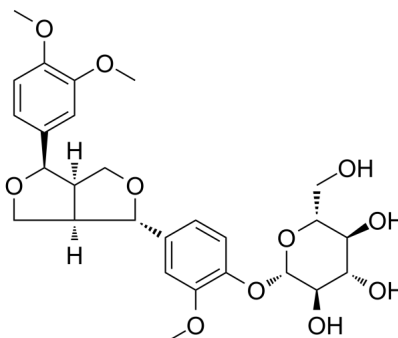


Certificate of Analysis

Catalog Number	BP14106
Product Name	Phillyrin

Physical and Chemical Properties

Synonyms	Forsythin
CAS No.	487-41-2
Chemical Formula	C ₂₇ H ₃₄ O ₁₁
Molecular Weight	534.558
Solubility	DMSO: 91 mg/mL(170.2 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Phillyrin is a novel AMPK activator, has anti-obesity effects in nutritive obesity mice, it can prevent lipid accumulation in HepG2 cells by blocking the expression of SREBP-1c and FAS through LKB1/AMPK activation. Phillyrin may be a new preventive agent of acute lung injury in the clinical setting, it potentially contributes to the suppression of the activation of MAPK and NF-κB pathways, it also has protective effects on H2O2-induced oxidative stress and apoptosis in PC12 cells.
In vitro	Phillyrin suppressed high glucose-induced lipid accumulation in HepG2 cells. Phillyrin strongly inhibited high glucose-induced fatty acid synthase (FAS) expression by modulating sterol regulatory element-binding protein-1c (SREBP-1c) activation. Moreover, use of the pharmacological AMP-activated protein kinase (AMPK) inhibitor revealed that AMPK is essential for suppressing SREBP-1c expression in Phillyrin-treated cells. Liver kinase B1 (LKB1) phosphorylation is required for the Phillyrin-enhanced activation of AMPK in HepG2 hepatocytes.
In vivo	Phillyrin has anti-obesity effect in nutritive obesity mice. Phillyrin could lower wet weight of fat ($P < 0.01$), fat index ($P < 0.05$ or $P < 0.01$), the diameter of fat cell and Lee's index ($P < 0.05$), decrease the jejunum microvillus area, lower the level of serum triglyceride and cholesterol.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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