



LKT Laboratories, Inc.

Ikarugamycin

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## Product Information

Product ID I4000

CAS No. 36531-78-9

Chemical Name

Synonym

Formula  $C_{29}H_{38}N_2O_4$

Formula Wt. 478.62

Melting Point

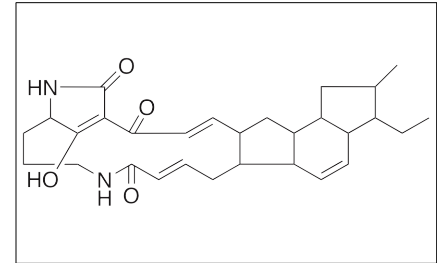
Purity  $\geq 98\%$

Solubility Soluble in chloroform 1 mg/mL, requires gentle heating and sonication; Soluble in methanol 1 mg/mL, requires gentle heating and sonication; Soluble

Store Temp  $-20^{\circ}C$

Ship Temp Ambient

**Description** Ikarugamycin is an antibiotic initially produced by species of *Streptomyces* that exhibits antibacterial, anti-protozoal, and anticancer activities. Ikarugamycin prevents formation of the bacterial 70S ribosomal subunit, inhibiting protein translation. In vitro, ikarugamycin inhibits CCP-dependent phagocytosis, preventing PMA-induced downregulation of CD4. Additionally, ikarugamycin inhibits uptake of oxidized LDL, preventing accumulation of cholesterol ester in macrophages.



**Bulk quantities available upon request**

Product ID	Size
I4000	0.5 mg
I4000	1 mg
I4000	5 mg

**References** Popescu R, Heiss EH, Ferk F, et al. Ikarugamycin induces DNA damage, intracellular calcium increase, p38 MAP kinase activation and apoptosis in HL-60 human promyelocytic leukemia cells. *Mutat Res.* 2011 May 10;709-710:60-6. PMID: 21392513.

Luo T, Fredericksen BL, Hasumi K, et al. Human immunodeficiency virus type 1 Nef-induced CD4 cell surface downregulation is inhibited by ikarugamycin. *J Virol.* 2001 Mar;75(5):2488-92. PMID: 11160755.

Hasumi K, Shinohara C, Naganuma S, et al. Inhibition of the uptake of oxidized low-density lipoprotein in macrophage J774 by the antibiotic ikarugamycin. *Eur J Biochem.* 1992 Apr 15;205(2):841-6. PMID: 1572375.

Jomon K, Kuroda Y, Ajisaka M, et al. A new antibiotic, ikarugamycin. *J Antibiot (Tokyo).* 1972 May;25(5):271-80. PMID: 4625358.

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