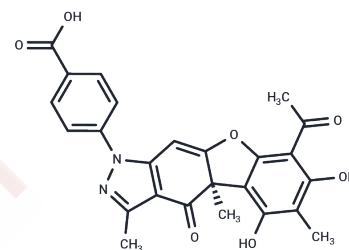


Tau-aggregation and neuroinflammation-IN-1

Chemical Properties

CAS No. :	2175953-98-5
Formula:	C ₂₅ H ₂₀ N ₂ O ₇
Molecular Weight:	460.44
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Tau-aggregation and neuroinflammation-IN-1 is a potent inhibitor of tau protein aggregates, showing significant inhibitory activity against AcPHF6 and full-length tau protein aggregates. It has anti-inflammatory activity, reduces NO release, exhibits low cytotoxicity against LPS-stimulated BV2 cells, and reverses okadaic acid-induced memory impairment in rats.
Targets(IC50)	Microtubule Associated,NO Synthase
In vitro	Tau-aggregation and neuroinflammation-IN-1 (compound 30) (0-40 μM) reduces the survival of SH-SY5Y cells at 30 μM and exhibits no significant hepatotoxicity at high concentrations in LO2 cells, without affecting the viability of BV2 cells at 20 μM. Tau-aggregation and neuroinflammation-IN-1 (2.5, 5, and 10 μM; 24 h) maintain the anti-inflammatory effect of sodium usage and decrease the NO release rate by 41% at 10 μM in LPS-stimulated BV2 cells.[1]
In vivo	Tau-aggregation and neuroinflammation-IN-1 (5 and 10 mg/kg; I.P.; for 7 days, followed by 7 additional days post-OA injection; Male SD rats) significantly enhances spatial memory and cognitive abilities in OA-induced rats.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (108.59 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1718 mL	10.8592 mL	21.7184 mL
5 mM	0.4344 mL	2.1718 mL	4.3437 mL
10 mM	0.2172 mL	1.0859 mL	2.1718 mL
50 mM	0.0434 mL	0.2172 mL	0.4344 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Shi CJ, et al. Usnic acid derivatives as tau-aggregation and neuroinflammation inhibitors. Eur J Med Chem. 2020 Feb 1;187:111961.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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