

TYA-018

Chemical Properties

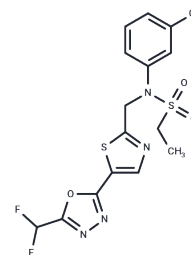
CAS No. : 2653254-31-8

Formula: C₁₅H₁₃ClF₂N₄O₃S₂

Molecular Weight: 434.87

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	TYA-018 is an orally available and selective HDAC6 inhibitor with cardioprotective properties for the study of dilated heart disease and heart failure. TYA-018 prevents sarcomere damage and decreases Nppb expression.
Targets(IC ₅₀)	OXPHOS, HDAC
In vivo	In BAG3cKO mice, TYA-018 (15 mg/kg; oral gavage, daily, starting at 2 months old, for 8 weeks) conferred cardioprotection in mice. It significantly reduced Nppb expression to near wild-type levels.

Solubility Information

Solubility	DMSO: 80 mg/mL (183.96 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: 3.3 mg/mL (7.59 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	2.2995 mL	11.4977 mL	22.9954 mL
5 mM	0.4599 mL	2.2995 mL	4.5991 mL
10 mM	0.230 mL	1.1498 mL	2.2995 mL
50 mM	0.046 mL	0.230 mL	0.4599 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

Yang J, et al. Phenotypic screening with deep learning identifies HDAC6 inhibitors as cardioprotective in a BAG3 mouse model of dilated cardiomyopathy. *Sci Transl Med.* 2022 Jul 6;14(652):eabl5654.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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