Data Sheet (Cat.No.T200160)

TargetMol

SIRT3 activator 2

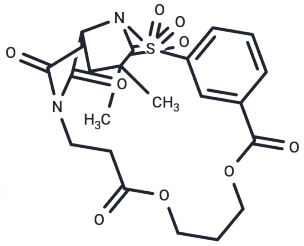
Chemical Properties

CAS No. :

Formula: C22H24N2O9S

Molecular Weight: 492.5

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	SIRT3 activator2 (compound 2a) acts as an activator of SIRT3. It is presumed to bind directly with SIRT3 in SH-SY5Y cells, as inferred through thermal stability, facilitating the SIRT3-dependent clearance of α-Syn. Furthermore, SIRT3 activator2 enhances motor functions in Parkinsonian mice and dose-dependently prevents the loss of dopaminergic (DA) neurons in the substantia nigra.
Targets(IC50)	Sirtuin
In vitro	SIRT3 activator 2, at concentrations of 10 μM and 100 μM, functions as an activator of SIRT3. In SH-SY5Y cells, treatment with SIRT3 activator 2 (10 μM for 24 hours) enhances the thermal stability of SIRT3 (CETSA), indicating direct binding to SIRT3 (wb). Additionally, SIRT3 activator 2 (10 μM; 24h) facilitates the degradation of α-Syn through a SIRT3-dependent mechanism in SH-SY5Y cells, thereby offering neuroprotective effects (wb).
In vivo	SIRT3 activator 2, administered intravenously at doses of 10, 20, and 40 mg/kg (Once per session; 24 days), enhances motor function in Parkinsonian mice induced by overexpression of α-synuclein. Additionally, SIRT3 activator 2, delivered via intracerebral microinjection at the same dosages, dose-dependently prevents the loss of substantia nigra DA neurons caused by overexpression of α-synuclein.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0305 mL	10.1523 mL	20.3046 mL
5 mM	0.4061 mL	2.0305 mL	4.0609 mL
10 mM	0.203 mL	1.0152 mL	2.0305 mL
50 mM	0.0406 mL	0.203 mL	0.4061 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.