

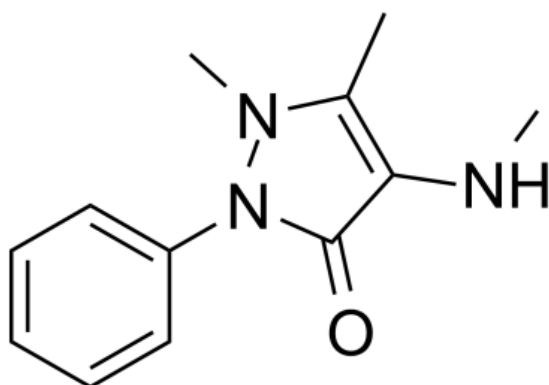
Product Data Sheet

Product Name: 4-Methylamino antipyrine
Cat. No.: GC39307

Chemical Properties

Cas No.	519-98-2		
Canonical SMILES	<chem>O=C1N(C2=CC=CC=C2)N(C)C(C)=C1NC</chem>		
分子式	$C_{12}H_{15}N_3O$	分子量	217.27
溶解度	DMSO : 50 mg/mL (230.13 mM; Need ultrasonic)	储存条件	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

4-Methylaminoantipyrine is a major active metabolite of the non-opioid prodrug metamizole.¹ It is formed from metamizole by non-enzymatic hydrolysis in the gastrointestinal tract.² 4-Methylaminoantipyrine (0.1 mM) inhibits production of prostaglandin E_2 induced by the calcium ionophore A23187 in isolated mouse peritoneal macrophages.³ It increases the paw withdrawal threshold in a rat model of carrageenan-induced hyperalgesia when administered at a dose of 160 mg/paw.⁴ 4-Methylaminoantipyrine (60, 90, and 120 mg/kg) reduces LPS-induced pyrexia in rats.⁵ It is also a potential impurity found in commercial preparations of metamizole.⁶

1. Rogosch, T., Sinning, C., Podlewski, A., et al. Novel bioactive metabolites of dipyrone (metamizol) Bioorg. Med. Chem. 20(1)101-107(2012) 2. Nikolova, I., Tencheva, J., Voynikov, Y., et al. Metamizole: A review profile of a well-

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

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known "forgotten" drug. Part I: Pharmaceutical and nonclinical profileBiotechnol. Biotechnol. Equip.26(6)3329-3337(2012) 3.Brune, K., Aehringhaus, U., and Peskar, B.A.Pharmacological control of leukotriene and prostaglandin production from mouse peritoneal macrophagesAgents Actions14(5-6)729-734(1984) 4.Gonçalves Dos Santos, G., Vieira, W.F., Vendramini, P.H., et al.Dipyrone is locally hydrolyzed to 4-methylaminoantipyrine and its antihyperalgesic effect depends on CB2 and κ -opioid receptors activationEur. J. Pharmacol.874173005(2020) 5.Malvar, D.d.C., Aguiar, F.A., Vaz Ade, L., et al.Dipyrone metabolite 4-MAA induces hypothermia and inhibits PGE2 -dependent and -independent fever while 4-AA only blocks PGE2 -dependent feverBr. J. Pharmacol.171(15)3666-3679(2014) 6.Vieira, J.C., Sversut, R.A., Maciel, I.T., et al.HPLC-DAD method for simultaneous determination of dipyrone (metamizole) and caffeine in tablets and identification of major degradation product by direct infusion ESI-MSChromatographia80(3)489-495(2017)

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