

GAS41 (N-14): sc-21471

BACKGROUND

Gene amplification is associated with tumor stage and progression in human gliomas. Several amplified loci are identified and comprise multiple genes. The glioma amplified sequence 41 (GAS41) is an evolutionarily conserved eukaryotic protein found in diverse species. GAS41 is related to the AF-9 and ENL proteins, which are putative transcription factors in some acute leukemias, and interacts with a component of the nuclear matrix, NuMA, in interphase cells. GAS41 has a dotted staining pattern in interphase nuclei and a uniform distribution in mitotic cells. GAS41 is ubiquitously expressed, with the highest levels of expression in human brain. In neuroblastoma, GAS41 is located in the nucleoli, but not in the nucleoplasm. GAS41 also binds to the MLL fusion partner AF-10, which is involved in two distinct chromosomal translocations associated with hematologic malignancy. In addition, GAS41 interacts with INI1 (integrase interactor 1), which is a human homolog of the yeast Snf5 protein, a component of the SWI/SNF complex. The GAS41 gene maps to human chromosome 12q15.

REFERENCES

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2. Fischer, U., Meltzer, P. and Meese, E. 1996. Twelve amplified and expressed genes localized in a single domain in glioma. *Hum. Genet.* 98: 625-628.
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4. Harborth, J., Weber, K. and Osborn, M. 2000. GAS41, a highly conserved protein in eukaryotic nuclei, binds to NuMA. *J. Bio. Chem.* 275: 31979-31985.
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6. Debernardi, S., Bassini, A., Jones, L.K., Chaplin, T., Linder, B., de Bruijn, D.R., Meese, E. and Young, B.D. 2002. The MLL fusion partner AF10 binds GAS41, a protein that interacts with the human SWI/SNF complex. *Blood* 99: 275-281.

CHROMOSOMAL LOCATION

Genetic locus: YEATS4 (human) mapping to 12q15; Yeats4 (mouse) mapping to 10 D2.

SOURCE

GAS41 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GAS41 of human origin.

STORAGE

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

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-21471 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GAS41 (N-14) is recommended for detection of GAS41 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

GAS41 (N-14) is also recommended for detection of GAS41 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for GAS41 siRNA (h): sc-77331, GAS41 siRNA (m): sc-145334, GAS41 shRNA Plasmid (h): sc-77331-SH, GAS41 shRNA Plasmid (m): sc-145334-SH, GAS41 shRNA (h) Lentiviral Particles: sc-77331-V and GAS41 shRNA (m) Lentiviral Particles: sc-145334-V.

Molecular Weight of GAS41: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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