

Product Name: Ikarugamycin

Product Number: I018

CAS Number: 36531-78-9

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

Molecular Weight: 478.6

Appearance: White solid

Storage Conditions: -20°C

Description: Ikarugamycin is an unusual pentacyclic tetramic acid produced by *Streptomyces phaeochromogenes*, with potent activity against the protozoan, *Trichomonas vaginalis*, reported in 1972. Ikarugamycin also demonstrates selective Gram positive antibacterial activity, and anti-ulcer activity possibly via inhibition of *H. pylori*. In addition, ikarugamycin inhibits the uptake of oxidized low-density lipoprotein in mouse macrophages, blocks PMA and Nef-mediated cell surface CD4 down-regulation, and inhibits clathrin-coated pit-mediated endocytosis. Importantly, ikarugamycin is emerging as a useful agent for studying the process of endocytosis.

Ikarugamycin is soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

References: A new antibiotic, ikarugamycin. Jomom K. et al. , J. Antibiot. 1972, 25, 271.

Inhibition of the uptake of oxidized low-density lipoprotein in macrophage J774 by the antibiotic ikarugamycin. Hasumi K. et al. , Eur. J. Biochem. 1992, 205, 841.

Human immunodeficiency virus type 1 Nef-induced CD4 cell surface downregulation is inhibited by ikarugamycin. Luo T. et al. , J. Virol. 2001, 75, 2488.

Distinct endocytic pathways identified in tobacco pollen tubes using charged nanogold. Moscatelli A. et al. , J. Cell Sci. 2007, 120, 3804.