

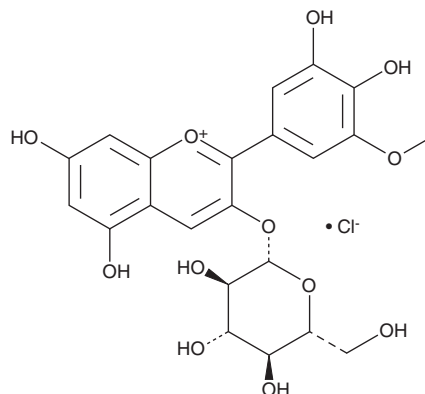
# PRODUCT INFORMATION



## 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<sub>22</sub>H<sub>23</sub>O<sub>12</sub> • Cl  
**FW:** 514.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 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.<sup>1</sup> 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 combined with PI3K inhibitor via SIRT3-mediated mitochondrial and PI3K/Akt-MAPK pathway. *J. Cell. Physiol.* (2018).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/19/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM