# Fosmidomycin sodium salt

Cat. No.: HY-112853 CAS No.: 66508-37-0 Molecular Formula: C<sub>4</sub>H<sub>9</sub>NNaO<sub>5</sub>P

Molecular Weight: 205.08

Target: Bacterial; Antibiotic Pathway: Anti-infection

Storage: -20°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

In Vitro

H<sub>2</sub>O: 25 mg/mL (121.90 mM; ultrasonic and warming and heat to 60°C)

| Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|-------------------------------|-----------|------------|------------|
|                              | 1 mM                          | 4.8761 mL | 24.3807 mL | 48.7615 mL |
|                              | 5 mM                          | 0.9752 mL | 4.8761 mL  | 9.7523 mL  |
|                              | 10 mM                         | 0.4876 mL | 2.4381 mL  | 4.8761 mL  |

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

In Vivo

1. Add each solvent one by one: PBS

Solubility: 100 mg/mL (487.61 mM); Clear solution; Need ultrasonic

## **BIOLOGICAL ACTIVITY**

| Description | Fosmidomycin sodium salt is a phosphonic acid antibiotic and a antimalarial agent, which is active against both Gramnegative and Gram-positive bacteria.  |
|-------------|---|
| In Vitro    | Fosmidomycin sodium salt is a phosphonic acid antibiotic <sup>[1][2]</sup> , which is active against both Gram-negative and Gram-positive bacteria <sup>[3]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.  |
| In Vivo     | Animals treated intraperitoneally with dosages of >10 mg/kg of fosmidomycin are apparently free of parasites. After treatment with 5 mg/kg of fosmidomycin, parasitemias are <1%. Animals treated orally with 50 or 100 mg/kg of fosmidomycin are apparently free of parasites, and parasitemias are <1% after treatment with 20 mg/kg of drug. Recrudescence is observed when the treatment is terminated after 4 days. Mice treated with 30 mg/kg of fosmidomycin over a period of 8 days are totally cured <sup>[3]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

### **REFERENCES**

- [1]. Kojo H, et al. FR-31564, a new phosphonic acid antibiotic: bacterial resistance and membrane permeability. J Antibiot (Tokyo). 1980 Jan;33(1):44-8.
- [2]. Fernandes JF, et al. Fosmidomycin as an antimalarial drug: a meta-analysis of clinical trials. Future Microbiol. 2015;10(8):1375-90.
- [3]. Jomaa H, et al. Inhibitors of the nonmevalonate pathway of isoprenoid biosynthesis as antimalarial drugs. Science. 1999 Sep 3;285(5433):1573-6.

Caution: Product has not been fully validated for medical applications. For research use only.

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