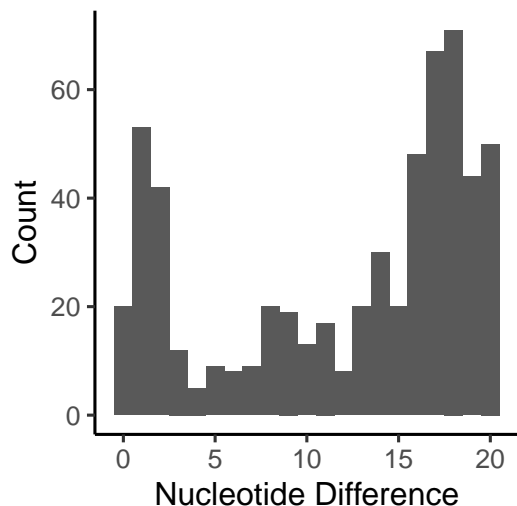


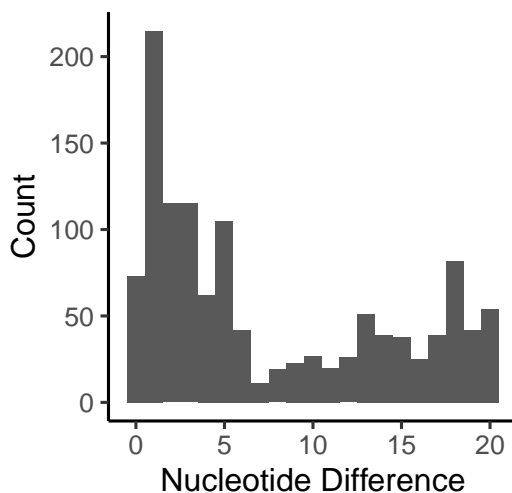
### IGHV1-2\*02

913 sequences assigned  
20 (2.2%) exact matches, in which:  
14 unique CDR3  
4 unique J



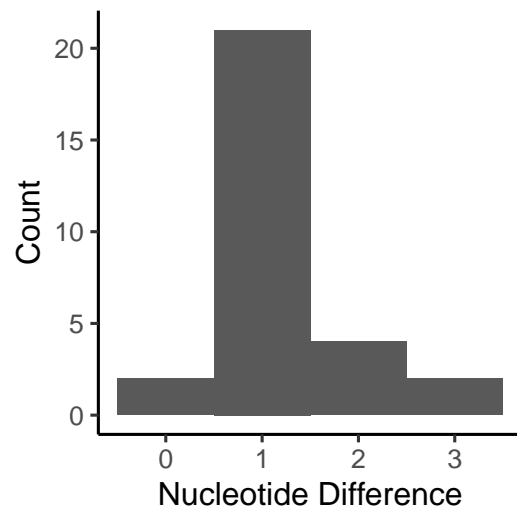
### IGHV1-18\*01

1897 sequences assigned  
73 (3.8%) exact matches, in which:  
36 unique CDR3  
4 unique J



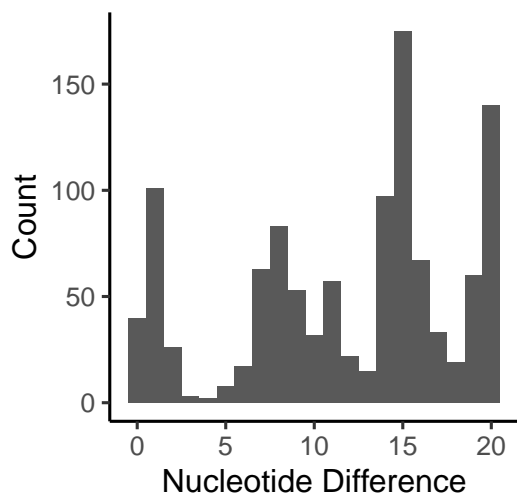
### IGHV1-58\*01

49 sequences assigned  
2 (4.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



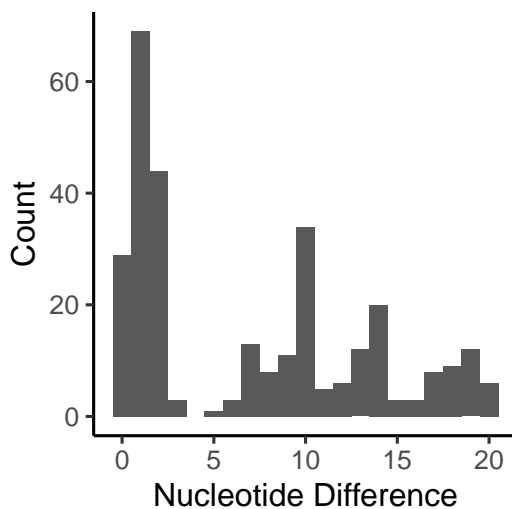
### IGHV1-3\*01

1602 sequences assigned  
40 (2.5%) exact matches, in which:  
18 unique CDR3  
3 unique J



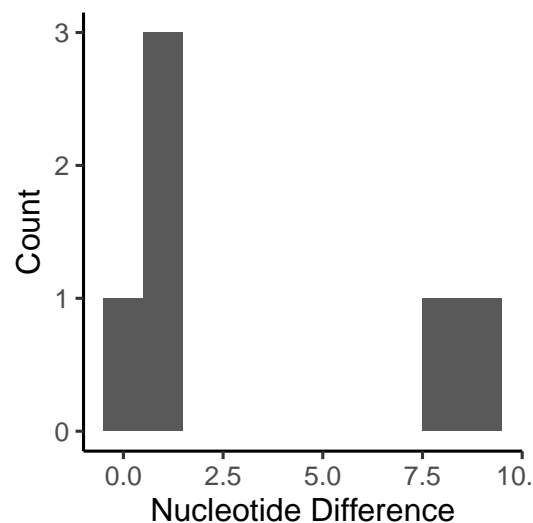
### IGHV1-24\*01

465 sequences assigned  
29 (6.2%) exact matches, in which:  
13 unique CDR3  
3 unique J



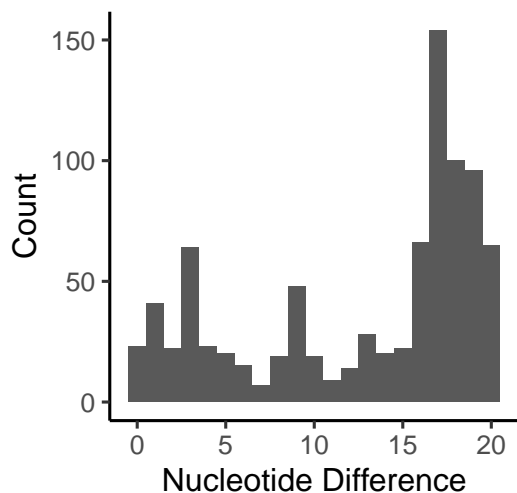
### IGHV1-69-2\*01

60 sequences assigned  
1 (1.7%) exact matches, in which:  
1 unique CDR3  
1 unique J



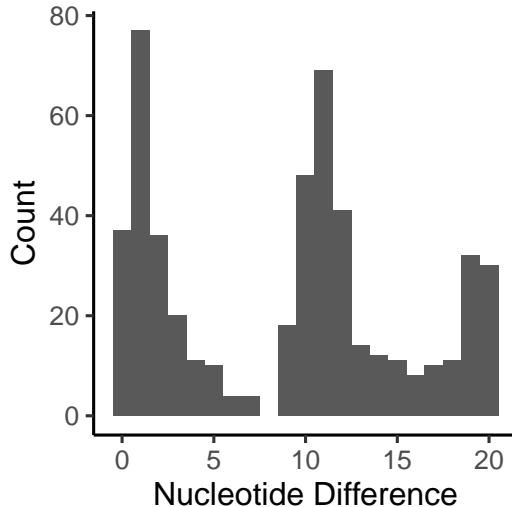
### IGHV1-8\*01

1118 sequences assigned  
23 (2.1%) exact matches, in which:  
16 unique CDR3  
3 unique J



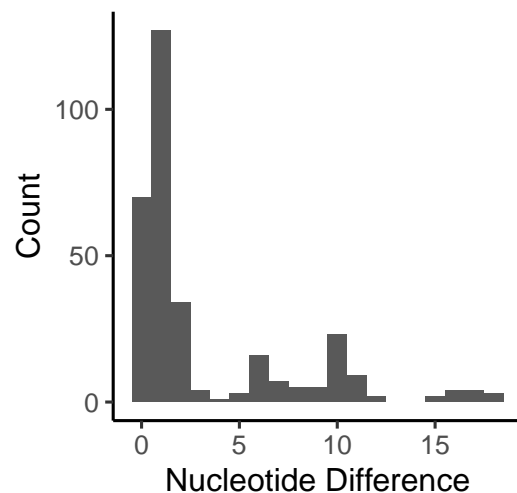
### IGHV1-46\*01

846 sequences assigned  
37 (4.4%) exact matches, in which:  
21 unique CDR3  
3 unique J



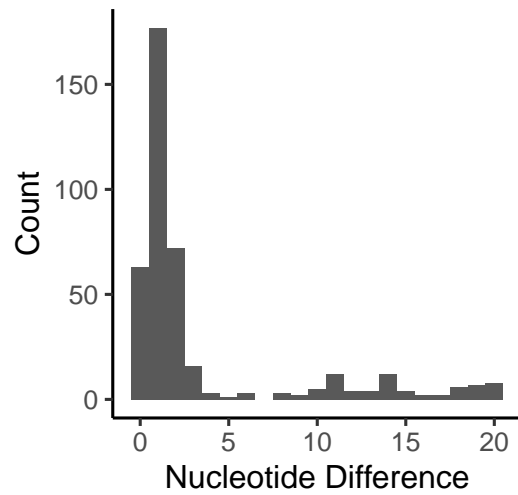
### IGHV1-69\*06

719 sequences assigned  
70 (9.7%) exact matches, in which:  
44 unique CDR3  
3 unique J



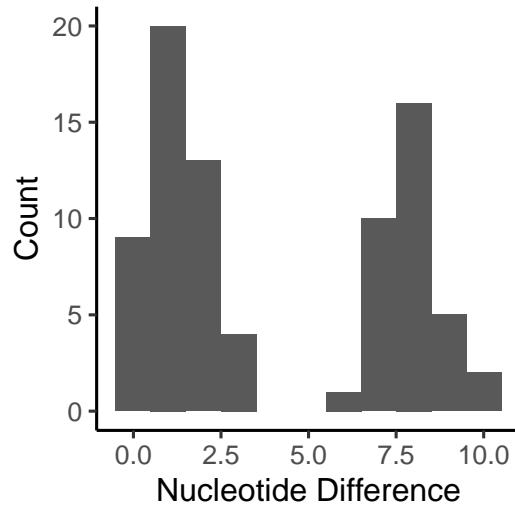
### IGHV2-5\*01

616 sequences assigned  
63 (10.2%) exact matches, in which:  
35 unique CDR3  
3 unique J



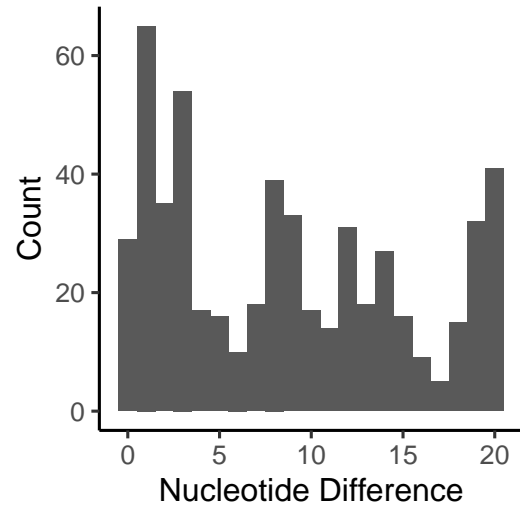
### IGHV2-70\*01

80 sequences assigned  
9 (11.2%) exact matches, in which:  
5 unique CDR3  
2 unique J



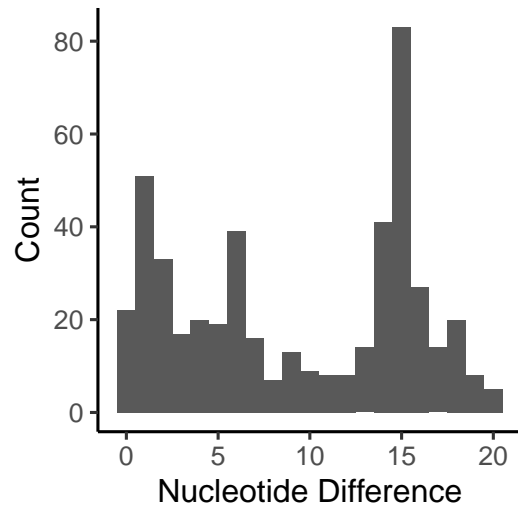
### IGHV3-11\*01

939 sequences assigned  
29 (3.1%) exact matches, in which:  
20 unique CDR3  
2 unique J



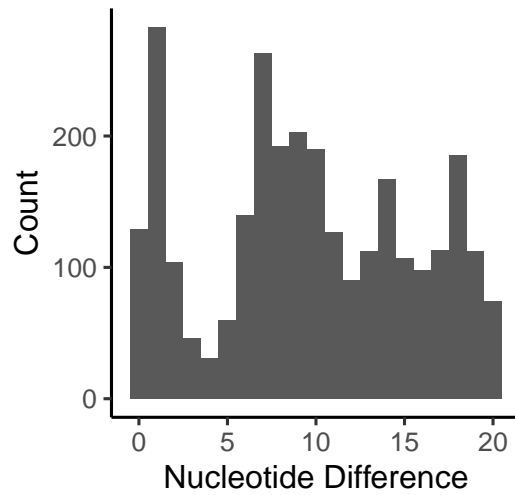
### IGHV2-5\*02

703 sequences assigned  
22 (3.1%) exact matches, in which:  
16 unique CDR3  
4 unique J



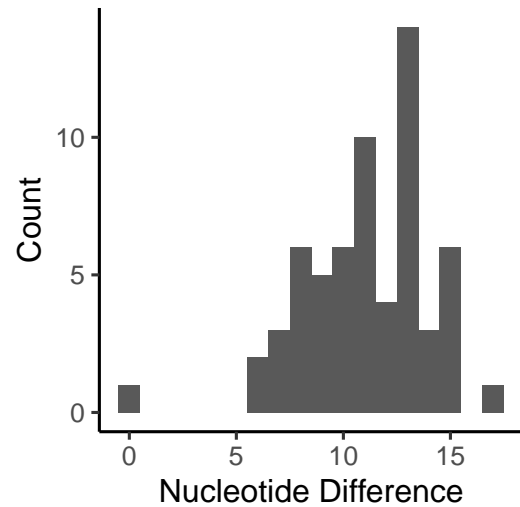
### IGHV3-7\*01

3745 sequences assigned  
129 (3.4%) exact matches, in which:  
82 unique CDR3  
5 unique J



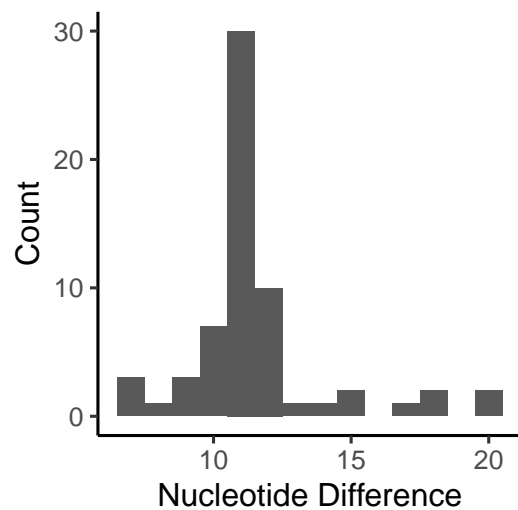
### IGHV3-13\*01

61 sequences assigned  
1 (1.6%) exact matches, in which:  
1 unique CDR3  
1 unique J



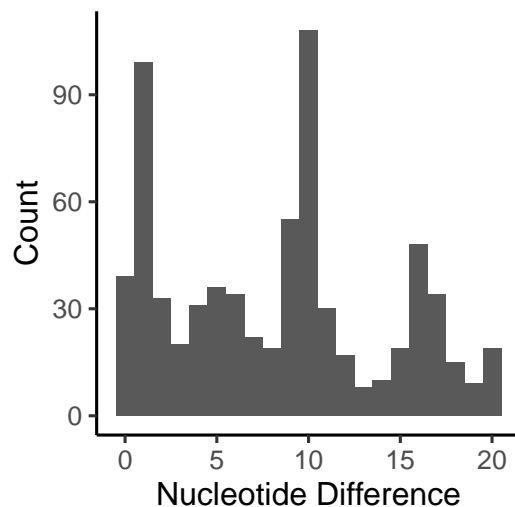
### IGHV2-26\*01

103 sequences assigned  
No exact matches.



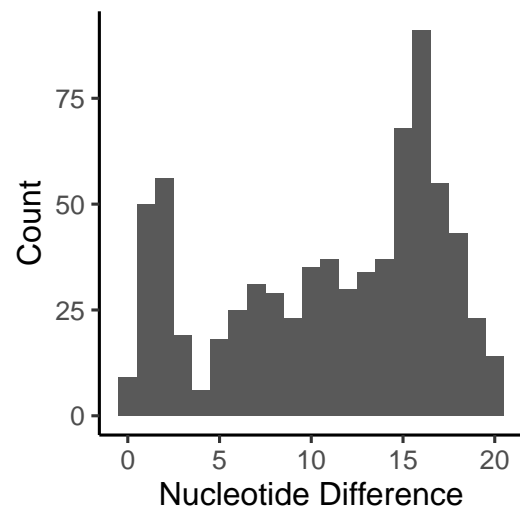
### IGHV3-9\*01

795 sequences assigned  
39 (4.9%) exact matches, in which:  
29 unique CDR3  
3 unique J



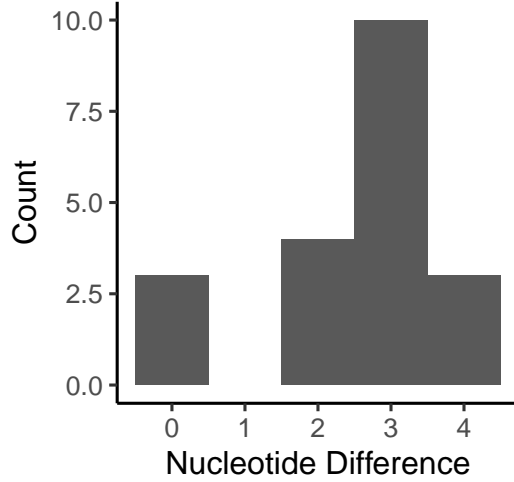
### IGHV3-15\*01

833 sequences assigned  
9 (1.1%) exact matches, in which:  
9 unique CDR3  
2 unique J



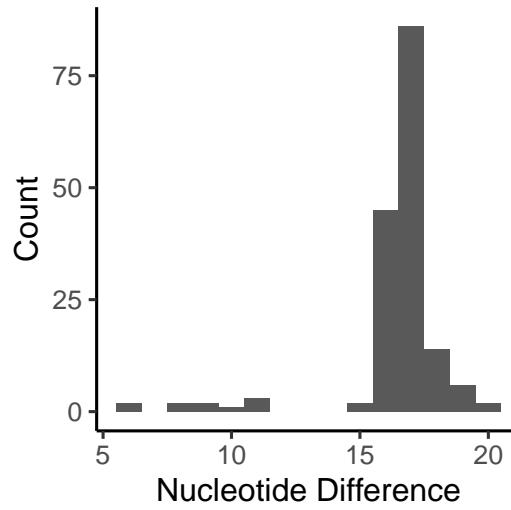
### IGHV3-20\*01

20 sequences assigned  
3 (15%) exact matches, in which:  
2 unique CDR3  
2 unique J



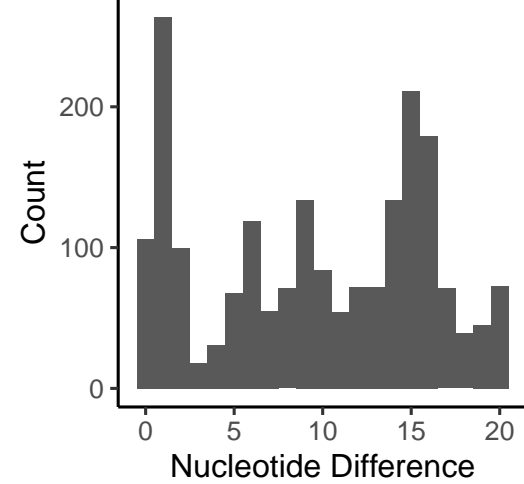
### IGHV3-21\*06

177 sequences assigned  
No exact matches.



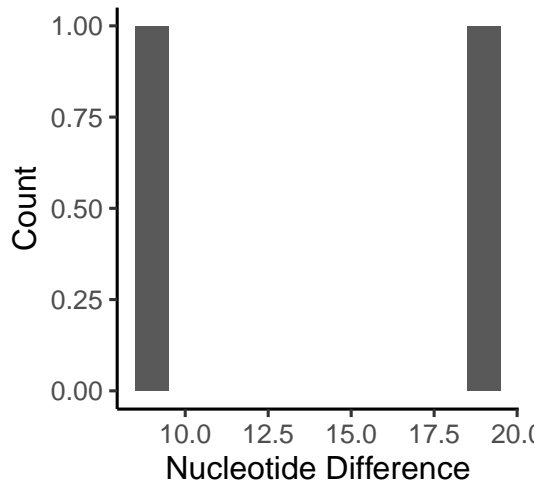
### IGHV3-33\*01

2868 sequences assigned  
106 (3.7%) exact matches, in which:  
63 unique CDR3  
4 unique J



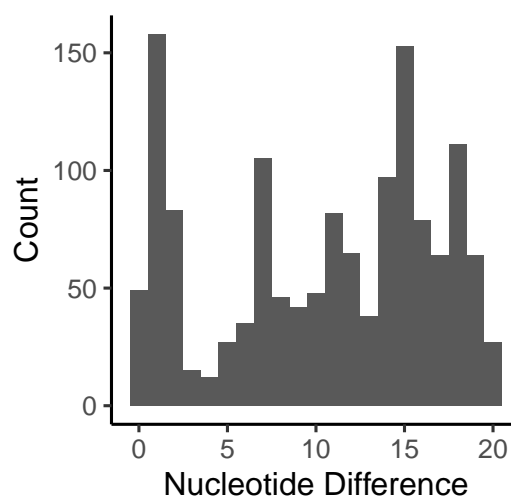
### IGHV3-20\*04

4 sequences assigned  
No exact matches.



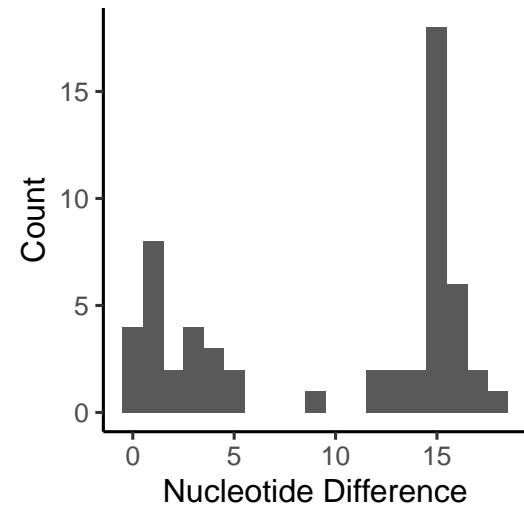
### IGHV3-23\*04

1965 sequences assigned  
49 (2.5%) exact matches, in which:  
26 unique CDR3  
4 unique J



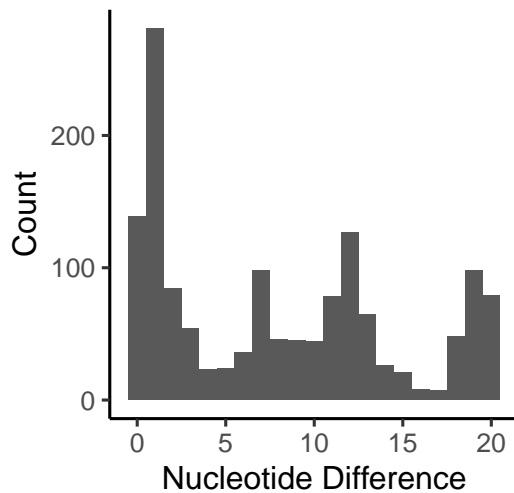
### IGHV3-43\*01

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



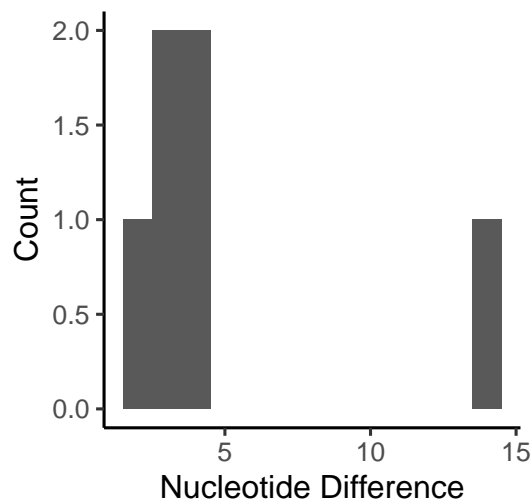
### IGHV3-21\*01

1811 sequences assigned  
139 (7.7%) exact matches, in which:  
93 unique CDR3  
4 unique J



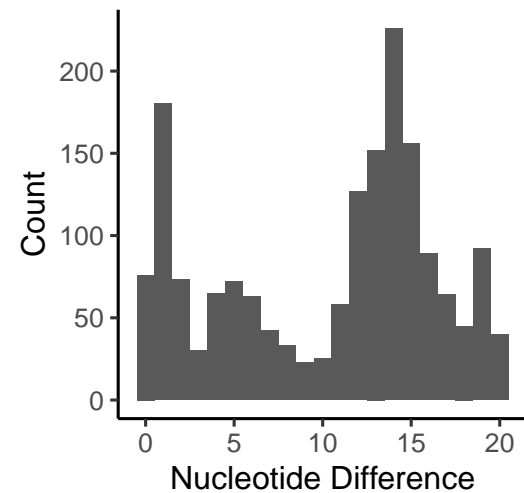
### IGHV3-30-3\*03

6 sequences assigned  
No exact matches.



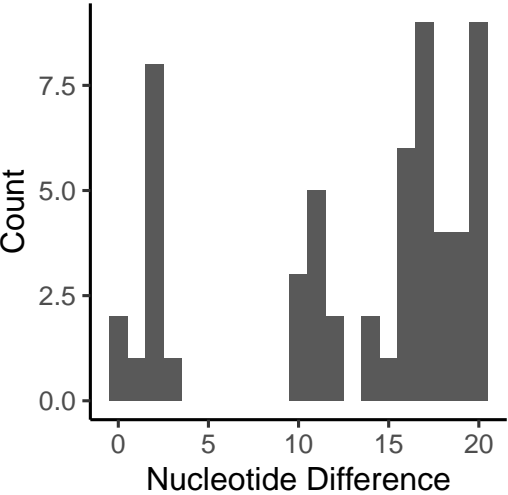
### IGHV3-48\*02

2105 sequences assigned  
76 (3.6%) exact matches, in which:  
38 unique CDR3  
3 unique J



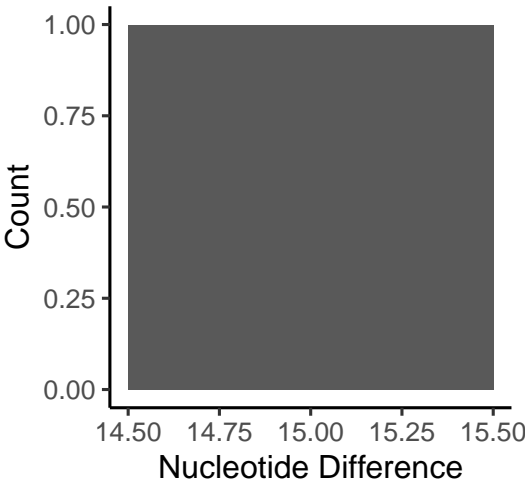
IGHV3-49\*05

108 sequences assigned  
2 (1.9%) exact matches, in which:  
1 unique CDR3  
1 unique J



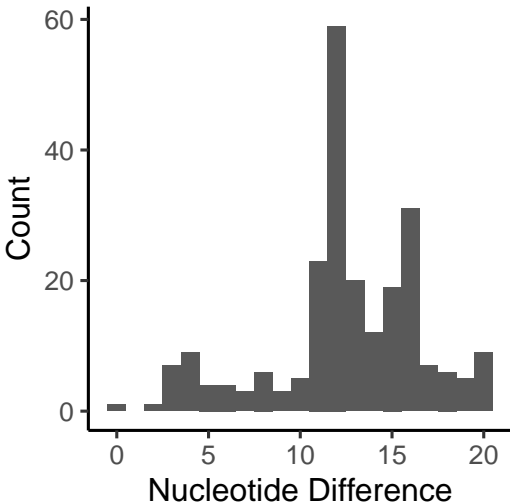
IGHV3-66\*03

1 sequences assigned  
No exact matches.



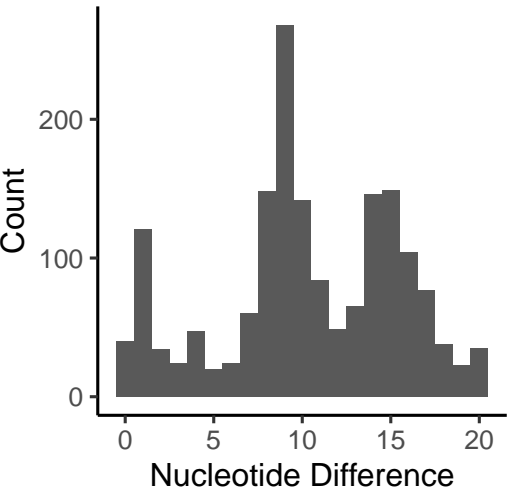
IGHV3-72\*01

360 sequences assigned  
1 (0.3%) exact matches, in which:  
1 unique CDR3  
1 unique J



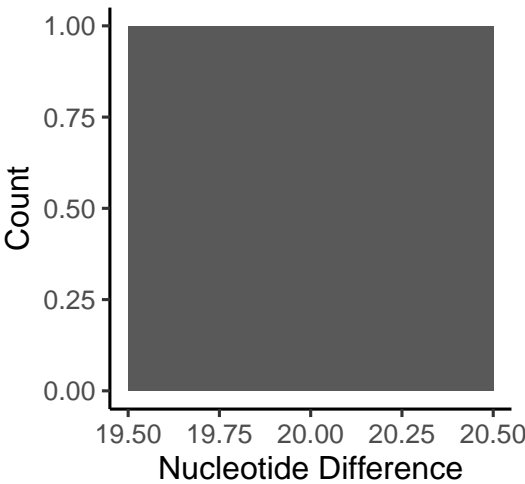
IGHV3-53\*01

2444 sequences assigned  
40 (1.6%) exact matches, in which:  
27 unique CDR3  
5 unique J



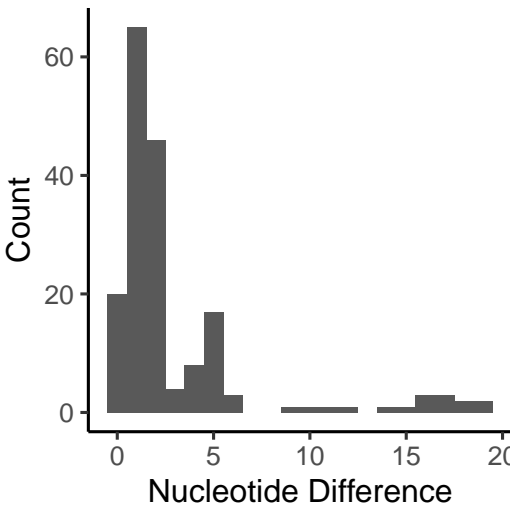
IGHV3-66\*04

1 sequences assigned  
No exact matches.



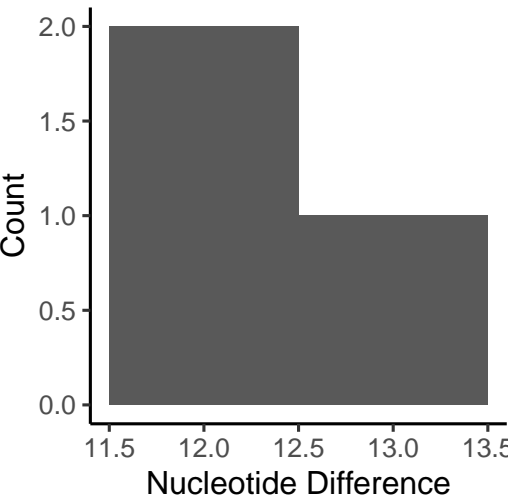
IGHV3-73\*02

191 sequences assigned  
20 (10.5%) exact matches, in which:  
13 unique CDR3  
2 unique J



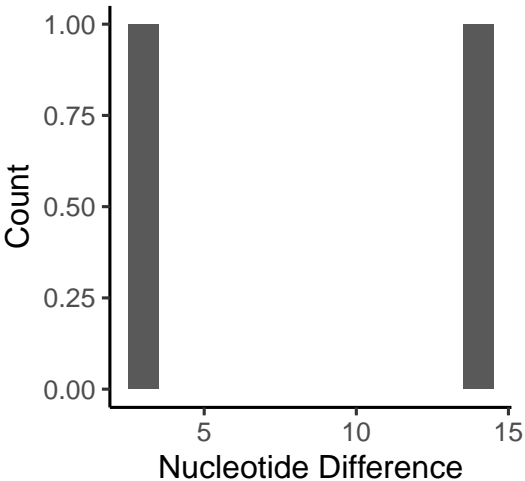
IGHV3-64\*02

3 sequences assigned  
No exact matches.



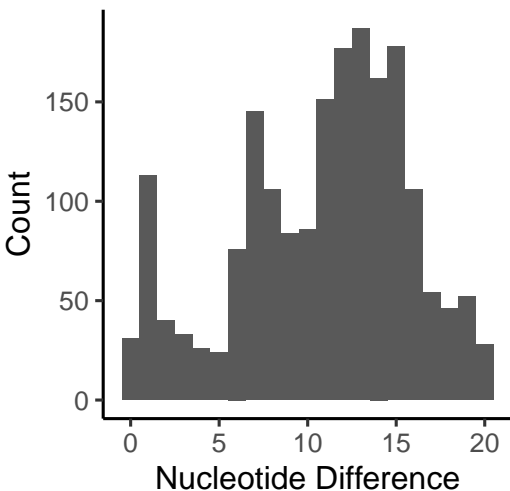
IGHV3-69-1\*01

2 sequences assigned  
No exact matches.



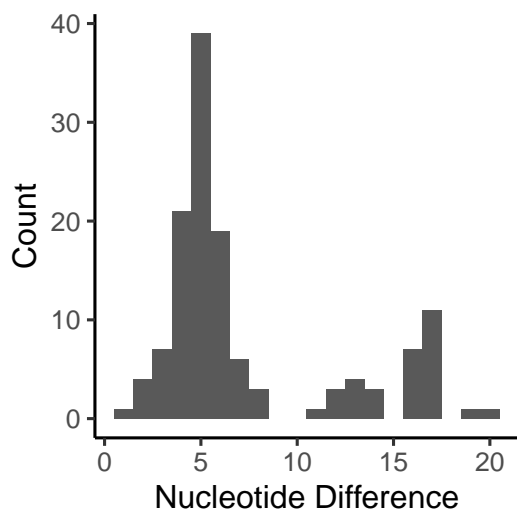
IGHV3-74\*01

2105 sequences assigned  
31 (1.5%) exact matches, in which:  
19 unique CDR3  
3 unique J



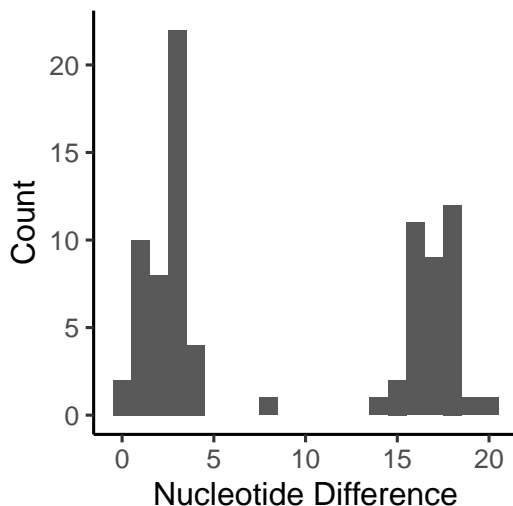
### IGHV4-4\*02

225 sequences assigned  
No exact matches.



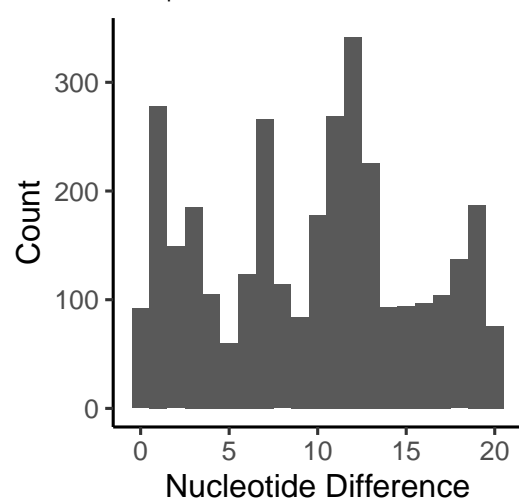
### IGHV4-30-2\*01

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



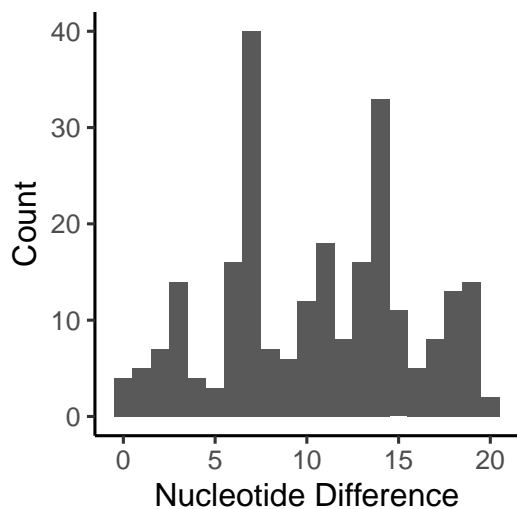
### IGHV4-39\*01

3905 sequences assigned  
92 (2.4%) exact matches, in which:  
56 unique CDR3  
6 unique J



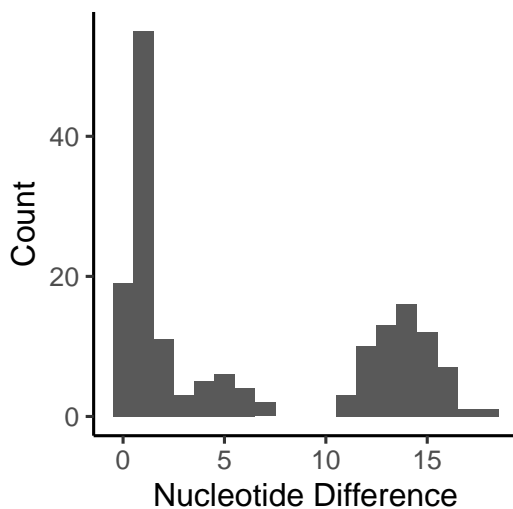
### IGHV4-4\*07

297 sequences assigned  
4 (1.3%) exact matches, in which:  
4 unique CDR3  
1 unique J



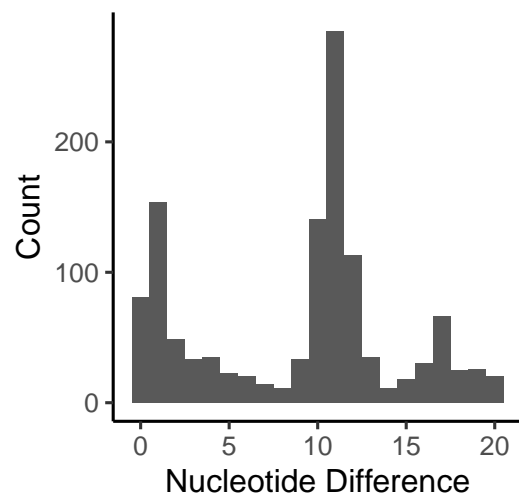
### IGHV4-31\*03

224 sequences assigned  
19 (8.5%) exact matches, in which:  
10 unique CDR3  
3 unique J



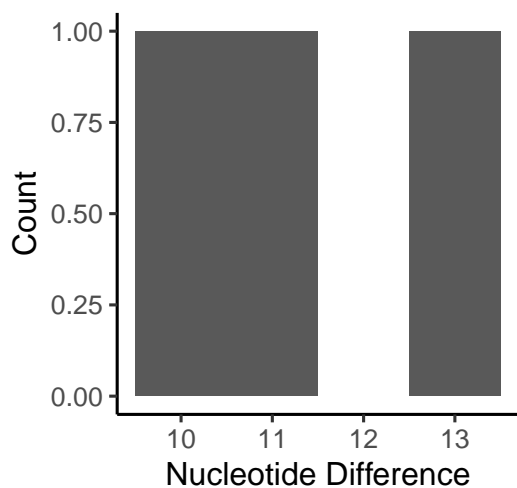
### IGHV4-59\*01

1663 sequences assigned  
81 (4.9%) exact matches, in which:  
37 unique CDR3  
4 unique J



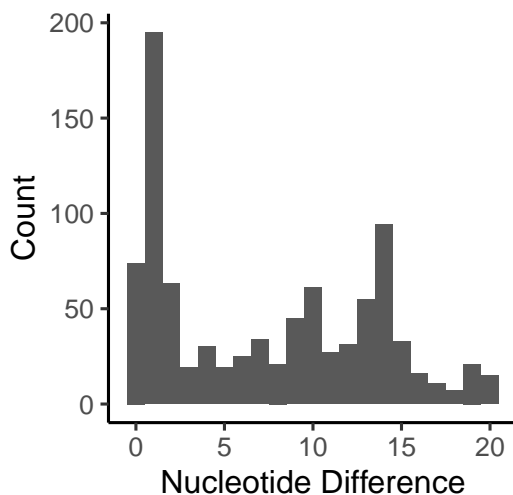
### IGHV4-28\*01

3 sequences assigned  
No exact matches.



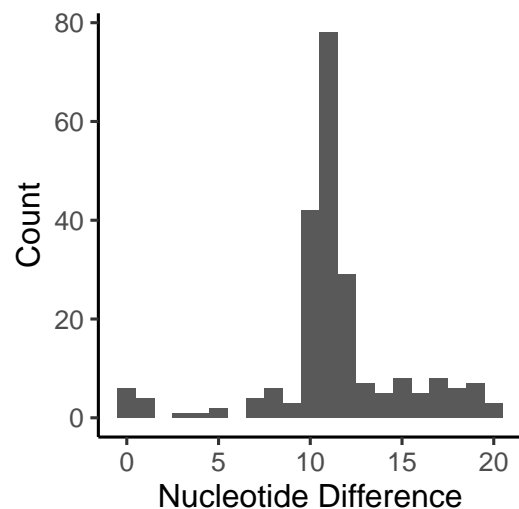
### IGHV4-34\*01

1313 sequences assigned  
74 (5.6%) exact matches, in which:  
52 unique CDR3  
3 unique J



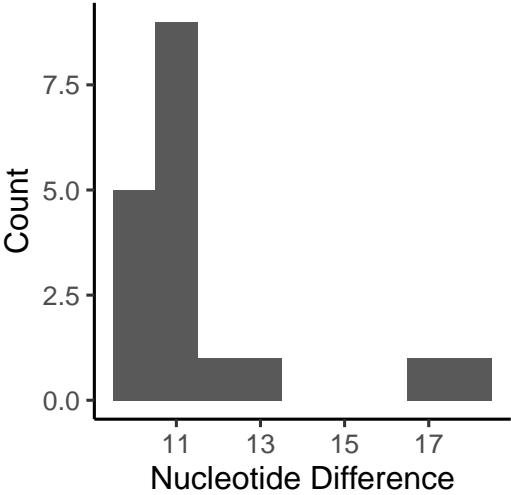
### IGHV4-61\*01

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



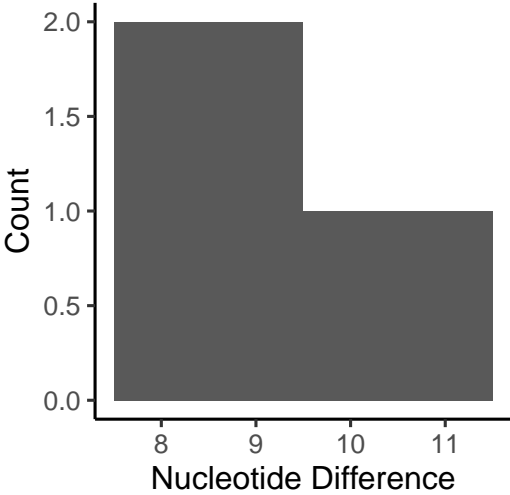
IGHV4-61\*08

34 sequences assigned  
No exact matches.



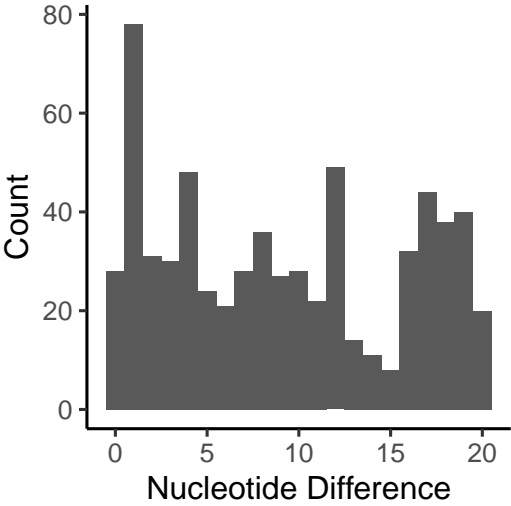
IGHV7-4-1\*01

6 sequences assigned  
No exact matches.



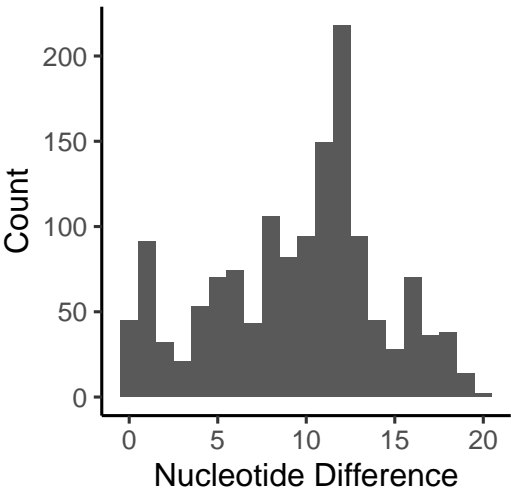
IGHV5-51\*01

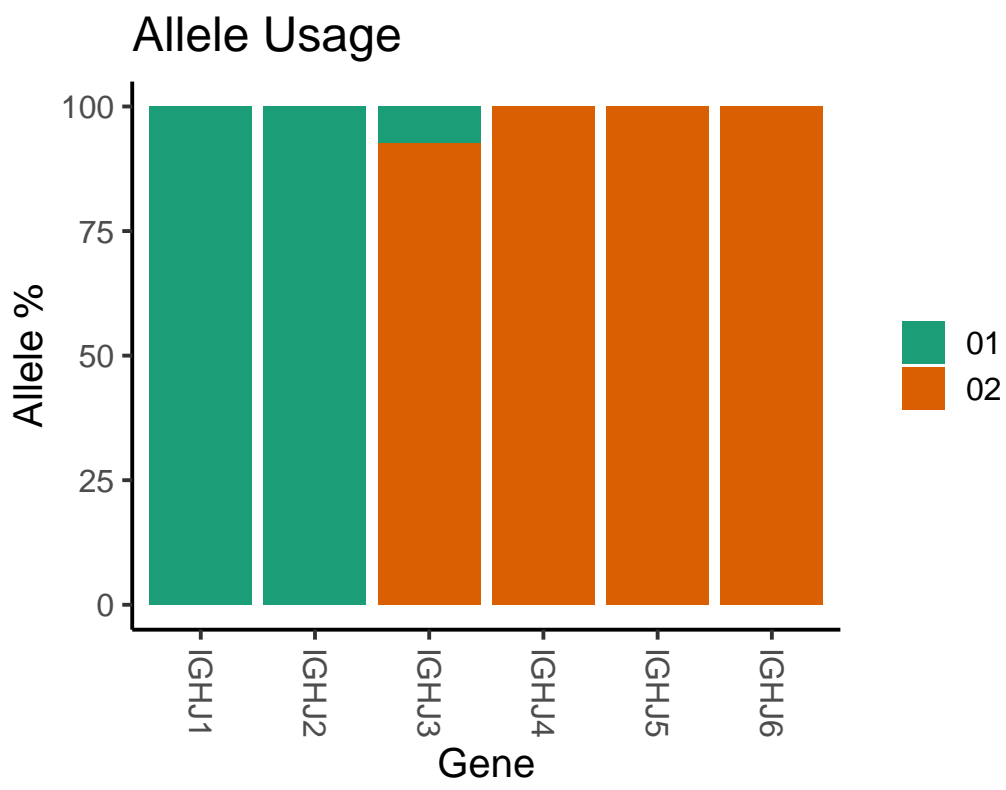
1355 sequences assigned  
28 (2.1%) exact matches, in which:  
16 unique CDR3  
5 unique J



IGHV6-1\*01

1441 sequences assigned  
45 (3.1%) exact matches, in which:  
20 unique CDR3  
3 unique J





Warning – no inferred sequences found.