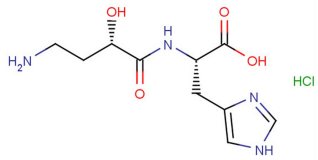
Data Sheet (Cat.No.T10684L)

TargetMol
A DRUG SCREENING EXPERT

Carnostatine hydrochloride

Chemical Properties



CAS No.:	T10684L
Formula:	C10H17ClN4O4
Molecular Weight:	292.72
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Carnostatine (SAN9812) hydrochloride is a potent and selective carnosinase 1 (CN1) inhibitor (Ki: 11 nM for recombinant hCN1) and can be used for the treatment of diabetic nephropathy.
Targets(IC_{50})	human CN1(ki): ki： 11 nM
In vitro	Carnostatine also inhibits CN1 activity in human serum and serum of transgenic mice-overexpressing human CN1. At a carnosine concentration of 200 μM, the IC50 value of Carnostatine is 18 nM on human recombinant CN1.
In vivo	Carnostatine (30 mg/kg, s.c.) leads to a sustained reduction in circulating CN1 activity in human CN1 transgenic (TG) mice. Simultaneous administration of Carnosine and Carnostatine increases carnosine levels in plasma and kidney by up to 100-fold compared to treatment-naïve CN1-overexpressing mice.

Solubility Information

Solubility	H2O: 250 mg/mL (854.06 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.416 mL	17.081 mL	34.162 mL
5 mM	0.683 mL	3.416 mL	6.832 mL
10 mM	0.342 mL	1.708 mL	3.416 mL
50 mM	0.068 mL	0.342 mL	0.683 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Qiu J, et al. Identification and characterisation of carnostatine (SAN9812), a potent and selective carnosinase (CN1) inhibitor with in vivo activity. Amino Acids. 2019 Jan;51(1):7-16.

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