**PRODUCT INFORMATION**

**Steffimycin B**

*Item No. 28087*

**CAS Registry No.:** 54526-94-2  
**Formal Name:** (2S,3S,4R)-4-[6-deoxy-2,4-di-O-methyl-α-L-mannopyranosyl(oxy)-3,4-dihydro-2,5,7-trihydroxy-3,9-dimethoxy-2-methyl-1,6,11(2H)-naphthacenetrione  
**Synonyms:** NSC 204855, U 40615  
**MF:** C_{29}H_{32}O_{13}  
**FW:** 588.6  
**Purity:** ≥99%  
**Supplied as:** A lyophilisate  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Bacterium/Streptomyces sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

**Laboratory Procedures**

Steffimycin B is supplied as a lyophilisate. A stock solution may be made by dissolving the steffimycin B in the solvent of choice. Steffimycin B is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

Steffimycin B is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

**Description**

Steffimycin B is an anthracycline bacterial metabolite originally isolated from *Streptomyces*. It binds to DNA, preferentially intercalating at sites containing cytosine and guanine. Steffimycin B is cytotoxic to *M. tuberculosis* (MIC = 5.2 nM), *B. cereus* (MIC = 1.56 μg/ml), and *P. falciparum* (IC_{50} = 2.19 μM).

**References**

