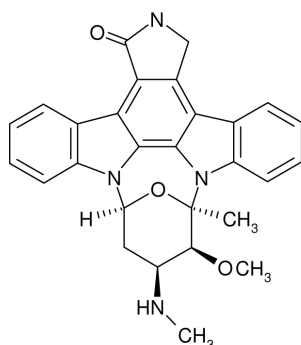


Staurosporine

Antibiotic AM 2282

Protein Kinase Inhibitor

Cat. No.	Amount
INH-005	50 µg



For *in vitro* use only
 Quality guaranteed for 12 months
 Store at -20°C

Source

Streptomyces staurosporeus.

Form

Lyophilized.

Solubility

20 mg/ml soluble in DMSO, slightly soluble in Ethanol and Methanol.
 Insoluble in Water.

Molecular Formula

C₂₈H₂₆N₄O₃.

Molecular Weight

466.5 g/mol

Purity

≥98%

Description

Staurosporine is a potent cell permeable inhibitor of many kinases including Protein Kinase C, Protein Kinase A, CaM kinase, myosin light chain kinase, and PI3K (IC₅₀ = 9 µM).

The biological effects of Staurosporine include cytotoxicity, relaxation of smooth muscle, and regulation of eNOS gene expression. It inhibits platelet aggregation induced by collagen or ADP but has no effect on thrombin-induced platelet aggregation.

Staurosporine induces apoptosis in human malignant glioma cell lines and arrests normal cells at the G1 checkpoint.

Selected References:

Walker *et al.* (2000) Structural Determinants of Phosphoinositide 3-Kinase Inhibition by Wortmannin, LY294002, Quercetin, Myricetin, and Staurosporine. *Mol. Cell.* **6**:909.

Wan *et al.* (2002) PTEN augments staurosporine-induced apoptosis in PTEN-null Ishikawa cells by downregulating PI3K/Akt signaling pathway. *Cell Death Differ.* **9**:414.

Lee *et al.* (2000) Divergent effects of protein kinase C (PKC) inhibitors staurosporine and bisindolylmaleimide I (GF109203X) on bone resorption. *Biochem. Pharmacol.* **60**:923.

Takano (1994) Staurosporine inhibits STA2-induced platelet aggregation by inhibition of myosin light-chain phosphorylation in rabbit washed platelets. *Ann. N. Y. Acad. Sci.* **714**:315.

Matsumoto *et al.* (1989) Staurosporine a protein kinase C inhibitor interferes with proliferation of arterial smooth muscle cells. *Biochem. Biophys. Res. Comm.* **158**:105.