



LKT Laboratories, Inc.

Allopurinol

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Product Information

Product ID A4445

CAS No. 315-30-0

Chemical Name 1,5-Dihydro-4H-pyrazolo[3,4-d]pyrimidin-4-one

Synonym Adenock, Apurol, Allozym, Apurin, Bloxanth, Embarin, Gichtex, Ketanrift, Lysuron, Urosin, Zyloric

Formula C₅H₄N₄O

Formula Wt. 136.11

Melting Point >350 °C

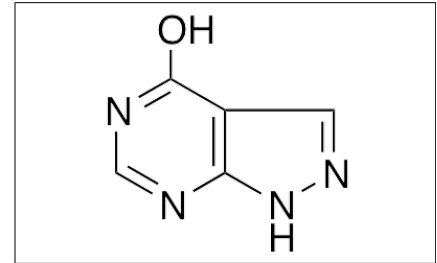
Purity ≥98%

Solubility Soluble in methanol and DMSO. Slightly soluble in ethanol (0.30 mg/mL) and water (0.48 mg/mL).

Store Temp Ambient

Ship Temp Ambient

Description Allopurinol is a purine analog that mimics hypoxanthine, inhibiting xanthine oxidase; it is clinically used to treat diseases of hyperuricemia, such as gout. Allopurinol exhibits anti-inflammatory, nephroprotective, antinociceptive, antioxidative, anti-fibrotic, and cardioprotective activities. In animal models of renal ischemia, allopurinol decreases production of inflammatory cytokines. In other animal models, allopurinol decreases oxidative stress, suppresses atrial fibrosis, and prevents atrial fibrillation. Additionally, this compound also decreases nociception in animal models of thermal and chemical pain, likely due to increasing levels of hypoxanthine and xanthine, which are metabolized downstream to form adenosine.



Bulk quantities available upon request

Product ID	Size
A4445	5 g
A4445	10 g

References Prieto-Moure B, Carabén-Redaño A, Aliena-Valero A, et al. Allopurinol in renal ischemia. *J Invest Surg.* 2014 Oct;27(5):304-16. PMID: 24914485.

Essawy SS, Elbaz AA. Role of adenosine receptors in the anti-nociceptive effects of allopurinol in mice. *Eur Rev Med Pharmacol Sci.* 2013 Jul;17(14):1857-63. PMID: 23877847.

Sakabe M, Fujiki A, Sakamoto T, et al. Xanthine oxidase inhibition prevents atrial fibrillation in a canine model of atrial pacing-induced left ventricular dysfunction. *J Cardiovasc Electrophysiol.* 2012 Oct;23(10):1130-5. PMID: 22587612.

Pacher P, Nivorozhkin A, Szabó C. Therapeutic effects of xanthine oxidase inhibitors: renaissance half a century after the discovery of allopurinol. *Pharmacol Rev.* 2006 Mar;58(1):87-114. PMID: 16507884.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.