Cell Guidance Systems Ltd, Babraham Research Park, Cambridge CB22 3AT, UK

Data Sheet

Research Use Only

Compound Name

Staurosporine

Alternative Names

[9S-(9α,10β,11β,13α)]-2,3,10,11,12,13-Hexahydro-10-methoxy-9-methyl-11-(methylamino)-9,13-epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-1-one

Catalog Number

SM97

Activity

Staurosporine is a potent inhibitor of phospholipid/calcium-dependent protein kinase. It also inhibits the upregulation of VEGF expression in tumor cells. It partially reverses MDR, sensitizing cells with MDR phenotype to cytotoxic agents. It inhibits Pgp phosphorylation. It is also a broad spectrum inhibitor of serine/threonine kinases.

Effect

Staurosporine has several effects on cell function, including interruption of cell-cell contacts, decreasing focal contact size, inducing epithelial to mesenchyme transition, and promoting cell differentiation. Staurosporine has the ability to influence lineage choice during pluripotent cells differentiation. The addition of staurosporine to differentiating mouse EPL resulted in preferential formation of mesendoderm and mesoderm populations, and inhibited the formation of neurectoderm. Addition of staurosporine to human ESC similarly induced primitive streak marker gene expression. Staurosporine induced the expression of mesendoderm markers in the absence of known inducers of formation, such as serum and BMP4.

Purity

>99%

CAS

62996-74-1

Formula

C28H26N4O3

Molecular Weight

466.53

Solubility

DMSO, ethanol

Stability

Stable at -20°C. Keep away from direct sunlight.

References

1. Tamaoki, T., et al. 1986. Biochem Biophys Res Commun. 135(2): 397-402. PMID: 3457562

2. Buschke DG., et al. 2012. Biol Cell. 104(6): 352-364. PMID: 22304470

3. Hughes, JN., et al. 2014. Differentiation. PMID: 24582574