**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 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 signaling 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**


**CHROMOSOMAL LOCATION**

Genetic locus: AHNAK (human) mapping to 11q12.3; Ahnak (mouse) mapping to 19 A.

**SOURCE**

AHNAK (1G11) is a mouse monoclonal antibody raised against recombinant AHNAK protein of human origin.

**PRODUCT**

Each vial contains 100 μg IgG\(_{132}\) kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

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

**APPLICATIONS**

AHNAK (1G11) is recommended for detection of AHNAK 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)] 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 siRNA (m): sc-140916, AHNAK shRNA Plasmid (h): sc-97060-SH, AHNAK shRNA Plasmid (m): sc-140916-SH, AHNAK shRNA (h) Lentiviral Particles: sc-97060-V and AHNAK shRNA (m) Lentiviral Particles: sc-140916-V.

Molecular Weight of AHNAK: 630 kDa.

Positive Controls: AHNAK (h): 293T Lysate: sc-110790 or human AHNAK transfected 293T whole cell lysate.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG\(_{132}\) BP-HRP: sc-516102 or m-IgG\(_{132}\) BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker\(_{TM}\) Molecular Weight Standards: sc-2035, UltraCruz\(_{®}\) Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-110790 or Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**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 lysate.

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

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