

TT-10

Chemical Properties

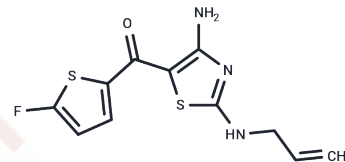
CAS No. : 2230640-94-3

Formula: C₁₁H₁₀FN₃O₂S

Molecular Weight: 283.35

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	TT-10 (TAZ-K), an activator of YES-associated protein (YAP)-transcriptional enhancer factor domain (TEAD) activity, has potential application in heart disease research, specifically for conditions characterized by loss of cardiomyocytes.
Targets(IC50)	YAP
In vitro	TT-10 (10 μmol/L ; 48 h) significantly promoted cell cycle activation and cell division of human induced pluripotent stem cell (hiPSC) derived cardiomyocytes (hiPSCM).[1]
In vivo	TT-10 (2 μM, 10 μM, 20 μM, or 100 μM ; 48 h ; intraperitoneal injections) was administered to infarcted mouse hearts, the treatment promoted cardiomyocyte proliferation and was associated with declines in infarct size 1 week after administration, but cardiac function worsened at later time points.[2]

Solubility Information

Solubility	DMSO: 60 mg/mL (211.75 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	2% DMSO+40% PEG300+5% Tween 80+53% Saline: 1.25 mg/mL (4.41 mM) <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	3.5292 mL	17.646 mL	35.292 mL
5 mM	0.7058 mL	3.5292 mL	7.0584 mL
10 mM	0.3529 mL	1.7646 mL	3.5292 mL
50 mM	0.0706 mL	0.3529 mL	0.7058 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

Ito M, et al. Characterization of a small molecule that promotes cell cycle activation of human induced pluripotent stem cell-derived cardiomyocytes. *J Mol Cell Cardiol.* 2019 ; 128:90-95.

Chen W, et al. TT-10-loaded nanoparticles promote cardiomyocyte proliferation and cardiac repair in a mouse model of myocardial infarction. *JCI Insight.* 2021 ; 6(20):e151987.

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