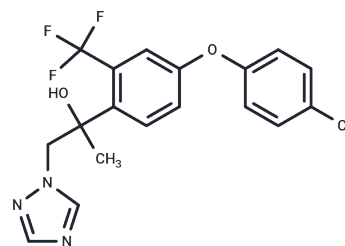


Mefentrifluconazole

Chemical Properties

CAS No. : 1417782-03-6
Formula: C₁₈H₁₅ClF₃N₃O₂
Molecular Weight: 397.78
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Mefentrifluconazole is a potent, selective and orally active fungal CYP51 (K _d = 0.5 nM) inhibitor, but shows less inhibitory activity on human aromatase (IC ₅₀ =0.92 μM). Mefentrifluconazole is a novel azole derivative and used as an agrochemical broad-spectrum antifungal agent.
Targets(IC ₅₀)	P450,Antifungal
In vivo	In the acute and repeat dose toxicity studies performed with Mefentrifluconazole. A single-dose administration to rats the LD ₅₀ is >2000 mg/kg bwt by the oral route, >5000 mg/kg bwt by the dermal route, and >5.314 mg/L by inhalation as a dust aerosol. Mefentrifluconazole is not a skin or an eye irritant, nor is it a phototoxicant in vitro. In the acute neurotoxicity study in rats, Mefentrifluconazole (oral administration; 2000 mg/kg bwt; single dose) gives rise to reduce body weight gain and transient neurobehavioral effects only on the day of treatment (unsteady gait, reduced motor activity, reduces grip strength of the forelimbs and increased distance between the hind limbs in the landing foot-splay test). In the repeated-dose toxicity studies, the liver is the target organ in each of the three species investigated. At higher dose levels in the rat (oral diets; 383/334 mg/kg/bwt/d (4000 ppm)) and the C57BL/6J mouse (61 mg/kg bwt/d (300 ppm)), reduces body weight gain and food consumption, alters clinical chemistry parameters, increases liver weight and is accompanied by liver cell hypertrophy, and/or liver cell necrosis. At low doses, increases liver weight is not associated with any histopathological alterations and is considered to be an adaptive change to treatment.

Solubility Information

Solubility	DMSO: 100 mg/mL (251.40 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.514 mL	12.5698 mL	25.1395 mL
5 mM	0.5028 mL	2.514 mL	5.0279 mL
10 mM	0.2514 mL	1.257 mL	2.514 mL
50 mM	0.0503 mL	0.2514 mL	0.5028 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.

Reference

Liu Y, Ma T, Dong Y, et al. Bioactivity of mefentrifluconazole against different *Fusarium* spp. Pesticide Biochemistry and Physiology. 2022: 105169

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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