Staurosporine

Apoptosis inducer. Protein kinase inhibitor.

Staurosporine is the reference agent for apoptosis induction (1µM in CHO cells). Staurosporine binds to the ATP binding site and inhibits a variety of protein kinases including protein kinase C (PKC), CDK1/cyclin B (IC_{50} ~5nM), CDK2/cyclin A (IC_{50}=7nM), CDK4/cyclin D (IC_{50}=3-10µM), CDK5/p25 (IC_{50}=4nM), GSK-3β (IC_{50}=15nM), and Pim-1 kinase (IC_{50} =10nM). Staurosporine does not inhibit PKC-ζ. Staurosporine also inhibits topoisomerase II directly by blocking transfer of phosphodiester bonds from DNA to active site tyrosine. Other than apoptosis and cytotoxicity, some of the biological effects of staurosporine include regulation of eNOS gene expression and relaxation of smooth mucles.

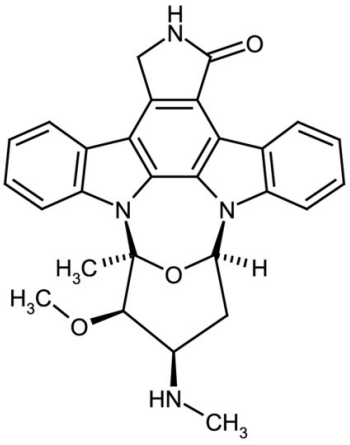
Citations: 115 View Online »

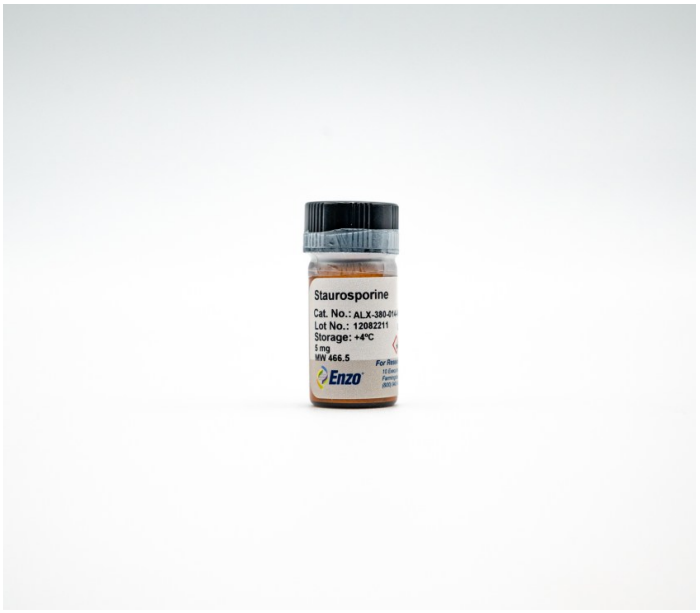
Ordering Information Order Online »

ALX-380-014-M001	1mg
ALX-380-014-M005	5mg
ALX-380-014-C250	250µg

Manuals, SDS & CofA View Online »

- Model apoptosis inducer
- Potent cell-permeable inhibitor of protein kinases
- Highly cited


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Staurosporine
Cat. No.: ALX-380-014
Lot No.: 12082211
Storage: +4°C
1 mg
MW 466.5
Enzo

Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 2 years after receipt when stored +4°C.
Handling	Protect from light and moisture. Store under inert gas.
Long Term Storage	+4°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Antibiotic AM-2282
Appearance	Off-white to green powder.
CAS	62996-74-1
Couple Target	CDK, MLCK, PKC, Topoisomerase
Couple Type	Inhibitor
Formula	$C_{28}H_{26}N_4O_3$
MI	**14:** 8802
MW	466.5
Purity	≥99% (HPLC)
RTECS	KC655000
Solubility	Soluble in DMF (25mg/ml), DMSO (25mg/ml), or ethyl acetate. Only slightly soluble in chloroform and methanol. Insoluble in water.
Source	Isolated from *Streptomyces staurosporeus.*
Technical Info / Product Notes	Replacement for **ADI-HPK-112**

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