

Product Data Sheet

Product Name: Esculin
Cat. No.: GC38708

Chemical Properties

Cas. No. 531-75-9

SMILES O=C1C=CC2=CC(O[C@H]3[C@@H]([C@H]([C@@H]([C@@H](CO)O3)O)O)O)=C(O)C=C2O1

Formula $C_{15}H_{16}O_9$ M.Wt 340.28

Solubility DMSO : 100 mg/mL (293.88 mM; Need ultrasonic) Storage Store at -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.

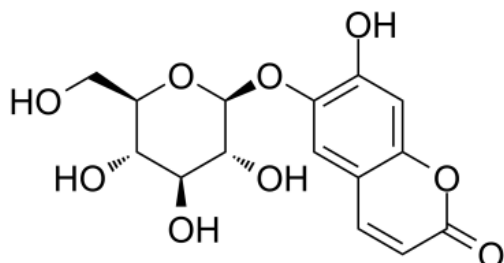
Caution: Product has not been fully validated for medical applications. For research use only.

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Structure



Background

Esculin, a fluorescent coumarin glucoside, is an active ingredient of ash bark[1]. Esculin ameliorates cognitive impairment in experimental diabetic nephropathy (DN), and exerts anti-oxidative stress and anti-inflammatory effects, via the MAPK signaling pathway[2].

[1]. Knox K, et al. The Coumarin Glucoside, Esculin, Reveals Rapid Changes in Phloem-Transport Velocity in Response to Environmental Cues. *Plant Physiol.* 2018 Oct;178(2):795-807. [2]. Song Y, et al. Esculin ameliorates cognitive impairment in experimental diabetic nephropathy and induces anti-oxidative stress and anti-inflammatory effects via the MAPK pathway. *Mol Med Rep.* 2018 May;17(5):7395-7402.

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