

JFC1 (h): 293T Lysate: sc-115358

BACKGROUND

Synaptotagmins, rabphilin-3A and DOC2 belong to a family of C-terminal type (C-type) tandem C2 proteins and are involved in vesicular trafficking. JFC1, also designated Slp1 (for synaptotagmin-like protein), belong to a unique family of C-type tandem C2 proteins designated Slp. JFC1 contains two N-terminal Slp homology domains (SHD), which each comprise two conserved α -helical regions, designated SHD1 and SHD2. SHD1 and SHD2 specifically and directly bind the GTP-bound form of Rab 27a. JFC1 also binds phosphatidylinositol 3,4,5-triphosphate-binding ATPase. JFC1 is transcriptionally activated by NF κ B and upregulated by TNF α in prostate carcinoma cells. JFC1 associates with the plasma membrane.

REFERENCES

1. Fukuda, M. and Mikoshiba, K. 2001. Synaptotagmin-like protein 1-3: a novel family of C-terminal-type tandem C2 proteins. *Biochem. Biophys. Res. Commun.* 281: 1226-1233.
2. Fukuda, M., Saegusa, C. and Mikoshiba, K. 2001. Novel splicing isoforms of synaptotagmin-like proteins 2 and 3: identification of the Slp homology domain. *Biochem. Biophys. Res. Commun.* 283: 513-519.
3. McAdara Berkowitz, J.K., Catz, S.D., Johnson, J.L., Ruedi, J.M., Thon, V. and Babior, B.M. 2001. JFC1, a novel tandem C2 domain-containing protein associated with the leukocyte NADPH oxidase. *J. Biol. Chem.* 276: 18855-18862.
4. Kuroda, T.S., Fukuda, M., Ariga, H. and Mikoshiba, K. 2002. The Slp homology domain of synaptotagmin-like proteins 1-4 and Slac2 functions as a novel Rab 27a binding domain. *J. Biol. Chem.* 277: 9212-9218.
5. Strom, M., Hume, A.N., Tarafder, A.K., Barkagianni, E. and Seabra, M.C. 2002. A family of Rab 27-binding proteins. Melanophilin links Rab 27a and Myosin Va function in melanosome transport. *J. Biol. Chem.* 277: 25423-25430.
6. Fukuda, M. and Kuroda, T.S. 2002. Synaptotagmin-like protein homologue lacking C2 domains-c (Slac2-c), a novel linker protein that interacts with Rab 27, Myosin Va/VIIa, and Actin. *J. Biol. Chem.* 277: 43096-43103.
7. Catz, S.D., Babior, B.M. and Johnson, J.L. 2002. JFC1 is transcriptionally activated by nuclear factor κ B and up-regulated by tumor necrosis factor α in prostate carcinoma cells. *Biochem. J.* 367: 791-799.
8. Catz, S.D., Johnson, J.L. and Babior, B.M. 2002. The C2A domain of JFC1 binds to 3'-phosphorylated phosphoinositides and directs plasma membrane association in living cells. *Proc Natl. Acad. Sci. USA* 99: 11652-11657.
9. LocusLink Report (LocusID: 84958). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: SYTL1 (human) mapping to 1p36.11.

PRODUCT

JFC1 (h): 293T Lysate represents a lysate of human JFC1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

JFC1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive JFC1 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.

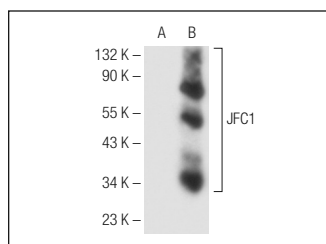
JFC1 (E-8): sc-365933 is recommended as a positive control antibody for Western Blot analysis of enhanced human JFC1 expression in JFC1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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



JFC1 (E-8): sc-365933. Western blot analysis of JFC1 expression in non-transfected: sc-117752 (A) and human JFC1 transfected: sc-115358 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.