Data Sheet (Cat.No.T4088)

TargetMol

Thymoquinone

Chemical Properties

CAS No. : 490-91-5

Formula: C10H12O2

Molecular Weight: 164.201

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	Thymoquinone (NSC 2228) is a compound be found in herbs and spices with anti-inflammatory and anti-oxidant effects.
Targets(IC50)	Apoptosis,Bcl-2 Family,Akt,PI3K,VEGFR

Solubility Information

Solubility	DMSO: 250.00 mg/mL (1522.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10.00 mg/mL (60.90 mM),Solution. 10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (60.9 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: < 10 mg/mL (60.9 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: < 10 mg/mL (60.9 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0901 mL	30.4507 mL	60.9013 mL
5 mM	1.218 mL	6.0901 mL	12.1803 mL
10 mM	0.609 mL	3.0451 mL	6.0901 mL
50 mM	0.1218 mL	0.609 mL	1.218 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

Randhawa, M.A., and Alghamdi, M.S. Anticancer activity of Nigella sativa (black seed) - A review. Am.J.Chin.Med. 39(6), 1075-1091 (2011).
Ragheb, A., et al. The protective effect of thymoquinone, an anti-oxidant and anti-inflammatory agent, against renal injury: A review. Saudi J.Kidney Dis.Transpl. 20(5), 741-752 (2009).
Salim, L.Z., et al. Thymoquinone induces mitochondria-mediated apoptosis in acute lymphoblastic leukaemia in vitro. Molecules 18(9), 11219-11240 (2013).
Banerjee, S., et al. Review on molecular and therapeutic potential of thymoquinone in cancer. Nutrition and Cancer 62(7), 938-946 (2010).
Li, F., et al. Thymoquinone inhibits proliferation, induces apoptosis and chemosensitizes human multiple myeloma cells through suppression of signal transducer and activator of transcription 3 activation pathway. British Journal of Pharmacology 161(3), 541-554 (2010).