

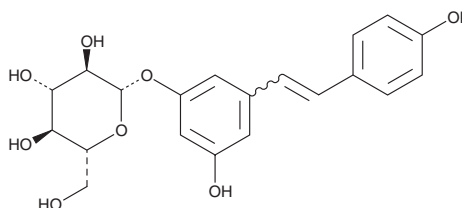
# PRODUCT INFORMATION



## 3,4'-5-Trihydroxystilbene-3-β-D-Glucopyranoside

Item No. 21246

**CAS Registry No.:** 65914-17-2  
**Formal Name:** 3-hydroxy-5-[2-(4-hydroxyphenyl)ethenyl]phenyl β-D-glucopyranoside  
**Synonyms:** (E/Z)-Polydatin, Resveratrol 3-β-mono-D-Glucoside, Resveratrol 3-O-β-D-Glucopyranoside, Trihydroxystilbene-3-β-D-Glucopyranoside  
**MF:** C<sub>20</sub>H<sub>22</sub>O<sub>8</sub>  
**FW:** 390.4  
**Purity:** ≥98% (mixture of isomers)  
**UV/Vis.:** λ<sub>max</sub>: 217, 307, 320 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

3,4'-5-Trihydroxystilbene-3-β-D-glucopyranoside is supplied as a crystalline solid. A stock solution may be made by dissolving the 3,4'-5-trihydroxystilbene-3-β-D-glucopyranoside in the solvent of choice. 3,4'-5-Trihydroxystilbene-3-β-D-glucopyranoside is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 3,4'-5-trihydroxystilbene-3-β-D-glucopyranoside in ethanol and DMSO is approximately 30 mg/ml and approximately 50 mg/ml in DMF.

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 3,4'-5-trihydroxystilbene-3-β-D-glucopyranoside can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of polydatin in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

3,4'-5-Trihydroxystilbene-3-β-D-glucopyranoside is a stilbene glucoside that has been found in *V. vinifera* and has diverse biological activities.<sup>1-5</sup> It reduces the growth of SKOV3 ovarian cancer cell 3D aggregates in a concentration-dependent manner.<sup>2</sup> 3,4'-5-Trihydroxystilbene-3-β-D-glucopyranoside (10 and 20 μg/ml) inhibits IL-17 production in activated peripheral blood mononuclear cells (PBMCs).<sup>3</sup> It inhibits the loss of glutathione peroxidase 4 (GPX4) activity induced by the ferroptosis inducer hemin in Neuro2a neuroblastoma cells.<sup>4</sup> 3,4'-5-Trihydroxystilbene-3-β-D-glucopyranoside (50 mg/kg) reduces escape latency in a rat model of vascular dementia induced by four-vessel occlusion (4-VO).<sup>5</sup>

### References

1. Teguio, P.W., Fauconneau, B., Deffieux, G., et al. *J. Nat. Prod.* **61**(5), 655-677 (1998).
2. Hogg, S.J., Chitcholtan, K., Hassan, W., et al. *Obstet. Gynecol. Int.* 279591 (2015).
3. Lanzilli, G., Cottarelli, A., Nicotera, G., et al. *Inflammation* **35**(1), 240-248 (2012).
4. Huang, L., He, S., Cai, Q., et al. *Biochem. Biophys. Res. Commun.* **556**, 149-155 (2021).
5. Li, R.-P., Wang, Z.-Z., Sun, M.-X., et al. *Phytomedicine* **19**(8-9), 677-681 (2012).

#### 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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