A ferulic acid derivative FXS-3 inhibits proliferation and metastasis of human lung cancer A549 cells via positive JNK signaling pathway and negative ERK/p38, AKT/mTOR and MEK/ERK signaling pathways

Shi-Jun Yue[a,#], Peng-Xuan Zhang[a,#], Yue Zhu[b], Nian-Guang Li[b], Yan-Yan Chen[a], Jia-Jia Li[a], Sai Zhang[a], Ru-Yi Jin[a], Hao Yan[a], Xu-Qin Shi[b], Yu-Ping Tang*[a,b], Jin-Ao Duan[b]

[a]Key Laboratory of Shaanxi Administration of Traditional Chinese Medicine for TCM Compatibility, and State Key Laboratory of Research & Development of Characteristic Qin Medicine Resources (Cultivation), and Shaanxi Key Laboratory of Chinese Medicine Fundamentals and New Drugs Research, and Shaanxi Collaborative Innovation Center of Chinese Medicinal Resources Industrialization, Shaanxi University of Chinese Medicine, Xi'an 712046, China. [b]Jiangsu Collaborative Innovation Center of Chinese Medicinal Resources Industrialization, and Jiangsu Key Laboratory for High Technology Research of TCM Formulae, and National and Local Collaborative Engineering Center of Chinese Medicinal Resources Industrialization and Formulae Innovative Medicine, Nanjing University of Chinese Medicine, Nanjing 210023, China

*Corresponding Author

Yu-Ping Tang

E-Mail: yupingtang@sntcm.edu.cn

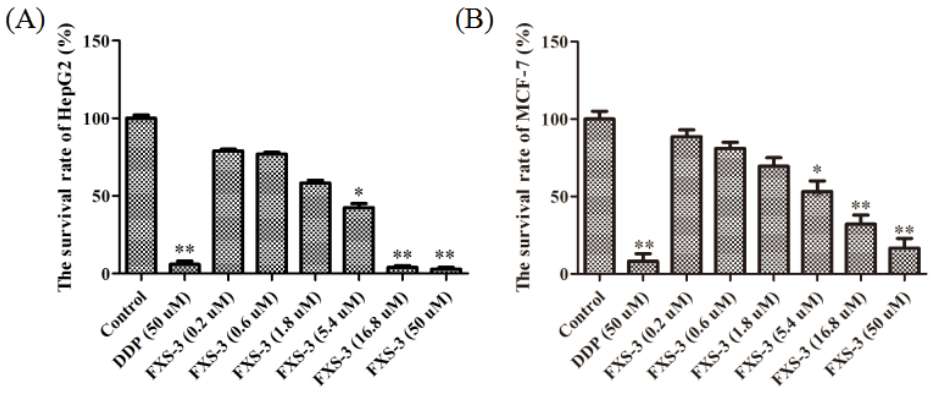

Fig. S1. FXS-3 inhibits proliferation of other cancer cells. (A) MTT assay showed that the FXS-3-treated group had a lower proliferation rate than the control group did in the liver cancer cells (n = 3). (B) MTT assay showed that the FXS-3 group had a lower proliferation rate than the control group did in breast cancer cells (n = 3). Statistical significance relative to the control group is indicated: ∗, $P < 0.05$; ∗∗$P < 0.01$.

Table S1. Effects of FXS-3 on body weight of A549 xenograft in nude mice ($\bar{x} \pm s$, $n = 8$)

Group	Body weight (g)										
	1d	3d	5d	7d	9d	11d	13d	15d	17d	19d	21d
Control	20.6±0.6	21.4±0.5	22.2±0.4	22.7±0.4	23.3±0.4	23.3±0.8	23.7±0.5	24.2±0.7	24.3±0.6	24.4±0.2	24.5±0.4
Paclitaxel (8 mg/kg)	20.9±1.3	20.8±1.3	20.7±0.9**	20.2±0.7**	19.4±0.6**	19.0±0.6**	18.4±0.7**	18.0±0.6**	17.8±0.5**	17.8±0.4**	17.7±0.5**
FXS-3 (25 mg/kg)	20.1±1.2	21.0±0.9	21.8±0.6	22.5±0.9	23.0±0.9	23.5±0.7	23.9±0.6	24.2±0.5	24.4±0.5	24.3±0.5	24.4±0.4
FXS-3 (50 mg/kg)	20.7±0.7	21.5±0.5	22.0±0.5	22.5±0.6	22.9±0.6	23.3±0.6	23.6±0.5	23.9±0.5	24.2±0.6	24.4±0.5	24.5±0.4
FXS-3 (100 mg/kg)	20.6±1.5	21.1±1.2	21.5±1.1	21.7±1.1*	21.9±0.8**	22.1±1.3*	22.4±1.1*	22.5±1.0*	22.5±1.2*	22.6±1.2*	22.7±1.1*

*P<0.05 and **P<0.01, *versus* the control group.