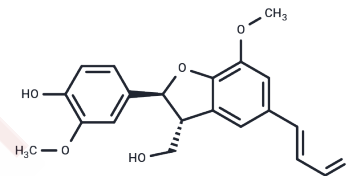


## (+)-Balanophonin

## Chemical Properties

CAS No. :	215319-47-4
Formula:	C <sub>20</sub> H <sub>20</sub> O <sub>6</sub>
Molecular Weight:	356.37
Storage:	Keep away from direct sunlight Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	(+)-Balanophonin is a natural phenolic compound isolated from <i>Passiflora edulis</i> with antioxidant, anti-inflammatory, anticancer and anti-neurodegenerative activities, cholinesterase inhibition, and marginal inhibition of OPM2 and RPMI-8226 cell proliferation.
Targets(IC50)	Antioxidant, Cholinesterase (ChE)
In vitro	(+)-Balanophonin reduced not only the LPS-mediated TLR4 activation but also the production of inflammatory mediators, such as nitric oxide (NO), prostaglandin E2 (PGE2), Interleukin-1 $\beta$ (IL-1 $\beta$ ), and tumor necrosis factor- $\alpha$ (TNF- $\alpha$ ), in BV2 cells. (+)-Balanophonin also inhibited LPS-induced inducible nitric oxide synthase (iNOS), and cyclooxygenase-2 (COX2) protein expression and mitogen activated protein kinases (MAPKs), including extracellular signal-regulated kinase (ERK1/2), c-Jun N-terminal kinase (JNK), and p38 MAPK[1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8061 mL	14.0304 mL	28.0607 mL
5 mM	0.5612 mL	2.8061 mL	5.6121 mL
10 mM	0.2806 mL	1.403 mL	2.8061 mL
50 mM	0.0561 mL	0.2806 mL	0.5612 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Lim SY, et al. A New Neolignan Derivative, Balanophonin Isolated from Firmiana simplex Delays the Progress of Neuronal Cell Death by Inhibiting Microglial Activation. *Biomol Ther (Seoul)*. 2017 Sep 1;25(5):519-527.

Cuong, To Dao, et al. Identification of Soluble Epoxide Hydrolase Inhibitors from the Seeds of Passiflora edulis Cultivated in Vietnam. *Natural Product Sciences*. 2019.12.31.

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