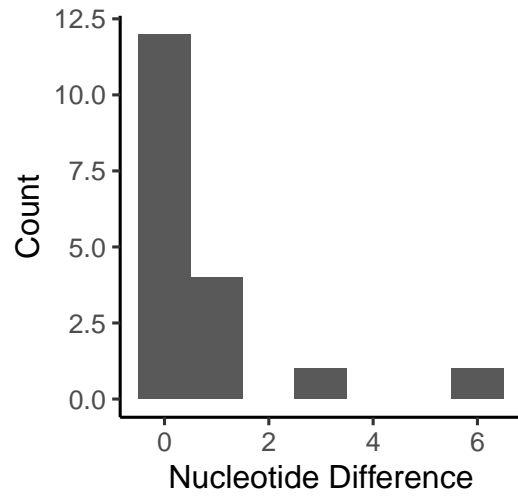


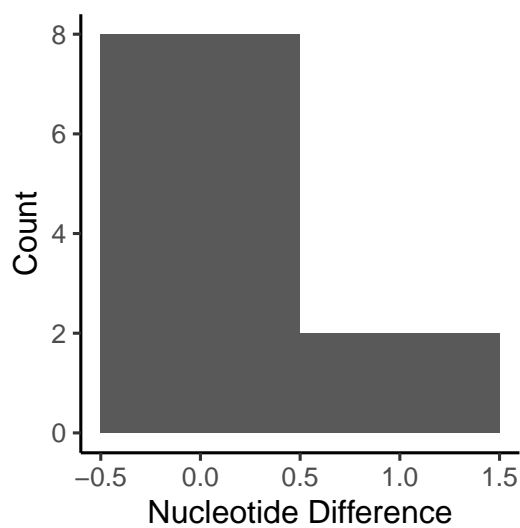
### IGHV1-2\*02

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



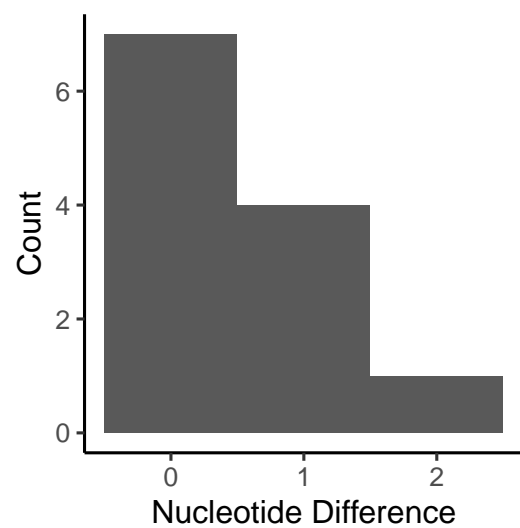
### IGHV1-18\*01

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



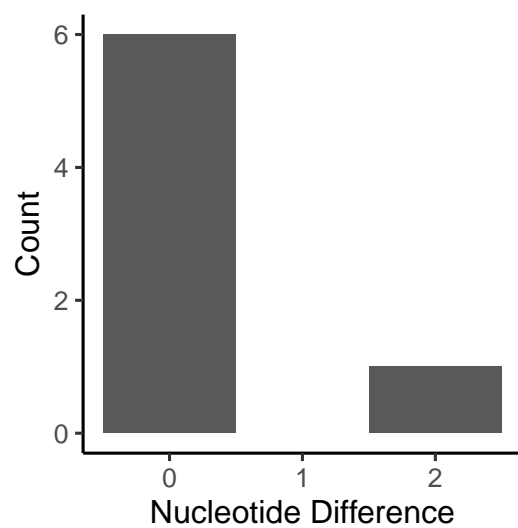
### IGHV1-46\*03

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



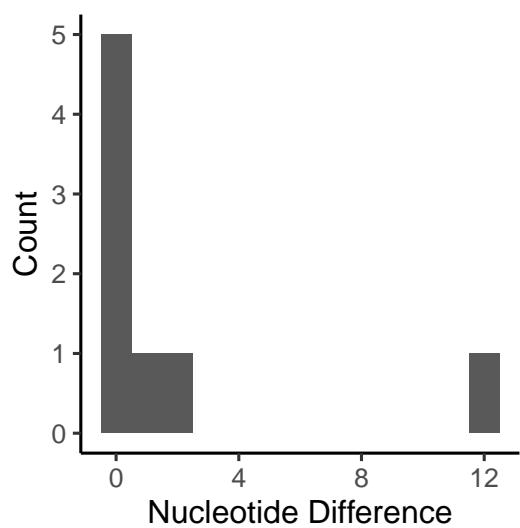
### IGHV1-3\*01

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



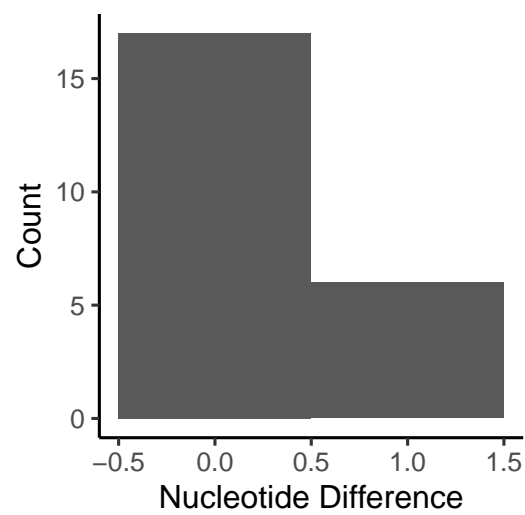
### IGHV1-18\*04

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



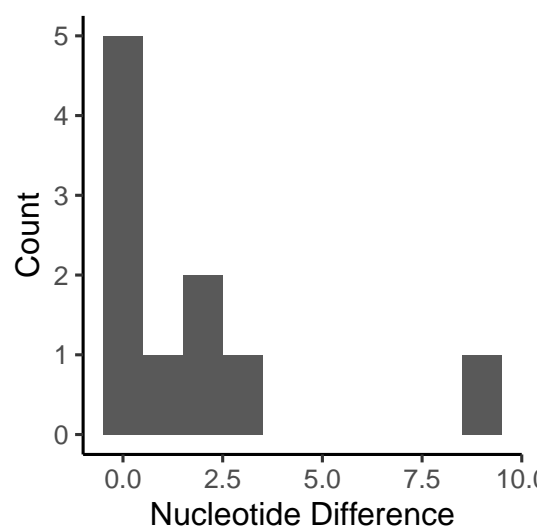
### IGHV1-69\*01

23 sequences assigned  
17 (73.9%) exact matches, in which:  
17 unique CDR3  
6 unique J



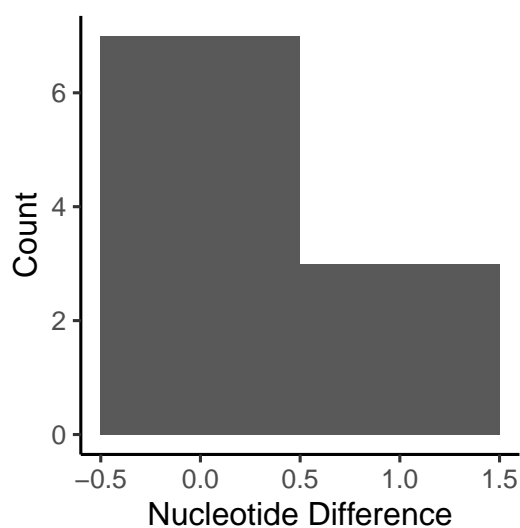
### IGHV1-8\*01

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



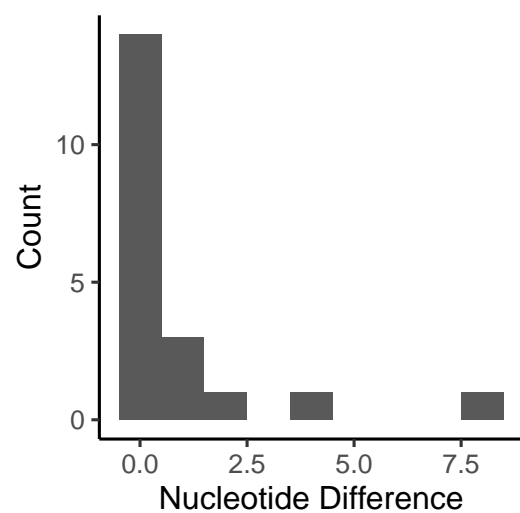
### IGHV1-24\*01

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



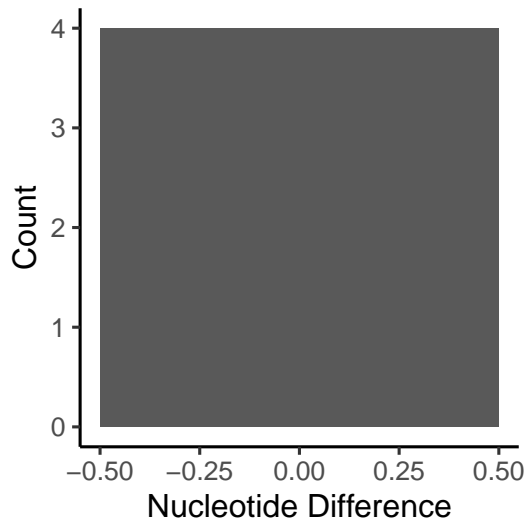
### IGHV1-69\*04

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



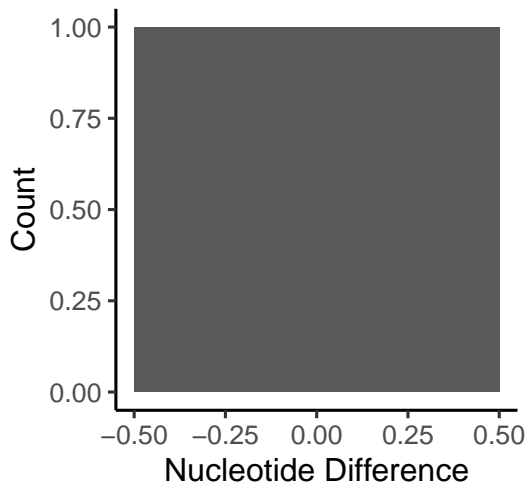
### IGHV2-5\*01

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



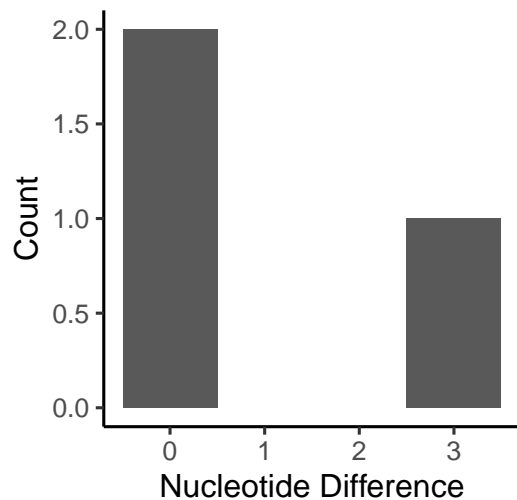
### IGHV2-70\*01

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



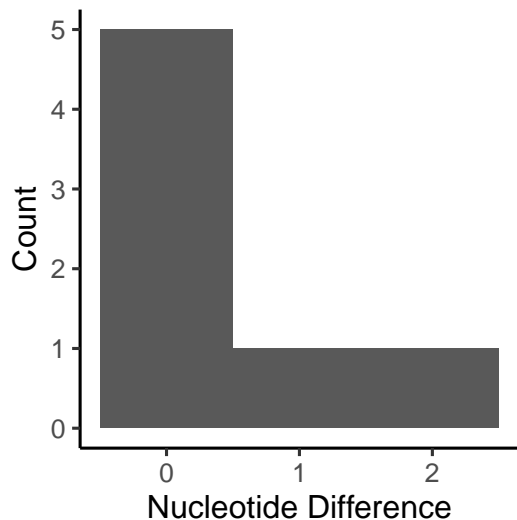
### IGHV3-7\*03

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



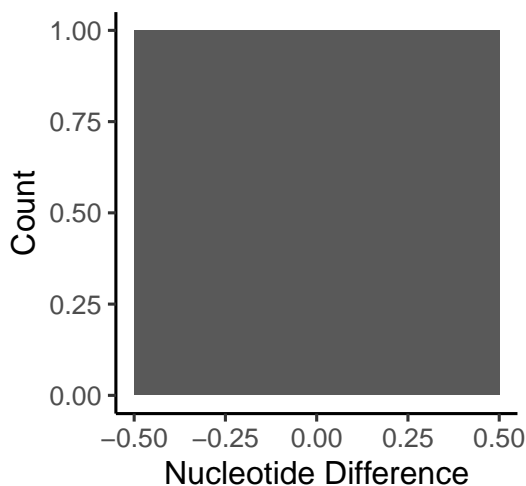
### IGHV2-5\*02

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



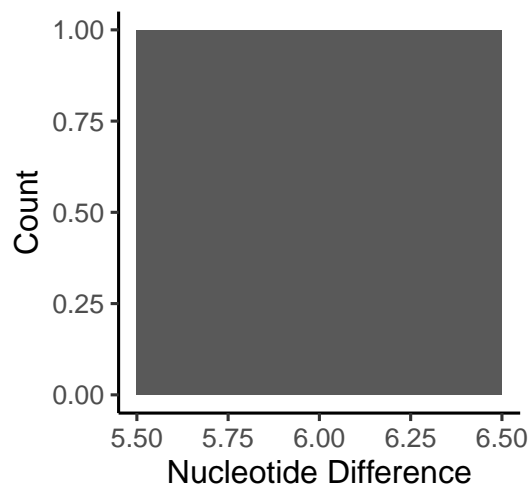
### IGHV2-70\*15

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



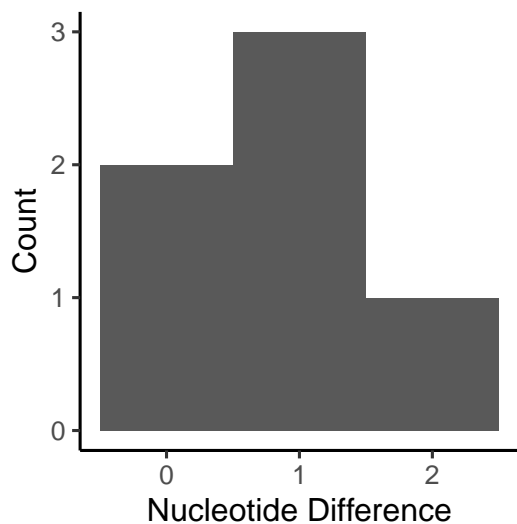
### IGHV3-7\*04

1 sequences assigned  
No exact matches.



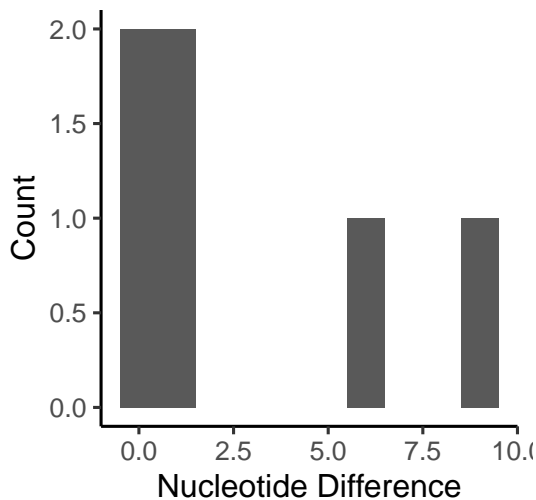
### IGHV2-26\*01

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



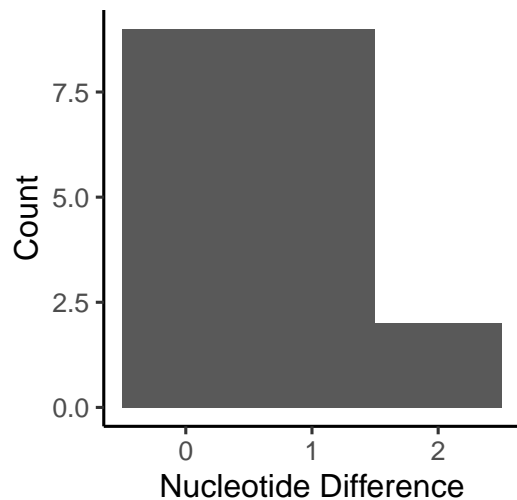
### IGHV3-7\*01

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



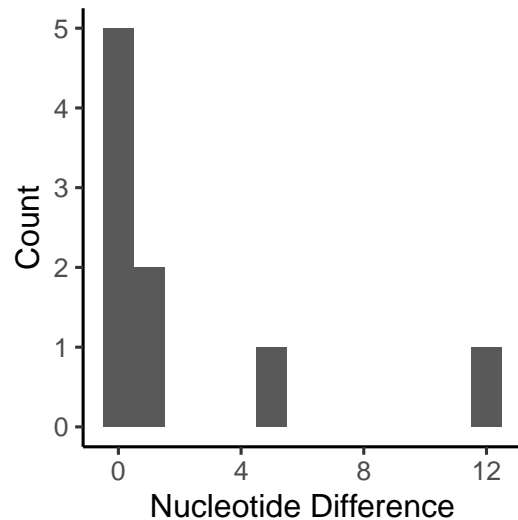
### IGHV3-9\*01

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



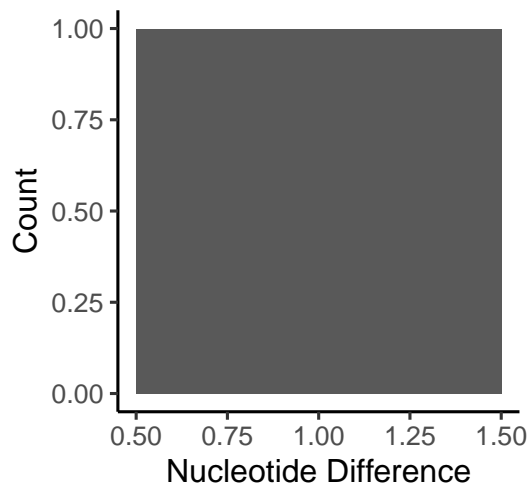
### IGHV3-11\*01

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



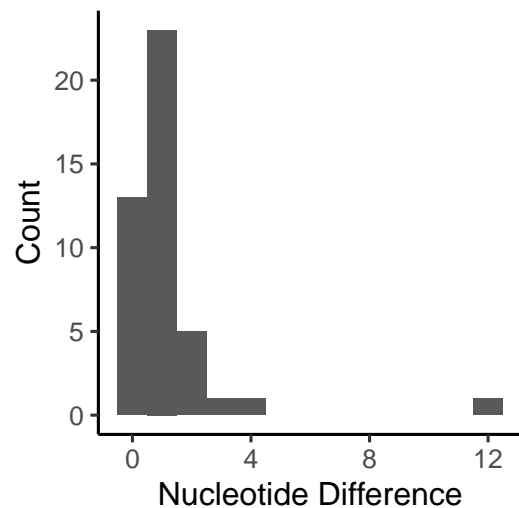
### IGHV3-13\*05

1 sequences assigned  
No exact matches.



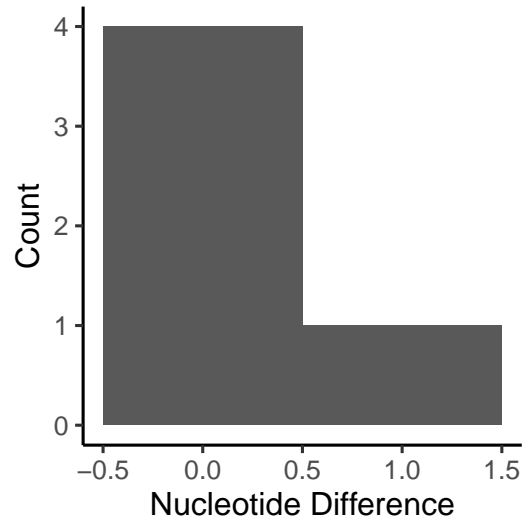
### IGHV3-21\*01

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



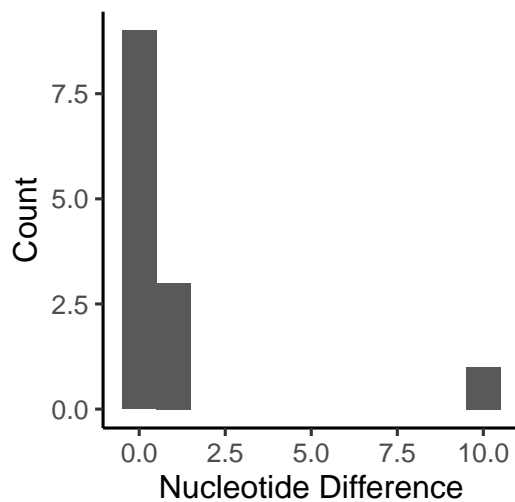
### IGHV3-11\*06

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



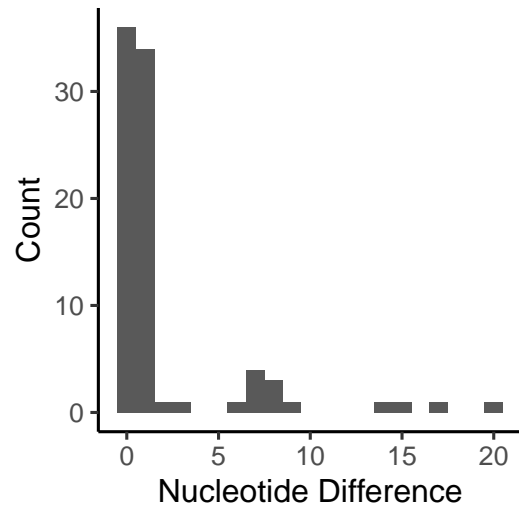
### IGHV3-15\*01

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



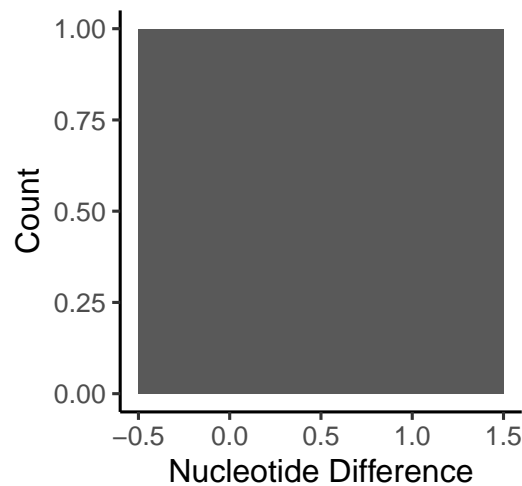
### IGHV3-23\*01

88 sequences assigned  
36 (40.9%) exact matches, in which:  
36 unique CDR3  
5 unique J



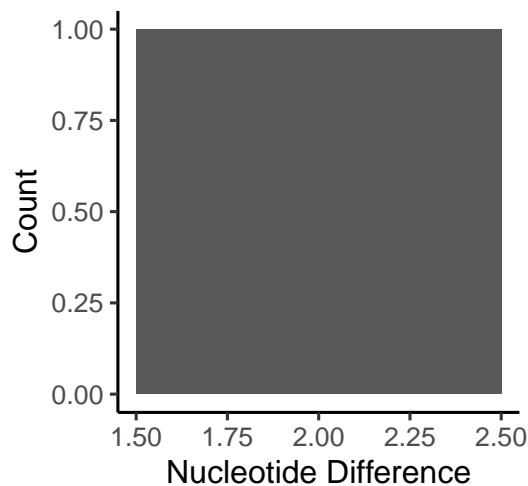
### IGHV3-13\*01

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



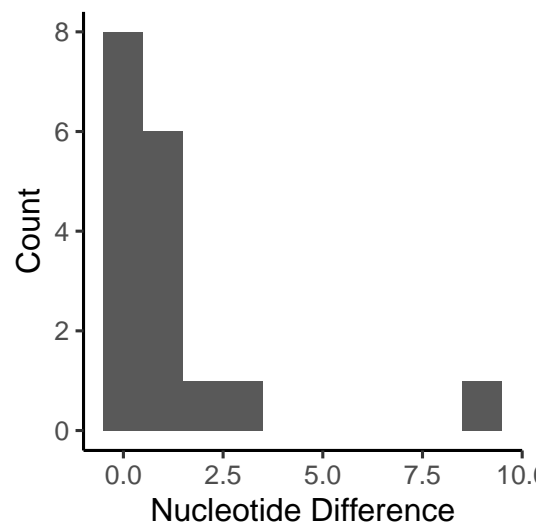
### IGHV3-20\*01

1 sequences assigned  
No exact matches.



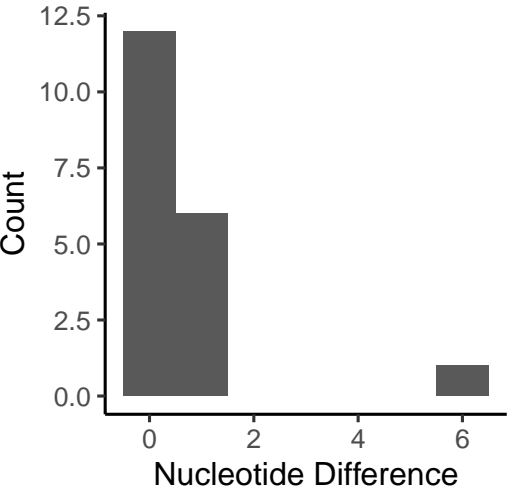
### IGHV3-30-3\*01

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



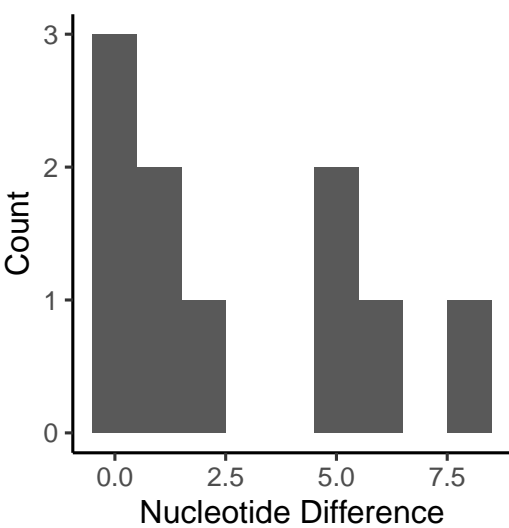
IGHV3-30\*04

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



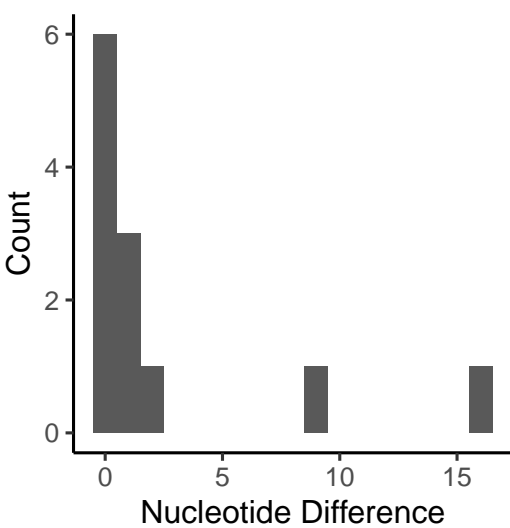
IGHV3-48\*01

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



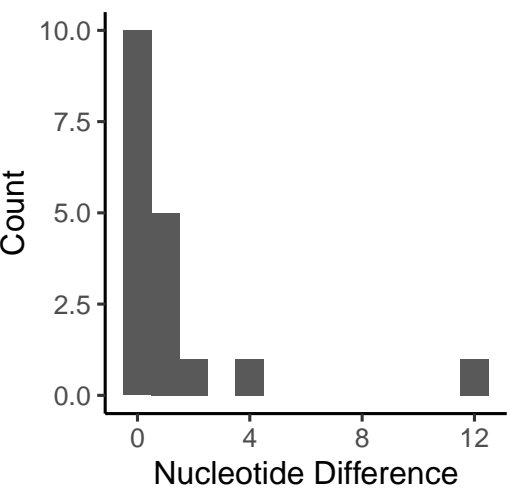
IGHV3-66\*01

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



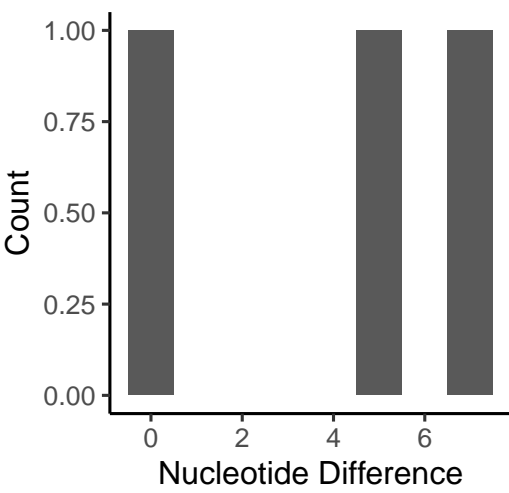
IGHV3-30\*18

18 sequences assigned  
10 (55.6%) exact matches, in which:  
10 unique CDR3  
4 unique J



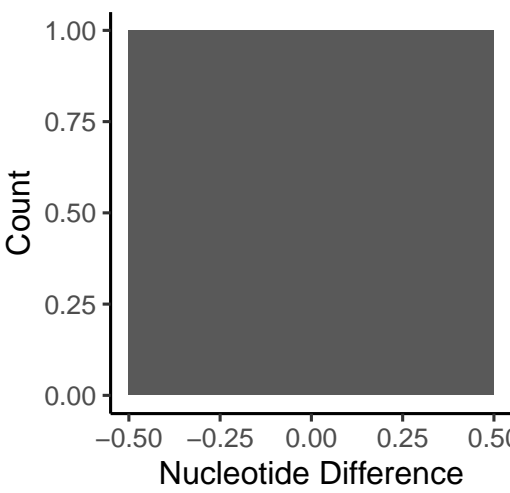
IGHV3-49\*03

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



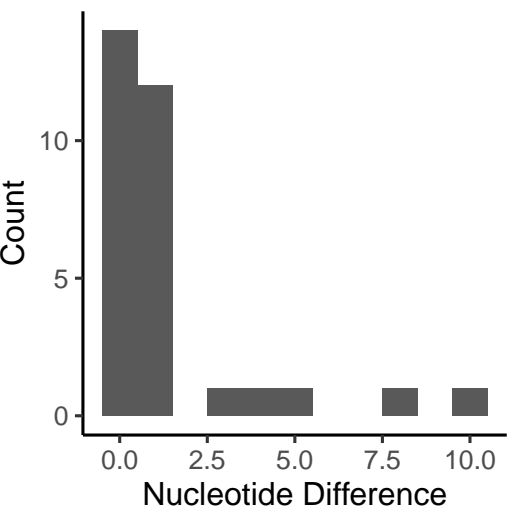
IGHV3-73\*01

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



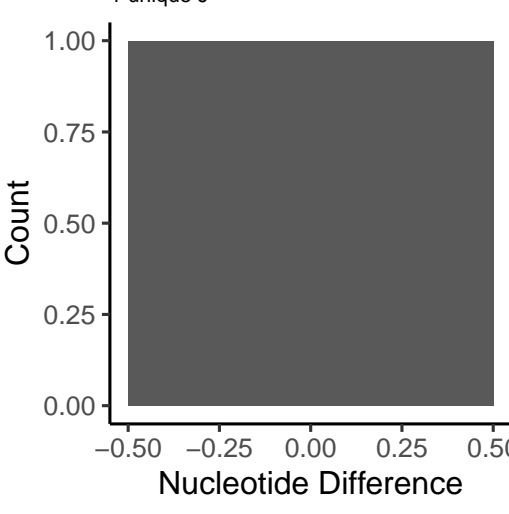
IGHV3-33\*01

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



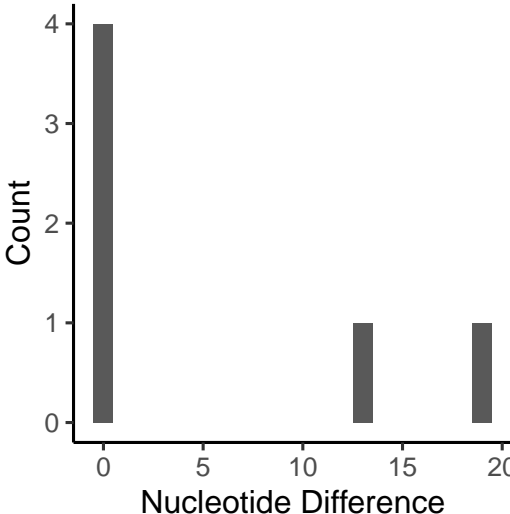
IGHV3-64\*01

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



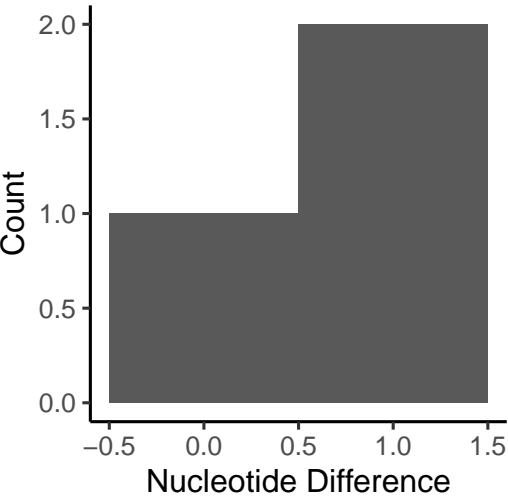
IGHV3-74\*01

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



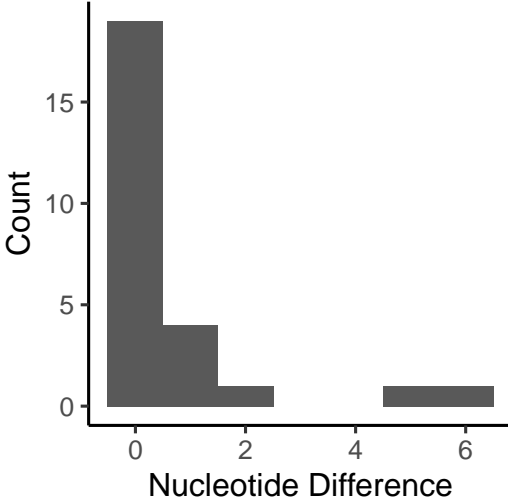
IGHV3–64D\*06

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



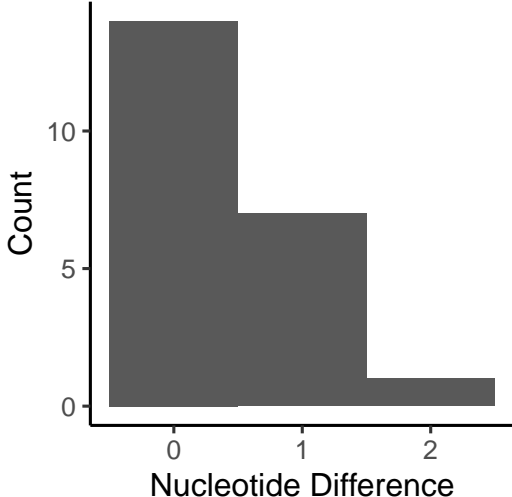
IGHV4–31\*03

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



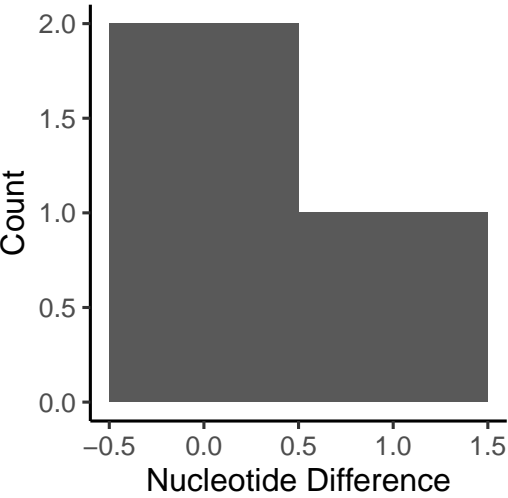
IGHV4–59\*01

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



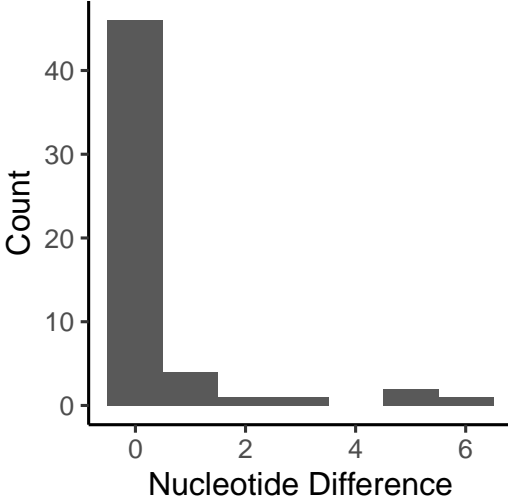
IGHV4–4\*07

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



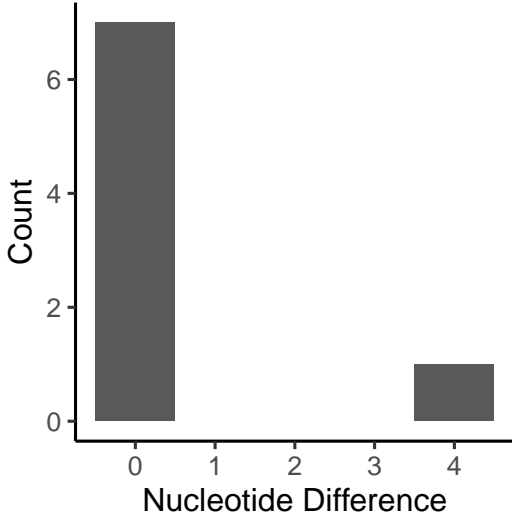
IGHV4–34\*01

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



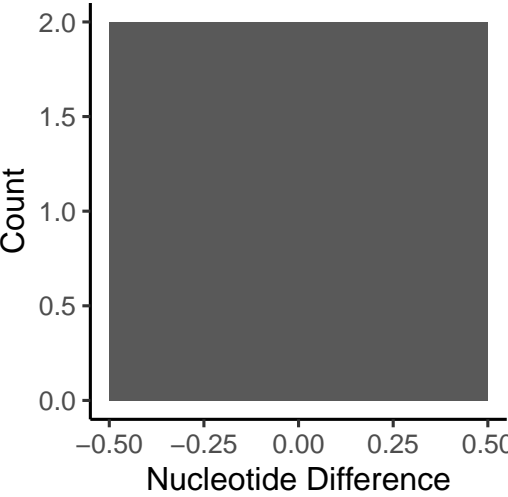
IGHV4–59\*08

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



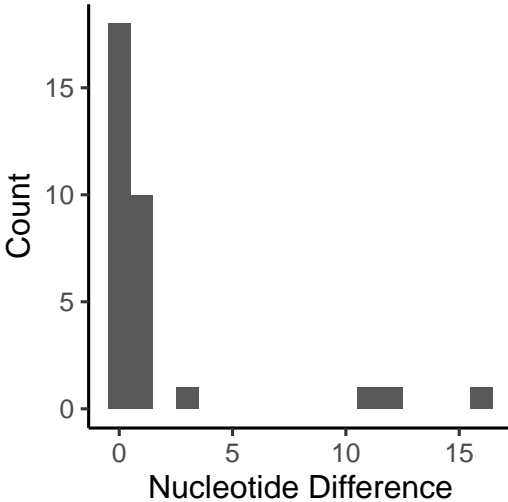
IGHV4–30–4\*01

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



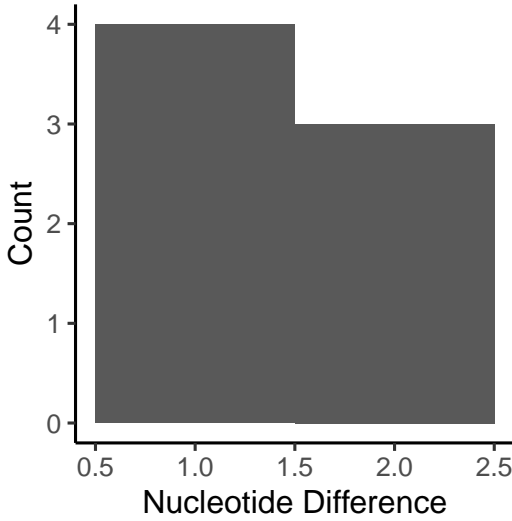
IGHV4–39\*01

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



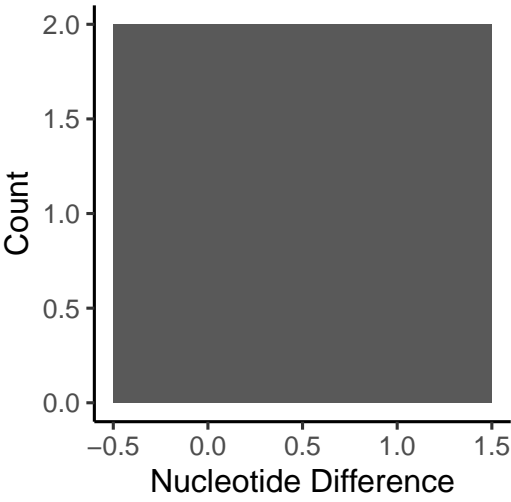
IGHV4–61\*02

7 sequences assigned  
No exact matches.



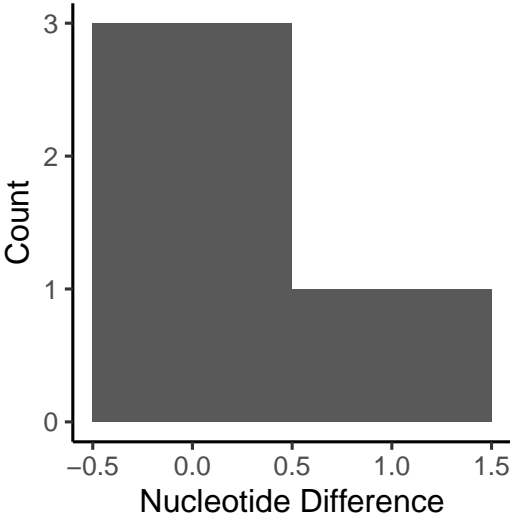
IGHV5-10-1\*03

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



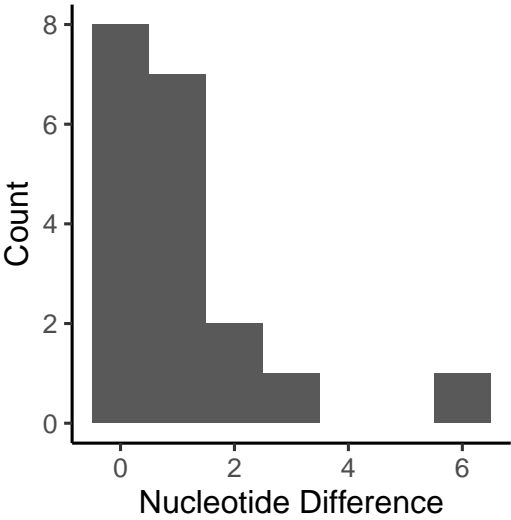
IGHV7-4-1\*02

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



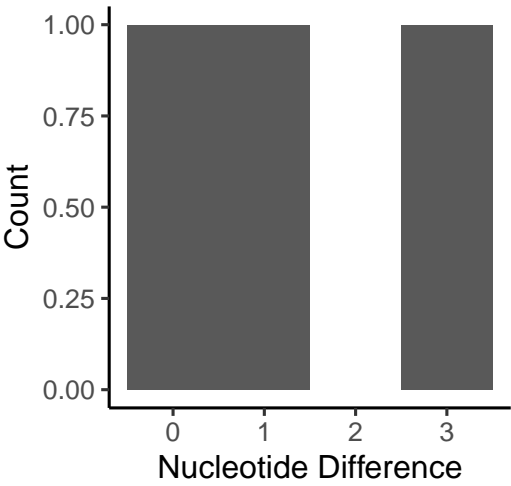
IGHV5-51\*03

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

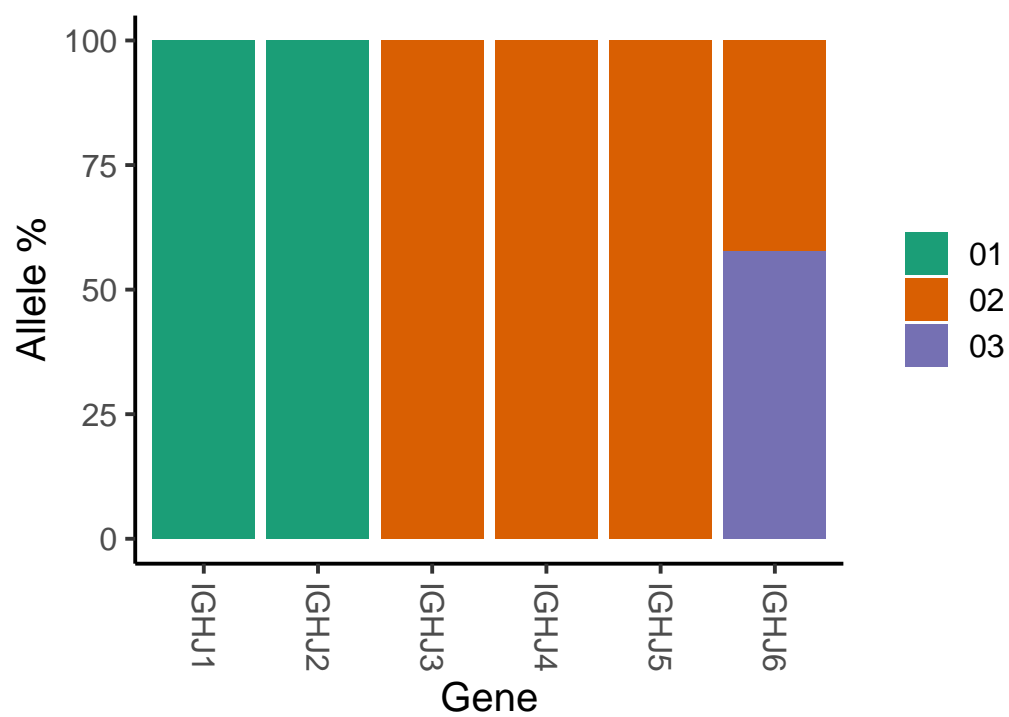


IGHV6-1\*01

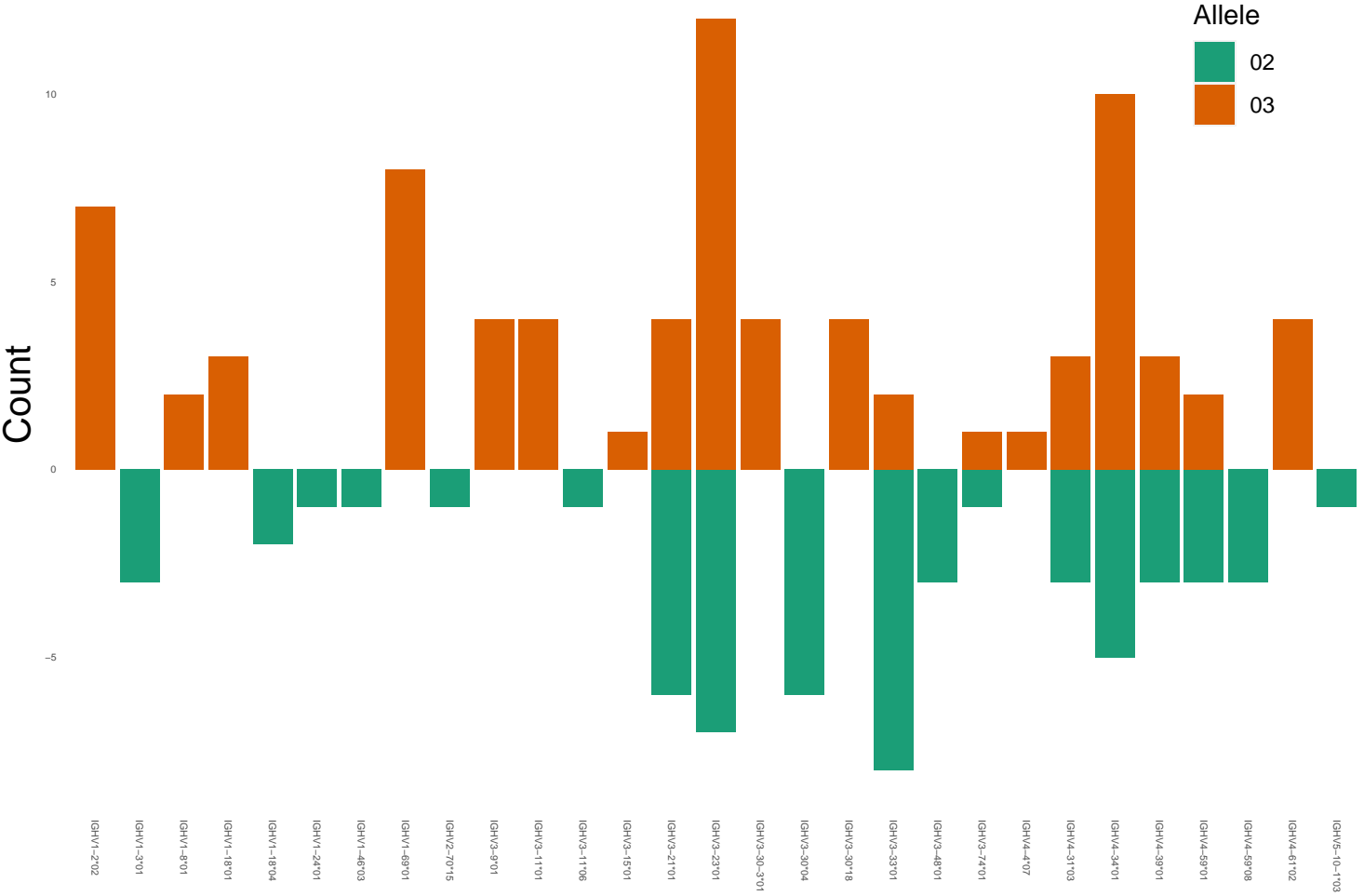
3 sequences assigned  
1 (33.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage





Warning – no inferred sequences found.