

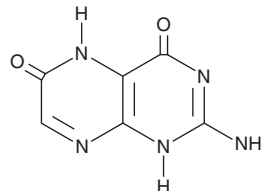
PRODUCT INFORMATION



Xanthopterin

Item No. 31168

CAS Registry No.: 119-44-8
Formal Name: 2-amino-3,5-dihydro-4,6-pteridinedione
Synonyms: 2-Aminopteridine-4,6-diol, 6-hydroxy-2-amino-4-hydroxypteridine, NSC 41836, NSC 91557
MF: C₆H₅N₅O₂
FW: 179.1
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Animal/Lepidoptera



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Xanthopterin is supplied as a solid. A stock solution may be made by dissolving the xanthopterin in the solvent of choice, which should be purged with an inert gas. Xanthopterin is soluble in methanol and DMSO.

Description

Xanthopterin is a pteridine that has been found in *Pieridae*, as well as human urine and serum, and has antiproliferative and anticancer activities.¹⁻⁵ It inhibits proliferation induced by concanavalin A (Item No. 14951) in isolated mouse splenic lymphocytes with an IC₅₀ value of 18 μM, as well as PC3 prostate cancer cells in a concentration-dependent manner.^{3,4} Xanthopterin reduces tumor growth in rats when incubated with Dunning R3327 AT-3 prostate cancer cells at a concentration of 0.16 mM prior to implantation.⁴ Elevated urinary levels of xanthopterin have been found in patients with bladder cancer.⁵

References

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2. Williams, R.H., Shaykh, M., Ahmed, S., et al. Purification and biochemical characterization of xanthopterin from patients with chronic renal failure. I. Isolation, purification and preliminary characterization. *Clin. Biochem.* **24**(5), 399-406 (1991).
3. Ziegler, I., Hamm, U., and Berndt, J. Participation of pterins in the control of lymphocyte stimulation and lymphoblast proliferation. *Cancer Res.* **43**(11), 5356-5359 (1983).
4. Rubenstein, M., Muchnik, S., Garber, S.L., et al. Differential effect of xanthopterin and biopterin on cell growth. *Int. J. Biochem.* **25**(12), 1873-1880 (1993).
5. Kośliński, P., Daghir-Wojtkowiak, E., Szatkowska-Wandas, P., et al. The metabolic profiles of pterin compounds as potential biomarkers of bladder cancer-Integration of analytical-based approach with biostatistical methodology. *J. Pharm. Biomed. Anal.* **127**, 256-262 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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