



## Spingosine 1-Phosphate Phosphatase 1. Rabbit Polyclonal Antibody, Human

### BACKGROUND

Sphingosine 1-phosphate (S1P) is a highly bioactive lipid that has a myriad of biological effects both intracellularly as a second messenger and extracellularly by binding to the S1P(1-5)/G-protein-coupled receptors of the endothelial differentiation gene family. Intracellularly, at least two enzymes, sphingosine kinase (1 and 2) and S1P phosphatase, regulate the activity of S1P by governing the phosphorylation of S1P. Regulation of hS1Pase1 with the resultant changes in cellular and secreted S1P has important implications in cell proliferation, angiogenesis and apoptosis.

### ORDERING INFORMATION

**CATALOG NUMBER**  
X1636P

**SIZE**  
10 Miniblots

**FORM**  
Unconjugated

**HOST/CLONE**  
Rabbit

### FORMULATION

Provided as ligand affinity purified antibody in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
Lot specific, see vial label

**ISOTYPE**  
IgG

**APPLICATIONS**  
Western Blot

### IMMUNOGEN

Synthetic peptide derived from the sphingosine 1-phosphate phosphatase 1 protein.

### SPECIES REACTIVITY

Human

### COMMENTS

Antibody can be used for Western blotting (1:400 dilution). Tissue lysate should be used at 10-50 µg/lane. Other applications not yet tested. Optimal concentration should be evaluated by serial dilutions.

### STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

### STABILITY

Products are stable for one year from purchase when stored properly

**For research use only. Not for use in human diagnostics or therapeutics.**

**POSITIVE CONTROL**

Human brain lysate (Cat. No. X1633C)

**SHIP CONDITIONS**

Ship on dry ice, freeze upon arrival

**REFERENCES**

1. Grey, A., et al. "Osteoblastic Cells Express Phospholipid Receptors and Phosphatases and Proliferate in Response to Sphingosine 1-Phosphate." *Calcif Tissue Int.* 2004
2. Pettus, B.J., et al. "The sphingosine kinase 1/sphingosine 1-phosphate pathway mediates COX-2 induction and PGE2 production in response to TNF-alpha." *FASEB J.* 2003, 17, 1411-1421
3. Johnson, K.R., et al. "Role of human sphingosine 1-phosphate phosphatase 1 in the regulation of intra- and extracellular sphingosine 1-phosphate levels and cell viability." *J. Biol. Chem.* 2003, 278, 34541-34547
4. Cuvillier, O. "Sphingosine in apoptosis signalling." *Biochim. Biophys. Acta* 2002, 1585, 153-162
5. Ogawa, C., et al. "Identification and characterization of a novel human sphingosine 1-phosphate phosphohydrolase, hSPP2." *J. Biol. Chem.* 2003, 278, 1268-1272
6. Le Stunff, H., et al. "Characterization of murine sphingosine 1-phosphate phosphohydrolase." *J. Biol. Chem.* 2002, 277, 8920-8927
7. Birchwood, C.J., et al. "Calcium influx and signaling in yeast stimulated by intracellular sphingosine 1-phosphate accumulation." *J. Biol. Chem.* 2001, 276, 11712-11718

**LAST MODIFIED** 7/15/2004

**For research use only. Not for use in human diagnostics or therapeutics.**