

CPS-11

## Chemical Properties

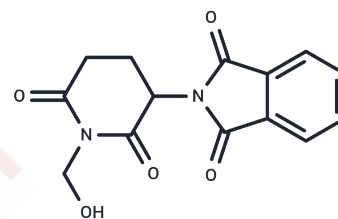
CAS No. : 145945-21-7

Formula: C<sub>14</sub>H<sub>12</sub>N<sub>2</sub>O<sub>5</sub>

Molecular Weight: 288.26

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	CPS-11 (N-(Hydroxymethyl)thalidomide) is a Thalidomide analogue with significant antitumor activity, exhibiting a broader and more potent effect on the MM (multiple myeloma) cell line.
Targets(IC50)	NF-κB, Reactive Oxygen Species, Dehydrogenase, ROS
In vitro	<p>Confirming its ability to target tumor cells in the bone marrow microenvironment, CPS-11 abrogates the ability of bone marrow stromal cells (BMSCs) to induce proliferation of MM cells[1].</p> <p>Showing virtually no effect on the activation of p38 and only slight, transient activation of ATF2 and HSP27 (0-200 μM, 0 or 4 h), CPS-11 demonstrates its pharmacological behavior[2].</p> <p>At doses as high as 100 μM, CPS-11 (0-100 μM, 24 or 48 h) exhibits no toxicity to H157 cells, WT MEFs, or the p38α<sup>-/-</sup> MEFs[2].</p> <p>Furthermore, CPS-11 (50 μM, 24 or 48 h) does not induce apoptosis in H157 cells[2].</p>

## Solubility Information

Solubility	DMSO: 45 mg/mL (156.11 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.4691 mL	17.3455 mL	34.6909 mL
5 mM	0.6938 mL	3.4691 mL	6.9382 mL
10 mM	0.3469 mL	1.7345 mL	3.4691 mL
50 mM	0.0694 mL	0.3469 mL	0.6938 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Aragon-Ching JB, et al. Thalidomide analogues as anticancer drugs. *Recent Pat Anticancer Drug Discov.* 2007 Jun;2(2):167-74.

Warfel NA, et al. Importance of the stress kinase p38alpha in mediating the direct cytotoxic effects of the thalidomide analogue, CPS49, in cancer cells and endothelial cells. *Clin Cancer Res.* 2006 Jun 1;12(11 Pt 1):3502-9.

Ge Y, et al. Selective leukemic-cell killing by a novel functional class of thalidomide analogs. *Blood.* 2006 Dec 15;108(13):4126-35.

Nishiyama T, Ide T, Himes SR Jr, Ishizaka S, Araki T. Immunodiagnosis of human sparganosis mansoni by micro-chemiluminescence enzyme-linked immunosorbent assay. *Trans R Soc Trop Med Hyg.* 1994 Nov-Dec;88(6):663-5. PubMed PMID: 7886764.

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