

AI428936 (L-15): sc-241273

BACKGROUND

C19orf46 (chromosome 19 open reading frame 46), also known as Nesprin-4, is a 404 amino acid single-pass type IV membrane protein that belongs to the nesprin family. Its mouse homolog, AI428936, is a 388 amino acid protein mapping to mouse chromosome 7. C19orf46 participates in the establishment of secretory epithelial morphology by inducing kinesin-dependent apical migration of the centrosome and Golgi apparatus as well as basal localization of the nucleus. C19orf46 interacts with UKHC and KCL1, and exists as two alternatively spliced isoforms. C19orf46 contains a KASH domain, which consists of a transmembrane motif, mediates nuclear envelope targeting and binds to the SUN domain of SUN1 and SUN2. C19orf46 is encoded by a gene located on human chromosome 19, which consists of approximately 63 million bases and makes up over 2% of human genomic DNA.

REFERENCES

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- Puckelwartz, M.J., et al. 2009. Disruption of nesprin-1 produces an Emery Dreifuss muscular dystrophy-like phenotype in mice. *Hum. Mol. Genet.* 18: 607-620.
- Roux, K.J., et al. 2009. Nesprin 4 is an outer nuclear membrane protein that can induce kinesin-mediated cell polarization. *Proc. Natl. Acad. Sci. USA* 106: 2194-2199.
- Lei, K., et al. 2009. SUN1 and SUN2 play critical but partially redundant roles in anchoring nuclei in skeletal muscle cells in mice. *Proc. Natl. Acad. Sci. USA* 106: 10207-10212.
- Haque, F., et al. 2010. Mammalian SUN protein interaction networks at the inner nuclear membrane and their role in laminopathy disease processes. *J. Biol. Chem.* 285: 3487-3498.

CHROMOSOMAL LOCATION

Genetic locus: Syne4 (mouse) mapping to 7 B1.

SOURCE

AI428936 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of AI428936 of mouse 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-241273 P, (100 µg 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

AI428936 (L-15) is recommended for detection of AI428936 of mouse origin and RGD1304580 of rat 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)], 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).

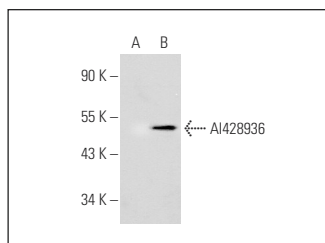
Suitable for use as control antibody for AI428936 siRNA (m): sc-140932, AI428936 shRNA Plasmid (m): sc-140932-SH and AI428936 shRNA (m) Lentiviral Particles: sc-140932-V.

Positive Controls: AI428936 (m): 293T Lysate: sc-126402.

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



AI428936 (L-15): sc-241273. Western blot analysis of AI428936 expression in non-transfected: sc-117752 (A) and mouse AI428936 transfected: sc-126402 (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.