

TML-6

Chemical Properties

CAS No. : 1462868-88-7

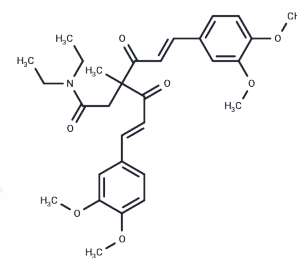
Formula: C30H37NO7

Molecular Weight: 523.62

Store at low temperature

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	TML-6 is an orally available curcumin derivative that inhibits synthesis of β -amyloid ($A\beta$) and $A\beta$ precursor protein, upregulates Apo E, activates Nrf2, suppresses NF- κ B and mTOR, and ameliorates inflammation. It is suitable for Alzheimer's disease research.
Targets(IC50)	Beta Amyloid,Others,NF- κ B,Nrf2,mTOR
In vitro	TML-6 exhibits no toxicity to Huh-7 cells at concentrations below 5 μ M, with an IC50 value of 4.19 μ g/mL. TML-6 significantly activates the Nrf2 gene at a concentration of 1.32 μ g/mL [1].
In vivo	TML-6 (dietary, 150 mg/kg/day for four months) improved $A\beta$ levels and Iba-1 expression in the brains of 3xTg (mutations: APPKM670/671NL, MAPTP301L, and PSEN1M146V) AD transgenic mice, significantly reducing their learning behavior [1]. After oral administration of 150 mg/kg TML-6 in SD rats, the plasma concentration of TML-6 reached a peak C-max of 35.9 \pm 15.6 ng/mL, with a T-max of 3.67 \pm 2.08 hours [1].

Solubility Information

Solubility	DMSO: 95 mg/mL (181.43 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	1.9098 mL	9.5489 mL	19.0978 mL
5 mM	0.382 mL	1.9098 mL	3.8196 mL
10 mM	0.191 mL	0.9549 mL	1.9098 mL
50 mM	0.0382 mL	0.191 mL	0.382 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

Ih-Jen Su, et al. A Curcumin Analog Exhibits Multiple Biologic Effects on the Pathogenesis of Alzheimer's Disease and Improves Behavior, Inflammation, and β -Amyloid Accumulation in a Mouse Model. *Int J Mol Sci.* 2020 Jul 30;21(15):5459.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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