

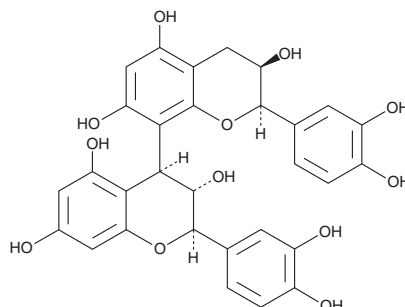
# PRODUCT INFORMATION



## Procyanidin B4

Item No. 36398

**CAS Registry No.:** 29106-51-2  
**Formal Name:** (2R,2'R,3S,3'R,4S)-2,2'-bis(3,4-dihydroxyphenyl)-3,3',4,4'-tetrahydro-[4,8'-bi-2H-1-benzopyran]-3,3',5,5',7,7'-hexol  
**Synonyms:** (+)-Catechin-(4 $\alpha$ →8)-(-)-epicatechin, Proanthocyanidin B4, Procyanidol B4  
**MF:** C<sub>30</sub>H<sub>26</sub>O<sub>12</sub>  
**FW:** 578.5  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/Grape seeds



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

### Laboratory Procedures

Procyanidin B4 is supplied as a solid. A stock solution may be made by dissolving the procyanidin B4 in the solvent of choice, which should be purged with an inert gas. Procyanidin B4 is soluble in acetone, chloroform, dichloromethane, DMSO, and ethyl acetate.

### Description

Procyanidin B4 is a polyphenol flavonoid dimer of (+)-catechin (Item No. 70940) and (-)-epicatechin (Item No. 11807) that has been found in *Q. gilva* and has diverse biological activities.<sup>1,2</sup> It scavenges DPPH (Item No. 14805) and superoxide radicals (IC<sub>50</sub>s = 12.15 and 8.67  $\mu$ M, respectively).<sup>1</sup> Procyanidin B4 inhibits nitric oxide (NO) production in RAW 264.7 macrophages (IC<sub>50</sub> = 1.44  $\mu$ M). It also inhibits activation of Epstein-Barr virus early antigen (EBV-EA) induced by phorbol 12-myristate 13-acetate (TPA; Item No. 10008014) in Raji cells.<sup>2</sup>

### References

1. Youn, S.H., Kwon, J.H., Yin, J., *et al.* Anti-inflammatory and anti-urolithiasis effects of polyphenolic compounds from *Quercus gilva* Blume. *Molecules* **22**(7), 1121 (2017).
2. Ito, H., Miyake, M., Nishatani, E., *et al.* Anti-tumor promoting activity of polyphenols from *Cowania mexicana* and *Coleogyne ramosissima*. *Cancer Lett.* **143**(1), 5-13 (1999).

#### 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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