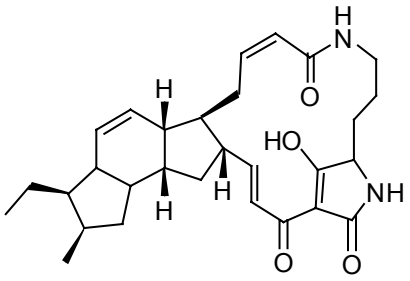
bioaustralis
fine chemicals

PRODUCT DATA SHEET

Ikarugamycin

Code: **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	:	***Streptomyces sp.***
Appearance	:	**White solid**
Purity	:	**> 99%**
Long Term Storage	:	**- 20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO. Limited water solubility.**

Application Notes

Ikarugamycin is an unsual pentacyclic tetramic acid produced by *Streptomyces phaeochromogenes* with potent activity against the protozoan, *Trichomonas vaginalis*, reported in 1972. Ikarugamycin also demonstrated selective Gram positive antibacterial activity and more recently has been shown to exhibit anti-ulcer activity possibly by inhibition of Helicobacter. Investigation of the pharmacology of ikarugamycin has demonstrated a variety of actions including the inhibition of the uptake of oxidized low-density lipoprotein in mouse macrophages, blockade of PMA and Nef-mediated cell surface CD4 down-regulation and inhibition of 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.

Building C, 28-54 Percival Road, Smithfield NSW 2164, AUSTRALIA
Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com