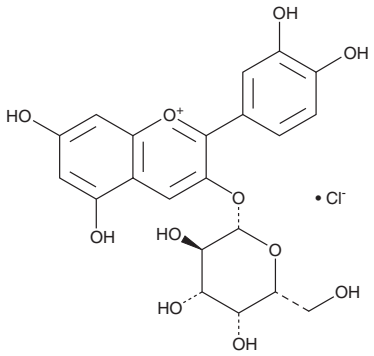
PRODUCT INFORMATION

Cyanidin 3-O-β-D-Galactopyranoside (chloride)

Item No. 22264

CAS Registry No.:	27661-36-5
Formal Name:	2-(3,4-dihydroxyphenyl)-3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-1-benzopyrylium, monochloride
Synonyms:	Cyanidin 3-Galactoside, 3-β-Galactosidylcyanidin, Idaein
MF:	$C_{21}H_{21}O_{11}$ • Cl
FW:	484.8
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Cyanidin 3-O-β-D-galactopyranoside (chloride) is supplied as a solid. A stock solution may be made by dissolving the cyanidin 3-O-β-D-galactopyranoside (chloride) in the solvent of choice, which should be purged with an inert gas. Cyanidin 3-O-β-D-galactopyranoside (chloride) is slightly soluble in methanol.

Cyanidin 3-O-β-D-galactopyranoside (chloride) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Cyanidin 3-O-β-D-galactopyranoside is an anthocyanin flavonoid pigment that has been found in *P. vera* and has antioxidant properties.[1-3] It scavenges radicals in 2,2-diphenyl-1-picrylhyrazyl (DPPH; Item No. 14805), Trolox equivalent antioxidant capacity (TEAC), superoxide anion, and hydrogen peroxide assays.[3] Cyanidin 3-O-β-D-galactopyranoside decreases the release of lactate dehydrogenase (LDH) and the activation of caspase-3 in lymphocytes with *t*-butyl hydroperoxide-induced oxidative damage.

References

1. Sando, C.E. Coloring matters of Grimes Golden, Jonathan, and Stayman Winesap apples. *J. Am. Chem. Soc.* **58(1511)**, 45-56 (1936).
2. Pawlowska, A.M., De Leo, M., and Braca, A. Phenolics of *Arbutus unedo* L. (Ericaceae) fruits: Identification of anthocyanins and gallic acid derivatives. *J. Agric. Food Chem.* **54(26)**, 10234-10238 (2006).
3. Bellocco, E., Barreca, D., Laganá, G., *et al.* Cyanidin-3-O-galactoside in ripe pistachio (*Pistachia vera* L. variety Bronte) hulls: Identification and evaluation of its antioxidant and cytoprotective activities. *J. Funct. Foods* **27**, 376-385 (2016).

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