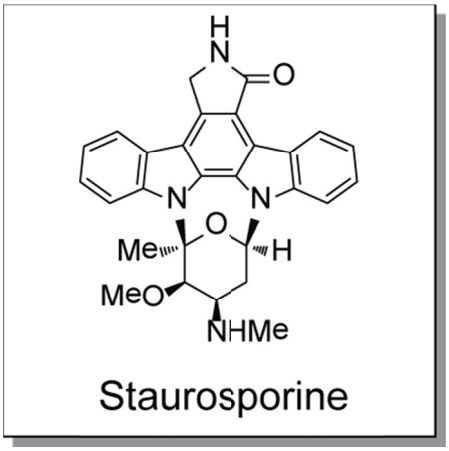
Product Specification Sheet

Product Name: Staurosporine

Catalog Number: C7828-2 (powder)
C7828-2s (10mM in DMSO)

Package Size: 2 mg



Technical information:

Chemical Formula:	$C_{28}H_{26}N_4O_3$
CAS #:	62996-74-1
Molecular Weight:	466.53
Purity:	>98%
Formulation:	White solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	(5S,6R,7R,9R)-6-methoxy-5-methyl-7-(methylamino)-6,7,8,9,15,16-hexahydro-17-oxa-4b,9a,15-triaza-5,9-methanodibenzo[b,h]cyclonona[jkl]cyclopenta[e]-as-indacen-14(5H)-one
Storage:	Store solid powder at -20°C desiccated; Store DMSO solution at -20°C.

Handling:

- For C7828-2 (powder), add 429 µL of DMSO to make 10 mM solution.
- For C7828-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.

Biological Activity: Staurosporine is a natural product isolated from the bacterium Streptomyces staurosporeus. It is a very potent and broad spectrum protein kinase inhibitor through the prevention of ATP binding to the kinase. It inhibits protein kinase C (IC_{50}=0.7nM), CDK1/cyclin B (IC_{50}=5nM), CDK2/cyclin A (IC_{50}=7nM), CDK4/cyclin D (IC_{50}=3-10nM), CDK5/p25 (IC_{50}=4nM), GSK-3β (IC_{50}=15nM), Pim-1 kinase (IC_{50}=10nM). It induces apoptosis in human neuroblastoma cell lines and chick embryonic neurons. Due to its broad and potent kinase inhibition activities, staurospoine is routinely used as cytotoxic, anti-proliferative reference compound.

Reference:

1. Tamaoki et al. Staurosporine, a potent inhibitor of phospholipid/Ca2+ dependent protein kinase. Biochem Biophys Res Commun. (1986) 135 397.
2. Boix, J., et al. Characterization of the cell death process induced by staurosporine in human neuroblastoma cell lines. Neuropharmacology (1997) 36: 811-821
3. Karaman MW, et al. A quantitative analysis of kinase inhibitor selectivity. Nat. Biotechnol. (2008) 26 (1): 127–132

For Technical Support: technical@cellagentech.com

For research only, not for clinical or diagnostic use.