

# Chr-A (F-12): sc-376827

## 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), secretogranin III (Sg III or SCG3). High levels of Chr-A expression is a 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: CHGA (human) mapping to 14q32.12; Chga (mouse) mapping to 12 E.

## SOURCE

Chr-A (F-12) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of Chr-A of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376827 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Chr-A (F-12) is recommended for detection of Chr-A of mouse, rat and 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), 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).

Suitable for use as control antibody for Chr-A siRNA (h): sc-37212, Chr-A siRNA (m): sc-37213, Chr-A shRNA Plasmid (h): sc-37212-SH, Chr-A shRNA Plasmid (m): sc-37213-SH, Chr-A shRNA (h) Lentiviral Particles: sc-37212-V and Chr-A shRNA (m) Lentiviral Particles: sc-37213-V.

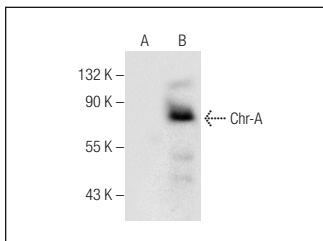
Molecular Weight of Chr-A: 68-80 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-N-SH cell lysate: sc-2410 or Chr-A (h): 293T Lysate: sc-159285.

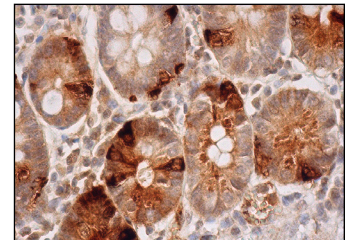
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Chr-A (F-12): sc-376827. Western blot analysis of Chr-A expression in non-transfected: sc-117752 (A) and human Chr-A transfected: sc-159285 (B) 293T whole cell lysates.



Chr-A (F-12): sc-376827. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Koren, E., et al. 2018. ARTS mediates apoptosis and regeneration of the intestinal stem cell niche. *Nat. Commun.* 9: 4582.
- Perekatt, A.O., et al. 2018. Smad4 suppresses WNT-driven dedifferentiation and oncogenesis in the differentiated gut epithelium. *Cancer Res.* 78: 4878-4890.
- Aburjania, Z., et al. 2020. Synthetic makaluvamine analogs decrease c-Kit expression and are cytotoxic to neuroendocrine tumor cells. *Molecules* 25: 4940.

## 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.



See **Chr-A (C-12): sc-393941** for Chr-A antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.