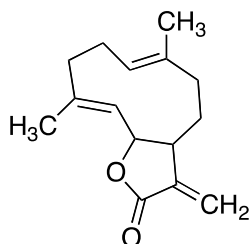


Costunolide



Costunolide

【化合物】 Costunolide

【測定機器】 ultraperformance liquid chromatography–electrospray ionization–mass spectrometry

【対象】 動物（ラット）

【代謝実験】

After a single oral dose of the mix of costunolide and dehydrocostuslactone from *Saussurea lappa* or *Laurus novocanariensis* was administered to six rats, their plasma concentrations were analyzed by UPLC-MS/MS. [Hu et al., *Biomed. Chromatogr.* **25**: 547–554 (2011)]

【代謝パラメータ】

Single dose pharmacokinetic parameters for costunolide and dehydrocostuslactone after application of their mix to rats ($n = 6$). AUC_{0-48} (mg/L h) was calculated for concentration vs time profiles from 0 min to 48 h by the trapezoidal method.

Parameter	Parameter value		Parameter	Parameter value	
	Costunolide	Dehydrocostuslactone		Costunolide	Dehydrocostuslactone
$t_{1/2}$ (h)	4.967	5.442	$t_{1/2}k_a$	4.394	4.897
V_d/F (L/kg)	0.191	0.176	T_{max} (h)	9.000	6.000
Cl/F (L/h/kg)	75.54	91.62	C_{max} (mg/L)	0.024	0.063

AUC ₀₋₄₈ (mg/Lh)	0.322	1.081	R^2	0.927	0.954
AUC _{0-∞} (mg/Lh)	0.331	1.091			

$t_{1/2}$, terminal elimination half-life; $C_{\max}$, the peak plasma concentration; $t_{\max}$, peak time; V_d , apparent volume of distribution; Cl , total body clearance; AUC_{0-∞}, area under the plasma concentration vs time profiles from 0 to infinity. [Hu et al., *Biomed. Chromatogr.* **25**: 547–554 (2011)]

【参考文献】

Fangdi Hu, Shilan Feng, Yuqiong Wu, Yingyan Bi, Chunming Wang and Wen Li, Quantitative analysis of costunolide and dehydrocostuslactone in rat plasma by ultraperformance liquid chromatography–electrospray ionization–mass spectrometry. *Biomed. Chromatogr.* **25**: 547–554 (2011).