



Product Information

Product ID S5747

CAS No. 59481-27-5

Chemical Name

Synonym

Formula $C_{76}H_{104}N_{18}O_{20}S_2$

Formula Wt. 1653.91

Melting Point

Purity $\geq 95\%$

Solubility

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description Somatostatin is an endogenous neuropeptide hormone found in the brain and pancreas. Somatostatin binds several isoforms of the somatostatin receptor, exhibiting anxiolytic, antiepileptic/anticonvulsant, and anorexigenic activities. In vivo, somatostatin improves performance in the light/dark avoidance test. Somatostatin also suppresses seizures and prevents the generation of seizures, potentially through modulation of GABA signaling. Somatostatin induces cell death under hypoxic/ischemic conditions. In tumor cells, somatostatin displays pro-apoptotic properties, potentially involving the inhibition of PI3K/Akt signaling. Somatostatin also limits food intake and inhibits secretion of insulin and glucagon through alteration of G β signaling and P/Q-type N-type, and L-type voltage-gated Ca $^{2+}$ channel signaling.

H-Ala-Gly-Cys-Lys-Asn-Phe-
Phe-Trp-Lys-Thr-Tyr-Thr-Ser-
Cys-OH
(Cys3-Cys14)

Bulk quantities available upon request

Product ID	Size
S5747	1 mg
S5747	2 mg
S5747	5 mg

References Stumm R. Somatostatin receptor sst2 reduces Akt activity and aggravates hypoxic/ischemic death in cerebral cortical neurons. *Neuropharmacology*. 2014 Feb;77:249-56. PMID: 24157493.

Takahashi M, Takeda M, Matsumoto S. Somatostatin enhances tooth-pulp-evoked cervical dorsal horn neuronal activity in the rat via inhibition of GABAergic interneurons. *Brain Res Bull*. 2014 Jan;100:76-83. PMID: 24321530.

Albrecht A, Thiere M, Bergado-Acosta JR, et al. Circadian modulation of anxiety: a role for somatostatin in the amygdala. *PLoS One*. 2013 Dec 20;8(12):e84668. PMID: 24376834.

Kovac S, Walker MC. Neuropeptides in epilepsy. *Neuropeptides*. 2013 Dec;47(6):467-75. PMID: 24210141.

Begg DP, Woods SC. Interactions between the central nervous system and pancreatic islet secretions: a historical perspective. *Adv Physiol Educ*. 2013 Mar;37(1):53-60. PMID: 23471249.

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Kailey B, van de Bunt M, Cheley S, et al. SSTR2 is the functionally dominant somatostatin receptor in human pancreatic β - and α -cells. *Am J Physiol Endocrinol Metab*. 2012 Nov 1;303(9):E1107-16. PMID: 22932785.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.