

# PRODUCT INFORMATION



## Cinnamtannin B-1

Item No. 21694

**CAS Registry No.:** 88082-60-4  
**Formal Name:** (2R,3R,4S,8S,14R,15R)-2,8-bis(3,4-dihydroxyphenyl)-4-[(2R,3R)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-3,5,7-trihydroxy-2H-1-benzopyran-8-yl]-3,4-dihydro-8,14-methano-2H,14H-1-benzopyrano[7,8-d][1,3]benzodioxcin-3,5,11,13,15-pentol

**Synonym:** LDN-0022358

**MF:** C<sub>45</sub>H<sub>36</sub>O<sub>18</sub>

**FW:** 864.8

**Purity:** ≥85%

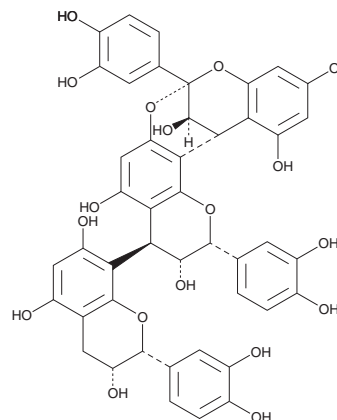
**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Special Conditions:** Light sensitive; store in cool and dry conditions

**Item Origin:** Plant/*Laurus nobilis* L.



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

### Laboratory Procedures

Cinnamtannin B-1 is supplied as a solid. A stock solution may be made by dissolving the cinnamtannin B-1 in the solvent of choice, which should be purged with an inert gas. Cinnamtannin B-1 is soluble in organic solvents such as ethanol and methanol. It is also soluble in a 1:1 solution of DMSO:water. We do not recommend storing the aqueous solution for more than one day.

### Description

Cinnamtannin B-1 is a proanthocyanidin polyphenol originally isolated from cinnamon bark that has antioxidant properties.<sup>1</sup> Cinnamtannin B-1 has antioxidant properties *in vitro*, including inhibition of lipid peroxidation (IC<sub>50</sub> = 2.25 μM).<sup>2</sup> It also protects astrocytes and increases proliferation in an *in vitro* model of ischemia/reperfusion injury.<sup>3</sup> In mice, it enhances migration of mesenchymal stem cells and improves wound healing.<sup>4</sup> It exhibits COX-2 inhibition with 19, 27, and 86% inhibition in Sf9 cells at 10, 100, and 1,000 μg/ml, respectively.<sup>1</sup>

### References

1. Killday, K.B., Davey, M.H., Glinski, J.A., *et al.* Bioactive A-type proanthocyanidins from *Cinnamomum cassia*. *J. Nat. Prod.* **74**(9), 1833-1841 (2011).
2. Ho, K.Y., Huang, J.S., Tasai, C.C., *et al.* Antioxidant activity of tannin components from *Vaccinium vitis-idaea* L. *J. Pharm. Pharmacol.* **51**(9), 1075-1078 (1999).
3. Chi, Z., Ma, X., Cui, G., *et al.* Cinnamtannin B-1 regulates cell proliferation of spinal cord astrocytes and protects the cell from oxygen-glucose-serum deprivation/reoxygenation-induced apoptosis. *Int. J. Mol. Sci.* **14**(8), 15827-15837 (2013).
4. Fujita, K., Kuge, K., Ozawa, N., *et al.* Cinnamtannin B-1 promotes migration of mesenchymal stem cells and accelerates wound healing in mice. *PLoS One* **10**(12), e0144166 (2015).

#### 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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