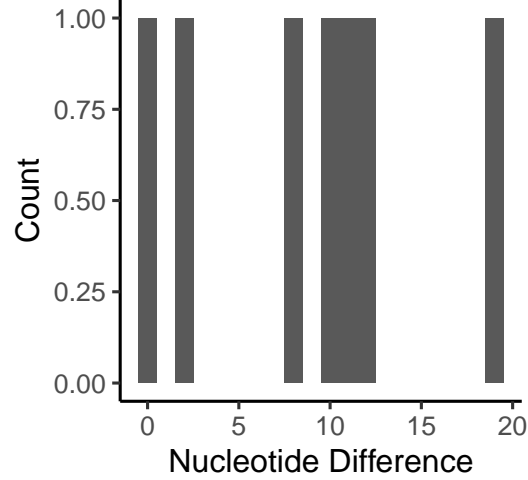


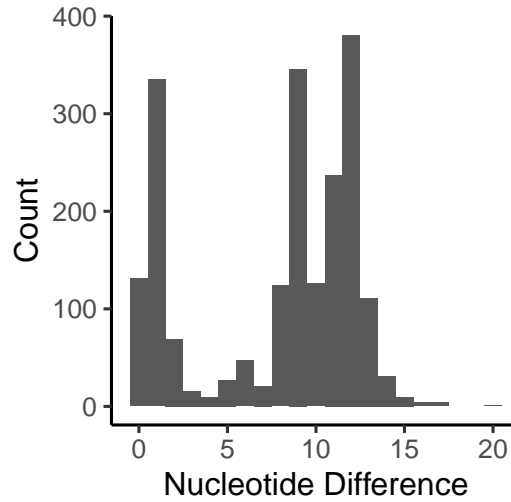
IGHV1-2*02

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



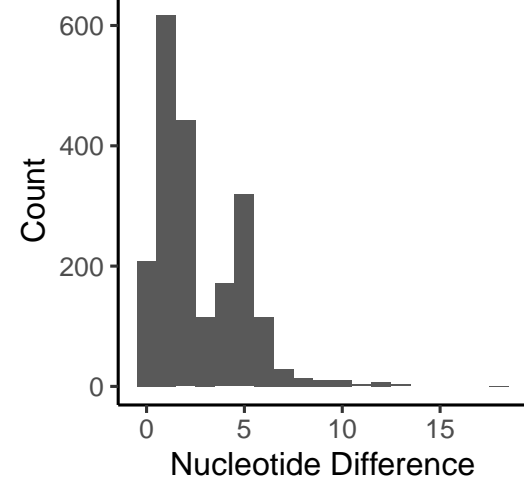
IGHV1-8*01

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



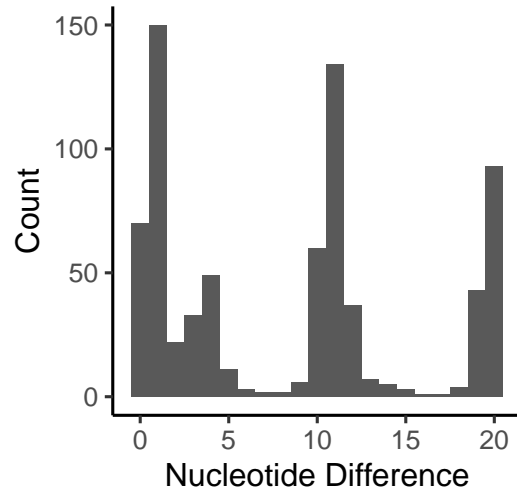
IGHV1-46*01

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



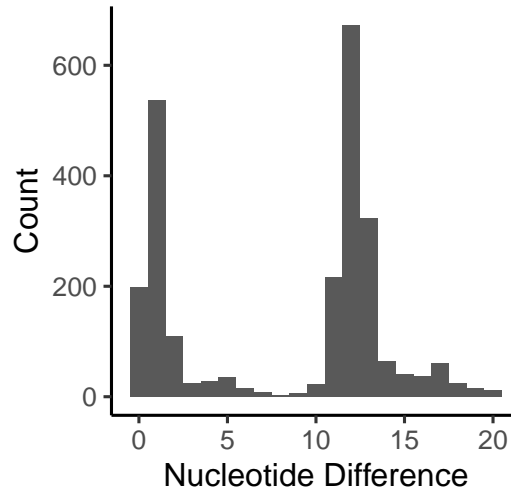
IGHV1-2*04

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



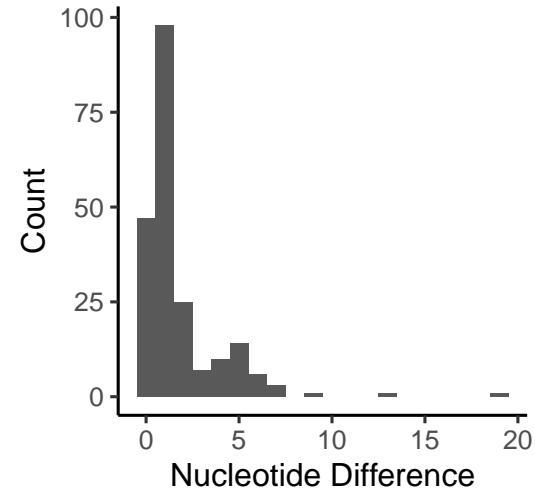
IGHV1-18*01

3302 sequences assigned
199 (6%) exact matches, in which:
120 unique CDR3
4 unique J



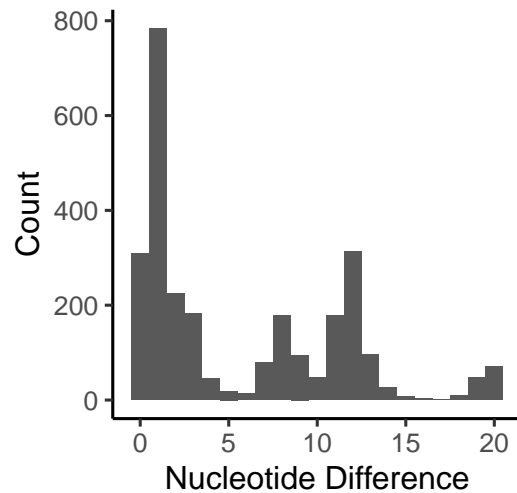
IGHV1-58*02

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



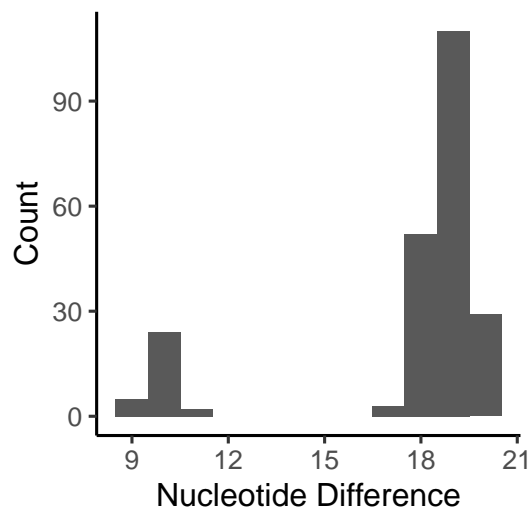
IGHV1-3*01_05

4777 sequences assigned
309 (6.5%) exact matches, in which:
179 unique CDR3
4 unique J



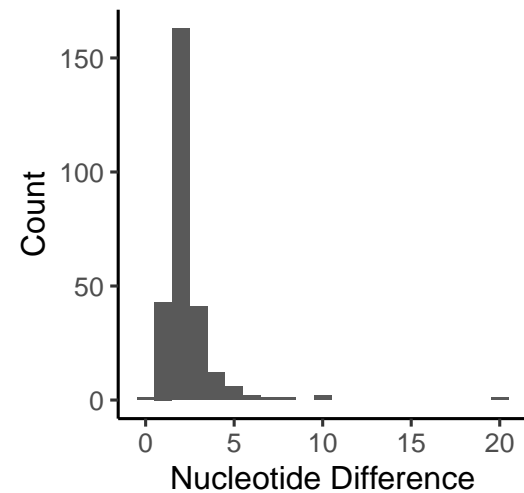
IGHV1-24*01

381 sequences assigned
No exact matches.



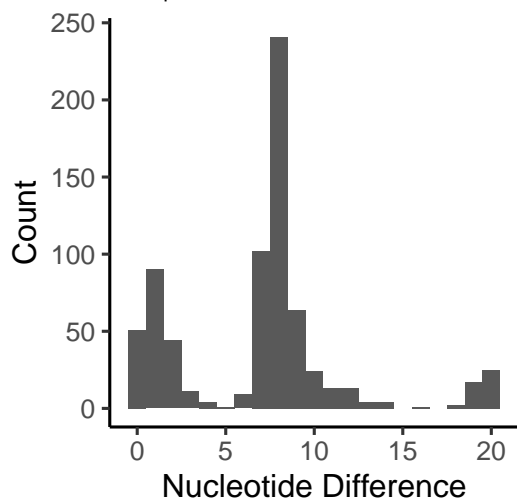
IGHV1-69*08

274 sequences assigned
1 (0.4%) exact matches, in which:
1 unique CDR3
1 unique J



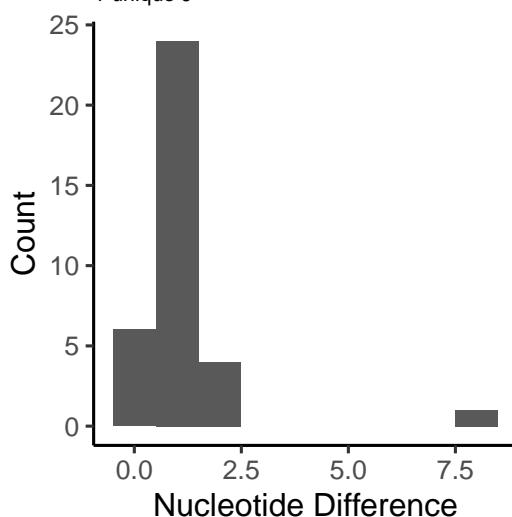
IGHV1–69*04_09

962 sequences assigned
51 (5.3%) exact matches, in which:
36 unique CDR3
4 unique J



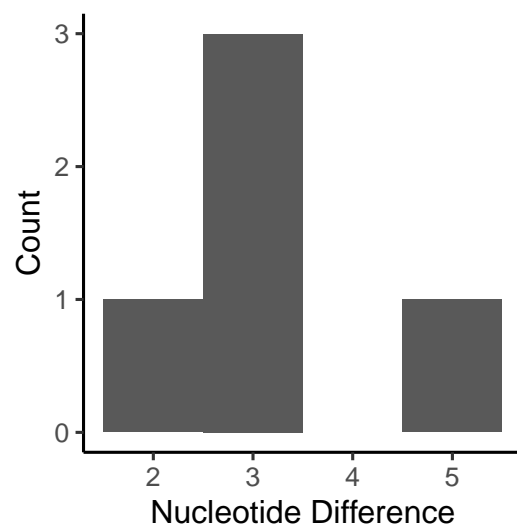
IGHV2–26*01

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



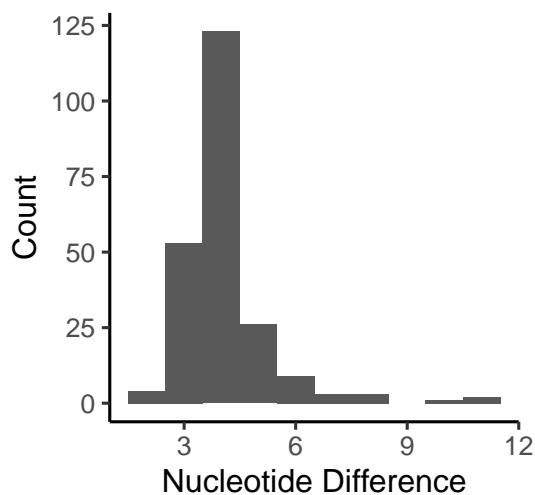
IGHV2–70D*04

5 sequences assigned
No exact matches.



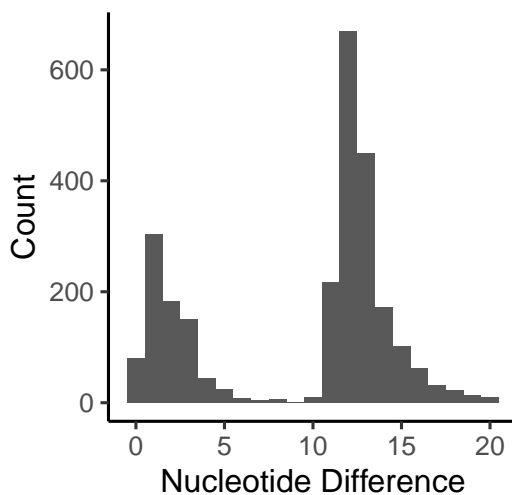
IGHV1–69D*01

226 sequences assigned
No exact matches.



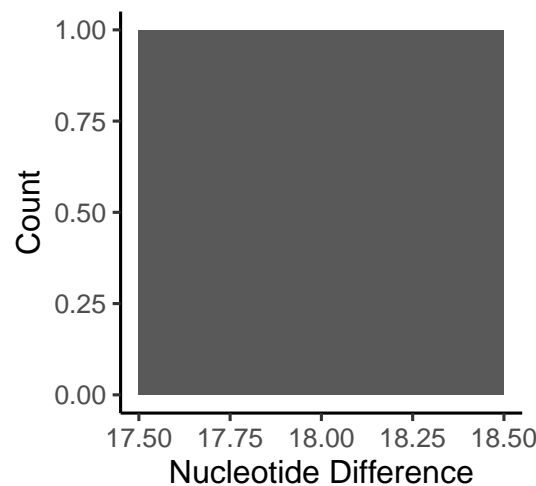
IGHV2–70*11_15

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



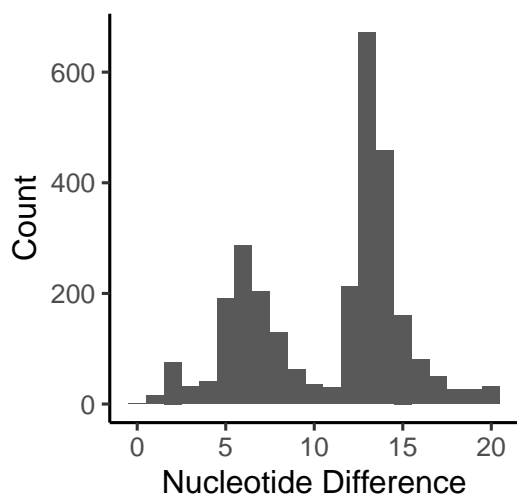
IGHV2–70D*14

1 sequences assigned
No exact matches.



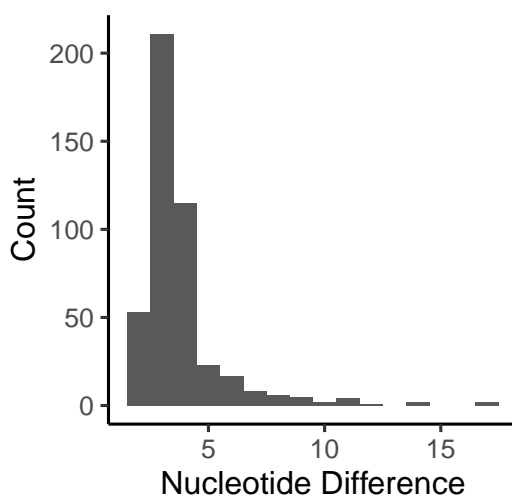
IGHV2–5*02

3982 sequences assigned
1 (0%) exact matches, in which:
1 unique CDR3
1 unique J



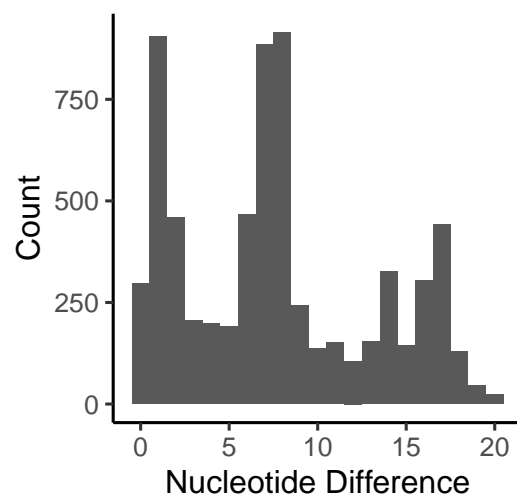
IGHV2–70*16_17

449 sequences assigned
No exact matches.



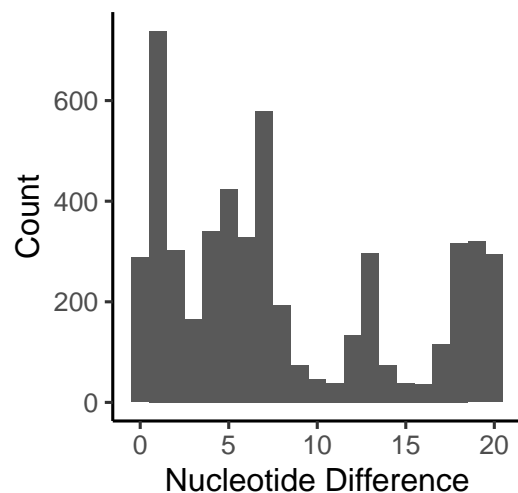
IGHV3–7*01

6771 sequences assigned
297 (4.4%) exact matches, in which:
139 unique CDR3
6 unique J



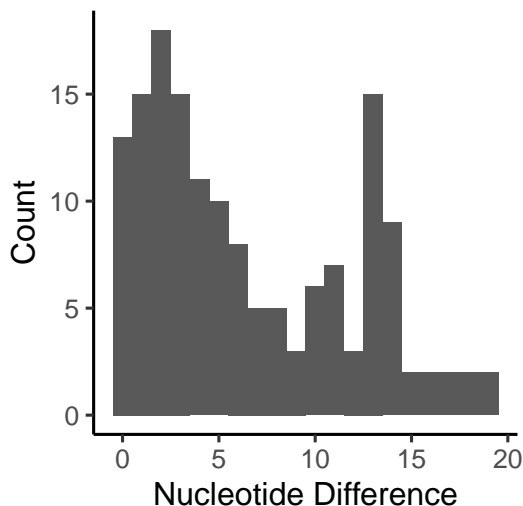
IGHV3-7*03

6389 sequences assigned
288 (4.5%) exact matches, in which:
172 unique CDR3
6 unique J



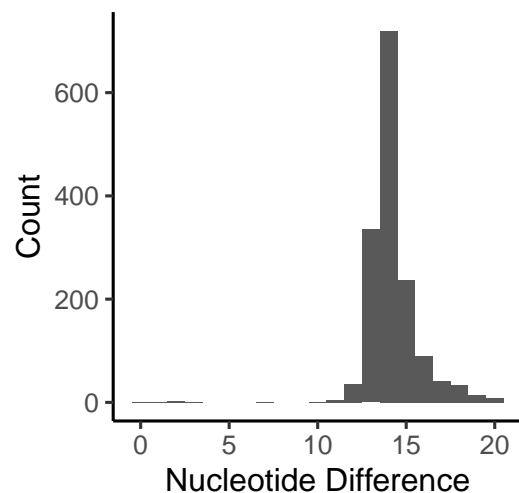
IGHV3-11*04

153 sequences assigned
13 (8.5%) exact matches, in which:
11 unique CDR3
4 unique J



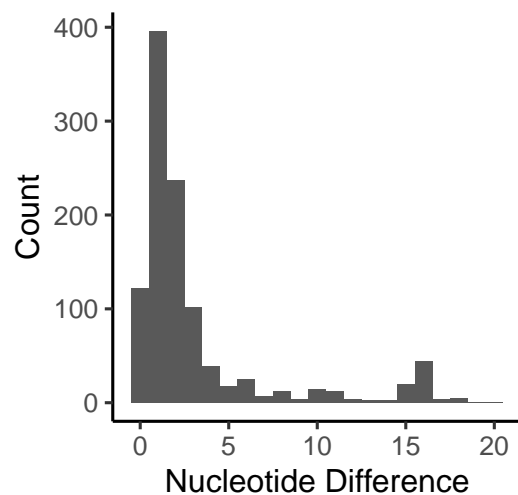
IGHV3-21*05

1547 sequences assigned
1 (0.1%) exact matches, in which:
1 unique CDR3
1 unique J



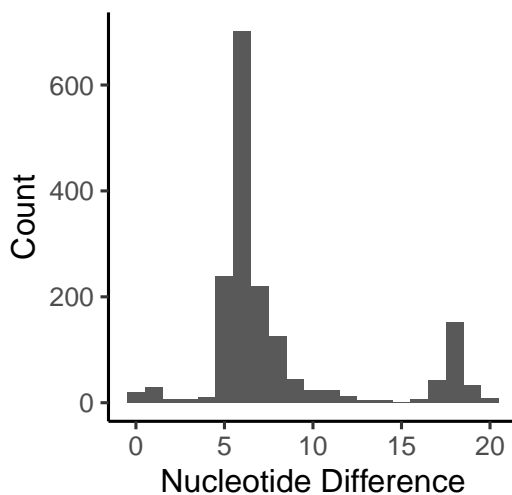
IGHV3-9*01

1104 sequences assigned
122 (11.1%) exact matches, in which:
69 unique CDR3
3 unique J



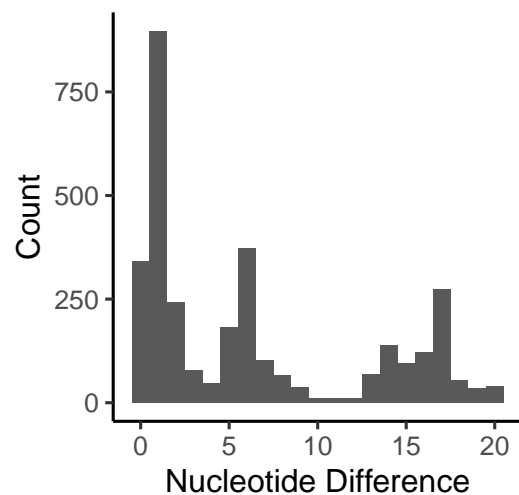
IGHV3-13*01

1732 sequences assigned
19 (1.1%) exact matches, in which:
11 unique CDR3
2 unique J



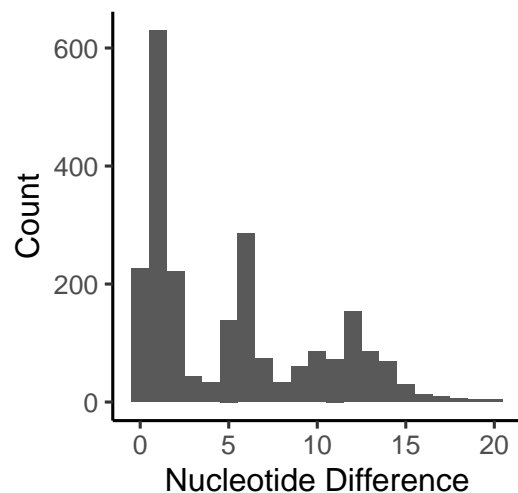
IGHV3-21*01_02

9811 sequences assigned
342 (3.5%) exact matches, in which:
144 unique CDR3
4 unique J



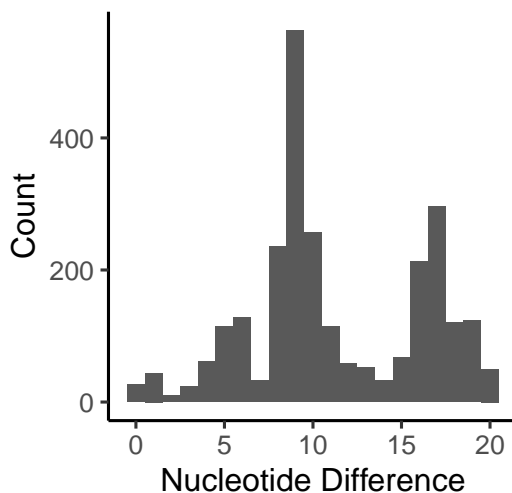
IGHV3-11*01

2429 sequences assigned
227 (9.3%) exact matches, in which:
126 unique CDR3
6 unique J



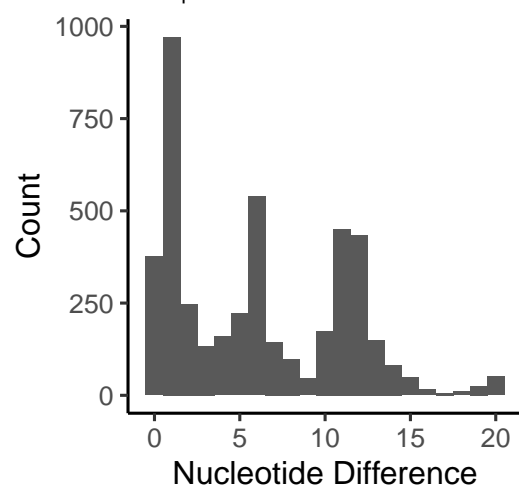
IGHV3-15*07

2710 sequences assigned
26 (1%) exact matches, in which:
15 unique CDR3
2 unique J



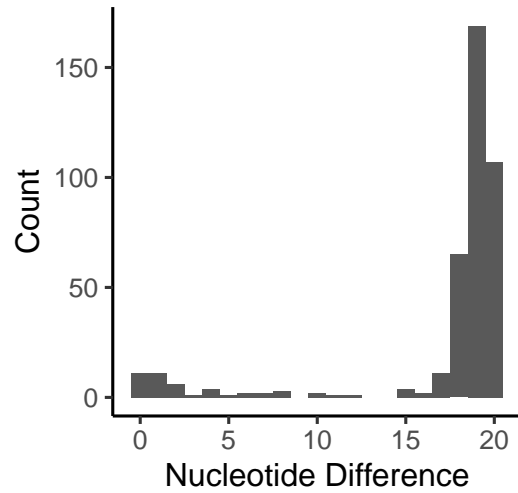
IGHV3-30-3*01

4591 sequences assigned
376 (8.2%) exact matches, in which:
195 unique CDR3
5 unique J



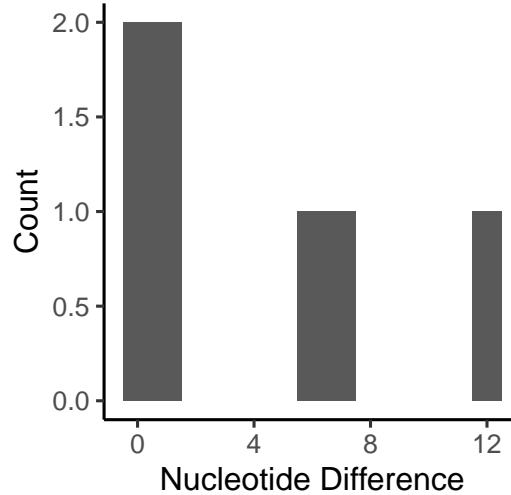
IGHV3–30*03

1708 sequences assigned
11 (0.6%) exact matches, in which:
11 unique CDR3
3 unique J



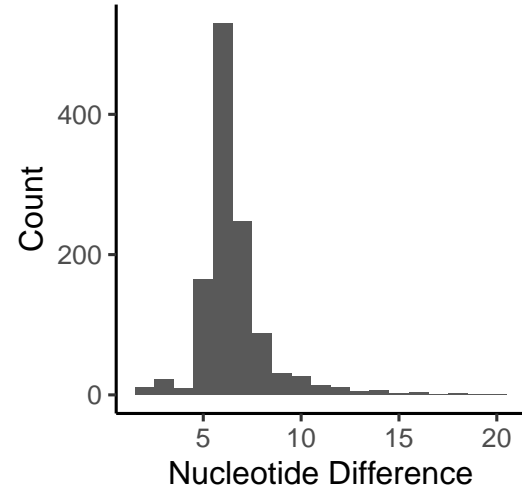
IGHV3–38–3*01

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



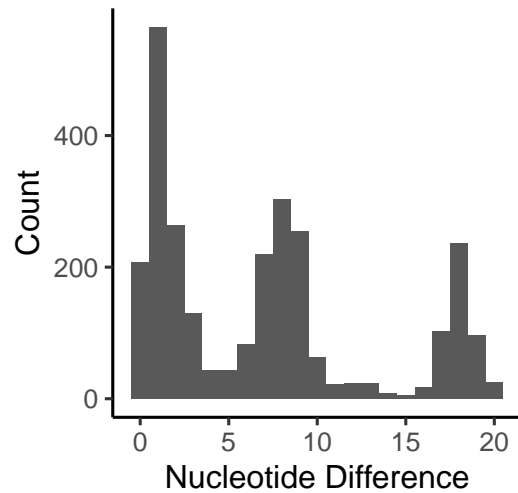
IGHV3–53*04

1178 sequences assigned
No exact matches.



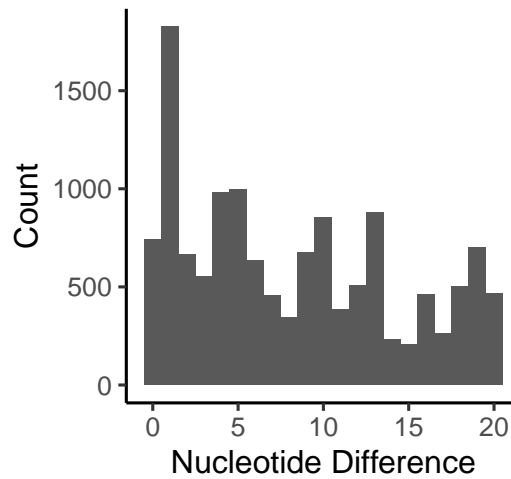
IGHV3–33*01

2869 sequences assigned
207 (7.2%) exact matches, in which:
119 unique CDR3
5 unique J



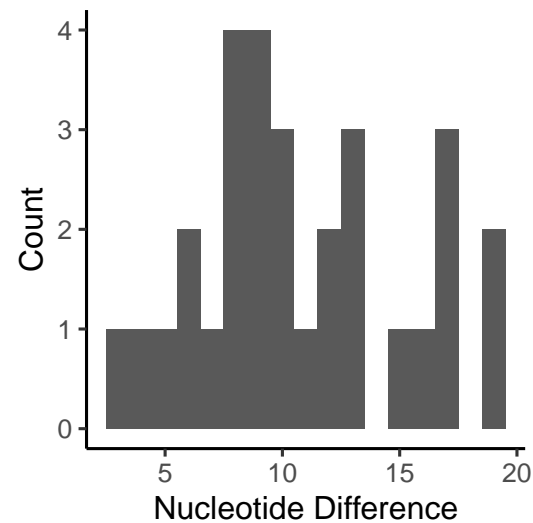
IGHV3–48*04

16414 sequences assigned
741 (4.5%) exact matches, in which:
360 unique CDR3
6 unique J



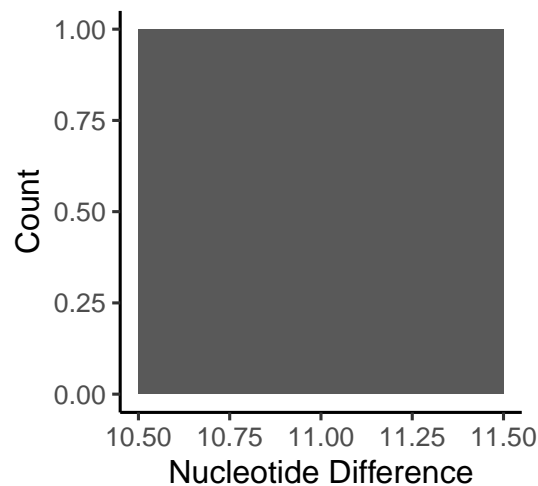
IGHV3–53*01_02

45 sequences assigned
No exact matches.



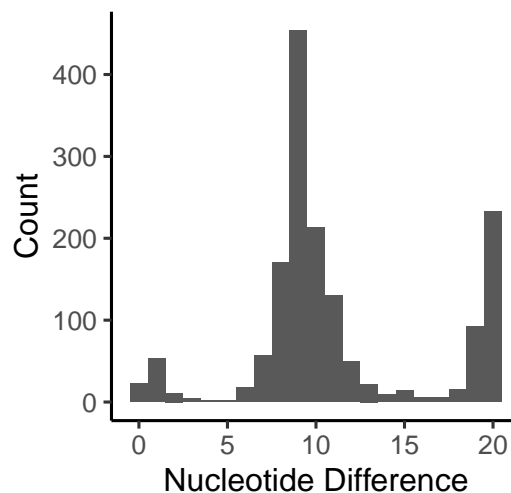
IGHV3–33*05

25 sequences assigned
No exact matches.



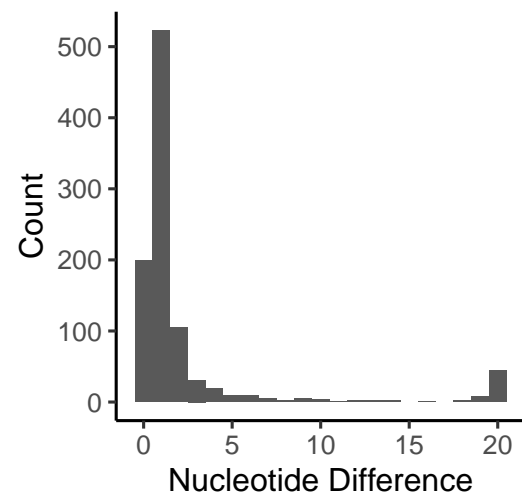
IGHV3–49*03_05

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



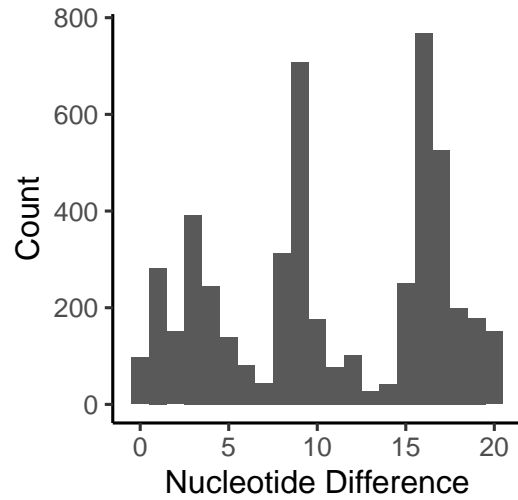
IGHV3–64*01

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



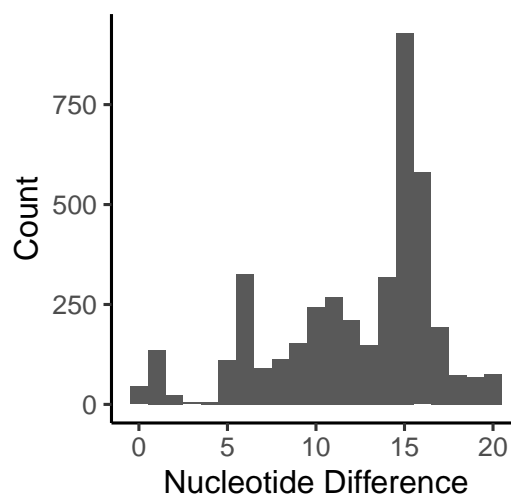
IGHV3-66*01

9876 sequences assigned
97 (1%) exact matches, in which:
53 unique CDR3
4 unique J



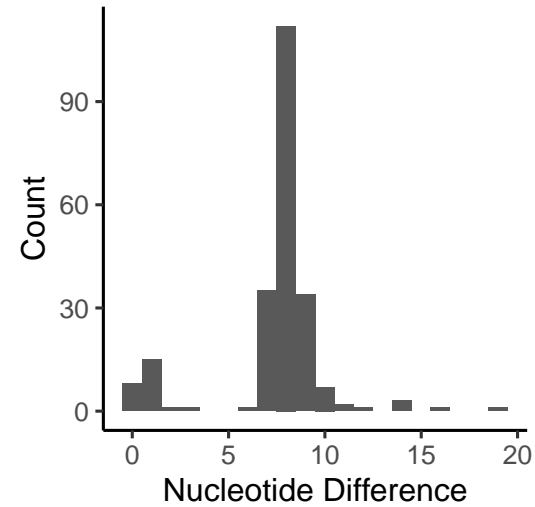
IGHV3-72*01

4371 sequences assigned
45 (1%) exact matches, in which:
23 unique CDR3
1 unique J



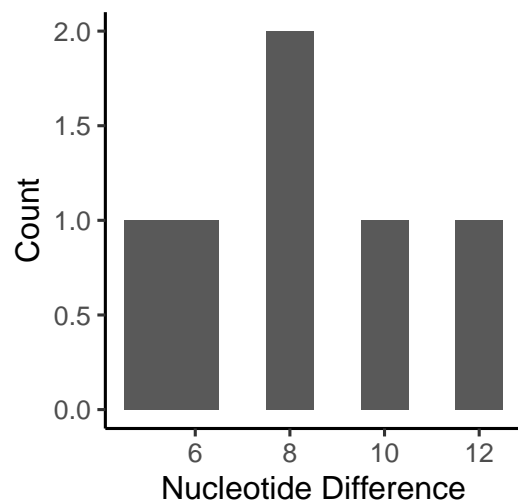
IGHV3-43D*03

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



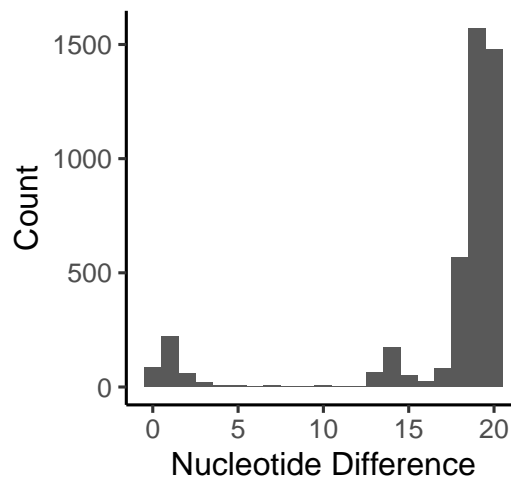
IGHV3-69-1*01

7 sequences assigned
No exact matches.



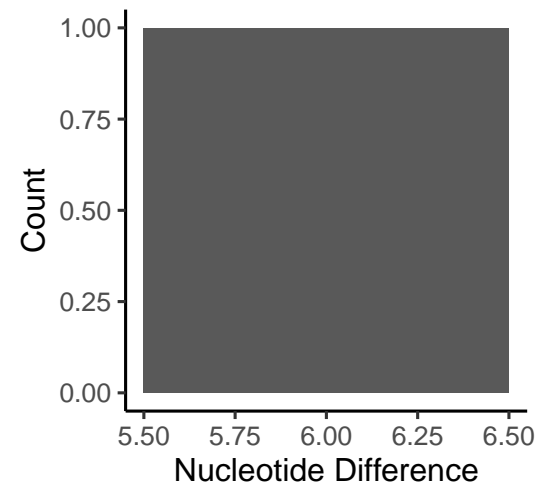
IGHV3-73*01_02

5879 sequences assigned
84 (1.4%) exact matches, in which:
47 unique CDR3
3 unique J



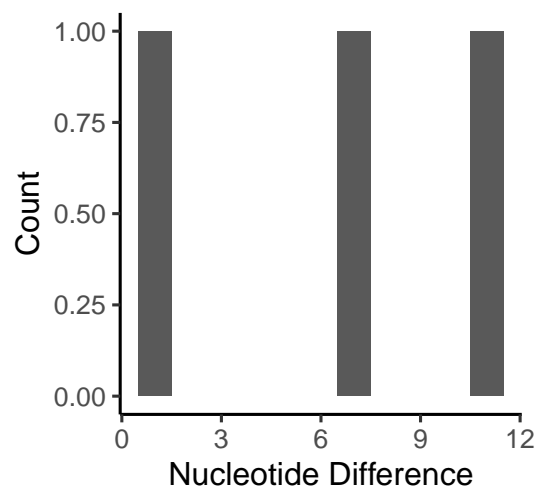
IGHV3-64D*06

1 sequences assigned
No exact matches.



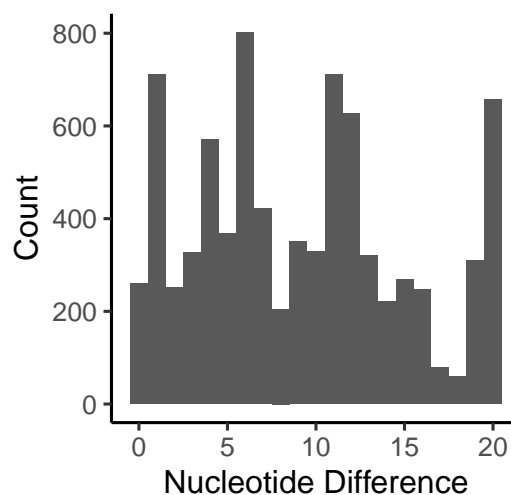
IGHV3-69-1*02

6 sequences assigned
No exact matches.



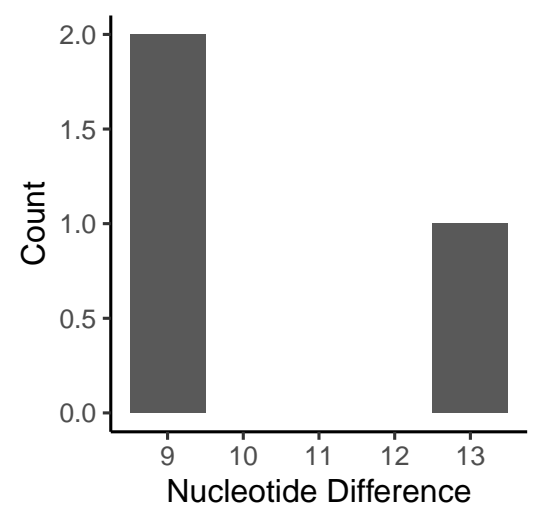
IGHV3-74*01_02

12307 sequences assigned
260 (2.1%) exact matches, in which:
155 unique CDR3
4 unique J



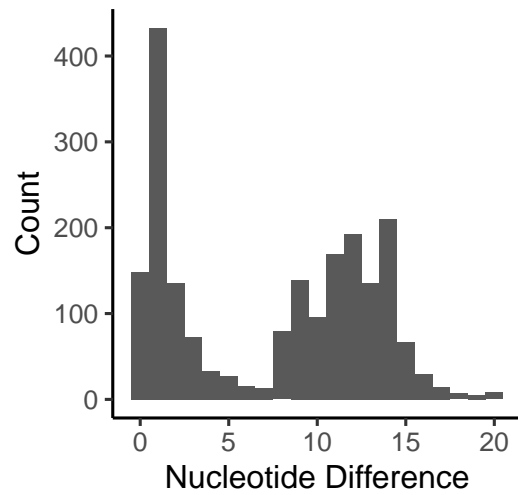
IGHV3-NL1*01

12 sequences assigned
No exact matches.



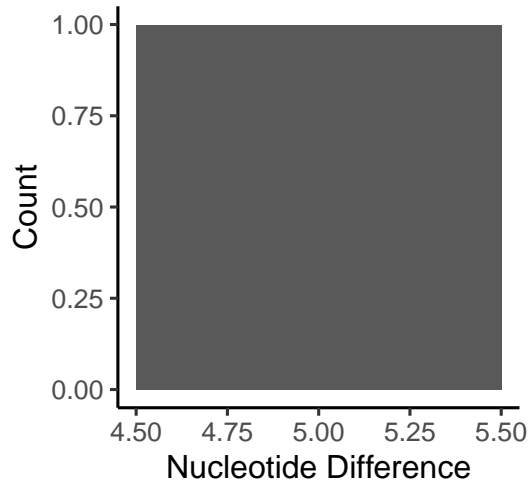
IGHV4-30-4*01

2148 sequences assigned
148 (6.9%) exact matches, in which:
89 unique CDR3
5 unique J



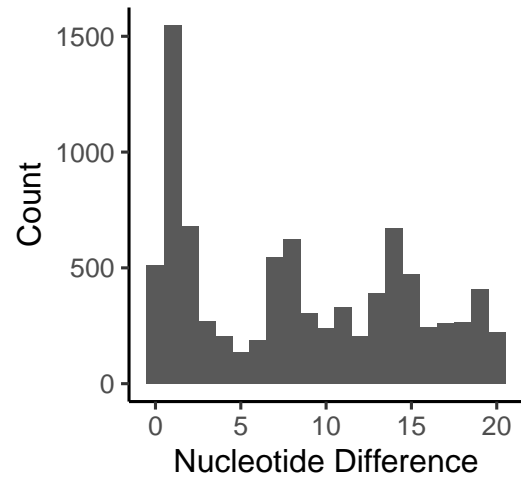
IGHV4-31*03_04

2 sequences assigned
No exact matches.



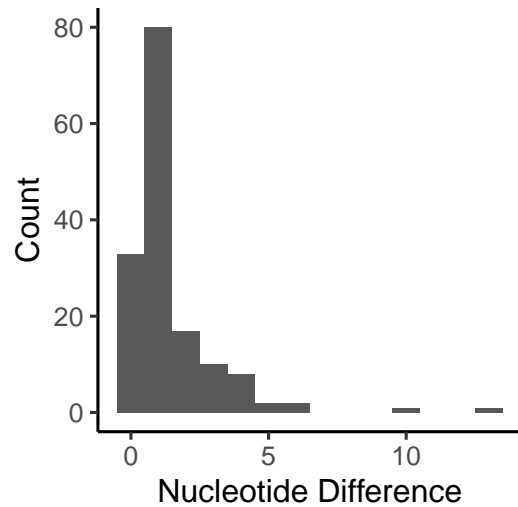
IGHV4-39*07

9997 sequences assigned
512 (5.1%) exact matches, in which:
314 unique CDR3
6 unique J



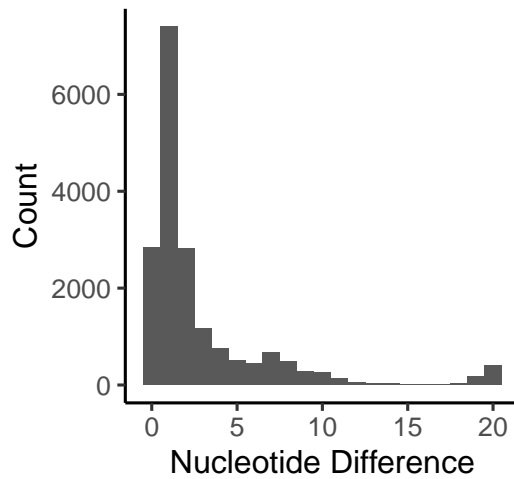
IGHV4-30-2*01

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



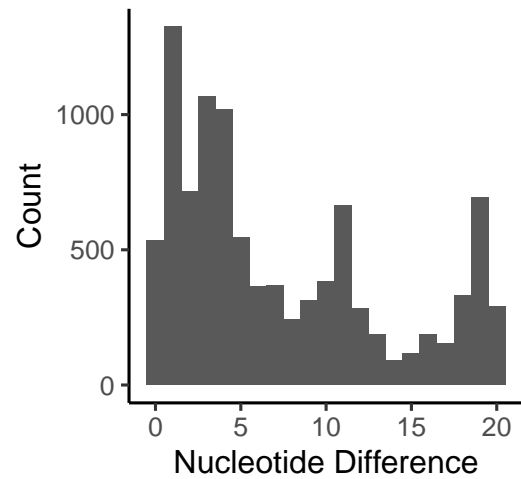
IGHV4-34*01_02

19008 sequences assigned
2849 (15%) exact matches, in which:
1721 unique CDR3
6 unique J



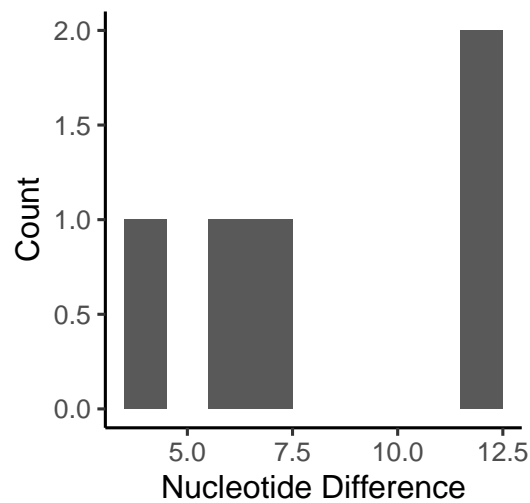
IGHV4-59*08

11610 sequences assigned
536 (4.6%) exact matches, in which:
346 unique CDR3
5 unique J



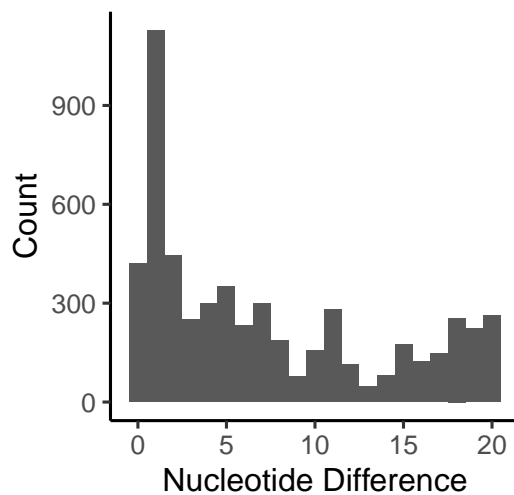
IGHV4-30-2*03

5 sequences assigned
No exact matches.



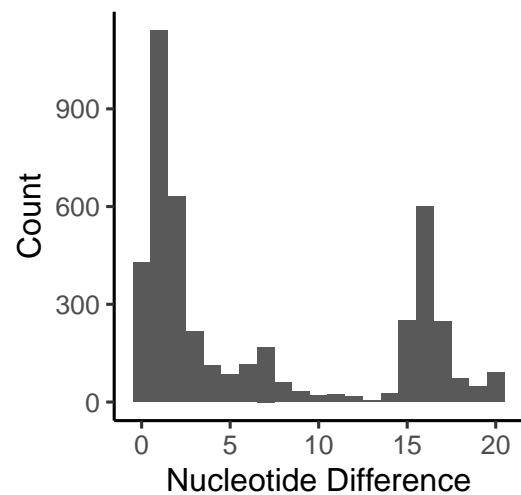
IGHV4-38-2*02

6500 sequences assigned
419 (6.4%) exact matches, in which:
252 unique CDR3
5 unique J



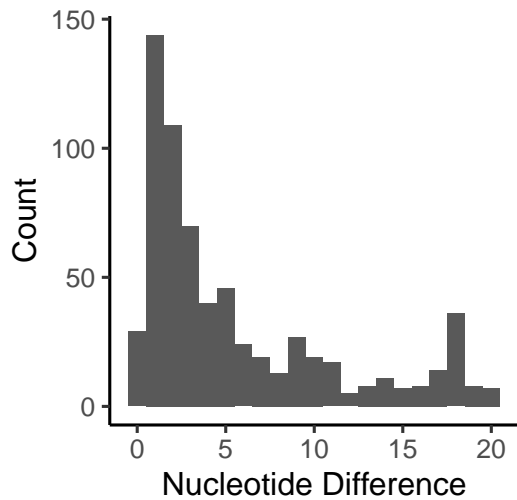
IGHV4-59*01_07

5248 sequences assigned
428 (8.2%) exact matches, in which:
269 unique CDR3
6 unique J



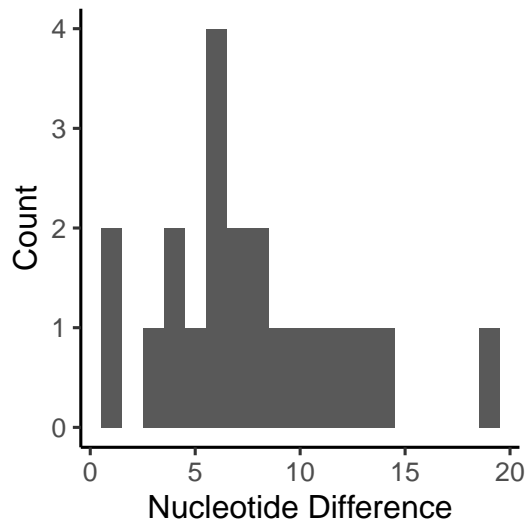
IGHV4–59*12

689 sequences assigned
29 (4.2%) exact matches, in which:
28 unique CDR3
4 unique J



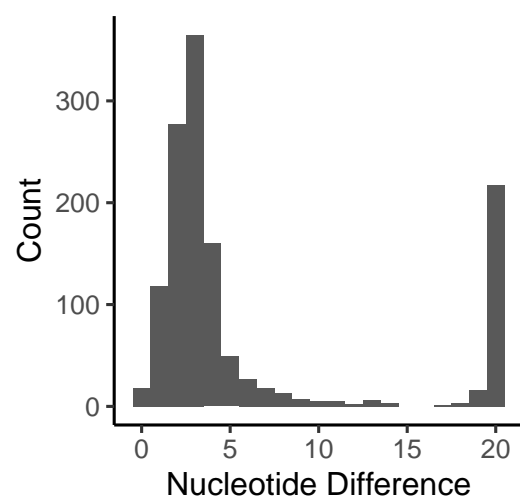
IGHV4–61*08

21 sequences assigned
No exact matches.



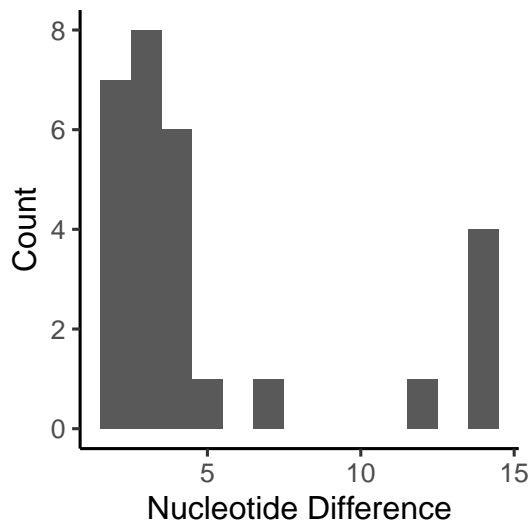
IGHV6–1*01_02

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



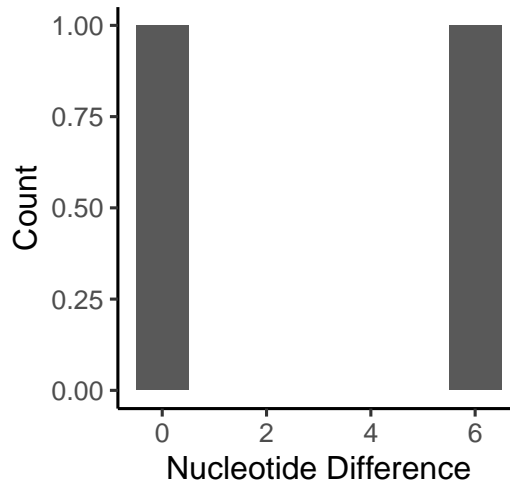
IGHV4–61*01

28 sequences assigned
No exact matches.



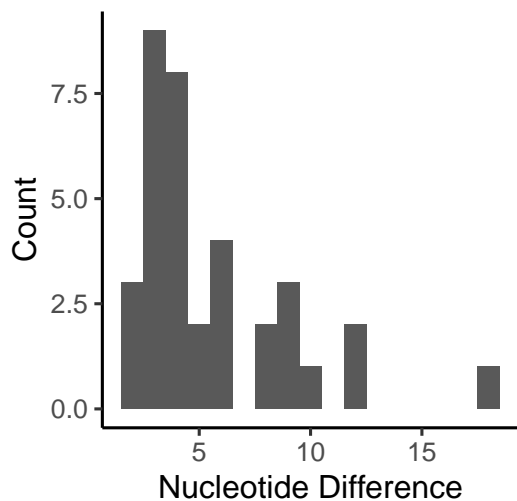
IGHV5–10–1*01_03

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



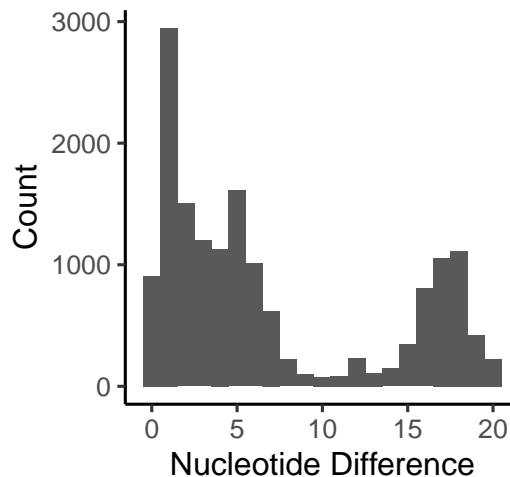
IGHV4–61*05

35 sequences assigned
No exact matches.



IGHV5–51*01_03

16929 sequences assigned
909 (5.4%) exact matches, in which:
454 unique CDR3
6 unique J



Allele Usage



Novel sequence(s)IGHV1–69*01_12_13_G238AIGHV3–48*03_T303G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30–3*01_T288CIGHV4–59*02_G88AIGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV3–30*03_T288C are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.