

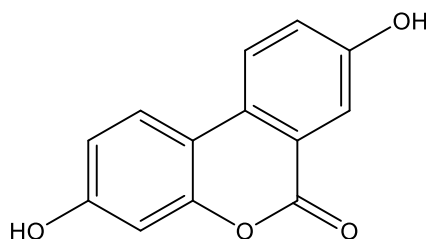
Catalog # 10-3722

Urolithin A

CAS# 1143-70-0

3,8-Dihydroxy-6*H*-dibenzo[b,d]pyran-6-one; 2',7-Dihydroxy-3,4-benzocoumarin

Lot # X109184



Urolithin A (UA) is a microbial metabolite of dietary ellagitannins produced in the gut.¹ It has been shown to induce mitophagy and prolong lifespan in *C. elegans* and increase muscle function in rodents.² It promotes mitophagy and suppresses NLRP3 inflammasome activation in LPS-induced BV2 microglial cells and in an MPTP-induced Parkinson's disease model.³ The pro-mitophagy activity of UA may be beneficial in Alzheimer's disease.⁴ Ex vivo UA-treated T cells display improved anti-tumor function.⁵

- 1) Gonzalez-Barrio *et al.* (2011), *UV and MS identification of Urolithins and Nasutins, the bioavailable metabolites of ellagitannins and ellagic acid in different mammals*; J. Agric.Food Chem., **59** 1152
- 2) Ryu *et al.* (2016), *Urolithin A induces mitophagy and prolongs lifespan in C. elegans and increases muscle function in rodents*; Nat. Med. **22** 8798
- 3) Qiu *et al.* (2022), *Urolithin A promotes mitophagy and suppresses NLRP3 inflammasome activation in lipopolysaccharide-induced BV2 microglial cells and MPTP-induced Parkinson's disease model*; Neuropharmacology, **207** 108963
- 4) Jayatunga *et al.* (2021), *Therapeutic Potential of Mitophagy-Inducing Microflora Metabolite, Urolithin A for Alzheimer's Disease*; Nutrients, **13** 3744
- 5) Denk *et al.* (2022), *Expansion of T memory cells with superior anti-tumor immunity by Urolithin A mitophagy*; Immunity, **55** 2059

PHYSICAL DATA

Molecular Weight:	228.20
Molecular Formula:	C ₁₃ H ₈ O ₄
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (50 mg/ml)
Physical Description:	Pale yellow solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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