



S-100PBP (S-14): sc-160769

BACKGROUND

The S-100 protein family consists of a group of calcium-binding proteins, which exhibit cell and tissue-specific expression. The expression levels of its members differ in various pathological conditions. The extracellular functions of the S-100 family may include the ability to enhance neurite outgrowth, involvement in inflammation, and motility of tumor cells. S-100PBP (S100P binding protein) is a 408 amino acid protein that colocalizes with S100P in the nucleus. S-100P is a survival factor that is associated with different types of tumors and can bind and regulate effector proteins. S-100P interacts with and activates the receptor for advanced glycation end products (RAGE), thereby increasing rates of cell growth, division, migration and invasion. S-100PBP is expressed in brain, spleen and lung, and is upregulated in various pancreatic ductal adenocarcinomas and pancreatic intraepithelial neoplasias. S-100PBP exists as two alternatively spliced isoforms.

REFERENCES

1. Averboukh, L., et al. 1997. Regulation of S-100P expression by androgen. *Prostate* 29: 350-355.
2. Koltzsch, M. and Gerke, V. 2000. Identification of hydrophobic amino acid residues involved in the formation of S-100P homodimers *in vivo*. *Biochemistry* 39: 9533-9539.
3. Downen, S.E., et al. 2005. Expression of S100P and its novel binding partner S-100PBP in early pancreatic cancer. *Am. J. Pathol.* 166: 81-92.
4. Jiang, F., et al. 2005. S-100P is selectively upregulated in tumor cell lines challenged with DNA cross-linking agents. *Leuk. Res.* 29: 1181-1190.
5. Tutar, Y. 2006. Dimerization and ion binding properties of S-100P protein. *Protein Pept. Lett.* 13: 301-306.
6. Deng, H., et al. 2008. Usefulness of S-100P in diagnosis of adenocarcinoma of pancreas on fine-needle aspiration biopsy specimens. *Am. J. Clin. Pathol.* 129: 81-88.
7. Lin, F., et al. 2008. Diagnostic utility of S-100P and von Hippel-Lindau gene product (pVHL) in pancreatic adenocarcinoma-with implication of their roles in early tumorigenesis. *Am. J. Surg. Pathol.* 32: 78-91.
8. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611889. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
9. Kim, J.K., et al. 2009. Targeted disruption of S-100P suppresses tumor cell growth by down-regulation of cyclin D1 and CDK2 in human hepatocellular carcinoma. *Int. J. Oncol.* 35: 1257-1264.

CHROMOSOMAL LOCATION

Genetic locus: S100PBP (human) mapping to 1p35.1.

SOURCE

S-100PBP (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of S-100PBP 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-160769 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

S-100PBP (S-14) is recommended for detection of S-100PBP 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).

Suitable for use as control antibody for S-100PBP siRNA (h): sc-88452, S-100PBP shRNA Plasmid (h): sc-88452-SH and S-100PBP shRNA (h) Lentiviral Particles: sc-88452-V.

Molecular Weight of S-100PBP: 46 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.

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.