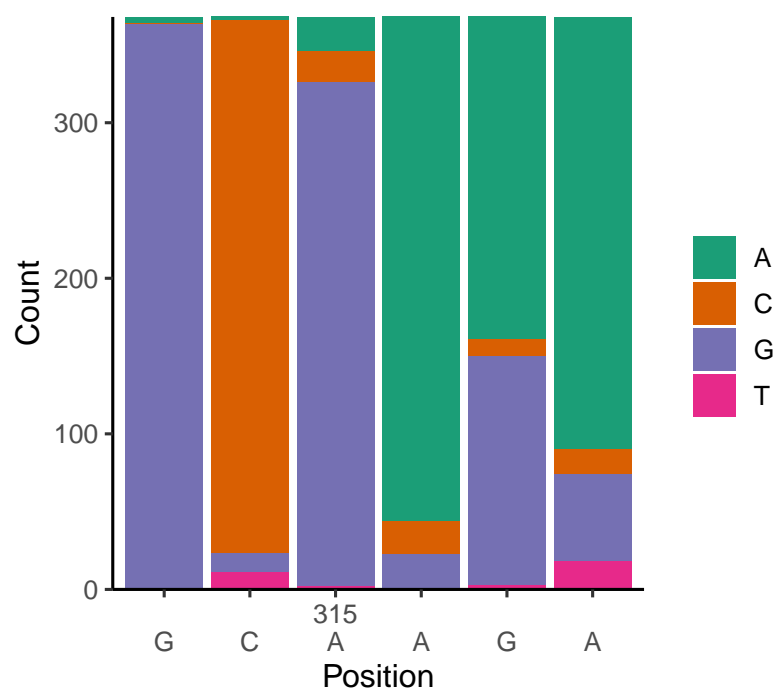
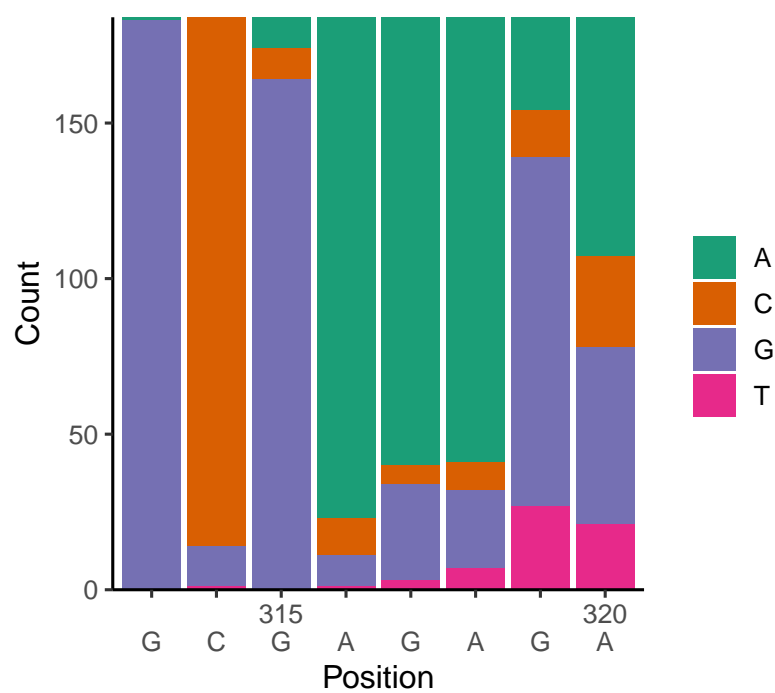


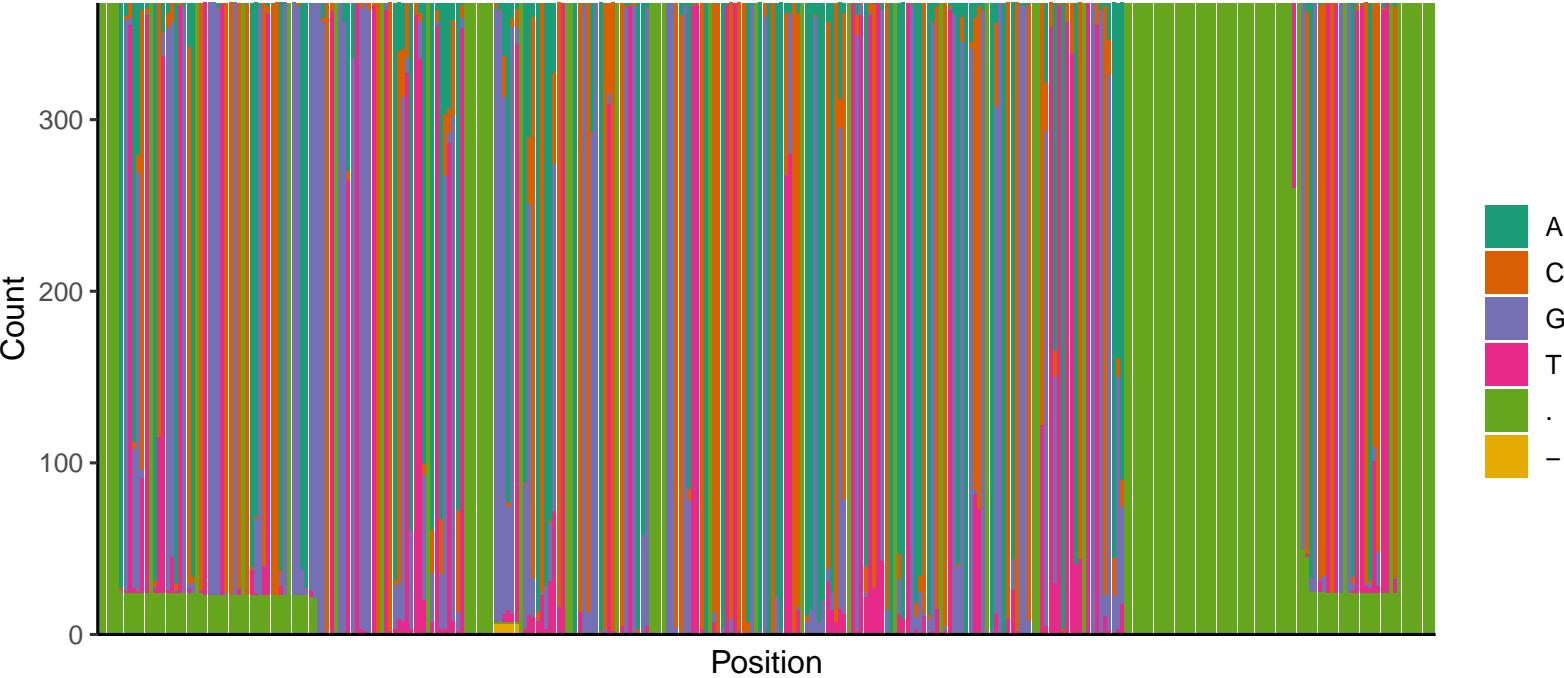
Gene IGHV3-74*01_02_C246T_G247T_T279C_T300C_G303A



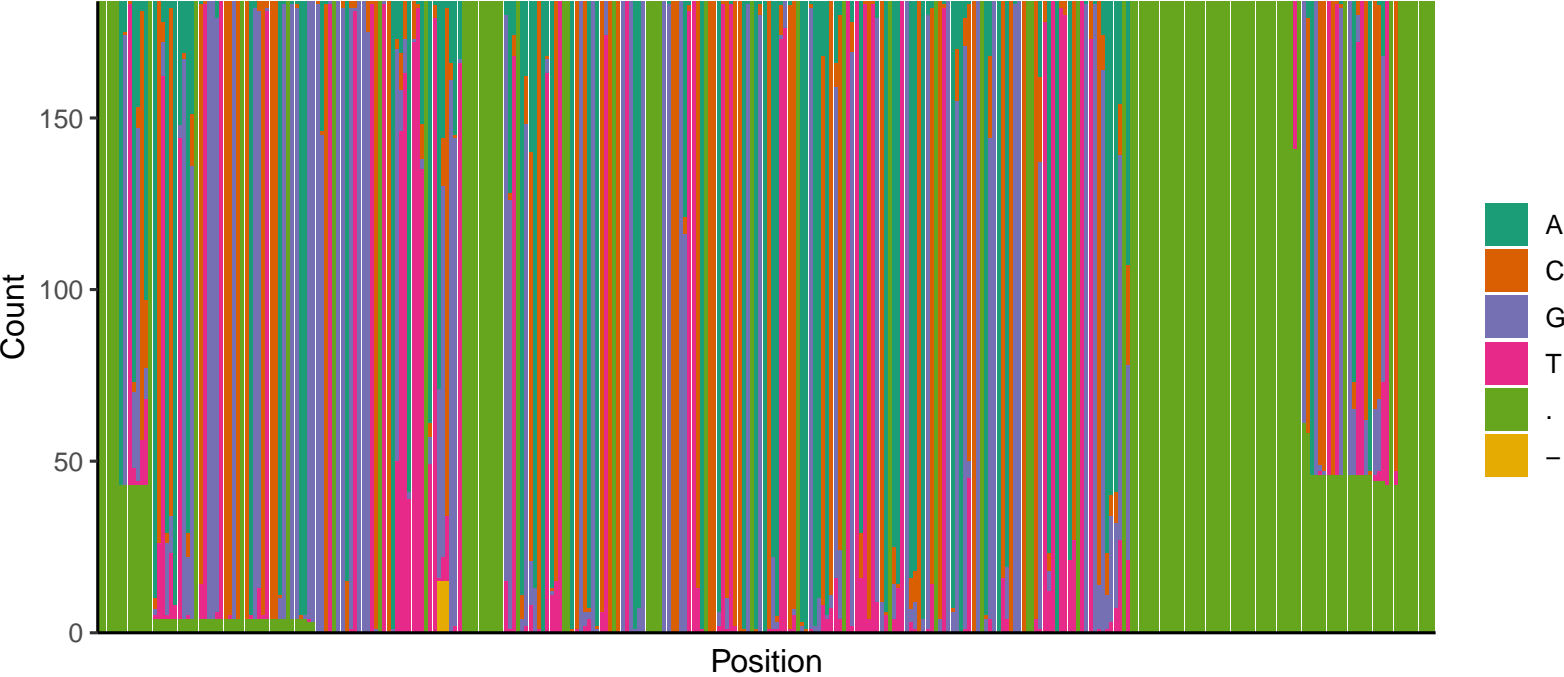
Gene IGHV3-53*01_02_G81A_A225G_T267G_G303A



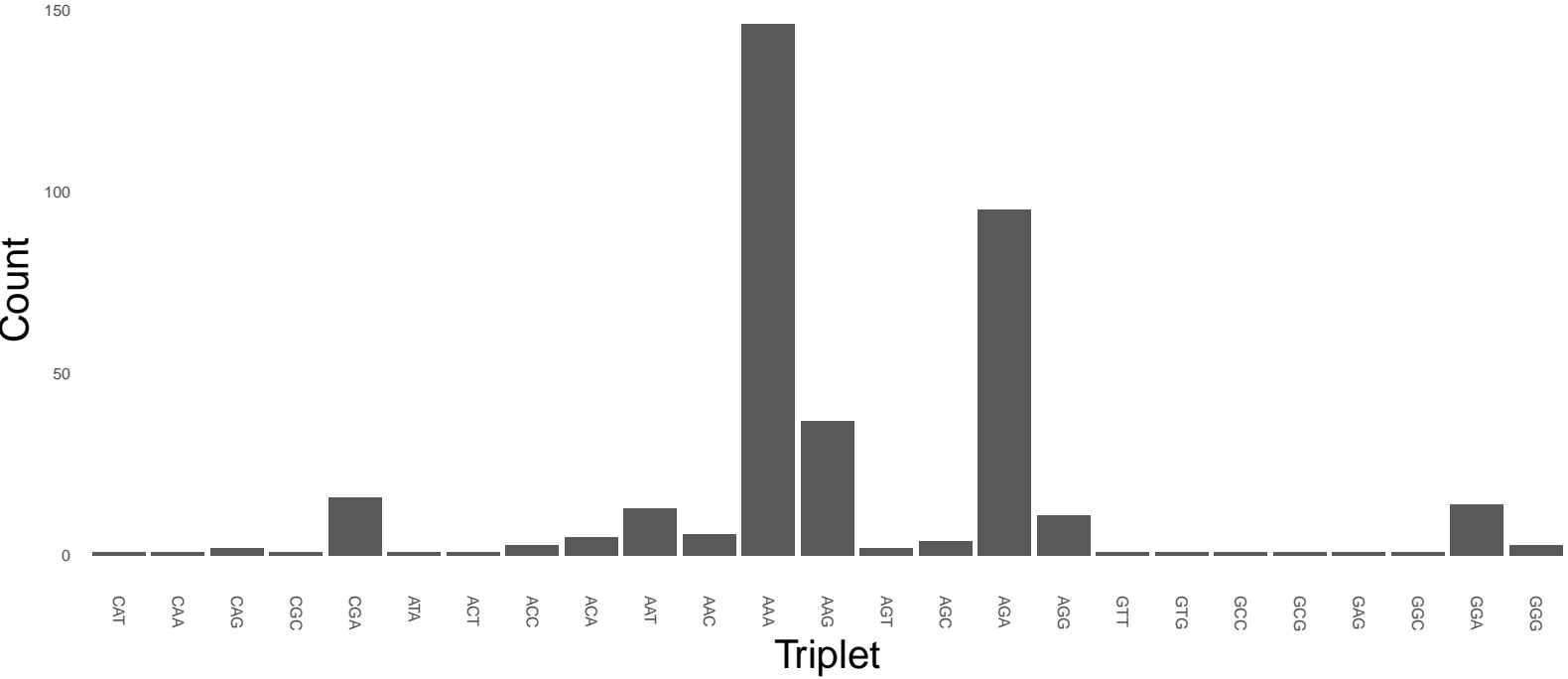
Gene IGHV3-74*01_02_C246T_G247T_T279C_T300C_G303A



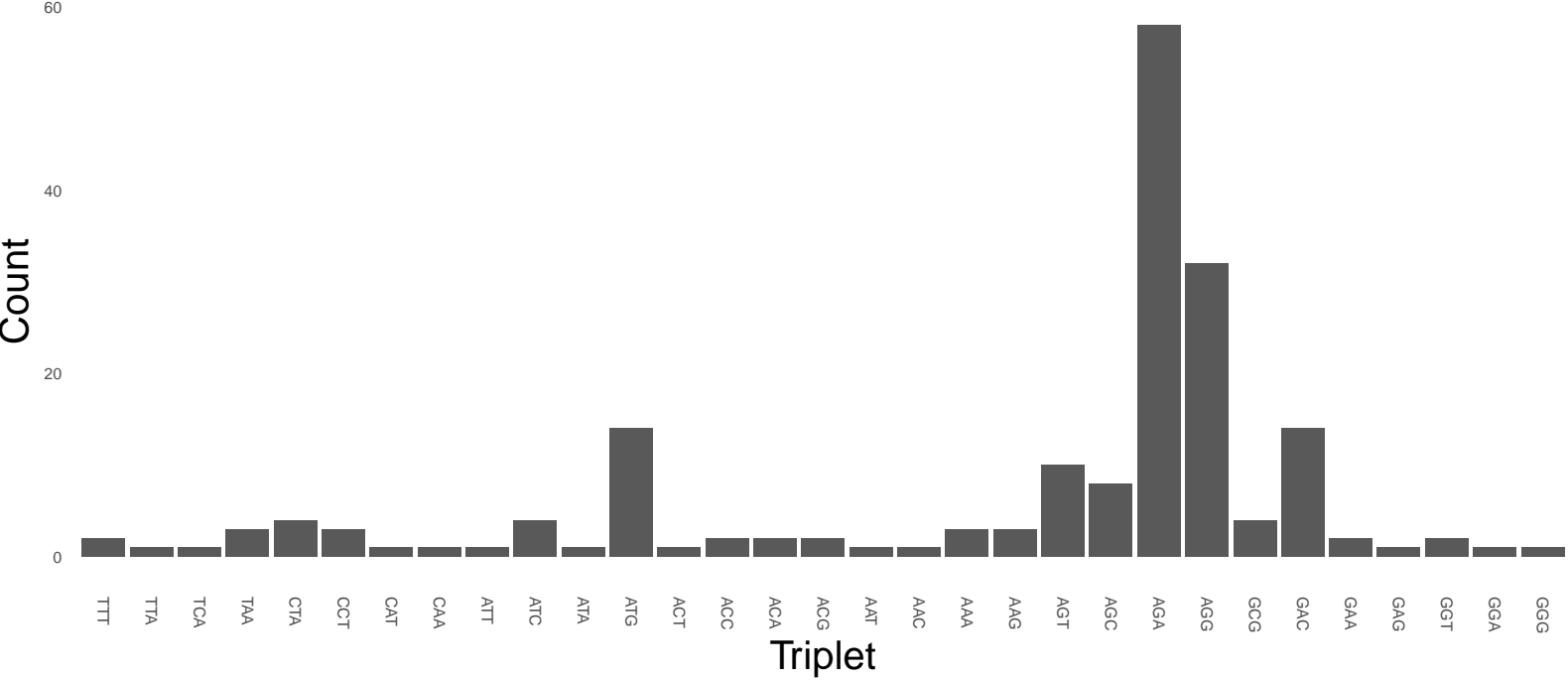
Gene IGHV3-53*01_02_G81A_A225G_T267G_G303A



IGHV3-74*01_02_C246T_G247T_T279C_T300C_G303A- Final 3 nucleotides as a triplet

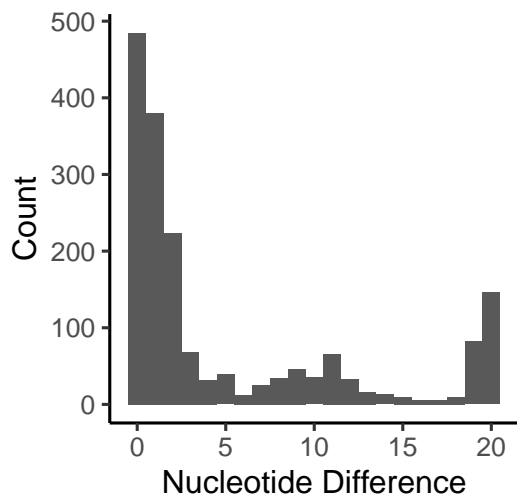


IGHV3-53*01_02_G81A_A225G_T267G_G303A- Final 3 nucleotides as a triplet



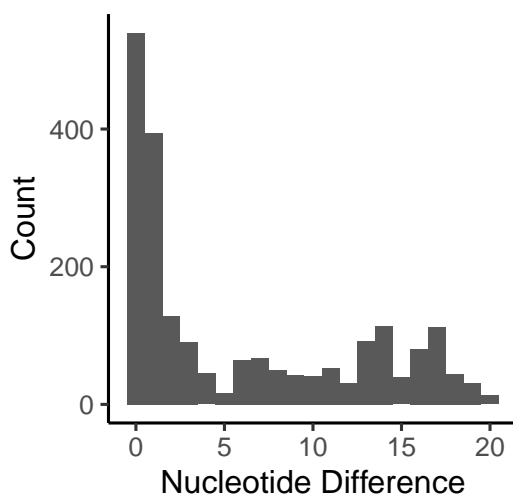
IGHV1–2*04

1874 sequences assigned
485 (25.9%) exact matches, in which:
450 unique CDR3
5 unique J



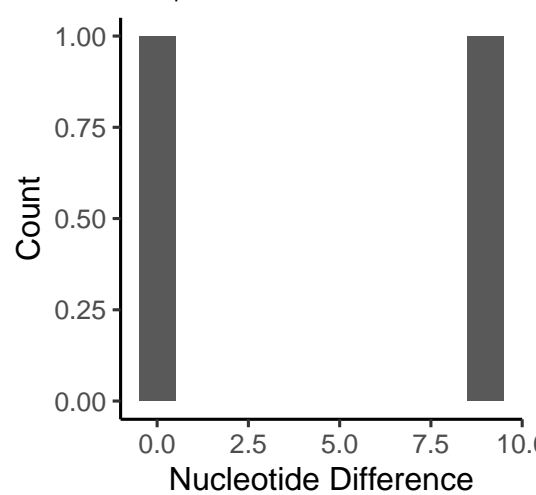
IGHV1–18*01

2150 sequences assigned
540 (25.1%) exact matches, in which:
503 unique CDR3
6 unique J



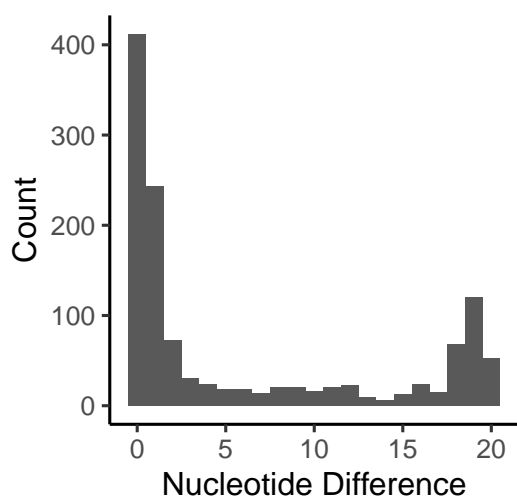
IGHV1–45*02

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



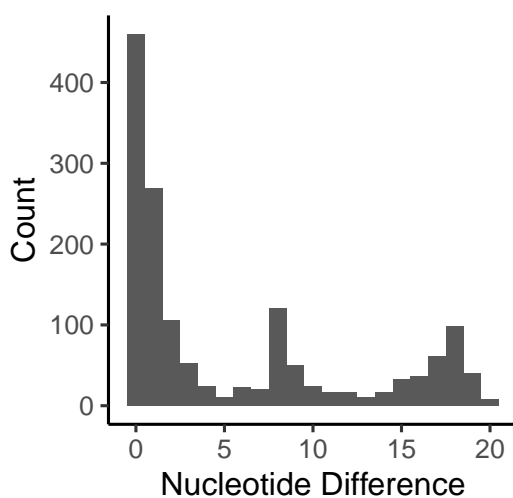
IGHV1–3*01_05

1482 sequences assigned
412 (27.8%) exact matches, in which:
382 unique CDR3
6 unique J



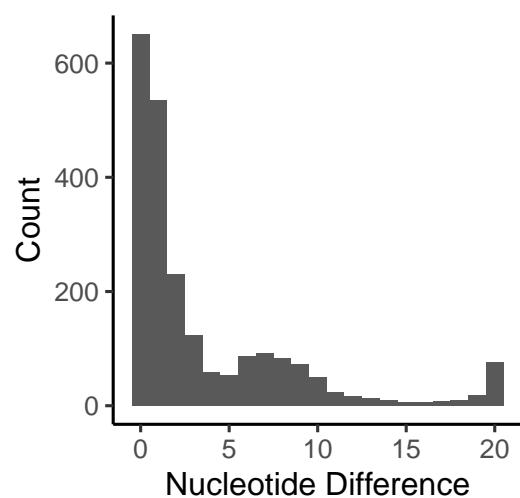
IGHV1–18*04

1778 sequences assigned
460 (25.9%) exact matches, in which:
434 unique CDR3
6 unique J



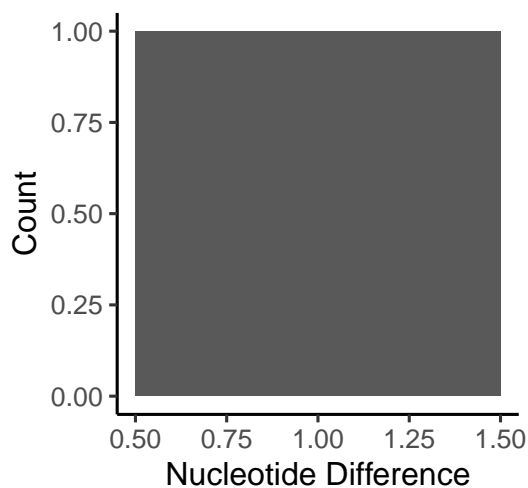
IGHV1–46*01

2954 sequences assigned
651 (22%) exact matches, in which:
600 unique CDR3
6 unique J



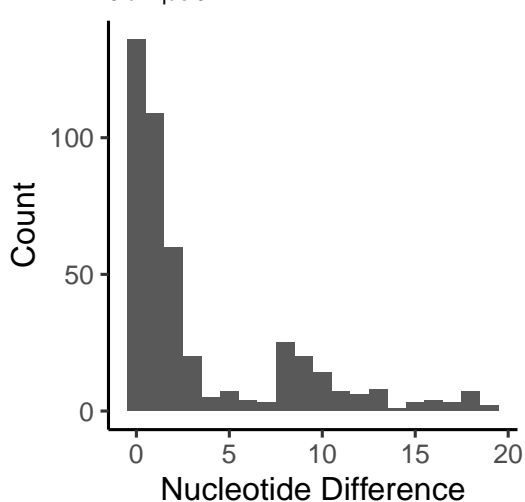
IGHV1–8*01

1 sequences assigned
No exact matches.



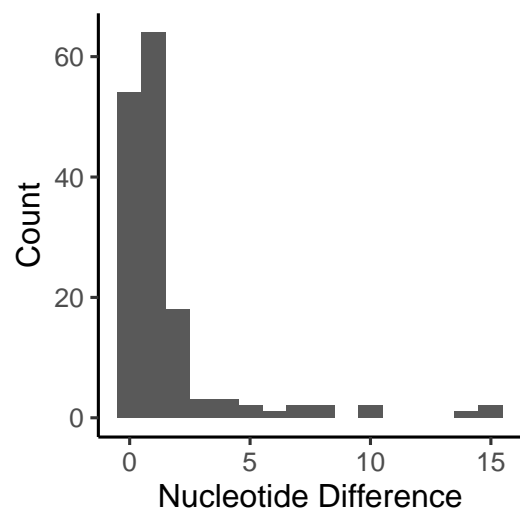
IGHV1–24*01

662 sequences assigned
136 (20.5%) exact matches, in which:
126 unique CDR3
5 unique J



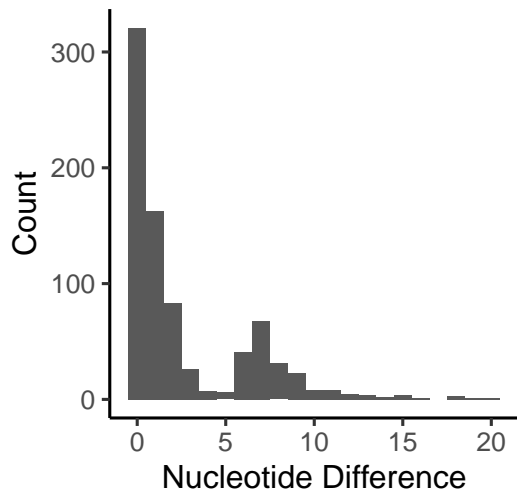
IGHV1–58*02

158 sequences assigned
54 (34.2%) exact matches, in which:
51 unique CDR3
4 unique J



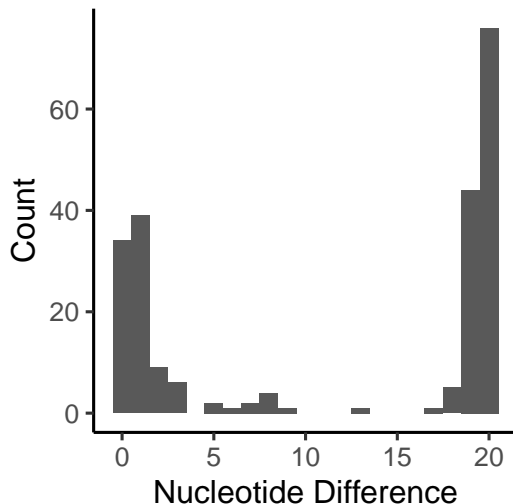
IGHV1–69*04_09

828 sequences assigned
321 (38.8%) exact matches, in which:
315 unique CDR3
6 unique J



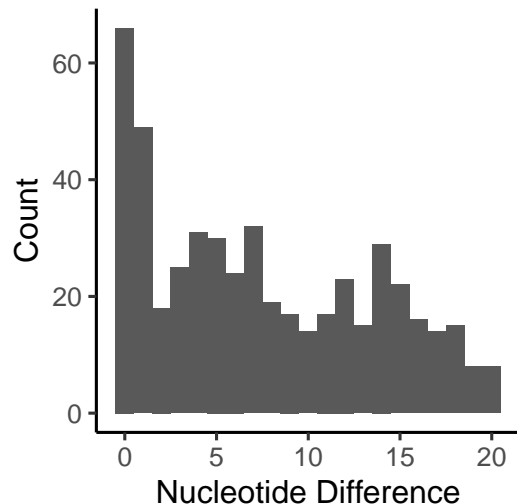
IGHV2–26*01

298 sequences assigned
34 (11.4%) exact matches, in which:
31 unique CDR3
3 unique J



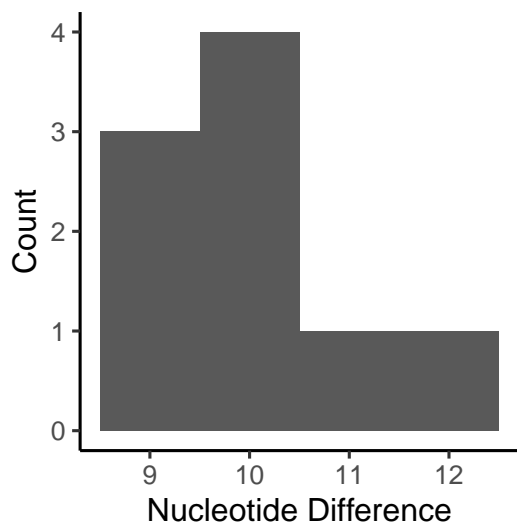
IGHV3–7*01

597 sequences assigned
66 (11.1%) exact matches, in which:
59 unique CDR3
4 unique J



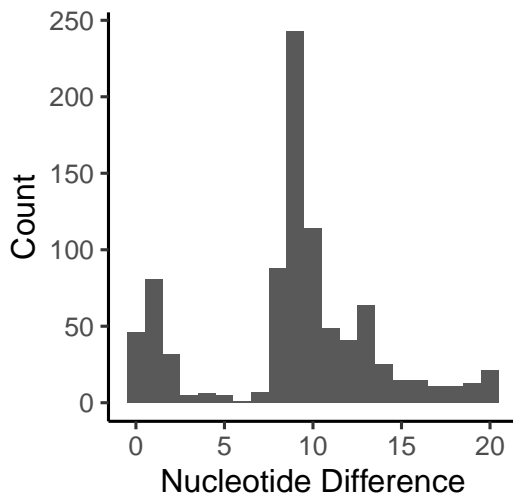
IGHV1–NL1*01

9 sequences assigned
No exact matches.



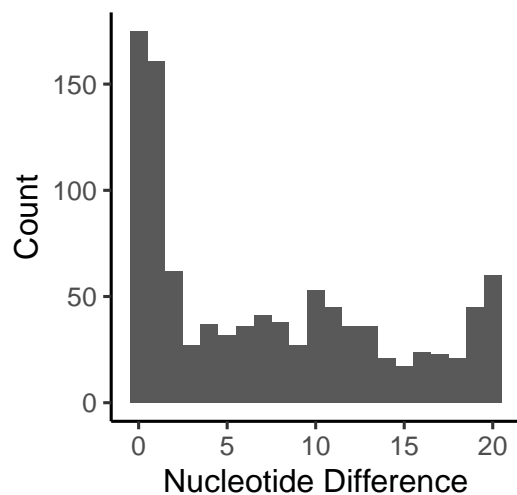
IGHV2–70*11_15

963 sequences assigned
46 (4.8%) exact matches, in which:
41 unique CDR3
4 unique J



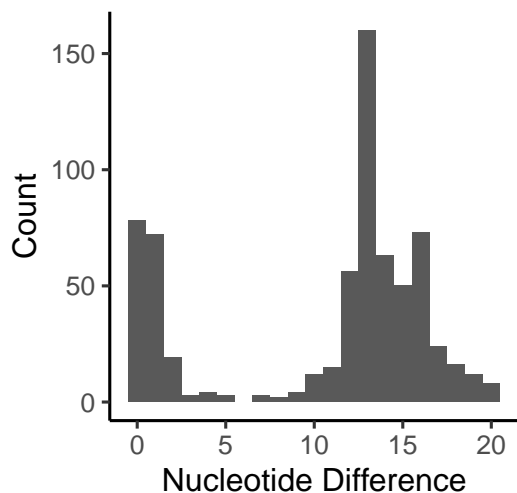
IGHV3–7*03

2641 sequences assigned
175 (6.6%) exact matches, in which:
125 unique CDR3
5 unique J



IGHV2–5*02

741 sequences assigned
78 (10.5%) exact matches, in which:
73 unique CDR3
5 unique J



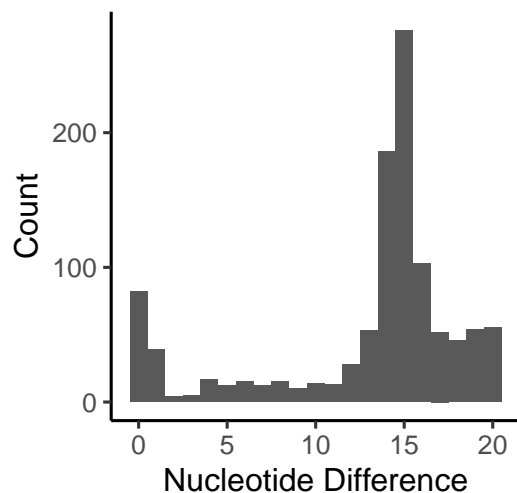
IGHV2–70D*04

1 sequences assigned
No exact matches.



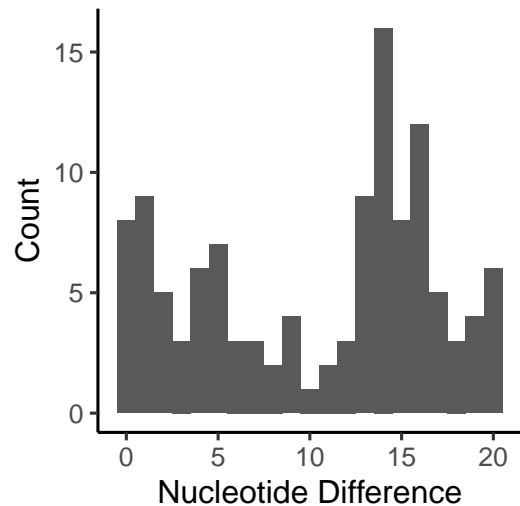
IGHV3–7*04

1393 sequences assigned
82 (5.9%) exact matches, in which:
64 unique CDR3
6 unique J



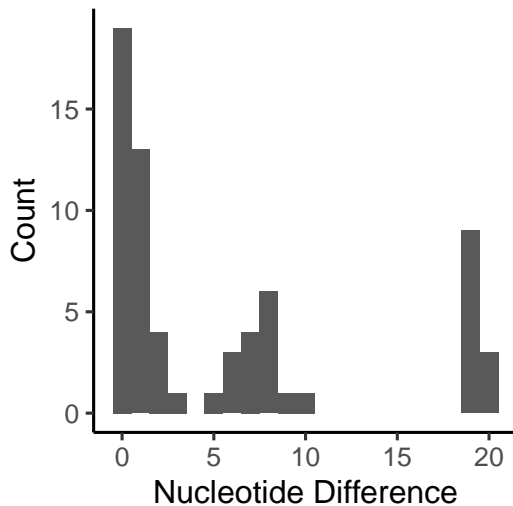
IGHV3-7*05

190 sequences assigned
8 (4.2%) exact matches, in which:
8 unique CDR3
4 unique J



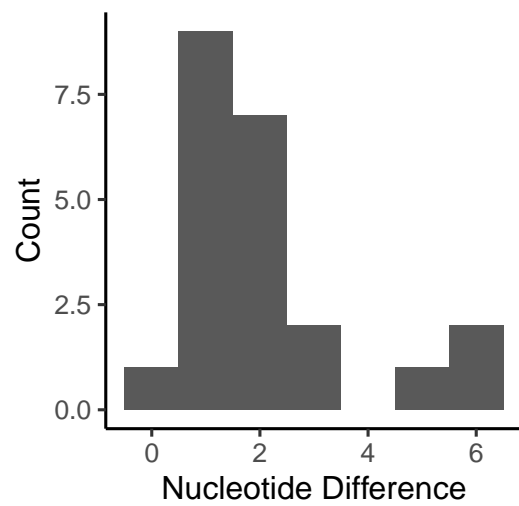
IGHV3-13*05

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



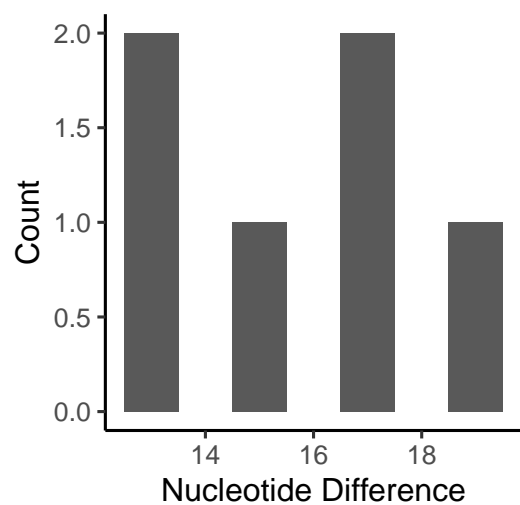
IGHV3-19*01

22 sequences assigned
1 (4.5%) exact matches, in which:
1 unique CDR3
1 unique J



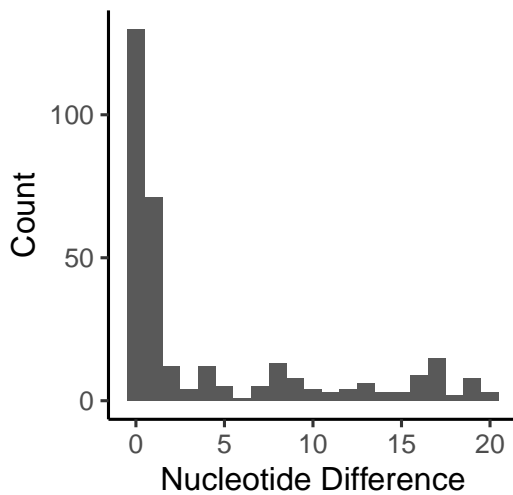
IGHV3-9*01

19 sequences assigned
No exact matches.



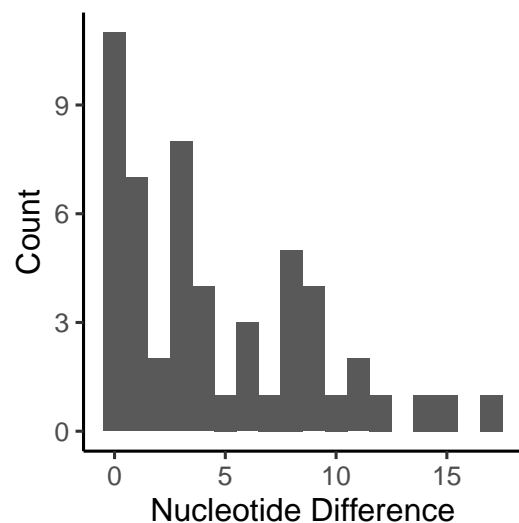
IGHV3-15*07

524 sequences assigned
130 (24.8%) exact matches, in which:
94 unique CDR3
5 unique J



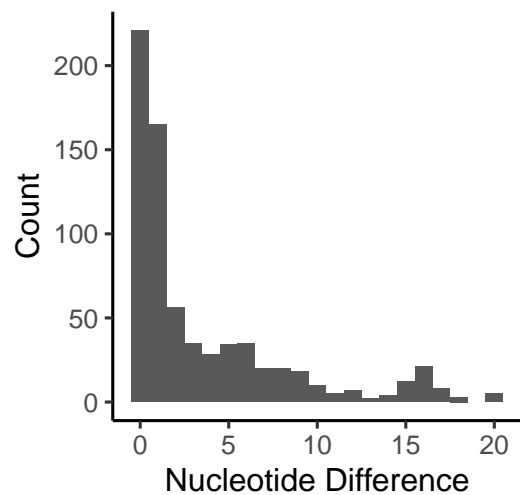
IGHV3-20*03_04

55 sequences assigned
11 (20%) exact matches, in which:
9 unique CDR3
4 unique J



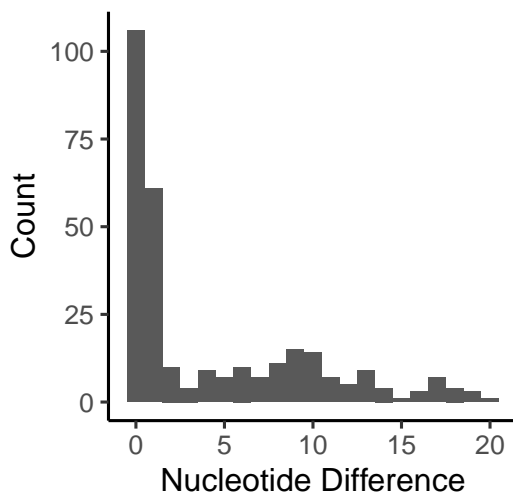
IGHV3-11*06

737 sequences assigned
221 (30%) exact matches, in which:
187 unique CDR3
5 unique J



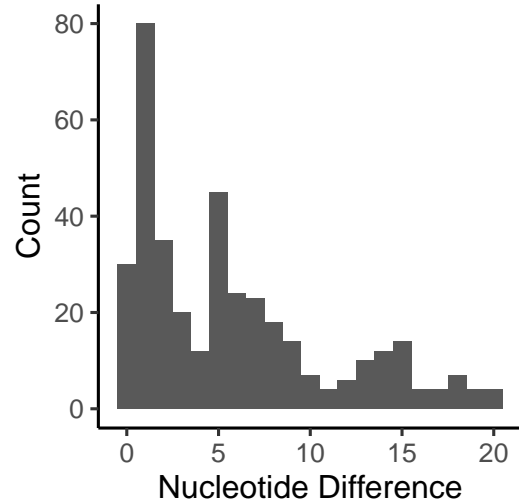
IGHV3-15*01_02

381 sequences assigned
106 (27.8%) exact matches, in which:
74 unique CDR3
6 unique J



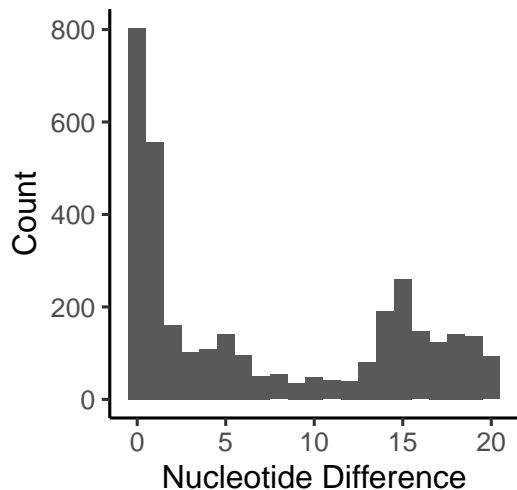
IGHV3-21*04

464 sequences assigned
30 (6.5%) exact matches, in which:
27 unique CDR3
4 unique J



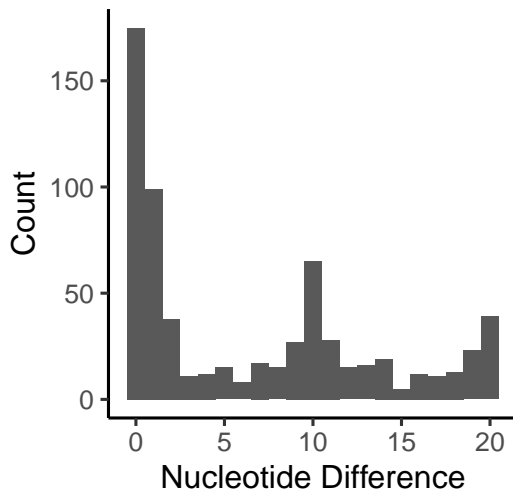
IGHV3-21*01_02

3728 sequences assigned
804 (21.6%) exact matches, in which:
663 unique CDR3
6 unique J



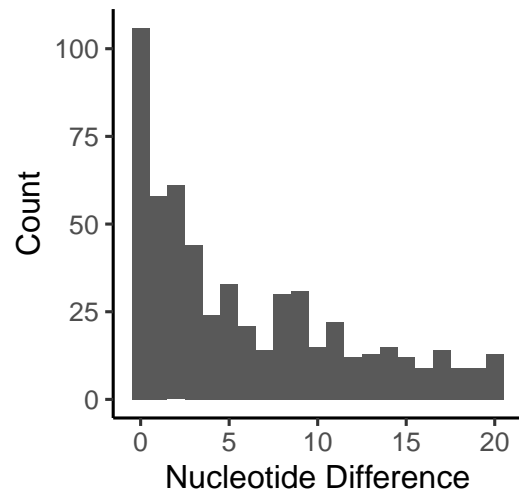
IGHV3-30*03

720 sequences assigned
175 (24.3%) exact matches, in which:
164 unique CDR3
6 unique J



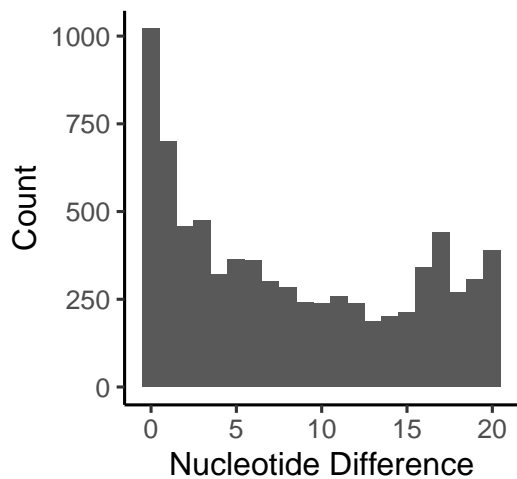
IGHV3-33*08

792 sequences assigned
106 (13.4%) exact matches, in which:
95 unique CDR3
6 unique J



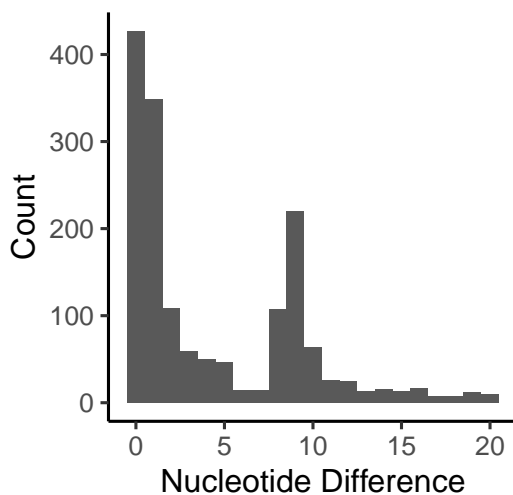
IGHV3-23*01_04

12666 sequences assigned
1021 (8.1%) exact matches, in which:
773 unique CDR3
6 unique J



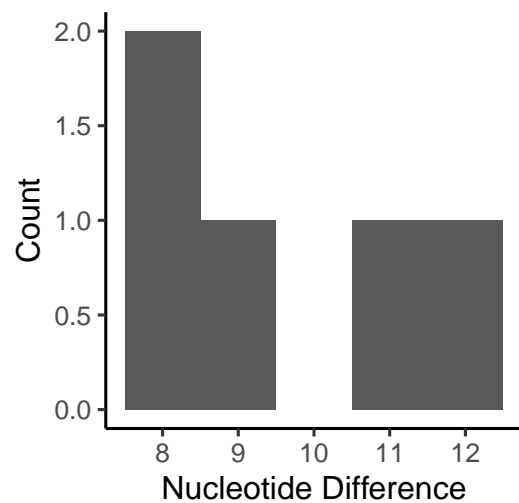
IGHV3-33*01

2936 sequences assigned
427 (14.5%) exact matches, in which:
350 unique CDR3
6 unique J



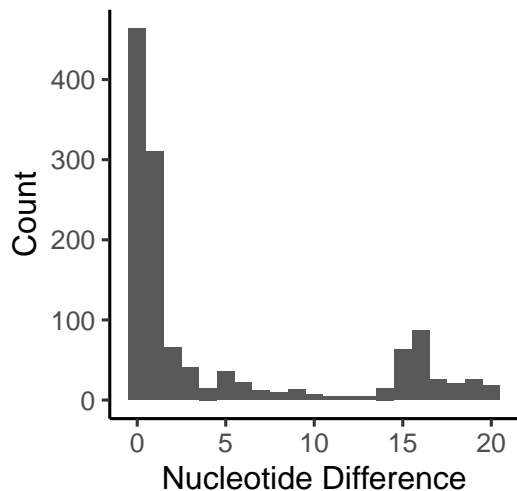
IGHV3-35*01

5 sequences assigned
No exact matches.



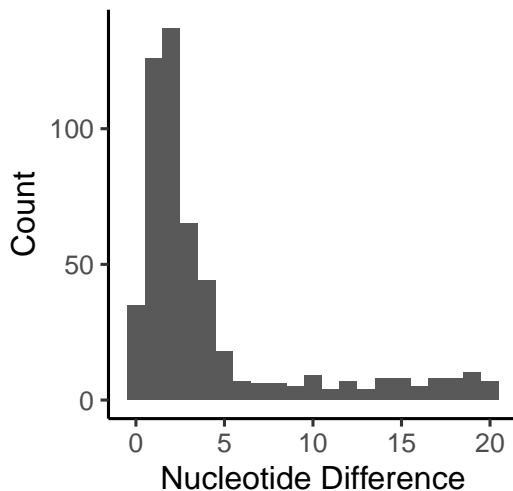
IGHV3-30-3*01

1425 sequences assigned
464 (32.6%) exact matches, in which:
354 unique CDR3
6 unique J



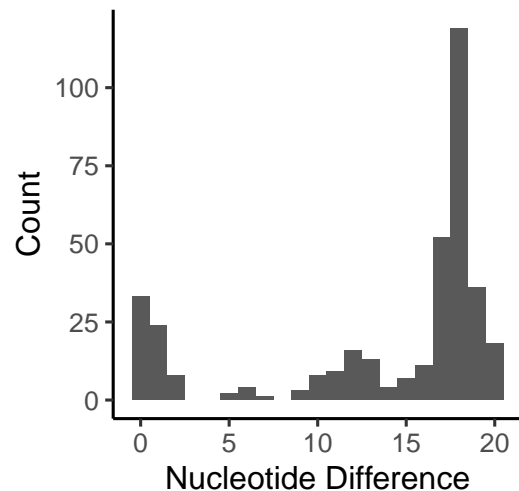
IGHV3-33*06

627 sequences assigned
35 (5.6%) exact matches, in which:
34 unique CDR3
3 unique J



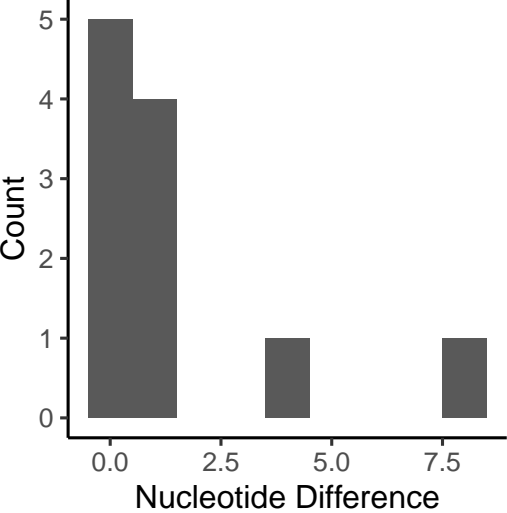
IGHV3-43*02

465 sequences assigned
33 (7.1%) exact matches, in which:
27 unique CDR3
5 unique J



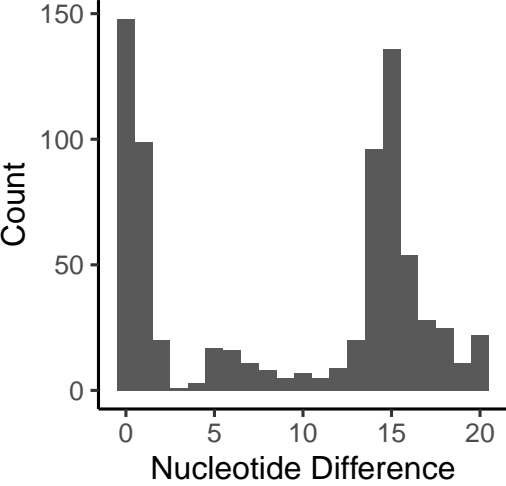
IGHV3-47*02

11 sequences assigned
5 (45.5%) exact matches, in which:
3 unique CDR3
1 unique J



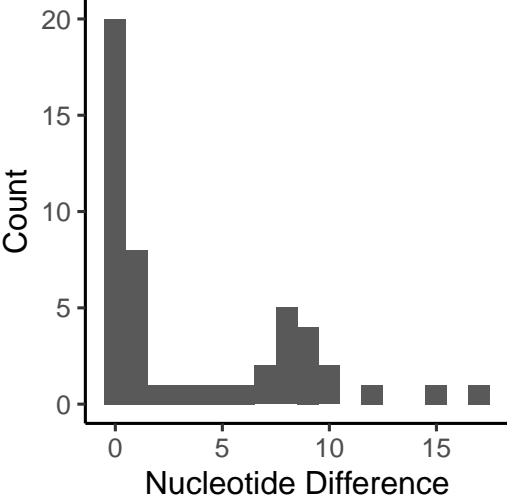
IGHV3-48*03

1455 sequences assigned
148 (10.2%) exact matches, in which:
112 unique CDR3
5 unique J



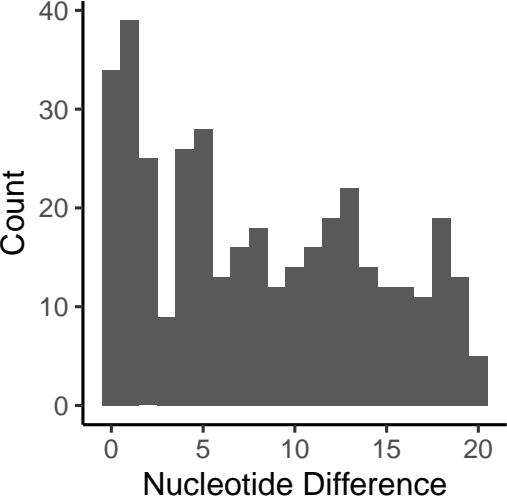
IGHV3-49*03_05

50 sequences assigned
20 (40%) exact matches, in which:
13 unique CDR3
3 unique J



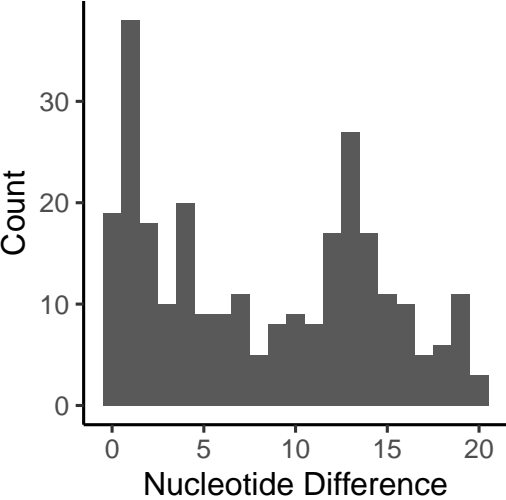
IGHV3-48*01

425 sequences assigned
34 (8%) exact matches, in which:
33 unique CDR3
4 unique J



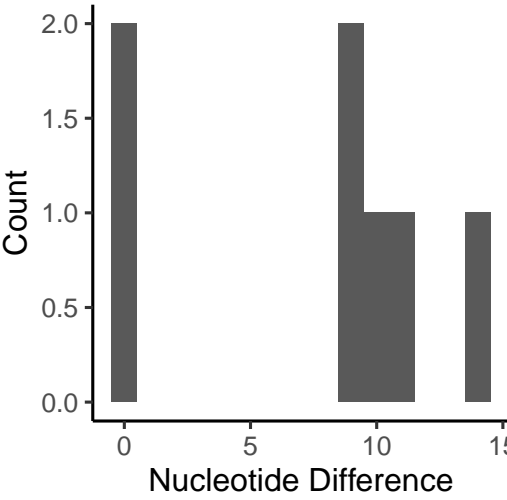
IGHV3-48*04

299 sequences assigned
19 (6.4%) exact matches, in which:
19 unique CDR3
4 unique J



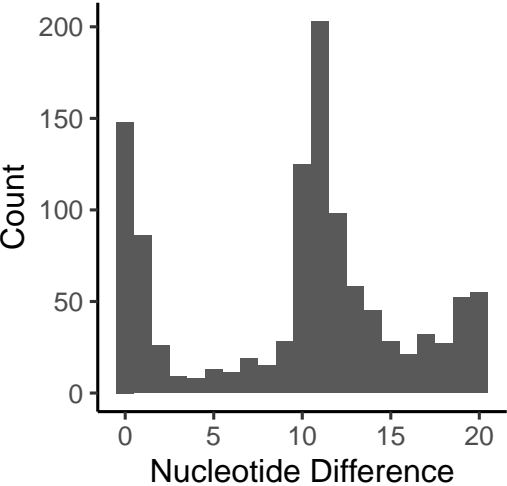
IGHV3-52*02

7 sequences assigned
2 (28.6%) exact matches, in which:
2 unique CDR3
1 unique J



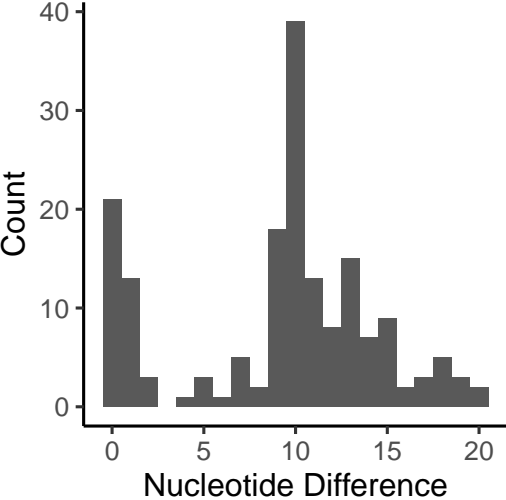
IGHV3-48*02

1577 sequences assigned
148 (9.4%) exact matches, in which:
114 unique CDR3
5 unique J



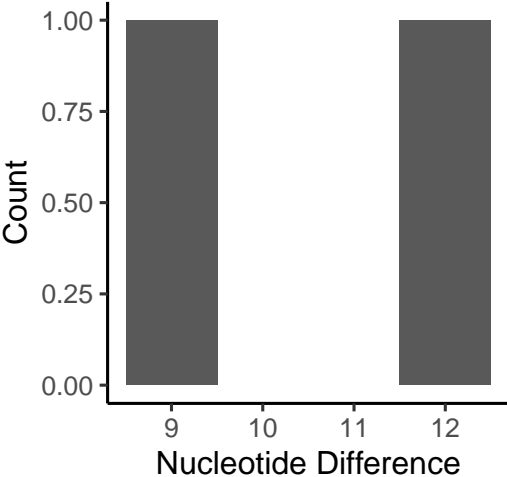
IGHV3-49*04

200 sequences assigned
21 (10.5%) exact matches, in which:
18 unique CDR3
4 unique J



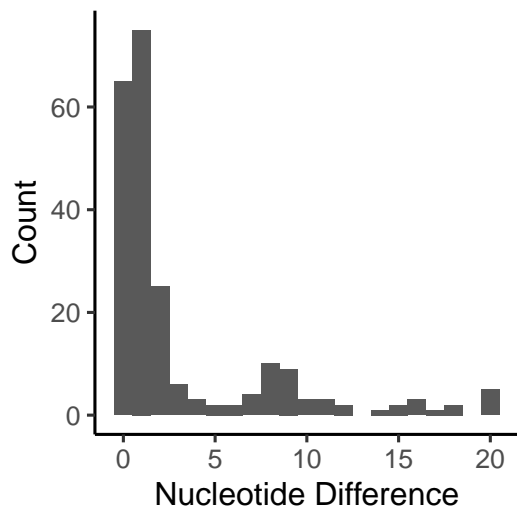
IGHV3-52*01_03

2 sequences assigned
No exact matches.



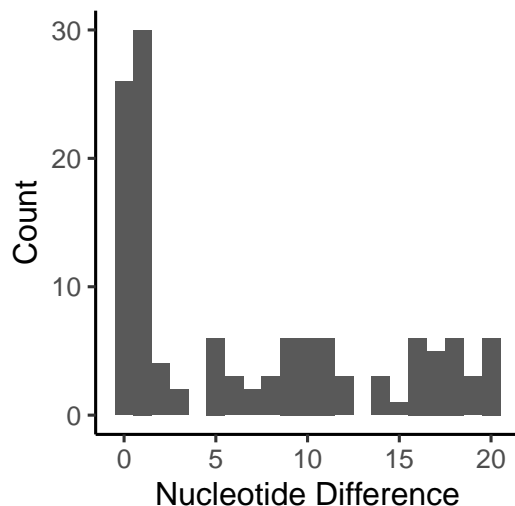
IGHV3-53*04

399 sequences assigned
65 (16.3%) exact matches, in which:
47 unique CDR3
4 unique J



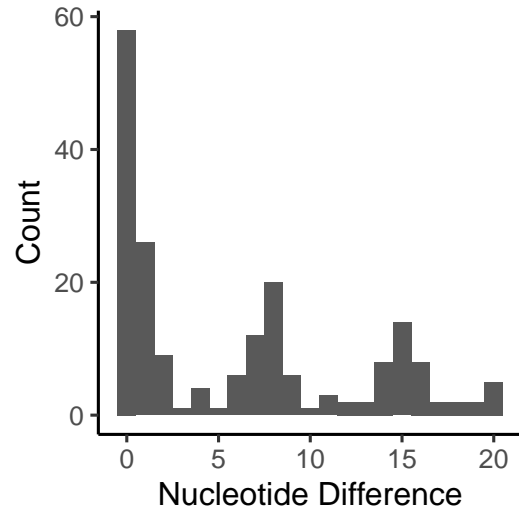
IGHV3-53*01_02_G81A_

184 sequences assigned
26 (14.1%) exact matches, in which:
26 unique CDR3
3 unique J



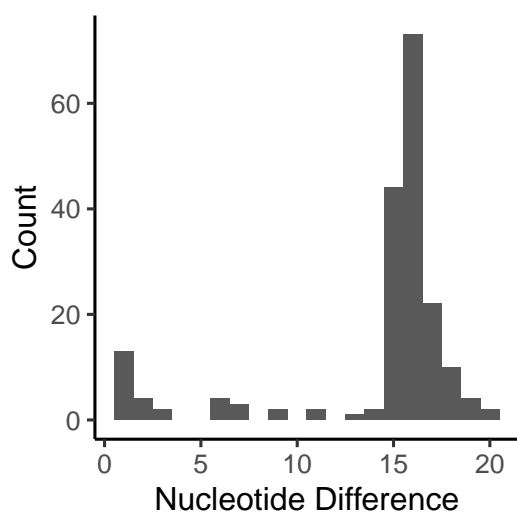
IGHV3-66*02

243 sequences assigned
58 (23.9%) exact matches, in which:
49 unique CDR3
6 unique J



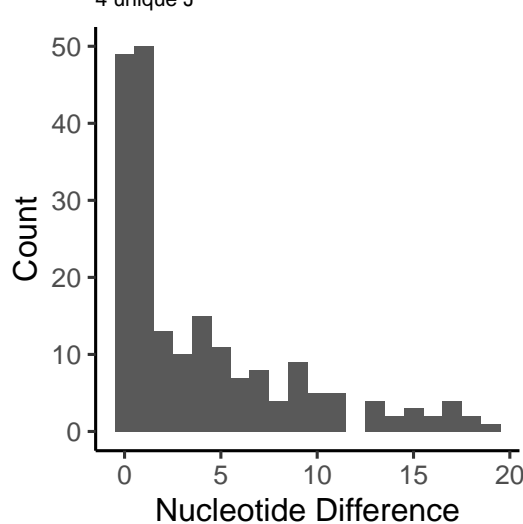
IGHV3-53*05

222 sequences assigned
No exact matches.



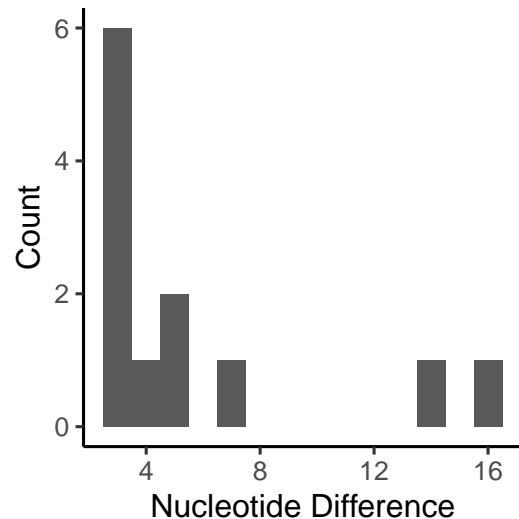
IGHV3-64*01

249 sequences assigned
49 (19.7%) exact matches, in which:
39 unique CDR3
4 unique J



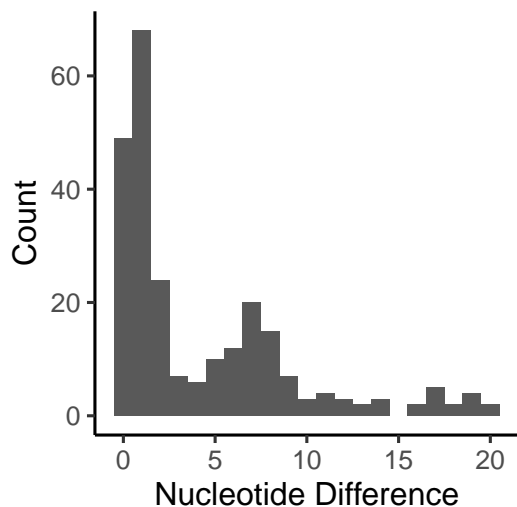
IGHV3-69-1*01

15 sequences assigned
No exact matches.



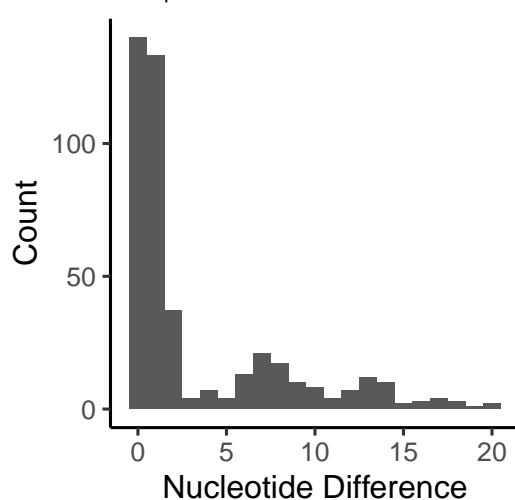
IGHV3-53*01_02

260 sequences assigned
49 (18.8%) exact matches, in which:
42 unique CDR3
4 unique J



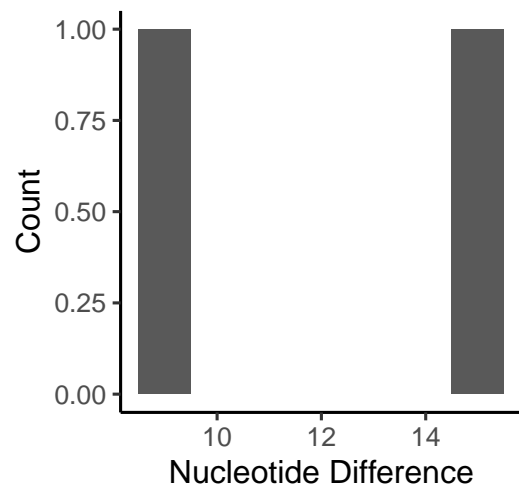
IGHV3-66*01

519 sequences assigned
140 (27%) exact matches, in which:
114 unique CDR3
5 unique J



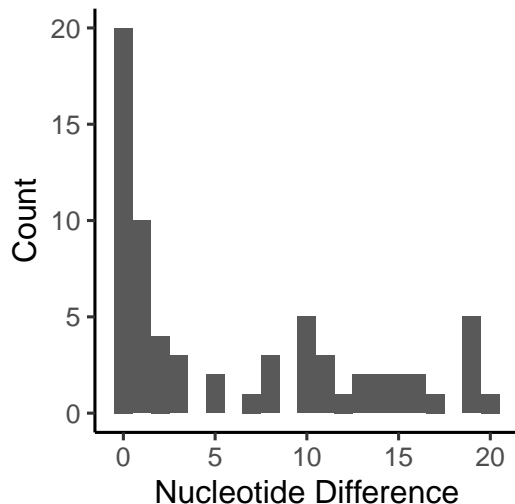
IGHV3-69-1*02

35 sequences assigned
No exact matches.



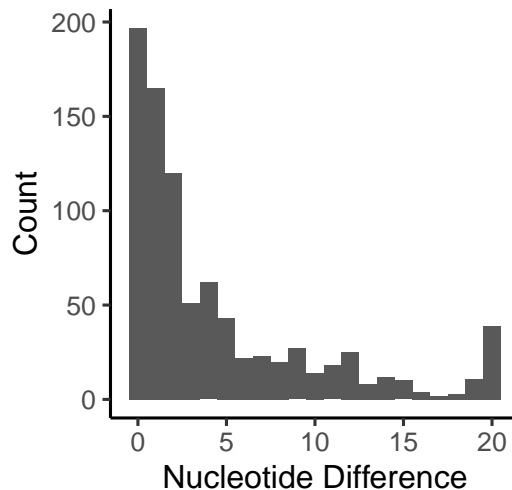
IGHV3-72*01

913 sequences assigned
20 (2.2%) exact matches, in which:
15 unique CDR3
4 unique J



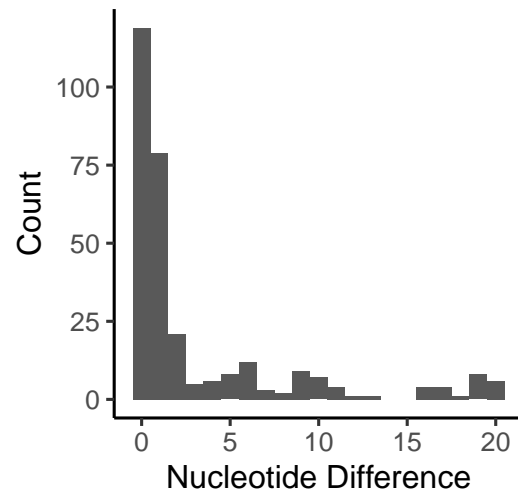
IGHV3-74*01_02

1005 sequences assigned
197 (19.6%) exact matches, in which:
167 unique CDR3
5 unique J



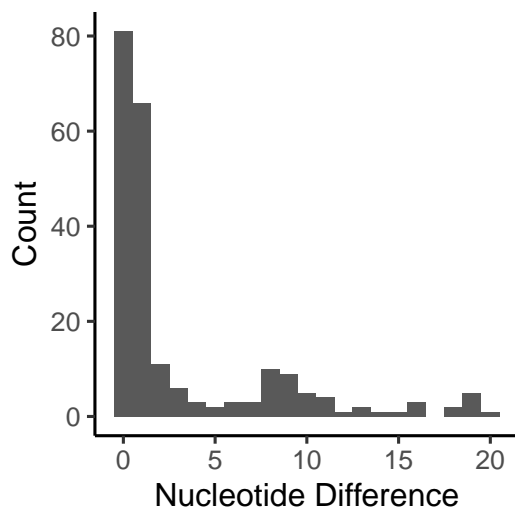
IGHV3-64D*06

1530 sequences assigned
119 (7.8%) exact matches, in which:
97 unique CDR3
5 unique J



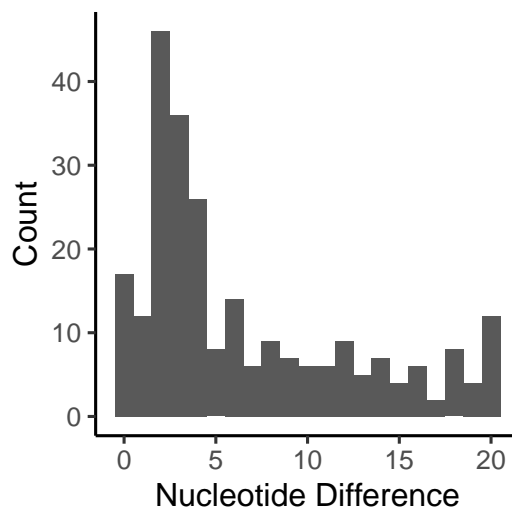
IGHV3-73*01_02

304 sequences assigned
81 (26.6%) exact matches, in which:
58 unique CDR3
4 unique J



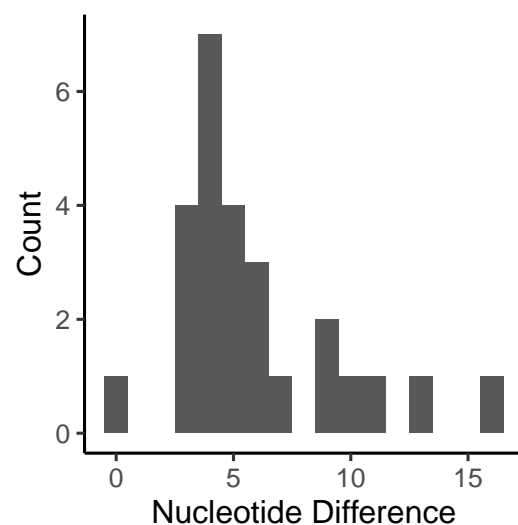
IGHV3-74*01_02_C246T_

368 sequences assigned
17 (4.6%) exact matches, in which:
17 unique CDR3
3 unique J



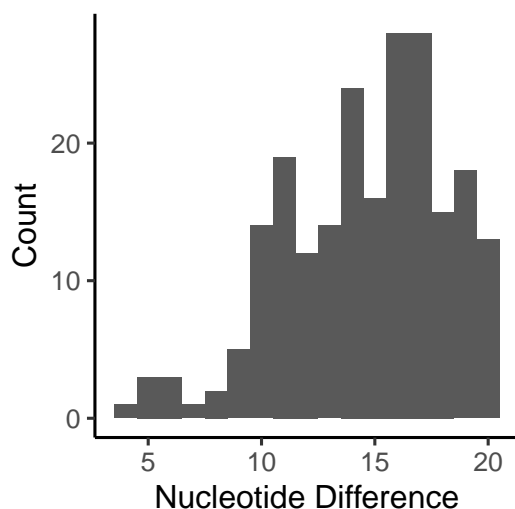
IGHV3-NL1*01

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



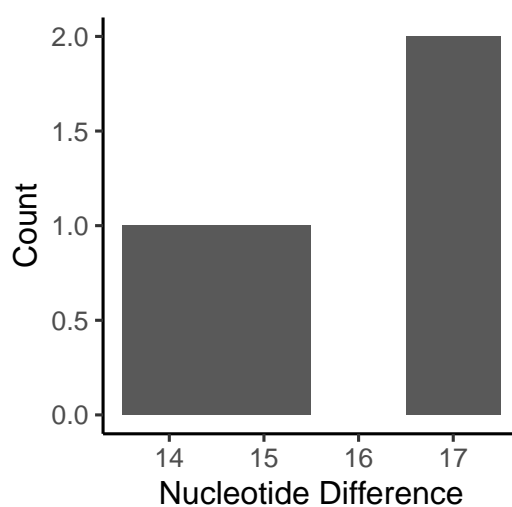
IGHV3-74*03

1728 sequences assigned
No exact matches.



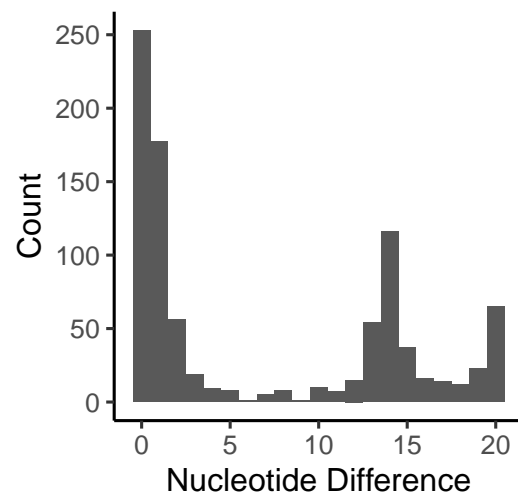
IGHV3-43D*04

4 sequences assigned
No exact matches.



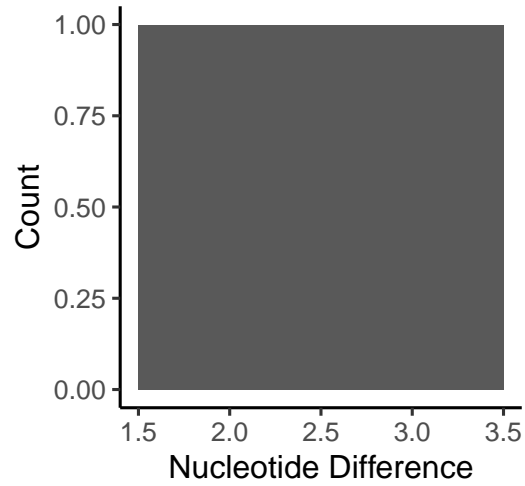
IGHV4-4*02_03

1255 sequences assigned
253 (20.2%) exact matches, in which:
217 unique CDR3
5 unique J



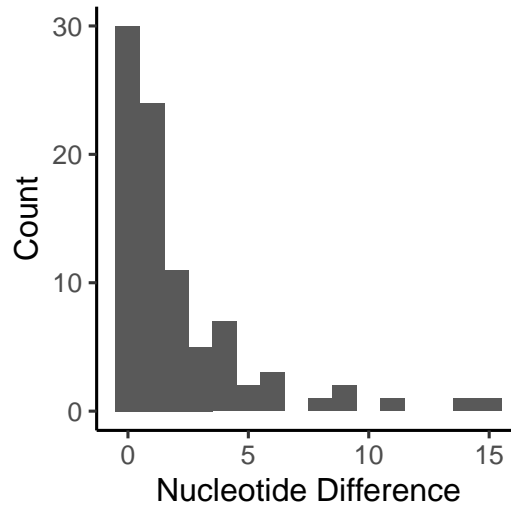
IGHV4-28*03

3 sequences assigned
No exact matches.



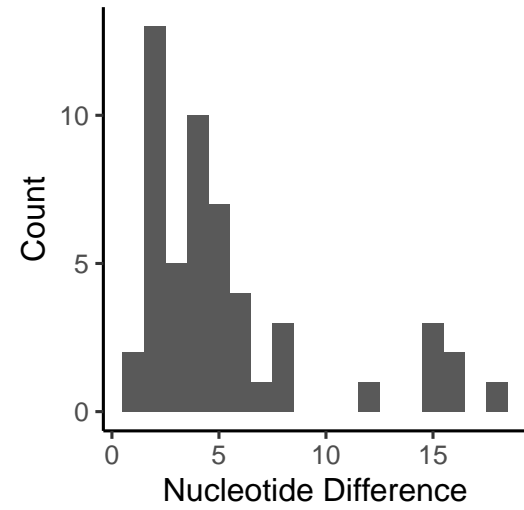
IGHV4-30-2*01

89 sequences assigned
30 (33.7%) exact matches, in which:
23 unique CDR3
4 unique J



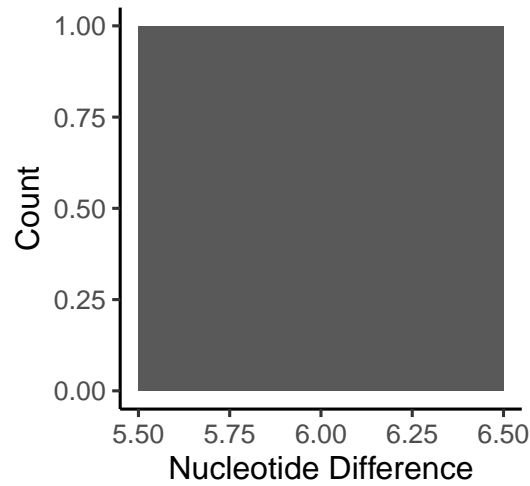
IGHV4-30-4*08

63 sequences assigned
No exact matches.



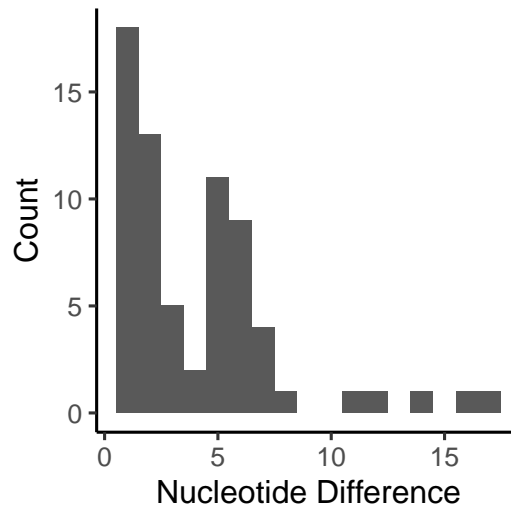
IGHV4-28*01_07

1 sequences assigned
No exact matches.



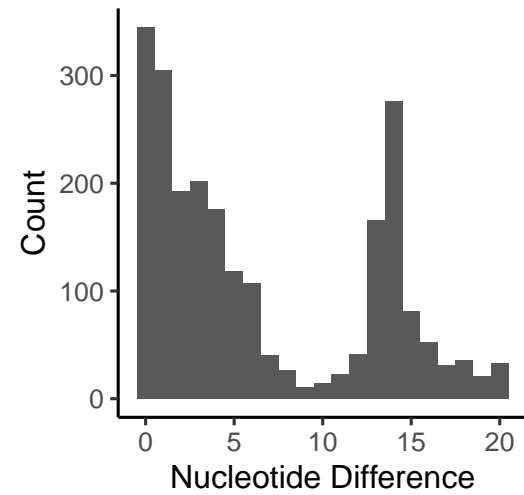
IGHV4-30-2*03

74 sequences assigned
No exact matches.



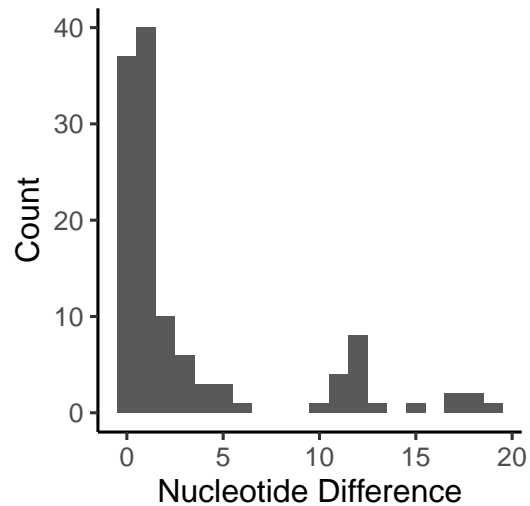
IGHV4-31*02

3576 sequences assigned
345 (9.6%) exact matches, in which:
303 unique CDR3
6 unique J



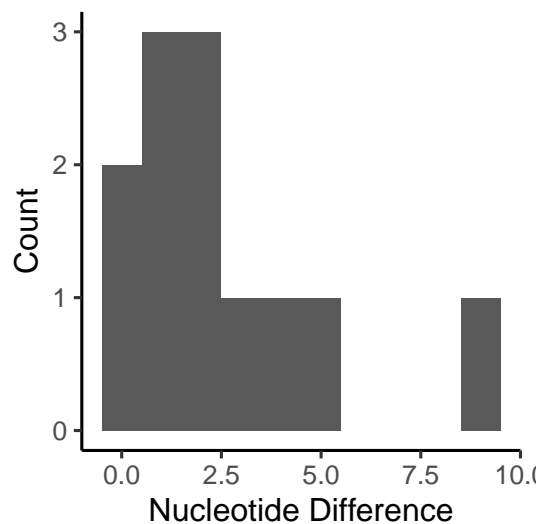
IGHV4-30-4*01

209 sequences assigned
37 (17.7%) exact matches, in which:
30 unique CDR3
5 unique J



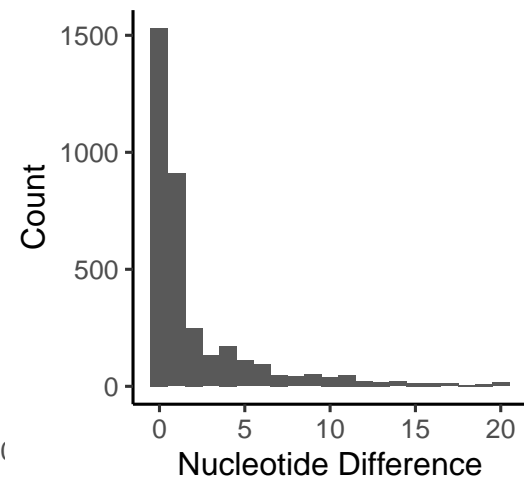
IGHV4-30-2*05

12 sequences assigned
2 (16.7%) exact matches, in which:
2 unique CDR3
2 unique J



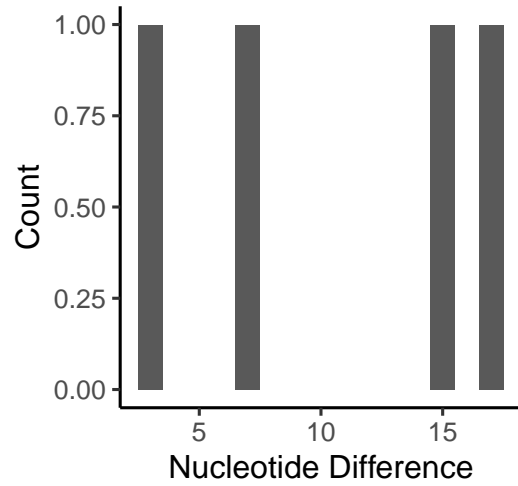
IGHV4-34*01_02

3643 sequences assigned
1531 (42%) exact matches, in which:
1299 unique CDR3
6 unique J



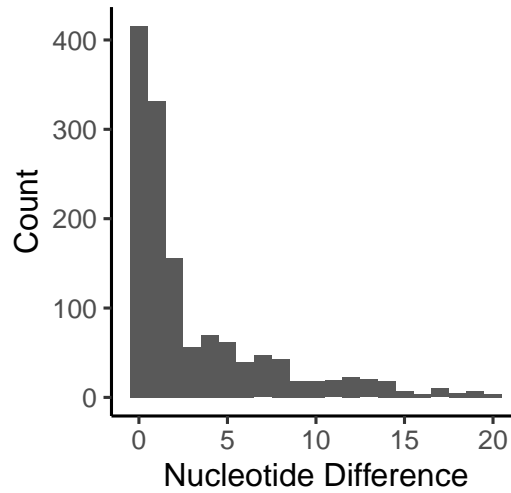
IGHV4-38-2*02

8 sequences assigned
No exact matches.



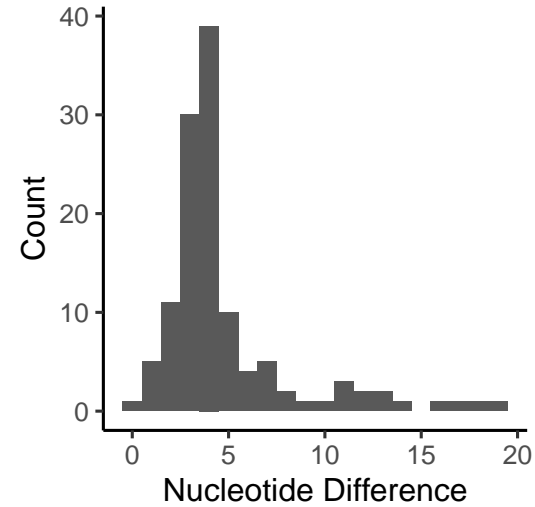
IGHV4-59*08

1911 sequences assigned
416 (21.8%) exact matches, in which:
392 unique CDR3
6 unique J



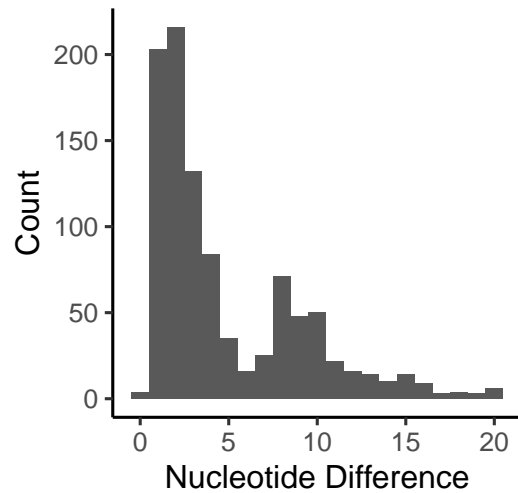
IGHV4-61*05

135 sequences assigned
1 (0.7%) exact matches, in which:
1 unique CDR3
1 unique J



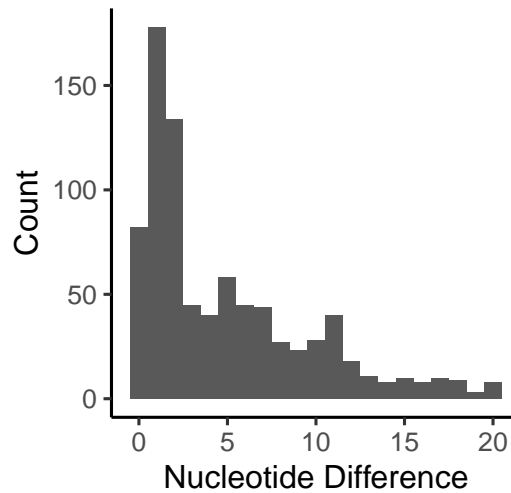
IGHV4-39*07

1040 sequences assigned
4 (0.4%) exact matches, in which:
4 unique CDR3
3 unique J



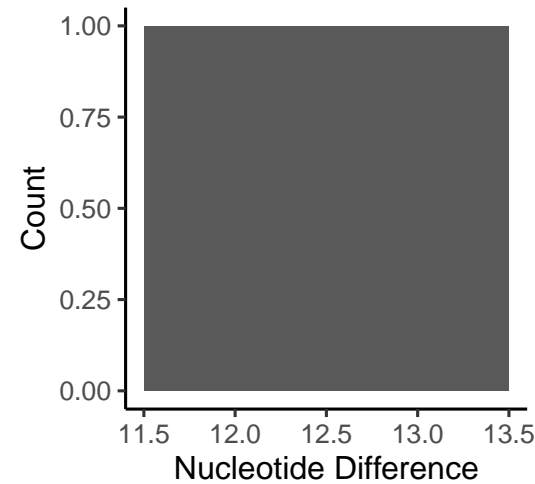
IGHV4-59*12

1281 sequences assigned
82 (6.4%) exact matches, in which:
82 unique CDR3
5 unique J



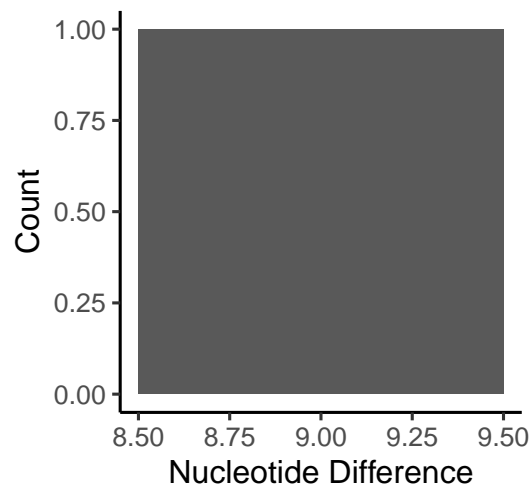
IGHV1/OR15-2*02_03

2 sequences assigned
No exact matches.



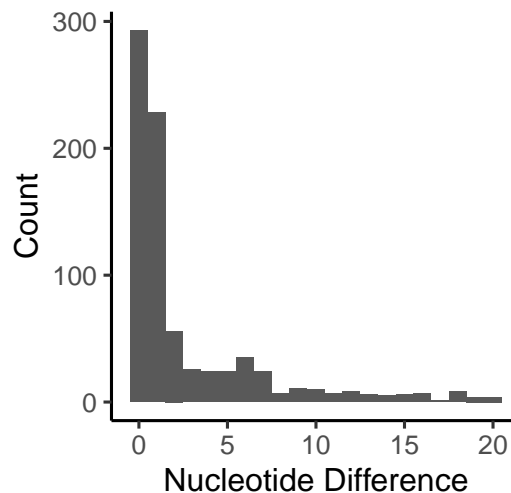
IGHV4-55*09

1 sequences assigned
No exact matches.



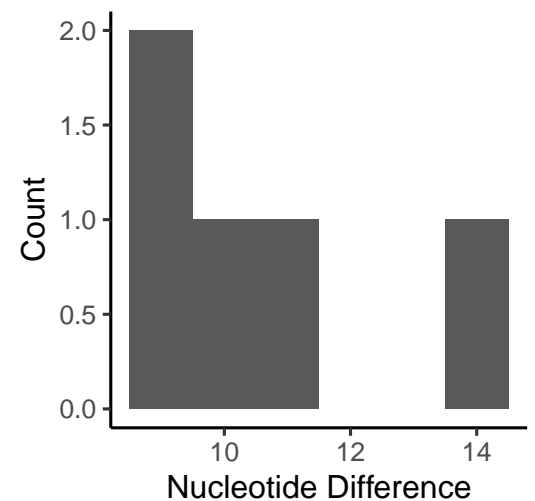
IGHV4-61*02

930 sequences assigned
293 (31.5%) exact matches, in which:
272 unique CDR3
6 unique J



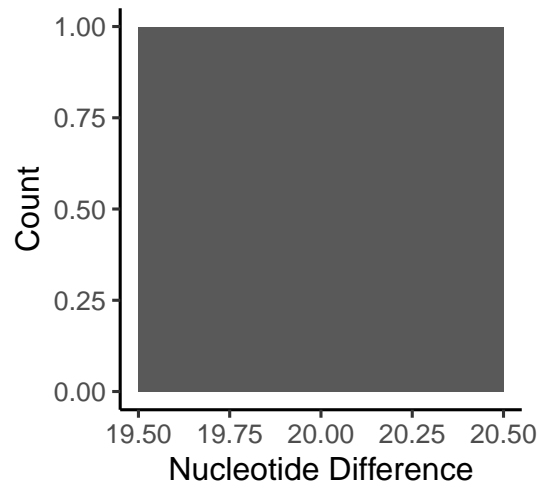
IGHV1/OR15-3*02

5 sequences assigned
No exact matches.



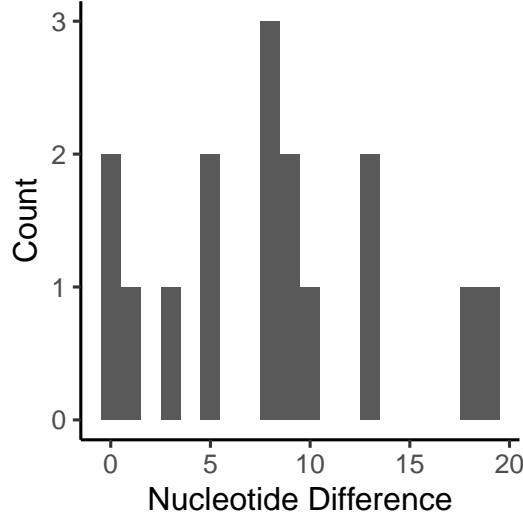
IGHV1/OR15-3*03

1 sequences assigned
No exact matches.



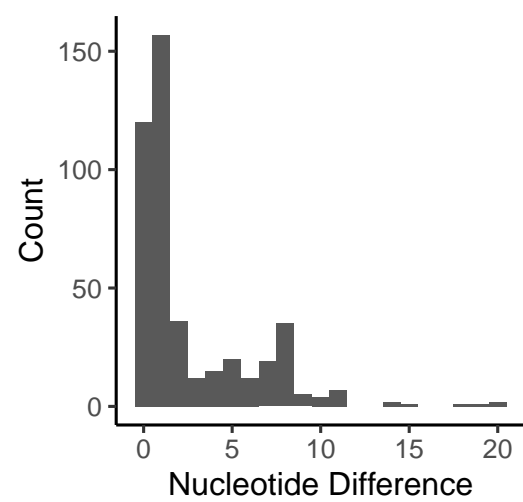
IGHV5-51*04

16 sequences assigned
2 (12.5%) exact matches, in which:
2 unique CDR3
2 unique J



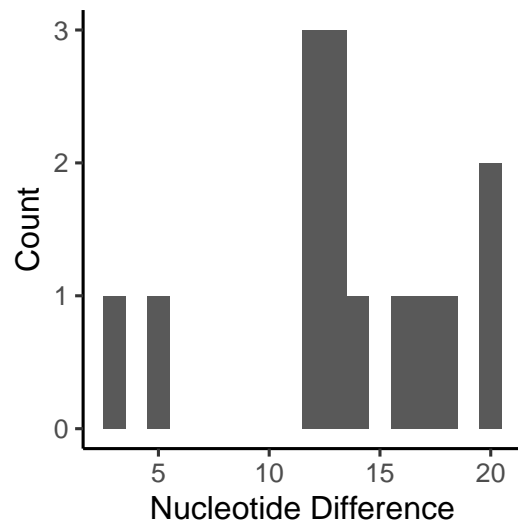
IGHV6-1*01_02

1580 sequences assigned
120 (7.6%) exact matches, in which:
108 unique CDR3
6 unique J



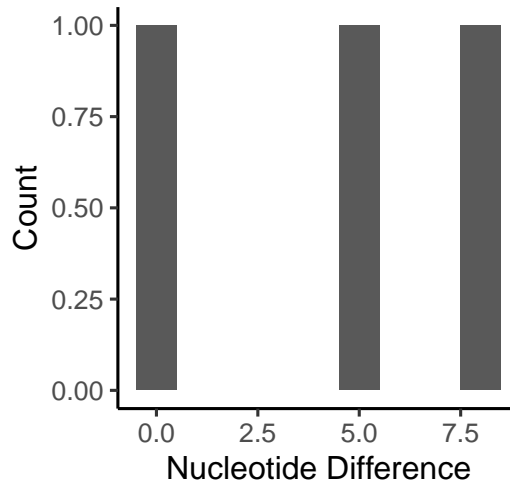
IGHV4/OR15-8*01

47 sequences assigned
No exact matches.



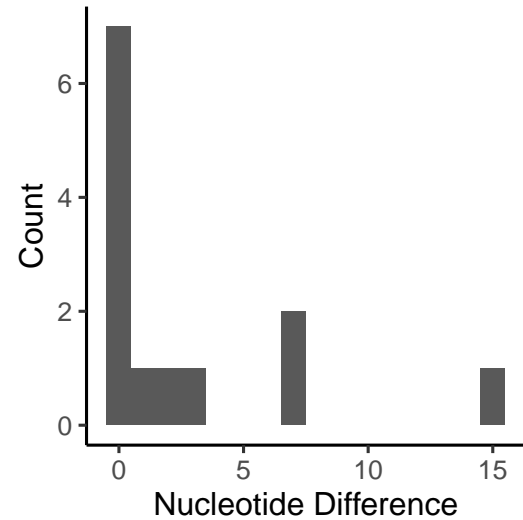
IGHV5-51*06

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



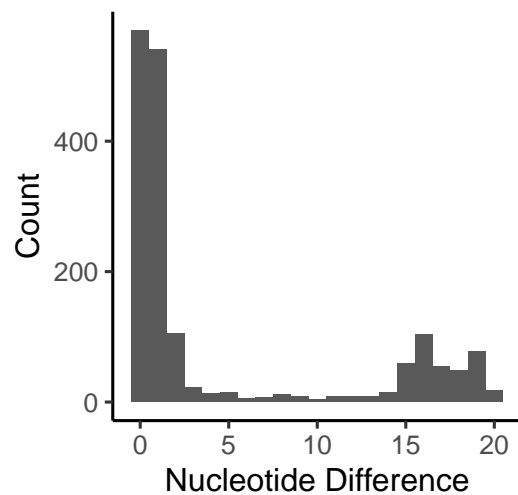
IGHV7-4-1*01

13 sequences assigned
7 (53.8%) exact matches, in which:
7 unique CDR3
2 unique J



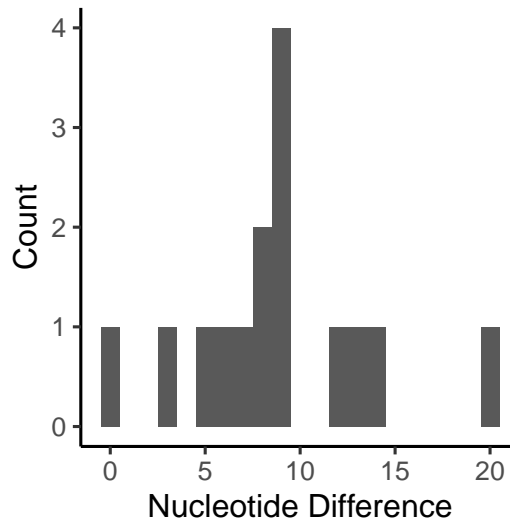
IGHV5-10-1*01_03

1799 sequences assigned
570 (31.7%) exact matches, in which:
467 unique CDR3
6 unique J



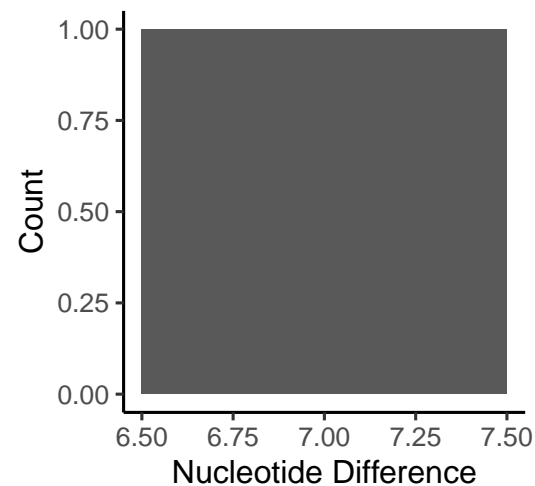
IGHV5-51*07

15 sequences assigned
1 (6.7%) exact matches, in which:
1 unique CDR3
1 unique J

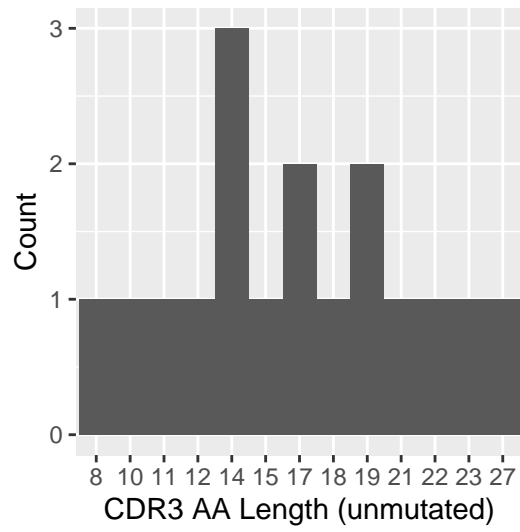


IGHV7-81*01

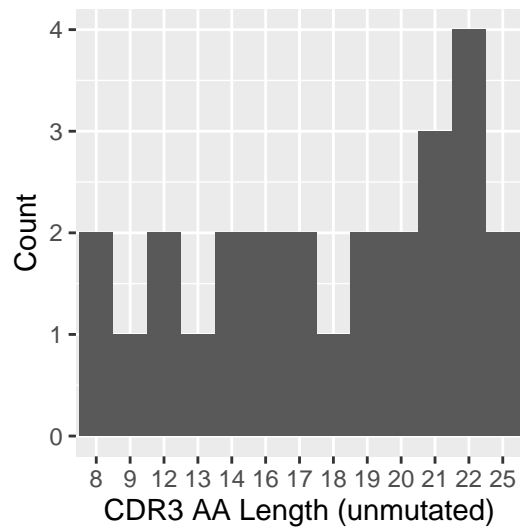
1 sequences assigned
No exact matches.



IGHV3-74*01_02_C246T_G247T_T279C_T300C_G303A



IGHV3-53*01_02_G81A_A225G_T267G_G303A





[illegible]