

1-[2,4-Dihydroxy-6-methoxy-3-(3-methyl-2-buten-1-yl)phenyl]-3-(4-hydroxyphenyl)-2-propen-1-one

Chemical Properties

CAS No. : 569-83-5

Formula: C₂₁H₂₂O₅

Molecular Weight: 354.4

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	1-[2,4-Dihydroxy-6-methoxy-3-(3-methyl-2-buten-1-yl)phenyl]-3-(4-hydroxyphenyl)-2-propen-1-one (Xanthohumol) , prenylchacone flavonoid, is a natural product with multi-biofunctions purified from Hops Humulus lupulus, is effective against HIV-1 and might serve as an interesting lead compound. It may represent a novel chemotherapeutic agent for HIV-1 infection.
Targets(IC50)	Apoptosis, Bcl-2 Family, HCV Protease, Caspase, HIV Protease, NMDAR, IAP, p53, PARP
In vitro	Xanthohumol inhibited HIV-1 induced cytopathic effects, the production of viral p24 antigen and reverse transcriptase in C8166 lymphocytes at non-cytotoxic concentration. The EC ₅₀ values were 0.82, 1.28 and 0.50 microg/ml, respectively. The therapeutic index (TI) was about 10.8. Xanthohumol also inhibited HIV-1 replication in PBMC with EC ₅₀ value of 20.74 microg/ml. The activity of recombinant HIV-1 reverse transcriptase and the HIV-1 entry were not inhibited by Xanthohumol[1].
In vivo	Young and old mice were fed a diet supplemented with Xanthohumol for 8 weeks. Spatial memory was assessed with the Morris water maze and protein palmitoylation quantified. The young Xanthohumol-treated mice showed a significant improvement in cognitive flexibility. This evidence suggests that Xanthohumol may play a role in improving cognitive flexibility in young animals, but it appears to be ineffective in adjusting the palmitoylation status of neuronal proteins in aged individuals[2].

Solubility Information

Solubility	DMSO: 240 mg/mL (677.2 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8217 mL	14.1084 mL	28.2167 mL
5 mM	0.5643 mL	2.8217 mL	5.6433 mL
10 mM	0.2822 mL	1.4108 mL	2.8217 mL
50 mM	0.0564 mL	0.2822 mL	0.5643 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

Wang Q, et al. Xanthohumol, a novel anti-HIV-1 agent purified from Hops Humulus lupulus. Antiviral Res. 2004 Dec;64(3):189-94.

Zamzow D, et al. Xanthohumol improved cognitive flexibility in young mice. Behav Brain Res. 2014 Dec 15;275:1-10.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481