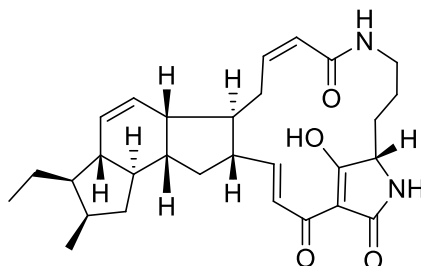


Ikarugamycin

Code No.: **BIA-I1223**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms :

Specifications

CAS #	: 36531-78-9
Molecular Formula	: $C_{29}H_{38}N_2O_4$
Molecular Weight	: 478.6
Source	: <i>Streptomyces</i> sp.
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.

Application Notes

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.

References

1. A new antibiotic, ikarugamycin. Jomom K. et al., J. Antibiot. 1972, 25, 271.
2. 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.
3. Human immunodeficiency virus type 1 Nef-induced CD4 cell surface downregulation is inhibited by ikarugamycin. Luo T. et al., J. Virol. 2001, 75, 2488.
4. Distinct endocytic pathways identified in tobacco pollen tubes using charged nanogold. Moscatelli A. et al., J. Cell Sci. 2007, 120, 3804.