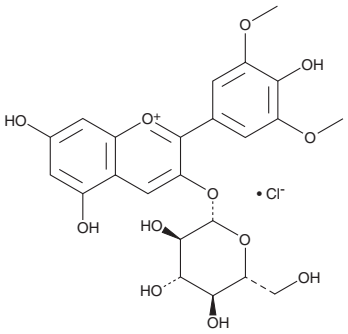
PRODUCT INFORMATION

Oenin

Item No. 16092

CAS Registry No.:	7228-78-6
Formal Name:	3-(β-D-glucopyranosyloxy)-5,7-dihydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-1-benzopyrylium, monochloride
Synonyms:	Malvidin-3-O-glucoside, NSC 70532
MF:	$C_{23}H_{25}O_{12}$ • Cl
FW:	528.9
Purity:	≥95%
UV/Vis.:	λ_{max}: 280, 354, 547 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Oenin is supplied as a crystalline solid. A stock solution may be made by dissolving the oenin in the solvent of choice, which should be purged with an inert gas. Oenin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of oenin in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of oenin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of oenin in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Oenin is a natural anthocyanin found in plants. It is the 3-glucoside of malvidin, an *O*-methylated anthocyanidin. Oenin has neuroprotective effects, reducing amyloid β-induced cytotoxicity and diminishing reactive oxygen species production in Neuro-2A cells when applied at 50 µM.[1] Oenin, at 30 µM, also stimulates autophagy in human osteosarcoma U2OS cells.[2]

References

1. Shih, P.H., Wu, C.H., Yeh, C.T., *et al.* Protective effects of anthocyanins against amyloid β-peptide-induced damage in neuro-2A cells. *J. Agric. Food Chem.* **59(5)**, 1683-1689 (2011).
2. Pietrocola, F., Mariño, G., Lissa, D., *et al.* Pro-autophagic polyphenols reduce the acetylation of cytoplasmic proteins. *Cell Cycle* **11(20)**, 3851-3860 (2012).

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