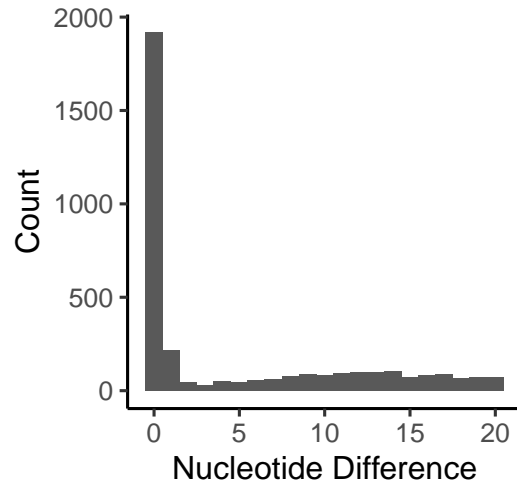


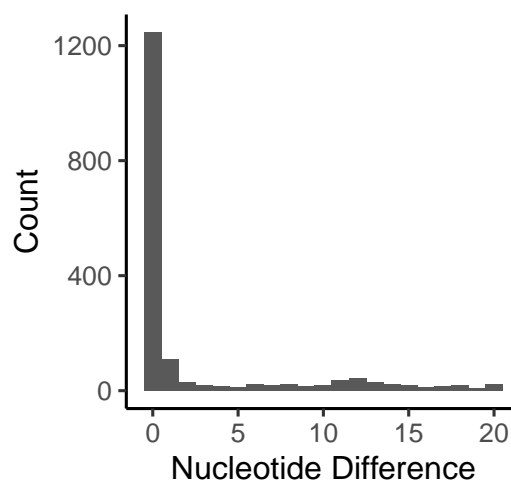
IGHV1-2*02

4599 sequences assigned
1918 (41.7%) exact matches, in which:
1896 unique CDR3
7 unique J



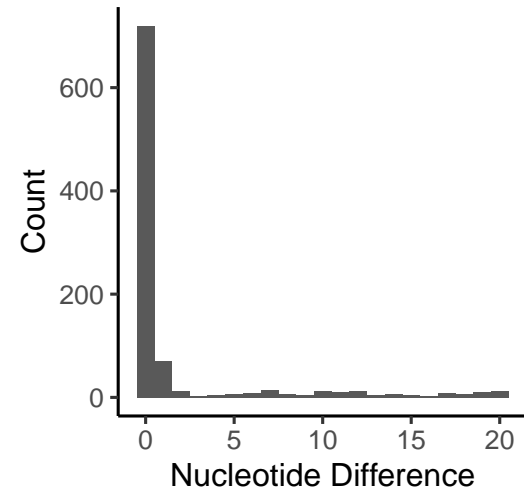
IGHV1-8*01

1976 sequences assigned
1246 (63.1%) exact matches, in which:
1229 unique CDR3
7 unique J



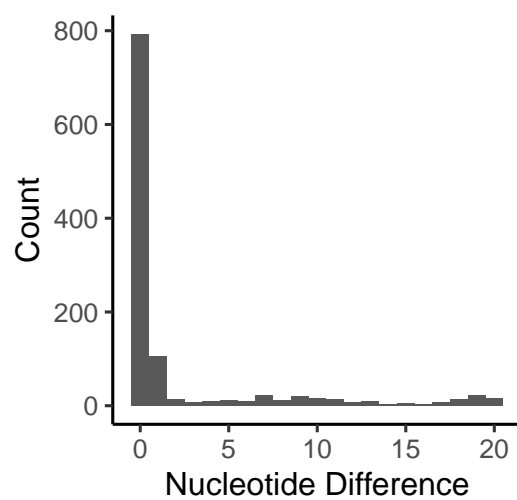
IGHV1-24*01

1019 sequences assigned
720 (70.7%) exact matches, in which:
714 unique CDR3
7 unique J



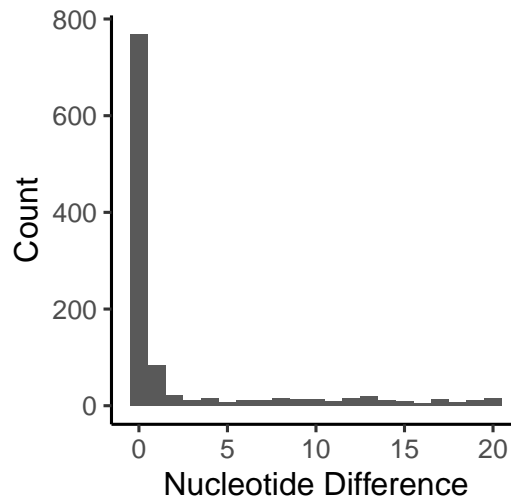
IGHV1-2*04

1203 sequences assigned
793 (65.9%) exact matches, in which:
772 unique CDR3
7 unique J



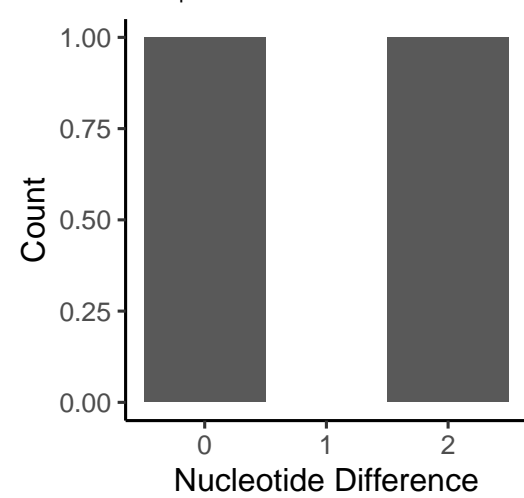
IGHV1-8*03

1154 sequences assigned
769 (66.6%) exact matches, in which:
762 unique CDR3
6 unique J



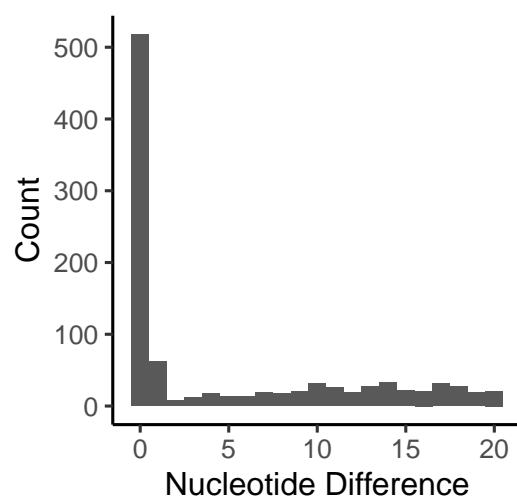
IGHV1-45*02

18 sequences assigned
1 (5.6%) exact matches, in which:
1 unique CDR3
1 unique J



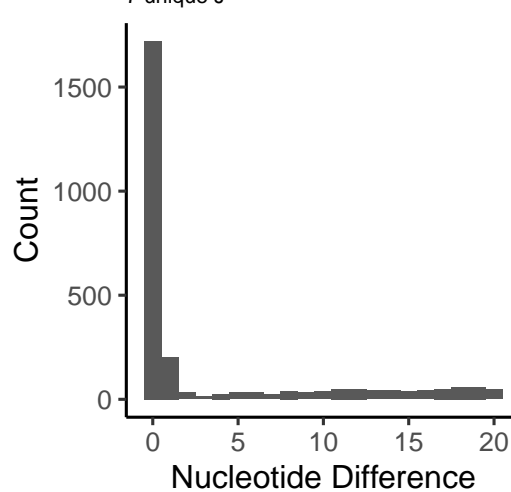
IGHV1-3*01

1344 sequences assigned
518 (38.5%) exact matches, in which:
513 unique CDR3
6 unique J



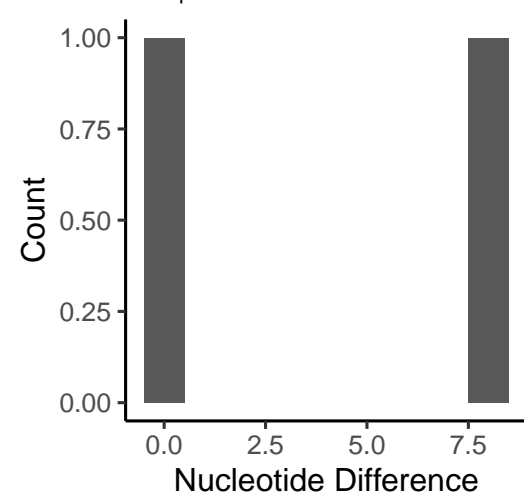
IGHV1-18*01

3370 sequences assigned
1721 (51.1%) exact matches, in which:
1707 unique CDR3
7 unique J



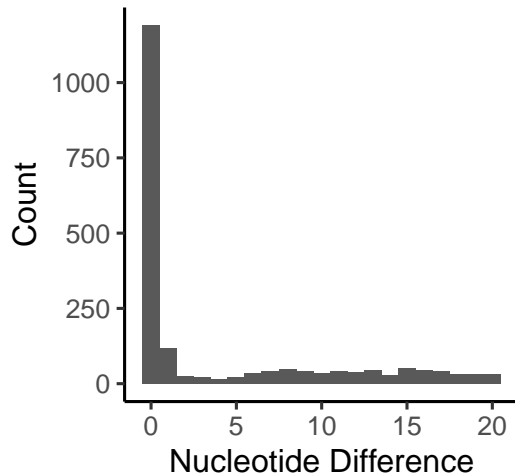
IGHV1-45*03

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



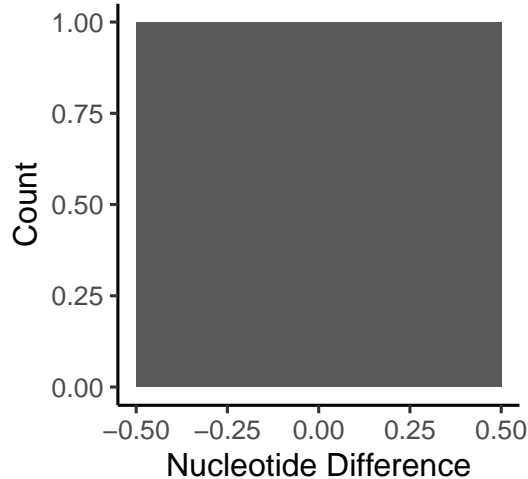
IGHV1-46*01

2670 sequences assigned
1190 (44.6%) exact matches, in which:
1178 unique CDR3
7 unique J



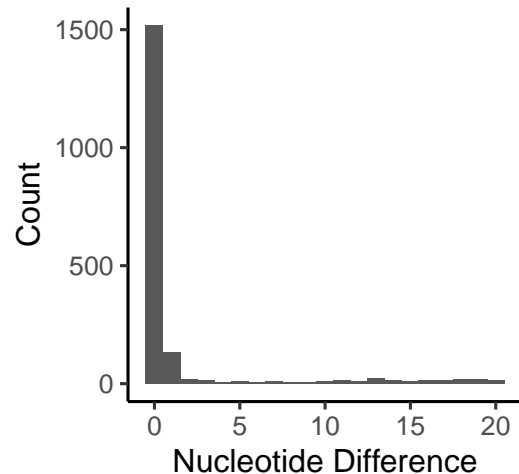
IGHV1-68*02

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



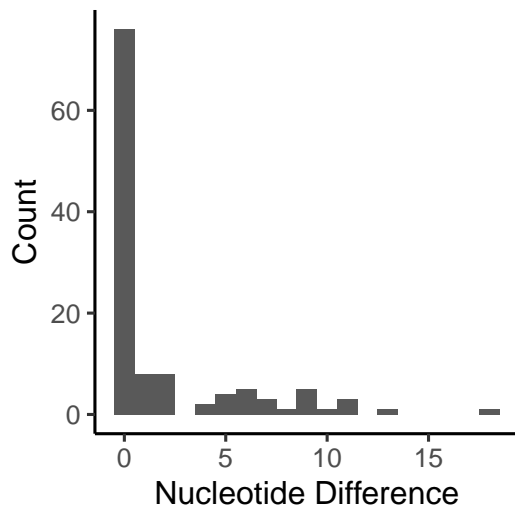
IGHV1-69*04

2246 sequences assigned
1518 (67.6%) exact matches, in which:
1494 unique CDR3
6 unique J



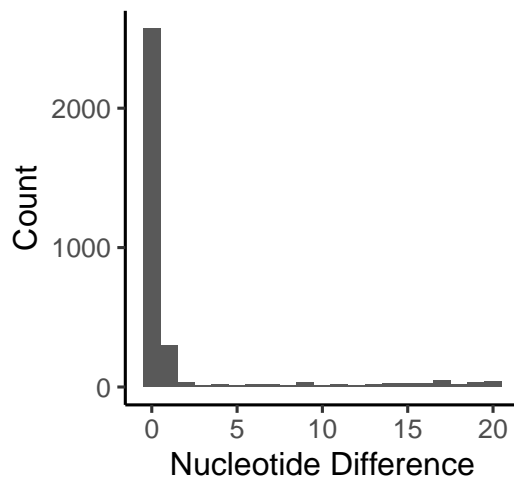
IGHV1-58*01

121 sequences assigned
76 (62.8%) exact matches, in which:
76 unique CDR3
5 unique J



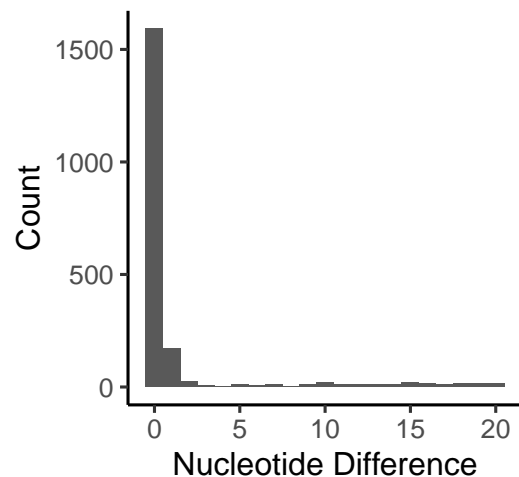
IGHV1-69*01

3723 sequences assigned
2570 (69%) exact matches, in which:
2535 unique CDR3
7 unique J



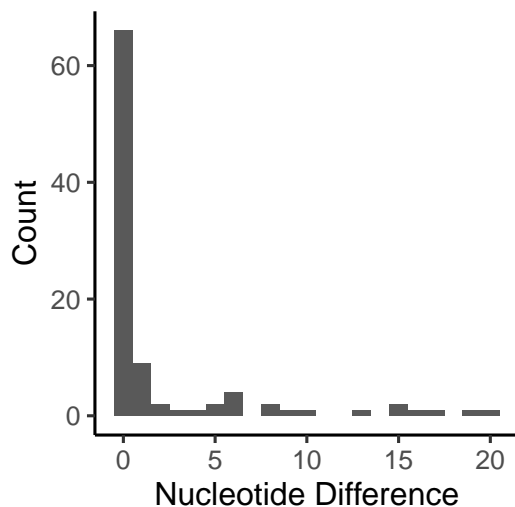
IGHV1-69*06

2334 sequences assigned
1592 (68.2%) exact matches, in which:
1571 unique CDR3
7 unique J



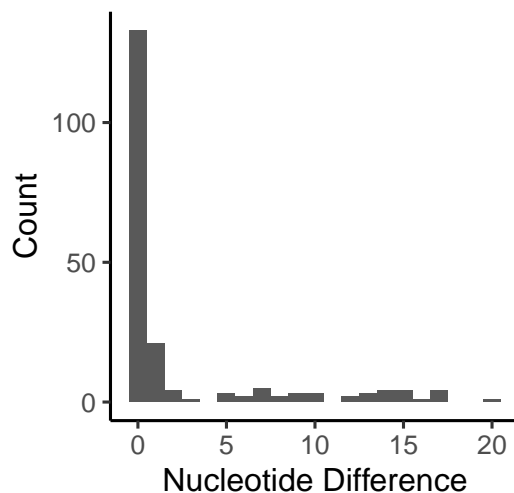
IGHV1-58*02

119 sequences assigned
66 (55.5%) exact matches, in which:
66 unique CDR3
5 unique J



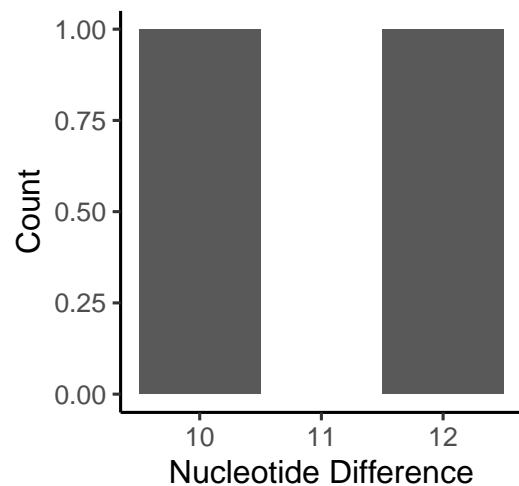
IGHV1-69-2*01

233 sequences assigned
133 (57.1%) exact matches, in which:
132 unique CDR3
7 unique J



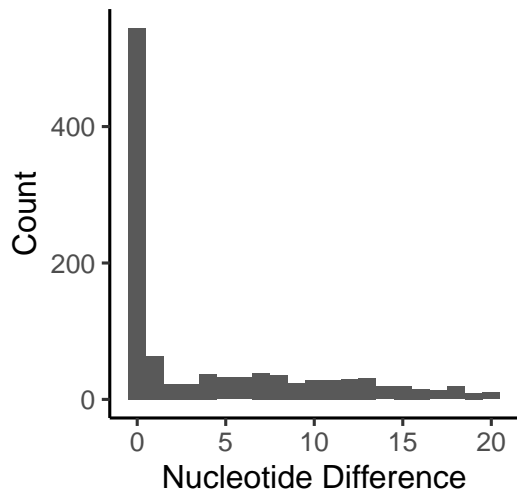
IGHV1-NL1*01

2 sequences assigned
No exact matches.



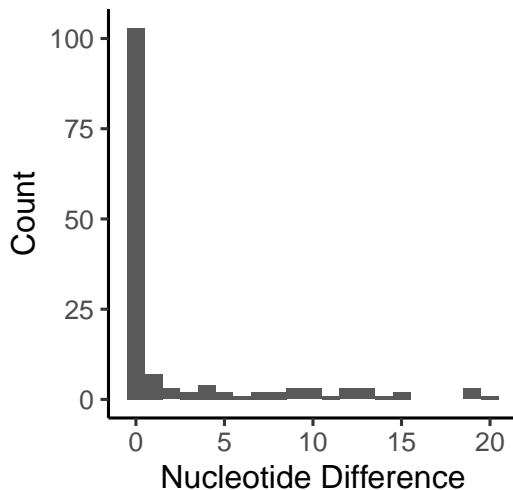
IGHV2-5*01

1170 sequences assigned
545 (46.6%) exact matches, in which:
543 unique CDR3
6 unique J



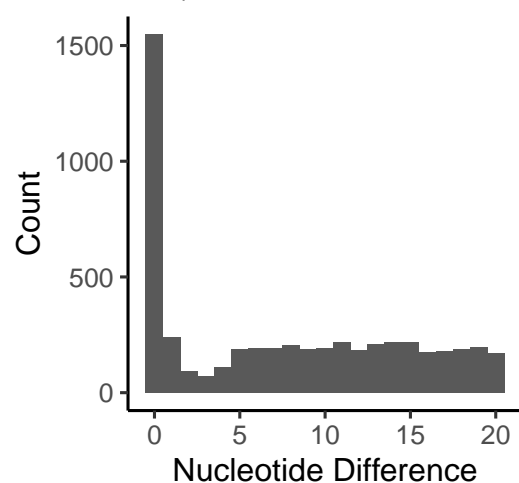
IGHV2-70*01

153 sequences assigned
103 (67.3%) exact matches, in which:
103 unique CDR3
5 unique J



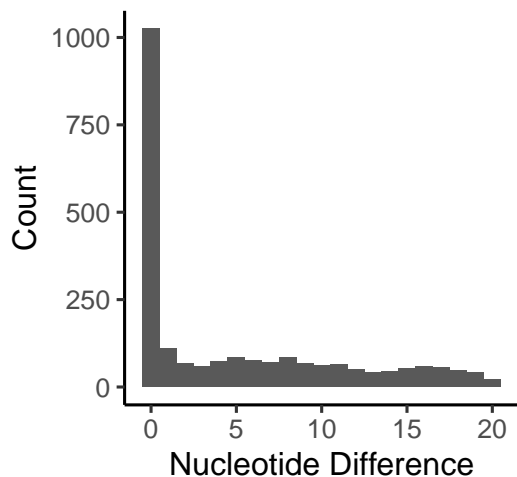
IGHV3-7*01

7031 sequences assigned
1548 (22%) exact matches, in which:
1509 unique CDR3
7 unique J



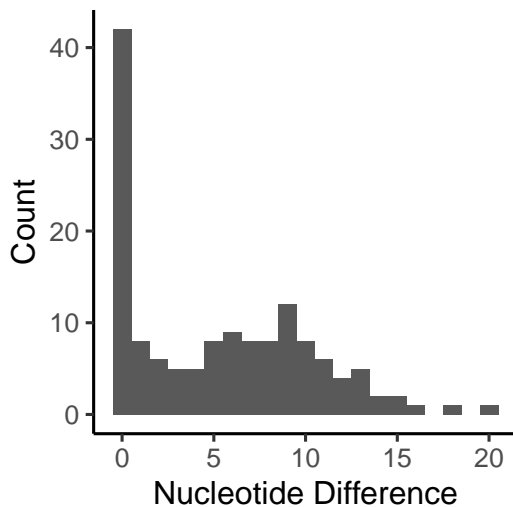
IGHV2-5*02

2488 sequences assigned
1025 (41.2%) exact matches, in which:
1019 unique CDR3
6 unique J



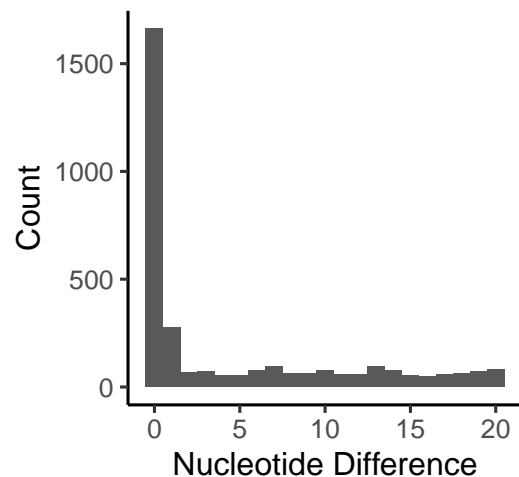
IGHV2-70*04

170 sequences assigned
42 (24.7%) exact matches, in which:
42 unique CDR3
5 unique J



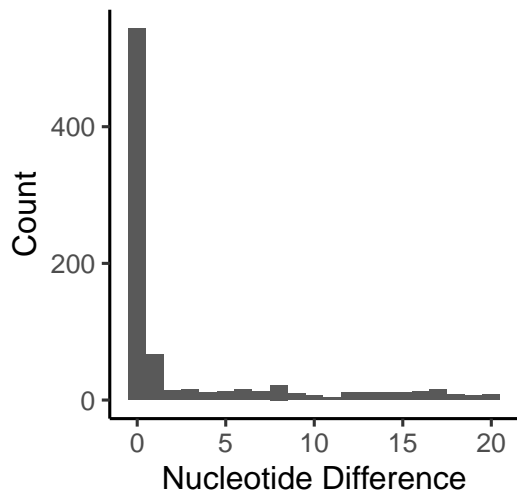
IGHV3-9*01

3714 sequences assigned
1662 (44.7%) exact matches, in which:
1640 unique CDR3
6 unique J



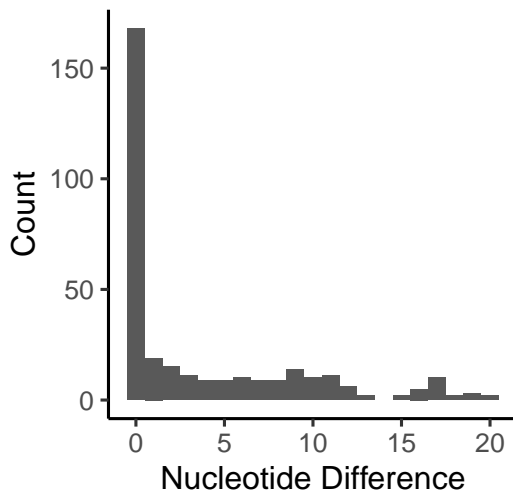
IGHV2-26*01

870 sequences assigned
544 (62.5%) exact matches, in which:
539 unique CDR3
6 unique J



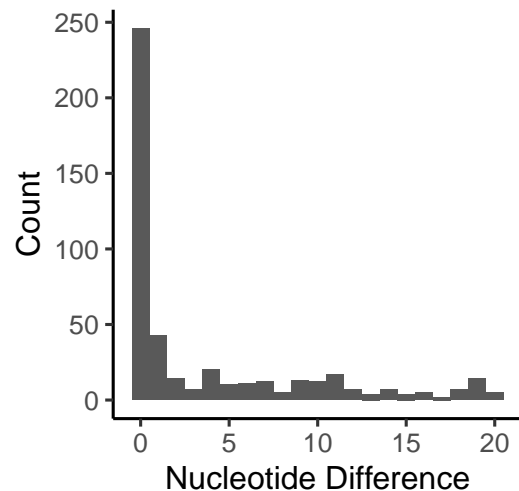
IGHV2-70*15

360 sequences assigned
168 (46.7%) exact matches, in which:
168 unique CDR3
5 unique J



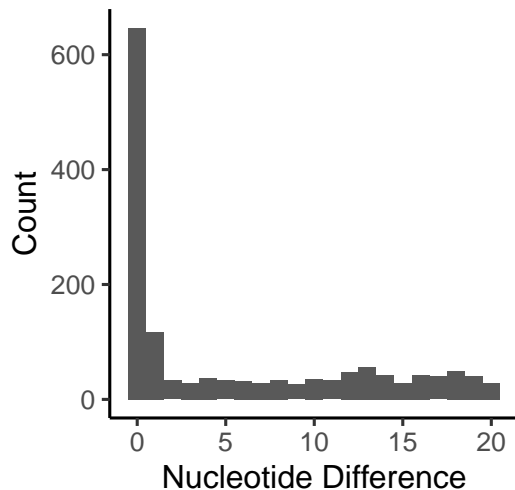
IGHV3-9*03

480 sequences assigned
246 (51.2%) exact matches, in which:
246 unique CDR3
7 unique J



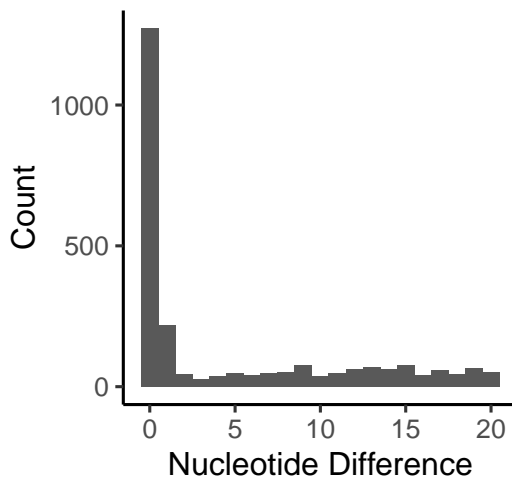
IGHV3-11*01

2012 sequences assigned
647 (32.2%) exact matches, in which:
639 unique CDR3
6 unique J



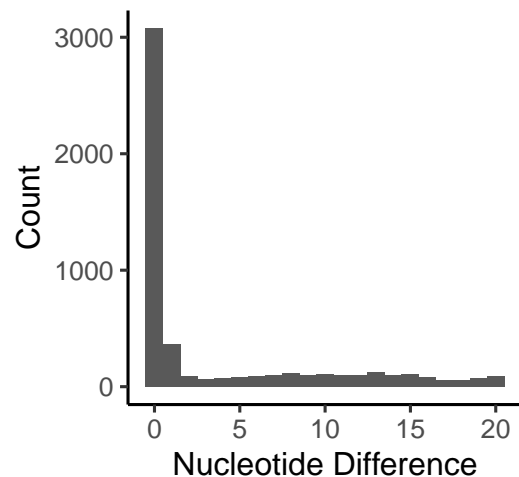
IGHV3-15*01

3082 sequences assigned
1272 (41.3%) exact matches, in which:
1243 unique CDR3
7 unique J



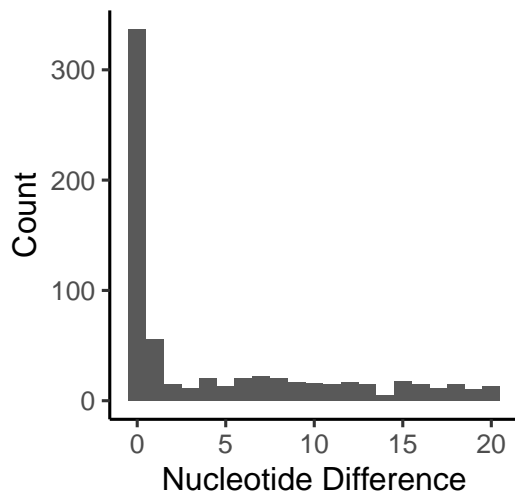
IGHV3-21*01

5900 sequences assigned
3076 (52.1%) exact matches, in which:
3026 unique CDR3
7 unique J



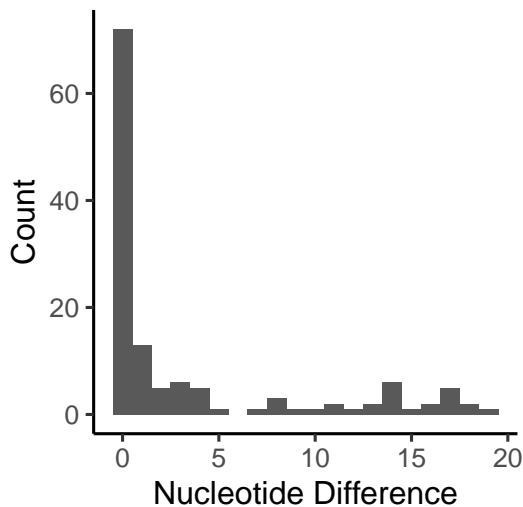
IGHV3-11*04

896 sequences assigned
337 (37.6%) exact matches, in which:
336 unique CDR3
7 unique J



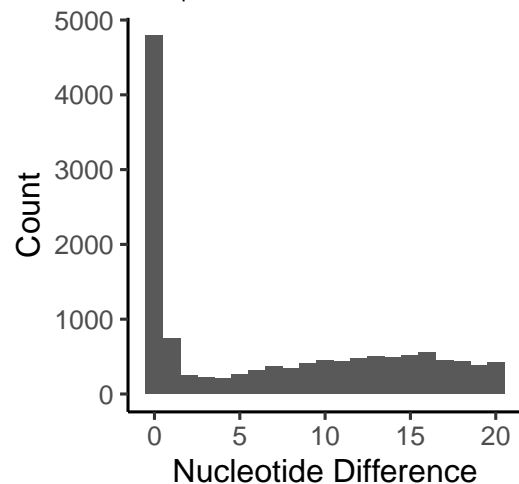
IGHV3-20*01

145 sequences assigned
72 (49.7%) exact matches, in which:
71 unique CDR3
5 unique J



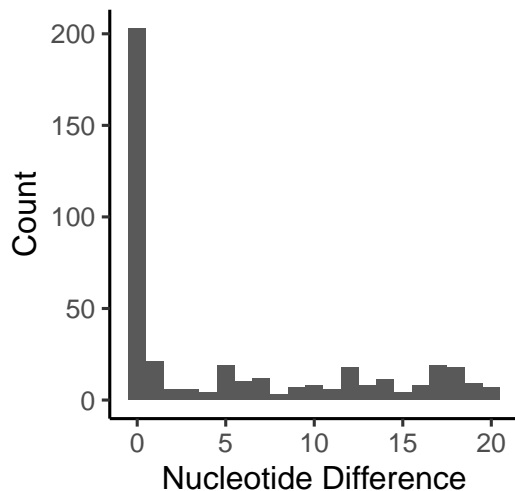
IGHV3-23*01

18473 sequences assigned
4790 (25.9%) exact matches, in which:
4702 unique CDR3
7 unique J



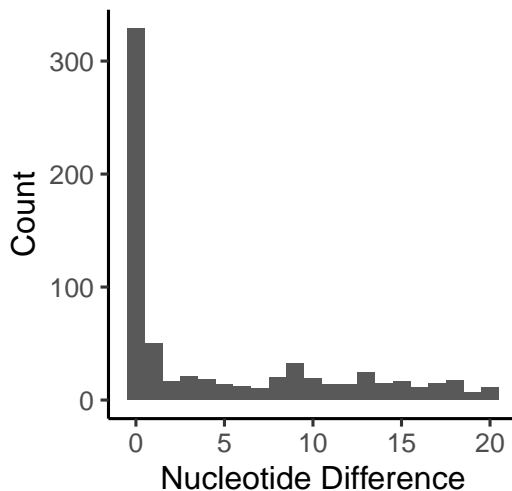
IGHV3-13*01

492 sequences assigned
203 (41.3%) exact matches, in which:
201 unique CDR3
6 unique J



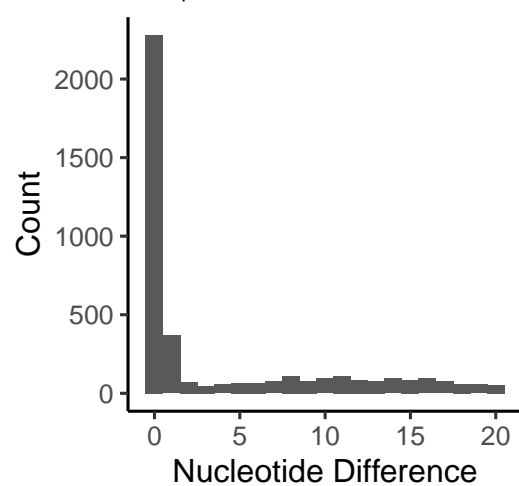
IGHV3-20*04

848 sequences assigned
329 (38.8%) exact matches, in which:
322 unique CDR3
7 unique J



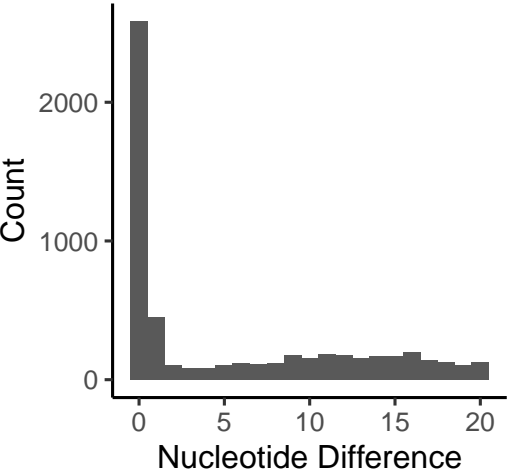
IGHV3-30-3*01

4861 sequences assigned
2280 (46.9%) exact matches, in which:
2248 unique CDR3
6 unique J



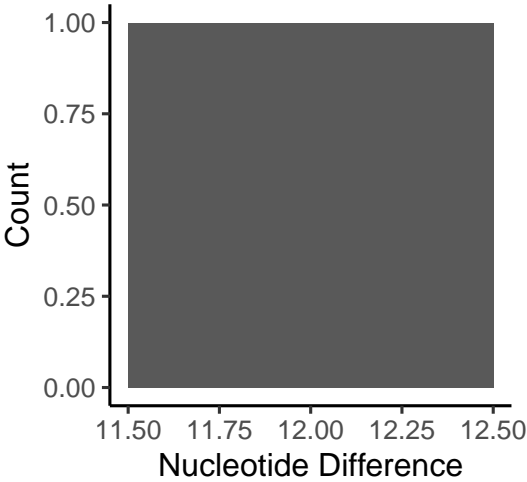
IGHV3-30*18

6575 sequences assigned
2583 (39.3%) exact matches, in which:
2546 unique CDR3
7 unique J



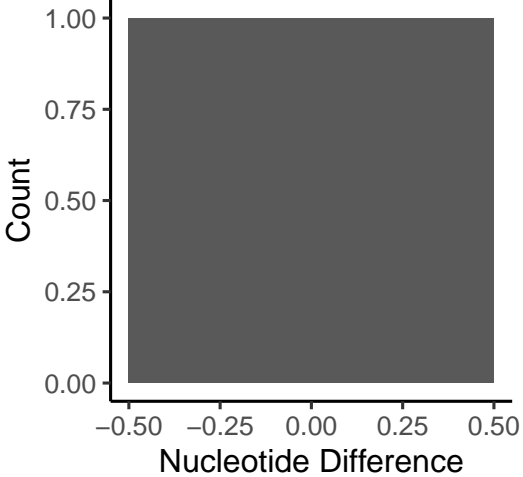
IGHV3-41*02

1 sequences assigned
No exact matches.



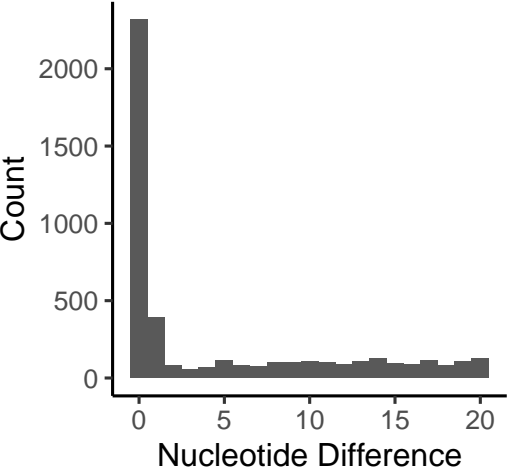
IGHV3-47*01

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



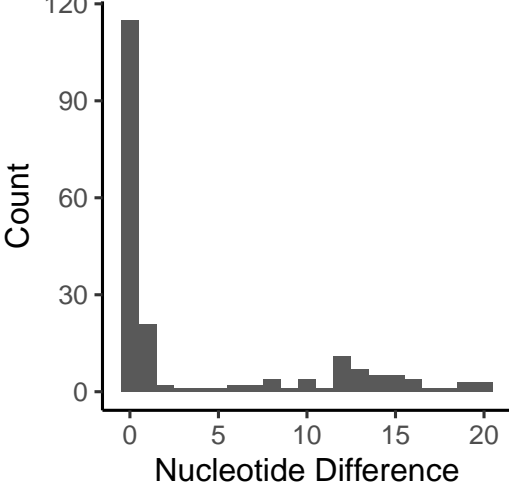
IGHV3-33*01

5474 sequences assigned
2317 (42.3%) exact matches, in which:
2280 unique CDR3
7 unique J



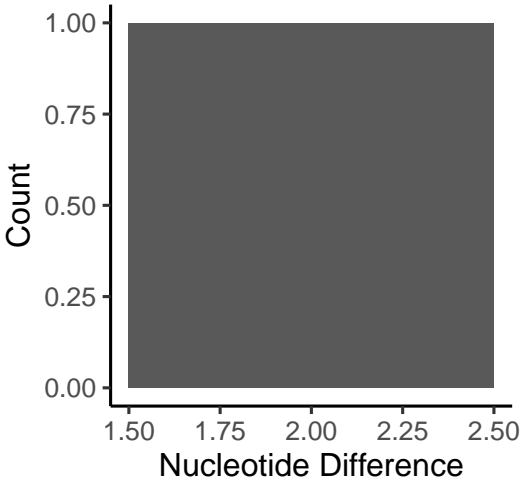
IGHV3-43*01

229 sequences assigned
115 (50.2%) exact matches, in which:
106 unique CDR3
6 unique J



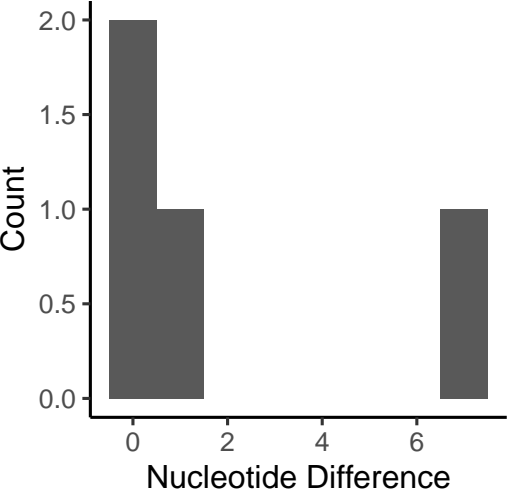
IGHV3-47*02

1 sequences assigned
No exact matches.



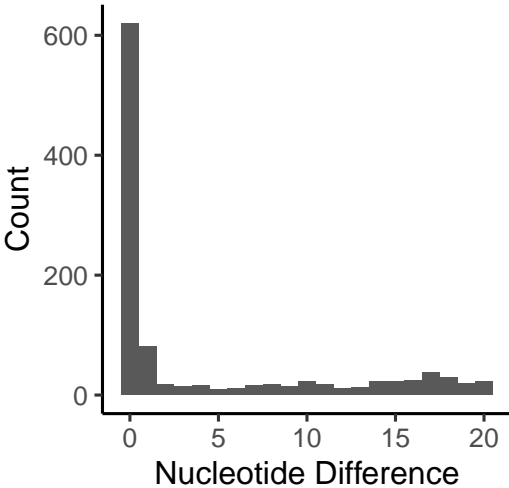
IGHV3-35*01

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



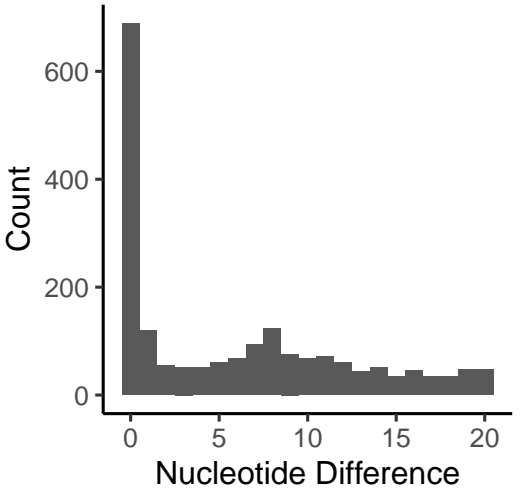
IGHV3-43*02

1281 sequences assigned
620 (48.4%) exact matches, in which:
614 unique CDR3
7 unique J



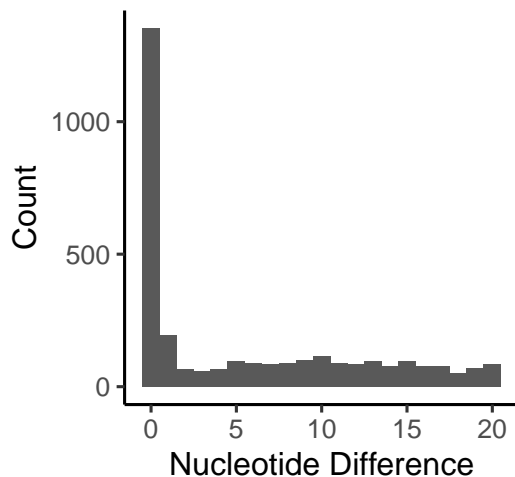
IGHV3-48*02

2483 sequences assigned
689 (27.7%) exact matches, in which:
655 unique CDR3
7 unique J



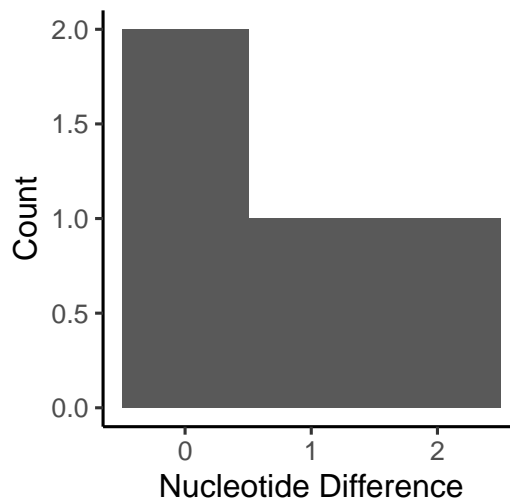
IGHV3-48*03

3659 sequences assigned
1352 (36.9%) exact matches, in which:
1324 unique CDR3
7 unique J



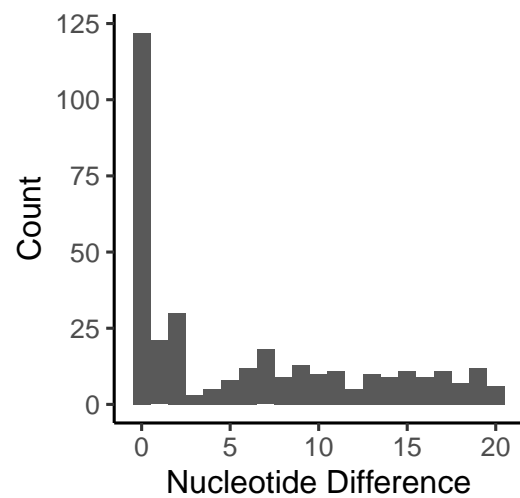
IGHV3-52*01

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



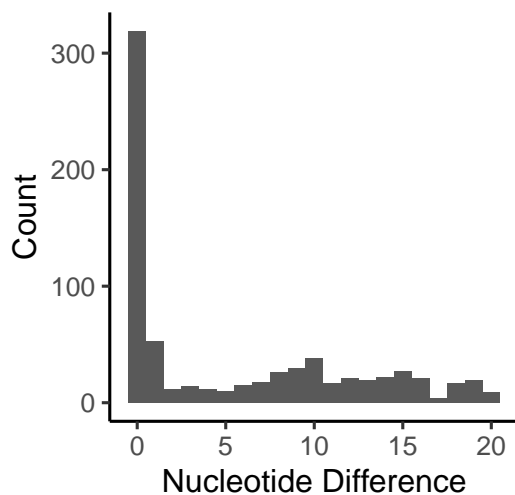
IGHV3-64*01

399 sequences assigned
122 (30.6%) exact matches, in which:
119 unique CDR3
5 unique J



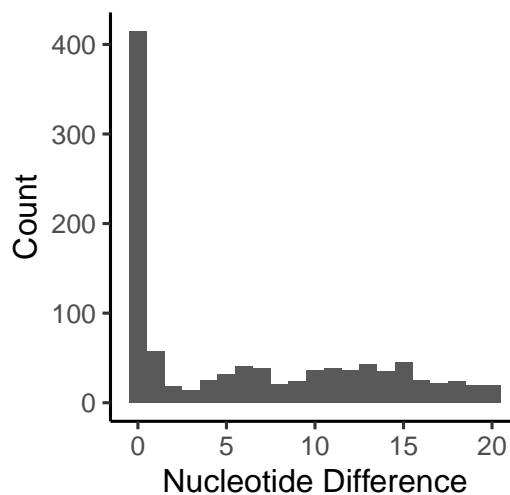
IGHV3-49*04

820 sequences assigned
319 (38.9%) exact matches, in which:
314 unique CDR3
6 unique J



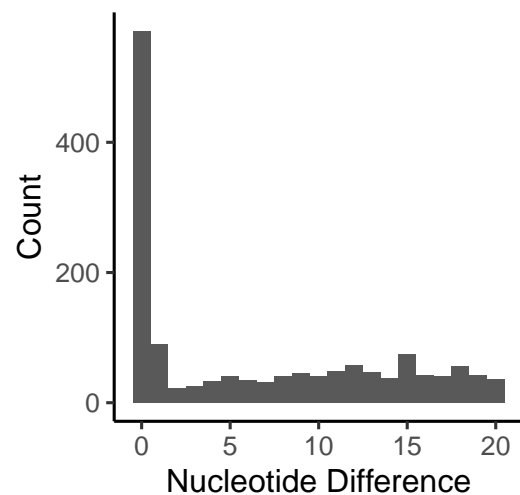
IGHV3-53*01

1375 sequences assigned
415 (30.2%) exact matches, in which:
411 unique CDR3
7 unique J



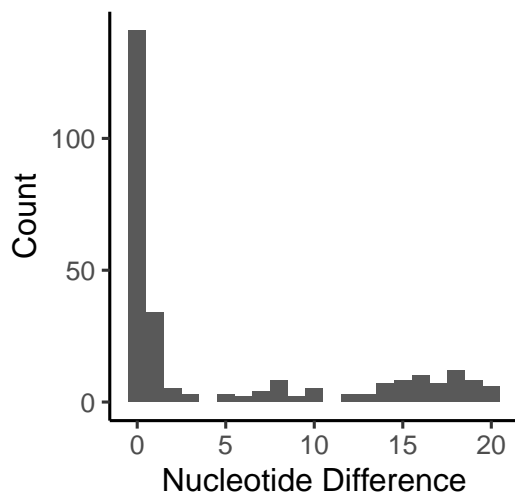
IGHV3-66*01

1851 sequences assigned
571 (30.8%) exact matches, in which:
564 unique CDR3
6 unique J



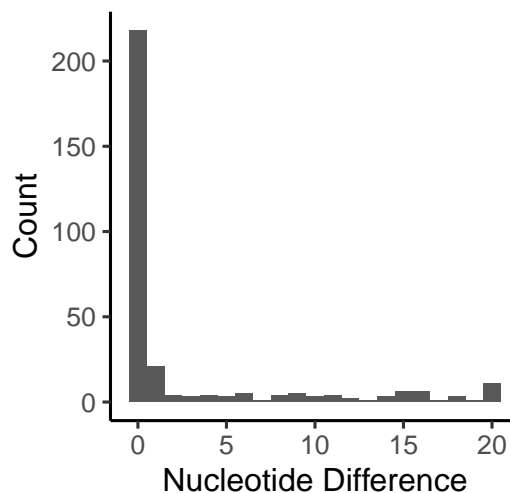
IGHV3-49*05

345 sequences assigned
141 (40.9%) exact matches, in which:
141 unique CDR3
6 unique J



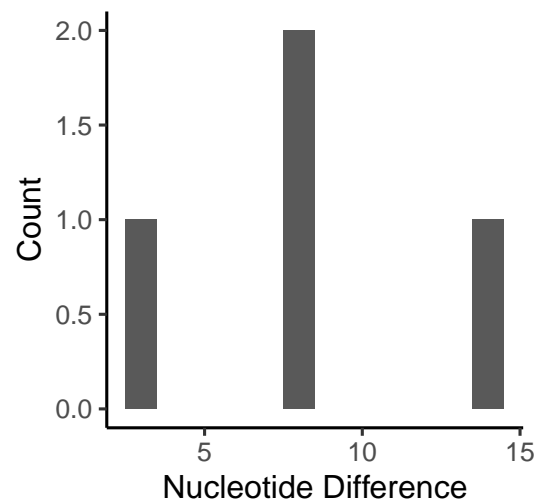
IGHV3-53*04

348 sequences assigned
218 (62.6%) exact matches, in which:
216 unique CDR3
6 unique J



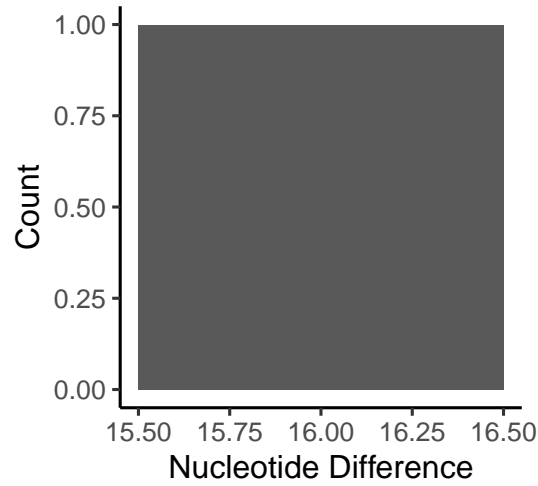
IGHV3-69-1*01

9 sequences assigned
No exact matches.



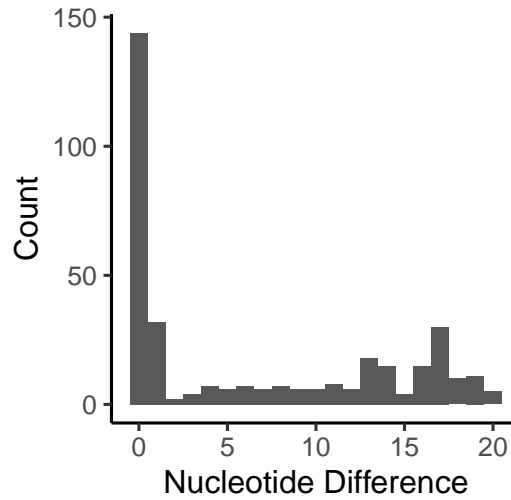
IGHV3-69-1*02

4 sequences assigned
No exact matches.



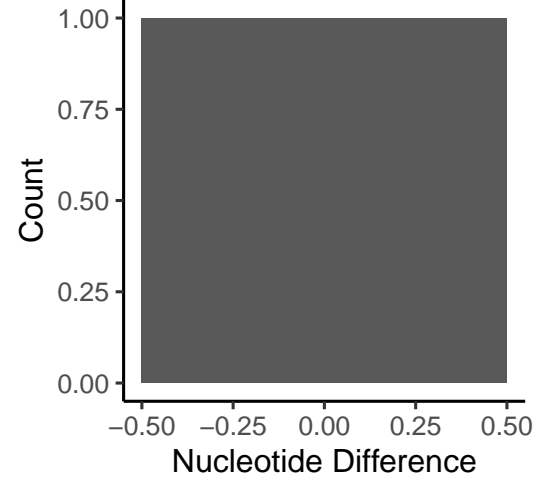
IGHV3-73*02

487 sequences assigned
144 (29.6%) exact matches, in which:
142 unique CDR3
5 unique J



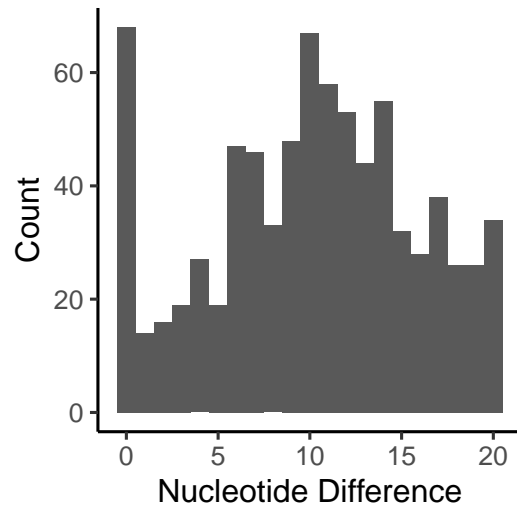
IGHV3-64D*06

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



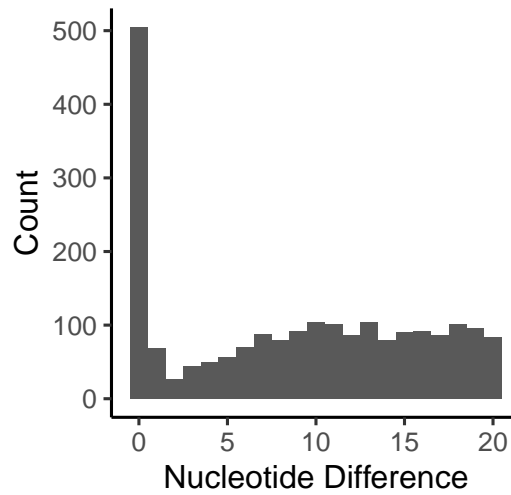
IGHV3-72*01

1018 sequences assigned
68 (6.7%) exact matches, in which:
68 unique CDR3
6 unique J



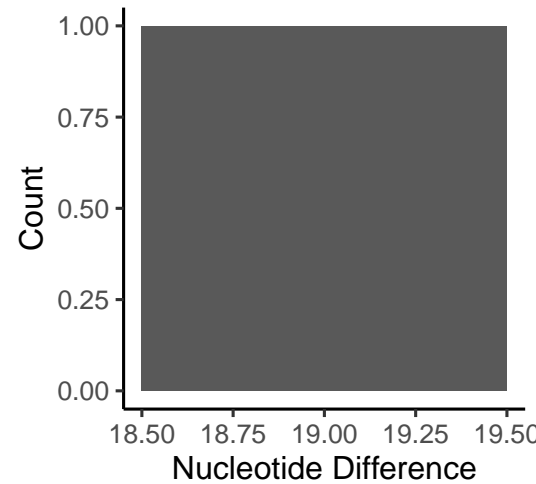
IGHV3-74*01

3073 sequences assigned
505 (16.4%) exact matches, in which:
498 unique CDR3
7 unique J



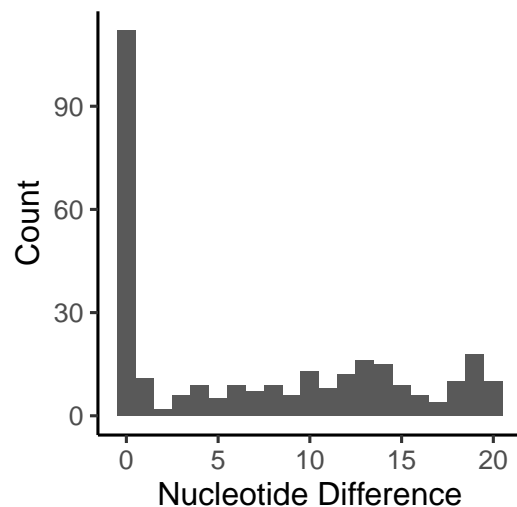
IGHV3-NL1*01

2 sequences assigned
No exact matches.



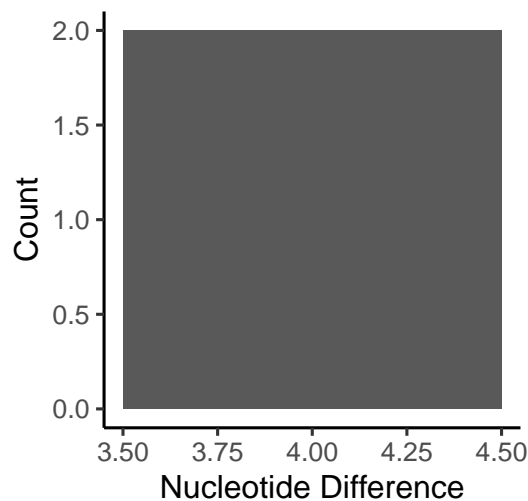
IGHV3-73*01

368 sequences assigned
112 (30.4%) exact matches, in which:
110 unique CDR3
4 unique J



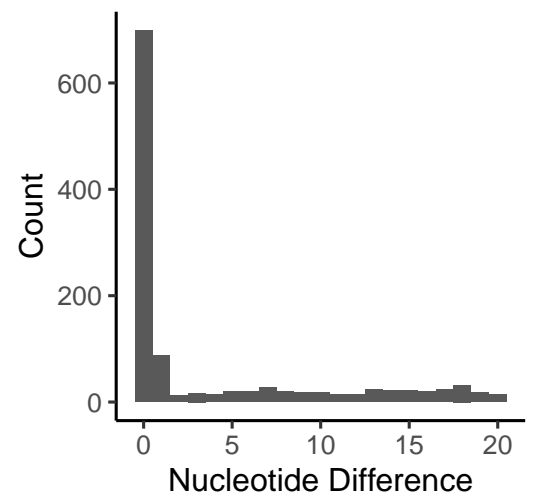
IGHV3-43D*04

2 sequences assigned
No exact matches.



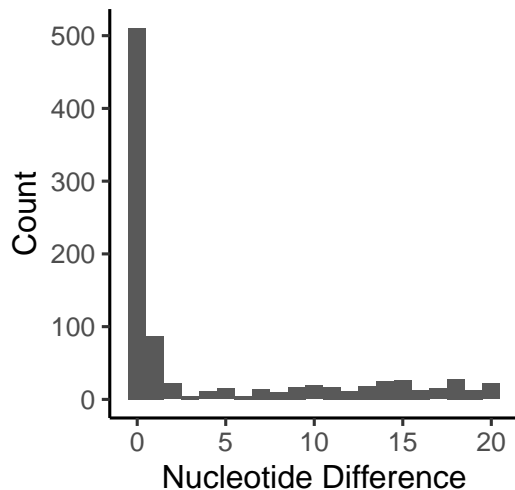
IGHV4-4*02

1392 sequences assigned
699 (50.2%) exact matches, in which:
696 unique CDR3
6 unique J



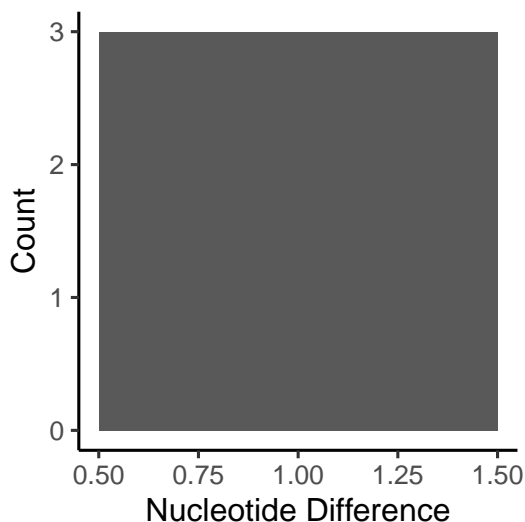
IGHV4-4*07

1120 sequences assigned
511 (45.6%) exact matches, in which:
506 unique CDR3
7 unique J



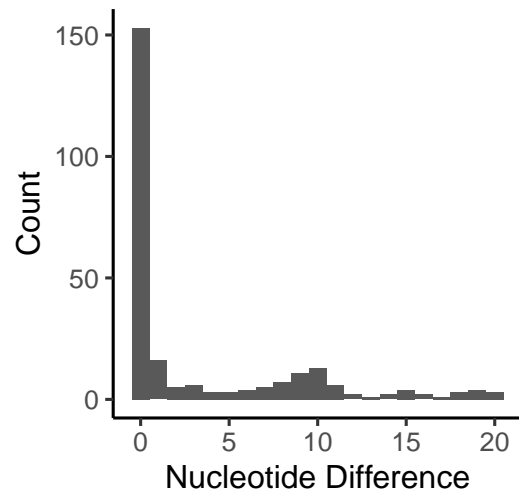
IGHV4-28*04

3 sequences assigned
No exact matches.



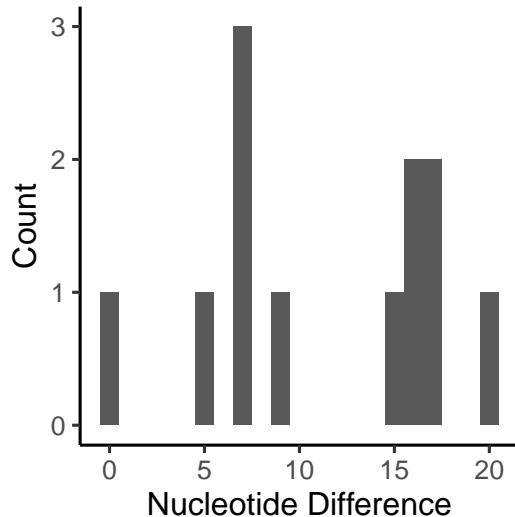
IGHV4-30-2*01

278 sequences assigned
153 (55%) exact matches, in which:
152 unique CDR3
5 unique J



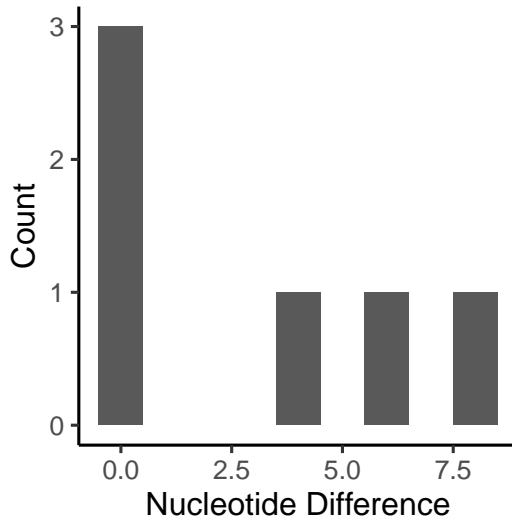
IGHV4-28*01

12 sequences assigned
1 (8.3%) exact matches, in which:
1 unique CDR3
1 unique J



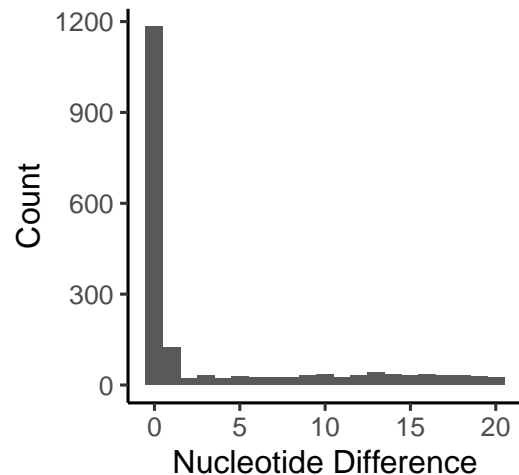
IGHV4-28*07

6 sequences assigned
3 (50%) exact matches, in which:
3 unique CDR3
2 unique J



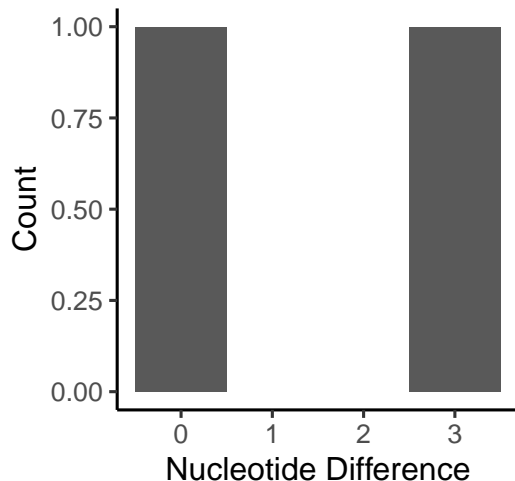
IGHV4-31*03

2231 sequences assigned
1183 (53%) exact matches, in which:
1174 unique CDR3
7 unique J



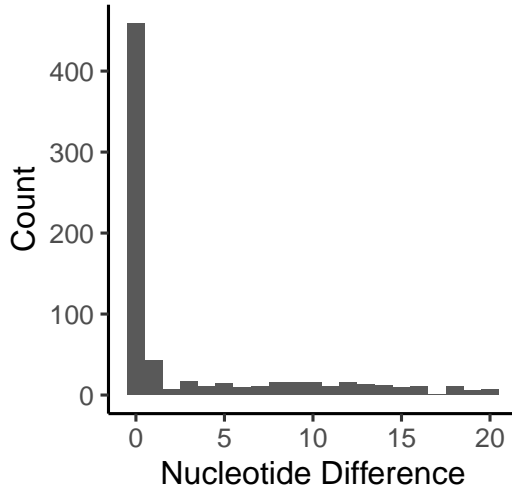
IGHV4-28*03

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



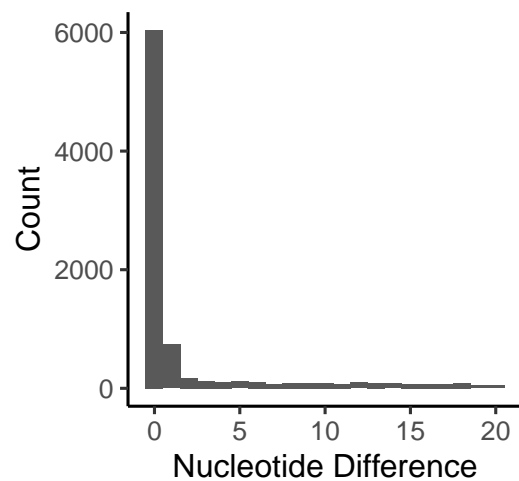
IGHV4-30-4*01

882 sequences assigned
459 (52%) exact matches, in which:
453 unique CDR3
6 unique J



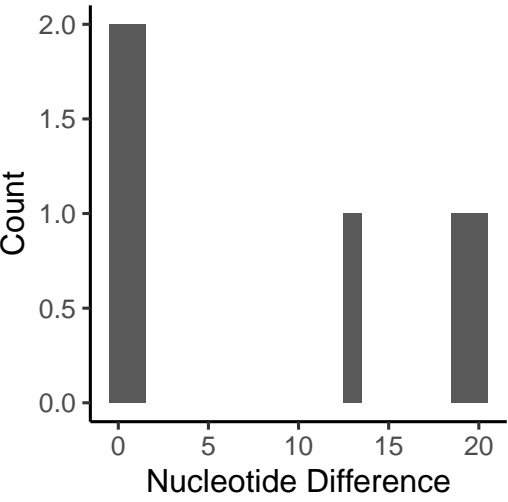
IGHV4-34*01

9135 sequences assigned
6041 (66.1%) exact matches, in which:
5907 unique CDR3
7 unique J



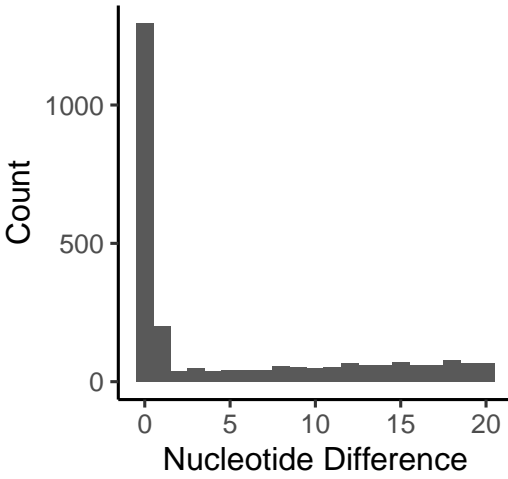
IGHV4-38-2*02

11 sequences assigned
2 (18.2%) exact matches, in which:
2 unique CDR3
2 unique J



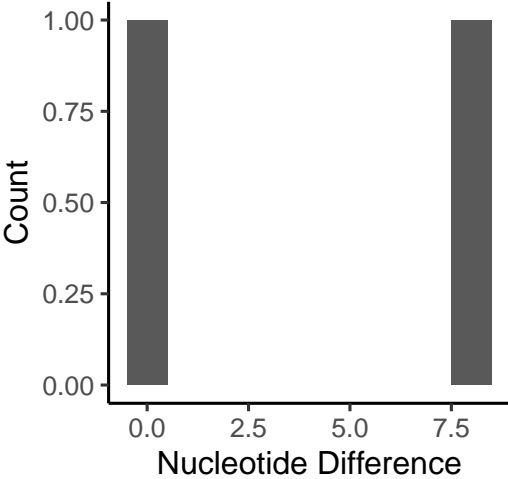
IGHV4-59*01

3185 sequences assigned
1295 (40.7%) exact matches, in which:
1287 unique CDR3
7 unique J



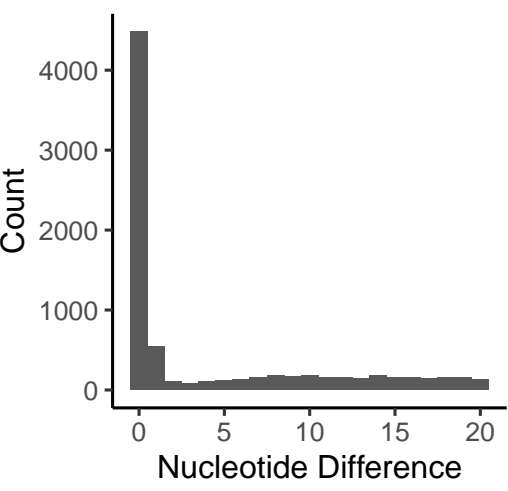
IGHV1/OR15-1*04

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



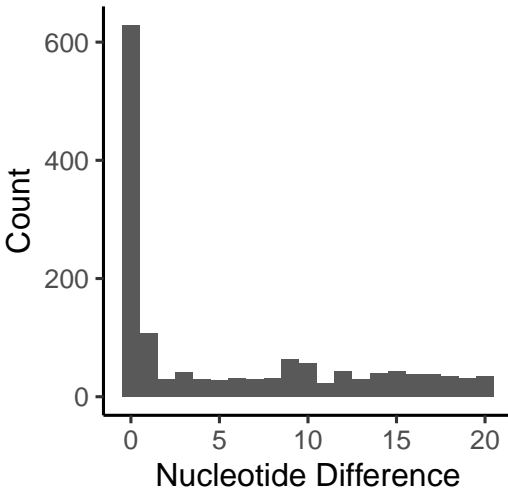
IGHV4-39*01

9492 sequences assigned
4481 (47.2%) exact matches, in which:
4441 unique CDR3
7 unique J



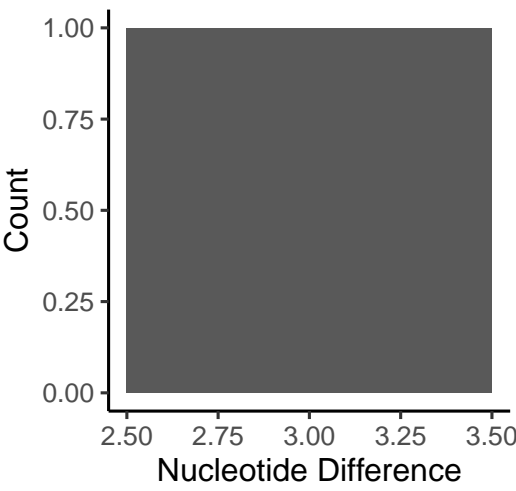
IGHV4-59*08

1850 sequences assigned
629 (34%) exact matches, in which:
626 unique CDR3
7 unique J



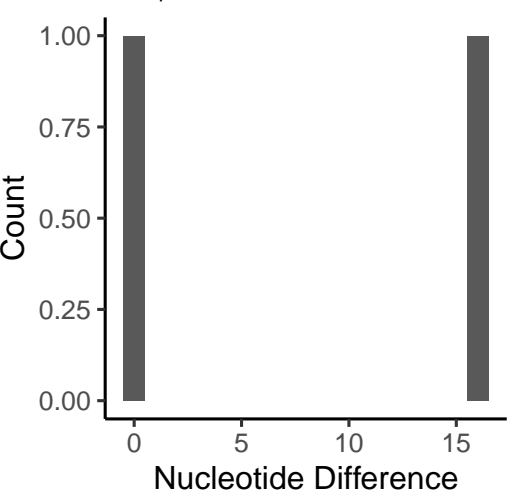
IGHV1/OR15-3*03

1 sequences assigned
No exact matches.



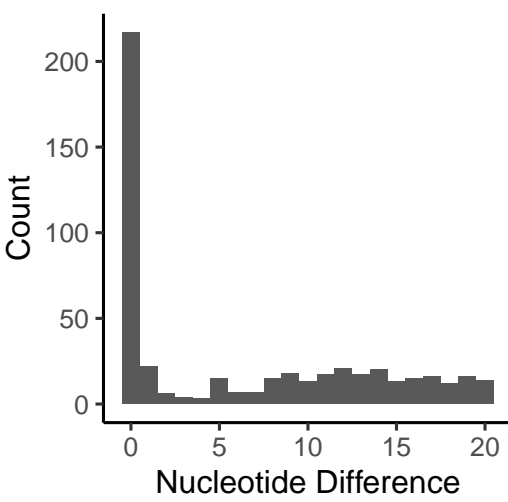
IGHV4-55*02

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



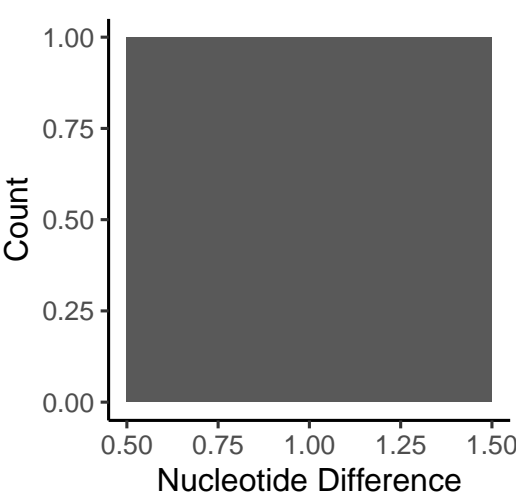
IGHV4-61*01

585 sequences assigned
217 (37.1%) exact matches, in which:
217 unique CDR3
6 unique J



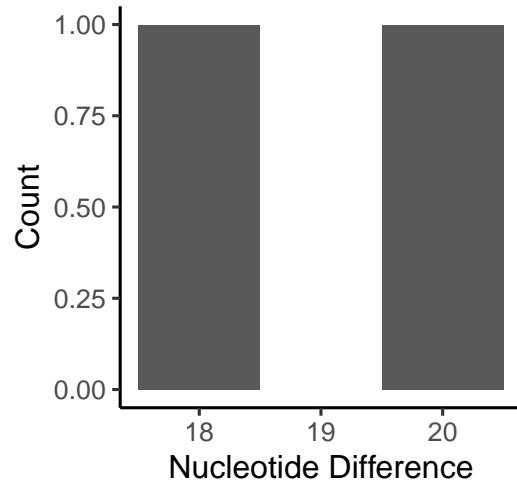
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



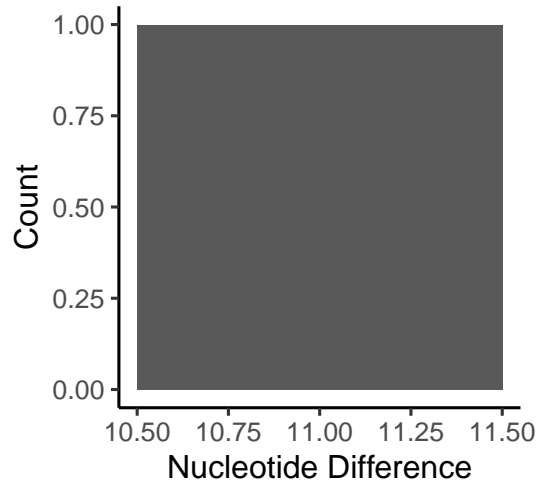
IGHV4/OR15–8*02

14 sequences assigned
No exact matches.



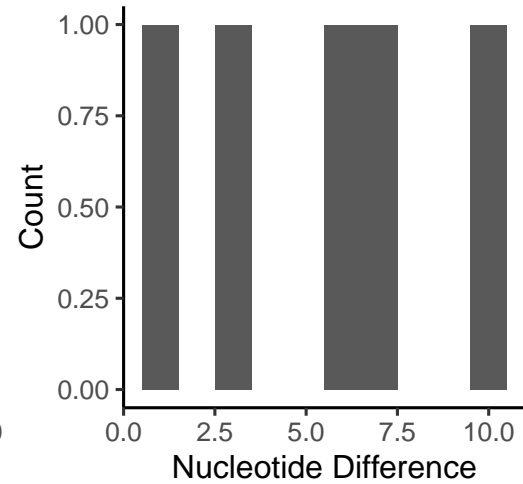
IGHV5–78*01

1 sequences assigned
No exact matches.



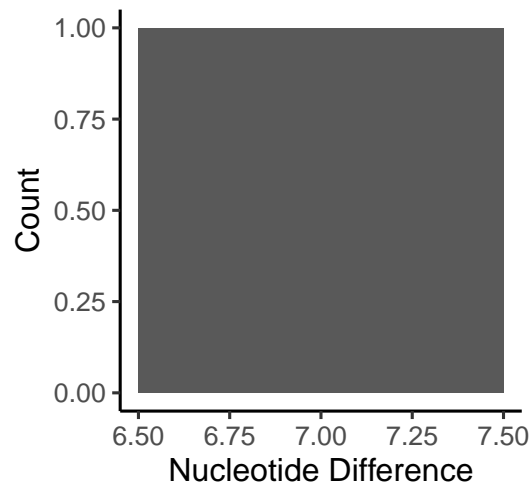
IGHV3/OR16–9*01

5 sequences assigned
No exact matches.



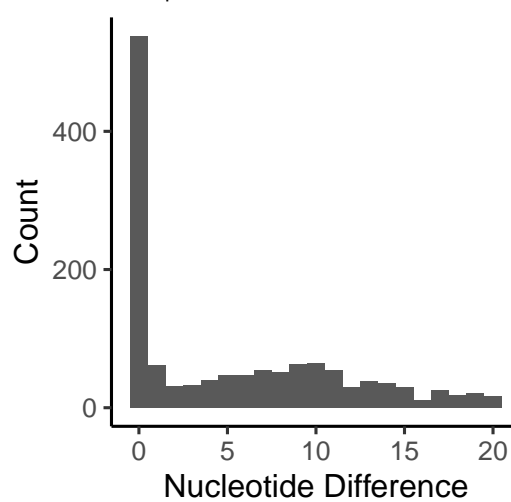
IGHV1/OR15–9*01

1 sequences assigned
No exact matches.



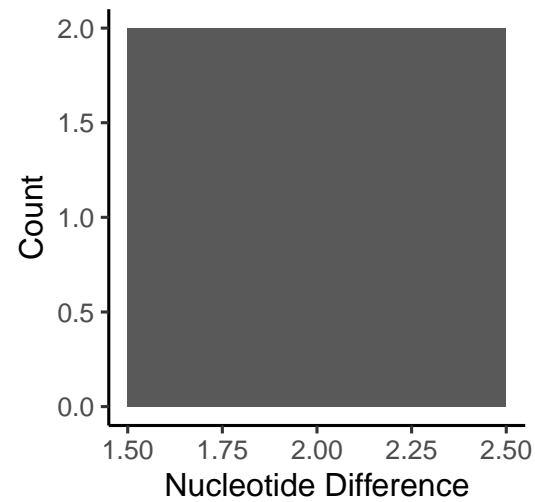
IGHV6–1*01

1431 sequences assigned
538 (37.6%) exact matches, in which:
532 unique CDR3
7 unique J



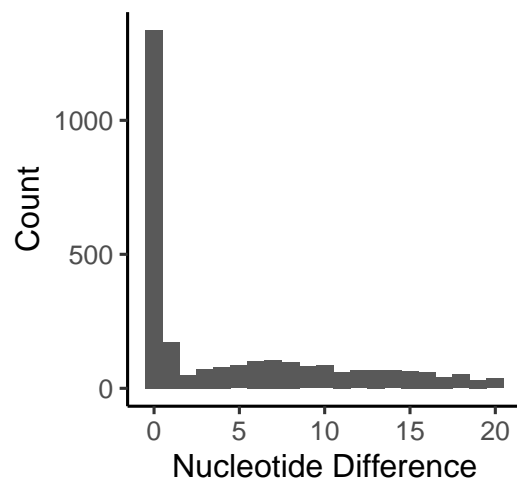
IGHV3/OR16–12*01

2 sequences assigned
No exact matches.



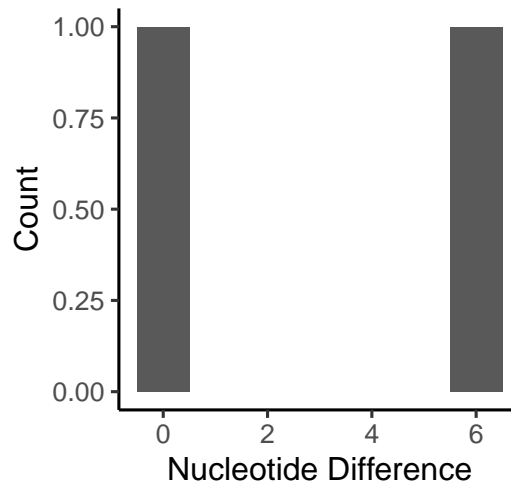
IGHV5–51*01

3200 sequences assigned
1337 (41.8%) exact matches, in which:
1320 unique CDR3
7 unique J



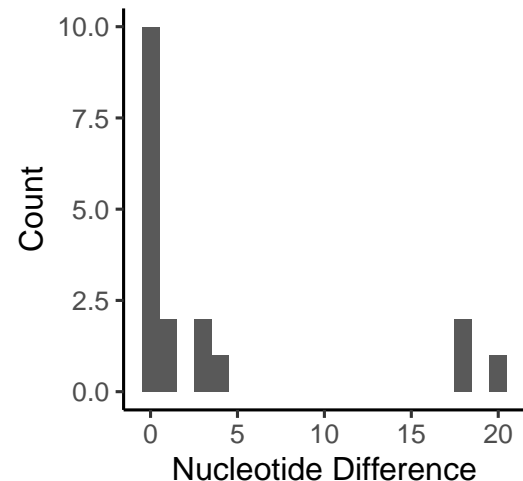
IGHV3/OR16–8*01

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

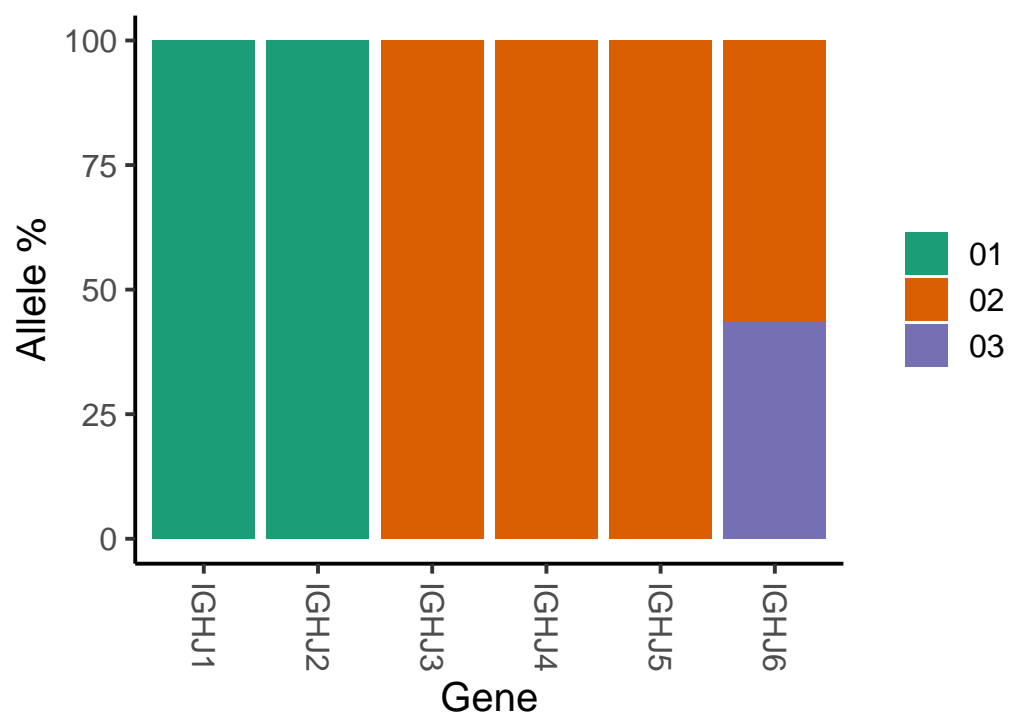


IGHV7–4–1*01

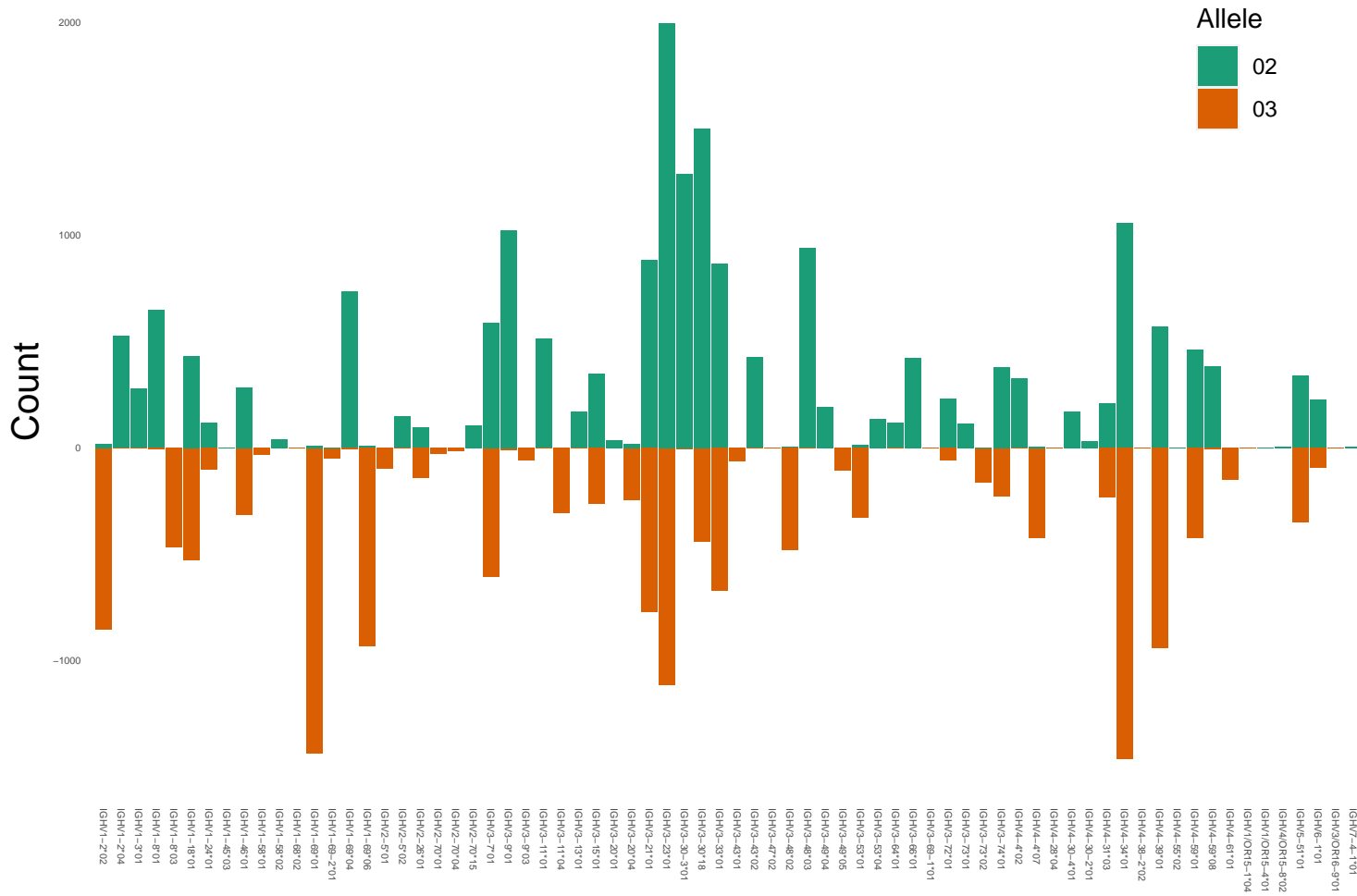
18 sequences assigned
10 (55.6%) exact matches, in which:
10 unique CDR3
5 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.