

## Small Molecules

### Stauprimide

Inhibitor of NME2 localization;  
Suppresses c-MYC expression

Catalog # 72652

1 mg



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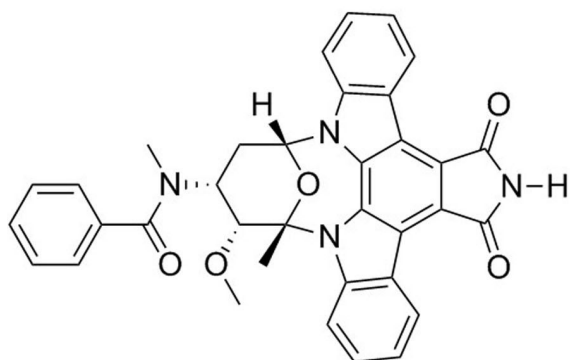
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## Product Description

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 <sub>35</sub> H <sub>28</sub> N <sub>4</sub> O <sub>5</sub>                                                                                                                                                                                                                                        |
| 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 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<br>· DMSO ≤ 15 mM<br>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 progenitors, 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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