SANTA CRUZ BIOTECHNOLOGY, INC.

PACSIN3 (F-8): sc-373952

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PACSINs are a family of cytoplasm-resisdent phosphoproteins that aid in vesicle formation and transport. It is presumed that all isoforms oligomerize and bind Dynamin, Synaptojanin 1 and N-WASP through their Src homology 3 domains. Furthermore, PACSINs co-localize with Dynamin, but not with Clathrin, indicating that the proteins may play a specific role with a defined population of Dynamin at distinct cellular locations. PACSIN3 (protein kinase C and casein kinase substrate in neurons 3) contains a short proline-rich region and lacks asparagine-proline-phenylalanine motifs, which differentiates it from the rest of the PACSIN family. Sequence analysis of cDNAs encoding mouse and human PACSIN3 predict that the human protein consists of 424 amino acids and is 94% identical to the mouse protein. Studies of the mouse protein report predominant expression in mouse lung, skeletal muscle, and heart as well as in brain, kidney and uterus.

REFERENCES

1. Modregger, J., et al. 2000. All three PACSIN isoforms bind to endocytic proteins and inhibit endocytosis. J. Cell Sci. 113: 4511-4521.
2. Sumoy, L., et al. 2001. PACSIN3 is a novel SH3 domain cytoplasmic adapter protein of the pacsin-syndapin-F gene family. Gene 262: 199-205.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606513. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: PACSIN3 (human) mapping to 11p11.2; Pacsin3 (mouse) mapping to 2 E1.

SOURCE

PACSIN3 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 293-317 near the C-terminus of PACSIN3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PACSIN3 (F-8) is available conjugated to agarose (sc-373952 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373952 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373952 PE), fluorescein (sc-373952 FITC), Alexa Fluor® 488 (sc-373952 AF488), Alexa Fluor® 546 (sc-373952 AF546), Alexa Fluor® 594 (sc-373952 AF594) or Alexa Fluor® 647 (sc-373952 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373952 AF680) or Alexa Fluor® 790 (sc-373952 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373952 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PACSIN3 (F-8) is recommended for detection of PACSIN3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

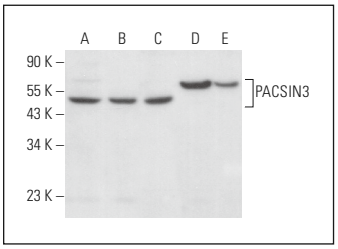
PACSIN3 (F-8) is also recommended for detection of PACSIN3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PACSIN3 siRNA (h): sc-61279, PACSIN3 siRNA (m): sc-61280, PACSIN3 shRNA Plasmid (h): sc-61279-SH, PACSIN3 shRNA Plasmid (m): sc-61280-SH, PACSIN3 shRNA (h) Lentiviral Particles: sc-61279-V and PACSIN3 shRNA (m) Lentiviral Particles: sc-61280-V.

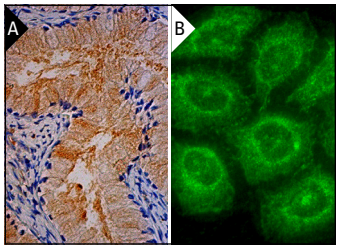
Molecular Weight of PACSIN3: 48 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, NCI-H460 whole cell lysate: sc-364235 or A-10 cell lysate: sc-3806.

DATA



PACSIN3 (F-8): sc-373952. Western blot analysis of PACSIN3 expression in NCI-H460 (**A**), HeLa (**B**), MCF7 (**C**), A-10 (**D**) and PC-12 (**E**) whole cell lysates.



PACSIN3 (F-8): sc-373952. Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic and membrane staining of glandular cells (**A**). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization (**B**).

SELECT PRODUCT CITATIONS

1. Oe, Y., et al. 2022. PACSIN1 is indispensable for amphisome-lysosome fusion during basal autophagy and subsets of selective autophagy. PLoS Genet. 18: e1010264.
2. Correa, F., et al. 2023. Actin-cytoskeleton drives caveolae signaling to mitochondria during postconditioning. Cells 12: 492.

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.