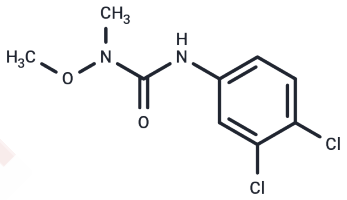
Data Sheet (Cat.No.T32771)

TargetMol

Linuron

Chemical Properties



CAS No. : 330-55-2

Formula: C9H10Cl2N2O2

Molecular Weight: 249.09

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	Linuron, a substituted phenylurea herbicide, primarily functions by disrupting the photosynthetic process through the inhibition of photosystem II. it additionally acts as an androgen receptor antagonist, exhibiting endocrine-disrupting effects and reproductive toxicity, Maternal linuron exposure alters testicular development in male offspring at the whole genome level and significantly altering expressions of key testosterone synthesis-associated genes including Star, P450scc, 3β-Hsd, Abp, Cox7a2, Pcna, p450c17, and 17β-Hsd.
Targets(IC50)	Androgen Receptor

Solubility Information

Solubility	DMSO: 80 mg/mL (321.17 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0146 mL	20.0731 mL	40.1461 mL
5 mM	0.8029 mL	4.0146 mL	8.0292 mL
10 mM	0.4015 mL	2.0073 mL	4.0146 mL
50 mM	0.0803 mL	0.4015 mL	0.8029 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

Su M, et al. Residue investigation of some phenylureas and tebuthiuron herbicides in vegetables by ultra-performance liquid chromatography coupled with integrated selective accelerated solvent extraction-clean up in situ. J Sci Food Agric. 2018 Mar 24.

Azab E, et al. Expression of the human gene CYP1A2 enhances tolerance and detoxification of the phenylurea herbicide linuron in Arabidopsis thaliana plants and Escherichia coli. Environ Pollut. 2018 Jul;238:281-290. doi: 10.1016/j.envpol.2018.03.025. Epub 2018 Mar 22. PubMed PMID: 29573710.

Fu L,et al. Multiresidue determination and potential risks of emerging pesticides in aquatic products from Northeast China by LC-MS/MS. J Environ Sci (China). 2018 Jan;63:116-125. doi: 10.1016/j.jes.2017.09.010. Epub 2017 Sep 29. PubMed PMID: 29406095.

Albers P, et al. Molecular processes underlying synergistic linuron mineralization in a triple-species bacterial consortium biofilm revealed by differential transcriptomics. Microbiologyopen. 2018 Apr;7(2):e00559. doi: 10.1002/mbo3.559. Epub 2018 Jan 3. PubMed PMID: 29314727; PubMed Central PMCID: PMC5911999.