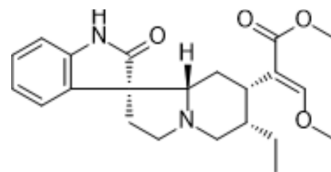


Corynoxine B

Cat. No.:	HY-N0901A		
CAS No.:	17391-18-3		
Molecular Formula:	C ₂₂ H ₂₈ N ₂ O ₄		
Molecular Weight:	384.47		
Target:	Autophagy; Beclin1; α -synuclein		
Pathway:	Autophagy; Neuronal Signaling		
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 : 83.33 mg/mL (216.74 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	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: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: \geq 2.08 mg/mL (5.41 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: \geq 2.08 mg/mL (5.41 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Corynoxine B is a natural alkaloid and autophagy inducer that can improve Mn induced cellular autophagy dysregulation and enhance clearance of alpha synuclein (alpha syn) in Parkinson's disease mice ^{[1][3]} .
In Vitro	<p>Corynoxine B (25-100 μM, 2 h) can improve Mn induced autophagy dysregulation and neurotoxicity in SH-SY5Y human neuroblastoma cells^[1].</p> <p>Corynoxine B can enhance the expression of BECN1 protein and restore autophagy inhibition caused by overexpression of SNCA/α-synuclein (α-syn) in PC12 cells^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1].</p>

	Cell Line:	SH-SY5Y cell
	Concentration:	25-100 μ M
	Incubation Time:	2 h
	Result:	Improved cell vitality
	Western Blot Analysis ^[2] .	
	Cell Line:	Inducible PC12 cell lines (iPC12) overexpressing SNCA (WT and A53T)
	Concentration:	
	Incubation Time:	24 h
	Result:	Increased LC3-II and BECN1 protein levels
In Vivo	Corynoxine B (5-20 mg/kg, i.p.) enhances autophagy of alpha synuclein (alpha syn) clearance in Parkinson's disease mice by targeting HMGB1/2 ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	A53T α -syn transgenic mouse model ^[3] .
	Dosage:	5-20 mg/kg
	Administration:	Intraperitoneal injection (i.p.)
	Result:	Promoted α -syn clearance

CUSTOMER VALIDATION

- Acta Pharmacol Sin. 2022 Feb 25.
- Food Chem Toxicol. 2019 Feb;124:336-348.

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REFERENCES

[1]. Yan D, et al. Corynoxine B ameliorates HMGB1-dependent autophagy dysfunction during manganese exposure in SH-SY5Y human neuroblastoma cells. Food Chem Toxicol. 2019 Feb;124:336-348.

[2]. Song JX, et al. HMGB1 is involved in autophagy inhibition caused by SNCA/ α -synuclein overexpression: a process modulated by the natural autophagy inducer corynoxine B. Autophagy. 2014 Jan;10(1):144-54. doi: 10.4161/auto.26751. Epub 2013 Jan 1. Erratum in: Autophagy. 2015;11(9):1708.

[3]. Zhu Q, et al. Corynoxine B targets at HMGB1/2 to enhance autophagy for α -synuclein clearance in fly and rodent models of Parkinson's disease. Acta Pharm Sin B. 2023 Jun;13(6):2701-2714.

Caution: Product has not been fully validated for medical applications. For research use only.

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