

acrogranin (N-19): sc-11342

BACKGROUND

Acrogranin (also designated PC cell-derived growth factor (PCDGF), epithelin/granulin precursor or pargranulin) 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.

CHROMOSOMAL LOCATION

Genetic locus: GRN (human) mapping to 17q21.31; Grn (mouse) mapping to 11 D.

SOURCE

acrogranin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PCDGF 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-11342 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

acrogranin (N-19) is recommended for detection of precursor and mature acrogranin of mouse, rat and human origin; pargranulin of human origin; and granulin 1, granulin 2 and granulin 7 of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for acrogranin siRNA (h): sc-39261, acrogranin siRNA (m): sc-39262, acrogranin shRNA Plasmid (h): sc-39261-SH, acrogranin shRNA Plasmid (m): sc-39262-SH, acrogranin shRNA (h) Lentiviral Particles: sc-39261-V and acrogranin shRNA (m) Lentiviral Particles: sc-39262-V.

Molecular Weight of acrogranin: 88 kDa.

Positive Controls: acrogranin (h): 293T Lysate: sc-113573, MDA-MB-468 cell lysate: sc-2282 or MCF7 whole cell lysate: sc-2206.

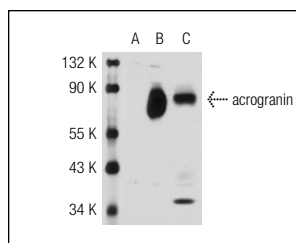
STORAGE

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

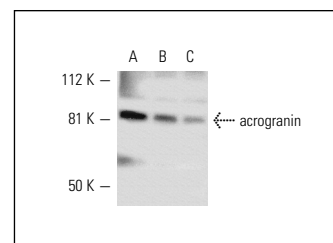
RESEARCH USE

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

DATA



acrogranin (N-19): sc-11342. Western blot analysis of acrogranin expression in non-transfected 293T: sc-117752 (A), human acrogranin transfected 293T: sc-113573 (B) and MCF7 (C) whole cell lysates.



acrogranin (N-19): sc-11342. Western blot analysis of acrogranin expression in MDA-MB-468 (A), MCF7 (B) and 3T3-L1 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Gonzalez, E.M., et al. 2003. A novel interaction between perlecan protein core and progranulin: potential effects on tumor growth. *J. Biol. Chem.* 278: 38113-38116.
- Baker, M., et al. 2006. Mutations in progranulin cause tau-negative frontotemporal dementia linked to chromosome 17. *Nature* 442: 916-919.
- Mackenzie, I.R., et al. 2006. The neuropathology of frontotemporal lobar degeneration caused by mutations in the progranulin gene. *Brain* 129: 3081-3090.
- Xu, K., et al. 2007. Cartilage oligomeric matrix protein associates with granulin-epithelin precursor (GEP) and potentiates GEP-stimulated chondrocyte proliferation. *J. Biol. Chem.* 282: 11347-11355.
- Chiba, S., et al. 2007. Involvement of granulin in estrogen-induced neurogenesis in the adult rat hippocampus. *J. Reprod. Dev.* 53: 297-307.
- Kojima, Y., et al. 2009. Progranulin expression in advanced human atherosclerotic plaque. *Atherosclerosis* 206: 102-108.
- Loei, H., et al. 2012. Mining the gastric cancer secretome: identification of GRN as a potential diagnostic marker for early gastric cancer. *J. Proteome Res.* 11: 1759-1772.

PROTOCOLS

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Try **acrogranin (C-11): sc-377036** or **acrogranin (2A3C5): sc-81151**, our highly recommended monoclonal alternatives to acrogranin (N-19).