

# Somatostatin (FL-116): sc-20999

## BACKGROUND

Somatostatin is a regulatory hormone that is expressed throughout the body and inhibits the release of numerous secondary hormones by binding to high-affinity G protein-coupled somatostatin receptors. This cyclic tetradecapeptide inhibits the secretion of many important hormones, including somatotropin (also designated growth hormone, or GH), Insulin and glucagon. Somatostatin is found in both the hypothalamus and pancreas. Somatostatin is thought to be involved in the regulation of Insulin synthesis. The hormone somatostatin has active 14 amino acid and 28 amino acid forms that are produced by alternate cleavage of the single preproprotein encoded by this gene. In the cerebellum, Somatostatin-14 and Somatostatin-28 are highly expressed at birth and in the adult stage, respectively. Somatostatin affects rates of neurotransmission in the central nervous system and proliferation of both normal and tumorigenic cells. The gene encoding Somatostatin maps to human chromosome 3q27.

## REFERENCES

1. Zabel, B.U., et al. 1983. High-resolution chromosomal localization of human genes for amylase, proopiomelanocortin, Somatostatin and a DNA fragment (D3S1) by *in situ* hybridization. Proc. Natl. Acad. Sci. USA 80: 6932-6936.
2. Warren, T.G. and Shields, D. 1984. Cell-free biosynthesis of multiple pre-somatostatins: characterization by hybrid selection and amino-terminal sequencing. Biochemistry 23: 2684-2690.
3. Tsuzaki, S. and Moses, A.C. 1990. Somatostatin inhibits deoxyribonucleic acid synthesis induced by both thyrotropin and Insulin-like growth factor-1 in FRTL5 cells. Endocrinology 126: 3131-3138.
4. Minami, S., et al. 1998. Growth hormone inhibits its own secretion by acting on the hypothalamus through its receptors on neuropeptide Y neurons in the arcuate nucleus and Somatostatin neurons in the periventricular nucleus. Endocr. J. 45S: S19-S26.

## CHROMOSOMAL LOCATION

Genetic locus: SST (human) mapping to 3q27.3, CORT (human) mapping to 1p36.22; Sst (mouse) mapping to 16 B1, Cort (mouse) mapping to 4 E2.

## SOURCE

Somatostatin (FL-116) is a rabbit polyclonal antibody raised against amino acids 25-116 of Somatostatin of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Somatostatin (FL-116) is recommended for detection of Somatostatin 14, 28 and cortistatin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Somatostatin (FL-116) is also recommended for detection of Somatostatin 14, 28 and cortistatin in additional species, including equine, canine, bovine, porcine and avian.

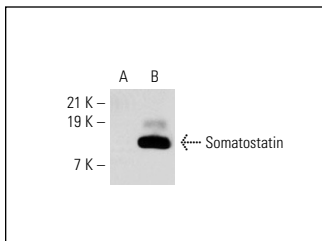
Molecular Weight of Somatostatin: 17 kDa.

Positive Controls: H4 cell lysate: sc-2408 or Somatostatin (h): CHO lysate: sc-110012.

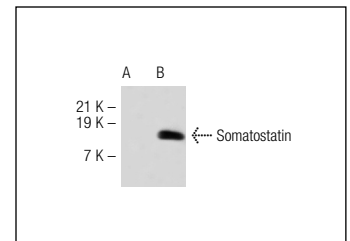
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Somatostatin (FL-116): sc-20999. Western blot analysis of Somatostatin expression in non-transfected: sc-117750 (A) and human Somatostatin transfected: sc-110012 (B) CHO whole cell lysates.



Somatostatin (FL-116): sc-20999. Western blot analysis of Somatostatin expression in non-transfected: sc-110760 (A) and human Somatostatin transfected: sc-110762 (B) 293 whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Xu, G., et al. 2010. Regulation of gastric hormones by systemic rapamycin. Peptides 31: 2185-2192.


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Try **Somatostatin (G-10): sc-55565** or **Somatostatin (H-11): sc-74556**, our highly recommended monoclonal alternatives to Somatostatin (FL-116). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Somatostatin (G-10): sc-55565**.