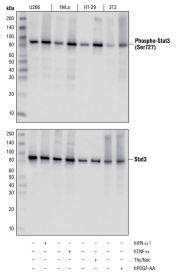
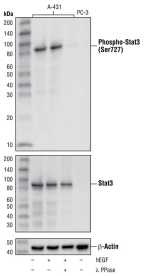
Product Data Sheet: Phospho-Stat3-S727

Cat. No:	MAB-94331
Conjugate:	Unconjugated
Size:	100 ul
Clone:	D8C2Z
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu, Ms, Rt, Monkey
Applications:	Western Blotting 1:1000 Immunohistochesmistry 1:100-1:300 Immunoprecipitation: 1:200-500 ELISA: 1:10000
Molecular Weight:	86 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phospho-peptide corresponding to residues surrounding Ser727 of human Stat3 protein.
Background:	The Stat3 transcription factor is an important signaling molecule for many cytokines and growth factor receptors (1) and is required for murine fetal development (2). Research studies have shown that Stat3 is constitutively activated in a number of human tumors (3,4) and possesses oncogenic potential (5) and anti-apoptotic activities (3). Stat3 is activated by phosphorylation at Tyr705, which induces dimerization, nuclear translocation, and DNA binding (6,7). Transcriptional activation seems to be regulated by phosphorylation at Ser727 through the MAPK or mTOR pathways (8,9). Stat3 isoform expression appears to reflect biological function as the relative expression levels of Stat3□□(86 kDa) and Stat3□□(79 kDa) depend on cell type, ligand exposure, or cell maturation stage (10). It is notable that Stat3□□lacks the serine phosphorylation site within the carboxy-terminal transcriptional activation domain (8). Phospho-Stat3 (Ser727) (D8C2Z) Rabbit mAb recognizes endogenous levels of Stat3 protein only when phosphorylated at Ser727
Form:	liquid
Storage:	Store at –20°C and avoid repeat freeze-thaw cycles.



Western blot analysis of extracts from serum-starved U266 cells, untreated (-) or treated with Human Interferon-□1 (hIFN-□1; 50ng/ml, 15 min; +), Hela cells, untreated (-) or treated with Human Tumor Necrosis Factor- (hTNF-□;



Western blot analysis of extracts from serum-starved A-431 cells, untreated (-) or treated with Human Epidermal Growth Factor(hEGF; 100ng/ml, 30 min; +) and □-Phosphatase (□PPase; +) using Phospho-Stat3 (Ser727) (D8C2Z) Rabbit

20ng/ml, 30 min; +), HT-29 cells growing asynchronously (-) or arrested in mitosis by treatment with Thymidine (Thy; 2mM, 17 hours) followed by Nocodazole (Noc; 100ng/ml, 24 hrs; +), and NIH/3T3 cells, untreated (-) or treated with Human Platelet Derived Growth Factor- (hPDGF-AA; 50ng/ml, 30min; +) using Phospho-Stat3 (Ser727) (D8C2Z) Rabbit mAb (upper) or total Stat3 (124H6) Mouse (lower).

mAb (upper) or total Stat3 (D3Z2G) Rabbit mAb (middle) or □-Actin (D6A8) Rabbit (lower). PC-3 cells, which do not express Stat3, was used as a negative control.