

# Sg II (C-19): sc-1490

## 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.

## REFERENCES

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- Schmid, K.W., et al. 1993. Chromogranin A, secretogranin II and vasoactive intestinal peptide in phaeochromocytomas and ganglioneuromas. *Histopathol.* 22: 527-533.
- Bauer, J.W., et al. 1993. Histamine induces a gene-specific synthesis regulation of secretogranin II but not of chromogranin A and B in chromaffin cells in a calcium-dependent manner. *J. Biol. Chem.* 268: 1586-1589.
- Schmid, K.W., et al. 1994. Immunohistochemical demonstration of chromogranin A, chromogranin B, and secretogranin II in extra-adrenal paragangliomas. *Mod. Pathol.* 7: 347-353.
- Stridsberg, M., et al. 1995. Measurements of chromogranin A, chromogranin B (secretogranin I), chromogranin C (secretogranin II) and pancreastatin in plasma and urine from patients with carcinoid tumours and endocrine pancreatic tumours. *J. Endocrinol.* 144: 49-59.

## CHROMOSOMAL LOCATION

Genetic locus: SCG2 (human) mapping to 2q36.1.

## SOURCE

Sg II (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Sg II of human origin.

## STORAGE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-1490 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Sg II (C-19) is recommended for detection of secretogranin II of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sg II (C-19) 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 shRNA Plasmid (h): sc-39381-SH and Sg II shRNA (h) Lentiviral Particles: sc-39381-V.

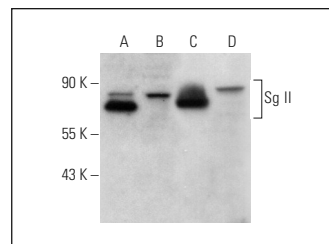
Molecular Weight of endogenous Sg II: 63 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or Y79 cell lysate: sc-2240.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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).

## DATA



Sg II (C-19): sc-1490. Western blot analysis of Sg II expression in U-251-MG (A), IMR-32 (B), SH-SY5Y (C) and Y79 (D) whole cell lysates.

## 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.