

PAI-RBP1 (S-13): sc-131743

BACKGROUND

PAI-RBP1 (plasminogen activator inhibitor 1 RNA-binding protein), also known as SERBP1 (SERPINE1 mRNA-binding protein 1), CGI-55, CHD3IP (chromodomain helicase DNA binding protein 3 interacting protein), HABP4L or PAI-RBP1, is a membrane-associated protein that localizes to the nucleus, the perinuclear region of the cytoplasm and the plasma membrane. PAI-RBP1 is believed to play a role in the regulation of mRNA stability, as it specifically binds to the CRS (cyclic nucleotide-responsive sequence) motif of the PAI-1 mRNA and acts to stabilize the mRNA and regulate its expression. In addition, PAI-RBP1 interacts with Mi2- α and may be involved in chromatin remodeling. PAI-RBP1 also interacts with PGRMC1 and participates in the transduction of the antiapoptotic action of progesterone in ovarian cell types. The gene encoding PAI-RBP1 is overexpressed in ovarian cancer, suggesting a possible role for PAI-RBP1 in tumorigenesis and tumor metastasis.

REFERENCES

1. Heaton, J.H., et al. 2001. Identification and cDNA cloning of a novel RNA-binding protein that interacts with the cyclic nucleotide-responsive sequence in the type-1 plasminogen activator inhibitor mRNA. *J. Biol. Chem.* 276: 3341-3347.
2. Lemos, T.A., et al. 2003. Characterization of a new family of proteins that interact with the C-terminal region of the chromatin-remodeling factor CHD3. *FEBS Lett.* 533: 14-20.
3. Peluso, J.J., et al. 2005. Expression and function of PAI-RBP1 within gonadotropin-primed immature rat ovaries: PAI-RBP1 regulation of granulosa and luteal cell viability. *Biol. Reprod.* 73: 261-270.
4. Peluso, J.J., et al. 2006. Progesterone membrane receptor component 1 expression in the immature rat ovary and its role in mediating progesterone's antiapoptotic action. *Endocrinology* 147: 3133-3140.
5. Lemos, T.A. and Kobarg, J. 2006. CGI-55 interacts with nuclear proteins and co-localizes to p80-coilin positive-coiled bodies in the nucleus. *Cell Biochem. Biophys.* 44: 463-474.
6. Koensgen, D., et al. 2007. Expression analysis and RNA localization of PAI-RBP1 (SERBP1) in epithelial ovarian cancer: association with tumor progression. *Gynecol. Oncol.* 107: 266-273.

CHROMOSOMAL LOCATION

Genetic locus: SERBP1 (human) mapping to 1p31.3; Serbp1 (mouse) mapping to 6 C1.

SOURCE

PAI-RBP1 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PAI-RBP1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-131743 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PAI-RBP1 (S-13) is recommended for detection of PAI-RBP1 isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

PAI-RBP1 (S-13) is also recommended for detection of PAI-RBP1 isoforms 1-4 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PAI-RBP1 siRNA (h): sc-88846, PAI-RBP1 siRNA (m): sc-151994, PAI-RBP1 shRNA Plasmid (h): sc-88846-SH, PAI-RBP1 shRNA Plasmid (m): sc-151994-SH, PAI-RBP1 shRNA (h) Lentiviral Particles: sc-88846-V and PAI-RBP1 shRNA (m) Lentiviral Particles: sc-151994-V.

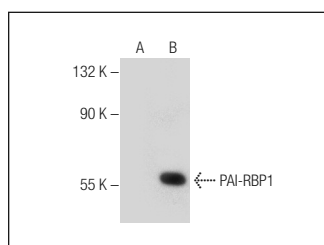
Molecular Weight of PAI-RBP1: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or PAI-RBP1 (m): 293T Lysate: sc-122356.

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



PAI-RBP1 (S-13): sc-131743. Western blot analysis of PAI-RBP1 expression in non-transfected: sc-117752 (A) and mouse PAI-RBP1 transfected: sc-122356 (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.