

Comprehensively investigating pharmacokinetics and metabolic fate of andrographolide in rats by liquid chromatography/mass spectrometry-based approach

Xuelin Sun,^a Yatong Zhang,^a Zhanpeng Shang,^b Lin Dou,^c Tianying Wang,^d Jiantao Qiu^{*e} and Shuang Chen^{*f}

^a *Department of Pharmacy, Beijing Hospital, National Center of Gerontology, Institute of Geriatric Medicine, Chinese Academy of Medical Sciences, Beijing, 100730, P. R. China*

^b *School of Pharmaceutical Sciences, Peking University, Beijing, 100083, P. R. China*

^c *The Key Laboratory of Geriatrics, Beijing Institute of Geriatrics, Institute of Geriatric Medicine, Chinese Academy of Medical Sciences, Beijing Hospital/National Center of Gerontology of National Health Commission, Beijing, 100730, P. R. China*

^d *Clinical Research Center, Qingdao Hospital, University of Health and Rehabilitation Sciences (Qingdao Municipal Hospital), Qingdao, 266003, P. R. China*

^e *Department of Cardiovascular Surgery, the Affiliated Hospital of Qingdao University, Qingdao, 266003, P. R. China*

^f *Clinical Laboratory, Qingdao Hospital, University of Health and Rehabilitation Sciences (Qingdao Municipal Hospital), Qingdao, 266003, P. R. China*

* Emails: qiu_jiantao21@163.com (J. Qiu); csman1986@126.com (S. Chen)

Table S1 Summary of accuracy, matrix effect and precision of andrographolide in rat plasma

Spiked concentration (ng/mL)	Measured concentration (ng/mL)	Mean accuracy (%)	Mean matrix effect (%)	Intra-day precision, RSD (%)	Inter-day precision, RSD (%)	Mean recovery (%)
5	4.78±0.23	95.60	90.51	9.32	10.24	98.45
50	53.32±2.14	106.64	85.74	5.28	9.27	93.24
800	760.33±50.86	95.04	86.54	4.81	7.43	87.54

Table S2 Stability data for andrographolide in rat plasma

Storage condition	Spiked concentration (ng/mL)	Measured concentration (ng/mL)	Accuracy (%)
Room temperature (4 hr)	5	5.03±0.54	100.60
	50	55.12±5.52	110.24
	800	798.54±70.12	99.82
Autosampler for 24 hr (4°C)	5	5.12±0.65	102.40
	50	53.11±3.48	106.22
	800	812.13±56.87	101.52
Long-term stability (14 Day, -80°C)	5	4.65±0.87	93.00
	50	48.27±2.98	96.54
	800	760.34±50.65	95.04

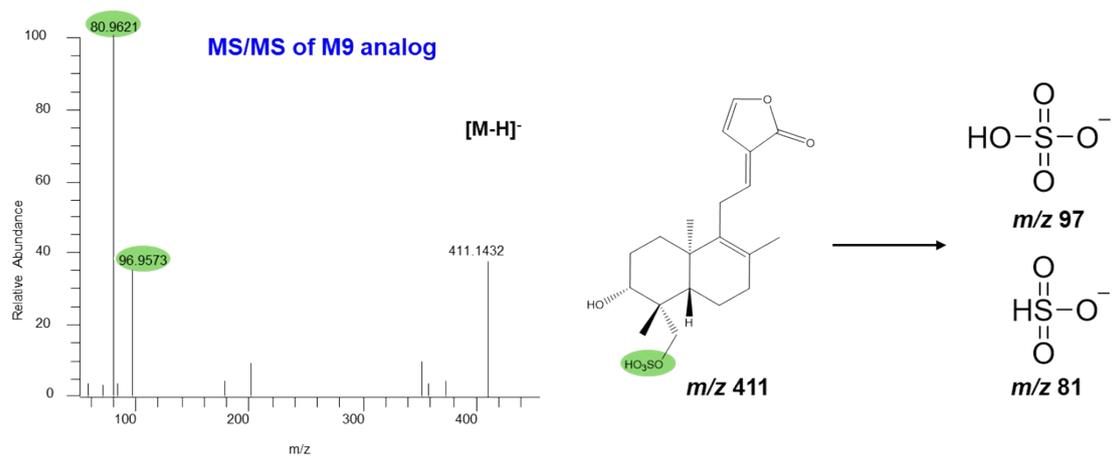


Figure S1. The MS/MS spectra and pathway of M9 analog (9-dehydro-17-hydro-andrographolide-19-yl sulfate)