

SUPPLEMENTARY DATA

**Supplementary Table 1. Antibodies Used**

Targeted protein	Species	Manufacturer	Dilution
Insulin	Guinea pig	Invitrogen	1:250
Glucagon	Rabbit	Santa Cruz	1:500
PCNA	Rabbit	Santa Cruz	1:100
SERCA2	Goat	Santa Cruz	1:1000
SERCA3	Rabbit	Sigma	1:1000
PC1/3	Rabbit	Cell signalling	1:500
pAKT	Rabbit	Cell signalling	1:1000
AKT	Mouse	Cell signalling	1:1000
Anti-rabbit 488	Goat	Molecular probes	1:200
Anti-Guinea pig 555	Goat	Molecular probes	1:200

**Supplementary Table 2. qRT-PCR Primers Used**

Targeted gene	Sequence for <i>Rattusrattus</i>	Sequence for <i>Mus musculus</i>
<i>SERCA2b</i>	GTGGAACCTTTGCCACTCAT TGTGCTGTAGACCCAGACCA	GATCCTCTACGTGGAACCTTTG CCACAGGGAGCAGGAAGAT
<i>SERCA3</i>	TGTCTCTGCCTGTCATCCTG CTAGAAATGGCCGGTGTGT	AGGGGAAGCTAAGAAGCCAG CCCTCAGACTCCTCCTACCC
<i>RyR2</i>	ACGGCGACCATCCACAAAG AAAGTCTGTTGCCAAATCCTTCT	-
<i>IP3R3</i>	TGACCTGGGCAGCCAGCC GTCTCCAAGGTCTGGATGAC	-
<i>DNAjc3</i>	TCCCGAATCTGCTGATCGTT GGACTATGAAGCTGCCCAGG	GACAGCTAGCCGACGCCTTA GTCACCATCAACTGCAGCGT
<i>Pdia4</i>	GAGTCGGTGACCCAGGCTAC TTTCCCAGGGAGACTTTCA	TGACCCGGCCTACTTGCA GTGTGGTGAAACTTGTAATCTTCTCTCA
<i>Hsp90b1</i>	ACACCACAGAAGACACCACAGATG GGGAGAGGGAGGCTTGGG	TGTATGTACGCCGCGTATTCA TCGGAATCCACAACACCTTTG
<i>Grp78</i>	CCACCAGGATGCAGACATTG AGGGCCTCCACTTCCATAGA	TTCAGCCAATTATCAGCAAACCTCT TTTTCTGATGTATCCTCTTACCAGT
<i>Total xbp-1</i>	AGCACTCAGACTACGTGCGCCTC CCAGAATGCCAAAAGGATATCAG	TGGCCGGGTCTGCTGAGTCCG GTCCATGGGAAGATGTTCTGG
<i>Spliced xbp-1</i>	CTGAGTCCGCAGCAGGT TGTCAGAGTCCATGGGAAGA	CTGAGTCCGAATCAGGTGCAG GTCCATGGGAAGATGTTCTGG
<i>Pcsk1</i>	CCTCCTACAGCAGTGGTGATTACA GGGTCTCTGTGCAGTCATTGT	
<i>Ins1</i>	AGCAAGCAGGTCATTGTTCC GACGGGACTTGGGTGTGTAG	
<i>Ins2</i>	TCTTCTACACACCCATGTCCC GGTGCAGCACTGATCCAC	