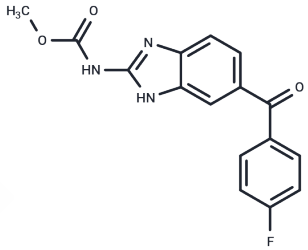
Data Sheet (Cat.No.T0009)

TargetMol

Flubendazole

Chemical Properties



CAS No. : 31430-15-6

Formula: C16H12FN3O3

Molecular Weight: 313.28

Storage: Keep away from direct sunlight
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	Flubendazole (Flumoxane) is available OTC in Europe that is an anthelmintic using to treat worm infection in humans.
Targets(IC50)	Apoptosis,Microtubule Associated,STAT,Parasite,Autophagy,MDM-2/p53
In vitro	Flubendazole results in morphological changes included contraction of the soma region, the formation of blebs on the tegument, rostellar disorganization, loss of hooks and destruction of microtriches in Echinococcus granulosus. Flubendazole has a bicyclic ring system in which a benzene has been fused to the -4 and -5 positions of the heterocycle (imidazole). Flubendazole and Albendazole show similar potency in affecting rat embryonic development in vitro, inducing retardation of growth and dysmorphogenic effects at concentrations ≥0.5 μg/mL.
In vivo	Flubendazole (6.32 mg/kg/day) initially induces an arrest of embryonic development followed by a generalized cell death that leads to 100% embryolethality by gestation day (GD) 12.5. Flubendazole (3.46 mg/kg/day) markedly reduces embryonic development by GD 12.5 without causing cell death. Flubendazole in olive oil causes a statistically significant increase in embryolethality at doses of 7.83 mg/kg per day and higher, with complete resorption in all dams at 31.33 mg/kg per day in rats. Flubendazole treatment causes a slight increase of metyrapone and daunorubicin activities in hepatic as well as intestinal cytosol in birds. Flubendazole treatment leads to statistically significant inhibition of intestinal GST activity. Flubendazole treatment leads to slight but significant inhibition (decrease to 69%) of 7-ethoxyresorufin activity in hepatic microsomes.

Solubility Information

Solubility	DMSO: 10.5 mg/mL (33.52 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: 1.05 mg/mL (3.35 mM),Solution. 10% DMSO+90% Saline: < 1.05 mg/mL (3.35 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.*

In vivo Formulation	*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	3.192 mL	15.9602 mL	31.9203 mL
5 mM	0.6384 mL	3.192 mL	6.3841 mL
10 mM	0.3192 mL	1.596 mL	3.192 mL
50 mM	0.0638 mL	0.3192 mL	0.6384 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

Hou ZJ, et al. Oncotarget. 2015 Jan 21;6(8):6326-40.