

## PSPBP (C-15): sc-163266



The Power to Question

### 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

1. Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. *Hum. Mol. Genet.* 3: 1561-1564.
2. Cesari, R., et al. 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., et al. 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.
4. Reeves, J.R., et al. 2006. Prognostic value of prostate secretory protein of 94 amino acids and its binding protein after radical prostatectomy. *Clin. Cancer Res.* 12: 6018-6022.
5. Bläker, H., et al. 2008. Recurrent deletions at 6q in early age of onset non-HNPCC- and non-FAP-associated intestinal carcinomas. Evidence for a novel cancer susceptibility locus at 6q14-q22. *Genes Chromosomes Cancer* 47: 159-164.
6. Fan, J., et al. 2010. Linkage disequilibrium mapping of the chromosome 6q21-22.31 bipolar I disorder susceptibility locus. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 153B: 29-37.
7. Jalil, S., et al. 2010. Associations among behavior-related susceptibility factors in porphyria cutanea tarda. *Clin. Gastroenterol. Hepatol.* 8: 297-302.

### CHROMOSOMAL LOCATION

Genetic locus: PI16 (human) mapping to 6p21.2.

### SOURCE

PSPBP (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of PSPBP of human origin.

### STORAGE

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

### 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-163266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

PSPBP (C-15) is recommended for detection of PSPBP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

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

Molecular Weight of PSPBP isoforms: 49/30 kDa.

### 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) 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.

### 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.