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产品名称：多粘菌素 B
CAS 号：1404-26-8
产品货号：V37304

生物活性：

Description	Polymyxin B is an antibiotic. Polymyxin B inhibits Gram-negative infections by binding to the LPS of the bacterial wall with high affinity. Polymyxin B neutralizes the effect of endotoxin. Polymyxin B induces bacterial death by increasing its permeability. Polymyxin B is used in endotoxemia research[1][3].
In Vitro	Polymyxin B (10 μg/mL，6 小时) 降低了人外周血单核细胞 (PBMC) 中的 TNF-α 和 IL-10 的产生[3]。 Polymyxin B 对 E. coli strain IH3080 表现抗菌活性，MIC 为 0.5 mg/L[4].
In Vivo	Polymyxin B (0.5-120 mg/kg；皮下注射) 在小鼠大腿或肺部感染模型中表现出抗菌活性[2]。 Polymyxin B (2 mg/kg，皮下注射) 对小鼠大肠杆菌菌株 IH3080 表现出强效杀菌作用[3]。

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 model
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.

Solvent&Solubility	**细胞实验:** 0.5 M HCl 中的溶解度 ： ≥ 50 mg/mL H2O 中的溶解度 ：33.33 mg/mL (ultrasonic and adjust pH to 2 with 1 M HCl) H2O 中的溶解度 ：33.33 mg/mL (超声助溶；酸性条件溶解 (HCl 调节，pH≈2)) * "≥" means soluble, but saturation unknown
参考文献	[1]. Danner RL, et al. Purification, toxicity, and antiendotoxin activity of polymyxin B nonapeptide. Antimicrob Agents Chemother. 1989 Sep;33(9):1428-34. [2]. Landersdorfer CB, et al. Pharmacokinetics/pharmacodynamics of systemically administered polymyxin B against Klebsiella pneumoniae in mouse thigh and lung infection models. J Antimicrob Chemother. 2018 Feb 1;73(2):462-468. [3]. Vingsbo Lundberg C, et al. Novel polymyxin derivatives are effective in treating experimental Escherichia coli peritoneal infection in mice. J Antimicrob Chemother. 2010 May;65(5):981-5. [4]. Cardoso LS, et al.Polymyxin B as inhibitor of LPS contamination of Schistosoma mansoni recombinant proteins in human cytokine analysis. Microb Cell Fact. 2007 Jan 3;6:1.