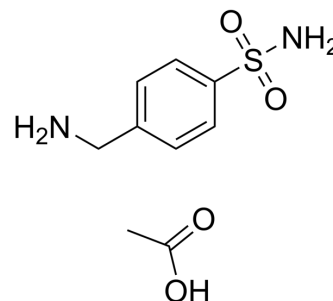


## Mafenide Acetate

Cat. No.:	HY-B0614A
CAS No.:	13009-99-9
Molecular Formula:	C <sub>9</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub> S
Molecular Weight:	246.28
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
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 : 100 mg/mL (406.04 mM; Need ultrasonic)  
H<sub>2</sub>O : ≥ 100 mg/mL (406.04 mM)  
\* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		4.0604 mL	20.3021 mL	40.6042 mL
	5 mM		0.8121 mL	4.0604 mL	8.1208 mL
	10 mM		0.4060 mL	2.0302 mL	4.0604 mL

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

#### In Vivo

1. Add each solvent one by one: PBS  
Solubility: 70 mg/mL (284.23 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (10.15 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Mafenide Acetate is an effective sulfonamide-type antimicrobial agent used for burn wounds. Mafenide Acetate shows activity against both Gram-positive and Gram-negative organisms, including *Pseudomonas aeruginosa*, via inhibition of nucleotide synthesis<sup>[1][2]</sup>.

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## REFERENCES

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- [1]. Haynes, B.W., Jr., Mafenide acetate in burn treatment. N Engl J Med, 1971. 284(23): p. 1324.
- [2]. Ashkan Afshari, et al. The Effective Duration of Antimicrobial Activity of Mafenide Acetate After Reconstitution. J Burn Care Res. 2018 Aug 17;39(5):736-738.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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