

CERTIFICATE OF ANALYSIS

PRODUCT: **Leptomycin B,**
[LMB], Isolated from *Streptomyces sp.*
C₃₃H₄₈O₆, M.W. 540.7, CAS# [87081-35-4]

PRODUCT NUMBER: L-1069

LOT NUMBER: G1211

APPEARANCE: Clear beige solution.

CONCENTRATION: 70% Methanol containing 10mg/ml.

SOLUBILITY: Soluble in methanol or 100% ethanol; insoluble in water.
Unstable in DMSO.

PURITY (TLC): 98% (NP, Toluene: Etoac: HCOOH, 6:3:1)
98% (RP C18, methanol, H₂O 9:1)
**Detection: Spray with H₂SO₄ and heat*

PURITY (HPLC): 94.99%(by HPLC)

DESCRIPTION: A potent and specific nuclear export inhibitor. Leptomycin B alkylates and inhibits CRM1/exportin 1, a protein required for nuclear export of proteins containing a nuclear export sequence (NES). In addition to antifungal and antibacterial activities, blocks the cell cycle and is a potent anti-tumor agent. At low nM concentrations, blocks the nuclear export of many proteins including HIV-1 Rev, MAPK/ERK, and NF-κB/IκB and it stabilizes the expression of p53. Other proteins that are influenced by leptomycin B are actin, c-Abl, cyclin B1, MDM2/p53, Iκb, MPF and PKA. Leptomycin B also inhibits the export and translation of many RNAs, including COX-2 and c-Fos mRNAs, by inhibiting export of ribonucleoproteins.

STORAGE & HANDLING: Store under inert gas at -20°C.
PROTECT FROM LIGHT! WARNING: TOXIC! FLAMMABLE!

CAUTION: For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: EK