

Ampicillin

Catalog No: tcsc2741



Available Sizes

Size: 1g



Specifications

CAS No:

69-53-4

Formula:

$C_{16}H_{19}N_3O_4S$

Pathway:

Anti-infection

Target:

Antibiotic; Bacterial

Form:

White to off-white (Solid)

Purity / Grade:

99.50% (LCMS)

Solubility:

H₂O : 5 mg/mL (14.31 mM; ultrasonic and warming and heat to 60°C); 0.1 M NaOH : 25 mg/mL (71.55 mM; Need ultrasonic)

Storage Instruction:

2-8°C, protect from light

Alternative Names:

D-(-)-α-Aminobenzylpenicillin; 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[(2R)-2-amino-2-phenylacetyl]amino]-3,3-dimethyl-7-oxo-, (2S,5R,6R)-

Observed Molecular Weight:

349.40476

References

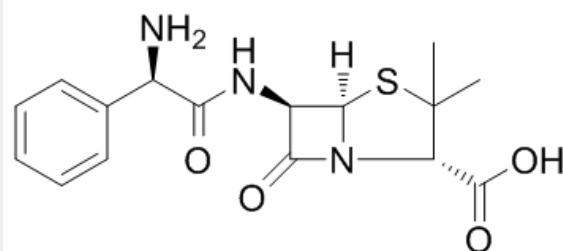
[1]. Chopra SL, et al. Effect of Ampicillin on E. Coli of Swine Origin. Can J Comp Med Vet Sci. 1963 Sep;27(9):223-7. [2]. Lund B, et al. Ampicillin in portal and peripheral blood and bile after oral administration of ampicillin and pivampicillin. Eur J Clin Pharmacol. 1974;7(2):133-5. [3]. Lee KE, et al. The neuroprotective mechanism of ampicillin in a mouse model of transient forebrain ischemia. Korean J Physiol Pharmacol. 2016 Mar;20(2):185-92

Product Description

Ampicillin is a broad-spectrum beta-lactam antibiotic against a variety of gram-positive and gram-negative bacteria.

In Vitro: Ampicillin inhibits the growth of *E. coli* of swine origin in a dose-dependent manner. The effective inhibitory concentration of Ampicillin was 2.5 uG/mL^[1].

In Vivo: Ampicillin is very effective in alleviating the symptoms of hemorrhagic enteritis in a 11-week old pig^[1]. Ampicillin produces maximum concentrations in bile twice as high as in serum. The peak concentration of ampicillin after an oral dose is as twice as high in portal blood as in peripheral blood^[2]. Ampicillin provides neuroprotection against ischemia-reperfusion brain injury. Ampicillin reduces the activities of MMPs and increases the expression level of GLT-1. Pretreatment with ampicillin significantly reduces medial hippocampal cell death following global forebrain ischemia^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!