

**Supplementary Table S1: POLG Sequencing Primers used in this Study****Primers for amplification of POLG coding exons**

Name	Forward 5'-3'	Exon(s)	Name	Reverse 5'-3'	Size of PCR product(bp)
PG1E1-1F1	ACAGGACGTGTCTCTCTCC	E1	PG1E1-1R1	GTGCTGGTCCAGGTTGTCC	518
PG1E1-2F3	GCAAGTGCTATCCTCGGAG	E1	PG1E1-2R2	CACATCAGCGCTCCCTACG	606
PG1E2F1	GTAGCTGTTTGAGTTAGGAGC	E2	PG1E2R1	CACAGCTGGTCAACAGATGC	474
PG1E3F1	CAAGCATGAACAAGCATGAGG	E3	PG1E3R1	AGTCCCAGGATGAGATCTGG	471
PG1E4-5F1	CAGAAGTCCCAGAGGAAAGC	E4-5	PG1E4-5R	AGCCTAGAAAAGCTAAGGTCC	619
PG1E6-7F1	AGCTGTGCCATGTCAAGTGG	E6-7	PG1E6-7R1	ACTCTCAATAAGATCTGCTCC	659
PG1E8F	AGCCACAGCCAGCAAGTTG	E8	PG1E8R3	CTGTCTGAGAATGGAGC	461
PG1E9F	GGGTGGGGACATTGTGA	E9	PG1E9F	ACCCAAACTCTTTCCACTAGC	413
PG1E10-11F	GAATTGTGGAAGGCACTAGC	E10-11	PG1E10-11R	CTGGCTGGGAAGAAGTACTAGG	563
PG1E12F	CTGATGACGACAGTTTCAGG	E12	PG1E10-12R	GAAAGTCTCAGGTGTGTCCAC	282
PG1E13F	GGGCTCAGTGTGGGAGG	E13	PG1E13R	GGAATCCAGGGTTAGTCAG	338
PG1E14-15F	TGGAGTATAGCAGTCCTGG	E14-15	PG1E14-15R1	ACTAGAGTCCTGCCTGACC	493
PG1E16-17F	GCCATCCCCTCAGGAAAGG	E16-17	PG1E16-17R	GGACAGTAAAGCAGGCCTCG	634
PG1E18-20F	TGGAAGTGATATGTGAACATTCC	E18-19	PG1E19R1	CTACAAACATTGGTAAGGTCC	571
PG1E20F1	CAGAGTGAAGCTTCTCTTGG	E20	PG1E18-20R	GTCAAAACTGACCAGTCTGG	374
PG1E21F1	ACAGTGCTGGACCTTCACC	E21	PG1E21R1	ACATTCCTCTGGACACAGG	467
PG1E22F1	CATGTAACATTACCGTTCGTGG	E22	PG1E22R3	TTTACCCAACAAGCAACAATGC	440

Note: all primers are linked to M13 universal forward primer (5'-3'): CTC GT TGT AAA ACG ACG GCC AGT(E-forward primer), or M13 universal reverse primer (5'-3'):CTG CT CAG GAA ACA GCT ATG ACC (E-reverse primer). M13 primers are used for sequencing.