

SIRT5 inhibitor 7

Chemical Properties

CAS No. : 2951090-00-7

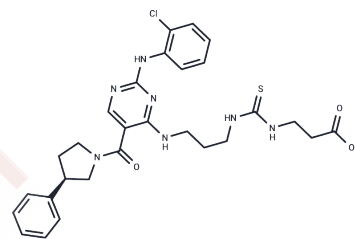
Formula: C₂₈H₃₂ClN₇O₃S

Molecular Weight: 582.12

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	SIRT5 inhibitor 7 (compound 58), a substrate-competitive and selective SIRT5 inhibitor with IC ₅₀ = 310 nM, significantly attenuated renal dysfunction and pathological damage in lipopolysaccharide (LPS)- and cecum ligation/perforation (CLP)-induced septic AKI mice, and modulated proteinsuccinimidylation and proinflammatory cytokine release and pro-inflammatory cytokine release in the kidneys of acute kidney injury
Targets(IC50)	Sirtuin
In vitro	SIRT5 inhibitor 7 is a potent SIRT5 inhibitor with an IC ₅₀ of 310 nM, acting as a substrate-competitive and selective inhibitor. In vitro, SIRT5 inhibitor 7 effectively inhibits SIRT5 enzymatic activity and modulates protein succinylation[1].
In vivo	SIRT5 inhibitor 7 was tested in septic AKI mouse models induced by LPS and cecal ligation/perforation (CLP). SIRT5 inhibitor 7 significantly alleviated kidney dysfunction and histopathological injury, and reduced the release of proinflammatory cytokines in kidney tissue[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7179 mL	8.5893 mL	17.1786 mL
5 mM	0.3436 mL	1.7179 mL	3.4357 mL
10 mM	0.1718 mL	0.8589 mL	1.7179 mL
50 mM	0.0344 mL	0.1718 mL	0.3436 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

Mou L, et al. Structure-Activity Relationship Studies of 2,4,5-Trisubstituted Pyrimidine Derivatives Leading to the Identification of a Novel and Potent Sirtuin 5 Inhibitor against Sepsis-Associated Acute Kidney Injury. J Med Chem. 2023 Aug 24;66(16):11517-11535.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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