

**Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody**  
**Affinity purified rabbit polyclonal antibody**  
**Catalog # AN1229****Specification**

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**Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P26045</a>
Reactivity	Human, Mouse
Predicted	Bovine, Monkey
Host	Rabbit
Clonality	polyclonal
Calculated MW	104 KDa

**Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Additional Information**

Gene ID	5774
Gene Name	PTPH1

**Other Names**

Tyrosine-protein phosphatase non-receptor type 3, Protein-tyrosine phosphatase H1, PTP-H1, PTPN3, PTPH1

**Target/Specificity**

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser459 conjugated to KLH.

**Dilution**

WB~~ 1:1000

**Format**

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

**Antibody Specificity**

Specific for ~104k PTPH1 protein phosphorylated at Ser459. Immunolabeling is blocked by preadsorption of the antibody with the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. Immunolabeling is also completely eliminated by treatment with  $\lambda$  phosphatase.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

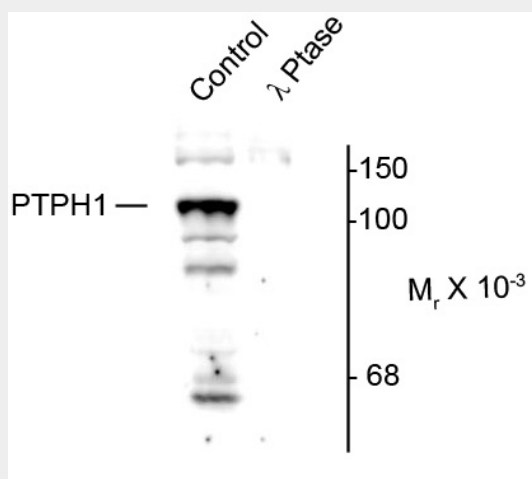
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## Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Images



Western blot of mouse testes lysate showing specific immunolabeling of the ~104k PTPH1 phosphorylated at Ser459 (Control). Phosphospecificity is shown in the second lane (lambda-phosphatase: λ-Ptase). The blot is identical to the control except that the lysate was incubated in λ-Ptase (400 units/100ul lysate for 30 min, RT) before being exposed to the phospho-Ser459 PTPH1 antibody. The immunolabeling is completely eliminated by treatment with λ-Ptase.

## Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Background

Protein-tyrosine Phosphatase H1 (PTPH1) has recently been identified as a specific p38

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MAPK phosphatase which is mediated through PDZ interaction (Hou et al., 2010). Ras has been demonstrated to increase both p38

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and PTPH1 protein expression, and there is a coupling of increased p38

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and PTPH1 protein expression in primary colon cancer tissues (Hou et al., 2010). Phosphorylation of PTPH1 at Ser459 leads to PTPH1 stabilization, which plays an important role in Ras oncogenesis and stress response (Hou et al., 2012). Additionally, phosphorylation of PTPH1 Ser459 reveals a novel mechanism by which MAPK signals through PTPH1 to regulate

e cellular response (Hou et al., 2012).

### **Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - References**

Hou SW, Zhi HY, Pohl N, Loesch M, Qi XM, Li RS, Basir Z, Chen G (2010) PTPH1 Dephosphorylates and

Cooperates with  
p38

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MAPK to Increase Ras Oncogenesis through PDZ-Mediated Interaction. Cancer Res  
70:2901-2910.

Hou SW, Suresh PS, Qi X, Lepp A, Mirza SP, Chen G (2012)  
p38

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Mitogen-activated Protein Kinase Signals  
through Phosphorylating Its Phosphatase PTPH1 in Regulating Ras Protein Oncogenesis and Stress  
Response. J Biol Chem 287(33): 27895-905.