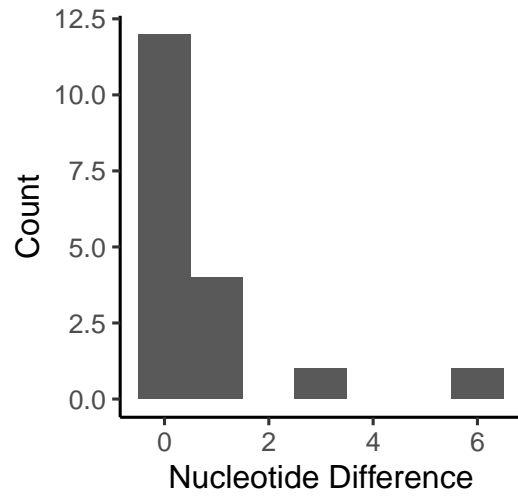


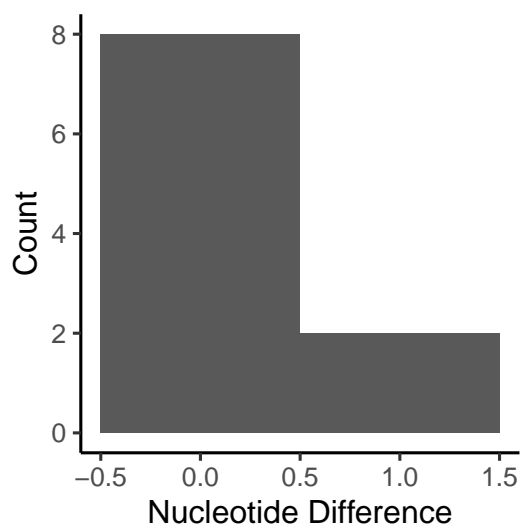
IGHV1-2*02

19 sequences assigned
12 (63.2%) exact matches, in which:
12 unique CDR3
3 unique J



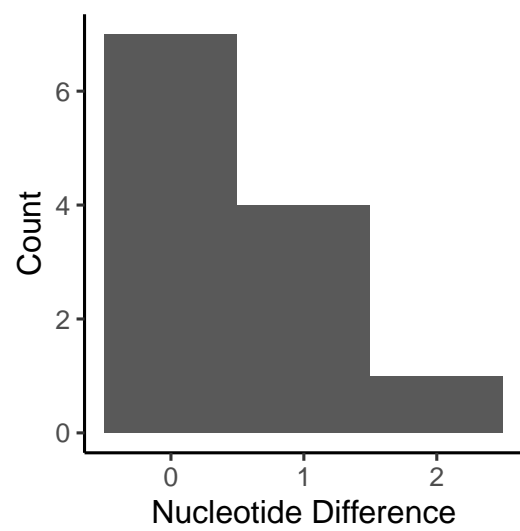
IGHV1-18*01

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



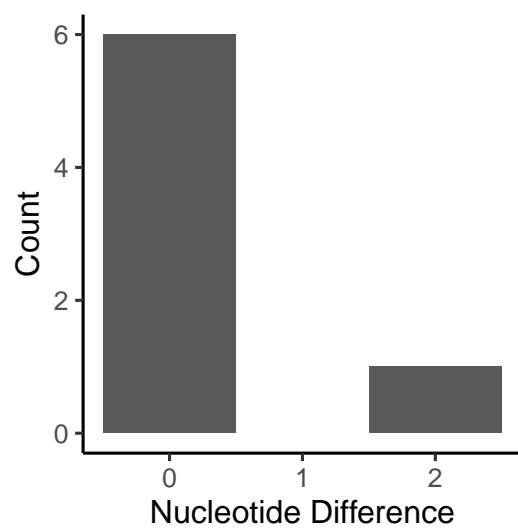
IGHV1-46*03

12 sequences assigned
7 (58.3%) exact matches, in which:
7 unique CDR3
4 unique J



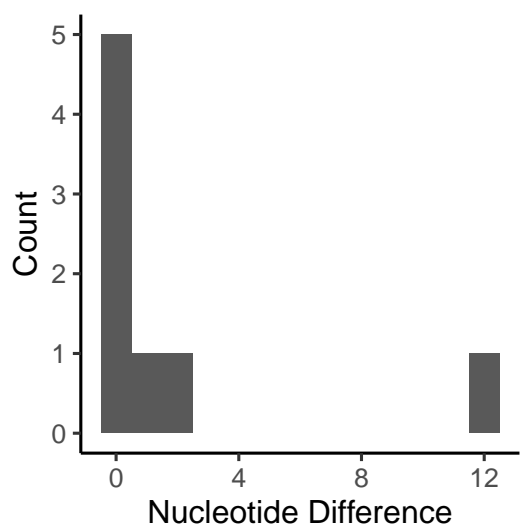
IGHV1-3*01

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



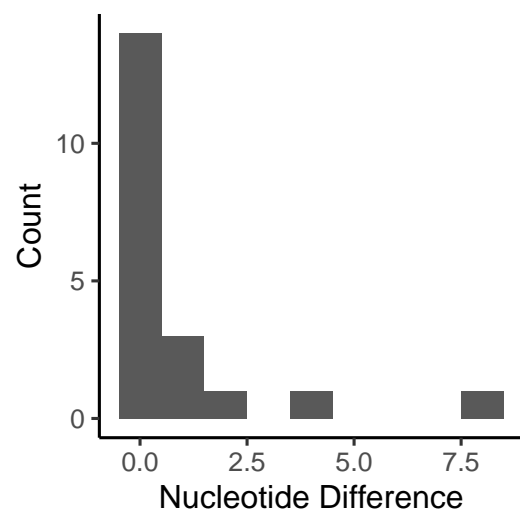
IGHV1-18*04

8 sequences assigned
5 (62.5%) exact matches, in which:
5 unique CDR3
3 unique J



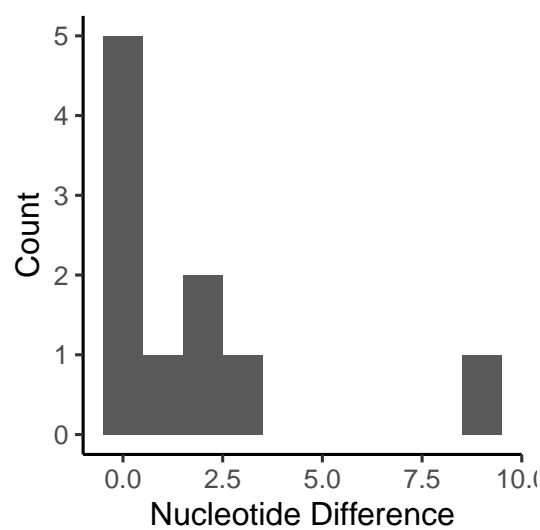
IGHV1-69*04

20 sequences assigned
14 (70%) exact matches, in which:
14 unique CDR3
5 unique J



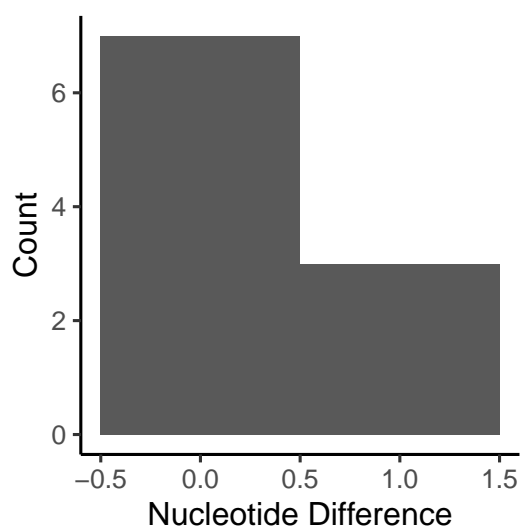
IGHV1-8*01

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



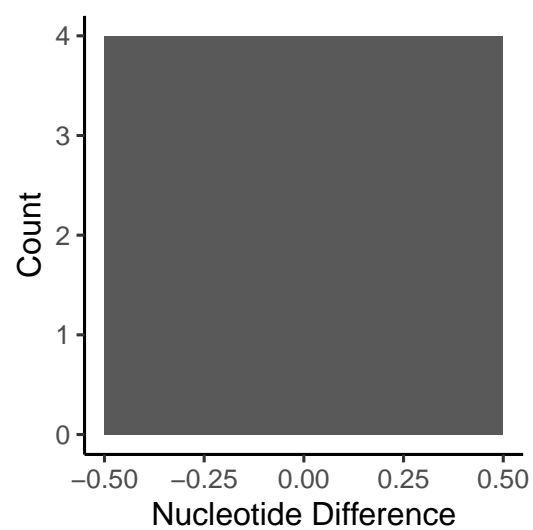
IGHV1-24*01

10 sequences assigned
7 (70%) exact matches, in which:
7 unique CDR3
3 unique J



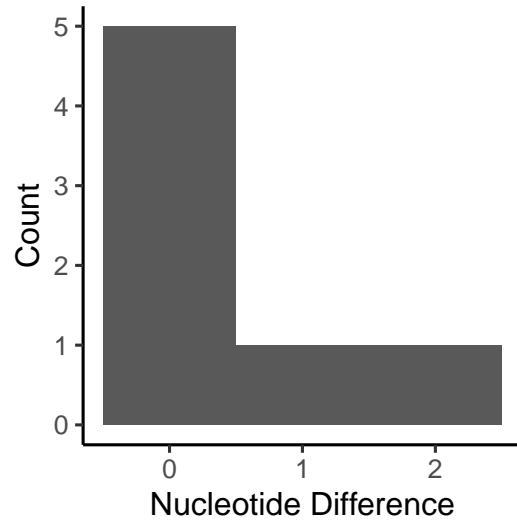
IGHV2-5*01

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



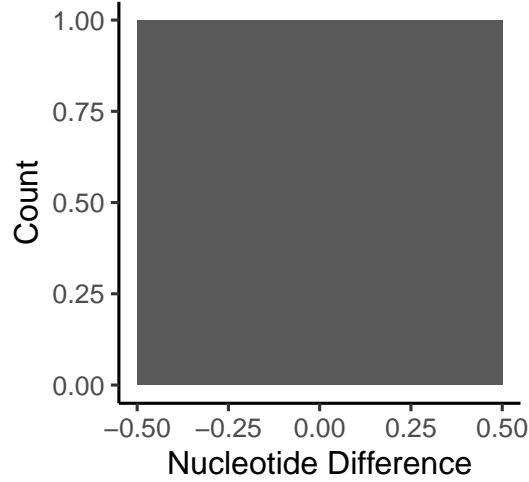
IGHV2-5*02

7 sequences assigned
5 (71.4%) exact matches, in which:
5 unique CDR3
2 unique J



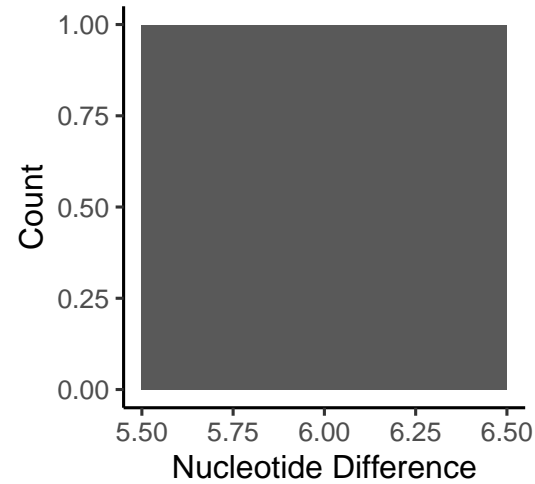
IGHV2-70*15

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



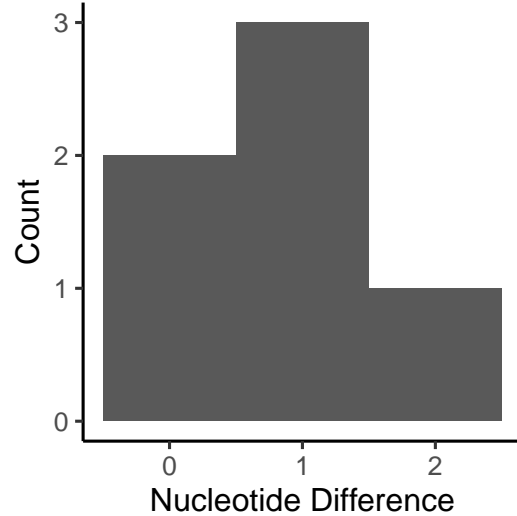
IGHV3-7*04

1 sequences assigned
No exact matches.



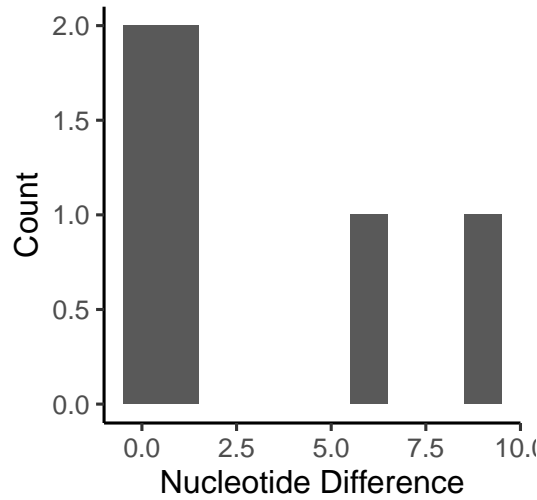
IGHV2-26*01

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



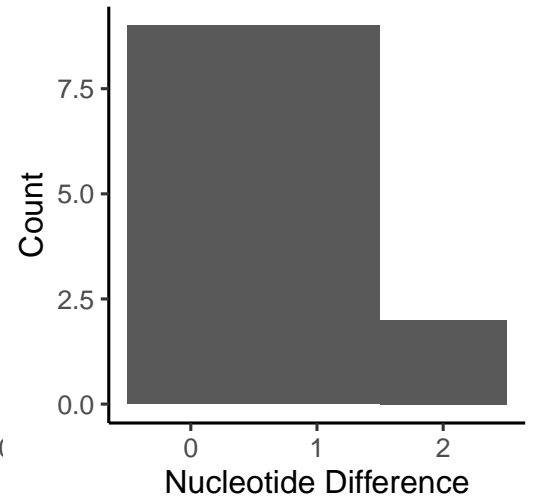
IGHV3-7*01

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



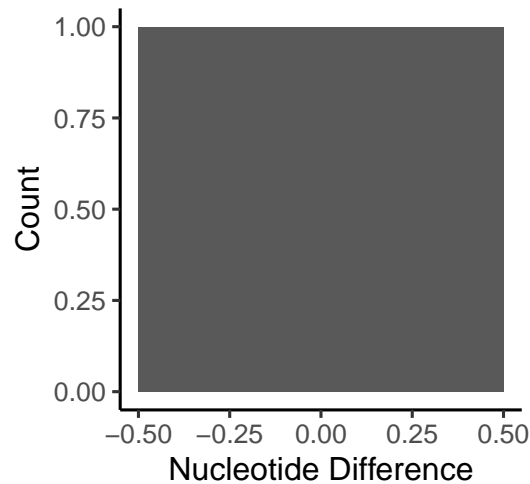
IGHV3-9*01

20 sequences assigned
9 (45%) exact matches, in which:
9 unique CDR3
3 unique J



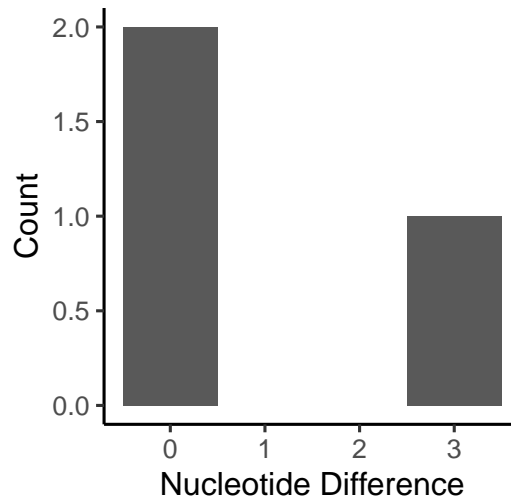
IGHV2-70*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



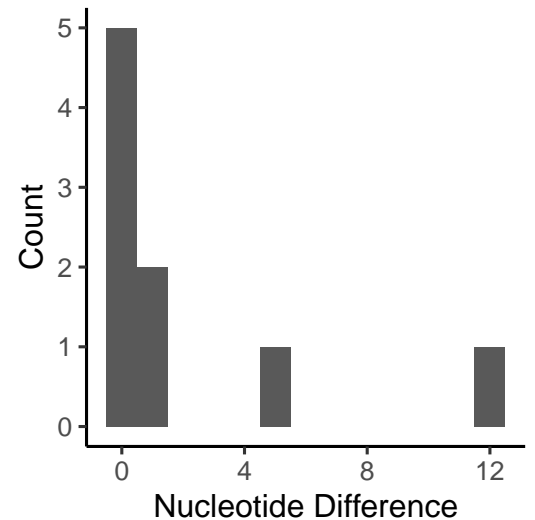
IGHV3-7*03

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



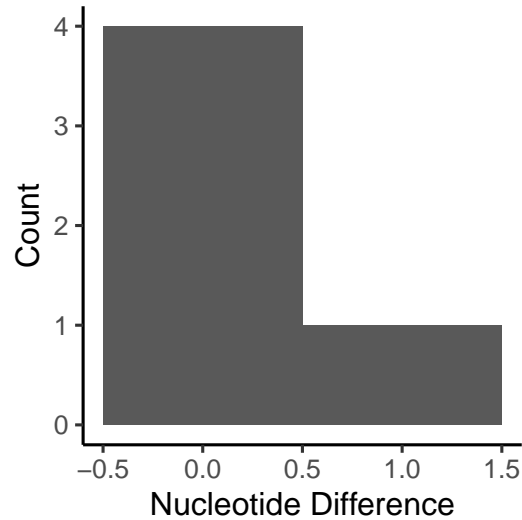
IGHV3-11*01

9 sequences assigned
5 (55.6%) exact matches, in which:
5 unique CDR3
3 unique J



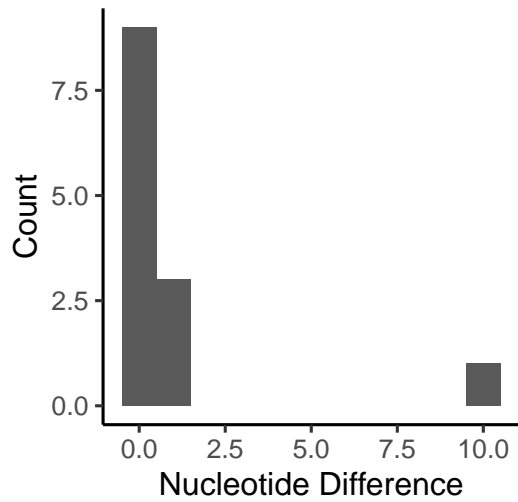
IGHV3-11*06

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



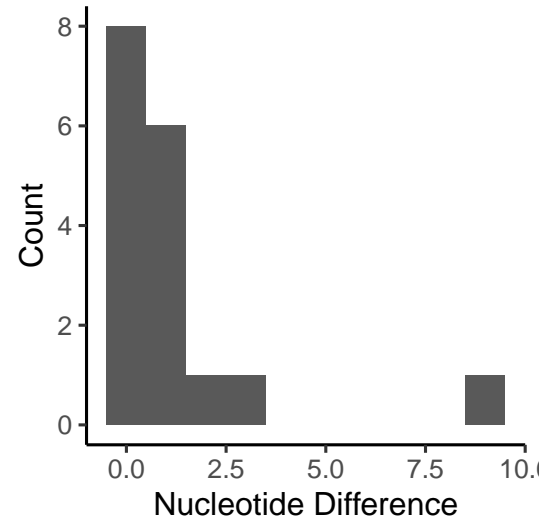
IGHV3-15*01

13 sequences assigned
9 (69.2%) exact matches, in which:
9 unique CDR3
3 unique J



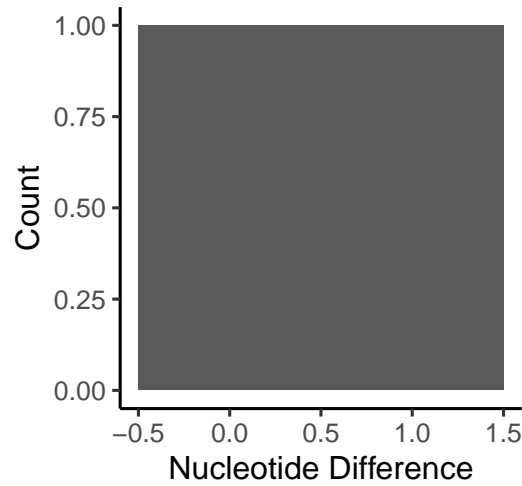
IGHV3-30-3*01

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



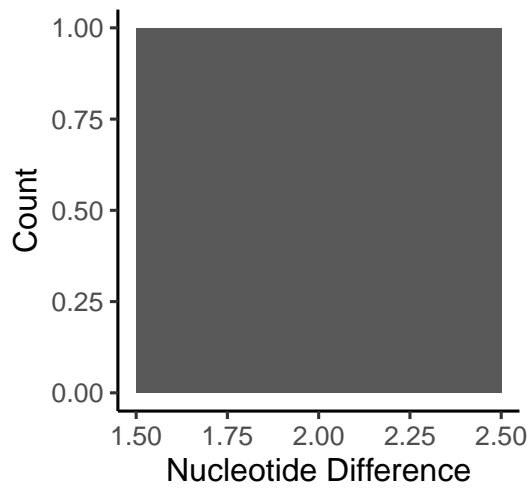
IGHV3-13*01

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



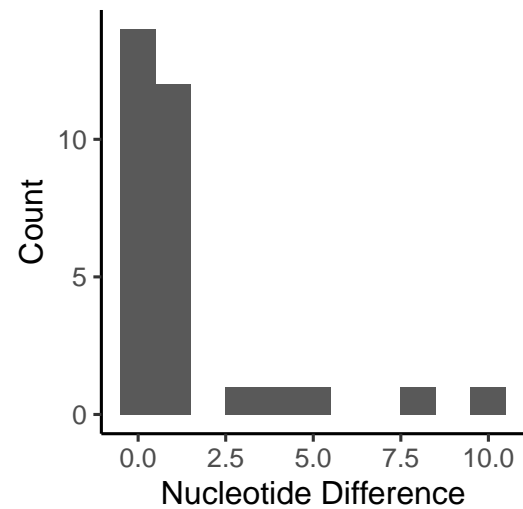
IGHV3-20*01

1 sequences assigned
No exact matches.



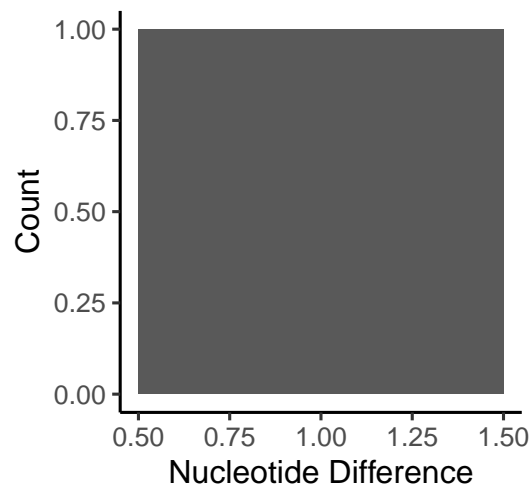
IGHV3-33*01

31 sequences assigned
14 (45.2%) exact matches, in which:
14 unique CDR3
5 unique J



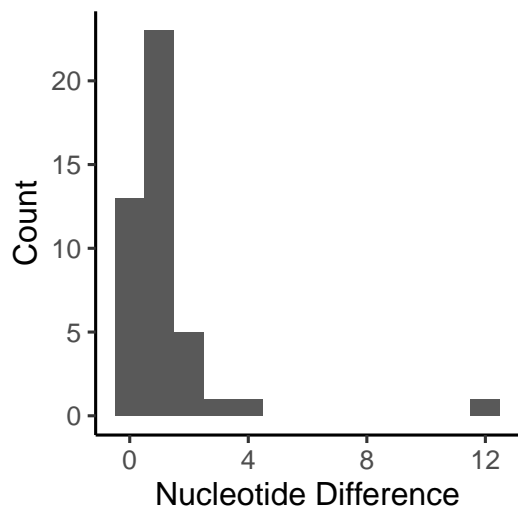
IGHV3-13*05

1 sequences assigned
No exact matches.



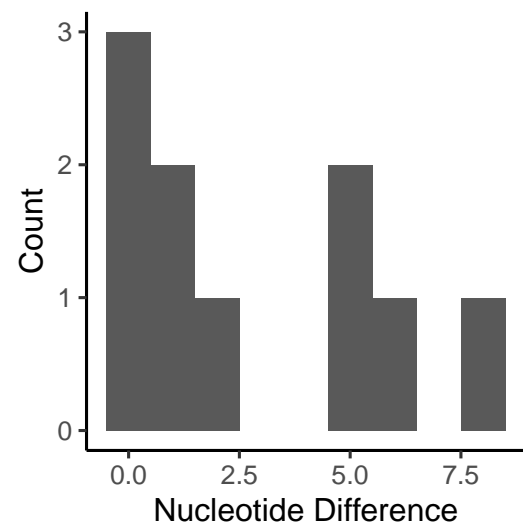
IGHV3-21*01

44 sequences assigned
13 (29.5%) exact matches, in which:
13 unique CDR3
4 unique J



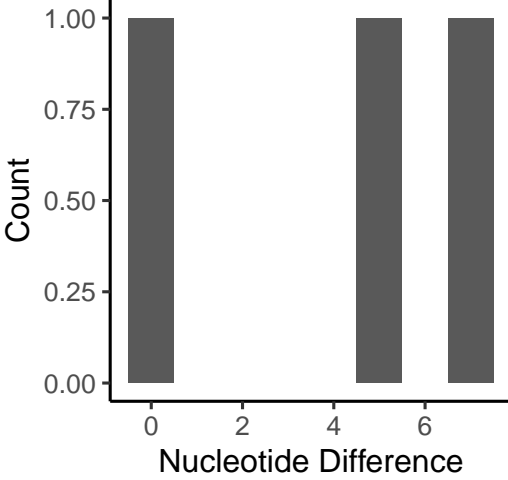
IGHV3-48*01

10 sequences assigned
3 (30%) exact matches, in which:
3 unique CDR3
2 unique J



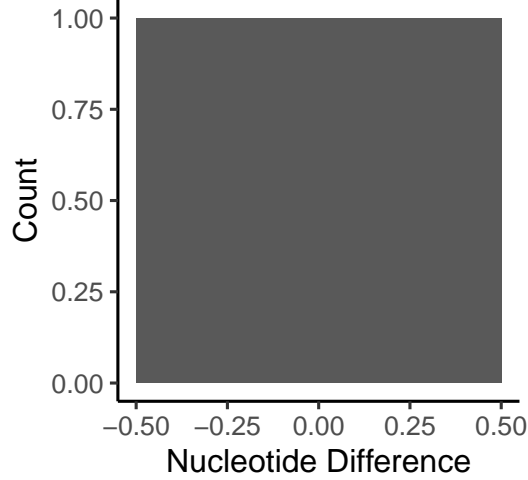
IGHV3-49*03

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



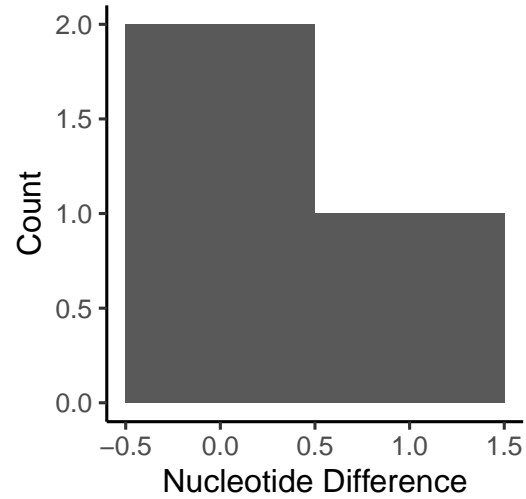
IGHV3-73*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



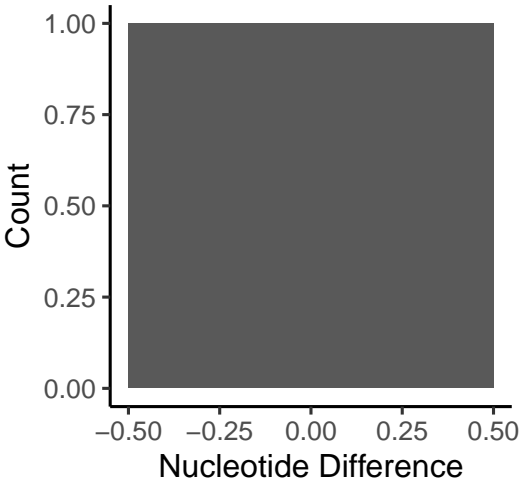
IGHV4-4*07

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



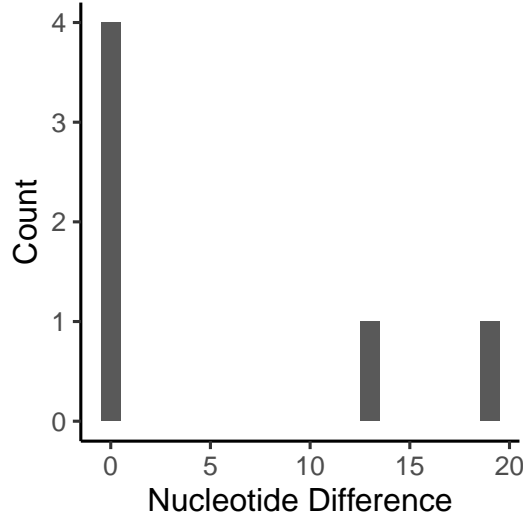
IGHV3-64*01

1 sequences assigned
1 (100%) exact matches, in which:
1 unique CDR3
1 unique J



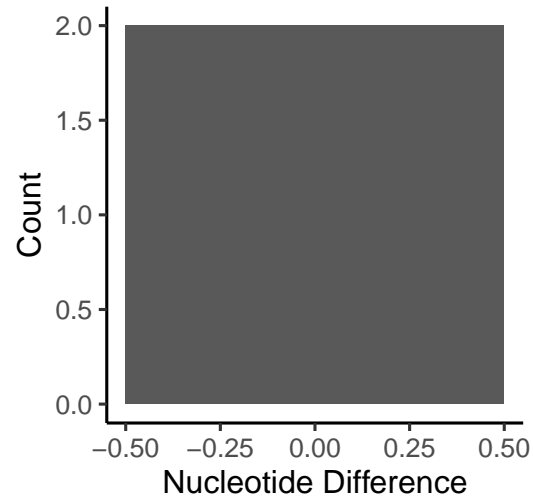
IGHV3-74*01

6 sequences assigned
4 (66.7%) exact matches, in which:
4 unique CDR3
3 unique J



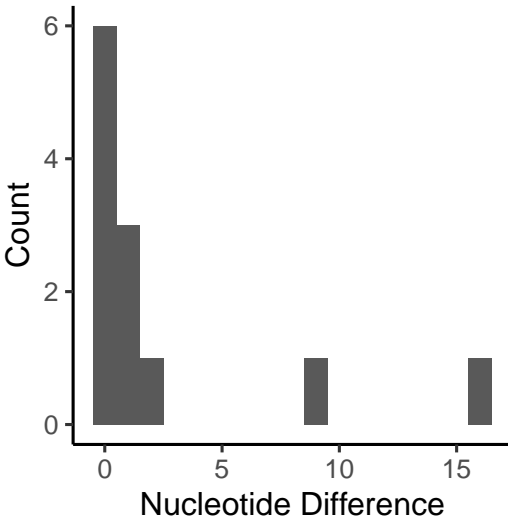
IGHV4-30-4*01

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



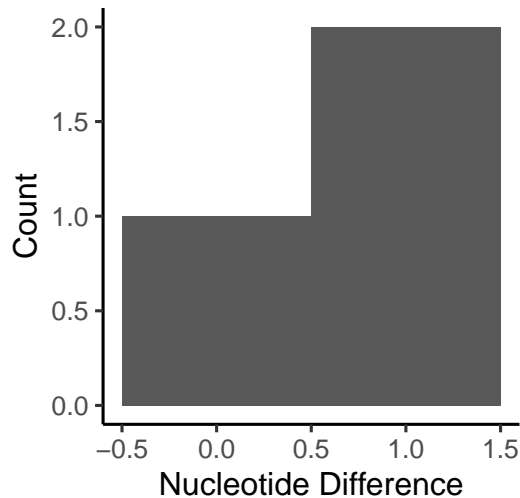
IGHV3-66*01

12 sequences assigned
6 (50%) exact matches, in which:
6 unique CDR3
2 unique J



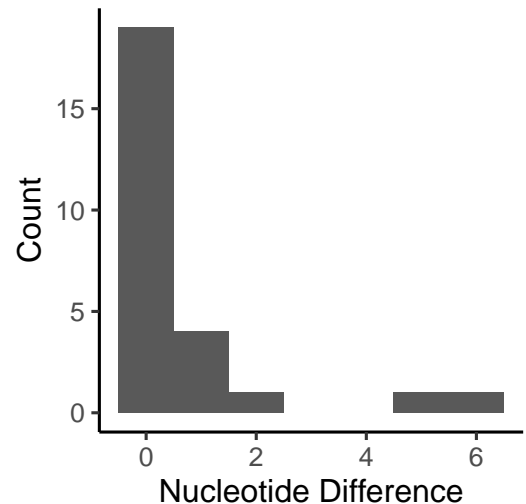
IGHV3-64D*06

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



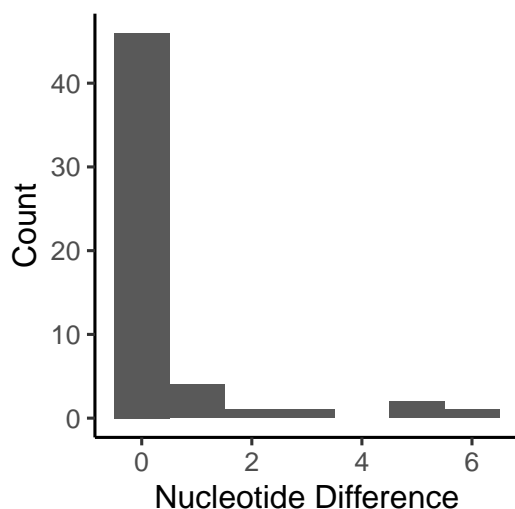
IGHV4-31*03

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



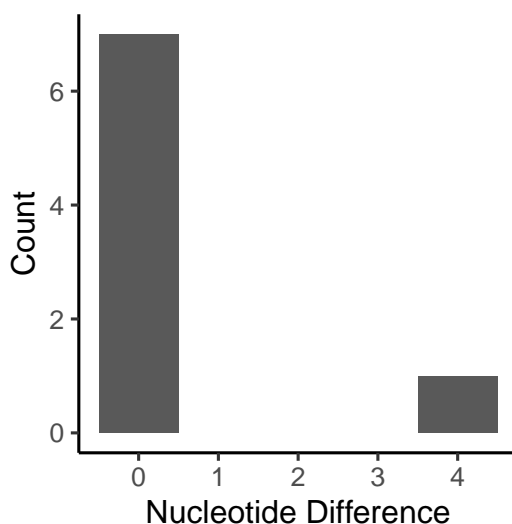
IGHV4-34*01

55 sequences assigned
46 (83.6%) exact matches, in which:
46 unique CDR3
6 unique J



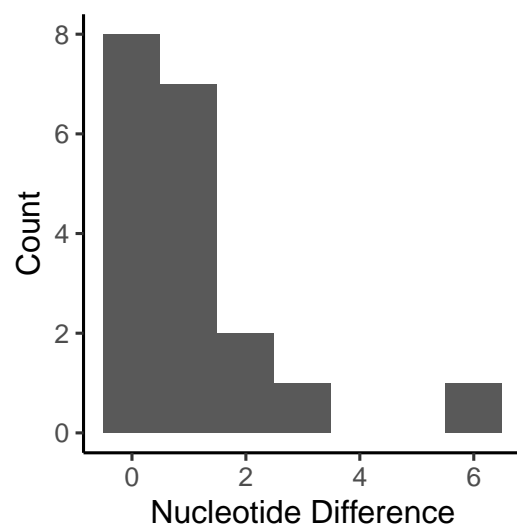
IGHV4-59*08

8 sequences assigned
7 (87.5%) exact matches, in which:
7 unique CDR3
4 unique J



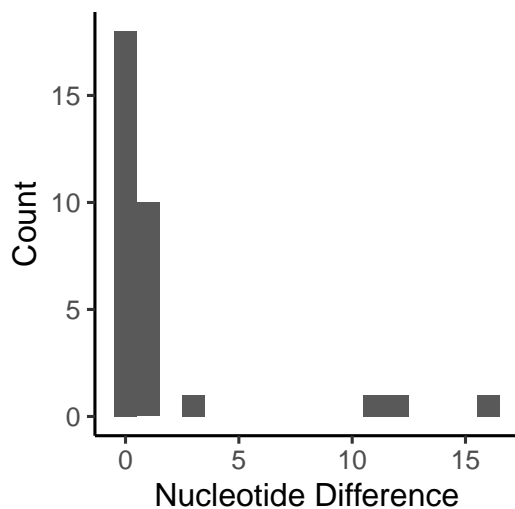
IGHV5-51*03

19 sequences assigned
8 (42.1%) exact matches, in which:
8 unique CDR3
3 unique J



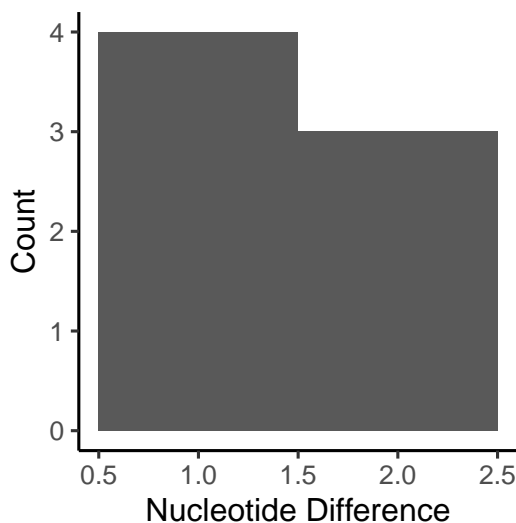
IGHV4-39*01

32 sequences assigned
18 (56.2%) exact matches, in which:
18 unique CDR3
6 unique J



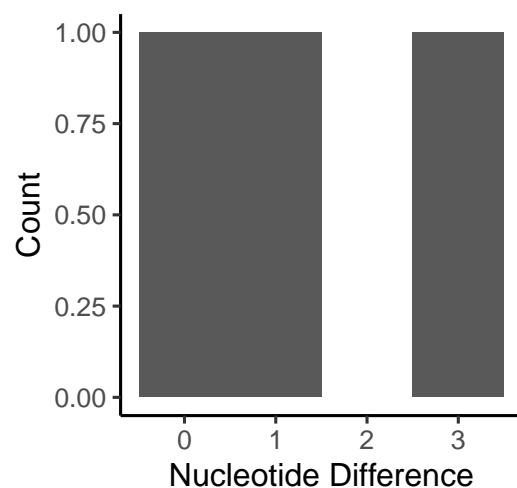
IGHV4-61*02

7 sequences assigned
No exact matches.



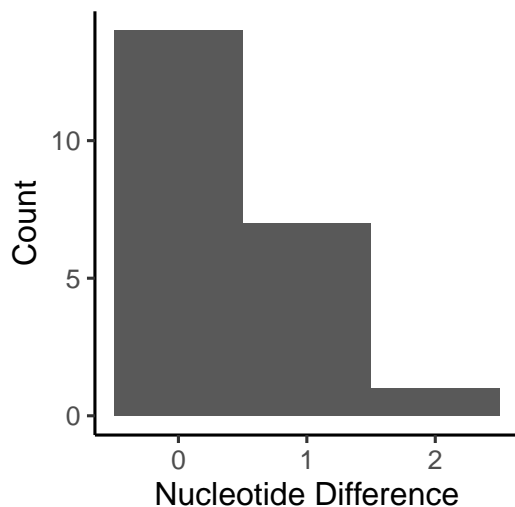
IGHV6-1*01

3 sequences assigned
1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J



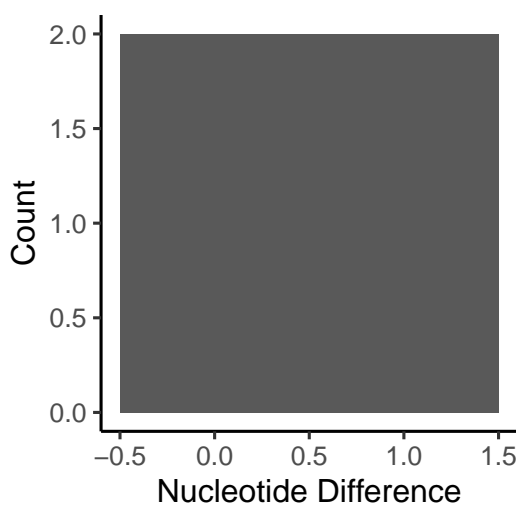
IGHV4-59*01

22 sequences assigned
14 (63.6%) exact matches, in which:
14 unique CDR3
7 unique J



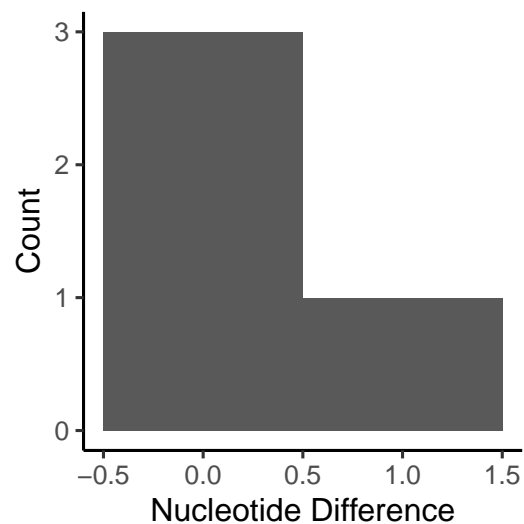
IGHV5-10-1*03

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

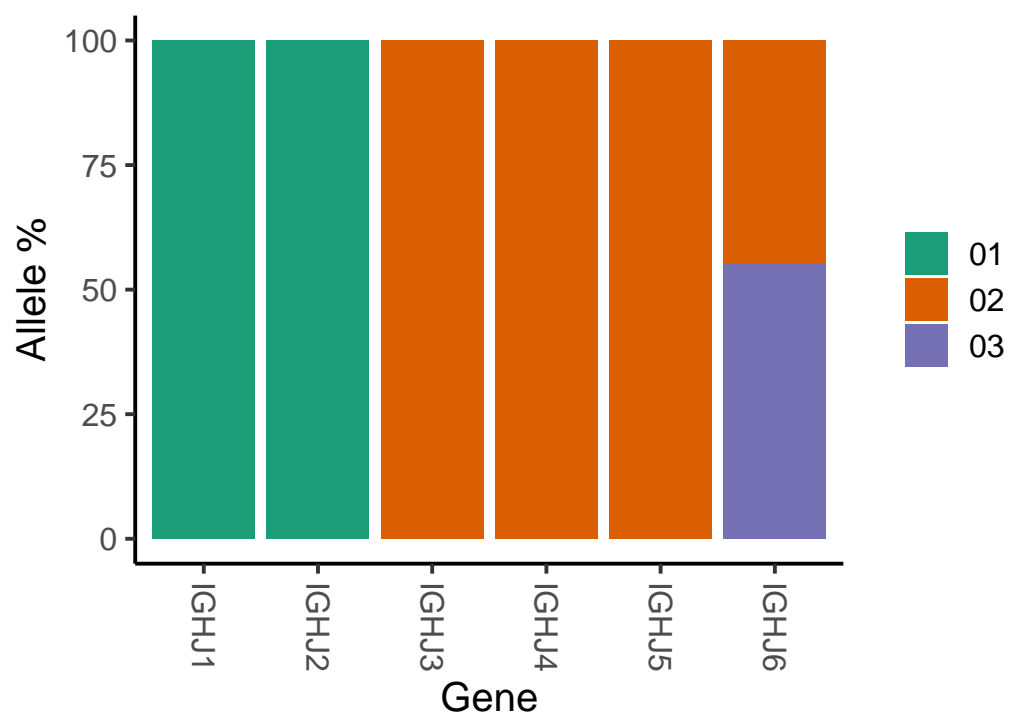


IGHV7-4-1*02

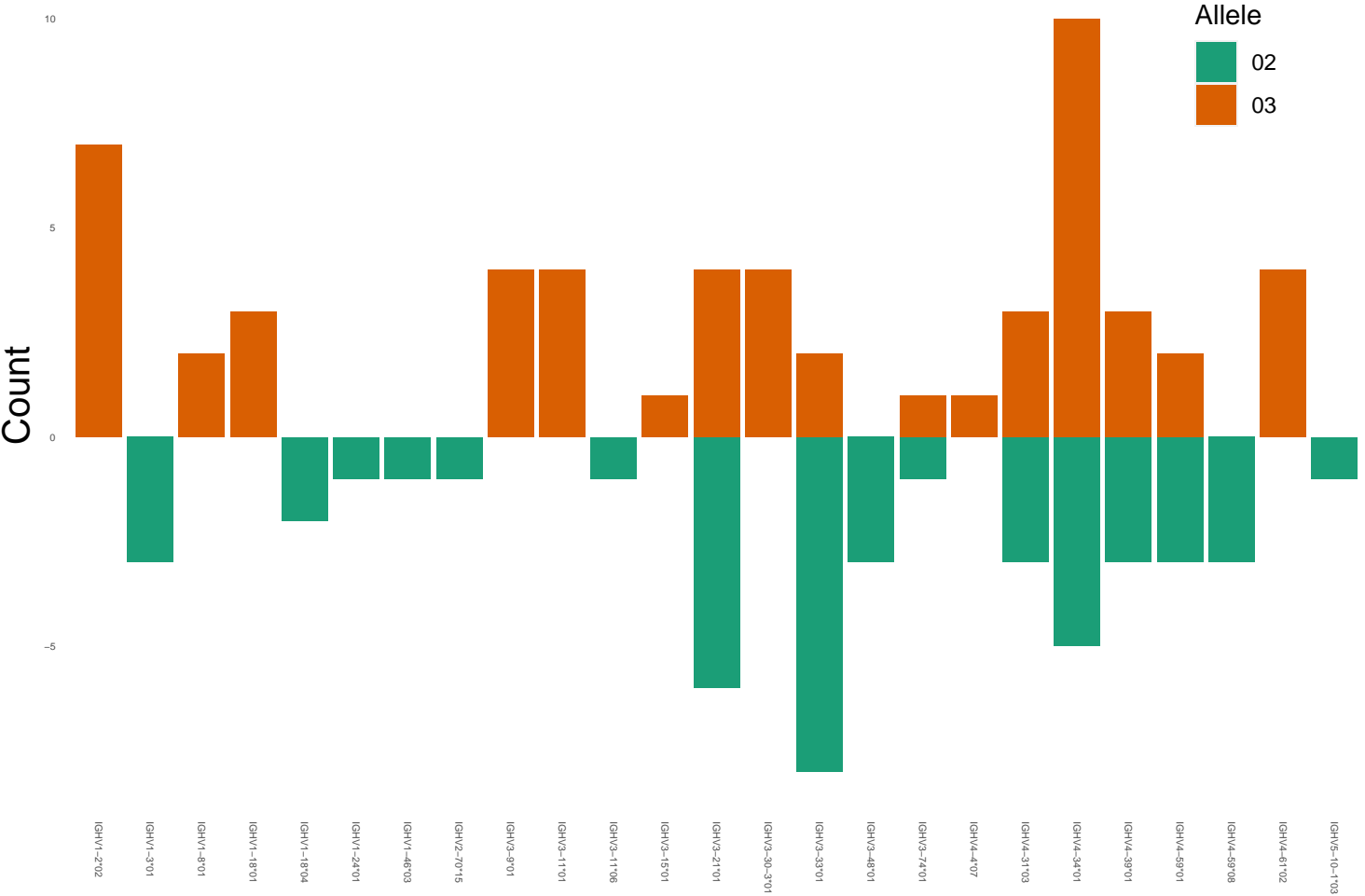
4 sequences assigned
3 (75%) exact matches, in which:
3 unique CDR3
2 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage



[illegible]