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 3q27.3.

**CHROMOSOMAL LOCATION**

Genetic locus: SST (human) mapping to 3q27.3; Sst (mouse) mapping to 16 B1.

**SOURCE**

Somatostatin (YC7) is a rat monoclonal antibody raised against Somatostatin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Somatostatin (YC7) is available conjugated to agarose (sc-47706 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-47706 HRP), 200 µg/ml, for WB, (H/C)P and ELISA; to either phycoerythrin (sc-47706 PE), fluorescein (sc-47706 FITC), Alexa Fluor® 488 (sc-47706 AF488), Alexa Fluor® 546 (sc-47706 AF546), Alexa Fluor® 594 (sc-47706 AF594) or Alexa Fluor® 647 (sc-47706 AF647), 200 µg/ml, for WB (RGB), IF, IHOP and FCM; and to either Alexa Fluor® 680 (sc-47706 AF680) or Alexa Fluor® 790 (sc-47706 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Somatostatin (YC7) is recommended for detection of Somatostatin of mouse, rat and human origin by Western Blotting (starting dilution 1:500, dilution range 1:500-1:1000), 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of Somatostatin: 17 kDa.

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

**STORAGE**

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

**SELECT PRODUCT CITATIONS**


**DATA**

Somatostatin (YC7): sc-47706. Western blot analysis of human Somatostatin expression in non-transfected: sc-117750 (A) and human Somatostatin transfected: sc-110012 (B) CHO whole cell lysates.

Somatostatin (YC7): sc-47706. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells and enteroendocrine cells (A) and human rectum tissue showing cytoplasmic staining of enteroendocrine cells (B).

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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