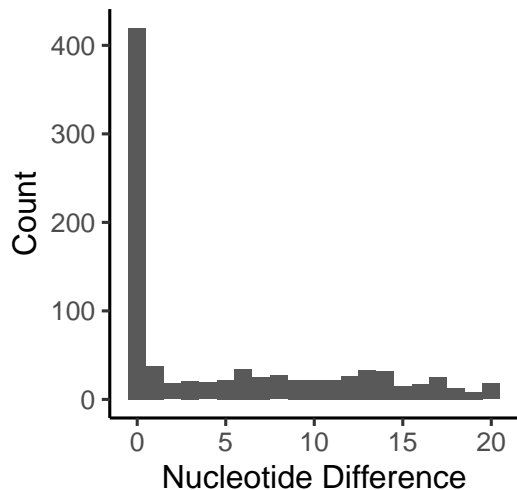


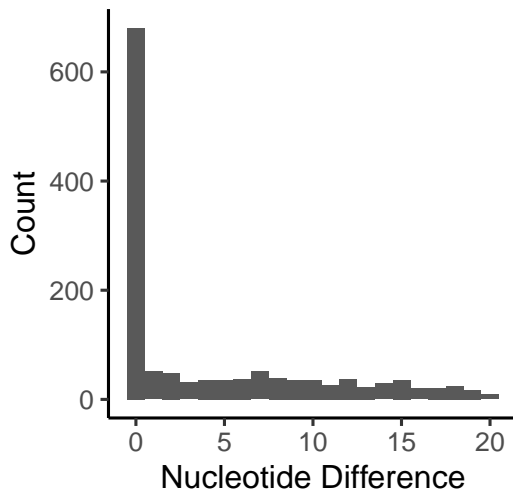
IGHV1–2*02

1045 sequences assigned
420 (40.2%) exact matches, in which:
418 unique CDR3
7 unique J



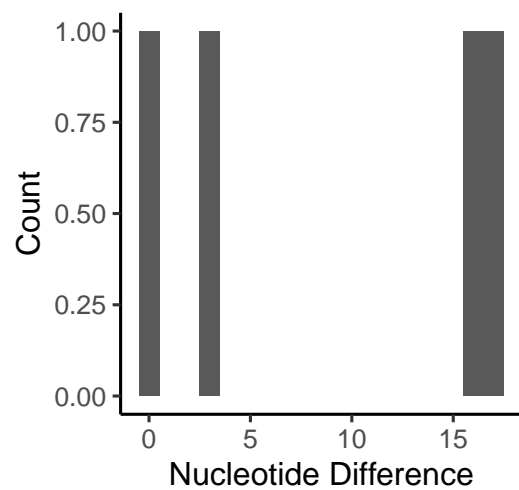
IGHV1–8*01

1436 sequences assigned
681 (47.4%) exact matches, in which:
681 unique CDR3
7 unique J



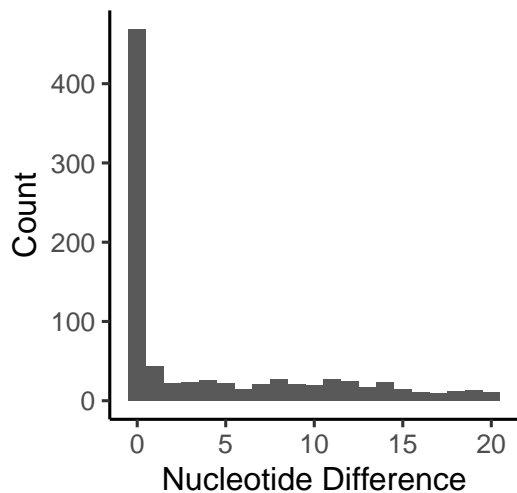
IGHV1–45*02

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



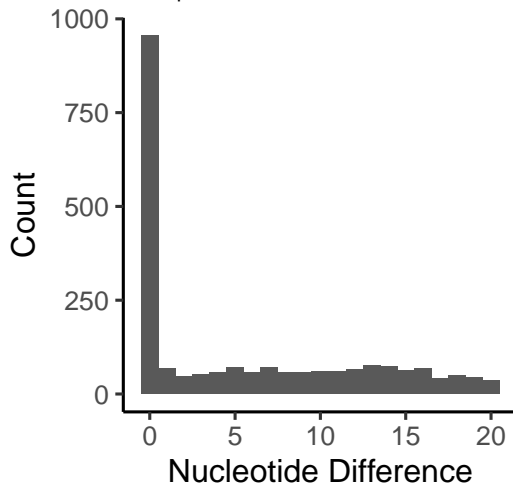
IGHV1–2*06

930 sequences assigned
469 (50.4%) exact matches, in which:
465 unique CDR3
7 unique J



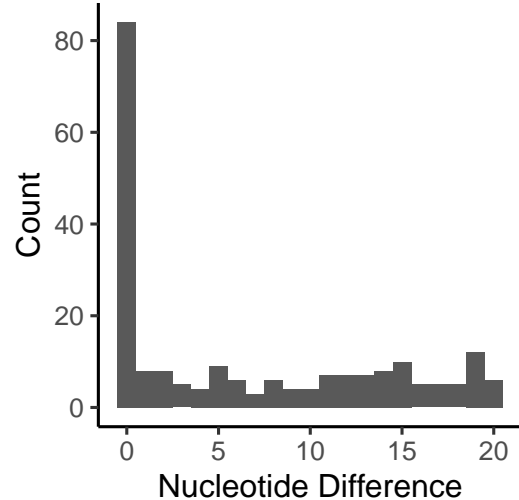
IGHV1–18*01

2512 sequences assigned
955 (38%) exact matches, in which:
952 unique CDR3
7 unique J



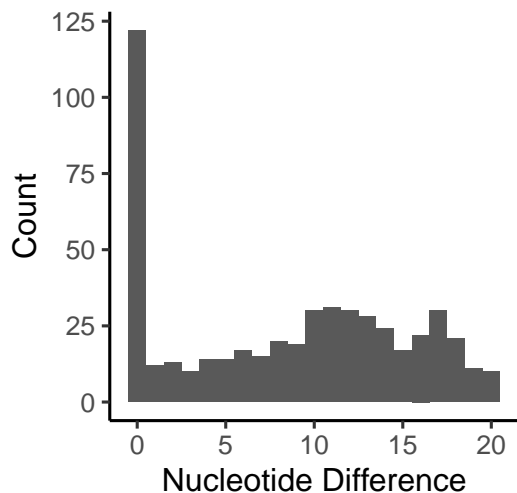
IGHV1–46*01

257 sequences assigned
84 (32.7%) exact matches, in which:
84 unique CDR3
6 unique J



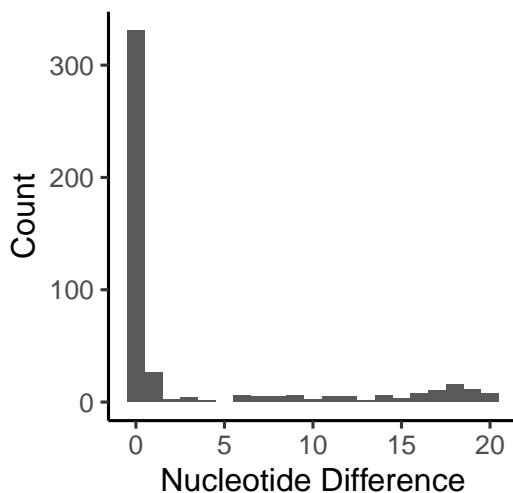
IGHV1–3*01_05

603 sequences assigned
122 (20.2%) exact matches, in which:
122 unique CDR3
6 unique J



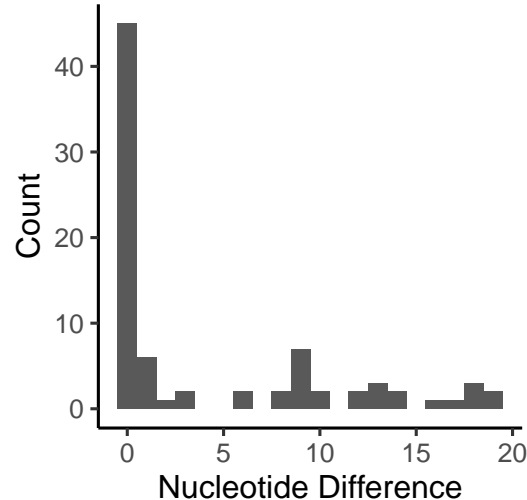
IGHV1–24*01

510 sequences assigned
331 (64.9%) exact matches, in which:
329 unique CDR3
7 unique J



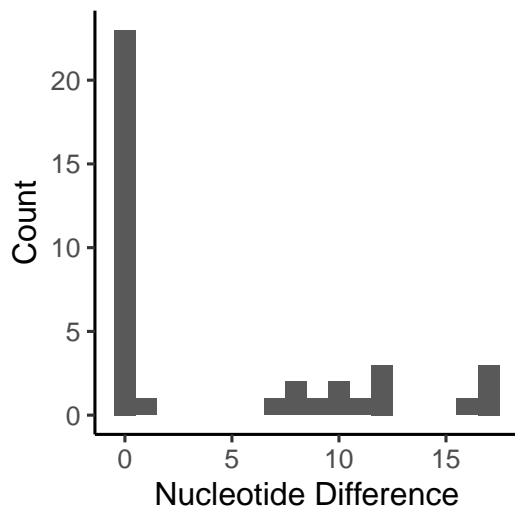
IGHV1–46*03

87 sequences assigned
45 (51.7%) exact matches, in which:
45 unique CDR3
7 unique J



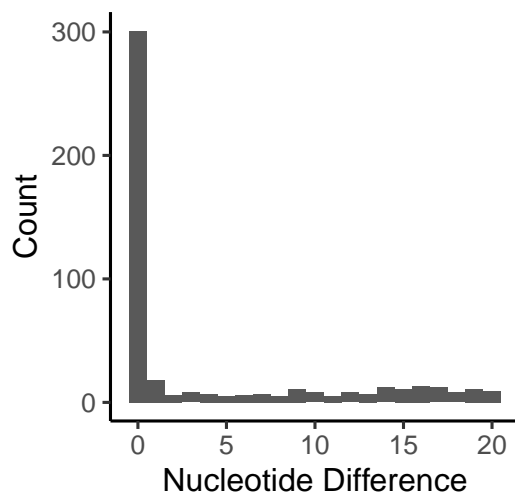
IGHV1-58*02

39 sequences assigned
23 (59%) exact matches, in which:
23 unique CDR3
7 unique J



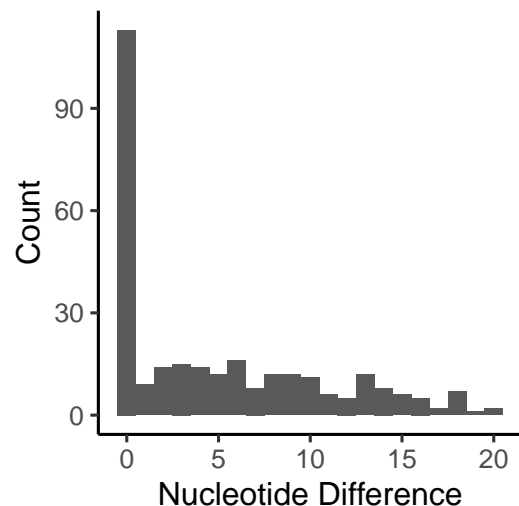
IGHV1-69*01_12_13

525 sequences assigned
301 (57.3%) exact matches, in which:
301 unique CDR3
7 unique J



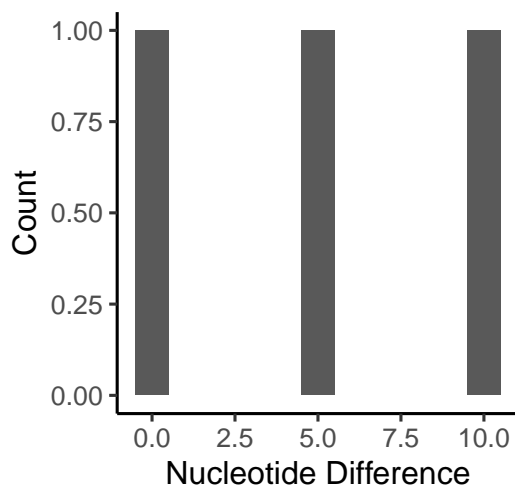
IGHV2-5*01

295 sequences assigned
113 (38.3%) exact matches, in which:
113 unique CDR3
6 unique J



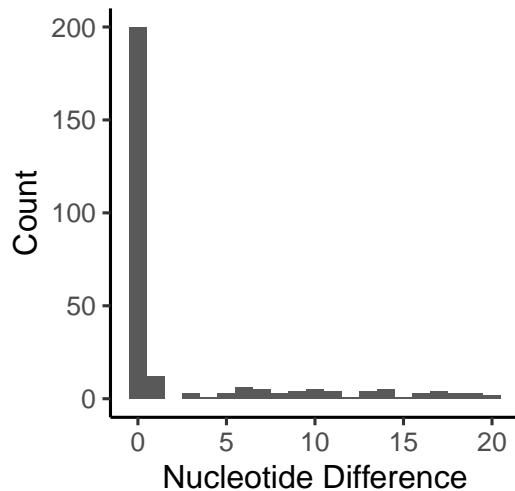
IGHV1-58*01_03

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



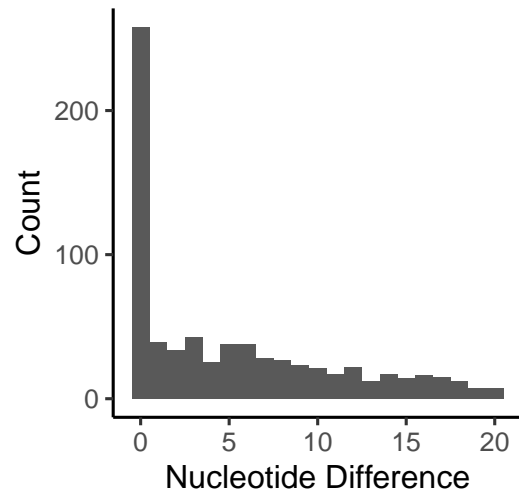
IGHV1-69*04_09_C184T

304 sequences assigned
200 (65.8%) exact matches, in which:
200 unique CDR3
7 unique J



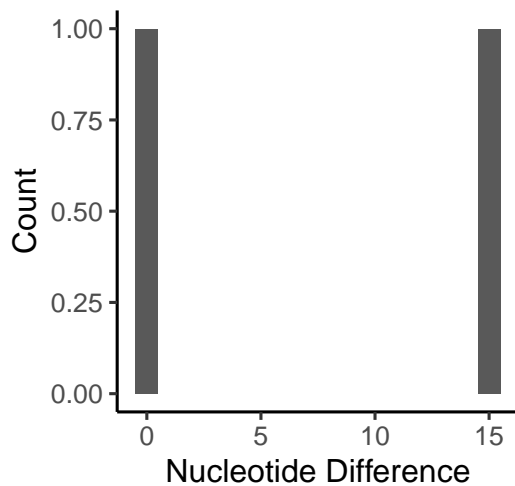
IGHV2-5*02

754 sequences assigned
258 (34.2%) exact matches, in which:
258 unique CDR3
6 unique J



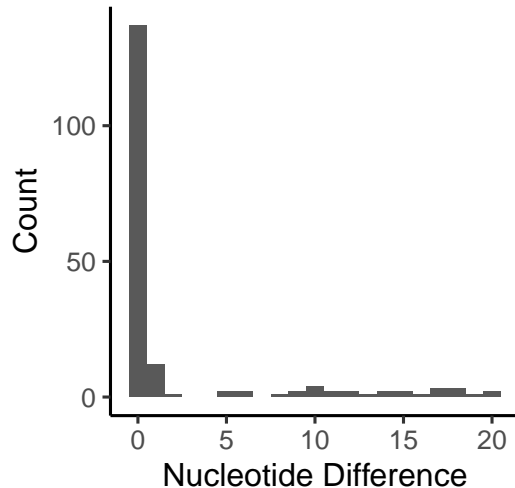
IGHV1-69-2*01

5 sequences assigned
1 (20%) exact matches, in which:
1 unique CDR3
1 unique J



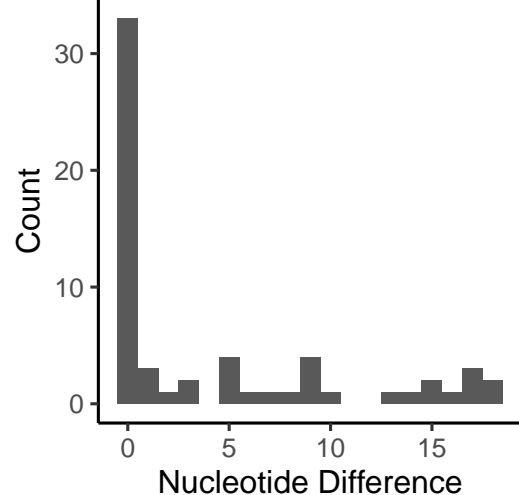
IGHV1-69*04_09_G112A

198 sequences assigned
137 (69.2%) exact matches, in which:
137 unique CDR3
6 unique J



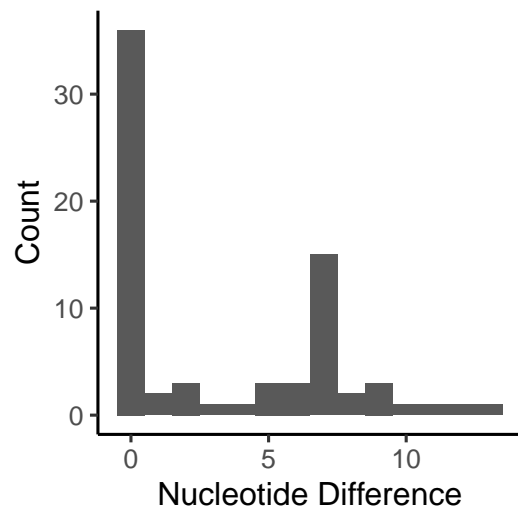
IGHV2-26*01

61 sequences assigned
33 (54.1%) exact matches, in which:
33 unique CDR3
6 unique J



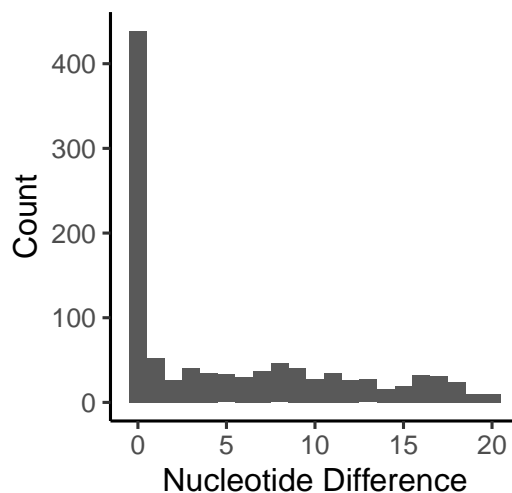
IGHV2-70*01

77 sequences assigned
36 (46.8%) exact matches, in which:
35 unique CDR3
4 unique J



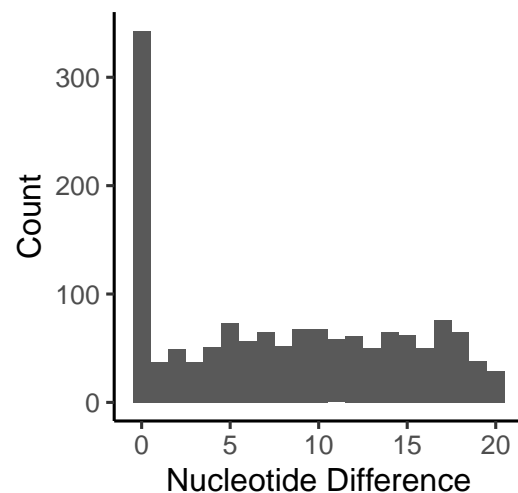
IGHV3-9*01

1122 sequences assigned
439 (39.1%) exact matches, in which:
415 unique CDR3
7 unique J



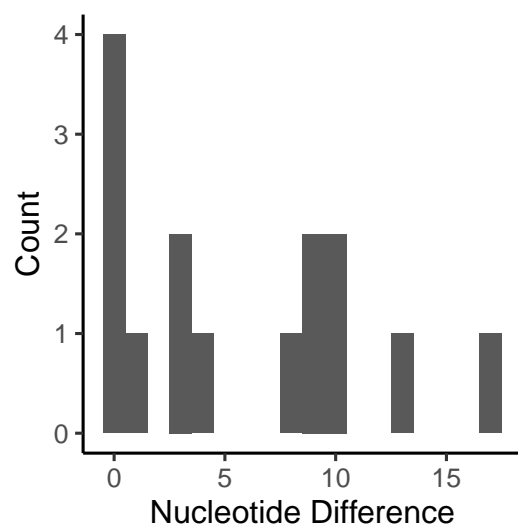
IGHV3-15*01_02

1701 sequences assigned
343 (20.2%) exact matches, in which:
311 unique CDR3
7 unique J



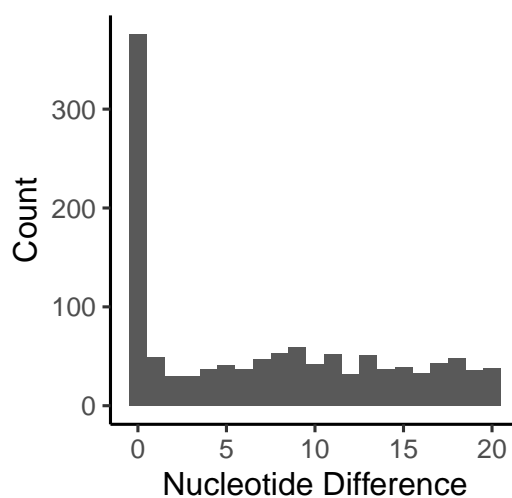
IGHV2-70*11_15

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



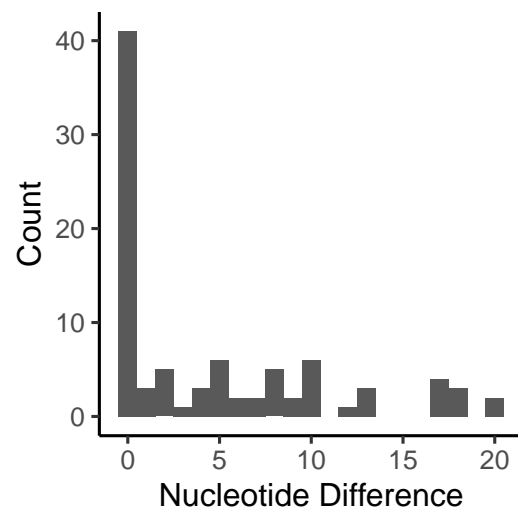
IGHV3-11*01

1453 sequences assigned
376 (25.9%) exact matches, in which:
349 unique CDR3
7 unique J



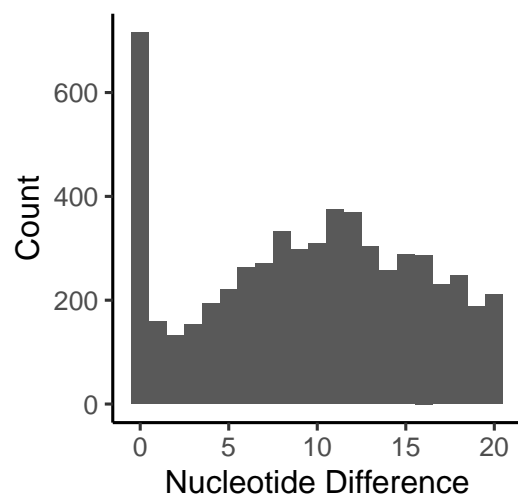
IGHV3-20*01_02

90 sequences assigned
41 (45.6%) exact matches, in which:
40 unique CDR3
6 unique J



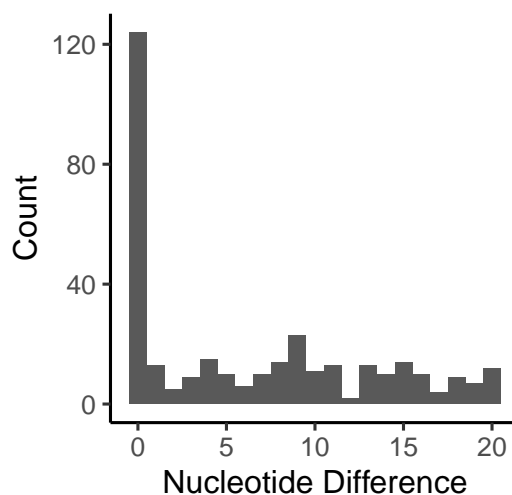
IGHV3-7*01

6900 sequences assigned
716 (10.4%) exact matches, in which:
626 unique CDR3
7 unique J



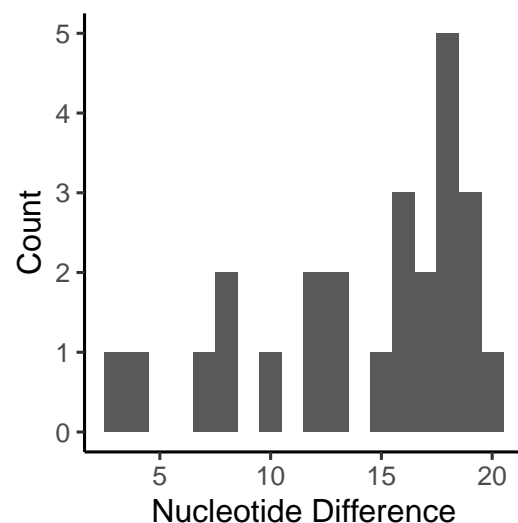
IGHV3-13*01

366 sequences assigned
124 (33.9%) exact matches, in which:
123 unique CDR3
6 unique J



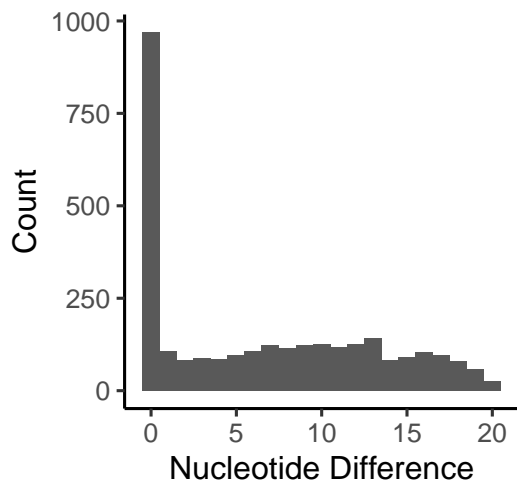
IGHV3-20*03_04

33 sequences assigned
No exact matches.



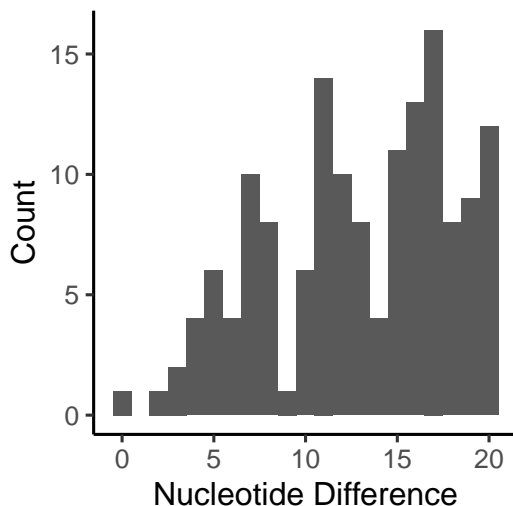
IGHV3-21*01_02

3228 sequences assigned
969 (30%) exact matches, in which:
882 unique CDR3
7 unique J



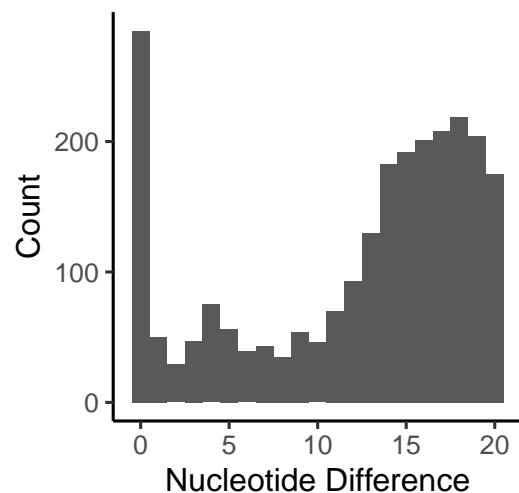
IGHV3-30*04

220 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



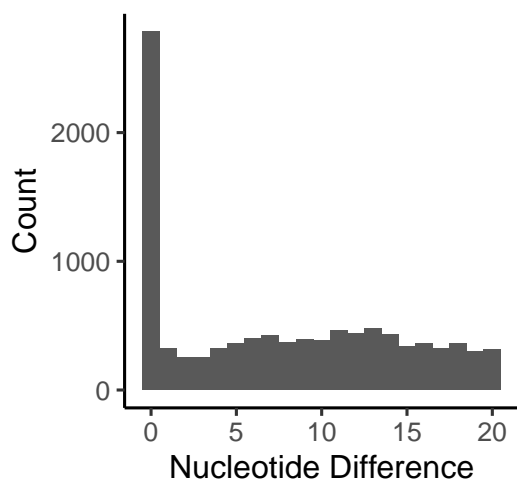
IGHV3-48*01

3290 sequences assigned
285 (8.7%) exact matches, in which:
248 unique CDR3
6 unique J



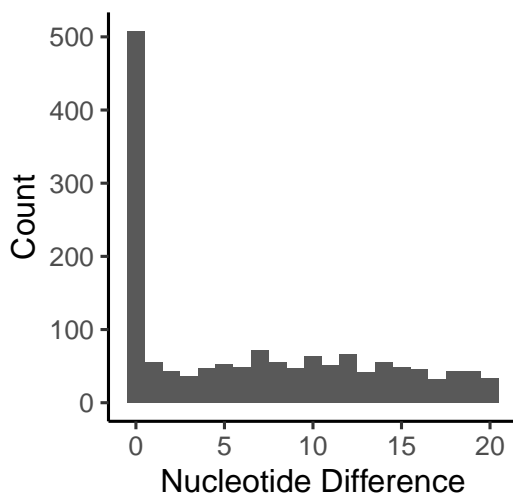
IGHV3-23*01_04

12139 sequences assigned
2784 (22.9%) exact matches, in which:
2568 unique CDR3
7 unique J



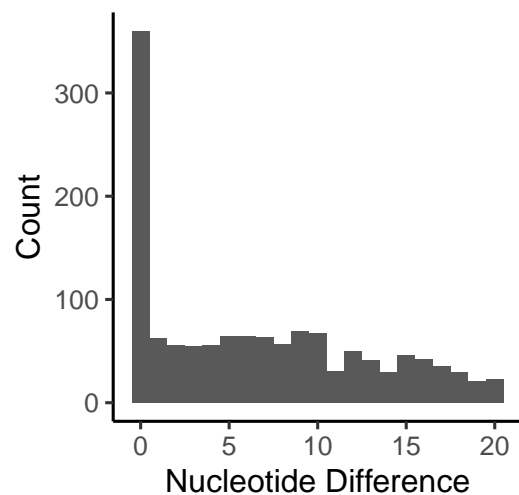
IGHV3-33*01

1749 sequences assigned
508 (29%) exact matches, in which:
490 unique CDR3
7 unique J



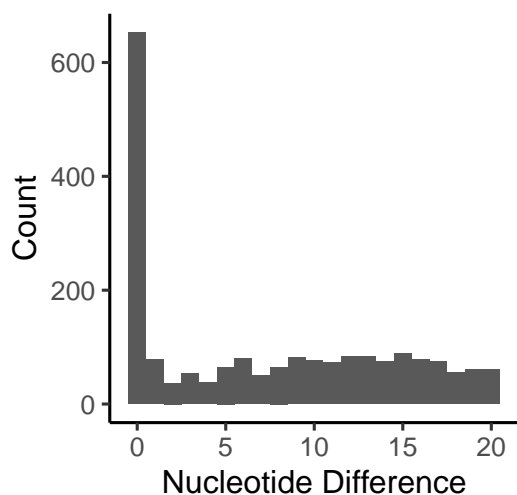
IGHV3-48*03

1498 sequences assigned
360 (24%) exact matches, in which:
330 unique CDR3
6 unique J



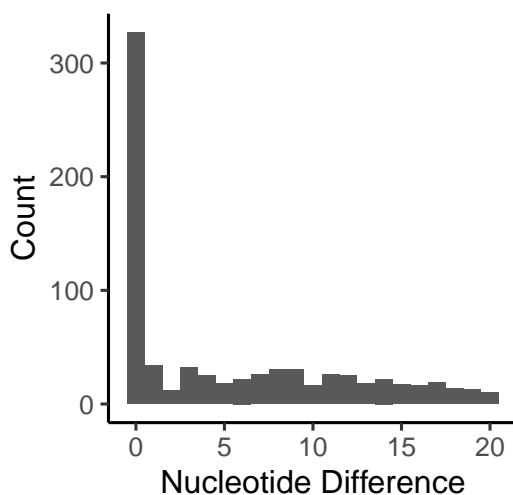
IGHV3-30-3*01

2295 sequences assigned
653 (28.5%) exact matches, in which:
620 unique CDR3
7 unique J



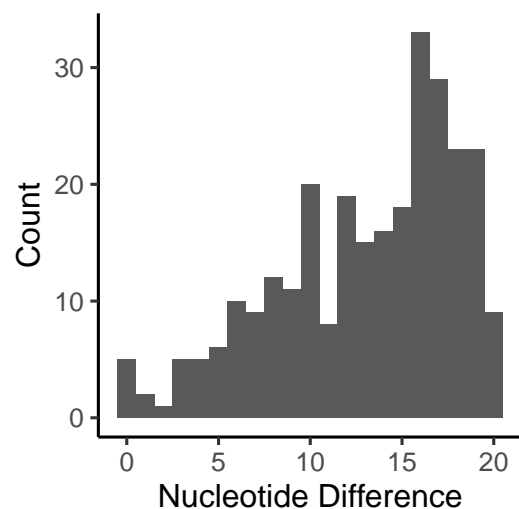
IGHV3-43*02

813 sequences assigned
327 (40.2%) exact matches, in which:
291 unique CDR3
7 unique J



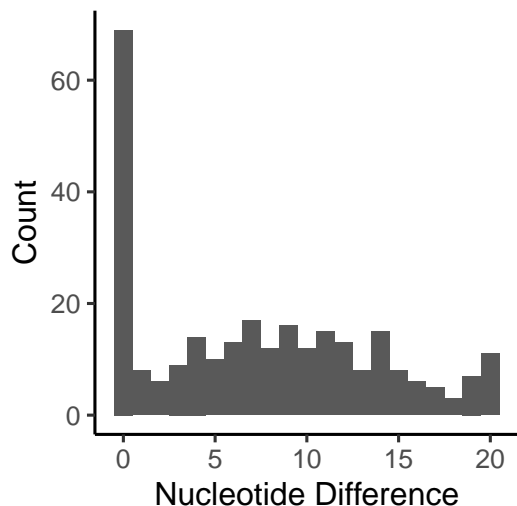
IGHV3-48*04

390 sequences assigned
5 (1.3%) exact matches, in which:
3 unique CDR3
1 unique J



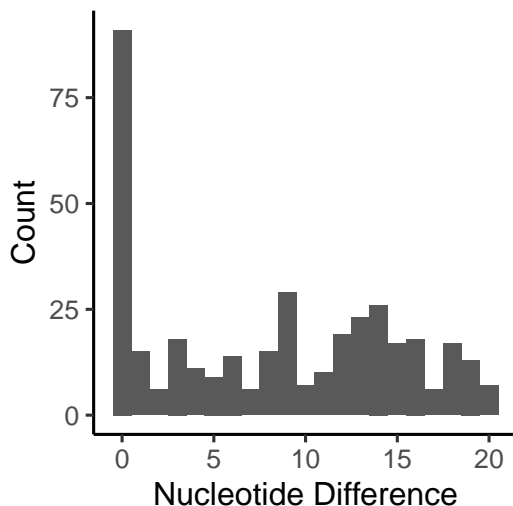
IGHV3-49*04

314 sequences assigned
69 (22%) exact matches, in which:
64 unique CDR3
5 unique J



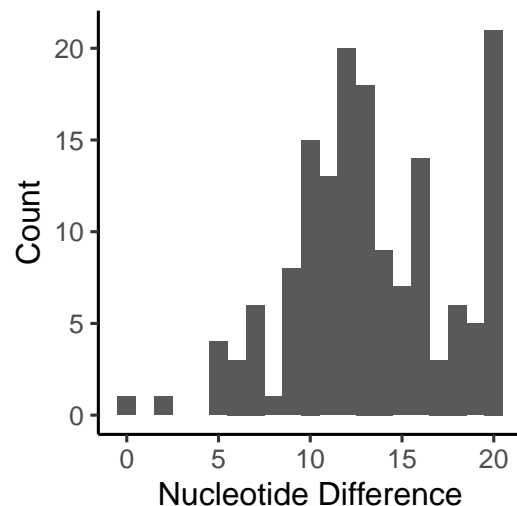
IGHV3-53*01_02

431 sequences assigned
91 (21.1%) exact matches, in which:
86 unique CDR3
6 unique J



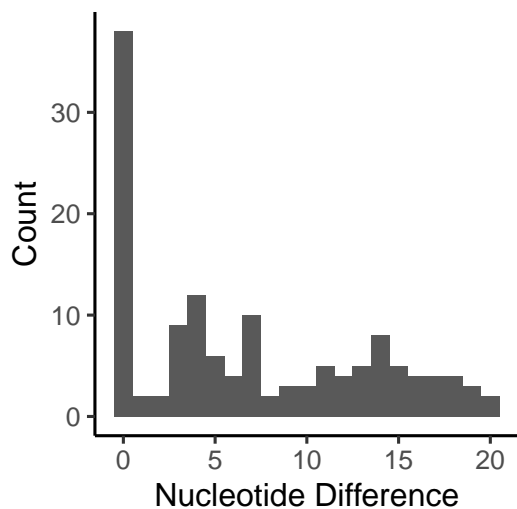
IGHV3-66*01

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



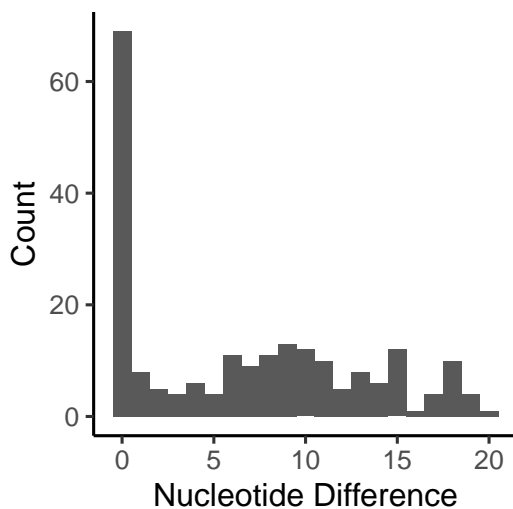
IGHV3-49*03_05

148 sequences assigned
38 (25.7%) exact matches, in which:
37 unique CDR3
5 unique J



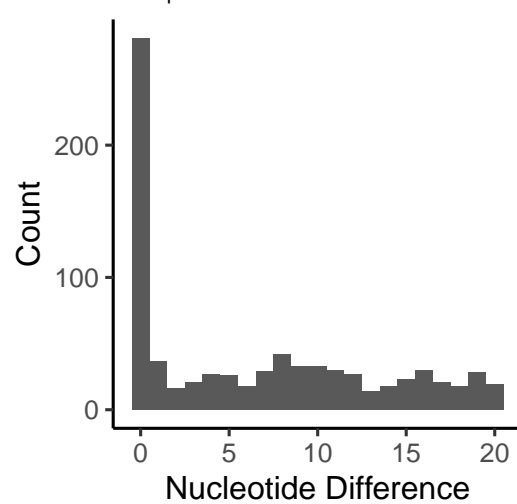
IGHV3-64*01

230 sequences assigned
69 (30%) exact matches, in which:
62 unique CDR3
5 unique J



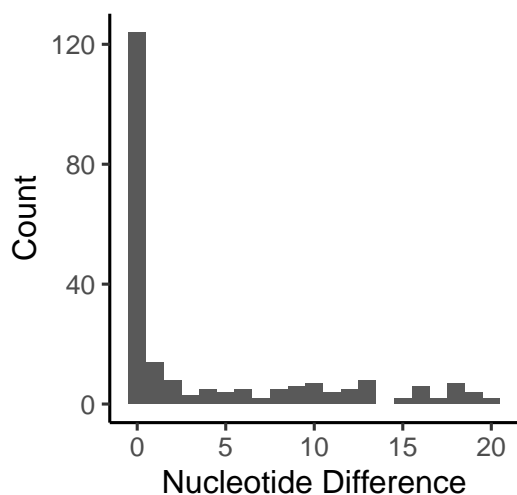
IGHV3-66*02

927 sequences assigned
281 (30.3%) exact matches, in which:
265 unique CDR3
6 unique J



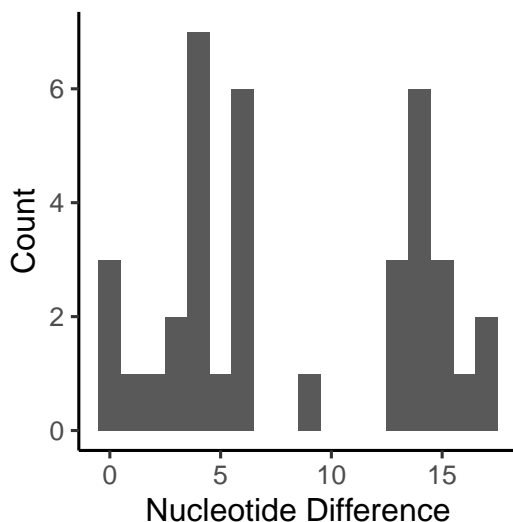
IGHV3-53*04

264 sequences assigned
124 (47%) exact matches, in which:
116 unique CDR3
6 unique J



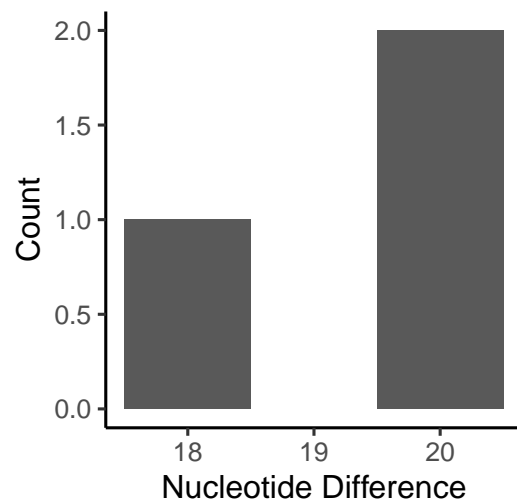
IGHV3-64*02_07

48 sequences assigned
3 (6.2%) exact matches, in which:
3 unique CDR3
3 unique J



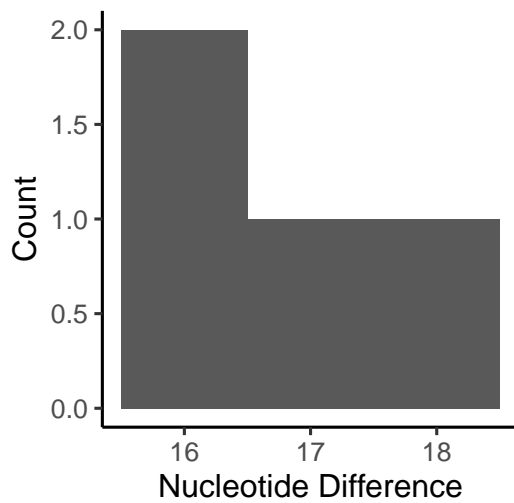
IGHV3-69-1*01

4 sequences assigned
No exact matches.



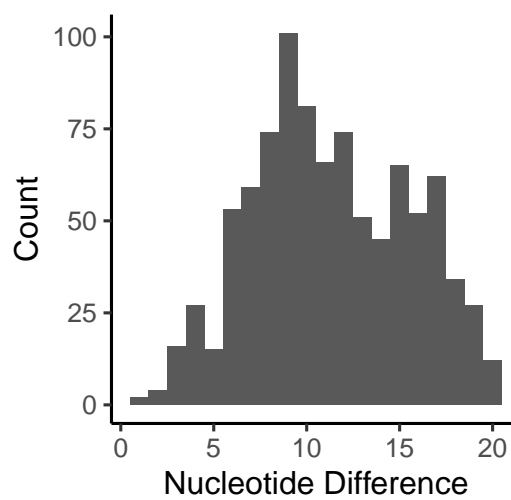
IGHV3-69-1*02

8 sequences assigned
No exact matches.



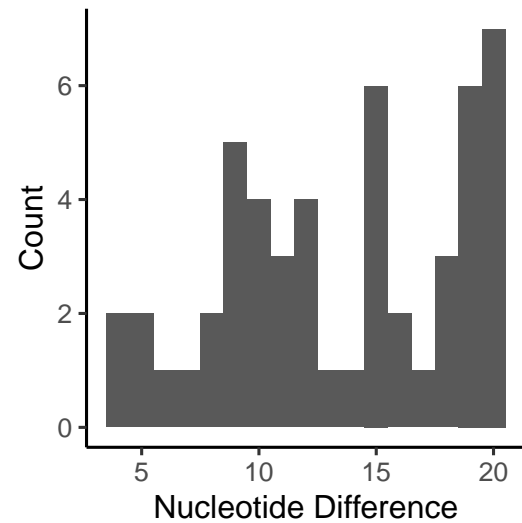
IGHV3-74*03

1007 sequences assigned
No exact matches.



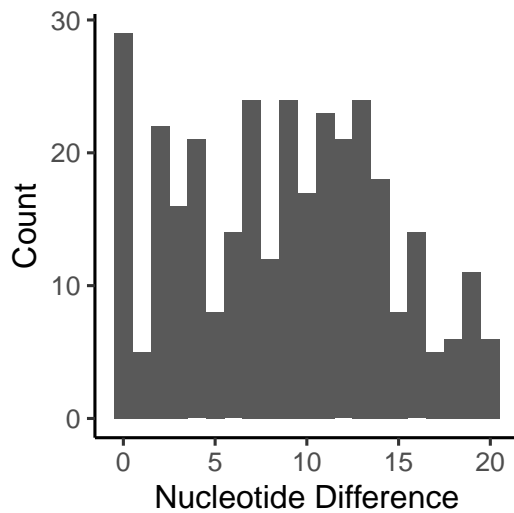
IGHV3-64D*06

158 sequences assigned
No exact matches.



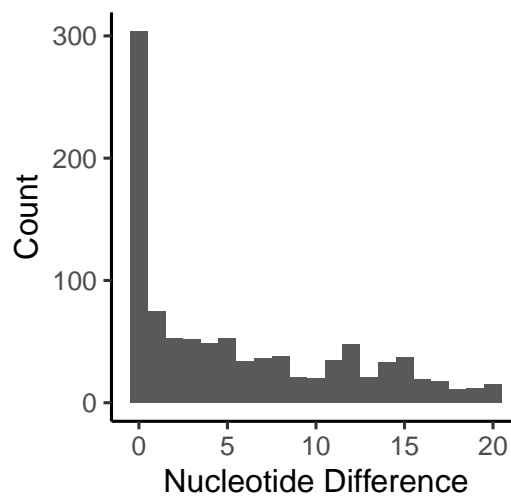
IGHV3-72*01

354 sequences assigned
29 (8.2%) exact matches, in which:
24 unique CDR3
5 unique J



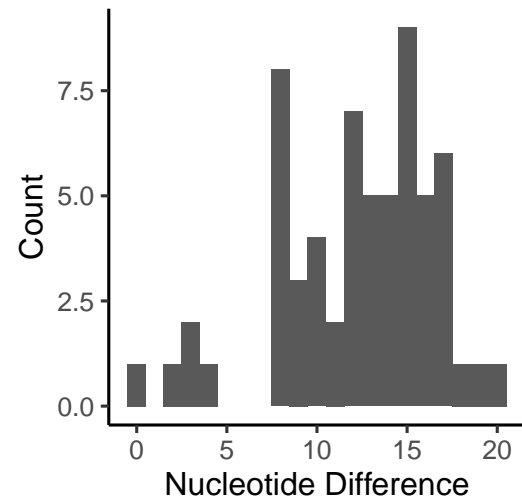
IGHV3-74*01_02

1027 sequences assigned
304 (29.6%) exact matches, in which:
269 unique CDR3
7 unique J



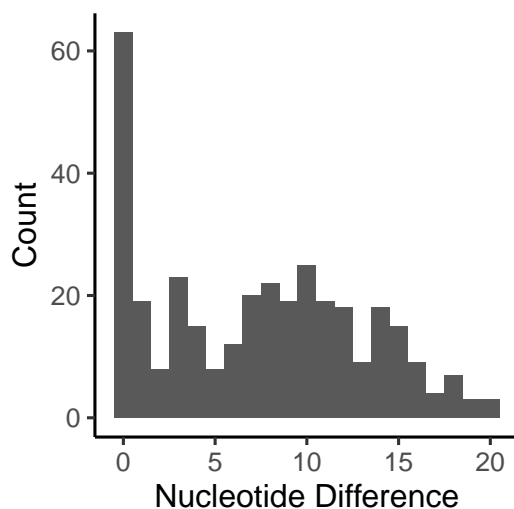
IGHV3-64D*09

79 sequences assigned
1 (1.3%) exact matches, in which:
1 unique CDR3
1 unique J



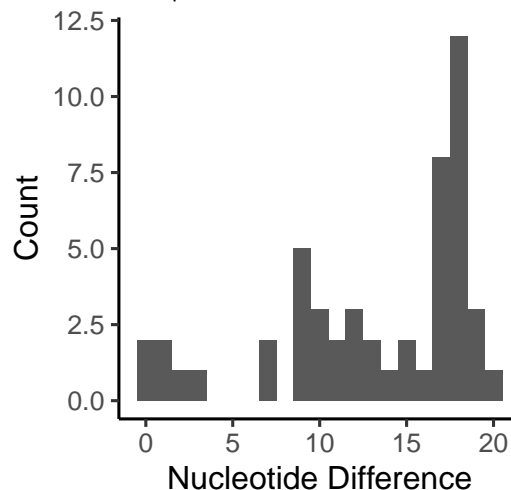
IGHV3-73*01_02

372 sequences assigned
63 (16.9%) exact matches, in which:
57 unique CDR3
6 unique J



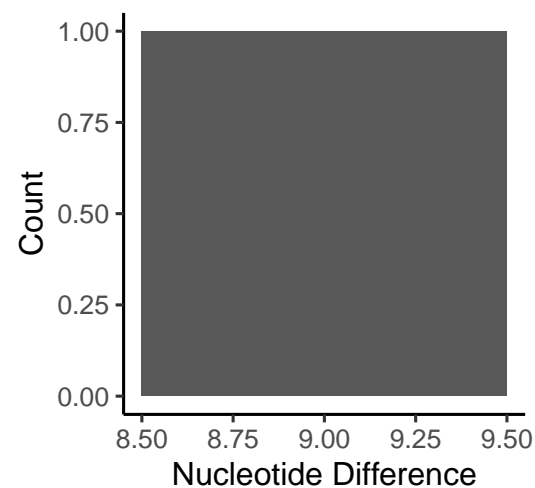
IGHV3-43D*03

57 sequences assigned
2 (3.5%) exact matches, in which:
2 unique CDR3
1 unique J



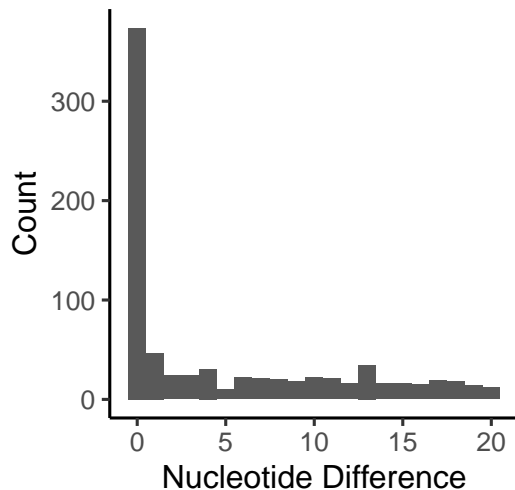
IGHV3-NL1*01

1 sequences assigned
No exact matches.



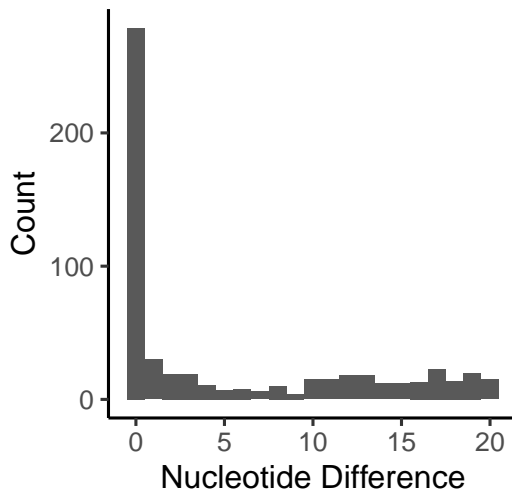
IGHV4-4*07

866 sequences assigned
374 (43.2%) exact matches, in which:
352 unique CDR3
6 unique J



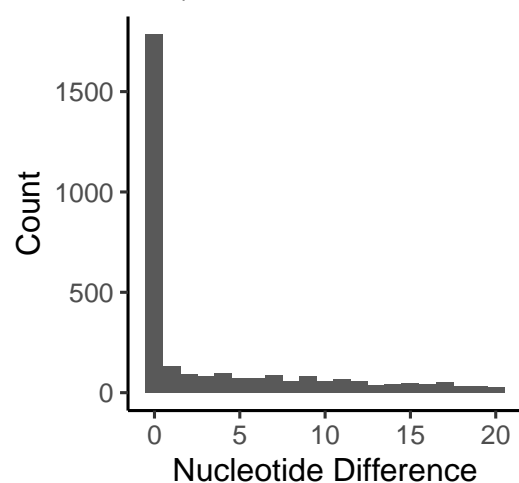
IGHV4-30-2*01

775 sequences assigned
279 (36%) exact matches, in which:
270 unique CDR3
7 unique J



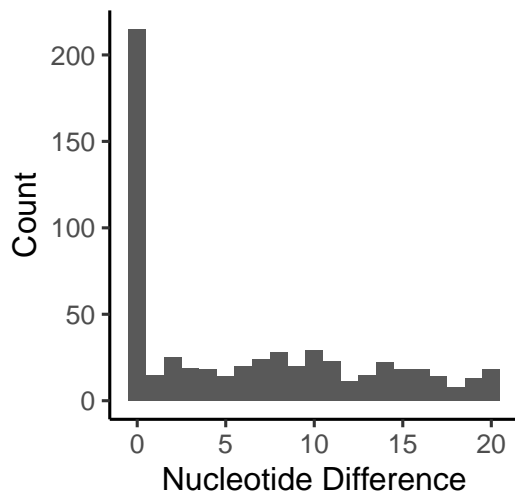
IGHV4-34*01_02

3332 sequences assigned
1785 (53.6%) exact matches, in which:
1745 unique CDR3
7 unique J



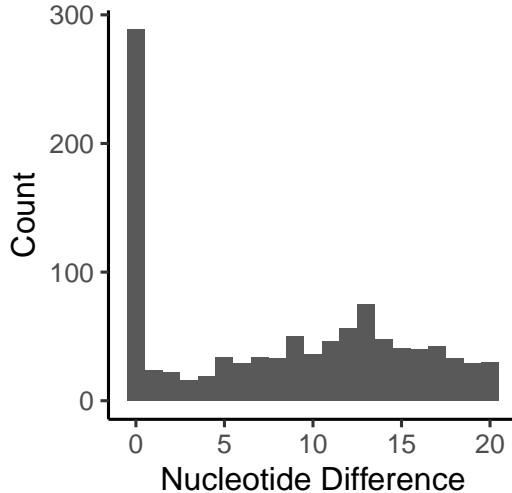
IGHV4-4*02_03

691 sequences assigned
215 (31.1%) exact matches, in which:
206 unique CDR3
6 unique J



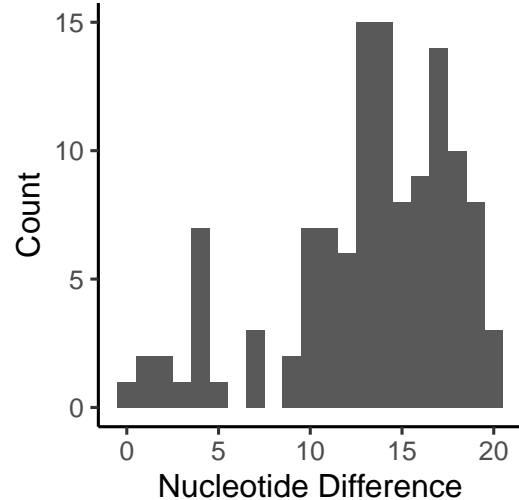
IGHV4-30-4*01

1210 sequences assigned
289 (23.9%) exact matches, in which:
276 unique CDR3
7 unique J



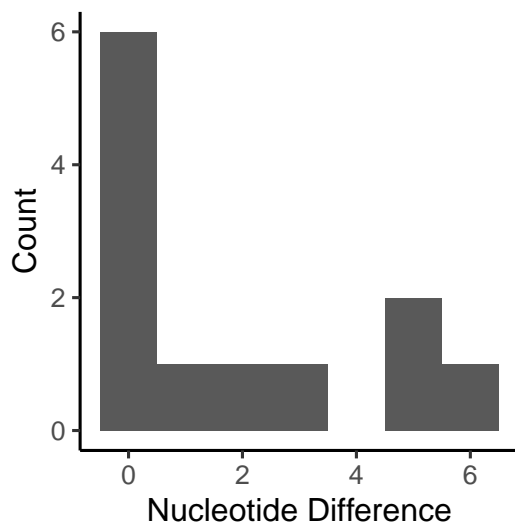
IGHV4-38-2*02

186 sequences assigned
1 (0.5%) exact matches, in which:
1 unique CDR3
1 unique J



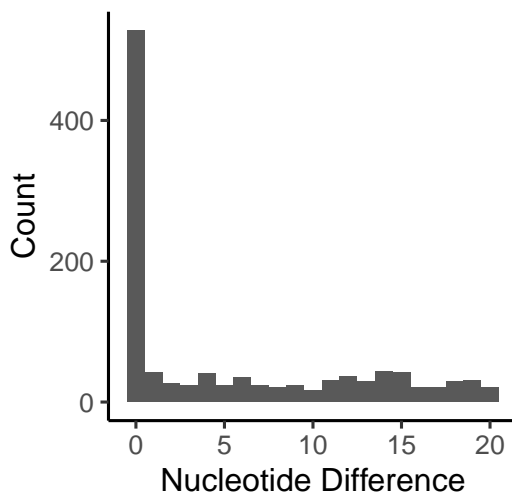
IGHV4-28*01_07

15 sequences assigned
6 (40%) exact matches, in which:
6 unique CDR3
3 unique J



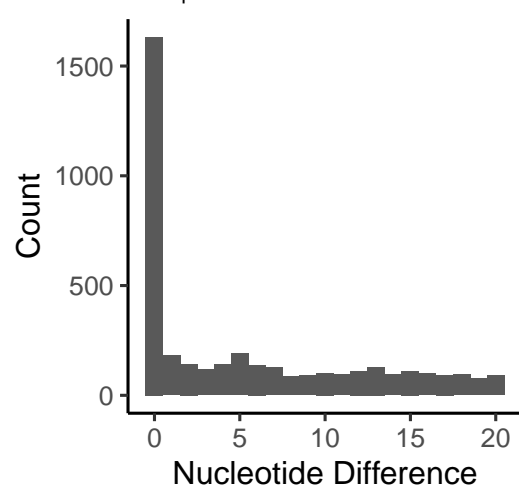
IGHV4-31*02

1378 sequences assigned
528 (38.3%) exact matches, in which:
517 unique CDR3
7 unique J



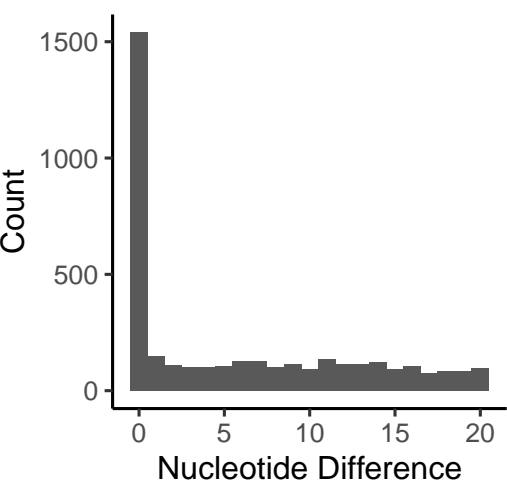
IGHV4-39*02_C258G

4749 sequences assigned
1632 (34.4%) exact matches, in which:
1554 unique CDR3
7 unique J



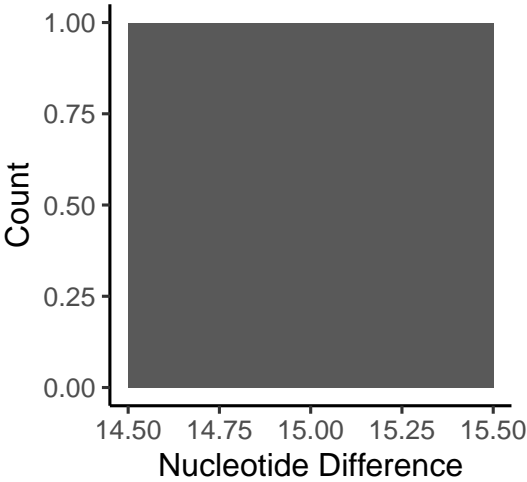
IGHV4-59*02_G88A

4737 sequences assigned
1540 (32.5%) exact matches, in which:
1476 unique CDR3
7 unique J



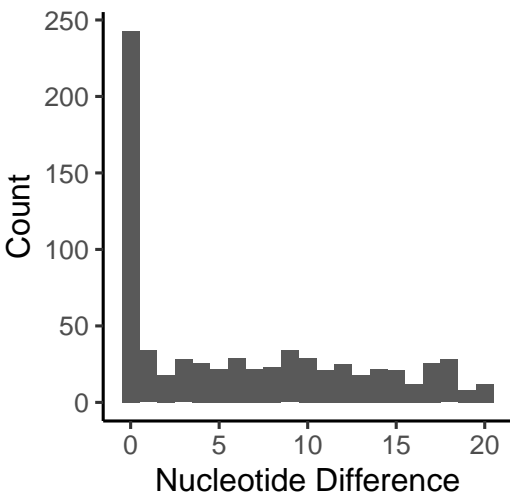
IGHV4/OR15-8*02

5 sequences assigned
No exact matches.



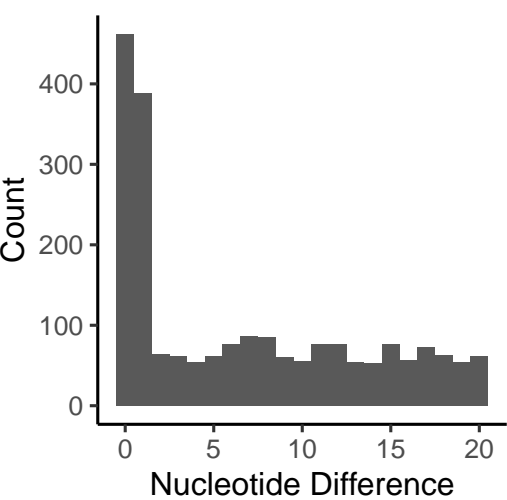
IGHV6-1*01_02

760 sequences assigned
243 (32%) exact matches, in which:
242 unique CDR3
6 unique J



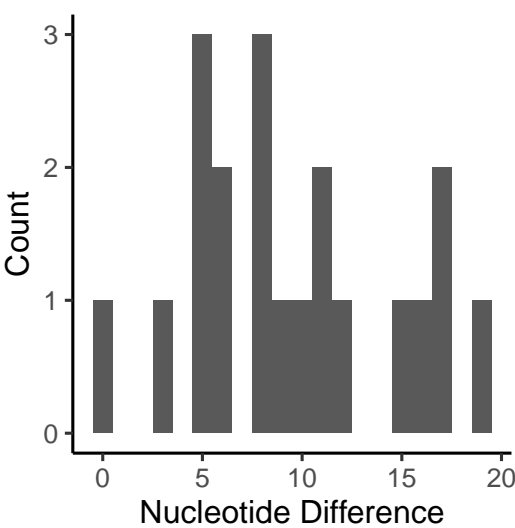
IGHV4-61*02

2500 sequences assigned
462 (18.5%) exact matches, in which:
431 unique CDR3
6 unique J



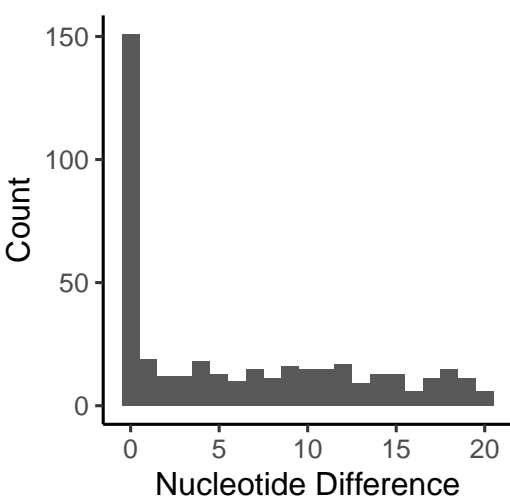
IGHV5-10-1*01_03

21 sequences assigned
1 (4.8%) exact matches, in which:
1 unique CDR3
1 unique J



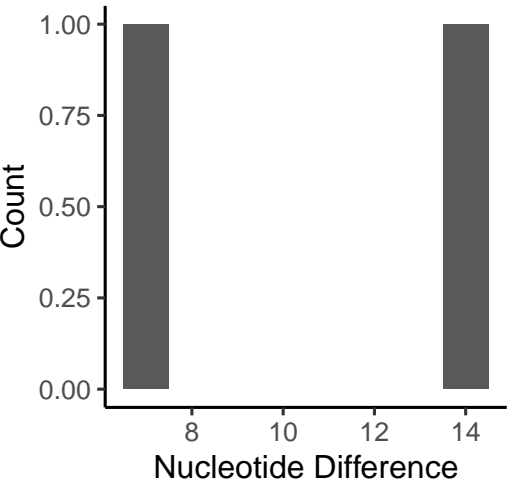
IGHV7-4-1*02

445 sequences assigned
151 (33.9%) exact matches, in which:
149 unique CDR3
7 unique J



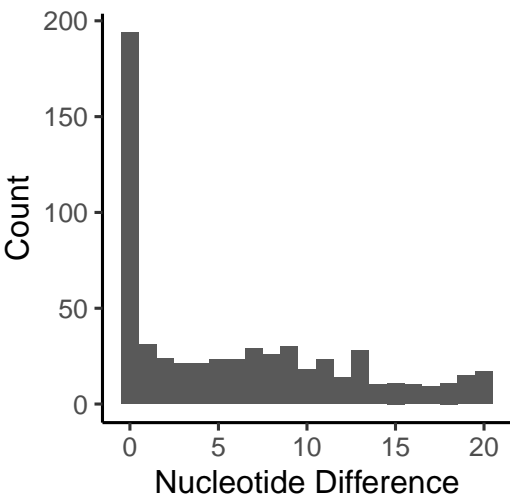
IGHV4/OR15-8*01

4 sequences assigned
No exact matches.

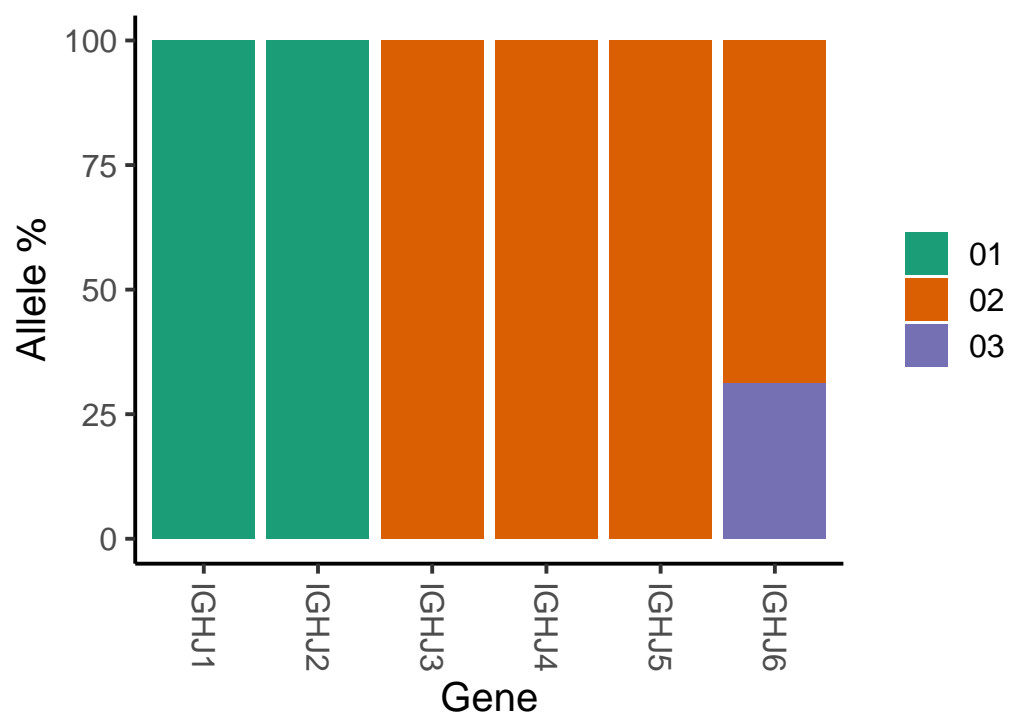


IGHV5-51*07_A128G

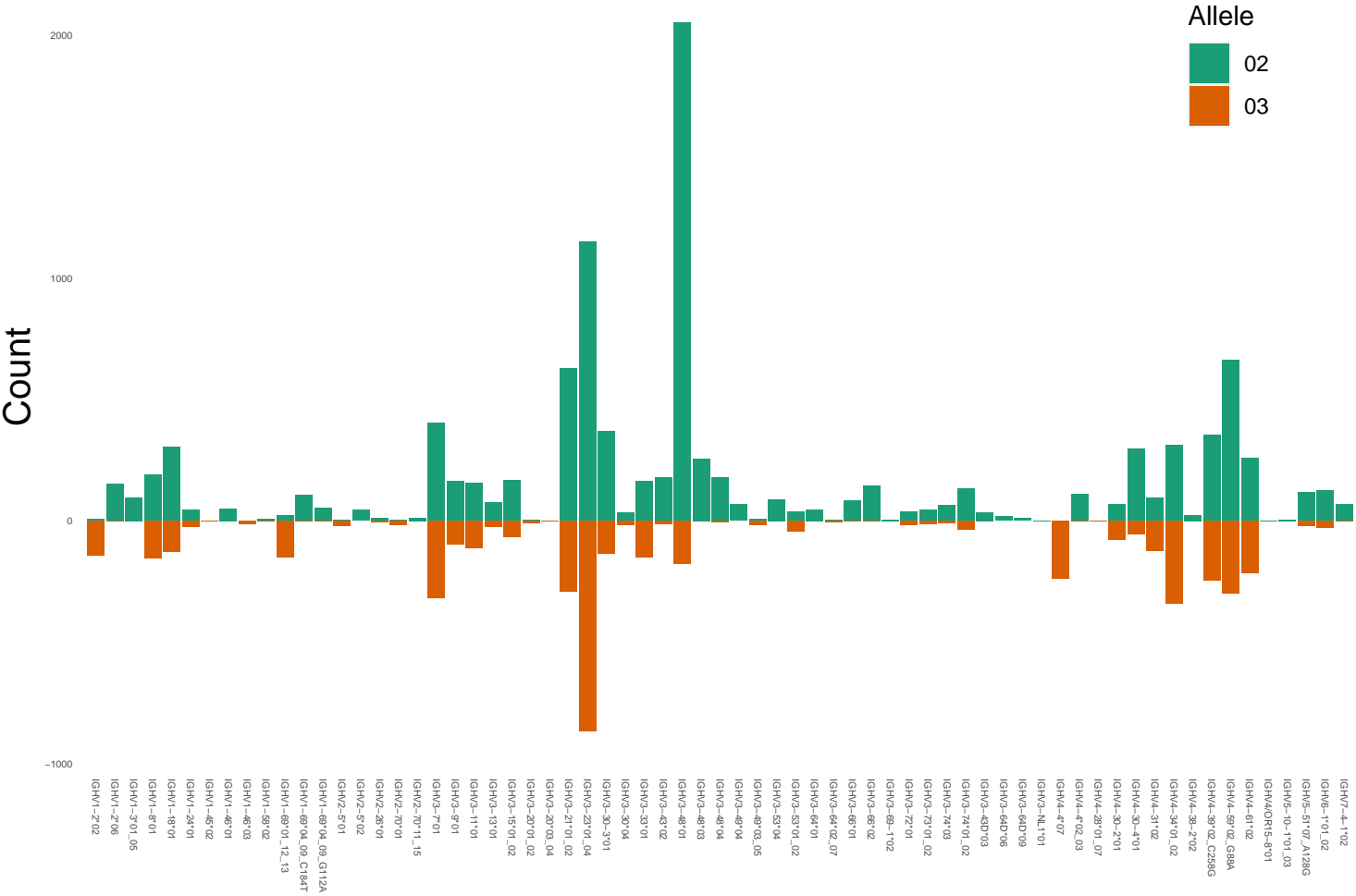
625 sequences assigned
194 (31%) exact matches, in which:
194 unique CDR3
7 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



Warning – no inferred sequences found.