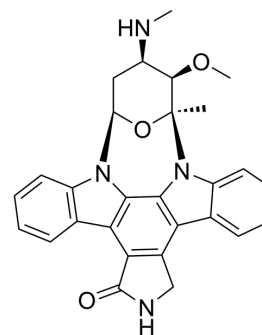


## Staurosporine (GMP)

<b>Cat. No.:</b>	HY-15141G
<b>CAS No.:</b>	62996-74-1
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>26</sub> N <sub>4</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	466.53
<b>Target:</b>	PKC
<b>Pathway:</b>	Epigenetics; TGF-beta/Smad
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Staurosporine (AM-2282) (GMP) is <a href="#">Staurosporine</a> (HY-15141) produced by using GMP guidelines. GMP small molecules works appropriately as an auxiliary reagent for cell therapy manufacture. Staurosporine is a potent, ATP-competitive and non-selective inhibitor of protein kinases <sup>[1][2][3][4][5]</sup> .
<b>In Vitro</b>	<p>Staurosporine (GMP) (316 nM; 24 h) induces the production of robust neurite in RGC-5 cells<sup>[1]</sup>.</p> <p>Staurosporine (GMP) (25 and 100 nM; 12 h) induces differentiation of SH-SY5Y cells with the increasing of neurite processes combined with a prominent branching and the subsequent reduction in cell body size<sup>[2]</sup>.</p> <p>Staurosporine (GMP) (20 nM) induces cell differentiation of human neuroblastoma cell line<sup>[3]</sup>.</p> <p>Staurosporine (GMP) (5 nM) enhances HL-60-cell differentiation induced by 1 alpha,25 dihydroxyvitamin D3, dbc AMP, all-trans-beta-retinoic acid (RA), actinomycin D (Act D) and other compounds<sup>[4]</sup>.</p> <p>Staurosporine (GMP) (1 μM; 15 d) induces differentiation of human neuroblastoma cells<sup>[5]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. Ganapathy PS, et al. Sensitivity of staurosporine-induced differentiated RGC-5 cells to homocysteine. *Curr Eye Res.* 2010 Jan;35(1):80-90.
- [2]. Pregi N, et al. Effect of erythropoietin on staurosporine-induced apoptosis and differentiation of SH-SY5Y neuroblastoma cells. *Biochim Biophys Acta.* 2006 Feb;1763(2):238-46.
- [3]. Hajimu MORIOKA, et al. Staurosporine-induced Differentiation in a Human Neuroblastoma Cell Line, NB-1. *Agricultural and Biological Chemistry.* 1985; 1959-1963.
- [4]. Okazaki T, et al. Staurosporine, a novel protein kinase inhibitor, enhances HL-60-cell differentiation induced by various compounds. *Exp Hematol.* 1988 Jan;16(1):42-8.
- [5]. Yuste VJ, et al. The prevention of the staurosporine-induced apoptosis by Bcl-X(L), but not by Bcl-2 or caspase inhibitors, allows the extensive differentiation of human neuroblastoma cells. *J Neurochem.* 2002 Jan;80(1):126-39.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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