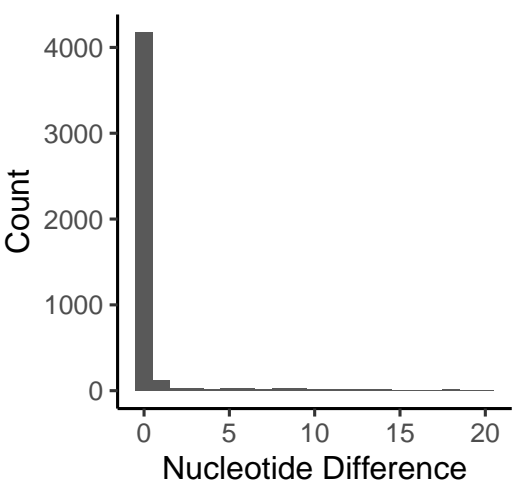


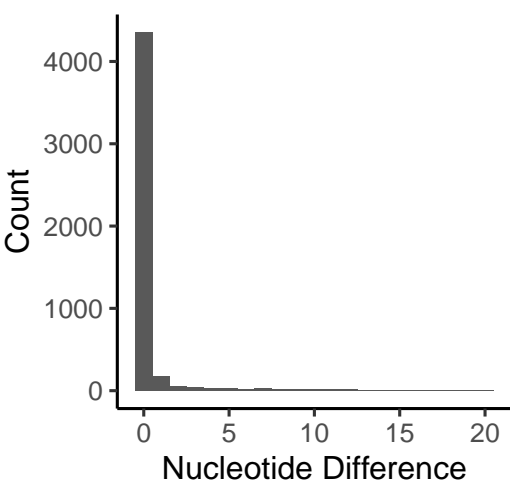
IGHV1-2*02

4698 sequences assigned
4175 (88.9%) exact matches, in which:
4111 unique CDR3
6 unique J



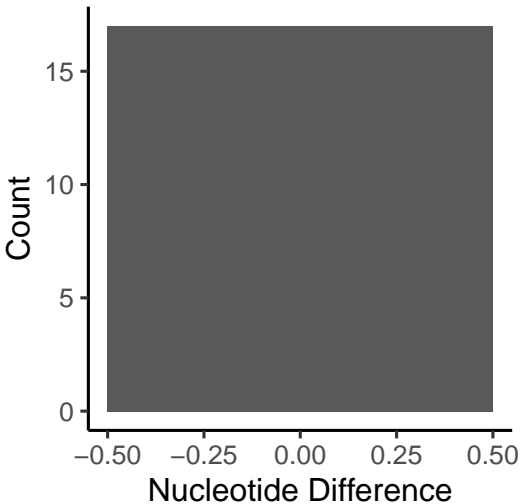
IGHV1-8*01

4893 sequences assigned
4353 (89%) exact matches, in which:
4298 unique CDR3
6 unique J



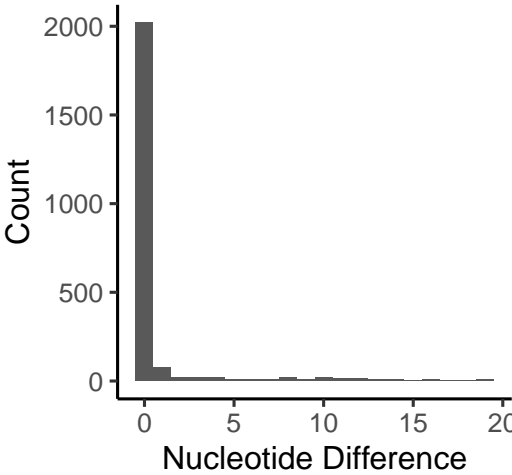
IGHV1-45*02

17 sequences assigned
17 (100%) exact matches, in which:
17 unique CDR3
3 unique J



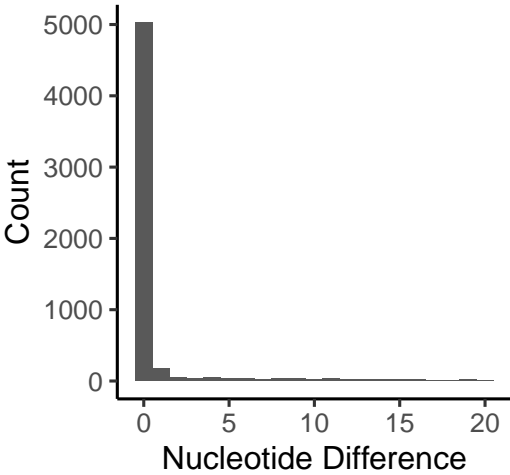
IGHV1-2*06

2319 sequences assigned
2020 (87.1%) exact matches, in which:
2001 unique CDR3
6 unique J



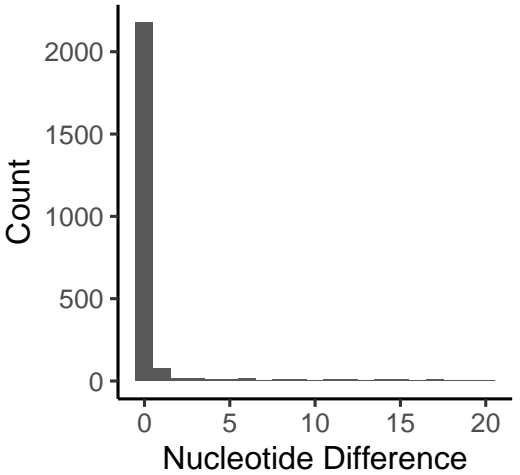
IGHV1-18*01

5767 sequences assigned
5025 (87.1%) exact matches, in which:
4959 unique CDR3
6 unique J



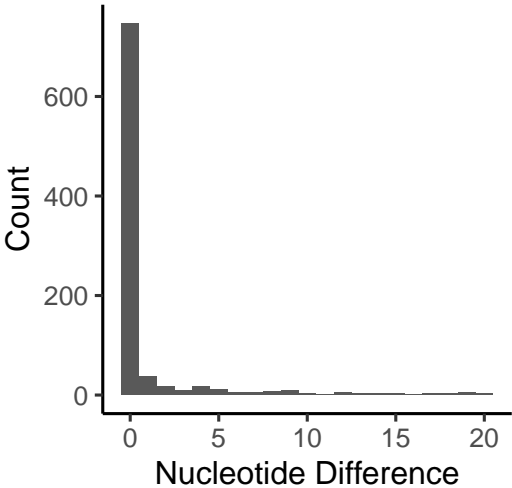
IGHV1-46*01

2424 sequences assigned
2176 (89.8%) exact matches, in which:
2154 unique CDR3
6 unique J



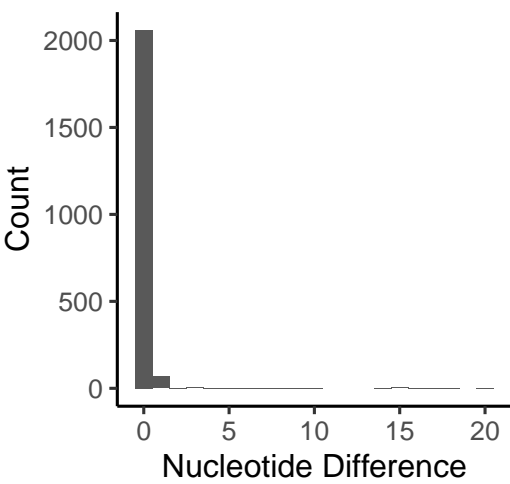
IGHV1-3*01_05

926 sequences assigned
747 (80.7%) exact matches, in which:
741 unique CDR3
6 unique J



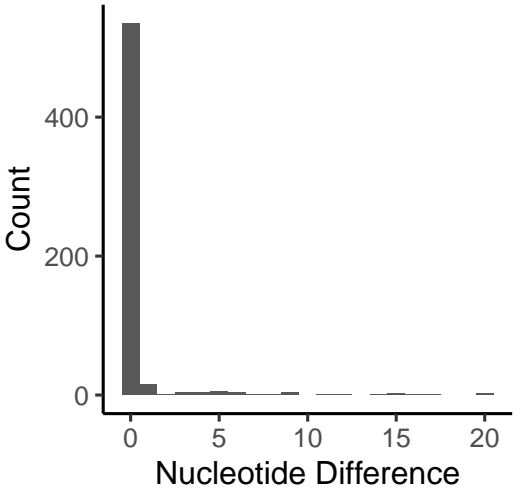
IGHV1-24*01

2167 sequences assigned
2060 (95.1%) exact matches, in which:
2026 unique CDR3
6 unique J



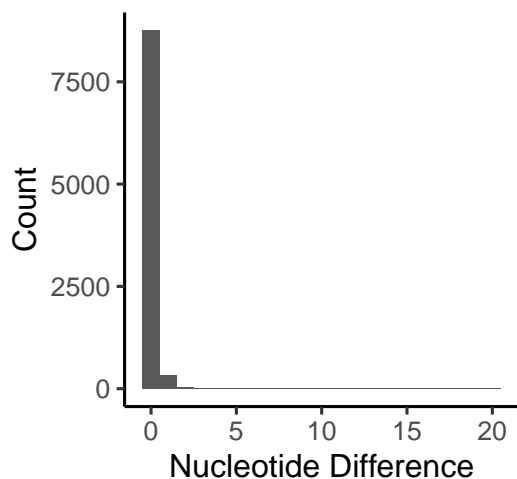
IGHV1-58*01_03

585 sequences assigned
535 (91.5%) exact matches, in which:
530 unique CDR3
6 unique J



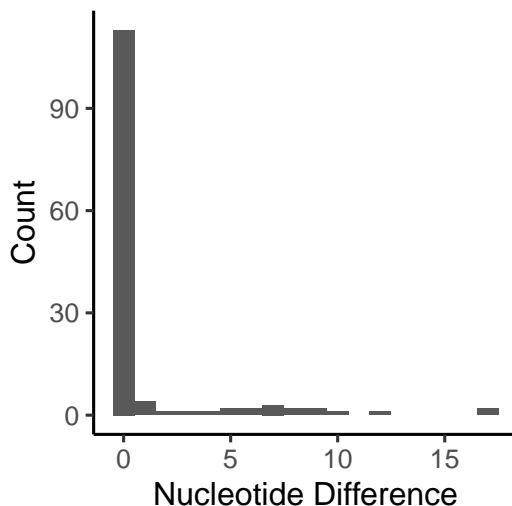
IGHV1-69*01_12_13

9424 sequences assigned
8757 (92.9%) exact matches, in which:
8673 unique CDR3
6 unique J



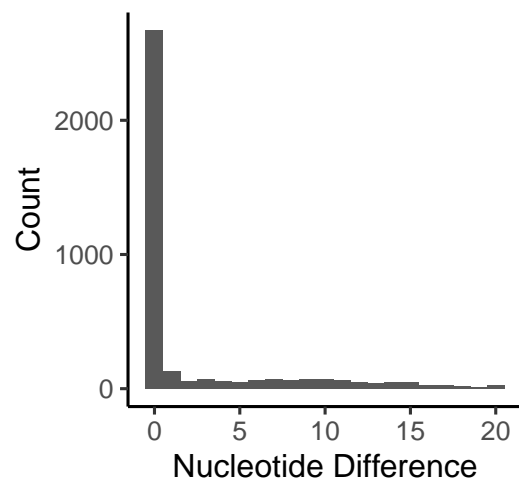
IGHV2-26*01

135 sequences assigned
113 (83.7%) exact matches, in which:
113 unique CDR3
5 unique J



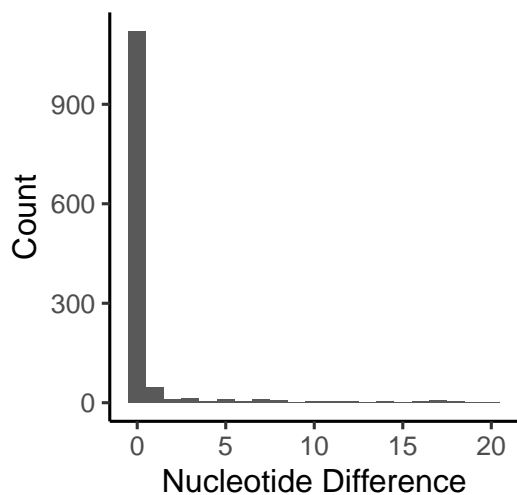
IGHV3-7*01

3845 sequences assigned
2670 (69.4%) exact matches, in which:
2520 unique CDR3
6 unique J



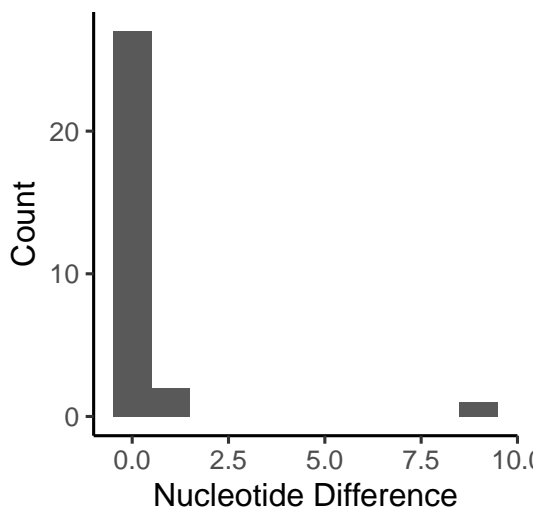
IGHV2-5*01

1294 sequences assigned
1121 (86.6%) exact matches, in which:
1107 unique CDR3
6 unique J



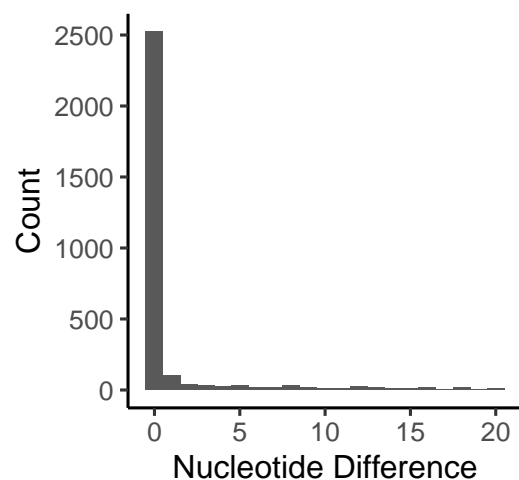
IGHV2-26*04

30 sequences assigned
27 (90%) exact matches, in which:
27 unique CDR3
4 unique J



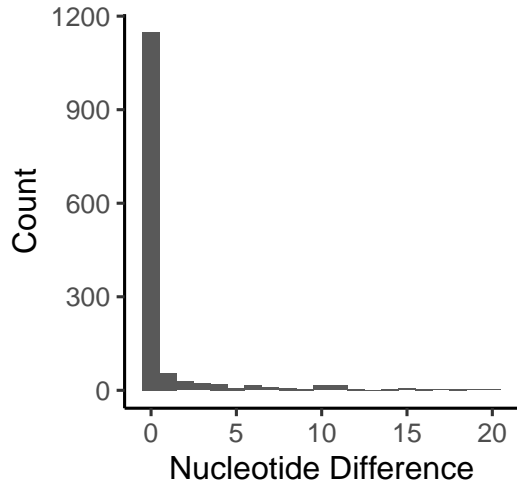
IGHV3-9*01

3037 sequences assigned
2523 (83.1%) exact matches, in which:
2422 unique CDR3
6 unique J



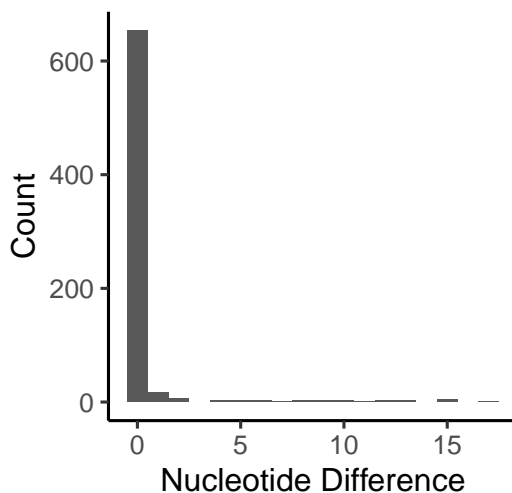
IGHV2-5*02

1412 sequences assigned
1149 (81.4%) exact matches, in which:
1130 unique CDR3
6 unique J



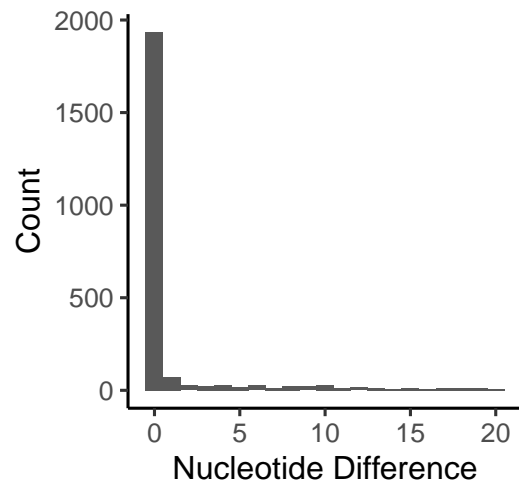
IGHV2-70*01

713 sequences assigned
654 (91.7%) exact matches, in which:
646 unique CDR3
6 unique J



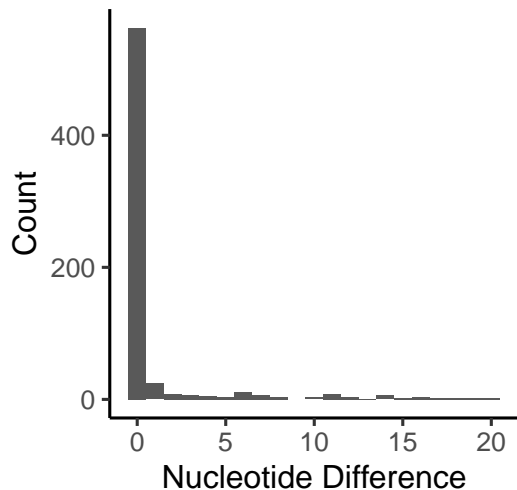
IGHV3-11*01

2377 sequences assigned
1935 (81.4%) exact matches, in which:
1837 unique CDR3
6 unique J



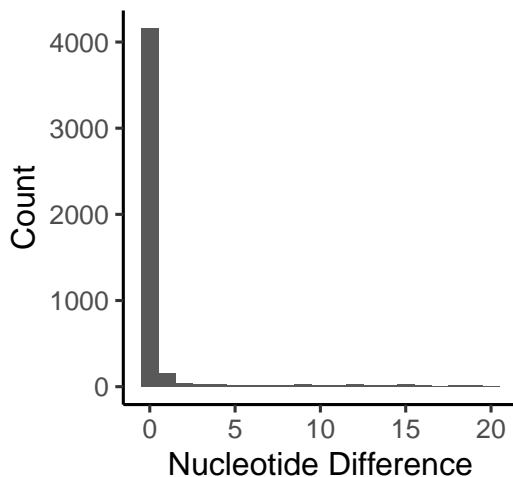
IGHV3-13*01

674 sequences assigned
563 (83.5%) exact matches, in which:
531 unique CDR3
5 unique J



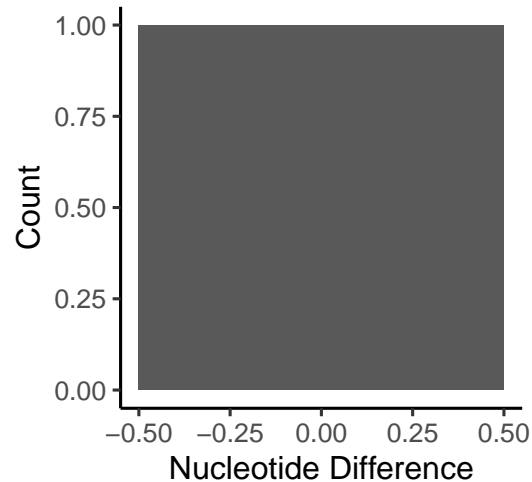
IGHV3-21*01_02

4750 sequences assigned
4158 (87.5%) exact matches, in which:
3885 unique CDR3
6 unique J



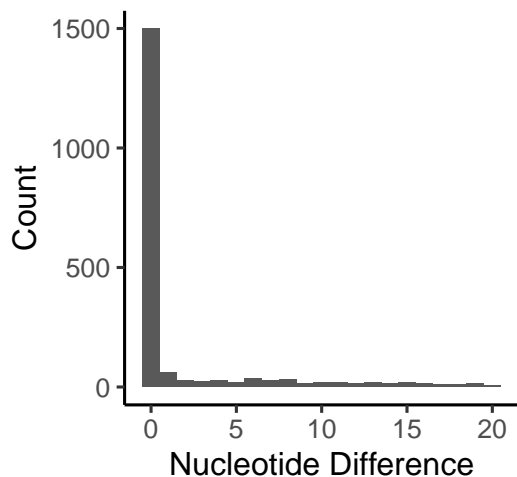
IGHV3-30-3*01

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



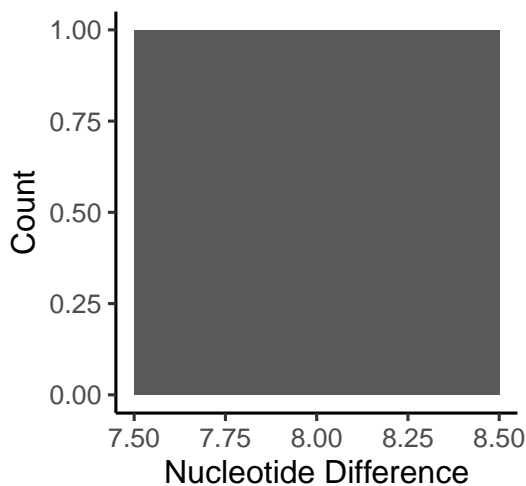
IGHV3-15*01_02

2023 sequences assigned
1499 (74.1%) exact matches, in which:
1448 unique CDR3
6 unique J



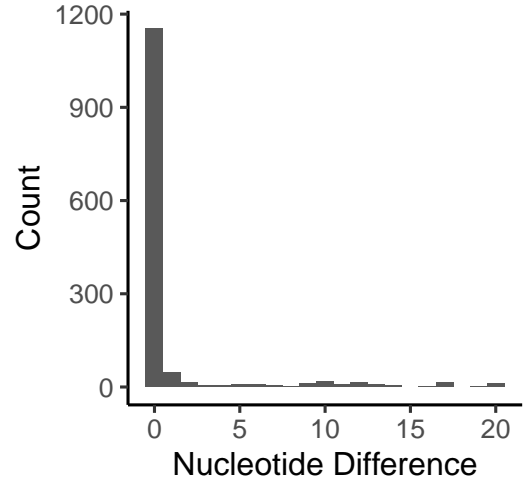
IGHV3-22*01_02

1 sequences assigned
No exact matches.



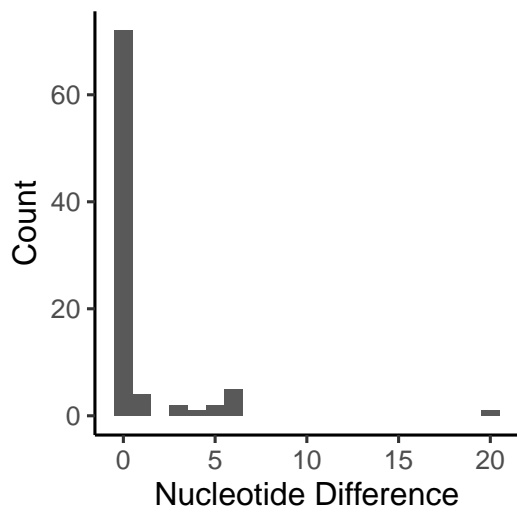
IGHV3-33*01

1354 sequences assigned
1153 (85.2%) exact matches, in which:
1115 unique CDR3
6 unique J



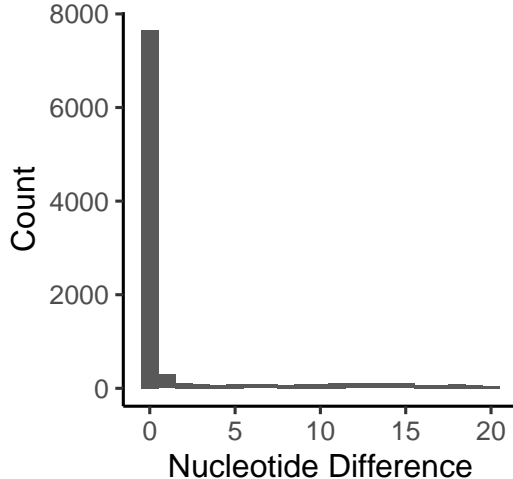
IGHV3-20*01_02

88 sequences assigned
72 (81.8%) exact matches, in which:
72 unique CDR3
6 unique J



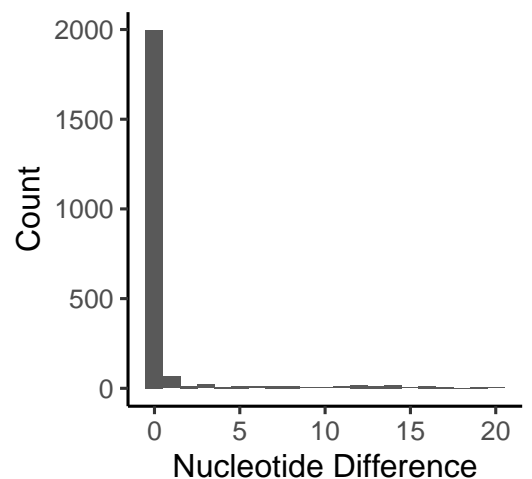
IGHV3-23*01_04

9874 sequences assigned
7655 (77.5%) exact matches, in which:
6995 unique CDR3
6 unique J



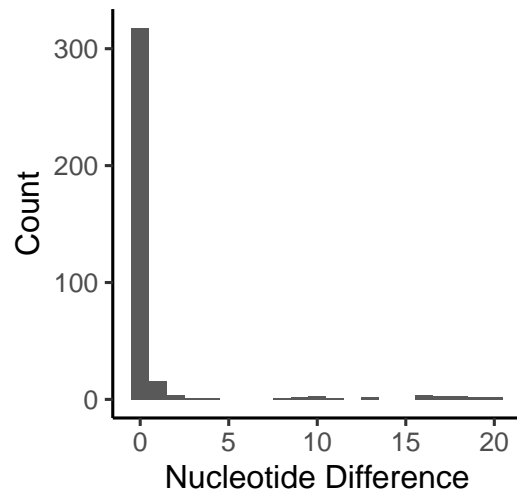
IGHV3-33*08

2277 sequences assigned
1997 (87.7%) exact matches, in which:
1904 unique CDR3
6 unique J



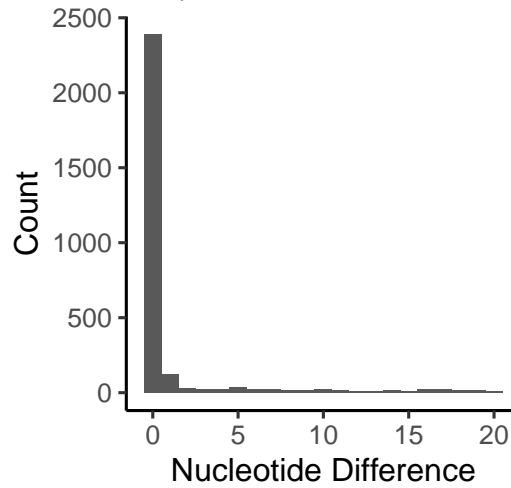
IGHV3-43*01

370 sequences assigned
318 (85.9%) exact matches, in which:
299 unique CDR3
6 unique J



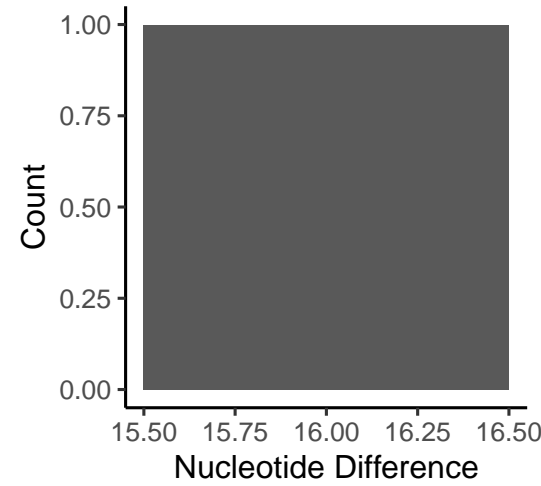
IGHV3-53*01_02

2939 sequences assigned
2389 (81.3%) exact matches, in which:
2220 unique CDR3
6 unique J



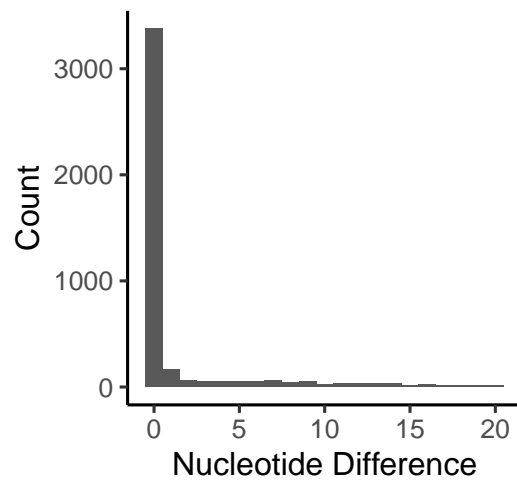
IGHV3-69-1*01

1 sequences assigned
No exact matches.



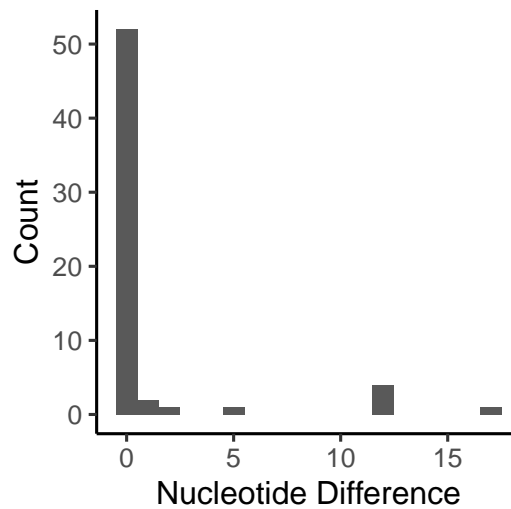
IGHV3-48*02

4282 sequences assigned
3377 (78.9%) exact matches, in which:
3155 unique CDR3
6 unique J



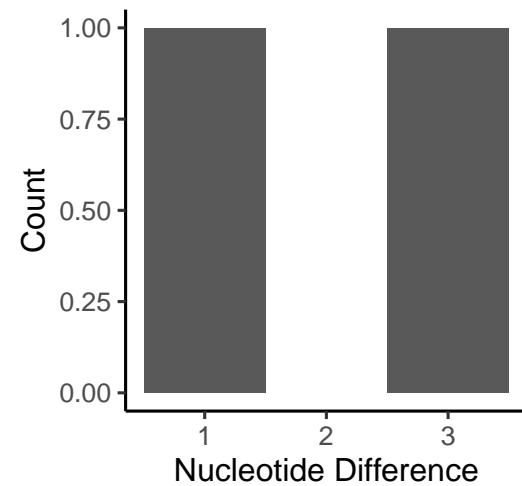
IGHV3-64*02_07

63 sequences assigned
52 (82.5%) exact matches, in which:
47 unique CDR3
5 unique J



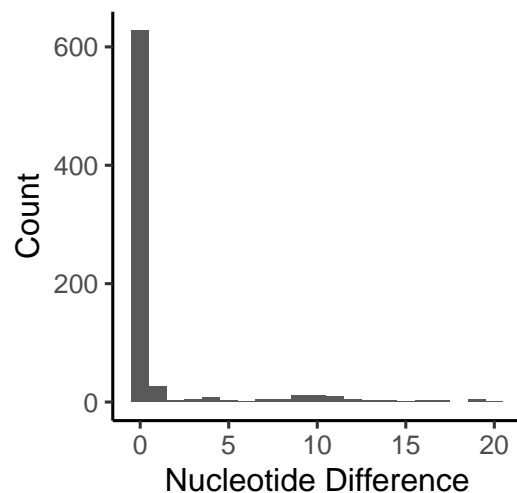
IGHV3-69-1*02

2 sequences assigned
No exact matches.



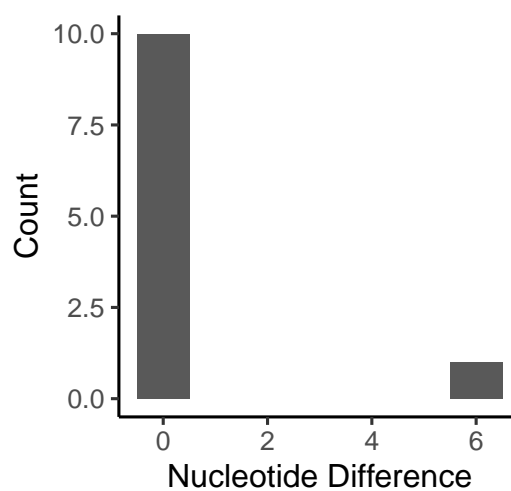
IGHV3-49*03_05

746 sequences assigned
628 (84.2%) exact matches, in which:
608 unique CDR3
6 unique J



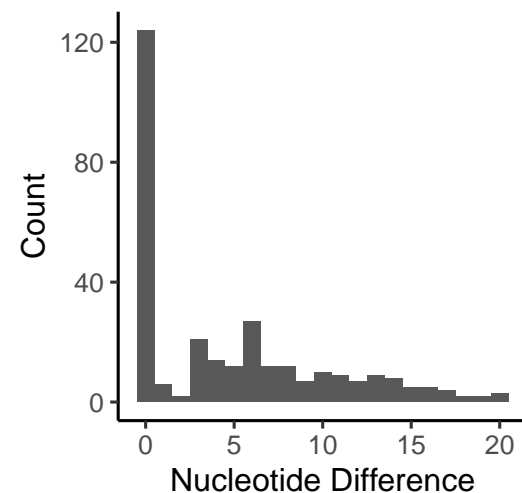
IGHV3-66*03

11 sequences assigned
10 (90.9%) exact matches, in which:
10 unique CDR3
4 unique J



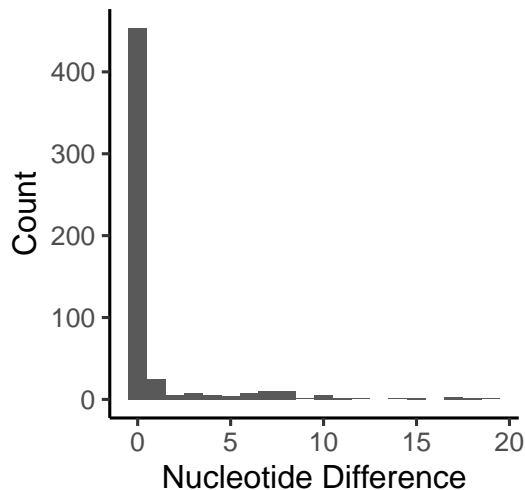
IGHV3-72*01

304 sequences assigned
124 (40.8%) exact matches, in which:
118 unique CDR3
5 unique J



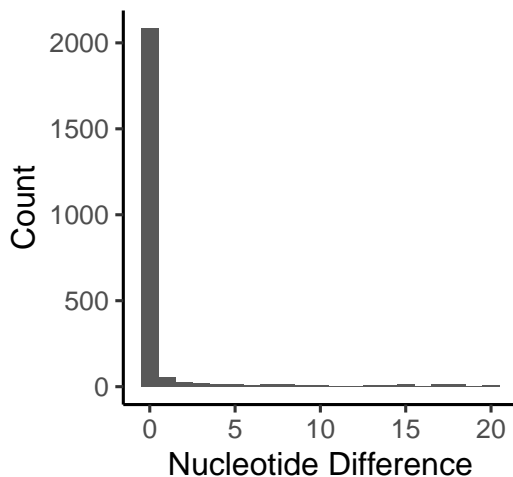
IGHV3–73*01_02

559 sequences assigned
454 (81.2%) exact matches, in which:
423 unique CDR3
6 unique J



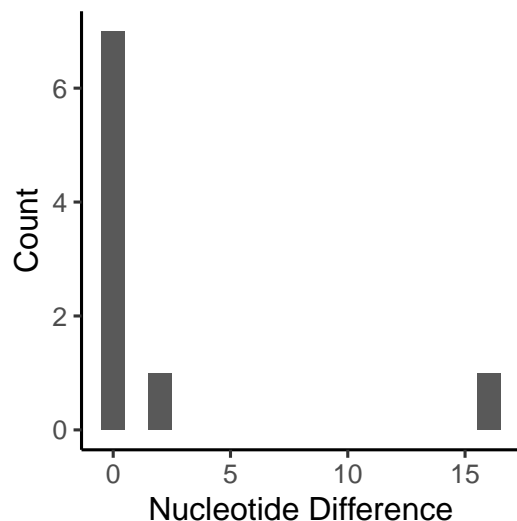
IGHV4–4*07

2385 sequences assigned
2084 (87.4%) exact matches, in which:
1929 unique CDR3
6 unique J



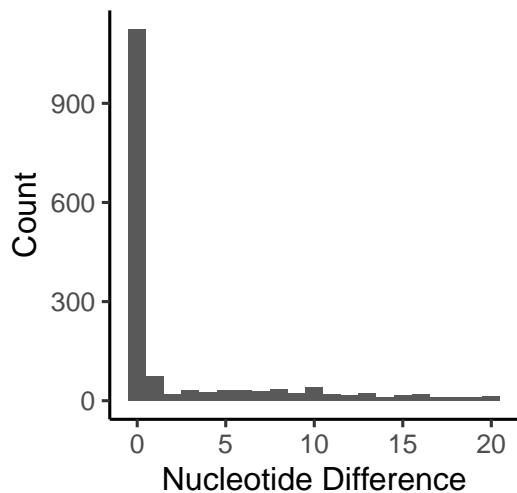
IGHV4–28*01_07

10 sequences assigned
7 (70%) exact matches, in which:
7 unique CDR3
4 unique J



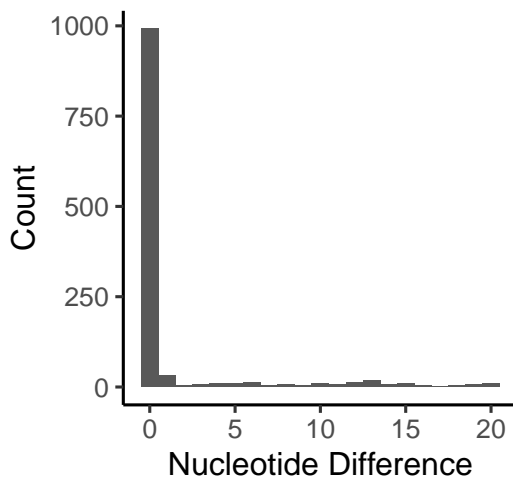
IGHV3–74*01_02

1665 sequences assigned
1125 (67.6%) exact matches, in which:
1045 unique CDR3
6 unique J



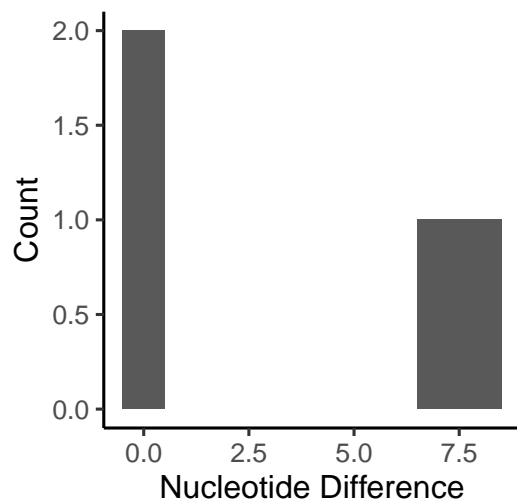
IGHV4–4*02_03

1196 sequences assigned
992 (82.9%) exact matches, in which:
957 unique CDR3
6 unique J



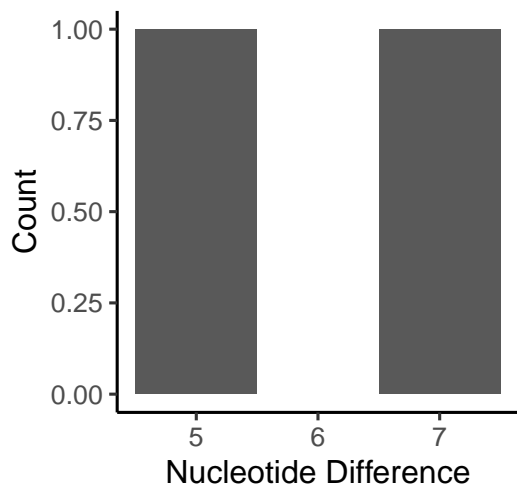
IGHV4–28*02_05

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



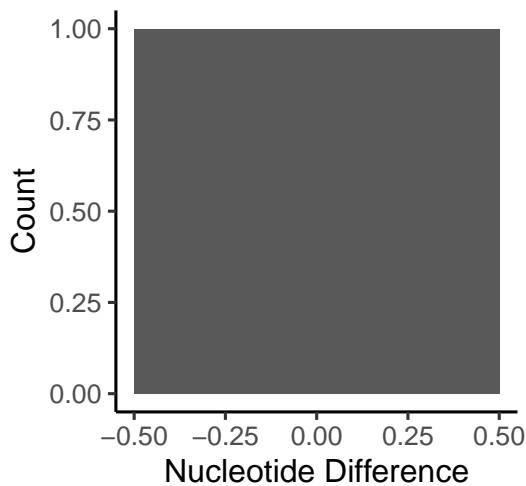
IGHV3–64D*09

2 sequences assigned
No exact matches.



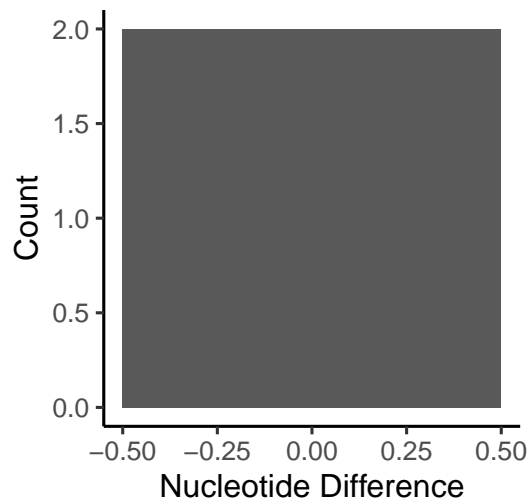
IGHV4–28*03

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



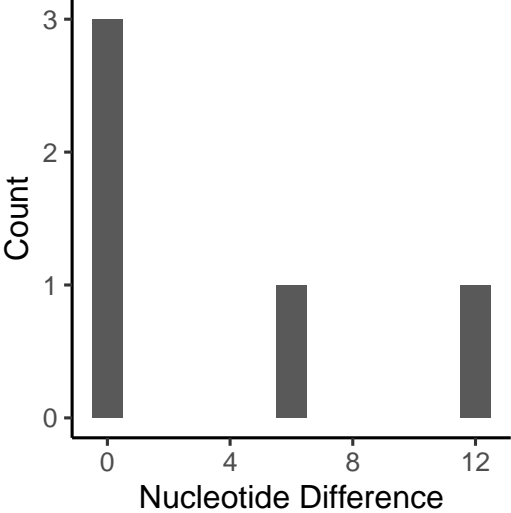
IGHV4–30–4*01

6 sequences assigned
2 (33.3%) exact matches, in which:
2 unique CDR3
2 unique J



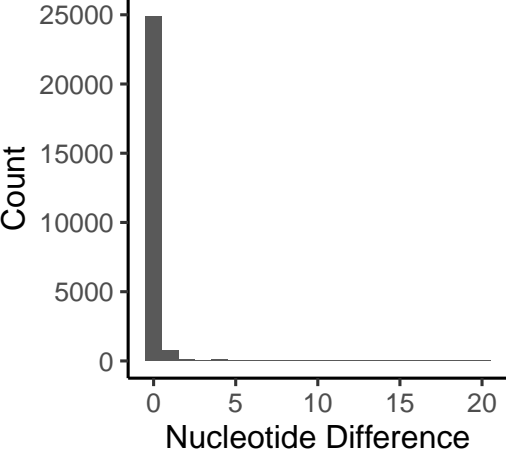
IGHV4-30-2*01

6 sequences assigned
3 (50%) exact matches, in which:
3 unique CDR3
3 unique J



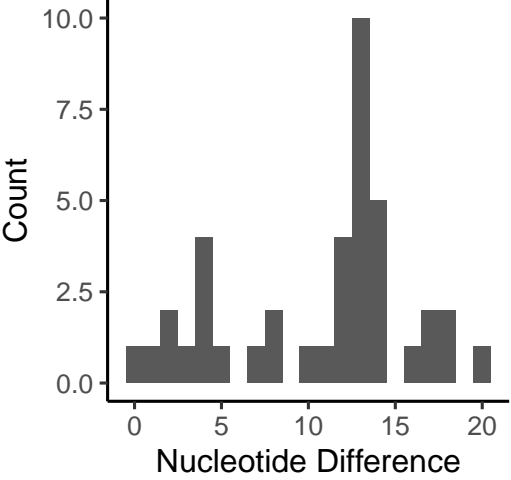
IGHV4-34*01_02

26477 sequences assigned
24900 (94%) exact matches, in which:
22677 unique CDR3
6 unique J



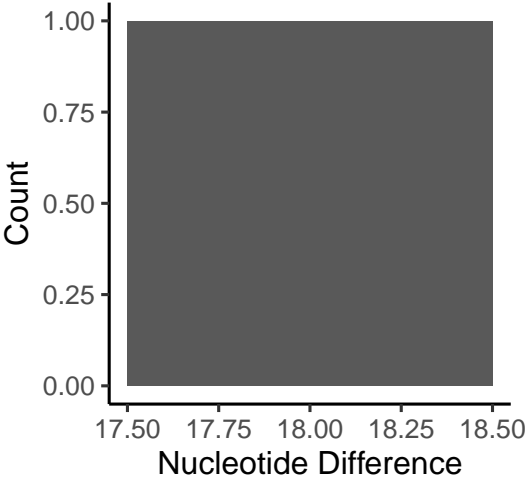
IGHV4-39*02

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



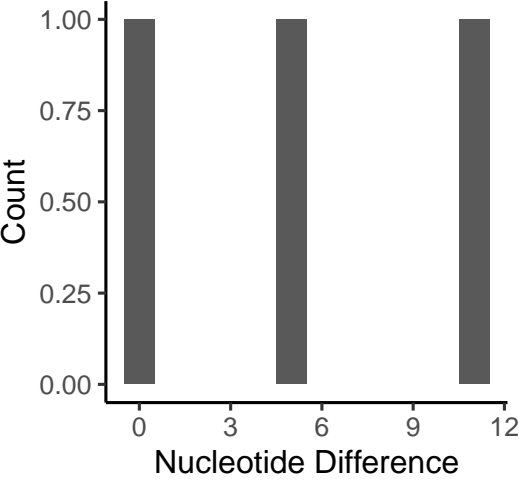
IGHV4-30-2*03

2 sequences assigned
No exact matches.



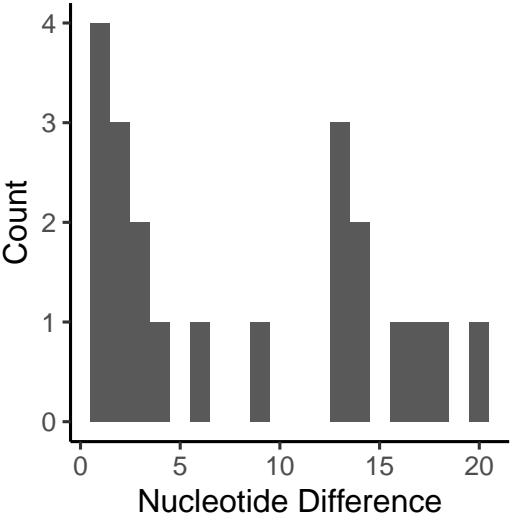
IGHV4-38-2*01

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



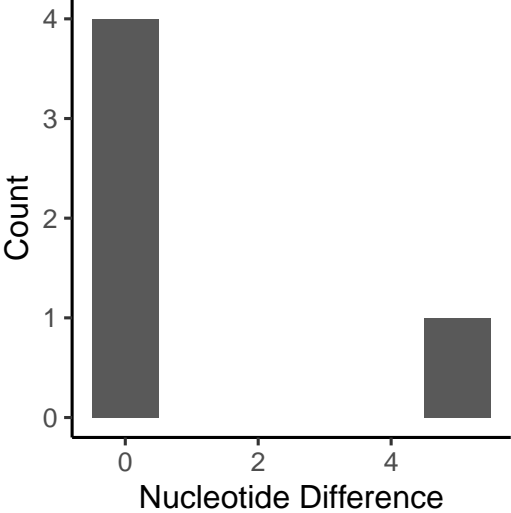
IGHV4-39*07

24 sequences assigned
No exact matches.



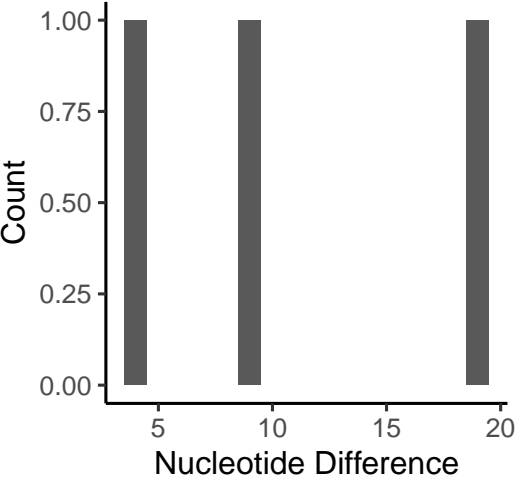
IGHV4-31*02

6 sequences assigned
4 (66.7%) exact matches, in which:
4 unique CDR3
2 unique J



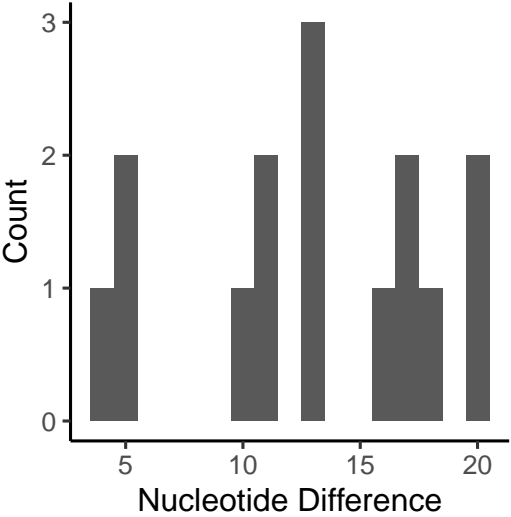
IGHV4-38-2*02

4 sequences assigned
No exact matches.



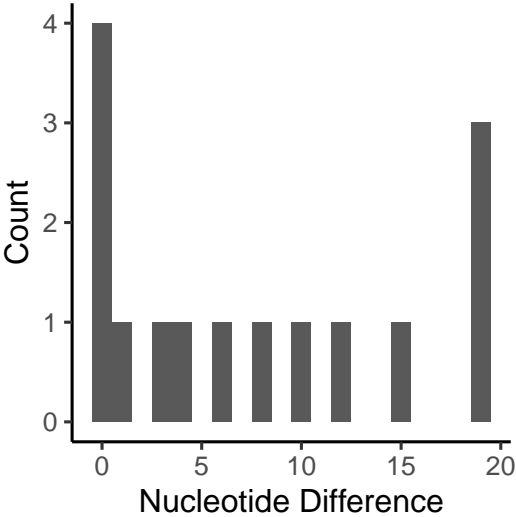
IGHV4-59*02

21 sequences assigned
No exact matches.



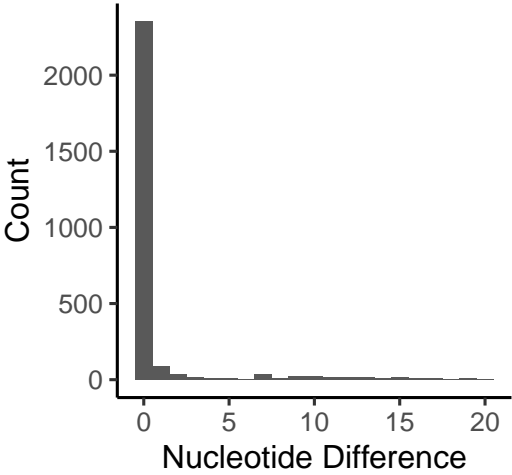
IGHV4-59*08

17 sequences assigned
4 (23.5%) exact matches, in which:
4 unique CDR3
3 unique J



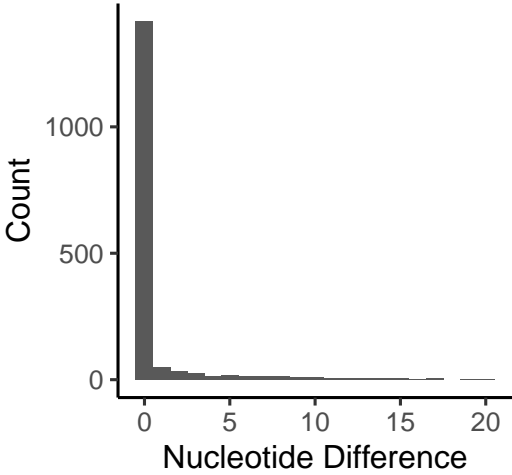
IGHV4-61*01

2763 sequences assigned
2353 (85.2%) exact matches, in which:
2224 unique CDR3
6 unique J



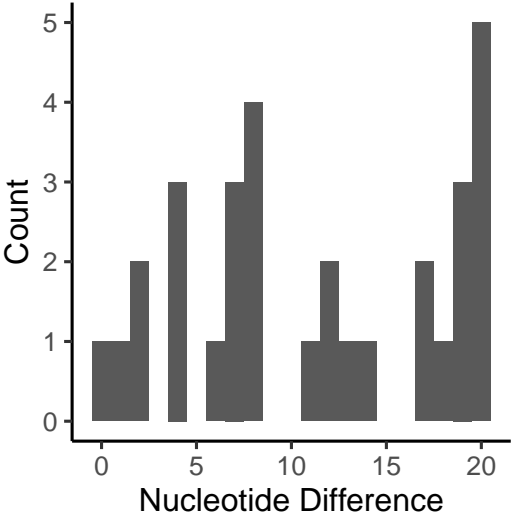
IGHV6-1*01_02

1679 sequences assigned
1417 (84.4%) exact matches, in which:
1384 unique CDR3
6 unique J



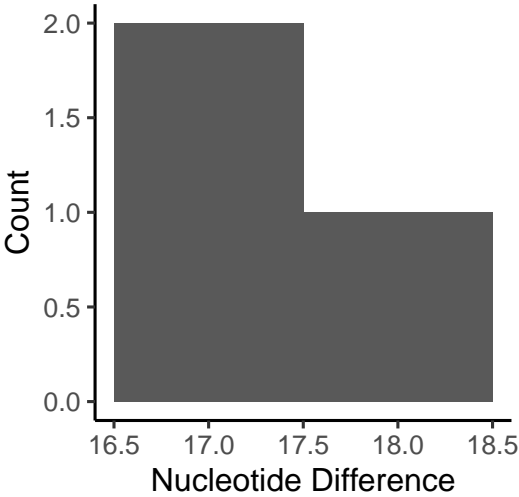
IGHV4-59*11

44 sequences assigned
1 (2.3%) exact matches, in which:
1 unique CDR3
1 unique J



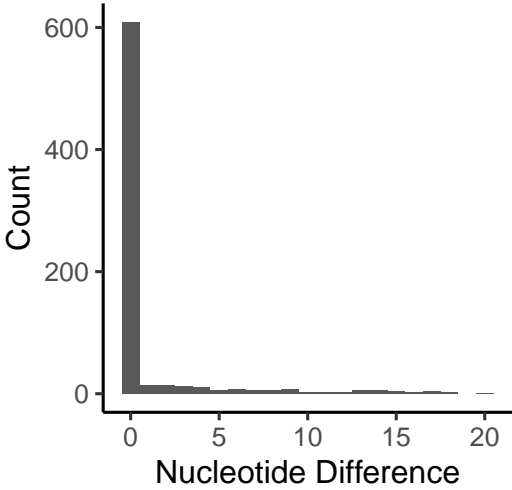
IGHV4/OR15-8*01

3 sequences assigned
No exact matches.



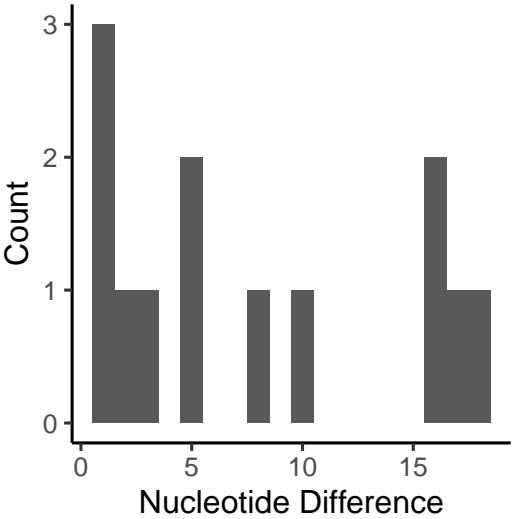
IGHV7-4-1*02

733 sequences assigned
609 (83.1%) exact matches, in which:
606 unique CDR3
6 unique J



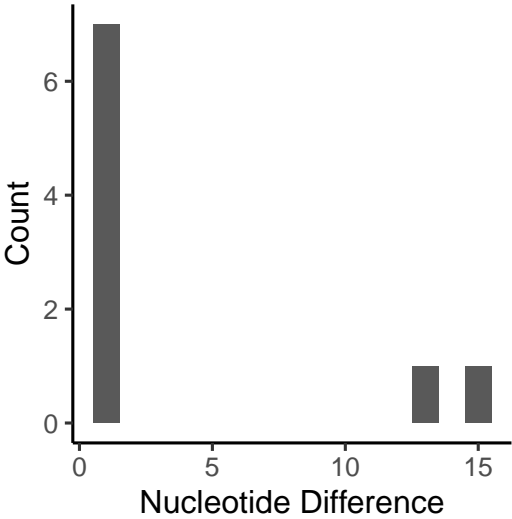
IGHV4-59*12

15 sequences assigned
No exact matches.



IGHV5-51*06

11 sequences assigned
No exact matches.





[illegible]