

atrophin-2 (H-113): sc-98415

BACKGROUND

Atrophin-2 (arginine-glutamic acid dipeptide repeats protein, atrophin-1-like protein) is a 1,566 amino acid protein encoded by the human gene RERE. Atrophin-2 is a member of the atrophin family of arginine-glutamic acid (RE) dipeptide repeat-containing proteins and contains one BAH domain, one ELM2 domain, one GATA-type zinc finger and one SANT domain. Atrophin-2 plays a role as a transcriptional repressor during development and later may play a role in cell survival. Overexpression of atrophin-2 recruits Bax to the nucleus, particularly to the promyelocytic leukemia (PML) nuclear body, also known as the PML oncogenic domain (POD), and triggers caspase-3 activation, leading to cell death. Atrophin-2 also interacts with HDAC1 and atrophin-1. Its interaction with atrophin-1 is improved when the poly-Gln region of atrophin-1 is extended.

REFERENCES

1. Waerner, T., et al. 2001. Human RERE is localized to nuclear promyelocytic leukemia oncogenic domains and enhances apoptosis. *Cell Growth Differ.* 12: 201-210.
2. Hatta, M. and Fukamizu, A. 2001. PODs in the nuclear spot: enigmas in the magician's pot. *Sci. STKE* 2001: pe1.
3. Erkner, A., et al. 2002. Grunge, related to human atrophin-like proteins, has multiple functions in *Drosophila* development. *Development* 129: 1119-1129.
4. Zoltewicz, J.S., et al. 2003. Atrophin 2 recruits histone deacetylase and is required for the function of multiple signaling centers during mouse embryogenesis. *Development* 131: 3-14.
5. Fransson, S., et al. 2006. Neuroblastoma tumors with favorable and unfavorable outcomes: significant differences in mRNA expression of genes mapped at 1p36.2. *Genes Chromosomes Cancer* 46: 45-52.
6. Wang, L., et al. 2006. Histone deacetylase-associating atrophin proteins are nuclear receptor corepressors. *Genes Dev.* 20: 525-530.

CHROMOSOMAL LOCATION

Genetic locus: RERE (human) mapping to 1p36.23; Rere (mouse) mapping to 4 E2.

SOURCE

atrophin-2 (H-113) is a rabbit polyclonal antibody raised against amino acids 587-699 mapping within an internal region of atrophin-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98415 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

atrophin-2 (H-113) is recommended for detection of atrophin-2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with atrophin-1.

atrophin-2 (H-113) is also recommended for detection of atrophin-2 in additional species, including equine, canine, bovine and avian.

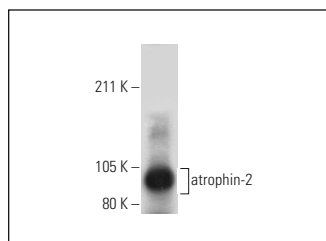
Suitable for use as control antibody for atrophin-2 siRNA (h): sc-88090, atrophin-2 siRNA (m): sc-105110, atrophin-2 shRNA Plasmid (h): sc-88090-SH, atrophin-2 shRNA Plasmid (m): sc-105110-SH, atrophin-2 shRNA (h) Lentiviral Particles: sc-88090-V and atrophin-2 shRNA (m) Lentiviral Particles: sc-105110-V.

atrophin-2 (H-113) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of atrophin-2 isoforms 1/2: 172/109 kDa.

Positive Controls: human plasma extract: sc-364374.

DATA



atrophin-2 (H-113): sc-98415. Western blot analysis of atrophin-2 in human plasma.

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.

MONOS
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Try **atrophin-2 (RERE1H8): sc-81115**, our highly recommended monoclonal alternative to atrophin-2 (H-113).