

# PSPBP (T-12): sc-163268

## BACKGROUND

PSPBP (PSP94-binding protein), also known as Pi16 (peptidase inhibitor 16), CRISP9 (cysteine-rich secretory protein 9) or MSMBBP, is a 463 amino acid single-pass type I membrane protein that is thought to function as a serine protease inhibitor and belongs to the CRISP family. Expressed in testis, prostate, intestine and ovary, PSPBP has been observed to concentrate in the sera of patients with prostate cancer, and is thereby a potential marker for prostate cancer following prostatectomy. Existing as two alternatively spliced isoforms, PSPBP is encoded by a gene that maps to human chromosome 6p21.2. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

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2. Cesari, R., Martin, E.S., Calin, G.A., Pentimalli, F., Bichi, R., McAdams, H., Trapasso, F., Drusco, A., Shimizu, M., Masciullo, V., D'Andrilli, G., Scambia, G., Picchio, M.C., Alder, H., Godwin, A.K. and Croce, C.M. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
3. Reeves, J.R., Xuan, J.W., Arfanis, K., Morin, C., Garde, S.V., Ruiz, M.T., Wisniewski, J., Panchal, C. and Tanner, J.E. 2005. Identification, purification and characterization of a novel human blood protein with binding affinity for prostate secretory protein of 94 amino acids. *Biochem. J.* 385: 105-114.

## LOCATION

Genetic locus: Pi16 (human) mapping to 6p21.2; Pi16 (mouse) mapping to 17 A3.3.

## SOURCE

PSPBP (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of PSPBP 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.

Blocking peptide available for competition studies, sc-163268 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

PSPBP (T-12) is recommended for detection of PSPBP of human origin and Pi16 of mouse and rat 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); non cross-reactive with other CRISP family members.

PSPBP (T-12) is also recommended for detection of PSPBP in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PSPBP siRNA (h): sc-95592, Pi16 siRNA (m): sc-152247, PSPBP shRNA Plasmid (h): sc-95592-SH, Pi16 shRNA Plasmid (m): sc-152247-SH, PSPBP shRNA (h) Lentiviral Particles: sc-95592-V and Pi16 shRNA (m) Lentiviral Particles: sc-152247-V.

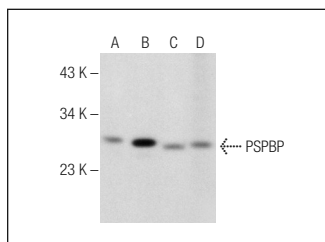
Molecular Weight of PSPBP isoforms: 49/30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-BR-3 cell lysate: sc-2218 or human testis extract: sc-363781.

## 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



PSPBP (T-12): sc-163268. Western blot analysis of PSPBP expression in HeLa (A), SKBR-3 (B) and AT-3 (C) whole cell lysates and human testis tissue extract (D).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.