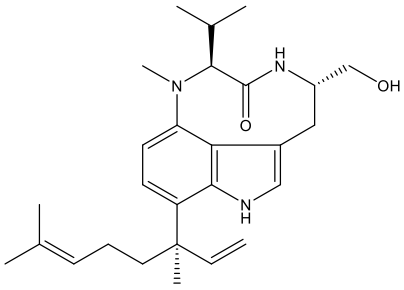
Catalog #10-3339

Teleocidin A1

CAS# 70497-14-2

Lyngbyatoxin A

Lot # E109327



Selective protein kinase C activator[1] (EC_{50} = 40 ng/ml) representing a new class of non-phorbol ester tumor promotor[2]. Teleocidin A1 mimics the effect of diacylglycerol (DAG), activating PKC, but unlike DAG causes persistent activation.[3] It enhances actin redistribution, vacuole formation and c-fos expression in PLC/PRF/5 hepatoma cells.[4] Occurs in toxic cyanobacterial blooms.[5]

1) Fujiki *et al.* (1984), *Activation of calcium-activated, phospholipid-dependent protein kinase (protein-kinase C) by new classes of tumor promoters: teleocidin and debromoaplysiatoxin*; Biochem. Biophys. Res. Commun. **120** 339
2) Fujiki *et al.* (1987), *New Classes of Tumor Promoters: Teleocidin, Aplysiatoxin, and Palytoxin*; Adv. Cancer Res. **49** 223
3) Kozikowski *et al.* (1991), *Synthesis of structural analogues of lyngbyatoxin A and their evaluation as activators of protein kinase C*; J. Med. Chem. **34** 2420
4) Tsukamoto *et al.* (1993), *Thapsigargin, an inhibitor of endoplasmic reticulum Ca(2+)-ATPase, enhances c-fos expression but antagonizes vacuole formation of human hepatoma cells induced by teleocidin*; Biochim. Biophys. Acta **1177** 31
5) Esposito *et al.* (2019), *A Fast Detection Strategy for Cyanobacterial blooms and associated cyanotoxins (FDSCC) reveals the occurrence of lyngbyatoxin A in campania (South Italy)*; Chemosphere **225** 342

PHYSICAL DATA

Molecular Weight:	437.63
Molecular Formula:	$C_{27}H_{39}N_3O_2$
Purity:	>95% (HPLC)
	NMR: (Conforms)
Solubility:	DMSO (15 mg/mL)
Physical Description:	White solid/wax
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

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