3-O-Methylquercetin

Cat. No.: HY-N1860

CAS No.: 1486-70-0

Molecular Formula: $C_{16}H_{12}O_7$

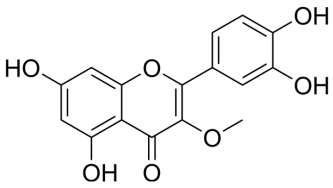
Molecular Weight: 316.26

Target: Phosphodiesterase (PDE)

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (158.10 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1620 mL	15.8098 mL	31.6196 mL
	5 mM	0.6324 mL	3.1620 mL	6.3239 mL
	10 mM	0.3162 mL	1.5810 mL	3.1620 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 0.62 mg/mL (1.96 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 0.62 mg/mL (1.96 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 0.62 mg/mL (1.96 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

3-O-Methylquercetin (3-MQ) is a major component from the plant Rhamnus nakaharai and has antiviral activity and potential antiasthmatic efficacy. 3-O-Methylquercetin inhibits total cAMP and cGMP-phosphodiesterase (PDE). The IC_{50} values of 3-O-Methylquercetin (3-MQ) against PDE1-PDE5 are in the range of 1.6-86.9 μM. 3-O-Methylquercetin is a non-competitive inhibitor of PDE2 and a competitive inhibitor of PDE4[1].

REFERENCES

[1]. Wun-Chang Ko, et al. 3-O-methylquercetin More Selectively Inhibits Phosphodiesterase Subtype 3. Planta Med. 2003 Apr;69(4):310-5.

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