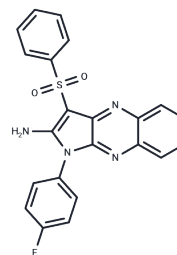


CAY10602

Chemical Properties

CAS No. : 374922-43-7
Formula: C₂₂H₁₅FN₄O₂S
Molecular Weight: 418.44
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



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)
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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.

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.

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