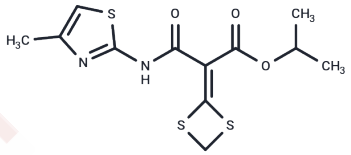
Data Sheet (Cat.No.T16082)

TargetMol

Mivotilate

Chemical Properties



CAS No. : 130112-42-4

Formula: C12H14N2O3S3

Molecular Weight: 330.45

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	Mivotilate, a potent, non-toxic aryl hydrocarbon receptor (AhR) activator, functions as a hepatoprotective agent.
Targets(IC50)	Others,Aryl Hydrocarbon Receptor
In vitro	Mivotilate has a novel activation mode that tolerates mutation of histidine 285 to tyrosine[1]. Mivotilate is a nontoxic and potent activator of the aryl hydrocarbon receptor. Mivotilate causes cytochromes P4501A1/2 (CYP1A1/2) through the aryl hydrocarbon (Ah) receptor[3].
In vivo	Mivotilate (150 mg/kg, p.o.) inhibits the transcription of CYP2E1 in rats, and at doses of 75-300 mg/kg, it rapidly decreases immunoreactive CYP2E1 protein. Additionally, Mivotilate (150 mg/kg, p.o.) reduces CYP2E1-mediated NDMA demethylase activity in rats without significantly affecting NADPH-dependent P450 oxidoreductase activity [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0262 mL	15.1309 mL	30.2618 mL
5 mM	0.6052 mL	3.0262 mL	6.0524 mL
10 mM	0.3026 mL	1.5131 mL	3.0262 mL
50 mM	0.0605 mL	0.3026 mL	0.6052 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

Whelan F, et al. Amino acid substitutions in the aryl hydrocarbon receptor ligand binding domain reveal YH439 as an atypical AhR activator. Mol Pharmacol. 2010 Jun;77(6):1037-46.
Jeong KS, et al. Transcriptional inhibition of cytochrome P4502E1 by a synthetic compound, YH439. Arch Biochem Biophys. 1996 Feb 1;326(1):137-44.
Lee IJ, et al. Transcriptional induction of the cytochrome P4501A1 gene by a thiazolium compound, YH439. Mol Pharmacol. 1996 Jun;49(6):980-8.