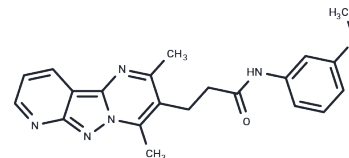


Pantothenate Kinase Inhibitor

Chemical Properties

CAS No. :	902614-04-4
Formula:	C ₂₁ H ₂₁ N ₅ O ₅
Molecular Weight:	391.49
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Pantothenate Kinase Inhibitor (PANKi) is a reversible inhibitor of pantothenate kinase (Pank; IC ₅₀ s = 70, 92, and 25 nM for Pank1β, Pank2, and Pank3, respectively), the rate-limiting enzyme in the synthesis of coenzyme A. It binds to the ATP-Pank3 complex with an apparent binding constant of 300 nM and exhibits mixed-type inhibition with respect to ATP and pantothenate. PANKi inhibits CoA biosynthesis in C3A cells (IC ₅₀ = 0.9 μM) with no effect on cell viability when used at concentrations up to 8 μM. PANKi (5 μM) synergizes with BSO to induce ferroptosis in PANC-1 cells and sensitizes the cells to imidazole ketone erastin-induced ferroptosis. ²
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Solubility Information

Solubility	DMF: 1 mg/mL DMSO:PBS (pH 7.2) (1:4): 0.25 mg/mL DMSO: 1 mg/mL (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5543 mL	12.7717 mL	25.5434 mL
5 mM	0.5109 mL	2.5543 mL	5.1087 mL
10 mM	0.2554 mL	1.2772 mL	2.5543 mL
50 mM	0.0511 mL	0.2554 mL	0.5109 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

Sharma, L.K., Leonardi, R., Lin, W., et al. A high-throughput screen reveals new small-molecule activators and inhibitors of pantothenate kinases. *J. Med. Chem.* 58(3):1563-1568(2015)

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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