

ATF3 inducer 1

Chemical Properties

CAS No. : 3038756-30-5

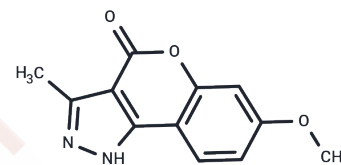
Formula: C₁₂H₁₀N₂O₃

Molecular Weight: 230.22

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	ATF3 inducer 1 is an efficient ATF3 inducer with lipid-lowering and anti-hyperglycemic activities. It alleviates glucose intolerance and insulin resistance induced by high-fat diet (HFD) and ameliorates liver steatosis induced by HFD. It can be used for research on obesity.
Targets(IC50)	Others,Epigenetic Reader Domain
In vitro	ATF3 inducer 1 (Compound 16c) (50 μM, treated for 8 days) upregulates the expression levels of ATF3 protein and ATF3 mRNA in 3T3-L1 cells. [1]
In vivo	ATF3 inducer 1 (40 mg/kg, intraperitoneal injection, three times per week for 10 weeks) exhibited anti-metabolic syndrome (MetS) effects in mice. [1]

Solubility Information

Solubility	DMSO: 50 mg/mL (217.18 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 (8.69 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3437 mL	21.7184 mL	43.4367 mL
5 mM	0.8687 mL	4.3437 mL	8.6873 mL
10 mM	0.4344 mL	2.1718 mL	4.3437 mL
50 mM	0.0869 mL	0.4344 mL	0.8687 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

Chang YH, et al. Exploration and biological evaluation of 7-methoxy-3-methyl-1H-chromeno[4,3-c]pyrazol-4-one as an activating transcription factor 3 inducer for managing metabolic syndrome. Eur J Med Chem. 2023 Jan 15; 246:114951.

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