Tectoridin

Cat. No.: HY-N0791

CAS No.: 611-40-5

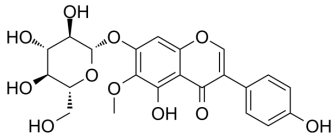
Molecular Formula: $C_{22}H_{22}O_{11}$

Molecular Weight: 462.4

Target: Estrogen Receptor/ERR

Pathway: Vitamin D Related/Nuclear Receptor

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (540.66 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1626 mL	10.8131 mL	21.6263 mL
	5 mM	0.4325 mL	2.1626 mL	4.3253 mL
	10 mM	0.2163 mL	1.0813 mL	2.1626 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: ≥ 2.08 mg/mL (4.50 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.50 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.50 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Tectoridin is a isoflavone isolated from Maackia amurensis. Tectoridin is a phytoestrogen and activates estrogen and thyroid hormone receptors. Tectoridin exerts the estrogenic effects via ER-dependent genomic pathway and GPR30-dependent nongenomic pathway[1][2].

In Vitro

Tectoridin scarcely binds to ER alpha as compared to 17beta-estradiol and genistein[2].
Tectoridin induceds potent estrogenic effects, namely recovery of the population of cells in the S-phase after serum starvation, transactivation of the estrogen response element, and induction of MCF-7 cell proliferation[2].
Tectoridin induces estrogenic effect, and this effect is severely abrogated by treatment with U0126 (MEK1/2 inhibitor).
Tectoridin promotes phosphorylation of ERK1/2, but does not affect phosphorylation of ER alpha at Ser (118). It also

	increases cellular accumulation of cAMP[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Mol Cell Biochem. 2021 Mar 8.

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REFERENCES

[1]. Shim M, et al. Tectoridin from Maackia amurensis modulates both estrogen and thyroid receptors.Phytomedicine. 2014 Apr 15;21(5):602-6.

[2]. Kang K, et al. Tectoridin, a poor ligand of estrogen receptor alpha, exerts its estrogenic effects via an ERK-dependent pathway.Mol Cells. 2009 Mar 31;27(3):351-7.

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