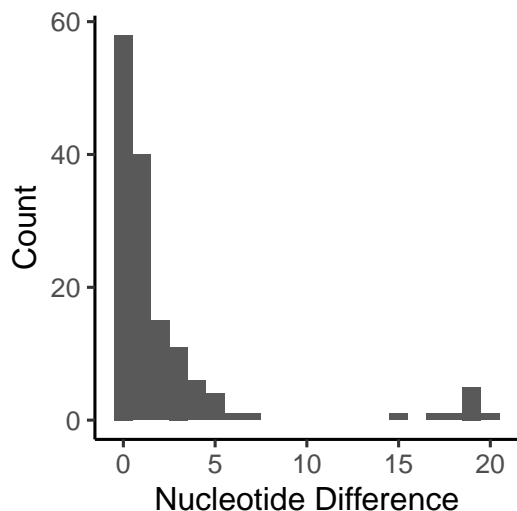


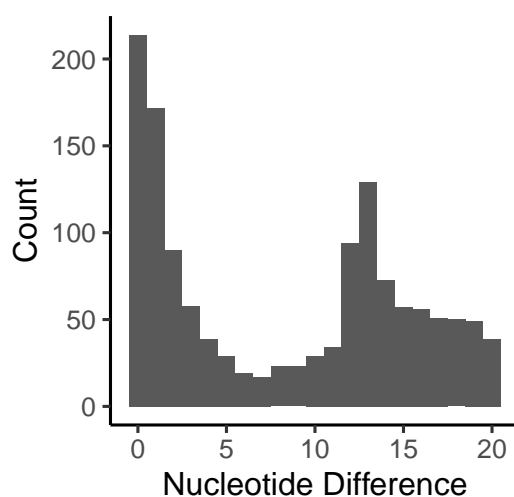
## IGHV1S10\*01\_C93T\_G16

147 sequences assigned  
58 (39.5%) exact matches, in which:  
52 unique CDR3  
6 unique J



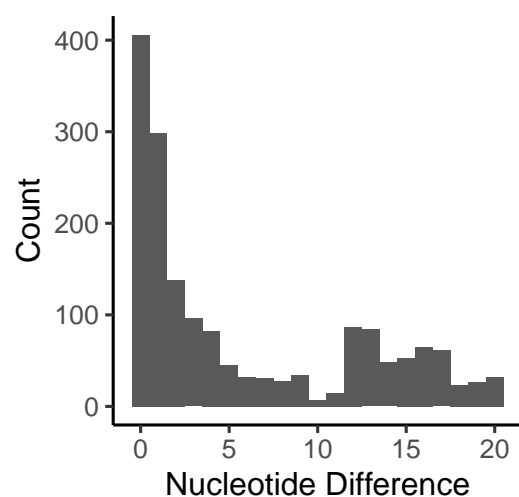
## IGHV1S9\*01\_G18A\_G49

1579 sequences assigned  
214 (13.6%) exact matches, in which:  
200 unique CDR3  
6 unique J



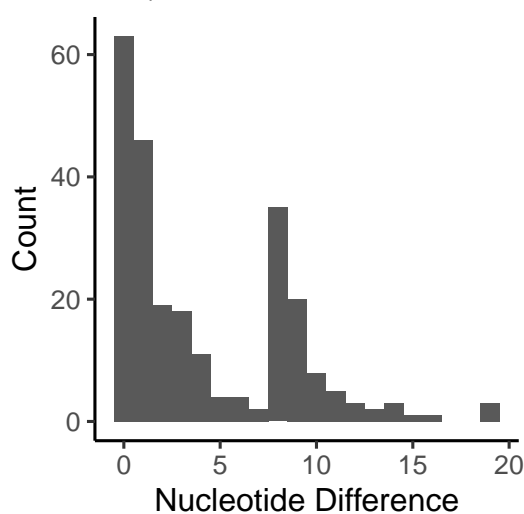
## IGHV2S2\*01\_C6G\_G115

2019 sequences assigned  
406 (20.1%) exact matches, in which:  
364 unique CDR3  
6 unique J



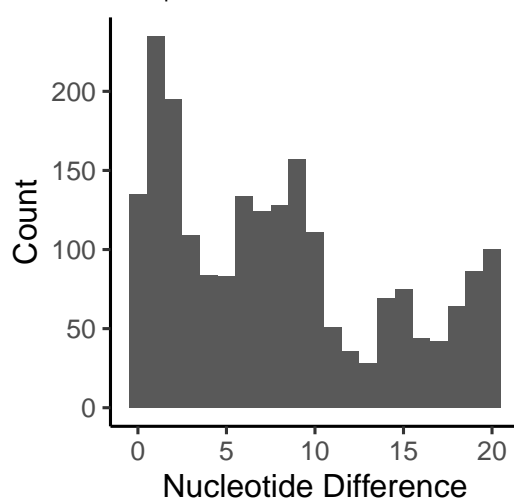
## IGHV1S10\*01\_G167T

249 sequences assigned  
63 (25.3%) exact matches, in which:  
60 unique CDR3  
5 unique J



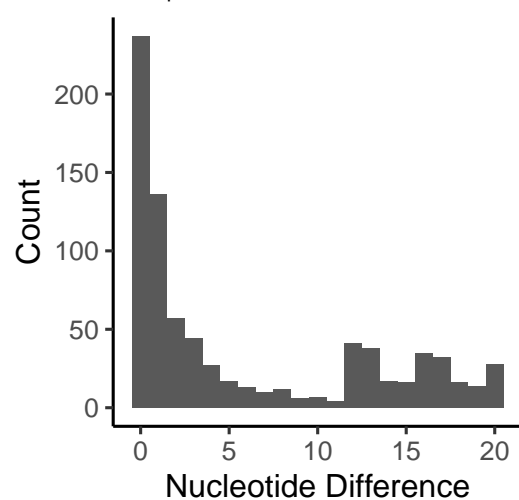
## IGHV2S1\*01\_C34T\_C95C

2582 sequences assigned  
135 (5.2%) exact matches, in which:  
112 unique CDR3  
5 unique J



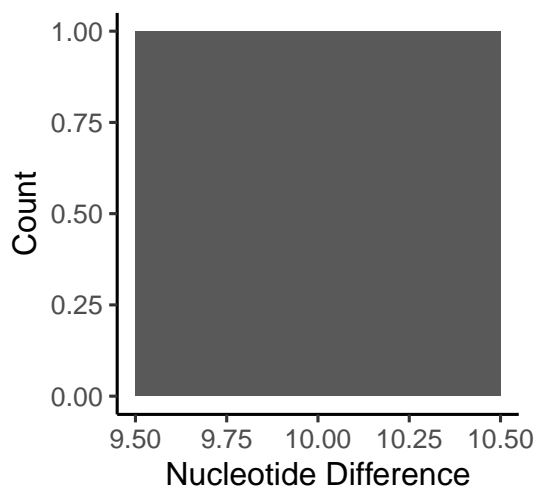
## IGHV2S2\*01\_C6G\_G115

1028 sequences assigned  
237 (23.1%) exact matches, in which:  
226 unique CDR3  
6 unique J



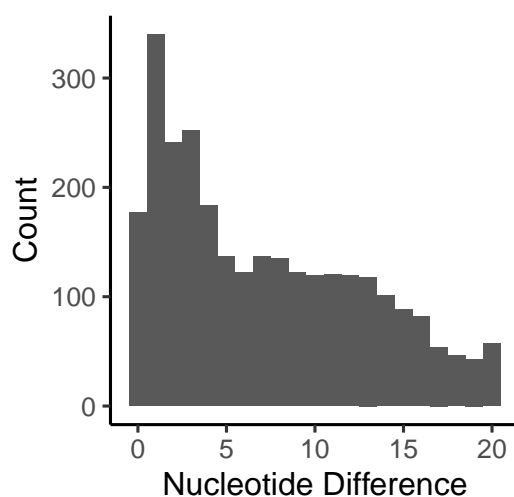
## IGHV1S4\*01

126 sequences assigned  
No exact matches.



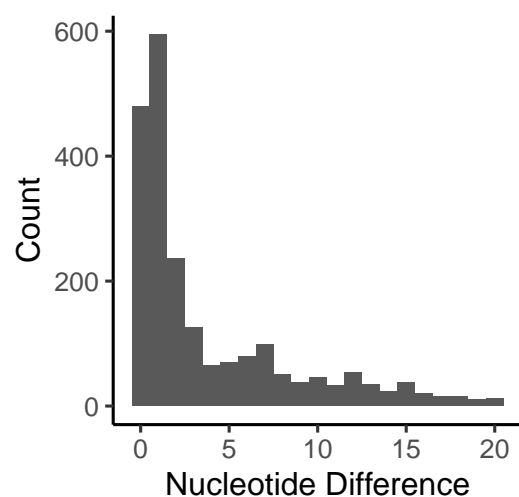
## IGHV2S1\*01\_G6C\_G36C

3063 sequences assigned  
177 (5.8%) exact matches, in which:  
155 unique CDR3  
6 unique J



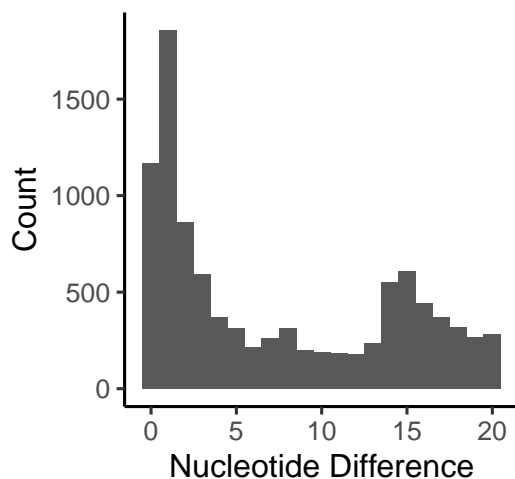
## IGHV3S16\*01\_A116G\_G

2253 sequences assigned  
480 (21.3%) exact matches, in which:  
410 unique CDR3  
6 unique J



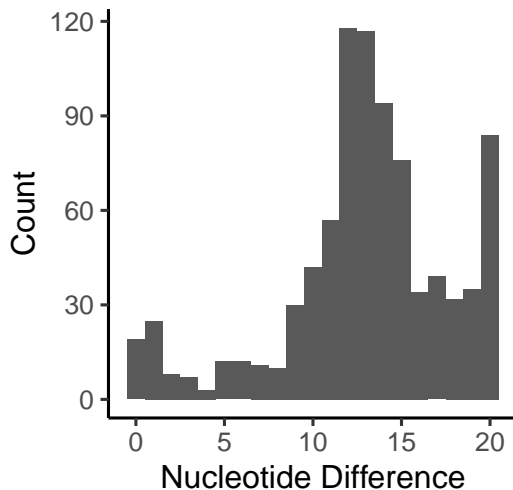
### IGHV3S16\*01\_G24A\_A1

11381 sequences assigned  
1170 (10.3%) exact matches, in which:  
973 unique CDR3  
6 unique J



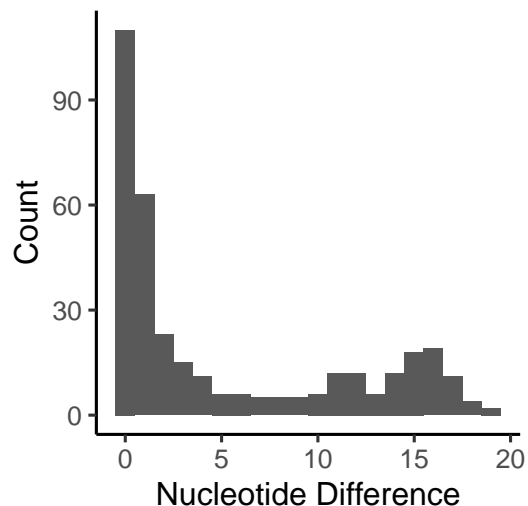
### IGHV3S22\*01\_C61G\_T1

1745 sequences assigned  
19 (1.1%) exact matches, in which:  
16 unique CDR3  
4 unique J



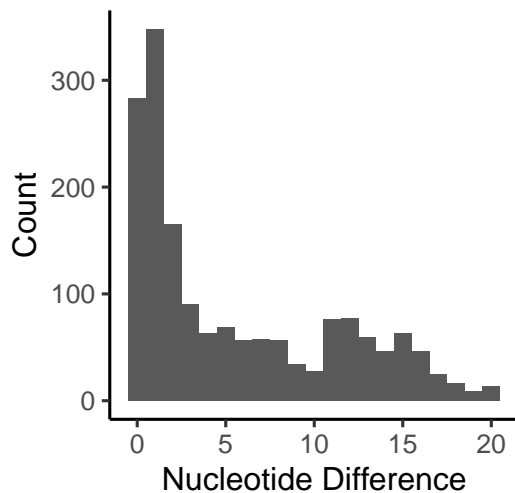
### IGHV3S26\*01\_C3A\_C54T

362 sequences assigned  
110 (30.4%) exact matches, in which:  
102 unique CDR3  
6 unique J



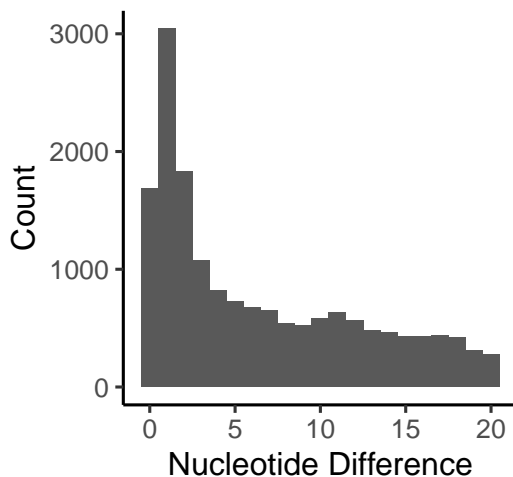
### IGHV3S18\*01\_G3A\_C27

1734 sequences assigned  
283 (16.3%) exact matches, in which:  
253 unique CDR3  
6 unique J



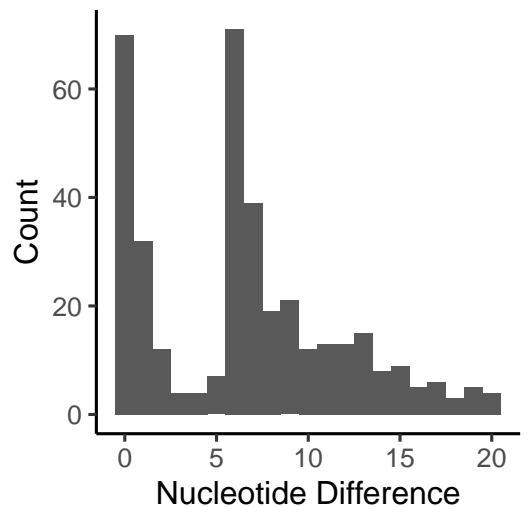
### IGHV3S25\*01\_C114T\_T

18138 sequences assigned  
1685 (9.3%) exact matches, in which:  
1447 unique CDR3  
6 unique J



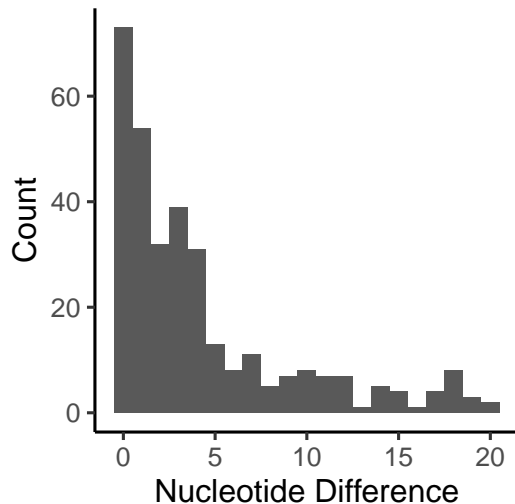
### IGHV3S26\*01\_C54T\_C21

415 sequences assigned  
70 (16.9%) exact matches, in which:  
65 unique CDR3  
6 unique J



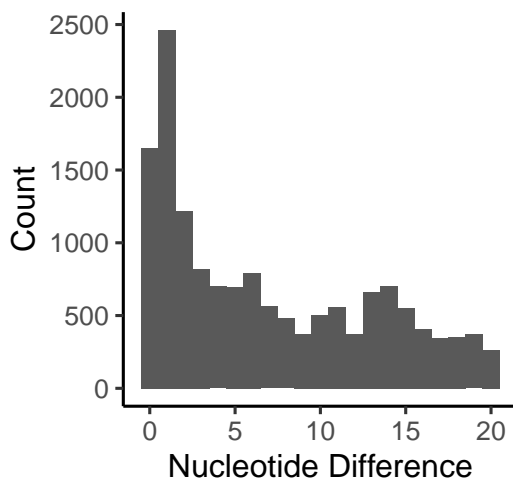
### IGHV3S20\*01\_C34T\_G26

362 sequences assigned  
73 (20.2%) exact matches, in which:  
66 unique CDR3  
5 unique J



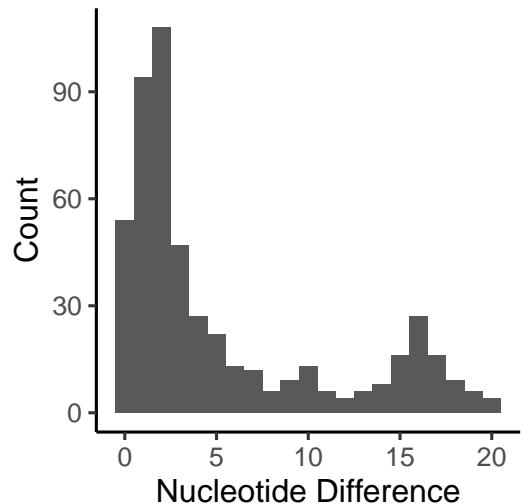
### IGHV3S25\*01\_T78C\_G1

17131 sequences assigned  
1651 (9.6%) exact matches, in which:  
1395 unique CDR3  
6 unique J



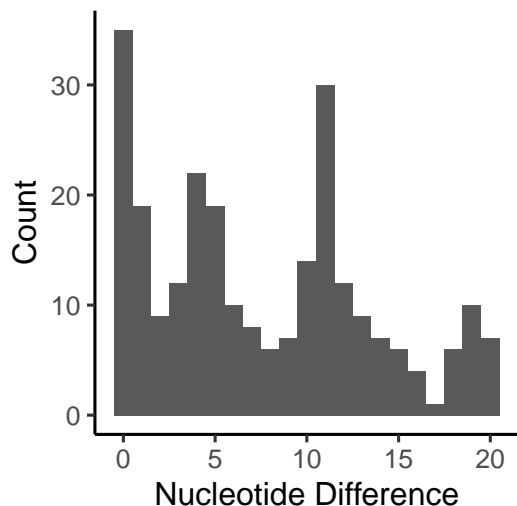
### IGHV3S30\*01\_A307T

519 sequences assigned  
54 (10.4%) exact matches, in which:  
46 unique CDR3  
5 unique J



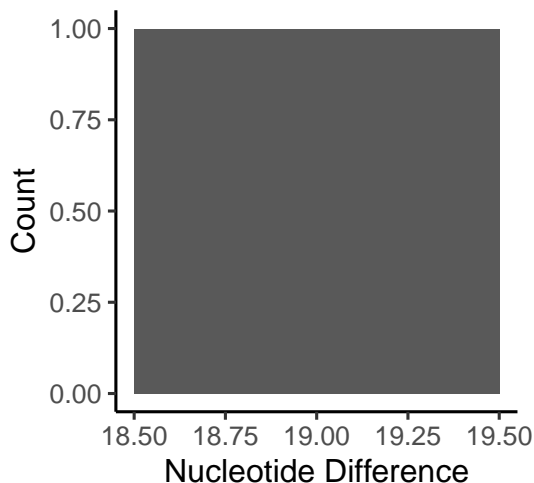
### IGHV3S43\*01\_A7C\_A15G

335 sequences assigned  
35 (10.4%) exact matches, in which:  
34 unique CDR3  
6 unique J



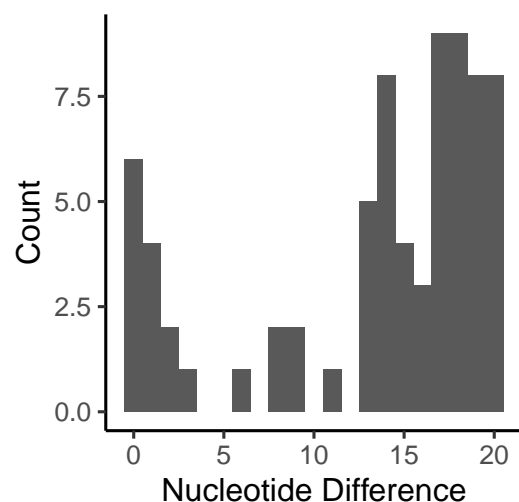
### IGHV3S46\*01

1 sequences assigned  
No exact matches.



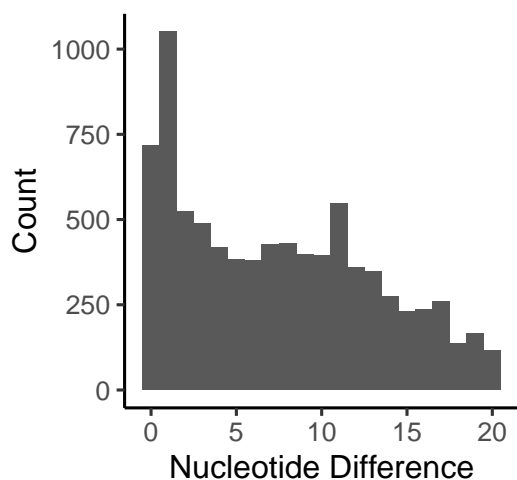
### IGHV4S10\*01\_C90T\_G10

169 sequences assigned  
6 (3.6%) exact matches, in which:  
6 unique CDR3  
3 unique J



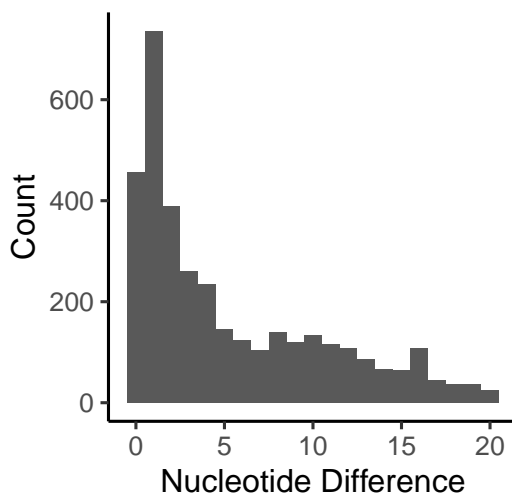
### IGHV3S45\*01\_G26C\_G1

8723 sequences assigned  
718 (8.2%) exact matches, in which:  
598 unique CDR3  
6 unique J



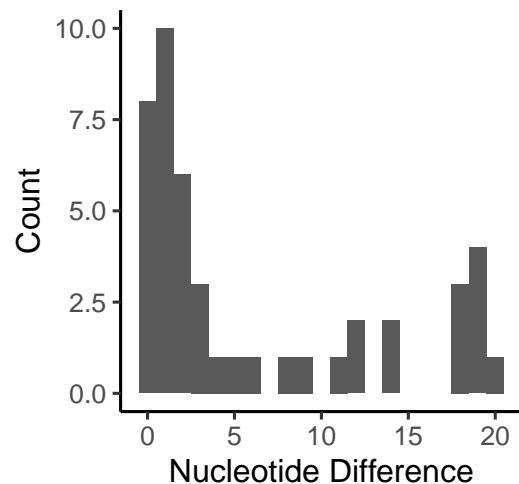
### IGHV3S5\*01\_G160A\_G1

3920 sequences assigned  
456 (11.6%) exact matches, in which:  
390 unique CDR3  
6 unique J



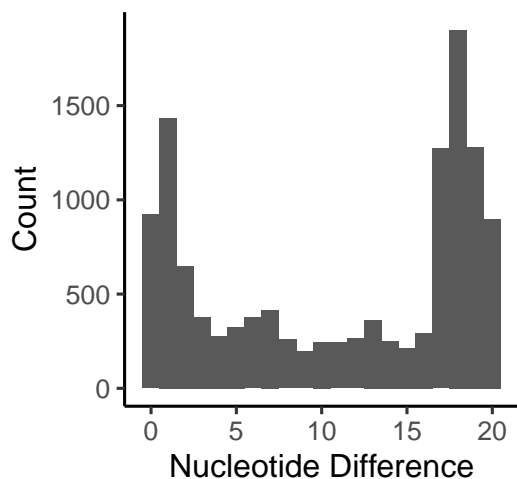
### IGHV4S10\*01\_C90T\_G10

52 sequences assigned  
8 (15.4%) exact matches, in which:  
8 unique CDR3  
4 unique J



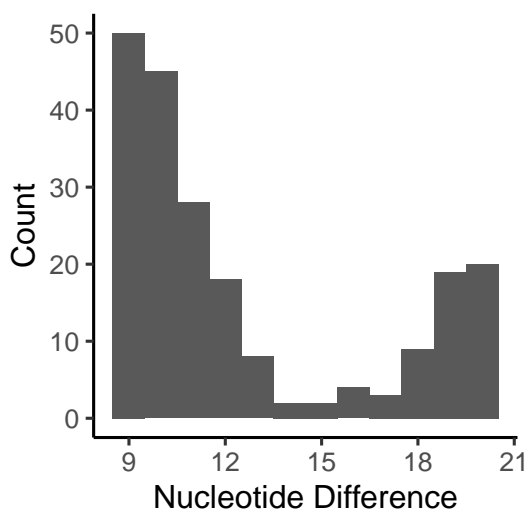
### IGHV3S45\*01\_G26C\_G1

19141 sequences assigned  
922 (4.8%) exact matches, in which:  
745 unique CDR3  
6 unique J



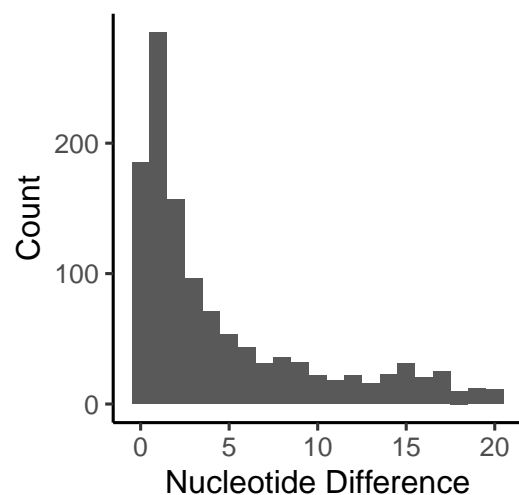
### IGHV3S7\*01

379 sequences assigned  
No exact matches.



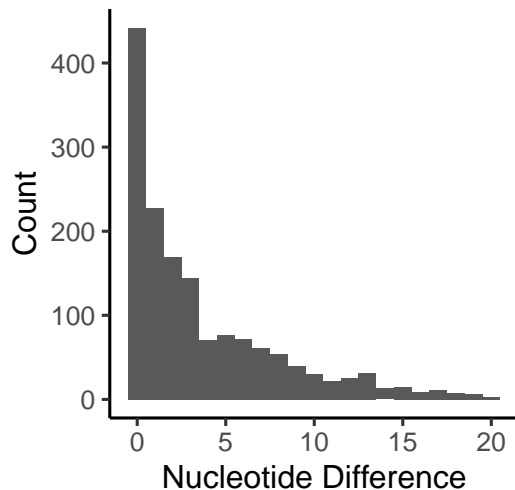
### IGHV4S12\*01\_A199T\_A2

1302 sequences assigned  
185 (14.2%) exact matches, in which:  
178 unique CDR3  
6 unique J



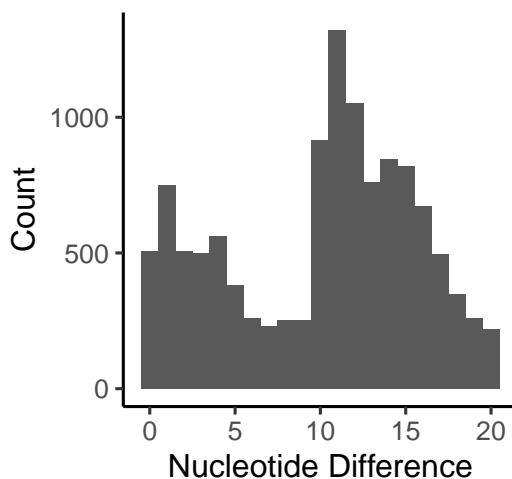
### IGHV4S12\*01\_G34C\_C9

1594 sequences assigned  
442 (27.7%) exact matches, in which:  
341 unique CDR3  
6 unique J



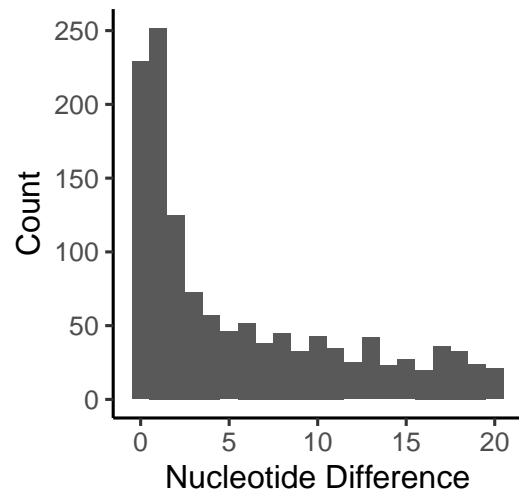
### IGHV4S17\*01\_A166T\_A

13520 sequences assigned  
506 (3.7%) exact matches, in which:  
476 unique CDR3  
6 unique J



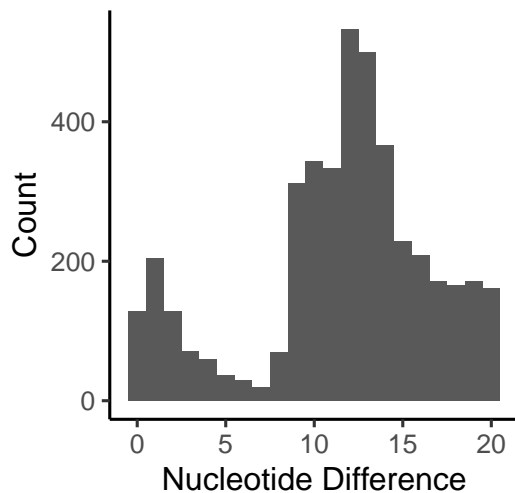
### IGHV4S6\*01\_A70G

1448 sequences assigned  
229 (15.8%) exact matches, in which:  
212 unique CDR3  
6 unique J



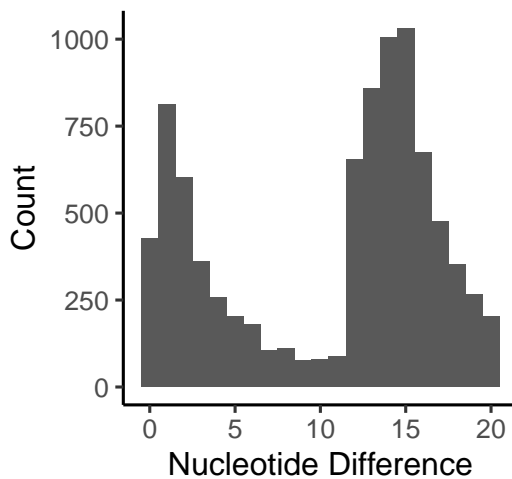
### IGHV4S14\*01\_T90C\_A16

5190 sequences assigned  
129 (2.5%) exact matches, in which:  
122 unique CDR3  
6 unique J



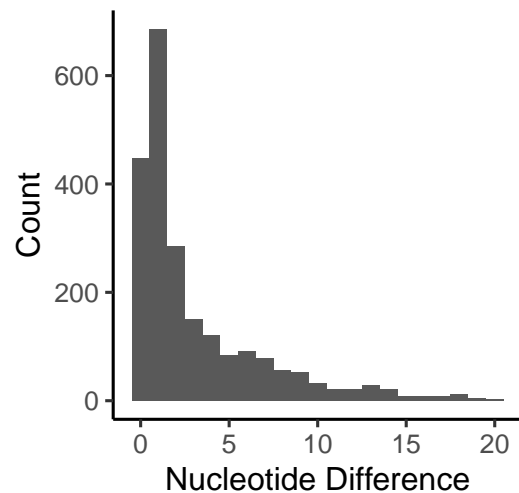
### IGHV4S18\*01\_C34G\_T1

10684 sequences assigned  
427 (4%) exact matches, in which:  
400 unique CDR3  
6 unique J



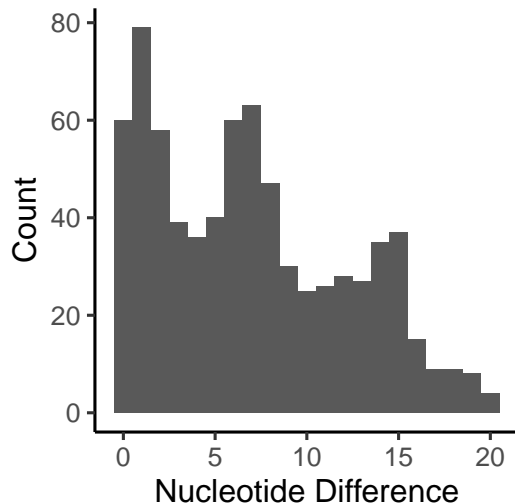
### IGHV5S1\*01\_G51A\_A11

2232 sequences assigned  
447 (20%) exact matches, in which:  
361 unique CDR3  
6 unique J



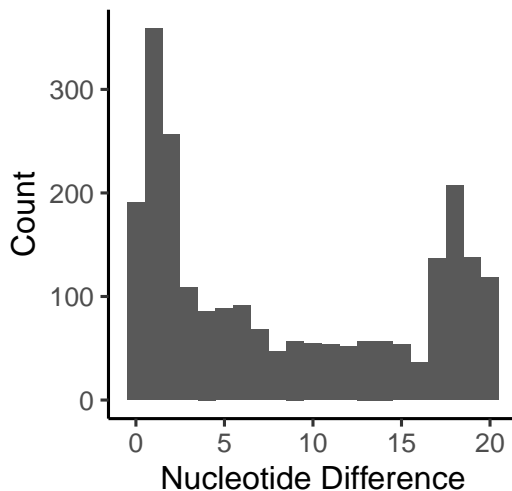
### IGHV4S15\*01\_C303G

955 sequences assigned  
60 (6.3%) exact matches, in which:  
57 unique CDR3  
6 unique J



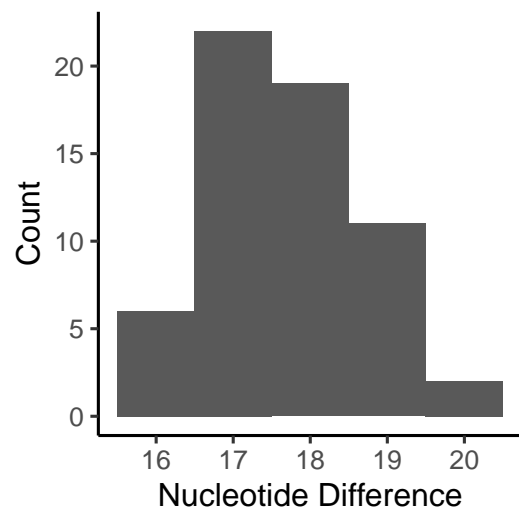
### IGHV4S19\*01\_A166T\_T1

2711 sequences assigned  
191 (7%) exact matches, in which:  
183 unique CDR3  
6 unique J



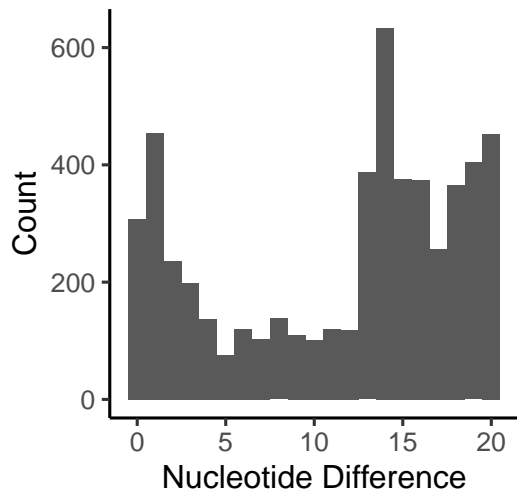
### IGHV7S3\*01

539 sequences assigned  
No exact matches.



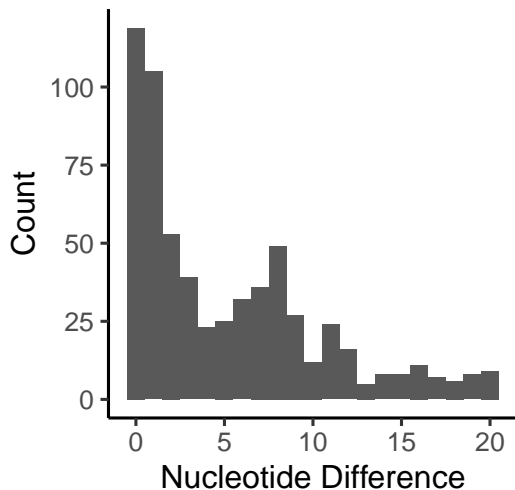
### IGHV3-6\*01\_C61G\_T12C

9262 sequences assigned  
308 (3.3%) exact matches, in which:  
265 unique CDR3  
6 unique J



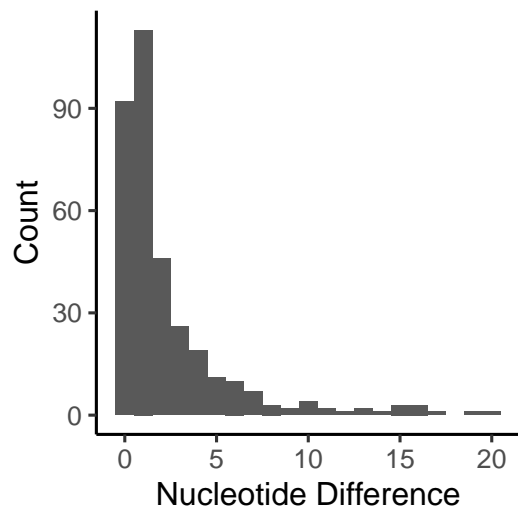
### IGHV3-20\*01\_A169G\_G

4808 sequences assigned  
119 (2.5%) exact matches, in which:  
104 unique CDR3  
6 unique J



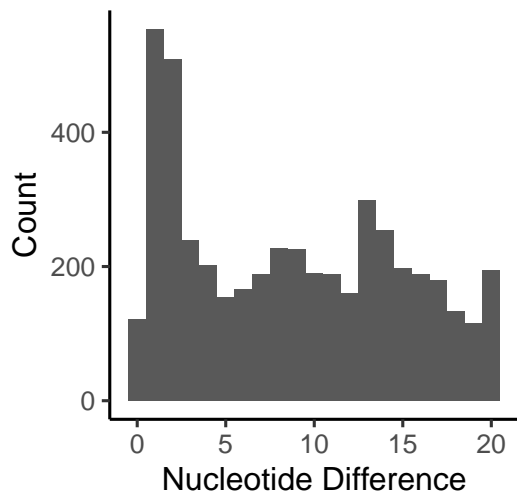
### IGHV3-22\*01\_A39C\_G48

376 sequences assigned  
92 (24.5%) exact matches, in which:  
81 unique CDR3  
6 unique J



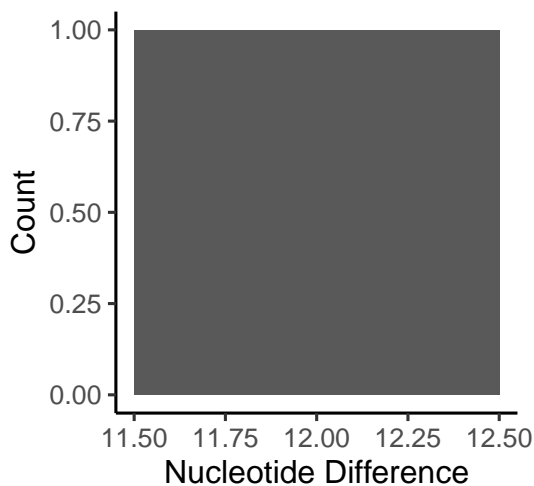
### IGHV3-9\*01\_C262T

5232 sequences assigned  
122 (2.3%) exact matches, in which:  
111 unique CDR3  
6 unique J



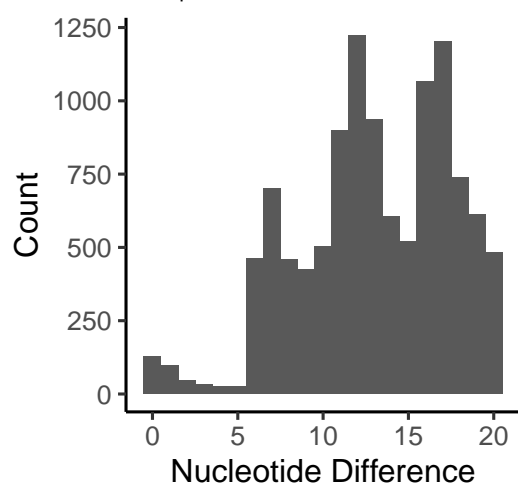
### IGHV3-21\*01

291 sequences assigned  
No exact matches.



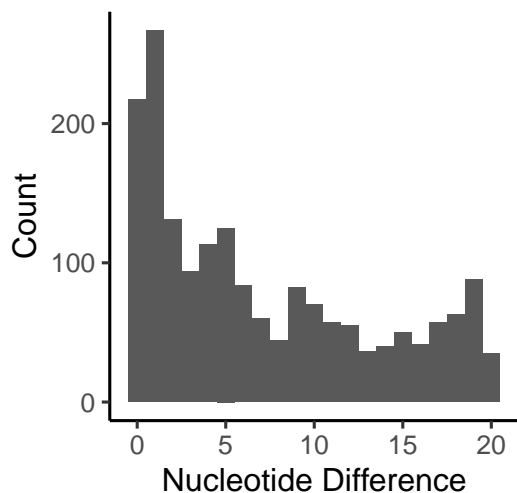
### IGHV4-2\*01\_C4G\_C173

17412 sequences assigned  
127 (0.7%) exact matches, in which:  
122 unique CDR3  
6 unique J



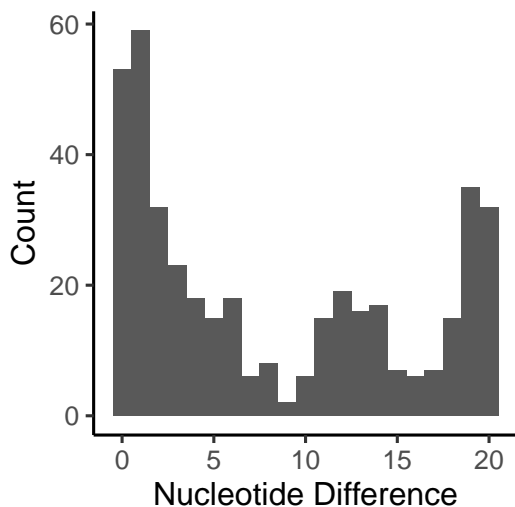
### IGHV3-14\*01\_G110A\_C

2018 sequences assigned  
217 (10.8%) exact matches, in which:  
191 unique CDR3  
6 unique J



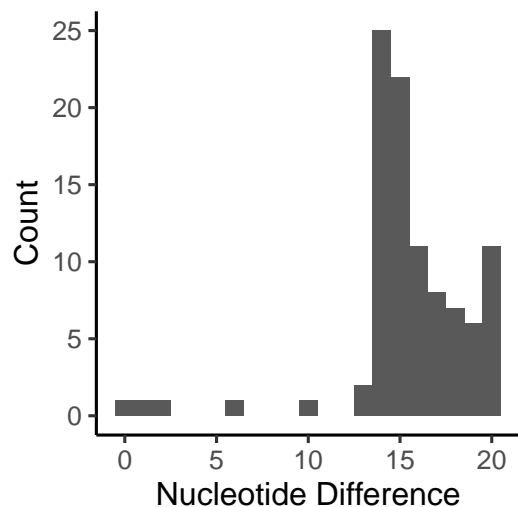
### IGHV3-22\*01\_A39C\_G48

630 sequences assigned  
53 (8.4%) exact matches, in which:  
44 unique CDR3  
5 unique J



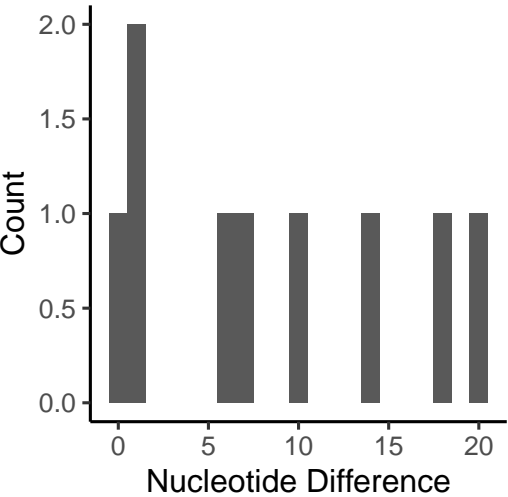
### IGHV4-2\*01\_C4G\_C90T

200 sequences assigned  
1 (0.5%) exact matches, in which:  
1 unique CDR3  
1 unique J



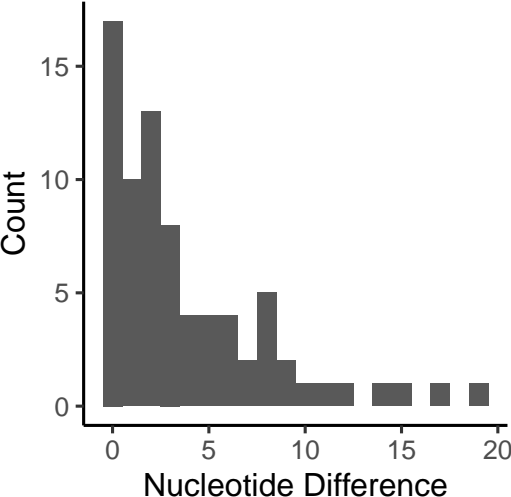
IGHV4-2\*01\_C4G\_C90T\_

14 sequences assigned  
1 (7.1%) exact matches, in which:  
1 unique CDR3  
1 unique J



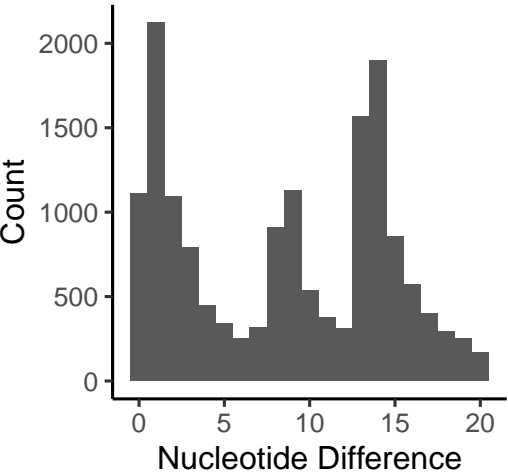
IGHV6-1\*01\_G227A\_G283T\_C166T\_G167A\_C173A\_C201A

76 sequences assigned  
17 (22.4%) exact matches, in which:  
16 unique CDR3  
4 unique J



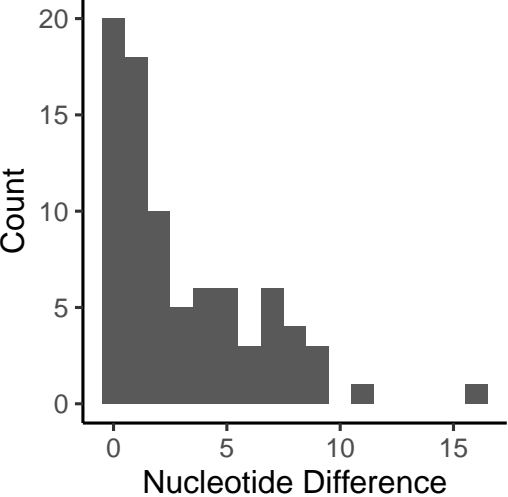
IGHV5-2\*01\_G51A\_A59G\_G166A\_C167T\_T171C\_G172T\_A178G\_T298A

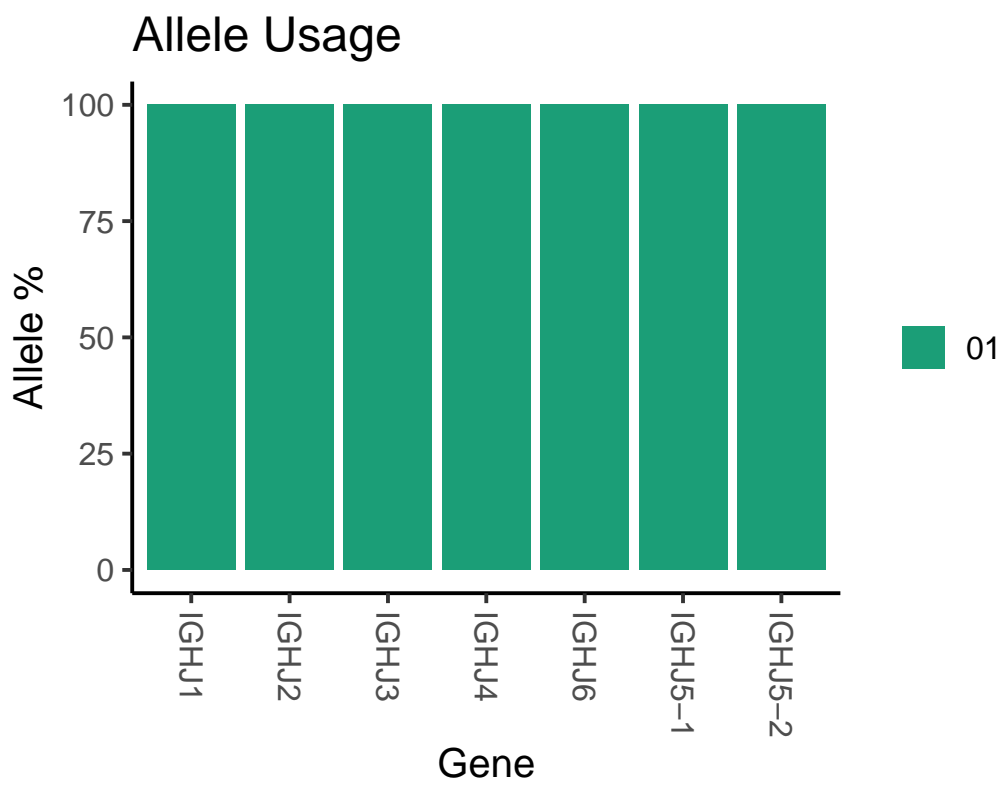
16547 sequences assigned  
1110 (6.7%) exact matches, in which:  
888 unique CDR3  
6 unique J



IGHV6-1\*01\_G227A

83 sequences assigned  
20 (24.1%) exact matches, in which:  
18 unique CDR3  
4 unique J





Warning – no inferred sequences found.