Small Molecules

Stauprimide

Inhibitor of NME2 localization;
Suppresses c-MYC expression

Catalog # 72652

1 mg

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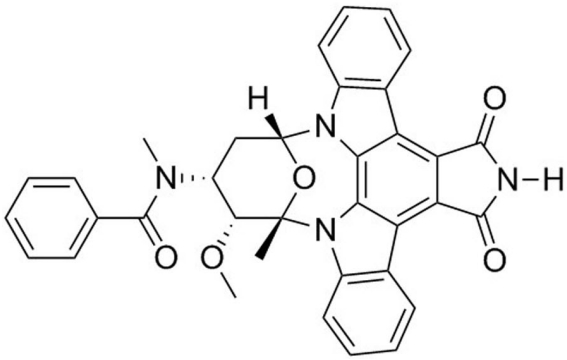
Product Description

Stauprimide specifically inhibits the nuclear localization of NME2, which results in the suppression of c-MYC—a key regulator of pluripotency—thereby priming cells for differentiation (Zhu et al.).

Molecular Name:	Stauprimide
Alternative Names:	N-Benzoyl-7-oxo Staurosporine
CAS Number:	154589-96-5
Chemical Formula:	$C_{35}H_{28}N_4O_5$
Molecular Weight:	584.6 g/mol
Purity:	≥ 98%
Chemical Name:	N-[(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1,3-dioxo-9, 13-epoxy-1H,9H-diindolo[1, 2, 3-gh:3', 2',1'-lm]pyrrolo[3, 4- j][1,7]benzodiazonin-11-yl]-N-methyl-benzamide
Structure:	

Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect from prolonged exposure to light. Stable as supplied for 12 months from date of receipt.
Solubility:	· DMSO ≤ 15 mM · Absolute ethanol ≤ 340 µM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 171 µL of DMSO. Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application. Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

DIFFERENTIATION
· Enhances cytokine-mediated directed differentiation of mouse and human pluripotent stem cells to multiple lineages, including definitive endoderm, neural progenitor cells, and mesodermal derivatives such as cardiomyocytes (Zhu et al.; Tahamtani et al.).

References

Tahamtani Y et al. (2014) Stauprimide priming of human embryonic stem cells toward definitive endoderm. Cell J 16(1): 63–72.
Zhu S et al. (2009) A small molecule primes embryonic stem cells for differentiation. Cell Stem Cell 4(5): 416–26.

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