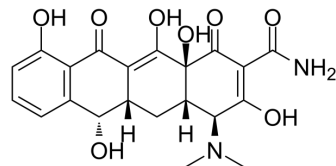


Demecycline

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-108971 | | |
| CAS No.: | 987-02-0 | | |
| Molecular Formula: | C ₂₁ H ₂₂ N ₂ O ₈ | | |
| Molecular Weight: | 430.41 | | |
| Target: | Bacterial | | |
| Pathway: | Anti-infection | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (232.34 mM)
 * "≥" means soluble, but saturation unknown.

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 2.3234 mL | 11.6168 mL | 23.2337 mL |
| | 5 mM | 0.4647 mL | 2.3234 mL | 4.6467 mL |
| | 10 mM | 0.2323 mL | 1.1617 mL | 2.3234 mL |

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: 2.5 mg/mL (5.81 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: 2.5 mg/mL (5.81 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: 2.5 mg/mL (5.81 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Demecycline, a tetracycline antibiotic, is the C6-demethylated derivative of Tetracycline (HY-A0107) against bacterial infections including pneumonia and other respiratory tract infections^[1].

REFERENCES

[1]. Yang W, Kong L, Wang Q, Deng Z, You D. Metabolic engineering of a methyltransferase for production of drug precursors demecycline and demeclocycline in *Streptomyces aureofaciens*. *Synth Syst Biotechnol.* 2020;5(3):121-130. Published 2020 Jun 23.

[2]. Results from the Swedish national screening programme 2005.

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

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