

FTS (m): 293T Lysate: sc-120330

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., Peetz, A., van der Hoeven, F. and R  ther, U. 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. and R  ther, U. 1998. Close linkage of p130 and Ft1 is conserved among mammals. *Mamm. Genome* 9: 253-255.
3. Wick, M.J., Dong, L.Q., Riojas, R.A., Ramos, F.J. and Liu, F. 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, OMIMTM. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608483. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Troussard, A.A., Mawji, N.M., Ong, C., Mui, A., St Arnaud, R. and Dedhar, S. 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. and Michnick, S.W. 2004. Regulation of apoptosis by the Ft1 protein, a new modulator of protein kinase B/Akt. *Mol. Cell. Biol.* 24: 1493-1504.
7. Anai, M., Shojima, N., Katagiri, H., Ogihara, T., Sakoda, H., Onishi, Y., Ono, H., Fujishiro, M., Fukushima, Y., Horike, N., Viana, A., Kikuchi, M., Noguchi, N., Takahashi, S., Takata, K., Oka, Y., Uchijima, Y., Kurihara, H. and Asano, T. 2005. A novel protein kinase B (PKB)/Akt-binding protein enhances PKB kinase activity and regulates DNA synthesis. *J. Biol. Chem.* 280: 18525-18535.

CHROMOSOMAL LOCATION

Genetic locus: AKTIP (human) mapping to 16q12.2.

PRODUCT

FTS (m): 293T Lysate represents a lysate of mouse FTS transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

FTS (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive FTS antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

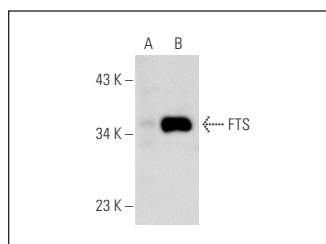
FTS (KK-L5): sc-134343 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse FTS expression in FTS transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



FTS (KK-L5): sc-134343. 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 for detailed protocols and support products.