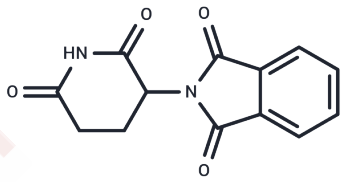
Data Sheet (Cat.No.T0213)

TargetMol

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,Autophagy,Ligand 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: 6.5 mg/mL (25.17 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

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

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Sun X, et al. Synergistic Inhibition of Thalidomide and Icotinib on Human Non-Small Cell Lung Carcinomas Through ERK and AKT Signaling. Med Sci Monit. 2018 May 15;24:3193-3203.
Guo Y, Fan Y, Pei X. Fangjihuangqi Decoction inhibits MDA-MB-231 cell invasion in vitro and decreases tumor growth and metastasis in triple-negative breast cancer xenografts tumor zebrafish model[J]. Cancer Medicine. 2020, 9(7): 2564-2578.