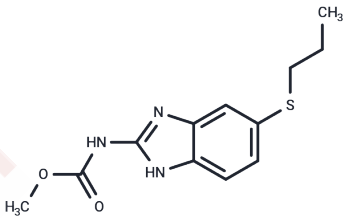
Data Sheet (Cat.No.T1152)

TargetMol

Albendazole

Chemical Properties



CAS No. : 54965-21-8

Formula: C12H15N3O2S

Molecular Weight: 265.33

Storage: Keep away from moisture
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	Albendazole (SKF-62979) is used as a drug indicated for the treatment of a variety of worm infestations.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,HIF/HIF Prolyl-Hydroxylase,Microtubule Associated, Antibacterial,Antibiotic,Parasite,Autophagy,ROS,VEGFR
In vitro	In sheep lambs administered Albendazole intravenously, the drug and its active metabolite, albendazole sulfoxide, are recovered in tapeworms. In rats, Albendazole significantly increases hepatic activity: it induces a 65-fold increase in CYP1A1-related ethoxyresorufin O-deethylase (EROD) activity, a 6-fold increase in CYP1A2-related methoxyresorufin O-demethylase activity, a 4-fold increase in CYP2B1-related pentoxyresorufin O-dealkylase activity, a 14-fold increase in CYP2B2-related benzyloxyresorufin O-dealkylase activity, and also leads to a partial reduction in CYP2E1-related p-nitrophenol hydroxylase activity. Albendazole is metabolized by liver and lung microsomes in sheep and cattle as well as bovine intestinal microsomes into its pharmacologically active sulfoxide metabolite.
In vivo	Albendazole and its sulfoxide metabolites induce the accumulation of cells in the mitotic phase.

Solubility Information

Solubility	DMSO: 25 mg/mL (94.22 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (3.77 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	3.7689 mL	18.8445 mL	37.6889 mL
5 mM	0.7538 mL	3.7689 mL	7.5378 mL
10 mM	0.3769 mL	1.8844 mL	3.7689 mL
50 mM	0.0754 mL	0.3769 mL	0.7538 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

Uckermann O, et al. J Pharmacol Exp Ther,2005, 315(3), 1036-1045.
Whittaker SG, et al. Toxicol Appl Pharmacol,1991, 109(1), 73-84.
Evrard B, et al. J Control Release,2002, 85(1-3), 45-50.
Alvarez LI, et al. J Vet Pharmacol Ther,1999, 22(2), 77-86.