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Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody

Affinity purified rabbit polyclonal antibody
Catalog # AN1229

Specification

Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Product Information

Application	**WB**
Primary Accession	P26045
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 asantigen but not by the corresponding dephosphopeptide. Immunolabeling is also completelyeliminated by treatment withλphosphatase.

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
Blue Ice

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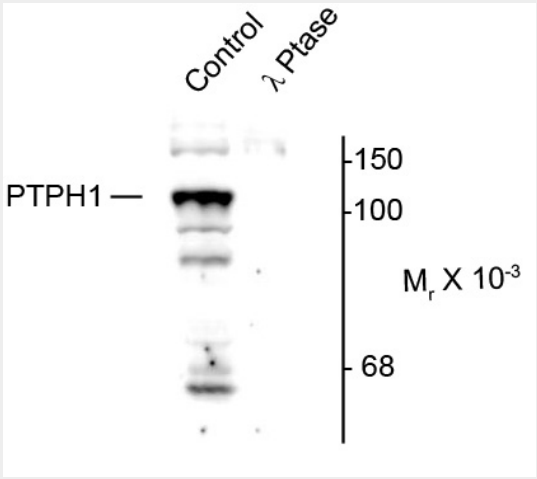
Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Ser459 Protein Tyrosine Phosphatase H1 Antibody - Images



Western blot of mouse testes lysate showing specific immunolabeling of the ~104k PTPH1phosphorylated 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 incubatedin 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 γ MAPK phosphatase which is mediated through PDZ interaction (Hou et al., 2010). Ras has been demonstrated to increase both p38 γ and PTPH1 protein expression, and there is a coupling of increased p38 γ and PTPH1 protein expression in primary colon canc er 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, phosphorylati on of PTPH1 Ser459 reveals a novel mechanism by which MAPK signals through PTPH1 to regulat

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
γ
MAPK to Increase Ras Oncogenesis through PDZ-Mediated Interation. Cancer Res 70:2901-2910.
Hou SW, Suresh PS, Qi X, Lepp A, Mirza SP, Chen G (2012)
p38
γ
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.