Sinefungin



Catalog No: 14088, 14089 Format: 5 mg, 1 mg

Chemical Properties:

$$\begin{split} &\mathsf{MW} = 381.4 \\ &\mathsf{C}_{15}\mathsf{H}_{23}\mathsf{N}_7\mathsf{O}_5 \\ &\mathsf{CAS} \ 58944\text{-}73\text{-}3 \\ &\mathsf{Physical Properties: } \ \mathsf{Tan powder} \\ &\mathsf{Names: } \mathsf{Sinefungin, 5'-Deoxy\text{-}5'\text{-}(1,4\text{-}diamino\text{-}4\text{-}carboxybutyl)adenosine; } \mathsf{A} \\ &\text{-}9145; \ \mathsf{Adenosylornithine; } \mathsf{Antibiotic } 32232\mathsf{RP} \end{split}$$

Pharmacology: Nucleoside S-adenosyl-1-methionine analog. Potent, competitive methyltransferase (protein, DNA, and RNA methyltransferase) inhibitor (Ref 1,2). $IC_{50} > 1.0$ and 2.5 µM for PRMT1 and SET7/9, respectively (ref 3). Binds with greater affinity to the adenine-specific DNA methyltransferase M.Taql than S-adenosyl-L-homocysteine (ref 4). Inhibits biofilm formation by *Streptococcus pneumoniae* (ref 5).

Solubilization: May be dissolved in water (20 mg/ml)

Fluorescent Properties: N/A

Quality Control: >98% (HPLC); NMR (Conforms)

References:

- 1. C Barbes et al. FEMS Microbiol. Lett. 1990, 57:239
- 2. MJ Yebra et al. J Antibiot. (Tokyo) 1991, 44:1141
- 3. D Cheng et al. J. Biol. Chem. 2004, 279:23892
- 4. G Schluckebier et al. J. Mol. Biol. 1997, 265:56
- 5. MK Yadav et al. Biomed. Res. Int. 2014, 2014:156987

Storage and Guarantee: Store desiccated as supplied at -20°C for up to 2 years. Store solutions at -20°C for up to 1 month. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.

