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Store at -20C
#9953

Staurosporine

250 µg

For Research Use Only. Not for Use in Diagnostic Procedures.

Background

Staurosporine is an alkaloid isolated from the culture broth of *Streptomyces staurosporesa*. It is a potent, cell permeable protein kinase C inhibitor with an IC₅₀ of 0.7 nM. At higher concentration (1-20 nM), staurosporine also inhibits other kinases such as PKA, PKG, CAMKII and Myosin light chain kinase (MLCK) (1). At 50-100 nM, it is a functional neurotrophin agonist, promoting neurite outgrowth in neuroblastoma, pheochromocytoma and brain primary neuronal cultures. At 0.2- 1 µM, staurosporine induces cell apoptosis (2,3).

Molecular Formula

C₂₈H₂₆N₄O₃

Molecular Weight

466.5 g/mol

Purity

>99%

CAS

62996-74-1

Solubility

Soluble in DMSO at 50mg/ml and EtOH at 2mg/ml.

Storage

Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use

Dissolve the lyophilized alkaloid in DMSO or Methanol. For a 1 mM solution, dissolve in 0.536 mL.

Background References

1. Ruegg, U.T. and Burgess, G.M. (1989) *Trends Pharmacol. Sci.* 10, 218-220.
2. Couldwell, W. T. et al. (1994) *FEBS Lett.* 345, 43-46.
3. Yue, T. L. et al. (1998) *J. Mol. Cell. Cardiol.* 30, 495-507.

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