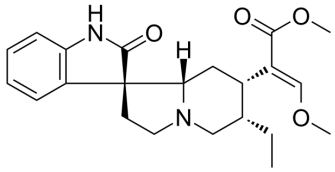
Corynoxine

Cat. No.:	HY-N0901
CAS No.:	6877-32-3
Molecular Formula:	$C_{22}H_{28}N_2O_4$
Molecular Weight:	384.47
Target:	Autophagy
Pathway:	Autophagy

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (260.10 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6010 mL	13.0049 mL	26.0098 mL
	5 mM	0.5202 mL	2.6010 mL	5.2020 mL
	10 mM	0.2601 mL	1.3005 mL	2.6010 mL

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

In Vivo

1. Add each solvent one by one: 0.5% CMC-Na/saline water
   Solubility: 30 mg/mL (78.03 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.50 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Corynoxine, a tetracyclic oxindole alkaloid, is isolated from the hooks of Uncaria rhynchophylla. Corynoxine is a natural autophagy enhancer that promotes the clearance of alpha-synuclein via Akt/mTOR pathway[1].

In Vitro

Corynoxine (6.25-25 μM; 6-12 h) increases the expression of LC3-II, an autophagy specific marker, in N2a and SH-SY5Y cells in a dose-dependent manner[1].

Corynoxine (25 μM; 48 h) promotes the degradation of wild type (WT) and mutant (A53T) α-syn in inducible PC12 cells via

autophagy induction[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	N2a and SH-SY5Y cells
Concentration:	6.25, 12.5, 25 μM
Incubation Time:	6, 12 hours
Result:	Induced autophagy in neuronal cell lines.

In Vivo

Corynoxine (100-100 mg/kg; oral gavage) exhibits prolongation of the thiopental-induced hypnosis in mice[2].

Corynoxine (10-100 μM for 12 h) induces autophagy in drosophila[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chen LL, et al. Corynoxine, a natural autophagy enhancer, promotes the clearance of alpha-synuclein via Akt/mTOR pathway. J Neuroimmune Pharmacol. 2014 Jun;9(3):380-7.

[2]. Sakakibara I, et, al. Effect of oxindole alkaloids from the hooks of Uncaria macrophylla on thiopental-induced hypnosis. Phytomedicine. 1998 Apr;5(2):83-6.

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