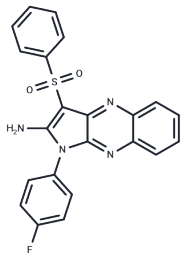
Data Sheet (Cat.No.T4062)

TargetMol

CAY10602

Chemical Properties



CAS No. : 374922-43-7

Formula: C22H15FN4O2S

Molecular Weight: 418.44

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	CAY10602 is a SIRT1 activator derived from high throughput screening for compounds that enhance SIRT1-mediated deacetylation of a SIRT1-specific substrate. Functional assays indicate that CAY10602 dose-dependently suppresses NF-κB-dependent induction of TNF-α by lipopolysaccharide in THP-1 cells, achieving approximately 75% inhibition at 60 μM without cytotoxicity.
Targets(IC50)	Sirtuin

Solubility Information

Solubility	DMSO: 41.8 mg/mL (99.89 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.78 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3898 mL	11.9491 mL	23.8983 mL
5 mM	0.478 mL	2.3898 mL	4.7797 mL
10 mM	0.239 mL	1.1949 mL	2.3898 mL
50 mM	0.0478 mL	0.239 mL	0.478 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

Höppner S, et al. Fragmentation studies of SIRT1-activating drugs and their detection in human plasma for doping control purposes. Rapid Commun Mass Spectrom. 2013 Jan 15;27(1):35-50.
Li M, Xu Q, Fan Q, et al.Small molecule SIRT1 activators counteract oxidative stress-induced inflammasome activation and nucleolar stress in retinal degeneration.International Immunopharmacology.2024, 142: 113167.
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.