Product Data Sheet

Product Name: Saponarin
Cat. No.: GC64119

Chemical Properties

Cas. No.	20310-89-8		
Formula	C27H30O15	M.Wt	594.52
Solubility	DMSO : 100 mg/mL (168.20 mM; Need ultrasonic)	Storage	4°C, away from moisture and light
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	Saponarin		

Background

Saponarin is a flavonoid glycoside that has been found in *H. vulgare* and has diverse biological activities.[1,2,3,4] It prevents UV- or Fenton's reagent-induced lipid peroxidation in cell-free assays.[1] Saponarin (50 and 100 ?M) increases intracellular calcium concentrations and induces AMPK phosphorylation in HepG2 and TE 671 cells, as well as increases glucose uptake and reduces glucose production in HepG2 cells.[2] It inhibits the LPS-induced production of TNF-α and IL-1β in RAW 264.7 cells and induces the expression of skin barrier genes encoding hyaluronan synthase-3, aquaporin-3, and the antimicrobial peptide LL-37 in HaCaT cells.[3] *In vivo*, saponarin (80 mg/kg, p.o) reduces cocaine-induced production of thiobarbituric acid reactive substances (TBARS), decreases in hepatic levels of catalase, superoxide dismutase (SOD), and glutathione peroxidase (GPX), and hepatotoxicity in rats.[4]

1.Kamiyama, M., and Shibamoto, T.Flavonoids with potent antioxidant activity found in young green barley leavesJ. Agric. Food Chem.60(25)6260-6267(2012) 2.Seo, W.-D., Lee, J.H., Jia, Y., et al.Saponarin activates AMPK in a calcium-dependent manner and suppresses gluconeogenesis and increases glucose uptake via phosphorylation of CRTC2

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and HDAC5Bioorg. Med. Chem. Lett.25(22)5237-5242(2015) 3.Min, S.-Y., Park, C.-H., Yu, H.-W., et al.Anti-inflammatory and anti-allergic effects of saponarin and its impact on signaling pathways of RAW 264.7, RBL-2H3, and HaCaT cellsInt. J. Mol. Sci.22(16)8431(2021) 4.Vitcheva, V., Simeonova, R., Krasteva, I., et al.Hepatoprotective effects of saponarin, isolated from Gypsophila trichotoma Wend. on cocaine-induced oxidative stress in ratsRedox Rep.16(2)56-61(2011)

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