

Catalog No. LF-MA0213

MONOCLONAL ANTIBODY



Anti-SHP1(10F5)

Background : SHP1 and SHP2 represent a subfamily of non-transmembrane protein-tyrosine phosphatases (PTPs) that contain two tandem SH2 (src homology 2) domains. SHPs have two N-terminal SH2 domains (N-SH2 and C-SH2), a classic PTP domain and a C-terminal tail harboring two tyrosyl phosphorylation sites which are phosphorylated differentially by receptor and non-receptor protein-tyrosine kinases (PTKs).

Whereas Shp2 is expressed ubiquitously, SHP1 is primarily expressed in hematopoietic cells and behaves as a key regulator controlling intracellular phosphotyrosine levels in lymphocytes.

SHP SH2 domains (particularly the N-SH2) also regulate PTP activity. Basal SHP activity is low, but addition of a phosphotyrosyl peptide that binds the N-SH2 (Tyr-P peptide ligand) markedly stimulates catalysis.

SHP1 is implicated in signaling from receptor tyrosine kinases (RTKs), cytokine receptors, chemokine receptors and integrins. SHP1-deficient bone marrow macrophages are hyper-adherent to β 1- and β 2-integrin ligands.

Decreased SHP1 level causes abnormal T-lymphocyte proliferation and induces various types of leukemias. Introduction of the SHP1 gene back into a leukemia cell line and a prostate cancer cell line demonstrated the tumor suppressor function of SHP1.

Immunogen : Recombinant human protein purified from *E.coli* (His/ABD-SHP1)

Host : Mouse **Size :** 100ul

Clone number : 10F5

Isotype : IgG1, k

Composition : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

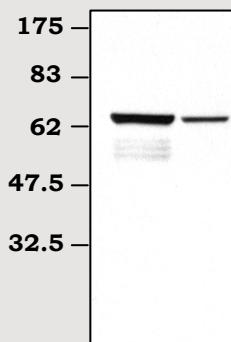
Positive control : HL-60 cell lysate

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

Human +	Mouse NT	Rat NT
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M.W.(kDa) 1 2



Immunoblot Analysis of cell lysates

Lane 1 : HL-60 cell lysate

Lane 2 : Jurkat T cell lysate

Applications :

ELISA

Western Blotting (1:2,000)

Background Reference :

- 1) Honorat JF et al., 2006, Blood.107(10):4130-4138.
- 2) Neel BG et al., 2003, Trends Biochem Sci. 28:284-293
- 3) Wu C et al., 2003, Gene. 306:1-12.

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