

Chr-A (LK2H10): sc-47714

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 mammatropes 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.

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 Gastroenterol. Belg.* 56: 261-263.
- Schmid, K.W., et al. 1993. Chromogranin A, secretogranin II and vasoactive intestinal peptide in pheochromocytomas 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.
- 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: CHGA (human) mapping to 14q32.12.

SOURCE

Chr-A (LK2H10) is a mouse monoclonal antibody raised against human pheochromocytoma.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

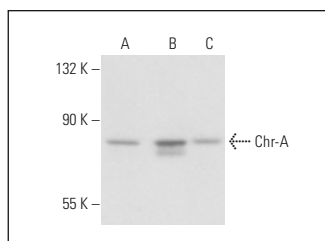
Chr-A (LK2H10) is recommended for detection of Chr-A of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:10-1:200), immunoprecipitation [10-20 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:10-1:200) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

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

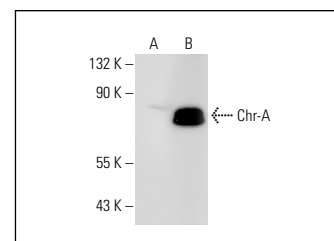
Molecular Weight of Chr-A: 68-80 kDa.

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

DATA



Chr-A (LK2H10): sc-47714. Western blot analysis of Chr-A expression in SHP-77 (A), Hep G2 (B) and SK-N-SH (C) whole cell lysates.



Chr-A (LK2H10): sc-47714. 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.

SELECT PRODUCT CITATIONS

- Jin, R.J., et al. 2004. NE-10 neuroendocrine cancer promotes the LNCaP xenograft growth in castrated mice. *Cancer Res.* 64: 5489-5495.
- Sidana, A., et al. 2011. Does valproic acid induce neuroendocrine differentiation in prostate cancer? *J. Biomed. Biotechnol.* 2011: 607480.
- Valiante, S., et al. 2013. Expression of orexin A and its receptor 1 in the human prostate. *J. Anat.* 222: 473-480.

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.