

Fortunellin

Chemical Properties

CAS No. : 20633-93-6

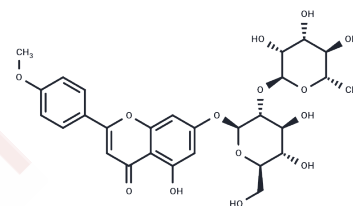
Formula: C₂₈H₃₂O₁₄

Molecular Weight: 592.55

Keep away from direct sunlight

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	Fortunellin is a flavonoid isolated from <i>Fortunella margarita</i> (kumquat) that alleviates histopathological heart injury while improving cardiac function by reducing inflammation and oxidative stress in fructose-induced metabolic disease models. Fortunellin decreases pro-inflammatory cytokines and suppresses phosphorylation of IKK α , I κ B α , and NF- κ B, while upregulating antioxidant defenses including SOD, CAT, HO-1, and activating AMPK/Nrf2 signaling, supporting the use of Fortunellin in research on diabetic cardiomyopathy and cardiometabolic disorders.
Targets(IC50)	AMPK,I κ B/IKK
In vitro	Fortunellin induces the Nrf2 signaling pathway by promoting AMPK phosphorylation, thereby significantly reducing oxidative stress levels through upregulation of the antioxidant factors SOD, CAT, and HO-1 [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (135.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6876 mL	8.4381 mL	16.8762 mL
5 mM	0.3375 mL	1.6876 mL	3.3752 mL
10 mM	0.1688 mL	0.8438 mL	1.6876 mL
50 mM	0.0338 mL	0.1688 mL	0.3375 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

Zhao C, et al. Fortunellin protects against high fructose-induced diabetic heart injury in mice by suppressing inflammation and oxidative stress via AMPK/Nrf-2 pathway regulation. *Biochem Biophys Res Commun*. 2017 Aug 19;490(2):552-559.

Entezari M, et al. AMPK signaling in diabetes mellitus, insulin resistance and diabetic complications: A pre-clinical and clinical investigation. *Biomed Pharmacother*. 2022 Feb;146:112563.

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