



Valinomycin

Data Sheet

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| Catalog Number: | MC11056 | Product Type: | Small Molecule |
| Bio-Activity: | Potassium ionophore | CAS #: | 2001-95-8 |
| Research Categories: | Cell death, ubiquitin/proteasome, neuroscience | Chemical Name: | Cyclo(L-Val-D-Hylva-D-Val-L-Lac)-3 |
| Solubility: | Soluble in DMSO (up to 10 mg/ml). | Molecular Formula: | C54H90N6O18 |
| Purity: | > 98% | Molecular Weight: | 1111.35 |
| Format: | Powder | Ship Temp: | Ambient |
| Storage: | -20°C | | |

Application Notes

Description/Data:

Valinomycin is a selective K⁺ ionophore capable of transporting potassium ions through lipid membranes [1]. It can induce apoptosis in cells by causing a rapid loss of mitochondrial membrane potential via potassium efflux [2,3].

References:

- 1) Pressman, (1976) Biological applications of ionophores; Annu.Rev.Biochem. 45 501
- 2) Furlong et al., (1998) Induction of apoptosis by valinomycin: mitochondrial permeability transition causes intracellular acidification Cell Death Diff. 5 214
- 3) Inai et al. (1997) Valinomycin induces apoptosis of ascites hepatoma cells (AH-130) in relation to mitochondrial membrane potential; Cell Struc.Funct. 22 555

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