**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 pituitary gland, Sg III is present in mammotropes and thyro-tropes, 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**


**CHROMOSOMAL LOCATION**

Genetic locus: Scg2 (mouse) mapping to 1 C4.

**SOURCE**

Sg II (SGII 9G3/3) is a mouse monoclonal antibody raised against a synthetic peptide of rat origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Sg II (SGII 9G3/3) is available conjugated to agarose (sc-53441 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, HICP, and ELISA; to either phycoerythrin (sc-53441 PE), fluorescein (sc-53441 FITC), Alexa Fluor® 488 (sc-53441 AF488), Alexa Fluor® 546 (sc-53441 AF546), Alexa Fluor® 594 (sc-53441 AF594) or Alexa Fluor® 647 (sc-53441 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-53441 AF680) or Alexa Fluor® 790 (sc-53441 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Sg II (SGII 9G3/3) is recommended for detection of secretogranin II of mouse and rat 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Sg II siRNA (m): sc-39382, Sg II shRNA Plasmid (m): sc-39382-SH 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 SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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