

ANKRD40 (G-15): sc-244946

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. ANKRD40 (ankyrin repeat domain 40) is a 368 amino acid protein that contains 2 ANK repeats. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ANKRD40 may play a role in cell adhesion and migration. ANKRD40 is encoded by a gene that maps to human chromosome 17q21.33. Chromosome 17 makes up over 2.5% of the human genome and contains about 81 million bases, which encode over 1,200 genes. Chromosome 17 is linked to neurofibromatosis, a condition characterized by neural and epidermal lesions and dysregulated Schwann cell growth. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

REFERENCES

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2. Al-Dirbashi, O.Y., et al. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. *J. Inher. Metab. Dis.* 30: 612.
3. Murakami, N., et al. 2008. Novel deletion mutation in GFAP gene in an infantile form of Alexander disease. *Pediatr. Neurol.* 38: 50-52.
4. Ernst, W.L., et al. 2009. Genetic enhancement of thalamocortical network activity by elevating α 1 γ -mediated low-voltage-activated calcium current induces pure absence epilepsy. *J. Neurosci.* 29: 1615-1625.
5. 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.
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CHROMOSOMAL LOCATION

Genetic locus: ANKRD40 (human) mapping to 17q21.33; Ankrd40 (mouse) mapping to 11 D.

SOURCE

ANKRD40 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKRD40 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-244946 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

ANKRD40 (G-15) is recommended for detection of ANKRD40 of mouse, rat and 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); non cross-reactive with other ANKRD family members.

ANKRD40 (G-15) is also recommended for detection of ANKRD40 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ANKRD40 siRNA (h): sc-94052, ANKRD40 siRNA (m): sc-141099, ANKRD40 shRNA Plasmid (h): sc-94052-SH, ANKRD40 shRNA Plasmid (m): sc-141099-SH, ANKRD40 shRNA (h) Lentiviral Particles: sc-94052-V and ANKRD40 shRNA (m) Lentiviral Particles: sc-141099-V.

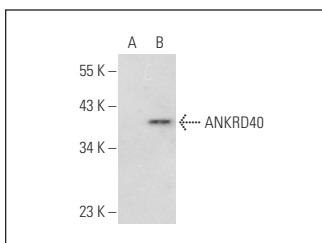
Molecular Weight of ANKRD40: 41 kDa.

Positive Controls: ANKRD40 (m): 293T Lysate: sc-124970.

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



ANKRD40 (G-15): sc-244946. Western blot analysis of ANKRD40 expression in non-transfected: sc-117752 (A) and mouse ANKRD40 transfected: sc-124970 (B) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

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