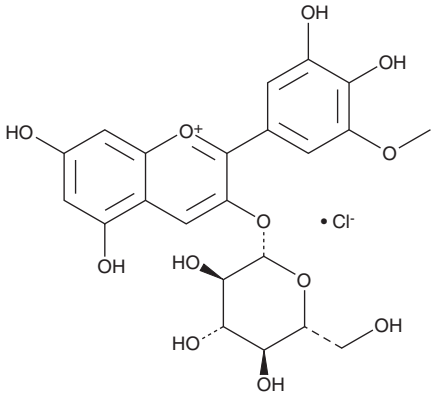
PRODUCT INFORMATION

Petunidin 3-O-glucoside

Item No. 25686



CAS Registry No.:	6988-81-4
Formal Name:	2-(3,4-dihydroxy-5-methoxyphenyl)-3-(β-D-glucopyranosyloxy)-5,7-dihydroxy-1-benzopyrylium, monochloride
Synonym:	Pt3glc
MF:	$C_{22}H_{23}O_{12}$ • Cl
FW:	514.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 278, 549 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

Petunidin 3-O-glucoside is supplied as a crystalline solid. A stock solution may be made by dissolving the petunidin 3-O-glucoside in the solvent of choice. Petunidin 3-O-glucoside is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of petunidin 3-O-glucoside in these solvents is approximately 30 mg/ml.

Petunidin 3-O-glucoside is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, petunidin 3-O-glucoside should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Petunidin 3-O-glucoside has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Petunidin 3-O-glucoside is an anthocyanin that has been found in red grapes and red wines with antiproliferative properties.[1] It reduces DBTRG-05MG glioblastoma cell growth in a time- and concentration-dependent manner by increasing production of reactive oxygen species (ROS) and Bax protein levels and reducing Bcl-2 and caspase-3 activities. Petunidin 3-O-glucoside also reduces glucose uptake, lactic acid production, and NAD levels in DBTRG-05MG cells.

Reference

1. Wang, G., Fu, X.-L., Wang, J.-J., *et al.* Inhibition of glycolytic metabolism in glioblastoma cells by Pt3glc combinated with PI3K inhibitor via SIRT3-mediated mitochondrial and PI3K/Akt-MAPK pathway. *J. Cell. Physiol.* (2018).

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