

acrogranin (h): 293T Lysate: sc-113573

BACKGROUND

acrogranin (also designated PC cell-derived growth factor (PCDGF), epithelin/granulin precursor or paraganulin) is a glycosylated protein originally purified from the highly tumorigenic, Insulin-independent mouse teratoma PC cell line. acrogranin is a cysteine-rich molecule whose expression is essential for tumorigenicity in teratoma cells. acrogranin is expressed in estrogen receptor-positive (ER+) human mammary MDA-MB-468 epithelial cells, human breast cancer MCF7 cells and human estrogen-responsive T-47D cells. Secreted acrogranin acts as an autocrine growth factor for breast carcinoma cells and overexpression may play an important role in human breast cancer. acrogranin stimulates the growth of PC cells as well as 3T3 fibroblasts.

REFERENCES

1. Zhou, J., Gao, G., Crabb, J.W. and Serrero, G. 1993. Purification of an autocrine growth factor homologous with mouse epithelin precursor from a highly tumorigenic cell line. *J. Biol. Chem.* 268: 10863-10869.
2. Baba, T., Hoff, H.B., 3rd., Nemoto, H., Lee, H., Orth, J., Arai, Y. and Gerton, G.L. 1993. Acrogranin, an acrosomal cysteine-rich glycoprotein, is the precursor of the growth-modulating peptides, granulins, and epithelins, and is expressed in somatic as well as male germ cells. *Mol. Reprod. Dev.* 34: 233-243.
3. Zhang, H. and Serrero, G. 1998. Inhibition of tumorigenicity of the teratoma PC cell line by transfection with antisense cDNA for PC cell-derived growth factor (PCDGF, epithelin/granulin precursor). *Proc. Natl. Acad. Sci. USA* 95: 14202-14207.
4. Xia, X. and Serrero, G. 1998. Identification of cell surface binding sites for PC-cell-derived growth factor, PCDGF, (epithelin/granulin precursor) on epithelial cells and fibroblasts. *Biochem. Biophys. Res. Commun.* 245: 539-543.
5. Lu, R. and Serrero, G. 1999. Stimulation of PC cell-derived growth factor (epithelin/granulin precursor) expression by estradiol in human breast cancer cells. *Biochem. Biophys. Res. Commun.* 256: 204-207.
6. Thornton, M.A., Poncz, M., Korostishevsky, M., Yakobson, E., Usher, S., Seligsohn, U. and Peretz, H. 1999. The human platelet α IIb gene is not closely linked to its integrin partner β 3. *Blood* 94: 2039-2047.
7. Lu, R. and Serrero, G. 2000. Inhibition of PC cell-derived growth factor (PCDGF, epithelin/granulin precursor) expression by antisense PCDGF cDNA transfection inhibits tumorigenicity of the human breast carcinoma cell line MDA-MB-468. *Proc. Natl. Acad. Sci. USA* 97: 3993-3998.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: GRN (human) mapping to 17q21.31.

PRODUCT

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

APPLICATIONS

acrogranin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive acrogranin 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.

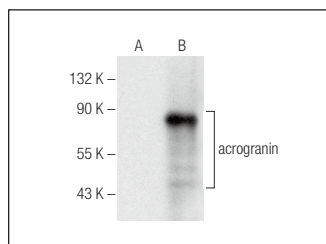
acrogranin (C-11): sc-377036 is recommended as a positive control antibody for Western Blot analysis of enhanced human acrogranin expression in acrogranin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



acrogranin (C-11): sc-377036. Western blot analysis of acrogranin expression in non-transfected: sc-117752 (A) and human acrogranin transfected: sc-113573 (B) 293T whole cell lysates.

RESEARCH USE

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