Small Molecules

Stauprimide

Inhibitor of NME2 localization; Suppresses c-MYC expression

Catalog # 72652 1 mg



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713 INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

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: \geq 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

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-

methylbenzamide

Structure:

Properties

Physical Appearance: A crystalline solid

Storage: Product stable at -20°C as supplied. Protect from prolonged exposure to light. For product expiry date, please

contact techsupport@stemcell.com.

Solubility: · Absolute ethanol ≤ 340 µM

 \cdot DMSO \leq 15 mM

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.

Small Molecules Stauprimide



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.

Related Small Molecules

For a complete list of small molecules available from STEMCELL Technologies, please visit our website at www.stemcell.com/smallmolecules or contact us at techsupport@stemcell.com.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2017 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.