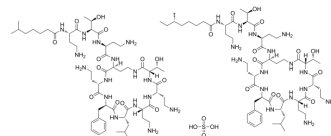


Polymyxin B Sulfate

Cat. No.:	HY-A0248
CAS No.:	1405-20-5
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 33.33 mg/mL (Need ultrasonic) H ₂ O : 16.67 mg/mL (Need ultrasonic)
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.71 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.71 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 0.71 mg/mL (Infinity mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Polymyxin B Sulfate is a potent antibacterial agent and a relatively toxic antibiotic. Polymyxin B Sulfate also is a antiendotoxin agent. Polymyxin B Sulfate shows endotoxin-neutralizing properties can be used as adjunctive research in gram-negative sepsis. Polymyxin B Sulfate shows antibacterial activities in vitro and in vivo ^{[1][2][3]} .								
In Vitro	Polymyxin B Sulfate shows antibacterial activities with MICs of 0.5 mg/l for E. coli strain IH3080 ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	<p>Polymyxin B Sulfate (0.5-120 mg/kg; s.c.) shows antibacterial activities in thigh or lung infection mouse model^[2]. Polymyxin B Sulfate (2 mg/kg, s.c.) shows potent in mouse bactericidal effect against E. coli strain IH3080^[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td><td>Eight-week-old, 24-30 g, female Swiss mice^[2]</td></tr> <tr> <td>Dosage:</td><td>0.5-120 mg/kg for thigh infection model; 5-120 mg/kg for lung infection mode</td></tr> <tr> <td>Administration:</td><td>S.c.</td></tr> <tr> <td>Result:</td><td>Showed antibacterial activities for three K. pneumoniae strains.</td></tr> </table>	Animal Model:	Eight-week-old, 24-30 g, female Swiss mice ^[2]	Dosage:	0.5-120 mg/kg for thigh infection model; 5-120 mg/kg for lung infection mode	Administration:	S.c.	Result:	Showed antibacterial activities for three K. pneumoniae strains.
Animal Model:	Eight-week-old, 24-30 g, female Swiss mice ^[2]								
Dosage:	0.5-120 mg/kg for thigh infection model; 5-120 mg/kg for lung infection mode								
Administration:	S.c.								
Result:	Showed antibacterial activities for three K. pneumoniae strains.								

Animal Model:	7-9 weeks, female NMRI mice (E. coli IH3080) ^[3]
Dosage:	2 mg/kg
Administration:	S.c.
Result:	Decreased the bacterial count in a dose dependent manner.

CUSTOMER VALIDATION

- ACS Nano. 2021 Mar 23;15(3):4173-4185.
- Transl Psychiatry. 2022 Apr 7;12(1):146.
- Int J Pharm. 2021 Dec 14;612:121356.
- J Antimicrob Chemother. 2020 Sep 1;75(9):2609-2615.
- Agronomy. 2024 Feb 8, 14(2), 351.

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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