Product Data Sheet

Product Name: Desmethylglycitein
Cat. No.: GC38482

Chemical Properties

Cas. No.	17817-31-1		
SMILES	O=C1C(C2=CC=C(O)C=C2)=COC3=CC(O)=C(O)C=C13		
Formula	$C_{15}H_{10}O_5$	M.Wt	270.24
Solubility	DMSO: 125 mg/mL (462.55 mM)	Storage	Store at 2-8°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Desmethylglycitein		

Background

6,7,4’-Trihydroxyisoflavone is an active metabolite of the phytoestrogen daidzein .[1,2,3,4] It suppresses anchorage-dependent and -independent growth of HCT116 and DLD-1 colon cancer cells, as well as induces cell cycle arrest at the S and G_2/M phases in HCT116 cells when used at concentrations ranging from 12.5 to 100 ?M.[1] 6,7,4'-Trihydroxyisoflavone (40 and 80 ?M) inhibits adipogenesis in 3T3-L1 preadipocytes induced by isobutylmethylxanthine, dexamethasone, and insulin (MDI).[2] *In vivo*, 6,7,4'-trihydroxyisoflavone (5 mg/kg) reverses scopolamine-induced memory impairments and increases hippocampal brain-derived neurotrophic factor (BDNF) and CREB levels in mice.[3] It also prevents LPS-induced bone loss in mice.[4]

1.Lee, D.E., Lee, K.W., Jung, S.K., et al.6,7,4'-Trihydroxyisoflavone inhibits HCT-116 human colon cancer cell proliferation by targeting CDK1 and CDK2Carcinogenesis32(4)629-635(2011) 2.Seo, S.G., Yang, H., Shin, S.H., et al.A metabolite of daidzein, 6,7,4'-trihydroxyisoflavone, suppresses adipogenesis in 3T3-L1 preadipocytes via ATP-competitive inhibition of PI3KMol. Nutr. Food Res.57(8)1446-1455(2013) 3.Ko, Y.-H., Kim, S.Y., Lee, S.-Y., et al.6,7,4'-Trihydroxyisoflavone, a major

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metabolite of daidzein, improves learning and memory via the cholinergic system and the p-CREB/BDNF signaling pathway in miceEur. J. Pharmacol.826140-147(2018) 4.Kim, E.-N., Kim, Y.G., Lee, J.-H., et al.6,7,4'-Trihydroxyflavone inhibits osteoclast formation and bone resorption in vitro and in vivoPhytother. Res.33(11)2948-2959(2019)

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