

Gas7 (H-9): sc-365385

BACKGROUND

Growth arrest specific proteins, including Gas1, Gas6 and Gas7, are activated in quiescent cells. Gas 7 plays a role in neurite differentiation in cultured mouse cerebellar neurons and PC-12 cells, which makes it a potential therapeutic target to promote the re-establishment of neuronal connections in the injured or disease brain. The gene encoding human Gas7 maps to chromosome 17p13.1, which can translocate with MLL to form MLL-GAS7 fusion products. The Gas7 protein is expressed as three isoforms, a, b, and c, which are differentially expressed in all brain subregions.

REFERENCES

1. Ju, Y.T., et al. 1998. Gas7: a gene expressed preferentially in growth-arrested fibroblasts and terminally differentiated Purkinje neurons affects neurite formation. *Proc. Natl. Acad. Sci. USA* 95: 11423-11428.
2. Lazakovitch, E.M., et al. 1999. The Gas7 gene encodes two protein isoforms differentially expressed within the brain. *Genomics* 61: 298-306.
3. Megonigal, M.D., et al. 2000. Detection of leukemia-associated MLL-GAS7 translocation early during chemotherapy with DNA topoisomerase II inhibitors. *Proc. Natl. Acad. Sci. USA* 97: 2814-2819.
4. She, B.R., et al. 2002. Association of the growth-arrest-specific protein Gas7 with F-Actin induces reorganization of microfilaments and promotes membrane outgrowth. *Exp. Cell Res.* 273: 34-44.

CHROMOSOMAL LOCATION

Genetic locus: GAS7 (human) mapping to 17p13.1; Gas7 (mouse) mapping to 11 B3.

SOURCE

Gas7 (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 71-97 near the N-terminus of Gas7 isoform b 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.

Gas7 (H-9) is available conjugated to agarose (sc-365385 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365385 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365385 PE), fluorescein (sc-365385 FITC), Alexa Fluor® 488 (sc-365385 AF488), Alexa Fluor® 546 (sc-365385 AF546), Alexa Fluor® 594 (sc-365385 AF594) or Alexa Fluor® 647 (sc-365385 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365385 AF680) or Alexa Fluor® 790 (sc-365385 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365385 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

Gas7 (H-9) is recommended for detection of Gas7 of mouse, rat and 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) (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 Gas7 siRNA (h): sc-45345, Gas7 siRNA (m): sc-45346, Gas7 shRNA Plasmid (h): sc-45345-SH, Gas7 shRNA Plasmid (m): sc-45346-SH, Gas7 shRNA (h) Lentiviral Particles: sc-45345-V and Gas7 shRNA (m) Lentiviral Particles: sc-45346-V.

Molecular Weight of Gas7 isoform a: 38 kDa.

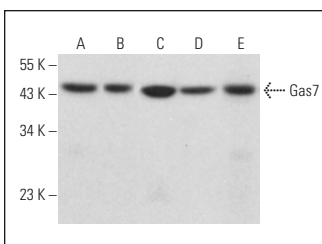
Molecular Weight of Gas7 isoform b: 48 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, EOC 20 whole cell lysate: sc-364187 or PC-12 cell lysate: sc-2250.

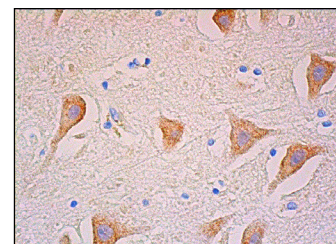
RECOMMENDED SUPPORT REAGENTS

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



Gas7 (H-9): sc-365385. Western blot analysis of Gas7 expression in PC-12 (A), EOC 20 (B), IMR-32 (C) and T98G (D) whole cell lysates and mouse postnatal brain tissue extract (E).



Gas7 (H-9): sc-365385. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic staining of neuronal cells.

STORAGE

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

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