

Catalog No. LF-MA0212

MONOCLONAL ANTIBODY



## Anti-SHP1(14D5)

**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  $\beta$ 1- and  $\beta$ 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 :** 14D5

**Isotype :** IgG1, k

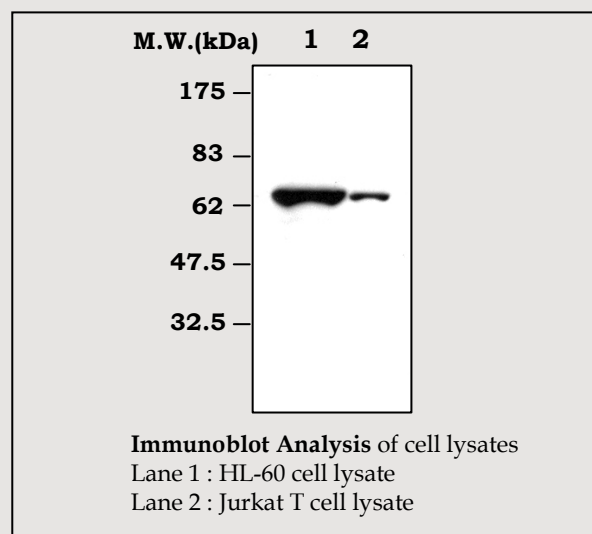
**Composition :** Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

**Positive control :** HL-60 cell lysate

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

### Species cross reactivity

Human	Mouse	Rat
+	-	-



### 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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