For Research Use Only

Phospho-SHP1 (Tyr564) Recombinant monoclonal antibody, PBS Only

Catalog Number:88263-1-PBS

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
88263-1-PBS

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

Applications

Tested Applications:
WB, Indirect ELISA

Species Specificity:
human

Background Information

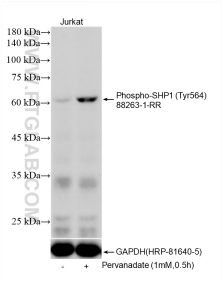
Phospho-SHP1 (Tyr564) is the activated tyrosine-phosphorylated form of SHP1 (PTPN6), a hematopoietic-specific non-receptor protein tyrosine phosphatase. This C-terminal Tyr564 residue is phosphorylated primarily by Lyn and other Src-family kinases upon cytokine or immune receptor stimulation. The modification triggers intramolecular binding with SHP1's C-SH2 domain, relieving autoinhibition and boosting catalytic phosphatase activity. It targets STAT5, IL-3Rβ 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 -80°C.
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C
Storage Buffer:
PBS only, pH7.3

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

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. This data was developed using the same antibody clone with 88263-1-PBS in a different storage buffer formulation.