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**Product Data Sheet**

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Product Name: Xanthopterin

Cat. No.: GC37940

**Chemical Properties**

Cas. No. 119-44-8

SMILES O=C1NC2=C(N=C1)NC(N)=NC2=OFormula  $C_6H_5N_5O_2$ 

M.Wt 179.14

Solubility PBS (pH 7.2): 10 mg/ml

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

Xanthopterin, an unconjugated pteridine compound, is the main component of the yellow granule in the Oriental hornet bear wings, produces a characteristic excitation/emission maximum at 386/456 nm[2]. Xanthopterin (XPT) causes renal growth and hypertrophy in rat[1]. Xanthopterin inhibits RNA synthesis[4].

Xanthopterin (7.8-250 mM; 24 hours) show a significant reduction in mitochondrial activity with respect to controls (IC<sub>50</sub>=109 mM)[2]. Cell Viability Assay[2] Cell Line: MCF-7 cells

[1]. Xanthopterin (XPT), an unconjugated pteridine compound, affects cell growth and differentiation. When injected into rats, XPT has caused changes that have been interpreted as renal growth and hypertrophy. [2]. Lord JL, et al. Cytotoxicity of xanthopterin and isoxanthopterin in MCF-7 cells. *Cancer Lett.* 2005 May 10;222(1):119-24. [3]. 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. [4]. Ziegler I, et al. Pterins and the regulation of lymphocyte activation on the mode of xanthopterin action. *Hoppe Seylers Z Physiol*

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Chem. 1984 Jun;365(6):667-73.

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