Data Sheet (Cat.No.TN3144)

TargetMol

6,4'-Dihydroxy-7-methoxyflavanone

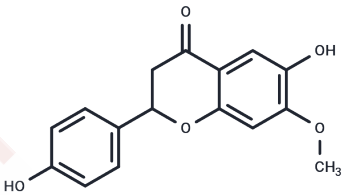
Chemical Properties

CAS No. : 189689-32-5

Formula: C16H14O5

Molecular Weight: 286.28

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	6,4'-Dihydroxy-7-methoxyflavanone is a biologically active compound isolated from the heartwood of Dalbergia odorifera T. Chen (Leguminosae) with antioxidant, anti-inflammatory and neuroprotective effects. 6,4'-Dihydroxy-7-methoxyflavanone can be used in studies about the treatment of osteoclastogenic bone diseases such osteoporosis, rheumatoid arthritis and periodontal diseases.
Targets(IC50)	ERK,Antioxidant,NF-κB,MAPK,Autophagy,IL Receptor,JNK,Prostaglandin Receptor,TNF
In vitro	6,4'-Dihydroxy-7-methoxyflavanone showed inhibition of osteoclasts differentiation and function. 6,4'-Dihydroxy-7-methoxyflavanone increased cellular resistance to oxidative injury caused by glutamate-induced cytotoxicity in HT22 cells, via JUN N-terminal kinase (JNK) pathway dependent (HO)-1 expression. 6,4'-Dihydroxy-7-methoxyflavanone suppressed the lipopolysaccharide (LPS)-induced expression of pro-inflammatory enzymes and inflammatory mediators in BV2 microglia. 6,4'-Dihydroxy-7-methoxyflavanone suppressed production of nitric oxide (NO), prostaglandin E2 (PGE2), tumor necrosis factor-α (TNF-α) and interleukin-1β (IL-1β), through extracellular signal-regulated kinase (ERK) pathway dependent HO-1 expression. CONCLUSIONS: This study indicates that 6,4'-Dihydroxy-7-methoxyflavanone effectively modulates the regulation of anti-oxidative and anti-inflammatory action, via up-regulation of HO-1 in HT22 cells and BV2 microglia. 6,4'-Dihydroxy-7-methoxyflavanone possesses therapeutic potentials against neurodegenerative diseases that are induced by oxidative stress and neuroinflammation[1].

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

Li B, et al. Involvement of heme oxygenase-1 induction in the cytoprotective and immunomodulatory activities of 6,4'-dihydroxy-7-methoxyflavanone in murine hippocampal and microglia cells. Eur J Pharmacol. 2012 Jan 15;674 (2-3):153-62.