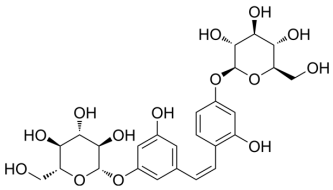
cis-Mulberroside A

Cat. No.:	HY-N0619A
CAS No.:	166734-06-1
Molecular Formula:	$C_{26}H_{32}O_{14}$
Molecular Weight:	568.52
Target:	TNF Receptor; Interleukin Related; Tyrosinase
Pathway:	Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	cis-Mulberroside A (Mulberroside D) is the cis-isomer of Mulberroside A. Mulberroside A is one of the main bioactive constituent in mulberry (Morus alba L.)[1]. Mulberroside A decreases the expressions of TNF-α, IL-1β, and IL-6 and inhibits the activation of NALP3, caspase-1, and NF-κB and the phosphorylation of ERK, JNK, and p38, exhibiting anti-inflammatory and anti-apoptotic effects[2]. Mulberroside A shows inhibitory activity against mushroom tyrosinase with an IC_{50} of 53.6 μM [3].

IC_{50} & Target	IL-6	IL-1β

In Vivo

Mulberroside A (10, 20, and 40 mg/kg) decreases serum uric acid levels and increases urinary urate excretion and fractional excretion of uric acid in hyperuricemic mice[4].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Kun-Ming mice (20±2 g)[4]
Dosage:	5, 10, 20, and 40 mg/kg; the dose volume 10 mL/kg body weight
Administration:	Orally initiated at 9:00 a.m.
Result:	10, 20, and 40 mg/kg significantly increased urinary urate excretion in 24 h, resulting in a remarkable elevation of fractional excretion of uric acid (FEUA), and the highest dose completely reversed FEUA alteration of hyperuricemic mice to normal.

REFERENCES

[1]. Mei M, et al. In vitro pharmacokinetic characterization of mulberroside A, the main polyhydroxylated stilbene in mulberry (Morus alba L.), and its bacterial metabolite oxyresveratrol in traditional oral use. J Agric Food Chem. 2012 Mar 7;60(9):2299-308.

[2]. Wang CP, et al. Mulberroside A protects against ischemic impairment in primary culture of rat cortical neurons after oxygen-glucose deprivation followed by reperfusion. J Neurosci Res. 2014 Jul;92(7):944-54.

[3]. Kim JK, et al. Biotransformation of mulberroside A from Morus alba results in enhancement of tyrosinase inhibition. J Ind Microbiol Biotechnol. 2010 Jun;37(6):631-7.

[4]. Cai-Ping Wang,et al. Mulberroside a possesses potent uricosuric and nephroprotective effects in hyperuricemic mice. Planta Med. 2011 May;77(8):786-94.

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

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