

mt-rRNA 16S
mtRNR2L 12 AAAGTGCACTTGGACGAA**CCA**GAGTGTAGCTTAACACAAAGCACCCAACCTTACACTTAGGAGATTTCAACTTAAGTACCGCTCTGAGCTAAACCTAGC 100
AAAGTGCACTTGGACGAA**CCA**GAGTGTAGCTTAACA**TAAAG**CACCCAACCTTACACTTAGGAGATTTCAACT**CA**ACTTGACC**ACT**CTGAGC**CA**AACTAGC 100

mt-rRNA 16S
mtRNR2L 12 CCCAAACCCACT**CCA**CCTTACTACCAGACAACCTTAGCCAAACCATTTACCCAAATAAAGTAT**AGG**CGATAGAAATTGAAACCTGGCGCAATAGATATAG 200
CC**TAA**ACCC**GT****CCA**CCTTACTAT**CA**AATAACCTTAACCAAACCATTTACCCAAATAAAGTAT**AGG**CGATAGAAATTG**TAA**AC**CC**GGCGCAATAGATATAG 200

mt-rRNA 16S
mtRNR2L 12 TACCGCAAGGAAAGATGAAAAATTATAA**CCA**AGCATAATATAGCAAGGACTAACCCTTATACCTTCTGCATAATGAATTAAGTAGAAATAACTTTGCA**A** 300
TACCGCAAGGAAAGATGAAAAATTATAA**CCA**AGCATAATA**CA**GAAGGACTAACCCT**GT**ACCTTTGCATAATGAATTAAGTAGAAATAACTTTGCA**A** 300

mt-rRNA 16S
mtRNR2L 12 **GG**AGAGCCAAAGCTAAGACCCCGAAACAGACGAGCTACCTAAGAACAGCTAAAAGAGCACA**CCC**GTCTATGTAGCAAAATAGTGGGAAGATTTATAGG 400
AGAG**A**CCAAAGCTAAG**CCCC**CGAAACAGACGAGCTACCTAAGAACAGCTAAAAGAGCACA**CCC**GTCTATGTAGCAAAATAGTGGGAAGATTTATAGG 400

mt-rRNA 16S
mtRNR2L 12 TAGAGGCGACAAACCTACCGAGCCTGGTGATAGC**TGG**TTGTCCAAGATAGAATCTTAGTTCAACTTTAAATTTG**CCA**CAGAACCTCTAAATCCCCTTG 500
TAGAGGCGACAAACCT**AT**CGAGCCTGGTGATAGC**TGG**TTGTCCAAGATAGAATCTTAGTTCAACTTTAAATTT**AC**CTACAGAACCT**CT**TAAATCCCCTTG 500

mt-rRNA 16S
mtRNR2L 12 TAAATTTAACTGTTAGTCCAAAGAGGAACAGCTCTTTGGACACT**AGG**AAAAAACCTTGTAGAGAGAGTAAAAATTTAACAC**CCA**TAGTAGGCCCTAAAAG 600
TAAATTTAACTGTTAGTCCAAAGAGGAACAGCTCTTTGGACACT**AGG**AAAAAACCTTGT**AA**AGAGAGTAAAAATTTAA**TAC****CCA**TAGTAGGCCCTAAAAG 600

mt-rRNA 16S
mtRNR2L 12 CAGCCACCAATTAAGAAAGCGTTCAAGCTCAACA**CCC**ACTACCTAAAAATCCCAACATATAACTGAACT**CCT**CACACCCAATTGGACCAATCTATCAC 700
CAGCCACCAATTAAGAAAGCGTTCAAGCTCAACA**CCC****AT**CGTCTAAAAATCCCAACATA**CA**ACTGAG**CT****CCT**TACACT**CA**ATTGGACCAATCTAT**TAC** 700

mt-rRNA 16S
mtRNR2L 12 **CCT**ATAGAAGAACTAATGTTAGTATAAGTAACATGAAACATTCTCCT**CCG**CATAAGCCTGCGTCAGATCAAAACACTGAACTGACAATTAACAGC**CCA** 800
CTTATAGAAGAACTAATGTTAGTATAAGTAACATGAAACATTCTCCT**CCG**CATAAGCCT**AC**ATCAG**CA**AAAT**TAT**TAACTGACAATTAACAGC**CCA** 800

mt-rRNA 16S
mtRNR2L 12 TATCTACAATCAACCAACAAGTCAATTATTACCCTCACTGTCAA**CCC**AACACAGGCATGCTCATAAGGAAAGGTTAAAAAAGTAA**AGG**AACTCGGCAA 900
TATCTACAATCAACCAACAAG**CC**ATTATTACCCTCACTGT**AA****CCC**AACACAGGCAT**GC****CCA****CA**AGGAAAGGTTAAAAAAGTAA**AGG**AACTCGGCAA 900

mt-rRNA 16S
mtRNR2L 12 CCTTACCCCGCTGTTTACCAAAAACATCACCTCTAGCATCA**CCA**GTATTAGAGGCACCGCCTGCCAGTGACACATGTTTAACGG**CCG**CGGTACCCCTAA 1000
TCTTACCCCGCTGTTTACCAAAAACATCACCTCTAGCAT**TAT**CA**GT**ATTAGAGGCACCGCCTGCC**GG**TGACATATGTTTAACGG**CCG**CGGTACCCCTAA 1000

mt-rRNA 16S
mtRNR2L 12 CCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGA**CCT**GTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTTTAA**CCA**GTGAAATTGA 1100
CCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGA**CTT**GTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT**CA****CCA**GTGAAATTGA 1100

mt-rRNA 16S
mtRNR2L 12 CCTGCCCGTGAAGAGGCGGGCATGACACAGCAAGACGAGAAGA**CCC**TATGGAGCTTTAATTTATTAATGCAAACAGTA**CCT**AACAAACCCACAGGTCCTA 1200
CCT**AC**CCCGTGAAGAGGCGGGCAT**ACA**TAGCAAGAC**TAT**GT**TACTA****CA**T**ACA**CT**AAC**AT**GTACT**GAGCA**AGTTT**TT**CTC**AAAA**AGTAGA**T**GCTAGG** 1200

mt-rRNA 16S
mtRNR2L 12 AACTACCAACCTGCATTAAAAATTTTCGGTTG**GGG**CGAC
ATTATAGAAAA**ATA**-ATTAAAA**TAATAC**ATT**TCAC****CCTT**

Key to mtRNR2L 12 sequence: **PAM**

No PAM

match

mismatch

sgRNA target, perfect match

sgRNA target, some mismatches

Supplemental Figure 2: mt rRNA sgRNA target sites in the pseudogene mtRNR2L 12.