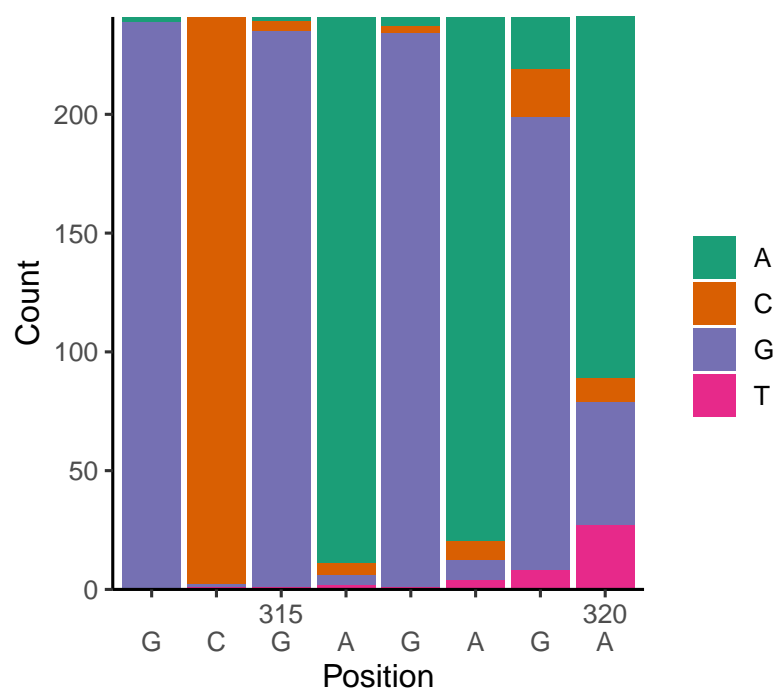
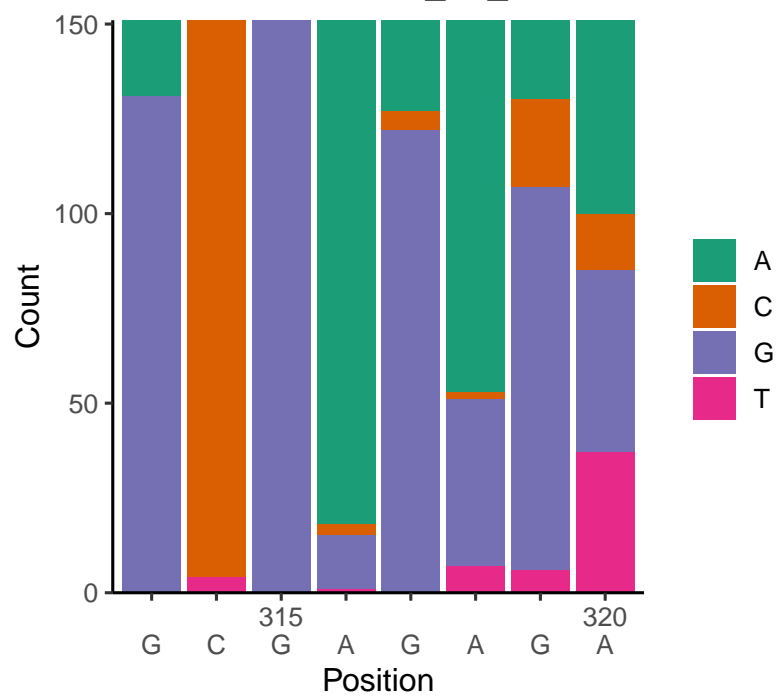


Gene IGHV4/OR15-8*01_C193A



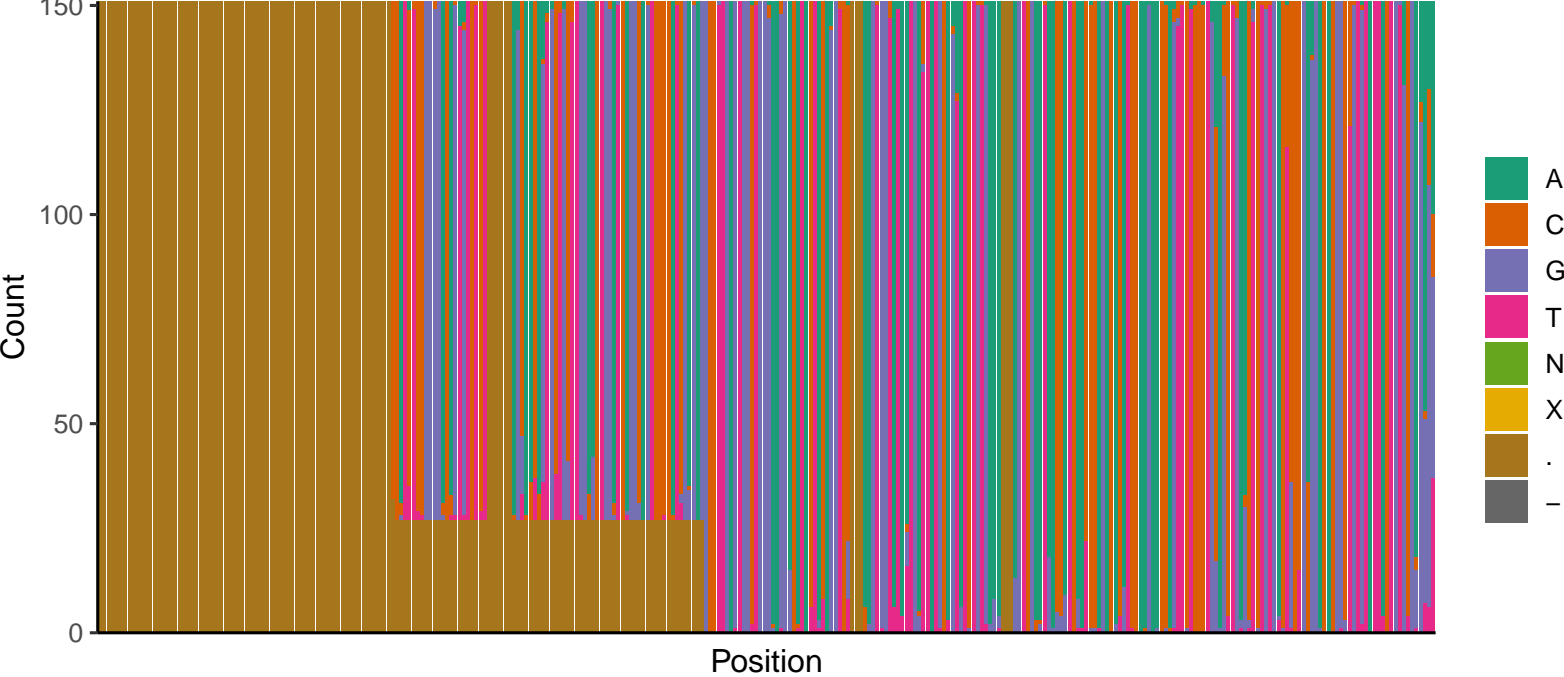
Gene IGHV6-1*01_02_A315G



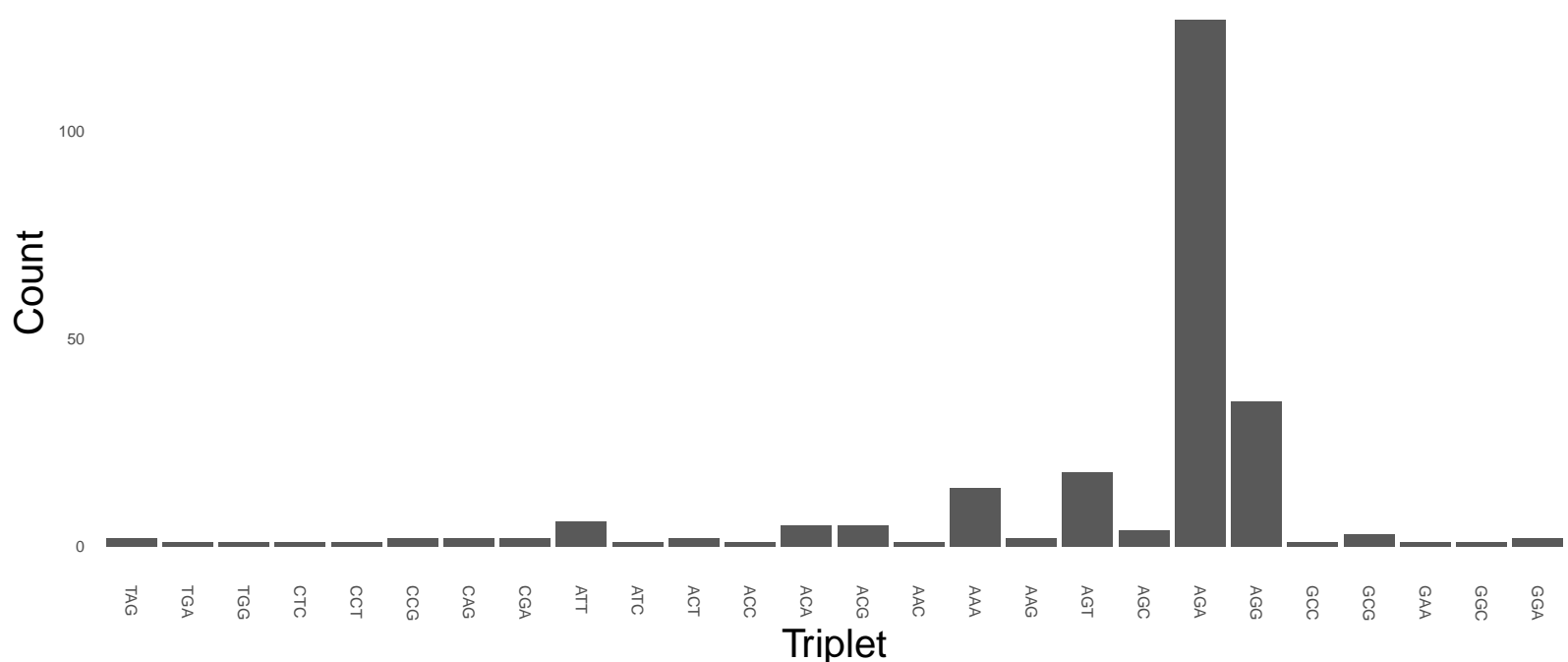
Gene IGHV4/OR15-8*01_C193A



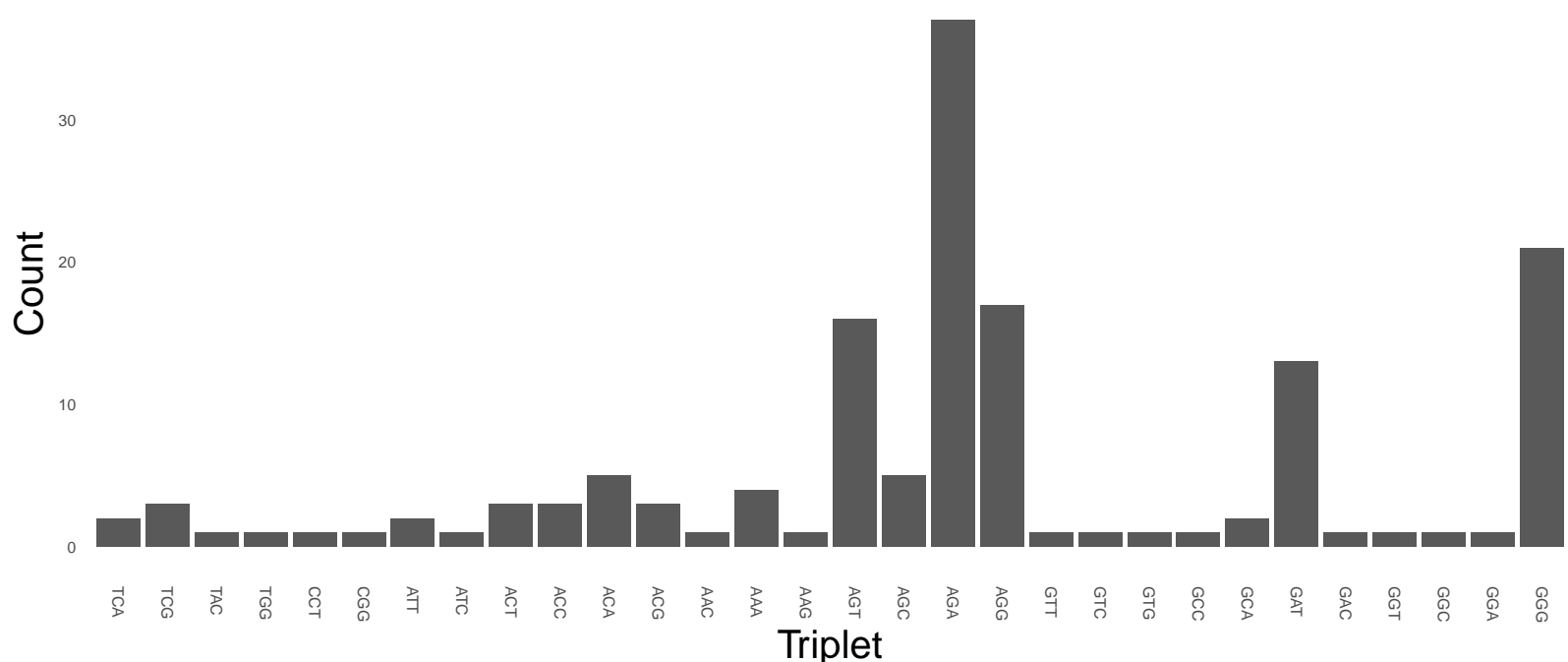
Gene IGHV6-1*01_02_A315G



IGHV4/OR15–8*01_C193A– Final 3 nucleotides as a triplet

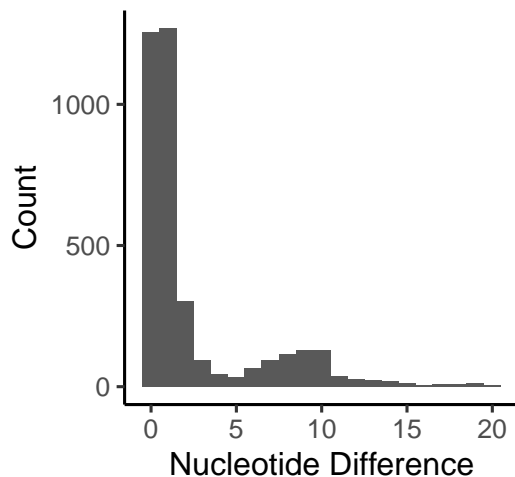


IGHV6–1*01_02_A315G– Final 3 nucleotides as a triplet



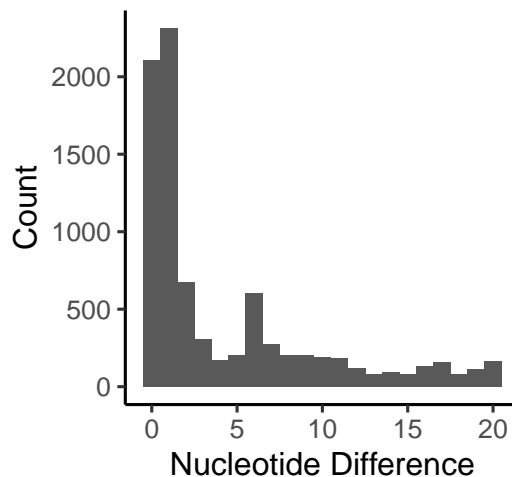
IGHV1-2*04

3971 sequences assigned
1255 (31.6%) exact matches, in which:
1048 unique CDR3
6 unique J



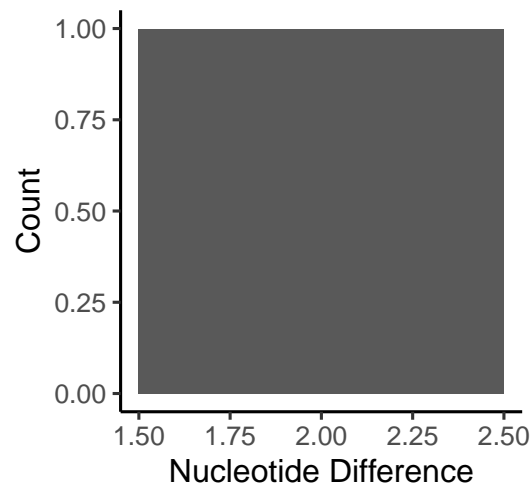
IGHV1-18*01

20724 sequences assigned
2110 (10.2%) exact matches, in which:
1752 unique CDR3
6 unique J



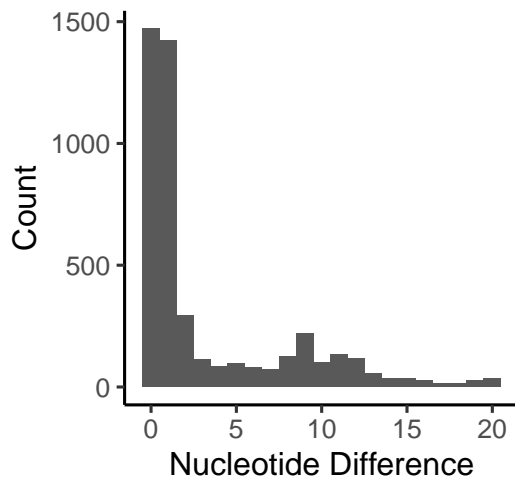
IGHV1-38-4*01

1 sequences assigned
No exact matches.



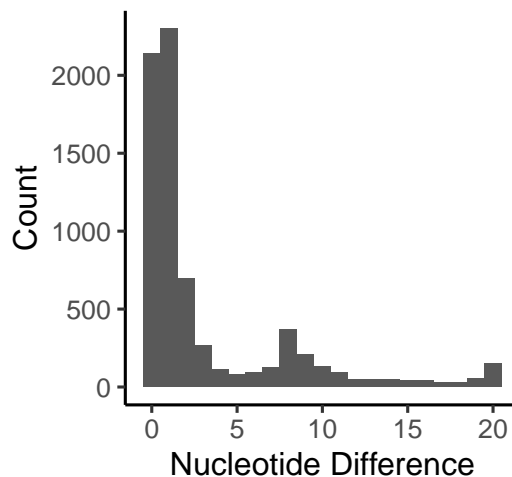
IGHV1-3*01_05

4796 sequences assigned
1471 (30.7%) exact matches, in which:
1214 unique CDR3
6 unique J



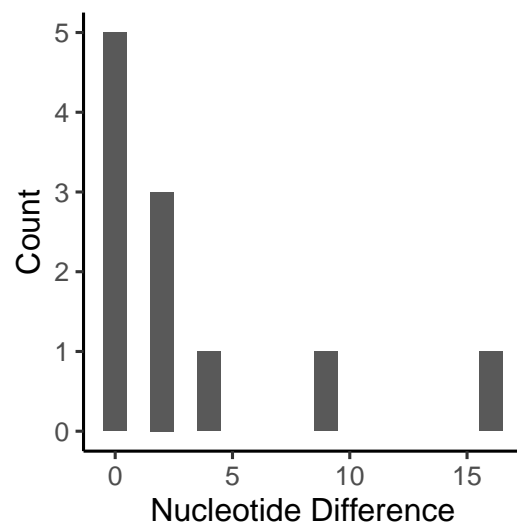
IGHV1-18*04

7906 sequences assigned
2139 (27.1%) exact matches, in which:
1793 unique CDR3
6 unique J



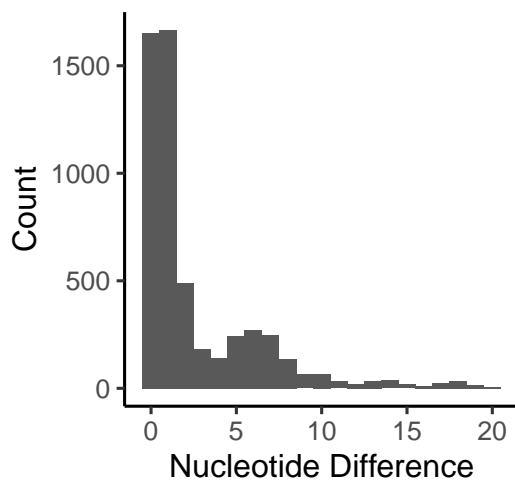
IGHV1-45*02

17 sequences assigned
5 (29.4%) exact matches, in which:
4 unique CDR3
1 unique J



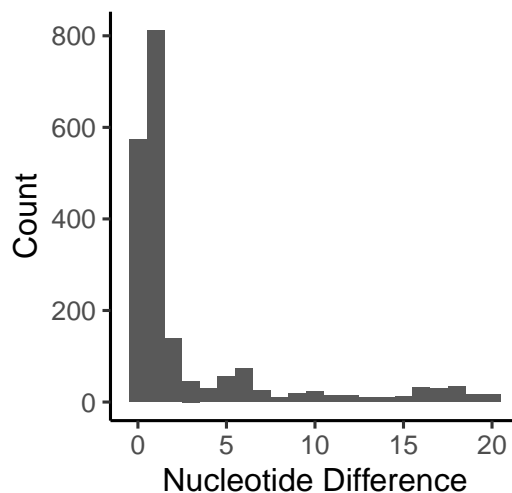
IGHV1-8*01

5502 sequences assigned
1651 (30%) exact matches, in which:
1390 unique CDR3
6 unique J



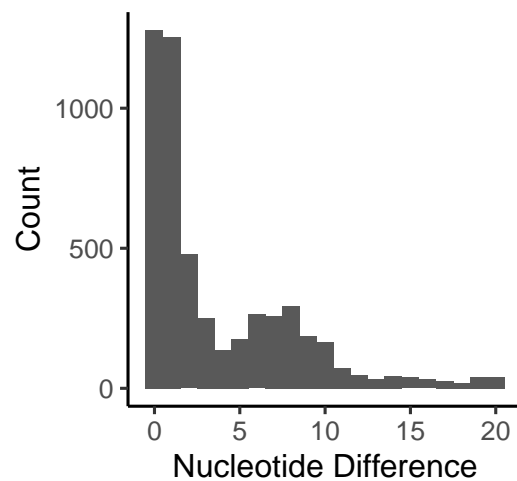
IGHV1-24*01

2760 sequences assigned
574 (20.8%) exact matches, in which:
437 unique CDR3
6 unique J



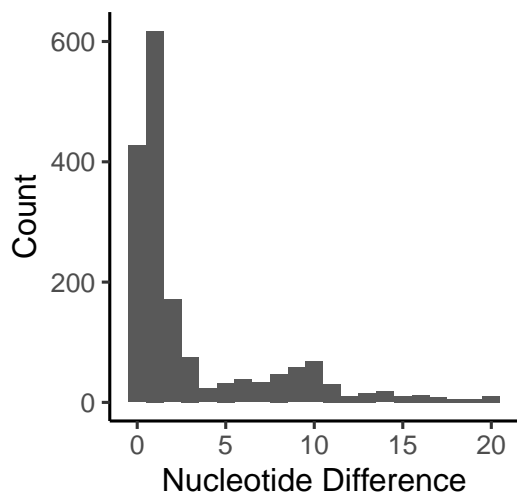
IGHV1-46*01

5813 sequences assigned
1279 (22%) exact matches, in which:
1114 unique CDR3
6 unique J



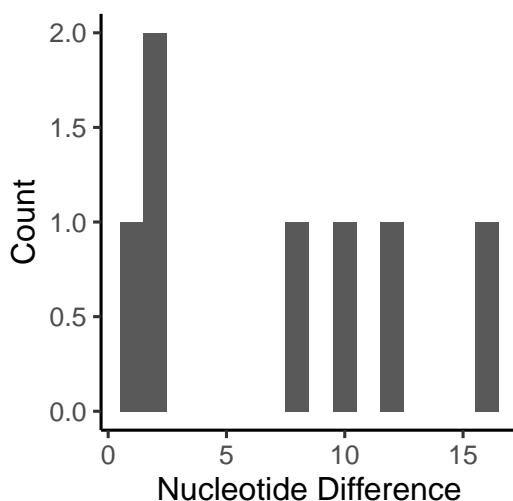
IGHV1-46*03

1742 sequences assigned
427 (24.5%) exact matches, in which:
325 unique CDR3
6 unique J



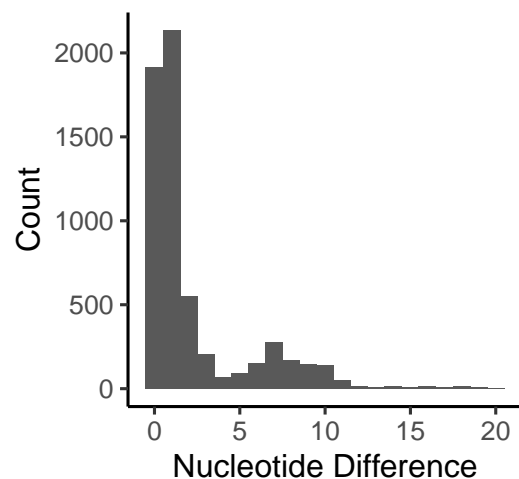
IGHV1-68*01

7 sequences assigned
No exact matches.



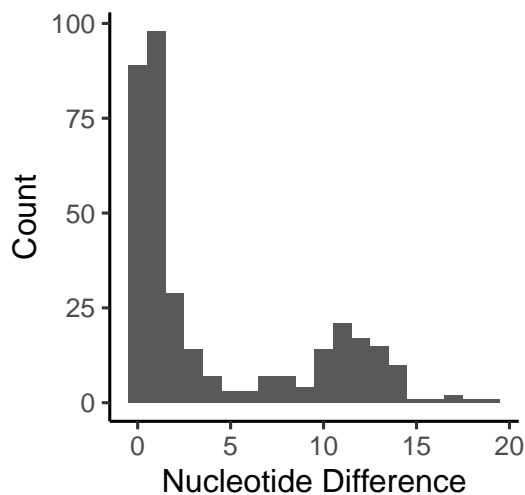
IGHV1-69*04_09

6244 sequences assigned
1918 (30.7%) exact matches, in which:
1652 unique CDR3
6 unique J



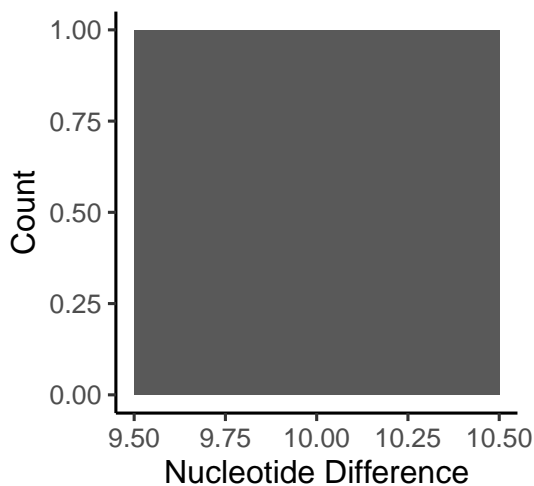
IGHV1-58*02

348 sequences assigned
89 (25.6%) exact matches, in which:
75 unique CDR3
6 unique J



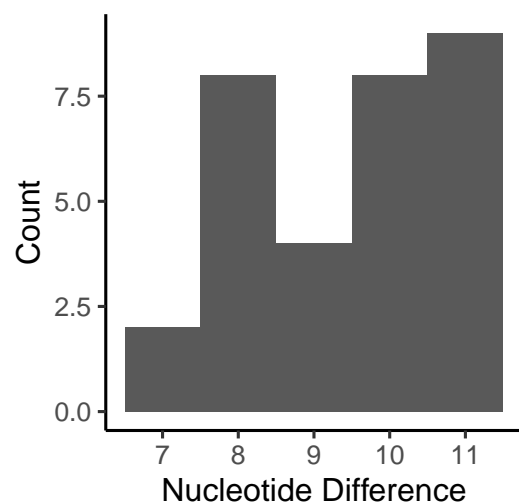
IGHV1-69-2*01

1 sequences assigned
No exact matches.



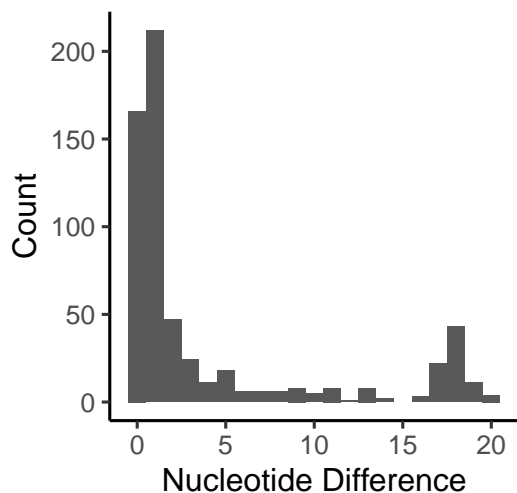
IGHV1-NL1*01

31 sequences assigned
No exact matches.



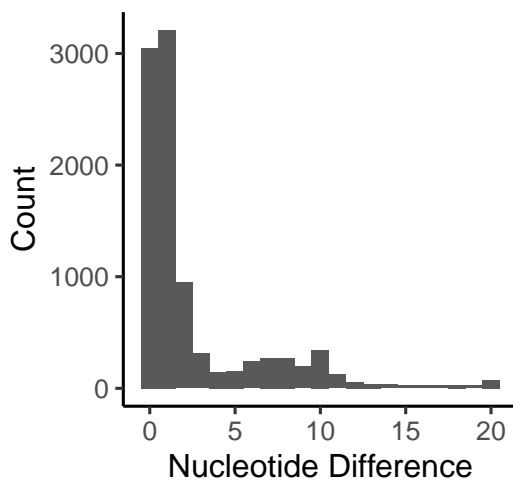
IGHV1-58*01_03

632 sequences assigned
166 (26.3%) exact matches, in which:
143 unique CDR3
6 unique J



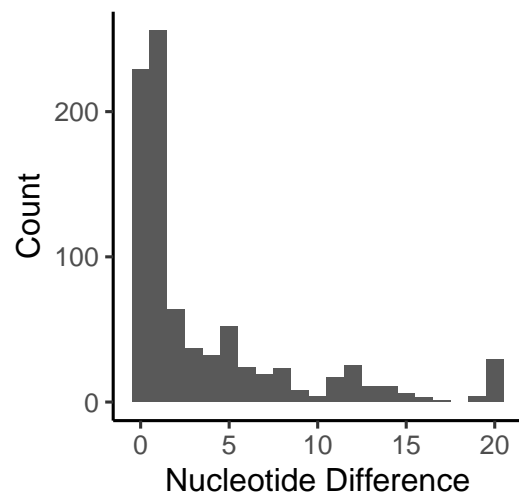
IGHV1-69*01_12_13

11643 sequences assigned
3047 (26.2%) exact matches, in which:
2610 unique CDR3
6 unique J



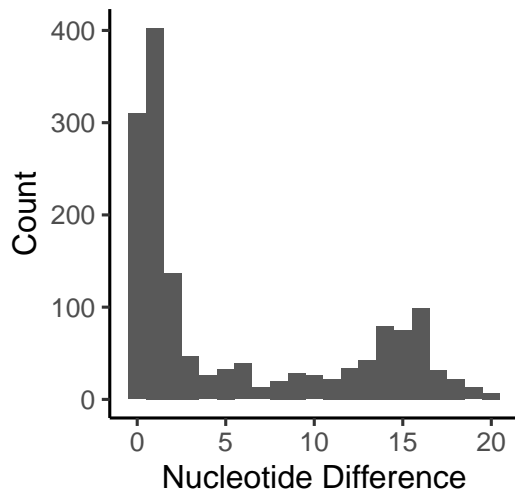
IGHV2-5*01

1019 sequences assigned
229 (22.5%) exact matches, in which:
199 unique CDR3
6 unique J



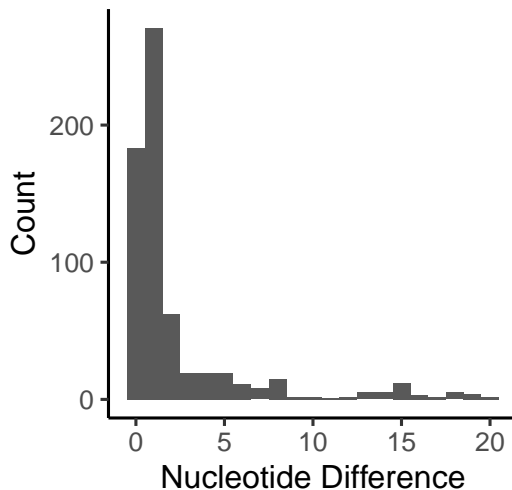
IGHV2-5*02

2161 sequences assigned
310 (14.3%) exact matches, in which:
249 unique CDR3
6 unique J



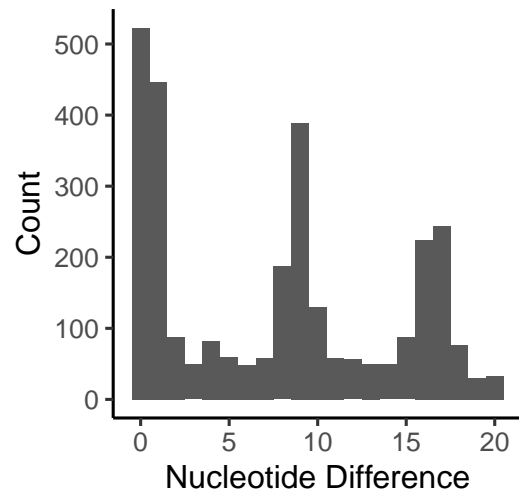
IGHV2-70*11_15

662 sequences assigned
183 (27.6%) exact matches, in which:
148 unique CDR3
5 unique J



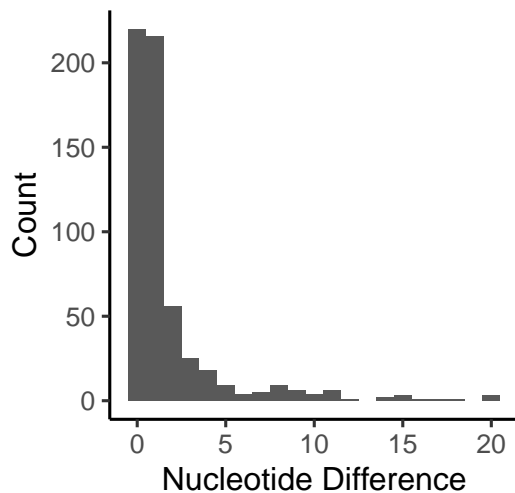
IGHV3-7*05

3259 sequences assigned
523 (16%) exact matches, in which:
344 unique CDR3
6 unique J



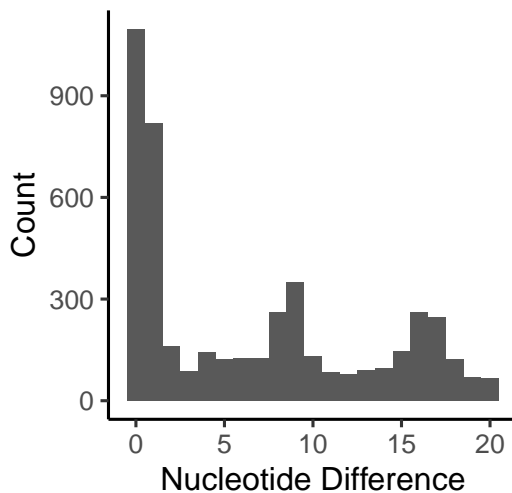
IGHV2-26*01

767 sequences assigned
220 (28.7%) exact matches, in which:
182 unique CDR3
5 unique J



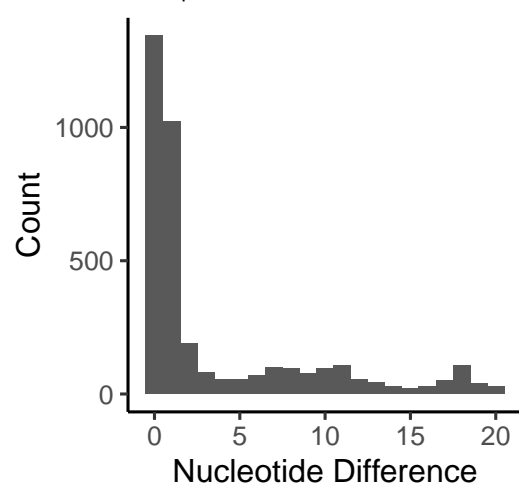
IGHV3-7*01

5651 sequences assigned
1097 (19.4%) exact matches, in which:
758 unique CDR3
6 unique J



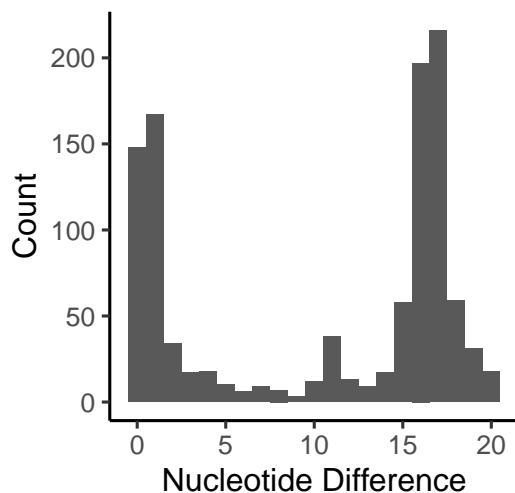
IGHV3-9*01

4099 sequences assigned
1344 (32.8%) exact matches, in which:
803 unique CDR3
6 unique J



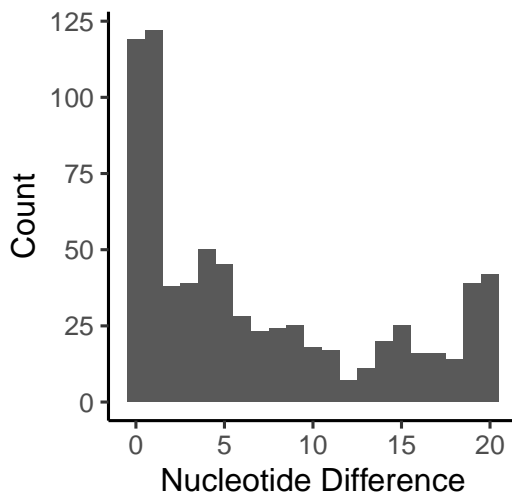
IGHV2-70*01

1140 sequences assigned
148 (13%) exact matches, in which:
122 unique CDR3
5 unique J



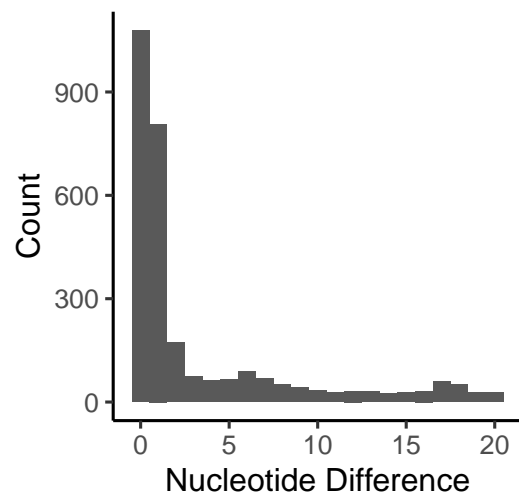
IGHV3-7*03

1154 sequences assigned
119 (10.3%) exact matches, in which:
101 unique CDR3
5 unique J



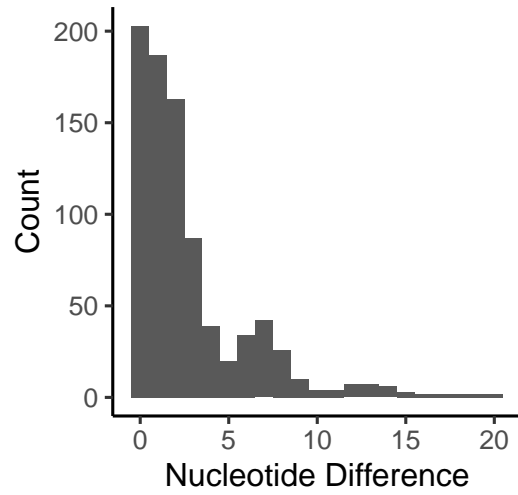
IGHV3-11*01

3684 sequences assigned
1079 (29.3%) exact matches, in which:
714 unique CDR3
6 unique J



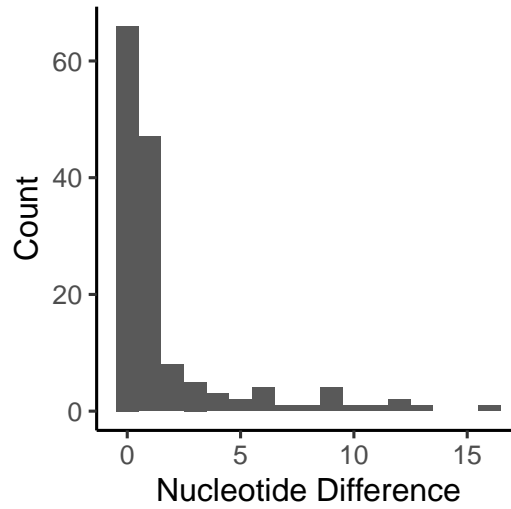
IGHV3-11*04

899 sequences assigned
203 (22.6%) exact matches, in which:
196 unique CDR3
6 unique J



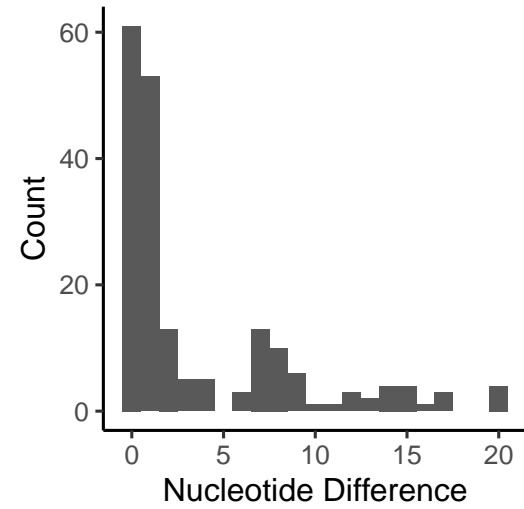
IGHV3-13*05

148 sequences assigned
66 (44.6%) exact matches, in which:
42 unique CDR3
4 unique J



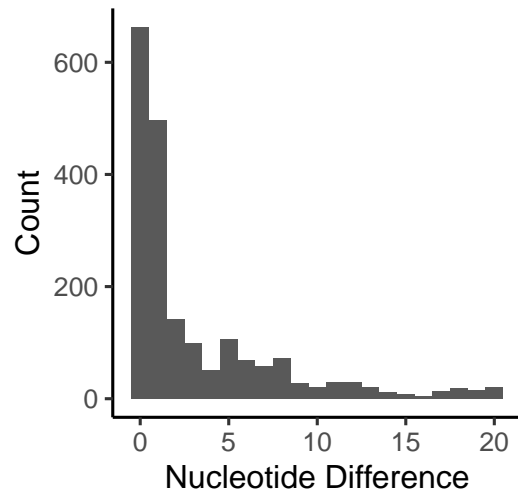
IGHV3-20*01_02

239 sequences assigned
61 (25.5%) exact matches, in which:
37 unique CDR3
6 unique J



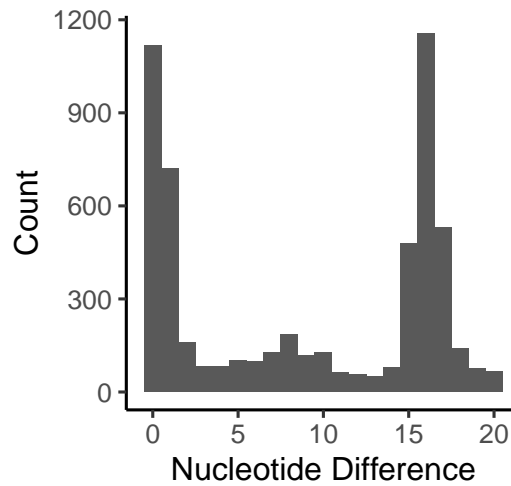
IGHV3-11*06

2073 sequences assigned
663 (32%) exact matches, in which:
442 unique CDR3
6 unique J



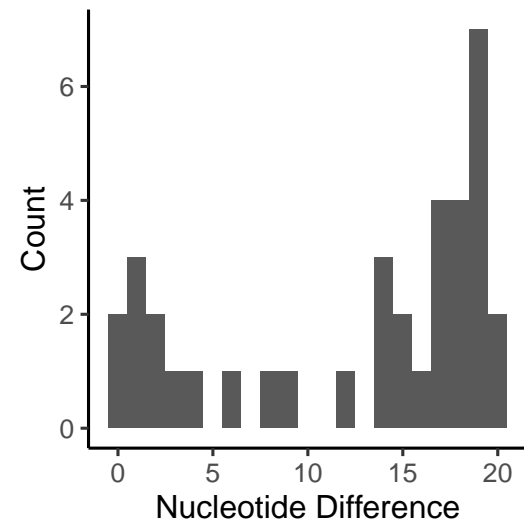
IGHV3-15*01_02

6525 sequences assigned
1118 (17.1%) exact matches, in which:
693 unique CDR3
6 unique J



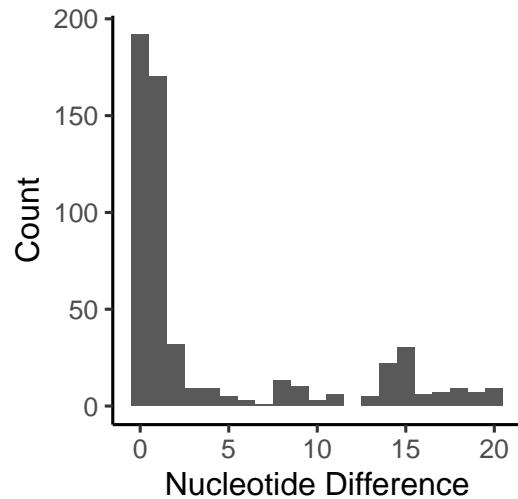
IGHV3-20*03_04

246 sequences assigned
2 (0.8%) exact matches, in which:
2 unique CDR3
2 unique J



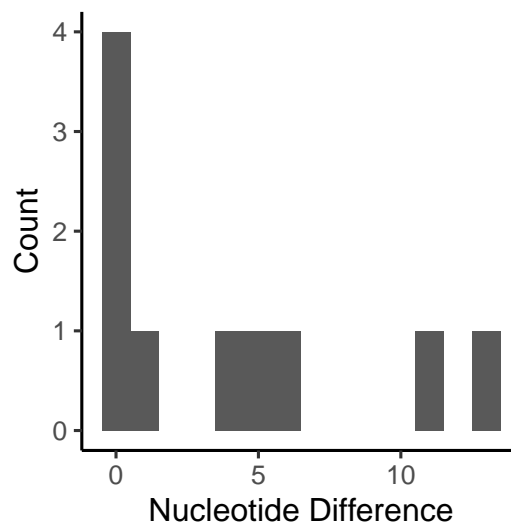
IGHV3-13*01

643 sequences assigned
192 (29.9%) exact matches, in which:
107 unique CDR3
5 unique J



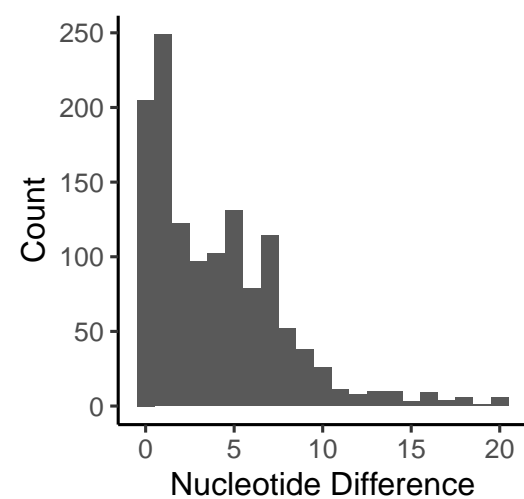
IGHV3-19*01

10 sequences assigned
4 (40%) exact matches, in which:
4 unique CDR3
2 unique J



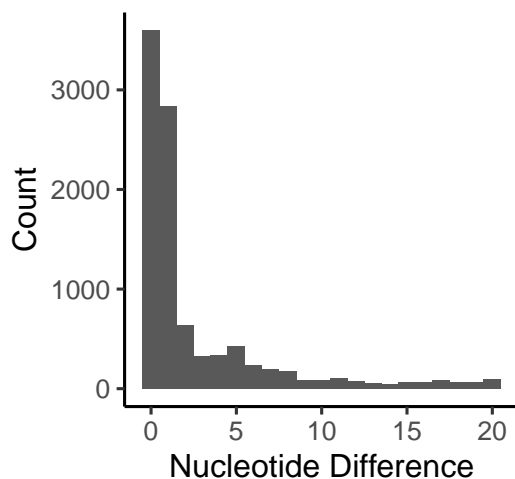
IGHV3-21*04

1408 sequences assigned
205 (14.6%) exact matches, in which:
184 unique CDR3
5 unique J



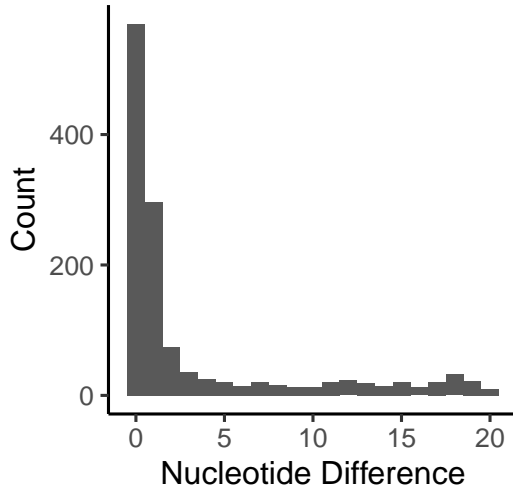
IGHV3-21*01_02

12524 sequences assigned
3597 (28.7%) exact matches, in which:
2237 unique CDR3
6 unique J



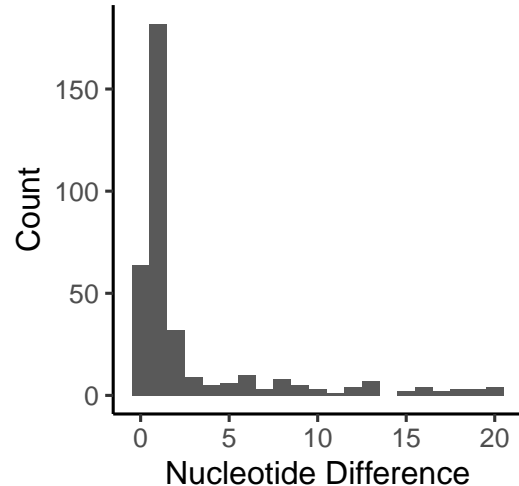
IGHV3-30*03

1521 sequences assigned
570 (37.5%) exact matches, in which:
506 unique CDR3
6 unique J



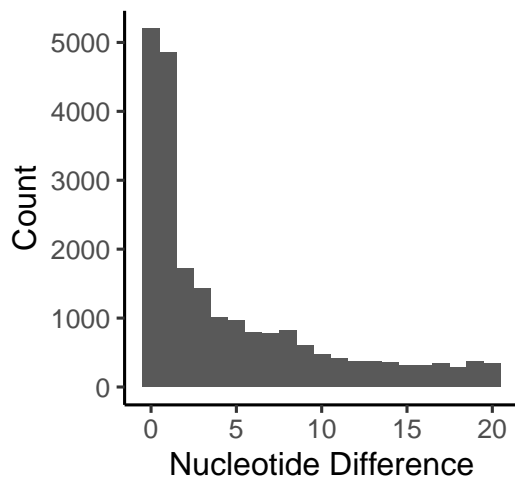
IGHV3-33*06

381 sequences assigned
64 (16.8%) exact matches, in which:
62 unique CDR3
6 unique J



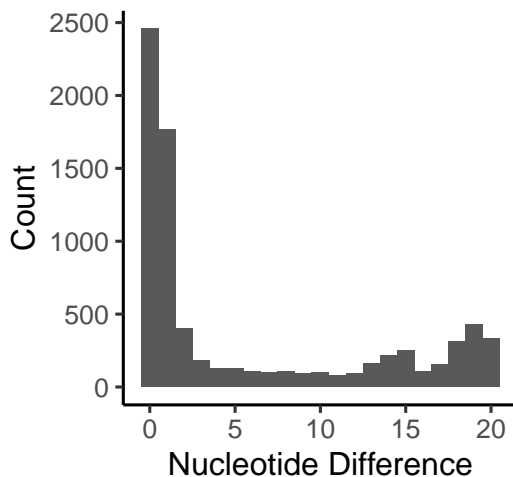
IGHV3-23*01_04

32807 sequences assigned
5199 (15.8%) exact matches, in which:
2972 unique CDR3
6 unique J



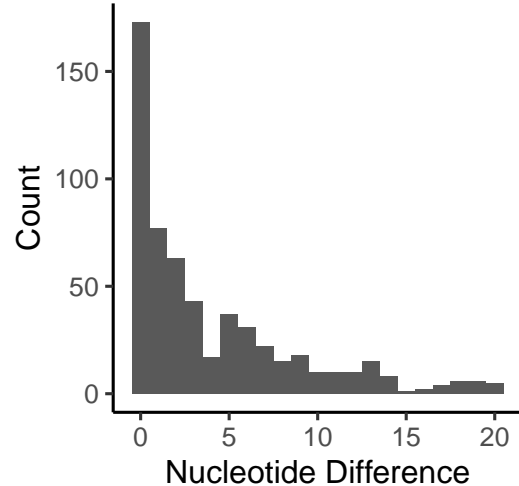
IGHV3-30*18

13047 sequences assigned
2458 (18.8%) exact matches, in which:
1450 unique CDR3
6 unique J



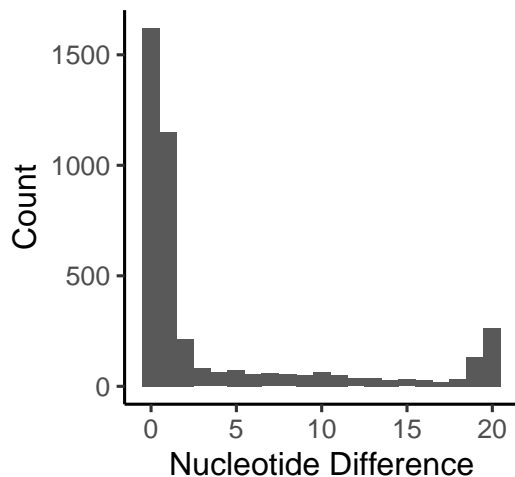
IGHV3-33*08

665 sequences assigned
173 (26%) exact matches, in which:
146 unique CDR3
6 unique J



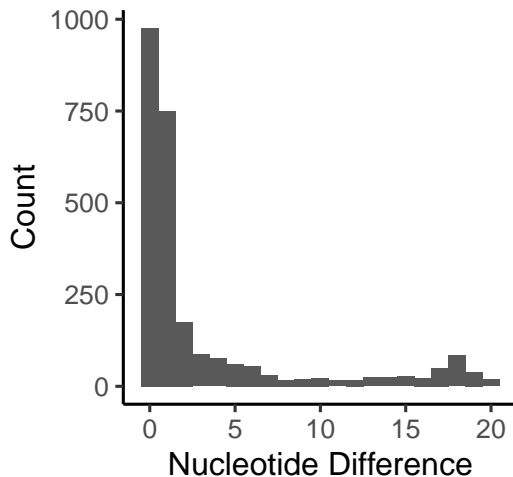
IGHV3-30-3*01

4941 sequences assigned
1621 (32.8%) exact matches, in which:
1019 unique CDR3
6 unique J



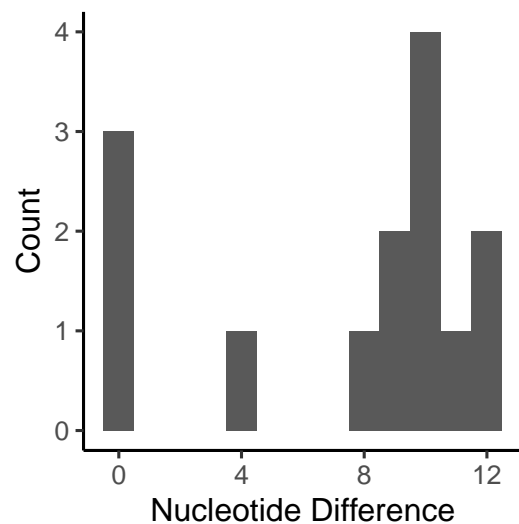
IGHV3-33*01

3533 sequences assigned
976 (27.6%) exact matches, in which:
643 unique CDR3
6 unique J



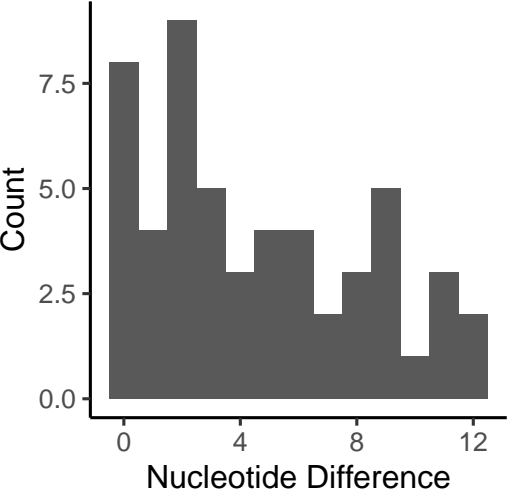
IGHV3-35*01

14 sequences assigned
3 (21.4%) exact matches, in which:
3 unique CDR3
3 unique J



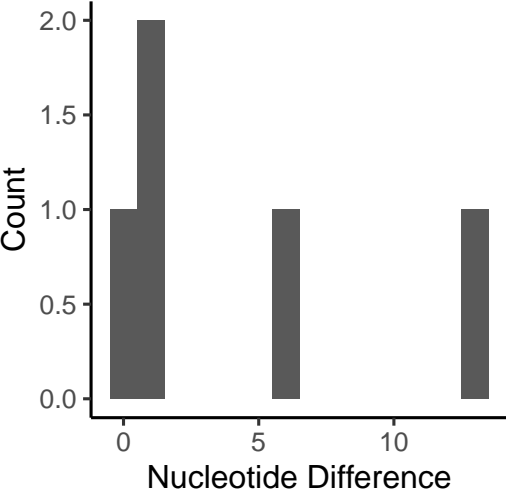
IGHV3-38-3*01

53 sequences assigned
8 (15.1%) exact matches, in which:
8 unique CDR3
3 unique J



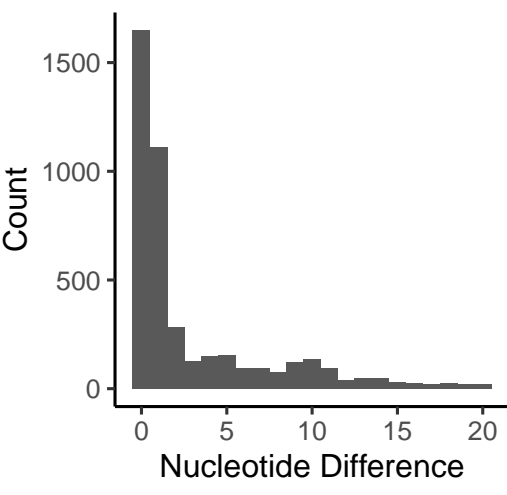
IGHV3-47*01

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



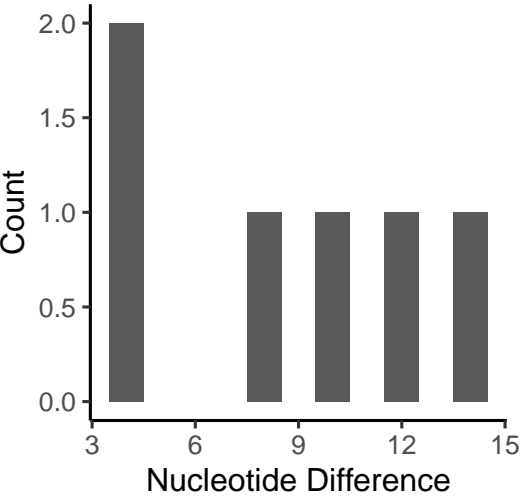
IGHV3-48*04

5340 sequences assigned
1648 (30.9%) exact matches, in which:
1106 unique CDR3
6 unique J



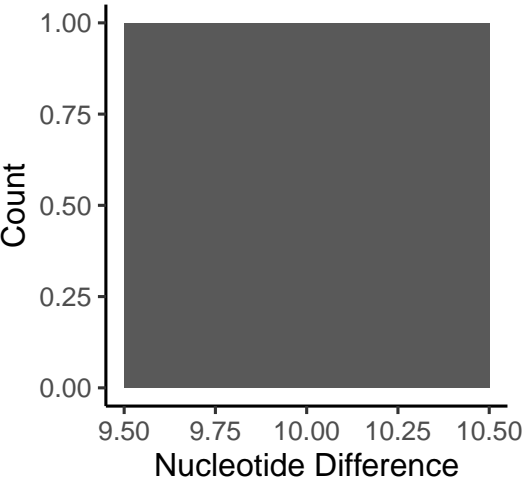
IGHV3-38*03

6 sequences assigned
No exact matches.



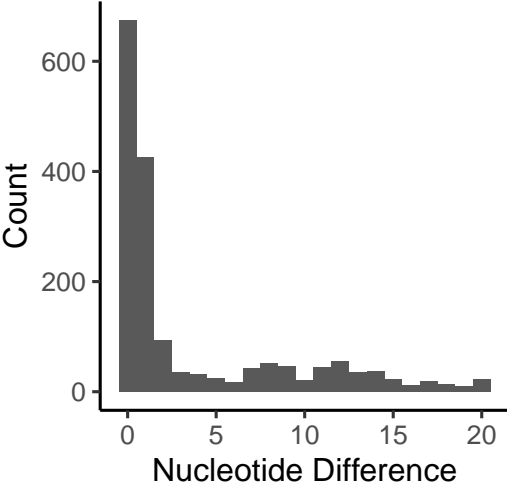
IGHV3-47*02

1 sequences assigned
No exact matches.



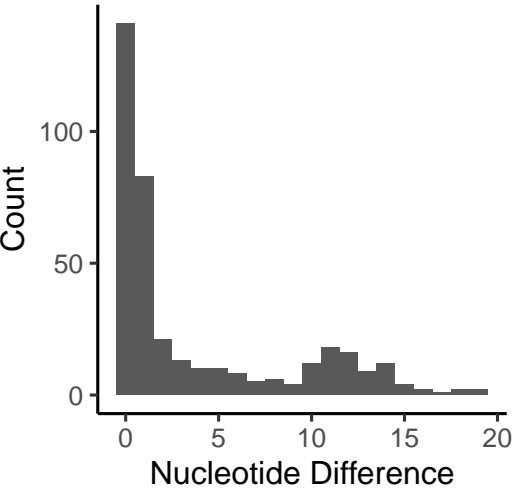
IGHV3-49*03_05

2460 sequences assigned
675 (27.4%) exact matches, in which:
395 unique CDR3
6 unique J



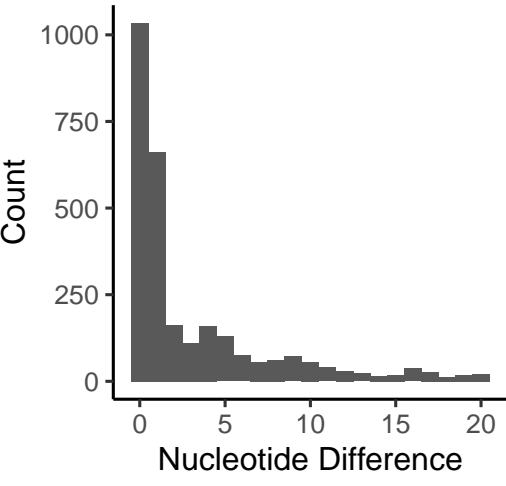
IGHV3-43*01

1383 sequences assigned
141 (10.2%) exact matches, in which:
83 unique CDR3
6 unique J



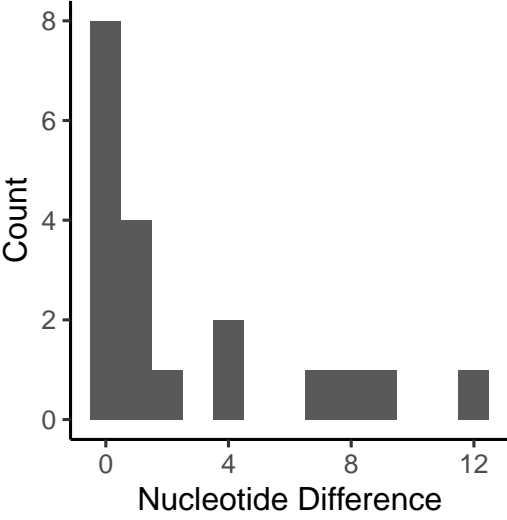
IGHV3-48*01

3946 sequences assigned
1034 (26.2%) exact matches, in which:
668 unique CDR3
6 unique J



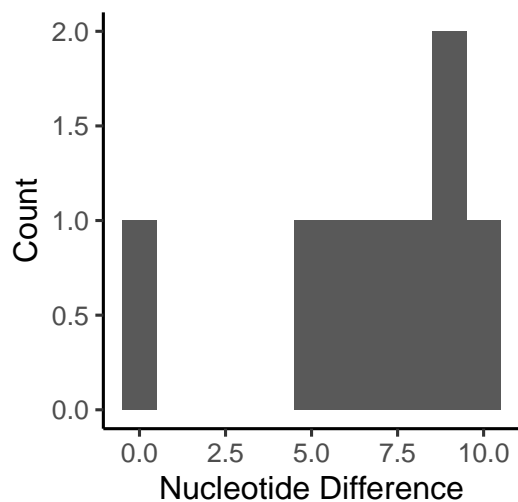
IGHV3-52*02

19 sequences assigned
8 (42.1%) exact matches, in which:
6 unique CDR3
2 unique J



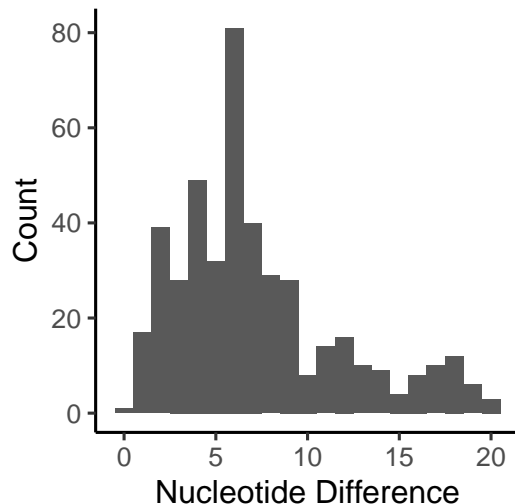
IGHV3-52*01_03

8 sequences assigned
1 (12.5%) exact matches, in which:
1 unique CDR3
1 unique J



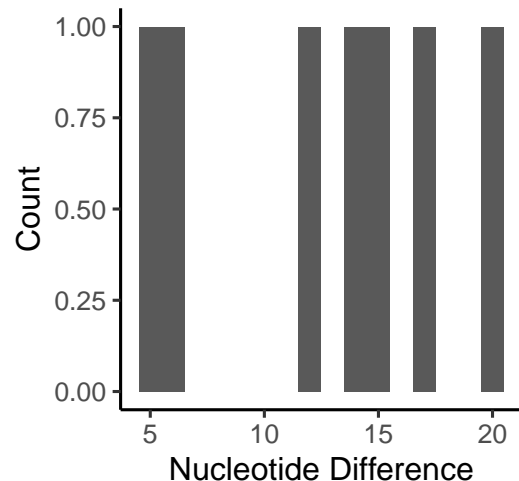
IGHV3-64*04

462 sequences assigned
1 (0.2%) exact matches, in which:
1 unique CDR3
1 unique J



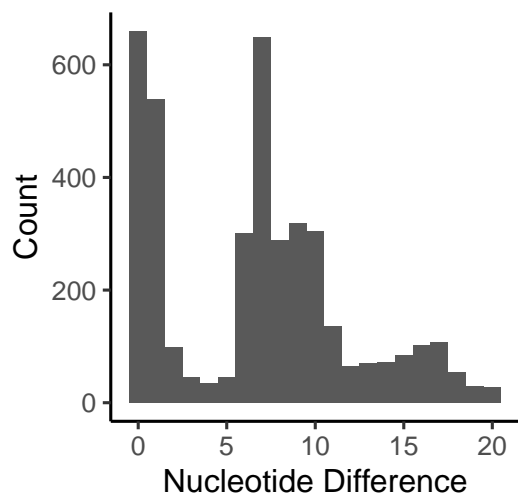
IGHV3-69-1*02

26 sequences assigned
No exact matches.



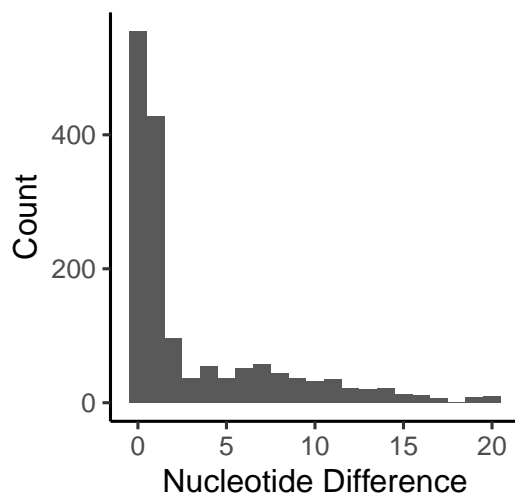
IGHV3-53*01_02

5202 sequences assigned
660 (12.7%) exact matches, in which:
412 unique CDR3
6 unique J



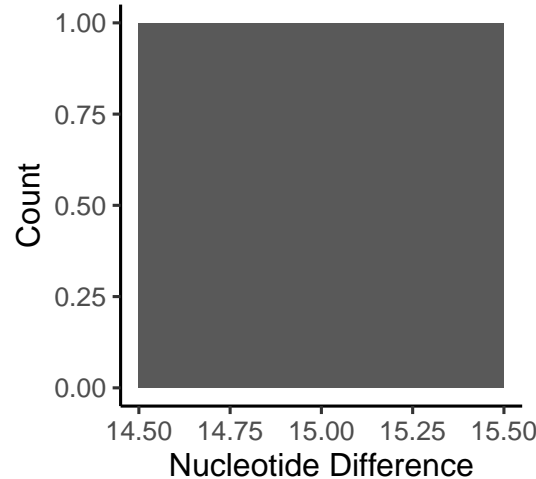
IGHV3-66*01

1674 sequences assigned
555 (33.2%) exact matches, in which:
366 unique CDR3
6 unique J



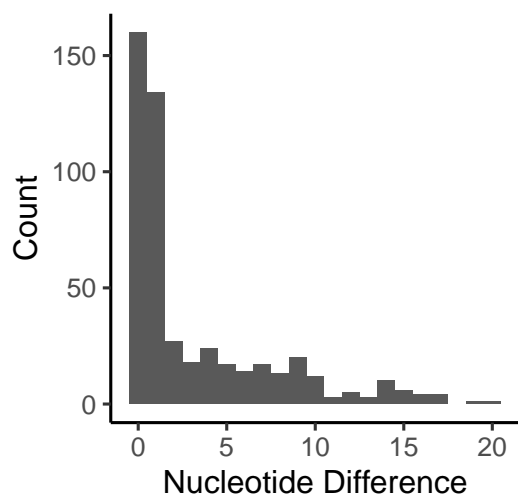
IGHV3-71*01_04

2 sequences assigned
No exact matches.



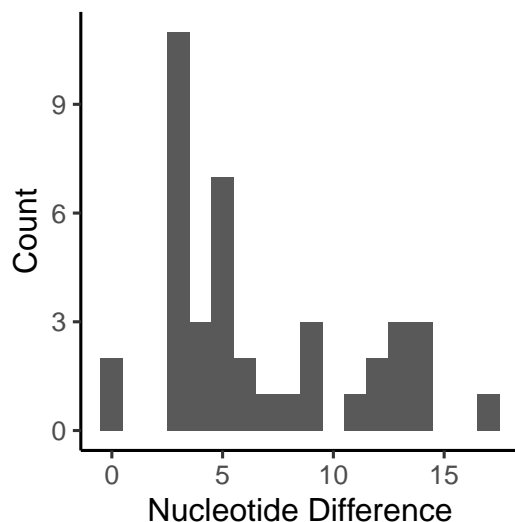
IGHV3-64*01

553 sequences assigned
160 (28.9%) exact matches, in which:
101 unique CDR3
5 unique J



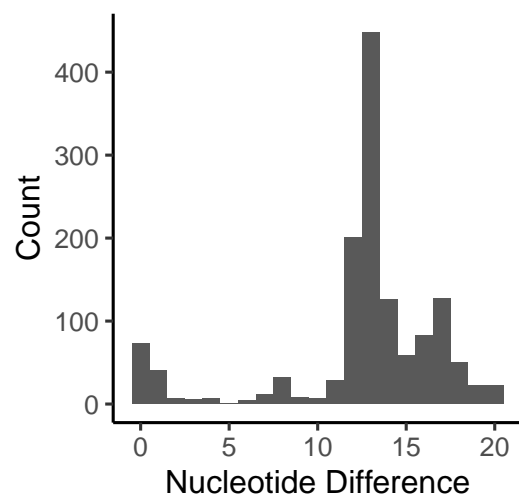
IGHV3-69-1*01

59 sequences assigned
2 (3.4%) exact matches, in which:
1 unique CDR3
1 unique J



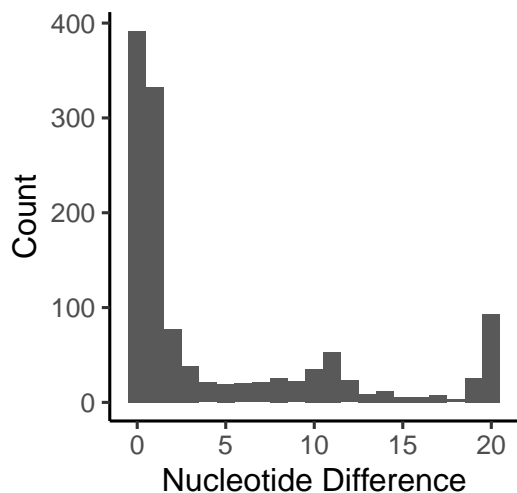
IGHV3-72*01

1715 sequences assigned
73 (4.3%) exact matches, in which:
49 unique CDR3
6 unique J



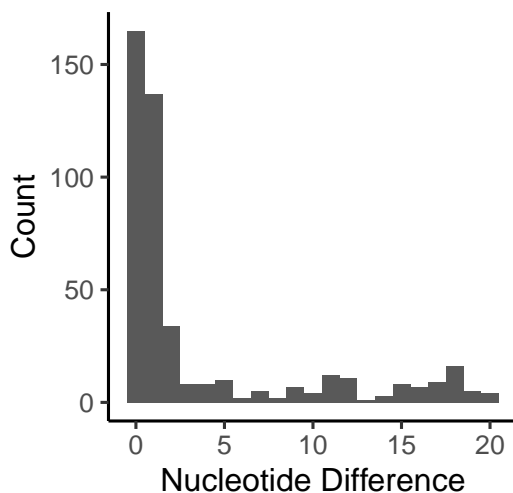
IGHV3–73*01_02

2244 sequences assigned
392 (17.5%) exact matches, in which:
242 unique CDR3
6 unique J



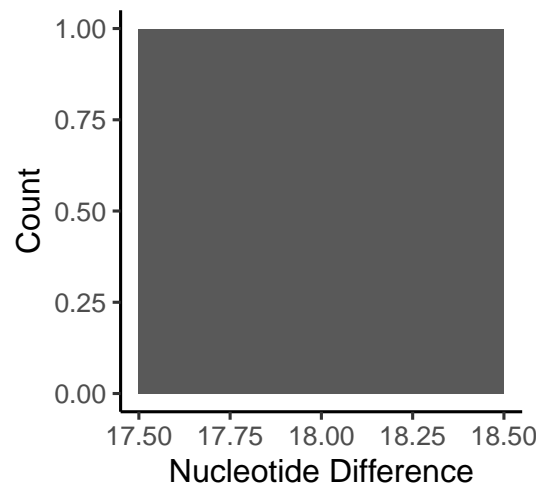
IGHV3–43D*03

1137 sequences assigned
165 (14.5%) exact matches, in which:
104 unique CDR3
5 unique J



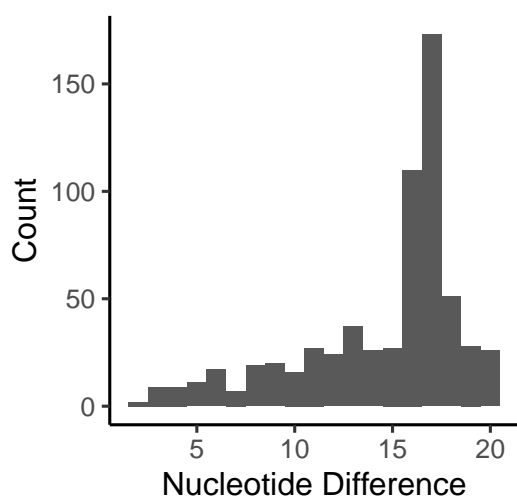
IGHV3–64D*09

1 sequences assigned
No exact matches.



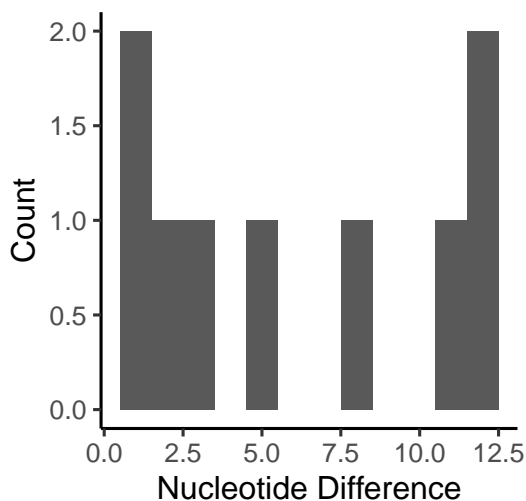
IGHV3–74*03

1081 sequences assigned
No exact matches.



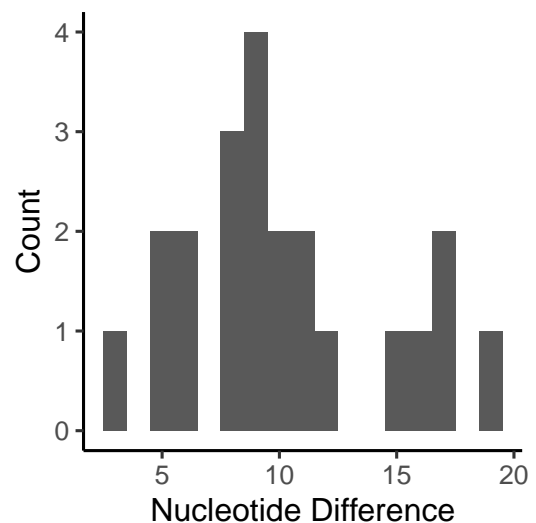
IGHV3–64D*06

11 sequences assigned
No exact matches.



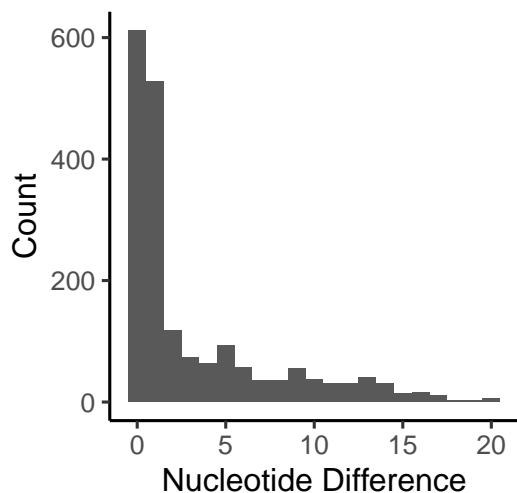
IGHV3–NL1*01

42 sequences assigned
No exact matches.



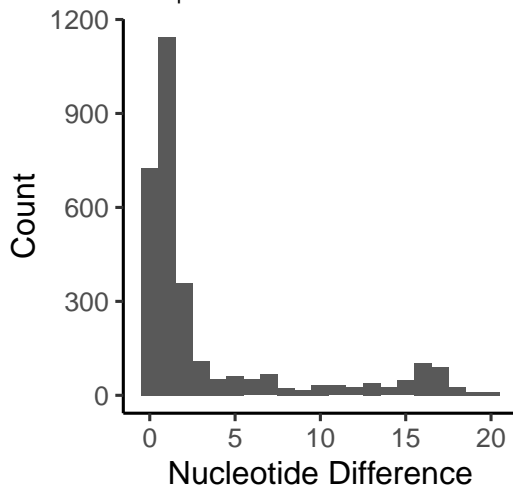
IGHV3–74*01_02

1951 sequences assigned
612 (31.4%) exact matches, in which:
350 unique CDR3
6 unique J



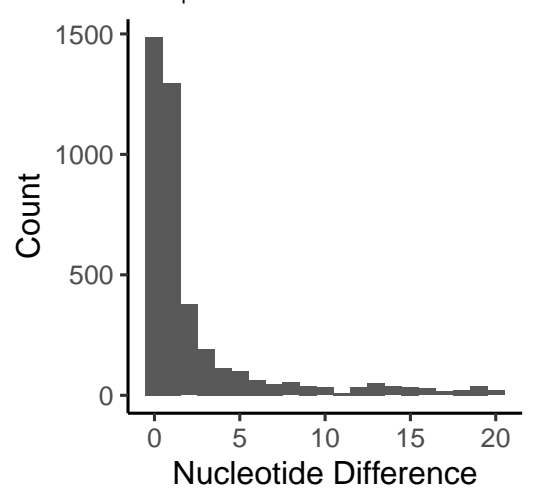
IGHV3–64D*08

3147 sequences assigned
726 (23.1%) exact matches, in which:
319 unique CDR3
6 unique J



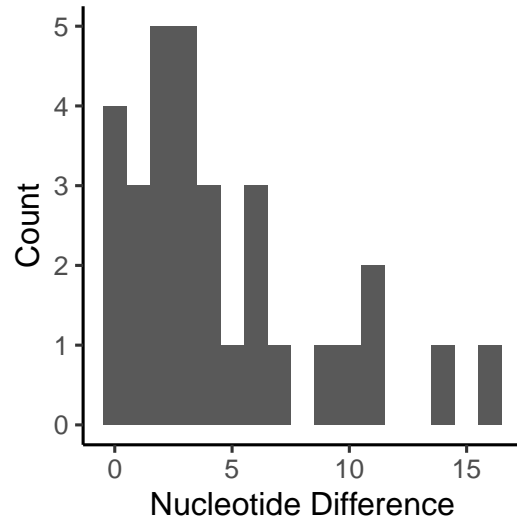
IGHV4–4*02_03

4469 sequences assigned
1487 (33.3%) exact matches, in which:
1167 unique CDR3
6 unique J



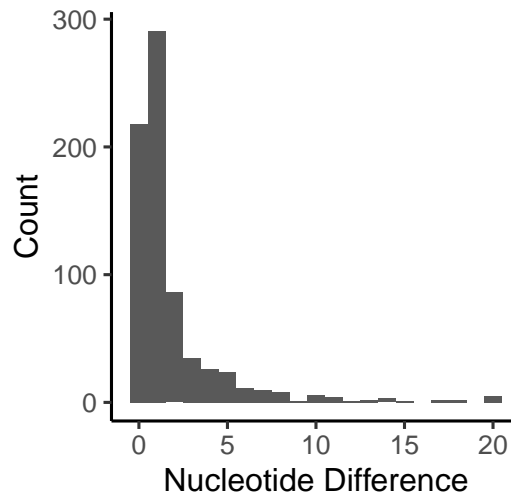
IGHV4-28*03

32 sequences assigned
4 (12.5%) exact matches, in which:
4 unique CDR3
3 unique J



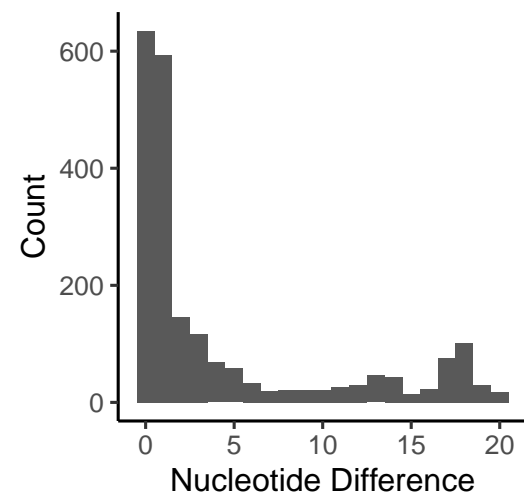
IGHV4-30-2*01

1463 sequences assigned
218 (14.9%) exact matches, in which:
145 unique CDR3
6 unique J



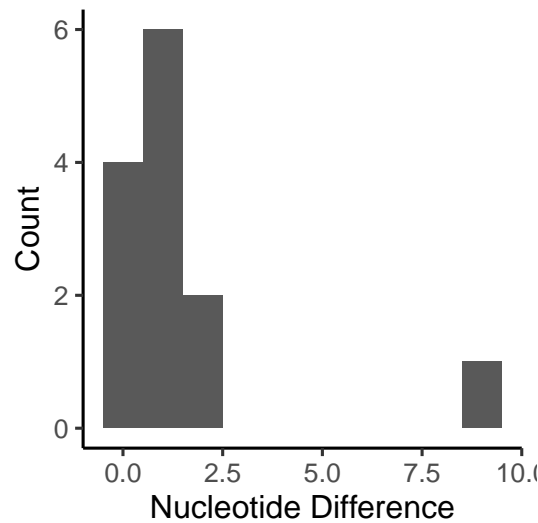
IGHV4-31*02

3125 sequences assigned
635 (20.3%) exact matches, in which:
536 unique CDR3
6 unique J



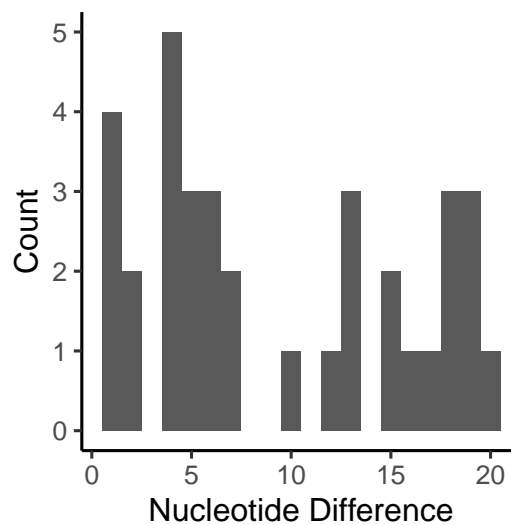
IGHV4-28*01_07

19 sequences assigned
4 (21.1%) exact matches, in which:
3 unique CDR3
2 unique J



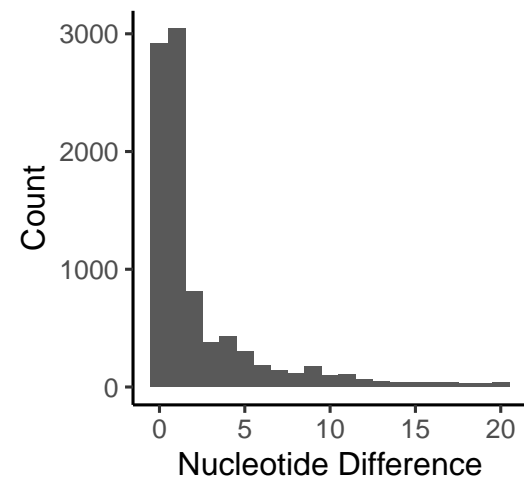
IGHV4-30-2*03

54 sequences assigned
No exact matches.



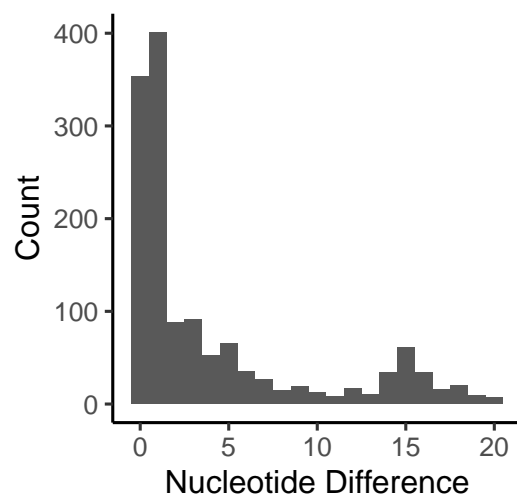
IGHV4-34*01_02

12174 sequences assigned
2920 (24%) exact matches, in which:
2170 unique CDR3
6 unique J



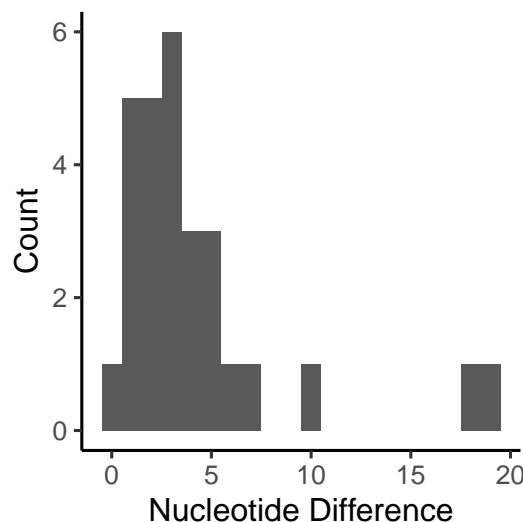
IGHV4-30-4*01

6388 sequences assigned
353 (5.5%) exact matches, in which:
293 unique CDR3
6 unique J



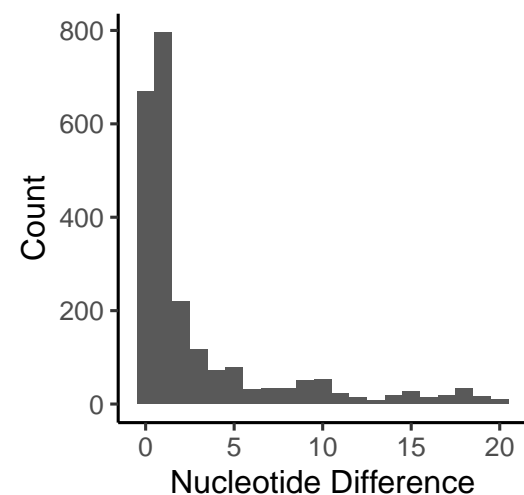
IGHV4-30-2*05

42 sequences assigned
1 (2.4%) exact matches, in which:
1 unique CDR3
1 unique J



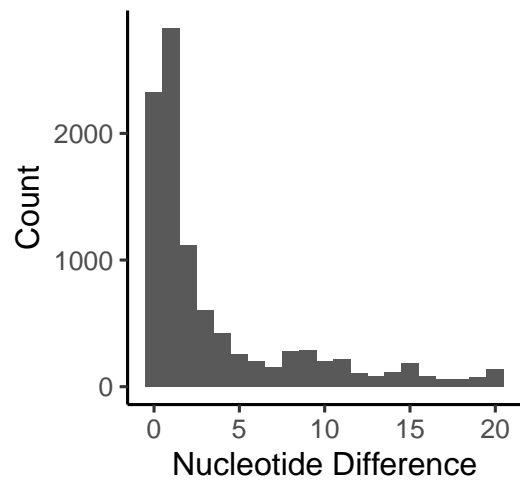
IGHV4-38-2*02

3098 sequences assigned
670 (21.6%) exact matches, in which:
578 unique CDR3
6 unique J



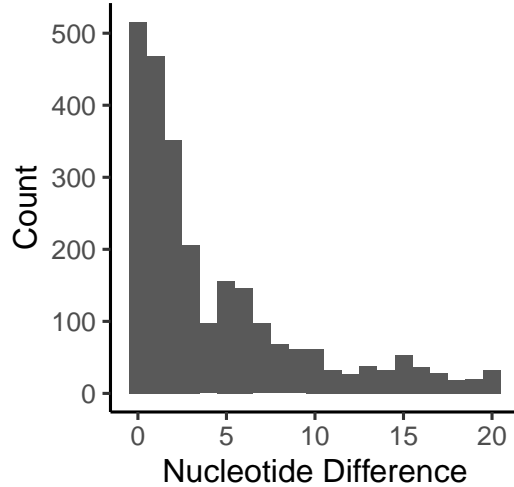
IGHV4–39*07

11569 sequences assigned
2325 (20.1%) exact matches, in which:
1874 unique CDR3
6 unique J



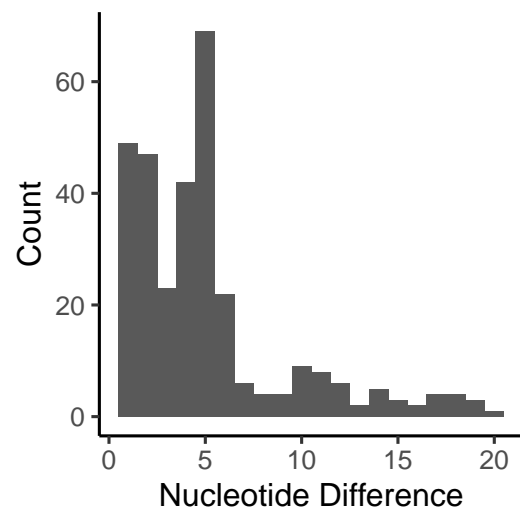
IGHV4–59*12

4164 sequences assigned
516 (12.4%) exact matches, in which:
501 unique CDR3
6 unique J



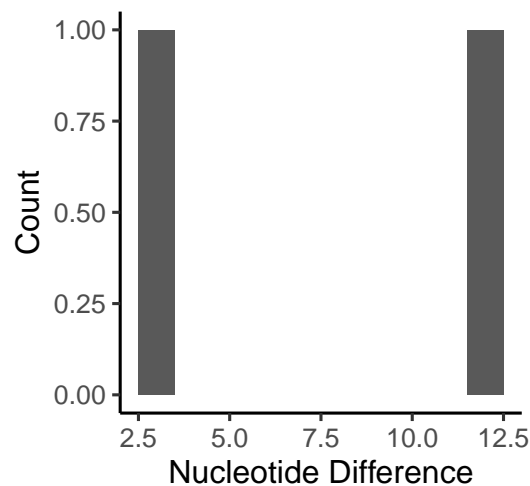
IGHV4–61*08

354 sequences assigned
No exact matches.



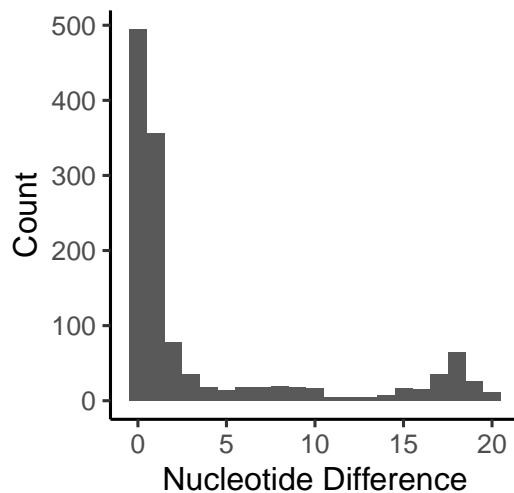
IGHV4–55*09

4 sequences assigned
No exact matches.



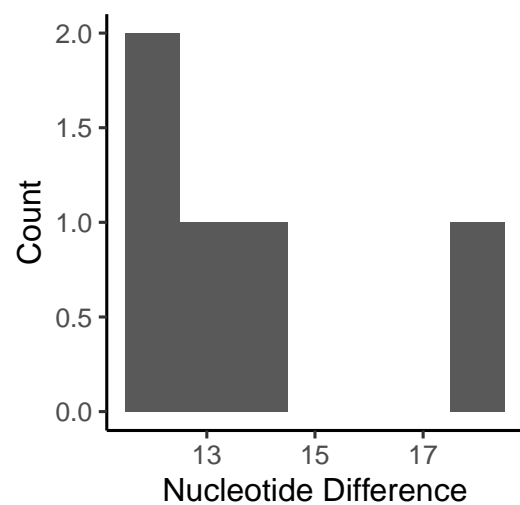
IGHV4–61*01

1320 sequences assigned
495 (37.5%) exact matches, in which:
445 unique CDR3
6 unique J



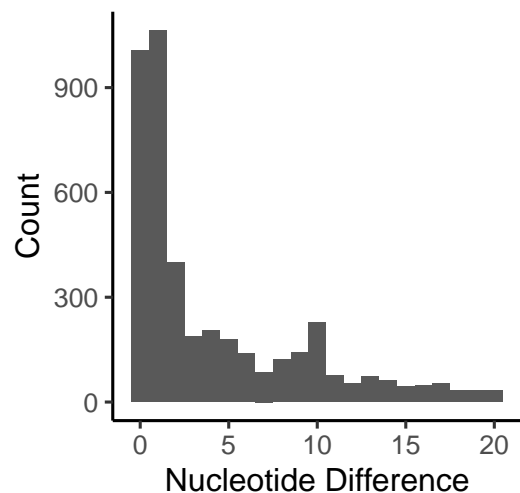
IGHV1/OR15–2*02_03

5 sequences assigned
No exact matches.



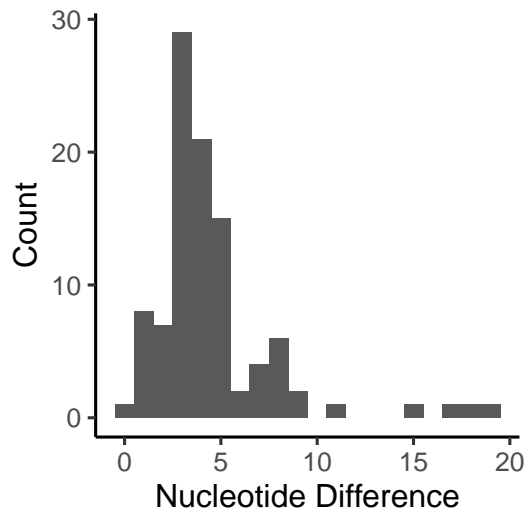
IGHV4–59*08

4756 sequences assigned
1007 (21.2%) exact matches, in which:
818 unique CDR3
6 unique J



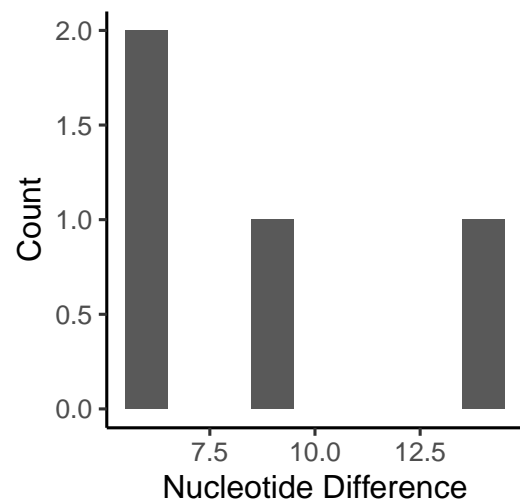
IGHV4–61*05

110 sequences assigned
1 (0.9%) exact matches, in which:
1 unique CDR3
1 unique J



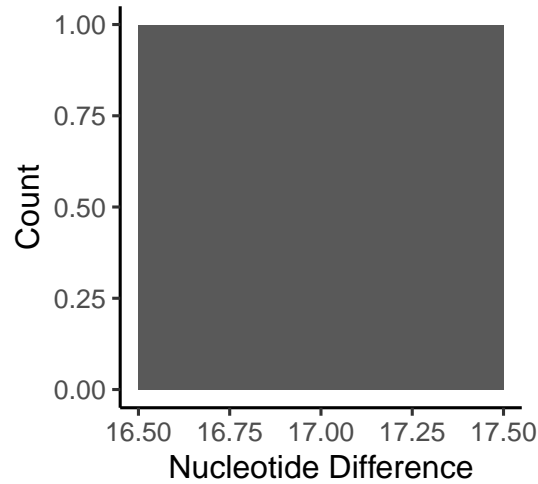
IGHV1/OR15–3*02

6 sequences assigned
No exact matches.



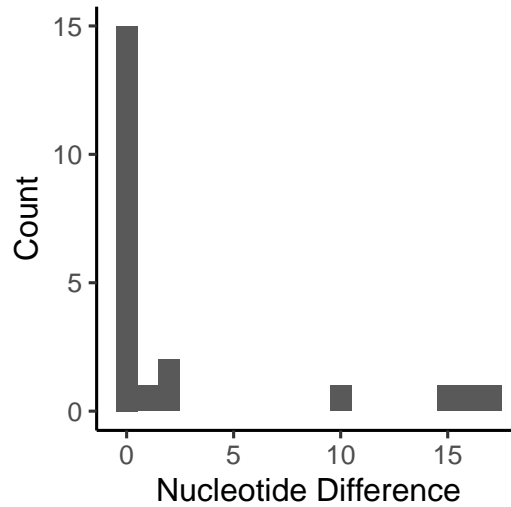
IGHV1/OR15-4*01

1 sequences assigned
No exact matches.



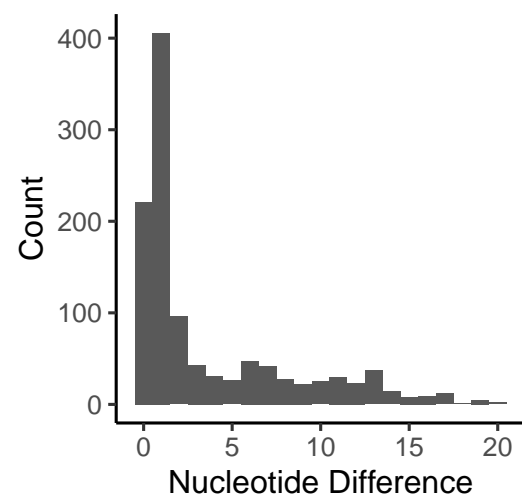
IGHV5-51*04

192 sequences assigned
15 (7.8%) exact matches, in which:
15 unique CDR3
4 unique J



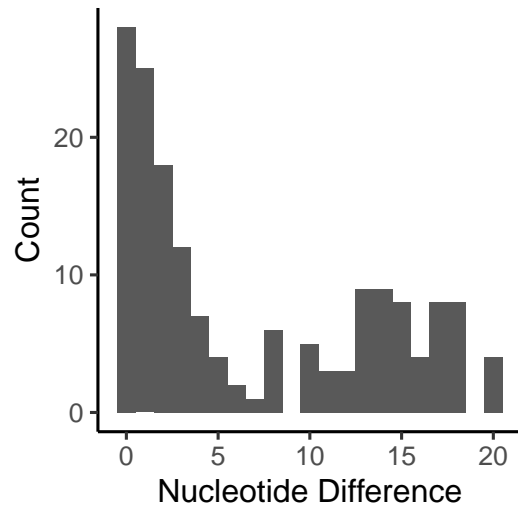
IGHV6-1*01_02

1522 sequences assigned
221 (14.5%) exact matches, in which:
173 unique CDR3
5 unique J



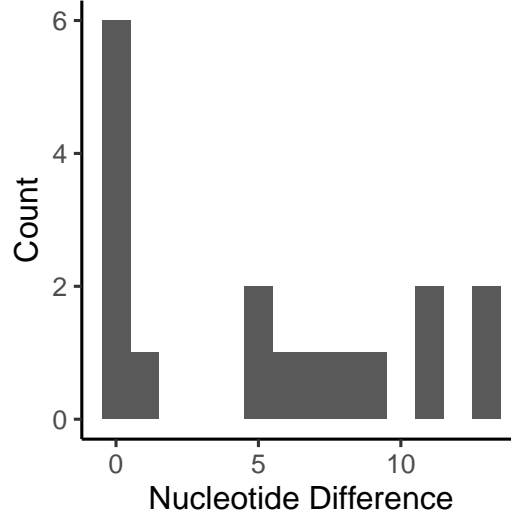
IGHV4/OR15-8*01_C193/

241 sequences assigned
28 (11.6%) exact matches, in which:
24 unique CDR3
4 unique J



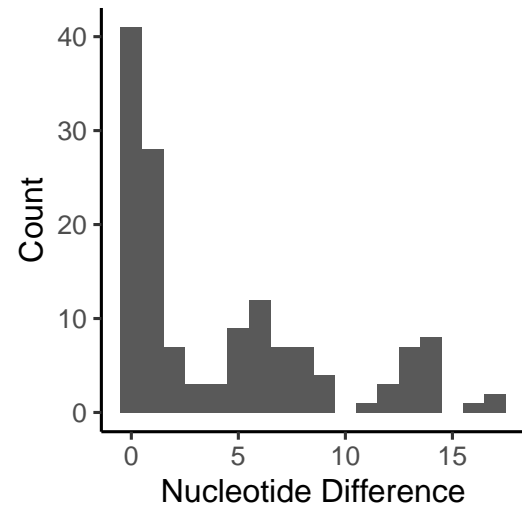
IGHV5-51*06

32 sequences assigned
6 (18.8%) exact matches, in which:
6 unique CDR3
4 unique J



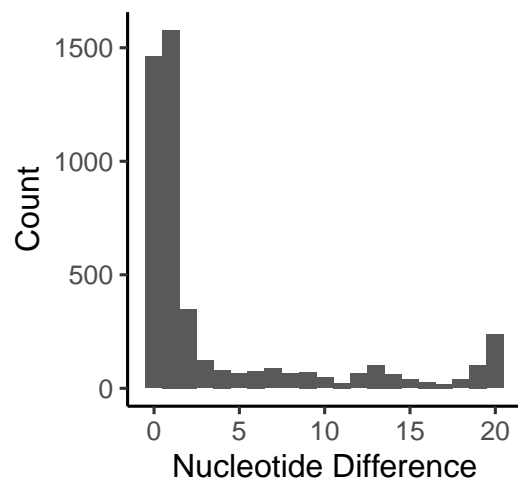
IGHV6-1*01_02_A315G

151 sequences assigned
41 (27.2%) exact matches, in which:
39 unique CDR3
5 unique J



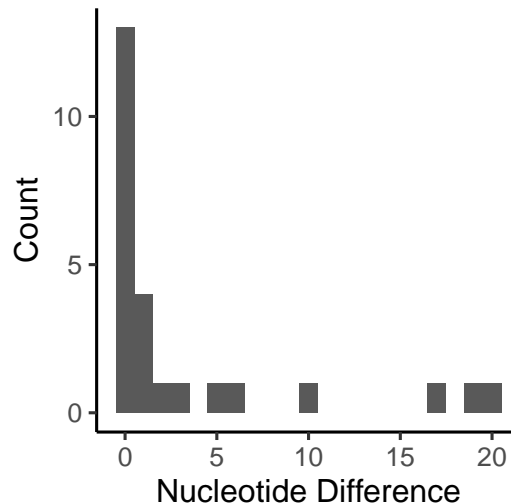
IGHV5-10-1*01_03

7073 sequences assigned
1462 (20.7%) exact matches, in which:
988 unique CDR3
6 unique J



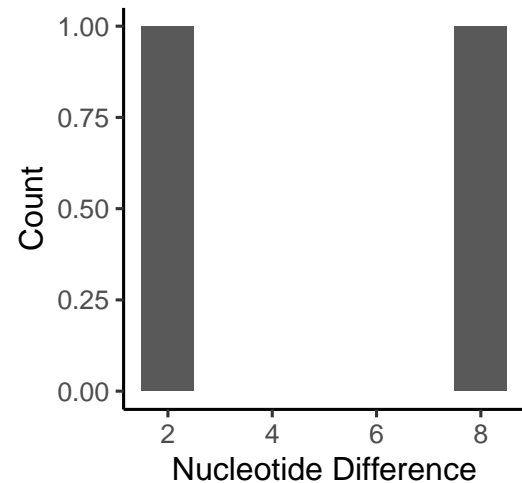
IGHV5-51*07

29 sequences assigned
13 (44.8%) exact matches, in which:
13 unique CDR3
4 unique J



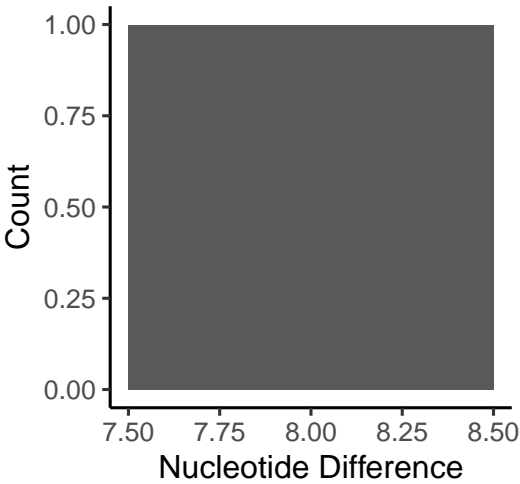
IGHV3/OR16-9*01

2 sequences assigned
No exact matches.



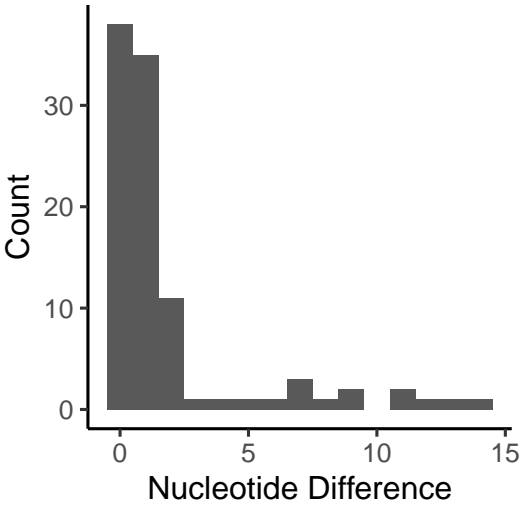
IGHV3/OR16-13*01

1 sequences assigned
No exact matches.

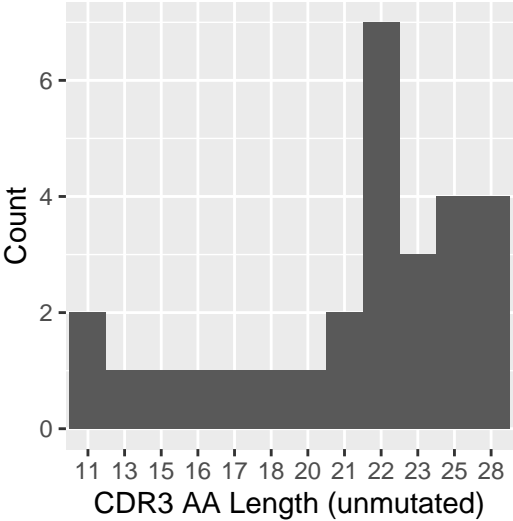


IGHV7-4-1*01

100 sequences assigned
38 (38%) exact matches, in which:
36 unique CDR3
5 unique J



IGHV4/OR15-8*01_C193A



IGHV6-1*01_02_A315G

