

(R)-Thalidomide

Chemical Properties

CAS No. : 2614-06-4

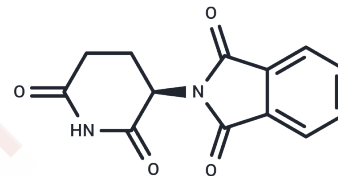
Formula: C₁₃H₁₀N₂O₄

Molecular Weight: 258.23

Storage: Keep away from moisture, Keep away from direct sunlight

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	(R)-Thalidomide is a COX 1/2 inhibitor that induces apoptosis in MCF-7, IM-9, HS-Sultan, KB and other cancer cells.
Targets(IC50)	Apoptosis, Autophagy, Ligands for E3 Ligase, Molecular Glues, COX
In vitro	With the affinity of (R)-Thalidomide by the MIP present surface capture, that is more strongly than the other forms. In the case of (R)-Thalidomide, it is found to bind to the selective sites of the MIP more strongly than the other which reflects their different biological entities[1]. The (S)-Thalidomide imprints MIP nanoparticles exerted a greater cytotoxic effect on the caco-2 cells than the (R)-Thalidomide imprinted MIPs[1].
In vivo	Methods: Adult female F344 rats were implanted with 9L gliosarcoma tumors intracranially, subcutaneously (flank), or both. The efficacy of oral thalidomide alone and in combination with intraperitoneal BCNU or cisplatin was evaluated after several weeks of treatment. S- and (R)-Thalidomide were measured by chiral HPLC in presumed pseudo-steady-state serum, tumor, and other tissues collected after treatment. Results: Serum and tissue concentrations of (R)-Thalidomide were 40-50% higher than those of (S)-Thalidomide. [1]

Solubility Information

Solubility	DMSO: 10 mg/mL (38.73 mM), Sonication is recommended. (< 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.

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

Murphy S, et al. Enantioselectivity of thalidomide serum and tissue concentrations in a rat glioma model and effects of combination treatment with cisplatin and BCNU. *J Pharm Pharmacol.* 2007 Jan;59(1):105-14.
Eriksson T, et al. Intravenous formulations of the enantiomers of thalidomide: pharmacokinetic and initial pharmacodynamic characterization in man. *J Pharm Pharmacol.* 2000 Jul;52(7):807-17.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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