FSCB (N-12): sc-137486



The Power to Question

BACKGROUND

FSCB (fibrous sheath CABYR-binding protein), also known as C14orf155, is an 825 amino acid protein kinase A-phosphorylated calcium-binding protein. Localizing to cell projection, FSCB is expressed in elongating spermatids during spermatogenesis and is later found in the cortical layer of flagellum. FSCB interacts with CABYR and may be involved in late stage fibrous sheath biogenesis. The gene encoding FSCB maps to human chromosome 14q21.2. Chromosome 14 contains about 700 genes and 106 million base pairs, and makes up about 3.5% of human cellular DNA. The presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease, is located on chromosome 14. The SERPINA1 gene is located on chromosome 14 and, when defective, leads to the genetic disorder α 1-antitrypsin deficiency.

REFERENCES

- Heilig, R., et al. 2003. The DNA sequence and analysis of human chromosome 14. Nature 421: 601-607.
- 2. Godbolt, A.K., et al. 2004. A presentiin 1 R278l mutation presenting with language impairment. Neurology 63: 1702-1704.
- 3. Stolk, J., et al. 2006. α 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. Int. J. Chron. Obstruct. Pulmon. Dis. 1: 151-160.
- 4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. Mol. Neurodegener. 1: 4.
- Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. Cogn. Behav. Neurol. 20: 149-156.
- Li, Y.F., et al. 2007. FSCB, a novel protein kinase A-phosphorylated calciumbinding protein, is a CABYR-binding partner involved in late steps of fibrous sheath biogenesis. J. Biol. Chem. 282: 34104-34119.
- 7. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. Neurobiol. Aging 28: 1682-1688.
- 8. Cruz, P.E., et al. 2007. The promise of gene therapy for the treatment of α -1 antitrypsin deficiency. Pharmacogenomics 8: 1191-1198.
- Micci, F., et al. 2007. Molecular cytogenetic characterization of t(14;19) (q32;p13), a new recurrent translocation in B cell malignancies. Virchows Arch. 450: 559-565.

CHROMOSOMAL LOCATION

Genetic locus: FSCB (human) mapping to 14q21.2.

SOURCE

FSCB (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FSCB of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137486 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FSCB (N-12) is recommended for detection of FSCB of 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).

Suitable for use as control antibody for FSCB siRNA (h): sc-92230, FSCB shRNA Plasmid (h): sc-92230-SH and FSCB shRNA (h) Lentiviral Particles: sc-92230-V.

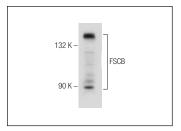
Molecular Weight of FSCB: 88 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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



FSCB (N-12): sc-137486. Western blot analysis of FSCB expression in Jurkat whole cell lysate.

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.