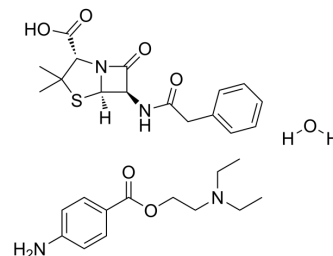


Penicillin G procaine hydrate

Cat. No.:	HY-N7120		
CAS No.:	6130-64-9		
Molecular Formula:	C ₂₉ H ₄₀ N ₄ O ₇ S		
Molecular Weight:	588.72		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (424.65 mM; Need ultrasonic)
 H₂O : 3.14 mg/mL (5.33 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.6986 mL	8.4930 mL	16.9860 mL
	5 mM	0.3397 mL	1.6986 mL	3.3972 mL
	10 mM	0.1699 mL	0.8493 mL	1.6986 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 6.67 mg/mL (11.33 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (3.53 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (3.53 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (3.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Penicillin G Procaine hydrate (PGP hydrate), a β-lactam antibiotic, is a crystalline complex produced by chemically combining penicillin G with procaine^{[1][2]}.

IC₅₀ & Target

β-lactam

REFERENCES

- [1]. Uboh CE, et al. Pharmacokinetics of penicillin G procaine versus penicillin G potassium and procaine hydrochloride in horses. Am J Vet Res. 2000 Jul;61(7):811-5.
- [2]. Burmańczuk A, et al. Withdrawal of Amoxicillin and Penicillin G Procaine from Milk after Intramammary Administration in Dairy Cows with Mastitis. J Vet Res. 2017 Apr 4;61(1):37-43.
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Caution: Product has not been fully validated for medical applications. For research use only.

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