SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD26 (S-17): sc-82508

BACKGROUND

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKRD26 (ankyrin repeat domain-containing protein 26) is a 1,709 amino acid protein that contains five ANK repeats. Expressed at high level in many tissues, including brain, liver, kidney and heart, ANKRD26 may be phosphorylated upon DNA damage by Atm or ATR. ANKRD26 is also expressed in the arcuate and ventromedial nuclei within the hypothalamus and in the ependyma and the circumventricular organs that act as an interface between the peripheral circulation and the brain. It is suggested that alterations in the gene encoding ANKRD26 may lead to obesity. Three isoforms of ANKRD26 exists due to alternative splicing events.

REFERENCES

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2. Bennett, V., et al. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. J. Cell. Biochem. 29: 157-169.
3. Davis, J., et al. 1989. Diversity in membrane binding sites of ankyrins. Brain ankyrin, erythrocyte ankyrin, and processed erythrocyte ankyrin associate with distinct sites in kidney microsomes. J. Biol. Chem. 264: 6417-6426.
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5. Hahn, Y., et al. 2006. Duplication and extensive remodeling shaped POTE family genes encoding proteins containing ankyrin repeat and coiled coil domains. Gene 366: 238-245.
6. Hopitzan, A.A., et al. 2006. Molecular evolution of ankyrin: gain of function in vertebrates by acquisition of an Obscurin/Titin-binding-related domain. Mol. Biol. Evol. 23: 46-55.
7. Cai, X. and Zhang, Y. 2006. Molecular evolution of the ankyrin gene family. Mol. Biol. Evol. 23: 550-558.
8. Lee, Y., et al. 2006. Evolution and expression of chimeric POTE-actin genes in the human genome. Proc. Natl. Acad. Sci. USA 103: 17885-17890.
9. Bera, T.K., et al. 2008. A model for obesity and gigantism due to disruption of the ANKRD26 gene. Proc. Natl. Acad. Sci. USA 105: 270-275.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD26 (human) mapping to 10p12.1.

STORAGE

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

RESEARCH USE

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

SOURCE

ANKRD26 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ANKRD26 of human origin.

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-82508 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKRD26 (S-17) is recommended for detection of ANKRD26 of 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).

Suitable for use as control antibody for ANKRD26 siRNA (h): sc-72498, ANKRD26 shRNA Plasmid (h): sc-72498-SH and ANKRD26 shRNA (h) Lentiviral Particles: sc-72498-V.

Molecular Weight of ANKRD26: 196 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.

PROTOCOLS

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