

30-1247: Anti-STAT1 Monoclonal Antibody (Clone:SM1)

Clonality :	Monoclonal
Clone Name :	SM1
Application :	IP,IHC,WB
Reactivity :	Mouse,Human
Gene :	STAT1
Gene ID :	6772
Uniprot ID :	P42224
Format :	Purified
Alternative Name :	STAT1
Isotype :	Mouse IgG2b
Immunogen Information :	STAT1 peptide sequence 721-733 (DNLLPMSPEEFDE).

Description

STAT1 (signal transducer and activator of transcription 1) is a transcription factor that plays important roles in growth arrest, apoptosis promoting and tumour suppression. After ligation of cytokine receptors STAT1 becomes phosphorylated on Tyr701 by Janus kinase JAK1 or JAK2, dimerizes, translocates to nucleus and contacts DNA. STAT1-STAT2 heterodimers serve as more potent transcriptional inducers than STAT1 homodimers. STAT1 is also phosphorylated on Ser727 by MAPK pathway, independently of tyrosine phosphorylation. However, the both modifications are important for its maximal transcriptional activity. On the other hand, STAT1 phosphorylated on Ser727 is targeted for proteasomal degradation.

Product Info

Amount :	0.1 mg
Purification :	Purified by protein-A affinity chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

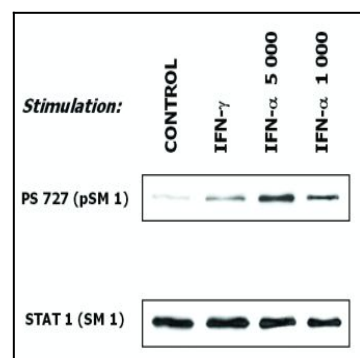


Figure 1: Induction of phosphorylation of STAT1 at Ser727 in human malignant melanoma cells (short-term culture derived from a patient) in response to interferons. Subconfluent cells were serum-starved before exposure to activation dosages of IFN-gamma (10 ng/ml) and IFN-alpha (1000 IU/ml and 5000 IU/ml). Western blotting analysis of cell extracts shows detection of phosphorylated STAT1 (Ser727) by the antibody PSM1 (upper panel) and total STAT1 level by the antibody SM1 (lower panel).

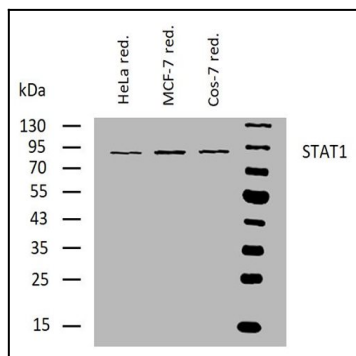


Figure 2: Western blotting analysis of human STAT1 using mouse monoclonal antibody SM1 on lysates of HeLa, MCF-7, and Cos-7 cell lines under reducing conditions. Nitrocellulose membrane was probed with 2 $\mu\text{g/ml}$ of mouse monoclonal antibody anti-STAT1 followed by IRDye800-conjugated anti-mouse secondary antibody. STAT1 was detected at approximately 90 kDa