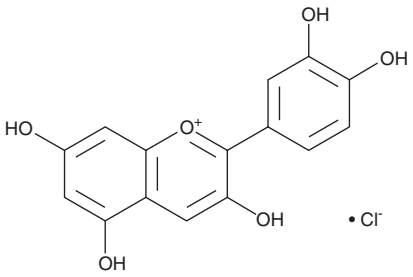
PRODUCT INFORMATION

Cyanidin (chloride)

Item No. 14803

CAS Registry No.:	528-58-5
Formal Name:	2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-1-benzopyrylium, monochloride
Synonyms:	Cyanidol chloride, IdB 1027
MF:	$C_{15}H_{11}O_6 \bullet Cl$
FW:	322.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 278, 548 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

Cyanidin (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the cyanidin (chloride) in the solvent of choice. Cyanidin (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 cyanidin (chloride) in ethanol and DMSO is approximately 16 mg/ml and in DMF it is approximately 25 mg/ml.

Cyanidin (chloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cyanidin (chloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cyanidin (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

Cyanidin is a natural anthocyanidin found in a variety of fruits and vegetables. This polyphenolic compound is a flavonoid with significant antioxidant activity.[1] Cyanidin and its glycosides have vasoprotective effects and can interfere with inflammation, carcinogenesis, obesity, and diabetes.[2-4]

References

1. Galvano, F., La Fauci, L., Vitaglione, P., *et al.* Bioavailability, antioxidant and biological properties of the natural free-radical scavengers cyanidin and related glycosides. *Ann. Ist. Super. Sanita.* **43(4)**, 382-393 (2007).
2. 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).
3. Rice-Evans, C.A., Miller, N.J., and Paganga, G. Structure-antioxidant activity relationships of flavonoids and phenolic acids. *Free Radic. Biol. Med.* **20(7)**, 933-956 (1996).
4. Galvano, F., La Fauci, L., Lazzarino, G., *et al*. Cyanidins: Metabolism and biological properties. *J. Nutr. Biochem.* **15(1)**, 2-11 (2004).

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