

## Supplementary data

**Table S1.** Experimental design in cell viability, mitochondrial function, and real-time PCR.

Group	Cell viability		Mitochondrial function		real-time PCR	
	KMP (μM)	Incubation time (hr)	KMP (μM)	Incubation time (hr)	KMP (μM)	Incubation time (hr)
Control	0	24	0	24	0	6
KMP	0.001 – 100	24	10	24	1, 10	6

Table S2. Experimental design in lipidomic analysis.

CL and MLCL			
Group	LA (mM)	KMP ( $\mu$ M)	Incubation time (hr)
Control	0	0	24
LA	0.8	0	24
LA + KMP1	0.8	1	24
LA + KMP10	0.8	10	24

Table S3. Primer sets used in this study.

Gene	Forward primer (5'-3')	Reverse primer (5'-3')
<i>CPT1A</i>	CTTTGCCCTGTAGCAGATGA	TCGTCTCTGAGCTTGAGAACTT
<i>SIRT3</i>	TGGAAAGCCTAGTGGAGCTTCTGGG	TGGGGGCAGCCATCATCCTATTGT
<i>FOXO3A</i>	TTCAAGGATAAGGGCGACAGAAC	CTGCCAGGCCACTTGGAGAG
<i>PPARGC1A</i>	TGAAGTGAGGGACAGTGATTTC	CCCAAGGGTAGCTCAGTTATC
<i>TFAM</i>	ATAGGCACAGGAAACCAGTTAG	GCAGAAGTCCATGAGCTGAATA
<i>ND1</i>	ATGGCCAACCTCCTACTCCT	GCGGTGATGTAGAGGGTGAT
<i>β-actin</i>	CCAACCGCGAGAAGATGA	CCAGAGGCGTACAGGGATAG
<i>GAPDH</i>	GAAGGTGAAGGTCGGAGTC	GAAGATGGTGTAGGGATTTC

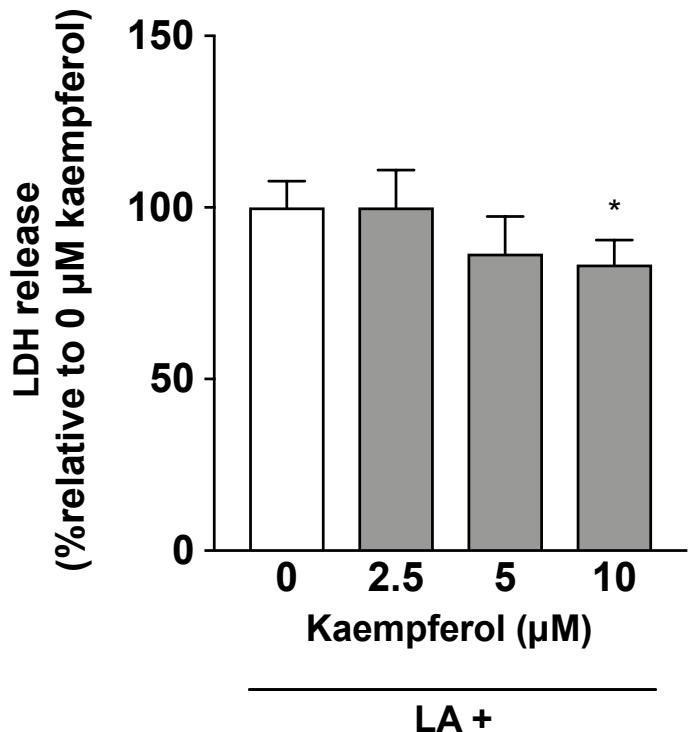


Figure S1. Cytotoxicity test in linoleic acid (LA)-loaded fatty liver cell model

supplemented with or without kaempferol (KMP). Lactate dehydrogenase (LDH) in the supernatant following stimulation. \*  $P < 0.05$ , one-way analysis of variance (ANOVA) with Dunnet's multiple comparisons test compared to the 0  $\mu\text{M}$  KMP group ( $n = 6$  for each group).