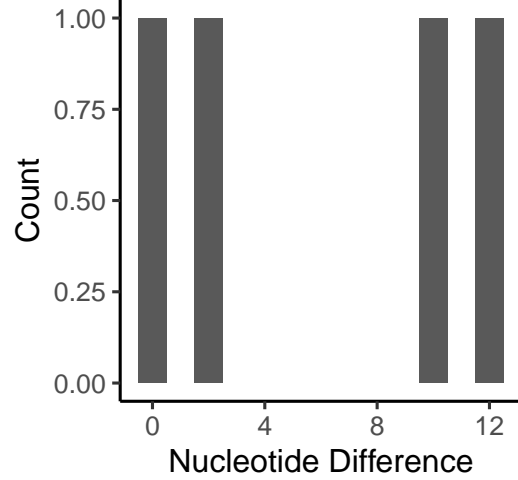


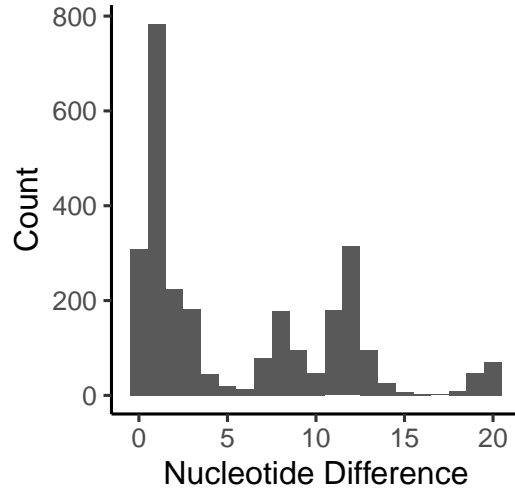
IGHV1-2*02

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



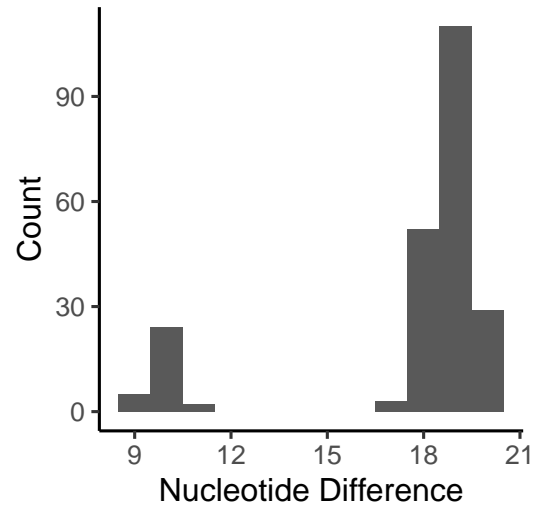
IGHV1-3*01_05

4781 sequences assigned
309 (6.5%) exact matches, in which:
179 unique CDR3
4 unique J



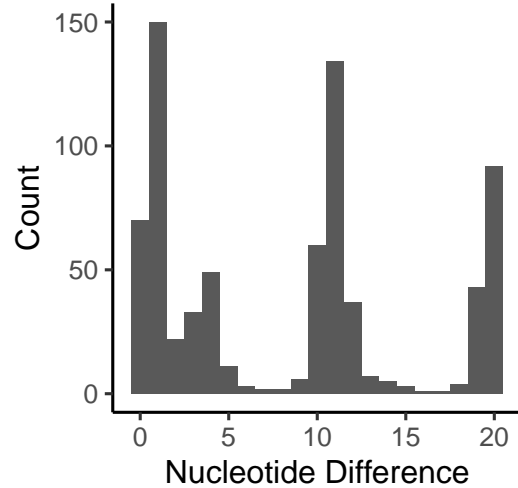
IGHV1-24*01

381 sequences assigned
No exact matches.



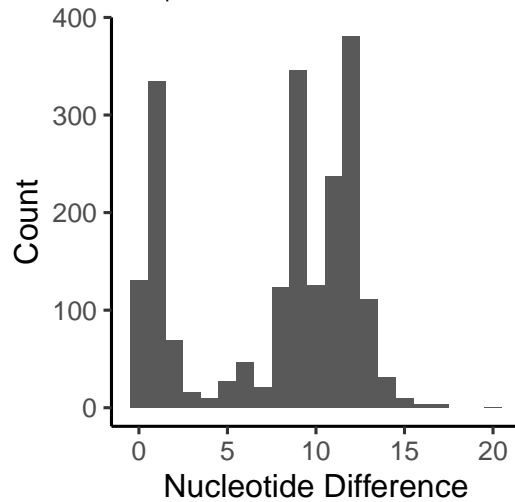
IGHV1-2*04

761 sequences assigned
70 (9.2%) exact matches, in which:
46 unique CDR3
4 unique J



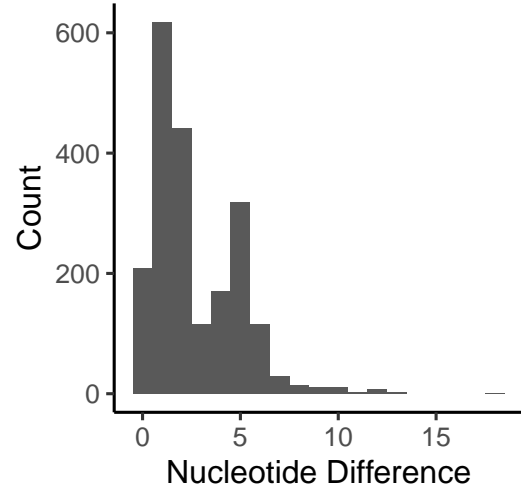
IGHV1-8*01

2041 sequences assigned
131 (6.4%) exact matches, in which:
82 unique CDR3
4 unique J



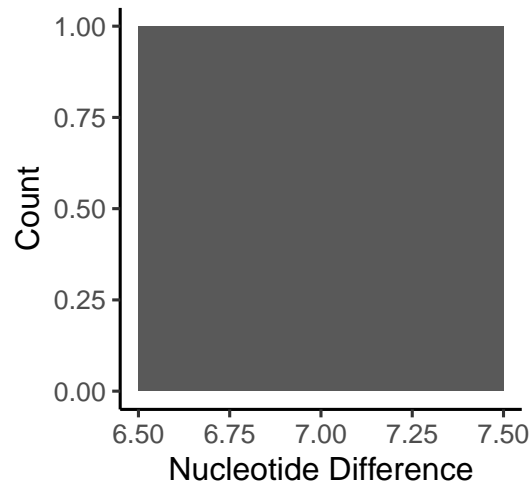
IGHV1-46*01

2069 sequences assigned
208 (10.1%) exact matches, in which:
118 unique CDR3
5 unique J



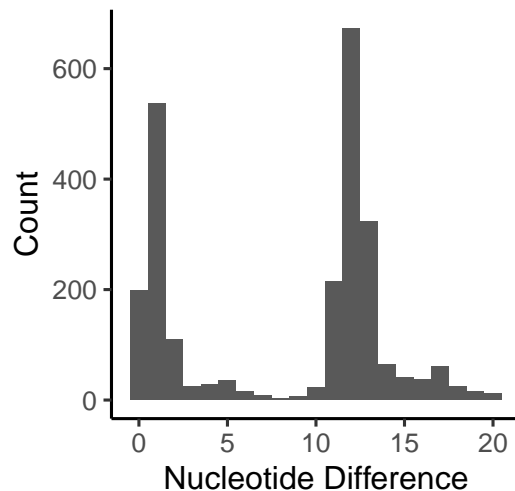
IGHV1-2*06

2 sequences assigned
No exact matches.



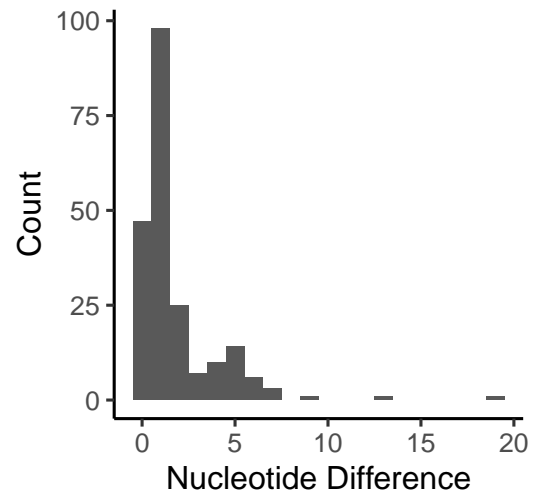
IGHV1-18*01

3301 sequences assigned
199 (6%) exact matches, in which:
120 unique CDR3
4 unique J



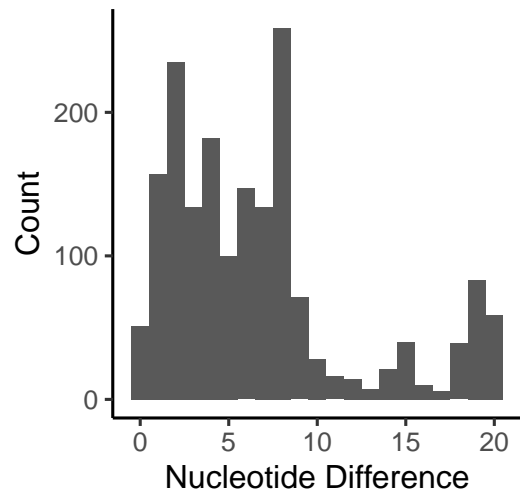
IGHV1-58*02

296 sequences assigned
47 (15.9%) exact matches, in which:
27 unique CDR3
3 unique J



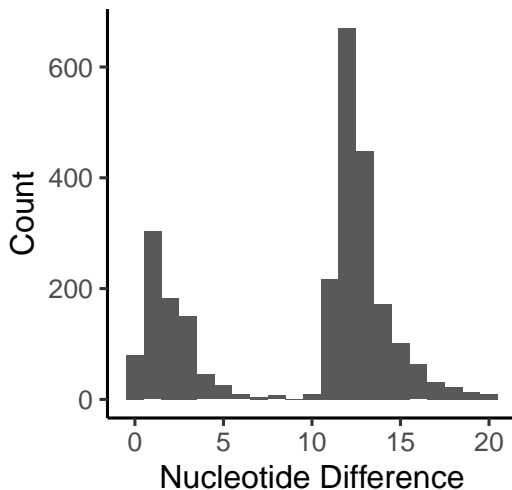
IGHV1–69*04_09

2107 sequences assigned
51 (2.4%) exact matches, in which:
36 unique CDR3
4 unique J



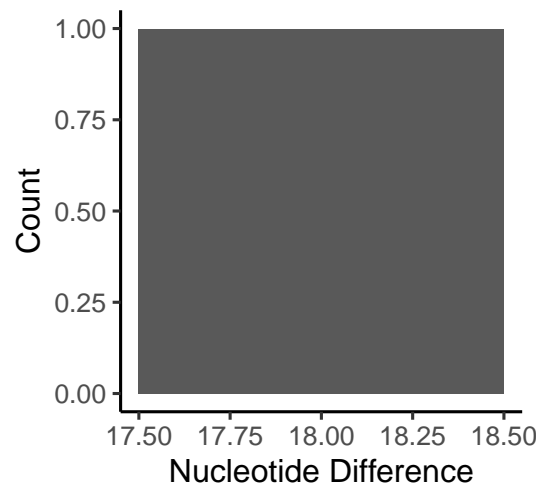
IGHV2–70*11_15

2650 sequences assigned
80 (3%) exact matches, in which:
40 unique CDR3
2 unique J



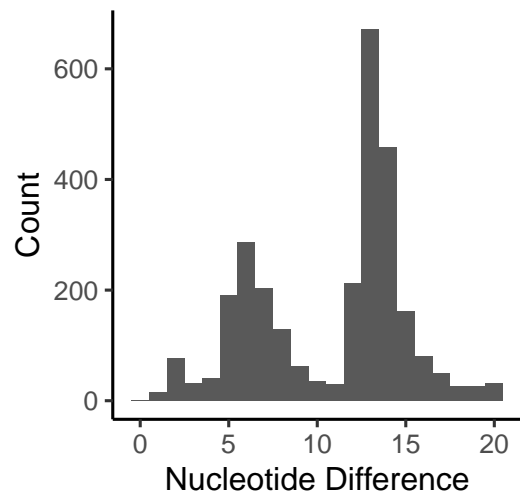
IGHV2–70D*14

1 sequences assigned
No exact matches.



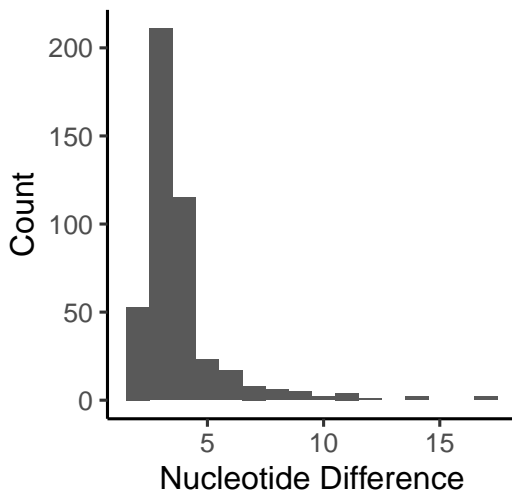
IGHV2–5*02

3981 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



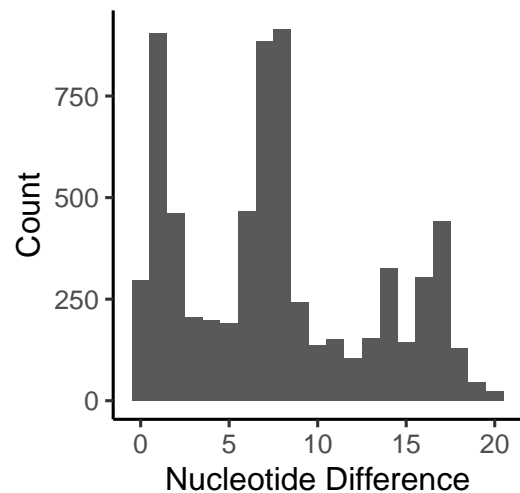
IGHV2–70*16_17

449 sequences assigned
No exact matches.



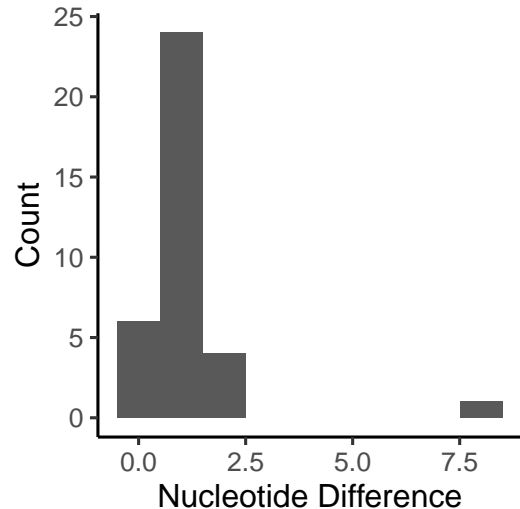
IGHV3–7*01

6772 sequences assigned
297 (4.4%) exact matches, in which:
139 unique CDR3
6 unique J



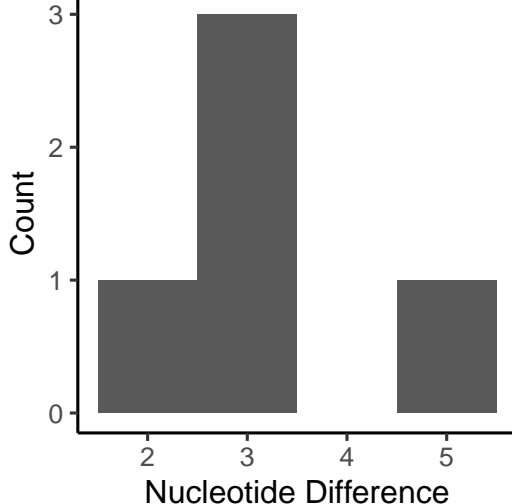
IGHV2–26*01

35 sequences assigned
6 (17.1%) exact matches, in which:
2 unique CDR3
1 unique J



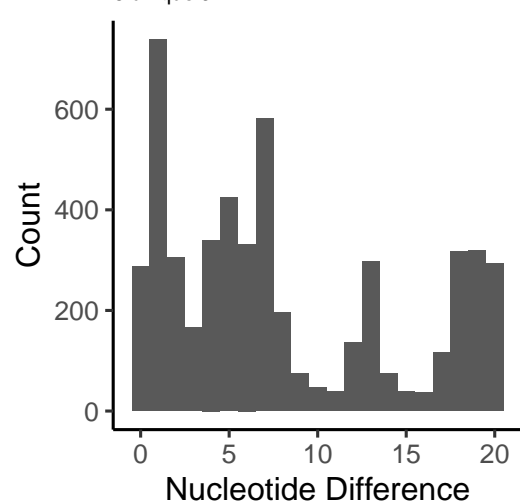
IGHV2–70D*04

5 sequences assigned
No exact matches.



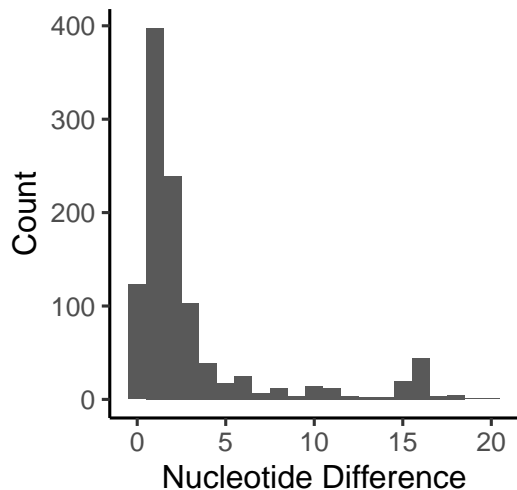
IGHV3–7*03

6398 sequences assigned
288 (4.5%) exact matches, in which:
172 unique CDR3
6 unique J



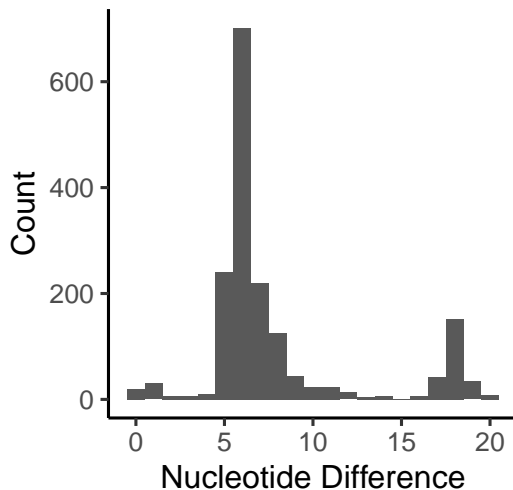
IGHV3-9*01

1110 sequences assigned
123 (11.1%) exact matches, in which:
69 unique CDR3
3 unique J



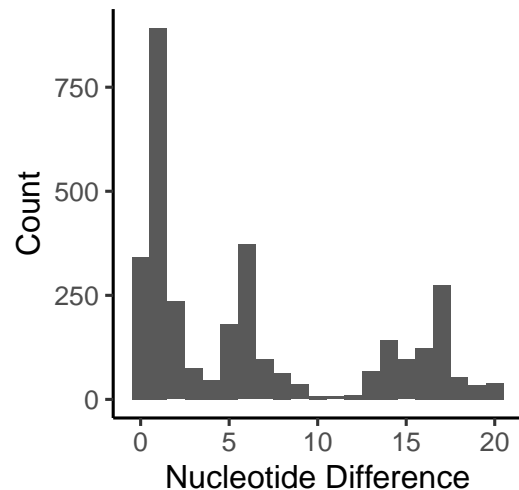
IGHV3-13*01

1734 sequences assigned
19 (1.1%) exact matches, in which:
11 unique CDR3
2 unique J



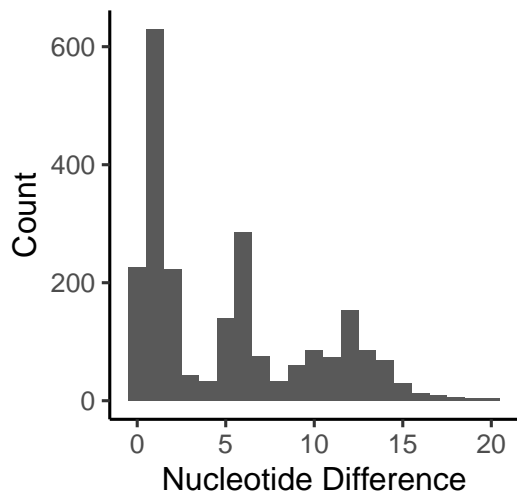
IGHV3-21*01_02

4056 sequences assigned
342 (8.4%) exact matches, in which:
144 unique CDR3
4 unique J



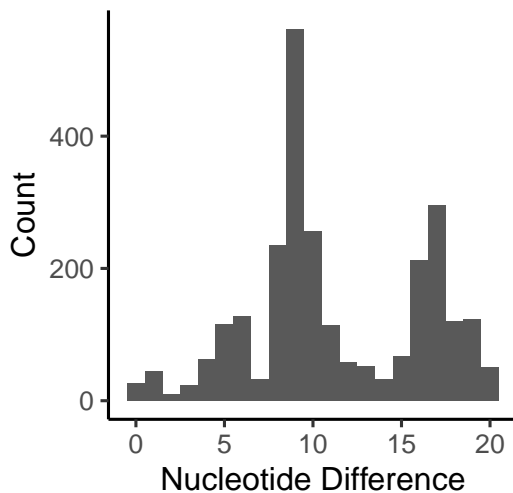
IGHV3-11*01

2433 sequences assigned
227 (9.3%) exact matches, in which:
126 unique CDR3
6 unique J



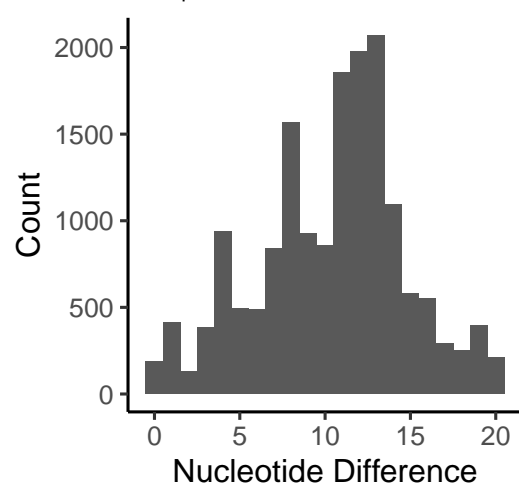
IGHV3-15*07

2709 sequences assigned
26 (1%) exact matches, in which:
15 unique CDR3
2 unique J



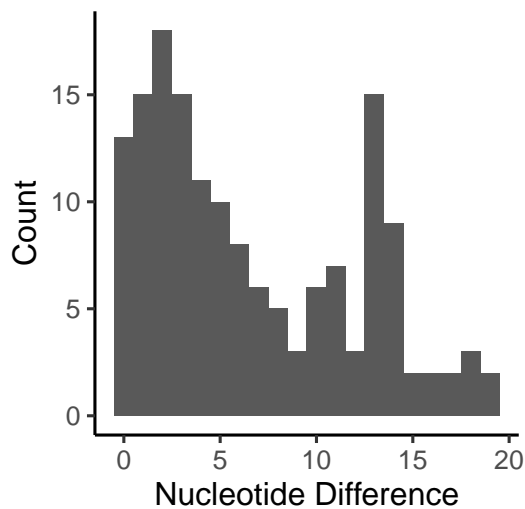
IGHV3-23*01_04

23515 sequences assigned
188 (0.8%) exact matches, in which:
109 unique CDR3
3 unique J



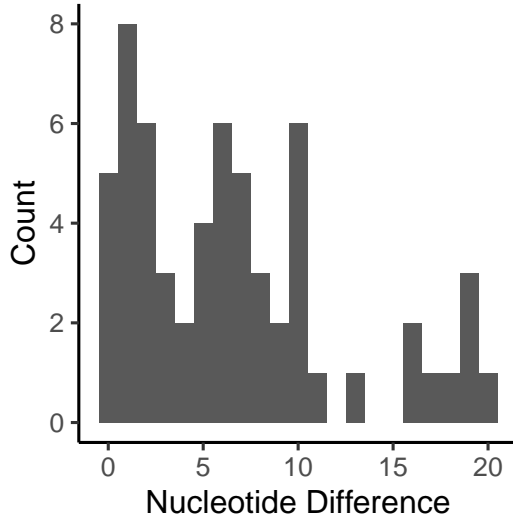
IGHV3-11*04

157 sequences assigned
13 (8.3%) exact matches, in which:
11 unique CDR3
4 unique J



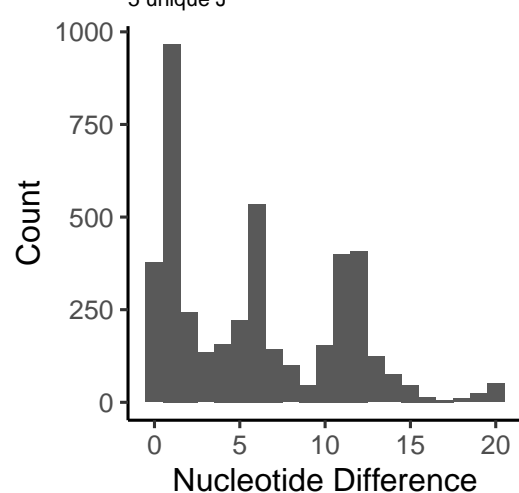
IGHV3-21*04

78 sequences assigned
5 (6.4%) exact matches, in which:
4 unique CDR3
3 unique J



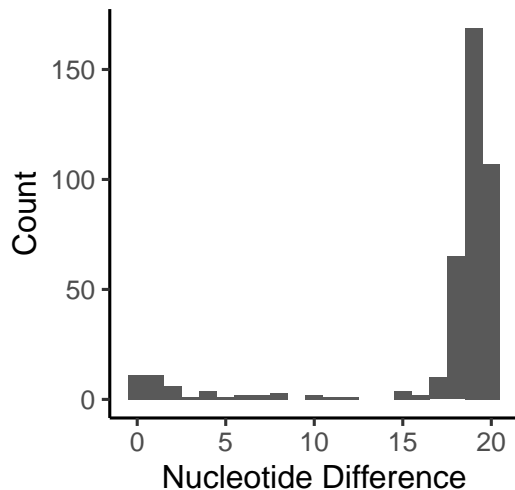
IGHV3-30-3*01

4416 sequences assigned
377 (8.5%) exact matches, in which:
195 unique CDR3
5 unique J



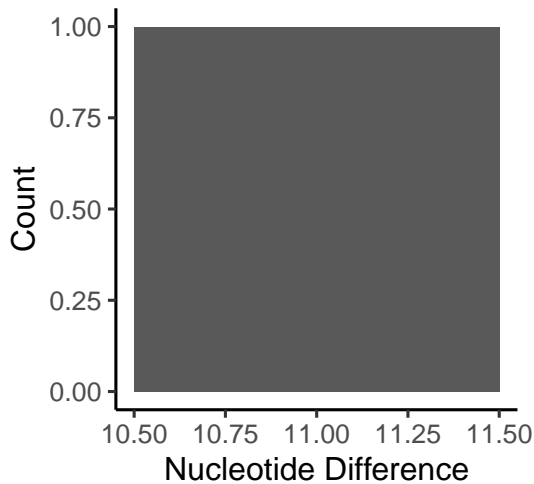
IGHV3–30*03

1675 sequences assigned
11 (0.7%) exact matches, in which:
11 unique CDR3
3 unique J



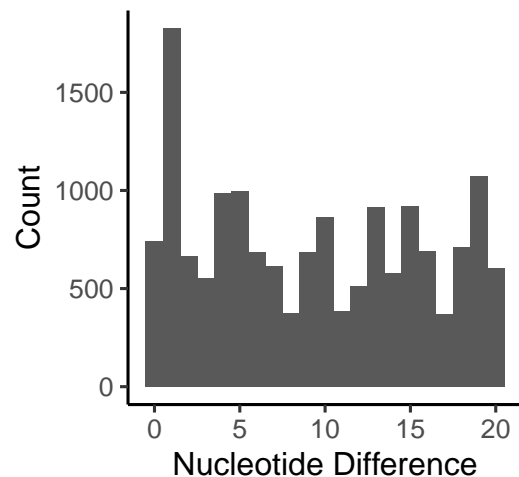
IGHV3–33*05

25 sequences assigned
No exact matches.



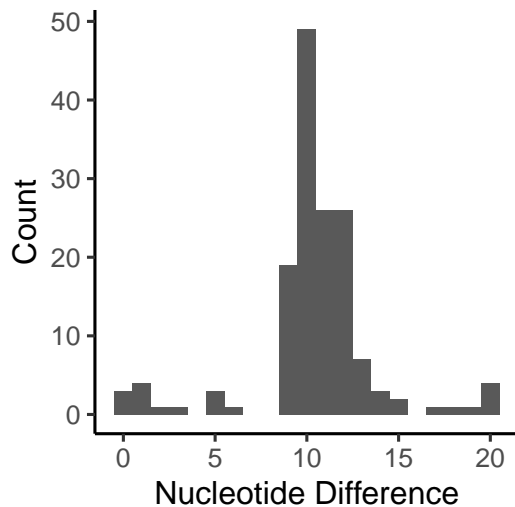
IGHV3–48*04

19076 sequences assigned
741 (3.9%) exact matches, in which:
360 unique CDR3
6 unique J



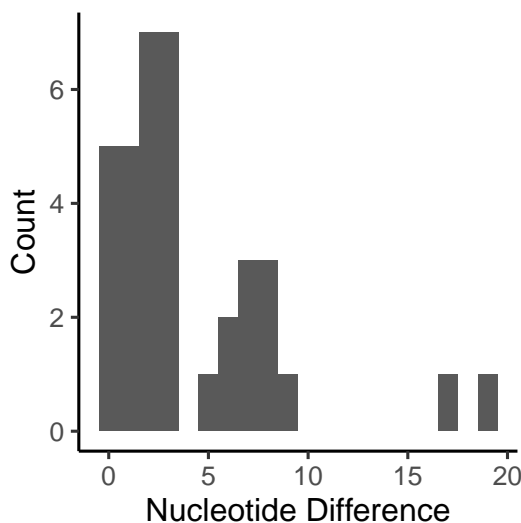
IGHV3–30*04

206 sequences assigned
3 (1.5%) exact matches, in which:
3 unique CDR3
2 unique J



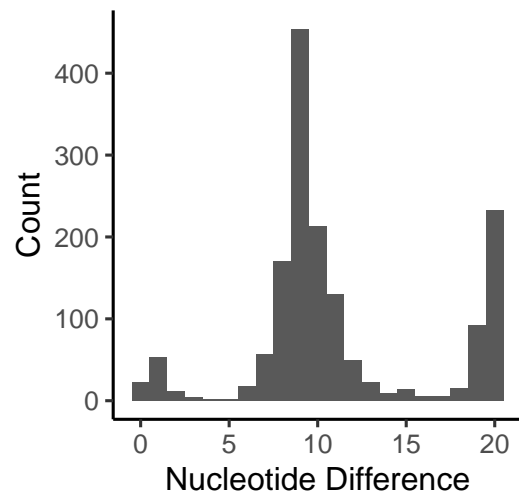
IGHV3–33*06

49 sequences assigned
5 (10.2%) exact matches, in which:
5 unique CDR3
1 unique J



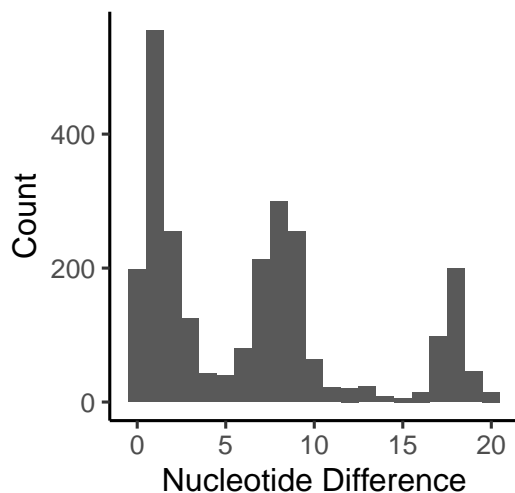
IGHV3–49*03_05

1893 sequences assigned
23 (1.2%) exact matches, in which:
14 unique CDR3
2 unique J



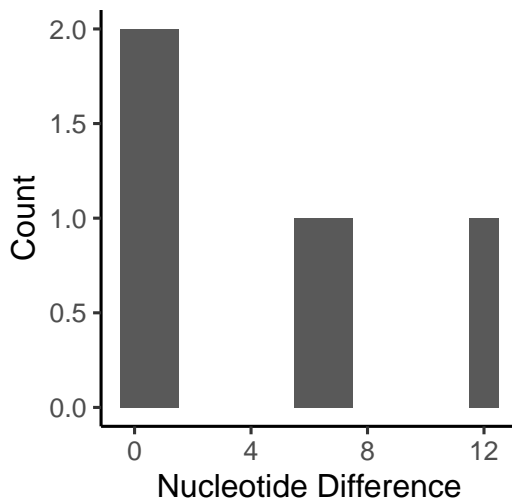
IGHV3–33*01

2701 sequences assigned
198 (7.3%) exact matches, in which:
111 unique CDR3
5 unique J



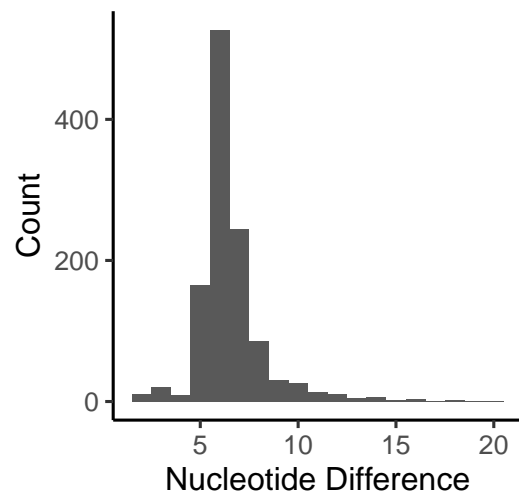
IGHV3–38–3*01

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



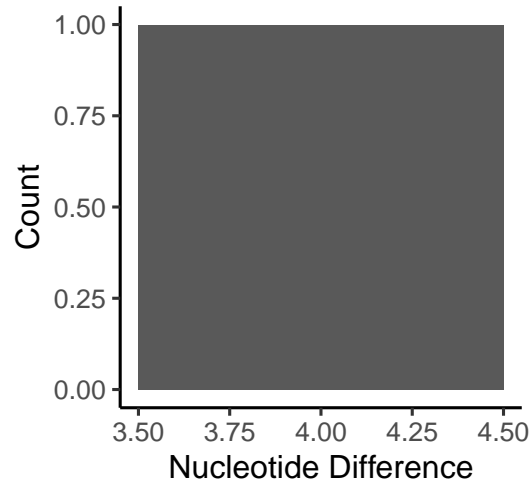
IGHV3–53*04

1169 sequences assigned
No exact matches.



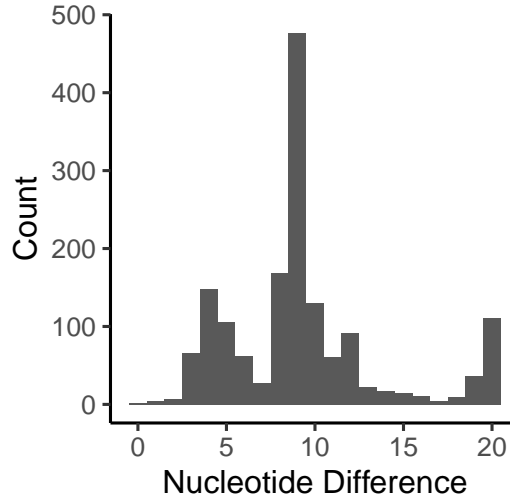
IGHV3-53*05

631 sequences assigned
No exact matches.



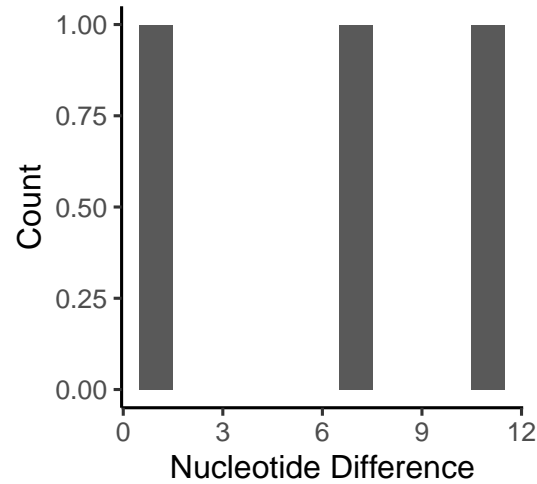
IGHV3-66*01

6392 sequences assigned
2 (0%) exact matches, in which:
2 unique CDR3
2 unique J



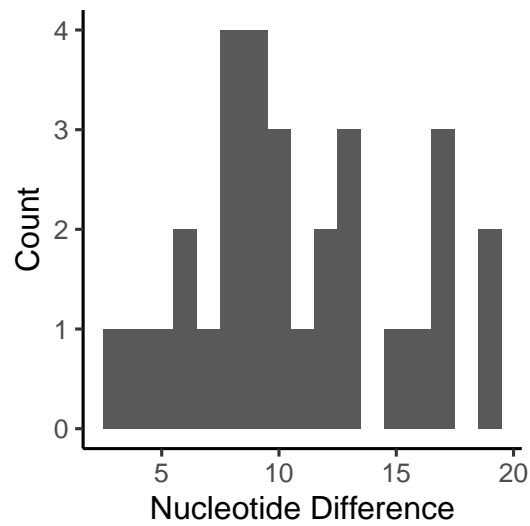
IGHV3-69-1*02

6 sequences assigned
No exact matches.



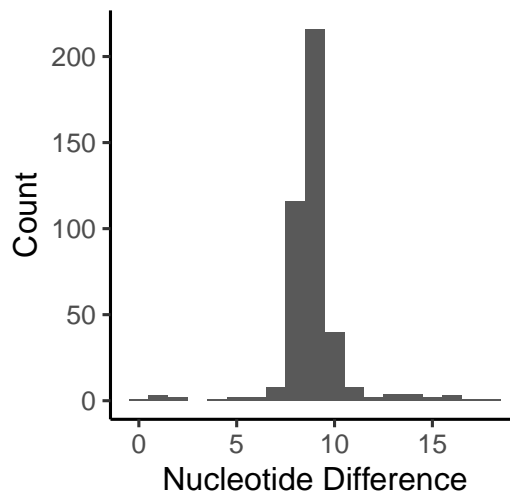
IGHV3-53*01_02

41 sequences assigned
No exact matches.



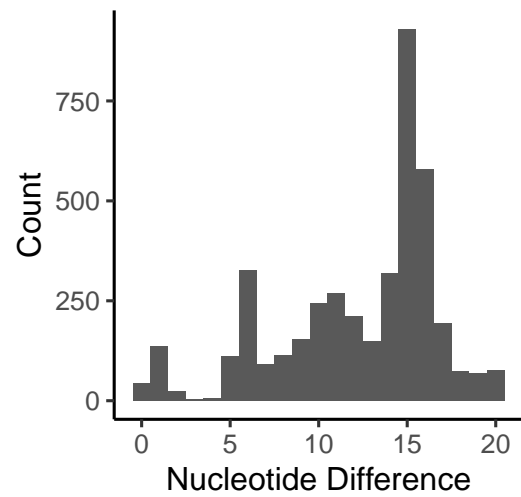
IGHV3-66*04

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



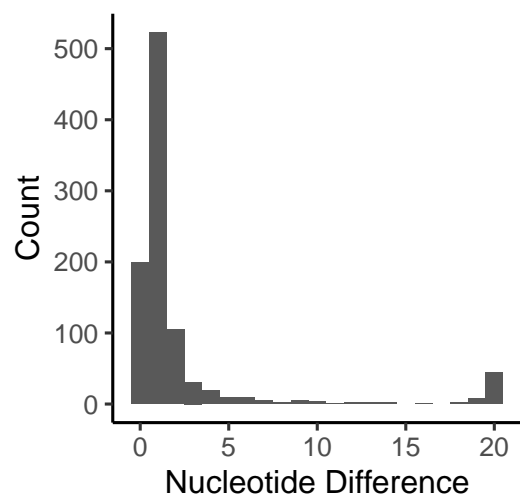
IGHV3-72*01

4372 sequences assigned
45 (1%) exact matches, in which:
23 unique CDR3
1 unique J



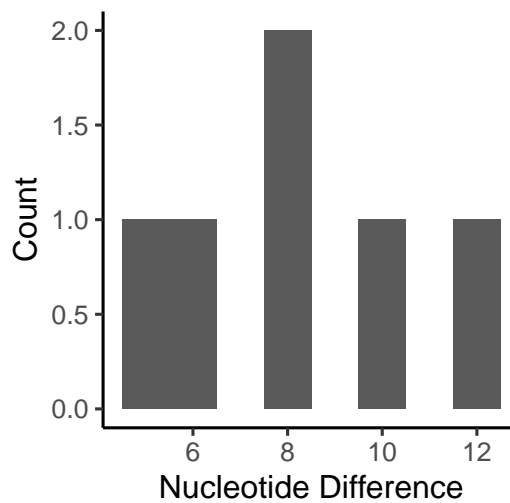
IGHV3-64*01

1112 sequences assigned
199 (17.9%) exact matches, in which:
94 unique CDR3
5 unique J



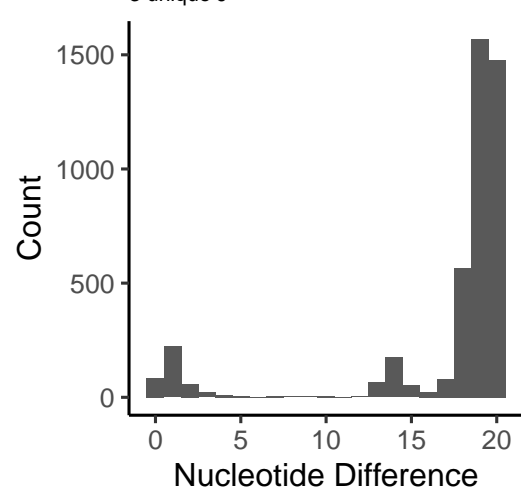
IGHV3-69-1*01

7 sequences assigned
No exact matches.



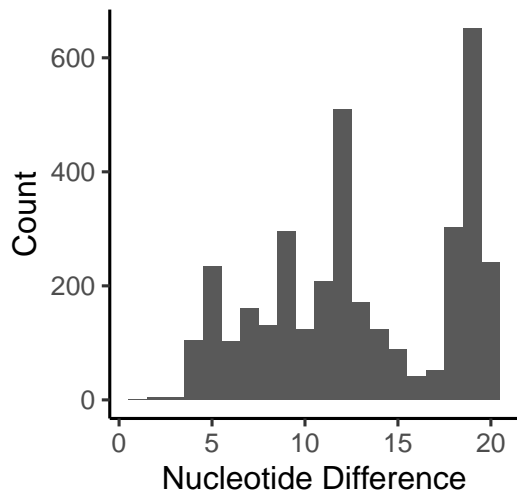
IGHV3-73*01_02

5881 sequences assigned
84 (1.4%) exact matches, in which:
47 unique CDR3
3 unique J



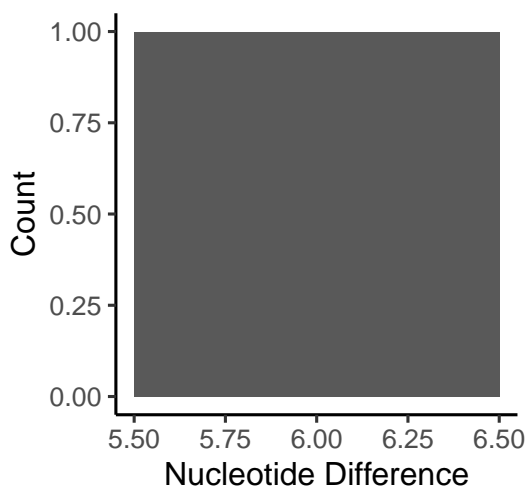
IGHV3-74*03

7374 sequences assigned
No exact matches.



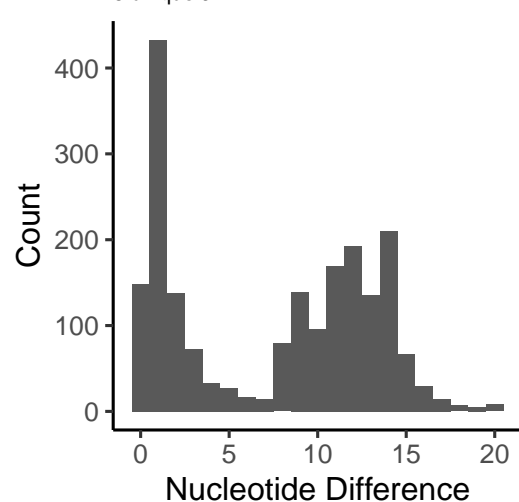
IGHV3-64D*06

1 sequences assigned
No exact matches.



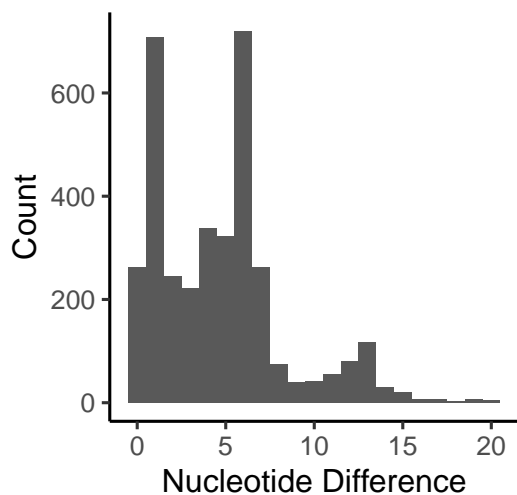
IGHV4-30-4*01

2152 sequences assigned
148 (6.9%) exact matches, in which:
90 unique CDR3
5 unique J



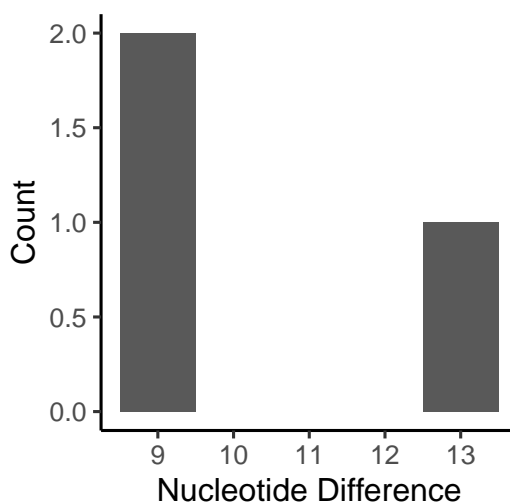
IGHV3-74*01_02

3693 sequences assigned
262 (7.1%) exact matches, in which:
156 unique CDR3
4 unique J



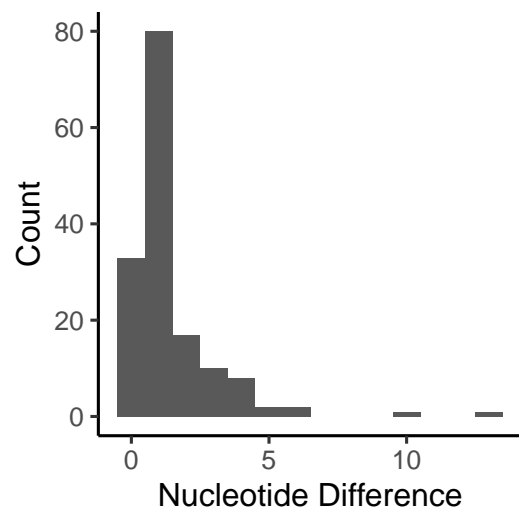
IGHV3-NL1*01

12 sequences assigned
No exact matches.



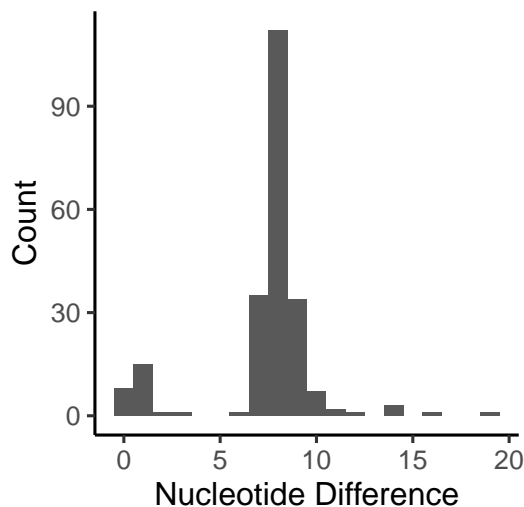
IGHV4-30-2*01

254 sequences assigned
33 (13%) exact matches, in which:
24 unique CDR3
2 unique J



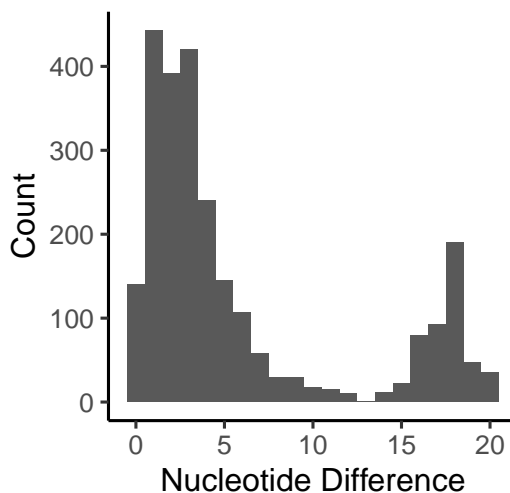
IGHV3-43D*03

223 sequences assigned
8 (3.6%) exact matches, in which:
4 unique CDR3
1 unique J



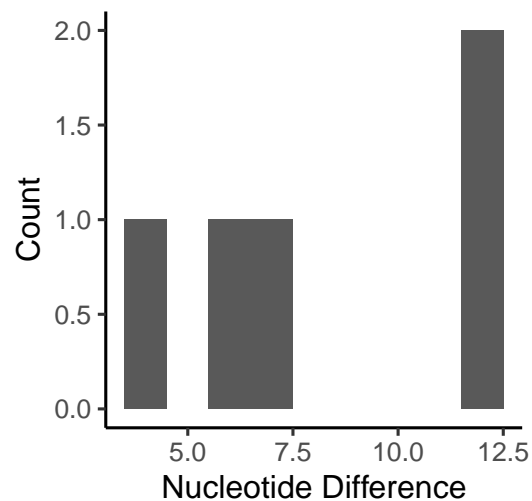
IGHV4-4*02_03

5371 sequences assigned
140 (2.6%) exact matches, in which:
78 unique CDR3
5 unique J



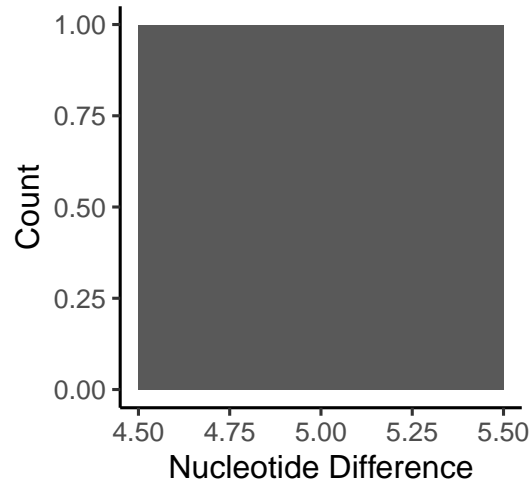
IGHV4-30-2*03

5 sequences assigned
No exact matches.



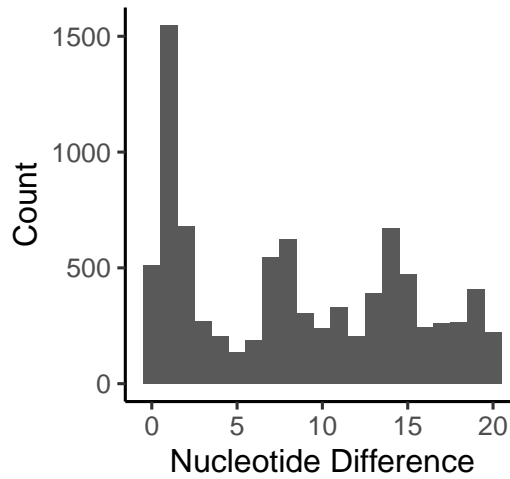
IGHV4-31*02

1 sequences assigned
No exact matches.



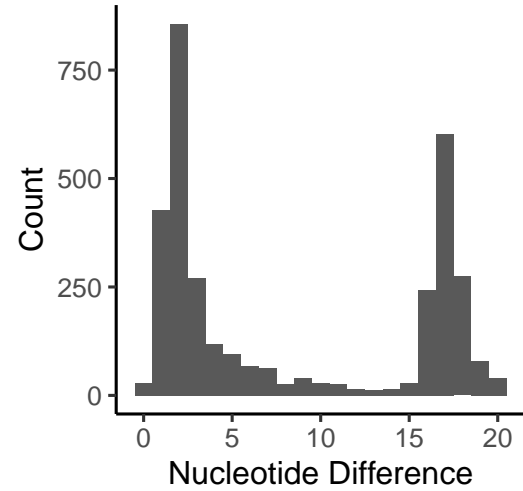
IGHV4-39*07

10001 sequences assigned
513 (5.1%) exact matches, in which:
315 unique CDR3
6 unique J



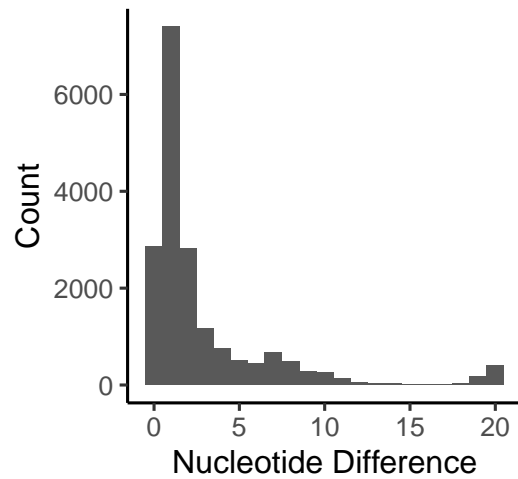
IGHV4-59*12

3978 sequences assigned
29 (0.7%) exact matches, in which:
28 unique CDR3
4 unique J



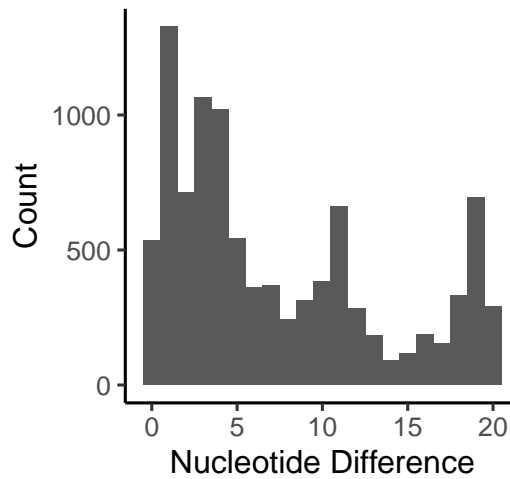
IGHV4-34*01_02

19012 sequences assigned
2852 (15%) exact matches, in which:
1721 unique CDR3
6 unique J



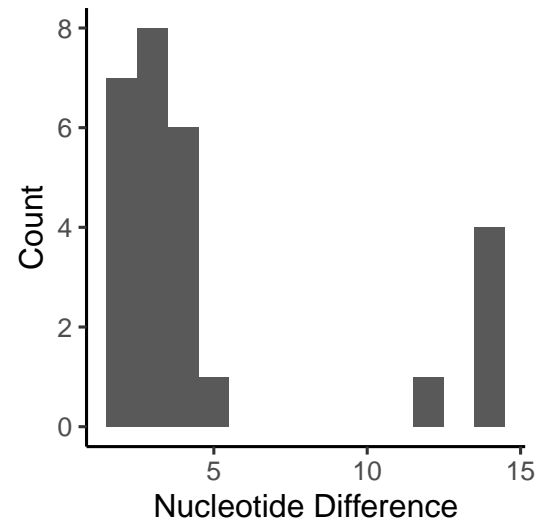
IGHV4-59*08

11616 sequences assigned
537 (4.6%) exact matches, in which:
347 unique CDR3
5 unique J



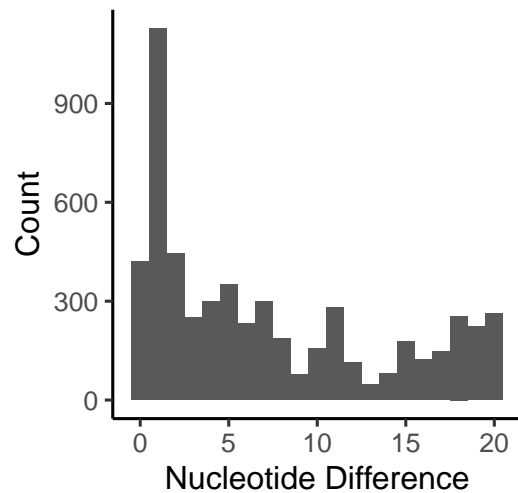
IGHV4-61*01

27 sequences assigned
No exact matches.



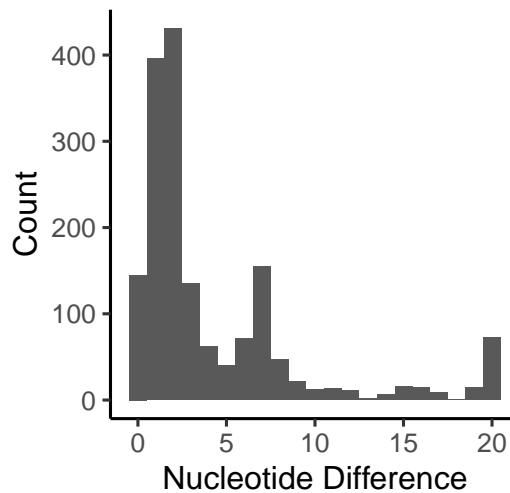
IGHV4-38-2*02

6501 sequences assigned
419 (6.4%) exact matches, in which:
252 unique CDR3
5 unique J



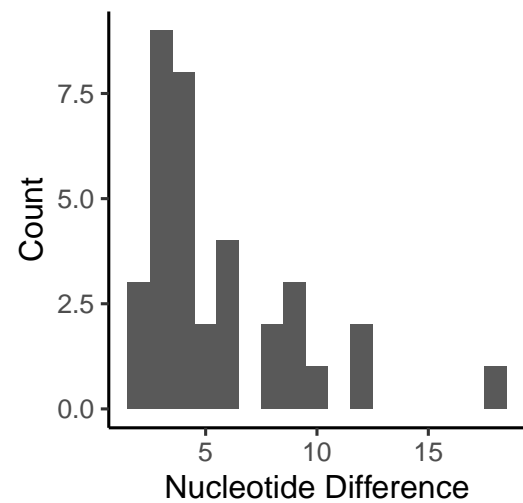
IGHV4-59*01_07

1965 sequences assigned
145 (7.4%) exact matches, in which:
104 unique CDR3
5 unique J



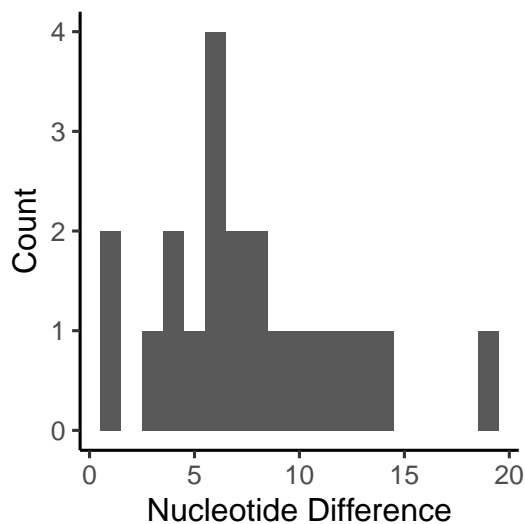
IGHV4-61*05

35 sequences assigned
No exact matches.



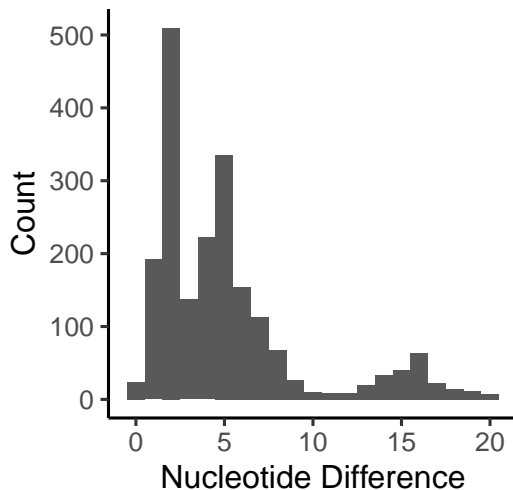
IGHV4-61*08

21 sequences assigned
No exact matches.



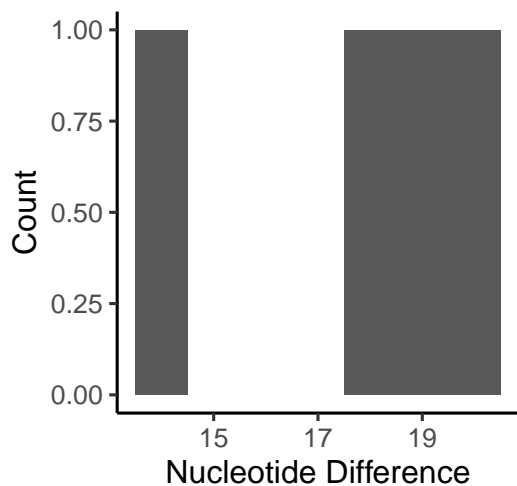
IGHV5-51*07

2336 sequences assigned
24 (1%) exact matches, in which:
16 unique CDR3
4 unique J



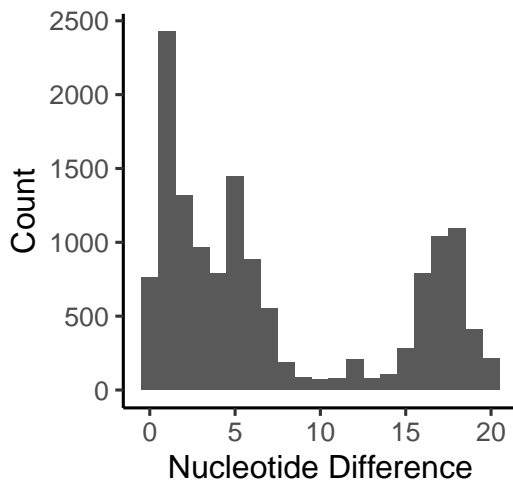
IGHV4/OR15-8*01

9 sequences assigned
No exact matches.



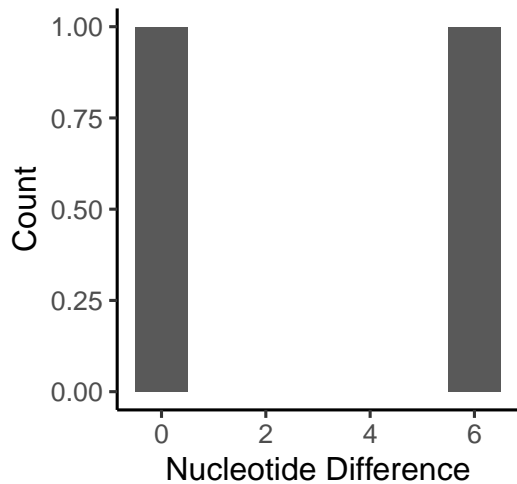
IGHV5-51*01_03

14543 sequences assigned
764 (5.3%) exact matches, in which:
371 unique CDR3
6 unique J



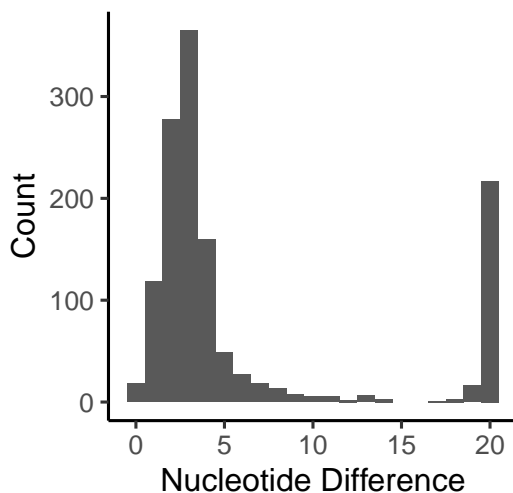
IGHV5-10-1*01_03

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

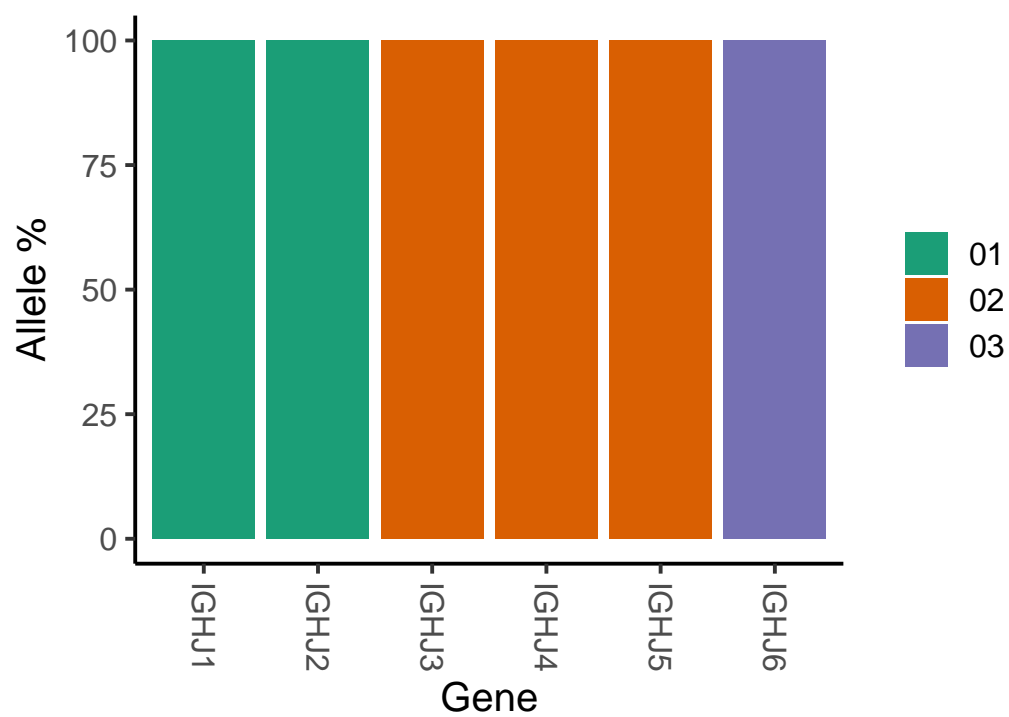


IGHV6-1*01_02

3023 sequences assigned
18 (0.6%) exact matches, in which:
10 unique CDR3
2 unique J



Allele Usage



[illegible]