

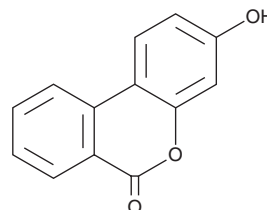
# PRODUCT INFORMATION



## Urolithin B

Item No. 33757

CAS Registry No.: 1139-83-9  
Formal Name: 3-hydroxy-6H-dibenzo[b,d]pyran-6-one  
Synonyms: NSC 94726, 3-hydroxy Urolithin  
MF:  $C_{13}H_8O_3$   
FW: 212.2  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 231, 279, 304 nm  
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years  
Item Origin: Synthetic



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

### Laboratory Procedures

Urolithin B is supplied as a solid. A stock solution may be made by dissolving the urolithin B in the solvent of choice, which should be purged with an inert gas. Urolithin B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of urolithin B in these solvents is approximately 30 mg/ml.

### Description

Urolithin B is a metabolite of the polyphenolic antioxidant ellagic acid (Item No. 10569) that has diverse biological activities.<sup>1-4</sup> It is formed from ellagic acid via several intermediates by gut microbiota.<sup>1</sup> Urolithin B reduces the levels of advanced glycation end products (AGEs) in a cell-free assay in a concentration-dependent manner.<sup>2</sup> It inhibits aromatase activity in human placental microsomes and aromatase-sensitive MCF-7 (MCF-7aro) human breast cancer cells when used at concentrations of 47 and 4.7  $\mu\text{M}$ , respectively.<sup>3</sup> Urolithin B (1.18-4.7 nM) inhibits testosterone-induced proliferation of MCF-7aro cells. It also inhibits LPS-induced increases in inducible nitric oxide synthase (iNOS), TNF- $\alpha$ , IL-6, IL-1 $\beta$ , and COX-2, as well as increases levels of IL-10, in BV-2 microglia when used at concentrations of 50 and 100  $\mu\text{M}$ .<sup>4</sup>

### References

1. Tomás-Barberán, F.A., González-Sarriás, A., García-Villalba, R., *et al.* Urolithins, the rescue of "old" metabolites to understand a "new" concept: Metabotypes as a nexus among phenolic metabolism, microbiota dysbiosis, and host health status. *Mol. Nutr. Food Res.* **61**(1), (2017).
2. Liu, W., Ma, H., Frost, L., *et al.* Pomegranate phenolics inhibit formation of advanced glycation endproducts by scavenging reactive carbonyl species. *Food Funct.* **5**(11), 2996-3004 (2014).
3. Adams, L.S., Zhang, Y., Seeram, N.P., *et al.* Pomegranate ellagitannin-derived compounds exhibit antiproliferative and antiaromatase activity in breast cancer cells *in vitro*. *Cancer Prev. Res. (Phila)* **3**(1), 108-113 (2010).
4. Lee, G., Park, J.-S., Lee, E.-J., *et al.* Anti-inflammatory and antioxidant mechanisms of urolithin B in activated microglia. *Phytomedicine* **55**, 50-57 (2019).

#### 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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