



LKT Laboratories, Inc.

Valinomycin

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Product Information

Product ID V0145

CAS No. 2001-95-8

Chemical Name

Synonym Valinomycin

Formula $C_{54}H_{90}N_6O_{18}$

Formula Wt. 1111.32

Melting Point 190° C

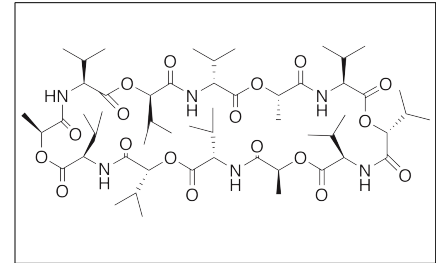
Purity ≥98%

Solubility Insoluble in water. Soluble in ether, benzene, chloroform and acetone.

Store Temp -20° C

Ship Temp Ambient

Description Valinomycin is a peptide antibiotic originally produced by *Streptomyces*. Valinomycin displays antibacterial efficacy by inhibiting growth of *Streptomyces* and *Clostridium*. Valinomycin is a neutral ionophore that transports K⁺ ions through cellular membranes, altering the electrochemical gradient. In vitro, valinomycin induces mitochondrial damage, oxidative stress, and caspase expression.



Bulk quantities available upon request

Product ID	Size
V0145	5 mg
V0145	10 mg
V0145	25 mg

References Li R, El-Mallahk RS. A novel evidence of different mechanisms of lithium and valproate neuroprotective action on human SY5Y neuroblastoma cells: caspase-3 dependency. *Neurosci Lett.* 2000 Nov 24;294(3):147-50. PMID: 11072136.

Gad SC, Reilly C, Siino K, et al. Thirteen cationic ionophores: their acute toxicity, neurobehavioral and membrane effects. *Drug Chem Toxicol.* 1985;8(6):451-68. PMID: 4092618.

Seshachalam D, Frahm DH, Ferraro FM. Cation reversal of inhibition of growth by valinomycin in *Streptococcus pyogenes* and *Clostridium sporogenes*. *Antimicrob Agents Chemother.* 1973 Jan;3(1):63-7. PMID: 4208280.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.