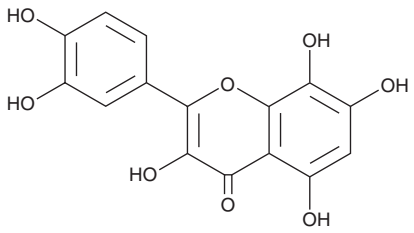
PRODUCT INFORMATION

Gossypetin

Item No. 33840

CAS Registry No.:	489-35-0
Formal Name:	2-(3,4-dihydroxyphenyl)-3,5,7,8-tetrahydroxy-4H-1-benzopyran-4-one
Synonyms:	C.I. 75750, 8-hydroxy Quercetin
MF:	$C_{15}H_{10}O_8$
FW:	318.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 262, 388 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Synthetic



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

Laboratory Procedures

Gossypetin is supplied as a solid. A stock solution may be made by dissolving the gossypetin in the solvent of choice, which should be purged with an inert gas. Gossypetin is soluble in organic solvents such as ethanol and DMSO.

Description

Gossypetin is a flavonoid that has been found in *H. sabdariffa* and has diverse biological activities.[1-3] It inhibits the MAP2K kinases MKK3 and MKK6 in a concentration-dependent manner, as well as induces apoptosis and cell cycle arrest at the G_2 phase in KYSE-450 and KYSE-510 esophageal cancer cells when used at a concentration of 20 µM.[1] Gossypetin scavenges DPPH (Item No. 14805) radicals and inhibits copper-induced lipid peroxidation in cell-free assays.[2] It reduces high-fat diet-induced increases in serum cholesterol, triglycerides, and LDL-cholesterol levels, as well as decreases aortic extracellular lipid and foam cell deposits in a rabbit model of atherosclerosis when administered at a dose of 10 mg/kg.[3]

References

1. Xie, X., Liu, K., Liu, F., *et al.* Gossypetin is a novel MKK3 and MKK6 inhibitor that suppresses esophageal cancer growth *in vitro* and *in vivo*. *Cancer Lett.* **442**, 126-136 (2019).
2. Chen, J.-H., Tsai, C.-W., Wang, C.-P., *et al.* Anti-atherosclerotic potential of gossypetin via inhibiting LDL oxidation and foam cell formation. *Toxicol. Appl. Pharmacol.* **272(2)**, 313-324 (2013).
3. Lin, H.-H. *In vitro* and *in vivo* atheroprotective effects of gossypetin against endothelial cell injury by induction of autophagy. *Chem. Res. Toxicol.* **28(2)**, 202-215 (2015).

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