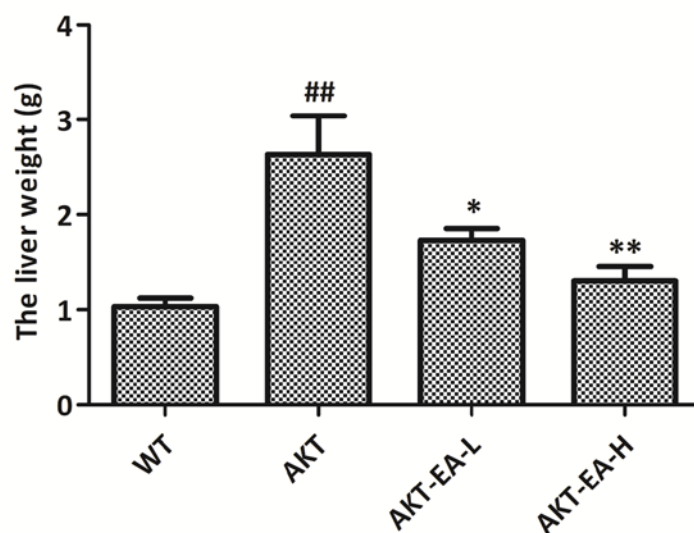


## Supplementary materials

### Ellagic acid ameliorates AKT-driven hepatic steatosis in mice by suppressing *de novo* lipogenesis via the AKT/SREBP-1/FASN pathway

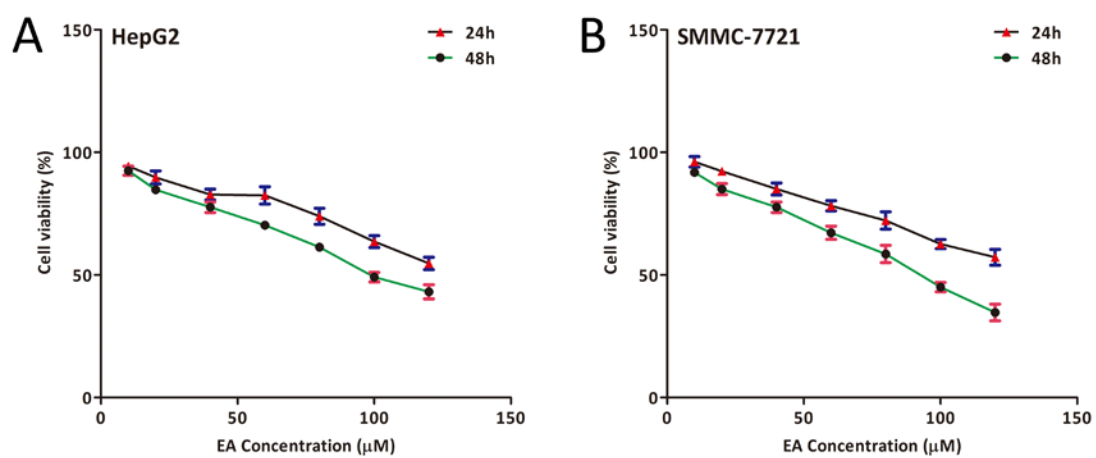
**\*Corresponding author:** Zhenpeng Qiu, M.D., College of Pharmacy, Hubei University of Chinese Medicine, No. 1, West Huangjiahu Road, Wuhan 430065, People's Republic of China; e-mail address: [whuqq@hotmail.com](mailto:whuqq@hotmail.com).

**Supplementary Figure 1.** The effect of ellagic acid (EA) on the liver weight of AKT-injected mice. Mean  $\pm$  S.D.,  $n = 3$ .  $##P < 0.001$  vs the WT group;  $*P < 0.05$ ,  $**P < 0.01$  vs the AKT-injected group. EA-L and EA-H represent intragastric administration of ellagic acid at low (150 mg) and high (300 mg) doses, respectively.

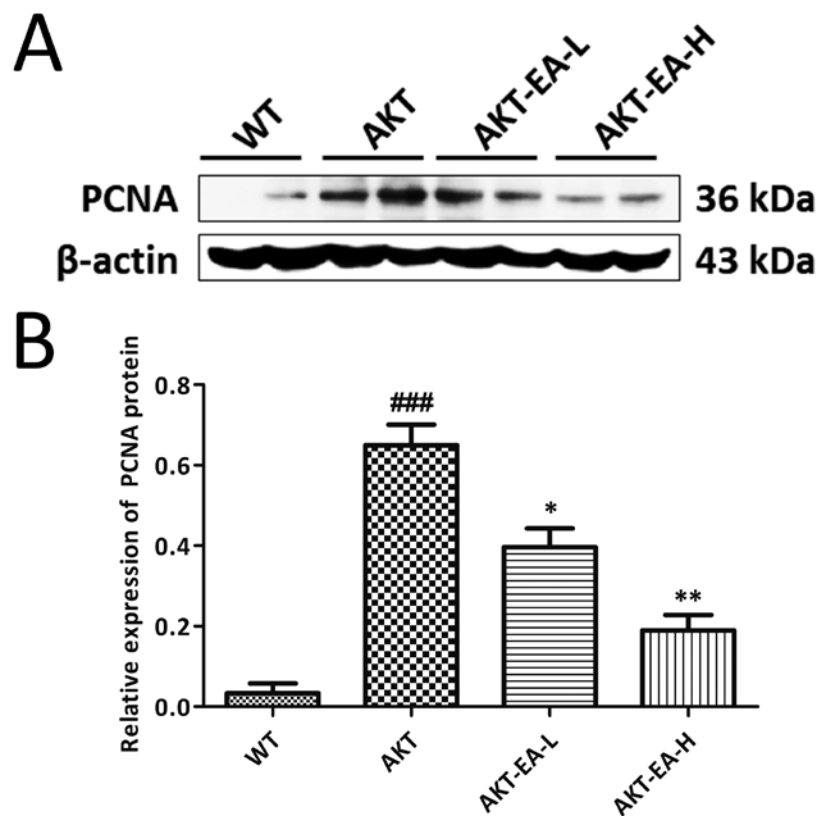


**Supplementary Figure 2.** The effects of ellagic acid (EA) on cell viability of HepG2

(A) and SMMC-7721 (B) cell lines.



**Supplementary Figure 3.** Ellagic acid (EA) inhibits the protein expression of PCNA in livers of the AKT-injected mice. Three samples from each group were employed for a Western blot assay, and representative bands are shown in (A). (B) Histograms show the protein expression of PCNA levels quantified by the Western blot optical analysis shown in (A). Housekeeping gene  $\beta$ -actin was used as an internal reference. Quantitative data denote the mean  $\pm$  S.D. of values derived from the Western blot density analysis,  $n = 3$ . #### $P < 0.001$  versus the WT group; \* $P < 0.05$ , \*\* $P < 0.01$  versus the AKT group. EA-L and EA-H represent intragastric administration of ellagic acid at low (150 mg) and high (300 mg) doses, respectively.



**Supplementary Table 1.** List of the primary antibodies used for Western blot analysis (WB).

Protein	Antibody (and catalog number)	Application
Phospho-AKT (Thr308)	Rabbit monoclonal (13038)	WB †
Total-AKT	Rabbit monoclonal (4691)	WB †
Phospho-RPS6	Rabbit monoclonal (4858)	WB †
RPS6	Rabbit polyclonal (14823-1-AP)	WB #
SREBP-1	Rabbit polyclonal (GB11524)	WB *
FASN	Rabbit monoclonal (3180)	WB, IHC †
ACC	Rabbit monoclonal (3676)	WB, IHC †
PCNA	Mouse monoclonal (2586)	WB †
β-actin	Mouse monoclonal (A1978)	WB ^

† Provided by Cell Signaling Technology Inc. (Danvers, MA).

# Provided by Proteintech (Wuhan, China).

\* Provided by Servicebio (Wuhan, China).

^ Provided by Abcam (Cambridge, MA).

**Supplementary Table 2.** Sequences of primers used in quantitative real-time PCR

(qPCR)

Gene	Sequences (5' to 3')	Length (bp)
$\beta$ -actin	Forward: CGTTGACATCCGTAAAGACCTC	110
	Reverse: TAGGAGCCAGGGCAGTAATCT	
SREBP-1	Forward: TGACCCGGCTATTCCGTGA	61
	Reverse: CTGGGCTGAGCAATACAGTTC	
FASN	Forward: CCAAGCAGGCACACACAA	132
	Reverse: CACTCACACCCACCCAGA	
ACC	Forward: GATGAACCATCTCCGTTGGC	65
	Reverse: GACCCAATTATGAATCGGGAGTG	