

**STAT3 (PTR1364) mouse mAb**

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|------------------------------|---|
| <b>Catalog No :</b>          | YM3507  |
| <b>Reactivity :</b>          | Human;Mouse;Rat;  |
| <b>Applications :</b>        | WB;IF;ELISA   |
| <b>Target :</b>              | Stat3   |
| <b>Fields :</b>              | >>EGFR tyrosine kinase inhibitor resistance;>>Chemokine signaling pathway;>>HIF-1 signaling pathway;>>FoxO signaling pathway;>>Necroptosis;>>Signaling pathways regulating pluripotency of stem cells;>>JAK-STAT signaling pathway;>>Th17 cell differentiation;>>Prolactin signaling pathway;>>Adipocytokine signaling pathway;>>Insulin resistance;>>AGE-RAGE signaling pathway in diabetic complications;>>Growth hormone synthesis, secretion and action;>>Toxoplasmosis;>>Hepatitis C;>>Hepatitis B;>>Measles;>>Human cytomegalovirus infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Epstein-Barr virus infection;>>Coronavirus disease - COVID-19;>>Pathways in cancer;>>Viral carcinogenesis;>>Proteoglycans in cancer;>>MicroRNAs in cancer;>>Chemical carcinogenesis - receptor activation;>>Pancreatic cancer;>>Acute myeloid leukemia;>>Non-small cell lung cancer;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Inflammatory bowel disease;>>Lipid and atherosclerosis |
| <b>Gene Name :</b>           | STAT3   |
| <b>Protein Name :</b>        | Signal transducer and activator of transcription 3 (Acute-phase response factor)  |
| <b>Human Gene Id :</b>       | 6774  |
| <b>Human Swiss Prot No :</b> | P40763  |
| <b>Mouse Swiss Prot No :</b> | P42227  |
| <b>Rat Swiss Prot No :</b>   | P52631  |
| <b>Immunogen :</b>           | Recombinant Protein   |
| <b>Specificity :</b>         | This antibody detects endogenous levels of STAT3.   |

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| <b>Formulation :</b>       | <u>PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA</u>   |
| <b>Source :</b>            | <u>Mouse, Monoclonal/IgG</u>  |
| <b>Dilution :</b>          | <u>WB 1:500-2000. IF 1:100-500. ELISA 1:1000-5000</u>   |
| <b>Purification :</b>      | <u>Protein G</u>  |
| <b>Concentration :</b>     | <u>1 mg/ml</u>  |
| <b>Storage Stability :</b> | <u>-15°C to -25°C/1 year(Do not lower than -25°C)</u>   |
| <b>Molecularweight :</b>   | <u>88kD</u>   |
| <b>Observed Band :</b>     | <u>86kD</u>   |
| <b>Cell Pathway :</b>      | <u>Chemokine;Jak_STAT;Adipocytokine;Pathways in cancer;Pancreatic cancer;Acute myeloid leukemia;</u>  |
| <b>Background :</b>        | <p>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</p>                     |
| <b>Function :</b>          | <p>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</p> |
| <b>Expression :</b>        | <u>Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.</u>   |

Expressed in naive CD4(+) T cells as well as T-helper Th17, Th1 and Th2 cells (PubMed:31899195).

**Tag :** orthogonal

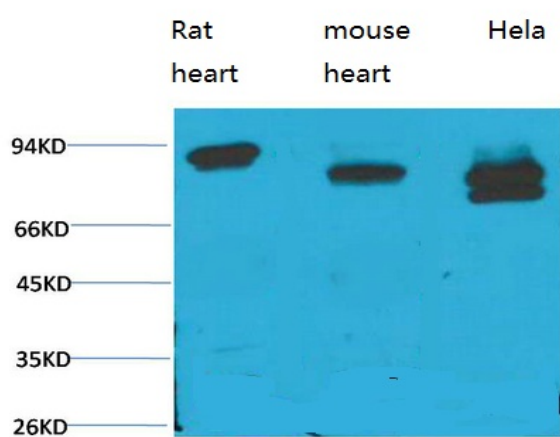
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**No4 :** 1

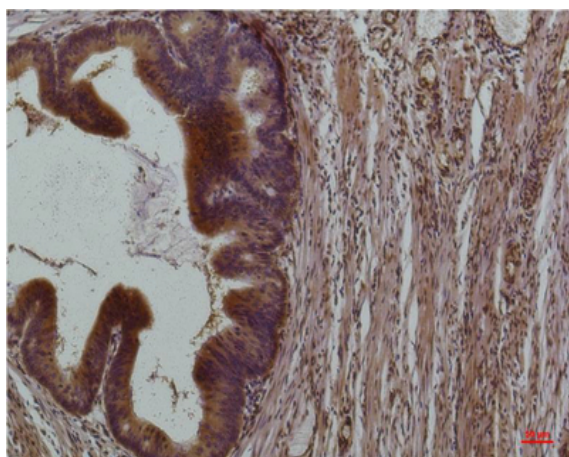
**Host :** Mouse

**Modifications :** Unmodified

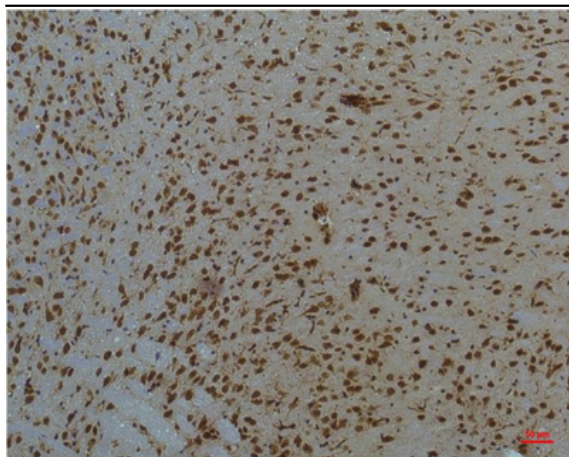
## Products Images



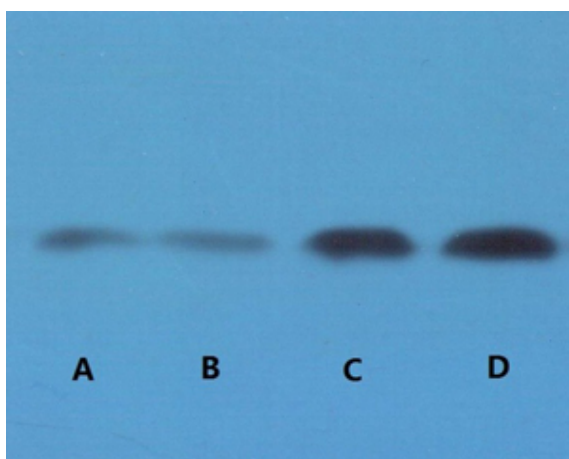
Western blot analysis of 1) Rat Heart Tissue, 2) Mouse Heart Tissue, 3) Hela with STAT3 Mouse mAb diluted at 1:2,000.



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).

Whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-STAT3 (PTR1364) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: RAW264.7