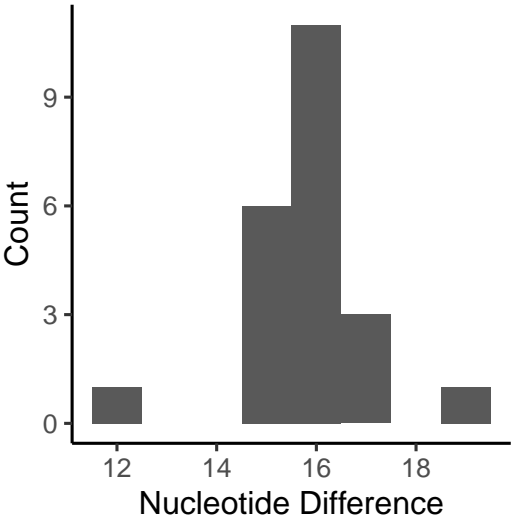


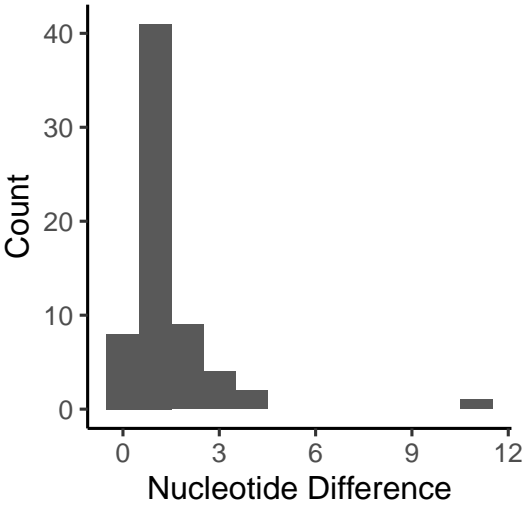
IGHV1-2\*02

22 sequences assigned  
No exact matches.



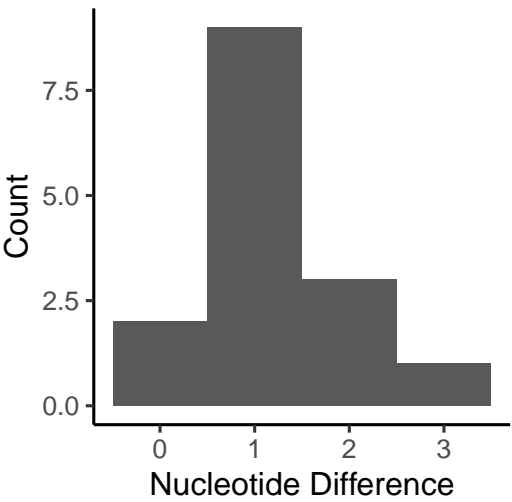
IGHV1-18\*04

65 sequences assigned  
8 (12.3%) exact matches, in which:  
4 unique CDR3  
1 unique J



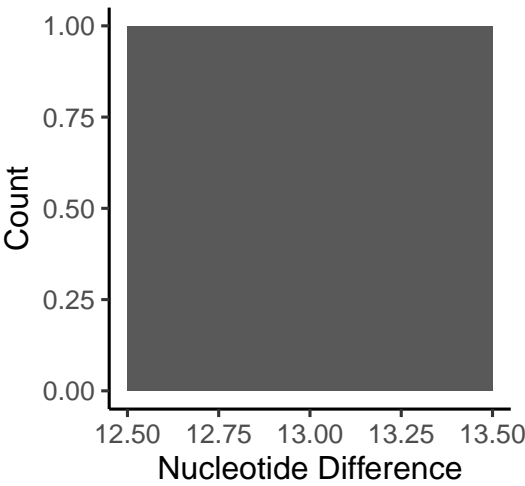
IGHV1-46\*03

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



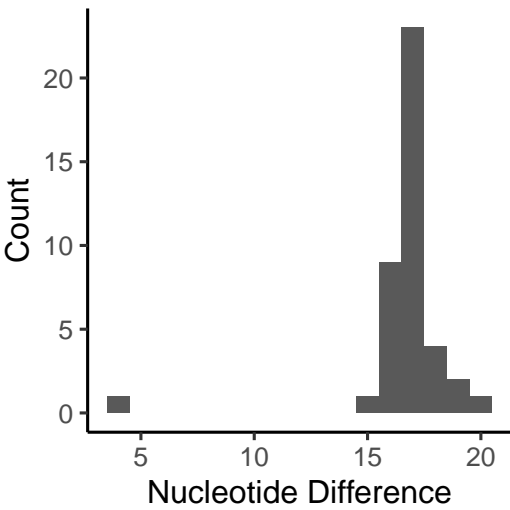
IGHV1-8\*01

1 sequences assigned  
No exact matches.



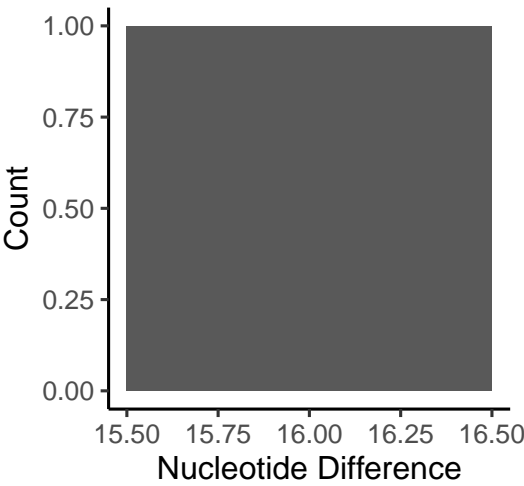
IGHV1-46\*01

42 sequences assigned  
No exact matches.



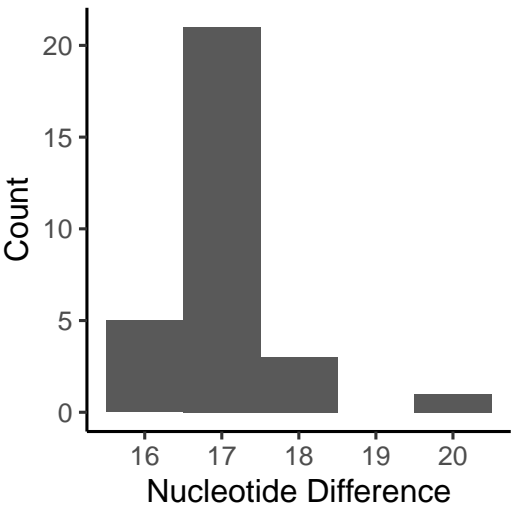
IGHV1-69\*04\_09

1 sequences assigned  
No exact matches.



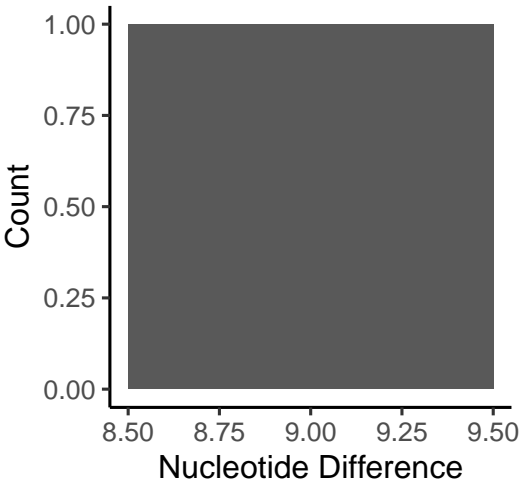
IGHV1-18\*01

32 sequences assigned  
No exact matches.



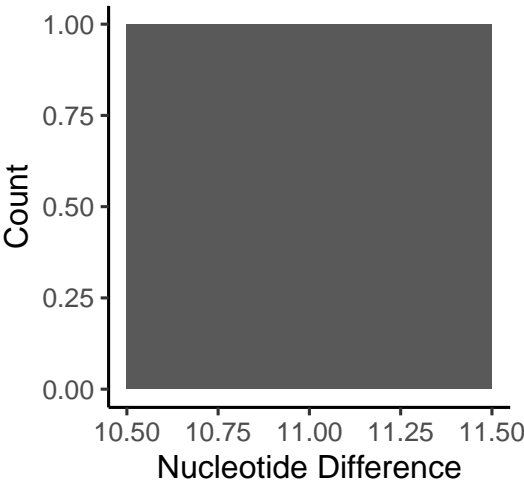
IGHV1-46\*02

1 sequences assigned  
No exact matches.



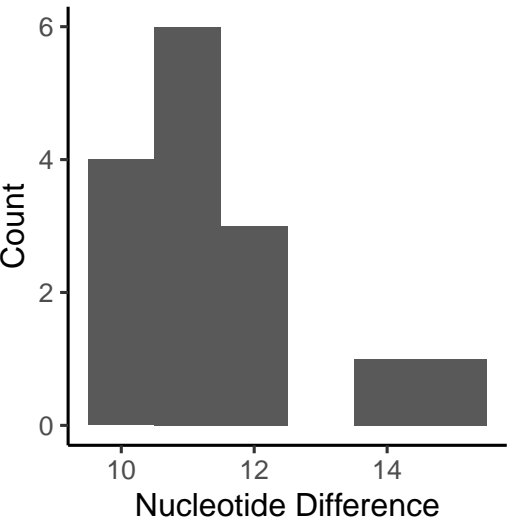
IGHV3-7\*01

196 sequences assigned  
No exact matches.



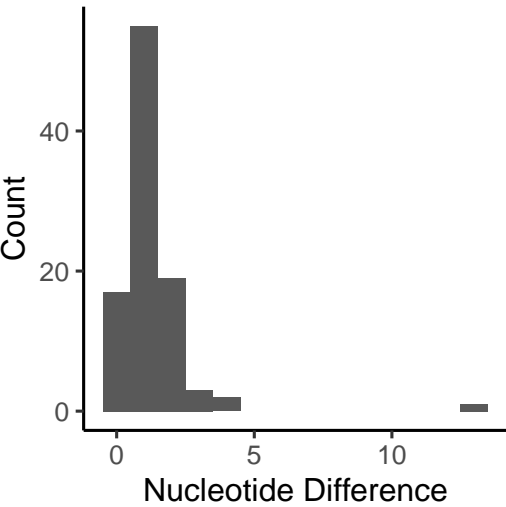
IGHV3-7\*03

21 sequences assigned  
No exact matches.



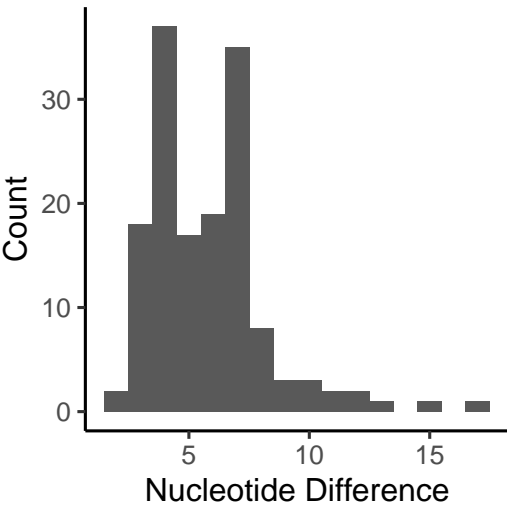
IGHV3-11\*04

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



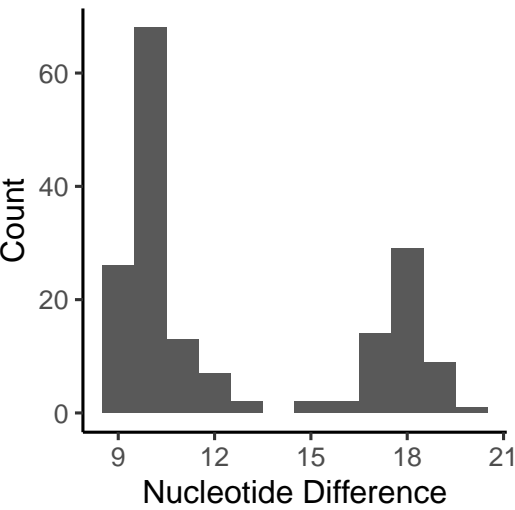
IGHV3-13\*01

149 sequences assigned  
No exact matches.



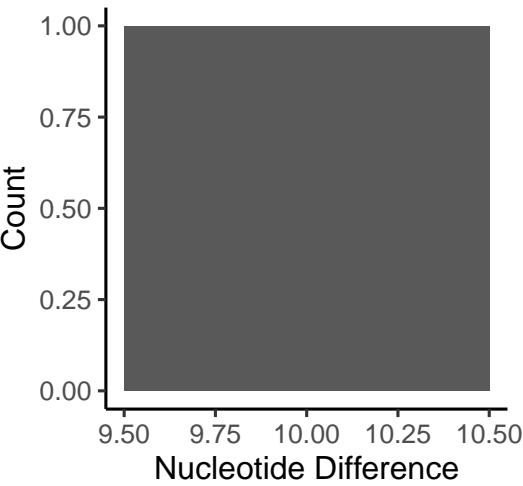
IGHV3-9\*01

180 sequences assigned  
No exact matches.



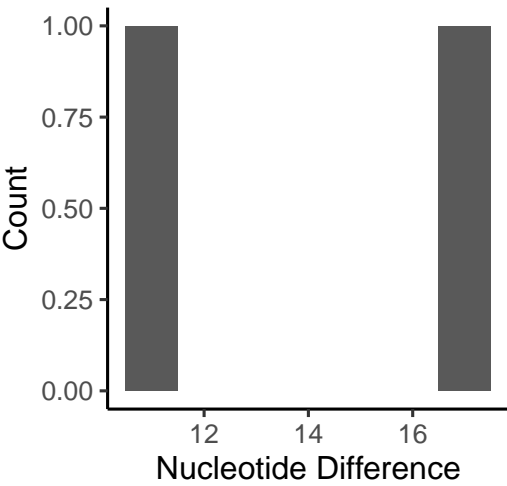
IGHV3-11\*06

1 sequences assigned  
No exact matches.



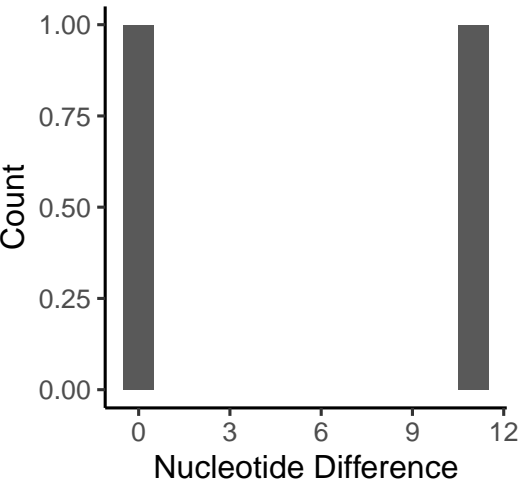
IGHV3-13\*05

2 sequences assigned  
No exact matches.



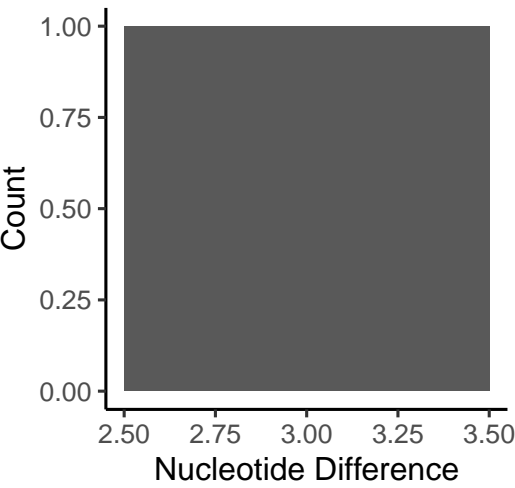
IGHV3-11\*01

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



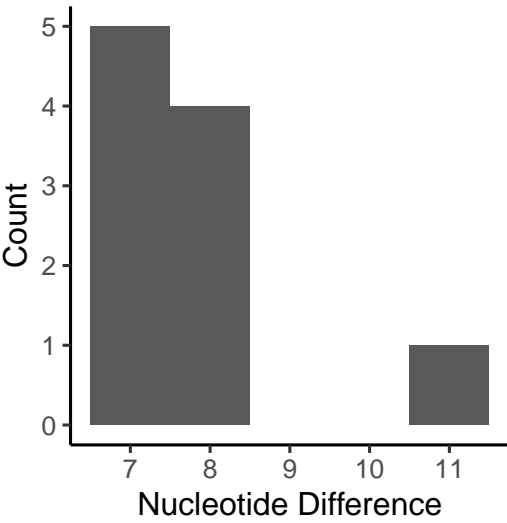
IGHV3-11\*03\_05

1 sequences assigned  
No exact matches.



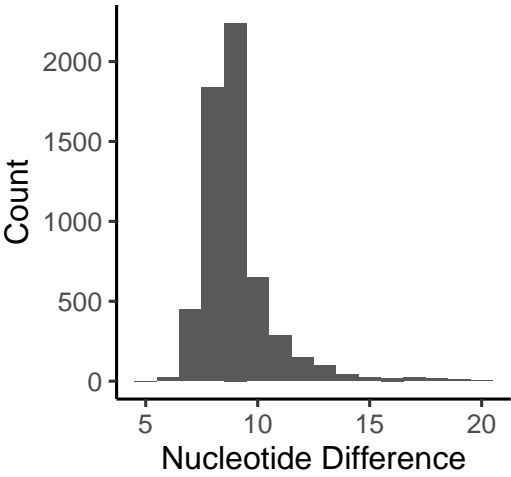
IGHV3-15\*05

15 sequences assigned  
No exact matches.



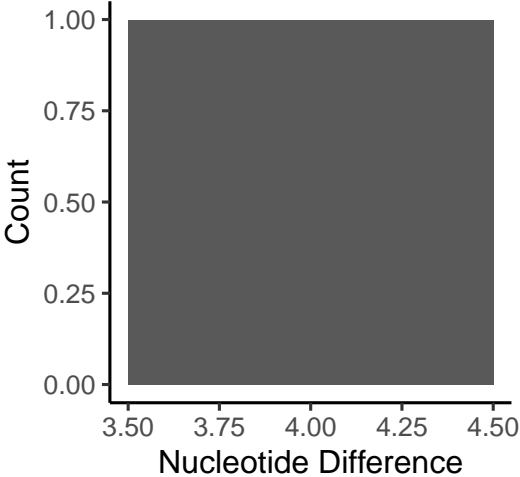
IGHV3-15\*01\_02

5883 sequences assigned  
No exact matches.



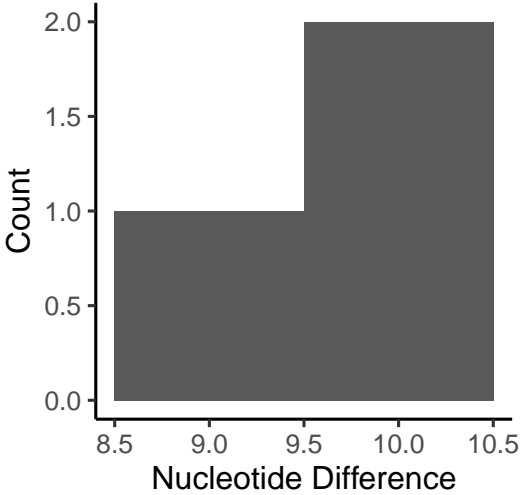
IGHV3-33\*01

1 sequences assigned  
No exact matches.



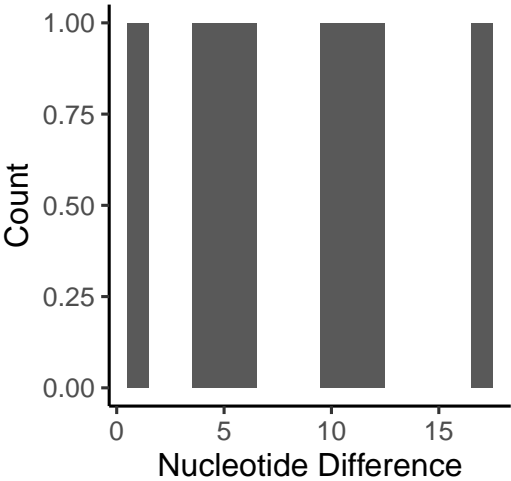
IGHV3-49\*04

3 sequences assigned  
No exact matches.



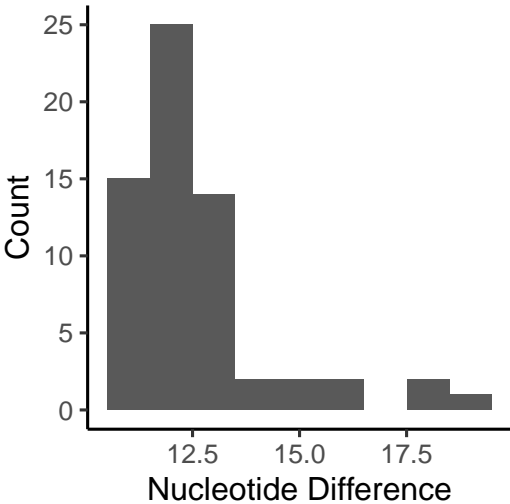
IGHV3-21\*01\_02

8 sequences assigned  
No exact matches.



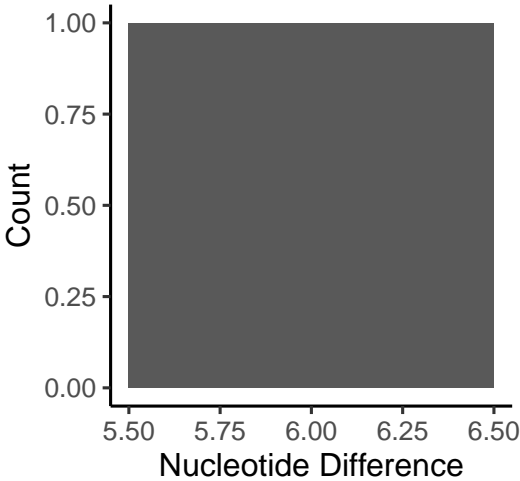
IGHV3-48\*03

63 sequences assigned  
No exact matches.



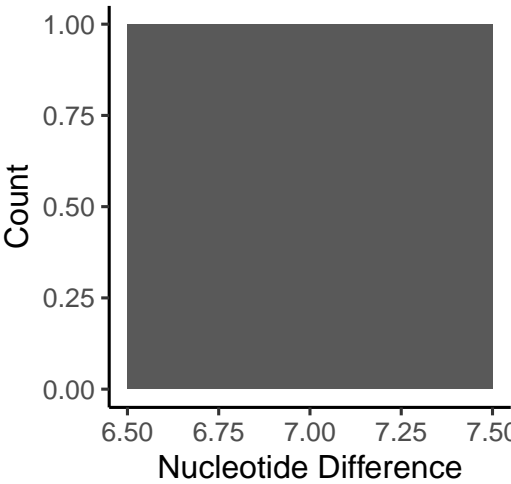
IGHV3-49\*03\_05

1 sequences assigned  
No exact matches.



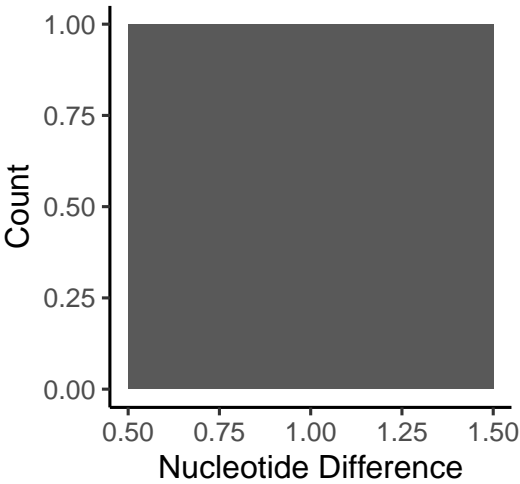
IGHV3-30-3\*01

1 sequences assigned  
No exact matches.



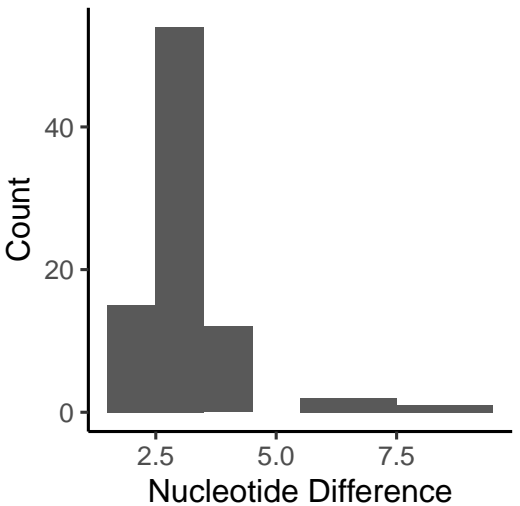
IGHV3-48\*04

1 sequences assigned  
No exact matches.



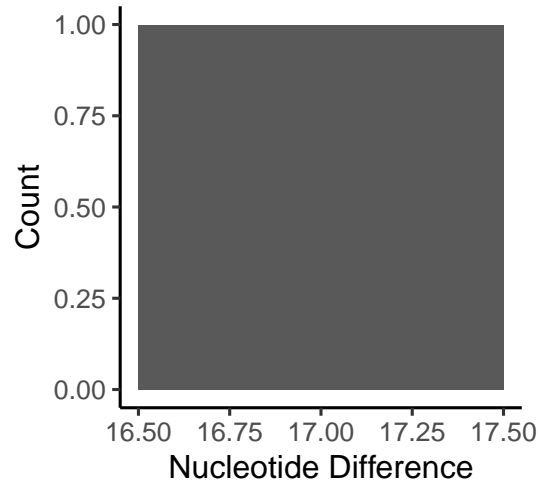
IGHV3-66\*01

87 sequences assigned  
No exact matches.



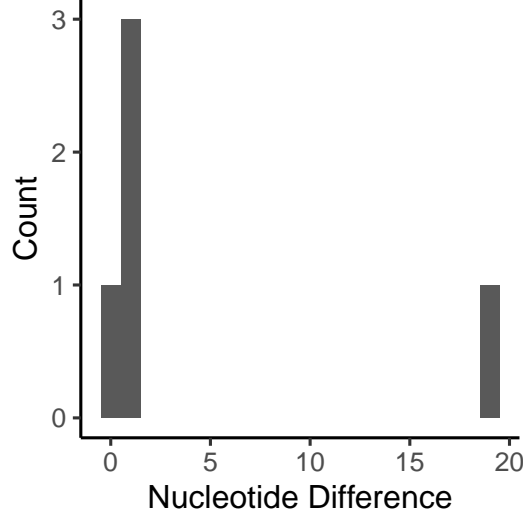
### IGHV3-72\*01

1 sequences assigned  
No exact matches.



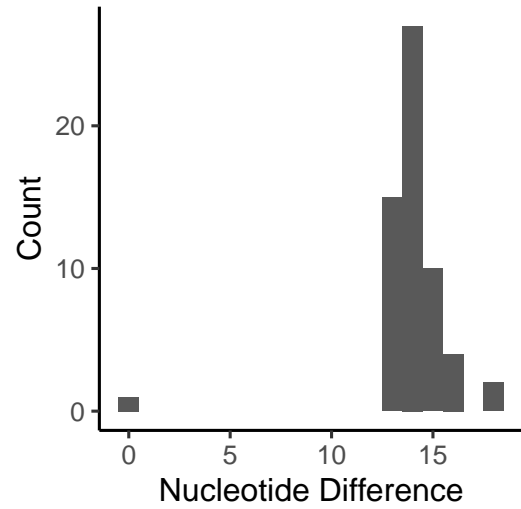
### IGHV4-31\*02

6 sequences assigned  
1 (16.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



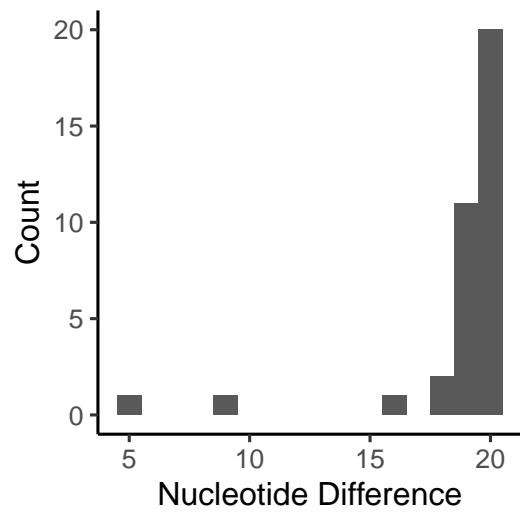
### IGHV4-39\*01\_05

114 sequences assigned  
1 (0.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



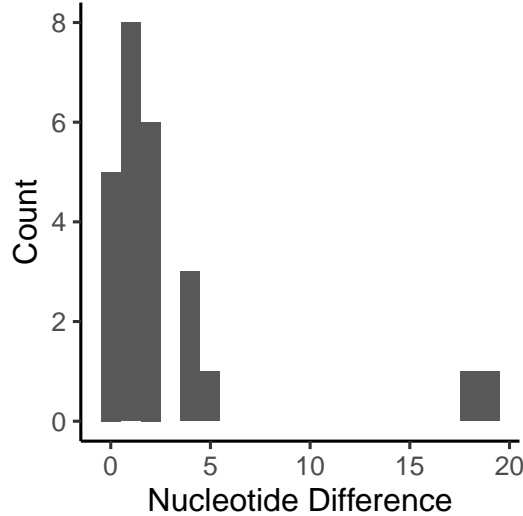
### IGHV3-74\*01\_02

48 sequences assigned  
No exact matches.



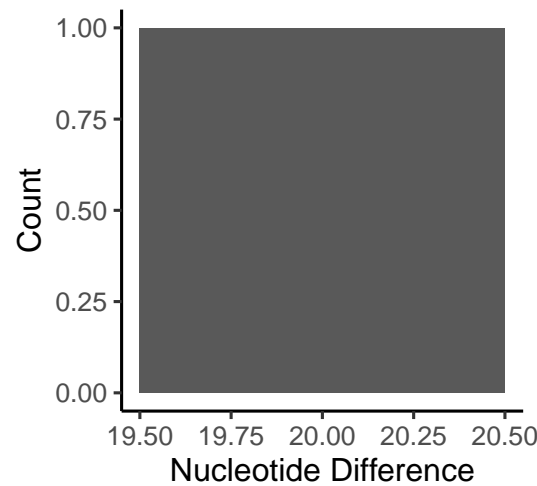
### IGHV4-31\*03\_04

27 sequences assigned  
5 (18.5%) exact matches, in which:  
4 unique CDR3  
2 unique J



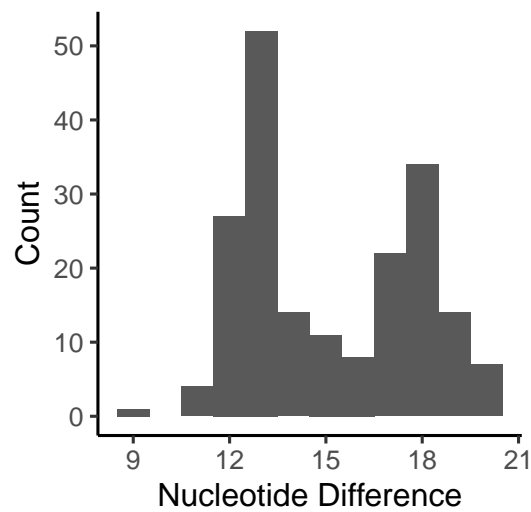
### IGHV4-55\*02\_04\_08

2 sequences assigned  
No exact matches.



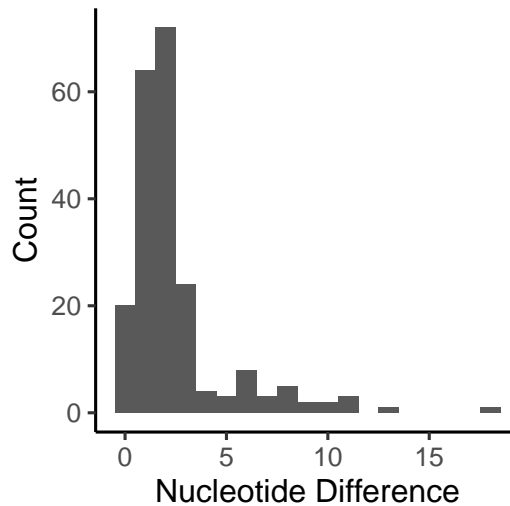
### IGHV4-4\*07

202 sequences assigned  
No exact matches.



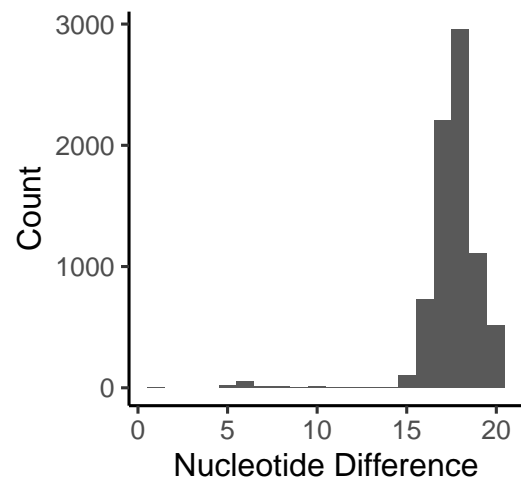
### IGHV4-34\*01\_02

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



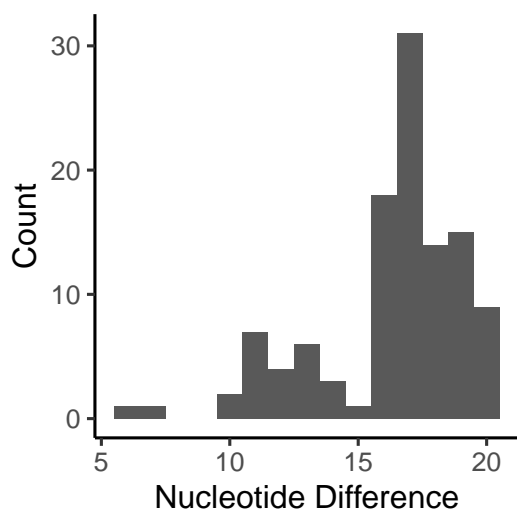
### IGHV4-59\*01\_07

8455 sequences assigned  
No exact matches.



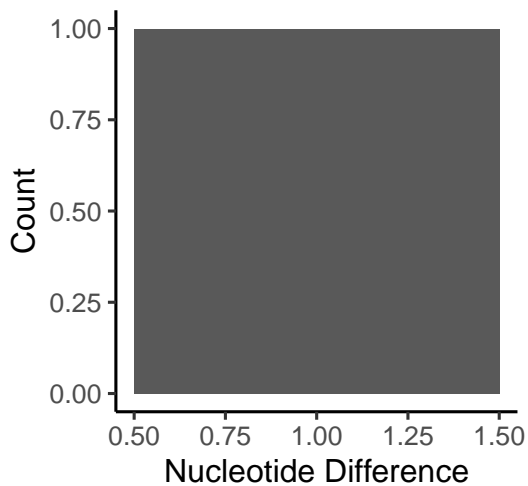
### IGHV4-59\*12

124 sequences assigned  
No exact matches.



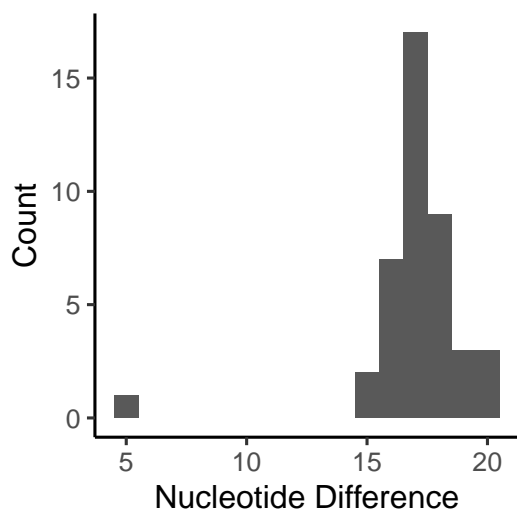
### IGHV5-10-1\*01\_03

2 sequences assigned  
No exact matches.



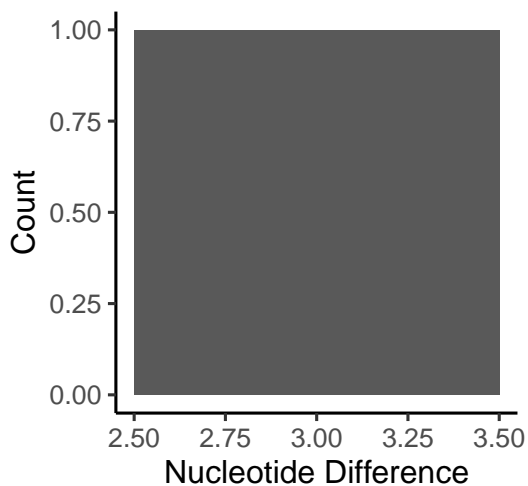
### IGHV4-59\*13

47 sequences assigned  
No exact matches.



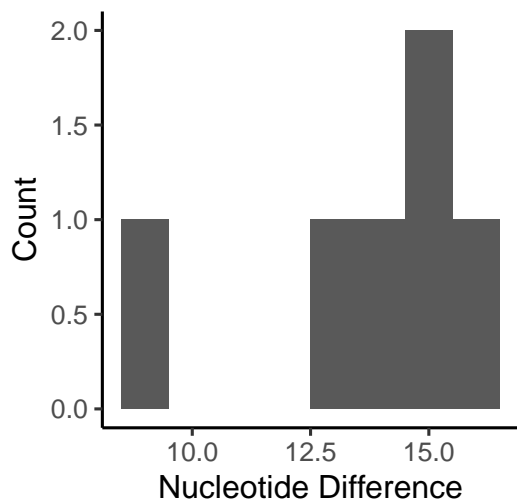
### IGHV5-51\*01\_03

1 sequences assigned  
No exact matches.



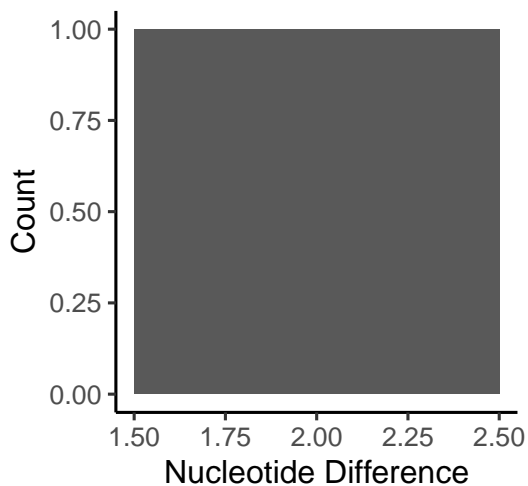
### IGHV4-61\*08

9 sequences assigned  
No exact matches.

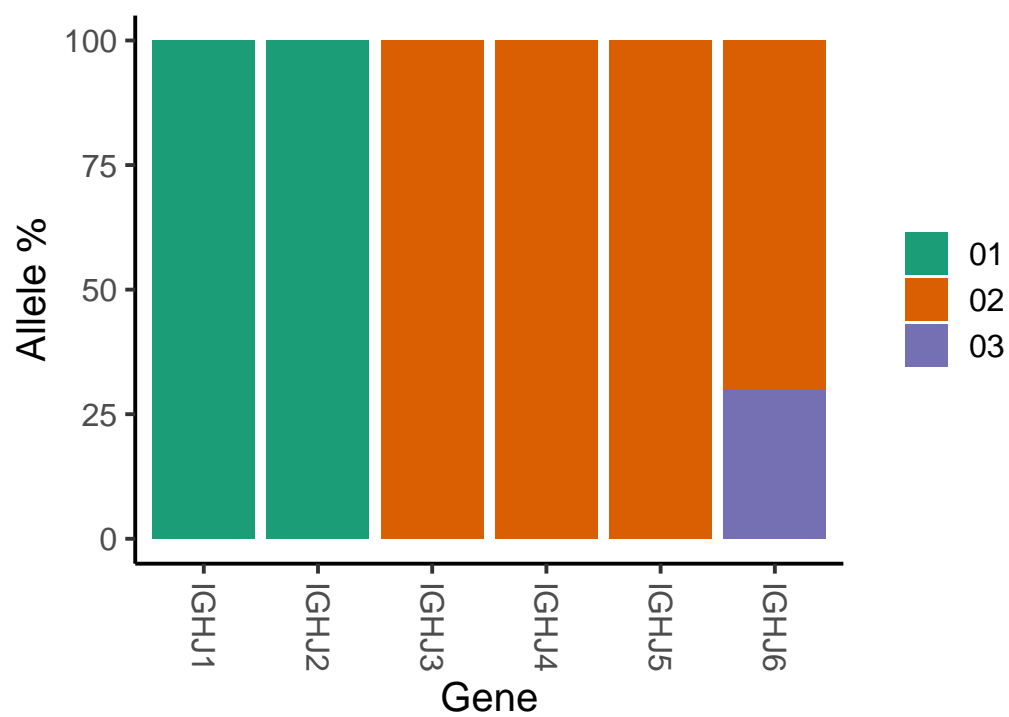


### IGHV7-4-1\*02

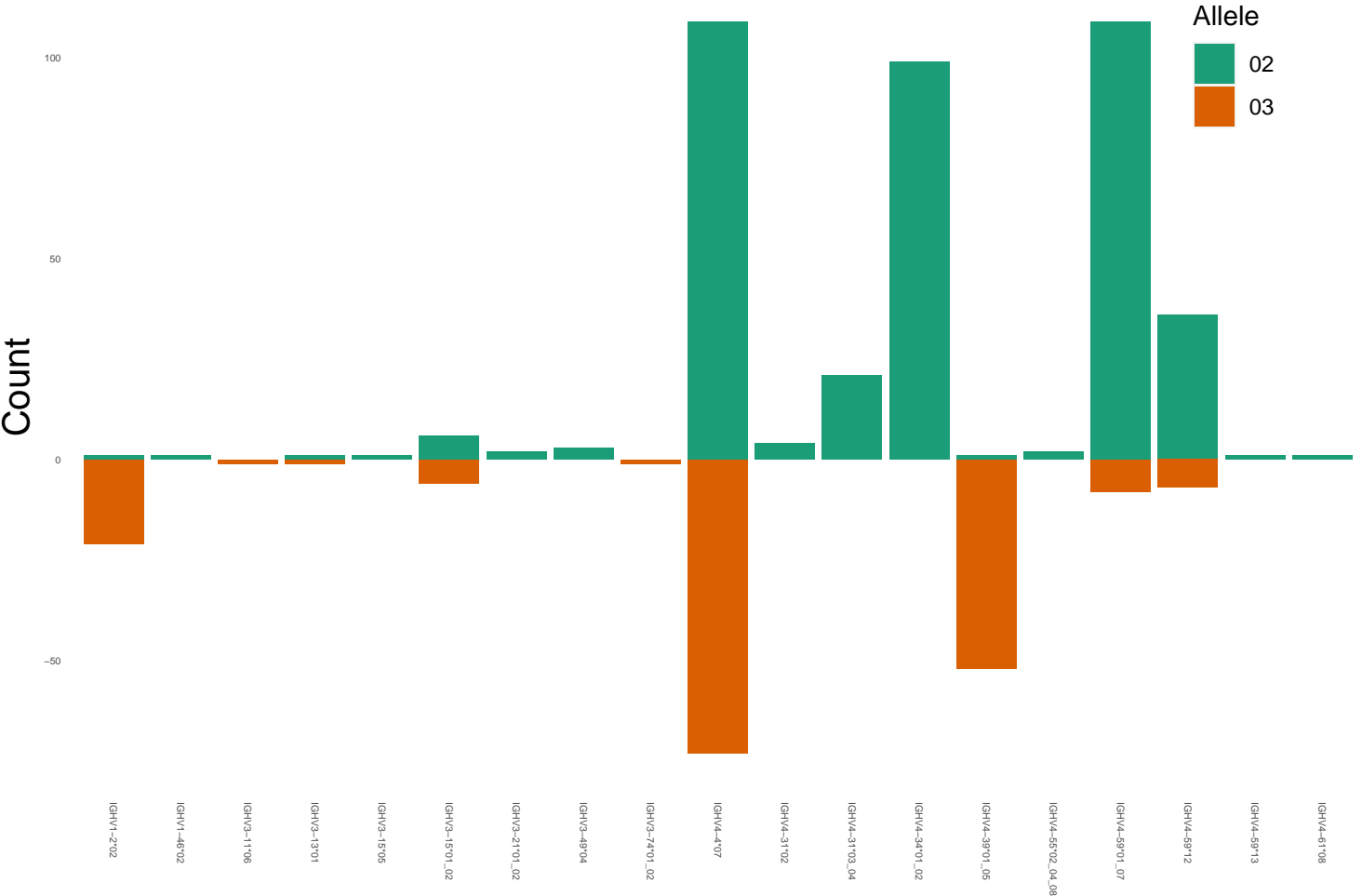
1 sequences assigned  
No exact matches.



Allele Usage



Sequence Count by IGHJ6 allele usage



Novel sequence(s)IGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s)IGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV5–51\*07\_A128G are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV7–4–1\*02\_T63C are not listed in the genotype and will be ignored.

Novel sequence(s)IGHV7–4–1\*02\_T63C are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning:IGHV4–31\*02,IGHV4–31\*03\_04 have identical germline sequences.