

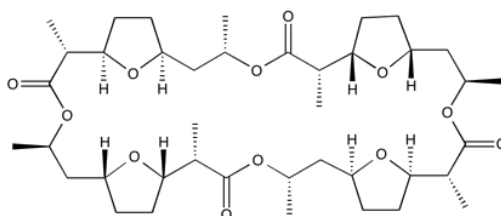
**Catalog # 10-2090**

**Nonactin**

6833-84-7

Polynactin; Werramycin A  
Isolated from *Streptomyces griseus*

Lot # X101140



Monovalent cation ionophore with high selectivity for  $\text{NH}_4^+$  and  $\text{K}^+$ . Upregulates levels of mitochondrial stress proteins HSP58 and GRP75<sup>2</sup>. Abolishes mitochondrial membrane potential<sup>3</sup>.

- 1) Garcia *et al.* (2003), *Determination of potassium ions in pharmaceutical samples by FIA using a potentiometric electrode based on ionophore nonactin occluded in EVA membrane*; J. Pharm. Biomed. Anal., **31** 11
- 2) Mizzen *et al.* (1989), *Identification, characterization and purification of two mammalian stress proteins present in mitochondria, grp 75, a member of the hsp 70 family and hsp 58, a homolog of the bacterial groEL protein*; J. Biol. Chem., **264** 20664
- 3) Dudani *et al.* (1990), *Effects of antimetabolic and antimitochondrial agents on the cellular distribution of microtubules and mitochondria*; Cytobios, **63** 95

**PHYSICAL DATA**

Molecular Weight:	736.95
Molecular Formula:	$\text{C}_{40}\text{H}_{64}\text{O}_{12}$
Purity:	99% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml), Ethanol (up to 10 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at $-20^\circ\text{C}$ for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at $-20^\circ\text{C}$ for up to 2 months.

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