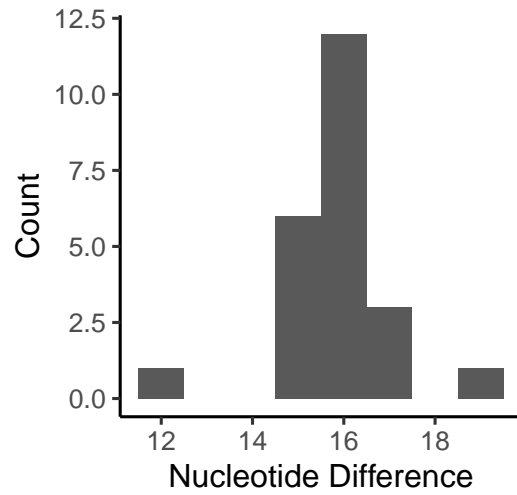


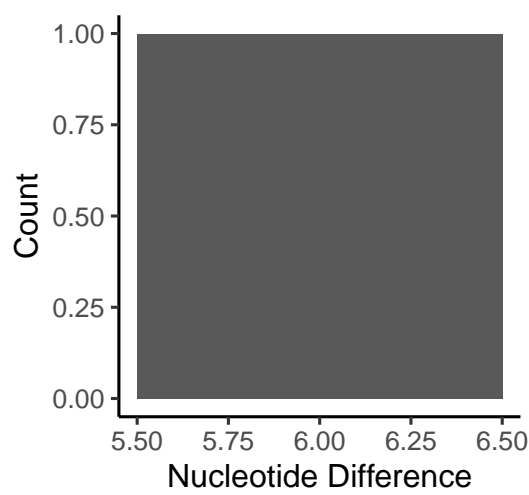
### IGHV1-2\*02

23 sequences assigned  
No exact matches.



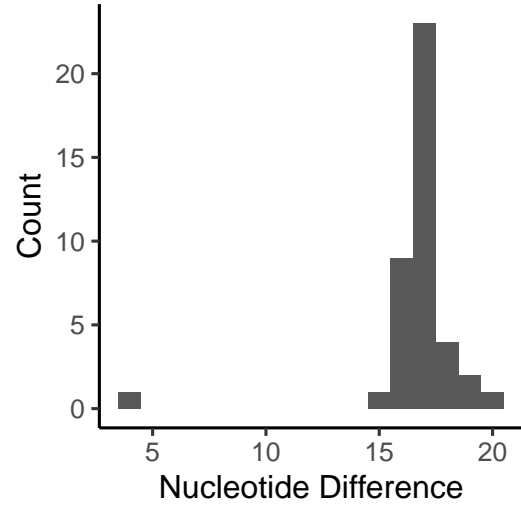
### IGHV1-8\*02

1 sequences assigned  
No exact matches.



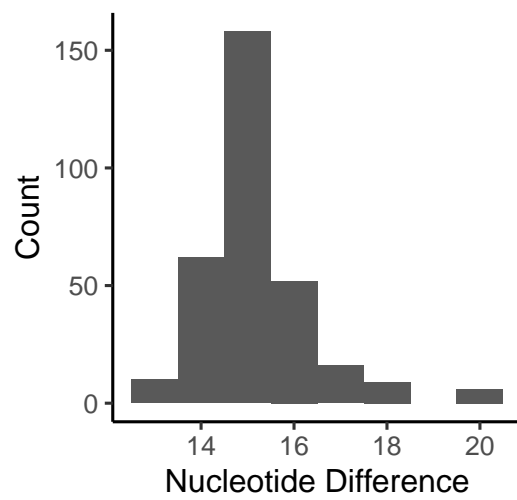
### IGHV1-46\*01

42 sequences assigned  
No exact matches.



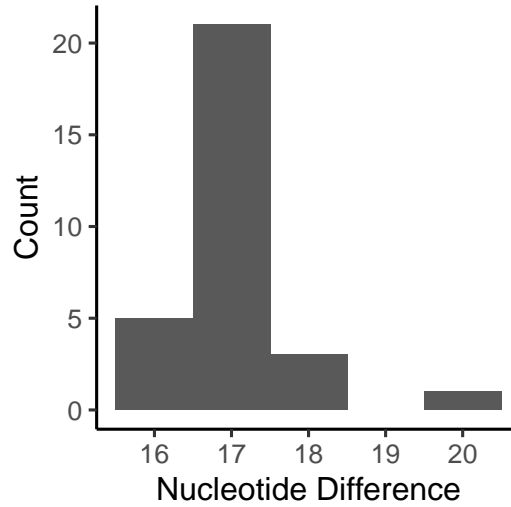
### IGHV1-2\*04

313 sequences assigned  
No exact matches.



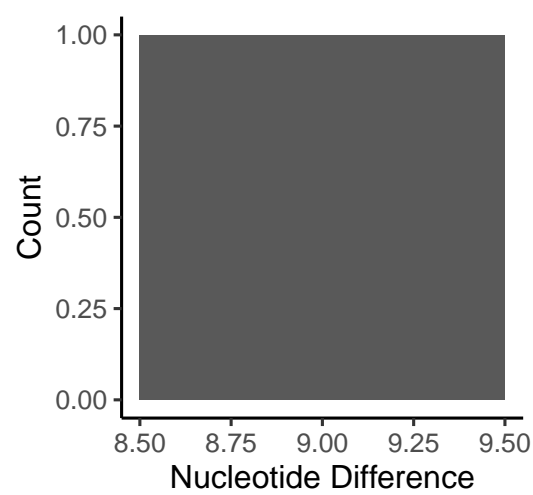
### IGHV1-18\*01

32 sequences assigned  
No exact matches.



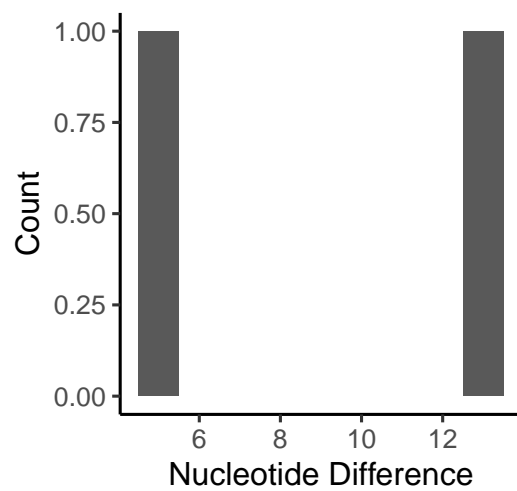
### IGHV1-46\*02

1 sequences assigned  
No exact matches.



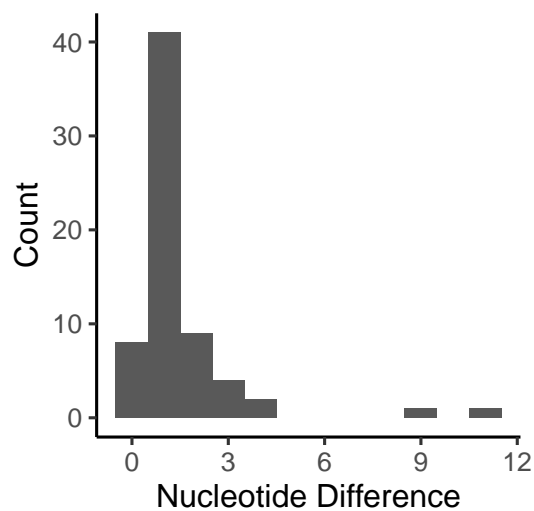
### IGHV1-8\*01

2 sequences assigned  
No exact matches.



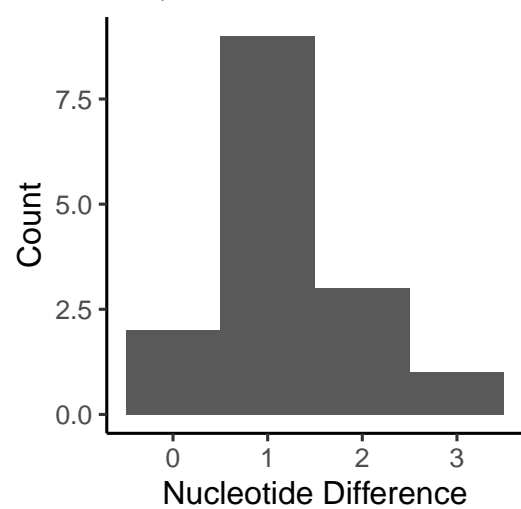
### IGHV1-18\*04

66 sequences assigned  
8 (12.1%) exact matches, in which:  
4 unique CDR3  
1 unique J



### IGHV1-46\*03

18 sequences assigned  
2 (11.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



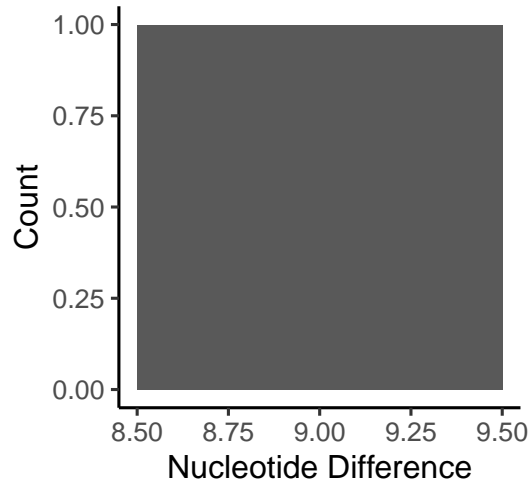
### IGHV1-69\*01\_12\_13

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



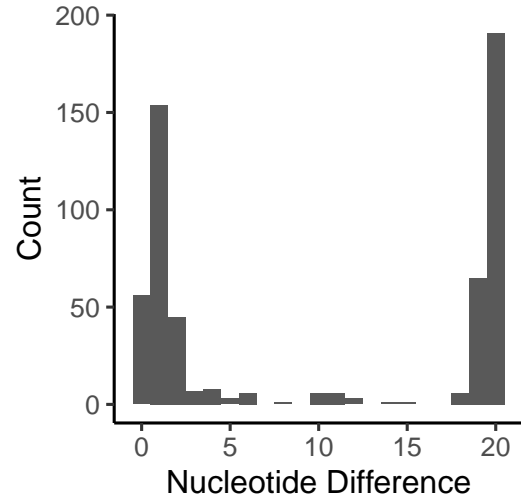
### IGHV2-26\*01

1 sequences assigned  
No exact matches.



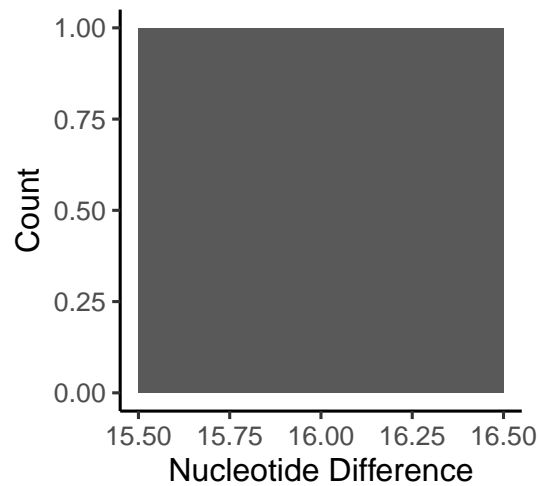
### IGHV3-7\*03

673 sequences assigned  
56 (8.3%) exact matches, in which:  
39 unique CDR3  
2 unique J



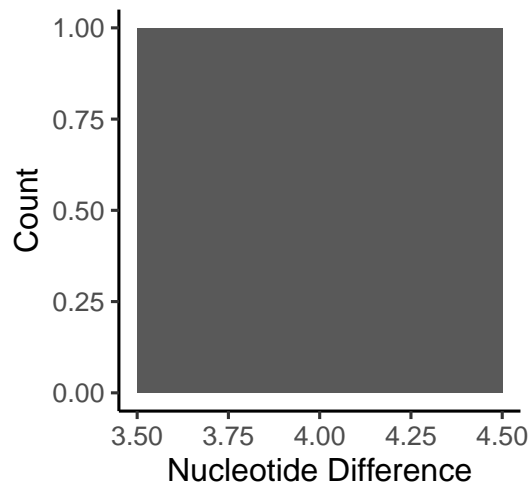
### IGHV1-69\*04\_09

1 sequences assigned  
No exact matches.



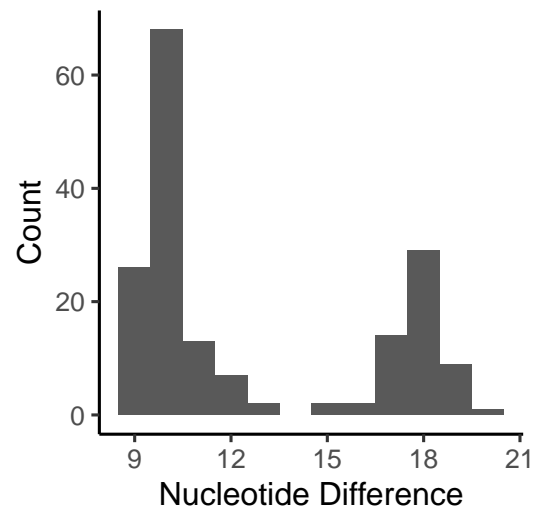
### IGHV2-70\*01

1 sequences assigned  
No exact matches.



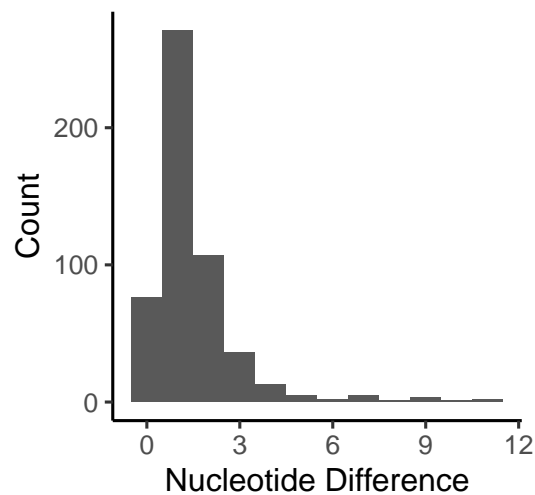
### IGHV3-9\*01

180 sequences assigned  
No exact matches.



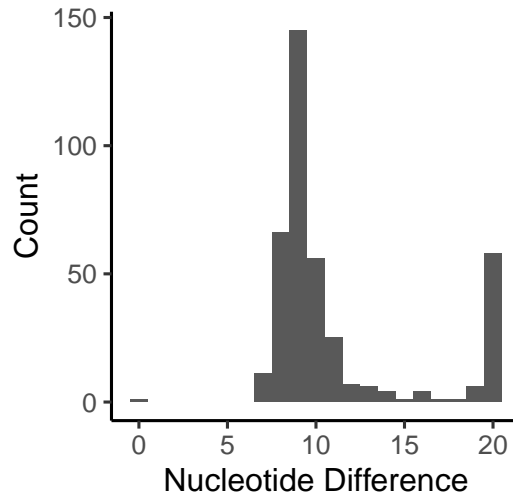
### IGHV2-5\*01

522 sequences assigned  
76 (14.6%) exact matches, in which:  
48 unique CDR3  
1 unique J



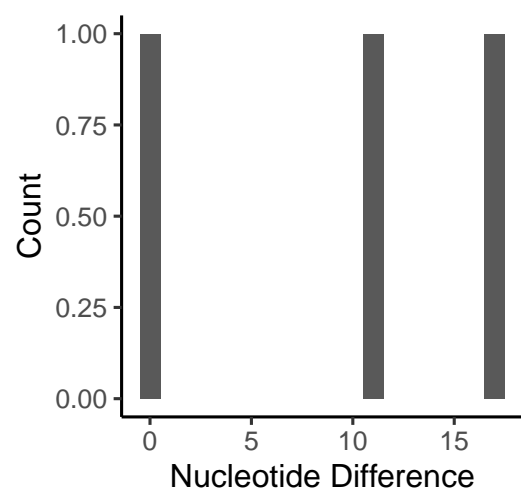
### IGHV3-7\*01

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



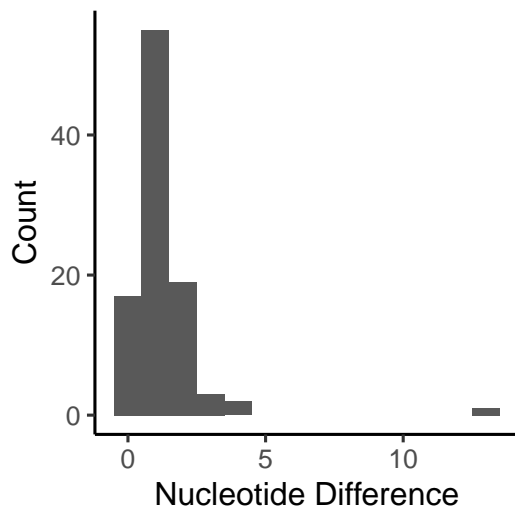
### IGHV3-11\*01

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



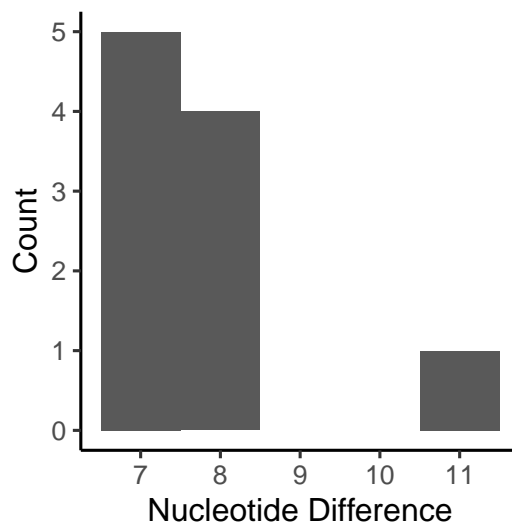
### IGHV3-11\*04

97 sequences assigned  
17 (17.5%) exact matches, in which:  
11 unique CDR3  
2 unique J



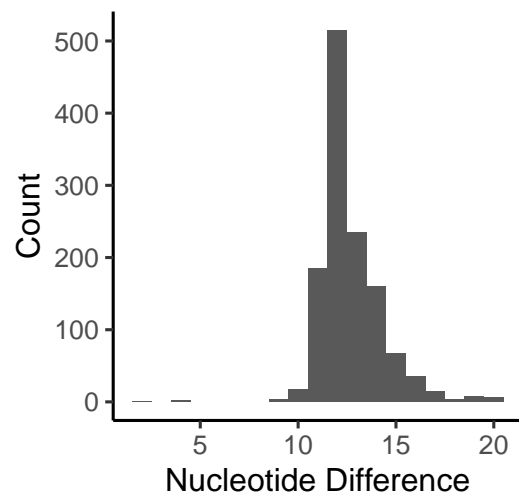
### IGHV3-15\*05

15 sequences assigned  
No exact matches.



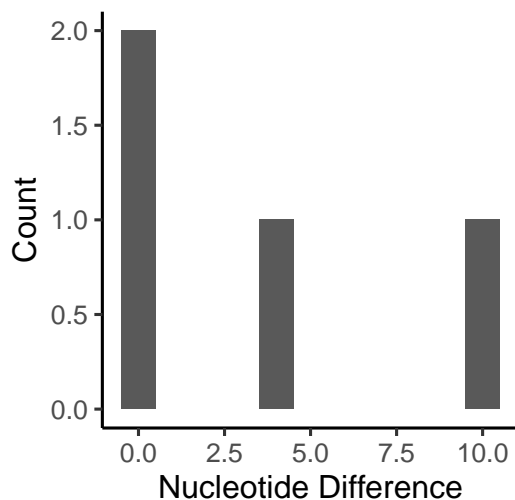
### IGHV3-23\*01\_04

1301 sequences assigned  
No exact matches.



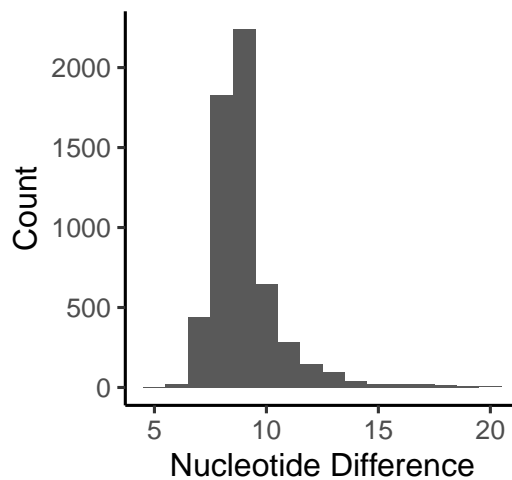
### IGHV3-11\*06

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



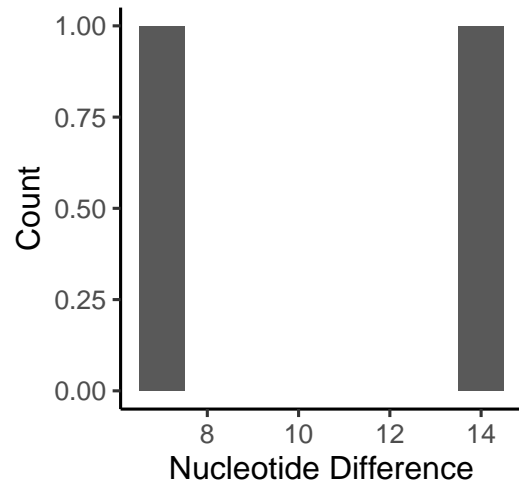
### IGHV3-15\*01\_02

5863 sequences assigned  
No exact matches.



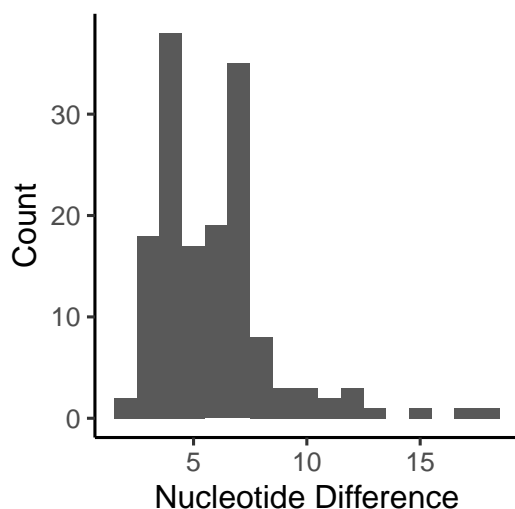
### IGHV3-30-3\*01

2 sequences assigned  
No exact matches.



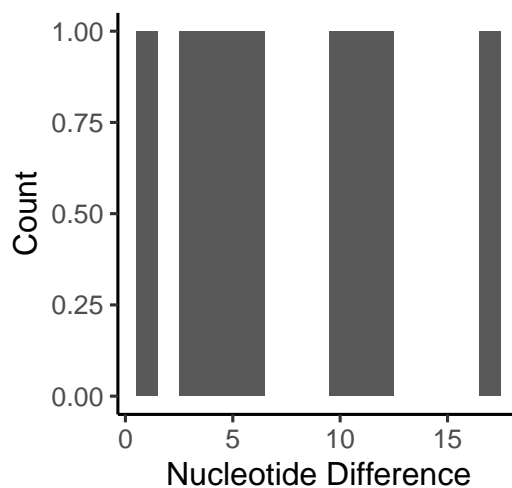
### IGHV3-13\*01

152 sequences assigned  
No exact matches.



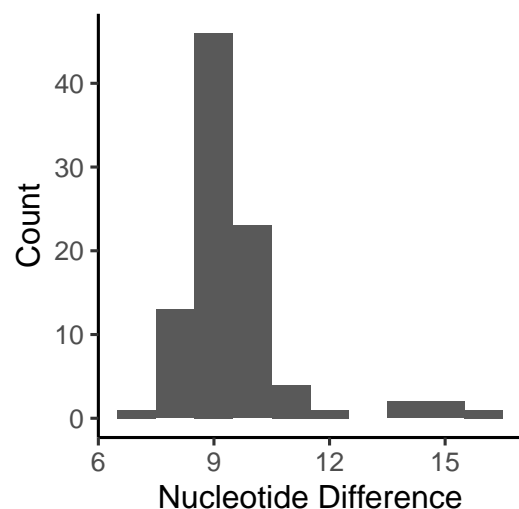
### IGHV3-21\*01\_02

9 sequences assigned  
No exact matches.



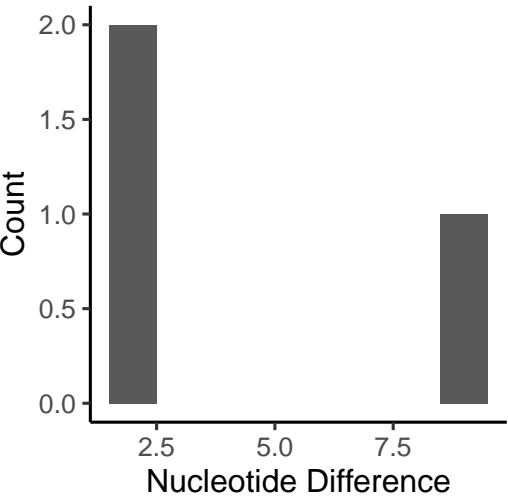
### IGHV3-30\*02

149 sequences assigned  
No exact matches.



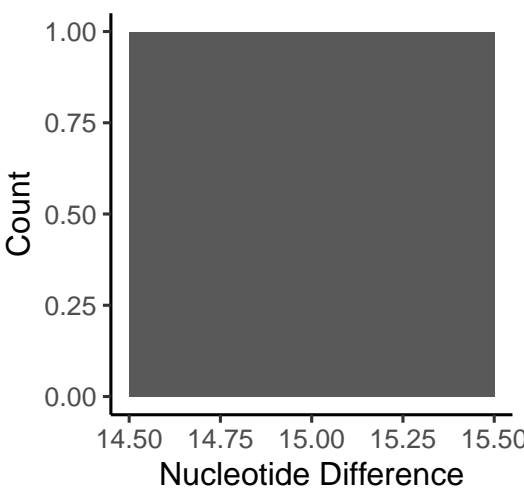
IGHV3-30\*18

3 sequences assigned  
No exact matches.



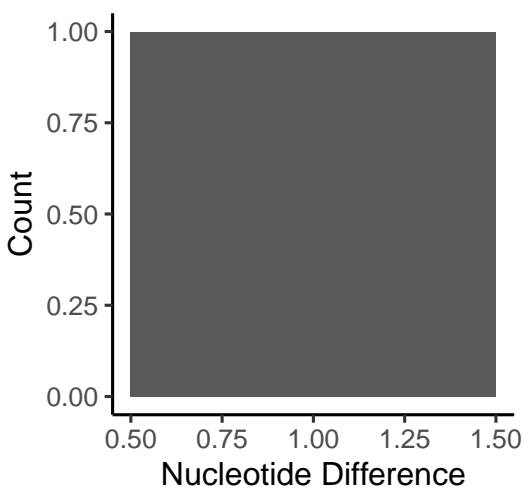
IGHV3-33\*08

2 sequences assigned  
No exact matches.



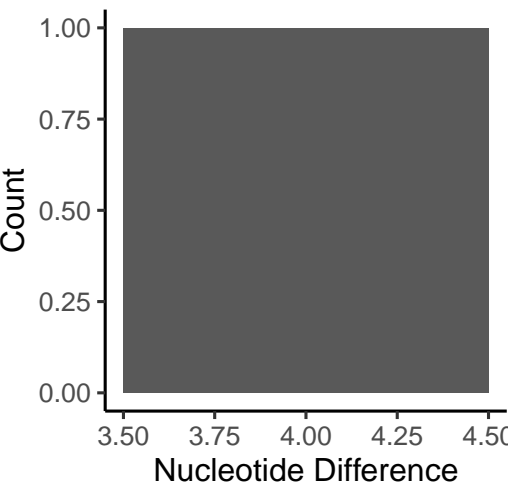
IGHV3-48\*04

1 sequences assigned  
No exact matches.



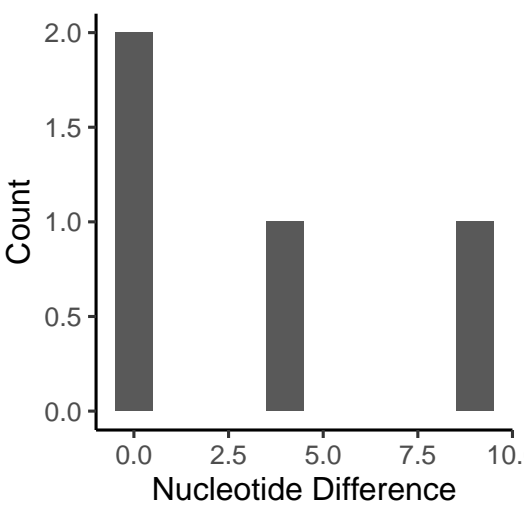
IGHV3-33\*01

1 sequences assigned  
No exact matches.



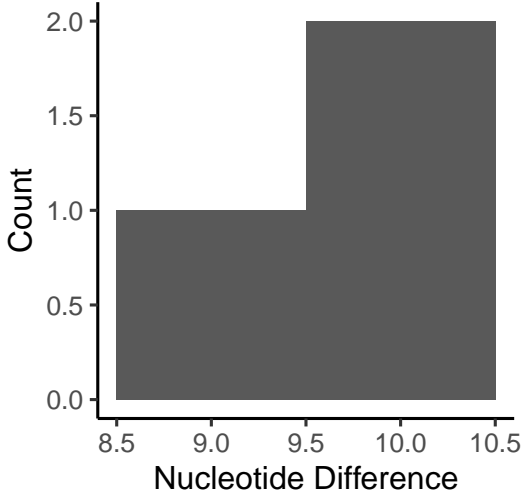
IGHV3-48\*02

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



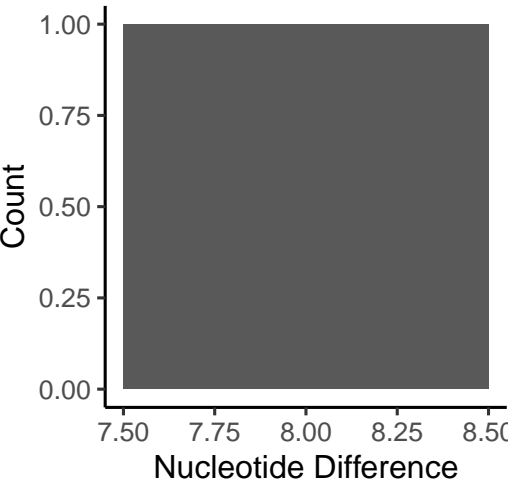
IGHV3-49\*04

3 sequences assigned  
No exact matches.



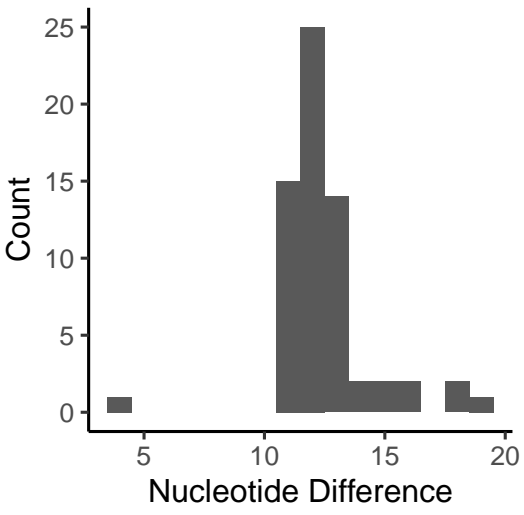
IGHV3-33\*05

1 sequences assigned  
No exact matches.



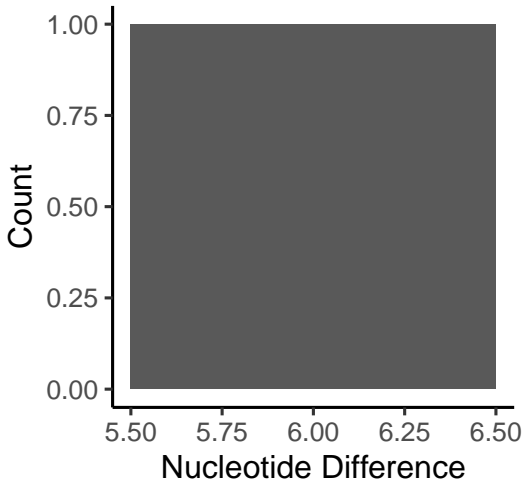
IGHV3-48\*03

64 sequences assigned  
No exact matches.



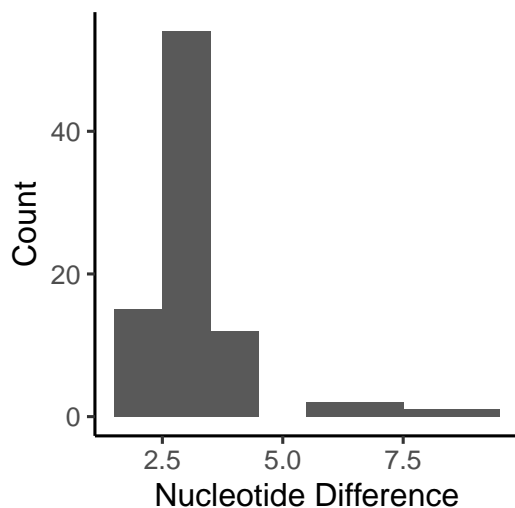
IGHV3-49\*03\_05

1 sequences assigned  
No exact matches.



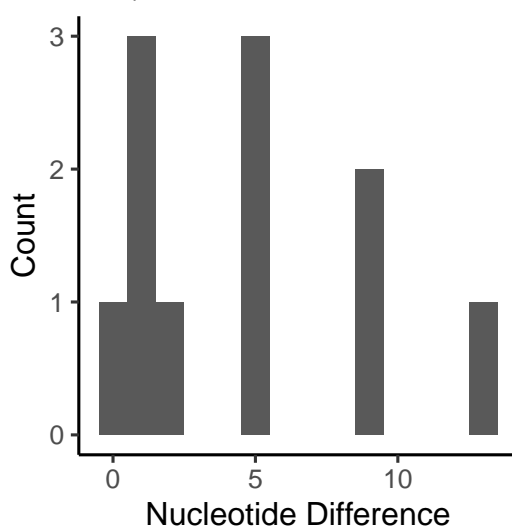
### IGHV3-66\*01

88 sequences assigned  
No exact matches.



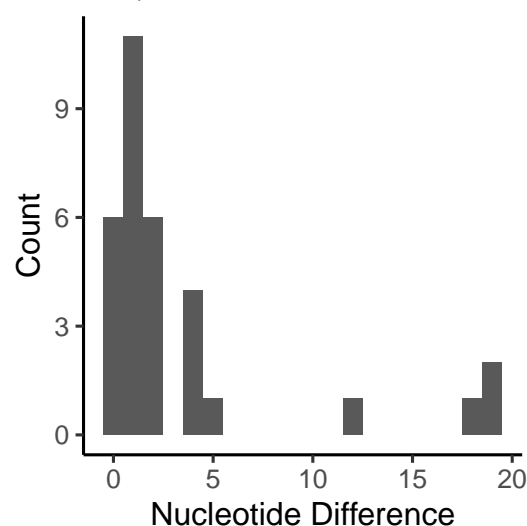
### IGHV3-74\*01\_02

12 sequences assigned  
1 (8.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



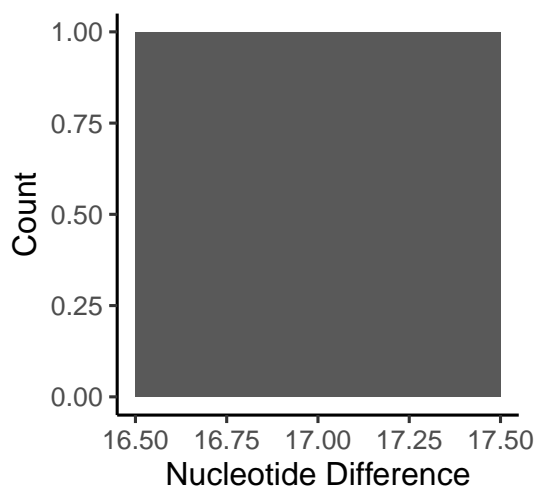
### IGHV4-31\*02

36 sequences assigned  
6 (16.7%) exact matches, in which:  
4 unique CDR3  
2 unique J



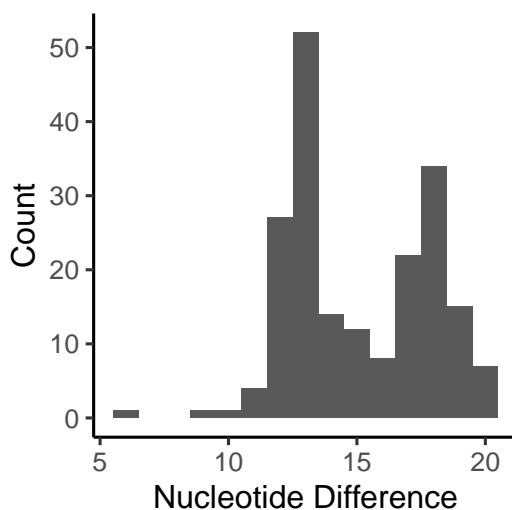
### IGHV3-72\*01

1 sequences assigned  
No exact matches.



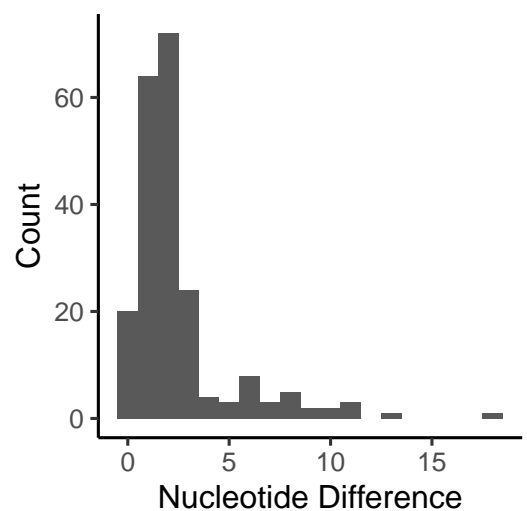
### IGHV4-4\*07

206 sequences assigned  
No exact matches.



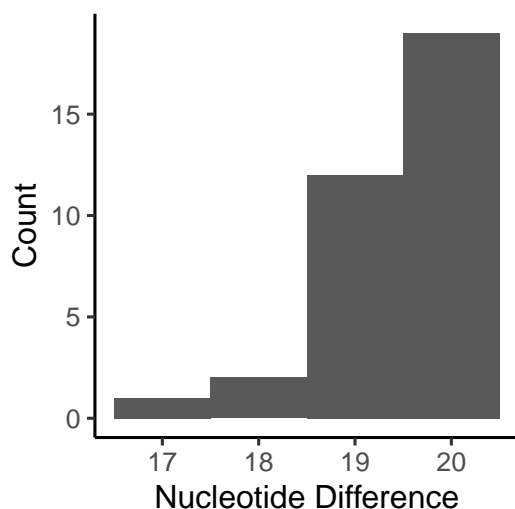
### IGHV4-34\*01\_02

212 sequences assigned  
20 (9.4%) exact matches, in which:  
13 unique CDR3  
2 unique J



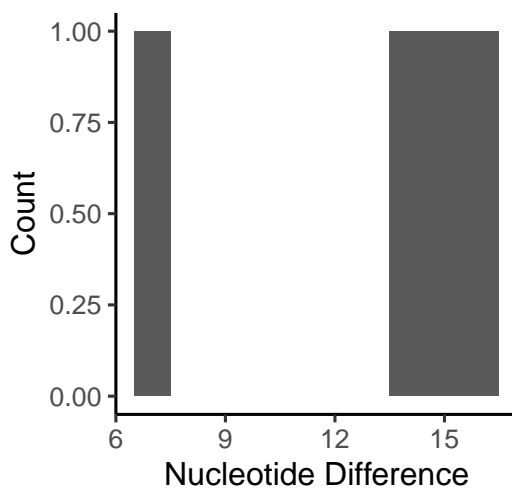
### IGHV3-74\*03

45 sequences assigned  
No exact matches.



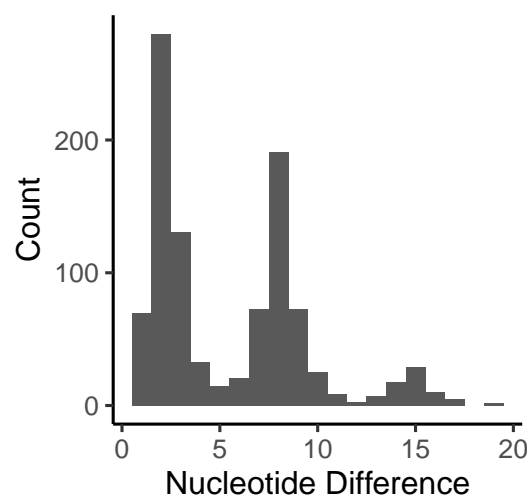
### IGHV4-4\*02\_03

18 sequences assigned  
No exact matches.



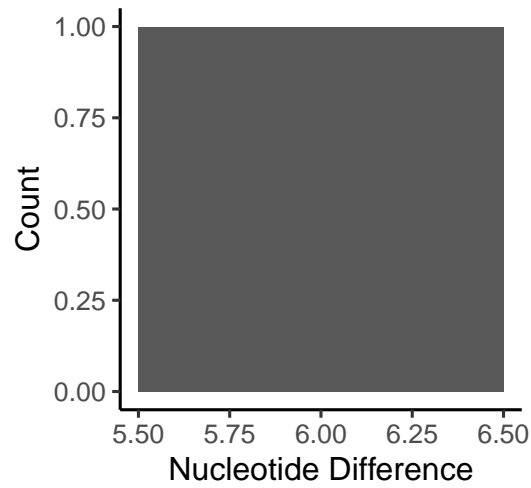
### IGHV4-39\*02

999 sequences assigned  
No exact matches.



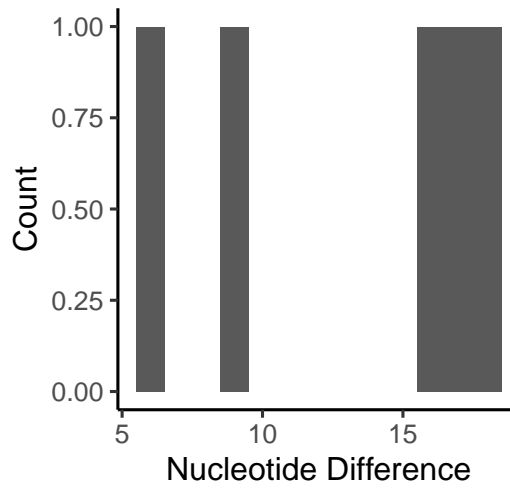
### IGHV4-39\*07

3 sequences assigned  
No exact matches.



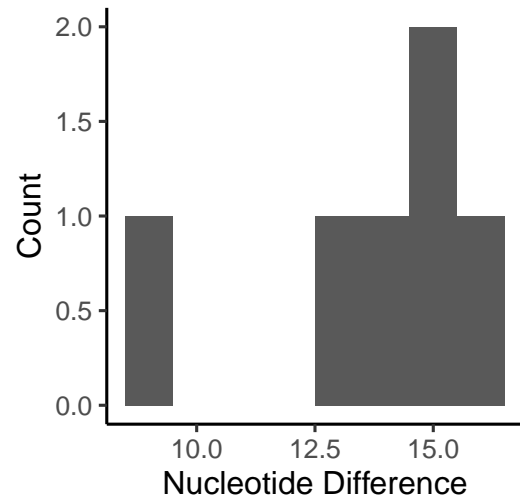
### IGHV4-59\*08

6 sequences assigned  
No exact matches.



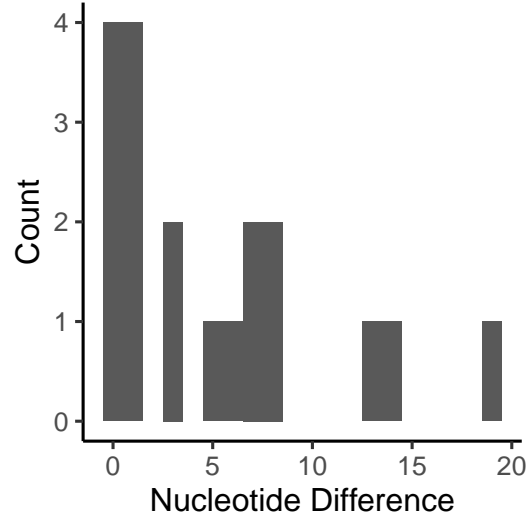
### IGHV4-61\*08

9 sequences assigned  
No exact matches.



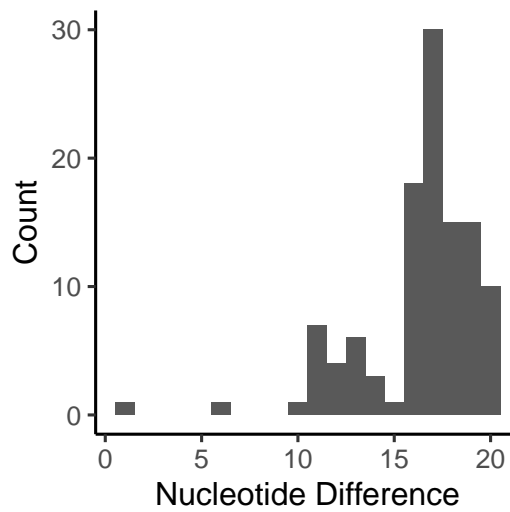
### IGHV4-39\*01\_05

69 sequences assigned  
4 (5.8%) exact matches, in which:  
4 unique CDR3  
1 unique J



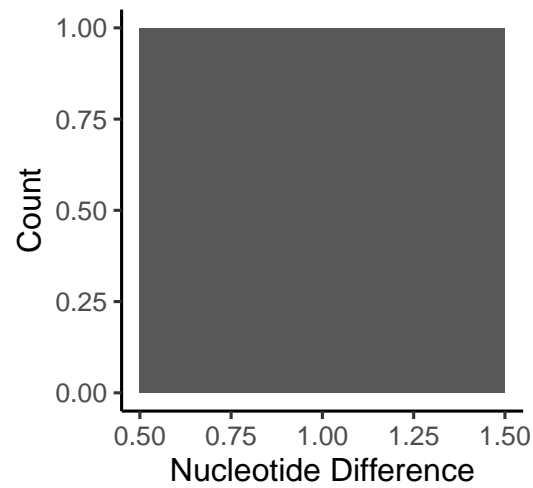
### IGHV4-59\*12

125 sequences assigned  
No exact matches.



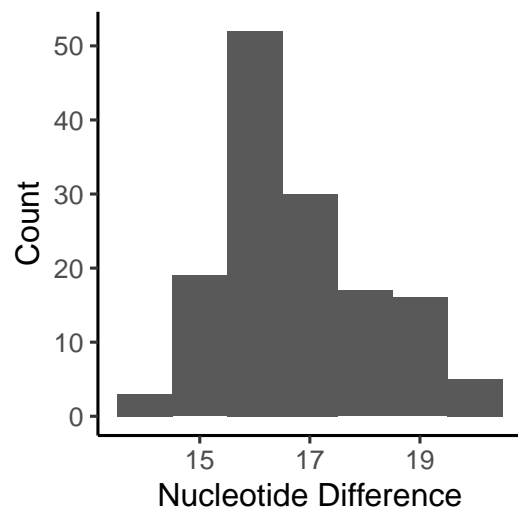
### IGHV5-10-1\*01\_03

2 sequences assigned  
No exact matches.



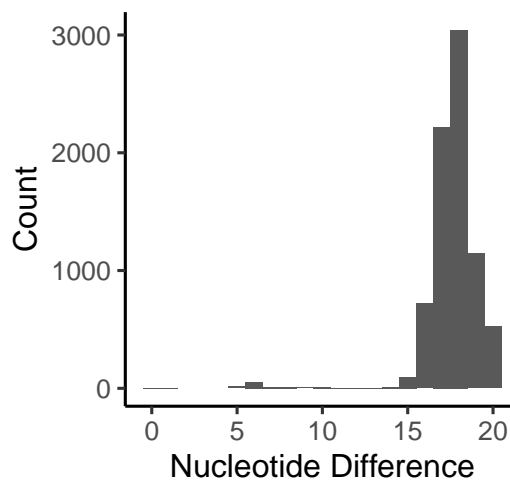
### IGHV4-59\*03

160 sequences assigned  
No exact matches.



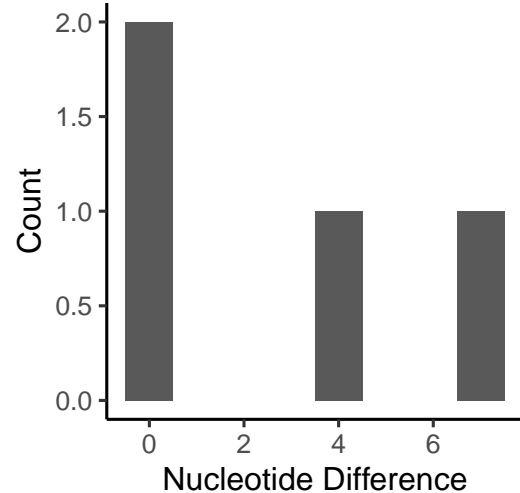
### IGHV4-59\*01\_07

8594 sequences assigned  
1 (0%) exact matches, in which:  
1 unique CDR3  
1 unique J



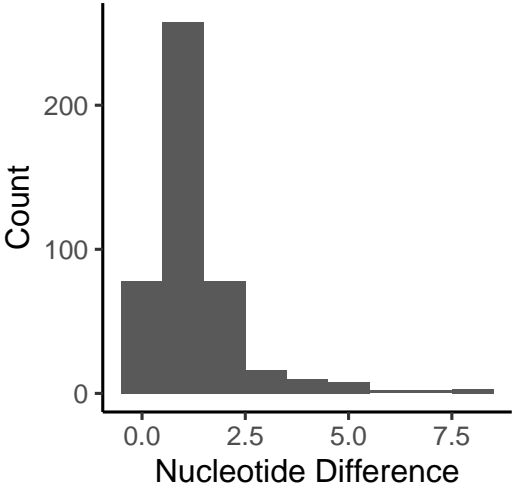
### IGHV5-51\*07

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



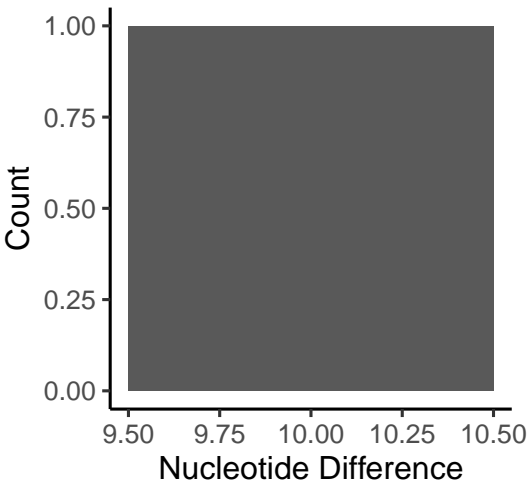
IGHV5–51\*01\_03

456 sequences assigned  
78 (17.1%) exact matches, in which:  
39 unique CDR3  
1 unique J



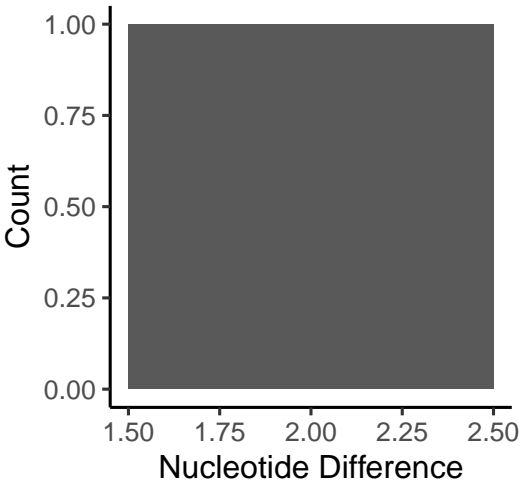
IGHV6–1\*01\_02

1 sequences assigned  
No exact matches.

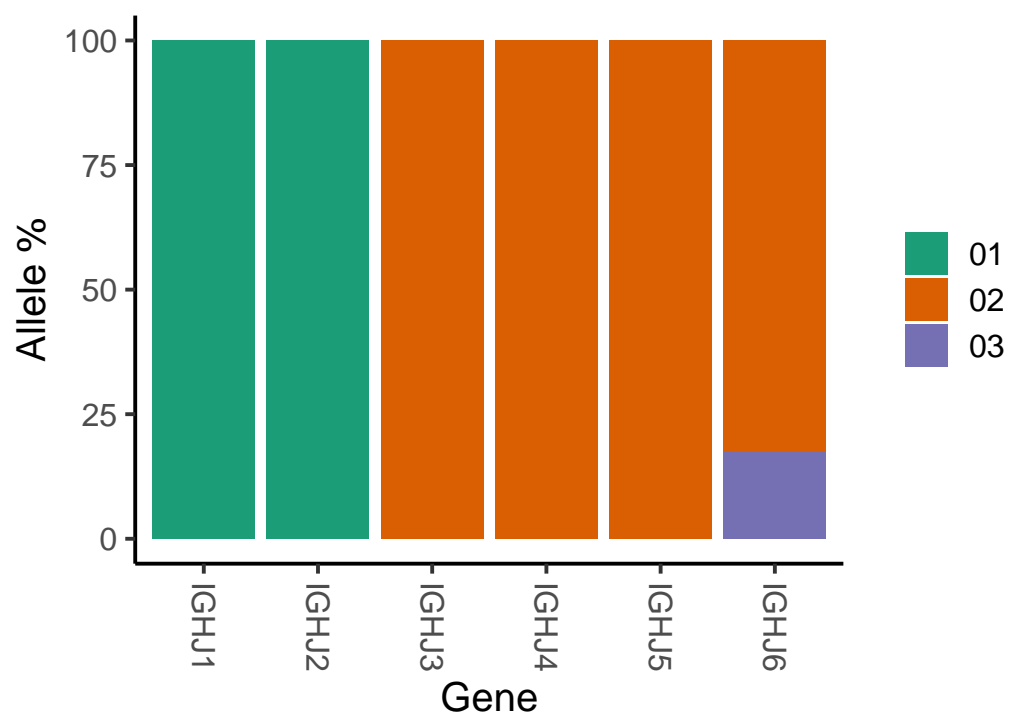


IGHV7–4–1\*02

1 sequences assigned  
No exact matches.



Allele Usage





Warning – no inferred sequences found.