SANTA CRUZ BIOTECHNOLOGY, INC.

PSR (H-300): sc-11366

BACKGROUND

Cells undergoing apoptosis lose the asymmetry of plasma membrane phospholipids, and phosphatidylserine is exposed on the outer surface of the membrane. The phosphatidylserine receptor (PSR) specifically recognizes phosphatidylserine and this binding triggers the phagocytosis of apoptotic cells by either macrophages or dendritic cells. PSR is expressed on the surface of macrophages, fibroblasts, and epithelial cells, and it has been detected in high levels in heart, skeletal muscle, and kidney tissues and is extensively glycosylated. The mammalian phosphatidylserine receptor displays significant homology to *Caenorhabditis elegans* and *Drosophila melanogaster* proteins, which suggests that PSR has been conserved throughout phylogeny.

REFERENCES

1. Fadok, V.A., et al. 1992. Exposure of phosphatidyl-serine on the surface of apoptotic lymphocytes triggers specific recognition and removal by macrophages. J. Immunol. 148: 2207-2216.
2. Fadok, V.A., et al. 1998. The role of phosphatidylserine in recognition of apoptotic cells by phagocytes. Cell Death Differ. 5: 551-562.
3. Liu, Q.A. and Hengartner, M.O. 1998. Candidate adaptor protein CED-6 promotes the engulfment of apoptotic cells in *C. elegans*. Cell 93: 961-972.
4. Franc, N.C., et al. 1999. Requirement for croquemort in phagocytosis of apoptotic cells in *Drosophila*. Science 284: 1991-1994.
5. Krahling, S., et al. 1999. Exposure of phosphatidylserine is a general feature in the phagocytosis of apoptotic lymphocytes by macrophages. Cell Death Differ. 6: 183-189.
6. Green, D.R., et al. 2000. Apoptosis. Gone but not forgotten. Nature 405: 28-29.

CHROMOSOMAL LOCATION

Genetic locus: PTDSR (human) mapping to 17q25.1; Ptdsr (mouse) mapping to 11 E2.

SOURCE

PSR (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of PSR 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.

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.

APPLICATIONS

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

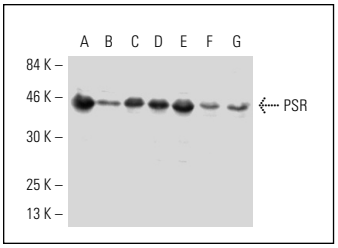
PSR (H-300) is also recommended for detection of PSR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSR siRNA (h): sc-36324, PSR siRNA (m): sc-36325, PSR shRNA Plasmid (h): sc-36324-SH, PSR shRNA Plasmid (m): sc-36325-SH, PSR shRNA (h) Lentiviral Particles: sc-36324-V and PSR shRNA (m) Lentiviral Particles: sc-36325-V.

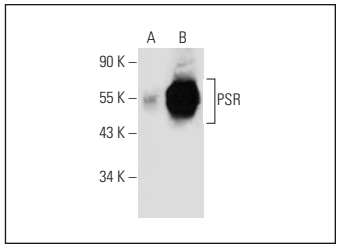
Molecular Weight of PSR: 44 kDa.

Positive Controls: PSR (h): 293T Lysate: sc-117004, Caki-1 cell lysate: sc-2224 or NIH/3T3 whole cell lysate: sc-2210.

DATA



PSR (H-300): sc-11366. Western blot analysis of PSR expression in Caki-1 (**A**), THP-1 (**B**), HT-1080 (**C**), HeLa (**D**), A-549 (**E**), NIH/3T3 (**F**) and 3611-RF (**G**) whole cell lysates.



PSR (H-300): sc-11366. Western blot analysis of PSR expression in non-transfected: sc-117752 (**A**) and human PSR transfected: sc-117004 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Kolb, S., et al. 2007. The phosphatidylserine receptor mediates phagocytosis by vascular smooth muscle cells. J. Pathol. 212: 249-259.
2. Hu, Y.J., et al. 2015. Transcriptional and post-transcriptional control of adipocyte differentiation by Jumonji domain-containing protein 6. Nucleic Acids Res. 43: 7790-7804.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.