

Paip1 (H-300): sc-50364

BACKGROUND

Paip, for PABP-interacting protein, binds to the polyadenylate-binding protein (PABP), which in yeasts and plants has been shown to bind to the eukaryotic initiation factor component eIF4G. There are two Paip proteins, called Paip1 and Paip2. Paip1 stimulates translation and Paip2, which competes with Paip1 for binding to PABP, represses translation. Paip2 decreases the affinity of PABP for polyadenylate RNA and disrupts the repeating structure of poly(A) ribonucleoprotein. Paip1 contains an eIF4A-binding region and a proline-rich N-terminus. Overexpression of Paip1 in COS-7 cells stimulates translation, perhaps by providing a physical link between the mRNA-termini. The human Paip1 gene encodes a 480 amino acid protein.

REFERENCES

1. Craig, A.W., et al. 1998. Interaction of polyadenylate-binding protein with the eIF4G homologue Paip enhances translation. *Nature* 392: 520-523.
2. Khaleghpour, K., et al. 2001. Dual interactions of the translational repressor Paip2 with poly(A) binding protein. *Mol. Cell. Biol.* 21: 5200-5213.
3. Kozlov, G., et al. 2001. Structure and function of the C-terminal PABC domain of human poly(A)-binding protein. *Proc. Natl. Acad. Sci. USA* 98: 4409-4413.

CHROMOSOMAL LOCATION

Genetic locus: PAIP1 (human) mapping to 5p12; Paip1 (mouse) mapping to 13 D2.3.

SOURCE

Paip1 (H-300) is a rabbit polyclonal antibody raised against amino acids 180-479 mapping at the C-terminus of Paip1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Paip1 (H-300) is recommended for detection of Paip1 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).

Paip1 (H-300) is also recommended for detection of Paip1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Paip1 siRNA (h): sc-40800, Paip1 siRNA (m): sc-40801, Paip1 shRNA Plasmid (h): sc-40800-SH, Paip1 shRNA Plasmid (m): sc-40801-SH, Paip1 shRNA (h) Lentiviral Particles: sc-40800-V and Paip1 shRNA (m) Lentiviral Particles: sc-40801-V.

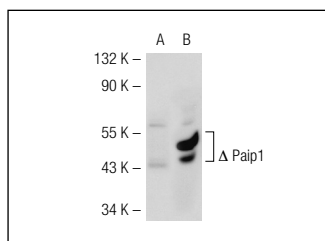
Molecular Weight of Paip1: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Paip1 (h): 293 Lysate: sc-112247 or Paip1 (m): 293T Lysate: sc-122357.

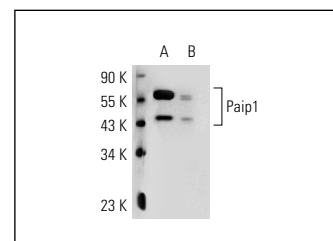
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

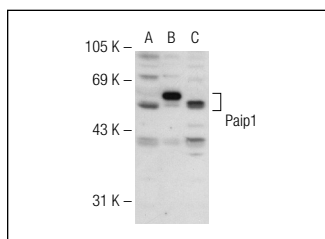
DATA



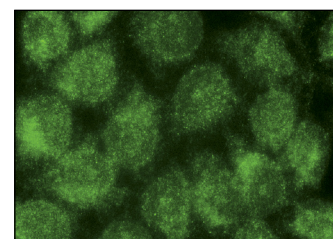
Paip1 (H-300): sc-50364. Western blot analysis of Paip1 expression in non-transfected: sc-117752 (A) and truncated mouse Paip1 transfected: sc-122357 (B) 293T whole cell lysates.



Paip1 (H-300): sc-50364. Western blot analysis of Paip1 expression in human Paip1 transfected: sc-112247 (A) and non-transfected: sc-110760 (B) 293 whole cell lysates.



Paip1 (H-300): sc-50364. Western blot analysis of Paip1 expression in non-transfected 293T: sc-117752 (A), human Paip1 transfected 293T: sc-172162 (B) and HeLa (C) whole cell lysates.



Paip1 (H-300): sc-50364. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

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 or our catalog for detailed protocols and support products.