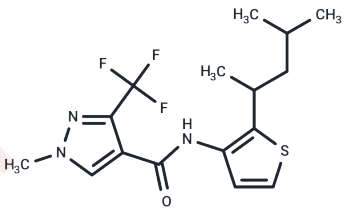
Data Sheet (Cat.No.T16470)

TargetMol

Penthiopyrad

Chemical Properties



CAS No. : 183675-82-3

Formula: C16H20F3N3OS

Molecular Weight: 359.41

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	Penthiopyrad (MTF-753) shows a broad spectrum of antifungal activity and suppresses fungal respiration. Penthiopyrad can be used in studies about foliar and soil-borne plant diseases.
Targets(IC50)	Antifungal

Solubility Information

Solubility	DMSO: 90 mg/mL (250.41 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 (9.18 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	2.7823 mL	13.9117 mL	27.8234 mL
5 mM	0.5565 mL	2.7823 mL	5.5647 mL
10 mM	0.2782 mL	1.3912 mL	2.7823 mL
50 mM	0.0556 mL	0.2782 mL	0.5565 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

Ceballos-Alcantarilla E, et al. Haptens, bioconjugates, and antibodies for penthiopyrad immunosensing. Analyst. 2014 Nov 7;139(21):5358-61.
Qian L, et al. Effects of penthiopyrad on the development and behaviour of zebrafish in early-life stages. Chemosphere. 2019 Jan;214:184-194.
Zhengyi Liu, et al. Stereoselective degradation behavior of the novel chiral antifungal agrochemical penthiopyrad in soil. Environ Res. 2021 Mar;194:110680.

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