

ACRC (N-17): sc-241773

BACKGROUND

ACRC (acidic repeat containing), also known as NAAR1, is a 691 amino acid protein belonging to the serine-aspartate repeat-containing protein (SDr) family. ACRC contains at least 12 exons and spans 35.5 kb. ACRC is ubiquitously expressed, with highest expression in skeletal muscle. Encoded by a gene that maps to the DYT3 critical region on human chromosome Xq13.1, ACRC is also expressed in skeletal muscle, liver, kidney, pancreas, heart, lung and brain. ACRC exhibits a characteristic repeat of 21 units of 8 to 10 amino acids and consists of several potential nuclear localization signals in the C terminus, as well as putative N-glycosylation and phosphorylation sites. ACRC may play a role in chromatin structure.

REFERENCES

1. Nolte, D., et al. 2001. ACRC codes for a novel nuclear protein with unusual acidic repeat tract and maps to DYT3 (dystonia parkinsonism) critical interval in xq13.1. *Neurogenetics* 3: 207-213.
2. Nolte, D. and Müller, U. 2002. Human O-GlcNAc transferase (OGT): genomic structure, analysis of splice variants, fine mapping in Xq13.1. *Mamm. Genome* 13: 62-64.
3. Nolte, D., et al. 2003. Specific sequence changes in multiple transcript system DYT3 are associated with X-linked dystonia parkinsonism. *Proc. Natl. Acad. Sci. USA* 100: 10347-10352.
4. Makino, S., et al. 2007. Reduced neuron-specific expression of the TAF1 gene is associated with X-linked dystonia-parkinsonism. *Am. J. Hum. Genet.* 80: 393-406.
5. Zeng, Y., et al. 2009. Down-regulating cold shock protein genes impairs cancer cell survival and enhances chemo-sensitivity. *J. Cell. Biochem.* 107: 179-188.
6. Rochman, M., et al. 2009. The interaction of NSBP1/HMG5 with nucleosomes in euchromatin counteracts linker histone-mediated chromatin compaction and modulates transcription. *Mol. Cell* 35: 642-656.
7. Rochman, M., et al. 2010. HMG5/NSBP1: a new member of the HMGN protein family that affects chromatin structure and function. *Biochim. Biophys. Acta* 1799: 86-92.
8. SWISS-PROT/TrEMBL (Q96QF7). World Wide Web URL: <http://www.uniprot.org/uniprot/Q96QF7>

CHROMOSOMAL LOCATION

Genetic locus: ACRC (human) mapping to Xq13.1.

SOURCE

ACRC (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACRC 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-241773 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACRC (N-17) is recommended for detection of ACRC of 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).

Suitable for use as control antibody for ACRC siRNA (h): sc-91258, ACRC shRNA Plasmid (h): sc-91258-SH and ACRC shRNA (h) Lentiviral Particles: sc-91258-V.

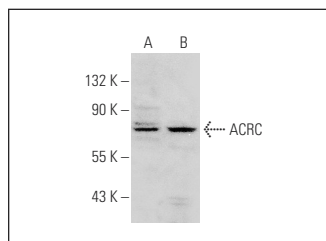
Molecular Weight of ACRC: 76 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206 or RT-4 whole cell lysate: sc-364257

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ACRC (N-17): sc-241773. Western blot analysis of ACRC expression in MCF7 (A) and RT-4 (B) whole cell lysates.

RESEARCH USE

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