



STAT3 Monoclonal Antibody(3F4)

Catalog No	YP-Ab-01150
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB;IHC;IF
Gene Name	STAT3
Immunogen	Recombinant Protein of STAT3
Specificity	STAT3 protein detects endogenous levels of STAT3
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	WB 1:1000-2000, IHC 1:100-200. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	Acute-phase response factor;APRF;HIES;STAT 3;Stat3;Signal transducer and activator of transcription 3 (Acute-phase response factor);Signal transducer and activator of transcription 3
Observed Band	79,86kD
Calculated Molecular Weight	79,86kD
Cell Pathway	Cytoplasm . Nucleus . 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 and retention of STAT3. Identified in a complex with LYN and PAG1.
Tissue Specificity	Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. Expressed in naive CD4(+) T cells as well as T-helper Th17, Th1 and Th2 cells (PubMed:31899195).



Function

disease: Defects in STAT3 are the cause of hyperimmunoglobulin E recurrent infection syndrome autosomal dominant (AD-HIES) [MIM:147060]; also known as hyper-IgE syndrome or Job syndrome. AD-HIES is a rare disorder of immunity and connective tissue characterized by immunodeficiency, chronic eczema, recurrent Staphylococcal infections, increased serum IgE, eosinophilia, distinctive coarse facial appearance, abnormal dentition, hyperextensibility of the joints, and bone fractures. function: Transcription factor that binds to the interleukin-6 (IL-6)-responsive elements identified in the promoters of various acute-phase protein genes. Activated by IL31 through IL31RA. miscellaneous: Involved in the gp130-mediated signaling pathway. online information: STAT3 entry, online information: STAT3 mutation db, PTM: Tyrosine phosphorylated in response to IL-6, IL-11, CNTF, LIF, CSF-1, EGF, PDGF, IFN-alpha an

Background

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

matters needing attention

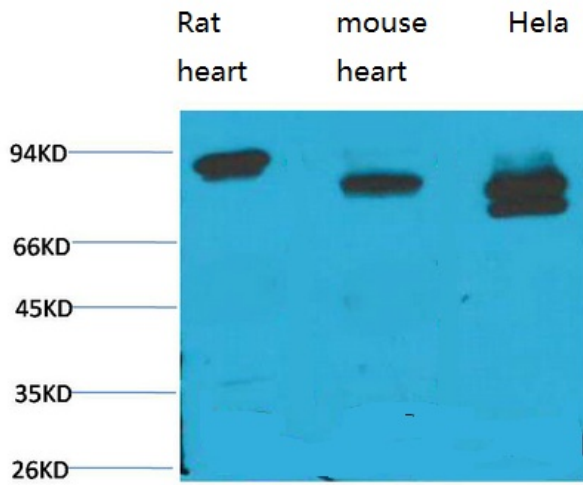
Avoid repeated freezing and thawing!

Usage suggestions

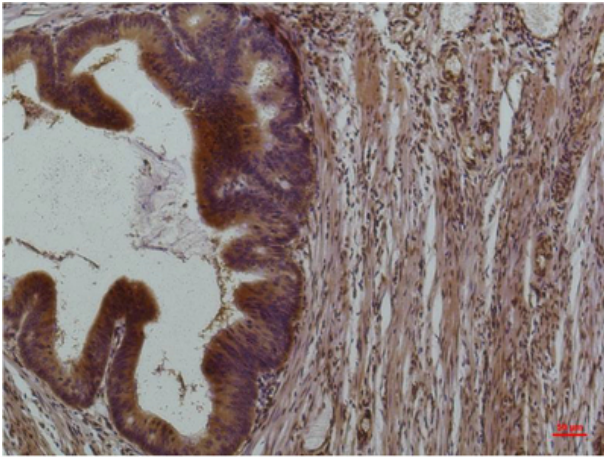
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



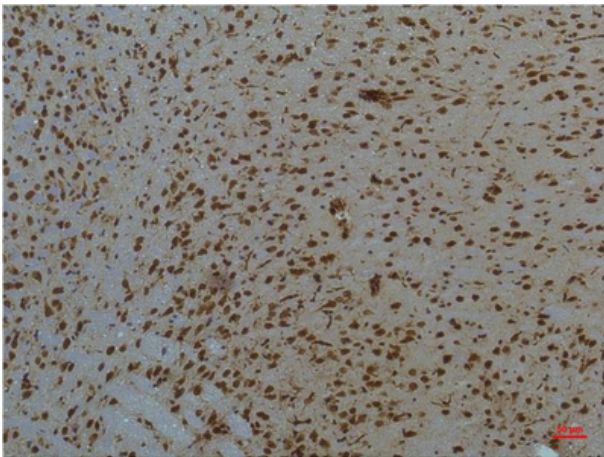
Products Images



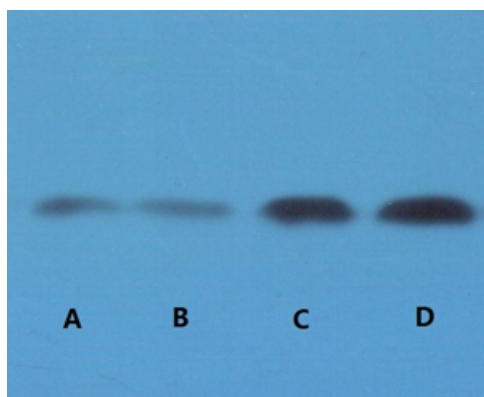
Western blot analysis of 1) Rat Heart Tissue, 2) Mouse Heart Tissue, 3) Hela with STAT3 Mouse mAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Human Colon Carcinoma using STAT3 Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Mouse Brain Tissue using STAT3 Mouse mAb diluted at 1:200.



Western blot detection of STAT3 in human breast cancer cell line MCF-7(A), T47D(B), MDA-MB-231(C) and Cal51 (D) using STAT3 mouse mAb (YM3507, 1:2000 diluted). Predicted band size: 86kDa. Observed band size: 86kDa. Picture was kindly provided by our customer from Tianjin Medical University Cancer Institute and Hospital