

# PSTPIP2 (N-15): sc-83014

## BACKGROUND

PSTPIP2 (proline-serine-threonine phosphatase interacting protein 2), also known as MAYP, is a 334 amino acid peripheral membrane protein that is widely expressed and contains an FCH (Fes/CIP4 homology) domain. Tyrosine-phosphorylated in macrophages, PSTPIP2 is a major F-Actin-associated protein that may participate in regulating macrophage colony stimulating factor (M-CSF-induced) reorganization of the Actin cytoskeleton. Mutations in the gene encoding PSTPIP2 may be the cause of SAPHO syndrome (synovitis, acne, pustulosis, hyperostosis and osteitis), a rare inflammatory disorder that mainly affects bone, skin, and joints. Existing as 2 alternatively spliced isoforms, PSTPIP2 is encoded by a gene located on human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases.

## REFERENCES

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2. Yeung, Y.G., et al. 1998. A novel macrophage actin-associated protein (MAYP) is tyrosine-phosphorylated following colony stimulating factor-1 stimulation. *J. Biol. Chem.* 273: 30638-30642.
3. Chitu, V., et al. 2005. The PCH family member MAYP/PSTPIP2 directly regulates F-Actin bundling and enhances filopodia formation and motility in macrophages. *Mol. Biol. Cell* 16: 2947-2959.
4. Grosse, J., et al. 2006. Mutation of mouse MAYP/PSTPIP2 causes a macrophage autoinflammatory disease. *Blood* 107: 3350-3358.
5. Ferguson, P.J., et al. 2006. A missense mutation in *pstpip2* is associated with the murine autoinflammatory disorder chronic multifocal osteomyelitis. *Bone* 38: 41-47.
6. Jansson, A., et al. 2007. Classification of non-bacterial osteitis: retrospective study of clinical, immunological and genetic aspects in 89 patients. *Rheumatology* 46: 154-160.
7. Ferguson, P.J., et al. 2008. Neutrophil dysfunction in a family with a SAPHO syndrome-like phenotype. *Arthritis Rheum.* 58: 3264-3269.
8. Chitu, V., et al. 2009. Primed innate immunity leads to autoinflammatory disease in PSTPIP2-deficient *cmo* mice. *Blood* 114: 2497-2505.
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## CHROMOSOMAL LOCATION

Genetic locus: PSTPIP2 (human) mapping to 18q21.1; *Pstpip2* (mouse) mapping to 18 E3.

## SOURCE

PSTPIP2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PSTPIP2 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.

Blocking peptide available for competition studies, sc-83014 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PSTPIP2 (N-15) is recommended for detection of PSTPIP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with family member PSTPIP1.

PSTPIP2 (N-15) is also recommended for detection of PSTPIP2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PSTPIP2 siRNA (h): sc-76282, PSTPIP2 siRNA (m): sc-76283, PSTPIP2 shRNA Plasmid (h): sc-76282-SH, PSTPIP2 shRNA Plasmid (m): sc-76283-SH, PSTPIP2 shRNA (h) Lentiviral Particles: sc-76282-V and PSTPIP2 shRNA (m) Lentiviral Particles: sc-76283-V.

Molecular Weight of PSTPIP2: 37 kDa.

Positive Controls: Human platelet whole cell lysate : sc-363773.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.