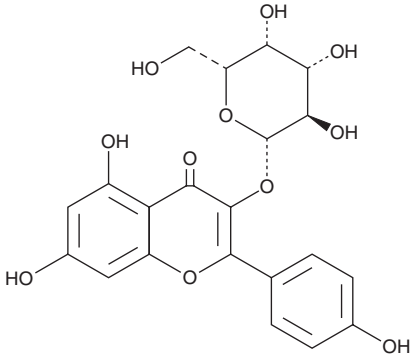
PRODUCT INFORMATION

Kaempferol 3-O-galactoside

Item No. 33747



CAS Registry No.:	23627-87-4
Formal Name:	3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonym:	Trifolin
MF:	$C_{21}H_{20}O_{11}$
FW:	448.4
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Apocynum venetum*

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

Laboratory Procedures

Kaempferol 3-O-galactoside is supplied as a solid. A stock solution may be made by dissolving the kaempferol 3-O-galactoside in the solvent of choice, which should be purged with an inert gas. Kaempferol 3-O-galactoside is soluble in the organic solvent ethanol.

Description

Kaempferol 3-O-galactoside is a flavonoid that has been found in *C. vulgaris* and has diverse biological activities, including anticancer, antioxidant, and anti-inflammatory properties.[1-3] It inhibits secretory phospholipase A_2 ($sPLA_2$) with an IC_{50} value of 17.6 µM.[1] Kaempferol 3-O-galactoside (12.5, 25, and 50 µM) decreases protein levels of Akt and induces apoptosis in NCI H460 non-small cell lung cancer (NSCLC) cells.[2] It scavenges DPPH (Item No. 14805) radicals and superoxide anions in cell-free assays when used at a concentration of 200 µg/ml.[3] Kaempferol 3-O-galactoside reduces ear and paw edema induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) and carrageenan, respectively, in mice when administered at a dose of 150 mg/kg.[1]

References

1. Gil, B., Sanz, M.J., Terencio, M.C., *et al.* Effects of flavonoids on *Naja naja* and human recombinant synovial phospholipases A_2 and inflammatory responses in mice. *Life Sci.* **54(20)**, PL333-PL338 (1994).
2. Kim, M.-J., Kwon, S.-B., Kim, M.-S., *et al.* Trifolin induces apoptosis *via* extrinsic and intrinsic pathways in the NCI-H460 human non-small cell lung-cancer cell line. *Phytomedicine* **23(10)**, 998-1004 (2016).
3. Deliorman-Orhan, D., Şenol, S., Kartal, M., *et al.* Assessment of antiradical potential of *Calluna vulgaris* (L.) Hull and its major flavonoid. *J. Sci. Fd. Agric.* **89(5)**, 809-814 (2009).

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