

# Anti-SHP1 (Ser-591), Phosphospecific Antibody

Catalog # AN1955

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">P29350</a>
<b>Host</b>	Rabbit
<b>Clonality</b>	Rabbit Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	67561

## Additional Information

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<b>Gene ID</b>	5777
<b>Other Names</b>	PTP1C, SHPTP1
<b>Dilution</b>	WB~~1:1000
<b>Storage</b>	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.
<b>Precautions</b>	Anti-SHP1 (Ser-591), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
<b>Shipping</b>	Blue Ice

## Background

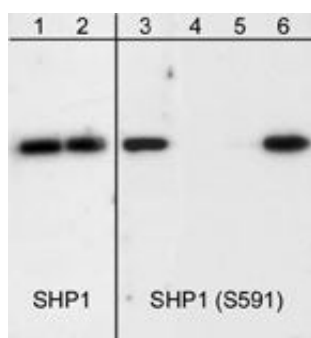
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SHP1 (PTP1C, SH-PTP1, or HCP) is a protein-tyrosine phosphatase (PTP) involved in cell migration, cell proliferation, and immune cell function. This phosphatase contains two N-terminal SH2 domains and a C-terminal phosphatase domain. SHP1 associates with a variety of cytokine and growth factor receptors and regulates signal transduction through dephosphorylation of these receptors or their downstream effectors. Downstream of receptor activation, SHP1 regulates the transcriptional activity stimulated by JAK/Stat and MAPK pathways. SHP1 activity is regulated by both tyrosine and serine phosphorylation. Phosphorylation of Tyr-536 and Tyr-564 stimulates phosphatase activity and promotes interaction with Grb-2. Serine phosphorylation at Ser-591 is mediated by PKC $\alpha$  and leads to inhibition of phosphatase activity. Thus, phosphorylation at tyrosine relative to serine residues may be regulated by different cell signaling pathways to control SHP1 activity.

## Images

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Western blot analysis of human Jurkat cells treated with pervanadate (1 mM) for 30 min. The blot was exposed to lambda phosphatase (lanes 2 & 4) then probed with anti-SHP1 (C-terminal) antibody (lanes 1 & 2) or anti-SHP1 (Ser-591) antibody (lanes 3-6). The SHP1 (Ser-591)



antibody was used in the presence of phospho-SHP1 (Ser-591) peptide (lane 5) or a non-specific phospho-serine peptide (lane 6).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.