

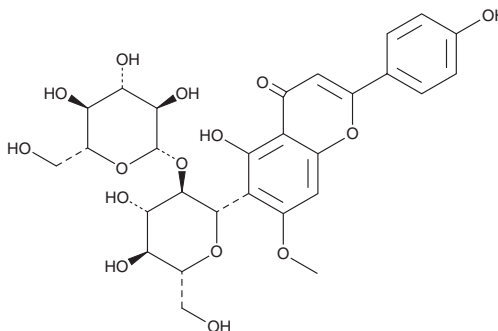
PRODUCT INFORMATION



Spinosin

Item No. 40216

CAS Registry No.: 72063-39-9
Formal Name: 6-(2-O-β-D-glucopyranosyl-β-D-glucopyranosyl)-5-hydroxy-2-(4-hydroxyphenyl)-7-methoxy-4H-1-benzopyran-4-one
Synonym: Flavoayamenin
MF: C₂₈H₃₂O₁₅
FW: 608.6
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Spinosin is supplied as a solid. A stock solution may be made by dissolving the spinosin in the solvent of choice, which should be purged with an inert gas. Spinosin is soluble in methanol and DMSO.

Description

Spinosin is a C-glycoside flavonoid that has been found in *Z. spinosa* and has diverse biological activities.¹⁻⁴ It reduces the production of reactive oxygen species (ROS) induced by hydrogen peroxide (H₂O₂) in Neuro2a cells when used at a concentration of 25 μM.² It also reduces H₂O₂-induced activation of p38 MAPK, increases in amyloid-β (1-42) (Aβ42) levels, and phosphorylation of tau at serine 396 (Ser³⁹⁶), but not Ser¹⁹⁹ or Ser²⁰², in Neuro2a cells. Spinosin increases the percentage of time spent on the open arms of the elevated plus maze in mice when administered at doses of 2.5 and 5 mg/kg.³ It also reverses scopolamine-induced decreases in the time spent in the target quadrant of the Morris water maze in mice at 10 and 20 mg/kg.⁴ Spinosin prolongs pentobarbital-induced sleeping time in unstressed mice at 100 mg/kg and cold-stressed mice at 50 mg/kg.¹

References

1. Kawashima, K., Miyako, D., Saito, K.-I., *et al.* Interaction between 3,4,5-trimethoxycinnamic acid and spinosin on pentobarbital-induced sleeping time in mice. *J. Trad. Med.* **20**, 220 (2003).
2. Xu, F., Zhang, X., Wang, J., *et al.* Spinosin protects N2a cells from H₂O₂-induced neurotoxicity through inactivation of p38MAPK. *J. Pharm. Pharmacol.* **72(11)**, 1607-1614 (2020).
3. Liu, J., Zhai, W.M., Yang, Y.X., *et al.* GABA and 5-HT systems are implicated in the anxiolytic-like effect of spinosin in mice. *Pharmacol. Biochem. Behav.* **128**, 41-49 (2015).
4. Jung, I.H., Lee, H.E., Park, S.J., *et al.* Ameliorating effect of spinosin, a C-glycoside flavonoid, on scopolamine-induced memory impairment in mice. *Pharmacol. Biochem. Behav.* **120**, 88-94 (2014).

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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