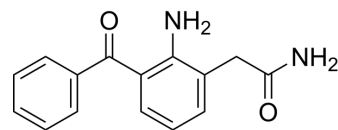


Nepafenac

Cat. No.:	HY-17357		
CAS No.:	78281-72-8		
Molecular Formula:	C ₁₅ H ₁₄ N ₂ O ₂		
Molecular Weight:	254.28		
Target:	COX; Bacterial		
Pathway:	Immunology/Inflammation; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (393.27 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.9327 mL	19.6634 mL	39.3267 mL
	5 mM	0.7865 mL	3.9327 mL	7.8653 mL
	10 mM	0.3933 mL	1.9663 mL	3.9327 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Nepafenac (AHR 9434; AL 6515; Nevanac) is a selective COX-2 inhibitor; is prodrug of Amfenac. IC₅₀ value: Target: COX-2. Nepafenac is a NSAID (nonsteroidal anti-inflammatory drug) that is routinely used in ophthalmology to control pain following cataract surgery.

IC₅₀ & Target

COX-1	COX-2
64.3 μM (IC ₅₀)	

REFERENCES

[1]. Gamache DA, Graff G, Brady MT et al. Nepafenac, a unique nonsteroidal prodrug with potential utility in the treatment of trauma-induced ocular inflammation: I. Assessment of anti-inflammatory efficacy. *Inflammation*. 2000 Aug;24(4):357-70.

[2]. Ke TL, Graff G, Spellman JM, Yanni JM. Nepafenac, a unique nonsteroidal prodrug with potential utility in the treatment of trauma-induced ocular inflammation: II. In vitro bioactivation and permeation of external ocular barriers. *Inflammation*. 2000 Aug;24(4):371-84.

[3]. Lindstrom R, Kim T. Ocular permeation and inhibition of retinal inflammation: an examination of data and expert opinion on the clinical utility of nepafenac. *Curr Med Res Opin.* 2006 Feb;22(2):397-404.

[4]. Marshall JC, Fernandes BF, Di Cesare S et al. The use of a cyclooxygenase-2 inhibitor (Nepafenac) in an ocular and metastatic animal model of uveal melanoma. *Carcinogenesis.* 2007 Sep;28(9):2053-8.

[5]. Singh R, Alpern L, Jaffe GJ et al. Evaluation of nepafenac in prevention of macular edema following cataract surgery in patients with diabetic retinopathy. *Clin Ophthalmol.* 2012;6:1259-69.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA