

PSR (D-4): sc-28349

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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

PSR (D-4) is a mouse monoclonal antibody raised against amino acids 1-300 of PSR of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSR (D-4) is available conjugated to agarose (sc-28349 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28349 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28349 PE), fluorescein (sc-28349 FITC), Alexa Fluor® 488 (sc-28349 AF488), Alexa Fluor® 546 (sc-28349 AF546), Alexa Fluor® 594 (sc-28349 AF594) or Alexa Fluor® 647 (sc-28349 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28349 AF680) or Alexa Fluor® 790 (sc-28349 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

PSR (D-4) is recommended for detection of PSR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range), 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.

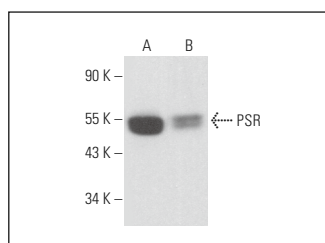
Molecular Weight of PSR: 44 kDa.

Positive Controls: PSR (h): 293T Lysate: sc-117004, HeLa whole cell lysate: sc-2200 or 3611-RF whole cell lysate: sc-2215.

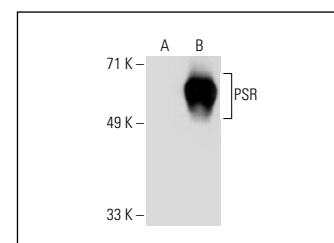
RECOMMENDED SUPPORT REAGENTS

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 (D-4): sc-28349. Western blot analysis of PSR expression in HeLa (A) and 3611-RF (B) whole cell lysates.



PSR (D-4): sc-28349. 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. Reyes-Gutierrez, P., et al. 2019. Promotion of adipogenesis by JMJD6 requires the AT hook-like domain and is independent of its catalytic function. *PLoS ONE* 14: e0216015.
2. Fages, J., et al. 2020. JMJD6 participates in the maintenance of ribosomal DNA integrity in response to DNA damage. *PLoS Genet.* 16: e1008511.
3. Liu, Q., et al. 2024. Cyclin B2 impairs the p53 signaling in nasopharyngeal carcinoma. *BMC Cancer* 24: 25.

RESEARCH USE

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