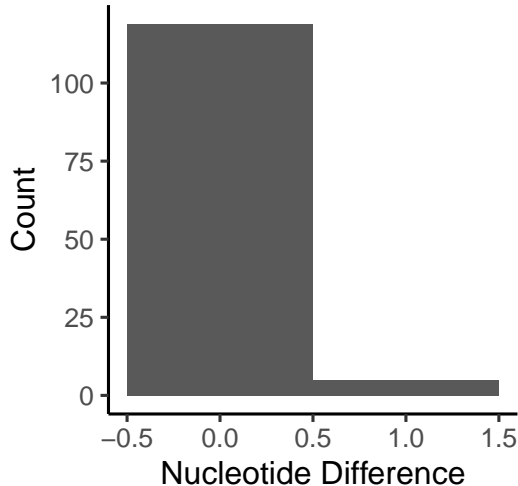
IGHV3–23*01_04

6447 sequences assigned
6147 (95.3%) exact matches, in which:
6052 unique CDR3
7 unique J



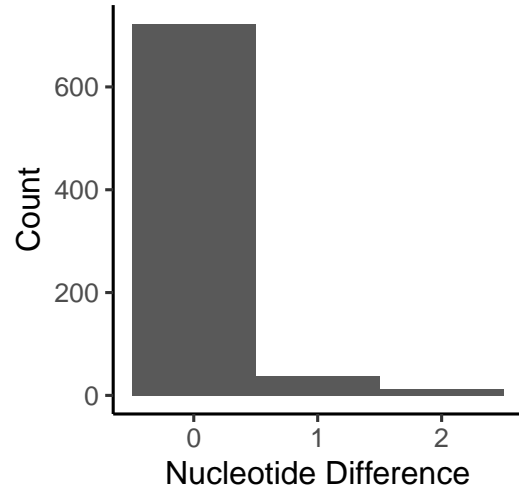
IGHV3–43*01

124 sequences assigned
119 (96%) exact matches, in which:
116 unique CDR3
5 unique J



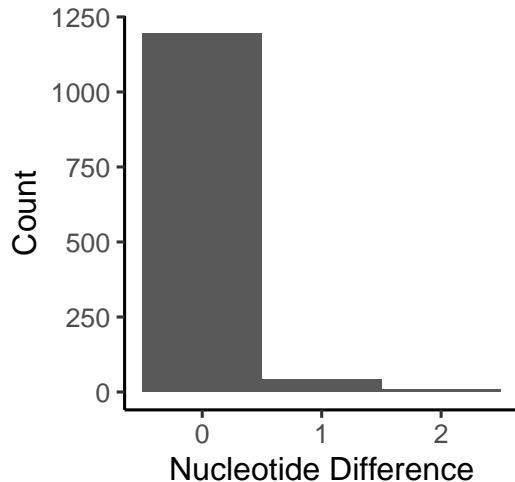
IGHV3–48*03

773 sequences assigned
723 (93.5%) exact matches, in which:
715 unique CDR3
7 unique J



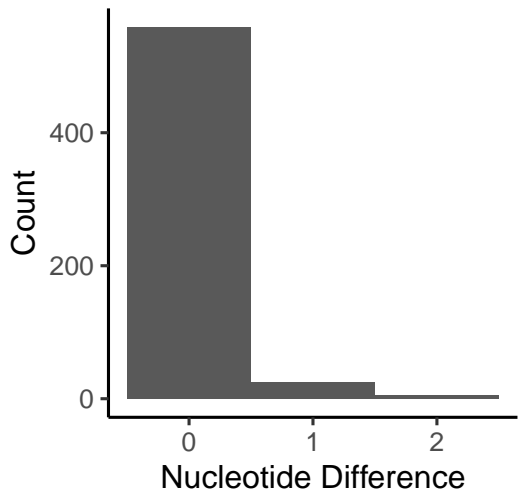
IGHV3–30–3*01

1244 sequences assigned
1194 (96%) exact matches, in which:
1187 unique CDR3
7 unique J



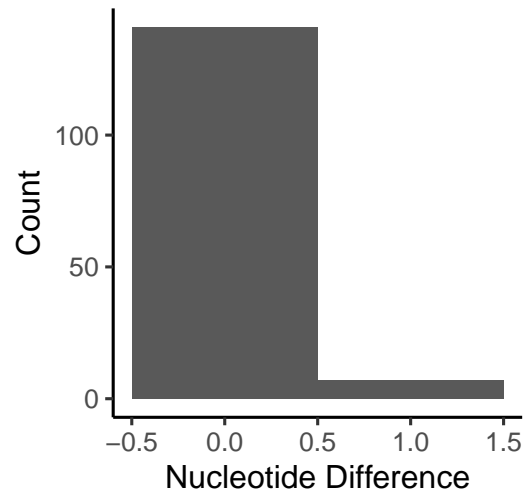
IGHV3–43*02

589 sequences assigned
559 (94.9%) exact matches, in which:
548 unique CDR3
6 unique J



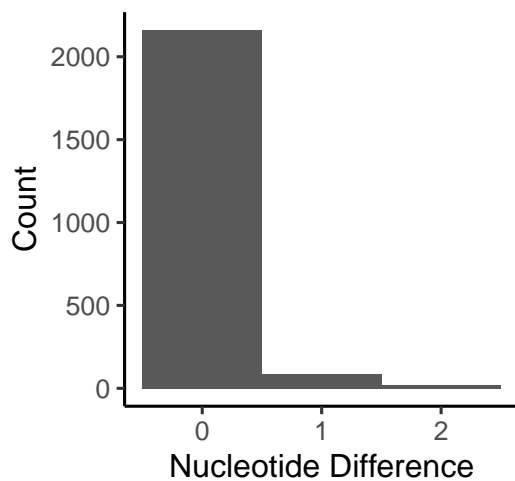
IGHV3–49*04

148 sequences assigned
141 (95.3%) exact matches, in which:
141 unique CDR3
5 unique J



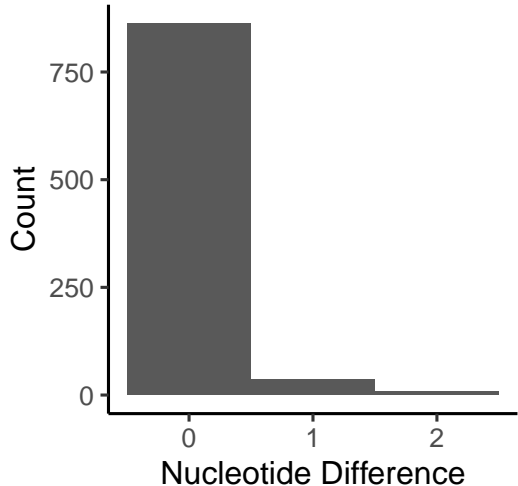
IGHV3–33*01

2267 sequences assigned
2161 (95.3%) exact matches, in which:
2132 unique CDR3
7 unique J



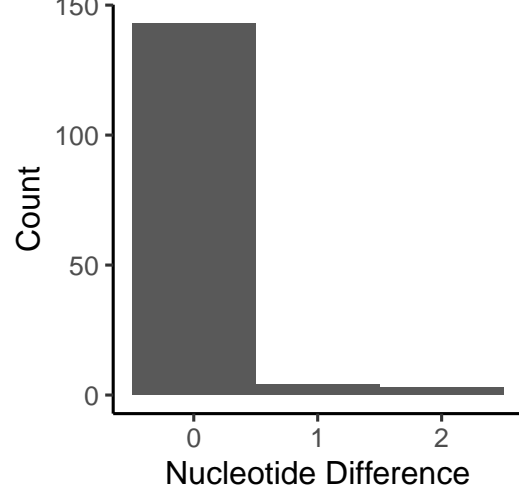
IGHV3–48*01

909 sequences assigned
863 (94.9%) exact matches, in which:
851 unique CDR3
7 unique J



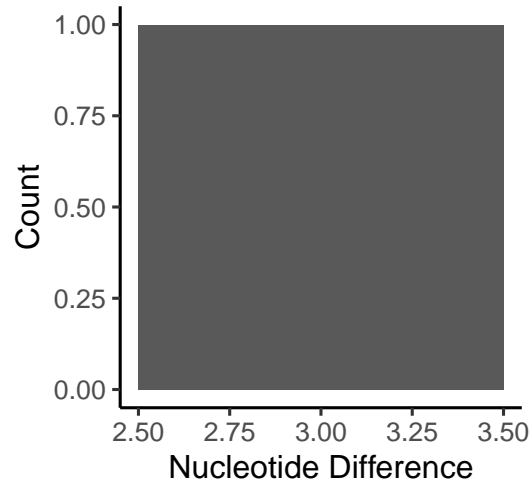
IGHV3–49*03_05

150 sequences assigned
143 (95.3%) exact matches, in which:
142 unique CDR3
4 unique J



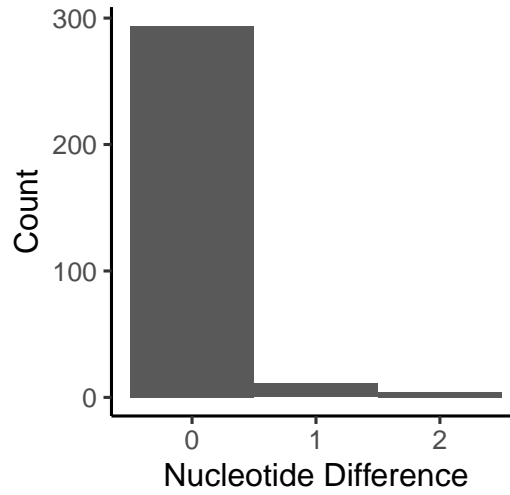
IGHV3-52*01_03

1 sequences assigned
No exact matches.



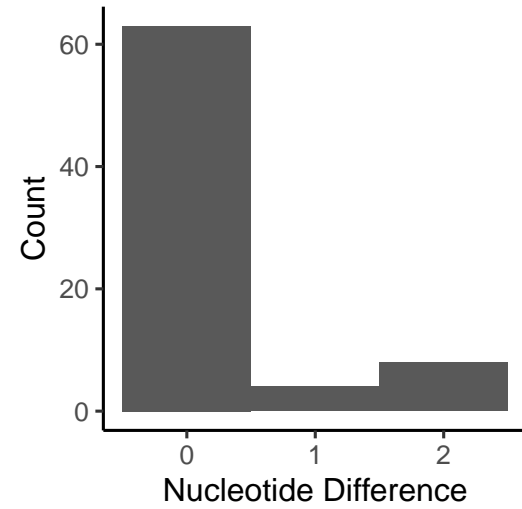
IGHV3-64*01

309 sequences assigned
294 (95.1%) exact matches, in which:
291 unique CDR3
7 unique J



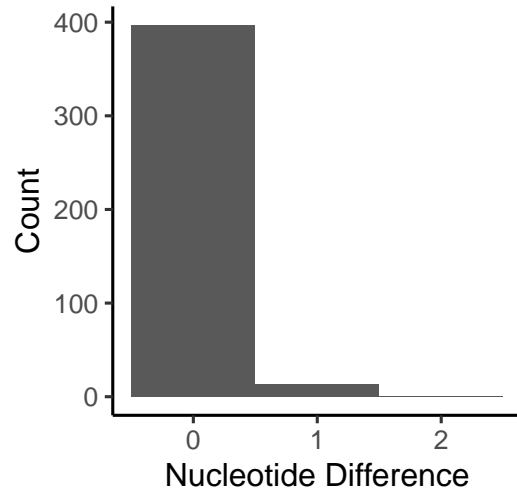
IGHV3-72*01

75 sequences assigned
63 (84%) exact matches, in which:
61 unique CDR3
7 unique J



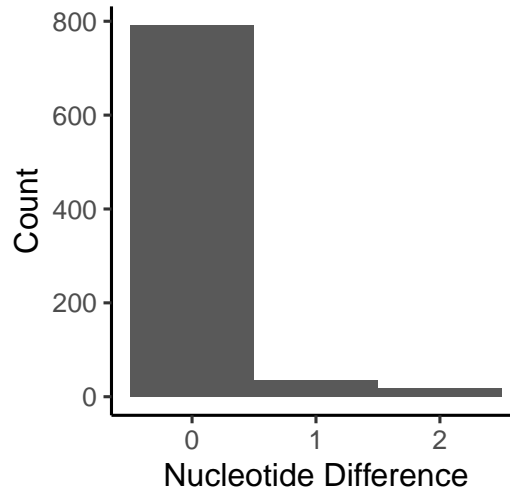
IGHV3-53*04

411 sequences assigned
397 (96.6%) exact matches, in which:
392 unique CDR3
7 unique J



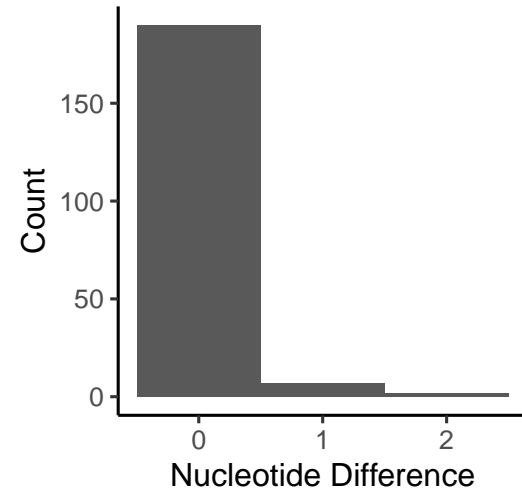
IGHV3-66*01

847 sequences assigned
792 (93.5%) exact matches, in which:
776 unique CDR3
7 unique J



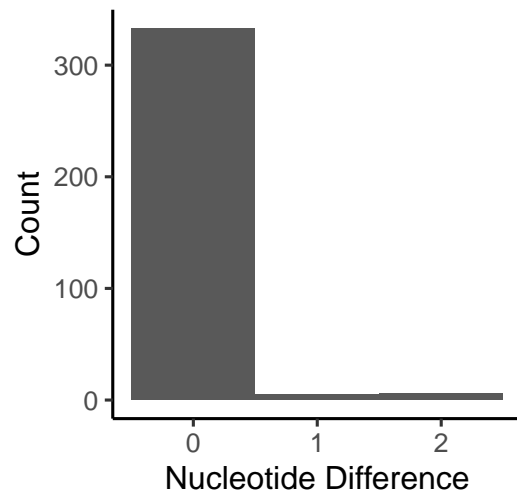
IGHV3-73*01_02

199 sequences assigned
190 (95.5%) exact matches, in which:
188 unique CDR3
6 unique J



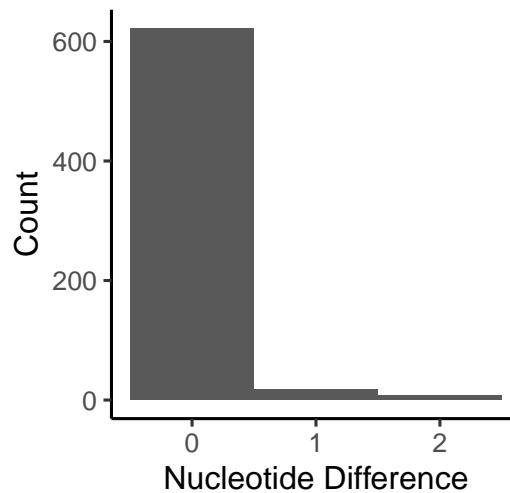
IGHV3-53*01_02

344 sequences assigned
333 (96.8%) exact matches, in which:
328 unique CDR3
6 unique J



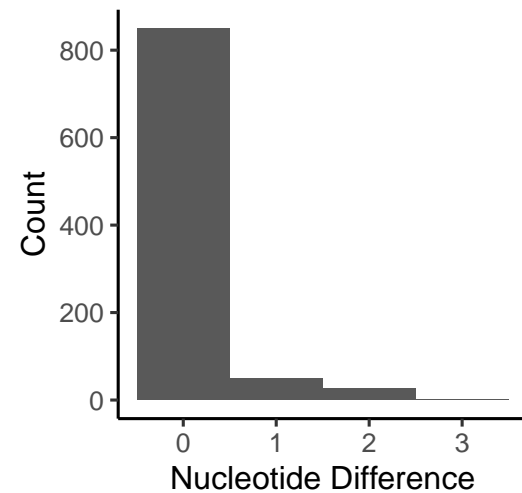
IGHV3-66*02

648 sequences assigned
622 (96%) exact matches, in which:
615 unique CDR3
6 unique J



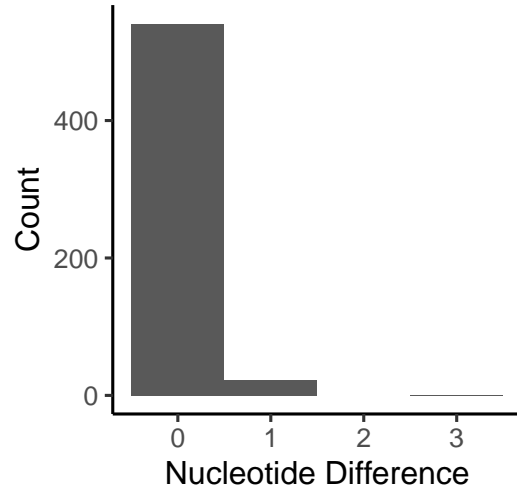
IGHV3-74*01_02

927 sequences assigned
850 (91.7%) exact matches, in which:
831 unique CDR3
7 unique J



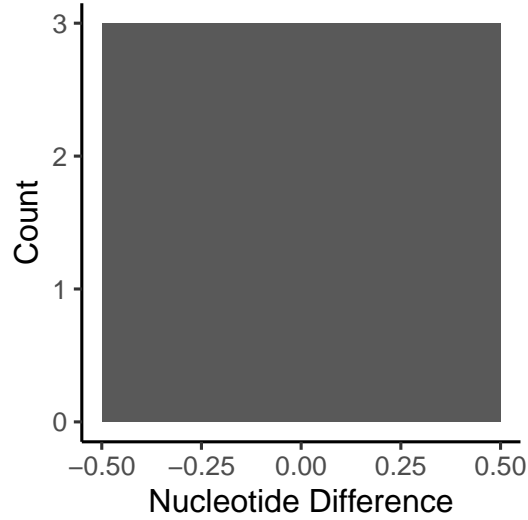
IGHV3–64D*09

564 sequences assigned
541 (95.9%) exact matches, in which:
536 unique CDR3
6 unique J



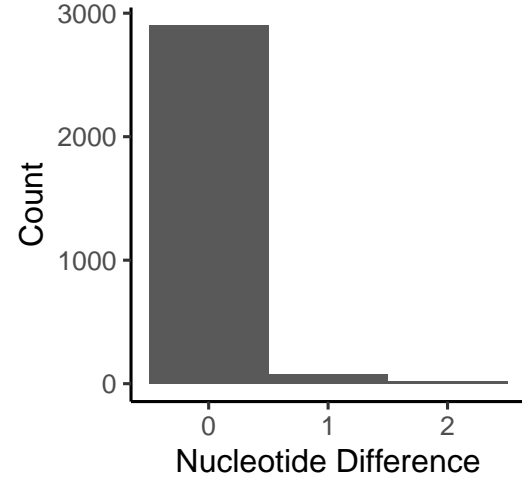
IGHV4–28*01_07

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



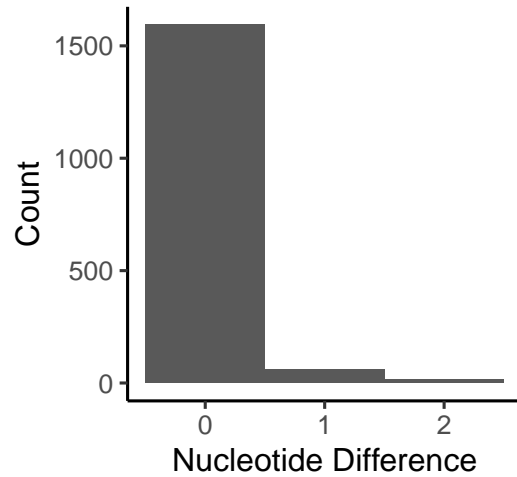
IGHV4–31*02

3002 sequences assigned
2901 (96.6%) exact matches, in which:
2881 unique CDR3
7 unique J



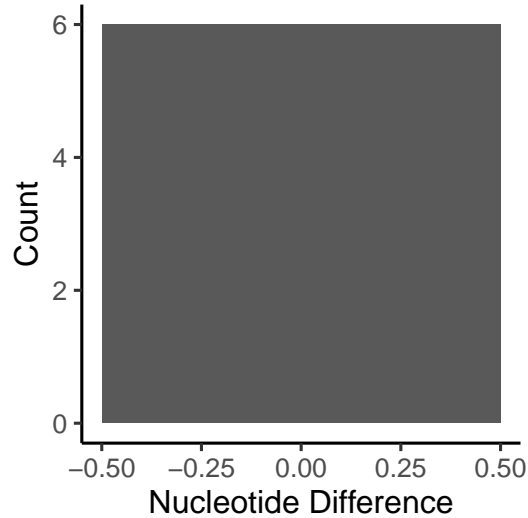
IGHV4–4*02_03

1667 sequences assigned
1594 (95.6%) exact matches, in which:
1576 unique CDR3
7 unique J



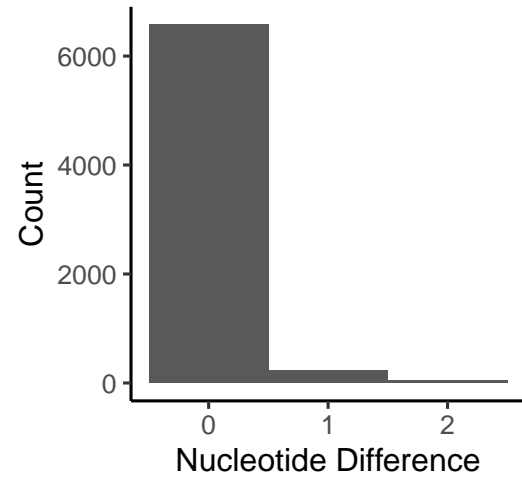
IGHV4–28*02_05

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



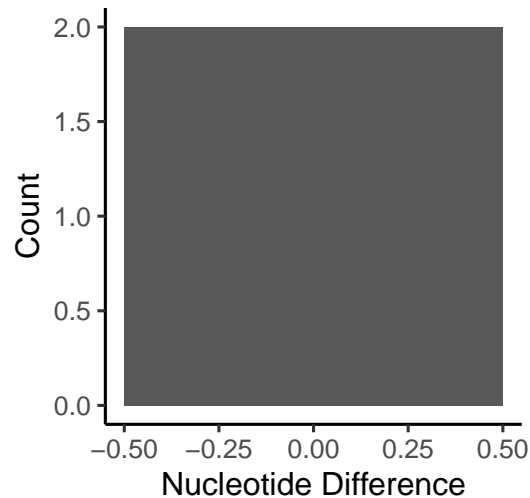
IGHV4–34*01_02

6843 sequences assigned
6575 (96.1%) exact matches, in which:
6440 unique CDR3
7 unique J



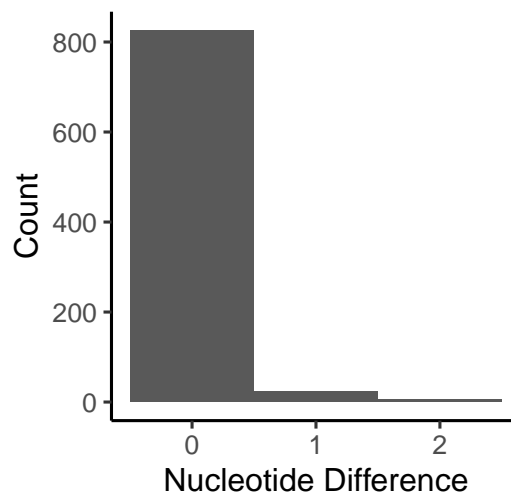
IGHV4–28*03

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



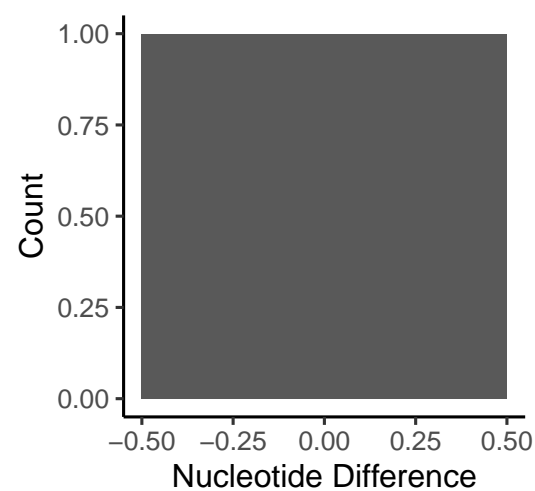
IGHV4–30–2*01

856 sequences assigned
826 (96.5%) exact matches, in which:
804 unique CDR3
6 unique J



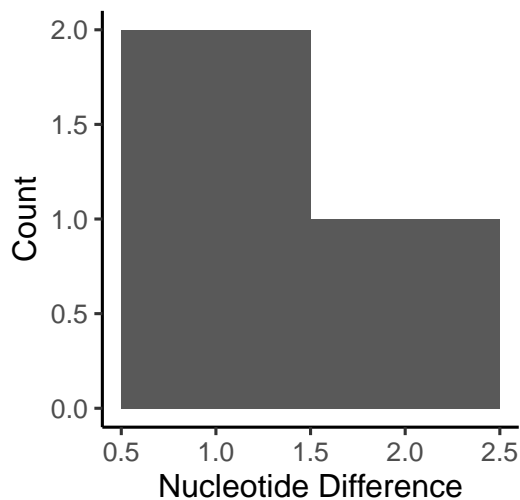
IGHV4–39*02

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



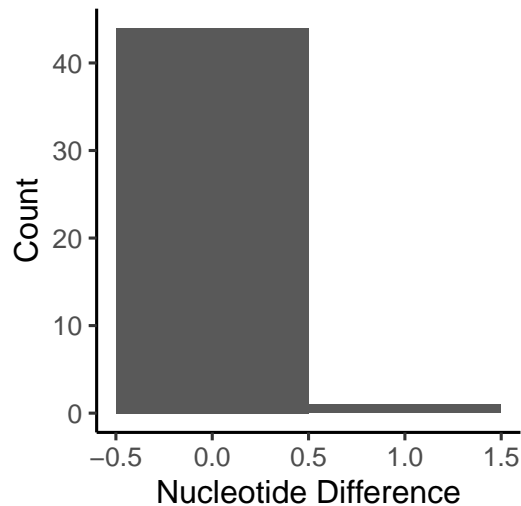
IGHV4-39*07

3 sequences assigned
No exact matches.



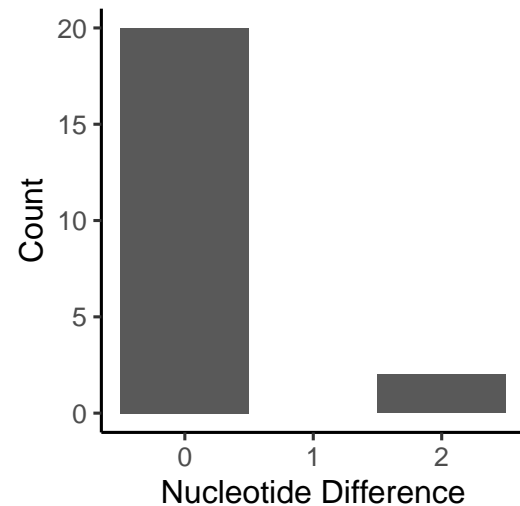
IGHV5-10-1*01_03

45 sequences assigned
44 (97.8%) exact matches, in which:
44 unique CDR3
4 unique J



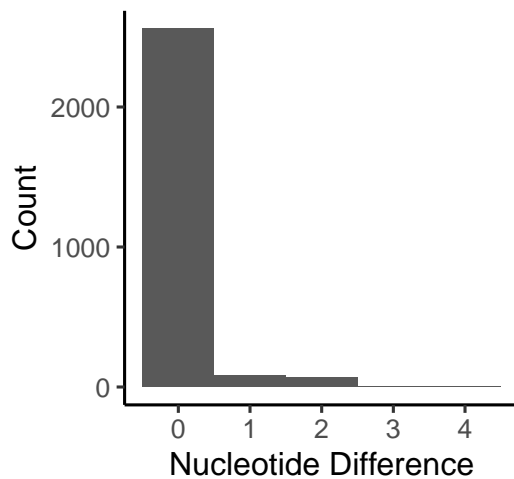
IGHV7-4-1*01

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



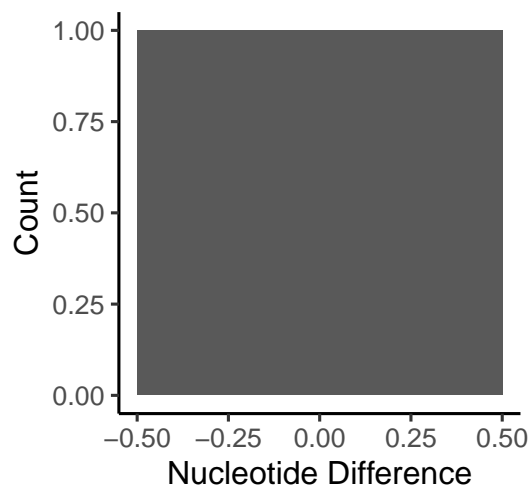
IGHV4-59*08

2715 sequences assigned
2559 (94.3%) exact matches, in which:
2518 unique CDR3
7 unique J



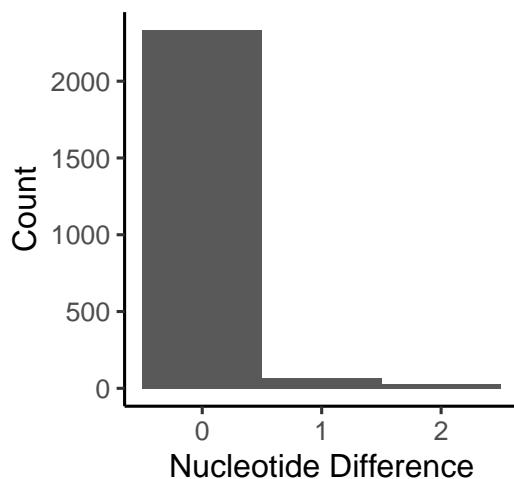
IGHV5-51*01_03

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



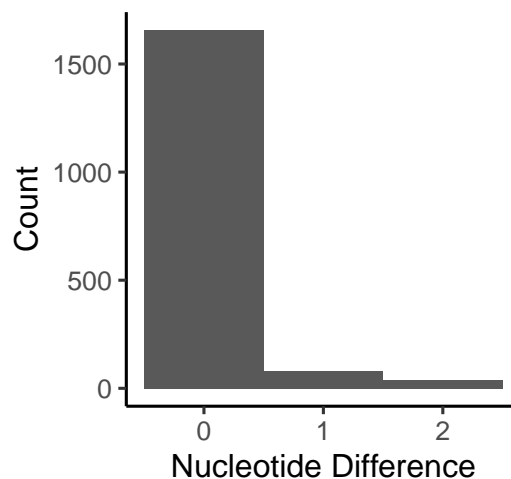
IGHV4-61*02

2429 sequences assigned
2333 (96%) exact matches, in which:
2316 unique CDR3
7 unique J

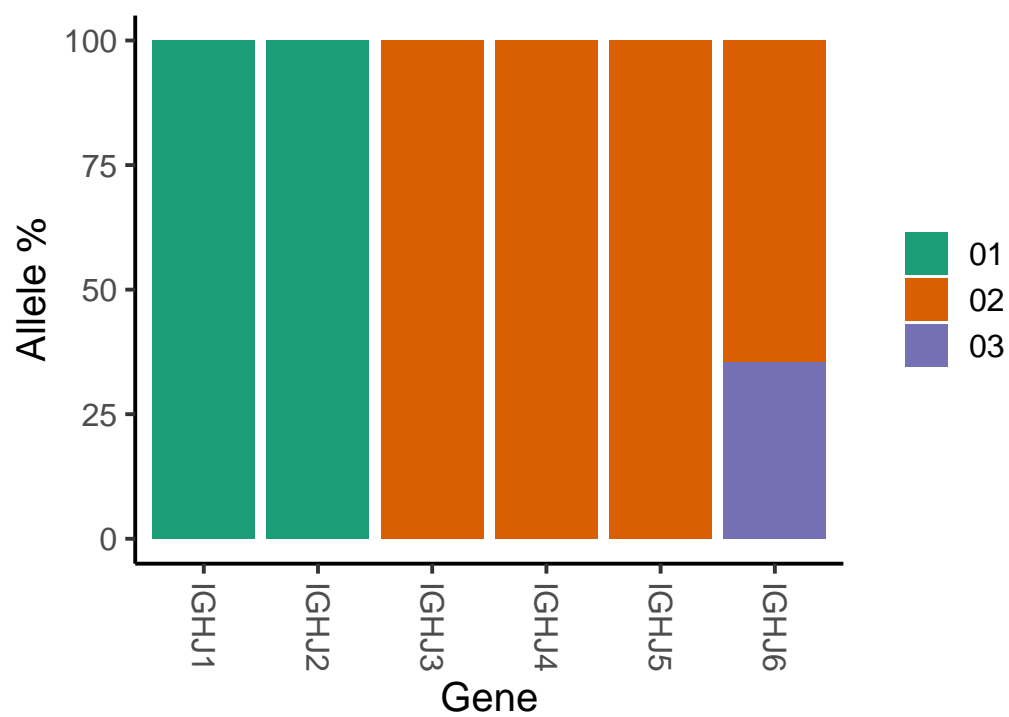


IGHV6-1*01_02

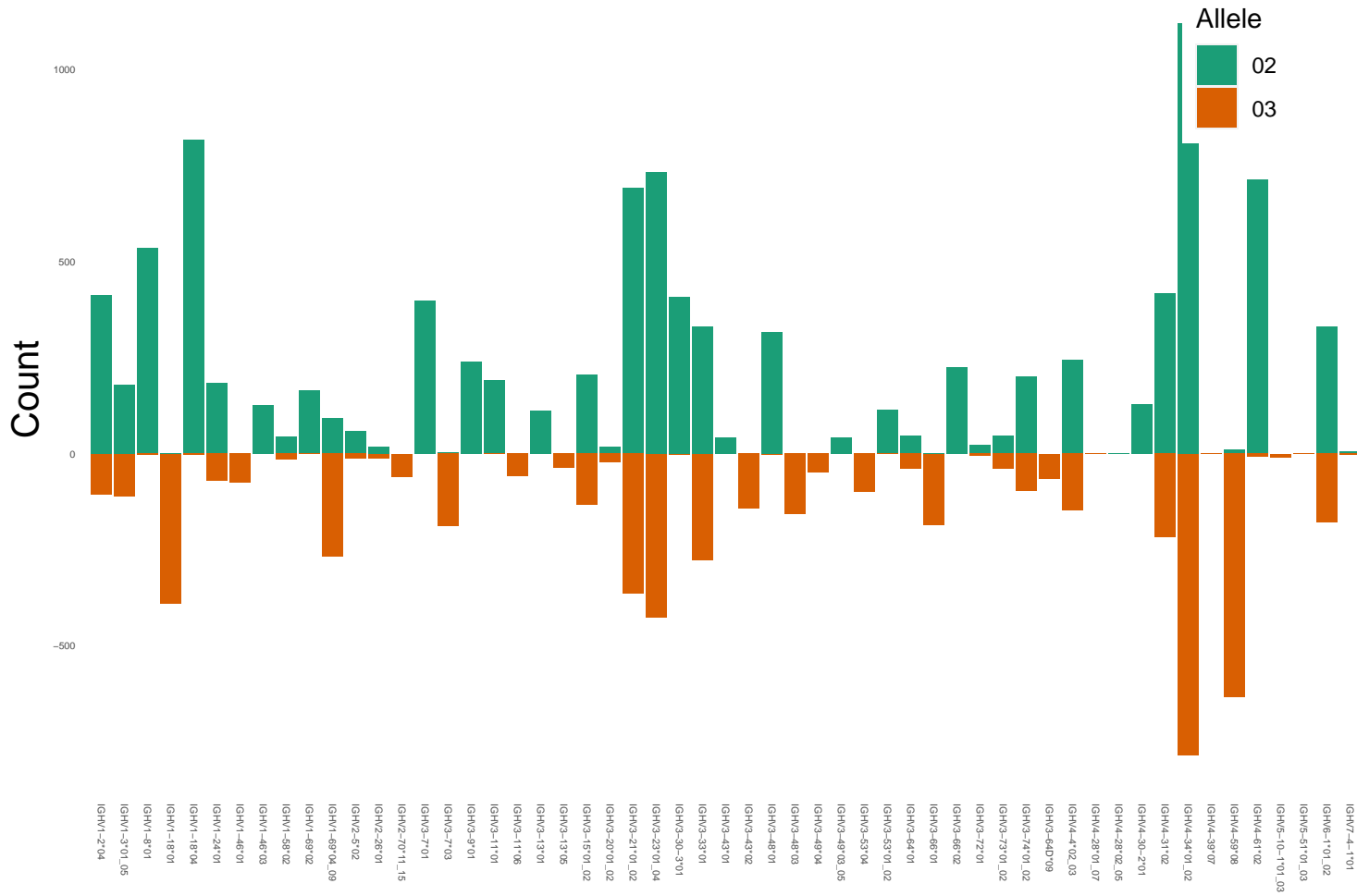
1777 sequences assigned
1657 (93.2%) exact matches, in which:
1636 unique CDR3
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]