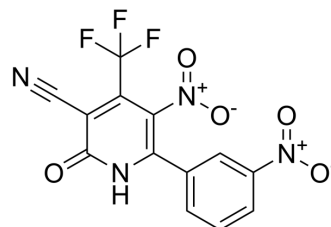


SynuClean-D

Cat. No.:	HY-124876		
CAS No.:	685121-45-3		
Molecular Formula:	C ₁₃ H ₅ F ₃ N ₄ O ₅		
Molecular Weight:	354.2		
Target:	α-synuclein		
Pathway:	Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (235.26 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8233 mL	14.1163 mL	28.2326 mL
		5 mM	0.5647 mL	2.8233 mL	5.6465 mL
10 mM		0.2823 mL	1.4116 mL	2.8233 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: ≥ 2.08 mg/mL (5.87 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (5.87 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	SynuClean-D (SC-D) is an inhibitor of α-synuclein aggregation, disrupts mature amyloid fibrils, prevents fibril propagation, and abolishes the degeneration of dopaminergic neurons in an animal model of Parkinson's disease ^[1] .
In Vitro	<p>SynuClean-D significantly reduces the in vitro aggregation of wild-type α-synuclein and the familiar A30P and H50Q variants in a substoichiometric molar ratio. SynuClean-D prevents fibril propagation in protein-misfolding cyclic amplification assays and decreases the number of α-synuclein inclusions in human neuroglioma cells. Computational analysis suggests that SynuClean-D can bind to cavities in mature α-synuclein fibrils and, indeed, it displays a strong fibril disaggregation activity^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

In Vivo

The treatment with SynuClean-D of two parkinson's disease (PD) *Caenorhabditis elegans* models, expressing α -synuclein either in muscle or in dopaminergic neurons, significantly reduces the toxicity exerted by α -synuclein. SynuClean-D-treated worms show decreased α -synuclein aggregation in muscle and a concomitant motility recovery. More importantly, this compound is able to rescue dopaminergic neurons from α -synuclein-induced degeneration^[1].

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

REFERENCES

[1]. Pujols J, et al. Small molecule inhibits α -synuclein aggregation, disrupts amyloid fibrils, and prevents degeneration of dopaminergic neurons. *Proc Natl Acad Sci U S A*. 2018 Oct 9;115(41):10481-10486.

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

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