

Sg III (C-2): sc-271750

BACKGROUND

Chromogranins (secretogranins) are acidic glycoproteins that localize within secretory granules of endocrine, neuroendocrine and neuronal tissue. Family members include chromogranin A, chromogranin B (secretogranin I), chromogranin C and secretogranin III (SCG3, Sg III). High levels of chromogranin A expression is a characteristic of neuroendocrine tumors. Pancreastatin is a peptide derived from chromogranin A which inhibits Insulin secretion, exocrine pancreatic secretion and gastric acid secretion. 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

- Giudici, A.M., et al. 1992. Immunolocalization of secretogranin II, chromogranin A, and chromogranin B in differentiating human neuroblastoma cells. *Eur. J. Cell Biol.* 58: 383-389.
- Robberecht, P., et al. 1993. Current status on chromogranin A and pancreastatin. *Acta Gasteroenterol. Belg.* 56: 261-263.
- Schmid, K.W., et al. 1993. Chromogranin A, secretogranin II and vasoactive intestinal peptide in phaeochromocytomas and ganglioneuromas. *Histopathology* 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.

CHROMOSOMAL LOCATION

Genetic locus: SCG3 (human) mapping to 15q21.2.

SOURCE

Sg III (C-2) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Sg III of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Sg III (C-2) is available conjugated to agarose (sc-271750 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271750 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271750 PE), fluorescein (sc-271750 FITC), Alexa Fluor® 488 (sc-271750 AF488), Alexa Fluor® 546 (sc-271750 AF546), Alexa Fluor® 594 (sc-271750 AF594) or Alexa Fluor® 647 (sc-271750 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271750 AF680) or Alexa Fluor® 790 (sc-271750 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Sg III (C-2) is recommended for detection of Secretogranin III of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Sg III siRNA (h): sc-39383, Sg III shRNA Plasmid (h): sc-39383-SH and Sg III shRNA (h) Lentiviral Particles: sc-39383-V.

Molecular Weight of Sg III: 53 kDa.

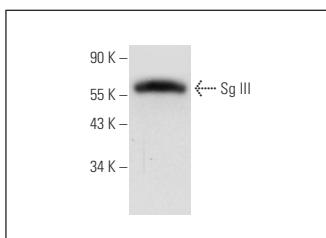
Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG_x BP-HRP: sc-516102 or m-IgG_x 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-IgG_x BP-FITC: sc-516140 or m-IgG_x 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



Sg III (C-2): sc-271750. Western blot analysis of Sg III expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Rozek, W., et al. 2013. Mass spectrometry identification of granins and other proteins secreted by neuroblastoma cells. *Tumour Biol.* 34: 1773-1781.

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.

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