



STAT3 Rabbit mAb

Catalog No	YP-rAb-17810
Isotype	IgG
Reactivity	Human,Mouse,Rat,Pig
Applications	WB,IHC,IF,ELISA
Gene Name	STAT3 APRF
Protein Name	Signal transducer and activator of transcription 3
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:100-1:500; WB 1:1000-1:5000; IF 1:200-1:1000; ELISA 1:5000-1:20000; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	Stat3;Signal transducer and activator of transcription 3;STAT3 ; APRF ; Signal transducer and activator of transcription 3 ; Acute-phase response factor;STAT3 APRF
Observed Band	88kD
Calculated Molecular Weight	88kD
Cell Pathway	Cytoplasm, Nucleus
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 Th 2 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 and OSM. Phosphorylated on serine upon DNA damage, probably by ATM or ATR. Serine phosphorylation is important for the formation of stable DNA-binding STAT3 homodimers and maximal transcriptional activity. similarity: Belongs to the transcription factor STAT family. similarity: Contains 1 SH2 domain. subcellular location: Shuttles between the nucleus and the cytoplasm. Constitutive nuclear presence is independent of tyrosine phosphorylation. subunit: Forms a homodimer or a heterodimer with a related family member (at least STAT1). Interacts with NCOA1, PELP1, SOCS7 and STATIP1. Interacts with HCV core protein. Interacts with IL23R in presence of IL23. Interacts with IL31RA. Interacts with SIPAR. Interacts (via SH2 domain) with NLK (By similarity). Interacts with KPNA4 and KPNA5; KPNA4 may be the primary mediator of nuclear import (By similarity). Interacts with TMF1. tissue specificity: Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.

Background

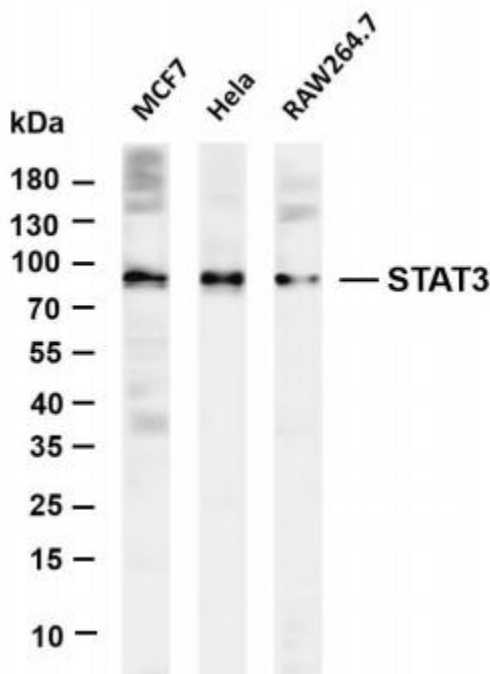
The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. 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!

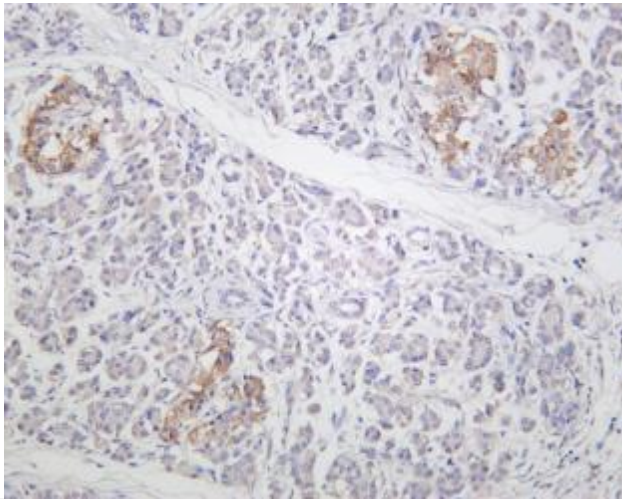
Usage suggestions

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

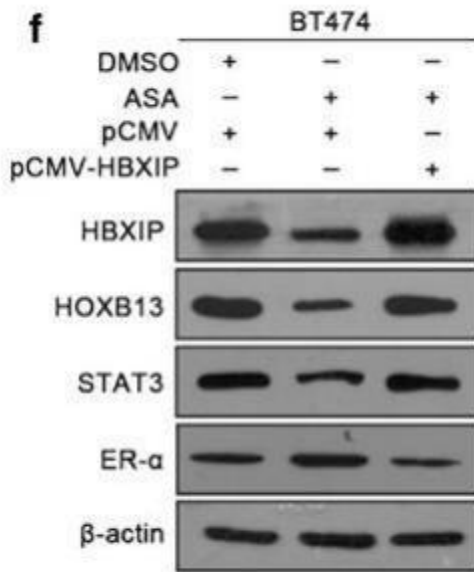


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-STAT3 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: HeLa Lane 3: RAW264.7 Predicted band size: 88kDa Observed band size: 88kDa

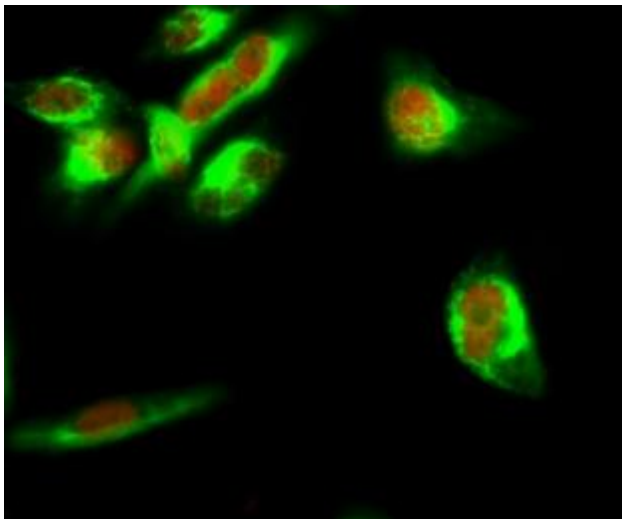




Human pancreas was stained with anti-STAT3 rabbit antibody

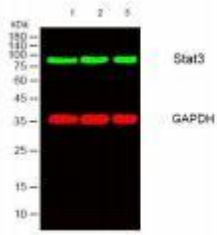


Liu, Bowen, et al. "Oncoprotein HBXIP enhances HOXB13 acetylation and co-activates HOXB13 to confer tamoxifen resistance in breast cancer." Journal of hematology & oncology 11.1 (2018): 26.



Immunofluorescence analysis of HeLa cell. 1, Stat3 Antibody(red) was diluted at 1:200(4 ° overnight). β-tubulin Monoclonal Antibody(M7)(green) was diluted at 1:200(4 ° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).





Western blot analysis of lysates from 1) HepG2-UV, 2) K562, 3) AD293, 4) PC-3 cells, (Green) primary antibody was diluted at 1:1000, 4 ° over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37 ° 1 hour. (Red) GAPDH Monoclonal Antibody(2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4 ° over night, secondary antibody(cat:RS23710)was diluted at 1:10000, 37 ° 1 hour.

