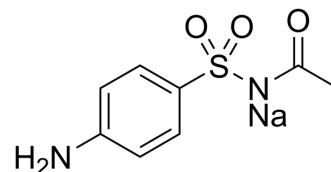


## Sulfacetamide Sodium

<b>Cat. No.:</b>	HY-B0576
<b>CAS No.:</b>	127-56-0
<b>Molecular Formula:</b>	C <sub>8</sub> H <sub>9</sub> N <sub>2</sub> NaO <sub>3</sub> S
<b>Molecular Weight:</b>	236.22
<b>Target:</b>	Bacterial; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 50 mg/mL (211.67 mM)  
 DMSO : 33.33 mg/mL (141.10 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.2333 mL	21.1667 mL	42.3334 mL
	5 mM	0.8467 mL	4.2333 mL	8.4667 mL
	10 mM	0.4233 mL	2.1167 mL	4.2333 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 110 mg/mL (465.67 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (10.58 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Sulfacetamide Sodium is an anti-infective agent that is used topically to treat skin infections and orally for urinary tract infections. Target: Antibacterial. Sulfacetamide is a sulfonamide antibiotic. Sulfacetamide is able to inhibit the growth of all isolated strains. Depending on the type of bacteria concentrations of 0.006 up to 6.4% sodium sulfacetamide proved to be effective. Simultaneously, all patients were treated with sulfacetamide containing ointment and/or eye drops 4 times daily

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for maximum of 14 days. With swabs taken at intervals of 7 and 14 days no bacterial growth was detected. Sulfacetamide 10% topical lotion, sold under the brand name Klaron or Ovace, is approved for the treatment of acne and seborrheic dermatitis. Sulfacetamide has been investigated for use in the treatment of pityriasis versicolor and rosacea. It may also have anti-inflammatory properties when used to treat blepharitis or conjunctivitis. It is believed to work by limiting the presence of folic acid which bacteria need to survive. It has been suggested that sulfacetamide may also serve as a treatment for mild forms of hidradenitis suppurativa. Sulfacetamide has antibacterial activity and is used to control acne. Some research indicates that sulfacetamide derivatives may act as antifungals by an CYP51A1-independent mechanism [1-4].

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## REFERENCES

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- [2]. Mastrolorenzo, A. and C.T. Supuran, Antifungal Activity of Ag(I) and Zn(II) Complexes of Sulfacetamide Derivatives. *Met Based Drugs*, 2000. 7(1): p. 49-54.
- [3]. <http://www.drugs.com/mtm/klaron.html>
- [4]. Roth, H.W., et al., [The effective antibacterial spectrum of sulfacetamide]. *Klin Monbl Augenheilkd*, 1992. 200(3): p. 182-6.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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