

Gros1 (F-07): sc-101240

BACKGROUND

At the epithelial/mesenchymal interface of most tissues lies the basement membrane. These thin sheets of highly specialized extracellular matrix vary in composition in a tissue-specific manner and during development and repair. Growth suppressor Gros1, also designated leprecan, is a leucine proline-enriched basement membrane-associated proteoglycan, which maps to human chromosome 1p31. The gene encodes a transcript that is alternatively spliced to form two proteins, Gros1_S and Gros1_L. Gros1_S is predominantly found in placenta, ovary and testis. The rat homolog of Gros1/leprecan is secreted by parietal yolk sac tumor (L-2) cells and is thought to be involved in the generation of substrates for protein glycosylation.

REFERENCES

1. Wassenhove-McCarthy, D.J. and McCarthy, K.J. 1999. Molecular characterization of a novel basement membrane-associated proteoglycan, leprecan. *J. Biol. Chem.* 274: 25004-25017.
2. Erickson, A.C. and Couchman, J.R. 2000. Still more complexity in mammalian basement membranes. *J. Histochem. Cytochem.* 48: 1291-1306.
3. Kaul, S.C., Sugihara, T., Yoshida, A., Nomura, H. and Wadhwa, R. 2000. Gros1, a potential growth suppressor on chromosome 1: its identity to basement membrane-associated proteoglycan, leprecan. *Oncogene* 19: 3576-3583.
4. Hotta, K., Takahashi, H., Asakura, T., Saitoh, B., Takatori, N., Satou, Y. and Satoh, N. 2000. Characterization of Brachyury-downstream notochord genes in the *Ciona intestinalis* embryo. *Dev. Biol.* 224: 69-80.
5. Aravind, L. and Koonin, E.V. 2001. The DNA-repair protein AlkB, EGL-9, and leprecan define new families of 2-oxoglutarate- and iron-dependent dioxygenases. *Genome Biol.* 2: RESEARCH0007.

CHROMOSOMAL LOCATION

Genetic locus: P3H1 (human) mapping to 1p34.2.

SOURCE

Gros1 (F-07) is a mouse monoclonal antibody raised against recombinant Gros1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Gros1 (F-07) is recommended for detection of Gros1 of 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), immunohistochemistry (including paraffin-embedded sections) (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 Gros1 siRNA (h): sc-37433, Gros1 shRNA Plasmid (h): sc-37433-SH and Gros1 shRNA (h) Lentiviral Particles: sc-37433-V.

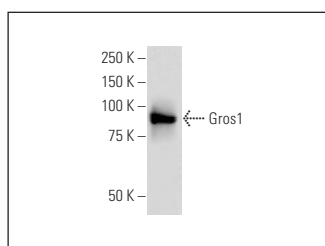
Molecular Weight of Gros1/leprecan: 83 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

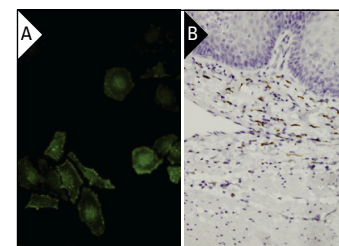
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Gros1 (F-07): sc-101240. Western blot analysis of Gros1 expression in HeLa whole cell lysate.



Gros1 (F-07): sc-101240. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human esophagus tissue showing cytoplasmic localization (B).

RESEARCH USE

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