

## Sg II (H-300): sc-50290

### BACKGROUND

Chromogranins (secretogranins) are acidic glycoproteins that localize within secretory granules of endocrine, neuroendocrine and neuronal tissue. Family members include chromogranin A (Chr-A); chromogranin B (Chr-B), also known as secretogranin I; chromogranin C (also known as secretogranin II or Sg II); and secretogranin III (Sg III or SCG3). High levels of Chr-A expression are characteristic of neuroendocrine tumors. Pancreastatin is a peptide derived from Chr-A which inhibits Insulin secretion, exocrine pancreatic secretion and gastric acid secretion. Pancreastatin exists as two forms; the major form is expressed in stomach and colon extracts. In neuroendocrine cells the level Sg II has been shown to increase four-fold in response to histamine, while levels of Chr-A and Chr-B showed little or no increase. Sg III is an acidic secretory protein expressed in neuronal and endocrine cells. In the anterior lobe of the rat pituitary gland, Sg III is present in mammotropes and thyrotropes, moderately in gonadotropes and corticotropes, though not in somatotropes. Sg III and carboxypeptidase E (CPE) bind specifically to cholesterol-rich secretory granule (SG) membranes.

### CHROMOSOMAL LOCATION

Genetic locus: SCG2 (human) mapping to 2q36.1; Scg2 (mouse) mapping to 1 C4.

### SOURCE

Sg II (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Sg II 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.

### APPLICATIONS

Sg II (H-300) is recommended for detection of Secretogranin II 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sg II (H-300) is also recommended for detection of Secretogranin II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sg II siRNA (h): sc-39381, Sg II siRNA (m): sc-39382, Sg II shRNA Plasmid (h): sc-39381-SH, Sg II shRNA Plasmid (m): sc-39382-SH, Sg II shRNA (h) Lentiviral Particles: sc-39381-V and Sg II shRNA (m) Lentiviral Particles: sc-39382-V.

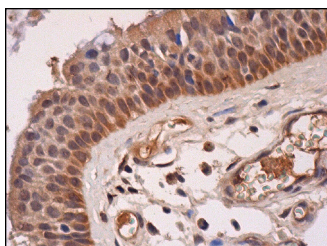
Molecular Weight of Sg II: 63 kDa.

Positive Controls: rat heart extract: sc-2393.

### 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

### DATA



Sg II (H-300): sc-50290. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

### SELECT PRODUCT CITATIONS

1. Yamboliev, I.A., et al. 2009. Storage and secretion of  $\beta$ -NAD, ATP and dopamine in NGF-differentiated rat pheochromocytoma PC12 cells. *Eur. J. Neurosci.* 30: 756-768.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Sg II (SGII 9G3/3): sc-53441**, our highly recommended monoclonal alternative to Sg II (H-300).