

# atrophin-2 (S-15): sc-103400

## 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

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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.
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7. Plaster, N., et al. 2007. RERE $\alpha$ /atrophin-2 interacts with histone deacetylase and Fgf8 signaling to regulate multiple processes of zebrafish development. *Dev. Dyn.* 236: 1891-1904.
8. Shen, Y., et al. 2007. Functional architecture of atrophins. *J. Biol. Chem.* 282: 5037-5044.

## CHROMOSOMAL LOCATION

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

## SOURCE

atrophin-2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of atrophin-2 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  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103400 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

atrophin-2 (S-15) 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), 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).

atrophin-2 (S-15) is also recommended for detection of atrophin-2 in additional species, including equine, canine 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.

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

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **atrophin-2 (REREF1H8): sc-81115**, our highly recommended monoclonal alternative to atrophin-2 (S-15).