S-methyl-KE-298

Cat. No.: HY-101671

CAS No.: 143584-75-2

Molecular Formula: $C_{13}H_{16}O_3S$

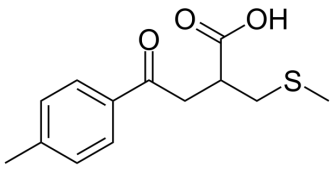
Molecular Weight: 252.33

Target: MMP; Drug Metabolite

Pathway: Metabolic Enzyme/Protease

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 (396.31 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.9631 mL	19.8153 mL	39.6306 mL
5 mM	0.7926 mL	3.9631 mL	7.9261 mL
10 mM	0.3963 mL	1.9815 mL	3.9631 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 (9.91 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.91 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.91 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

S-methyl-KE-298 is an active metabolite of KE-298. KE-298 inhibits matrix metalloproteinase (MMP-1) production from rheumatoid arthritis (RA) synovial cells.

In Vitro

S-methyl-KE-298 is a methyl conjugate of deacetyl-KE-298 is plasma[1]. In vitro protein binding of KE-298 and its plasma metabolites, deacetyl-KE-298 (M-1) and S-methyl-KE-298 (M-2), is high in rat (>97%), dog (>89%) and human plasma (>99%), respectively[2]. KE-298 blocks this IL-1β-induced pro-MMP-2 activation and MT1-MMP expression, but does not affect IL-1β-induced tissue inhibitor of metalloproteinase-2 (TIMP-2) secretion from rheumatoid synovial cells. KE-298 inhibits MMP-1

production from rheumatoid arthritis (RA) synovial cells by affecting a transcription factor, AP-1. KE-298 inhibits the basal levels of MT1-MMP expression of unstimulated rheumatoid synovial cells[3].

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

REFERENCES

[1]. Yoshida H, et al. Identification of metabolites of KE-298, a new antirheumatic drug, and its physiological properties in rats. Biol Pharm Bull. 1996 Mar;19(3):424-9.

[2]. Endo H, et al. Stereoselectivity and species difference in plasma protein binding of KE-298 and its metabolites. Biol Pharm Bull. 2001 Jul;24(7):800-5.

[3]. Honda S, et al. Expression of membrane-type 1 matrix metalloproteinase in rheumatoid synovial cells. Clin Exp Immunol. 2001 Oct;126(1):131-6.

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