



PSR (1-300): sc-4473 WB

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. PSR is extensively glycosylated and subsequently runs at a molecular weight of 70 kDa. 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., Voelker, D.R., Campbell, P.A., Cohen, J.J., Bratton, D.L., and Henson, P.M. 1992. Exposure of phosphatidylserine on the surface of apoptotic lymphocytes triggers specific recognition and removal by macrophages. *J. Immunol.* 148: 2207-2216.
2. Liu, Q.A., Hengartner, M.O. 1998. Candidate adaptor protein CED-6 promotes the engulfment of apoptotic cells in *C. elegans*. *Cell.* 93: 961-972.
3. Fadok, V.A., Bratton, D.L., Frasch, S.C., Warner, M.L., and Henson, P.M. 1998. The role of phosphatidylserine in recognition of apoptotic cells by phagocytes. *Cell Death Differ.* 5: 551-562.
4. Krahling, S., Callahan, M.K., Williamson, P., and Schlegel, R.A. 1999. Exposure of phosphatidylserine is a general feature in the phagocytosis of apoptotic lymphocytes by macrophages. *Cell Death Differ.* 6: 183-189.
5. Franc, N.C., Heitzler, P., Ezekowitz, R.A., and White, K. 1999. Requirement for croquemort in phagocytosis of apoptotic cells in *Drosophila*. *Science.* 284: 1991-1994.
6. Green, D.R. and Beere, H.M. 2000. Apoptosis. Gone but not forgotten. *Nature* 405: 28-29.
7. Fadok, V.A., Bratton, D.L., Rose, D.M., Pearson, A., Ezekowitz, R.A.B., and Henson, P.M. 2000. A receptor for phosphatidylserine-specific clearance of apoptotic cells. *Nature.* 405: 85-90.

SOURCE

PSR (1-300) is expressed in *E. coli* as a 60 kDa tagged fusion protein corresponding to amino acids 1-300 of PSR of human origin.

PRODUCT

PSR (1-300) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

PSR (1-300) is suitable Western blotting control for sc-11366, sc-11632 and sc-11633.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

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