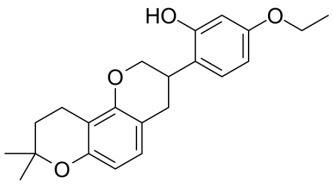
Vutiglabridin

Cat. No.:	HY-145605
CAS No.:	1800188-47-9
Molecular Formula:	$C_{22}H_{26}O_4$
Molecular Weight:	354.44
Target:	Others
Pathway:	Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (282.14 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.8214 mL	14.1068 mL	28.2135 mL
5 mM	0.5643 mL	2.8214 mL	5.6427 mL
10 mM	0.2821 mL	1.4107 mL	2.8214 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Vutiglabridin (HSG4112), a racemic compound, is a potent anti-obesity agent[1]. Vutiglabridin, an optimized structural analog of Glabridin, markedly supersedes Glabridin in weight reduction efficacy and chemical stability[1].

In Vivo

Vutiglabridin (HSG4112) fully reverses adiposity in HFD-induced obese mice in a dose-dependent manner. Vutiglabridin (orally administered with 10, 30, or 100 mg/kg dose for 6 weeks) dose-dependently reduces body weight and normalizes obesity-related parameters in high-fat diet (HFD)-induced obese mice[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	HFD-induced obese male C57BL/6J mice[2]

Dosage:	10, 30, and 100 mg/kg
Administration:	Orally administered for 6 weeks
Result:	Led to significant dose-dependent body weight reduction by 4.0 g (8.3%), 10 g (21%), and 19 g (40%), respectively, compared to the 48.1 g body weight of HFD-induced obese mice administered with only the vehicle at 10, 30, and 100 mg/kg.

REFERENCES

[1]. In Yong Bae, et al. Species Differences in Stereoselective Pharmacokinetics of HSG4112, A New Anti-Obesity Agent. Pharmaceutics. 2020 Feb 3;12(2):127.

[2]. Leo Sungwong Choi, et al. Discovery and preclinical efficacy of HSG4112, a synthetic structural analog of glabridin, for the treatment of obesity. Int J Obes (Lond). 2021 Jan;45(1):130-142.

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