

Catalog # 10-2905 Concanamycin A

CAS# 80890-47-7 Folimycin Lot # X101407

A potent and specific inhibitor of the vacuolar (V-type) H⁺-ATPase which can induce apoptotic cell death in various cell lines.^{1,2} Inhibits cell surface expression of virus envelope glycoproteins.³ Dramatically increases the rate of extracellular vesicle release from a variety of cell types.⁴ Inhibits autophagy by blocking lysosomal acidification.⁵

- 1) Nishihara et al. (1995), Specific inhibitors if vacuolar type H(+)-ATPases induce apoptotic cell death; Biochem. Biophys, Res. Commun., **212** 255
- 2) Hong et al. (2006), Nitric oxide production by the vacuolar-type (H+)-ATPase inhibitors bafilomycin A1 and concanamycin A and its possible role in apoptosis in RAW 264.7 cells; J. Pharmacol. Exp. Ther., **319** 672
- 3) Muroi et al. (1993), Folimycin (concanamycin A), a specific inhibitor of V-ATPase, blocks intracellular translocation of the glycoprotein of vesicular stomatitis virus before arrival to the Golgi apparatus; Cell Struct. Function, **18** 139
- 4) Cashikar and Hanson (1987), A cell-based assay for CD63-containing extracellular vesicles; PLoS One, 14 e0220007
- 5) Gradzka et al. (2018), Inhibitor of apoptosis proteins are required for effective fusion of autophagosomes with lysosomes; Cell Death Dis., **9** 529

PHYSICAL DATA

Molecular Weight: 866.09
Molecular Formula: C₄₆H₇₅NO₁₄

Purity: >98% by HPLC/TLC

NMR: (Conforms)

Solubility: DMSO (50 mg/ml)

Physical Description: White solid or lyophilized solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.