Data Sheet (Cat.No.TN4239)

TargetMol
A DRUG SCREENING EXPERT

Hydroxytanshinone IIA

Chemical Properties

CAS No.:	18887-18-8
Formula:	C19H18O4
Molecular Weight:	310.35
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Hydroxytanshinone ⅡA has good antiproliferative effect on SGC-7901,HeLa, and HepG 2 cell, the values of IC50 are 4.18, 6.08 and10.20 uM, respectively; it has tumor cell proliferation inhibition significantly stronger than the tanshinoneⅡA.
Targets(IC_{50})	Others: None
In vitro	METHODS AND RESULTS:A rapid and sensitive method based on liquid chromatography/tandem mass spectrometry (LC/MS/MS) for the simultaneous determination of tanshinone IIA and its three hydroxylated metabolites, tanshinone IIB, Hydroxytanshinone IIA and przewaquinone A, in a rat liver microsome was developed and fully validated. A single step of liquid-liquid extraction with ethyl acetate was utilized in this method. Chromatographic separation of the sample matrix from the analytes and the internal standard diazepam was performed using a Shim-pack VP-ODS analytical column. Detection was performed on a triple quadrupole tandem mass spectrometer equipped with an electrospray ionization source and operated in selected reaction monitoring (SRM) mode. The method was linear in the concentration range of 1-500 ng/mL for all analytes. The intra- and inter-day precisions (RSD %) were within 15% and deviations of the assay accuracies were within 15.0% for all analytes. The analytes proved to be stable during sample storage, preparation and analyses. This validated method was successfully applied to the enzyme kinetic study of tanshinone IIA in liver microsome. CONCLUSIONS: The elimination of tanshinone IIA and formation of tanshinone IIB and Hydroxytanshinone IIA in the liver microsome all exhibited a sigmoidal kinetics profile. The formation of przewaquinone A shows a typical hyperbolic profile. In addition, this method has now been applied in the analysis of other bio-samples including plasma, urine, bile and feces.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.222 mL	16.111 mL	32.222 mL
5 mM	0.644 mL	3.222 mL	6.444 mL
10 mM	0.322 mL	1.611 mL	3.222 mL
50 mM	0.064 mL	0.322 mL	0.644 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Simultaneous determination of tanshinone IIA and its three hydroxylated metabolites by liquid chromatography/tandem mass spectrometry. Rapid Commun Mass Spectrom. 2006;20(5):815-22.

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