PRODUCT DATA SHEET

BML-EI156  Staurosporine
Apoptosis inducer. Protein kinase inhibitor.

Staurosporine inhibits a variety of kinases including PKA (Kᵢ=7.0 nM), PKG (Kᵢ=8.5 nM), MLCK (Kᵢ=1.3 nM), PKC (Kᵢ=0.7 nM), CaMK (IC₅₀=20 nM), tyrosine kinases (IC₅₀=70 nM) and phosphorylase kinase (IC₅₀=0.5 nM). Inhibition is via interaction with the ATP binding site. It induces PKC translocation and augments PMA-induced ornithine decarboxylase. Activates a Bcl-2-regulated apoptosis pathway. At 1μM, induced apoptosis in CHO cells. Inhibits topoisomerase II directly by blocking transfer of phosphodiester bonds from DNA to active site tyrosine.

Product Number/Sizes
BML-EI156-1000  1 mg
BML-EI156-0100  100 μg

Product Specifications
FORMULA:  C₂₀H₂₆N₄O₃
MW:  466.5
PURITY:  ≥99% (TLC)
APPEARANCE:  Off-white to green powder
FORMULATION:  Lyophilized.
CAS:  62996-74-1
SOLUBILITY:  Soluble in DMSO (25mg/ml), dimethyl formamide (25mg/ml), DMSO or ethyl acetate. Slightly soluble in chloroform and methanol. Insoluble in water.

LONG TERM STORAGE:  -20°C
USE/STABILITY:  Store, as supplied, at 0-4°C for up to 1 year. Store solutions at -20°C for up to 3 months.
HAZARD:  MAY BE CARCINOGENIC. TOXIC.
HANDLING:  Protect from light and moisture.

Product Literature References
Single-cell fluorescence resonance energy transfer analysis demonstrates that caspase activation during apoptosis is a rapid process. Role of caspase-3 M. Rehm et al. J. Biol. Chem. 277 24506 (2002)
Insulin-stimulated protein kinase B phosphorylation on Ser-473 is independent of its activity and occurs through a staurosporine-insensitive kinase M.M. Hill et al. J. Biol. Chem. 276 25643 (2001)
Caspase-8 activation and bid cleavage contribute to MCF7 cellular execution in a caspase-3-dependent manner during staurosporine-mediated apoptosis D. Tang et al. J. Biol. Chem. 275 9303 (2000)
Characterization of the cell death process induced by staurosporine in human neuroblastoma cell lines J. Boix et al. Neuropharmacology 36 811 (1997)
Cleavage of sterol regulatory element binding proteins (SREBPs) by CPP32 during apoptosis X. Wang et al. Embio J. 15 1012 (1996)
The first total synthesis, prospect for a regioselective approach, and activity profile J.T. Link et al. J. Am. Chem. Soc. 118 2825 (1996)
First total synthesis of Staurosporine and ent-Staurosporine J.T. Link et al. J. Am. Chem. Soc. 117 552 (1994)

Background/Technical Information
Please click here for the comprehensive product datasheet.

Replacement for ADI-HPK-112

Revised 22-Feb-12

WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN, DIAGNOSTICS OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.

MATERIAL SAFETY DATA: This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet.

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