Brevifolincarboxylic acid

Cat. No.: HY-N4095

CAS No.: 18490-95-4

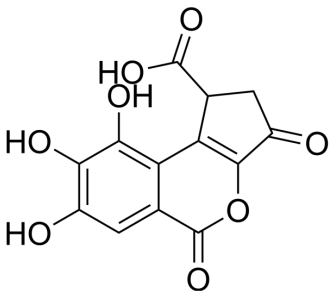
Molecular Formula: $C_{13}H_8O_8$

Molecular Weight: 292.2

Target: Aryl Hydrocarbon Receptor; Glucosidase

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (114.07 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4223 mL	17.1116 mL	34.2231 mL
	5 mM	0.6845 mL	3.4223 mL	6.8446 mL
	10 mM	0.3422 mL	1.7112 mL	3.4223 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: ≥ 0.83 mg/mL (2.84 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 0.83 mg/mL (2.84 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Brevifolincarboxylic acid is extracted from Polygonum capitatum[1], has inhibitory effect on the aryl hydrocarbon receptor (AhR)[2]. Brevifolincarboxylic acid is an α-glucosidase inhibitor with an IC_{50} of 323.46 μM[3].

IC_{50} & Target

IC50: 323.46 μM (α-glucosidase) (Brevifolincarboxylic acid)[3]

REFERENCES

[1]. Chen X, et al. Simultaneous isolation and purification of gallic acid and brevifolincarboxylic acid from Polygonum capitatum by high-speed counter-current chromatography. Zhongguo Zhong Yao Za Zhi. 2010 Aug;35(15):1957-60.

[2]. Amakura Y, et al. Screening of the inhibitory effect of vegetable constituents on the aryl hydrocarbon receptor-mediated activity induced by 2,3,7,8-tetrachlorodibenzo-

p-dioxin. Biol Pharm Bull. 2003 Dec; 26(12):1754-60.

[3]. Liu M, et al. Separation of α-glucosidase inhibitors from Potentilla kleiniana Wight et Arn using solvent and flow-rate gradient high-speed counter-current chromatography target-guided by ultrafiltration HPLC-MS screening. Phytochem Anal. 2019 May 6.

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