pharmaceutics

Article

Supplementary Materials: Impairment of Glucose Metabolism and Suppression of Stemness in MCF-7/SC Human Breast Cancer Stem Cells by Nootkatone

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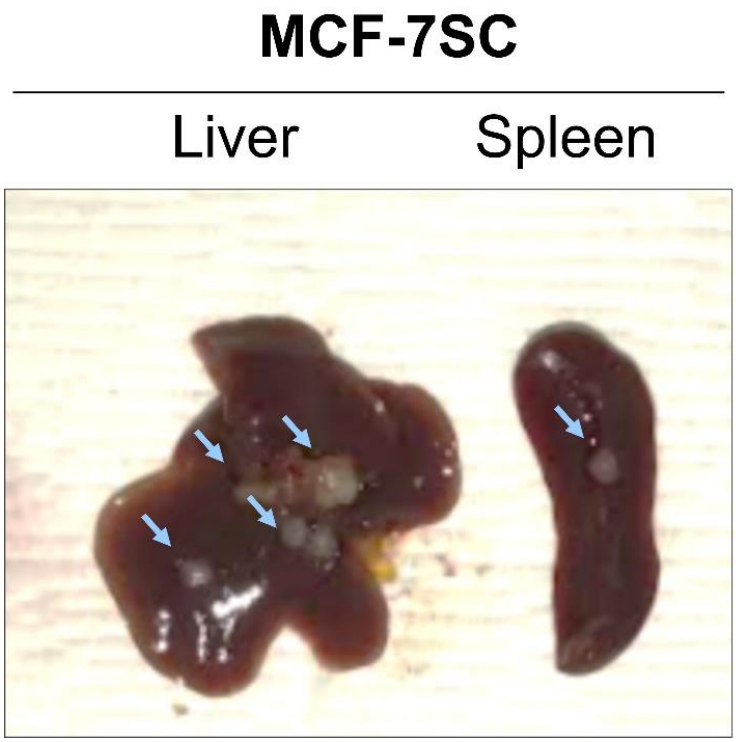

Figure S1. Metastasized tumors from BALB/C nude mice injected with MCF-7SCs (light blue arrows; to liver and spleen).

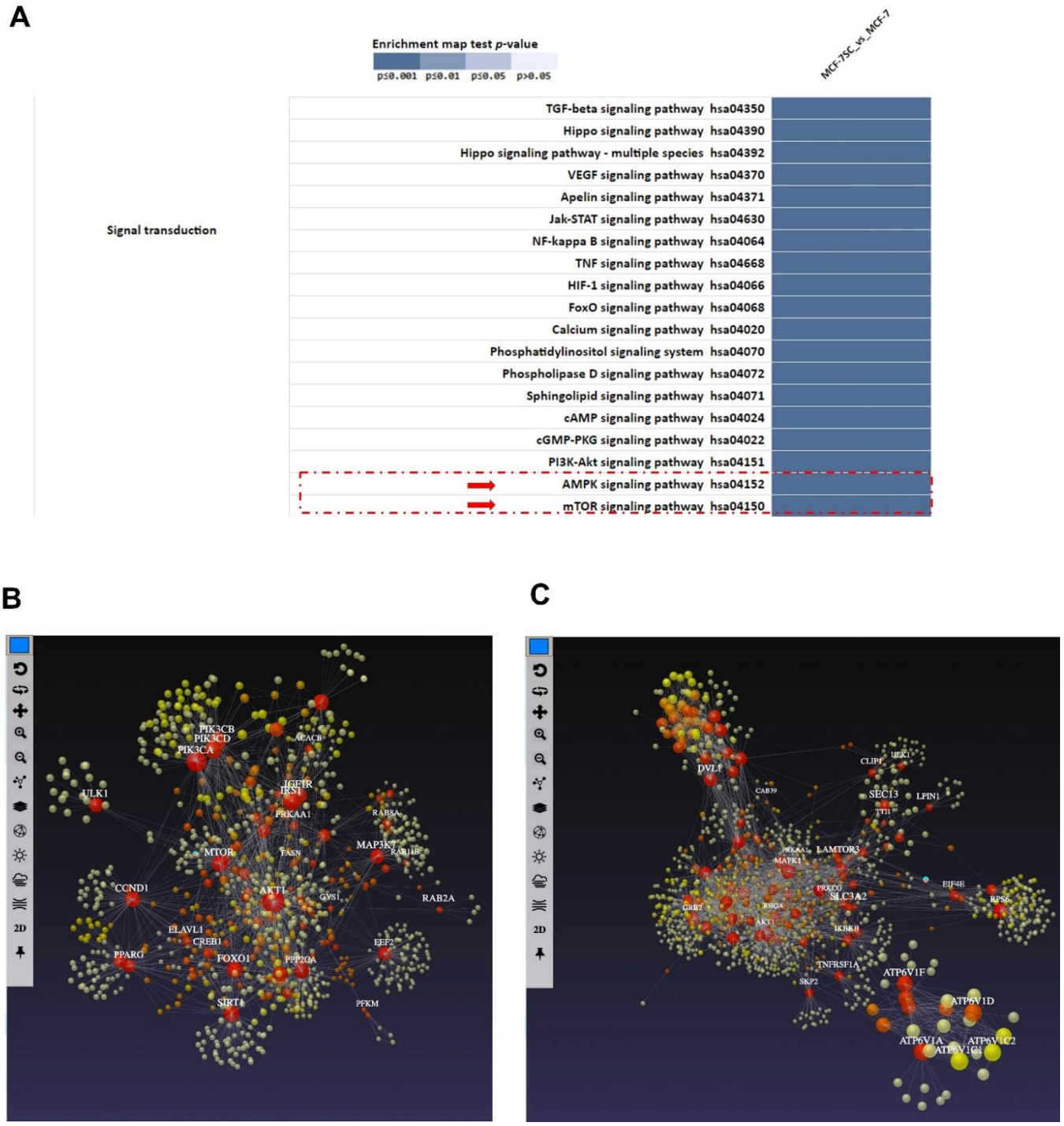

Figure S2. The AMPK/mTOR signaling pathway is enriched in MCF-7SCs. (**A**) KEGG pathways determined by transcriptomic analysis. (**B**) Enrichment of the AMPK and (**C**) mTOR signaling pathways analyzed using the NetworkAnalyst tool.

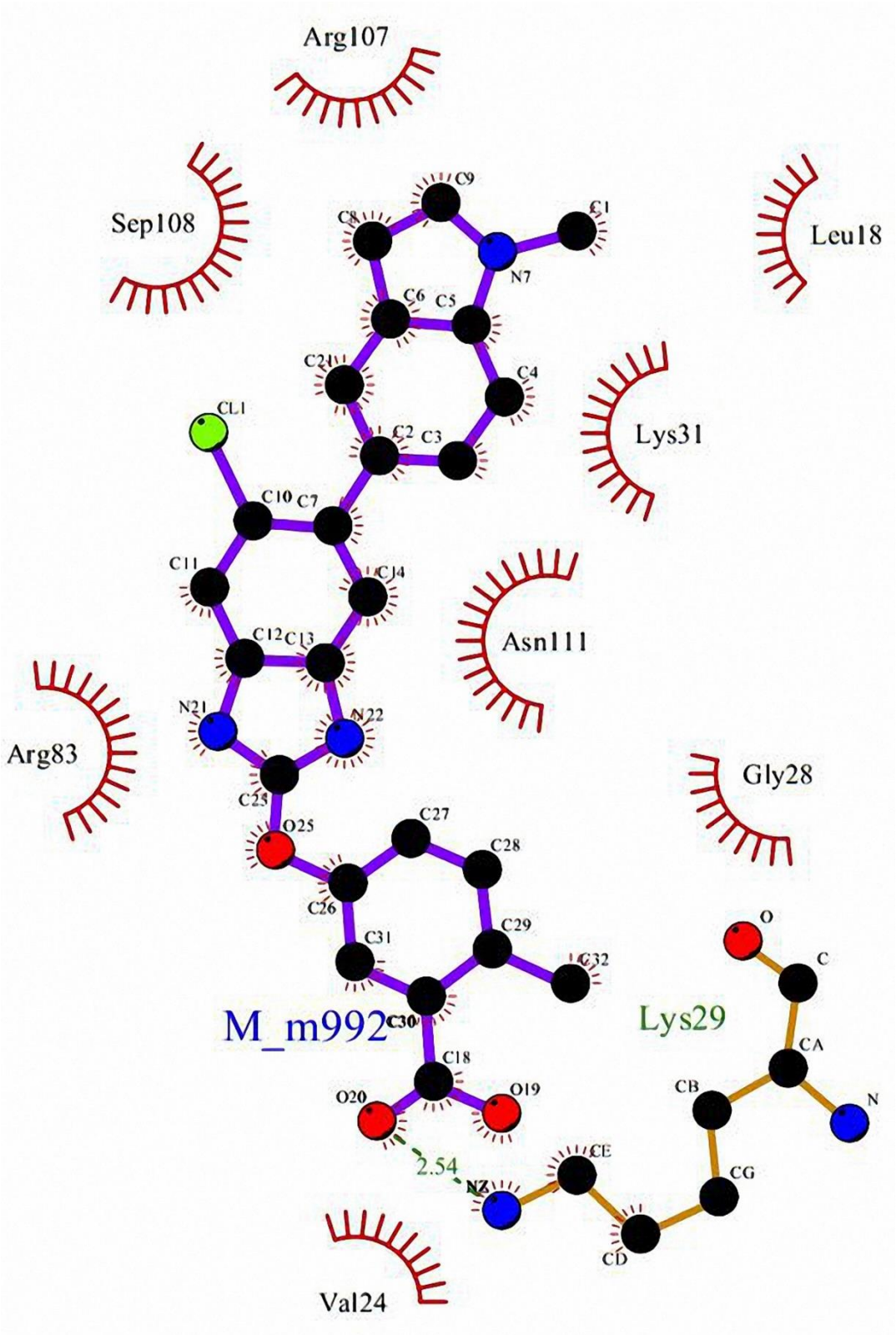

Figure S3. Interactions between 992 contained in 4cfe.pdb and AMPK analyzed using the LigPlot program.

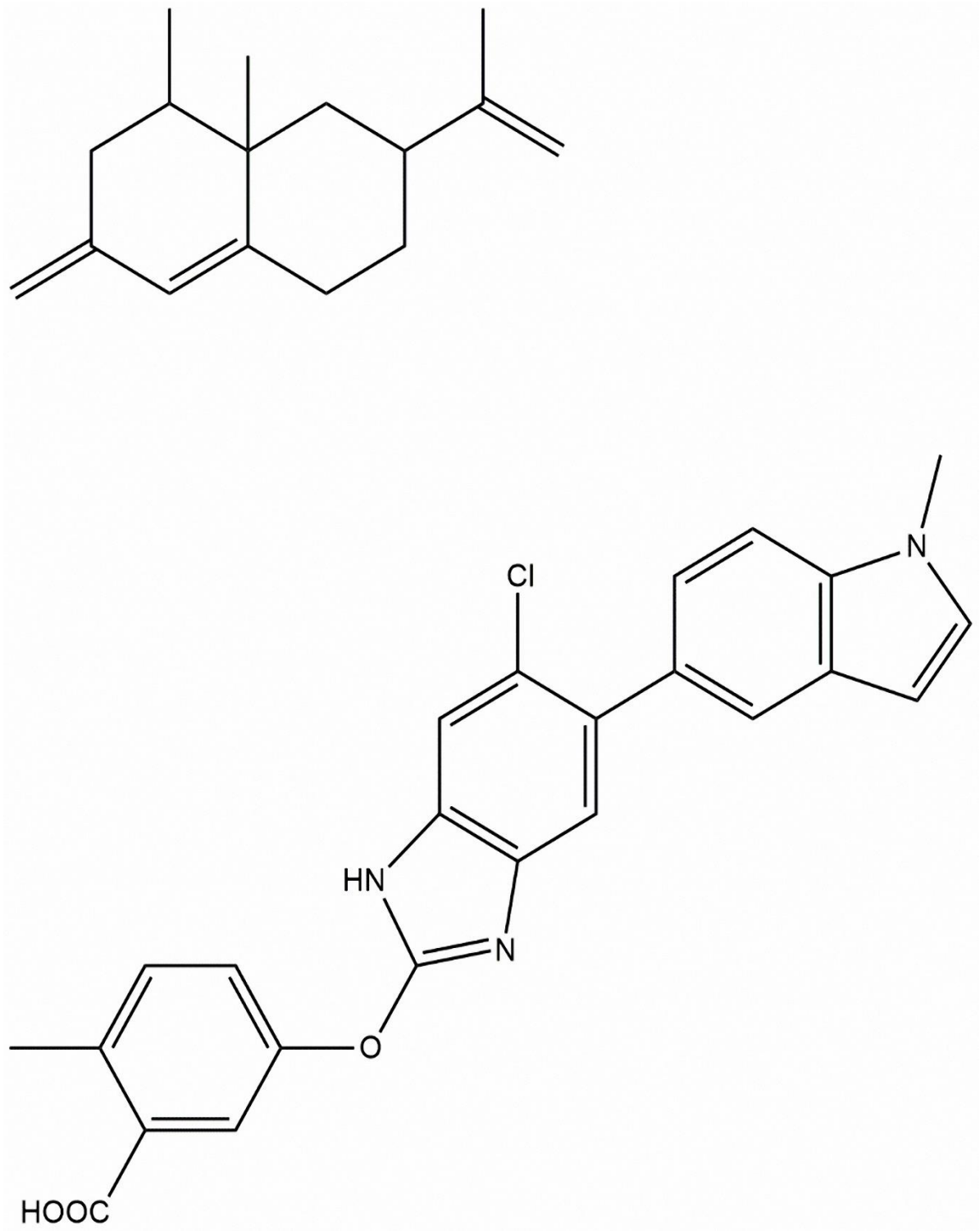

Figure S4. The structures of nootkatone (top) and 5-((6-chloro-5-(1-methyl-1H-indol-5-yl)-1H-benzo[d]imidazol-2-yl)oxy)-2-methylbenzoic acid (named as 992) (bottom).

Table S1. Sequences of RT-qPCR primers

Genes		Primer sequences
ALDH3B1	**Forward (5′->3′)**	TGCTATGTGGATGACAACTGCG
	Reverse (5′->3')	CGTGTGATGGCATTCTGTAGGG
GALM	**Forward (5′->3′)**	CAACCGAATCGCCAAAGGAACC
	Reverse (5′->3')	CGAGAACTGGACGCCATTTGAC
ALDH1L2	**Forward (5′->3′)**	GCCTGGTCTCGTTACCAAA
	Reverse (5′->3')	GCCACTTTCACCTCTTCAGC
PGM1	**Forward (5′->3′)**	TGATGGACGCGAGCAAACTGTC
	Reverse (5′->3')	ATGTCCTCCACACTCTGCTTGC
ALDH1A3	**Forward (5′->3′)**	GCCCTTTATCTCGGCTCTCT
	Reverse (5′->3')	CGGTGAAGGCGATCTTGT
ALDOC	**Forward (5′->3′)**	AAATTGGGGTGGAAAACACA
	Reverse (5′->3')	AGAAAATGACGCCTCCAATG
LDHA	**Forward (5′->3′)**	TGGGAGTTCACCCATTAAGC
	Reverse (5′->3')	AGCACTCTCAACCACCTGCT
BPGM	**Forward (5′->3′)**	GGAAATAGCAGTAGGGCACTCC
	Reverse (5′->3')	CAACAGCACGCAGGTTTTCATCC
ALDH9A1	**Forward (5′->3′)**	AGCTGAAGACGGTGTGTGTG
	Reverse (5′->3')	CCCAAAGCCTGGATGTAAGA
ALDH3A2	**Forward (5′->3′)**	ACTGATAGGAGCCATCGCTGCA
	Reverse (5′->3')	GCTCCGTGGTTTCCTCAACACC
ACSS2	**Forward (5′->3′)**	CGAGGCCCTGCAGAAGTGTC
	Reverse (5′->3')	GAGTCACCCATGCCGAGCTC
PGAM1	**Forward (5′->3′)**	GGAGGGGAAACGTGTACTGA
	Reverse (5′->3')	CAGAGAGACCCTCCAGATGC
PGAM4	**Forward (5′->3′)**	CGCTACGAGATGCTGGCTATGA
	Reverse (5′->3')	CCATAGTGCCGCTCATTGAGGC
ALDOA	**Forward (5′->3′)**	GACACTCTACCAGAAGGCGGAT
	Reverse (5′->3')	GGTGGTAGTCTCGCCATTTGTC
ALDH1B1	**Forward (5′->3′)**	CTGGAGCTGGGTGGTAAGAG
	Reverse (5′->3')	CTTTCTCCACGGTTCTCTCG
ALDH7A1	**Forward (5′->3′)**	CAACGAGCCAATAGCAAGAG
	Reverse (5′->3')	GCATCGCCAATCTGTCTTAC
PGAM5	**Forward (5′->3′)**	GAACTACATCCACCGAGCTGA
	Reverse (5′->3')	GGGAAACTGCAACGCTCTAC
HK2	**Forward (5′->3′)**	AAGGCTTCAAGGCATCTG
	Reverse (5′->3')	CCACAGGTCATCATAGTTCC
PCK2	**Forward (5′->3′)**	TAGTGCCTGTGGCAAGACCAAC
	Reverse (5′->3')	GAAGCCGTTCTCAGGGTTGATG
PGM2	**Forward (5′->3′)**	CGGATGCTGATAGACTTGCTGTG
	Reverse (5′->3')	TGAGAGCACTGCGATCCTGGTT

HK1	**Forward (5′->3′)**	GGTGAAATCGTCCGCAAC
	Reverse (5′->3')	CCCGGGTCTTCATCGTC
ACSS1	**Forward (5′->3′)**	ATGGGCAGTGAGGACATGCTCT
	Reverse (5′->3')	CACAGCCAAAGATGTCACCTGG
FBP1	**Forward (5′->3′)**	TCAACTGCTTCATGCTGGAC
	Reverse (5′->3')	GGGTCAAAGTCCTTGGCATA
GLUT1	**Forward (5′->3′)**	GCTTCCTGCTCATCAATCGTAA
	Reverse (5′->3')	CGACCCTCTTCTTTCATCTCCT
PKM2	**Forward (5′->3′)**	ATCGTCCTCACCAAGTCTGG
	Reverse (5′->3')	GAAGATGCCACGGTACAGGT
PGM1	**Forward (5′->3′)**	AGCATTCCGTATTTCCAGCAG
	Reverse (5′->3')	GCCAGTTGGGGTCTCATACAAA
ATP5G3	**Forward (5′->3′)**	GGATTTGCCTTGTCTGAAGC
	Reverse (5′->3')	CGTACATTCCCATGACACCA
COXAI1	**Forward (5′->3′)**	ACGAGCTCATGAAAGTGTTGTG
	Reverse (5′->3')	AATGCGATACAACTCGACTTTCTC
COX5B	**Forward (5′->3′)**	CAGAAGGGACTGGACCCATA
	Reverse (5′->3')	TTCACAGATGCAGCCCACTA
NDUFA10	**Forward (5′->3′)**	CACCTGCGATTACTGGTTCAG
	Reverse (5′->3')	GCAGCTCTCTGAACTGATGTA
PGC1*α*	**Forward (5′->3′)**	TGCTAAACGACTCCGAGAA
	Reverse (5′->3')	TGCAAAGTTCCCTCTCTGCT