

## Somatostatin

## Chemical Properties

CAS No.:	51110-01-1
Formula:	NA
Molecular Weight:	1637.88
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	Somatostatin, also known as growth hormone-inhibiting hormone, is a naturally-occurring peptide hormone of 14 or 28 amino acid residues that regulates the endocrine system. It is secreted by the D cells of the islets to inhibit the release of insulin and glucagon, and is also generated in the hypothalamus, where it inhibits the release of growth hormone and thyroid-stimulating hormones from the anterior pituitary. Somatostatin is a tetradecapeptide which can suppress the growth hormone (GH) secretion and control the pituitary hormone secretion in human CNS.
In vitro	Somatostatin is a tetradecapeptide which can suppress the growth hormone (GH) secretion and control the pituitary hormone secretion in human CNS. Somatostatin has two biologically active forms: the predominant form is the 14 amino-acid long Somatostatin-14 while the more potent form is the amino-terminus extended Somatostatin-28. The biological roles of the two Somatostatin isoforms very strongly overlap and the relative proportions of Somatostatin-14 to Somatostatin-28 vary between different tissues. Somatostatin can reduce adhesion of carcinosarcoma cells to the blood vessels and thus attenuate the metastatic potential of these tumours. Somatostatin can also inhibit monocyte chemotactic migration[1].

## Solubility Information

Solubility	H2O: 50 mg/mL (30.53 mM) ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.611 mL	3.053 mL	6.105 mL
5 mM	0.122 mL	0.611 mL	1.221 mL
10 mM	0.061 mL	0.305 mL	0.611 mL
50 mM	0.012 mL	0.061 mL	0.122 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 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Msaouel P, et al. Somatostatin and somatostatin receptors: implications for neoplastic growth and cancer biology. Expert Opin Investig Drugs. 2009 Sep;18(9):1297-316.

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