# AHNAK (h): 293T Lysate: sc-110790



The Power to Question

#### **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 three 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  $\beta$ -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  $\beta$ -adrenergic regulation of cardiac L-type Ca²+ channel function.

# **REFERENCES**

- von Boxberg, Y., Salim, C., Soares, S., Baloui, H., Alterio, J., Ravaille-Veron, M. and Nothias, F. 2006. Spinal cord injury-induced upregulation of AHNAK, expressed in cells delineating cystic cavities, and associated with neoangiogenesis. Eur. J. Neurosci. 24: 1031-1041.
- De Seranno, S., Benaud, C., Assard, N., Khediri, S., Gerke, V., Baudier, J. and Delphin, C. 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  $\beta$ -adrenergic regulation of the cardiac L-type Ca<sup>2+</sup> channel. Cardiovasc. Res. 73: 19-25.
- 4. Huang, Y., Laval, S.H., van Remoortere, A., Baudier, J., Benaud, C., Anderson, L.V., Straub, V., Deelder, A., Frants, R.R., den Dunnen, J.T., Bushby, K. and van der Maarel, S.M. 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.
- Wu, E.H., Li, H.S., Zhao, T., Fan, J.D., Ma, X., Xiong, L., Li, W.J., Zhu, L.L. and Fan, M. 2007. Effect of hypoxia on the gene profile of human bone marrow-derived mesenchymal stem cells. Sheng Li Xue Bao 59: 227-232.
- Cocucci, E., Racchetti, G., Podini, P. and Meldolesi, J. 2007. Enlargeosome traffic: exocytosis triggered by various signals is followed by endocytosis, membrane shedding or both. Traffic 8: 742-757.
- Lee, I.H., Lim, H.J., Yoon, S., Seong, J.K., Bae, D.S., Rhee, S.G. and Bae, Y.S. 2008. AHNAK protein activates PKC through dissociation of PKC-PP2A complex. J. Biol. Chem. 283: 6312-6320.

# **CHROMOSOMAL LOCATION**

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

# **PRODUCT**

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

## **RESEARCH USE**

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

#### **APPLICATIONS**

AHNAK (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive AHNAK antibodies. Recommended use: 10-20 µl per lane.

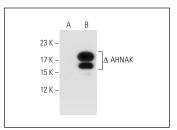
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

AHNAK (1G11): sc-134252 is recommended as a positive control antibody for Western Blot analysis of enhanced human AHNAK expression in AHNAK transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## **DATA**



AHNAK (1G11): sc-134252. Western blot analysis of AHNAK expression in non-transfected: sc-117752 (A) and truncated human AHNAK transfected: sc-110790 (B) 293T whole cell Ivsates.

## **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.

# **PROTOCOLS**

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

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