

GAS41 (h): 293 Lysate: sc-110558

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 (integrator 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

1. 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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3. Fischer, U., Heckel, D., Michel, A., Janka, M., Hulsebos, T. and Meese, E. 1997. Cloning of a novel transcription factor-like gene amplified in human glioma including astrocytoma grade I. *Hum. Mol. Genet.* 6: 1817-1822.
4. Harborth, J., Weber, K. and Osborn, M. 2000. GAS41, a highly conserved protein in eukaryotic nuclei, binds to NuMA. *J. Biol. 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 AF-10 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.

PRODUCT

GAS41 (h): 293 Lysate represents a lysate of human GAS41 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

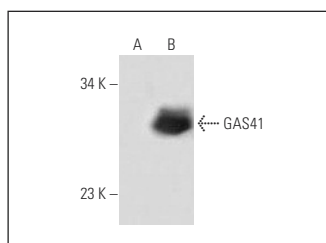
APPLICATIONS

GAS41 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive GAS41 antibodies.

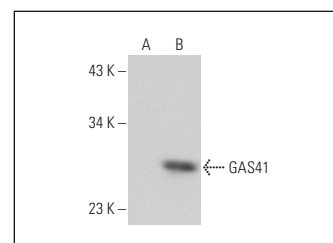
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

GAS41 (YEATB1A8): sc-81278 is recommended as a positive control antibody for Western Blot analysis of enhanced human GAS41 expression in GAS41 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



GAS41 (YEATB1A8): sc-81278. Western blot analysis of GAS41 expression in non-transfected: sc-110760 (A) and human GAS41 transfected: sc-110558 (B) 293 whole cell lysates.



GAS41 (YEATB1A8): sc-81278. Western blot analysis of GAS41 expression in non-transfected: sc-110760 (A) and human GAS41 transfected: sc-110558 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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