

JFC1 (h3): 293T Lysate: sc-171841

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., et al. 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., et al. 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., et al. 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., et al. 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., et al. 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., et al. 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.

CHROMOSOMAL LOCATION

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

PRODUCT

JFC1 (h3): 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.

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.

APPLICATIONS

JFC1 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive JFC1 antibodies. Recommended use: 10-20 μ l per lane.

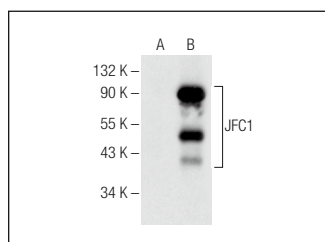
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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).

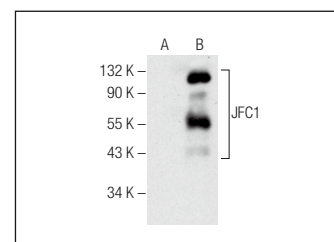
RECOMMENDED SUPPORT REAGENTS

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 Marker[™] 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-171841 (B) 293T whole cell lysates.



JFC1 (F-6): sc-365657. Western blot analysis of JFC1 expression in non-transfected: sc-117752 (A) and human JFC1 transfected: sc-171841 (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.