## Supplementary Materials



Supplementary Figure S1. PCW inhibited lipogenesis in HepG2 cells treated with FFA. HepG2 cells were treated with FFA (1 mM) and/or PCW ( 20 or $40 \mu \mathrm{~g} / \mathrm{ml}$ ) for 24 h . Protein levels of p-SREBP1C, SREBP1C and FAS were analyzed by western blot. Bar graphs represent densitometric analysis of band intensity ratio for $\mathrm{p}-\mathrm{AMPK} / \mathrm{AMPK}, \mathrm{p}-\mathrm{ACC} / \mathrm{ACC}$.


Supplementary Figure S2. PCW activated autophagy in HepG2 cells treated with FFA. HepG2 cells were treated with FFA (1 mM) and/or PCW ( 20 or $40 \mu \mathrm{~g} / \mathrm{ml}$ ) for 24 h . (A) Protein levels of autophagy markers were analyzed by western blot. (B) The phosphorylation of p-mTOR/p-P79S6K was determined by western blot. Bar graphs represent densitometric analysis of band intensity.


Supplementary Figure S3. Pretreatment with compound C inhibited PCW-mediated activation of AMPK in HepG2 cells treated with FFA. HepG2 Cells were pre-treated with compound C (Comp C, $10 \mu \mathrm{M}$ ) for 3 h and then treated with FFA $(1 \mathrm{mM})$ and PCW $(20$ or $40 \mu \mathrm{~g} / \mathrm{ml})$ for 24 h . The phosphorylation of AMPK/ACC was determined by western blot. Bar graphs represent densitometric analysis of band intensity ratio for $\mathrm{p}-\mathrm{AMPK} / \mathrm{AMPK}$ and $\mathrm{p}-\mathrm{ACC} / \mathrm{ACC}$.


Supplementary Figure S4. Inhibition of AMPK using compound C reversed PCW-mediated induction on ER stress in HepG2 cells treated with FFA. HepG2 Cells were pre-treated with compound C (Comp C, $10 \mu \mathrm{M}$ ) for 3 h and then treated with FFA ( 1 mM ) and PCW (20 or $40 \mu \mathrm{~g} / \mathrm{ml}$ ) for 24 h . Bar graphs represent densitometric analysis of band intensity.


Supplementary Figure S5. Inhibition of AMPK using compound C reversed PCW-mediated reduction of autophagy in HepG2 cells treated with FFA. HepG2 Cells were pre-treated with compound C ( $\operatorname{Comp~C,~} 10 \mu \mathrm{M}$ ) for 3 h and then treated with FFA ( 1 mM ) and PCW (20 or $40 \mu \mathrm{~g} / \mathrm{ml}$ ) for 24 h . Bar graphs represent densitometric analysis of band intensity.


Supplementary Figure S6. Poricoic acid, pachymic acid and ergosterol activated AMPK in HepG2 cells. HepG2 cells were treated with Po ( 6 or $12 \mu \mathrm{M}$ ), $\mathrm{Pa}(0.6$ or $1.25 \mu \mathrm{M}$ ) or $\mathrm{Er}(0.6$ or $1.25 \mu \mathrm{M}$ ) for 24 h . The phosphorylation of AMPK/ACC was determined by western blot. Bar graph represents densitometric analysis of band intensity for $\mathrm{p}-\mathrm{AMPK} / \mathrm{AMPK}$ and $\mathrm{p}-\mathrm{ACC} / \mathrm{ACC}$.

