



LKT Laboratories, Inc.

Nonactin

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Product Information

Product ID N5652

CAS No. 6833-84-7

Chemical Name

Synonym

Formula $C_{40}H_{64}O_{12}$

Formula Wt. 736.93

Melting Point 145-148 °C

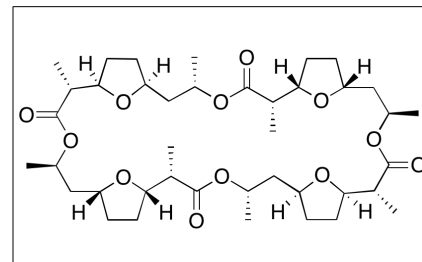
Purity $\geq 95\%$, TLC

Solubility methanol,
dichloromethane, ethyl
acetate, DMSO

Store Temp 4 °C

Ship Temp Ambient

Description Nonactin is a neutral cyclic ionophore that acts as an alkali metal ion carrier, transporting cargo such as Na⁺, K⁺, and NH₄⁺ across lipid bilayers. Nonactin is a macrotetrolide antibiotic, although it does not exhibit antibacterial activity. Nonactin is naturally found in species of *Streptomyces*. This ionophore suppresses intracellular glycosylation and inhibits several trafficking pathways in virus-infected cells. Nonactin also uncouples oxidative phosphorylation in mitochondria.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
N5652	1 mg	\$39.40
N5652	5 mg	\$78.80
N5652	10 mg	\$141.60

References Lee JM, Kim JG, Kim TH, et al. Nonactin hinders intracellular glycosylation in virus-infected baby hamster kidney cells. *Mol Med Rep.* 2010 Jan-Feb;3(1):115-9. PMID: 21472209.

Bala S, Kombrabail MH, Prabhananda BS. Effect of phloretin on ionophore mediated electroneutral transmembrane translocations of H(+), K(+) and Na(+) in phospholipid vesicles. *Biochim Biophys Acta.* 2001 Feb 9;1510(1-2):258-69. PMID: 11342163.

Vareille G, Marion P, Kraus JL, et al. Sodium transport by an ionizable and a neutral mobile carrier: effects of membrane structure on the apparent activation energy. *Biochim Biophys Acta.* 1993 Feb 23;1146(1):25-37. PMID: 8443224.

Ginsburg H, Stark G. Facilitated transport of di- and trinitrophenolate ions across lipid membranes by valinomycin and nonactin. *Biochim Biophys Acta.* 1976 Dec 14;455(3):685-700. PMID: 1036715.

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