

Product Data Sheet

Product Name: Enterostatin

Cat. No.: GC18105

Chemical Properties

Cas. No. 117830-79-2

Chemical Name (S)-2-((S)-1-(2-((S)-1-((S)-2-aminopropanoyl)pyrrolidine-2-carboxamido)acetyl)pyrrolidine-2-carboxamido)-5-((diaminomethylene)amino)pentanoic acid

SMILES O=C([C@H]1N(C([C@H](C)N=O)CCC1)NCC(N2[C@H](C(N[C@H](C(O)=O)CCC/N=C(N)/N)=O)CCC2)=O

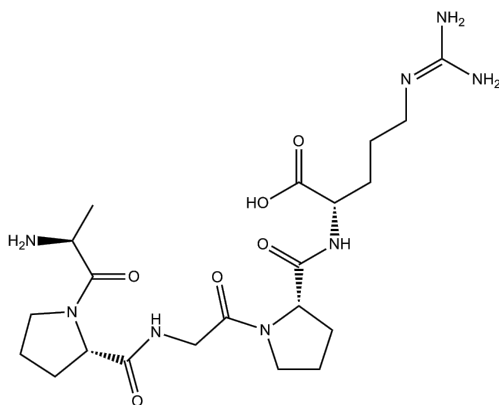
Formula $C_{21}H_{36}N_8O_6$ M.Wt 496.57

Solubility Soluble to 0.70 mg/ml in sterile water 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

Enterostatin, human, mouse, rat is a pentapeptide that reduces fat intake.

In the perfused rat pancreas, Enterostatin, at 100 mM, inhibits the insulin response to 9 mM glucose (by 70%), 0.1 mM tolbutamide (by 40%), and 5 mM arginine (by 70%)[1].

Chronically, enterostatin reduces fat intake, bodyweight, and body fat. This response may involve

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

multiple metabolic effects of enterostatin, which include a reduction of insulin secretion, an increase in sympathetic drive to brown adipose tissue, and the stimulation of adrenal corticosteroid secretion[2]. Enterostatin enhances memory consolidation after central or oral administration at a dose of 10 nmol/mouse or 300 mg/kg, respectively, in a step-through type passive avoidance test in mice[3]. A dose of 38 nmol of enterostatin gives a significant inhibition of high-fat food intake, while at a higher dose of 76 nmol the inhibiting effect is lost. During the first hour, after injection of enterostatin, there is even a slight increase in food intake[4].

References:

- [1]. Silvestre RA, et al. Effect of enterostatin on insulin, glucagon, and somatostatin secretion in the perfused rat pancreas. *Diabetes*. 1996 Sep;45(9):1157-60.
- [2]. Erlanson-Albertsson C, et al. Enterostatin--a peptide regulating fat intake. *Obes Res*. 1997 Jul;5(4):360-72.
- [3]. Ohinata K, et al. Enterostatin (APGPR) enhances memory consolidation in mice. *Peptides*. 2007 Mar;28(3):719-21.
- [4]. Sörhede M, et al. Enterostatin: a gut-brain peptide regulating fat intake in rat. *J Physiol Paris*. 1993;87(4):273-5.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA