

ER-000444793

Chemical Properties

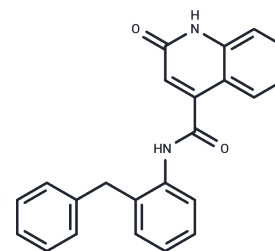
CAS No. : 792957-74-5

Formula: C₂₃H₁₈N₂O₂

Molecular Weight: 354.4

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	ER-000444793 is a potent mitochondrial permeability transition pore (mPTP) opening inhibitor and it also inhibits mPTP (IC ₅₀ : 2.8 μM).
Targets(IC ₅₀)	Mitochondrial Metabolism
In vitro	ER-000444793 is a small molecule and non-toxic mPTP inhibitor. It also has a mechanism of action independent of CypD inhibition. Both CsA and SfA dose-dependently reduce HTRF signal, showing the displacement of labeled CsA from rhCypD protein (CsA IC ₅₀ =23 nM and SfA IC ₅₀ =75 nM). However, ER-000444793 has no effect up to a concentration of 50 μM, showing be short of displacement of labelled-CsA from rhCypD protein. ER-000444793 potently and dose-dependently inhibits Ca ²⁺ -induced mPT. ER-000444793 binds CypD, a CsA/CypD homogenous time-resolved fluorescence (HTRF) assay is used to study compound binding. These data display the mechanism of ER-000444793 in delaying mPT is independent of CypD functional inhibition[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (141.08 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	2.8217 mL	14.1084 mL	28.2167 mL
5 mM	0.5643 mL	2.8217 mL	5.6433 mL
10 mM	0.2822 mL	1.4108 mL	2.8217 mL
50 mM	0.0564 mL	0.2822 mL	0.5643 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

Briston T, et al. Identification of ER-000444793, a Cyclophilin D-independent inhibitor of mitochondrial permeability transition, using a high-throughput screen in cryopreserved mitochondria. Sci Rep. 2016 Nov 25;6:37798.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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