Data Sheet (Cat.No.TN4802)

TargetMol
A DRUG SCREENING EXPERT

Plathymenin

Chemical Properties

CAS No.:	492-12-6
Formula:	C15H12O6
Molecular Weight:	288.25
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Plathymenin is a natural product from Spatholobus suberectus.
Targets(IC_{50})	Others: None
In vitro	Of these constituents 3',4',7-trihydroxyflavone (1), eriodictyol (3), Plathymenin (5), dihydroquercetin (6), butin (7), neoisoliquiritigenin (8), dihydrokaempferol (9), liquiritigenin (10), and 6-methoxyeriodictyol (12) represented compounds isolated for the first time from S. suberectus. METHODS AND RESULTS: These constituents were evaluated their ability to inhibit cellular tyrosinase activity and for their melanin inhibitory activity in human epidermal melanocytes (HEMn). Butin (7) was the most efficacious of these constituents and exhibited concentration-dependent effects. Western blot analysis revealed that expression of tyrosinase and tyrosinase-related proteins 1 and 2 (TRP1 and TRP2) was decreased in butin (7)-treated HEMn cells. Additionally, quantitative real-time PCR (qRT-PCR) analysis disclosed that expression of mRNAs for tyrosinase, TRP1 and TRP2 was suppressed by butin (7). CONCLUSIONS: It is concluded that butin (7) is the most active of the components of S. suberectus in inhibiting pigmentation and that this inhibition is exerted through inhibition of transcription of the genes encoding tyrosinase, TRP1 and TRP2.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.469 mL	17.346 mL	34.692 mL
5 mM	0.694 mL	3.469 mL	6.938 mL
10 mM	0.347 mL	1.735 mL	3.469 mL
50 mM	0.069 mL	0.347 mL	0.694 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Bioactive constituents of Spatholobus suberectus in regulating tyrosinase-related proteins and mRNA in HEMn cells. Phytochemistry. 2006 Jun;67(12):1262-70.

Inhibitors · Natural Compounds · Compound Libraries

Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481