

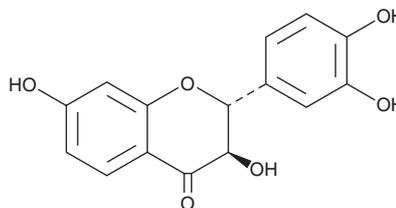
PRODUCT INFORMATION



Fustin

Item No. 36273

CAS Registry No.: 20725-03-5
Formal Name: (2R,3R)-rel-2-(3,4-dihydroxyphenyl)-2,3-dihydro-3,7-dihydroxy-4H-1-benzopyran-4-one
Synonyms: Dihydrofisetin, NSC 59264
MF: C₁₅H₁₂O₆
FW: 288.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

Fustin is supplied as a solid. A stock solution may be made by dissolving the fustin in the solvent of choice, which should be purged with an inert gas. Fustin is soluble in acetone, chloroform, dichloromethane, DMSO, and ethyl acetate.

Description

Fustin is a polyketide synthase-derived flavanone that has been found in *R. verniciflua* and has diverse biological activities.¹⁻⁴ It enhances epigallocatechin-3-O-gallate-induced decreases in the viability of U266 multiple myeloma cells when used at concentrations of 5 and 10 μM.² Fustin (50 and 100 mg/kg) inhibits increases in blood glucose levels, as well as serum total cholesterol, triglyceride, and malondialdehyde (MDA) levels, in a mouse model of diabetes induced by streptozotocin (Item No. 13104).³ It prevents decreases in contextual- and tone fear conditioning freezing time, indicating a reversal of memory deficits, induced by amyloid-β (1-42) (Aβ42) in mice when administered at a dose of 100 mg/kg.⁴

References

1. Marín, L., Gutiérrez-Del-Río, I., Villar, C.J., *et al.* De novo biosynthesis of garbanzol and fustin in *Streptomyces albus* based on a potential flavanone 3-hydroxylase with 2-hydroxylase side activity. *Microb. Biotechnol.* **14**(5), 2009-2024 (2021).
2. Kumazoe, M., Fujimura, Y., Yoshitomi, R., *et al.* Fustin, a flavanonol, synergically potentiates the anticancer effect of green tea catechin epigallocatechin-3-O-gallate with activation of the eNOS/cGMP axis. *J. Agric. Food Chem.* **70**(11), 3458-3466 (2022).
3. Gilani, S.J., Bin-Jumah, M.N., Al-Abbasi, F.A., *et al.* Fustin ameliorates hyperglycemia in streptozotocin induced type-2 diabetes via modulating glutathione/superoxide dismutase/catalase expressions, suppress lipid peroxidation and regulates histopathological changes. *Saudi J. Biol. Sci.* **28**(12), 6963-6971 (2021).
4. Jin, C.-H., Shin, E.-J., Park, J.-B., *et al.* Fustin flavonoid attenuates β-amyloid (1-42)-induced learning impairment. *J. Neurosci. Res.* **87**(16), 3658-3670 (2009).

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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