
Product Data Sheet

Product Name: Carnostatine (SAN9812)

Cat. No.: GC34336

Chemical Properties

Cas. No.

SMILES OC([C@@H](NC([C@@H](O)CCN)=O)CC1=CNC=N1)=OFormula $C_{10}H_{16}N_4O_4$ M.Wt 256.26

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

Carnostatine (SAN9812) is a specific and highly selective carnosinase (CN1) inhibitor with a K_i of 11 nM.

Carnostatine (SAN9812) is a potent CN1 activity inhibitor with an IC_{50} value of 18 nM on human recombinant CN1 at a carnosine concentration of 200 μ M, i.e., close to the K_m of 190 μ M. Carnostatine is a competitive inhibitor, showing a right-shift in its IC_{50} value with increasing carnosine concentration. The K_i value of Carnostatine is determined as 11 nM[1].

CN1 activity is measured after a single subcutaneous bolus of 30 mg/kg Carnostatine (SAN9812). Animals are stratified according to their baseline serum carnosinase activity into a high-activity- (> 250 μ mol/mL/h) and a low-activity (< 8 h. At the last sampling time point 16 h after Carnostatine administration, serum carnosinase activity is still reduced by 40% in the low-activity group and by 75% in the high-activity group[1].

[1]. Qiu J, et al. Identification and characterisation of carnostatine (SAN9812), a potent and selective carnosinase (CN1) inhibitor with in vivo activity. Amino Acids. 2018 Jun 20.

Caution: Product has not been fully validated for medical applications. For research use only.

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