

# JFC1 (E-8): sc-365933



The Power to Question

## 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  $\alpha$ -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- $\kappa$ B and upregulated by TNF $\alpha$  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 Rab27A binding domain. *J. Biol. Chem.* 277: 9212-9218.

## CHROMOSOMAL LOCATION

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

## SOURCE

JFC1 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 473-506 near the C-terminus of JFC1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

JFC1 (E-8) is available conjugated to agarose (sc-365933 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365933 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365933 PE), fluorescein (sc-365933 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365933 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365933 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365933 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365933 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365933 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365933 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365933 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

JFC1 (E-8) is recommended for detection of JFC1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 JFC1 siRNA (h): sc-40717, JFC1 shRNA Plasmid (h): sc-40717-SH and JFC1 shRNA (h) Lentiviral Particles: sc-40717-V.

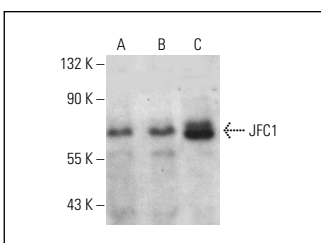
Molecular Weight of JFC1: 62 kDa.

Positive Controls: JFC1 (h): 293T Lysate: sc-115358, Jurkat whole cell lysate: sc-2204 or HEL 92.1.7 cell lysate: sc-2270.

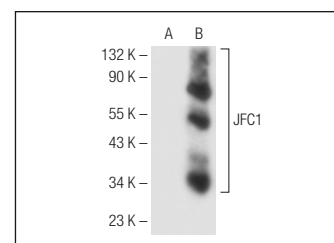
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



JFC1 (E-8): sc-365933. Western blot analysis of JFC1 expression in K-562 (A), HEL 92.1.7 (B) and Jurkat (C) whole cell lysates.



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.

## SELECT PRODUCT CITATIONS

1. Meijuan, C., et al. 2023. Synaptotagmin-like protein 1 is a potential diagnostic and prognostic biomarker in endometrial cancer based on bioinformatics and experiments. *J. Ovarian Res.* 16: 16.

## STORAGE

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

## RESEARCH USE

For research use only, not for use in diagnostic procedures.