SANTA CRUZ BIOTECHNOLOGY, INC.

PSR (C-1): sc-48405

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cells undergoing apoptosis lose the asymmetry of plasma membrane phopholipids, 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.
7. Fadok, V.A., et al. 2000. A receptor for phosphatidylserine-specific clearance of apoptotic cells. Nature 405: 85-90.

CHROMOSOMAL LOCATION

Genetic locus: JMJD6 (human) mapping to 17q25.1; Jmjd6 (mouse) mapping to 11 E2.

SOURCE

PSR (C-1) is a mouse monoclonal antibody raised against amino acids 1-300 of PSR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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 (C-1) is recommended for detection of PSR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

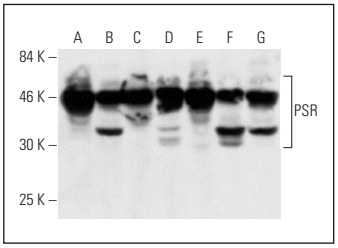
Molecular Weight of PSR: 44 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Caki-1 cell lysate: sc-2224 or THP-1 cell lysate: sc-2238.

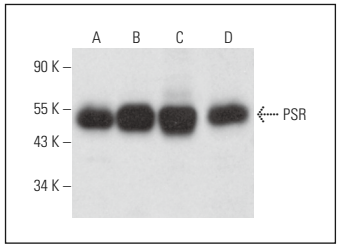
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PSR (C-1): sc-48405. Western blot analysis of PSR expression in Caki-1 (**A**), THP-1 (**B**), HT-1080 (**C**), HeLa (**D**), A549 (**E**), U-937 (**F**) and PMA induced U-937 (**G**) whole cell lysates.



PSR (C-1): sc-48405. Western blot analysis of PSR expression in THP-1 (**A**), NCI-H460 (**B**), HEK293T (**C**) and HEL 92.1.7 (**D**) whole cell lysates.

PROTOCOLS

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

CONJUGATES

See **PSR (H-7): sc-28348** for PSR antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.