

# Gas7 (B-4): sc-376955

## BACKGROUND

Growth arrest specific proteins, including Gas1, Gas6 and Gas7, are activated in quiescent cells. Gas7 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

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- 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.
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- Lortie, K., et al. 2005. The Gas7 protein potentiates NGF-mediated differentiation of PC12 cells. *Brain Res.* 1036: 27-34.
- Chang, P.Y., et al. 2005. Identification of rat Gas7 isoforms differentially expressed in brain and regulated following kainate-induced neuronal injury. *J. Neurosci. Res.* 79: 788-797.

## CHROMOSOMAL LOCATION

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

## SOURCE

Gas7 (B-4) is a mouse monoclonal antibody raised against amino acids 177-476 mapping at the C-terminus of Gas7 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

Gas7 (B-4) 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).

Gas7 (B-4) is also recommended for detection of Gas7 in additional species, including equine and canine.

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.

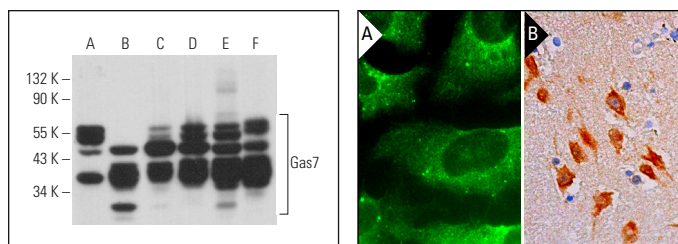
Molecular Weight of Gas7 isoform b: 48 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, C6 whole cell lysate: sc-364373 or mouse brain extract: sc-2253.

## 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 (B-4): sc-376955. Western blot analysis of Gas7 expression in Jurkat (A), C32 (B) and C6 (C) whole cell lysates and human cerebral cortex (D), mouse brain (E) and rat hippocampus (F) tissue extracts.

Gas7 (B-4): sc-376955. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lateral ventricle tissue showing cytoplasmic staining of neuronal cells (B).

## STORAGE

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