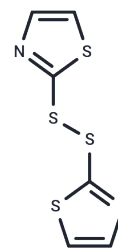


FBPase-IN-1

Chemical Properties

CAS No. :	20362-54-3
Formula:	C ₆ H ₄ N ₂ S ₄
Molecular Weight:	232.37
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	FBPase-IN-1 is an FBPase inhibitor and a herbicide that lowers blood glucose levels. It is used in studies of type 2 diabetes.
Targets(IC50)	Others
In vitro	FBPase-IN-1 is a potent FBPase (fructose-1, 6-diphosphatase) inhibitor with an IC ₅₀ of 0.22 μM. [1]
In vivo	FBPase-IN-1 (25 mg/kg intraperitoneally injected) ICR mouse models reduced blood glucose by 54% and showed low cytotoxicity (IC ₅₀ = 75.08 μM). [1]

Solubility Information

Solubility	DMSO: 40 mg/mL (172.14 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 (8.61 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	4.3035 mL	21.5174 mL	43.0348 mL
5 mM	0.8607 mL	4.3035 mL	8.607 mL
10 mM	0.4303 mL	2.1517 mL	4.3035 mL
50 mM	0.0861 mL	0.4303 mL	0.8607 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

Xu YX, et al. Development of disulfide-derived fructose-1,6-bisphosphatase (FBPase) covalent inhibitors for the treatment of type 2 diabetes. *Eur J Med Chem.* 2020 Oct 1;203:112500.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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