Data Sheet (Cat.No.T4912)

TargetMol
A DRUG SCREENING EXPERT

Jatrorrhizine chloride

Chemical Properties

CAS No.:	6681-15-8
Formula:	C20H20ClNO4
Molecular Weight:	373.8
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Jatrorrhizine chloride is a potent and orally active uptake-2 transporter inhibitor. It exhibits a critical neuroprotective role in H2O2-induced apoptosis via inhibition of the MAPK pathway in HT22 hippocampal neurons.
Targets(IC_{50})	OCT: None PMAT: None
In vitro	Organic cation transporters (OCTs) and the plasma membrane monoamine transporter (PMAT) are major uptake-2 transporters. Jatrorrhizine chloride significantly inhibits the PMAT-mediated MPP+ uptake in a concentration-dependent manner (IC50: 1.05 μM). Jatrorrhizine chloride demonstrates a more powerful inhibition on 5-HT and norepinephrine (NE) uptake mediated by hOCT2 and hOCT3 than that mediated by PMAT.

Solubility Information

Solubility	DMSO: 5 mg/mL (13.38 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.675 mL	13.376 mL	26.752 mL
5 mM	0.535 mL	2.675 mL	5.35 mL
10 mM	0.268 mL	1.338 mL	2.675 mL
50 mM	0.054 mL	0.268 mL	0.535 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. 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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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481