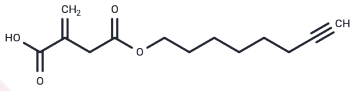
Data Sheet (Cat.No.T41302)

TargetMol

Itaconate-alkyne

Chemical Properties



CAS No. : 2454181-83-8

Formula: C13H18O4

Molecular Weight: 238.28

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	Itaconate-alkyne (ITalk) is a bioorthogonal probe for quantitative, site-specific chemoproteomic profiling of itaconate in inflammatory macrophages, facilitating biochemical evaluation and proteomic analysis of its direct targets.
Targets(IC50)	Others
In vitro	Itaconate-alkyne can capture itaconate targets including DNA damage-binding protein 1 (DDB1), Gelsolin (GSN), ATP-citrate synthase (ACLY) and Adenylate kinase 2 (AK2) in inflammatory macrophages[1].

Solubility Information

Solubility	DMSO: 250 mg/mL (1049.19 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: 5 mg/mL (20.98 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	4.1967 mL	20.9837 mL	41.9674 mL
5 mM	0.8393 mL	4.1967 mL	8.3935 mL
10 mM	0.4197 mL	2.0984 mL	4.1967 mL
50 mM	0.0839 mL	0.4197 mL	0.8393 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

Wei Qin, et al. Chemoproteomic Profiling of Itaconation by Bioorthogonal Probes in Inflammatory Macrophages. J Am Chem Soc . 2020 Jun 24;142(25):10894-10898.