

For Research Use Only

Phospho-SHP1 (Tyr564) Recombinant monoclonal antibody

Catalog Number: 88263-1-RR



Basic Information

Catalog Number:

88263-1-RR

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

BC002523

GeneID (NCBI):

5777

UNIPROT ID:

P29350

Full Name:

protein tyrosine phosphatase, non-receptor type 6

Calculated MW:

597 aa, 68 kDa

Observed MW:

68 kDa

Purification Method:

Protein A purification

CloneNo.:

260672B6

Recommended Dilutions:

WB: 1:500-1:2000

Applications

Tested Applications:

WB, ELISA

Species Specificity:

human

Positive Controls:

WB : pervanadate treated Jurkat cells,

Background Information

Phospho-SHP1 (Tyr564) is the activated tyrosine-phosphorylated form of SHP1 (PTPN6), a hematopoietic-specific non-receptor protein tyrosine phosphatase. This C-terminal Tyr564 residue is phosphorylated primarily by Lyn and other Src-family kinases upon cytokine or immune receptor stimulation. The modification triggers intramolecular binding with SHP1's C-SH2 domain, relieving autoinhibition and boosting catalytic phosphatase activity. It targets STAT5, IL-3R β and EPOR to restrain proliferative and inflammatory signaling in myeloid and lymphoid cells. Loss of Tyr564 phosphorylation causes persistent STAT5 hyperactivation, driving myeloproliferative neoplasms such as CMML. It acts as a vital negative immune checkpoint, linking its abundance to leukemia progression and autoimmune inflammatory disorders. (PMID: 20858858, 38203502)

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

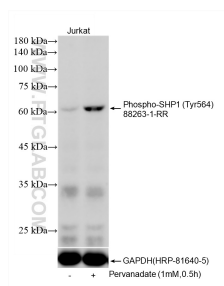
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This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Non-treated Jurkat cells and pervanadate treated Jurkat cells were subjected to SDS PAGE followed by western blot with 88263-1-RR (Phospho-SHP1 (Tyr564) antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (HRP-80762) antibody as a loading control.