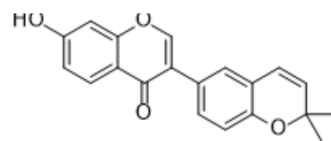


## Corylin

<b>Cat. No.:</b>	HY-N0236
<b>CAS No.:</b>	53947-92-5
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>16</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	320.34
<b>Target:</b>	Antibiotic; STAT
<b>Pathway:</b>	Anti-infection; JAK/STAT Signaling; Stem Cell/Wnt
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (312.17 mM)  
\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.1217 mL	15.6084 mL	31.2168 mL
	5 mM	0.6243 mL	3.1217 mL	6.2434 mL
	10 mM	0.3122 mL	1.5608 mL	3.1217 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 15% Cremophor EL >> 85% Saline  
Solubility: 50 mg/mL (156.08 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 0.5% CMC-Na/saline water  
Solubility: 25 mg/mL (78.04 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (7.80 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Corylin is an orally active flavonoid anti-inflammatory and osteogenic agent that inhibits IL-6-induced STAT3 promoter activity and STAT3 phosphorylation. Corylin also has anticancer, antiatherosclerotic, and ameliorating activity in hyperlipidemia and insulin resistance, inducing adipocyte browning and lipolysis through SIRT1 or β3-AR-dependent pathways<sup>[1][2][3]</sup>.

#### In Vitro

Corylin (3-300 μM, 0-72 h) inhibits the proliferation of HepG2 and Huh7 cells<sup>[2]</sup>.  
Corylin (3-30 μM, 0-48 h) inhibits the migration and invasiveness of HepG2 and Huh7 cells by suppressing EMT<sup>[2]</sup>.  
Corylin (5-200 μM, 24 h) reduces the viability of 3T3-L1 preadipocytes at the doses of 100-200 μM<sup>[3]</sup>.

Corylin (10  $\mu$ M, 24 h) induces browning via the SIRT1 and  $\beta$ 3-AR pathways in 3T3-L1 adipocytes<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### Western Blot Analysis<sup>[2]</sup>

Cell Line:	HepG2 and Huh7 cells
Concentration:	3-30 $\mu$ M
Incubation Time:	24-48 h
Result:	Reduced the expression of EMT-promoting proteins such as N-cadherin, vimentin, slug, and twist.

#### In Vivo

Corylin (60 mg/kg, i.p., three times a week, 4 weeks) inhibits tumor growth in Huh7 cells xenograft mice<sup>[3]</sup>.  
Corylin (50-100 mg/kg, p.o., daily, 9 weeks) improves the high-fat diet (HFD)-induced obesity in HFD- and DIO-treated mice<sup>[3]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	HFD- and DIO-treated mice <sup>[3]</sup>
Dosage:	50-100 mg/kg
Administration:	Oral gavage (p.o.), daily, 9 weeks
Result:	Reduced the weight of subcutaneous, visceral WAT, and body. Decreased the size of WAT adipocyte. Increased insulin sensitivity, mitochondrial biogenesis, and $\beta$ -oxidation. Reduced serum levels of insulin and leptin and improved HOMA-IR.

## CUSTOMER VALIDATION

- Acta Pharm Sin B. 2021 Jan;11(1):143-155.
- Cell Rep Med. April 20, 2022.
- Phytomedicine. 2022: 154627.
- J Ethnopharmacol. 2022 Aug 13;115593.

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## REFERENCES

- [1]. Lee SW, et al. Phenolic compounds isolated from Psoralea corylifolia inhibit IL-6-induced STAT3 activation. *Planta Med.* 2012 Jun;78(9):903-6.
- [2]. Chen CC, et al. Corylin reduces obesity and insulin resistance and promotes adipose tissue browning through SIRT-1 and  $\beta$ 3-AR activation. *Pharmacol Res.* 2021 Feb;164:105291.
- [3]. Chen CY, et al. Corylin Suppresses Hepatocellular Carcinoma Progression via the Inhibition of Epithelial-Mesenchymal Transition, Mediated by Long Noncoding RNA GAS5. *Int J Mol Sci.* 2018 Jan 27;19(2):380.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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