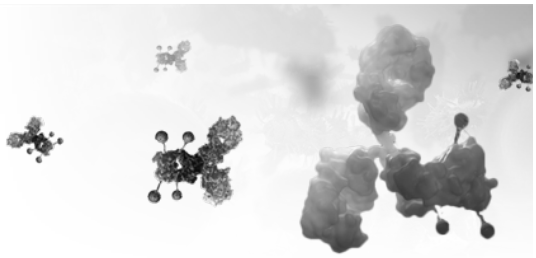

Mouse anti-Human Total Stat1 (N-terminus) monoclonal antibody, clone 2/Tubu2 (CABT-B9345)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	The monoclonal antibody recognizes the N-terminus of human Stat1 (both isoforms), regardless of phosphorylation status.
Immunogen	Human Stat1 aa. 1-194
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Chicken, Mouse, Dog, Frog, Rat
Clone	2/Tubu2
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF; IP; IHC
Format	Liquid
Concentration	250 μg/ml
Size	50 μg, 150 μg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

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BACKGROUND

Introduction	Stat (Signal transducer and activators of transcription) proteins are critical mediators of the biologic activity of cytokines, including interleukins, interferons, erythropoietin, and growth factors. Ligand-receptor interaction leads to activation of constitutively associated JAK family kinases and subsequent recruitment/activation of Stat proteins by tyrosine phosphorylation. Active Stat proteins then move to the nucleus to promote transcription of cytokine-inducible genes. Seven Stat proteins have been cloned, each of which is differentially expressed and/or activated in a cytokine-specific and cell type-specific manner. Stat1 and Stat2 are components of the ISGF3 (Interferon-Stimulated Gene Factor 3) complex, which is the primary transcription activator induced by the binding of the interferon to a specific cell-surface receptor. Stat1 has two alternatively spliced isoforms, 91-kDa Stat1α and 84 kDa Stat1β; Stat1α has 38 additional C-terminal amino acids. In response to the binding of IFNα, IFNγ, EGF, PDGF, or CSF-1 to their respective receptors, the Stat1 subunits become tyrosine-phosphorylated at Y701, and the complex is translocated to the nucleus. This results in the formation of an active complex that includes the DNA-binding p48 subunit. This complex is responsible for modulating the transcription of the interferon-stimulated genes (ISGs). Thus, phosphorylation of Y701 in Stat1 occurs in response to growth factors and cytokines, and is essential for normal transcriptional activity of the ISGF3 complex.
Keywords	STAT1; signal transducer and activator of transcription 1, 91kDa; CANDF7; IMD31A; IMD31B; IMD31C; ISGF-3; STAT91; signal transducer and activator of transcription 1-alpha/beta; transcription factor ISGF-3 components p91/p84; signal transducer and activator of transcription-1; signal transducer and activator of transcription 1, 91kD;

GENE INFORMATION

Entrez Gene ID	6772
UniProt ID	P42224

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