Nonactin
Item No. 19468


MF: \(C_{40}H_{64}O_{12}\) (for Nonactin)
FW: 736.9 (for Nonactin)

Purity: ≥95% (mixture of homologues)

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/Streptomyces griseus

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

Laboratory Procedures

Nonactin is supplied as a crystalline solid. A stock solution may be made by dissolving the nonactin in the solvent of choice, which should be purged with an inert gas. Nonactin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of nonactin in these solvents is approximately 1, 0.25, and 10 mg/ml, respectively.

Nonactin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nonactin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Nonactin has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nonactin is a naturally occurring macrotetrolide antibiotic that acts as an ionophore for monovalent cations, including, \(K^+\), \(NH_4^+\), and \(Tl^+\).\(^1\)\(^-\)\(^3\) It is used to facilitate the movement of monovalent cations through natural and artificial membranes.\(^2\)\(^,\)\(^3\)

References