
Product Data Sheet

Product Name: Cyclosomatostatin

Cat. No.: GC15495

Chemical Properties

Cas. No. 84211-54-1

Chemical Name (3S,6R,9S,12S)-9-((1H-indol-3-yl)methyl)-6-(4-aminobutyl)-12-benzyl-3-((R)-1-(benzyloxy)ethyl)-1,4,7,10,13-pentaazacycloicosane-2,5,8,11,14-pentaone

SMILES O=C([C@@H](CCCCN)NC([C@H](CC1=CNC2=CC=CC=C12)NC([C@H](CC3=CC=CC=C3)NC4=O)=O)=O)N[C@H](C(NCCCCC4)=O)[C@@H](C)OCC5=CC=CC=C5

Formula C₄₄H₅₇N₇O₆ M.Wt 779.98

Solubility Soluble to 1 mg/ml in 20% ethanol / 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**

IC50: N/A

Cyclosomatostatin is a non-selective somatostatin receptor antagonist.

Somatostatin is a regulatory hormone or tissue factor playing an inhibitory role in the normal regulation of several organ systems including hypothalamus and pituitary gland, central nervous system, gastrointestinal tract as well as pancreas.

In vitro: Although cyclosomatostatin could fully block the effect of somatostatin, it only partially reversed the inhibitory effect of cortistatin, a new anti-inflammatory peptide. This observation was further supported by the fact that cyclosomatostatin reversed the antiinflammatory effect of somatostatin and octreotide in vitro completely, while only partially reversing the effect of cortistatin [1].

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

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In vivo: The effect of cortistatin was found to be dose dependent, with dose as low as 0.5 nmol (50 µg/kg) being partially protective. In contrast, cyclosomatostatin, somatostatin as well as octreotide were not protective [1].

Clinical trial: As the precursor of cyclosomatostatin, somatostatin has already been introduced in the clinical practice in some macrophage populations. Somatostatin shows protective effect in certain inflammatory disorders including pancreatitis and liver injury. However, somatostatin is not protective in lethal septic shock [1].

Reference:

[1] Gonzalez-Rey E,Chorny A,Robledo G,Delgado M. Cortistatin, a new antiinflammatory peptide with therapeutic effect on lethal endotoxemia. J Exp Med.2006 Mar 20;203(3):563-71.

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