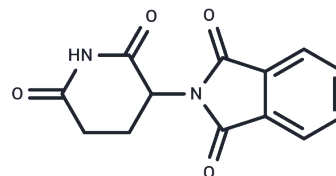


Thalidomide

Chemical Properties

CAS No. : 50-35-1
 Formula: C₁₃H₁₀N₂O₄
 Molecular Weight: 258.23
 Appearance: no data available
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



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,TNF,Autophagy,Ligand for E3 Ligase,Molecular Glues
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: 6.5 mg/mL (25 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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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.

Reference

Lü Z, Li X, Li K, et al. Nitazoxanide and related thiazolides induce cell death in cancer cells by targeting the 20S proteasome with novel binding modes. Biochemical Pharmacology. 2022: 114913.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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