

AHNAK (V-16): sc-131380

BACKGROUND

AHNAK (neuroblast differentiation-associated protein AHNAK, desmoyokin) is a 5,890 amino acid protein encoded by the human gene AHNAK. The intronless AHNAK gene is located on human chromosome 11q12.3 and has 3 main structural regions: the 251 amino acid N-terminus, a large central region of 4,390 amino acids with multiple repeated units of about 128 amino acids in length, and the 1,002 amino acid C-terminus. The central region seems to have antiparallel β -strands connected by intervening loops. Several putative regulatory elements are clustered within the C-terminal region, including nuclear export localization signals, a leucine zipper, and potential phosphorylation sites for Akt1 and PKC. AHNAK is believed to be an important signalling molecule involved in a wide range of physiological activities and may be required for neuronal cell differentiation. AHNAK also appears to influence β -adrenergic regulation of cardiac L-type Ca^{2+} channel function.

REFERENCES

1. von Boxberg, Y., et al. 2006. Spinal cord injury-induced upregulation of AHNAK, expressed in cells delineating cystic cavities, and associated with neoangiogenesis. *Eur. J. Neurosci.* 24: 1031-1041.
2. De Seranno, S., et al. 2006. Identification of an AHNAK binding motif specific for the Annexin2/S100A10 tetramer. *J. Biol. Chem.* 281: 35030-35038.
3. Haase, H. 2006. AHNAK, a new player in β -adrenergic regulation of the cardiac L-type Ca^{2+} channel. *Cardiovasc. Res.* 73: 19-25.
4. Huang, Y., et al. 2007. AHNAK, a novel component of the dysferlin protein complex, redistributes to the cytoplasm with dysferlin during skeletal muscle regeneration. *FASEB J.* 21: 732-742.
5. Wu, E.H., et al. 2007. Effect of hypoxia on the gene profile of human bone marrow-derived mesenchymal stem cells. *Sheng Li Xue Bao* 59: 227-232.
6. Cocucci, E., et al. 2007. Enlargeosome traffic: exocytosis triggered by various signals is followed by endocytosis, membrane shedding or both. *Traffic* 8: 742-757.

CHROMOSOMAL LOCATION

Genetic locus: AHNAK (human) mapping to 11q12.3.

SOURCE

AHNAK (V-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AHNAK of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131380 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

AHNAK (V-16) is recommended for detection of AHNAK of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 AHNAK siRNA (h): sc-97060, AHNAK shRNA Plasmid (h): sc-97060-SH and AHNAK shRNA (h) Lentiviral Particles: sc-97060-V.

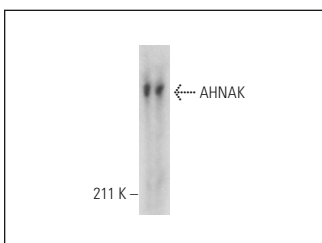
Molecular Weight of AHNAK: 630 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

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



AHNAK (V-16): sc-131380. Western blot analysis of AHNAK expression in HeLa nuclear extract.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **AHNAK (E-5): sc-390743** or **AHNAK (1G11): sc-134252**, our highly recommended monoclonal alternatives to AHNAK (V-16).