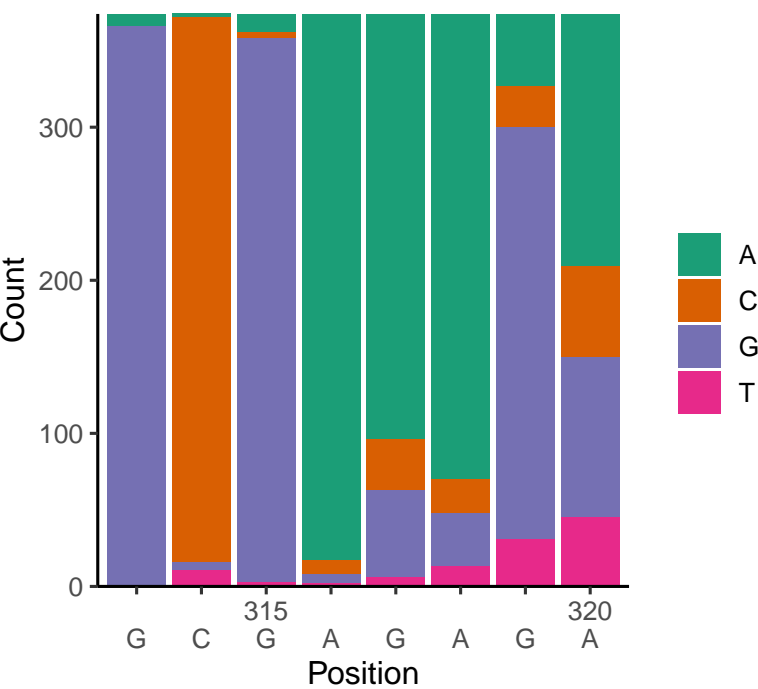
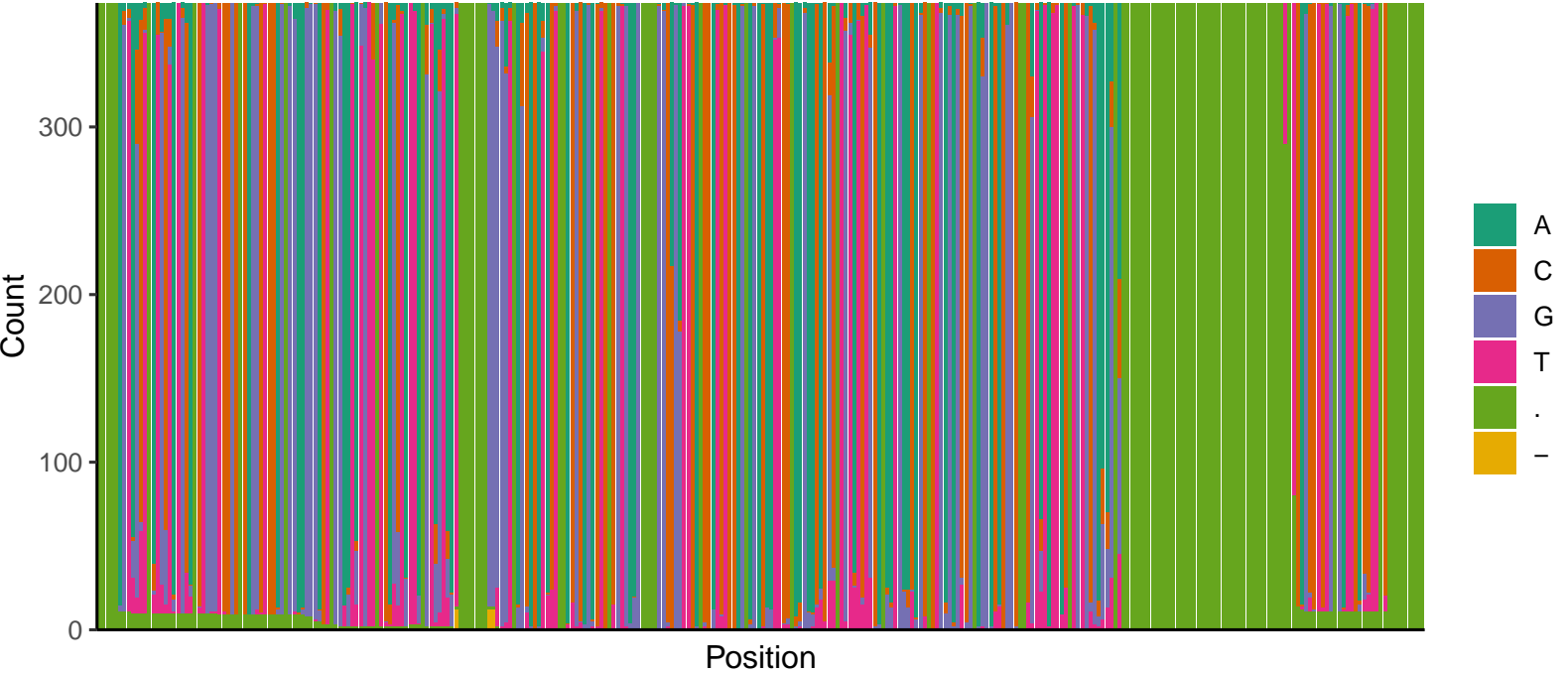


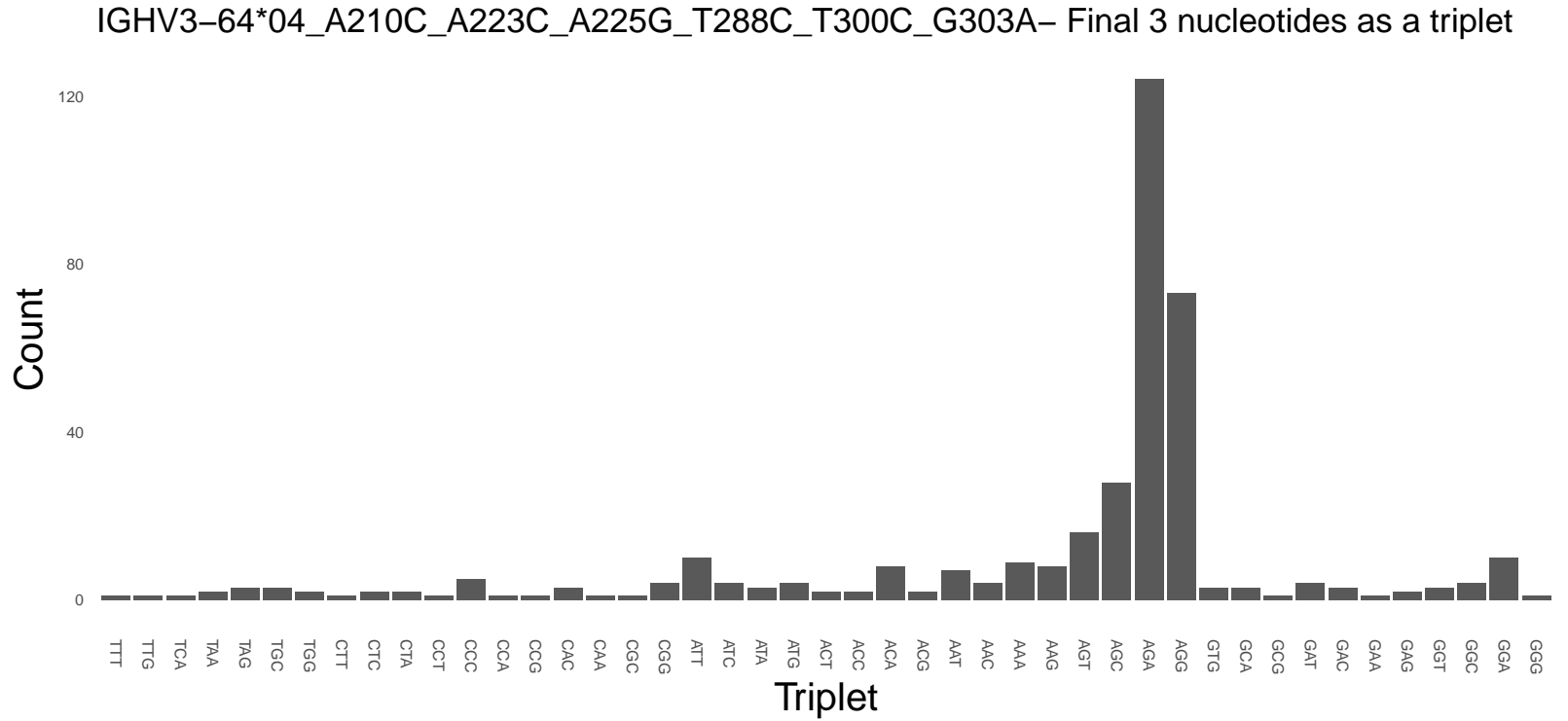
Gene IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A



Gene IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A

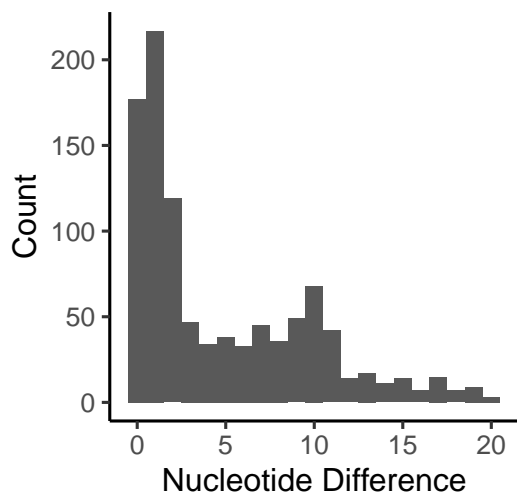


IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A- Final 3 nucleotides as a triplet



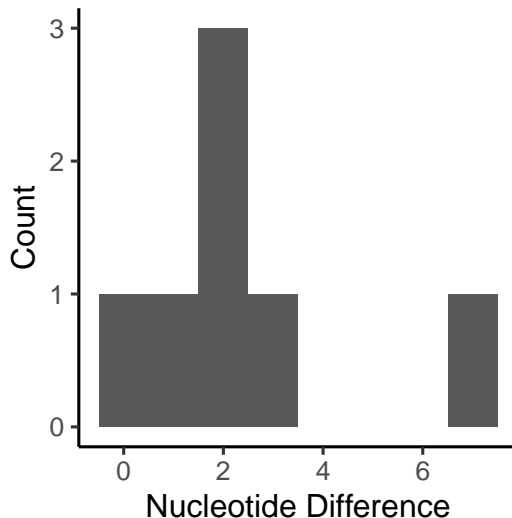
IGHV1-2*04

1008 sequences assigned
177 (17.6%) exact matches, in which:
149 unique CDR3
6 unique J



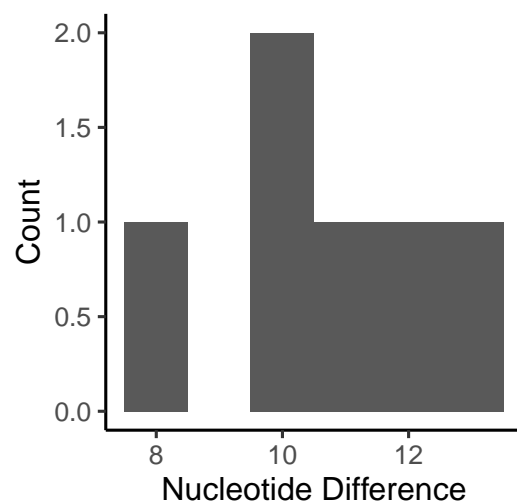
IGHV1-8*01

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



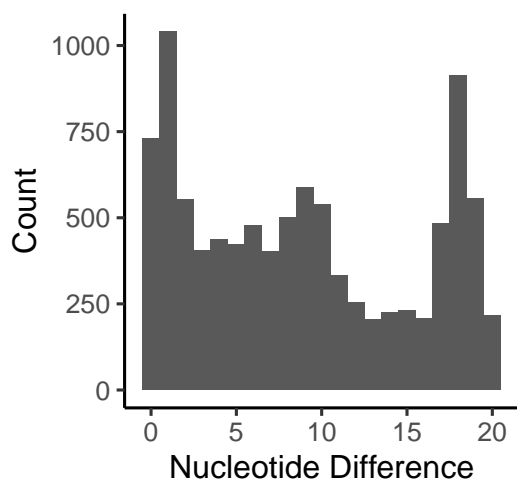
IGHV1-45*02

6 sequences assigned
No exact matches.



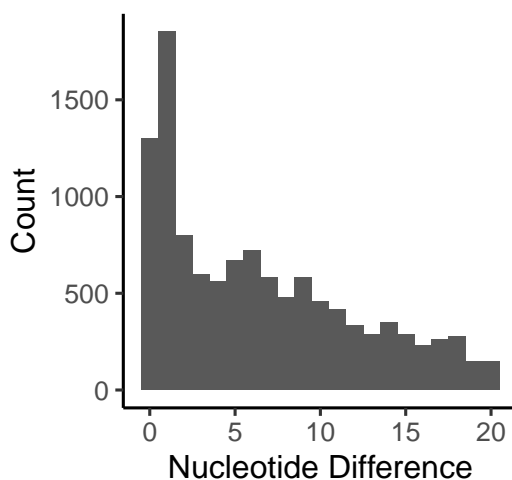
IGHV1-2*06

10439 sequences assigned
731 (7%) exact matches, in which:
563 unique CDR3
7 unique J



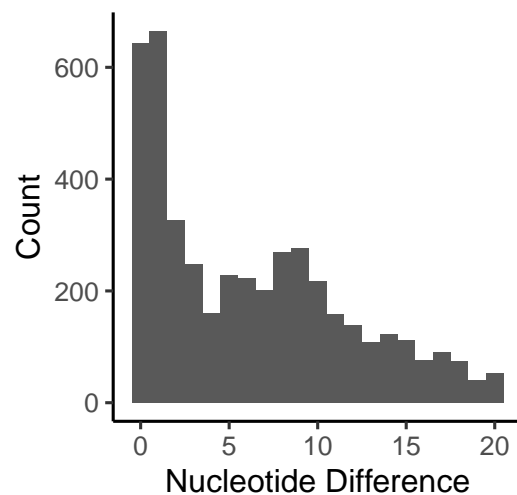
IGHV1-18*01

12461 sequences assigned
1300 (10.4%) exact matches, in which:
991 unique CDR3
7 unique J



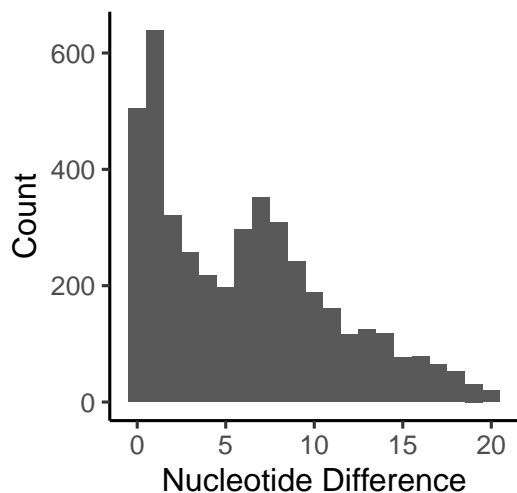
IGHV1-46*01

7585 sequences assigned
643 (8.5%) exact matches, in which:
540 unique CDR3
7 unique J



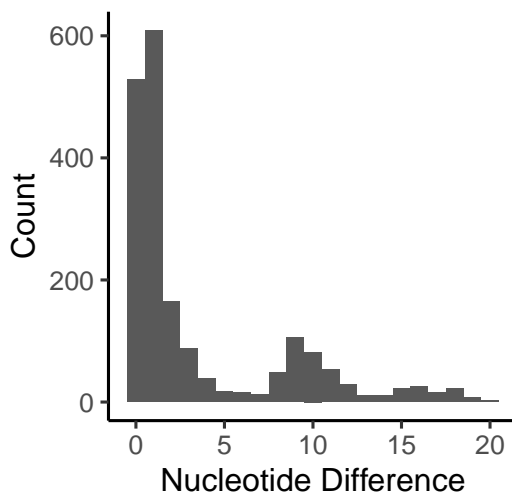
IGHV1-3*01_05

4669 sequences assigned
505 (10.8%) exact matches, in which:
404 unique CDR3
7 unique J



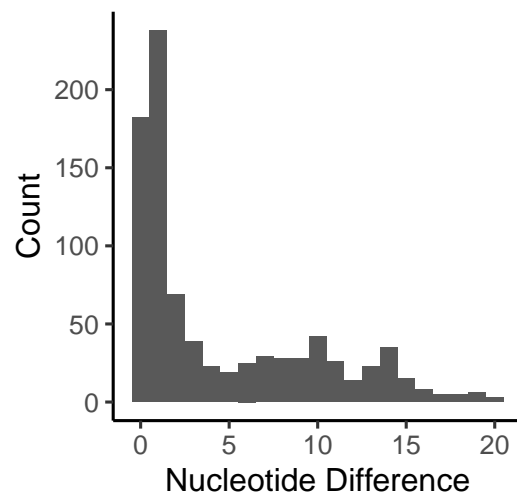
IGHV1-24*01

1925 sequences assigned
528 (27.4%) exact matches, in which:
404 unique CDR3
7 unique J



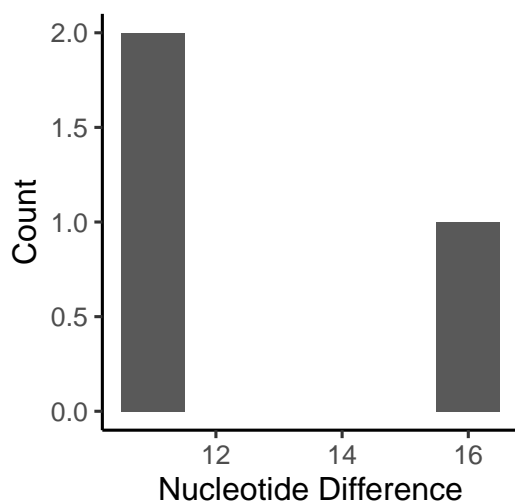
IGHV1-58*01_03

878 sequences assigned
182 (20.7%) exact matches, in which:
146 unique CDR3
7 unique J



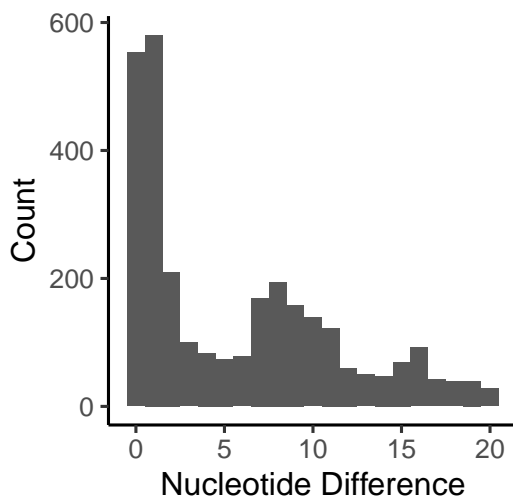
IGHV1-68*01

3 sequences assigned
No exact matches.



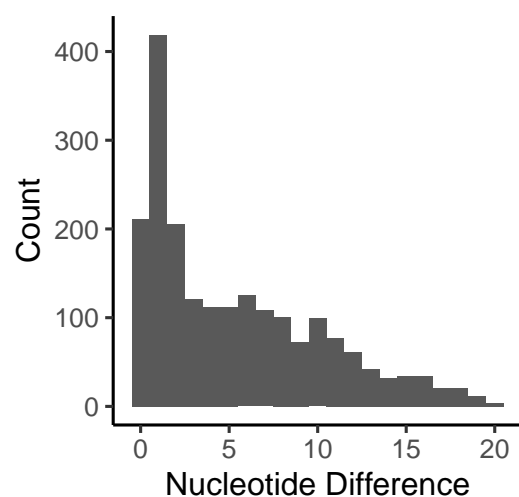
IGHV1-69*06_14

3252 sequences assigned
553 (17%) exact matches, in which:
476 unique CDR3
7 unique J



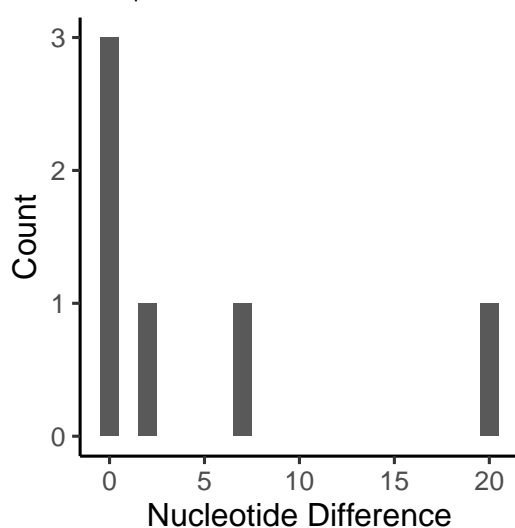
IGHV2-5*02

2183 sequences assigned
211 (9.7%) exact matches, in which:
150 unique CDR3
5 unique J



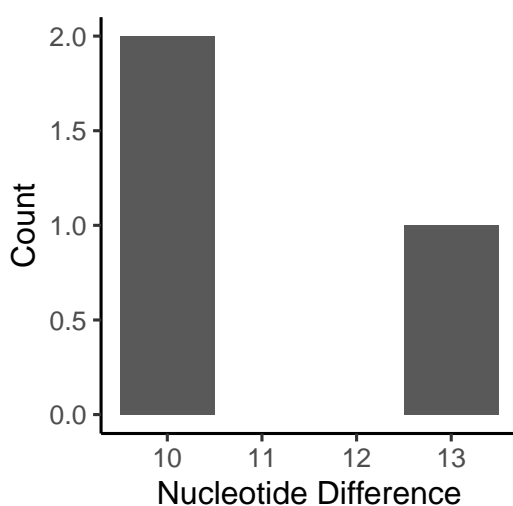
IGHV1-69-2*01

7 sequences assigned
3 (42.9%) exact matches, in which:
3 unique CDR3
2 unique J



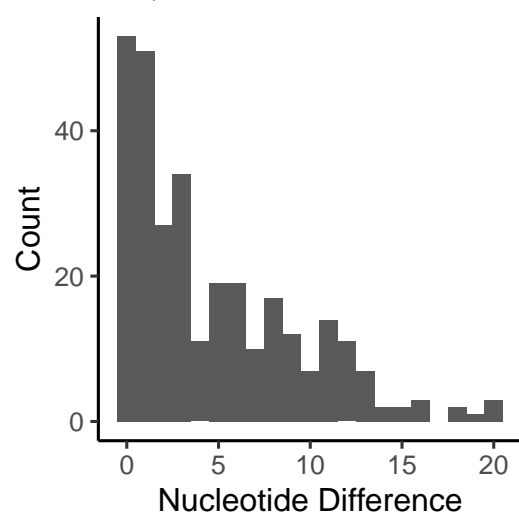
IGHV1-NL1*01

3 sequences assigned
No exact matches.



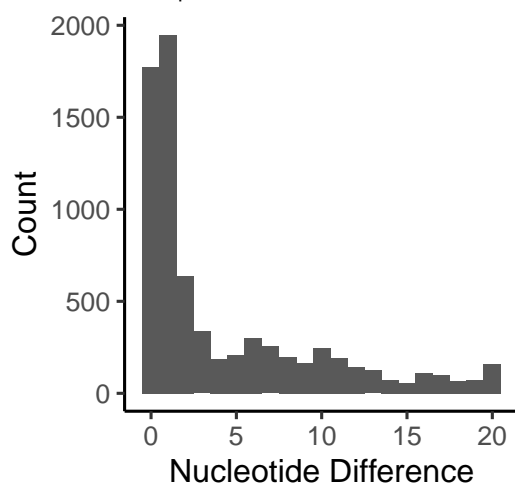
IGHV2-26*01

312 sequences assigned
53 (17%) exact matches, in which:
44 unique CDR3
6 unique J



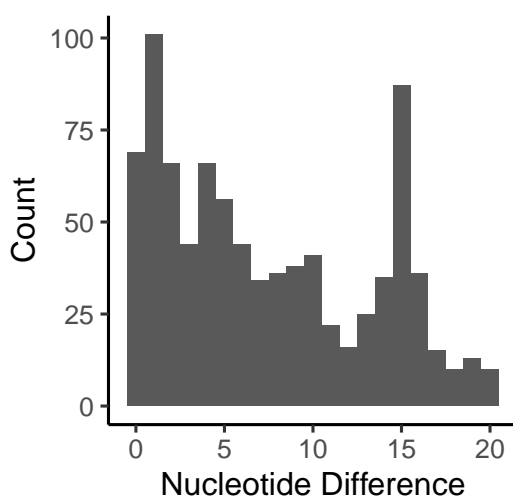
IGHV1-69*01_12_13

7883 sequences assigned
1772 (22.5%) exact matches, in which:
1452 unique CDR3
7 unique J



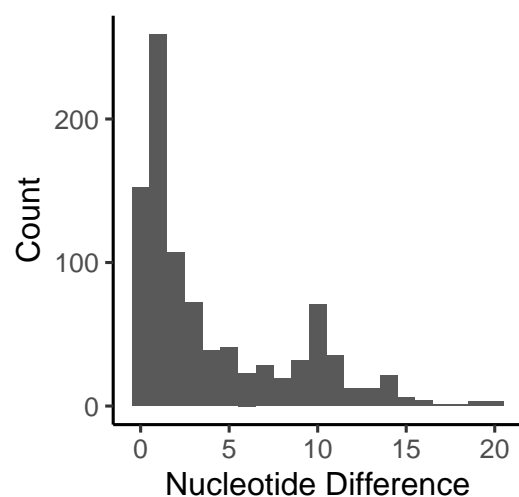
IGHV2-5*01

963 sequences assigned
69 (7.2%) exact matches, in which:
57 unique CDR3
5 unique J



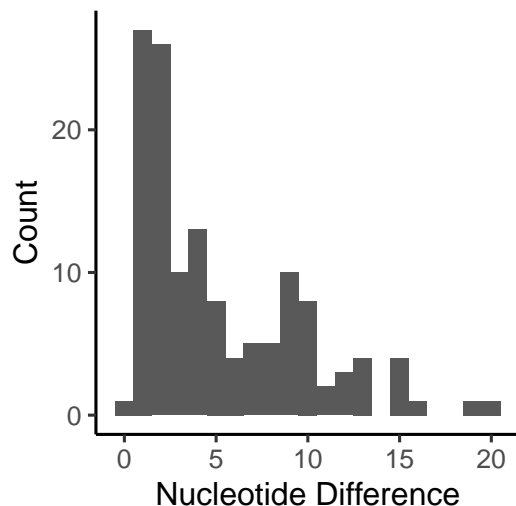
IGHV2-70*01

998 sequences assigned
152 (15.2%) exact matches, in which:
105 unique CDR3
6 unique J



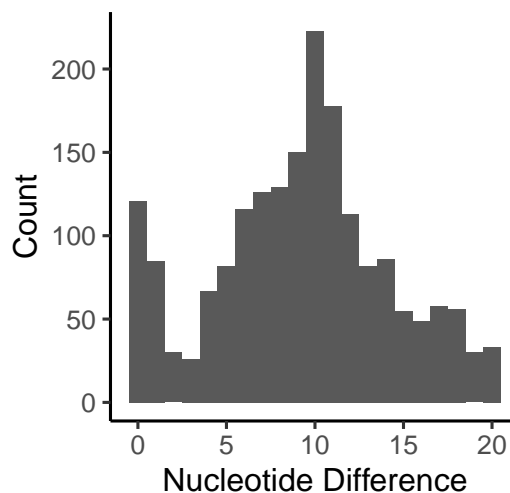
IGHV2-70*12

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



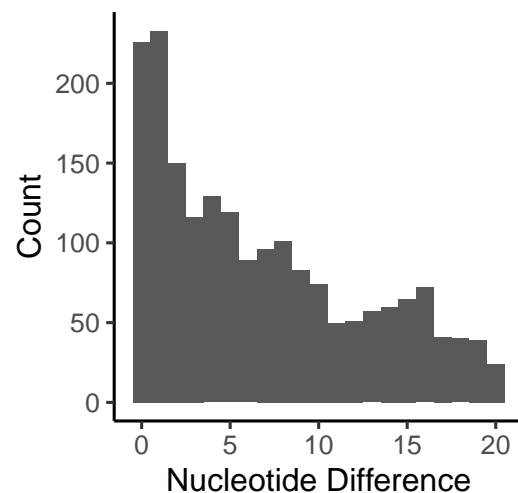
IGHV3-7*05

1995 sequences assigned
121 (6.1%) exact matches, in which:
80 unique CDR3
7 unique J



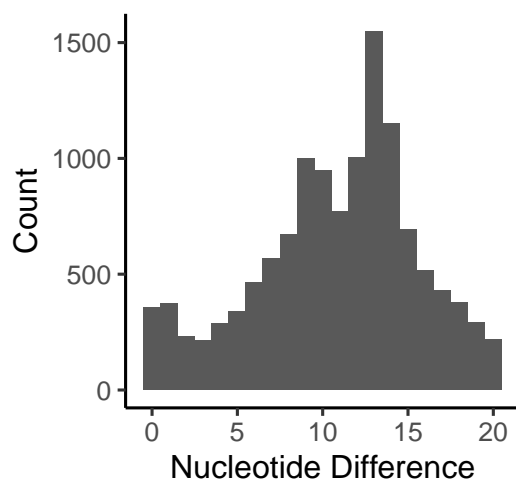
IGHV3-11*06

2017 sequences assigned
226 (11.2%) exact matches, in which:
133 unique CDR3
7 unique J



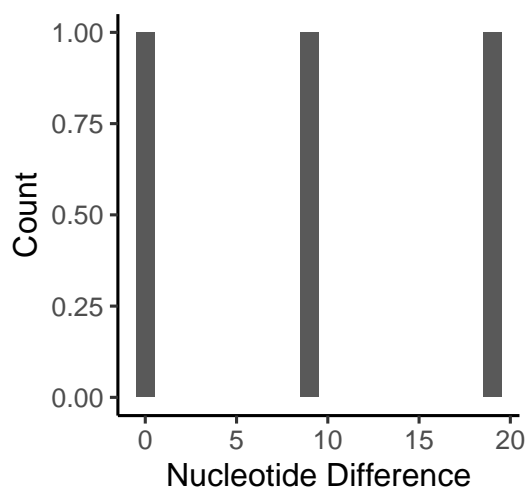
IGHV3-7*01

13398 sequences assigned
357 (2.7%) exact matches, in which:
244 unique CDR3
7 unique J



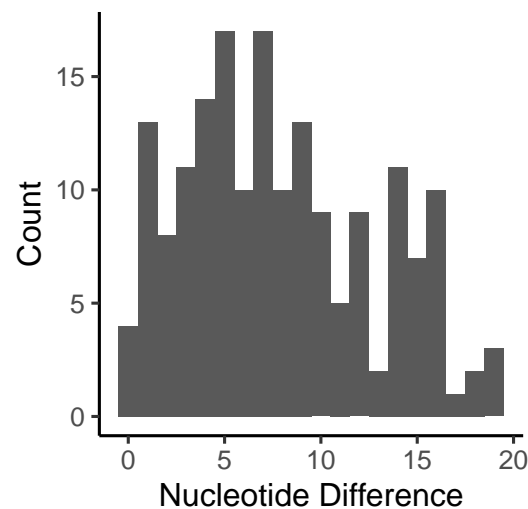
IGHV3-9*01

4 sequences assigned
1 (25%) exact matches, in which:
1 unique CDR3
1 unique J



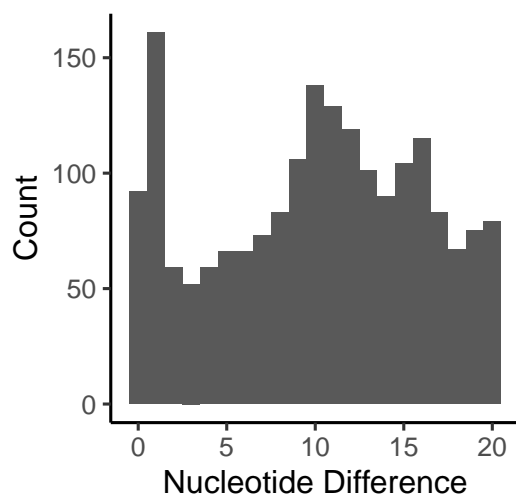
IGHV3-11*03_05

183 sequences assigned
4 (2.2%) exact matches, in which:
4 unique CDR3
2 unique J



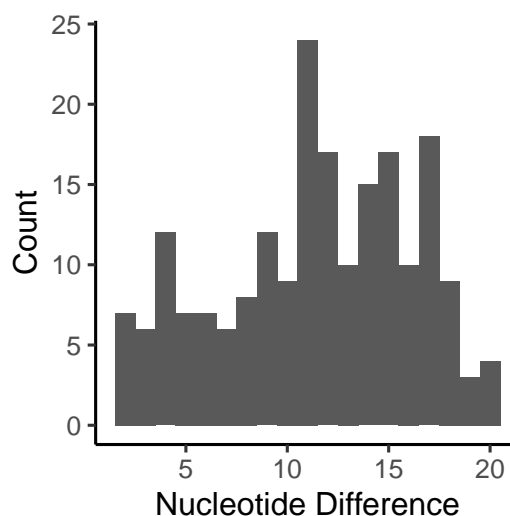
IGHV3-7*03

2444 sequences assigned
92 (3.8%) exact matches, in which:
53 unique CDR3
6 unique J



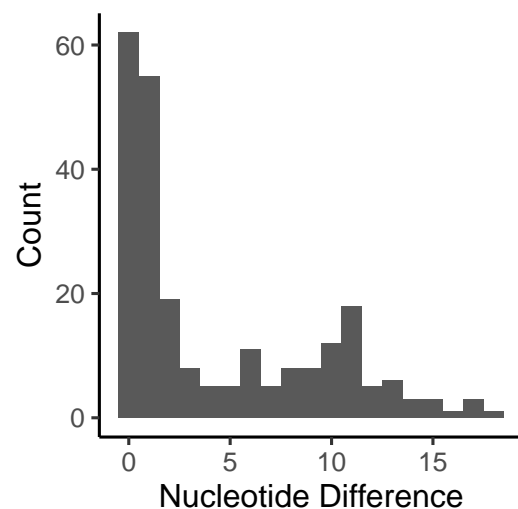
IGHV3-11*04

228 sequences assigned
No exact matches.



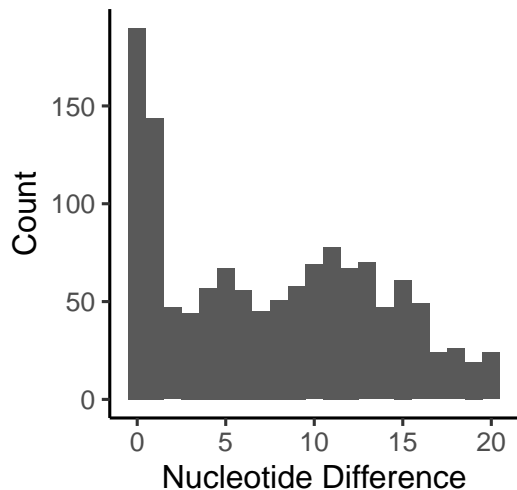
IGHV3-13*05

238 sequences assigned
62 (26.1%) exact matches, in which:
44 unique CDR3
7 unique J



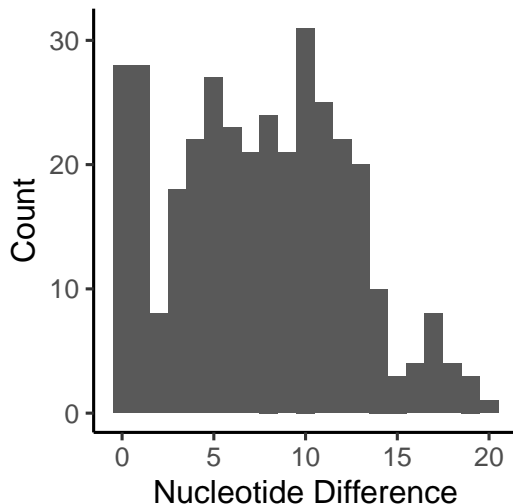
IGHV3-15*07

1398 sequences assigned
190 (13.6%) exact matches, in which:
124 unique CDR3
6 unique J



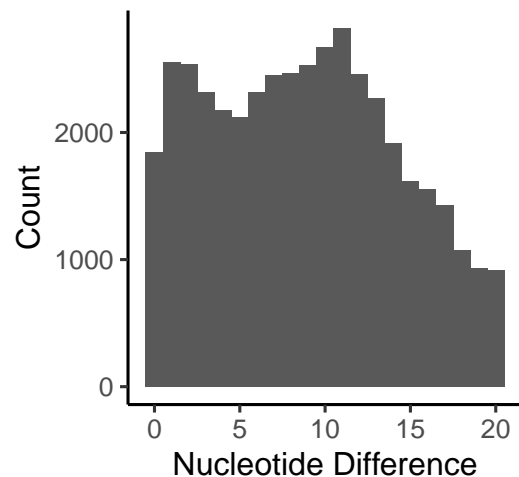
IGHV3-20*03_04

363 sequences assigned
28 (7.7%) exact matches, in which:
16 unique CDR3
3 unique J



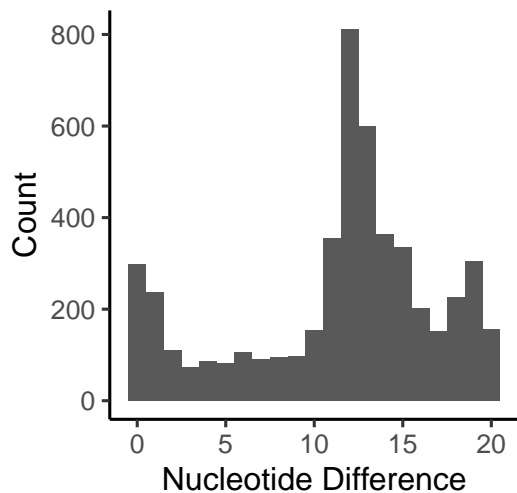
IGHV3-23*01_04

53645 sequences assigned
1849 (3.4%) exact matches, in which:
1104 unique CDR3
7 unique J



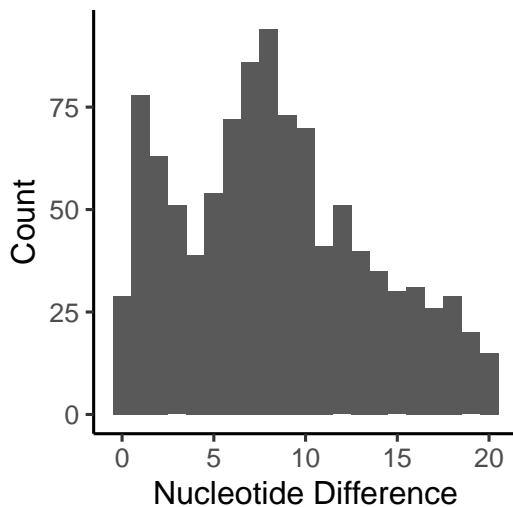
IGHV3-15*01_02

5268 sequences assigned
299 (5.7%) exact matches, in which:
196 unique CDR3
7 unique J



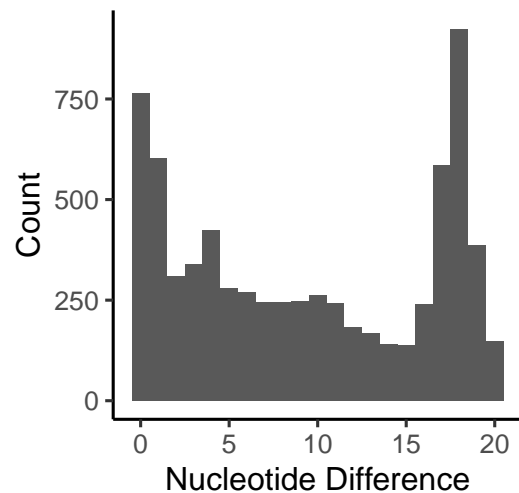
IGHV3-21*04

1120 sequences assigned
29 (2.6%) exact matches, in which:
29 unique CDR3
6 unique J



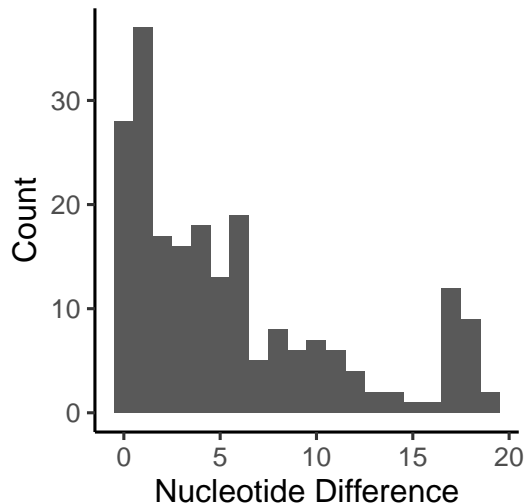
IGHV3-30*01

7621 sequences assigned
764 (10%) exact matches, in which:
503 unique CDR3
7 unique J



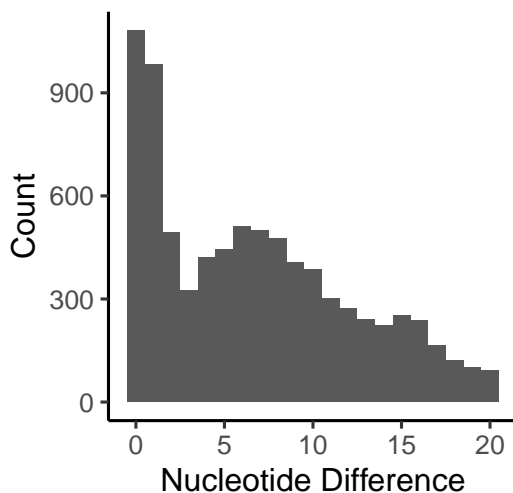
IGHV3-20*01_02

216 sequences assigned
28 (13%) exact matches, in which:
14 unique CDR3
4 unique J



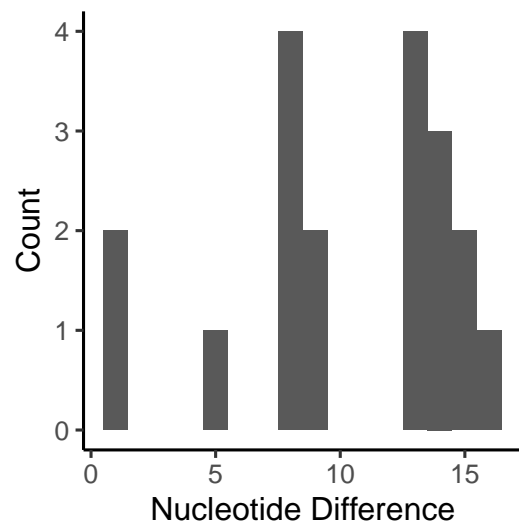
IGHV3-21*01_02

14707 sequences assigned
1082 (7.4%) exact matches, in which:
679 unique CDR3
7 unique J



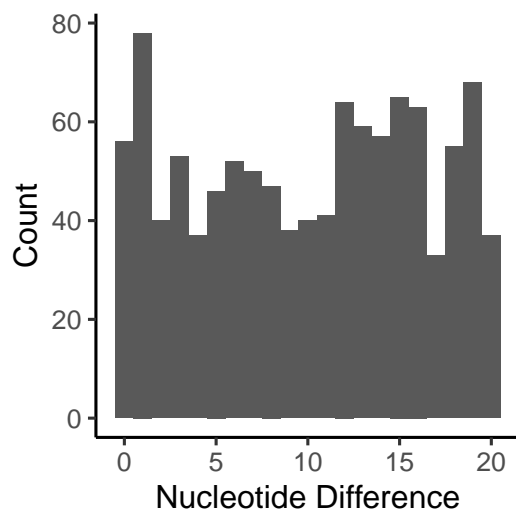
IGHV3-30-3*01

25 sequences assigned
No exact matches.



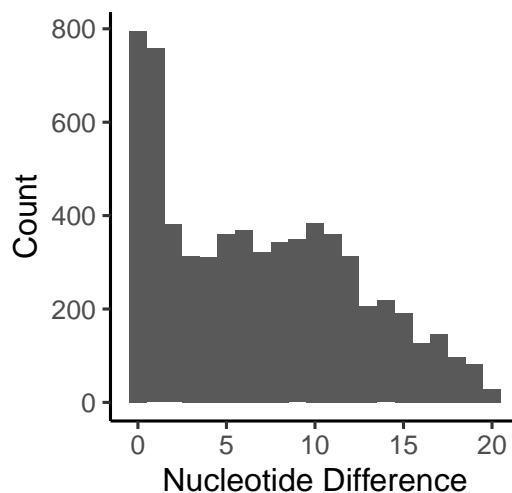
IGHV3-30*03

1533 sequences assigned
56 (3.7%) exact matches, in which:
56 unique CDR3
5 unique J



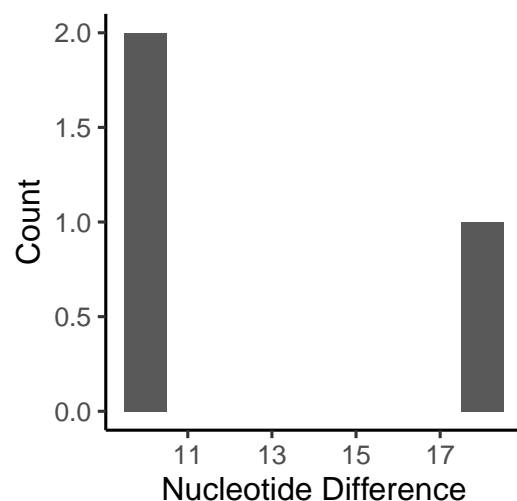
IGHV3-33*01

6820 sequences assigned
796 (11.7%) exact matches, in which:
543 unique CDR3
7 unique J



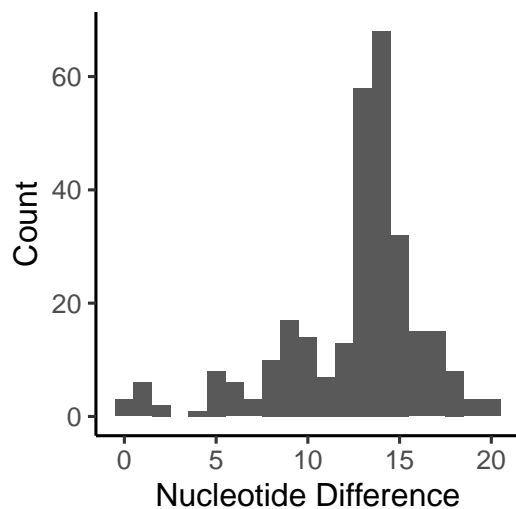
IGHV3-43*01

4 sequences assigned
No exact matches.



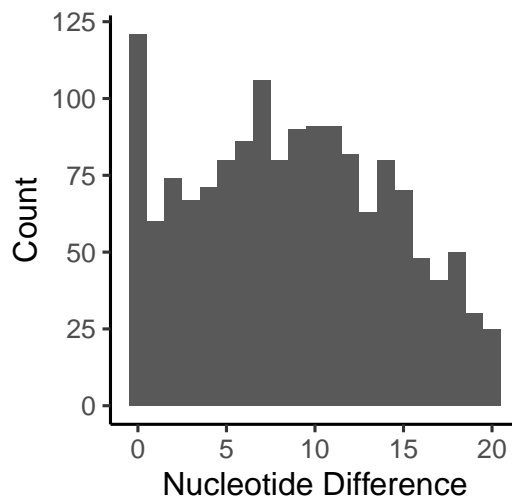
IGHV3-30-3*03

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



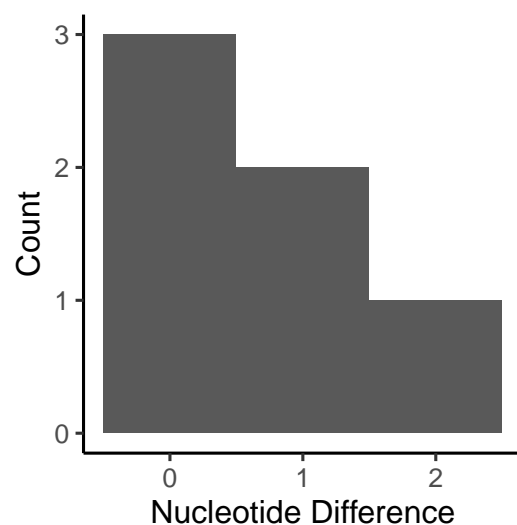
IGHV3-33*08

1624 sequences assigned
121 (7.5%) exact matches, in which:
93 unique CDR3
7 unique J



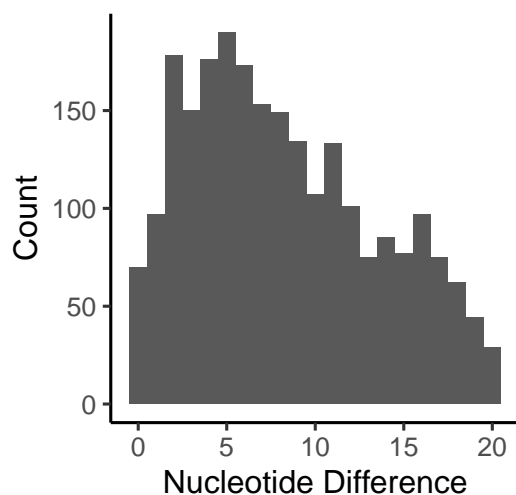
IGHV3-47*01

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



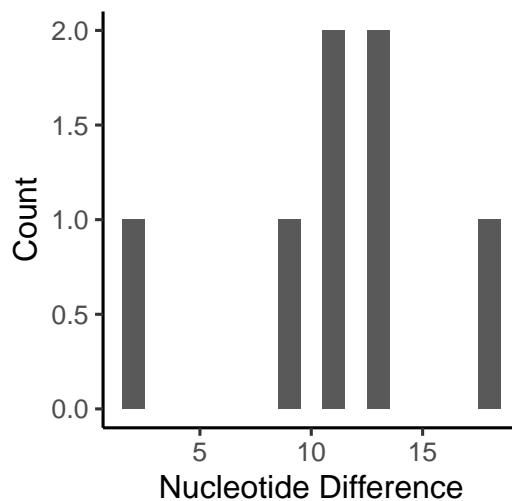
IGHV3-30*07

2487 sequences assigned
70 (2.8%) exact matches, in which:
66 unique CDR3
6 unique J



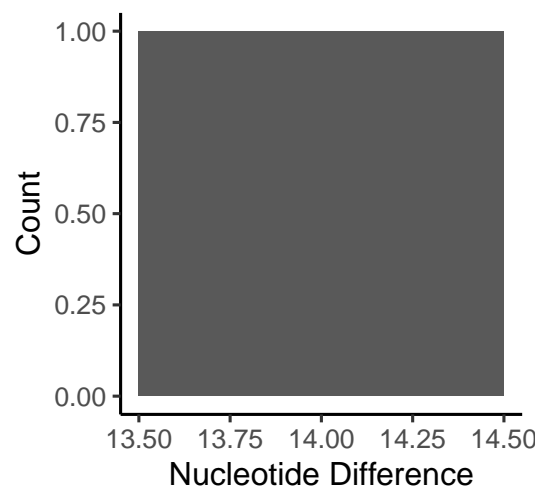
IGHV3-35*01

7 sequences assigned
No exact matches.



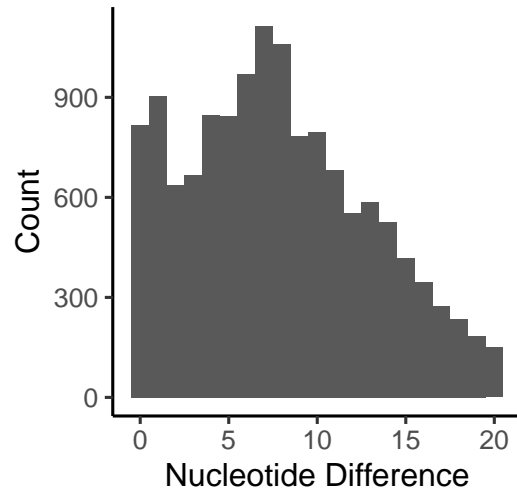
IGHV3-47*02

1 sequences assigned
No exact matches.



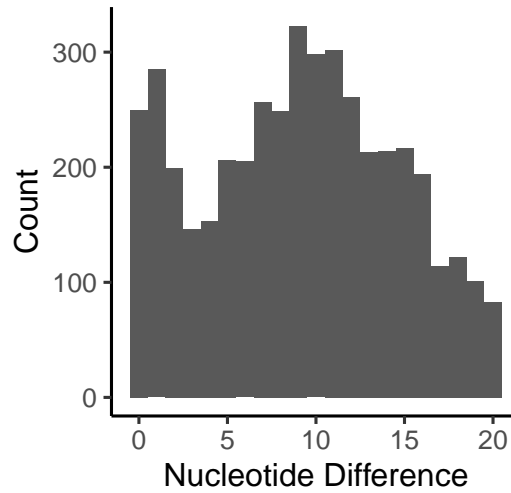
IGHV3-48*03

14126 sequences assigned
817 (5.8%) exact matches, in which:
491 unique CDR3
7 unique J



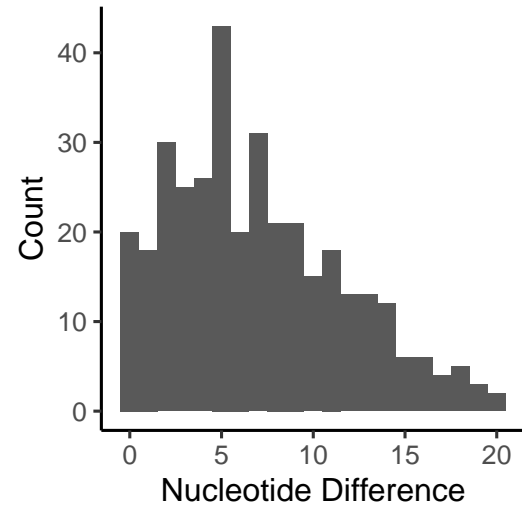
IGHV3-53*01_02

5222 sequences assigned
250 (4.8%) exact matches, in which:
148 unique CDR3
7 unique J



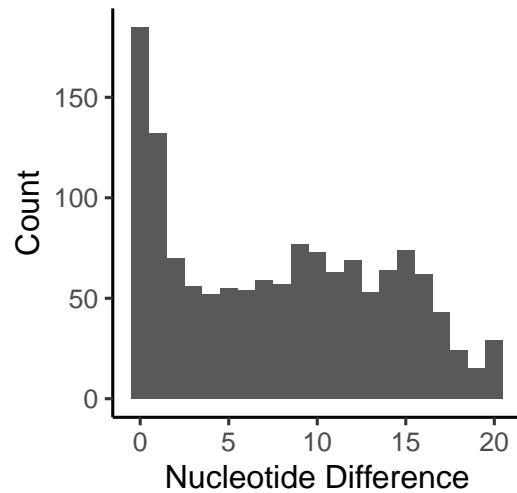
IGHV3-64*04_A210C_A2

374 sequences assigned
20 (5.3%) exact matches, in which:
20 unique CDR3
7 unique J



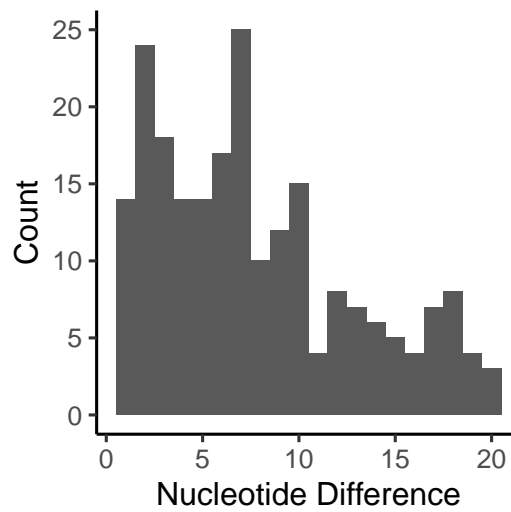
IGHV3-49*04

1499 sequences assigned
185 (12.3%) exact matches, in which:
115 unique CDR3
7 unique J



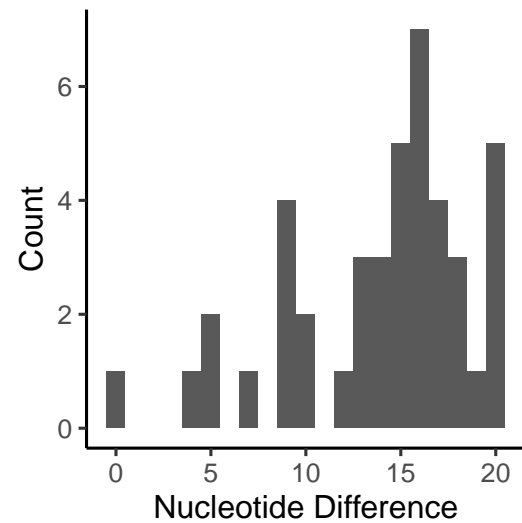
IGHV3-64*04

226 sequences assigned
No exact matches.



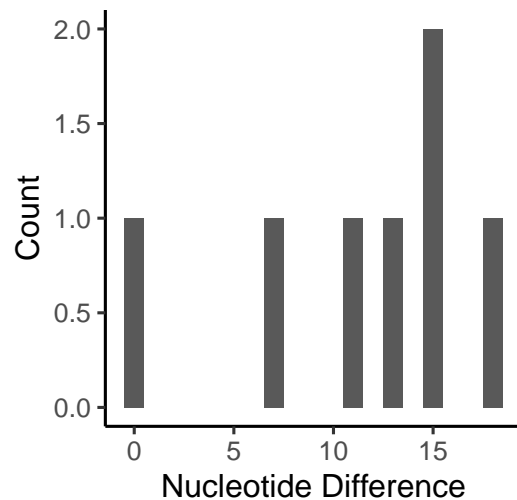
IGHV3-66*01

59 sequences assigned
1 (1.7%) exact matches, in which:
1 unique CDR3
1 unique J



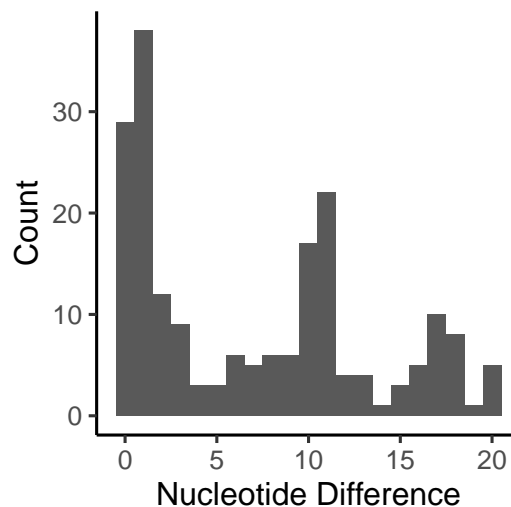
IGHV3-52*01_03

7 sequences assigned
1 (14.3%) exact matches, in which:
1 unique CDR3
1 unique J



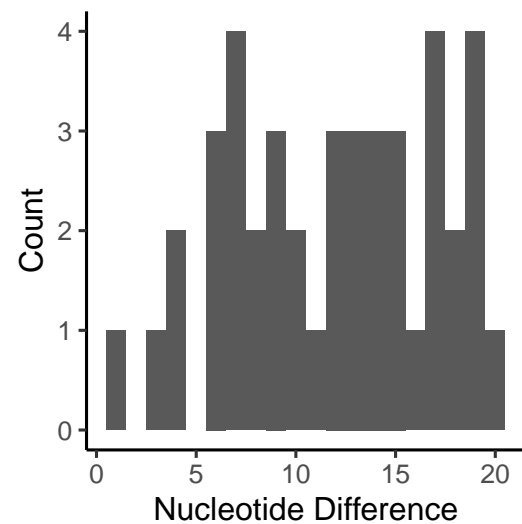
IGHV3-64*02_07

198 sequences assigned
29 (14.6%) exact matches, in which:
18 unique CDR3
4 unique J



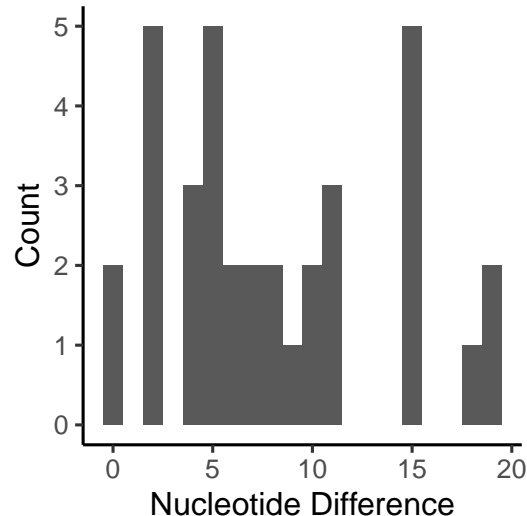
IGHV3-66*02

52 sequences assigned
No exact matches.



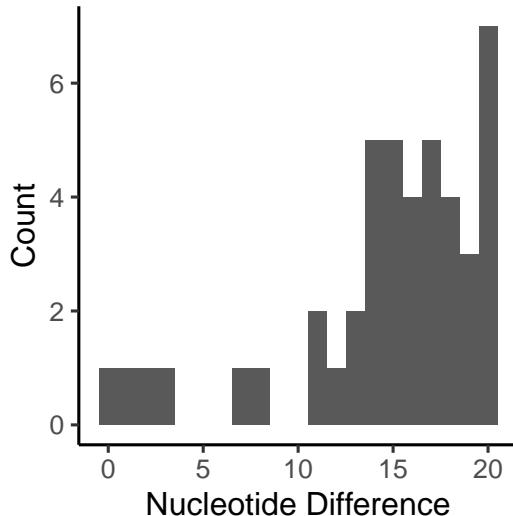
IGHV3-66*03

36 sequences assigned
2 (5.6%) exact matches, in which:
2 unique CDR3
1 unique J



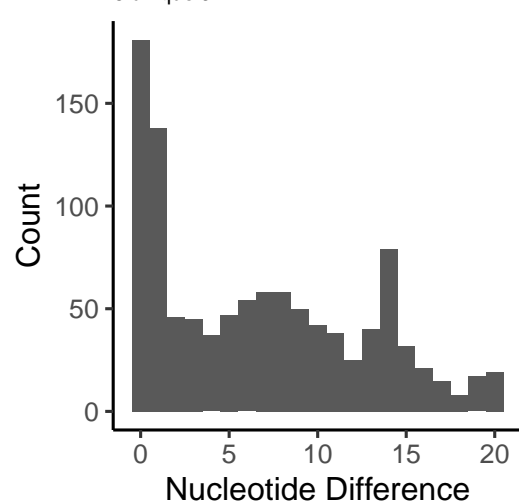
IGHV3-69-1*02

56 sequences assigned
1 (1.8%) exact matches, in which:
1 unique CDR3
1 unique J



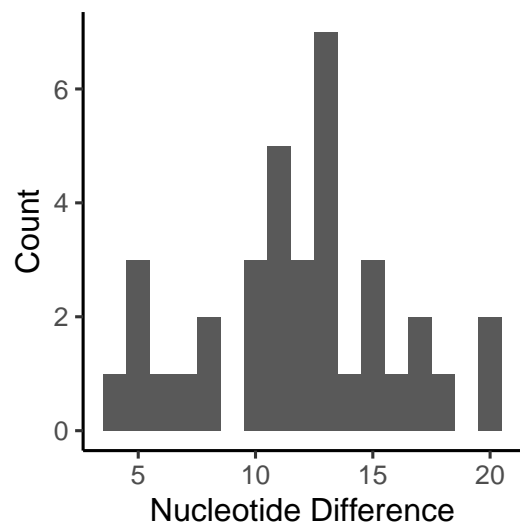
IGHV3-73*01_02

1165 sequences assigned
181 (15.5%) exact matches, in which:
105 unique CDR3
6 unique J



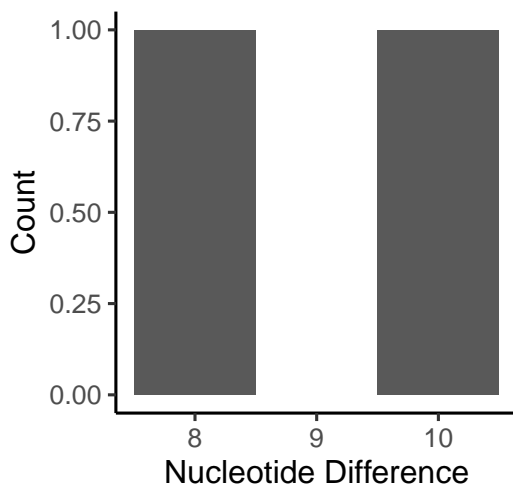
IGHV3-66*04

37 sequences assigned
No exact matches.



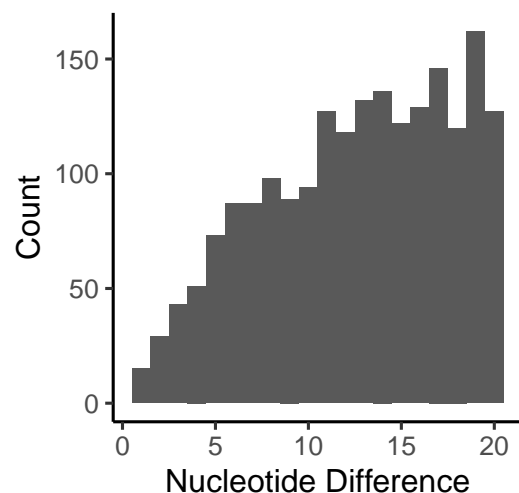
IGHV3-71*01_04

2 sequences assigned
No exact matches.



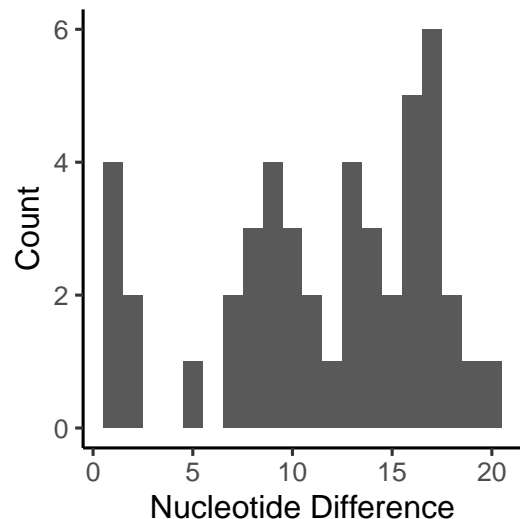
IGHV3-74*03

6319 sequences assigned
No exact matches.



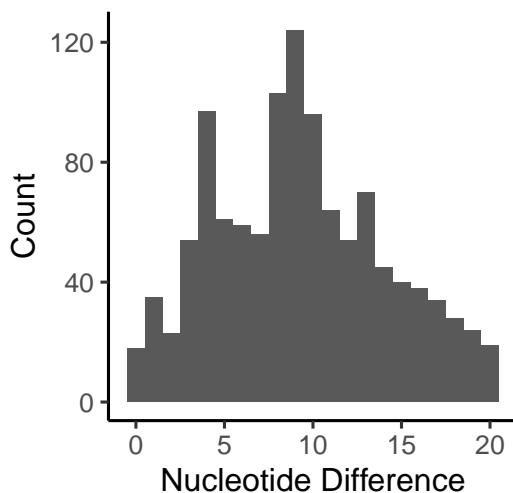
IGHV3-69-1*01

57 sequences assigned
No exact matches.



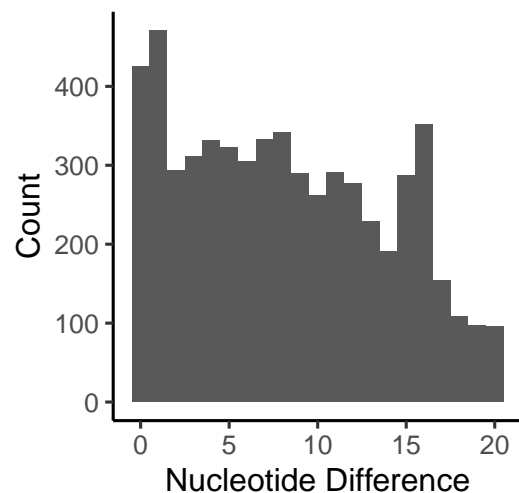
IGHV3-72*01

1192 sequences assigned
18 (1.5%) exact matches, in which:
11 unique CDR3
4 unique J



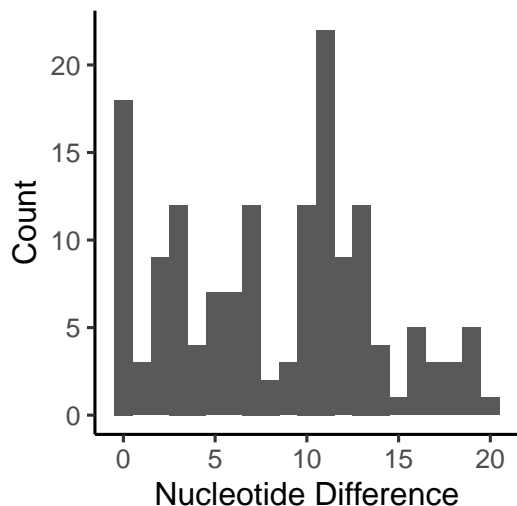
IGHV3-74*01_02

6442 sequences assigned
425 (6.6%) exact matches, in which:
277 unique CDR3
6 unique J



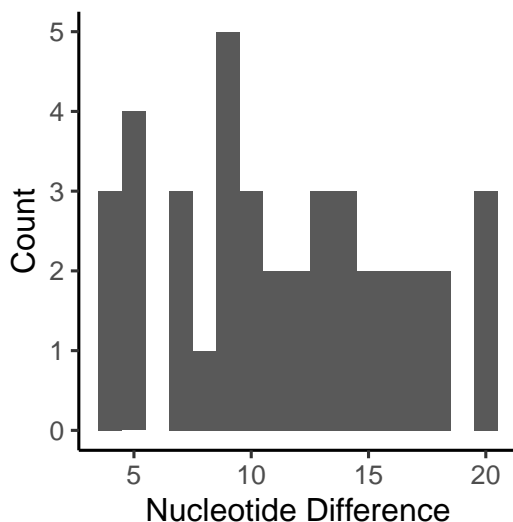
IGHV3-43D*04

158 sequences assigned
18 (11.4%) exact matches, in which:
10 unique CDR3
4 unique J



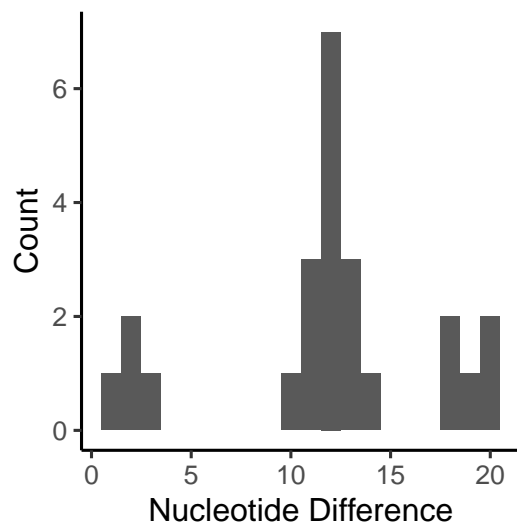
IGHV3-NL1*01

55 sequences assigned
No exact matches.



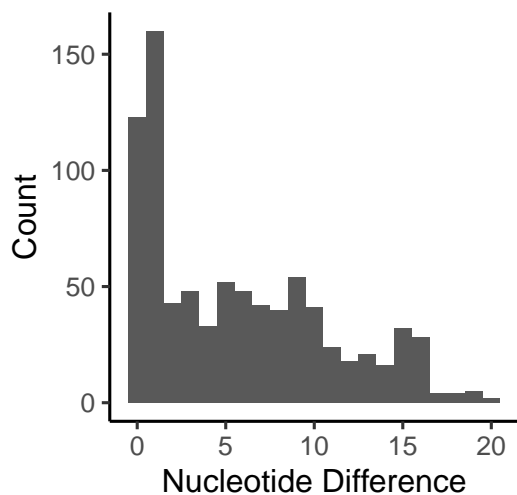
IGHV4-28*01_07

25 sequences assigned
No exact matches.



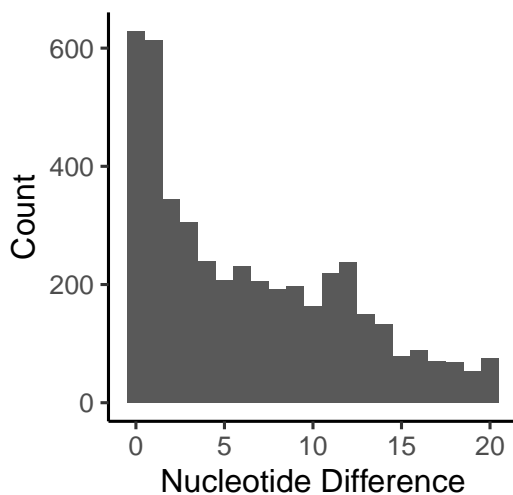
IGHV3-64D*06

882 sequences assigned
123 (13.9%) exact matches, in which:
62 unique CDR3
6 unique J



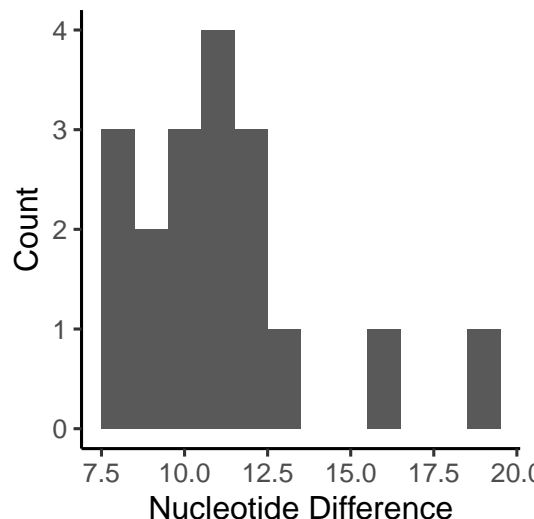
IGHV4-4*02_03

5060 sequences assigned
629 (12.4%) exact matches, in which:
422 unique CDR3
7 unique J



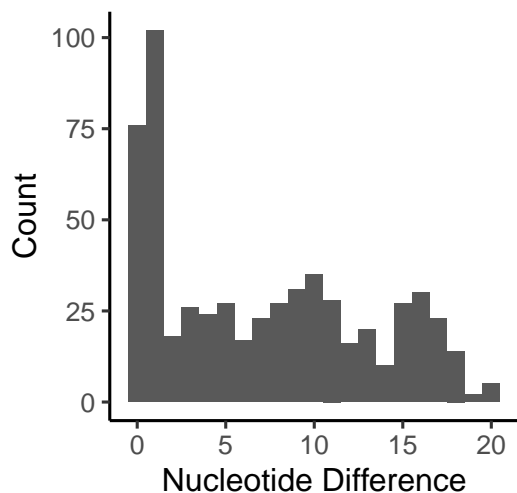
IGHV4-30-4*01

20 sequences assigned
No exact matches.



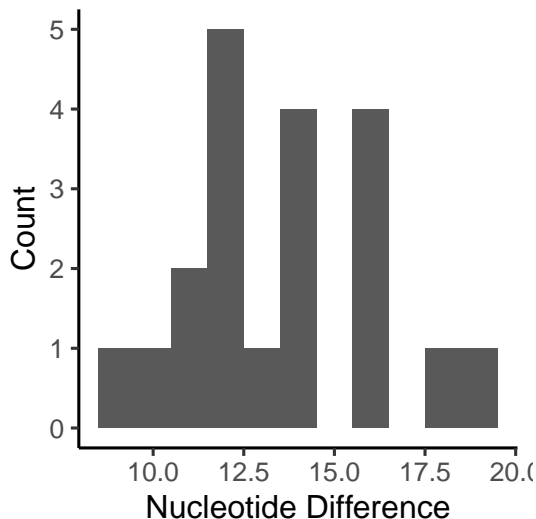
IGHV3-64D*08

676 sequences assigned
76 (11.2%) exact matches, in which:
44 unique CDR3
6 unique J



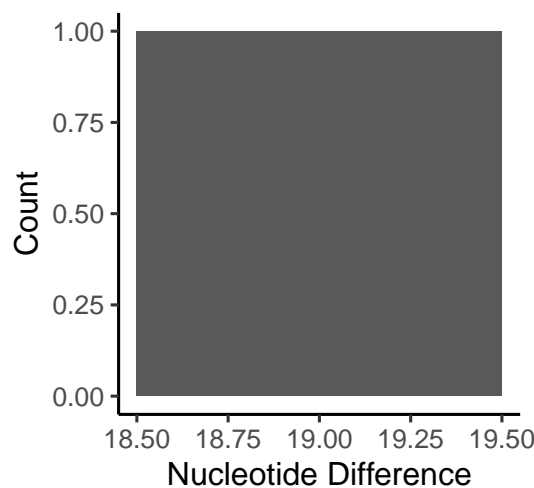
IGHV4-28*03

22 sequences assigned
No exact matches.



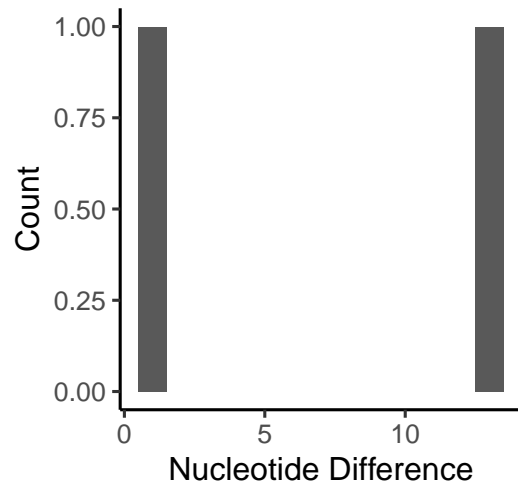
IGHV4-30-2*01

2 sequences assigned
No exact matches.



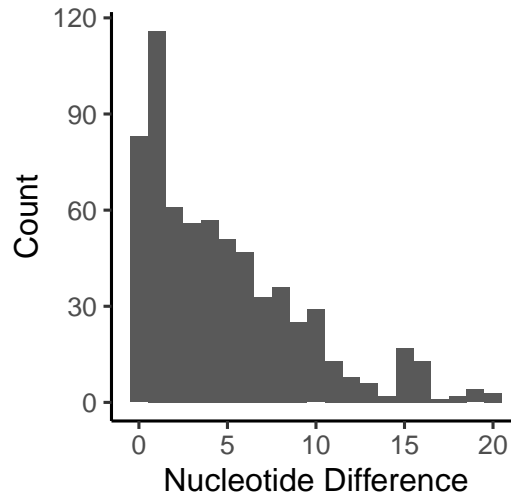
IGHV4-30-2*03

2 sequences assigned
No exact matches.



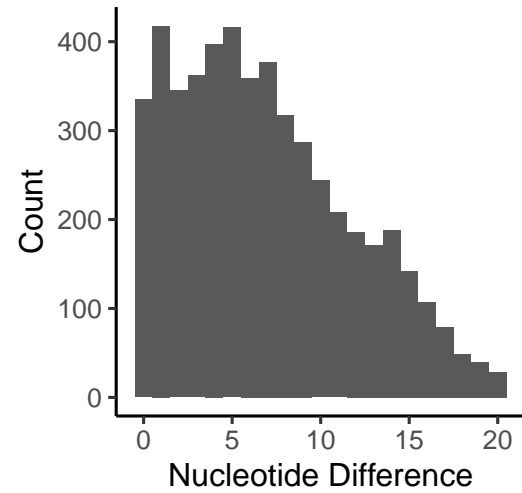
IGHV4-31*01

679 sequences assigned
83 (12.2%) exact matches, in which:
72 unique CDR3
5 unique J



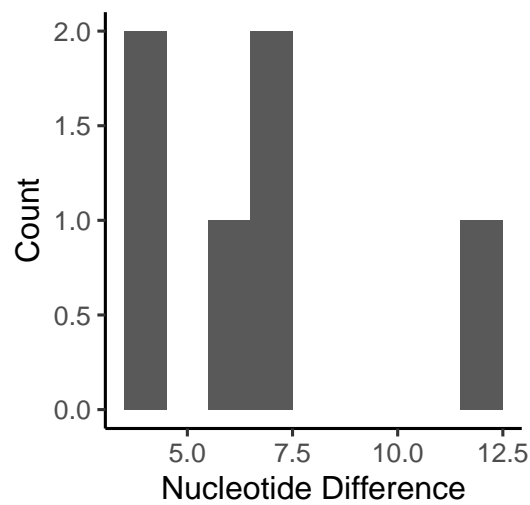
IGHV4-38-2*01

5244 sequences assigned
335 (6.4%) exact matches, in which:
272 unique CDR3
7 unique J



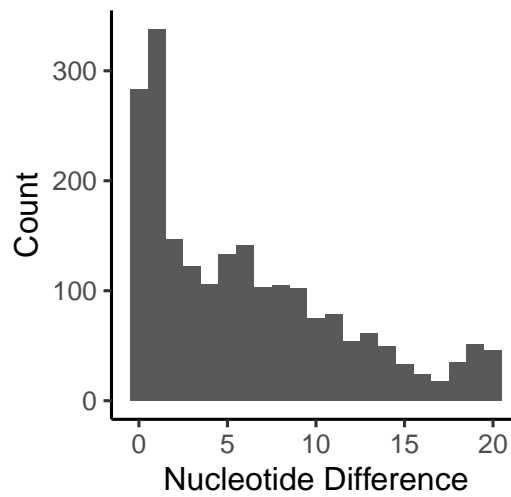
IGHV4-30-2*04

7 sequences assigned
No exact matches.



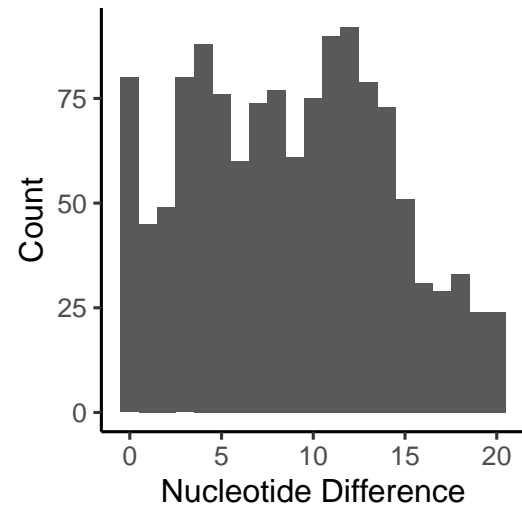
IGHV4-31*02

2425 sequences assigned
283 (11.7%) exact matches, in which:
218 unique CDR3
7 unique J



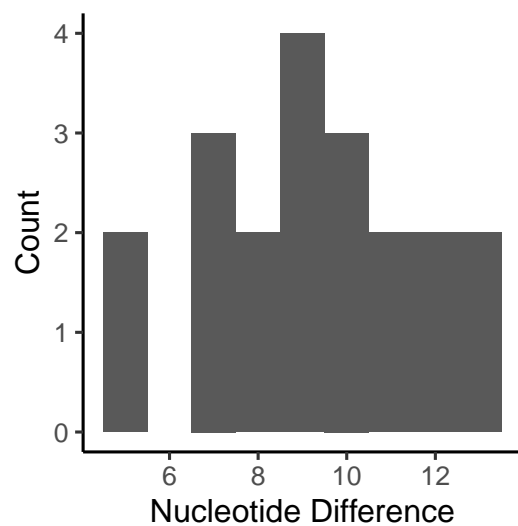
IGHV4-38-2*02

1449 sequences assigned
80 (5.5%) exact matches, in which:
65 unique CDR3
6 unique J



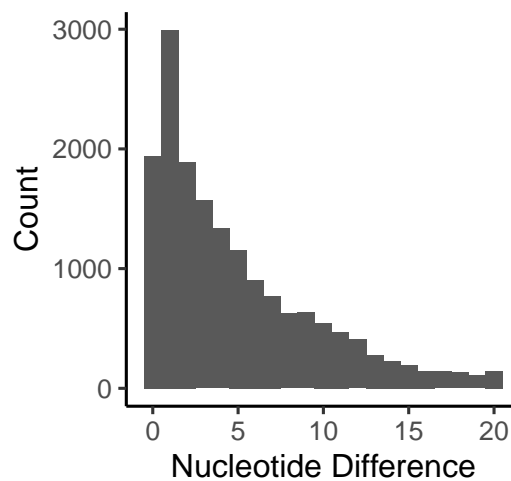
IGHV4-30-4*08

20 sequences assigned
No exact matches.



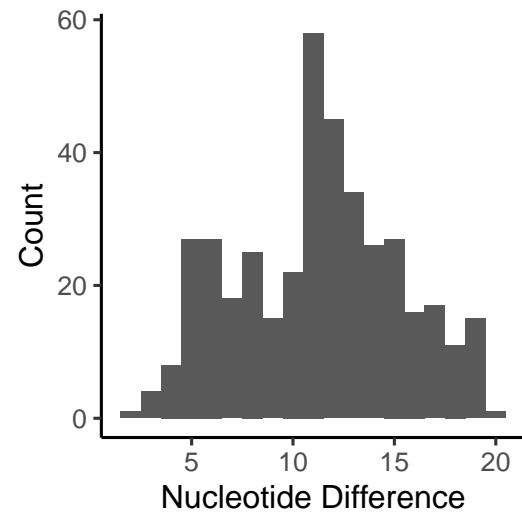
IGHV4-34*01_02

18297 sequences assigned
1940 (10.6%) exact matches, in which:
1264 unique CDR3
7 unique J



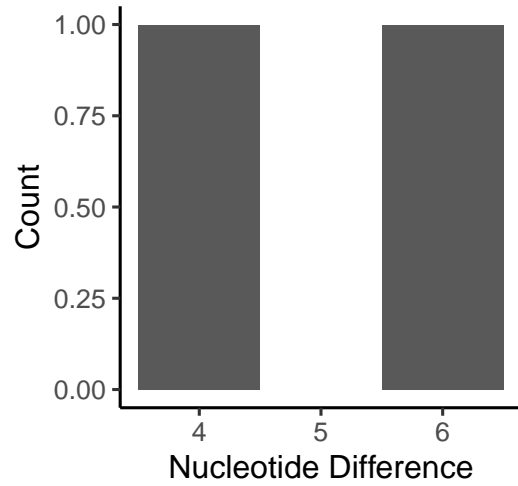
IGHV4-39*07

418 sequences assigned
No exact matches.



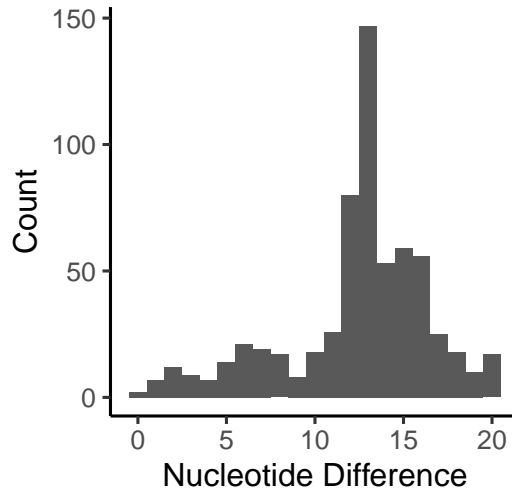
IGHV4-55*09

2 sequences assigned
No exact matches.



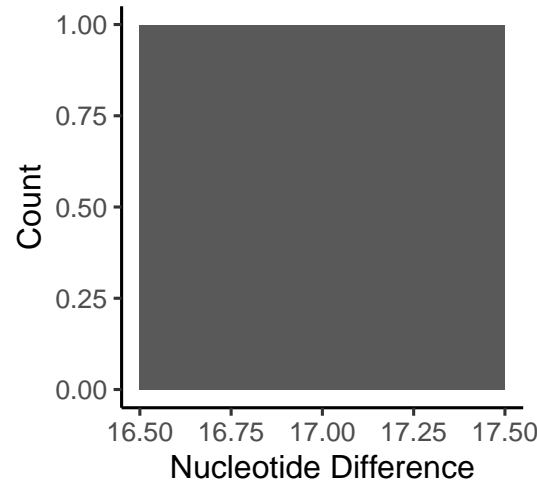
IGHV4-59*11

739 sequences assigned
2 (0.3%) exact matches, in which:
2 unique CDR3
2 unique J



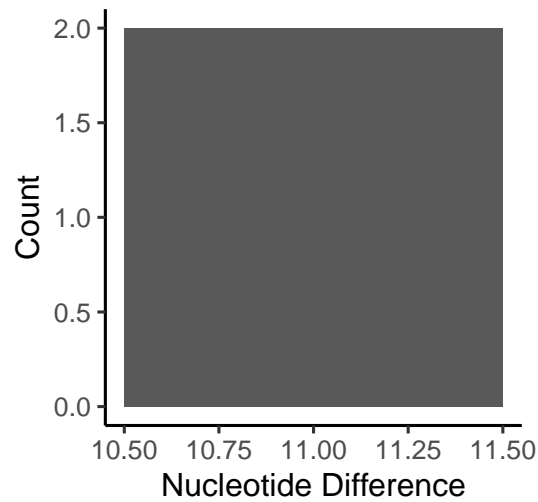
IGHV1/OR15-1*04

1 sequences assigned
No exact matches.



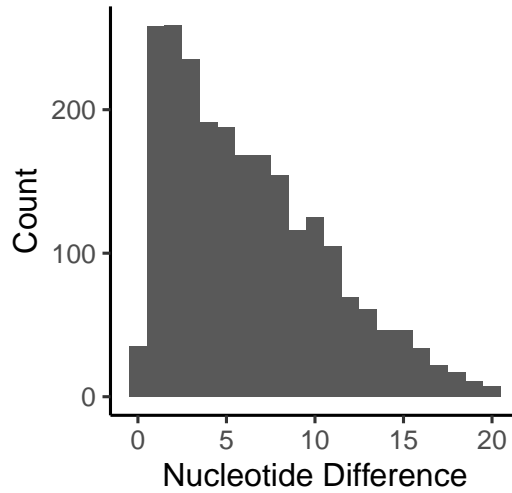
IGHV4-55*01_05

2 sequences assigned
No exact matches.



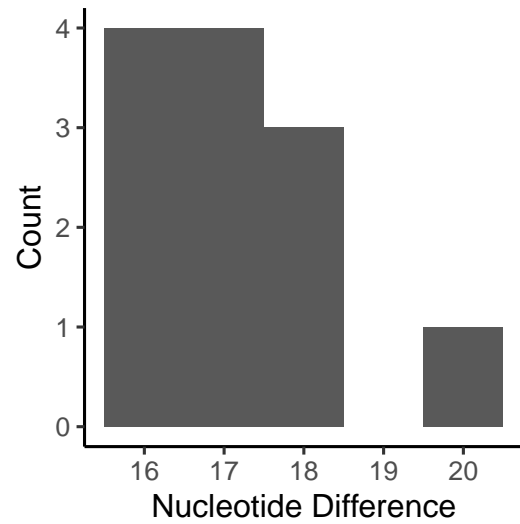
IGHV4-59*12

2578 sequences assigned
35 (1.4%) exact matches, in which:
35 unique CDR3
7 unique J



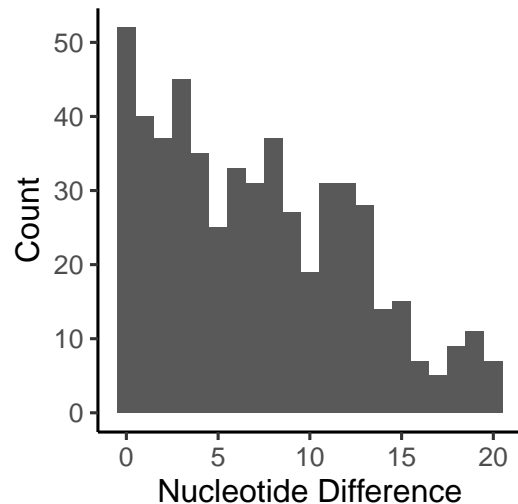
IGHV1/OR15-2*02_03

12 sequences assigned
No exact matches.



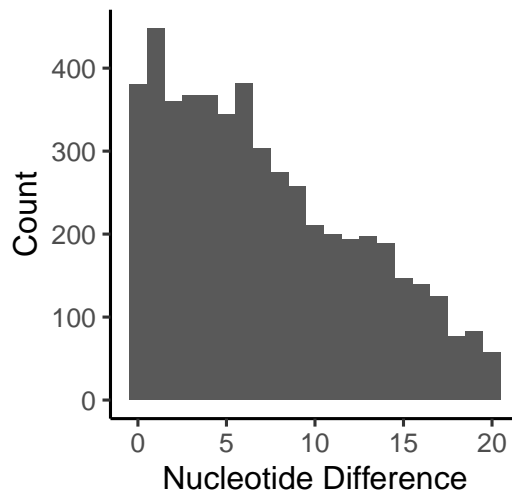
IGHV4-59*08

670 sequences assigned
52 (7.8%) exact matches, in which:
49 unique CDR3
7 unique J



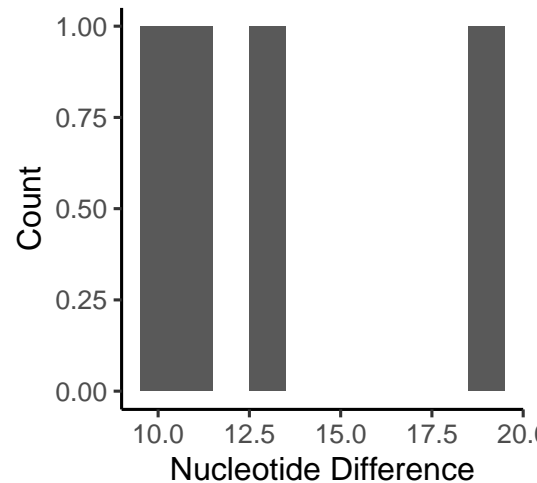
IGHV4-61*01

9092 sequences assigned
380 (4.2%) exact matches, in which:
325 unique CDR3
7 unique J



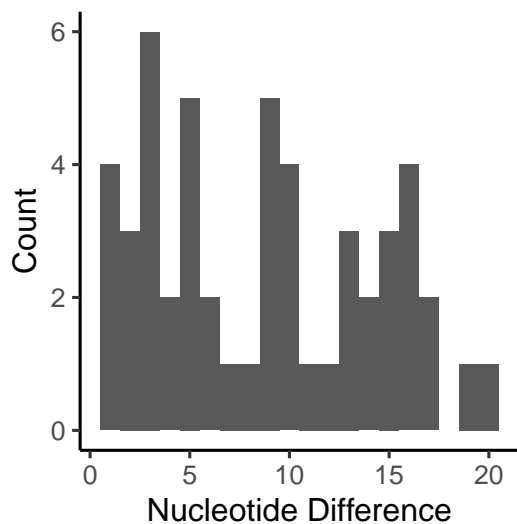
IGHV1/OR15-3*02

8 sequences assigned
No exact matches.



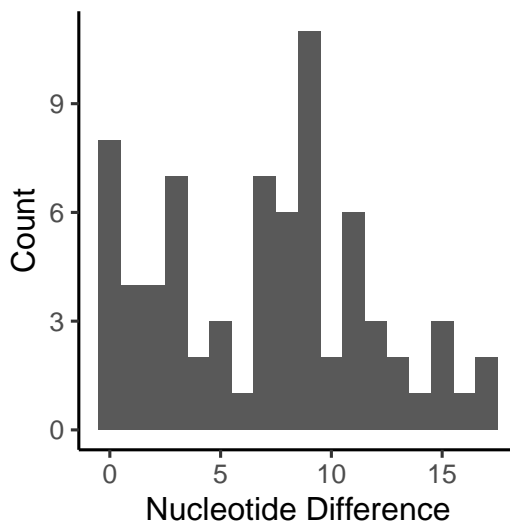
IGHV4/OR15-8*01

61 sequences assigned
No exact matches.



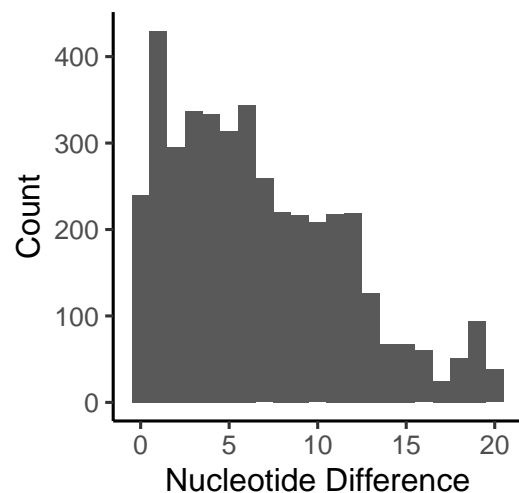
IGHV5-51*04

76 sequences assigned
8 (10.5%) exact matches, in which:
8 unique CDR3
5 unique J



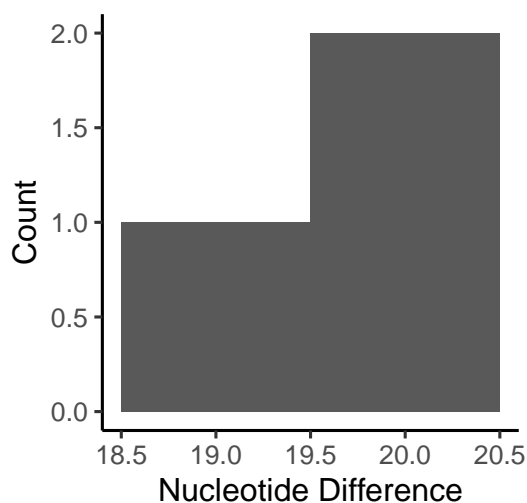
IGHV6-1*01_02

4382 sequences assigned
240 (5.5%) exact matches, in which:
190 unique CDR3
7 unique J



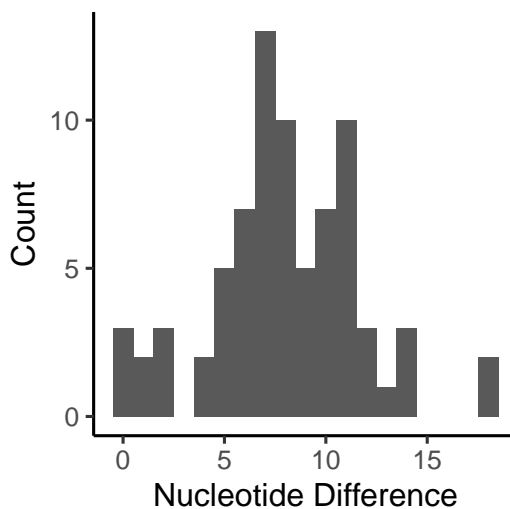
IGHV4/OR15-8*02

10 sequences assigned
No exact matches.



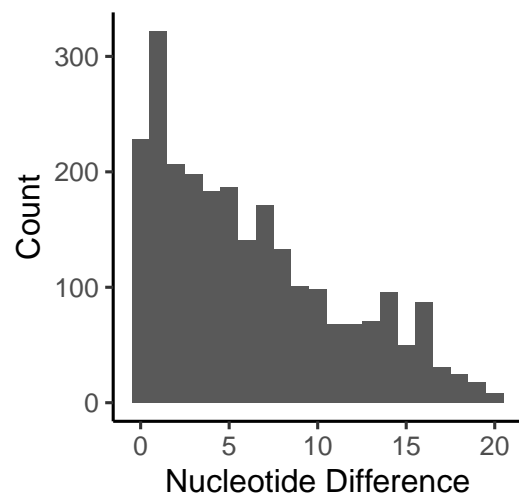
IGHV5-51*06

76 sequences assigned
3 (3.9%) exact matches, in which:
3 unique CDR3
2 unique J



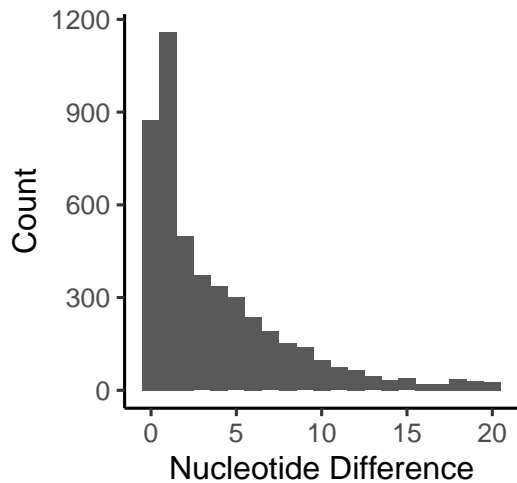
IGHV7-4-1*02

2542 sequences assigned
228 (9%) exact matches, in which:
182 unique CDR3
7 unique J



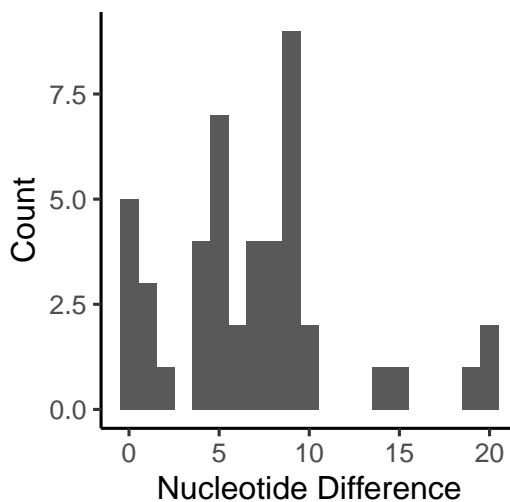
IGHV5-10-1*01_03

5013 sequences assigned
874 (17.4%) exact matches, in which:
538 unique CDR3
7 unique J



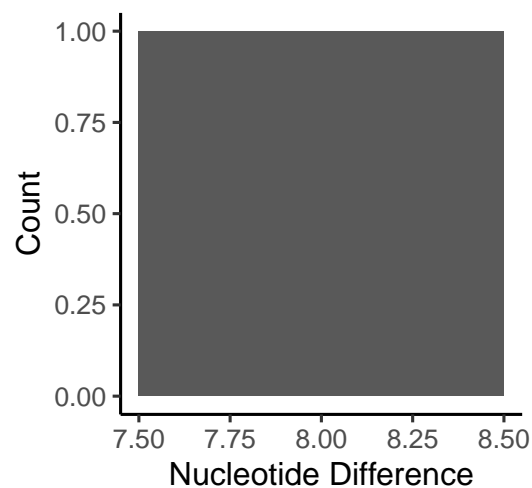
IGHV5-51*07

46 sequences assigned
5 (10.9%) exact matches, in which:
5 unique CDR3
3 unique J

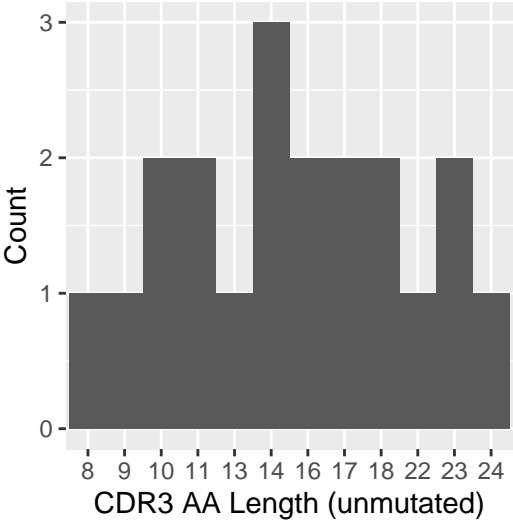


IGHV7-81*01

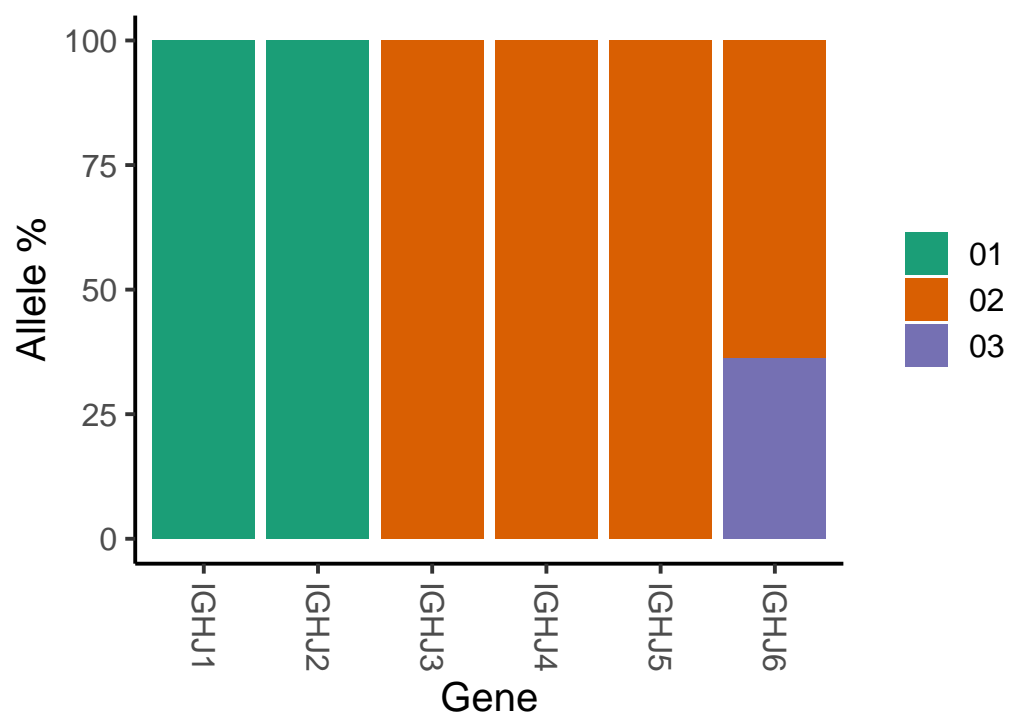
1 sequences assigned
No exact matches.



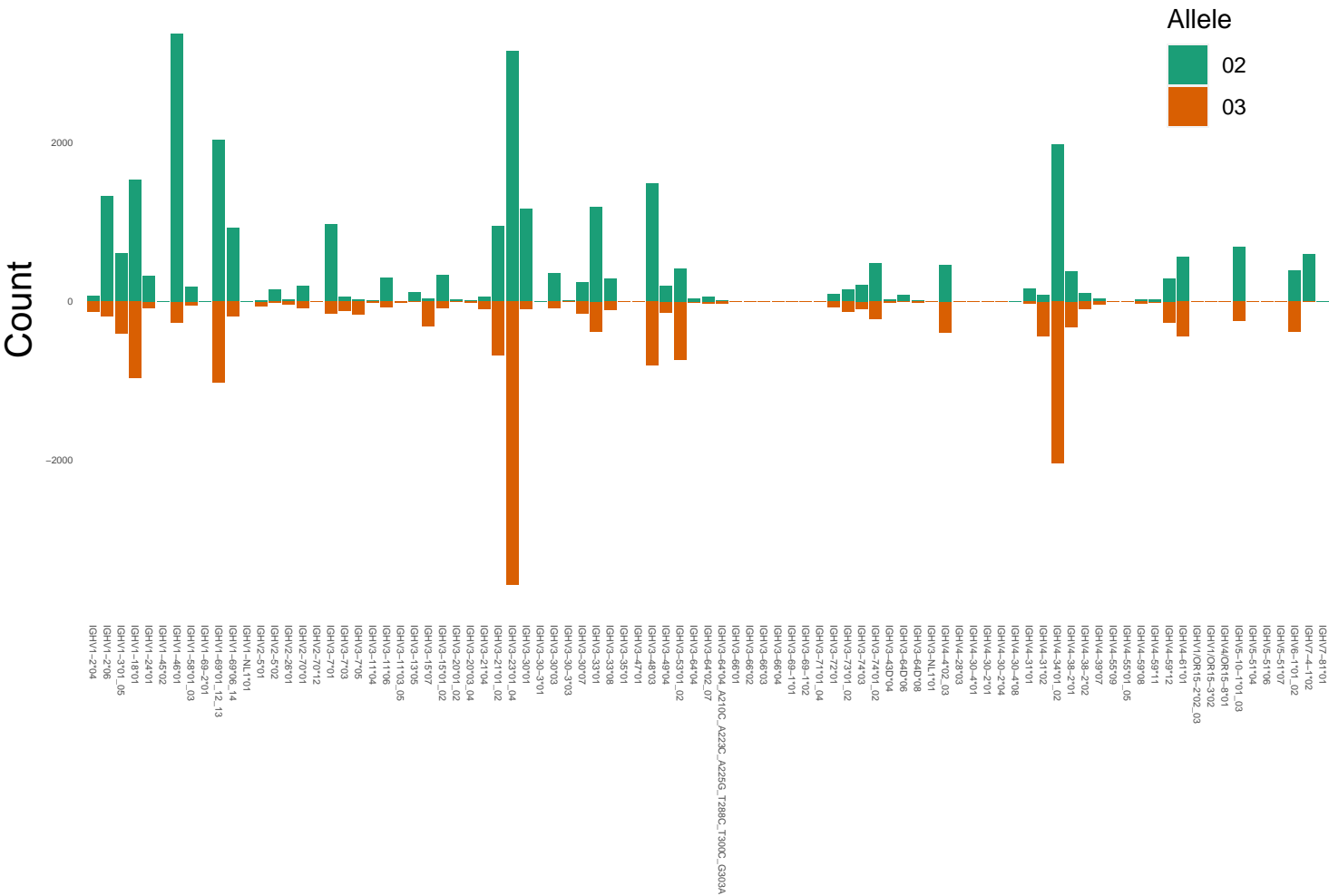
IGHV3-64*04_A210C_A223C_A225G_T288C_T300C_G303A



Allele Usage



Sequence Count byIGHJ6 allele usage



[illegible]