

Xanthopterin (hydrate)

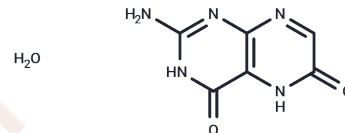
Chemical Properties

CAS No. : 5979-01-1

Formula: C₆H₇N₅O₃

Molecular Weight: 197.15

Storage: Keep away from moisture, Store at low temperature,
Store under nitrogen
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	Xanthopterin Hydrate is isolated from butterfly wings and could replace folic acid in the nutrition of many animal species.
Targets(IC50)	DNA/RNA Synthesis
In vitro	Human mammary carcinoma MCF-7 cell line responsiveness to the pteridines xanthopterin and isoxanthopterin was studied using the MTS assay for measurement of cell viability. The pteridines were tested at concentrations ranging from 7.8 to 500 μ M singly and in 11 isoxanthopterin:xanthopterin ratios. IC ₅₀ s of xanthopterin and isoxanthopterin were 109 \pm 13 μ M (mean \pm SEM of y estimate) and 103 \pm 9 μ M, respectively.

Solubility Information

Solubility	DMSO: 4 mg/mL (20.29 mM), Sonication and heating to 80°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0723 mL	25.3614 mL	50.7228 mL
5 mM	1.0145 mL	5.0723 mL	10.1446 mL
10 mM	0.5072 mL	2.5361 mL	5.0723 mL
50 mM	0.1014 mL	0.5072 mL	1.0145 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

Jean, L, Lord, et al. Cytotoxicity of xanthopterin and isoxanthopterin in MCF-7 cells[J]. Cancer Letters, 2005, 222(1): 119-124.

Lord JL, et al. Cytotoxicity of xanthopterin and isoxanthopterin in MCF-7 cells. Cancer Lett. 2005 May 10;222(1):119-24.

Plotkin M, et al. Xanthopterin in the Oriental hornet (*Vespa orientalis*): light absorbance is increased with maturation of yellow pigment granules. Photochem Photobiol. 2009 Jul-Aug;85(4):955-61.

Ziegler I, et al. Pterins and the regulation of lymphocyte activation on the mode of xanthopterin action. Hoppe Seylers Z Physiol Chem. 1984 Jun;365(6):667-73.

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