Mycophenolic acid glucuronide

Cat. No.: HY-137301

CAS No.: 31528-44-6

Molecular Formula: $C_{23}H_{28}O_{12}$

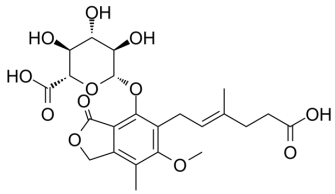
Molecular Weight: 496.46

Target: Drug Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (67.14 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0143 mL	10.0713 mL	20.1426 mL
	5 mM	0.4029 mL	2.0143 mL	4.0285 mL
	10 mM	0.2014 mL	1.0071 mL	2.0143 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 (5.04 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.04 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Mycophenolic acid glucuronide is a metabolite of the immunosuppressant mycophenolic acid (MPA). Mycophenolic acid glucuronide shows anti-tumor activity and can be used in adenocarcinoma research[1][2][3].

In Vitro

Mycophenolic acid glucuronide shows weak IMP dehydrogenase (IMPDH) type II inhibition with an IC_{50} of 3.3 mg/L[3].

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

In Vivo

Mycophenolic acid glucuronide (intraperitoneal injection; 6 mg/mouse; once two days; 6 d) treatment reduces tumor growth in an Ehrlich murine spontaneous adenocarcinoma model[2].

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

Animal Model:	Swiss albino strain mouse implanted with Ehrlich ascites tumor cells[2]
Dosage:	6 mg/mouse
Administration:	Intraperitoneal injection; 6 mg/mouse; once two days; 6 d
Result:	Showed 76.8% tumor inhibition compared to the untreated control.

REFERENCES

[1]. Ando K, et al. Synthesis of mycophenolic acid beta-D-glucuronide and its antitumor activity. J Antibiot (Tokyo). 1970 Aug;23(8):408-13.

[2]. Natascha A Wolff, et al. Mycophenolic acid (MPA) and its glucuronide metabolites interact with transport systems responsible for excretion of organic anions in the basolateral membrane of the human kidney. Nephrol Dial Transplant. 2007 Sep;22(9):2497-503.

[3]. Gensburger O, et al. Effect of mycophenolate acyl-glucuronide on human recombinant type 2 inosine monophosphate dehydrogenase. Clin Chem. 2009 May;55(5):986-93.

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