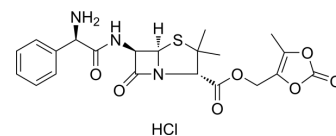


Lenampicillin hydrochloride

Cat. No.:	HY-100500
CAS No.:	80734-02-7
Molecular Formula:	C ₂₁ H ₂₄ ClN ₃ O ₇ S
Molecular Weight:	497.95
Target:	Bacterial; Penicillin-binding protein (PBP)
Pathway:	Anti-infection
Storage:	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (200.82 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.0082 mL	10.0412 mL	20.0823 mL
		5 mM	0.4016 mL	2.0082 mL	4.0165 mL
		10 mM	0.2008 mL	1.0041 mL	2.0082 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 (5.02 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.02 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.02 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Lenampicillin hydrochloride (KBT 1585 hydrochloride) is an orally active proagent of Ampicillin and is an effective beta-lactam antibacterial agent that inhibits bacterial penicillin-binding proteins (transpeptidase). Lenampicillin hydrochloride has improved absorption and decreased side effects compares to Ampicillin and is applied in the investigation of the suppurative skin and soft tissue infection ^[1] ^[2] ^[3] .
IC₅₀ & Target	IC50: bacterial penicillin-binding proteins (transpeptidase)
In Vivo	Lenampicillin hydrochloride (KBT-1585) (oral administration; 0-1000 mg/kg) does not lead to death in dogs, and maximum

dose of in this acute toxicity study is recorded because of causing emesis^[2].

Lenampicillin hydrochloride (LAPC) are identified for its main metabolites in rat and dogs. The main metabolite in peripheral plasma is 2,3-butanediol in rats and dog, On the other hand, high levels of acetoin is found in portal plasma for early period after dosing of LAPC. These results show that the biotransformation of pro-moiety in LAPC to acetoin is carried out mainly in intestinal tissues, but acetoin is converted to 2,3-butanediol in liver^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. FUMIO OGINO, et al. ACUTE TOXICITY OF LENAMPICILLIN HYDROCHLORIDE (KBT-1585) IN MICE, RATS AND DOGS

[2]. Yamabe S, et al. Non-mutagenicity of KBT-1585, a novel ester of ampicillin. *Chemioterapia*. 1984 Feb;3(1):60-2.

[3]. Fujita K, et al. Clinical evaluation of lenampicillin in the treatment of superficial suppurative skin and soft tissue infection. A double-blind study comparing amoxicillin. *Jpn J Antibiot*. 1985 Jul;38(7):1794-818.

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

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