

ZFYVE26 (C-19): sc-79369

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZFYVE26 (zinc finger, FYVE domain containing 26), also known as SPG15, is a 2,539 amino acid protein that exists as multiple alternatively spliced isoforms and contains one FYVE-type zinc finger. Expressed at high levels in brain, prostate, lung, testis, retina, bone marrow and adrenal gland, ZFYVE26 is thought to interact with phospholipids in the membrane and may be involved in transcriptional regulation events. Defects in the gene encoding ZFYVE26 are the cause of spastic paraplegia autosomal recessive type 15 (SPG15), a neurodegenerative disorder that is characterized by difficulty with balance, weakness and stiffness in the legs, muscle spasms, mental retardation, axonal neuropathy and retinal degeneration.

REFERENCES

- Hughes, C.A., et al. 2001. SPG15, a new locus for autosomal recessive complicated HSP on chromosome 14q. *Neurology* 56: 1230-1233.
- Casali, C., et al. 2004. Clinical and genetic studies in hereditary spastic paraplegia with thin corpus callosum. *Neurology* 62: 262-268.
- Elleuch, N., et al. 2007. Refinement of the SPG15 candidate interval and phenotypic heterogeneity in three large Arab families. *Neurogenetics* 8: 307-315.
- Hanein, S., et al. 2008. Identification of the SPG15 gene, encoding spastizin, as a frequent cause of complicated autosomal-recessive spastic paraplegia, including Kjellin syndrome. *Am. J. Hum. Genet.* 82: 992-1002.
- Boukhris, A., et al. 2008. Hereditary spastic paraplegia with mental impairment and thin corpus callosum in Tunisia: SPG11, SPG15, and further genetic heterogeneity. *Arch. Neurol.* 65: 393-402.
- Boukhris, A., et al. 2008. Spastic paraplegia 15: linkage and clinical description of three Tunisian families. *Mov. Disord.* 23: 429-433.

CHROMOSOMAL LOCATION

Genetic locus: ZFYVE26 (human) mapping to 14q24.1; Zfyve26 (mouse) mapping to 12 C3.

SOURCE

ZFYVE26 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ZFYVE26 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-79369 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ZFYVE26 (C-19) is recommended for detection of ZFYVE26 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)], 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).

ZFYVE26 (C-19) is also recommended for detection of ZFYVE26 in additional species, including equine and canine.

Suitable for use as control antibody for ZFYVE26 siRNA (h): sc-63243, ZFYVE26 siRNA (m): sc-63244, ZFYVE26 shRNA Plasmid (h): sc-63243-SH, ZFYVE26 shRNA Plasmid (m): sc-63244-SH, ZFYVE26 shRNA (h) Lentiviral Particles: sc-63243-V and ZFYVE26 shRNA (m) Lentiviral Particles: sc-63244-V.

Molecular Weight of ZFYVE26: 285 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) 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.

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.