

ANKRD49 (N-18): sc-241816

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. ANKRD49 (ankyrin repeat domain 49), also known as FGIF (fetal globin-inducing factor), is a 239 amino acid phosphoprotein that contains four ANK repeats and is expressed in fetus, with high levels in fetal liver, brain and lung. Encoded by a gene that maps to human chromosome 11q21, ANKRD49 is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito and *Caenorhabditis elegans*. ANKRD49 participates in transcription activator functions and may play a role in Notch signaling, an important pathway in tumorigenic processes. An invasion-associated four-gene signature, which includes ANKRD49, derived from lung cancer cell lines exhibits survival prediction potential for non-small cell lung cancer patients.

REFERENCES

- Pitts, S.A., et al. 2001. hMRE11: genomic structure and a null mutation identified in a transcript protected from nonsense-mediated mRNA decay. *Hum. Mol. Genet.* 10: 1155-1162.
- Blau, C.A., et al. 2005. γ -Globin gene expression in chemical inducer of dimerization (CID)-dependent multipotential cells established from human β -globin locus yeast artificial chromosome (β -YAC) transgenic mice. *J. Biol. Chem.* 280: 36642-36647.
- Goumy, C., et al. 2008. Familial deletion 11q14.3-q22.1 without apparent phenotypic consequences: a haplosufficient 8.5 Mb region. *Am. J. Med. Genet. A* 146A: 2668-2672.
- Studamire, B., et al. 2008. Host proteins interacting with the Moloney murine leukemia virus integrase: multiple transcriptional regulators and chromatin binding factors. *Retrovirology* 5: 48.
- Hsu, Y.C., et al. 2009. A four-gene signature from NCI-60 cell line for survival prediction in non-small cell lung cancer. *Clin. Cancer Res.* 15: 7309-7315.
- Tan, M.G., et al. 2010. Genome wide profiling of altered gene expression in the neocortex of Alzheimer's disease. *J. Neurosci. Res.* 88: 1157-1169.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD49 (human) mapping to 11q21.

SOURCE

ANKRD49 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ANKRD49 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-241816 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKRD49 (N-18) is recommended for detection of ANKRD49 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); non cross-reactive with other ANKRD family members.

Suitable for use as control antibody for ANKRD49 siRNA (h): sc-96856, ANKRD49 shRNA Plasmid (h): sc-96856-SH and ANKRD49 shRNA (h) Lentiviral Particles: sc-96856-V.

Molecular Weight of ANKRD49: 27 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.

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.

PROTOCOLS

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