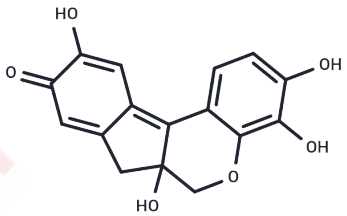
Data Sheet (Cat.No.T15469)

TargetMol

Hematein

Chemical Properties



CAS No. : 475-25-2

Formula: C16H12O6

Molecular Weight: 300.26

Storage: Store at low temperature,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	Hematein inhibits Akt/PKB Ser129 phosphorylation, the Wnt/TCF pathway, and increases apoptosis in lung cancer cells. Hematein is an oxidation product of hematoxylin acted as a dye and it also is an allosteric casein kinase II inhibitor (IC50: 0.74 μM).
Targets(IC50)	Apoptosis,Casein Kinase,Akt,Wnt/beta-catenin
In vitro	Hematein (50 and 100 μM; 48 hours) inhibits CK2-specific Akt phosphorylation. Hematein (50 and 100 μM; 48 hours) causes apoptosis in A427 lung cancer cells. Hematein (10-100 μM; 14 days) inhibits cell growth in A427 lung cancer cells [1].
In vivo	In A427 lung cancer cell xenografts, Hematein (i.p.; 50 mg/kg; twice a week for 6 weeks) inhibits tumor growth [1].

Solubility Information

Solubility	DMSO: 5.5 mg/mL (18.32 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: 1 mg/mL (3.33 mM),Sonication is recommended. *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	3.3304 mL	16.6522 mL	33.3045 mL
5 mM	0.6661 mL	3.3304 mL	6.6609 mL
10 mM	0.333 mL	1.6652 mL	3.3304 mL
50 mM	0.0666 mL	0.333 mL	0.6661 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

Shirai, K., & Matsuoka, M. (1996). Structure and properties of hematein derivatives. Dyes and Pigments, 32(3), 159-169.

Hung MS, et al. Hematein, a casein kinase II inhibitor, inhibits lung cancer tumor growth in a murine xenograftmodel.Int J Oncol. 2013 Nov;43(5):1517-22.