Balsalazide

Cat. No.: HY-B0667

CAS No.: 80573-04-2

Molecular Formula: $C_{17}H_{15}N_3O_6$

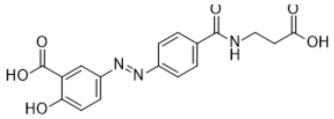
Molecular Weight: 357.32

Target: Interleukin Related; STAT

Pathway: Immunology/Inflammation; JAK/STAT Signaling; Stem Cell/Wnt

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (279.86 mM; Need ultrasonic)

1M NaOH : 50 mg/mL (139.93 mM; ultrasonic and adjust pH to 12 with NaOH)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7986 mL	13.9931 mL	27.9861 mL
5 mM	0.5597 mL	2.7986 mL	5.5972 mL
10 mM	0.2799 mL	1.3993 mL	2.7986 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 (7.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Balsalazide could suppress colitis-associated carcinogenesis through modulation of IL-6/STAT3 pathway.

IC_{50} & Target

IL-6	IL-1	STAT3

In Vivo

At the endpoint, the protein production of MIP-1β, MCP-1, IL-6, and IL-10 in the colon tissues decrease in concordance with the plasma concentrations of the cytokines. The drug-treated groups reveal lower expression of p-STAT3 compared to the CAC group. In addition, BCL2 decreases and BAX increases markedly in the BSZ+VSL#3 group[1]. Balsalazide is a new 5-aminosalicylic acid (5-ASA) containing prodrug[2].

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

PROTOCOL

Animal Administration [1]	Mice[1] C57B/L6J mice are randomly divided into four groups: CAC group, Balsalazide (BSZ) group (300 mg/kg), VSL#3 group, and BSZ+VSL#3 group. After two weeks, the AOM/DSS model is induced by AOM injection followed by two cycles of 2% DSS[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Do EJ, et al. Suppression of colitis-associated carcinogenesis through modulation of IL-6/STAT3 pathway by balsalazide and VSL#3. J Gastroenterol Hepatol. 2016 Aug;31(8):1453-61.

[2]. Kruis W, et al. Low dose balsalazide (1.5 g twice daily) and mesalazine (0.5 g three times daily) maintained remission of ulcerative colitis but high dose balsalazide (3.0 g twice daily) was superior in preventing relapses. Gut, 2001. 49(6): p. 783-789.

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