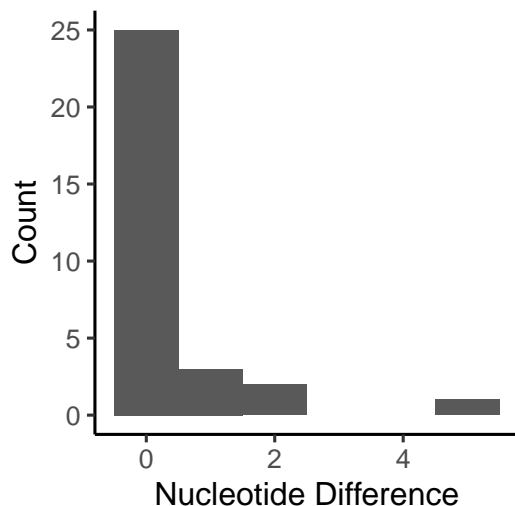


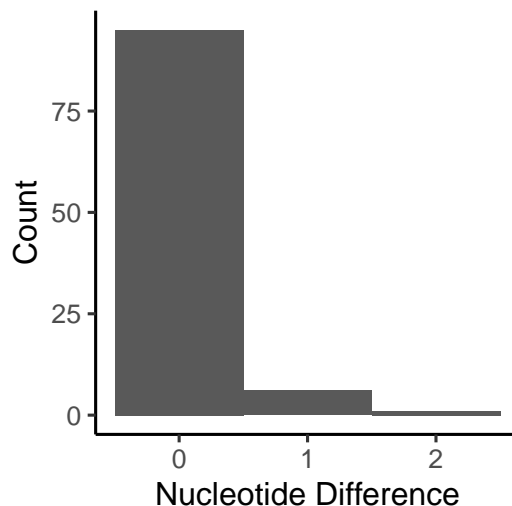
IGHV1-2*04

31 sequences assigned
25 (80.6%) exact matches, in which:
25 unique CDR3
5 unique J



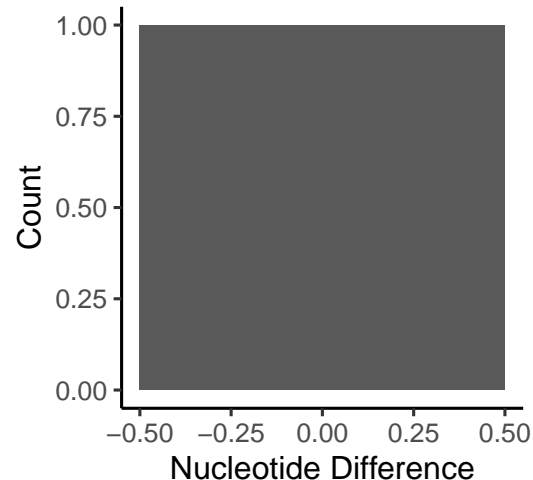
IGHV1-8*01

102 sequences assigned
95 (93.1%) exact matches, in which:
95 unique CDR3
5 unique J



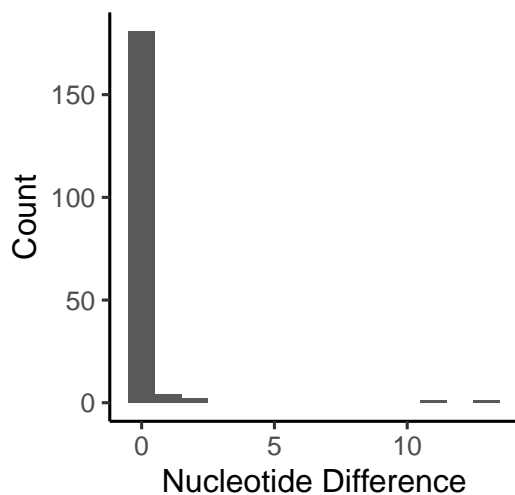
IGHV1-45*02

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



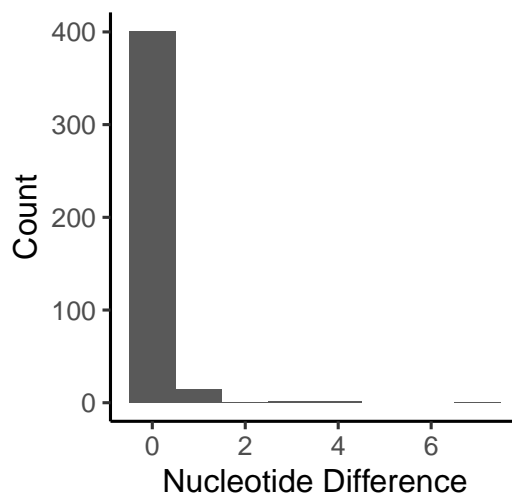
IGHV1-2*06

190 sequences assigned
181 (95.3%) exact matches, in which:
181 unique CDR3
6 unique J



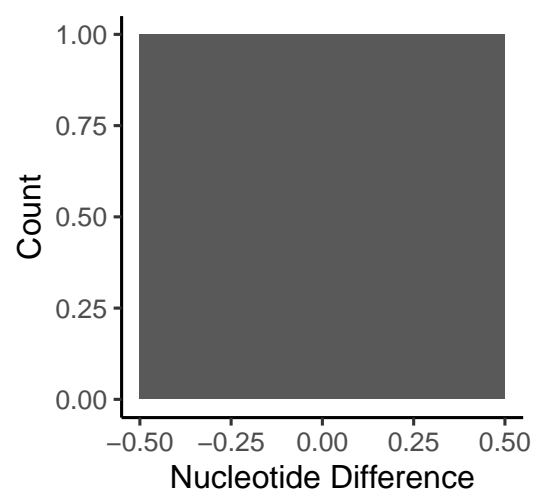
IGHV1-18*01

422 sequences assigned
401 (95%) exact matches, in which:
401 unique CDR3
7 unique J



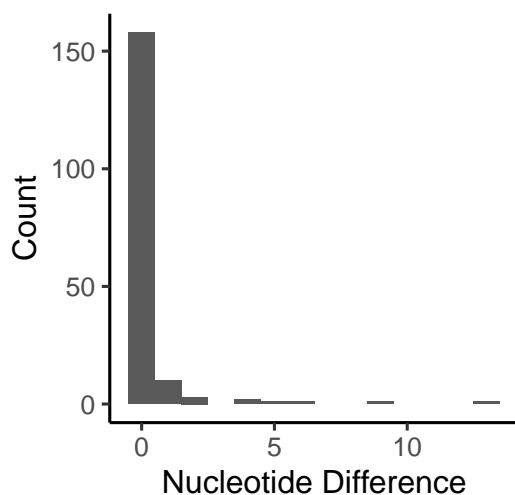
IGHV1-45*03

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



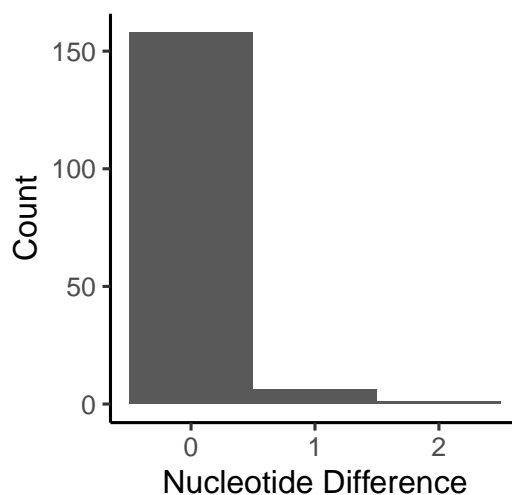
IGHV1-3*01

177 sequences assigned
158 (89.3%) exact matches, in which:
158 unique CDR3
7 unique J



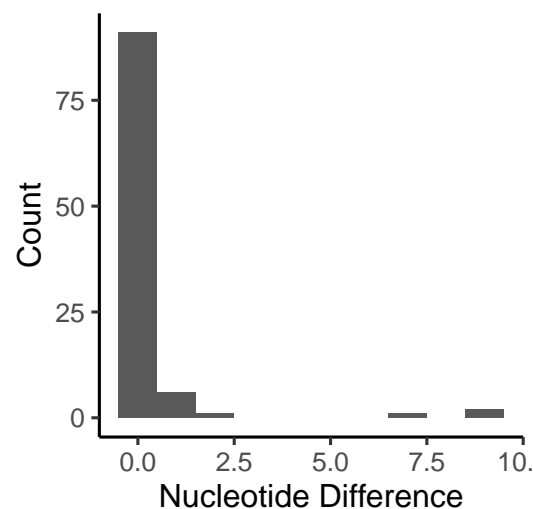
IGHV1-24*01

165 sequences assigned
158 (95.8%) exact matches, in which:
158 unique CDR3
7 unique J



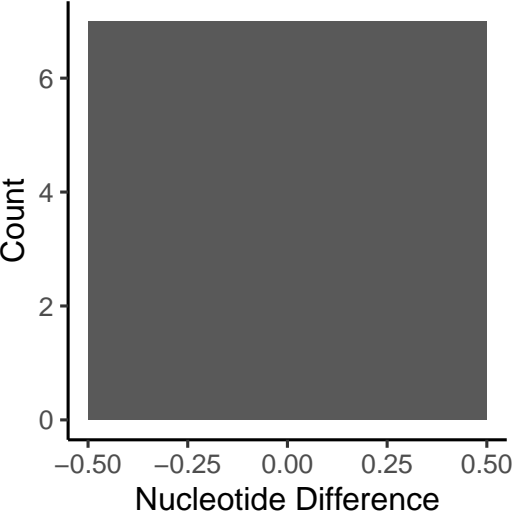
IGHV1-46*01

101 sequences assigned
91 (90.1%) exact matches, in which:
91 unique CDR3
7 unique J



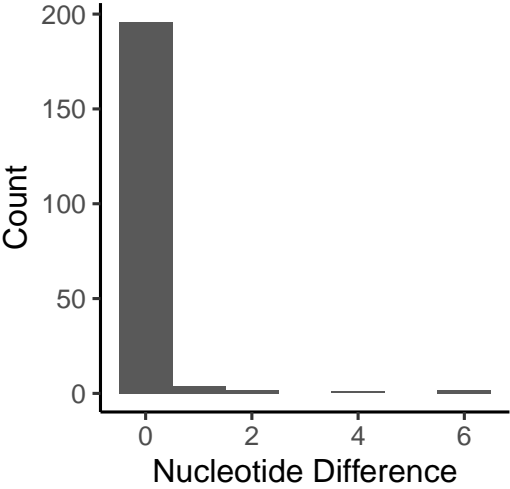
IGHV1-58*01

7 sequences assigned
7 (100%) exact matches, in which:
7 unique CDR3
2 unique J



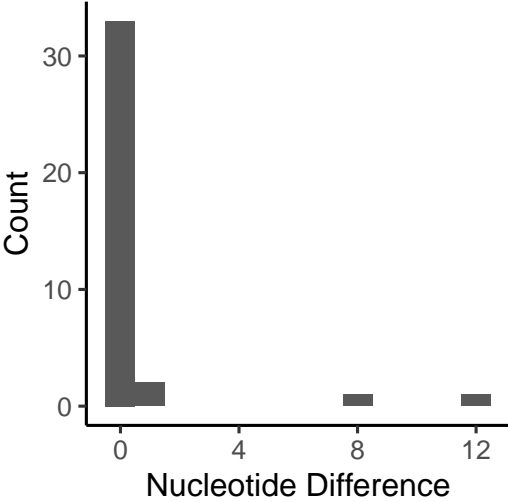
IGHV1-69*04

205 sequences assigned
196 (95.6%) exact matches, in which:
196 unique CDR3
7 unique J



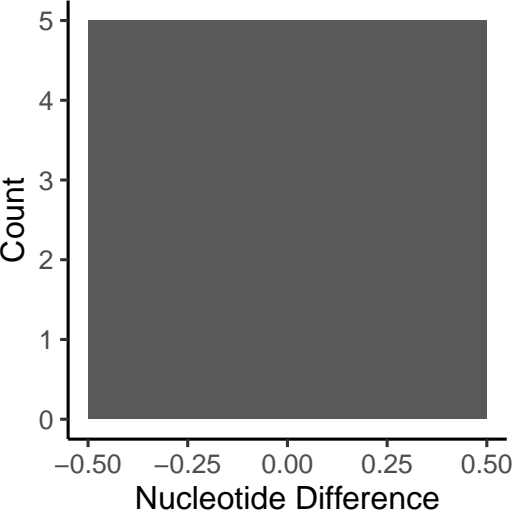
IGHV2-26*01

37 sequences assigned
33 (89.2%) exact matches, in which:
33 unique CDR3
6 unique J



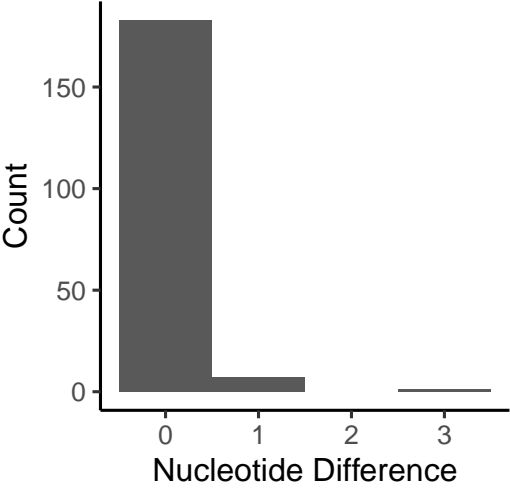
IGHV1-58*02

5 sequences assigned
5 (100%) exact matches, in which:
5 unique CDR3
3 unique J



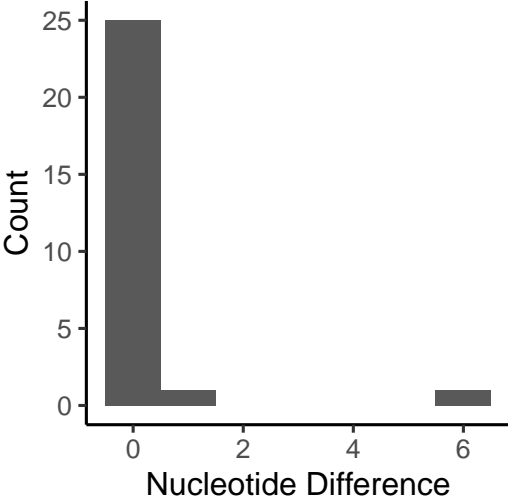
IGHV1-69*06

191 sequences assigned
183 (95.8%) exact matches, in which:
183 unique CDR3
7 unique J



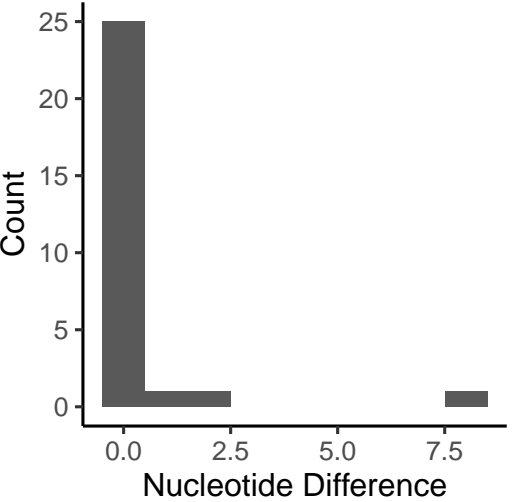
IGHV2-70*01

27 sequences assigned
25 (92.6%) exact matches, in which:
25 unique CDR3
4 unique J



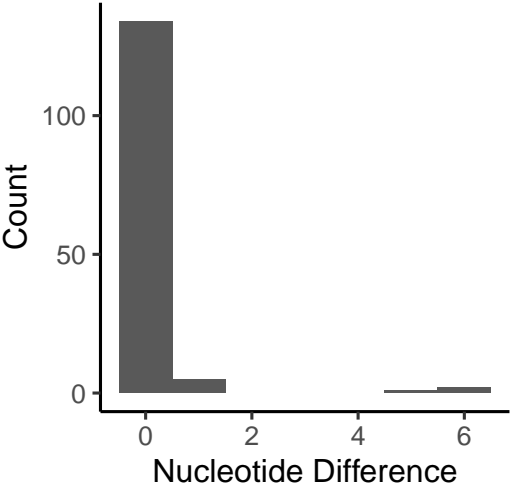
IGHV1-69-2*01

28 sequences assigned
25 (89.3%) exact matches, in which:
25 unique CDR3
5 unique J



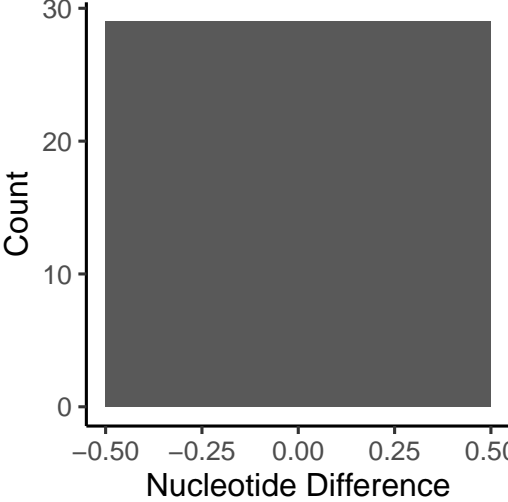
IGHV2-5*02

142 sequences assigned
134 (94.4%) exact matches, in which:
134 unique CDR3
7 unique J



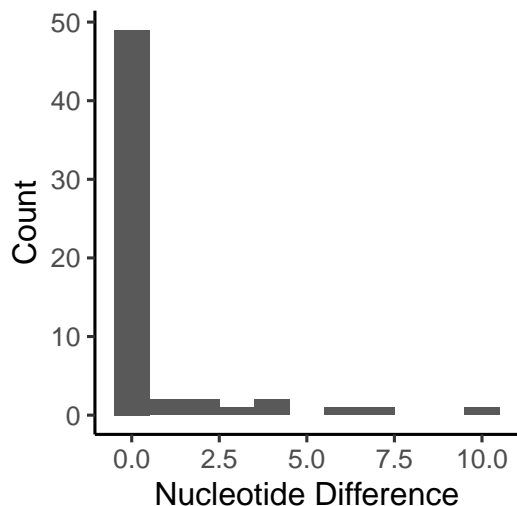
IGHV2-70*15

29 sequences assigned
29 (100%) exact matches, in which:
29 unique CDR3
5 unique J



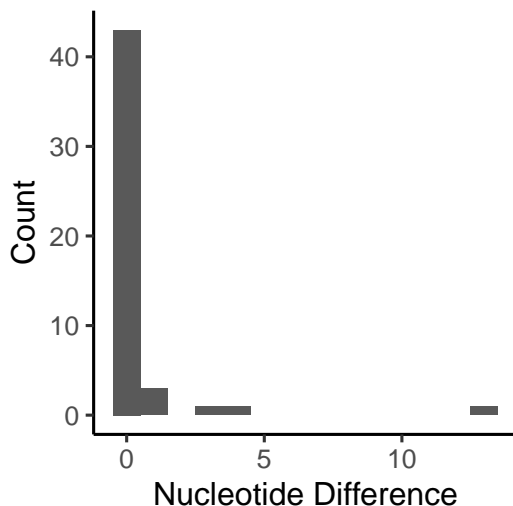
IGHV3-7*01

60 sequences assigned
49 (81.7%) exact matches, in which:
49 unique CDR3
5 unique J



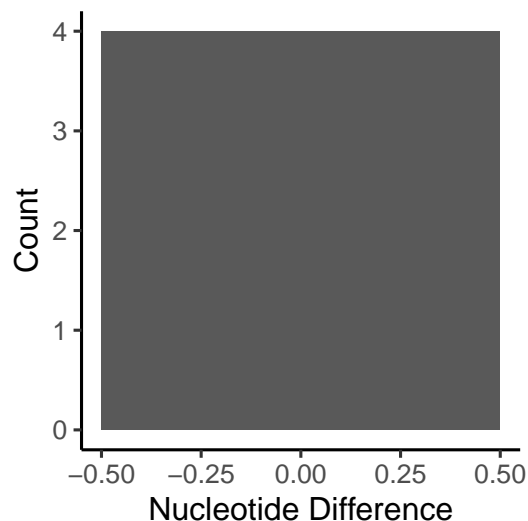
IGHV3-11*01

49 sequences assigned
43 (87.8%) exact matches, in which:
43 unique CDR3
6 unique J



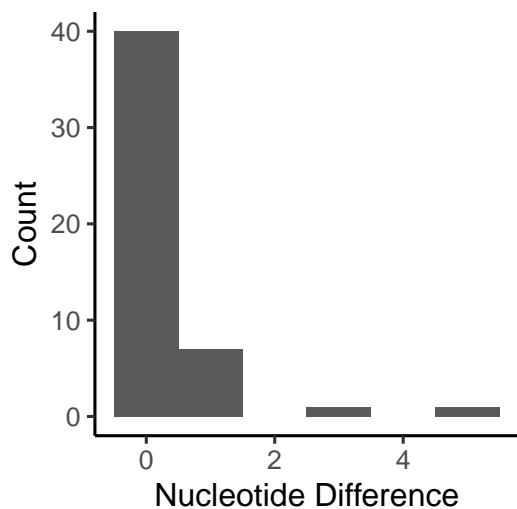
IGHV3-13*05

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



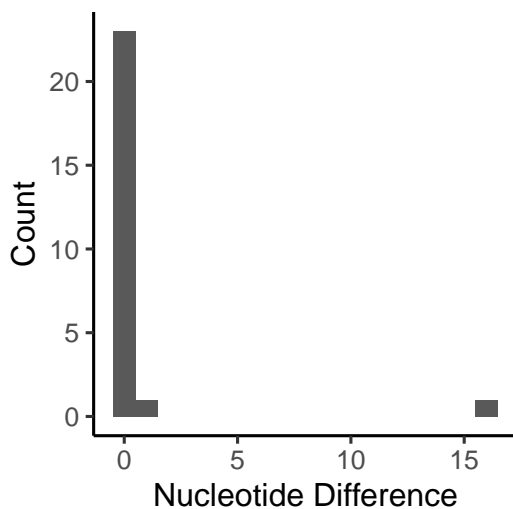
IGHV3-7*03

49 sequences assigned
40 (81.6%) exact matches, in which:
40 unique CDR3
5 unique J



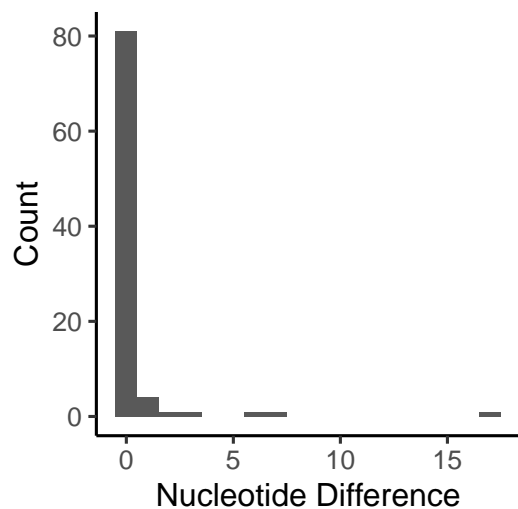
IGHV3-11*06

25 sequences assigned
23 (92%) exact matches, in which:
23 unique CDR3
5 unique J



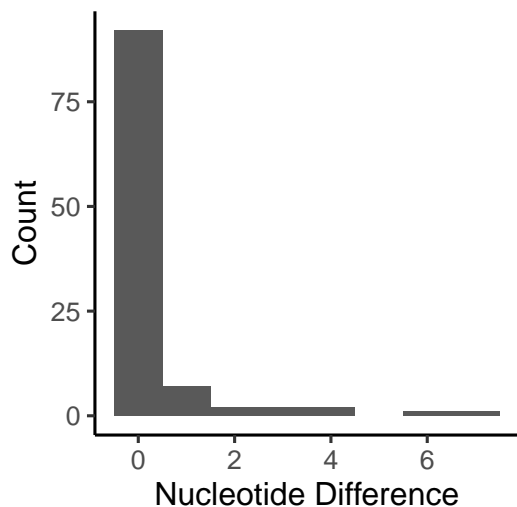
IGHV3-15*01

91 sequences assigned
81 (89%) exact matches, in which:
81 unique CDR3
6 unique J



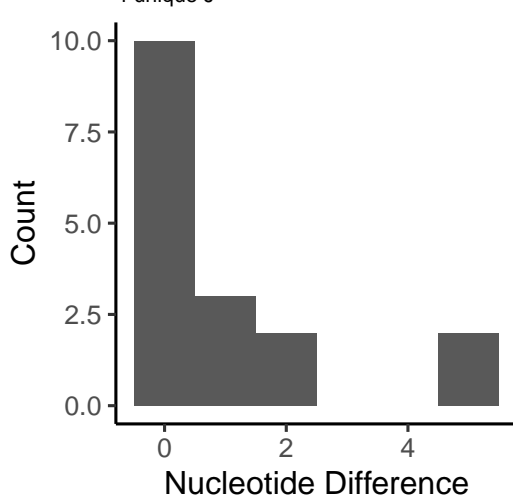
IGHV3-9*01

107 sequences assigned
92 (86%) exact matches, in which:
92 unique CDR3
5 unique J



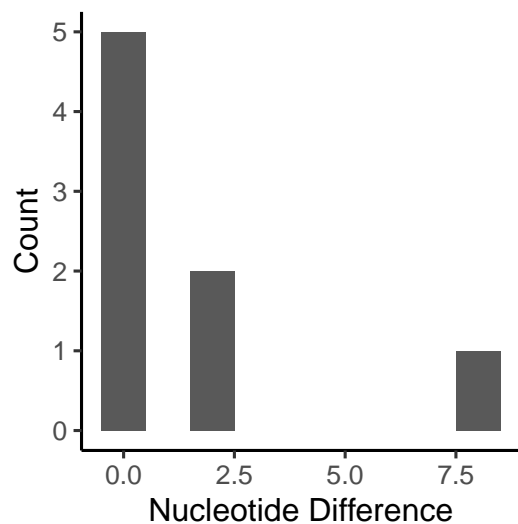
IGHV3-13*01

17 sequences assigned
10 (58.8%) exact matches, in which:
10 unique CDR3
4 unique J



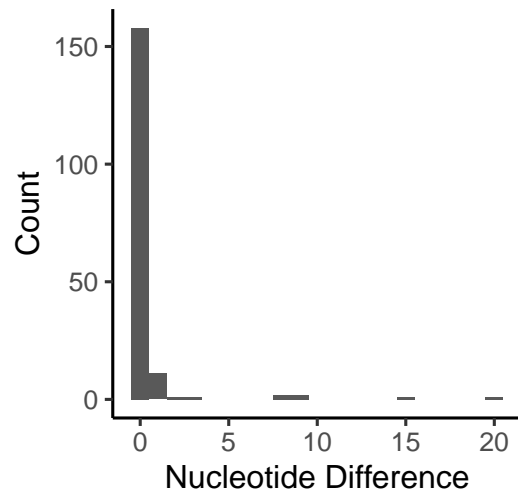
IGHV3-20*01

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



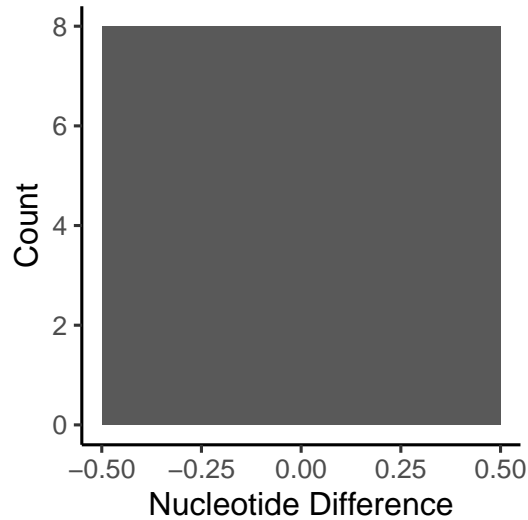
IGHV3-21*01

177 sequences assigned
158 (89.3%) exact matches, in which:
158 unique CDR3
6 unique J



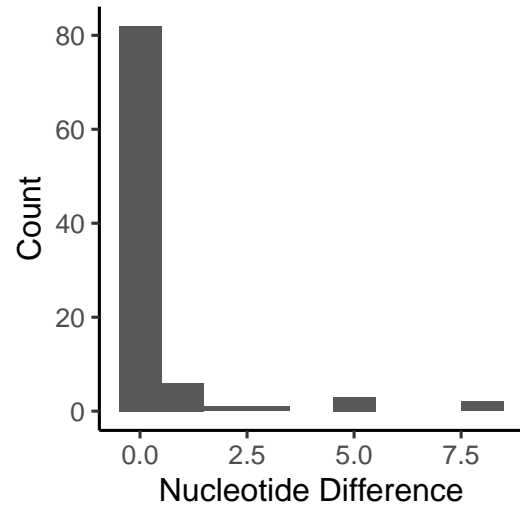
IGHV3-43*01

8 sequences assigned
8 (100%) exact matches, in which:
8 unique CDR3
2 unique J



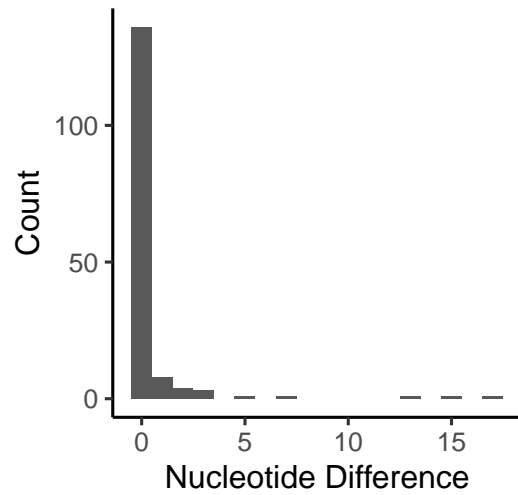
IGHV3-48*03

95 sequences assigned
82 (86.3%) exact matches, in which:
82 unique CDR3
6 unique J



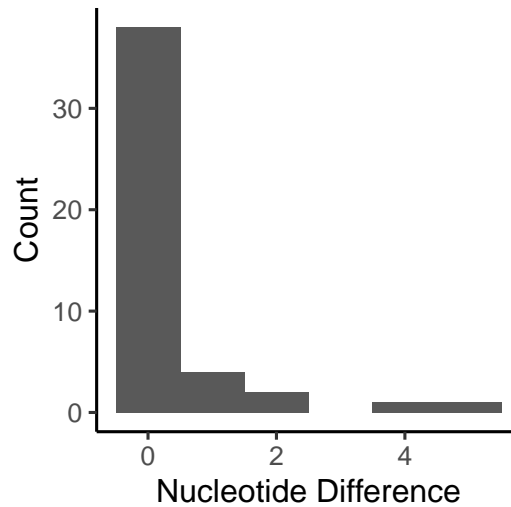
IGHV3-30-3*01

156 sequences assigned
136 (87.2%) exact matches, in which:
136 unique CDR3
7 unique J



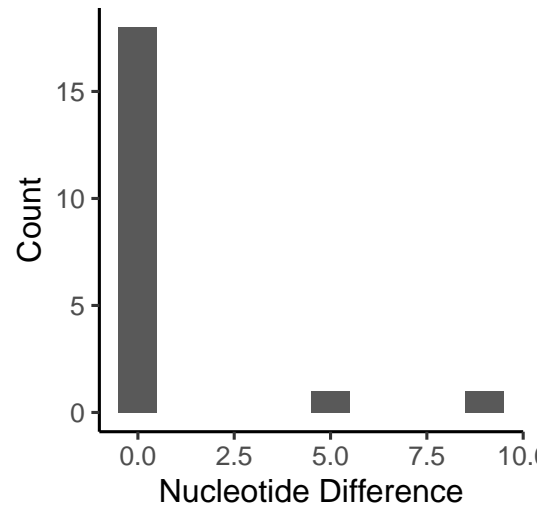
IGHV3-43*02

46 sequences assigned
38 (82.6%) exact matches, in which:
38 unique CDR3
6 unique J



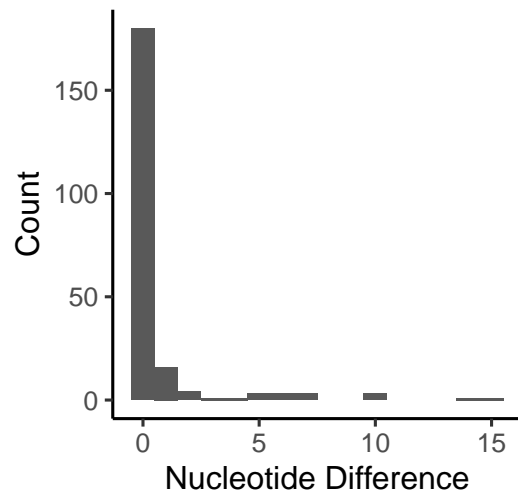
IGHV3-49*03

20 sequences assigned
18 (90%) exact matches, in which:
18 unique CDR3
4 unique J



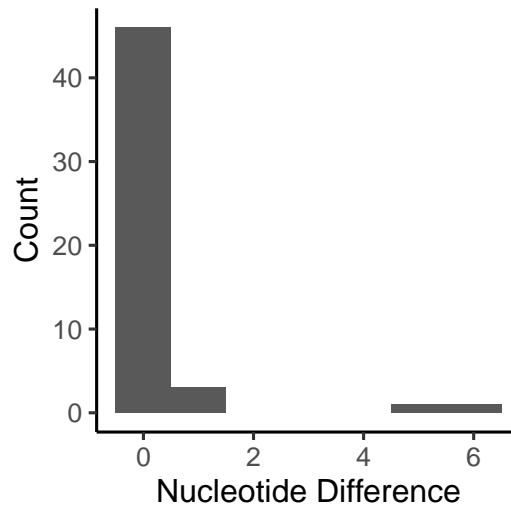
IGHV3-33*01

216 sequences assigned
180 (83.3%) exact matches, in which:
179 unique CDR3
6 unique J



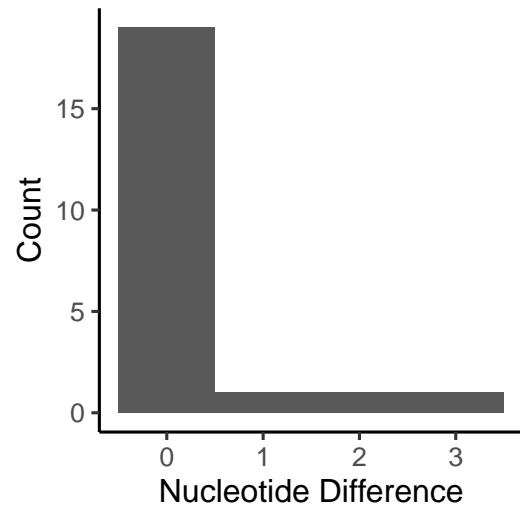
IGHV3-48*01

51 sequences assigned
46 (90.2%) exact matches, in which:
46 unique CDR3
4 unique J



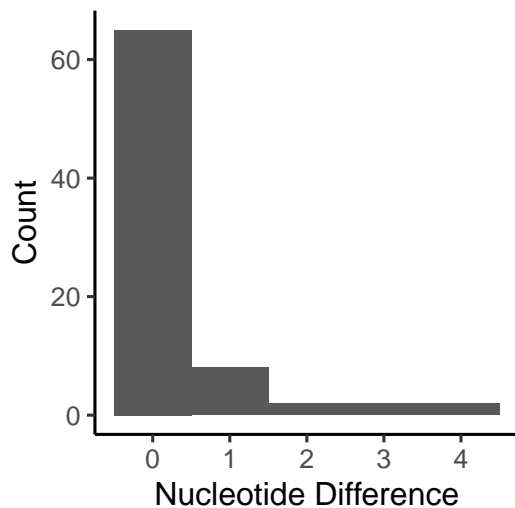
IGHV3-49*04

22 sequences assigned
19 (86.4%) exact matches, in which:
19 unique CDR3
6 unique J



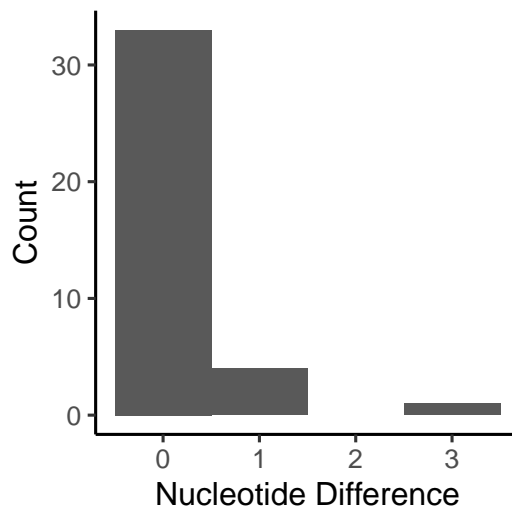
IGHV3-53*01

79 sequences assigned
65 (82.3%) exact matches, in which:
65 unique CDR3
6 unique J



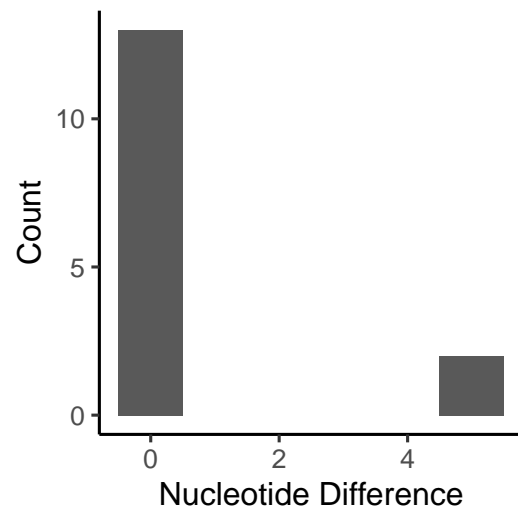
IGHV3-66*01

38 sequences assigned
33 (86.8%) exact matches, in which:
33 unique CDR3
5 unique J



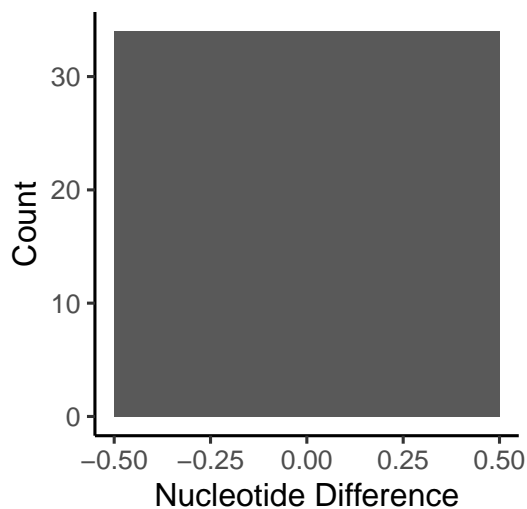
IGHV3-73*02

15 sequences assigned
13 (86.7%) exact matches, in which:
13 unique CDR3
3 unique J



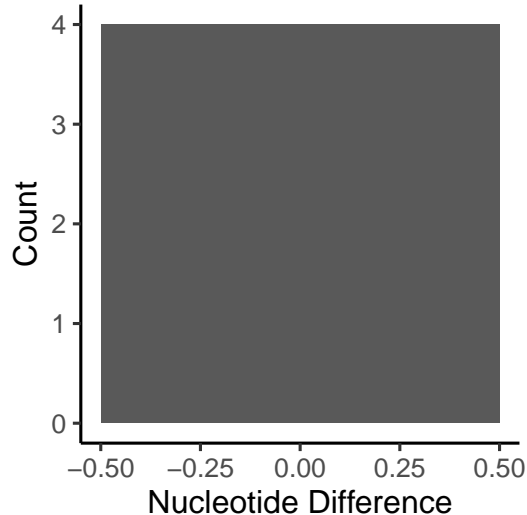
IGHV3-53*04

34 sequences assigned
34 (100%) exact matches, in which:
34 unique CDR3
7 unique J



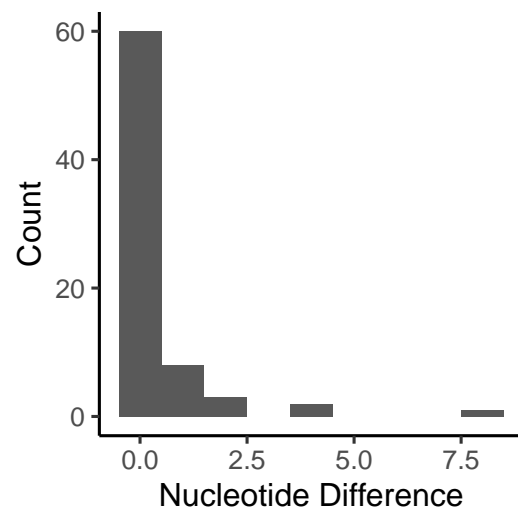
IGHV3-72*01

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



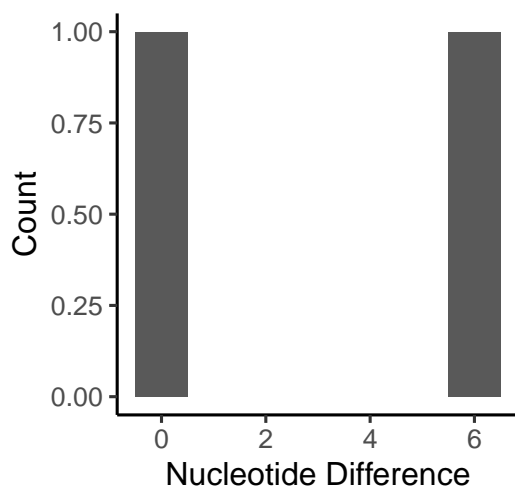
IGHV3-74*01

74 sequences assigned
60 (81.1%) exact matches, in which:
60 unique CDR3
7 unique J



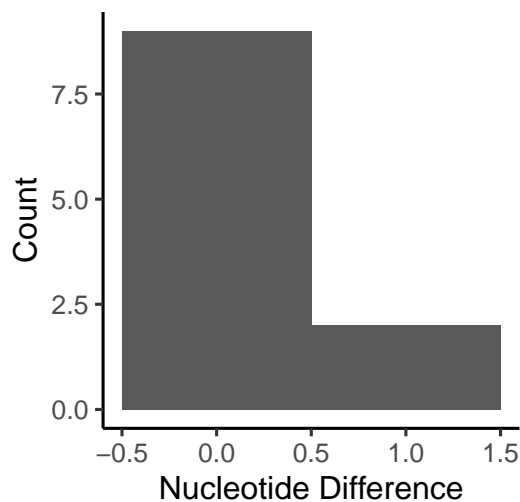
IGHV3-64*01

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



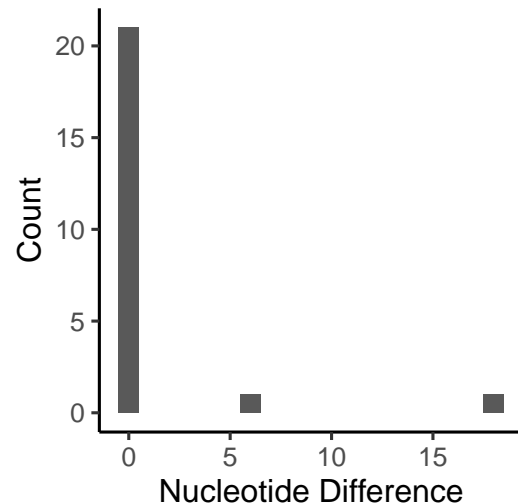
IGHV3-73*01

11 sequences assigned
9 (81.8%) exact matches, in which:
9 unique CDR3
3 unique J



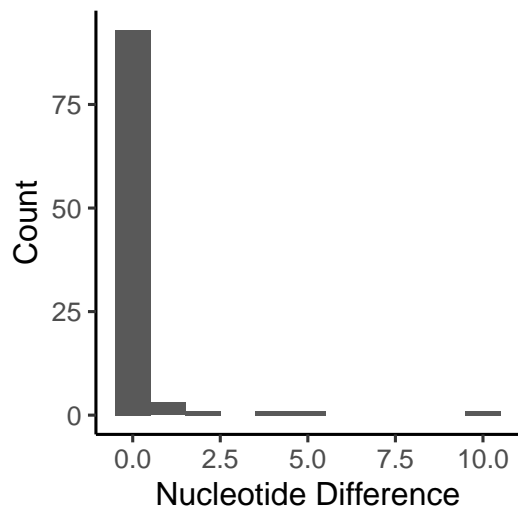
IGHV3-64D*09

23 sequences assigned
21 (91.3%) exact matches, in which:
21 unique CDR3
4 unique J



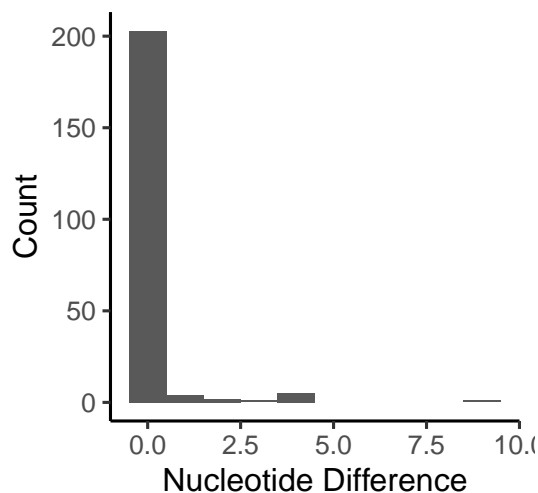
IGHV4-4*02

100 sequences assigned
93 (93%) exact matches, in which:
92 unique CDR3
7 unique J



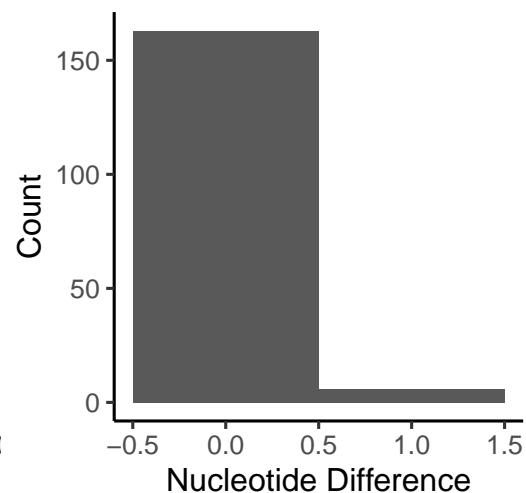
IGHV4-31*03

216 sequences assigned
203 (94%) exact matches, in which:
203 unique CDR3
7 unique J



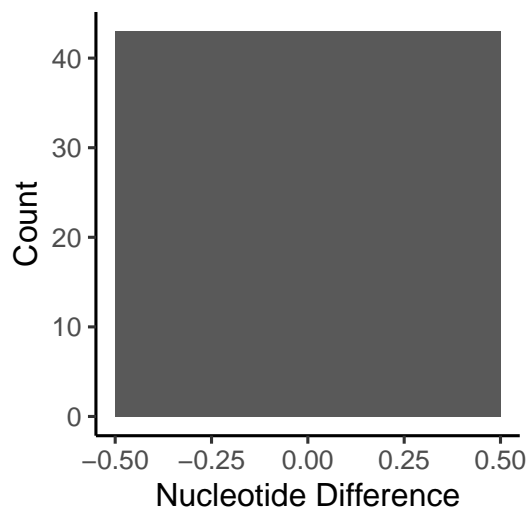
IGHV4-59*01

170 sequences assigned
163 (95.9%) exact matches, in which:
163 unique CDR3
6 unique J



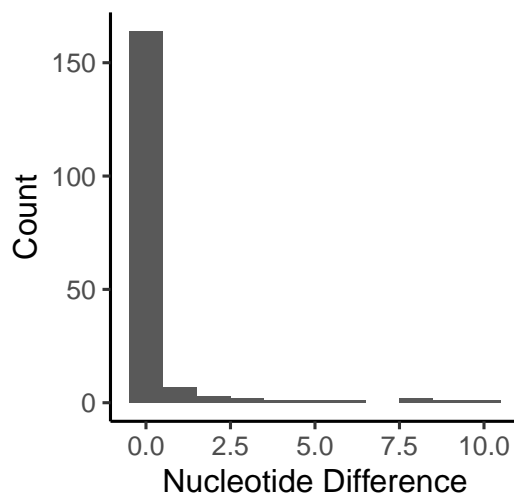
IGHV4-30-4*01

43 sequences assigned
43 (100%) exact matches, in which:
43 unique CDR3
6 unique J



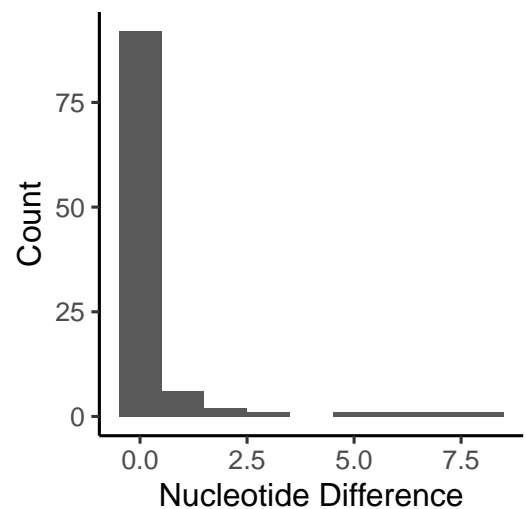
IGHV4-34*01

183 sequences assigned
164 (89.6%) exact matches, in which:
164 unique CDR3
7 unique J



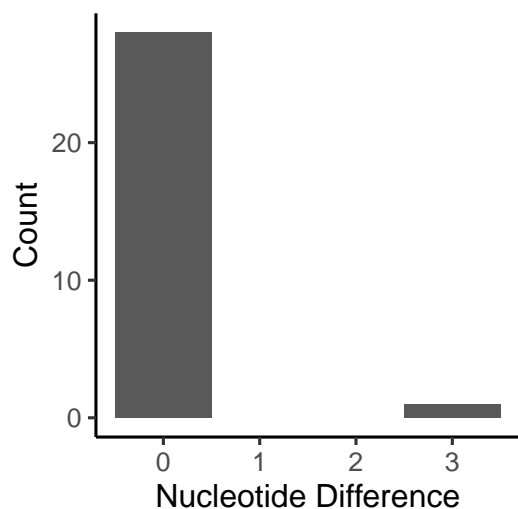
IGHV4-59*08

105 sequences assigned
92 (87.6%) exact matches, in which:
92 unique CDR3
7 unique J



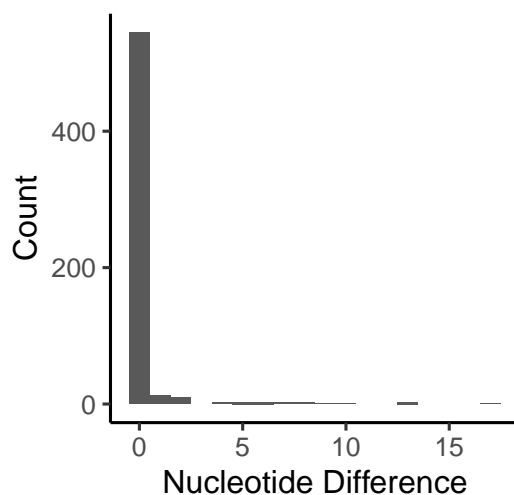
IGHV4-30-2*01

29 sequences assigned
28 (96.6%) exact matches, in which:
28 unique CDR3
4 unique J



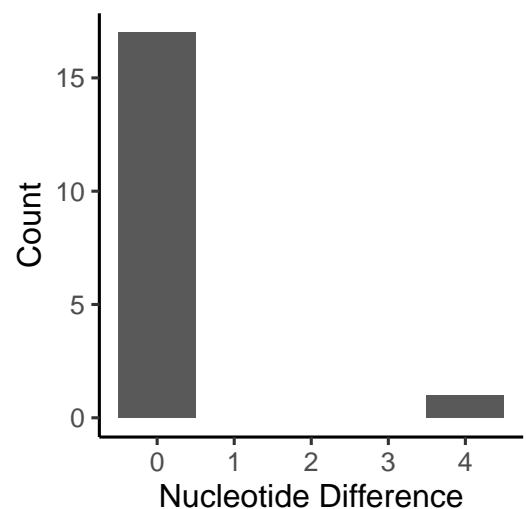
IGHV4-39*01

584 sequences assigned
545 (93.3%) exact matches, in which:
545 unique CDR3
7 unique J



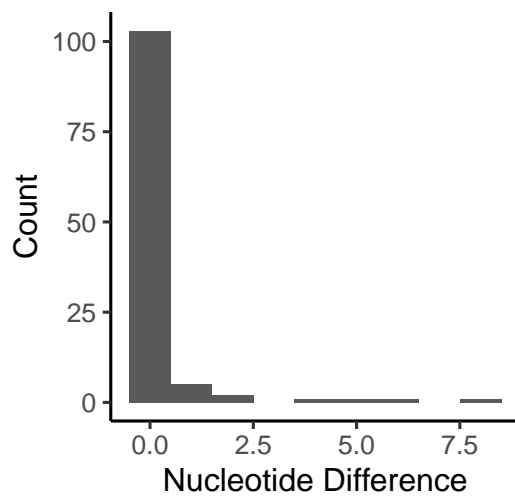
IGHV4-61*01

18 sequences assigned
17 (94.4%) exact matches, in which:
17 unique CDR3
4 unique J



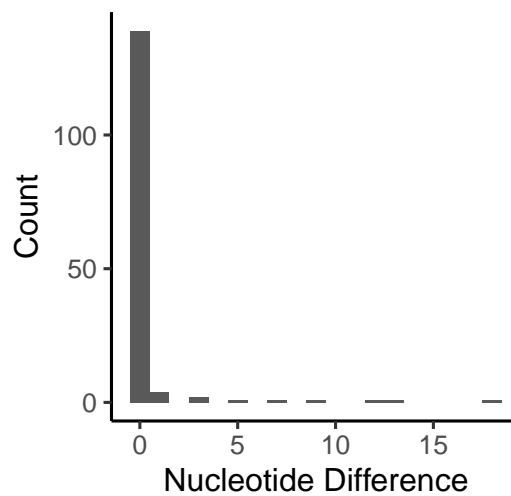
IGHV5-10-1*03

114 sequences assigned
103 (90.4%) exact matches, in which:
103 unique CDR3
6 unique J



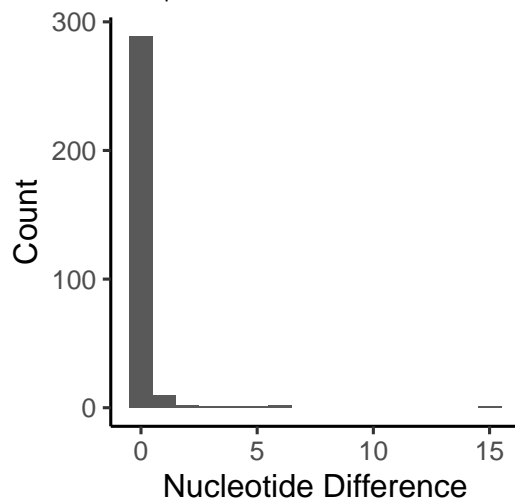
IGHV7-4-1*02

151 sequences assigned
139 (92.1%) exact matches, in which:
139 unique CDR3
7 unique J



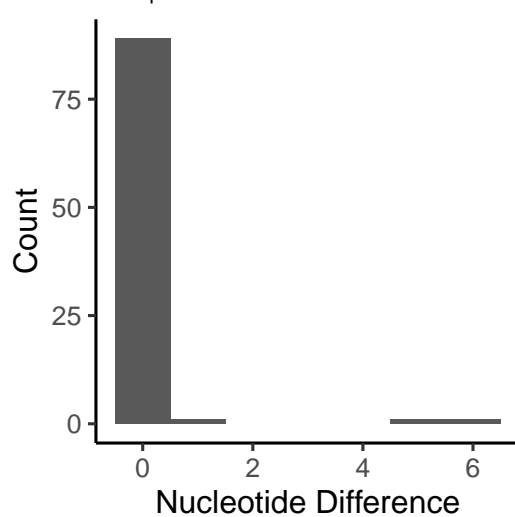
IGHV5-51*01

307 sequences assigned
289 (94.1%) exact matches, in which:
288 unique CDR3
6 unique J

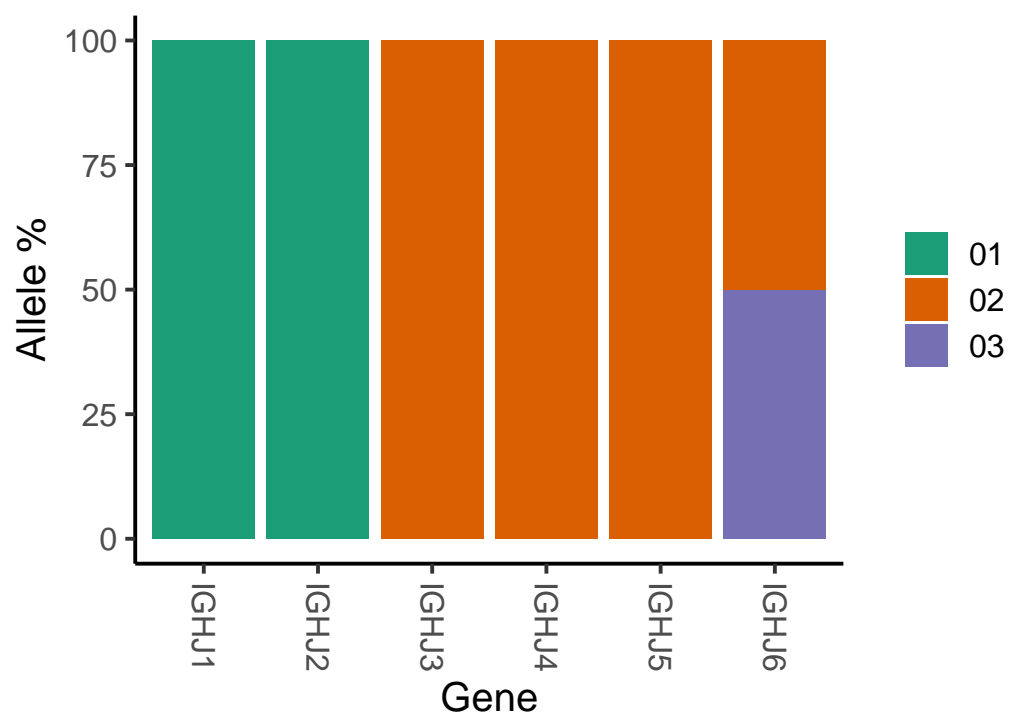


IGHV6-1*01

92 sequences assigned
89 (96.7%) exact matches, in which:
89 unique CDR3
6 unique J



Allele Usage



Sequence Count by IGHJ6 allele usage

