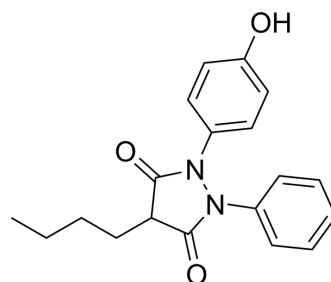


Oxyphenbutazone

Cat. No.:	HY-B1355A	
CAS No.:	129-20-4	
Molecular Formula:	C ₁₉ H ₂₀ N ₂ O ₃	
Molecular Weight:	324.37	
Target:	COX; Bacterial	
Pathway:	Immunology/Inflammation; Anti-infection	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (308.29 mM; Need ultrasonic)					
		Solvent Concentration	Mass			
	Preparing Stock Solutions			1 mg	5 mg	10 mg
		1 mM		3.0829 mL	15.4145 mL	30.8290 mL
		5 mM		0.6166 mL	3.0829 mL	6.1658 mL
	10 mM		0.3083 mL	1.5414 mL	3.0829 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.71 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	Oxyphenbutazone is a Phenylbutazone (HY-B0230) metabolite, with anti-inflammatory effect. Oxyphenbutazone is an orally active non-selective COX inhibitor. Oxyphenbutazone selectively kills non-replicating Mycobacterium tuberculosis ^{[1][2]} .
IC₅₀ & Target	COX, Bacteria ^{[1][2]}
In Vitro	Oxyphenbutazone enhances the anticancer efficiency of Methotrexate (MTX) (HY-14519) in Hep3B cells ^[1] . Oxyphenbutazone (2.5-7.5 μM; 48 hours) co-treatment with (MTX, 0.25-1.0 μM) shows potential cytotoxicity against Hep3B cells ^[1] .

Oxyphenbutazone exhibits reparative effects in the hepatocytes^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Cell Cytotoxicity Assay^[1]

Cell Line:	Hep3B cells
Concentration:	2.5 μ M, 5 μ M, 7.5 μ M
Incubation Time:	48 hours
Result:	Enhanced the cytotoxicity of MTX.

In Vivo

Oxyphenbutazone (70 mg/kg/week; p.o.; in two divided doses; for 13 weeks) exerts potential anticancer activity when co-treatment with MTX (5.0 or 2.5 mg/kg/week; i.p.)^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Wistar strain albino male rats (5-6 weeks; 150-220 g) ^[1]
Dosage:	70 mg/kg/week (co-treatment with MTX 5.0 or 2.5 mg/kg/week)
Administration:	PO; once a week; in two divided doses; for 13 weeks
Result:	Exerted potential anticancer activity in rats when co-treatment with MTX.

REFERENCES

[1]. Saleem S, et al. Oxyphenbutazone promotes cytotoxicity in rats and Hep3B cells via suppression of PGE2 and deactivation of Wnt/ β -catenin signaling pathway. Mol Cell Biochem. 2018 Jul;444(1-2):187-196.

[2]. Gold B, et al. Nonsteroidal anti-inflammatory drug sensitizes Mycobacterium tuberculosis to endogenous and exogenous antimicrobials. Proc Natl Acad Sci U S A. 2012 Oct 2;109(40):16004-11.

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

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