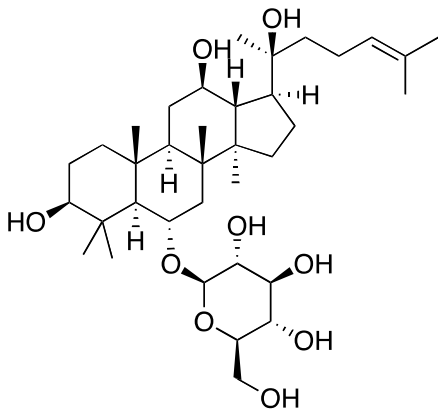


Ginsenoside Rh1



20(*S*)-Ginsenoside Rh1

【化合物】 Ginsenoside Rh1

【測定機器】 ultra performance liquid chromatography/mass spectrometric method

【対象】 動物 (mouse)

【代謝実験】 The absolute bioavailability of 20(*S*)-ginsenoside Rh1 in rats was only 1.01%. After intragastrical administration of ginsenoside Rh1, two mono-oxygenated metabolites were detected from the urine, bile, liver tissue, and intestinal tract content, while the de-glucosylated product, 20(*S*)-protopanaxatriol, was only found in the contents of the intestinal tract. An in vitro incubation study confirmed that the CYP450-catalyzed mono-oxygenation, the intestinal bacteria mediated de-glucosylation, and the gastric acid mediated hydration reaction were the main metabolic pathways of 20(*S*)-ginsenoside Rh1. [Lai et al., *Planta Med.*, **75**: 797–802 (2009)]

【代謝パラメータ】

The main pharmacokinetic parameters of Rh1 after i. v. (5 mg/kg) and i. g. (50mg/kg) administrations (mean ± S.D., n = 4).

i. v.		i. g.	
Parameters	Rh1	Parameters	Rh1
$T_{1/2\alpha}$ (h)	0.07 ± 0.04	$T_{1/2\beta}$ (h)	0.43 ± 0.08
$T_{1/2\beta}$ (h)	0.41 ± 0.05	CL/F (L/h)	67.68 ± 9.63

Vd (L)	0.13 ± 0.04	AUC_{0-t} (mg/L · h)	0.13 ± 0.01
CL (L/h)	0.67 ± 0.11	$AUC_{0-\infty}$ (mg/L · h)	0.14 ± 0.01
AUC_{0-t} (mg/L · h)	1.50 ± 0.23	T_{max} (h)	1.00 ± 0.00
$AUC_{0-\infty}$ (mg/L · h)	1.52 ± 0.24	C_{max} (mg/L)	0.05 ± 0.01
MRT_{0-t} (h)	0.50 ± 0.05	F (%)	1.01 ± 0.03
$MRT_{0-\infty}$ (h)	0.58 ± 0.06		

CL/F : apparent oral total body clearance (where F represents bioavailability); CL : total clearance; C_{max} : the maximum plasma concentration; F : bioavailability; MRT : mean retention time; $T_{1/2\alpha}$: the absorption half-life time; $T_{1/2\beta}$: the apparent elimination half-life time; T_{max} : the time to reach C_{max} ; Vd : the apparent volume of distribution. [Lai et al., *Planta Med.*, **75**: 797–802 (2009)]

【参考文献】

10) Li Lai, Haiping Hao, Yitong Liu, Chaonan Zheng, QiongWang, Guangji Wang, Xijin Chen, Characterization of pharmacokinetic profiles and metabolic pathways of 20(*S*)-ginsenoside Rh1 in vivo and in vitro. *Planta Med.*, **75**: 797–802 (2009).