STAT3 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	STAT3, Monoclonal Antibody
Full Product Name	STAT3 Mouse mAb
Product Gene Name	anti-STAT3 antibody
Product Synonym Names	APRF; HIES; ADMIO; ADMIO1
Clonality	Monoclonal
Isotype	IgG2a, kappa
Host	Mouse
Species Reactivity	Human
Form/Format	PBS with 0.09% (W/V) Sodium Azide, pH 7.3.
Purity/Purification	Protein G
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Molecular Weight	88kDa
OMIM	102582
3D Structure	ModBase 3D Structure for P40763
Immunogen	This Stat3 antibody is generated from a mouse immunized with Stat3 recombinant protein.
Cellular Localization	Cytoplasm, Nucleus
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-STAT3 antibody	Western Blot (WB)
Application Notes for anti-STAT3 antibody	WB: 1:1000
Related Product Information for anti-STAT3 antibody	Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF and other growth factors. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. Binds to the interleukin-6 (IL-6)-responsive elements identified in the promoters of various acute-phase protein genes. Activated by IL31 through IL31RA. Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity. Plays an important role in host defense in methicillin-resistant S.aureus lung infection by regulating the expression of the antimicrobial lectin REG3G (By similarity).
Other Notes	Small volumes of anti-STAT3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for STAT3 purchase	MBS8558793 is an antibody targeting STAT3. Also known as STAT3 Mouse mAb. Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for STAT3. It may not necessarily be applicable to this product.

NCBI GI #	21618338

NCBI GeneID	6774
NCBI Accession #	NP_003141.2
UniProt Primary Accession #	P40763
UniProt Related Accession #	P40763
GenBank Nucleotide #	NP_003141.2
NCBI Official Full Name	signal transducer and activator of transcription 3 isoform 2
NCBI Official Synonym Full Names	signal transducer and activator of transcription 3
NCBI Official Symbol	STAT3
NCBI Official Synonym Symbols	APRF; HIES; ADMIO; ADMIO1
UniProt Protein Name	Signal transducer and activator of transcription 3
UniProt Synonym Protein Names	Acute-phase response factor
Protein Family	Signal transducer and activator of transcription
UniProt Gene Name	STAT3
UniProt Synonym Gene Names	APRF
UniProt Entry Name	STAT3_HUMAN
NCBI Protein Information	signal transducer and activator of transcription 3
NCBI Summary for STAT3	The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Mutations in this gene are associated with infantile-onset multisystem autoimmune disease and hyper-immunoglobulin E syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Sep 2015]

UniProt Comments for STAT3	STAT3: transcription factor of the STAT family. Phosphorylated and activated by receptor-associated kinases downstream of many cytokines and growth-factor receptors. Constitutively active in a number of human tumors. Forms homo- or heterodimers that translocate into the nucleus where they regulate transcription. Two alternatively spliced isoforms have been described. Protein type: Transcription factor; Nuclear receptor co-regulator; Motility/polarity/chemotaxis; DNA-binding Chromosomal Location of Human Ortholog: 17q21.31 Cellular Component: nucleoplasm; cytoplasm; mitochondrial inner membrane; plasma membrane; cytosol; nucleus Molecular Function: protein dimerization activity; protein binding; ligand-dependent nuclear receptor activity; signal transducer activity; DNA binding; sequence-specific DNA binding; protein kinase binding; transcription factor binding; protein phosphatase binding; transcription factor activity; CCR5 chemokine receptor binding; glucocorticoid receptor binding Biological Process: transcription from RNA polymerase II promoter; nerve growth factor receptor signaling pathway; viral reproduction; somatic stem cell maintenance; positive regulation of transcription, DNA-dependent; radial glial cell differentiation; thermoregulation; negative regulation of transcription from RNA polymerase II promoter; glucose homeostasis; signal transduction; response to estradiol stimulus; negative regulation of cell proliferation; astrocyte differentiation; regulation of transcription, DNA-dependent; protein import into nucleus; acute-phase response; negative regulation of glycolysis; positive regulation of Notch signaling pathway; response to drug; nervous system development; intracellular receptor-mediated signaling pathway; eating behavior; cytokine and chemokine mediated signaling pathway; regulation of multicellular organism growth; JAK-STAT cascade; cellular response to hormone stimulus; regulation of transcription from RNA polymerase II promoter; cell proliferation; response to ethanol; sexual reproduction; positive regulation of transcription from RNA polymerase II promoter; eye photoreceptor cell differentiation; cell motility; phosphorylation Disease: Hyper-ige Recurrent Infection Syndrome, Autosomal Dominant; Autoimmune Disease, Multisystem, Infantile-onset
Research Articles on STAT3	**1.** Results suggested that STAT3 activity be requisite for the lung tumorigenesis caused by MVP knockdown.
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