

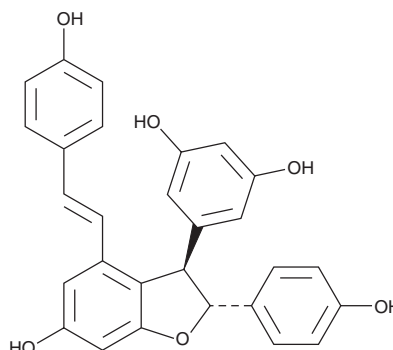
# PRODUCT INFORMATION



## *trans*- $\epsilon$ -Viniferin

Item No. 25737

**CAS Registry No.:** 62218-08-0  
**Formal Name:** 5-[(2R,3R)-2,3-dihydro-6-hydroxy-2-(4-hydroxyphenyl)-4-[(1E)-2-(4-hydroxyphenyl)ethenyl]-3-benzofuranyl]-1,3-benzenediol  
**Synonym:** (-)- $\epsilon$ -Viniferin  
**MF:** C<sub>28</sub>H<sub>22</sub>O<sub>6</sub>  
**FW:** 454.5  
**Purity:**  $\geq 90\%$   
**UV/Vis.:**  $\lambda_{\text{max}}$ : 226, 326 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:**  $\geq 4$  years  
**Item Origin:** Plant/*Vitis amurens*



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

### Laboratory Procedures

*trans*- $\epsilon$ -Viniferin is supplied as a solid. A stock solution may be made by dissolving the *trans*- $\epsilon$ -viniferin in the solvent of choice, which should be purged with an inert gas. *trans*- $\epsilon$ -Viniferin is soluble in the organic solvent DMSO.

### Description

*trans*- $\epsilon$ -Viniferin is a stilbene polyphenol and dimer of *trans*-resveratrol (Item No. 70675) that has been found in various red wines and has diverse biological activities.<sup>1-5</sup> It induces disaggregation of aggregated amyloid- $\beta$  (1-42) (A $\beta$ 42; Item No. 20574) fibrils in a cell-free assay and decreases A $\beta$ 42- and IL-1 $\beta$ -induced release of TNF- $\alpha$  and IL-6 in primary mouse neuron and astrocyte cocultures.<sup>2</sup> *trans*- $\epsilon$ -Viniferin reduces cytotoxicity induced by truncated huntingtin (Htt) in PC12 cells (EC<sub>50</sub> = 30 nM).<sup>3</sup> It also reduces production of reactive oxygen species (ROS), mitochondrial dysfunction, and PGC-1 $\alpha$  depletion and increases protein levels and deacetylase activity of sirtuin 3 (SIRT3) in cells expressing mutant Htt. *trans*- $\epsilon$ -Viniferin inhibits calcium-activated chloride channel currents in HT-29 cells (IC<sub>50</sub> = ~1  $\mu$ M).<sup>4</sup> *In vivo*, *trans*- $\epsilon$ -viniferin (2  $\mu$ g per animal) reduces rotavirus-induced secretory diarrhea in mice without affecting the rotaviral infection. Dietary administration of *trans*- $\epsilon$ -viniferin reduces hepatic triglyceride accumulation and body weight increases in a mouse model of diet-induced obesity.<sup>5</sup>

### References

1. Vitrac, X., Bornet, A., Vanderlinde, R., et al. *J. Agric. Food Chem.* **53**(14), 5664-5669 (2005).
2. Vion, E., Page, G., Bourdeaud, E., et al. *Mol. Cell Neurosci.* **88**, 1-6 (2018).
3. Fu, J., Jin, J., Cichewicz, R.H., et al. *J. Biol. Chem.* **287**(29), 24460-24472 (2012).
4. Yu, B., Jiang, Y., Zhang, B., et al. *Pharmacol. Res.* **129**, 453-461 (2018).
5. Ohara, K., Kusano, K., Kitao, S., et al. *Biochem. Biophys. Res. Commun.* **468**(4), 877-882 (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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