

PIPPIN (G-4): sc-376693

BACKGROUND

PIPPIN, also known as CSDC2 (cold shock domain containing C2, RNA binding), is a Y-box protein (also called cold-shock (CSD) domain-containing protein) and belongs to a family of highly conserved RNA-binding transcriptional regulators. Predominantly expressed in brain cells and localizing to the nucleus and the cytoplasm, PIPIN contains two RNA-binding motifs, namely PIP1 and PIP2, and one CSD domain. PIPIN functions as a nucleic acid binding regulatory factor and is believed to participate in brain maturation. More specifically, PIPIN binds to the 3'-UTR ends of the mRNAs encoding Histone H1 and Histone H3.3. This interaction requires all of the PIPIN domains to work in concert as one functional protein. In addition, PIPIN can be sumoylated in a thyroid hormone (T3)-dependent manner. This suggests that PIPIN modification in response to extracellular stimuli may modulate the regulation of protein synthesis.

REFERENCES

- Castiglia, D., et al. 1996. PIPIN, a putative RNA-binding protein specifically expressed in the rat brain. *Biochem. Biophys. Res. Commun.* 218: 390-394.
- Nastasi, T., et al. 1999. PIPIN is a brain-specific protein that contains a cold-shock domain and binds specifically to H1 genes and H3.3 mRNAs. *J. Biol. Chem.* 274: 24087-24093.
- Nastasi, T., et al. 2000. Specific neurons of brain cortex and cerebellum are PIPIN positive. *Neuroreport* 11: 2233-2236.
- Schäfer, C., et al. 2003. CRHSP-24 phosphorylation is regulated by multiple signaling pathways in pancreatic acinar cells. *Am. J. Physiol. Gastrointest. Liver Physiol.* 285: G726-G734.
- Raimondi, L., et al. 2003. RNA-binding ability of PIPIN requires the entire protein. *J. Cell. Mol. Med.* 7: 35-42.

CHROMOSOMAL LOCATION

Genetic locus: CSDC2 (human) mapping to 22q13.2; Csdc2 (mouse) mapping to 15 E1.

SOURCE

PIPPIN (G-4) is a mouse monoclonal antibody raised against amino acids 11-50 mapping near the N-terminus of PIPIN of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PIPPIN (G-4) is available conjugated to agarose (sc-376693 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376693 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376693 PE), fluorescein (sc-376693 FITC), Alexa Fluor® 488 (sc-376693 AF488), Alexa Fluor® 546 (sc-376693 AF546), Alexa Fluor® 594 (sc-376693 AF594) or Alexa Fluor® 647 (sc-376693 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376693 AF680) or Alexa Fluor® 790 (sc-376693 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PIPPIN (G-4) is recommended for detection of PIPIN 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PIPIN siRNA (h): sc-76146, PIPIN siRNA (m): sc-152270, PIPIN shRNA Plasmid (h): sc-76146-SH, PIPIN shRNA Plasmid (m): sc-152270-SH, PIPIN shRNA (h) Lentiviral Particles: sc-76146-V and PIPIN shRNA (m) Lentiviral Particles: sc-152270-V.

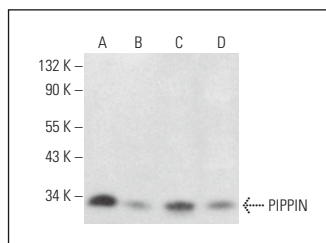
Molecular Weight of PIPIN: 35 kDa.

Positive Controls: PIPIN (h5): 293T Lysate: sc-177729, EOC 20 whole cell lysate: sc-364187 or Sol8 cell lysate: sc-2249.

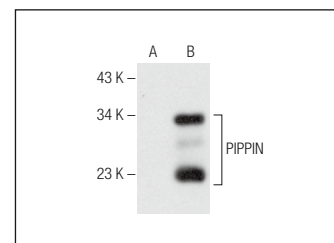
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PIPPIN (G-4): sc-376693. Western blot analysis of PIPIN expression in Sol8 (A), EOC 20 (B), C6 (C) and A-10 (D) whole cell lysates.



PIPPIN (G-4): sc-376693. Western blot analysis of PIPIN expression in non-transfected: sc-117752 (A) and human PIPIN transfected: sc-177729 (B) 293T whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.