Sucunamostat hydrochloride

Cat. No.: HY-132841A

Molecular Formula: $C_{22}H_{23}ClN_4O_8$

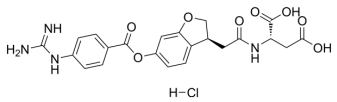
Molecular Weight: 506.89

Target: Enteropeptidase

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 : ≥ 125 mg/mL (246.60 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	1.9728 mL	9.8641 mL	19.7281 mL
	5 mM	0.3946 mL	1.9728 mL	3.9456 mL
	10 mM	0.1973 mL	0.9864 mL	1.9728 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Sucunamostat (SCO-792) hydrochloride is an orally active and reversible enteropeptidase inhibitor with IC_{50}s of 4.6 nM and 5.4 nM for rat enteropeptidase and human enteropeptidase, respectively. Sucunamostat hydrochloride can slowly dissociate from enteropeptidase in vitro and inhibit protein digestion in vivo[1].

IC_{50} & Target

IC50: 4.6 nM (rat enteropeptidase), 5.4 nM (human enteropeptidase)[1]

In Vivo

Sucunamostat hydrochloride (10 and 30 mg/kg; PO, single dosage) effectively and dose-dependently inhibits plasma branched-chain amino acids (BCAA) elevations induced by oral protein dosing in rats[1].

Pharmacokinetic Parameters of Sucunamostat hydrochloride in male Sprague-Dawley rats[1]

	PO (10 mg/kg)	IV (2 mg/kg)
C_{max} (ng/mL)	6.60 ± 1.36	564 ± 58

T_{max} (h)	1.7 ± 0.6	
AUC_{0-24} (ng/mL·h)	54.1 ± 7.5	303 ± 23
AUC_{inf} (ng/mL·h)	49.8 ± 5.4	304 ± 30
Vd_{SS} (mL/kg)		1290 ± 299
CL_p (mL/min/kg)		663 ± 66
bioavailability (%)	0.4	

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

REFERENCES

[1]. Sasaki M, et al. Discovery and characterization of a small-molecule enteropeptidase inhibitor, SCO-792. Pharmacol Res Perspect. 2019 Sep 4;7(5):e00517.

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