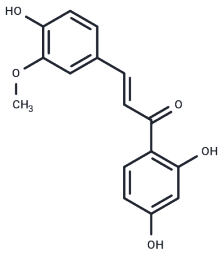
Data Sheet (Cat.No.TN4220)

TargetMol

Homobutein

Chemical Properties



CAS No. : 34000-39-0

Formula: C16H14O5

Molecular Weight: 286.28

Storage: Store at low temperature
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	Homobutein (3-O-Methylbutein) is a dual inhibitor of HDACs and NF-κB with IC50s of 190 and 38 μM. Homobutein is an iron chelator with anticancer, anti-inflammatory, antiparasite, and antioxidation activities.
Targets(IC50)	Antioxidant,NF-κB,HDAC,Parasite,Immunology/Inflammation related
In vitro	Homobutein (1 μg/mL) inhibits the growth of Toxoplasma gondii by 19.48%[1] with IC50s of 15.0 and 16.1 μM for W2 and D6 strains of P. falciparum[2]. Homobutein (20 - 40 μM) inhibits the viability and TNFα-induced NF-κB activity of K562 cells[4].

Solubility Information

Solubility	H2O: < 1mg/mL (insoluble) DMSO: 100 mg/mL (349.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4931 mL	17.4654 mL	34.9308 mL
5 mM	0.6986 mL	3.4931 mL	6.9862 mL
10 mM	0.3493 mL	1.7465 mL	3.4931 mL
50 mM	0.0699 mL	0.3493 mL	0.6986 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

Adeyemi OS, et al. In Vitro Screening to Identify Anti-Toxoplasma Compounds and In Silico Modeling for Bioactivities and Toxicity. Yale J Biol Med. 2019 Sep 20;92(3):369-383.
Yenesew A, et al. Anti-plasmodial flavonoids from the stem bark of Erythrina abyssinica. Phytochemistry. 2004 Nov;65(22):3029-32.
Serobatse K, et al. Antioxidant and antimalarial properties of butein and homobutein based on their ability to chelate iron (II and III) cations: a DFT study in vacuo and in solution. European Food Research and Technology, 2016, 242(1): 71-90.
Orlikova B, et al. Natural chalcones as dual inhibitors of HDACs and NF-κB. Oncol Rep. 2012 Sep;28(3):797-805.

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