

Chr-A (C-20): sc-1488

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 of 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 primarily expressed in mammotropes and thyrotropes, moderately expressed in gonadotropes and corticotropes, and not detected 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 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Chr-A 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.

Blocking peptide available for competition studies, sc-1488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Chr-A (C-20) is recommended for detection of Chr-A and Chr-A derived peptides ER-37 and GR-44 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).

Chr-A (C-20) is also recommended for detection of Chr-A and Chr-A derived peptides ER-37 and GR-44 in additional species, including equine, canine, bovine and porcine.

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

Positive Controls: Chr-A (m): 293T Lysate: sc-119252.

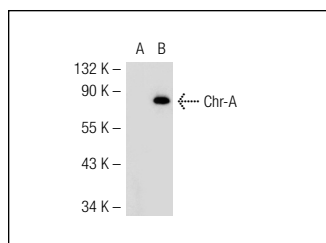
STORAGE

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

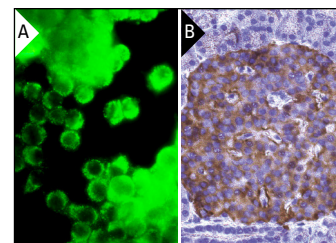
RESEARCH USE

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

DATA



Chr-A (C-20): sc-1488. Western blot analysis of Chr-A expression in non-transfected: sc-117752 (A) and mouse Chr-A transfected: sc-119252 (B) 293T whole cell lysates.



Chr-A (C-20): sc-1488. Immunofluorescence staining of methanol-fixed PC-12 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of islet of Langerhans cells (B).

SELECT PRODUCT CITATIONS

- Huttunen, H.J., et al. 2002. Receptor for advanced glycation end products (RAGE) signaling induces CREB-dependent chromogranin expression during neuronal differentiation. *J. Biol. Chem.* 277: 38635-38646.
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- Hallersund, P., et al. 2011. The expression of renin-angiotensin system components in the human gastric mucosa. *J. Renin Angiotensin Aldosterone Syst.* 12: 54-64.
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- Dvoryanchikov, G., et al. 2011. GABA, its receptors, and GABAergic inhibition in mouse taste buds. *J. Neurosci.* 31: 5782-5791.
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- Daly, K., et al. 2012. Expression of sweet receptor components in equine small intestine: relevance to intestinal glucose transport. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 303: R199-R208.



Try **Chr-A (C-12): sc-393941** or **Chr-A (E-5): sc-271738**, our highly recommended monoclonal alternatives to Chr-A (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Chr-A (C-12): sc-393941**.