SANTA CRUZ BIOTECHNOLOGY, INC.

Chr-A (h2): 293T Lysate: sc-159513

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.

REFERENCES

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4. 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.
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6. 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.
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8. Sakai, Y., et al. 2003. Immunocytochemical localization of secretogranin III in the anterior lobe of male rat pituitary glands. J. Histochem. Cytochem. 51: 227-238.
9. Hosaka, M., et al. 2004. Secretogranin III binds to cholesterol in the secretory granule membrane as an adapter for chromogranin A. J. Biol. Chem. 279: 3627-3634.

CHROMOSOMAL LOCATION

Genetic locus: CHGA (human) mapping to 14q32.12.

PRODUCT

Chr-A (h2): 293T Lysate represents a lysate of human Chr-A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

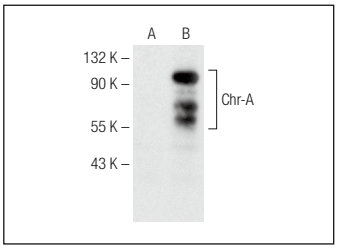
APPLICATIONS

Chr-A (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Chr-A antibodies. Recommended use: 10-20 µl per lane.

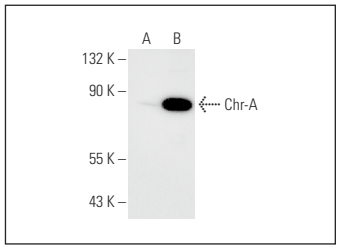
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Chr-A (E-5): sc-271738 is recommended as a positive control antibody for Western Blot analysis of enhanced human Chr-A expression in Chr-A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Chr-A (E-5): sc-271738. Western blot analysis of Chr-A expression in non-transfected: sc-117752 (**A**) and human Chr-A transfected: sc-159513 (**B**) 293T 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-159513 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.