

Mouse anti-Human, Mouse STAT3 Monoclonal Antibody | anti-STAT3 antibody

STAT3 Antibody

CATALOG # AAA290526	HOST Mouse	REACTIVITY Human, Mouse	APPLICATIONS Western Blot
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PRODUCT SYNONYMS

STAT3; Monoclonal Antibody; STAT3 Antibody; Purified Mouse Monoclonal Antibody (Mab); 1110034C02Rik; Acute Phase Response Factor; Acute-phase response factor; APRF; AW109958; DNA binding protein APRF; FLJ20882; HIES; MGC128731; MGC16063; MGC93551; Signal transducer and activator of transcription 3 (acute-phase response factor); Signal transducer and activator of transcription 3; STAT 3; Stat3; STAT3_HUMAN; Transcription factor.; anti-STAT3 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse
Clonality	Monoclonal
Form/Format	ascites
Sequence Length	769
Applicable Applications for anti-STAT3 antibody	WB (Western Blot)
Antigen Source	Human
Function	Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors (PubMed:10688651, PubMed:12359225, PubMed:15194700, PubMed:18242580, PubMed:). Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed:). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed:). Binds to the interleukin-6 (IL-6)-responsive elements identified in the promoters of various acute-phase protein genes (PubMed:). Activated by IL31 through IL31RA (PubMed:). Acts as a regulator of inflammatory response by regulating differentiation of naive CD4(+) T-cells into T-helper Th17 or regulatory T-cells (Treg): deacetylation and oxidation of lysine residues by LOXL3, leads to disrupt STAT3 dimerization and inhibit its transcription activity (PubMed:). Involved in cell cycle regulation by inducing the expression of key genes for the progression from G1 to S phase, such as CCND1 (PubMed:). Mediates the effects of LEP on melanocortin production, body energy homeostasis and lactation (By similarity). May play an apoptotic role by transactivating BIRC5 expression under LEP activation (PubMed:18242580). Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity (PubMed:). Plays a crucial role in basal beta cell functions, such as regulation of insulin secretion (By similarity).
Cellular Location	Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm. Translocated into the nucleus upon tyrosine phosphorylation and dimerization, in response to signaling by activated FGFR1, FGFR2, FGFR3 or FGFR4. Constitutive nuclear presence is independent of tyrosine phosphorylation. Predominantly present in the cytoplasm without stimuli. Upon leukemia inhibitory factor (LIF) stimulation, accumulates in the nucleus. The complex composed of BART and ARL2 plays an important role in the nuclear translocation
Antigen Type	Recombinant Protein
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



WB (Western Blot)
Western blot detection of STAT3 in CHO-K1, C6, 3T3, K562, CEM, Jurkat, HeLa, MCF7, COS7, 293T, A431 and A549 cell lysates using STAT3 mouse mAb (1:1000 diluted). Predicted band size: 88KDa. Observed band size: 88KDa.

ADDITIONAL INFORMATION

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).
Product Categories/Family for anti-STAT3 antibody	Cancer; Cardiovascular; Developmental Biology; Microbiology; Signal Transduction; Stem Cells
References	Akira S.,et al.Cell 77:63-71(1994). Della Pietra L.,et al.Gene 213:119-124(1998). Feinstein E.,et al.Patent number EP2440214, 18-APR-2012. Ota T.,et al.Nat. Genet. 36:40-45(2004). Zody M.C.,et al.Nature 440:1045-1049(2006).

NCBI AND UNIPROT INFORMATION

NCBI GI #	21618338
NCBI GeneID	6774
NCBI Accession #	NP_003141.2
NCBI GenBank Nucleotide #	NM_003150.3
UniProt Accession #	P40763; O14916; Q9BW54; A8K7B8; K7ENL3
Molecular Weight	88068
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 (acute-phase response factor)
NCBI Official Symbol	STAT3
NCBI Official Synonym Symbols	APRF; HIES; ADMIO
NCBI Protein Information	signal transducer and activator of transcription 3
UniProt Protein Name	Signal transducer and activator of transcription 3
UniProt Gene Name	STAT3
UniProt Synonym Gene Names	APRF
UniProt Entry Name	STAT3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.