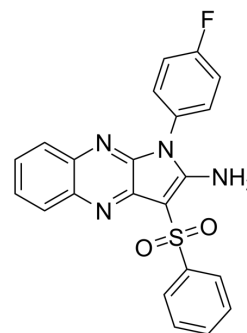


CAY10602

Cat. No.:	HY-104073		
CAS No.:	374922-43-7		
Molecular Formula:	C ₂₂ H ₁₅ FN ₄ O ₂ S		
Molecular Weight:	418.44		
Target:	Sirtuin		
Pathway:	Cell Cycle/DNA Damage; Epigenetics		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 41.67 mg/mL (99.58 mM; Need ultrasonic)				
		Solvent	Mass		
		Concentration		1 mg	5 mg
	Preparing Stock Solutions	1 mM		2.3898 mL	11.9491 mL
		5 mM		0.4780 mL	2.3898 mL
		10 mM		0.2390 mL	1.1949 mL
	Please refer to the solubility information to select the appropriate solvent.				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.97 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	CAY10602 is a SIRT1 activator. CAY10602 dose-dependently suppresses the NF-κB-dependent induction of TNF-α by lipopolysaccharide in THP-1 cells ^[1] .
IC ₅₀ & Target	SIRT1
In Vitro	Compounds (including CAY10602/compound 1) with SIRT1-activating properties have a significant effect on fat mobilization in differentiated adipocytes, and these compounds (including CAY10602) have antiobesity and/or antidiabetic properties. Compounds (including CAY10602) with SIRT1 activating potential exert strong suppression of TNF-α release at concentrations between 20 and 60 μM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

3T3L1 mouse fibroblasts and THP-1 leukemia cells are used and cultured following the supplier's recommendations. THP-1 cells are treated first with representative compounds (including CAY10602/compound 1) followed by addition of lipopolysaccharide(LPS). THP-1 cells are plated at a density of 1.2×10^6 cells/mL in 0.4 mL (0.5×10^6 cells/treatment) in 24-well culture plates. The cells are preincubated with representative test compounds (including CAY10602) at 2 concentrations (20 or 60 μ M) for 1 h under general tissue culture conditions^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Death Dis. 2019 Apr 15;10(5):331.
- Cancers (Basel). 2023 Apr 23, 15(9), 2427.
- Viruses. 2022, 14(8), 1733.
- Lipids Health Dis. 2021 Apr 26;20(1):40.
- Toxicol Appl Pharmacol. 2019 Aug 1;376:17-37.

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REFERENCES

[1]. Nayagam VM, et al. SIRT1 modulating compounds from high-throughput screening as anti-inflammatory and insulin-sensitizing agents. J Biomol Screen. 2006 Dec;11(8):959-67.

Caution: Product has not been fully validated for medical applications. For research use only.

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