T-26c

Cat. No.: HY-100518

CAS No.: 869296-13-9

Molecular Formula: $C_{24}H_{21}N_3O_6S$

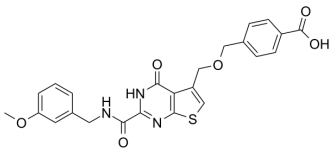
Molecular Weight: 479.51

Target: MMP

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 : 15.62 mg/mL (32.57 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0855 mL	10.4273 mL	20.8546 mL
5 mM	0.4171 mL	2.0855 mL	4.1709 mL
10 mM	0.2085 mL	1.0427 mL	2.0855 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: ≥ 1.56 mg/mL (3.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.56 mg/mL (3.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

T-26c is highly potent and selective matrix metalloproteinase-13 (MMP-13) inhibitor with an IC_{50} of 6.75 pM and more than 2600-fold selectivity over the other related metalloenzymes[1].

IC_{50} & Target

IC50: 6.75 pM (MMP-13)[1]

In Vitro

T-26c significantly inhibits the breakdown of collagen (87.4% inhibition at 0.1 μM) in IL-1β and oncostatin M stimulated cartilage[1].

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

In Vivo

T-26c is well absorbed in all species at the oral dose of 10–20 mg/kg. Oral administration of the disodium salt formulations of

T-26c to guinea pigs results in significant increases in AUC (8357 ng h/mL) and C_{max} (1445 ng/ mL) compared with those of the free acid T-26c (AUC = 6478 ng h/ mL and C_{max}= 911 ng/mL)[1].

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

REFERENCES

[1]. Nara H, et al. Thieno[2,3-d]pyrimidine-2-carboxamides bearing a carboxybenzene group at 5-position: highly potent, selective, and orally available MMP-13 inhibitors interacting with the S1″ binding site. Bioorg Med Chem. 2014 Oct 1;22(19):5487-505.

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