



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION

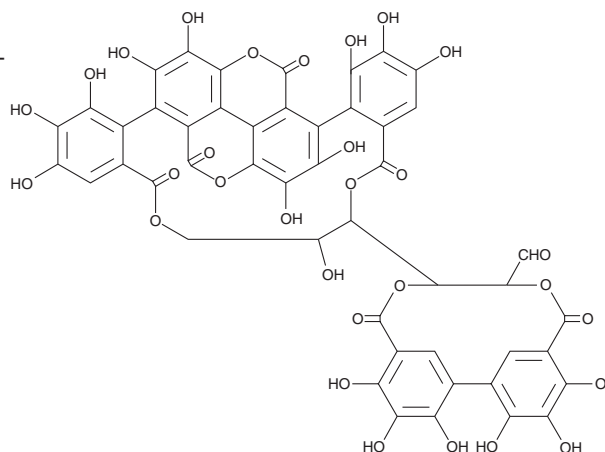


## Punicalagin

Item No. 13069

**CAS Registry No.:** 65995-63-3  
**Formal Name:** cyclic 4,6-[(2S,2'S)-2,2'-(5,10-dihydro-2,3,7,8-tetrahydroxy-5,10-dioxo[1]benzopyrano[5,4,3-cde][1]benzopyran-1,6-diyl)bis[3,4,5-trihydroxybenzoate]] cyclic 2,3-[(1S)-4,4',5,5',6,6'-hexahydroxy[1,1'-biphenyl]-2,2'-dicarboxylate]-D-glucose

**MF:**  $C_{48}H_{28}O_{30}$   
**FW:** 1,084.7  
**Purity:**  $\geq 95\%$  mixture of anomers  
**UV/Vis.:**  $\lambda_{max}$ : 217, 260, 379 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq 2$  years  
**Item Origin:** Pomegranate rind



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

### Laboratory Procedures

Punicalagin is supplied as a crystalline solid. A stock solution may be made by dissolving the punicalagin in the solvent of choice. Punicalagin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of punicalagin in these solvents is approximately 15, 10, and 25 mg/ml, respectively.

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 punicalagin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of punicalagin in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Punicalagin is a major ellagitannin found in pomegranates that is reported to produce antioxidant, anti-inflammatory, and anticancer effects.<sup>1</sup> It has been shown to prevent high-fat diet-induced obesity-associated accumulation of cardiac triglyceride and cholesterol, as well as myocardial damage, via AMPK-mediated modulation of mitochondria and phase II enzymes.<sup>2</sup>

### References

1. Seeram, N.P., Adams, L.S., Henning, S.M., *et al.* *In vitro* antiproliferative, apoptotic and antioxidant activities of punicalagin, ellagic acid and a total pomegranate tannin extract are enhanced in combination with other polyphenols as found in pomegranate juice. *J. Nutr. Biochem.* **16**(6), 360-367 (2005).
2. Cao, K., Pu, W., Dong, Z., *et al.* Punicalagin, an active component in pomegranate, ameliorates cardiac mitochondrial impairment in obese rats via AMPK activation. *Sci. Rep.* **5**, 14014 (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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