

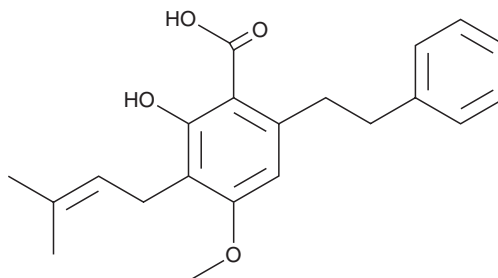
PRODUCT INFORMATION



Amorfrutin A

Item No. 21106

CAS Registry No.: 80489-90-3
Formal Name: 2-hydroxy-4-methoxy-3-(3-methyl-2-buten-1-yl)-6-(2-phenylethyl)-benzoic acid
Synonym: Amorfrutin 1
MF: C₂₁H₂₄O₄
FW: 340.4
Purity: ≥97%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive
Item Origin: Plant/*Amorpha fruticosa*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Amorfrutin A is supplied as a solid. A stock solution may be made by dissolving the amorfrutin A in the solvent of choice, which should be purged with an inert gas. Amorfrutin A is soluble in organic solvents such as ethanol, methanol, and DMSO.

Description

Amorfrutin A is an isoprenoid-substituted benzoic acid natural product found in the fruit of *A. fruticosa* and *G. foetida* that exhibits antidiabetic effects. It binds to PPAR γ with a K_i of 0.236 μ M and activates a PPAR γ gene reporter assay with an EC₅₀ value of 0.458 μ M.¹ In high-fat diet-induced obese (DIO) mice, amorfrutin A (100 mg/kg/day) enhanced glucose tolerance and insulin sensitivity, while decreasing plasma triglycerides, free fatty acids, insulin, and glucose concentrations.¹ Amorfrutin A inhibits TNF- α -induced expression of a number of inflammatory genes such as COX-2, IL-1 β , MCP-1, MIP-2, MIP-3 α , MMP-9, and IL-8 through inhibition of both NF- κ B and PPAR γ activity with efficacy at 5-20 μ M.^{2,3}

References

1. Weidner, C., de Groot, J.C., Prasad, A., *et al.* Amorfrutins are potent antidiabetic dietary natural products. *Proc. Natl. Acad. Sci. USA* **109**(19), 7257-7262 (2012).
2. Shi, H., Ma, J., Mi, C., *et al.* Amorfrutin A inhibits TNF- α -induced NF- κ B activation and NF- κ B-regulated target gene products. *Int. Immunopharmacol.* **21**(1), 56-62 (2014).
3. Fuhr, L., Rousseau, M., Plauth, A., *et al.* Amorfrutins are natural PPAR γ agonists with potent anti-inflammatory properties. *J. Nat. Prod.* **78**(5), 1160-1164 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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