

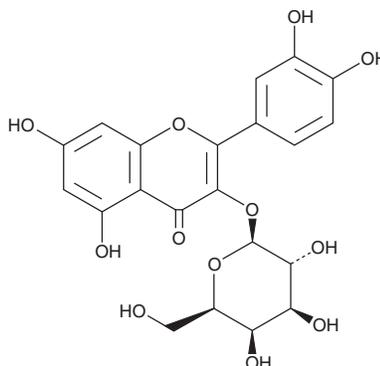
# PRODUCT INFORMATION



## Quercetin 3-D-galactoside

Item No. 18648

**CAS Registry No.:** 482-36-0  
**Formal Name:** 2-(3,4-dihydroxyphenyl)-3-(β-D-galactopyranosyloxy)-5,7-dihydroxy-4H-1-benzopyran-4-one  
**Synonyms:** Hyperoside, NSC 407304, Quercetin-3-O-galactoside  
**MF:** C<sub>21</sub>H<sub>20</sub>O<sub>12</sub>  
**FW:** 464.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 256, 359 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Abelmoschus manihot* (L.) Medic.



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

### Laboratory Procedures

Quercetin 3-D-galactoside is supplied as a crystalline solid. A stock solution may be made by dissolving the quercetin 3-D-galactoside in the solvent of choice, which should be purged with an inert gas. Quercetin 3-D-galactoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of quercetin 3-D-galactoside in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of quercetin 3-D-galactoside can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of quercetin 3-D-galactoside in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Quercetin (Item No. 10005169) is an antioxidant flavonoid compound found in many plants and fruits.<sup>1</sup> Quercetin 3-D-galactoside, commonly known as hyperoside, is a 3-O-galactoside of quercetin that can be found in a wide range of plants.<sup>2,3</sup> It has powerful antioxidant action through its ability to scavenge free radicals (IC<sub>50</sub>s = 3.54 and 5.44 μg/ml in ABTS and DPPH assays, respectively).<sup>2,4,5</sup> Quercetin 3-D-galactoside downregulates the advanced glycation end-product (AGE) receptor in AGE-stimulated ECV304 cells and stimulates osteogenic differentiation of human osteosarcoma cells.<sup>6,7</sup>

### References

1. Gschwendt, M., Horn, F., Kittstein, W., *et al.* *Biochem. Biophys. Res. Commun.* **117(2)**, 444-447 (1983).
2. Bernatoniene, J., Masteikova, R., Majine, D., *et al.* *Medicina (Kaunas)* **44(9)**, 706-712 (2008).
3. Jurikova, T., Sochor, J., Rop, O., *et al.* *Molecules* **17(12)**, 14490-14509 (2012).
4. Chen, J.-W., Zhu, Z.-Q., Hu, T.-X., *et al.* *Acta. Pharmacol. Sin.* **23(7)**, 667-672 (2002).
5. Lee, K.J., Oh, Y.C., Cho, W.K., *et al.* *Evid. Based Complement. Alternat. Med.* (2015).
6. Zhang, Z., Sethiel, M.S., Shen, W., *et al.* *Int. J. Mol. Sci* **14(11)**, 22697-22707 (2013).
7. Zhang, N., Ying, M.-D., Wu, Y.-P., *et al.* *PLoS One* **9(7)**, (2014).

#### 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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