

Table S1. Primer sequences for qRT-PCR

<i>GAPDH</i>	Forward: 5'- TGCACCACCAACTGCTTAGC-3' Reverse: 5'- GGCATGGACTGTGGTCATGAG-3'
<i>HMOX1</i>	Forward: 5'- CCAGCAACAAAGTGCAAGATTC-3' Reverse: 5'- TCACATGGCATAAAGCCCTACAG-3'
<i>HK1</i>	Forward: 5'-GTGAAAATCCGTA GTGGGAA-3' Reverse: 5'-CTCTCTCCTTTTTATCGCAT-3'
<i>HK2</i>	Forward: 5'-CTTCTTCACGGAGCTCAACC-3' Reverse: 5'-AAGCCCTTTCTCCATCTCCT-3'
<i>GFPT</i>	Forward: 5'-TGCTGTGCTGAGAGGCTATGATGT-3' Reverse: 5'-GTCCAGAAATGCAACACCCAGCAT-3'
<i>GPI</i>	Forward: 5'-GATCCTCCTGGCCA ACTTCT-3' Reverse: 5'-GTTGGTTGGGCGATTTCTT-3'
<i>GNPNAT1</i>	Forward: 5'-AGGACAGATTGTTGCTACGG-3' Reverse: 5'-TTTGCCAAGCTGCTTTCCTC-3'
<i>PGM3</i>	Forward: 5'-ATCTTGGCTCTGAAGGGCTT-3' Reverse: 5'-GCTTGTCTTTCAGCATCGGT-3'
<i>NAGK</i>	Forward: 5'-CAGTGTTGCCCGAGATTGAC-3' Reverse: 5'-CAGGGTGAAGCTGGAGAAGA-3'
<i>UAP1</i>	Forward: 5'-TGTGGATGCACGAATGGAAC-3' Reverse: 5'-TAGGATATGCAACGCCGAGT-3'

Table S2. Antibodies

ANTIBODIES	SOURCE	IDENTIFIER
anti-HO-1	Novus Biologicals	NBP1-97507
anti-eIF2 α	Cell Signaling	#5324
anti-Phospho-eIF2 α	Cell Signaling	#9721
anti-O-linked N-Acetylglucosamine (O-GlcNAc)	Abcam	ab2739
anti-O-GlcNAc transferase	Santa Cruz	sc-74547
anti-OGA/ NCOAT	Santa Cruz	sc-376429
anti-Histone H3	Active Motif	39763
anti-Actin	Millipore Sigma	MAB1501R
anti-Lamin A/C	Cell Signaling	#4777
anti-ATF4	Cell Signaling	#11815
anti-Biotin	Abcam	ab53494
anti-GSR	Proteintech	18257-1-AP
anti-CISD2	Proteintech	66082-1-Ig
anti-SOD1	Proteintech	67480-1-Ig
anti-DYKDDDDK tag (FLAG tag)	Proteintech	66008-3-Ig
anti-Mouse IgG, HRP-linked	Cell Signaling	#7076
anti-Rabbit IgG, HRP-linked	Jackson ImmunoResearch	211-032-171
Goat anti-Mouse IgG (H+L), Alexa Fluor 488	Thermo Fisher Scientific	A-11001
anti-Rabbit HQ	CRB DISCOVERY	760-4815
anti-HQ-HRP	CRB DISCOVERY	760-4820
anti-Mouse IgG1+IgG2a-IgG3	Abcam	ab133469

Table S3. Primer sequences for mutagenesis of eIF2 α

S51A	Forward: 5'-CTTAGTGAATTAGCCAGAAGGCGTA-3' Reverse: 5'-AAGAATCATGCCTTCAATGTT-3'
S219A	Forward: 5'-TTGAATTGTGCTACAGAAAACATGCCC-3' Reverse: 5'-ACCTGCTCTTAGGGCTTCTTT-3'
T239A/ T241A	Forward: 5'-GTATGTAATGACTGCGACAGCCCTGGAGAGAACAGA AG-3' Reverse: 5'-CGAGGAGGAGCTATTAGATTAAT-3'
S219D	Forward: 5'-TTGAATTGTGATACAGAAAACATGCCC-3' Reverse: 5'-ACCTGCTCTTAGGGCTTCTTT-3'
T239C/ T241C	Forward: 5'-GTATGTAATGACTTGTACATGCCTGGAGAGAACAGA AG-3' Reverse: 5'-CGAGGAGGAGCTATTAGATTAAT-3'