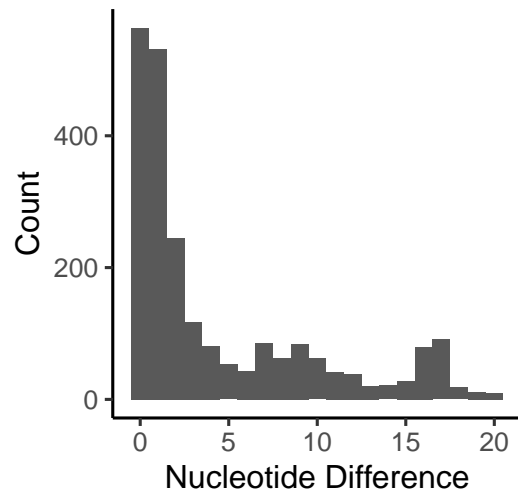


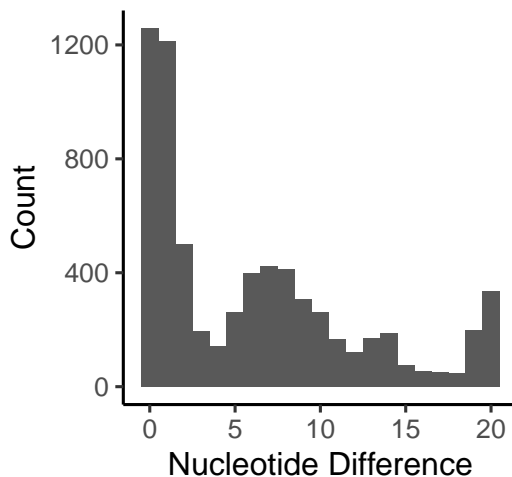
IGHV1-2*04

2413 sequences assigned
564 (23.4%) exact matches, in which:
475 unique CDR3
7 unique J



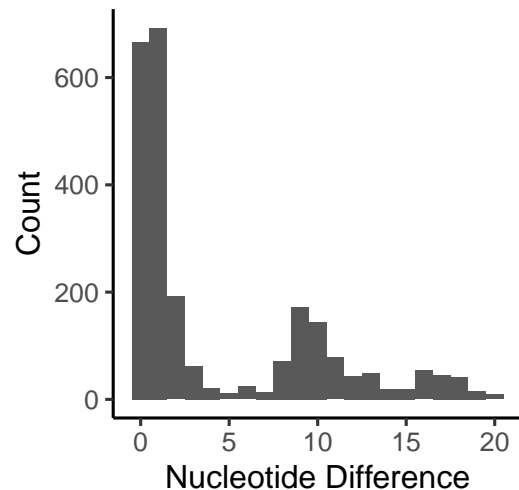
IGHV1-8*01

7577 sequences assigned
1258 (16.6%) exact matches, in which:
1059 unique CDR3
7 unique J



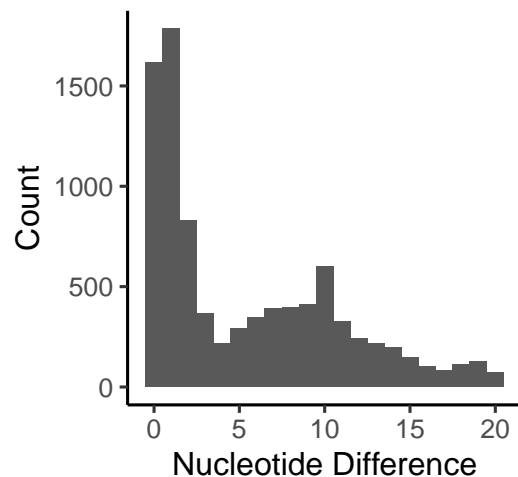
IGHV1-24*01

2916 sequences assigned
667 (22.9%) exact matches, in which:
536 unique CDR3
7 unique J



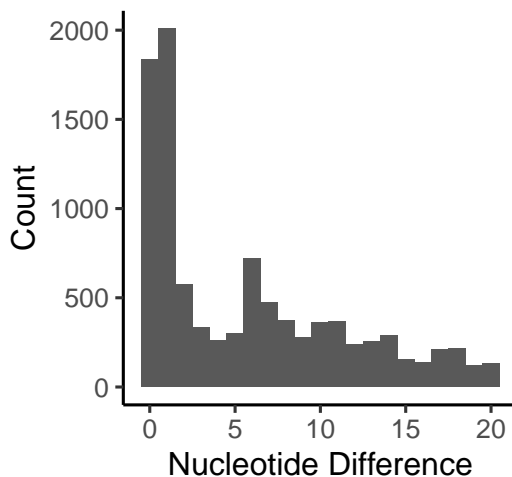
IGHV1-2*06

10677 sequences assigned
1616 (15.1%) exact matches, in which:
1264 unique CDR3
7 unique J



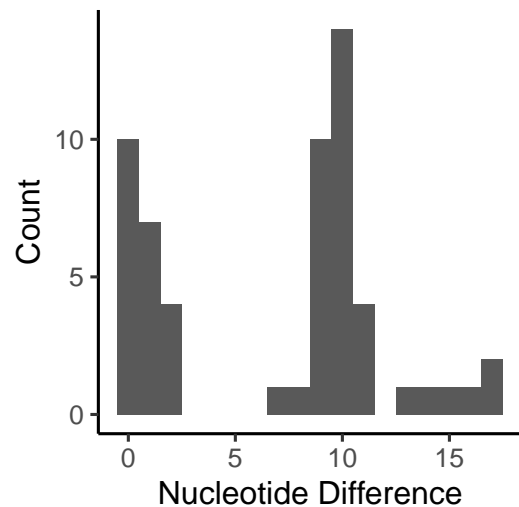
IGHV1-18*01

12308 sequences assigned
1834 (14.9%) exact matches, in which:
1486 unique CDR3
7 unique J



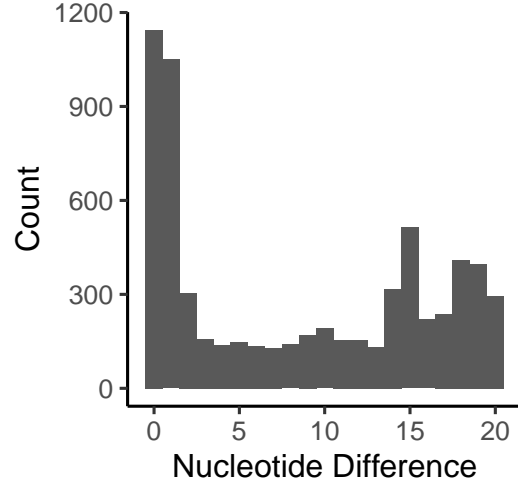
IGHV1-45*02

60 sequences assigned
10 (16.7%) exact matches, in which:
3 unique CDR3
2 unique J



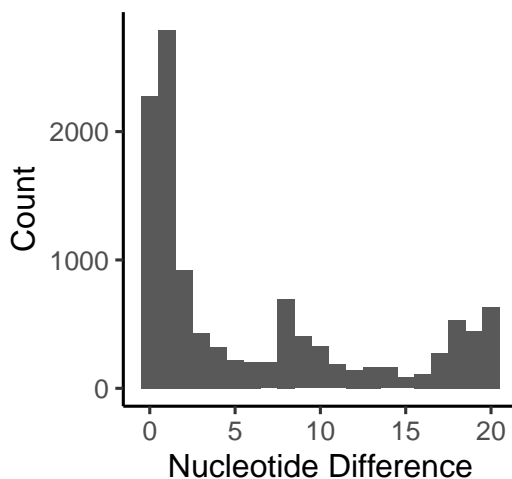
IGHV1-3*01_05

8308 sequences assigned
1144 (13.8%) exact matches, in which:
877 unique CDR3
7 unique J



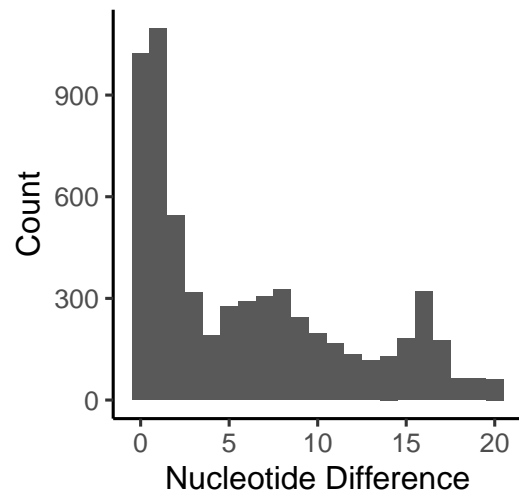
IGHV1-18*04

12341 sequences assigned
2275 (18.4%) exact matches, in which:
1778 unique CDR3
7 unique J



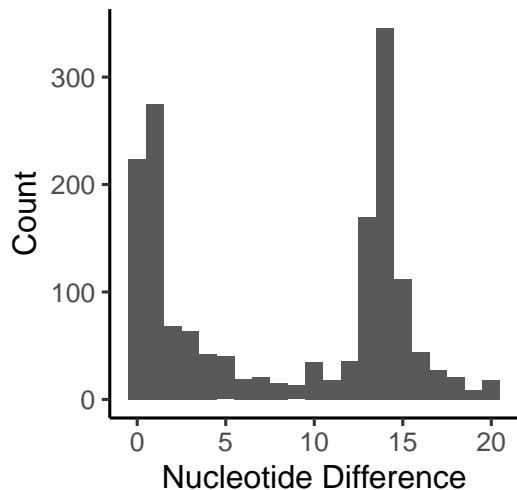
IGHV1-46*01

6905 sequences assigned
1022 (14.8%) exact matches, in which:
871 unique CDR3
7 unique J



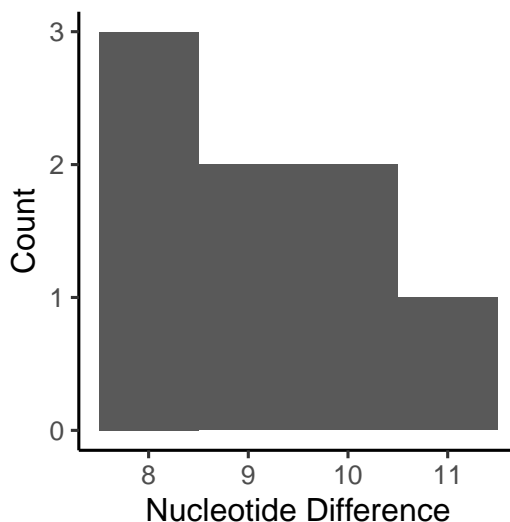
IGHV1–58*01_03

1646 sequences assigned
224 (13.6%) exact matches, in which:
184 unique CDR3
7 unique J



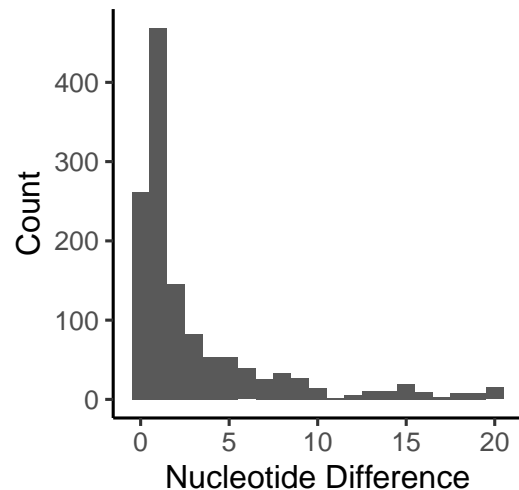
IGHV1–NL1*01

8 sequences assigned
No exact matches.



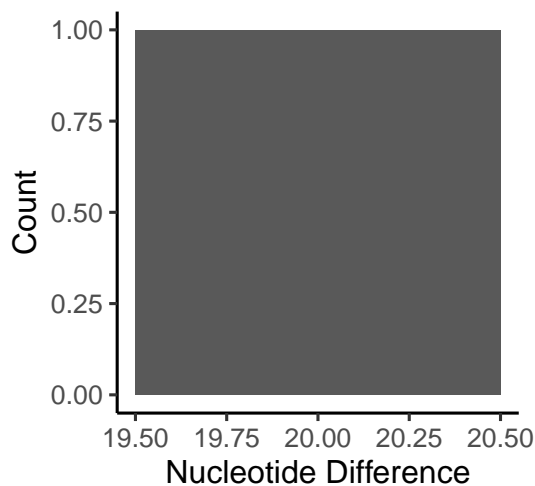
IGHV2–70*01

1308 sequences assigned
262 (20%) exact matches, in which:
172 unique CDR3
6 unique J



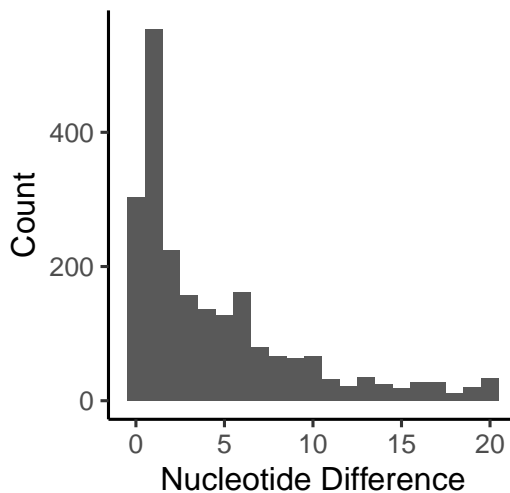
IGHV1–69–2*01

2 sequences assigned
No exact matches.



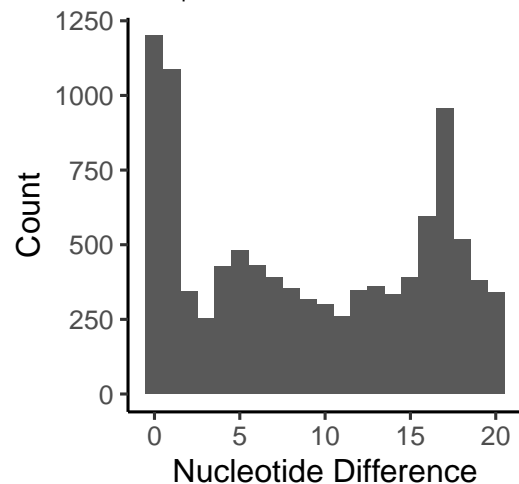
IGHV2–5*02

3520 sequences assigned
304 (8.6%) exact matches, in which:
232 unique CDR3
7 unique J



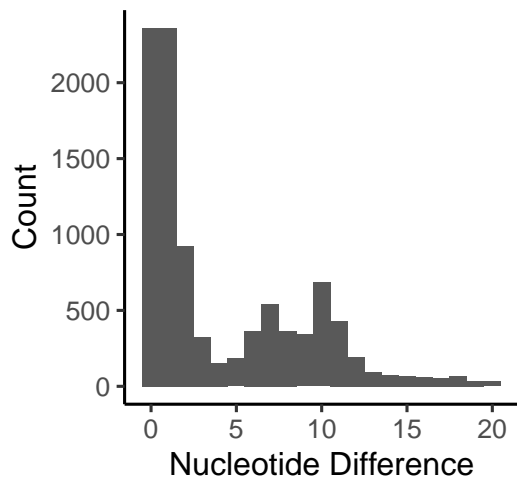
IGHV3–7*01

11368 sequences assigned
1200 (10.6%) exact matches, in which:
866 unique CDR3
7 unique J



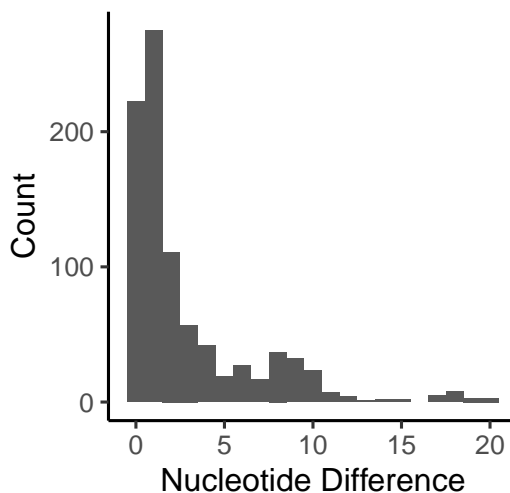
IGHV1–69*01_12_13

10133 sequences assigned
2360 (23.3%) exact matches, in which:
1956 unique CDR3
7 unique J



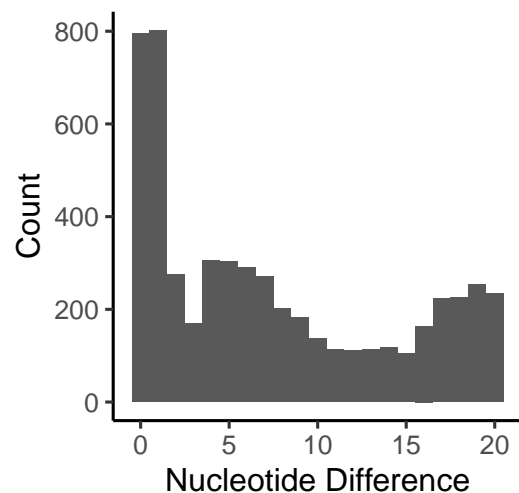
IGHV2–26*01

957 sequences assigned
222 (23.2%) exact matches, in which:
177 unique CDR3
7 unique J



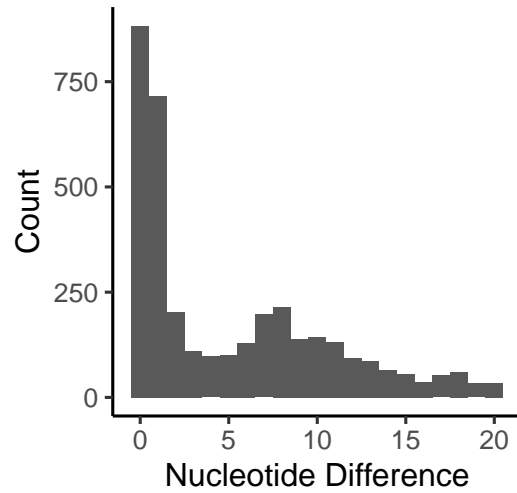
IGHV3–7*03

10417 sequences assigned
796 (7.6%) exact matches, in which:
531 unique CDR3
7 unique J



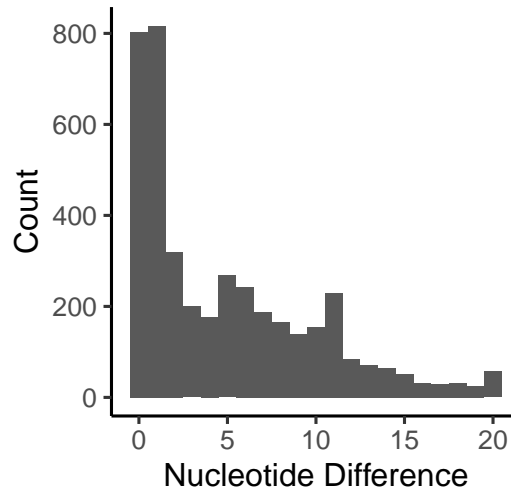
IGHV3-9*01

3700 sequences assigned
883 (23.9%) exact matches, in which:
529 unique CDR3
7 unique J



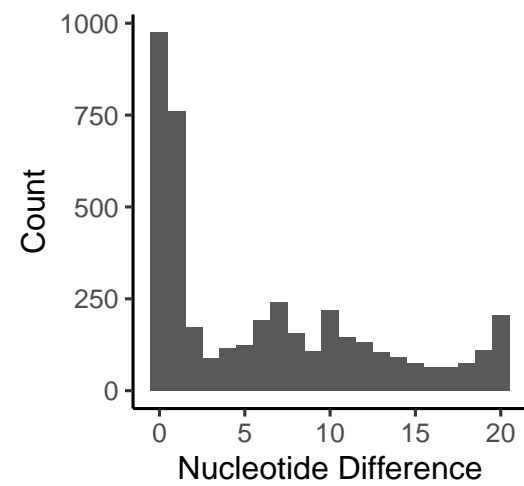
IGHV3-11*06

4363 sequences assigned
803 (18.4%) exact matches, in which:
540 unique CDR3
7 unique J



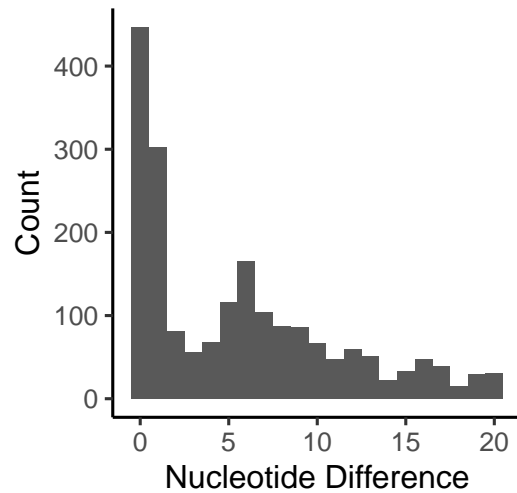
IGHV3-15*01_02

4740 sequences assigned
975 (20.6%) exact matches, in which:
559 unique CDR3
7 unique J



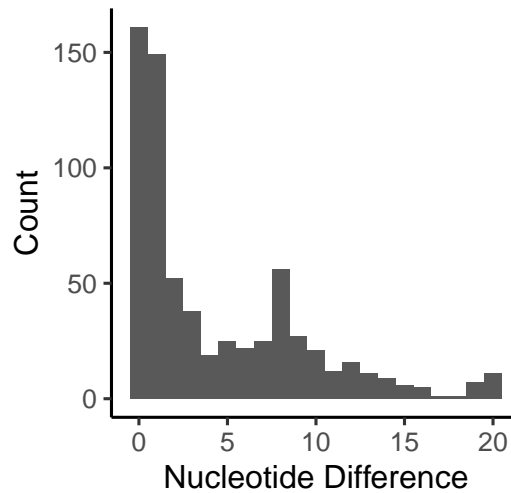
IGHV3-11*01

2839 sequences assigned
447 (15.7%) exact matches, in which:
313 unique CDR3
7 unique J



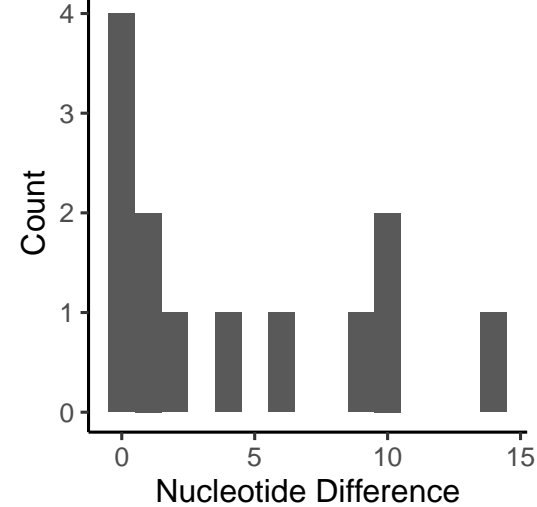
IGHV3-13*01

705 sequences assigned
161 (22.8%) exact matches, in which:
108 unique CDR3
6 unique J



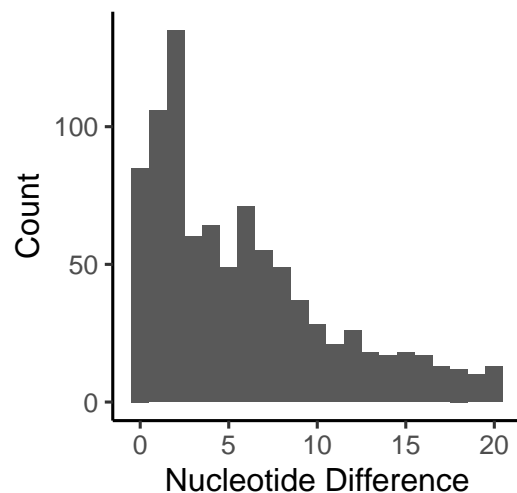
IGHV3-19*01

13 sequences assigned
4 (30.8%) exact matches, in which:
3 unique CDR3
3 unique J



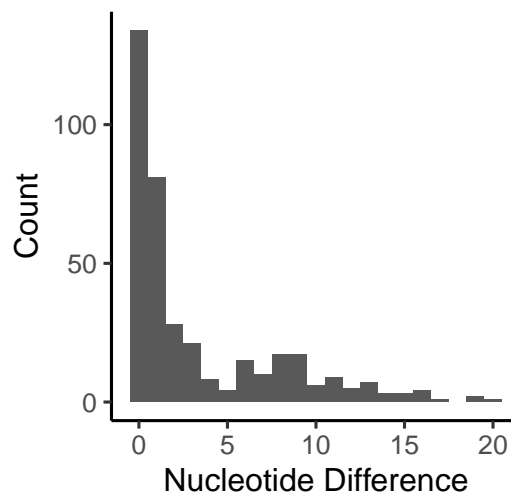
IGHV3-11*04

972 sequences assigned
85 (8.7%) exact matches, in which:
84 unique CDR3
7 unique J



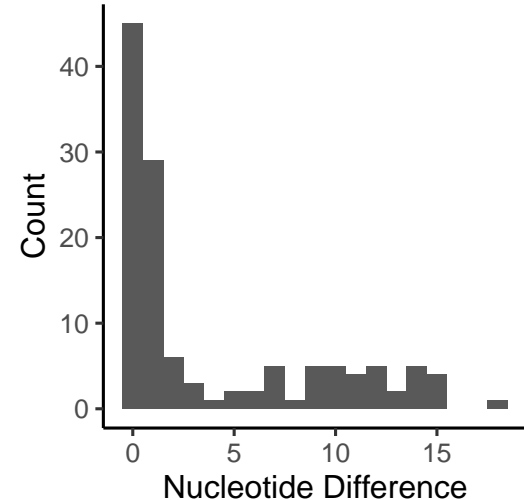
IGHV3-13*05

945 sequences assigned
134 (14.2%) exact matches, in which:
88 unique CDR3
7 unique J



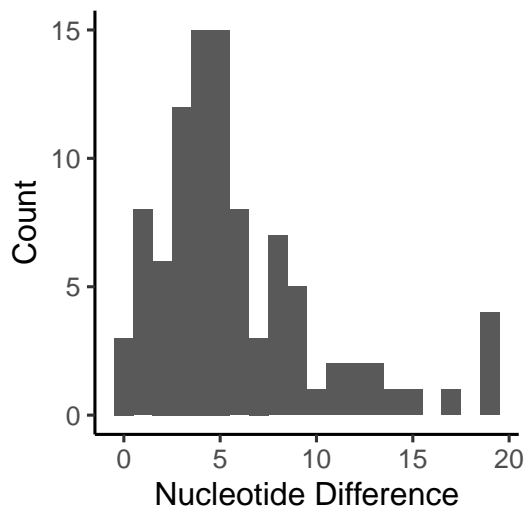
IGHV3-20*01_02

125 sequences assigned
45 (36%) exact matches, in which:
30 unique CDR3
4 unique J



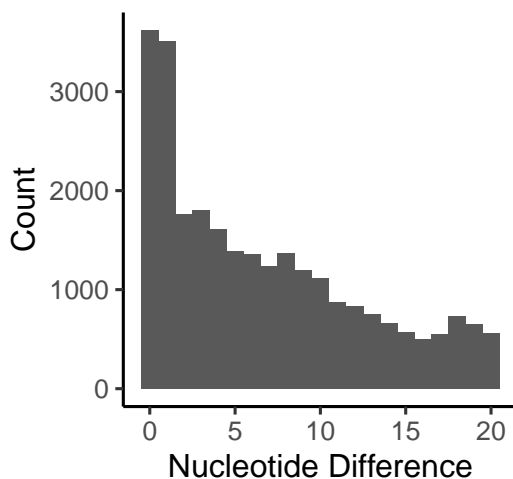
IGHV3-20*03_04

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



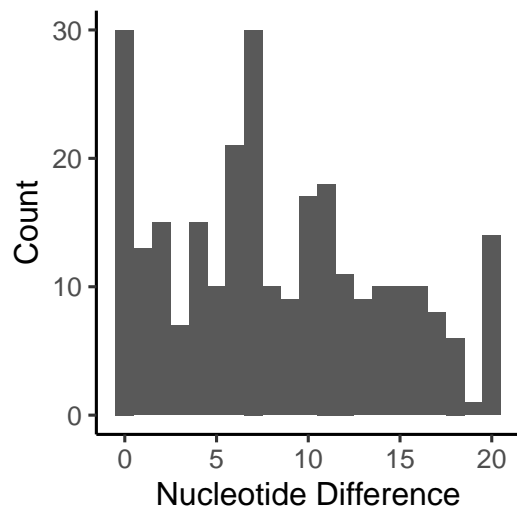
IGHV3-23*01_04

30699 sequences assigned
3618 (11.8%) exact matches, in which:
2095 unique CDR3
7 unique J



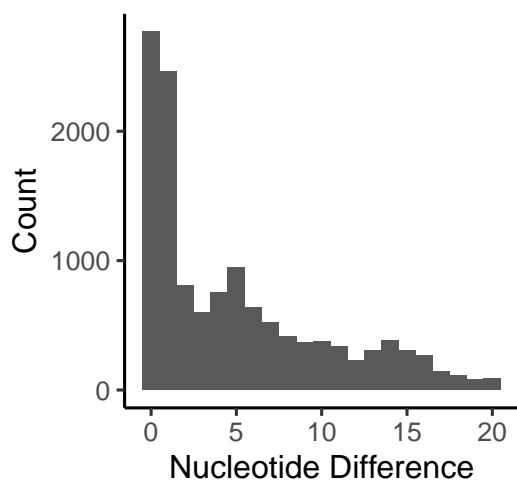
IGHV3-30*04

395 sequences assigned
30 (7.6%) exact matches, in which:
30 unique CDR3
5 unique J



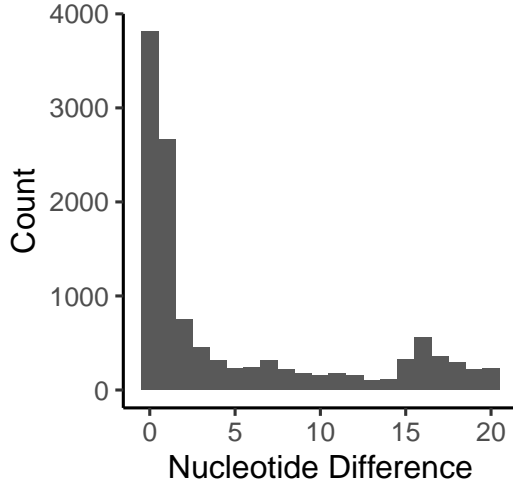
IGHV3-21*01_02

14170 sequences assigned
2769 (19.5%) exact matches, in which:
1755 unique CDR3
7 unique J



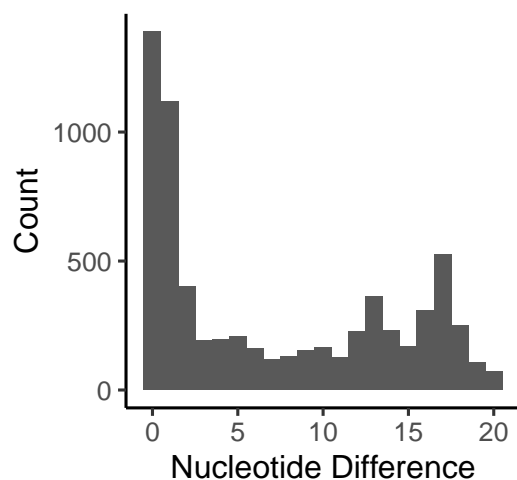
IGHV3-30-3*01

12292 sequences assigned
3810 (31%) exact matches, in which:
2384 unique CDR3
7 unique J



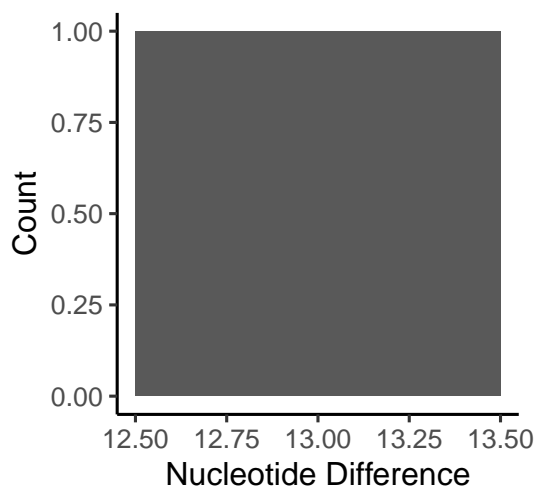
IGHV3-33*01

7308 sequences assigned
1389 (19%) exact matches, in which:
926 unique CDR3
7 unique J



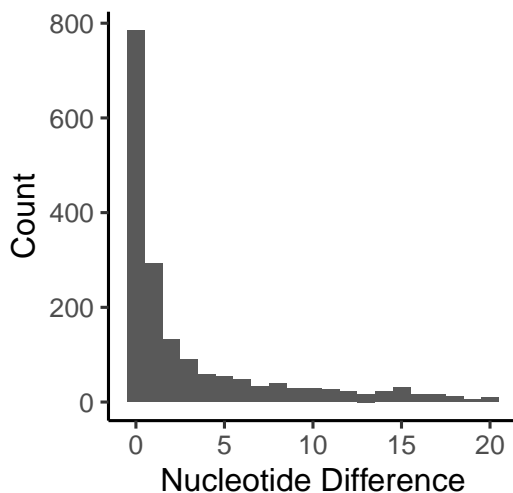
IGHV3-22*01_02

1 sequences assigned
No exact matches.



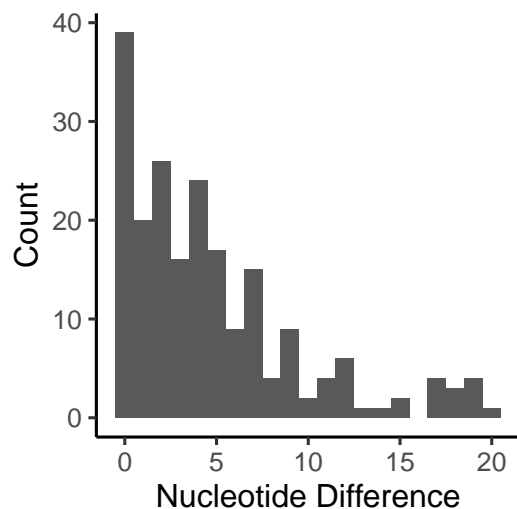
IGHV3-30*03

1829 sequences assigned
785 (42.9%) exact matches, in which:
659 unique CDR3
7 unique J



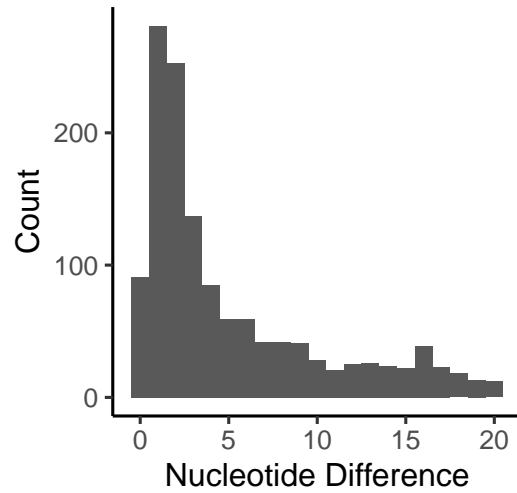
IGHV3-33*05

237 sequences assigned
39 (16.5%) exact matches, in which:
34 unique CDR3
5 unique J



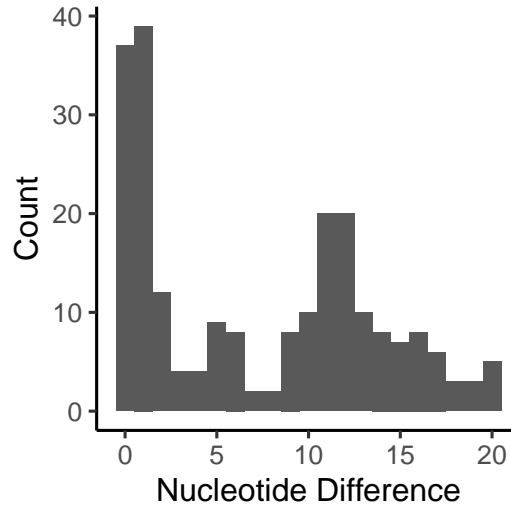
IGHV3–33*06

1441 sequences assigned
91 (6.3%) exact matches, in which:
88 unique CDR3
7 unique J



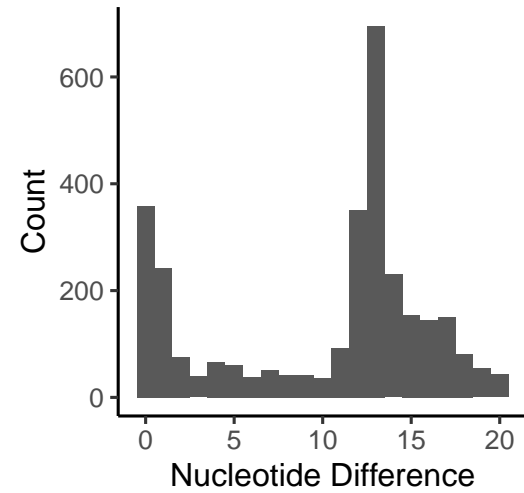
IGHV3–43*01

254 sequences assigned
37 (14.6%) exact matches, in which:
26 unique CDR3
5 unique J



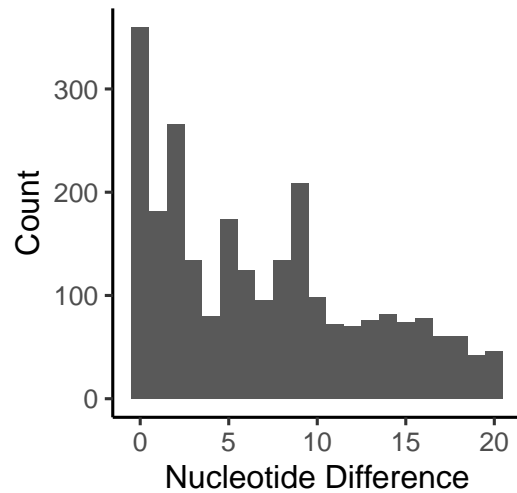
IGHV3–48*02

3282 sequences assigned
358 (10.9%) exact matches, in which:
243 unique CDR3
7 unique J



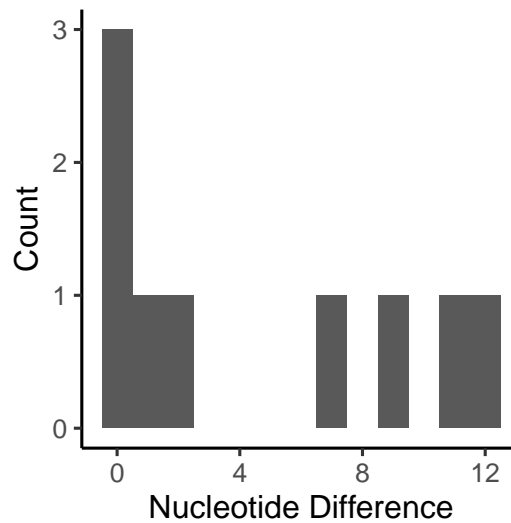
IGHV3–33*08

2965 sequences assigned
360 (12.1%) exact matches, in which:
285 unique CDR3
7 unique J



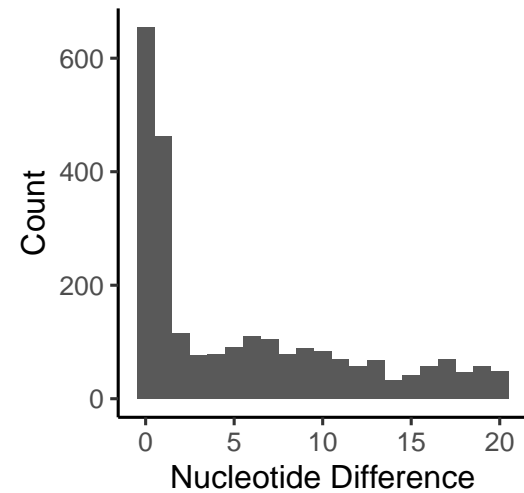
IGHV3–47*02

9 sequences assigned
3 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



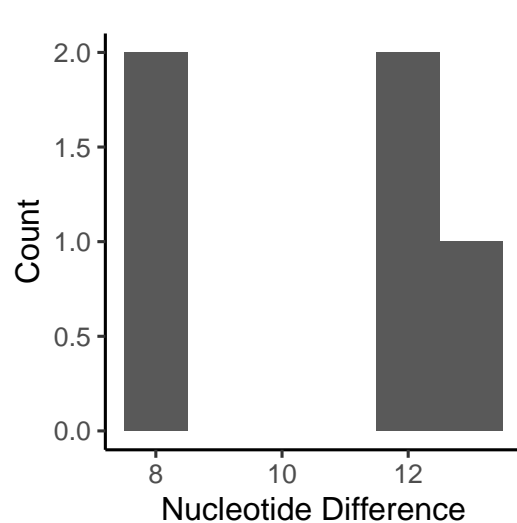
IGHV3–48*03

2877 sequences assigned
655 (22.8%) exact matches, in which:
422 unique CDR3
7 unique J



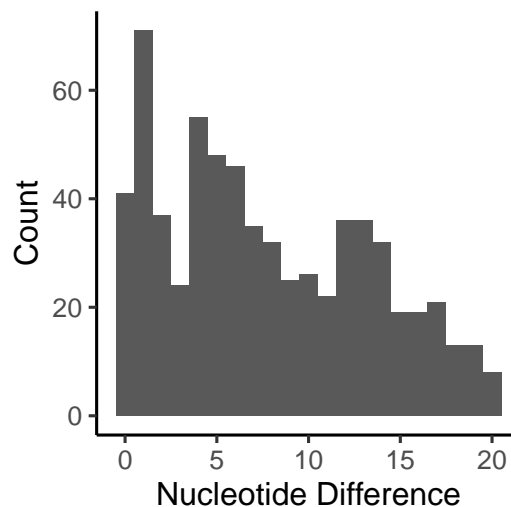
IGHV3–35*01

5 sequences assigned
No exact matches.



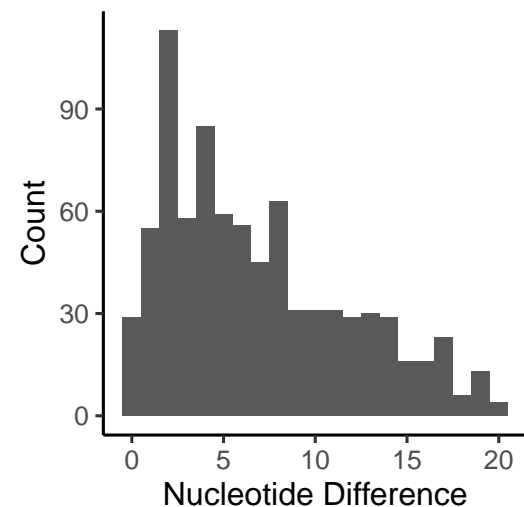
IGHV3–48*01

689 sequences assigned
41 (6%) exact matches, in which:
41 unique CDR3
7 unique J



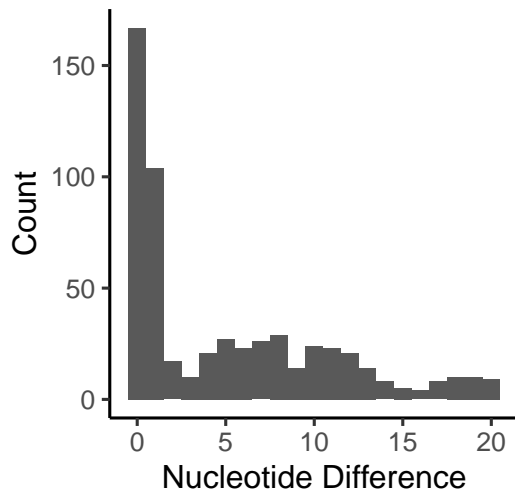
IGHV3–48*04

861 sequences assigned
29 (3.4%) exact matches, in which:
29 unique CDR3
5 unique J



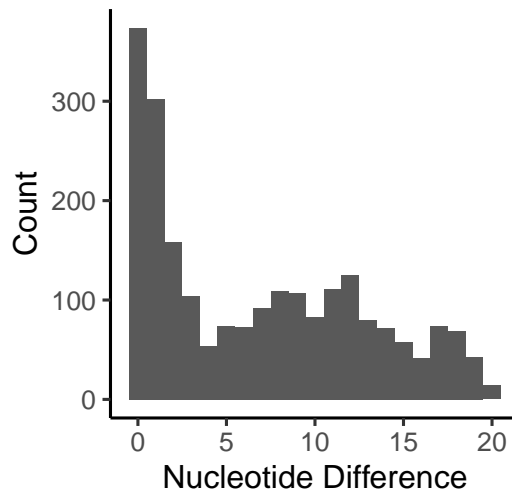
IGHV3-49*04

1137 sequences assigned
167 (14.7%) exact matches, in which:
107 unique CDR3
7 unique J



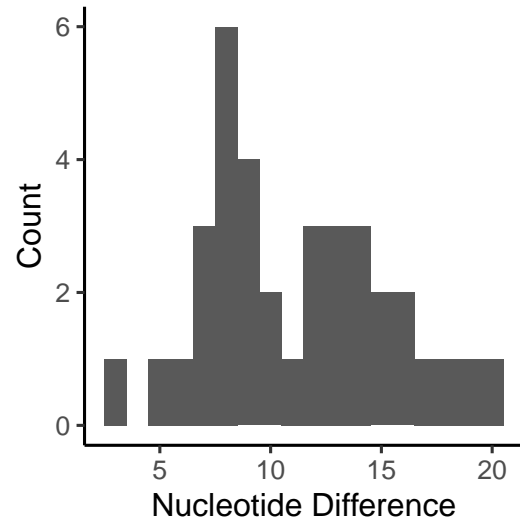
IGHV3-53*01_02

2633 sequences assigned
374 (14.2%) exact matches, in which:
235 unique CDR3
7 unique J



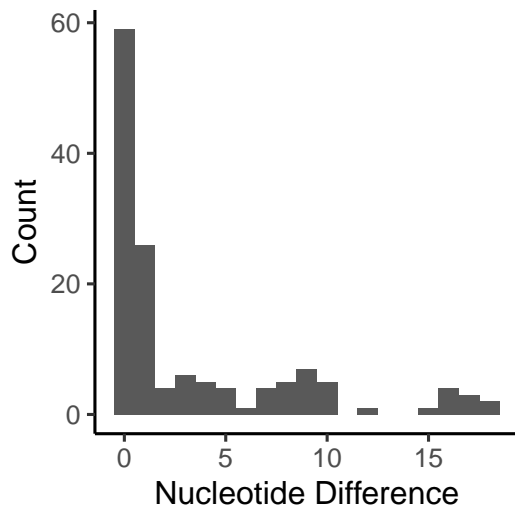
IGHV3-66*01

41 sequences assigned
No exact matches.



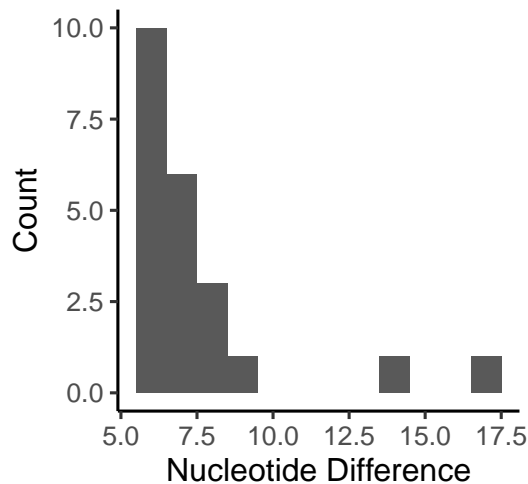
IGHV3-49*03_05

293 sequences assigned
59 (20.1%) exact matches, in which:
44 unique CDR3
5 unique J



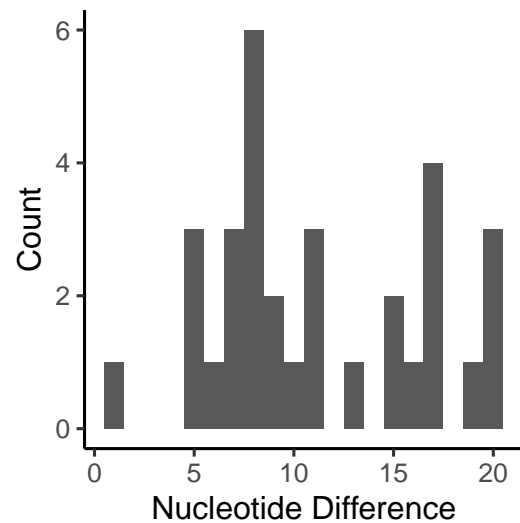
IGHV3-64*04

22 sequences assigned
No exact matches.



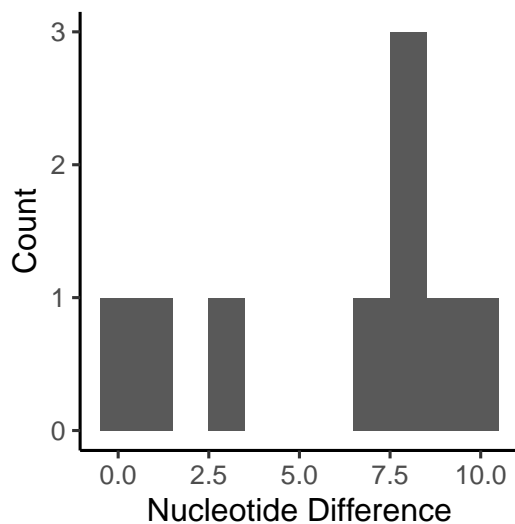
IGHV3-66*02

40 sequences assigned
No exact matches.



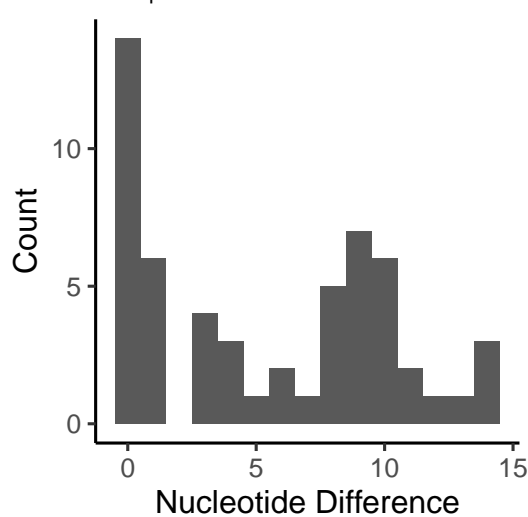
IGHV3-52*01_03

9 sequences assigned
1 (11.1%) exact matches, in which:
1 unique CDR3
1 unique J



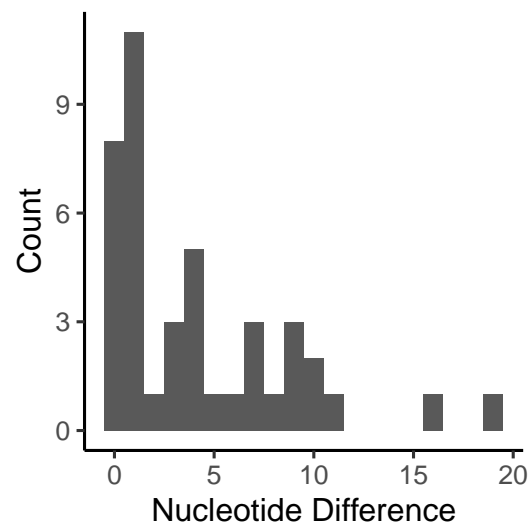
IGHV3-64*02_07

60 sequences assigned
14 (23.3%) exact matches, in which:
9 unique CDR3
3 unique J



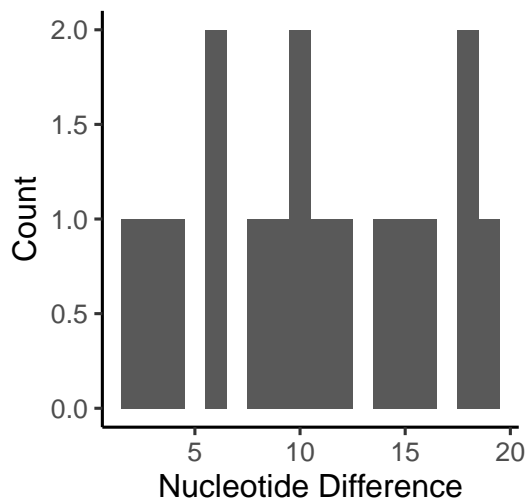
IGHV3-66*03

44 sequences assigned
8 (18.2%) exact matches, in which:
8 unique CDR3
4 unique J



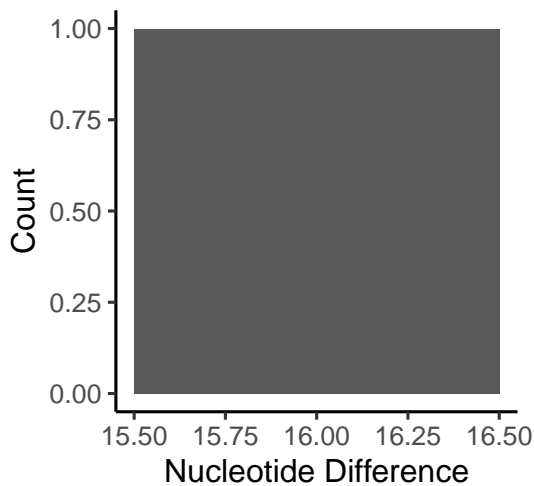
IGHV3-66*04

22 sequences assigned
No exact matches.



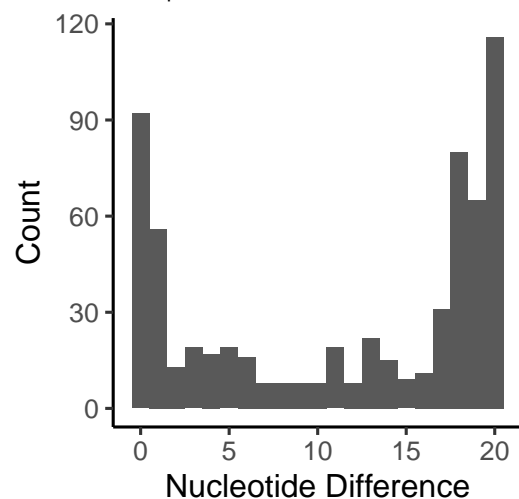
IGHV3-71*03

1 sequences assigned
No exact matches.



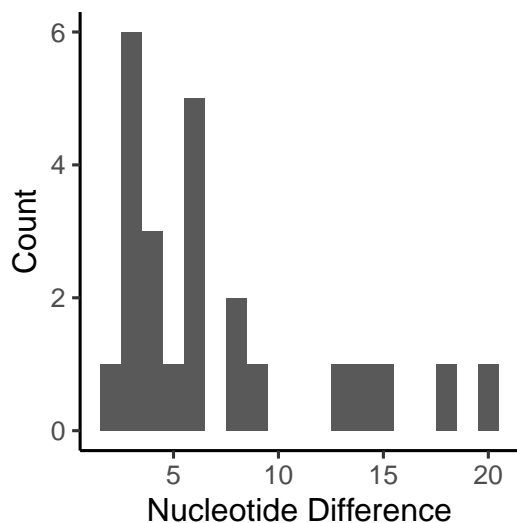
IGHV3-73*01_02

778 sequences assigned
92 (11.8%) exact matches, in which:
58 unique CDR3
6 unique J



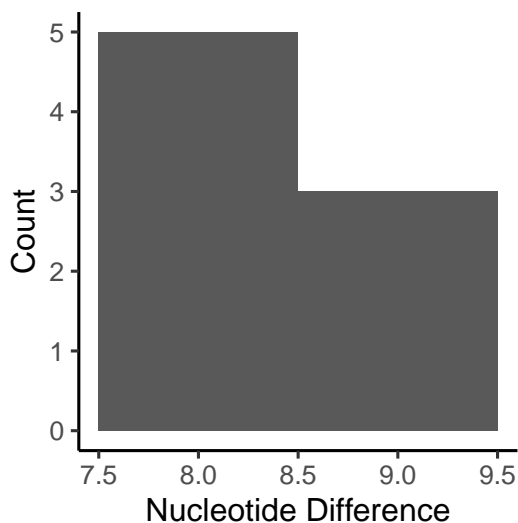
IGHV3-69-1*01

26 sequences assigned
No exact matches.



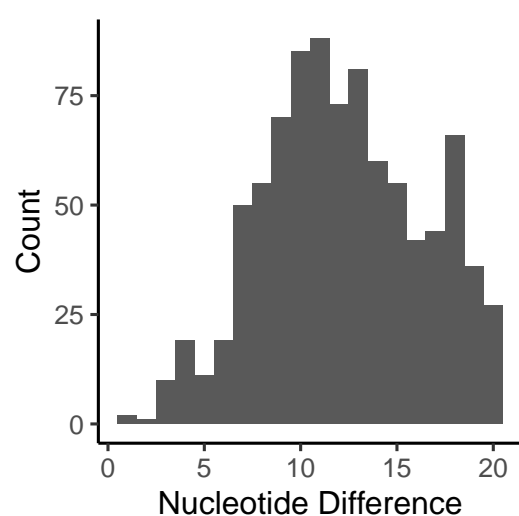
IGHV3-71*01_04

9 sequences assigned
No exact matches.



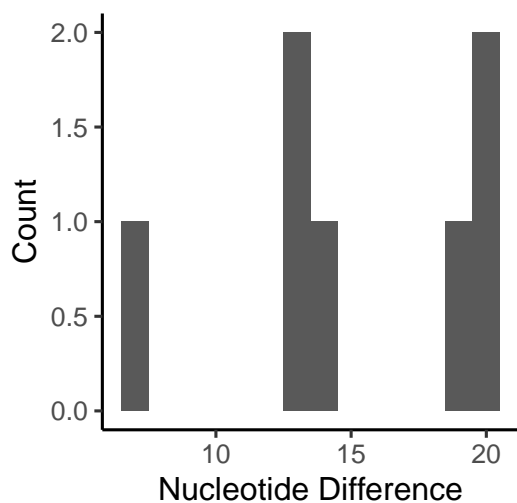
IGHV3-74*03

1420 sequences assigned
No exact matches.



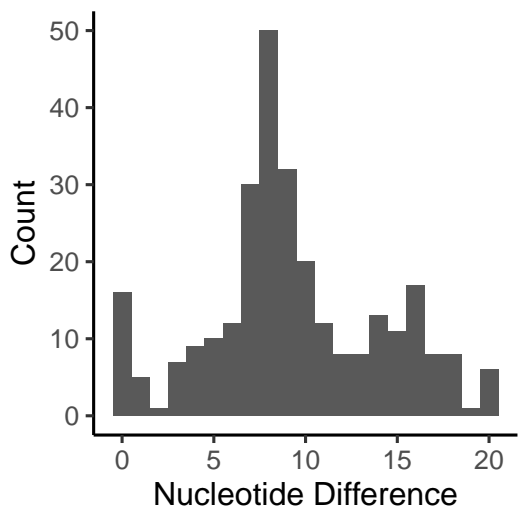
IGHV3-69-1*02

11 sequences assigned
No exact matches.



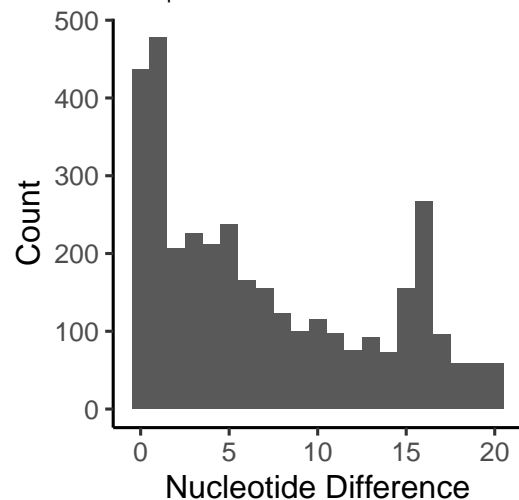
IGHV3-72*01

292 sequences assigned
16 (5.5%) exact matches, in which:
9 unique CDR3
4 unique J



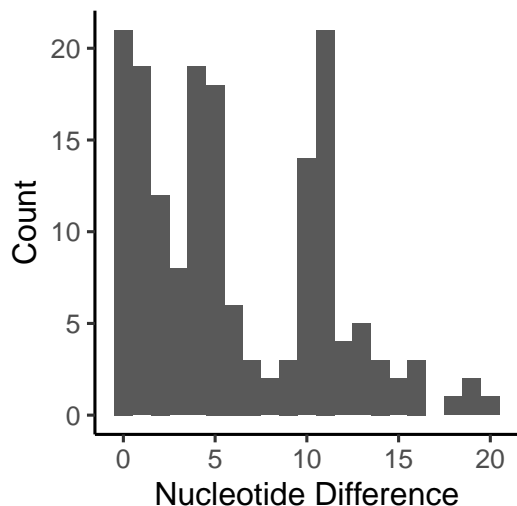
IGHV3-74*01_02

3687 sequences assigned
437 (11.9%) exact matches, in which:
295 unique CDR3
7 unique J



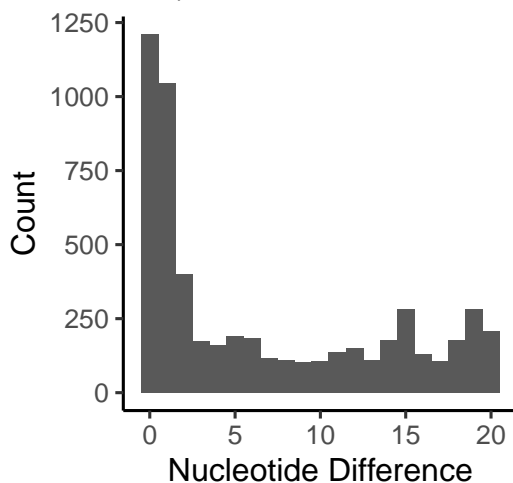
IGHV3-43D*04

172 sequences assigned
21 (12.2%) exact matches, in which:
14 unique CDR3
3 unique J



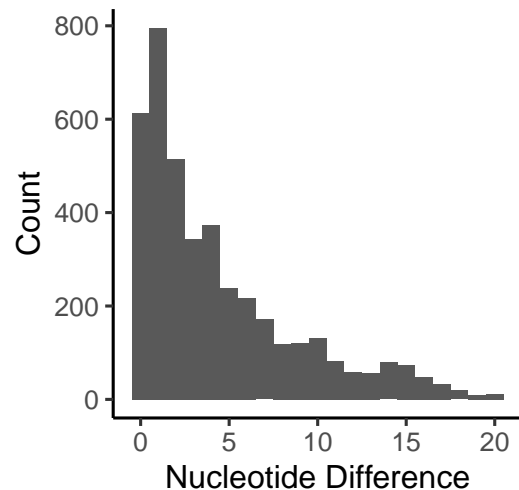
IGHV4-4*02_03

6175 sequences assigned
1210 (19.6%) exact matches, in which:
853 unique CDR3
7 unique J



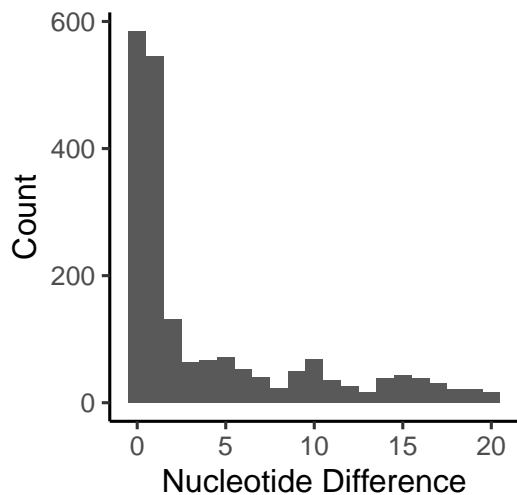
IGHV4-30-2*01

4260 sequences assigned
613 (14.4%) exact matches, in which:
414 unique CDR3
7 unique J



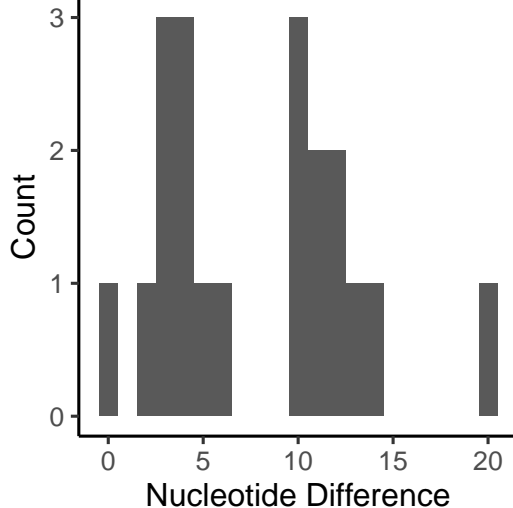
IGHV3-64D*06

2036 sequences assigned
585 (28.7%) exact matches, in which:
274 unique CDR3
7 unique J



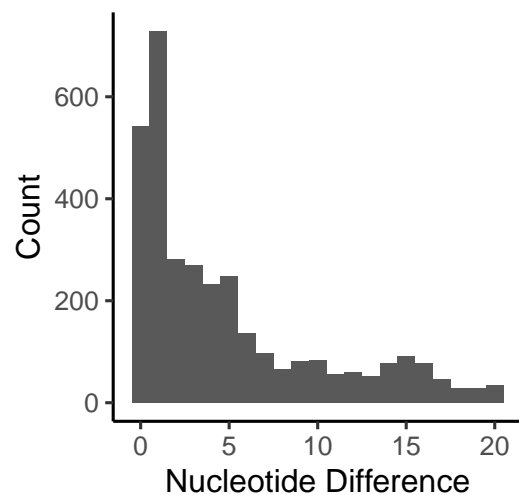
IGHV4-28*03

27 sequences assigned
1 (3.7%) exact matches, in which:
1 unique CDR3
1 unique J



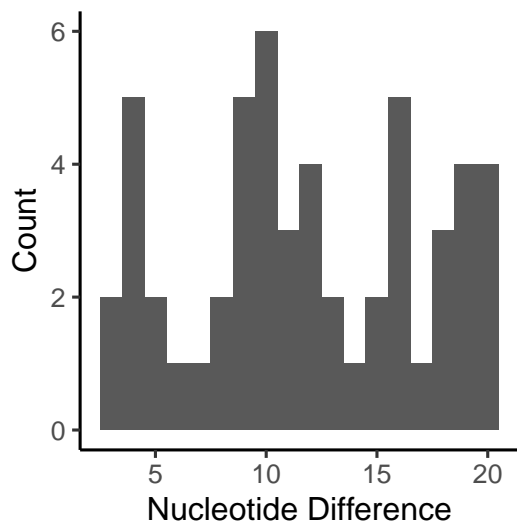
IGHV4-30-4*01

3830 sequences assigned
542 (14.2%) exact matches, in which:
366 unique CDR3
7 unique J



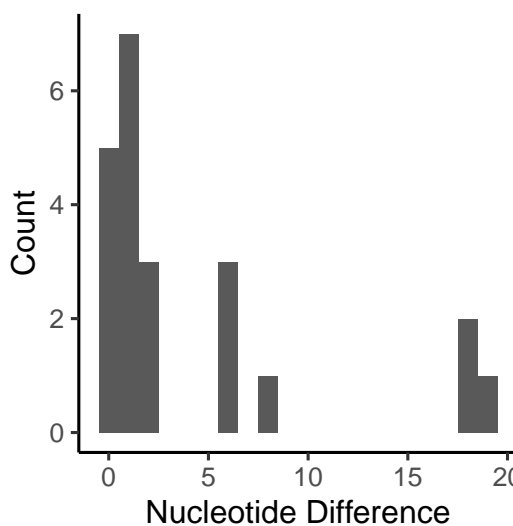
IGHV3-NL1*01

73 sequences assigned
No exact matches.



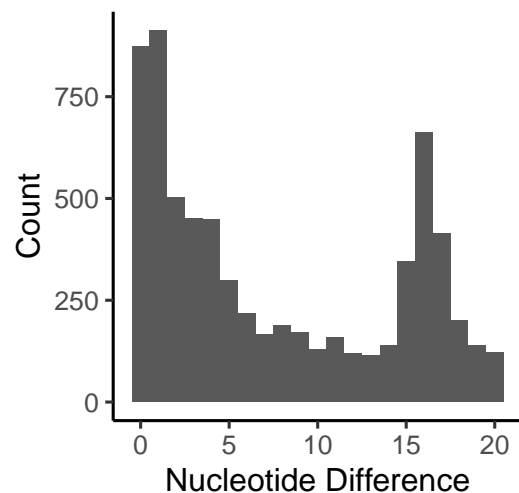
IGHV4-28*01_07

23 sequences assigned
5 (21.7%) exact matches, in which:
2 unique CDR3
2 unique J



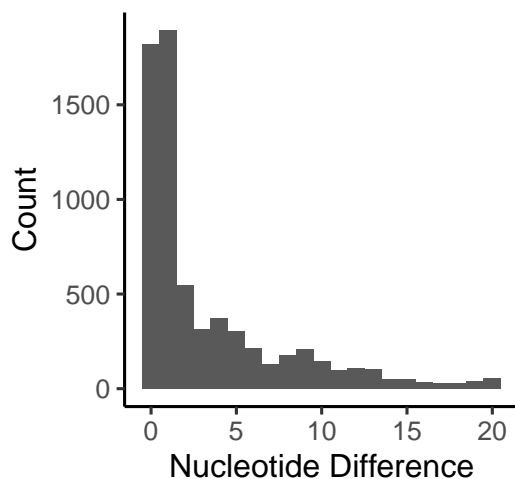
IGHV4-31*02

8268 sequences assigned
873 (10.6%) exact matches, in which:
667 unique CDR3
7 unique J



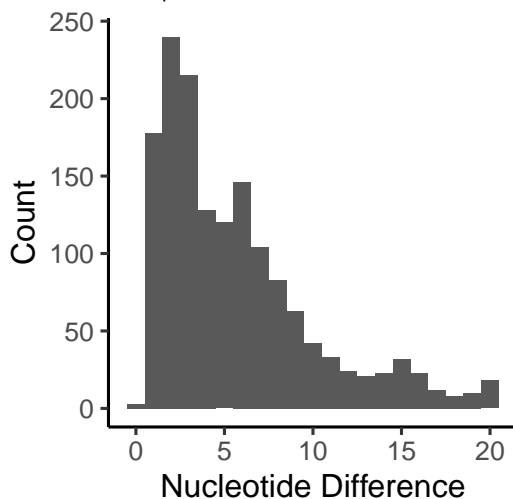
IGHV4-34*01_02

8732 sequences assigned
1819 (20.8%) exact matches, in which:
1224 unique CDR3
7 unique J



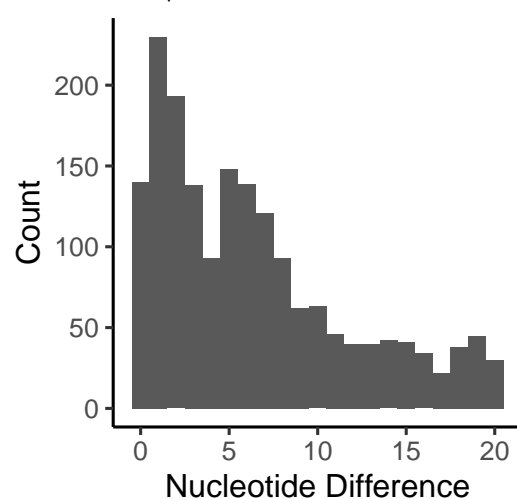
IGHV4-39*07

1692 sequences assigned
3 (0.2%) exact matches, in which:
3 unique CDR3
3 unique J



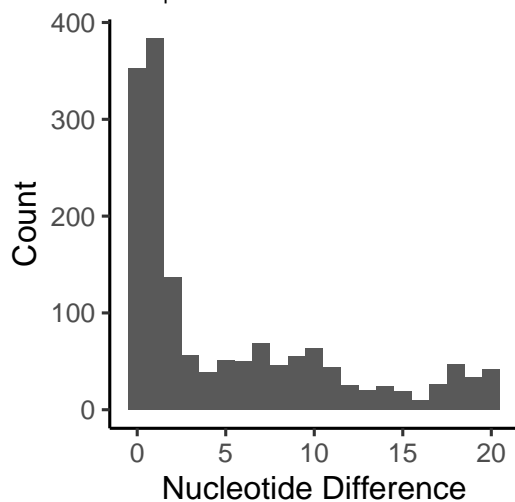
IGHV4-59*12

2295 sequences assigned
140 (6.1%) exact matches, in which:
135 unique CDR3
7 unique J



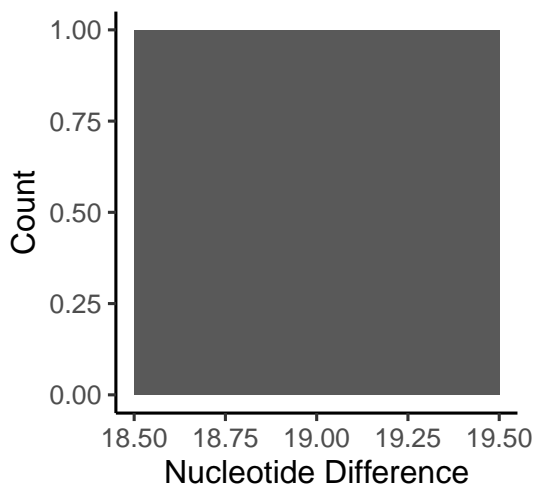
IGHV4-38-2*01

2450 sequences assigned
353 (14.4%) exact matches, in which:
296 unique CDR3
7 unique J



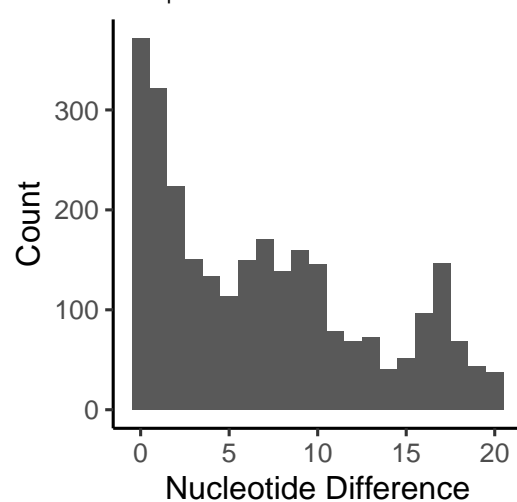
IGHV4-55*09

2 sequences assigned
No exact matches.



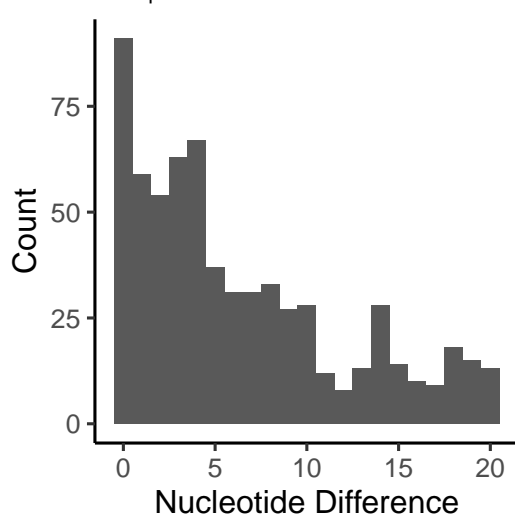
IGHV4-61*01

3227 sequences assigned
372 (11.5%) exact matches, in which:
313 unique CDR3
7 unique J



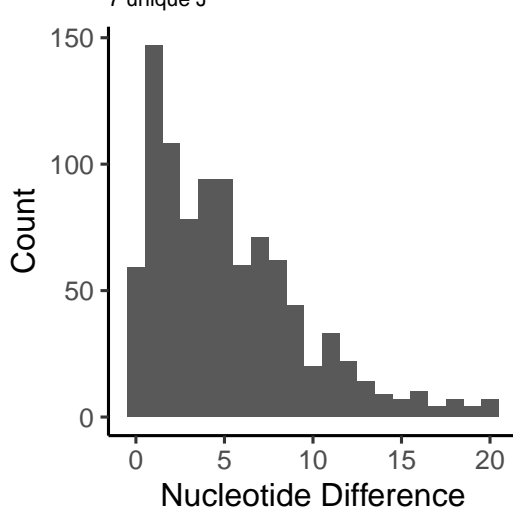
IGHV4-38-2*02

833 sequences assigned
91 (10.9%) exact matches, in which:
71 unique CDR3
6 unique J



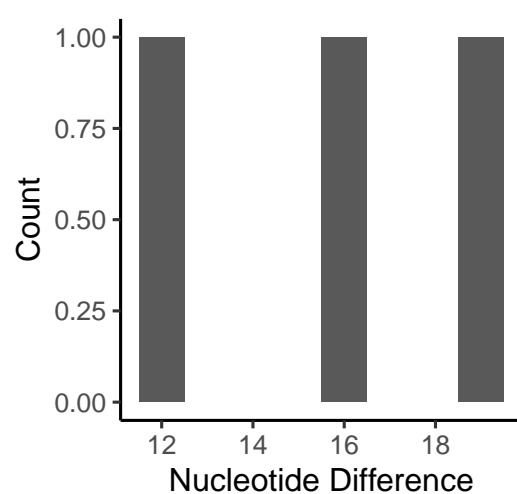
IGHV4-59*08

1003 sequences assigned
59 (5.9%) exact matches, in which:
57 unique CDR3
7 unique J



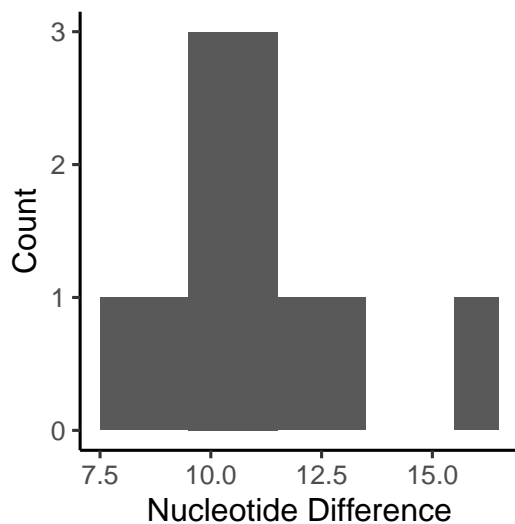
IGHV1/OR15-2*02_03

3 sequences assigned
No exact matches.



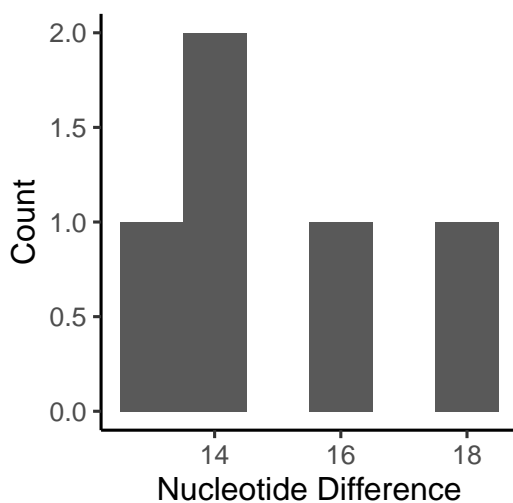
IGHV1/OR15–3*02

22 sequences assigned
No exact matches.



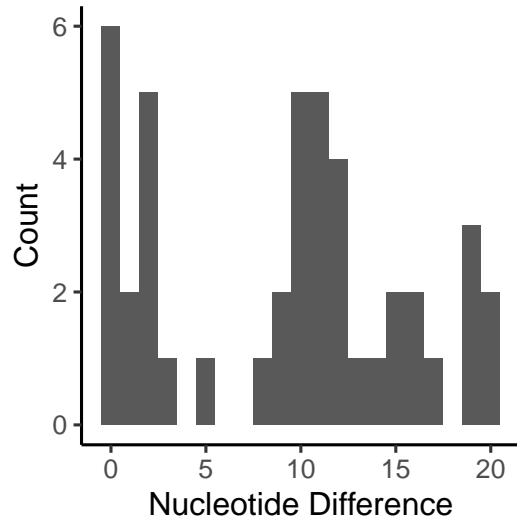
IGHV4/OR15–8*02

30 sequences assigned
No exact matches.



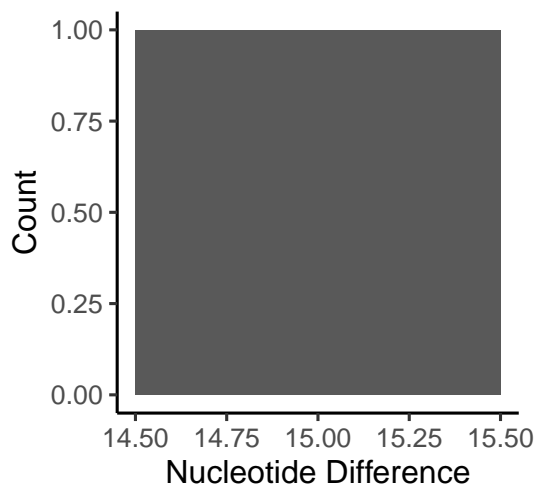
IGHV5–51*04

60 sequences assigned
6 (10%) exact matches, in which:
6 unique CDR3
2 unique J



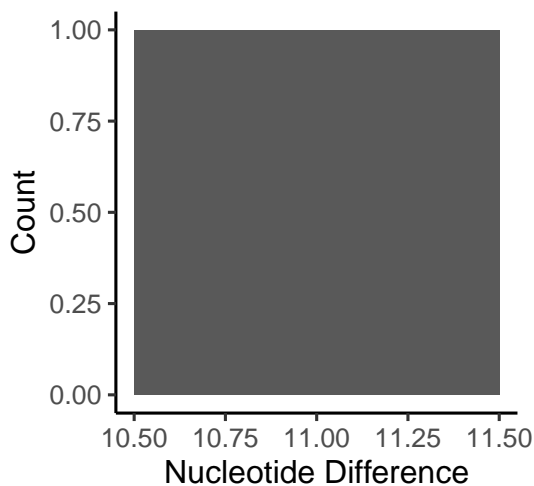
IGHV1/OR15–4*01

1 sequences assigned
No exact matches.



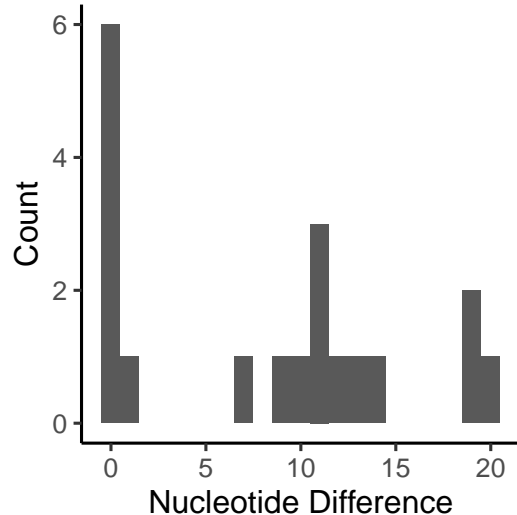
IGHV1/OR15–9*01

1 sequences assigned
No exact matches.



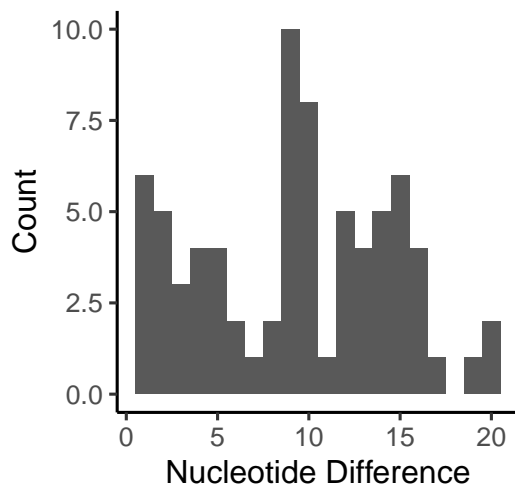
IGHV5–51*06

23 sequences assigned
6 (26.1%) exact matches, in which:
6 unique CDR3
5 unique J



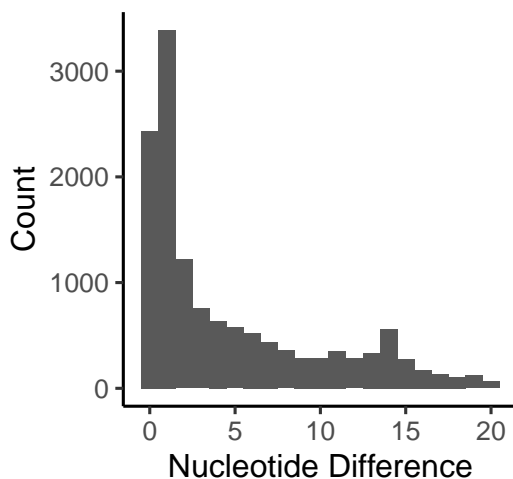
IGHV4/OR15–8*01

79 sequences assigned
No exact matches.



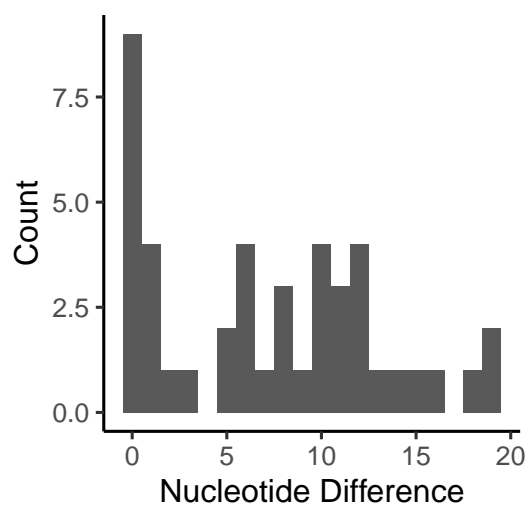
IGHV5–10–1*01_03

13472 sequences assigned
2435 (18.1%) exact matches, in which:
1343 unique CDR3
7 unique J



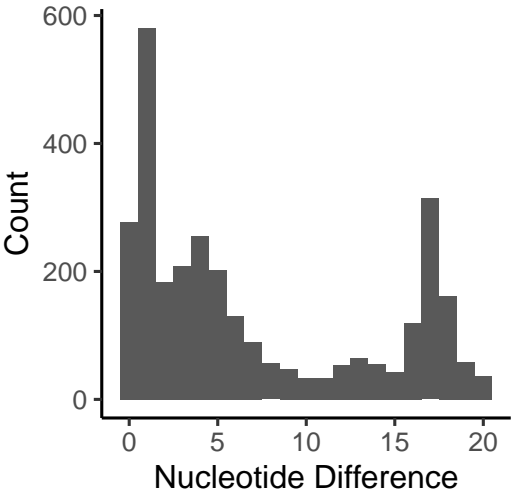
IGHV5–51*07

50 sequences assigned
9 (18%) exact matches, in which:
9 unique CDR3
5 unique J



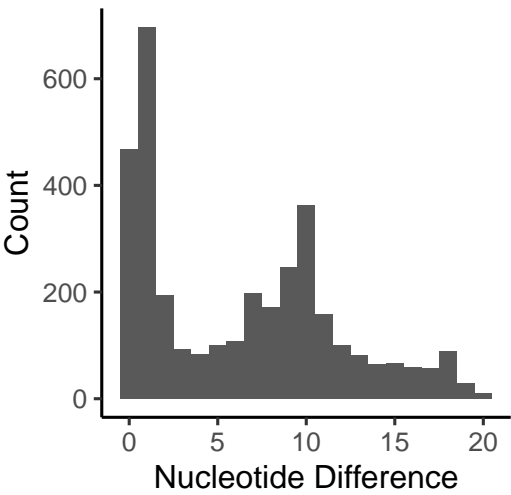
IGHV6-1*01_02

3125 sequences assigned
277 (8.9%) exact matches, in which:
229 unique CDR3
7 unique J



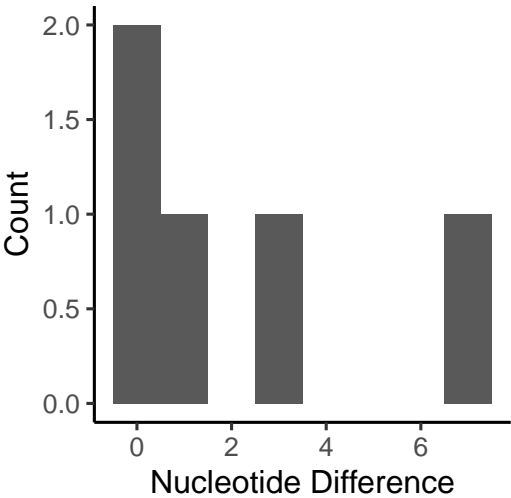
IGHV7-4-1*02

3624 sequences assigned
467 (12.9%) exact matches, in which:
360 unique CDR3
7 unique J

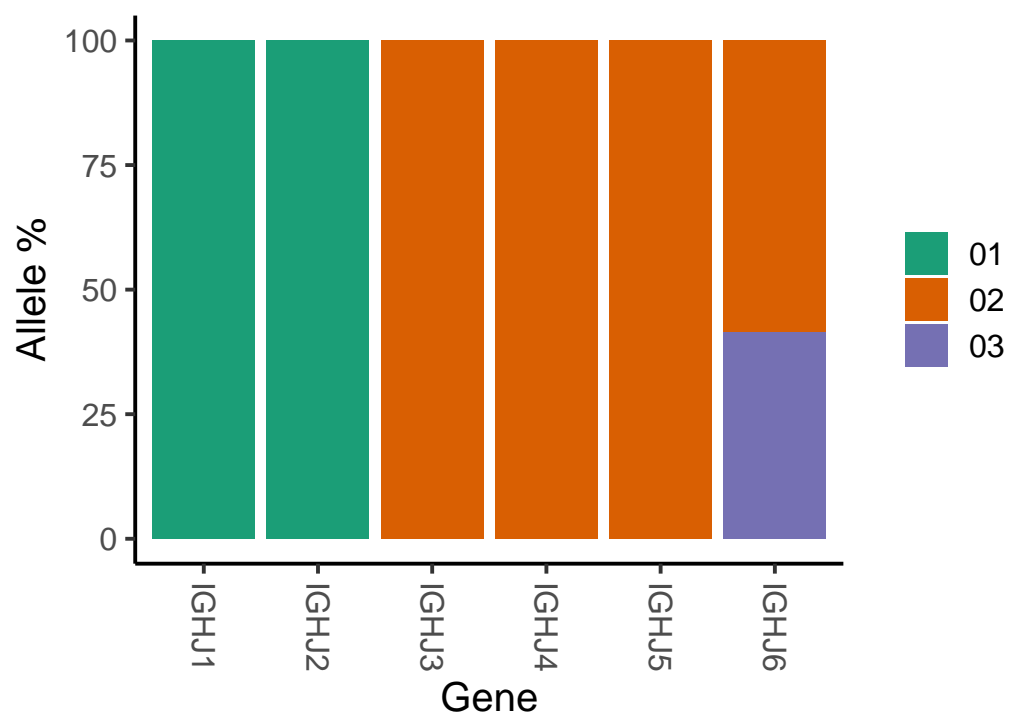


IGHV7-81*01

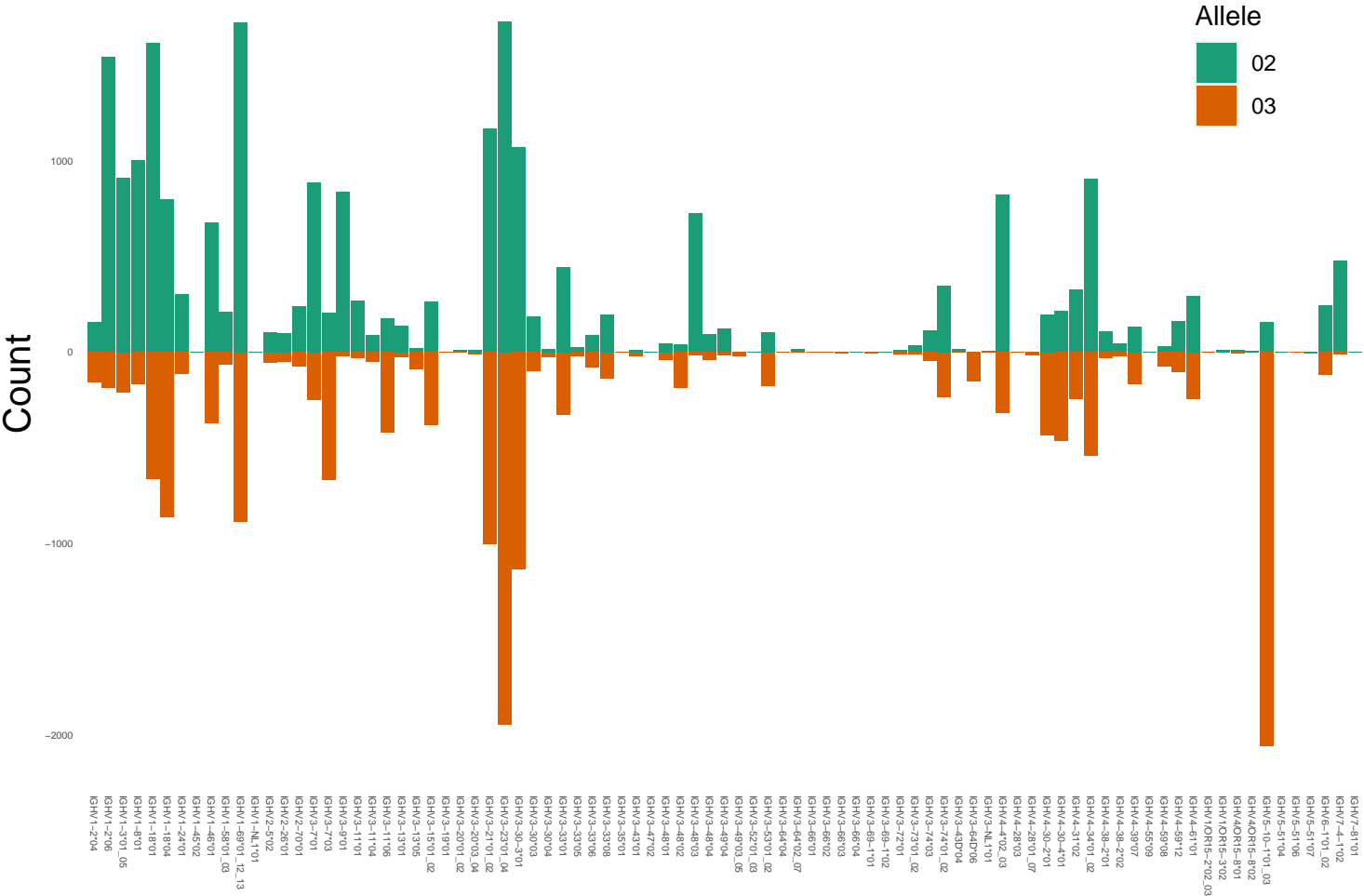
5 sequences assigned
2 (40%) exact matches, in which:
2 unique CDR3
2 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]