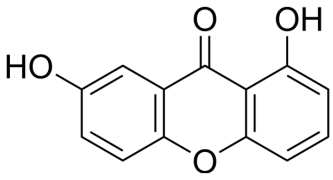
Euxanthone

Cat. No.:	HY-N3883
CAS No.:	529-61-3
Molecular Formula:	$C_{13}H_8O_4$
Molecular Weight:	228.2
Target:	Autophagy
Pathway:	Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Euxanthone, a xanthone derivative, attenuates Aβ1-42-induced oxidative stress and apoptosis by triggering autophagy. Euxanthone exhibits anti-neoplastic and neuroprotective activities[1][2][3].

In Vitro

Euxanthone (10-20 μM; 24 h) compromises the capability of OS cells to migrate in a dose-dependent fashion, and significantly suppresses cell invasion. Euxanthone presents a significant decrease in adhesion to fibronectin[1].
Euxanthone (10-20 μM; 24 h) modulates the COX-2 expression through the miR-21/PDCD4/c-jun signaling pathway. The repression of COX-2 by Euxanthone mediated its anti-metastatic activities[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Migration Assay [1]

Cell Line:	Osteosarcoma (OS) cells
Concentration:	10 μM, 20 μM
Incubation Time:	24 h
Result:	Inhibited cell migration at 24 hr.

Western Blot Analysis[1]

Cell Line:	Osteosarcoma (OS) cells
Concentration:	10 μM, 20 μM
Incubation Time:	24 h
Result:	Repressed both the mRNA and protein level of COX-2 in OS cells in a dose-dependent fashion.

In Vivo

Euxanthone (40-80 mg/kg) could significantly decrease the number of metastatic nodules in lung tissue in a pulmonary metastasis model[1].
Euxanthone (30-60 mg/kg; p.o.;once a day; for 7 days) treatment normalized Bnip3, Beclin1, Pink1, Parkin, p53, Bax, caspase-3, and LC3 II/I in bearing bilateral common carotid artery occlusion (BCCAO). Euxanthone modulates mitophagy and apoptosis induces by mitochondrial stress mediated by mitochondrial fragmentation[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Forty male ICR mice (20 g) induced cerebral ischemia and reperfusion[2]
Dosage:	30 mg/kg, 60 mg/kg
Administration:	p.o.;once a day; for 7 days
Result:	Markedly attenuated BCCAO triggered mitochondrial stress and related breakdown.

REFERENCES

[1]. Xiaodong Chen, et al. Euxanthone Impairs the Metastatic Potential of Osteosarcoma by Reducing COX-2 Expression. Anat Rec (Hoboken). 2019 Aug;302(8):1399-1408.

[2]. Wei Sun, et al. Euxanthone improves cognitive impairment by attenuating mitochondrial fragmentation and suppressing oxidative stress. Cent Eur J Immunol. 2021;46(4):446-455.

[3]. aicheng Yuan, et al. Euxanthone Attenuates Aβ1-42-Induced Oxidative Stress and Apoptosis by Triggering Autophagy. J Mol Neurosci. 2018 Dec;66(4):512-523.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA