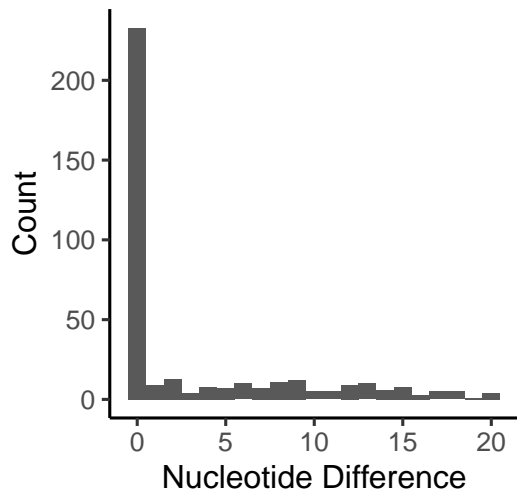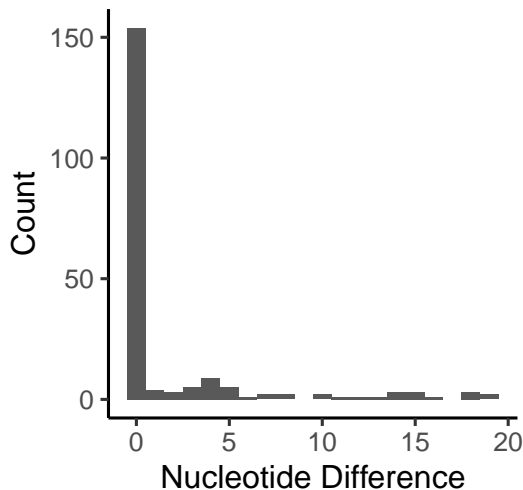## IGHV1-2*02

389 sequences assigned
233 (59.9%) exact matches, in which:
233 unique CDR3
6 unique J
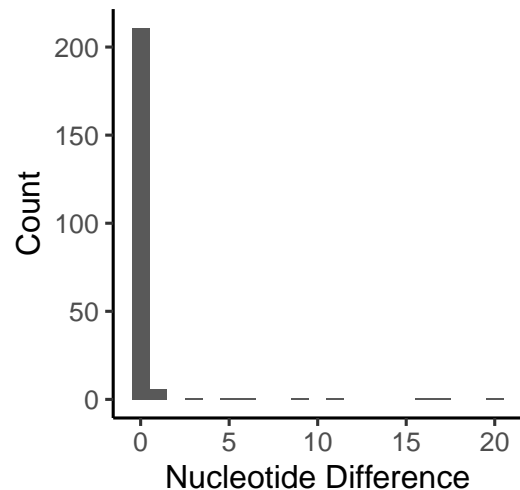
IGHV1-8*01

205 sequences assigned
154 (75.1%) exact matches, in which:
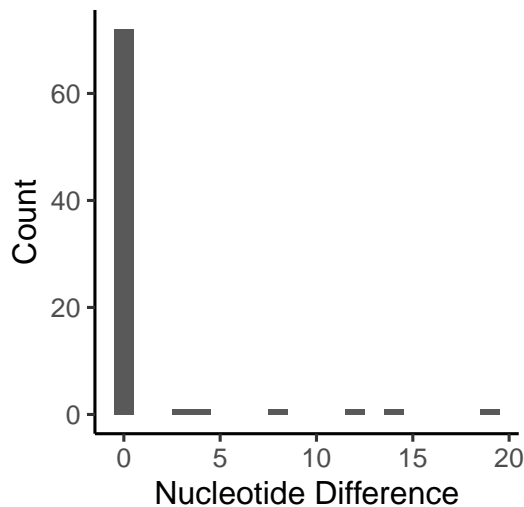153 unique CDR3
5 unique J

IGHV1-24*01

228 sequences assigned
211 (92.5%) exact matches, in which:
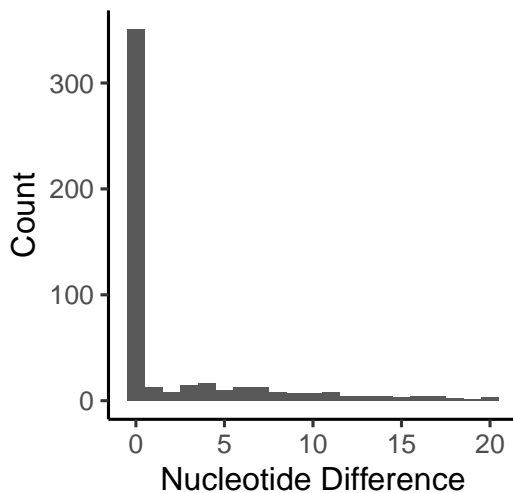211 unique CDR3
6 unique J

IGHV1-2*04

80 sequences assigned
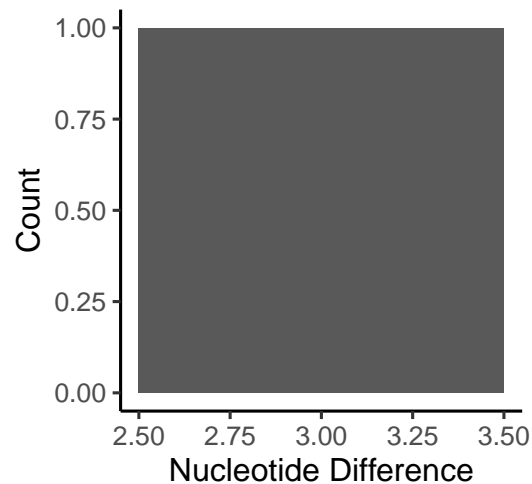72 (90%) exact matches, in which:
72 unique CDR3
5 unique J

IGHV1-18*01

513 sequences assigned
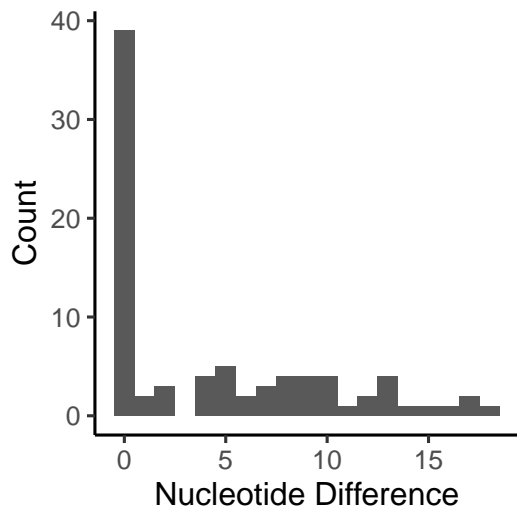351 (68.4%) exact matches, in which:
351 unique CDR3
6 unique J

IGHV1-38-4*01
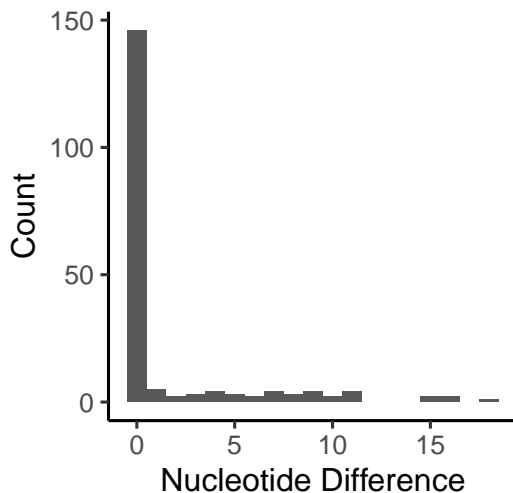
1 sequences assigned
No exact matches.

IGHV1-3*01_05

90 sequences assigned
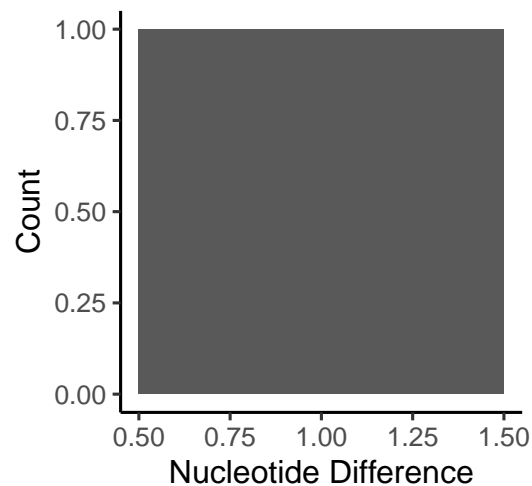39 (43.3%) exact matches, in which:
39 unique CDR3
6 unique J

IGHV1-18*04

191 sequences assigned
146 (76.4%) exact matches, in which:
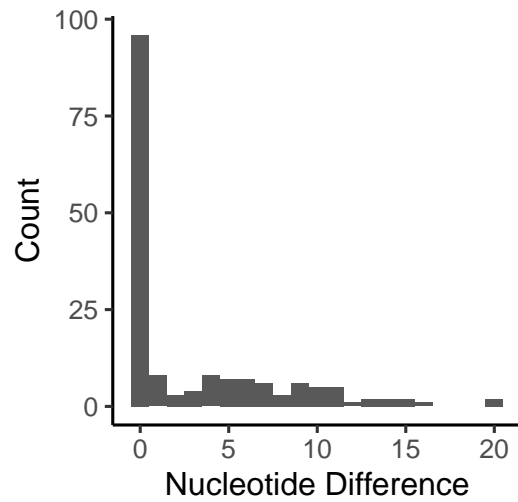146 unique CDR3
6 unique J

IGHV1-45*02

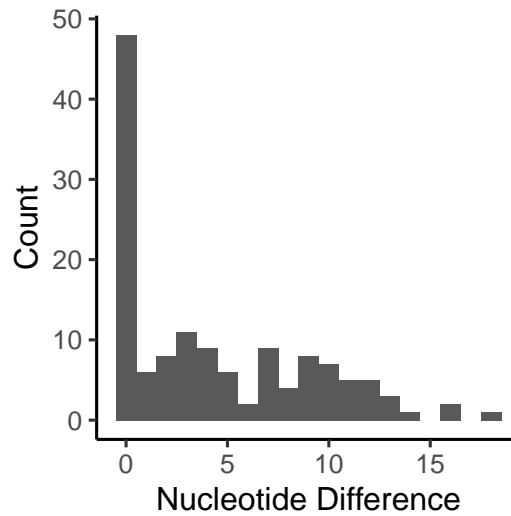1 sequences assigned
No exact matches.

IGHV1−46*01

178 sequences assigned
96 (53.9%) exact matches, in which:
96 unique CDR3
6 unique J

IGHV2−5*01

140 sequences assigned
48 (34.3%) exact matches, in which:
48 unique CDR3
5 unique J

IGHV2−70*01

61 sequences assigned
48 (78.7%) exact matches, in which:
47 unique CDR3
4 unique J
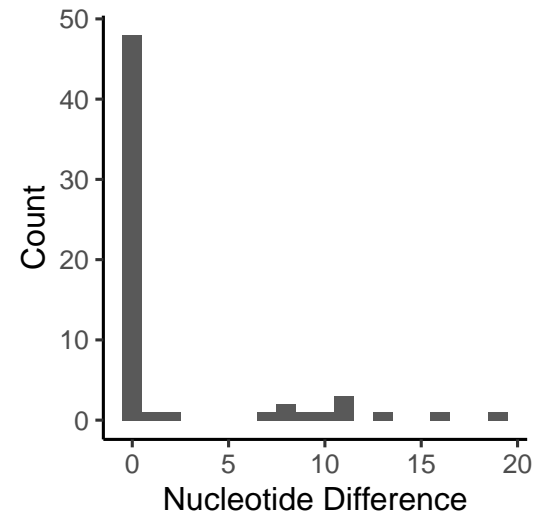
IGHV1−58*01_03

48 sequences assigned
37 (77.1%) exact matches, in which:
37 unique CDR3
6 unique J

IGHV2−5*02

190 sequences assigned
93 (48.9%) exact matches, in which:
93 unique CDR3
6 unique J

IGHV3−7*01

386 sequences assigned
116 (30.1%) exact matches, in which:
114 unique CDR3
6 unique J

IGHV1−69*06_14

160 sequences assigned
139 (86.9%) exact matches, in which:
139 unique CDR3
6 unique J

IGHV2−26*01

35 sequences assigned
25 (71.4%) exact matches, in which:
25 unique CDR3
4 unique J

IGHV3−7*04

182 sequences assigned
57 (31.3%) exact matches, in which:
57 unique CDR3
6 unique J

IGHV3−9*01

122 sequences assigned
67 (54.9%) exact matches, in which:
67 unique CDR3
5 unique J

IGHV3−11*03_05

150 sequences assigned
75 (50%) exact matches, in which:
74 unique CDR3
5 unique J

IGHV3−15*01_02

356 sequences assigned
170 (47.8%) exact matches, in which:
167 unique CDR3
6 unique J

IGHV3−11*01

157 sequences assigned
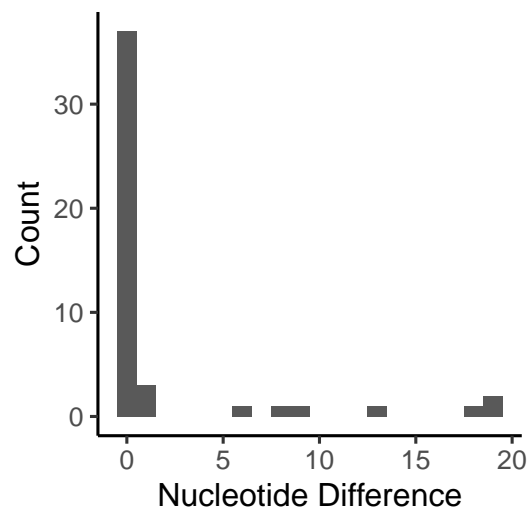82 (52.2%) exact matches, in which:
80 unique CDR3
5 unique J

IGHV3−13*01

39 sequences assigned
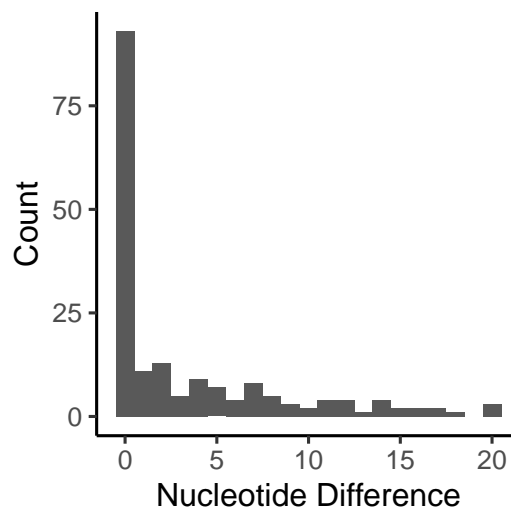15 (38.5%) exact matches, in which:
14 unique CDR3
3 unique J

IGHV3−20*03_04

82 sequences assigned
44 (53.7%) exact matches, in which:
44 unique CDR3
5 unique J

IGHV3−11*06

46 sequences assigned
32 (69.6%) exact matches, in which:
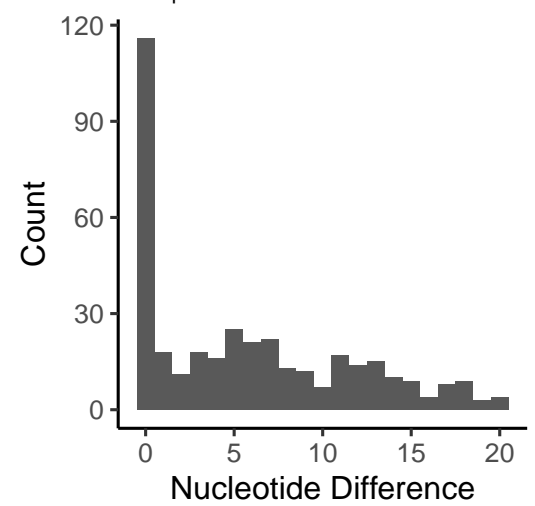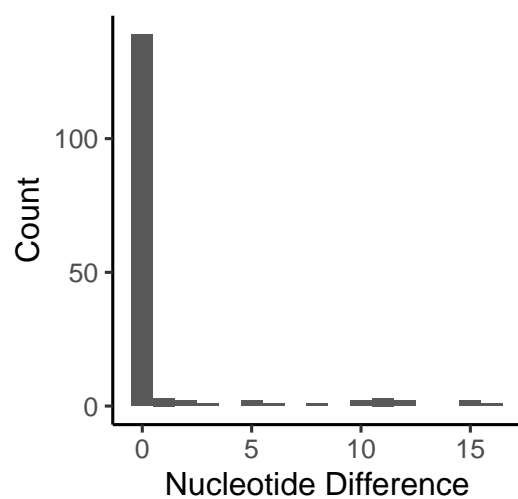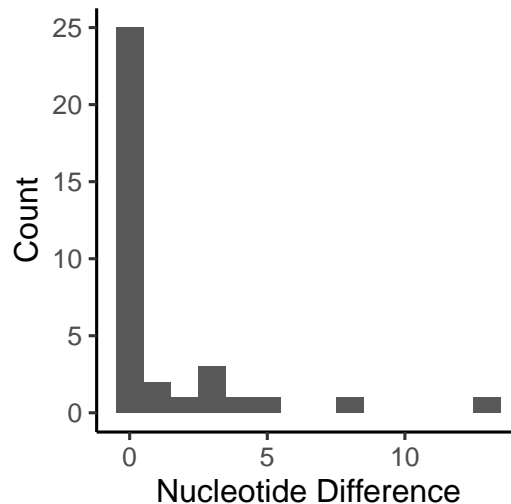31 unique CDR3
5 unique J

IGHV3−13*04

43 sequences assigned
20 (46.5%) exact matches, in which:
20 unique CDR3
5 unique J
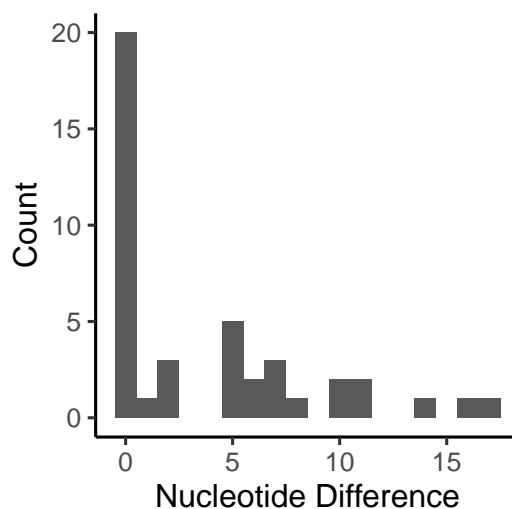
IGHV3−21*01_02

1096 sequences assigned
758 (69.2%) exact matches, in which:
741 unique CDR3
6 unique J

IGHV3-30-3*01

463 sequences assigned
283 (61.1%) exact matches, in which:
278 unique CDR3
6 unique J

IGHV3-48*02

576 sequences assigned
255 (44.3%) exact matches, in which:
251 unique CDR3
6 unique J

IGHV3-64*02_07

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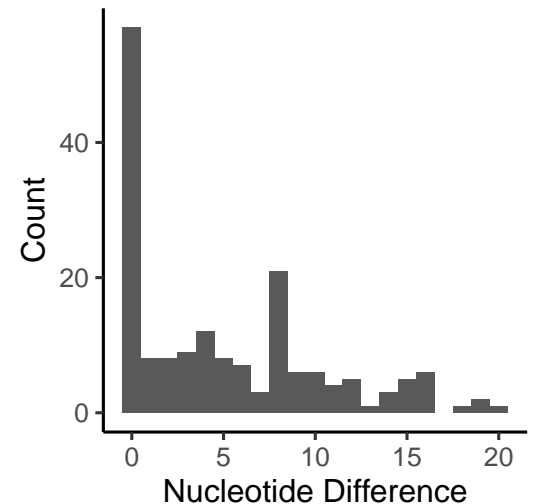1 (33.3%) exact matches, in which:
1 unique CDR3
1 unique J

IGHV3-33*01

282 sequences assigned
167 (59.2%) exact matches, in which:
165 unique CDR3
6 unique J

IGHV3-49*03_05

46 sequences assigned
26 (56.5%) exact matches, in which:
26 unique CDR3
5 unique J

IGHV3-72*01

67 sequences assigned
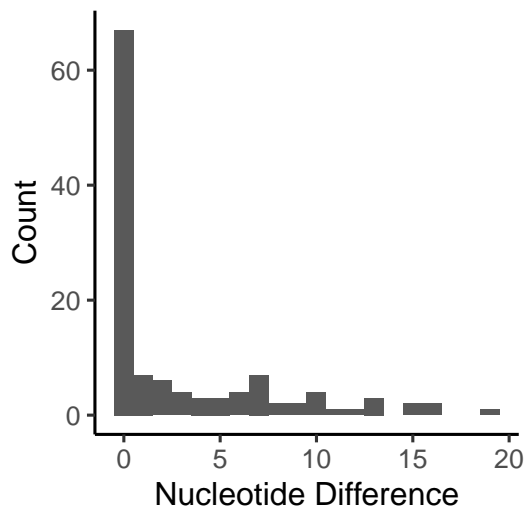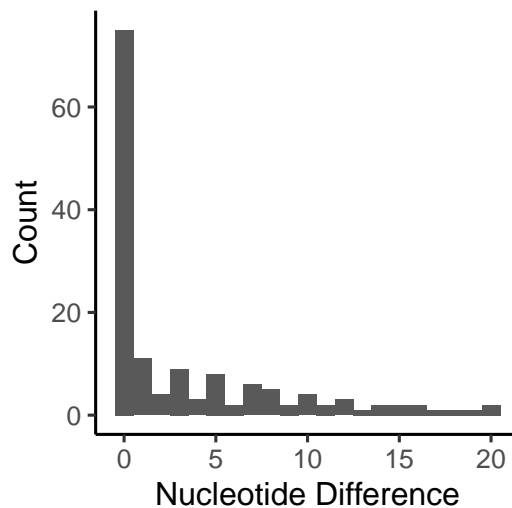5 (7.5%) exact matches, in which:
5 unique CDR3
2 unique J

IGHV3-43*01

47 sequences assigned
35 (74.5%) exact matches, in which:
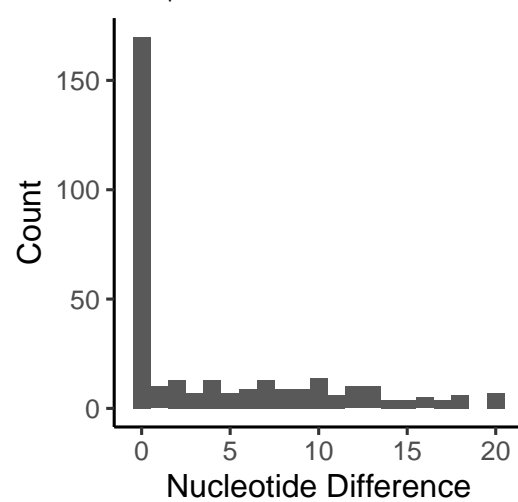35 unique CDR3
4 unique J

IGHV3-53*01_02

500 sequences assigned
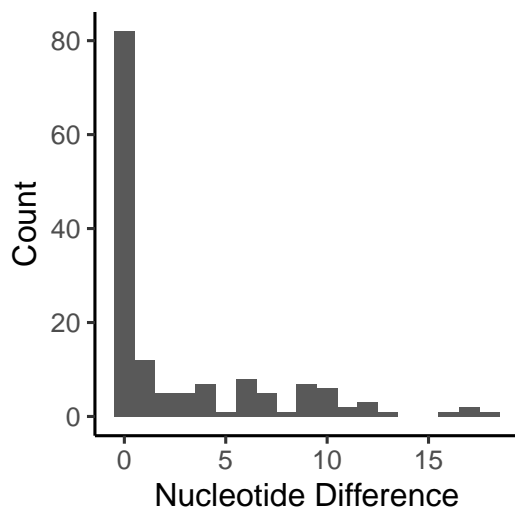256 (51.2%) exact matches, in which:
248 unique CDR3
6 unique J

IGHV3-73*01_02

46 sequences assigned
25 (54.3%) exact matches, in which:
25 unique CDR3
4 unique J

IGHV3−74*01_02

287 sequences assigned
113 (39.4%) exact matches, in which:
109 unique CDR3
6 unique J

IGHV4−30−4*01

138 sequences assigned
83 (60.1%) exact matches, in which:
82 unique CDR3
6 unique J

IGHV4−34*01_02

1984 sequences assigned
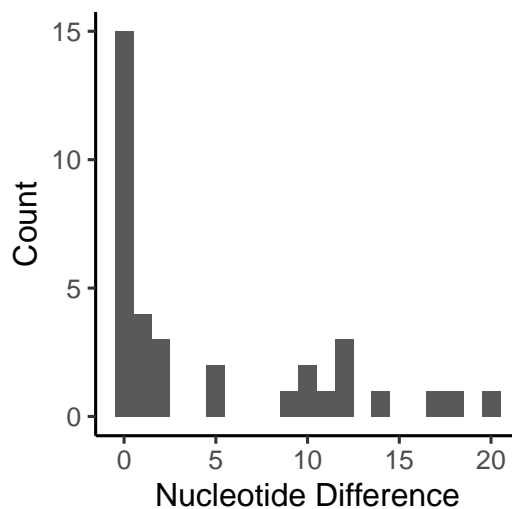1677 (84.5%) exact matches, in which:
1628 unique CDR3
6 unique J

IGHV3−64D*06

254 sequences assigned
114 (44.9%) exact matches, in which:
113 unique CDR3
6 unique J

IGHV4−30−2*01

169 sequences assigned
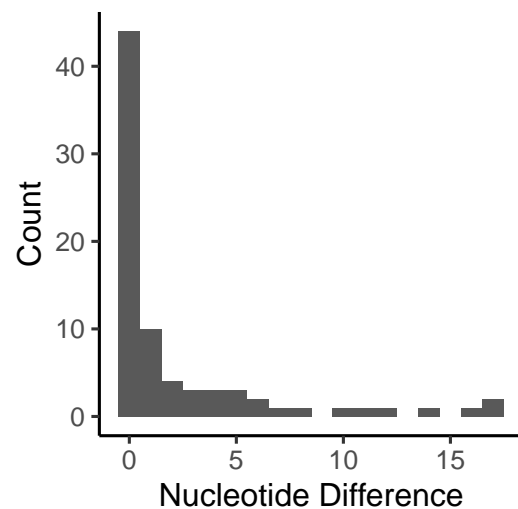113 (66.9%) exact matches, in which:
109 unique CDR3
6 unique J

IGHV4−39*01_05

958 sequences assigned
537 (56.1%) exact matches, in which:
527 unique CDR3
6 unique J

IGHV4−28*01_07

2 sequences assigned
No exact matches.

IGHV4−31*03_04

384 sequences assigned
270 (70.3%) exact matches, in which:
266 unique CDR3
6 unique J

IGHV4−59*01_07

869 sequences assigned
523 (60.2%) exact matches, in which:
514 unique CDR3
6 unique J
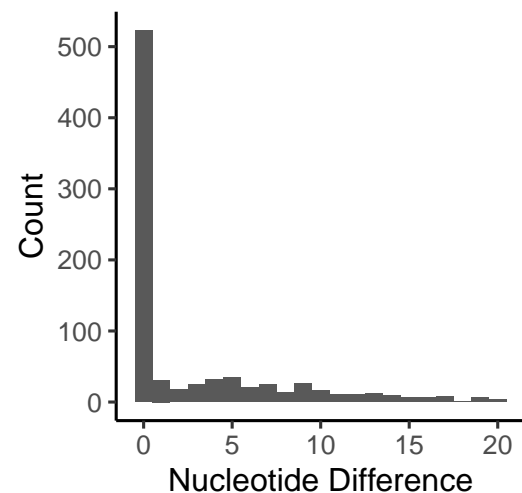
IGHV4−61*01

269 sequences assigned
138 (51.3%) exact matches, in which:
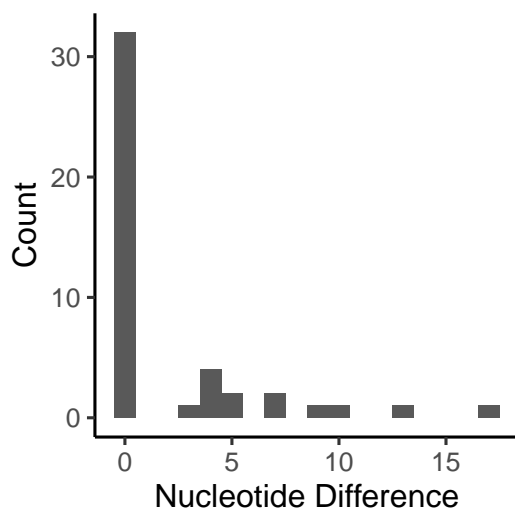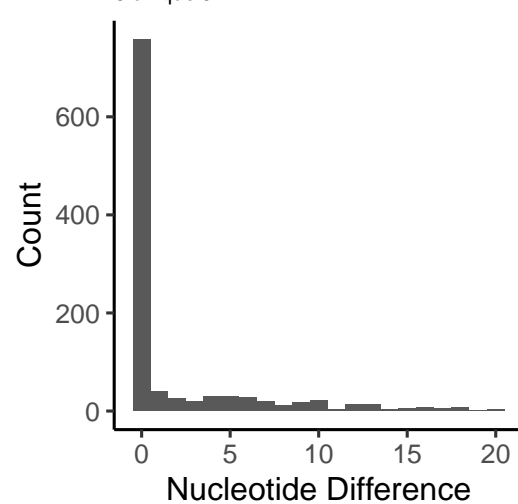137 unique CDR3
6 unique J
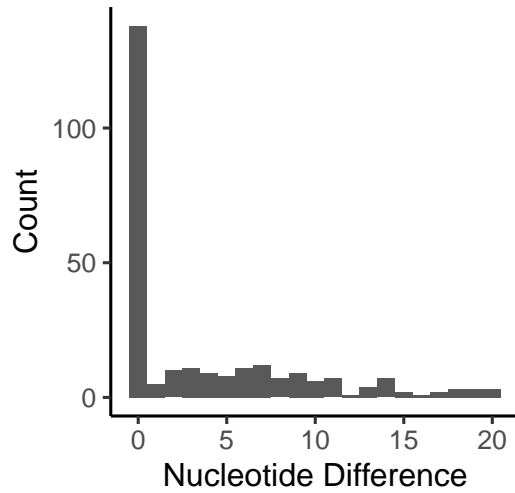
IGHV6−1*01_02

282 sequences assigned
103 (36.5%) exact matches, in which:
103 unique CDR3
5 unique J

IGHV5−10−1*01_03

53 sequences assigned
32 (60.4%) exact matches, in which:
32 unique CDR3
5 unique J

IGHV7−4−1*01

6 sequences assigned
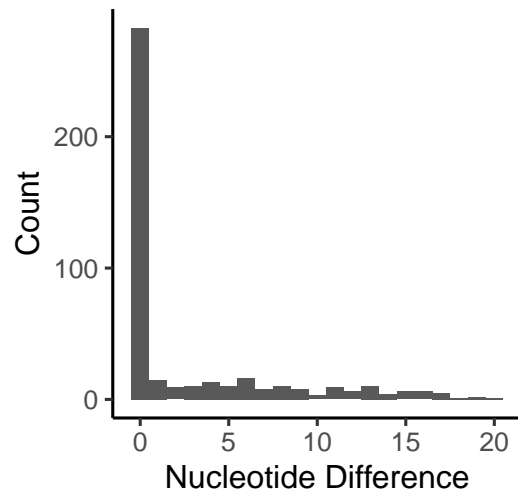5 (83.3%) exact matches, in which:
5 unique CDR3
1 unique J

IGHV5−51*01_03

367 sequences assigned
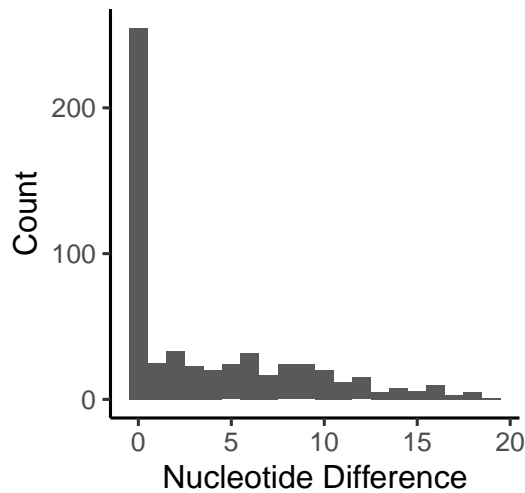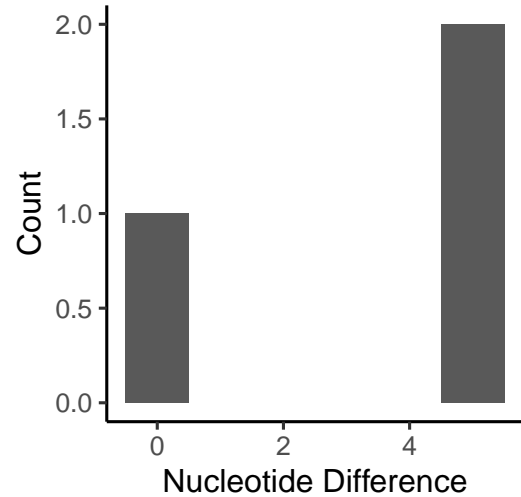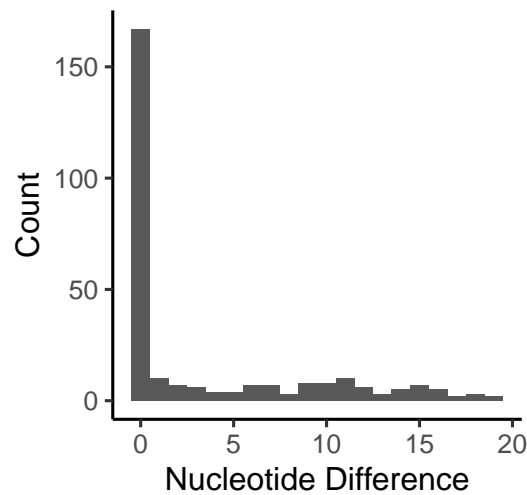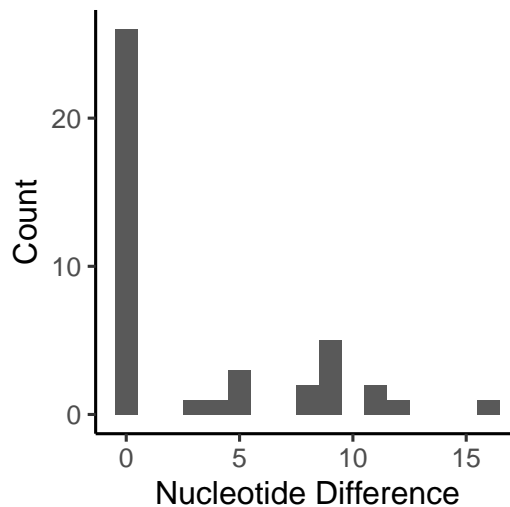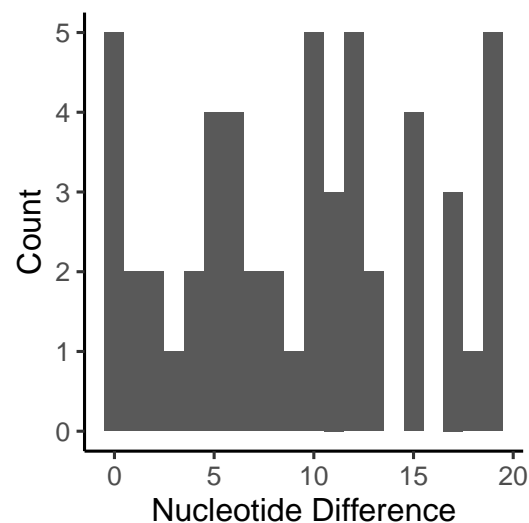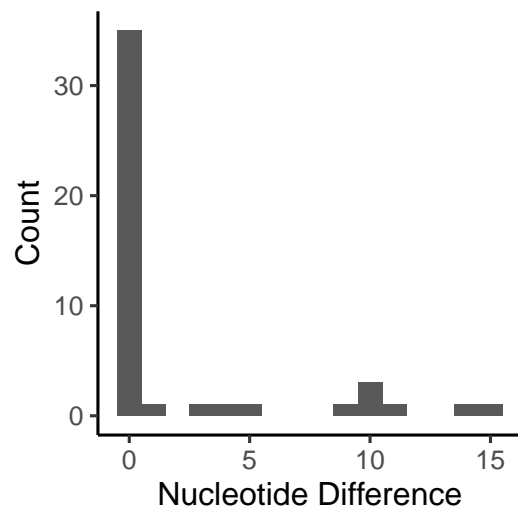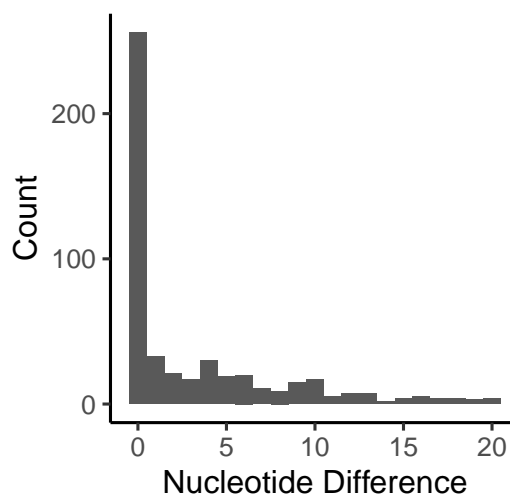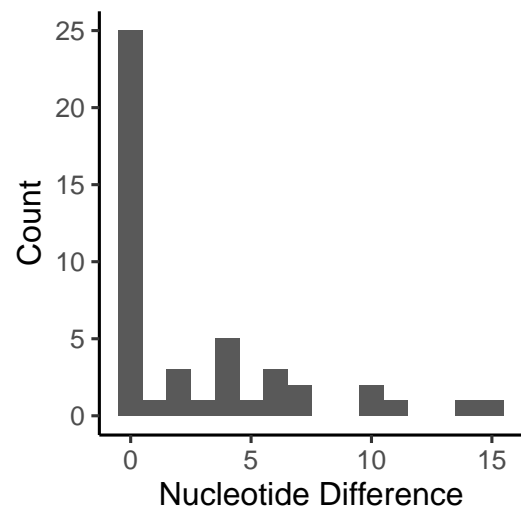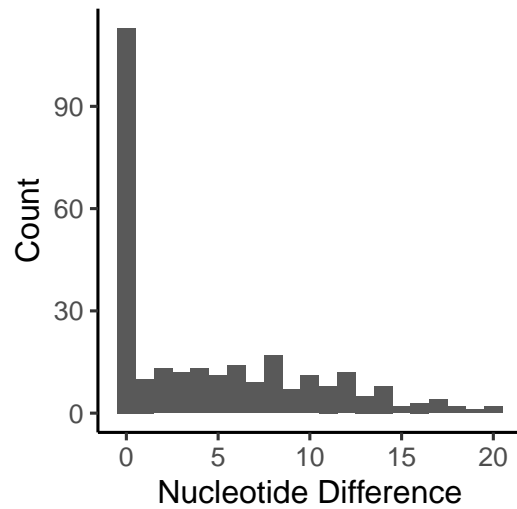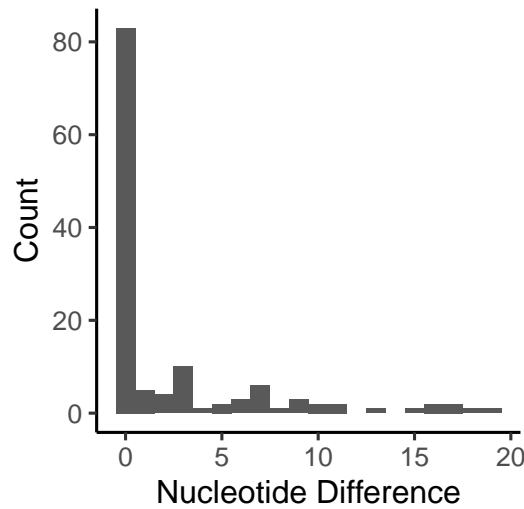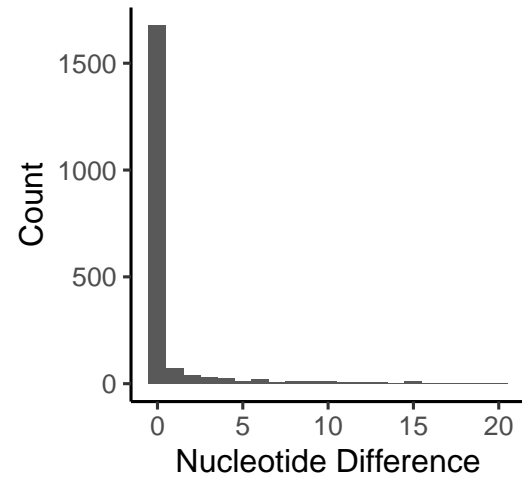228 (62.1%) exact matches, in which:
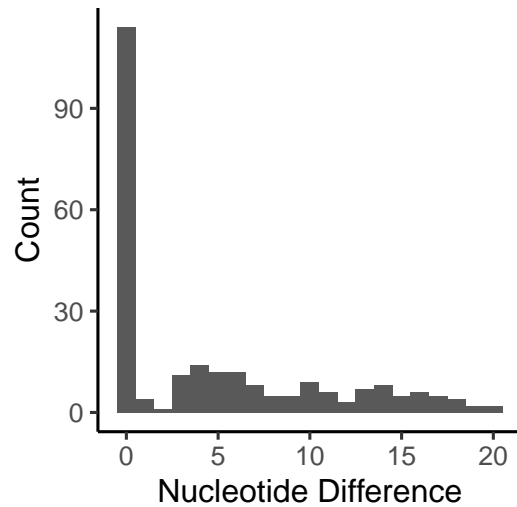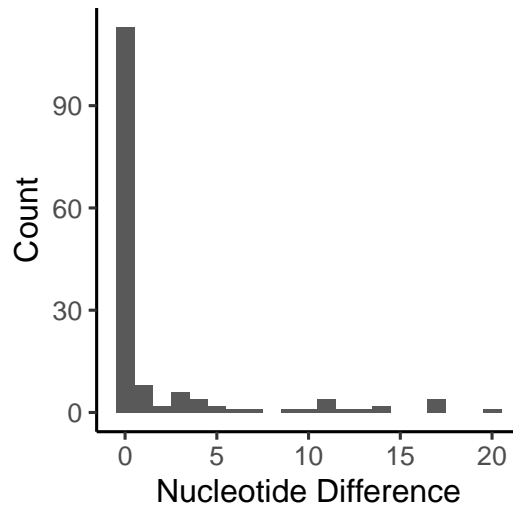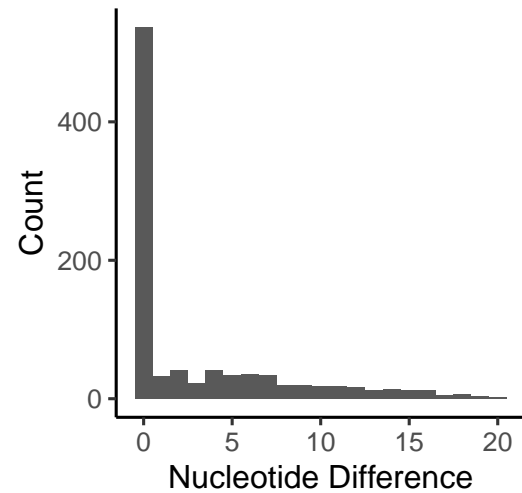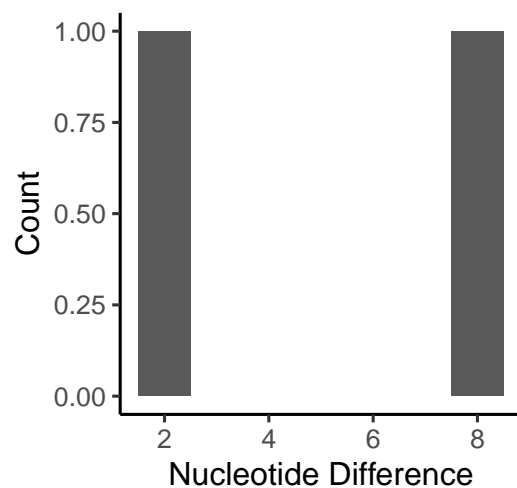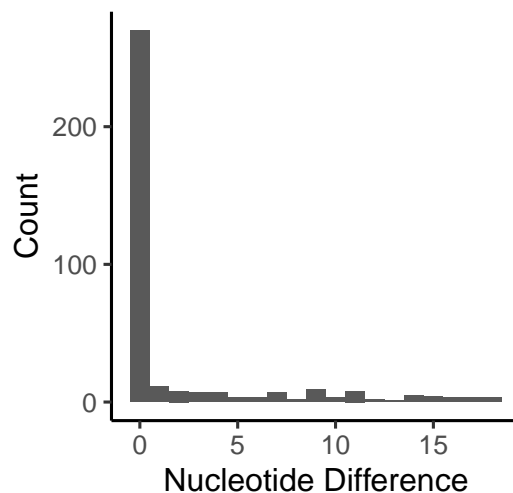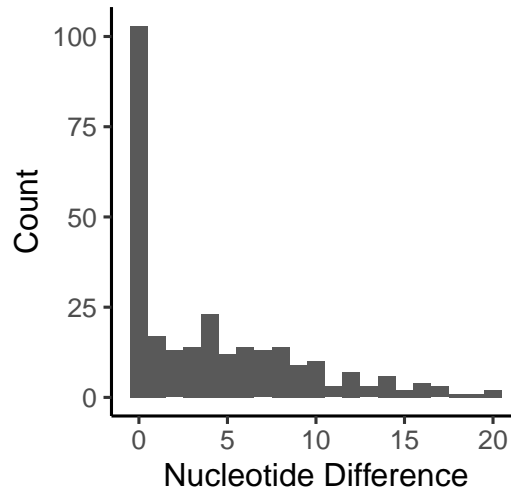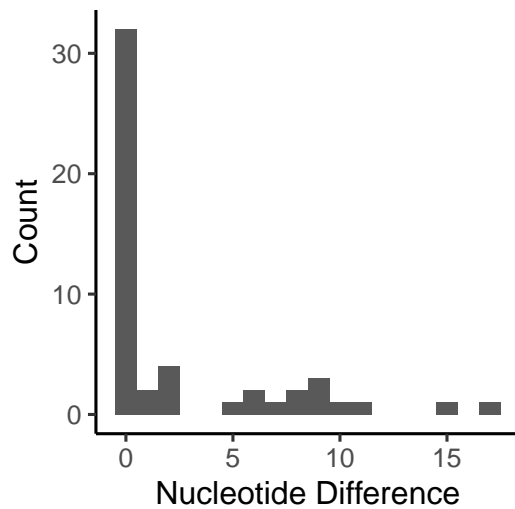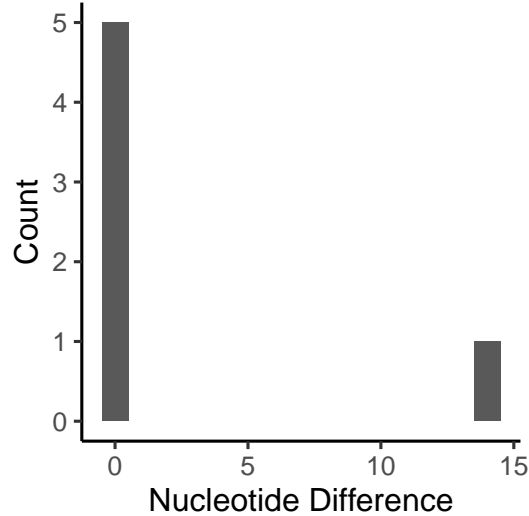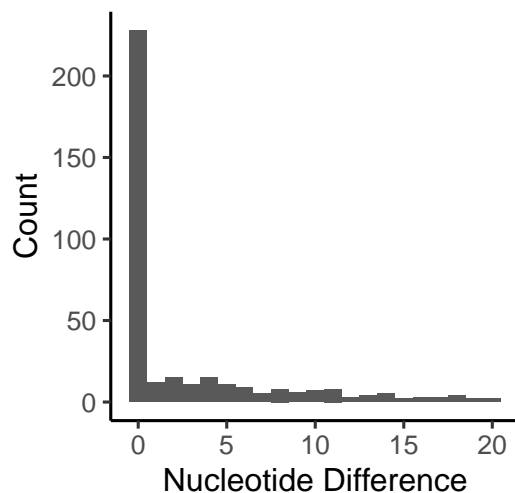228 unique CDR3
6 unique J

Allele Usage

Novel sequence(s) IGHV4–59*02_G88A 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) IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A 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.

Warning – no inferred sequences found.

Novel sequence(s) IGHV1–69*04_09_G112A IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A 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) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–39*02_C258G IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A 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.

Warning – no inferred sequences found.

Novel sequence(s) IGHV3–11*06_T300C are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Warning – no inferred sequences found.

Novel sequence(s) IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.

Warning – no inferred sequences found.

Novel sequence(s) IGHV3–11*06_T300C IGHV4–59*02_G88A IGHV5–51*07_A128G are not listed in the genotype and will be ignored.