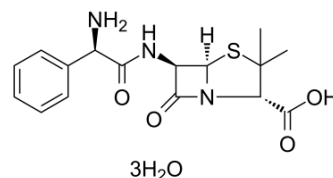


Ampicillin trihydrate

Cat. No.:	HY-B0522B
CAS No.:	7177-48-2
Molecular Formula:	C ₁₆ H ₂₅ N ₃ O ₇ S
Molecular Weight:	403.45
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ampicillin trihydrate (D-(-)- α -Aminobenzylpenicillin trihydrate) is a broad-spectrum beta-lactam antibiotic against a variety of gram-positive and gram-negative bacteria.
In Vitro	Ampicillin trihydrate (D-(-)- α -Aminobenzylpenicillin trihydrate) inhibits the growth of E. coli of swine origin in a dose-dependent manner. The effective inhibitory concentration of Ampicillin trihydrate is 2.5 μ G/mL ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	<p>Ampicillin trihydrate (D-(-)-α-Aminobenzylpenicillin trihydrate) is very effective in alleviating the symptoms of hemorrhagic enteritis in a 11-week old pig^[1].</p> <p>Ampicillin trihydrate 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].</p> <p>Ampicillin trihydrate provides neuroprotection against ischemia-reperfusion brain injury. Ampicillin trihydrate reduces the activities of MMPs and increases the expression level of GLT-1. Pretreatment with Ampicillin trihydrate significantly reduces medial hippocampal cell death following global forebrain ischemia^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

CUSTOMER VALIDATION

- Life Sci. 2020 Sep 21;118473.
- Biomed Res Int. 2018 Jul 2;2018:3579832.
- Research Square Preprint. 2020 Jun.

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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.

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