PIPPIN (N-17): sc-86789



The Power to Question

BACKGROUND

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

REFERENCES

- Castiglia, D., et al. 1996. PIPPIN, a putative RNA-binding protein specifically expressed in the rat brain. Biochem. Biophys. Res. Commun. 218: 390-394.
- Nastasi, T., et al. 1999. PIPPIN is a brain-specific protein that contains a cold-shock domain and binds specifically to H1 degrees and H3.3 mRNAs. J. Biol. Chem. 274: 24087-24093.
- 3. Nastasi, T., et al. 2000. Specific neurons of brain cortex and cerebellum are PIPPIN 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 PIPPin requires the entire protein. J. Cell. Mol. Med. 7: 35-42.
- 6. Cannino, G., et al. 2004. Analysis of cytochrome C oxidase subunits III and IV expression in developing rat brain. Neuroscience 128: 91-98.
- 7. Auld, G.C., et al. 2005. Identification of calcium-regulated heat-stable protein of 24 kDa (CRHSP24) as a physiological substrate for PKB and RSK using KESTREL. Biochem. J. 389: 775-783.

CHROMOSOMAL LOCATION

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

SOURCE

PIPPIN (N-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of PIPPIN of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86789 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PIPPIN (N-17) is recommended for detection of PIPPIN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

PIPPIN (N-17) is also recommended for detection of PIPPIN in additional species, including equine.

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

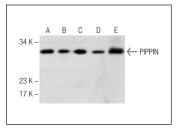
Molecular Weight of PIPPIN: 35 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, human testis extract: sc-363781 or A549 nuclear extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PIPPIN (N-17): sc-86789. Western blot analysis of PIPPIN expression in A549 (A), HeLa (B), MDA-MB 231 (C) and MDA-MB-468 (D) nuclear extracts and human testis tissue extract (E)

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

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