

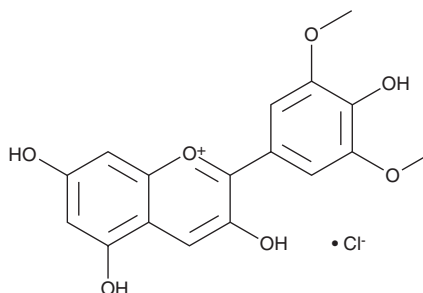
PRODUCT INFORMATION



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: ≥4 years



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

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, which should be purged with an inert gas. Malvidin (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of malvidin (chloride) in ethanol and DMSO is approximately 16 mg/ml and approximately 25 mg/ml in DMF.

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.* 1591803 (2016).
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**(12), 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.

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, 10/20/2022

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