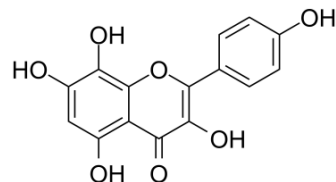


Herbacetin

Cat. No.:	HY-N0240		
CAS No.:	527-95-7		
Molecular Formula:	C ₁₅ H ₁₀ O ₇		
Molecular Weight:	302.24		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (330.86 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.3086 mL	16.5431 mL	33.0863 mL
		5 mM	0.6617 mL	3.3086 mL	6.6173 mL
10 mM		0.3309 mL	1.6543 mL	3.3086 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.27 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.27 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Herbacetin is a natural flavonoid from flaxseed, exerts various pharmacological activities, including antioxidant, anti-inflammatory and anticancer effects ^[1] . Herbacetin is an Ornithine decarboxylase (ODC) allosteric inhibitor, directly binds to Asp44, Asp243, and Glu384 on ODC. Ornithine decarboxylase (ODC) is a rate-limiting enzyme in the first step of polyamine biosynthesis ^[2] .
IC ₅₀ & Target	IC50: Ornithine decarboxylase ^[2]
In Vivo	Herbacetin (orally administration; 20mg/kg) significantly reduces the body weight, plasma glucose, plasma insulin, and HOMA-IR activity in obesity associated insulin resistant mice (OIR). (Herbacetin dissolves in 0.5% DMSO) ^[1] . Herbacetin (intraperitoneal injection; 0.4, 2, 10 or 20 mg/kg; B.W.) decreases the number and size of polypos in APCM ^{ln+} mice

with no overt toxicity^[2].

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

CUSTOMER VALIDATION

- Nanoscale. 2020 Aug 20;12(32):16738-16754.
- J Enzyme Inhib Med Chem. 2021 Dec;36(1):497-503.
- bioRxiv. 2020 Apr.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Veeramani C, et al. Herbacetin, a flaxseed flavonoid, ameliorates high percent dietary fat induced insulin resistance and lipid accumulation through the regulation of hepatic lipid metabolizing and lipid-regulating enzymes. Chem Biol Interact. 2018 May 25;288:49-56.

[2]. Kim DJ, et al. Herbacetin Is a Novel Allosteric Inhibitor of Ornithine Decarboxylase with Antitumor Activity. Cancer Res. 2016 Mar 1;76(5):1146-1157.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA