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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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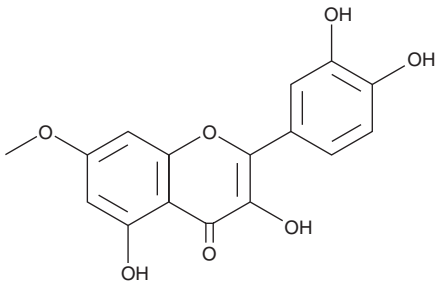
PRODUCT INFORMATION

Rhamnetin

Item No. 20302

CAS Registry No.:	90-19-7
Formal Name:	2-(3,4-dihydroxyphenyl)-3,5-dihydroxy-7-methoxy-4H-1-benzopyran-4-one
Synonyms:	CI-75690, 7-Methoxyquercetin, 7-Methylquercetin, NSC 19802, LY805921, β-Rhamnocitrin
MF:	$C_{16}H_{12}O_7$
FW:	316.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 255, 372 nm
Supplied as:	A crystalline 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

Rhamnetin is supplied as a crystalline solid. A stock solution may be made by dissolving the rhamnetin in the solvent of choice. Rhamnetin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of rhamnetin in these solvents is approximately 20 and 10 mg/ml, respectively.

Rhamnetin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rhamnetin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Rhamnetin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Rhamnetin is a flavonoid that has been found in *O. falcate* and has diverse biological activities.[1-3,5] It reduces production of reactive oxygen species (ROS) and apoptosis induced by miconazole (Item No. 15420) in H9c2 cardiomyocytes.[2] Rhamnetin inhibits LPS-induced TNF-α and nitric oxide (NO) production in rat neonatal organotypic hippocampal slice cultures (OHSCs) under control conditions and during ethanol withdrawal, as well as NMDA-induced neurotoxicity in OHSCs undergoing ethanol withdrawal.[3] Dietary administration of rhamnetin (0.1 and 0.2% w/w) reduces serum levels of malondialdehyde (MDA) and liver and erythrocyte levels of thiobarbituric acid reactive substances (TBARS) in rats fed a cholesterol-free diet.[1] Rhamnetin increases time spent in the target quadrant in the Morris water maze in a rat model of traumatic brain injury.[4]

References

1. Igarashi, K. and Ohmuma, M. *Biosci. Biotechnol. Biochem.* **59(4)**, 595-601 (1995).
2. Lee, K.P., Kim, J.-E., and Park, W.-H. *Nutr. Res. Pract.* **9(6)**, 586-591 (2015).
3. Lutz, J.A., Carter, M., Fields, L., *et al. Alcohol Clin. Exp. Res.* **39(12)**, 2345-2353 (2015).
4. Zhang, W., Li, B., Guo, Y., *et al. Cent. Eur. J. Immunol.* **40(1)**, 35-41 (2015).
5. Jiang, H., Zhan, W.Q., and Jiang, S.X. *Nat. Prod. Res.* **22(18)**, 1650-1656 (2008).

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