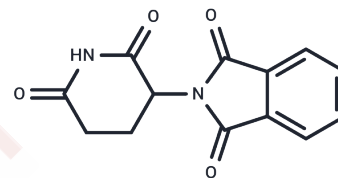


## Thalidomide

## Chemical Properties

CAS No. :	50-35-1
Formula:	C <sub>13</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>
Molecular Weight:	258.23
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Thalidomide (Thalomid) is a synthetic derivative of glutamic acid (alpha-phthalimido-glutarimide) with teratogenic, immunomodulatory, anti-inflammatory and anti-angiogenic properties.
Targets(IC50)	Apoptosis, Autophagy, Ligands for E3 Ligase, Molecular Glues, TNF
In vitro	Thalidomide selectively inhibits the production of tumor necrosis factor-alpha (TNF-α) in human monocytes stimulated by lipopolysaccharides and other agonists. Its suppression of TNF-α is mediated through the enhancement of mRNA degradation. Moreover, thalidomide exerts a direct effect on MM cell lines by inducing apoptosis and G1 phase growth arrest, as well as on patient MM cells resistant to melphalan, doxorubicin hydrochloride, and dexamethasone.
In vivo	Administering 200mg/kg of Thalidomide resulted in the inhibition of vascularization in the corneal region within rabbits, with the inhibition rate ranging from 30% to 51% across three experiments.

## Solubility Information

Solubility	DMSO: 125 mg/mL (484.06 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (38.73 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: < 10 mg/mL (38.73 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 10 mg/mL (38.73 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: < 10 mg/mL (38.73 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8725 mL	19.3626 mL	38.7252 mL
5 mM	0.7745 mL	3.8725 mL	7.745 mL
10 mM	0.3873 mL	1.9363 mL	3.8725 mL
50 mM	0.0775 mL	0.3873 mL	0.7745 mL

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.

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