Product Data Sheet

Product Name: Hydroxyzine
Cat. No.: GC16122

Chemical Properties

Cas. No.	68-88-2		
Chemical Name	2-[2-[4-[(4-chlorophenyl)-phenylmethyl]piperazin-1-yl]ethoxy]ethanol		
SMILES	C1CN(CCN1CCOCCO)C(C2=CC=CC=C2)C3=CC=C(C=C3)Cl		
Formula	$C_{21}H_{27}ClN_2O_2$	M.Wt	374.9
Solubility	DMSO: slightly soluble,Ethanol: 10 mg/ml,Methanol: slightly soluble	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Hydroxyzine		

Background

Hydroxyzine is a histamine H1-receptor antagonist.Target: Histamine H1-ReceptorHydroxyzine inhibits carbachol (10 μM)-induced serotonin release by 34% at 10 μM, by 25% 1 μM and by 17% 0.1 μM in pretreated bladder slices for 60 min [1]. Hydroxyzine (0.1 mM) treatment inhibits the progression and severity of EAE by 50% and the extent of mast cell degranulation by 70% in Lewis rats with allergic encephalomyelitis (EAE) [2]. Hydroxyzine (500 M) significantly increases transport of etoposide to the serosal site in the jejunal everted sacs. Hydroxyzine significantly reduces the efflux and approximately 2.4 g/mL of etoposide in the jejunum and ileum. Hydroxyzine (0.2 μg/mL) significantly enhances the efflux of RH123 to the lumen [3].Hydroxyzine (500 μM) significantly decreases the steady-state etoposide concentration 2-fold, where the steady-state concentration reached about 0.055 μM/mL in Sprague-Dawley rats [3]. Hydroxyzine (12.5 mg/kg, 25 mg/kg and 50 mg/kg i.p.) shows little direct analgesic activity but markedly potentiates only the effect of

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morphine on the vocalization after-discharge which represents the affective component of pain in rats. Hydroxyzine (50 mg/kg i.p.) potentiates morphine on the tail-flick test, while Hydroxyzine (12.5 mg/kg i.p.) decreases morphine antinociception in rats [4].

References:

[1]. Minogiannis, P., et al., Hydroxyzine inhibits neurogenic bladder mast cell activation. Int J Immunopharmacol, 1998. 20(10): p. 553-63.
[2]. Dimitriadou, V., X. Pang, and T.C. Theoharides, Hydroxyzine inhibits experimental allergic encephalomyelitis (EAE) and associated brain mast cell activation. Int J Immunopharmacol, 2000. 22(9): p. 673-84.
[3]. Kan, W.M., et al., Effect of hydroxyzine on the transport of etoposide in rat small intestine. Anticancer Drugs, 2001. 12(3): p. 267-73.
[4]. Morichi, R. and G. Pepeu, A study of the influence of hydroxyzine and diazepam on morphine antinociceptoion in the rat. Pain, 1979. 7(2): p. 173-80.