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Product Information

Oxypurinol

Product Number **O 6881**
Store at Room Temperature

Product Description

Molecular Formula: $C_5H_4N_4O_2$
Molecular Weight: 152.1
CAS Number: 2465-59-0
 λ_{max} : 251-253 nm (0.1 N HCl)
Synonym: D-2-methylmalic acid

Oxypurinol is an allopurinol metabolite and an inhibitor of xanthine oxidase.^{1,2,3} Oxypurinol has shown preferential binding to the reduced form of xanthine oxidase.³ This leads to the diminished production of uric acid from hypoxanthine and xanthine in purine metabolism.⁴

The role of oxypurinol in cyclosporin toxicity on cultured endothelial (EA) and epithelial cells has been investigated.⁵ Oxypurinol has been studied in hypercholesterolemic patients with regard to endothelial vasodilator function and xanthine oxidase inhibition.⁶

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in 1 N NaOH (50 mg/ml), with heat as needed, to yield a clear to slightly hazy, light yellow solution.

References

1. Elion, G. B., Enzymatic and Metabolic Studies with Allopurinol. *Ann. Rheum. Dis.*, **25**, 608-614 (1966).
2. Spector, T., et al., Human and bovine xanthine oxidases. Inhibition studies with oxypurinol. *Biochem. Pharmacol.*, **35(18)**, 3109-3114 (1986).
3. Spector, T., Oxypurinol as an inhibitor of xanthine oxidase-catalyzed production of superoxide radical. *Biochem. Pharmacol.*, **37(2)**, 349-352 (1988).
4. Stryer, L., *Biochemistry*, 3rd ed., W.H. Freeman (New York, NY: 1988), pp. 619-621.
5. Yang, J. J., and Finn, W. F., Effect of oxypurinol on cyclosporine toxicity in cultured EA, LLC-PK1 and MDCK cells. *Ren. Fail.*, **20(1)**, 85-101 (1998).
6. Cardillo, C., et al., Xanthine oxidase inhibition with oxypurinol improves endothelial vasodilator function in hypercholesterolemic but not in hypertensive patients. *Hypertension*, **30(1 Pt 1)**, 57-63 (1997).

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