Catalog No. LF-MA0186

MONOCLONAL ANTIBODY

Anti- SHP2(5F2)

Background : SHP2 is a tyrosine phosphatase containing two tandem SH2 (src homology 2) domains. Protein tyrosine phosphatases (PTPs) are a group of enzymes that remove phosphate groups from phosphorylated tyrosine residues on proteins. Together with tyrosine kinases, PTPs regulate the phosphorylation state of many important signaling molecules.
SHP1 and SHP2 represent a subfamily of non-transmembrane PTPs that contain two SH2 domains followed by a PTP domain. Tyrosine phosphorylation of SHP2 is required for normal ERK activation in response to some growth factors. In the inactive state, the N-terminal SH2 domain binds the PTP domain and blocks access of potential substrates to the active site. This auto-inhibition is relieved by the binding of phosphopeptides to SH2 domain, resulting in activation of phostphatase activity.
Noonan syndrome characterized by an abnormal face, short stature and cardiac abnormalities is due to the mutations of N-terminal SH2 domain or PTP domain. SHP2 mutations might also cause some leukemia, and could be important in pathogenesis by Helicobacter pylori, the major cause of gastric ulcer and carcinoma.

Immunogen : Recombinant human GST-SHP2 protein purified from *E.coli*

Host : Mouse

Clone number : 5F2

Isotype : IgG1, k

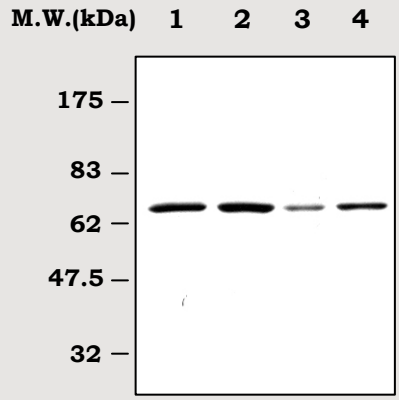
Size : 100 μℓ

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

Positive control : A431 cell

Storage : Store for 1 year at –20℃ from date of shipment.

Species cross reactivity		
Human	**Mouse**	**Rat**
+	+	+



Immunoblot Analysis of cell lysates
Lane 1 : MCF-7 cell lysate
Lane 2 : A431 cell lysate
Lane 3 : C6 cell lysate
Lane 4 : L-929 cell lysate

Applications :
Western blotting(1: 2,000)
Immunoprecipitation (1 μℓ/400 μℓ cell lysates)

Background Reference :
1) Salmond R.J. and Alexander D.R., 2006, Trends Immunol. 27:154-160
2) Neel B.G. et al., 2003, Trends Biochem Sci. 28:284-293
3) Agazie M. and Hayman M.J., 2003, Mol Cell Biol. 23:7875-7886
4) Araki T. et al., 2003, J Biol Chem. 278:41677-41684
5) Yu D.H. et al., 1998, J Biol Chem. 273:21125-21131

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