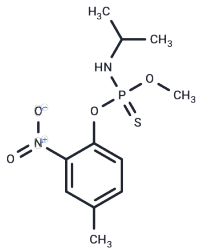
Data Sheet (Cat.No.T35486)

TargetMol

Amiprofos methyl

Chemical Properties



CAS No. : 36001-88-4

Formula: C11H17N2O4PS

Molecular Weight: 304.30

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	Amiprofos methyl (BAY-NTN 6867) is an organophosphorus herbicide that specifically and competitively inhibits microtubule polymerization in plant cells, thereby inhibiting plant growth.
Targets(IC50)	Microtubule Associated
In vitro	CYP2B22 rice plants showed tolerance to 12 herbicides, including chloramphenicol (100 μM), methamphetamine (2.5 μM), pendimethalin (10 μM), Amiprofos methyl (2.5 μM), and Apivin (20 μM).[3]

Solubility Information

Solubility	Ethanol: 5 mg/mL (16.43 mM),Sonication and heating are recommended. PBS (pH 7.2): < 1 mg/mL, insoluble,Sonication is recommended. DMSO: 150 mg/mL (492.93 mM),Sonication and heating are recommended. DMF: 10 mg/mL (32.86 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2862 mL	16.4312 mL	32.8623 mL
5 mM	0.6572 mL	3.2862 mL	6.5725 mL
10 mM	0.3286 mL	1.6431 mL	3.2862 mL
50 mM	0.0657 mL	0.3286 mL	0.6572 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

Murthy JV, et al. Competitive Inhibition of High-Affinity Oryzalin Binding to Plant Tubulin by the Phosphoric Amide Herbicide Amiprophos-Methyl. Plant Physiol. 1994;105(1):309-320.
Morejohn LC, et al. Inhibition of Plant Microtubule Polymerization in vitro by the Phosphoric Amide Herbicide Amiprophos-Methyl. Science. 1984;224(4651):874-876.
Kawahigashi H, et al. Analysis of substrate specificity of pig CYP2B22 and CYP2C49 towards herbicides by transgenic rice plants. Transgenic Res. 2005 Dec;14(6):907-17.

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