

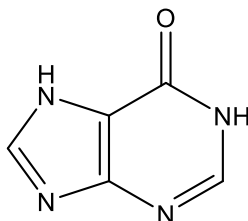
Catalog # 10-5380

Hypoxanthine

CAS# 68-94-0

1,9-Dihydro-6H-purin-6-one; 6-Hydroxypurine

Lot # X103472



Hypoxanthine is a natural purine analog and a breakdown product of adenosine.¹ Together with aminopterin and thymidine, it is a component of HAT medium², which is used to select clones during recombinant protein and antibody production, particularly important in bioprocessing. It is a biomarker of ischemia^{2,3}, and it is used in malaria research as an essential nutrient for *P. Falciparum*⁴. It also can enable stem cell expansion.⁵

- 1) Chen and Sorgensen (1956), *Formation of hypoxanthine from adenosine triphosphate in shed human blood*; Acta Pharmacol. Toxicol. (Copenh), **12** 369
- 2) Migeon and Miller (1968), *Human-mouse somatic cell hybrids with single human chromosome (group E): link with thymidine kinase activity*; Science **162** 1005
- 3) Von Holst and Sollevi (1985), *Increased concentration of hypoxanthine in human central cerebrospinal fluid after subarachnoid haemorrhage*; Acta Neurochir. (Wien) **77** 52
- 4) Tewari *et al.* (2019), *Short-term metabolic adjustments in Plasmodium falciparum counter hypoxanthine deprivation at the expense of long-term viability*; Malar. J. **18** Article number 86
- 5) Huhi *et al.* (2011), *SACK-expanded hair follicle stem cells display asymmetric nuclear Lgr5 expression with non-random sister chromatid segregation*; Sci. Rep. **1** 176

PHYSICAL DATA

Molecular Weight:	136.11
Molecular Formula:	C ₅ H ₄ N ₄ O
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.