

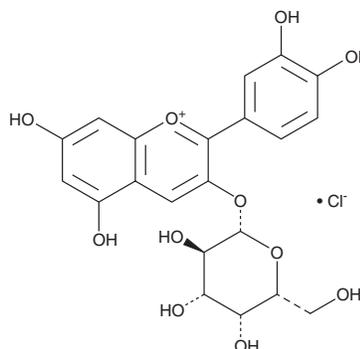
# PRODUCT INFORMATION



## 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<sub>21</sub>H<sub>21</sub>O<sub>11</sub> • 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.<sup>1-3</sup> It scavenges radicals in 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805), Trolox equivalent antioxidant capacity (TEAC), superoxide anion, and hydrogen peroxide assays.<sup>3</sup> 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).

#### 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

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