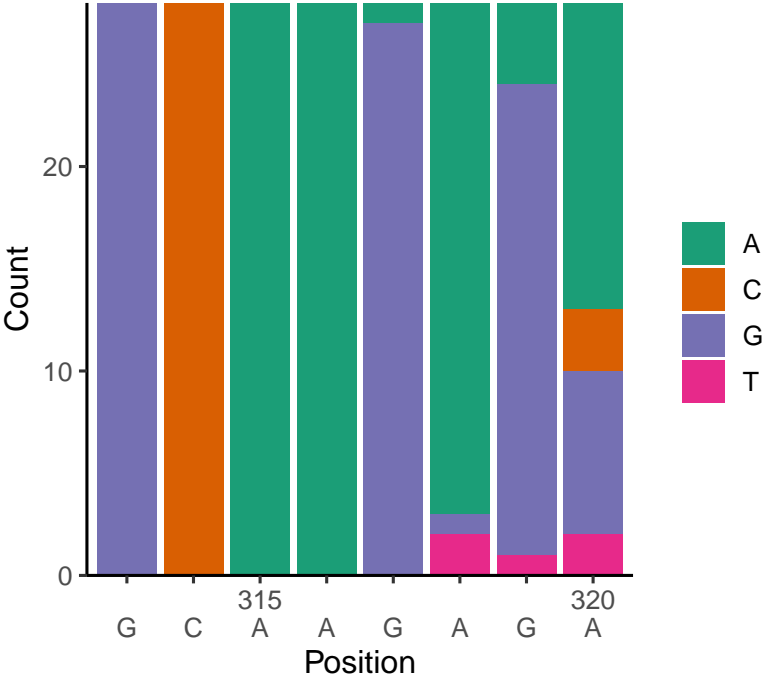
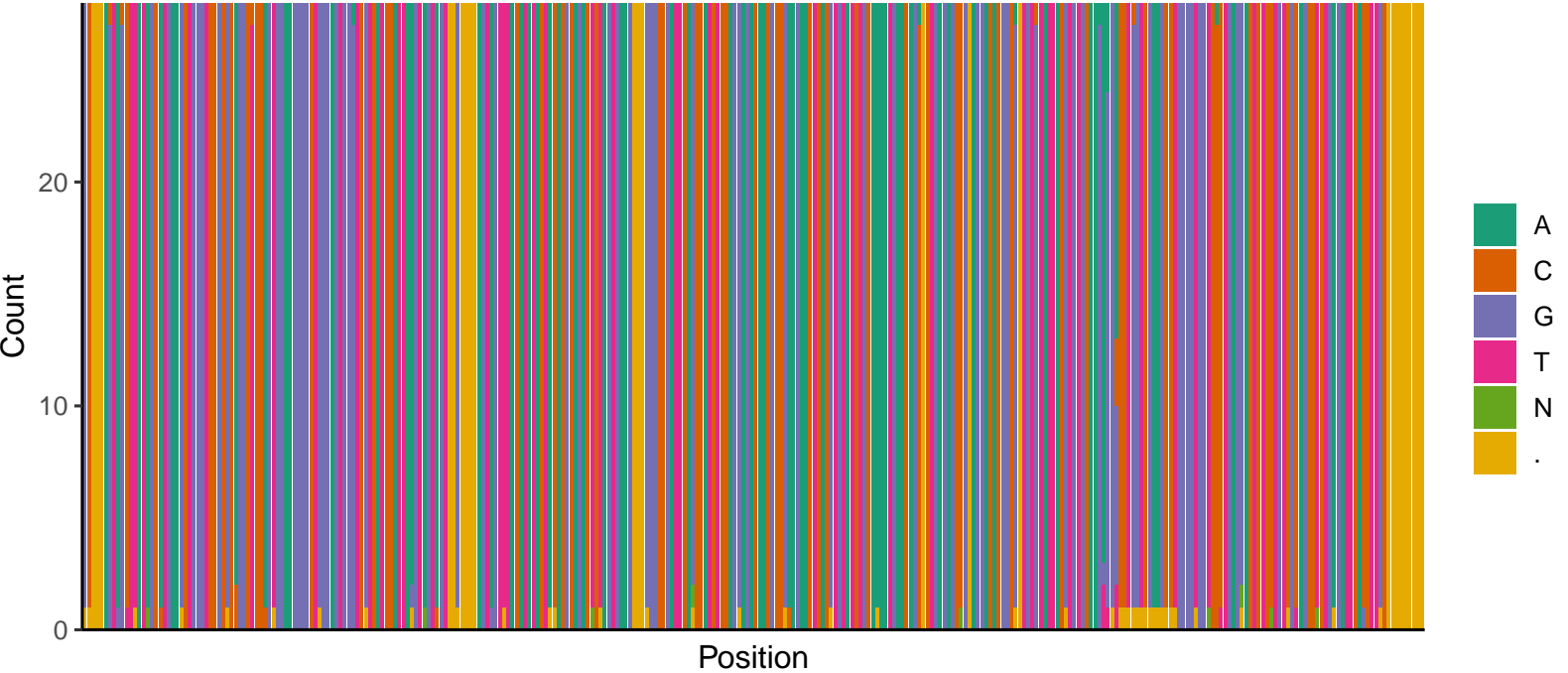


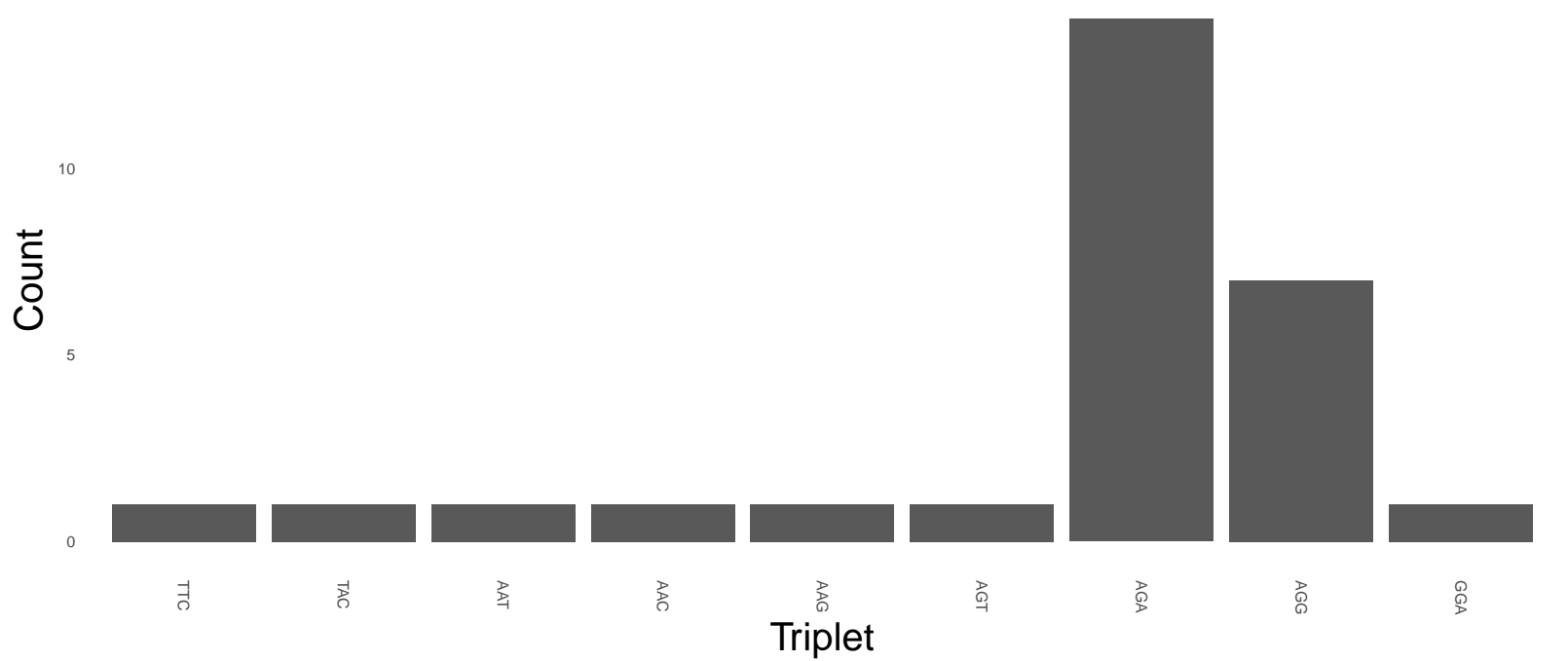
Gene IGHV3-21*01_G315A



Gene IGHV3-21*01_G315A

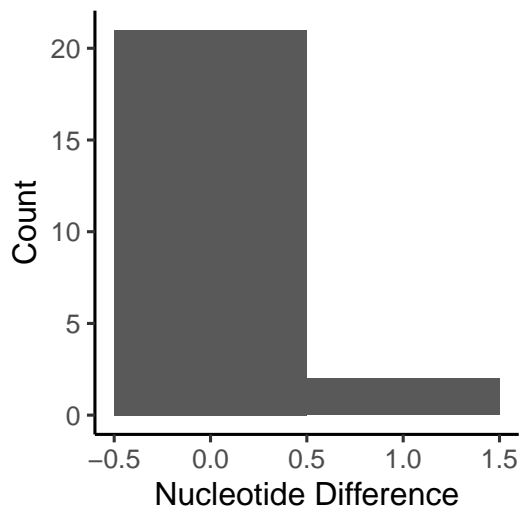


IGHV3-21*01_G315A- Final 3 nucleotides as a triplet



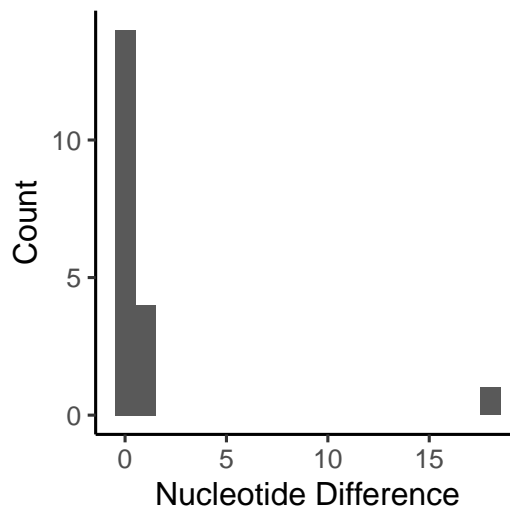
IGHV1-2*02

23 sequences assigned
21 (91.3%) exact matches, in which:
21 unique CDR3
4 unique J



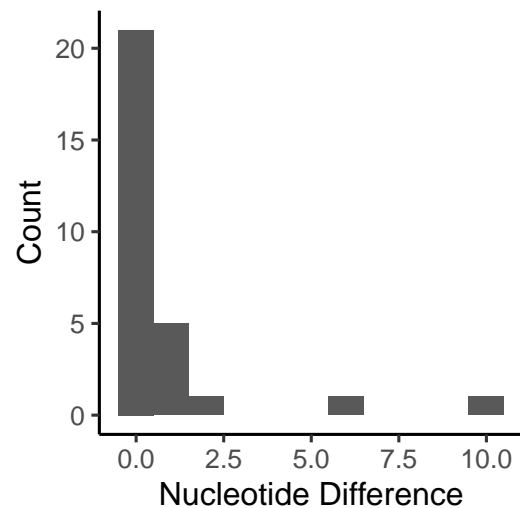
IGHV1-8*02

19 sequences assigned
14 (73.7%) exact matches, in which:
14 unique CDR3
4 unique J



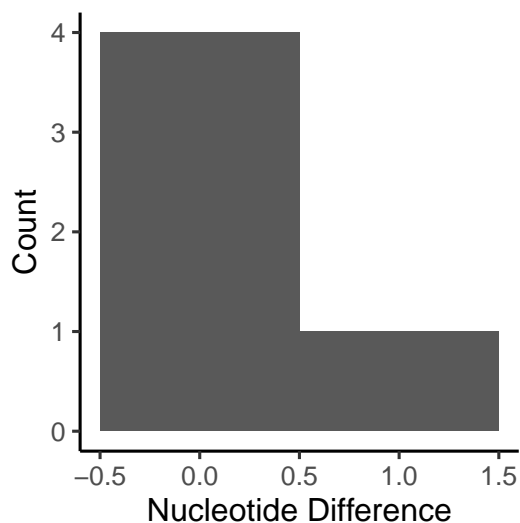
IGHV1-46*01

29 sequences assigned
21 (72.4%) exact matches, in which:
21 unique CDR3
5 unique J



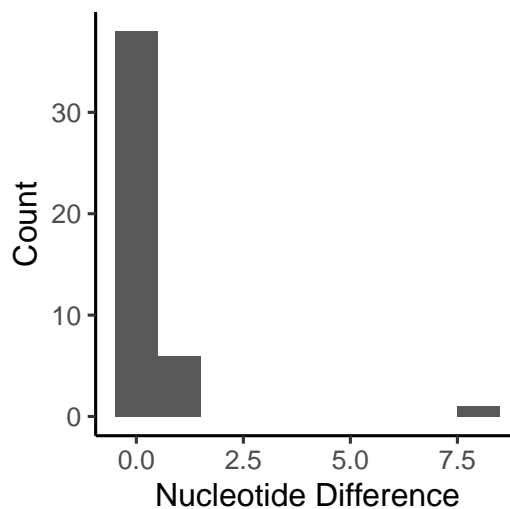
IGHV1-2*04

5 sequences assigned
4 (80%) exact matches, in which:
4 unique CDR3
3 unique J



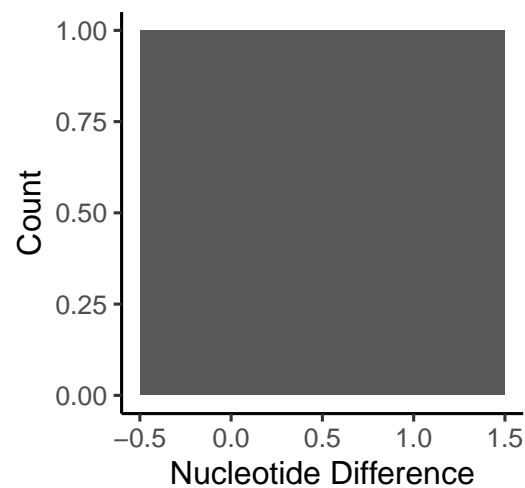
IGHV1-18*01

45 sequences assigned
38 (84.4%) exact matches, in which:
37 unique CDR3
6 unique J



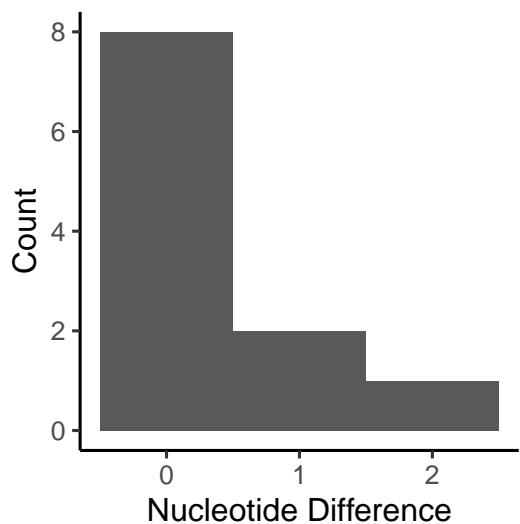
IGHV1-58*02

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



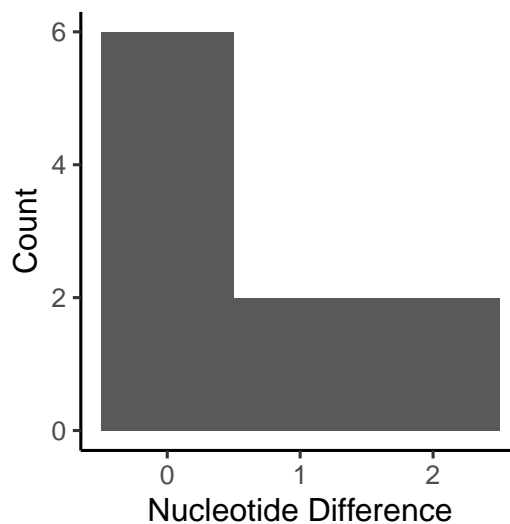
IGHV1-3*01

11 sequences assigned
8 (72.7%) exact matches, in which:
7 unique CDR3
3 unique J



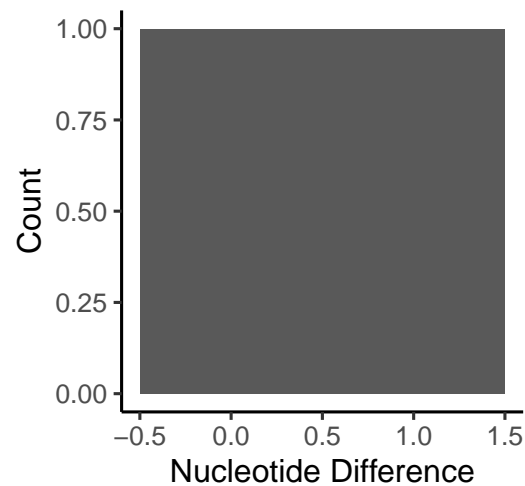
IGHV1-24*01

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



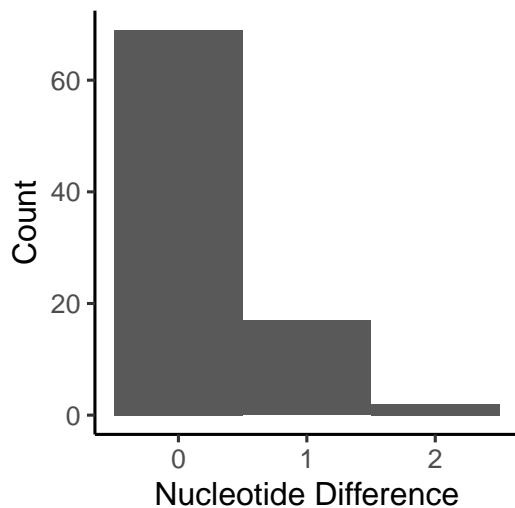
IGHV1-69-2*01

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



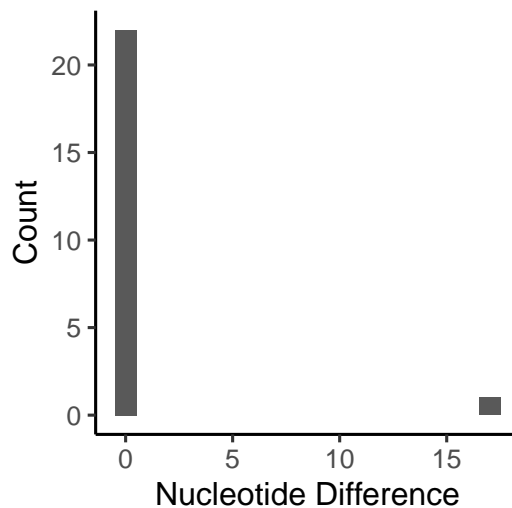
IGHV1-69*05

88 sequences assigned
69 (78.4%) exact matches, in which:
69 unique CDR3
5 unique J



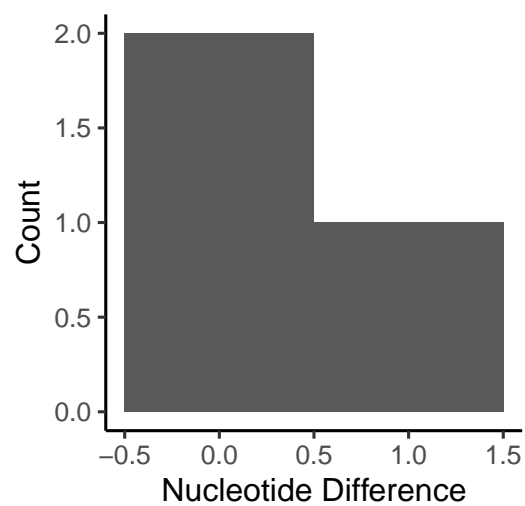
IGHV2-5*02

23 sequences assigned
22 (95.7%) exact matches, in which:
22 unique CDR3
4 unique J



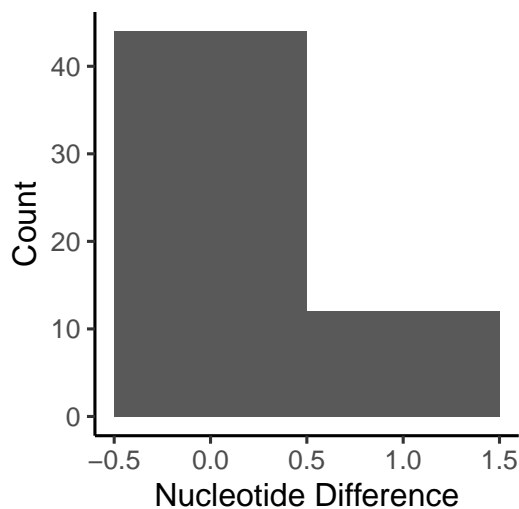
IGHV2-70*20

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
2 unique J



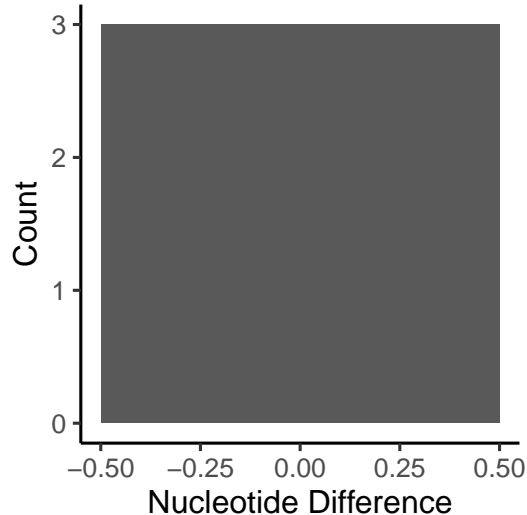
IGHV1-69*12

56 sequences assigned
44 (78.6%) exact matches, in which:
44 unique CDR3
5 unique J



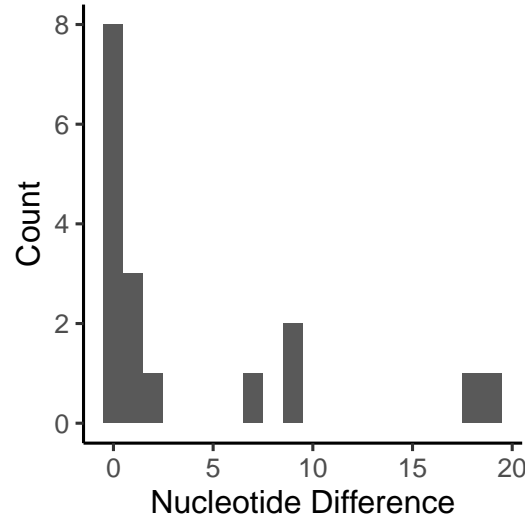
IGHV2-26*01

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



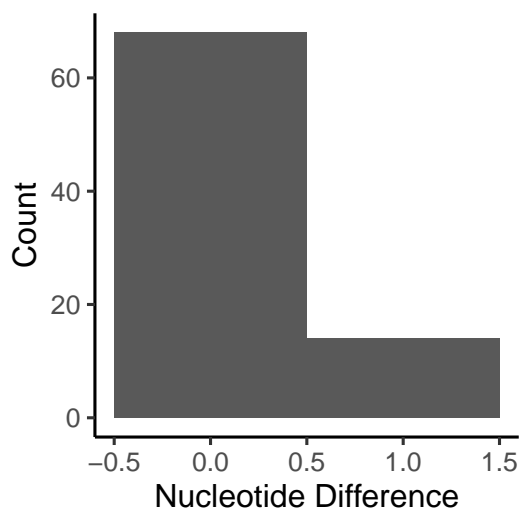
IGHV3-7*04

17 sequences assigned
8 (47.1%) exact matches, in which:
8 unique CDR3
2 unique J



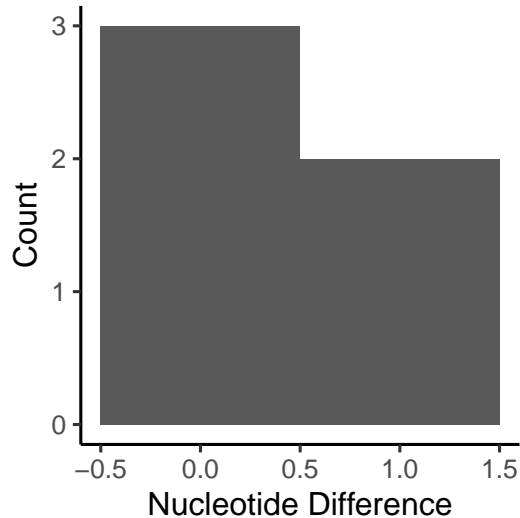
IGHV1-69*15

82 sequences assigned
68 (82.9%) exact matches, in which:
68 unique CDR3
5 unique J



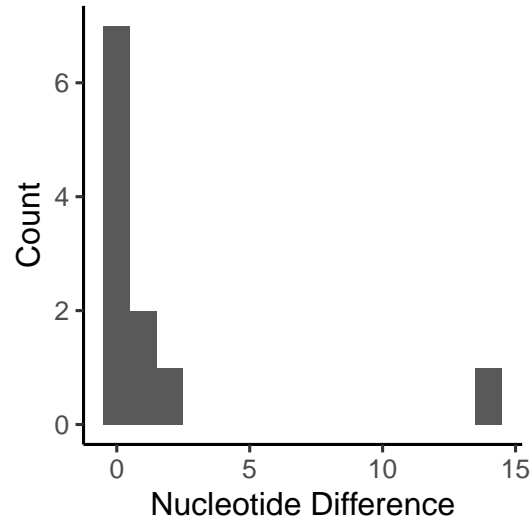
IGHV2-70*15

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



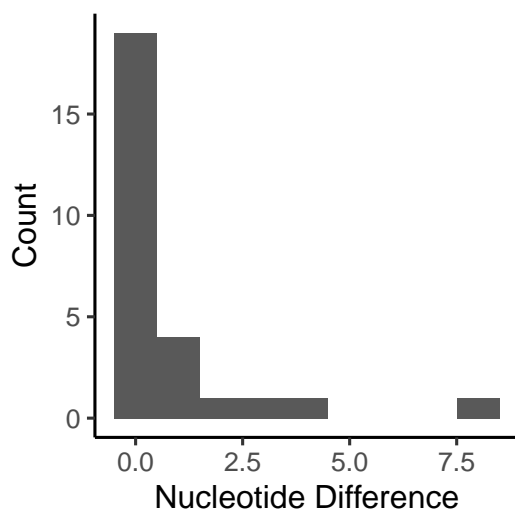
IGHV3-7*05

11 sequences assigned
7 (63.6%) exact matches, in which:
7 unique CDR3
5 unique J



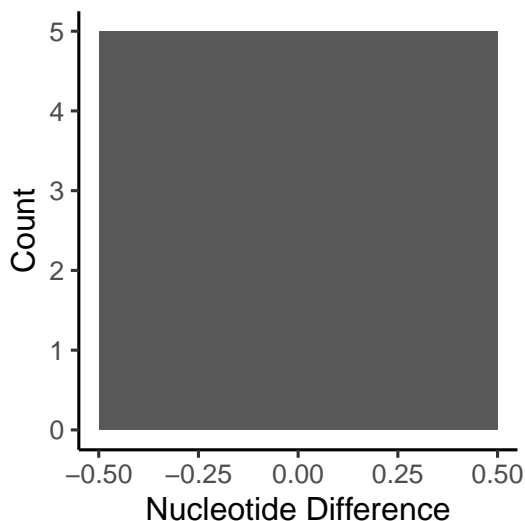
IGHV3-9*01

27 sequences assigned
19 (70.4%) exact matches, in which:
19 unique CDR3
4 unique J



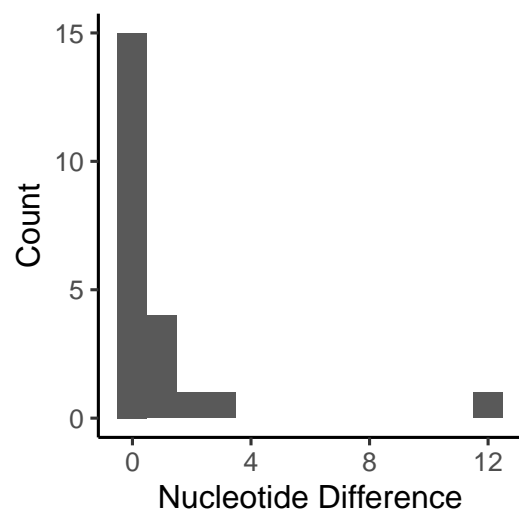
IGHV3-13*01

5 sequences assigned
5 (100%) exact matches, in which:
5 unique CDR3
4 unique J



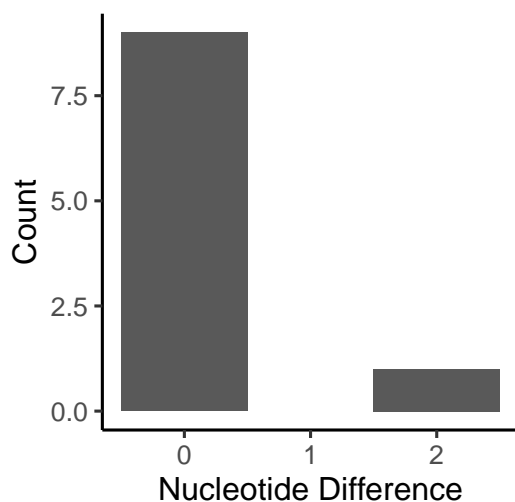
IGHV3-21*01

22 sequences assigned
15 (68.2%) exact matches, in which:
15 unique CDR3
4 unique J



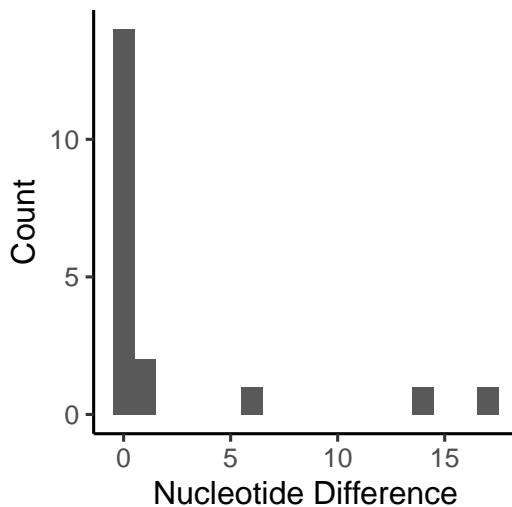
IGHV3-11*04

10 sequences assigned
9 (90%) exact matches, in which:
9 unique CDR3
5 unique J



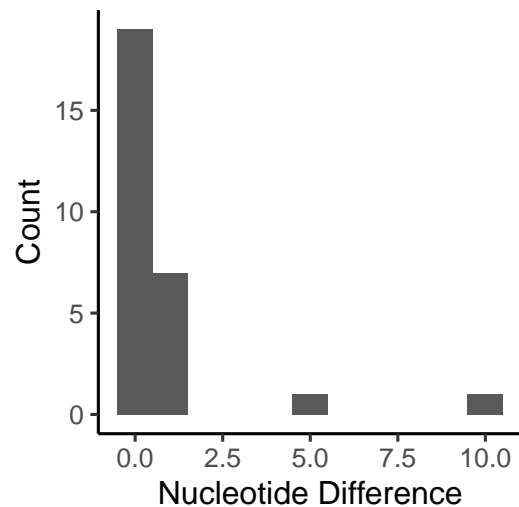
IGHV3-15*01

19 sequences assigned
14 (73.7%) exact matches, in which:
14 unique CDR3
4 unique J



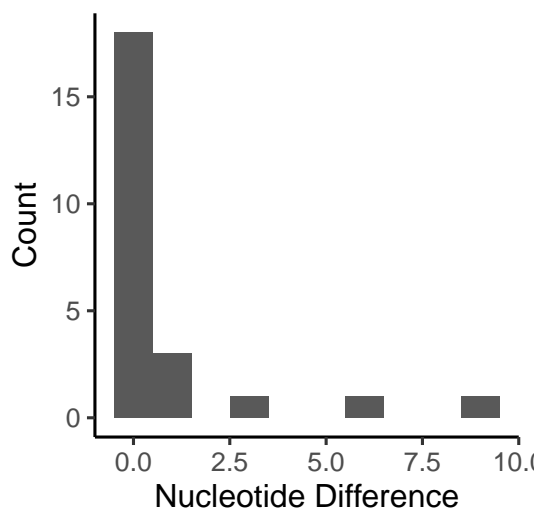
IGHV3-21*01_G315A

28 sequences assigned
19 (67.9%) exact matches, in which:
19 unique CDR3
5 unique J



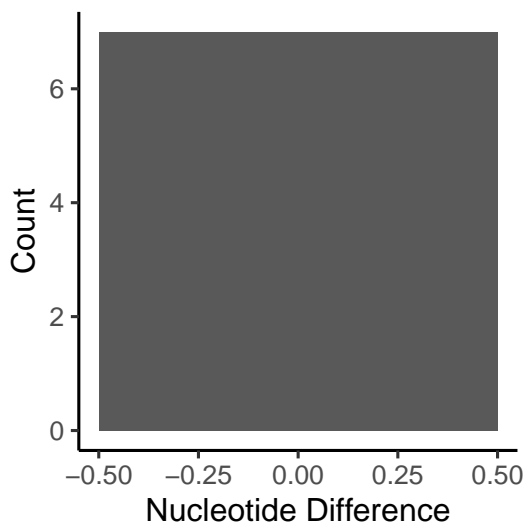
IGHV3-11*05

24 sequences assigned
18 (75%) exact matches, in which:
18 unique CDR3
4 unique J



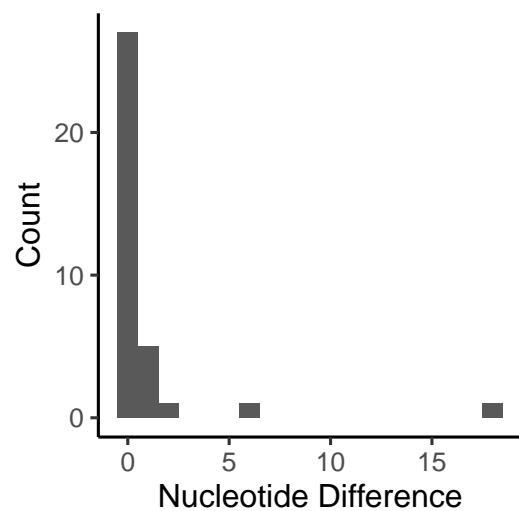
IGHV3-20*04

7 sequences assigned
7 (100%) exact matches, in which:
7 unique CDR3
3 unique J



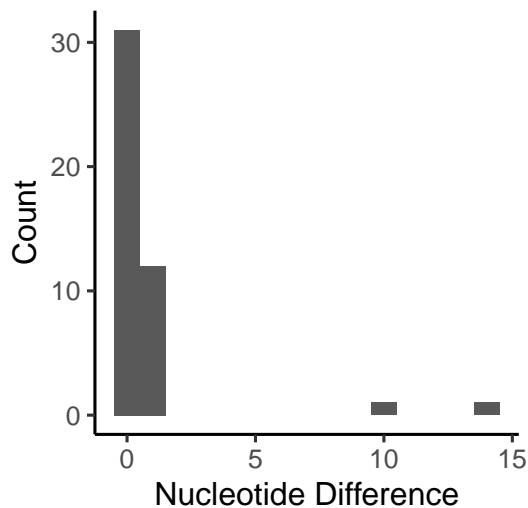
IGHV3-23*04

35 sequences assigned
27 (77.1%) exact matches, in which:
27 unique CDR3
4 unique J



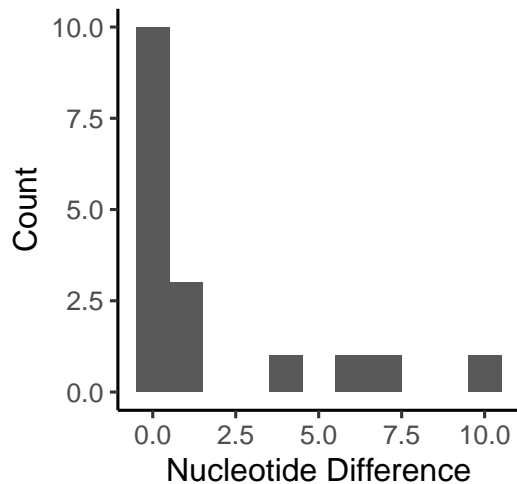
IGHV3-33*01

45 sequences assigned
31 (68.9%) exact matches, in which:
31 unique CDR3
5 unique J



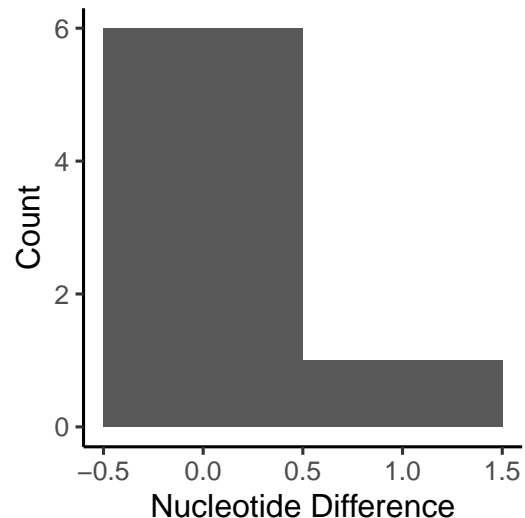
IGHV3-48*04

17 sequences assigned
10 (58.8%) exact matches, in which:
10 unique CDR3
4 unique J



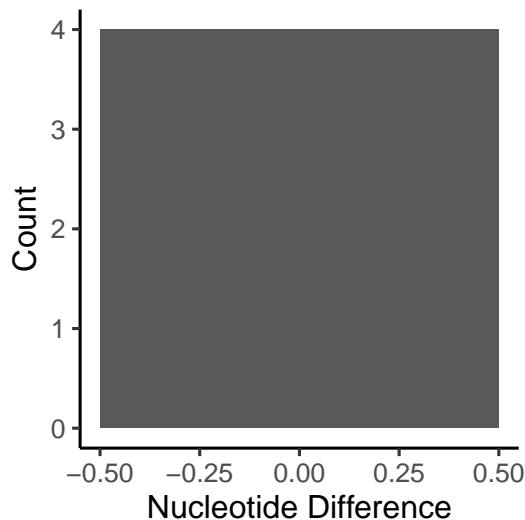
IGHV3-53*02

7 sequences assigned
6 (85.7%) exact matches, in which:
6 unique CDR3
3 unique J



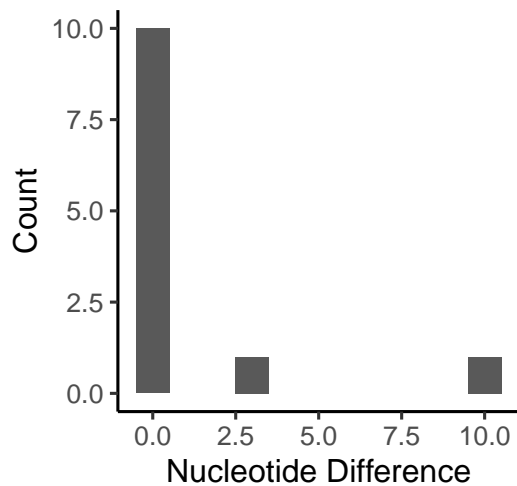
IGHV3-43*01

4 sequences assigned
4 (100%) exact matches, in which:
4 unique CDR3
4 unique J



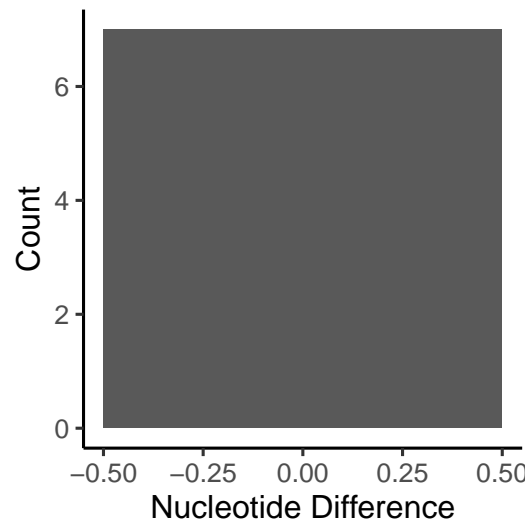
IGHV3-49*04

12 sequences assigned
10 (83.3%) exact matches, in which:
10 unique CDR3
2 unique J



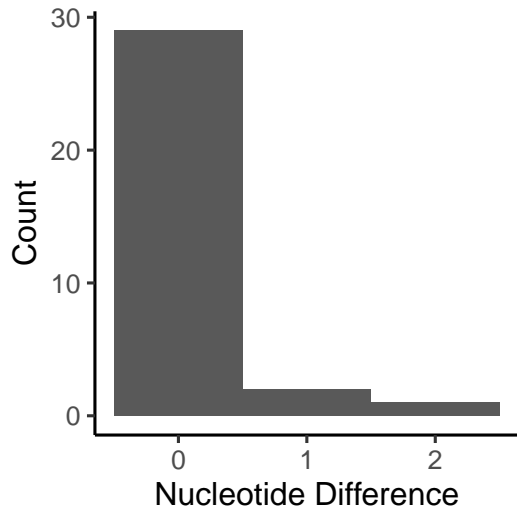
IGHV3-64*01

7 sequences assigned
7 (100%) exact matches, in which:
7 unique CDR3
3 unique J



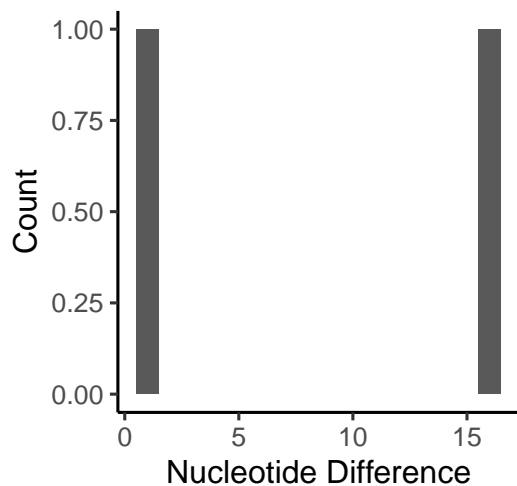
IGHV3-48*01

33 sequences assigned
29 (87.9%) exact matches, in which:
29 unique CDR3
5 unique J



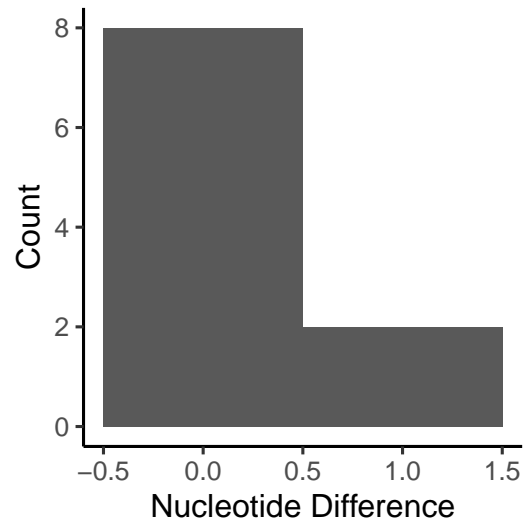
IGHV3-53*01

2 sequences assigned
No exact matches.



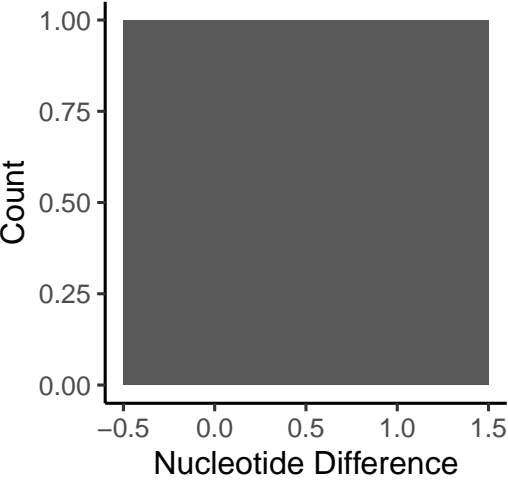
IGHV3-66*02

10 sequences assigned
8 (80%) exact matches, in which:
8 unique CDR3
3 unique J



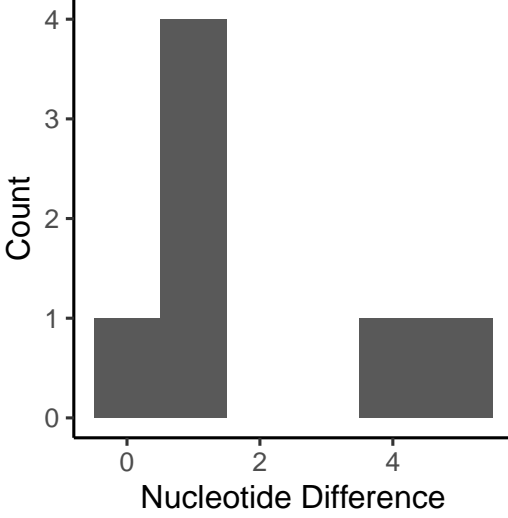
IGHV3-72*01

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



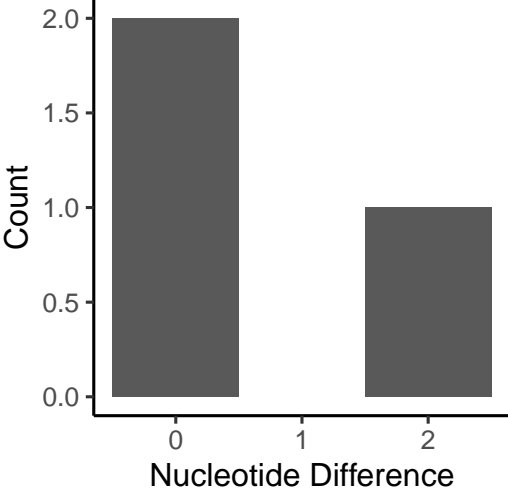
IGHV3-74*01

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



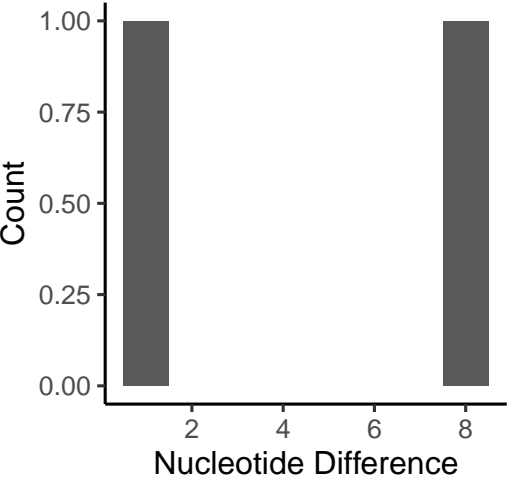
IGHV3-64D*09

3 sequences assigned
2 (66.7%) exact matches, in which:
2 unique CDR3
2 unique J



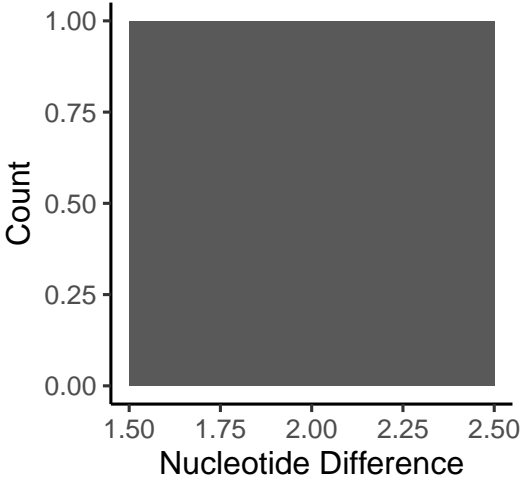
IGHV3-73*01

2 sequences assigned
No exact matches.



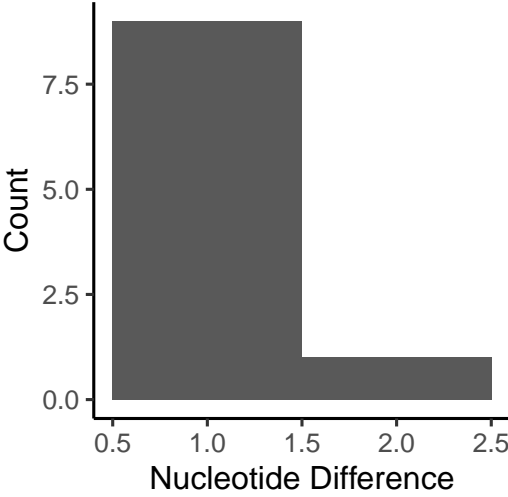
IGHV3-74*02

1 sequences assigned
No exact matches.



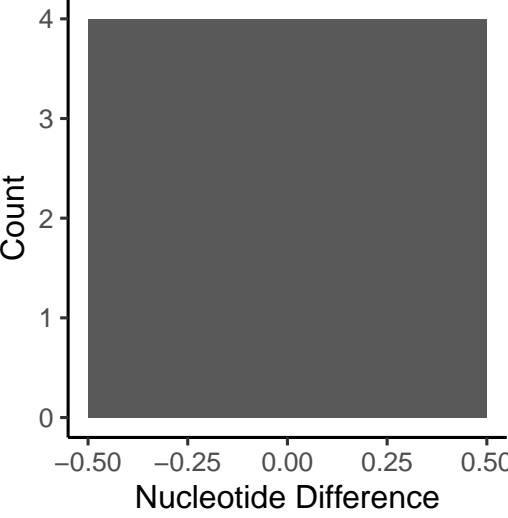
IGHV4-4*02

11 sequences assigned
No exact matches.



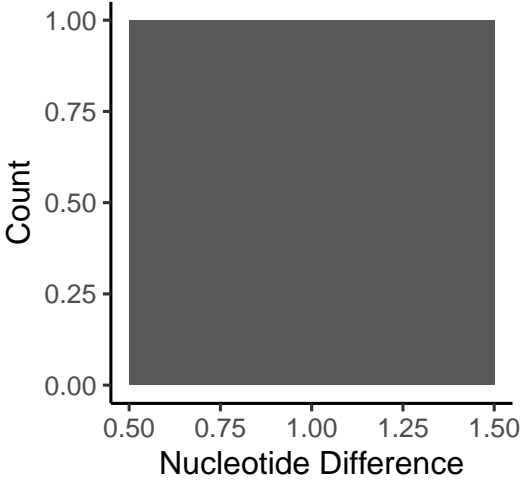
IGHV3-73*02

4 sequences assigned
4 (100%) exact matches, in which:
4 unique CDR3
2 unique J



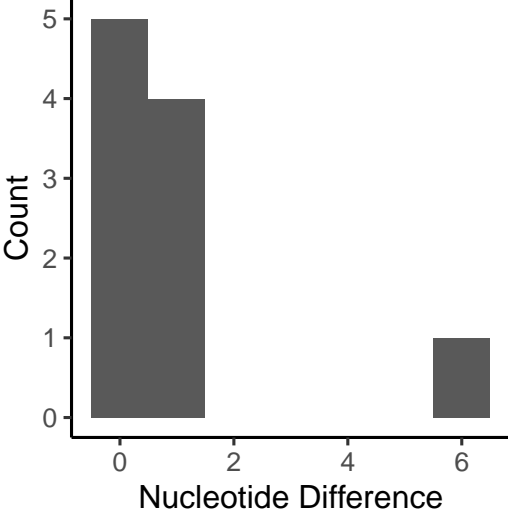
IGHV3-43D*04

1 sequences assigned
No exact matches.



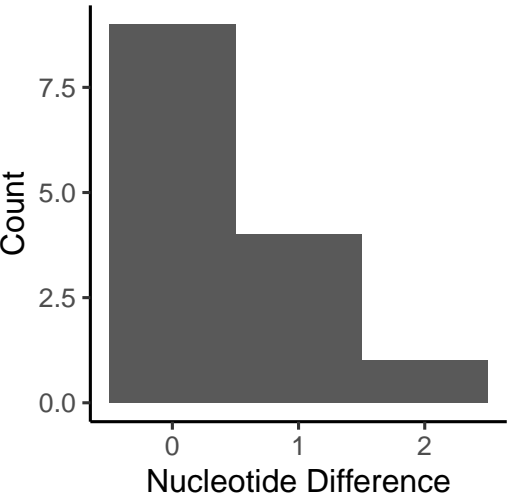
IGHV4-4*07

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



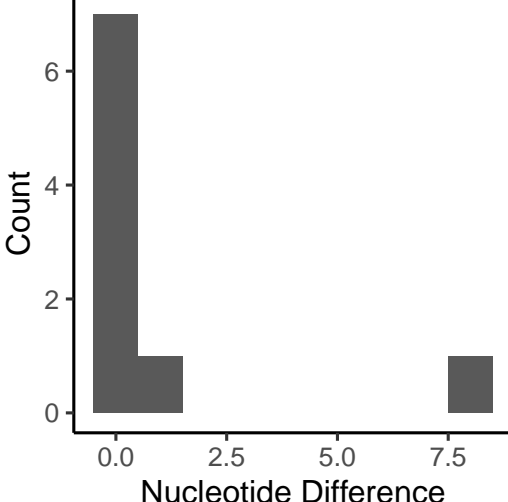
IGHV4-4*09

15 sequences assigned
9 (60%) exact matches, in which:
9 unique CDR3
4 unique J



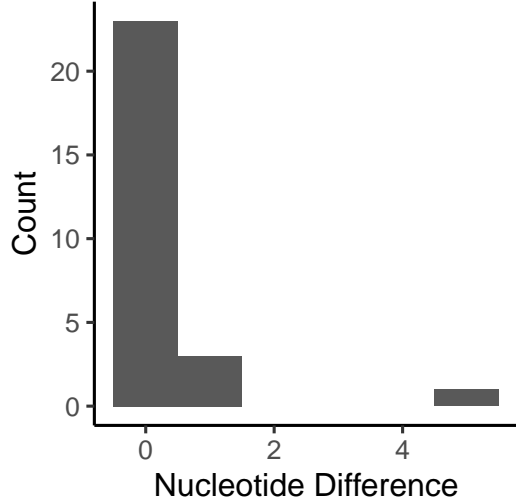
IGHV4-38-2*01

9 sequences assigned
7 (77.8%) exact matches, in which:
7 unique CDR3
4 unique J



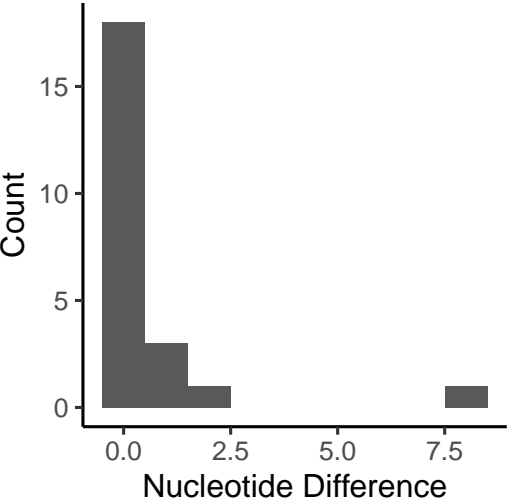
IGHV4-59*01

27 sequences assigned
23 (85.2%) exact matches, in which:
23 unique CDR3
5 unique J



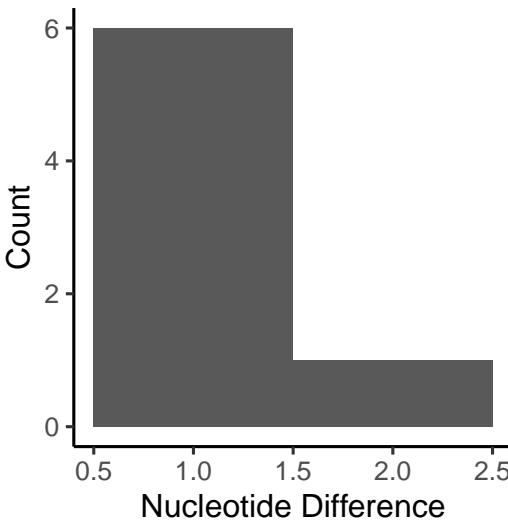
IGHV4-31*03

23 sequences assigned
18 (78.3%) exact matches, in which:
18 unique CDR3
4 unique J



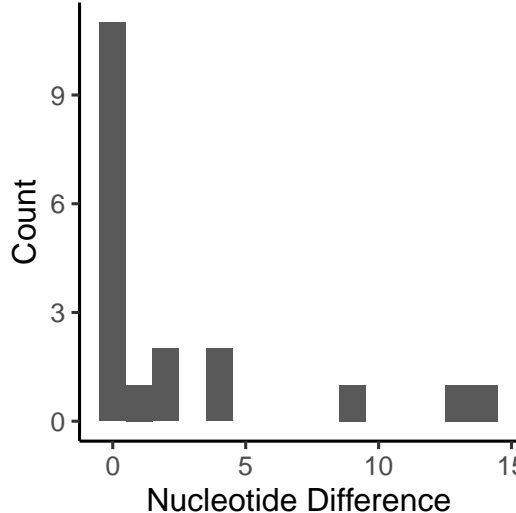
IGHV4-38-2*02

7 sequences assigned
No exact matches.



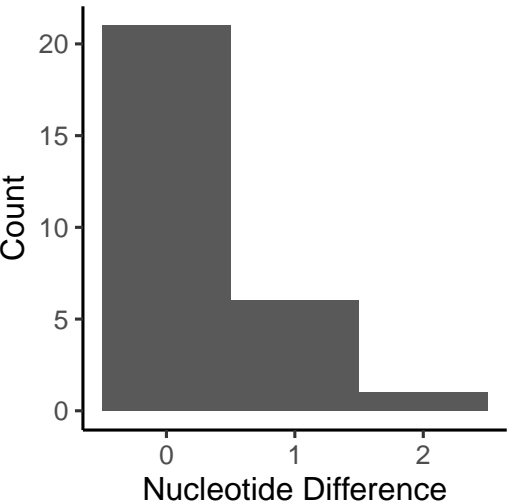
IGHV4-59*11

19 sequences assigned
11 (57.9%) exact matches, in which:
11 unique CDR3
4 unique J



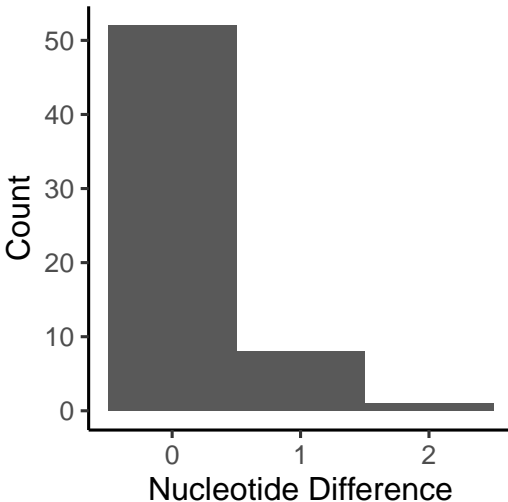
IGHV4-34*01

28 sequences assigned
21 (75%) exact matches, in which:
21 unique CDR3
6 unique J



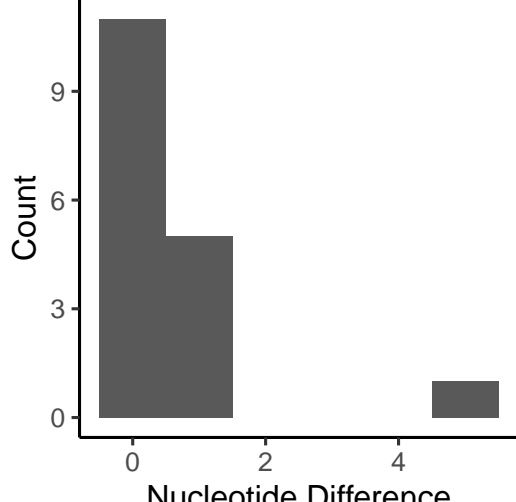
IGHV4-39*01

61 sequences assigned
52 (85.2%) exact matches, in which:
52 unique CDR3
6 unique J



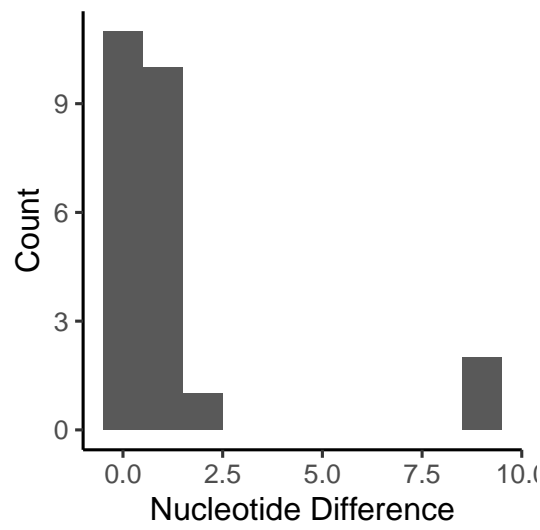
IGHV4-61*02

17 sequences assigned
11 (64.7%) exact matches, in which:
11 unique CDR3
5 unique J



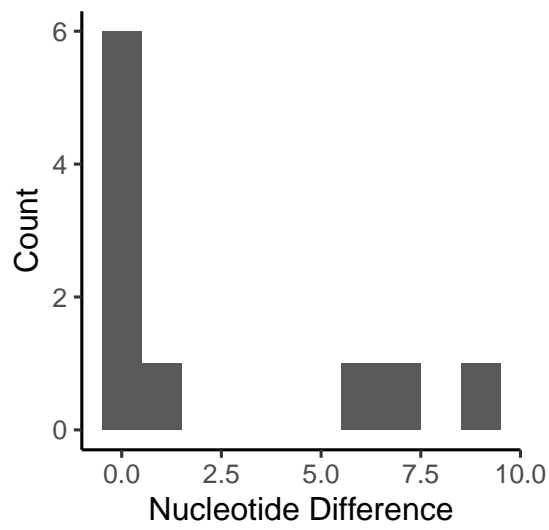
IGHV5–10–1*01

24 sequences assigned
11 (45.8%) exact matches, in which:
11 unique CDR3
4 unique J



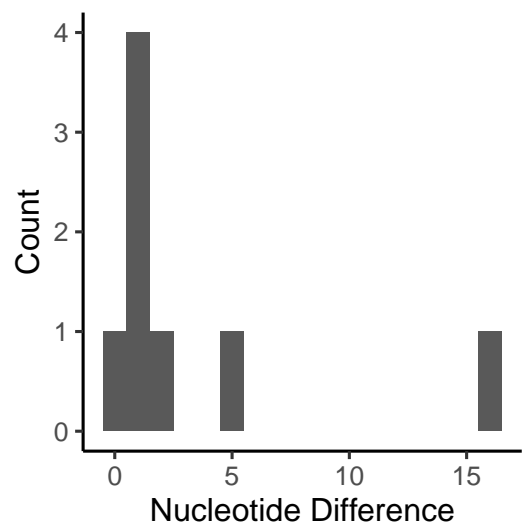
IGHV6–1*01

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



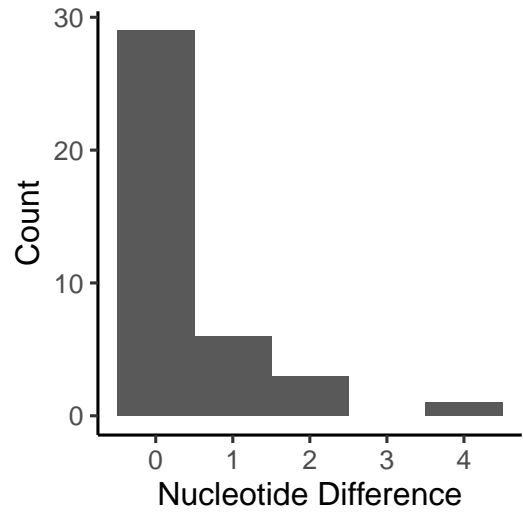
IGHV5–51*01

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



IGHV5–51*03

39 sequences assigned
29 (74.4%) exact matches, in which:
29 unique CDR3
5 unique J



IGHV3-21*01_G315A

