

FTS (K-14): sc-241467

BACKGROUND

Fused toes protein homolog (FTS), also known as AKT-interacting protein (AKTIP) and Ft1, is a 292 amino acid protein that localizes to the cytoplasm and the cell membrane. A member of the ubiquitin-conjugating enzyme family, FTS binds directly to AKT1 to regulate apoptosis in a cell population. AKT1 is a protein that plays a critical role in a number of cellular responses, such as cell growth, protein synthesis, and antiapoptotic signaling. The interaction of FTS and AKT1 enhances the phosphorylation and activation of AKT1, which, through an AKT1/GSK-3 β /NFATc1 signaling cascade, results in the increased production of the proapoptotic hormone Fas ligand and thus an increase in apoptosis.

REFERENCES

1. Lesche, R., et al. 1997. Ft1, a novel gene related to ubiquitin-conjugating enzymes, is deleted in the Fused toes mouse mutation. *Mamm. Genome* 8: 879-883.
2. Lesche, R., et al. 1998. Close linkage of p130 and Ft1 is conserved among mammals. *Mamm. Genome* 9: 253-255.
3. Wick, M.J., et al. 2000. Mechanism of phosphorylation of protein kinase B/Akt by a constitutively active 3-phosphoinositide-dependent protein kinase-1. *J. Biol. Chem.* 275: 40400-40406.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608483. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Troussard, A.A., et al. 2003. Conditional knock-out of integrin-linked kinase demonstrates an essential role in protein kinase B/Akt activation. *J. Biol. Chem.* 278: 22374-22378.
6. Remy, I., et al. 2004. Regulation of apoptosis by the Ft1 protein, a new modulator of protein kinase B/Akt. *Mol. Cell. Biol.* 24: 1493-1504.

CHROMOSOMAL LOCATION

Genetic locus: AKTIP (human) mapping to 16q12.2; Aktip (mouse) mapping to 8 C5.

SOURCE

FTS (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FTS 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-241467 P, (100 μ g 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

FTS (K-14) is recommended for detection of FTS 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).

FTS (K-14) is also recommended for detection of FTS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FTS siRNA (h): sc-93013, FTS siRNA (m): sc-145262, FTS shRNA Plasmid (h): sc-93013-SH, FTS shRNA Plasmid (m): sc-145262-SH, FTS shRNA (h) Lentiviral Particles: sc-93013-V and FTS shRNA (m) Lentiviral Particles: sc-145262-V.

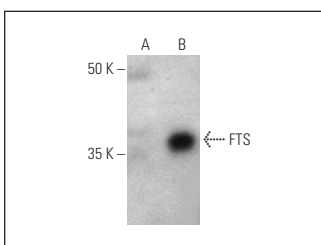
Molecular Weight of FTS: 33 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or FTS (m): 293T Lysate: sc-120330

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



FTS (K-14): sc-241467. Western blot analysis of FTS expression in non-transfected: sc-117752 (A) and mouse FTS transfected: sc-120330 (B) 293T whole cell lysates.

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.