

PRODUCT INFORMATION



Malvidin (chloride)

Item No. 19752

CAS Registry No.: 643-84-5
Formal Name: 3,5,7-trihydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)-1-benzopyrylium, monochloride

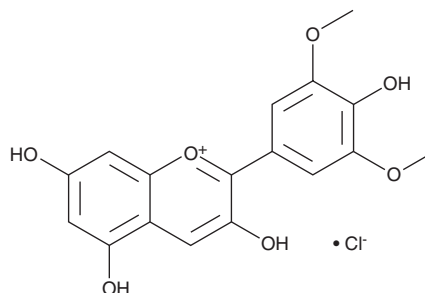
Synonym: Syringidin
MF: C₁₇H₁₅O₇ • Cl
FW: 366.8
Purity: ≥98%

UV/Vis.: λ_{max}: 275, 555 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

Malvidin (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the malvidin (chloride) in the solvent of choice. Malvidin (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of malvidin (chloride) in ethanol and DMSO is approximately 16 mg/ml and approximately 25 mg/ml in DMSO.

Malvidin (chloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, malvidin (chloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Malvidin (chloride) has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Malvidin is an O-methylated anthocyanidin responsible for the pigments in grapes and blueberries. It demonstrates antioxidant capacity with free radical scavenging properties *in vitro*.^{1,2} It also exhibits antihypertensive activity by inhibiting angiotensin I-converting enzyme, anti-inflammatory effects by blocking the NF-κB pathway, antiproliferative properties by inhibiting various tumor cell lines, and counteracts oxidative stress in neuronal cells.^{1,3,4}

References

1. Huang, W., Zhu, Y., Li, C., *et al.* Effect of blueberry anthocyanins malvidin and glycosides on the antioxidant properties in endothelial cells. *Oxid. Med. Cell Longev.* 2016:1591803.
2. Cui, C., Zhang, S., You, L., *et al.* Antioxidant capacity of anthocyanins from *Rhodomyrtus tomentosa* (Ait.) and identification of the major anthocyanins. *Food Chem.* **139**(1-4), 1-8 (2013).
3. Andriambeloson, E., Magnier, C., Haan-Archipoff, G., *et al.* Natural dietary polyphenolic compounds cause endothelium-dependent vasorelaxation in rat thoracic aorta. *J. Nutr.* **128**, 2324-2333 (1998).
4. 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).

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.

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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