

Catalog #10-4583 Punicalagin

CAS# 65995-63-3 Lot # FBA3080

Punicalagin is a polyphenolic compound isolated from pomegranates possessing antioxidant, anti-inflammatory, and antitumorigenic properties.^{1,2} It has been shown to reduce high glucose-induced neural tube defects by blocking cellular stress and caspace activation.³ Punicalagin prevented 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.⁴

- 1) Seeram et al. (2005), 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.16 360
- 2) Adams et al. (2006), Pomegranate Juice, Total Pomegranate Ellagitannins, and Punicalagin Suppress Inflammatory Cell Signaling in Colon Cancer Cells; J.Agric.Food Chem. **54** 980
- 3) Zhong et al. (2015), Punicalagin exerts protective effect against high glucose-induced cellular stress and neural tube defects; Biochem.Biophys.Res.Commun. **467** 179
- 4) Cao et al. (2015), Punicalagin, an active component in pomegranate, ameliorates cardiac mitochondrial impairment in obese rats via AMPK activation; Sci.Rep. **5** 14014

PHYSICAL DATA

NMR: Conforms

Solubility: Water (>20mg/mL)

Physical Description: Yellow solid

Storage and Stability: Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in

water may be stored at -20°C for up to 2 months.

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