

## Product Data Sheet

Product Name: Fustin  
Cat. No.: GC52047

### Chemical Properties

Cas. No. 20725-03-5

SMILES OC(C=CC([C@H]1OC2=CC(O)=CC=C2C([C@@H]1O)=O)=C3)=C3O

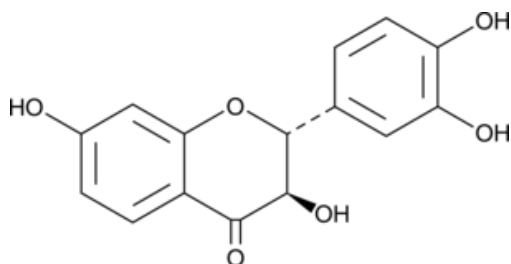
Formula C<sub>15</sub>H<sub>12</sub>O<sub>6</sub> M.Wt 288.3

Solubility Acetone: soluble, Chloroform: soluble, Dichloromethane: soluble, DMSO: soluble, Ethyl Acetate: soluble  
Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



### Background

Fustin is a polyketide synthase-derived flavanone that has been found in *R. verniciflua* and has diverse biological activities.<sup>1,2,3,4</sup> 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.<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup>

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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1. Marín, L., Guti  rrez-Del-R  o, 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  $\beta$ -amyloid (1-42)-induced learning impairment *J. Neurosci. Res.* 87(16)3658-3670(2009)

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