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Product Information

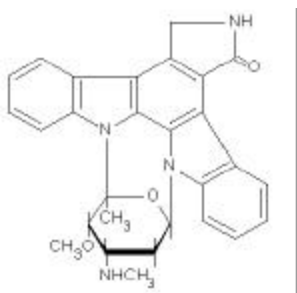
Staurosporine from *Streptomyces* sp.

Product Number **S4400**

Storage Temperature 2-8 °C

CAS RN: 62996-74-1

Synonym: Antibiotic AM-2282



Molecular formula: $C_{28}H_{26}N_4O_3$

Formula weight: 466.53

Melting Point: decomposes at 288-291 °C¹

λ_{max} : 243, 292, 335, 356, 372 nm

$E_{1\%}^{1cm}$ = 481, 1119, 241, 144, 171) in methanol²

$[\alpha]^{25}$: +35.0° (c = 1% in methanol)³

Product Description

Staurosporine is an alkaloid that possesses inhibitory activity against fungi and yeasts but has no significant effects on bacteria.⁴ It is a potent inhibitor of phospholipid/ Ca^{2+} dependent protein kinase (protein kinase C; PKC)⁵ and platelet aggregation.² It is widely employed as an inducer of apoptosis in many mammalian cell types^{6,7} and is often used to study the involvement of protein kinases in signal transduction pathways⁸

Sigma also offers S5921, Staurosporine, which has received additional testing for molecular biology applications. In Jurkat cells (a leukemic T-cell line), the production of interleukin-2 was inhibited by 90% in the presence of 8 ng/ml S5921.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation instructions

This product is soluble in DMSO, DMF; slightly soluble in methanol, ethyl acetate and chloroform; insoluble in water. Sigma has dissolved this product in methanol at 2 mg/mL and observed a clear, colorless to yellow solution. Limited testing has also shown this product to be soluble in acetonitrile to at least 1 mg/mL and in DMSO to at least 5 mg/mL.

Storage/stability

Store desiccated, protected from light at 2-8 °C. Under these conditions the product is stable for at least 12 months. All stock solutions should be stored at -20 °C. Sigma found that 1 mg/ml and 0.2 mg/ml solutions in DMSO were stable at -20 °C for at least 6 months. Solutions of the same concentrations stored at 2-8 °C showed slightly lower stability.

References

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6. Kruman, I., et al., *J. Neurosci. Res.*, **51**, 293-308 (1998).
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NDH/PHC 12/04

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