Data Sheet (Cat.No.TN6524)

TargetMol

Irilone

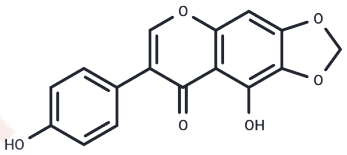
Chemical Properties

CAS No. : 41653-81-0

Formula: C16H10O6

Molecular Weight: 298.25

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	Irilone is a flavonoid with α-amylase inhibitory activity and highly selective inhibition of CYP3A4. In addition, Irilone enhances progesterone receptor (PR) signaling via estrogen receptor (ER) and glucocorticoid receptor (GR) when combined with progesterone.Irilone has potential anti-inflammatory activity and inhibits nitric oxide (NO) production by lipopolysaccharide (LPS)-induced RAW264.7 in mouse macrophages.
Targets(IC50)	Amylase,Cytochromes P450
In vitro	**Methods**:In the current study, we used a progesterone response element (pre)-acidase (LUC) reporter gene assay to identify four phytochemicals present in standardized red clover (Trifolium Pratense) extracts. **Results**: Irilone (1) potentiated the effects of progesterone in endometrial and ovarian cancer cell lines. In these cancers, progesterone action is usually associated with positive outcomes. Thus, the potentiation of 1 may provide novel strategies to enhance progesterone signaling as a means to alleviate diseases such as leiomyosarcoma and endometriosis. [1]

Solubility Information

Solubility	DMSO: 2 mg/mL (6.71 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3529 mL	16.7645 mL	33.5289 mL
5 mM	0.6706 mL	3.3529 mL	6.7058 mL
10 mM	0.3353 mL	1.6764 mL	3.3529 mL
50 mM	0.0671 mL	0.3353 mL	0.6706 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

Lee JH, et al. Irilone from Red Clover (Trifolium pratense) Potentiates Progesterone Signaling. J Nat Prod. 2018 Sep 28;81(9):1962-1967. . J Nat Prod. 2018 Sep 28;81(9):1962-1967.

L Z Lin, et al. LC-ESI-MS study of the flavonoid glycoside malonates of red clover (Trifolium pratense). J Agric Food Chem. 2000, 48, 2.