

acrogranin (C-11): sc-377036

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.

CHROMOSOMAL LOCATION

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

SOURCE

acrogranin (C-11) is a mouse monoclonal antibody raised against amino acids 21-320 mapping near the N-terminus of acrogranin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

acrogranin (C-11) is available conjugated to agarose (sc-377036 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377036 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377036 PE), fluorescein (sc-377036 FITC), Alexa Fluor® 488 (sc-377036 AF488), Alexa Fluor® 546 (sc-377036 AF546), Alexa Fluor® 594 (sc-377036 AF594) or Alexa Fluor® 647 (sc-377036 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377036 AF680) or Alexa Fluor® 790 (sc-377036 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

acrogranin (C-11) is recommended for detection of precursor and mature acrogranin; paraganulin; and granulin 1, granulin 2, granulin 3, granulin 4 and granulin 7 of human origin by Western Blotting (starting dilution 1:100, 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) (start-ing 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 shRNA Plasmid (h): sc-39261-SH and acrogranin shRNA (h) Lentiviral Particles: sc-39261-V.

Molecular Weight of acrogranin: 88 kDa.

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

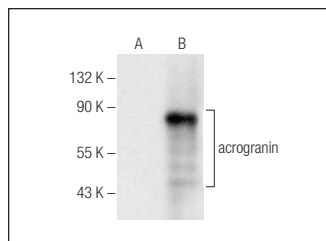
STORAGE

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

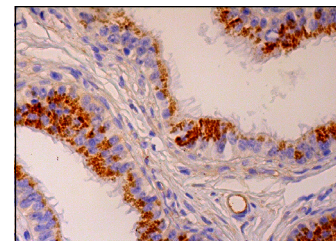
RESEARCH USE

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

DATA



acrogranin (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.



acrogranin (C-11): sc-377036. Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Pepinsky, R.B., et al. 1988. Proteolytic processing of mullerian inhibiting substance produces a transforming growth factor-β-like fragment. *J. Biol. Chem.* 263: 18961-18964.
- Lee, Y.K., et al. 2015. Identification of a mitochondrial defect gene signature reveals NUPR1 as a key regulator of liver cancer progression. *Hepatology* 62: 1174-1189.
- Holler, C.J., et al. 2017. Intracellular proteolysis of progranulin generates stable, lysosomal granules that are haploinsufficient in patients with frontotemporal dementia caused by GRN mutations. *eNeuro* 4: ENEURO.0100-17.2017.
- Lang, I., et al. 2018. Lack of evidence for a direct interaction of progranulin and tumor necrosis factor receptor-1 and tumor necrosis factor receptor-2 from cellular binding studies. *Front. Immunol.* 9: 793.
- Keenan, J., et al. 2021. Copper toxicity of inflection point in human intestinal cell line Caco-2 dissected: influence of temporal expression patterns. *In Vitro Cell. Dev. Biol. Anim.* 57: 359-371.
- Ren, Z., et al. 2022. *Helicobacter pylori*-induced progranulin promotes the progression of the gastric epithelial cell cycle by regulating CDK4. *J. Microbiol. Biotechnol.* 32: 844-854.

PROTOCOLS

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

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