Jatrorrhizine

Cat. No.: HY-N0749

CAS No.: 3621-38-3

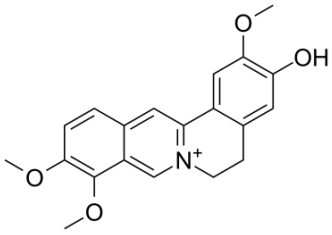
Molecular Formula: $C_{20}H_{20}NO_4+$

Molecular Weight: 338.38

Target: Others

Pathway: Others

Storage: Please store the product under the recommended conditions in the COA.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 3.33 mg/mL (**9.84 mM;** Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9553 mL	14.7763 mL	29.5526 mL
	5 mM	0.5911 mL	2.9553 mL	5.9105 mL
	10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Jatrorrhizine is a potent and orally active **uptake-2 transporter** inhibitor, it can be isolated from various Chinese medicinal plants[1]. Jatrorrhizine exhibits a critical neuroprotective role in H2O2-induced apoptosis via inhibition of MAPK pathway in HT22 hippocampal neurons[2].

IC_{50} & Target

Uptake-2 transporter[1]

In Vitro

Organic cation transporters (OCTs) and the plasma membrane monoamine transporter (PMAT) are major uptake-2 transporters[1].

Jatrorrhizine significantly inhibits the plasma membrane monoamine transporter (PMAT) -mediated MPP^+ uptake in a concentration-dependent manner with an IC_{50} value of 1.05 μM[1].

Jatrorrhizine demonstrates a more powerful inhibition on serotonin (5-HT) and norepinephrine (NE) uptake mediated by hOCT2 and hOCT3 than that mediated by PMAT[1].

Jatrorrhizine attenuates the H2O2-induced Bcl-2/Bax ratio reduction and caspase-3 activation in these neurons[2].

REFERENCES

[1]. Sun S, et al. Jatrorrhizine reduces 5-HT and NE uptake via inhibition of uptake-2 transporters and produces antidepressant-like action in mice. Xenobiotica. 2019 Oct;49(10):1237-1243.

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