

# Rabbit Anti-STAT2 antibody

## SL1140R

<b>Product Name:</b>	STAT2
Chinese Name:	Signal transduction和转录激活因子2抗体
Alias:	signal transducers and activators of transduction2; Homo sapiens interferon alpha induced transcriptional activator; interferon alpha induced transcriptional activator; ISGF3; P113; signal transducer and activator of transcription 2 113kD; STAT113; STAT2_HUMAN; p113.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	97kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human STAT2:151-250/851
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	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. In response to interferon (IFN),

this protein forms a complex with STAT1 and IFN regulatory factor family protein p48 (ISGF3G), in which this protein acts as a transactivator, but lacks the ability to bind DNA directly. Transcription adaptor P300/CBP (EP300/CREBBP) has been shown to interact specifically with this protein, which is thought to be involved in the process of blocking IFN-alpha response by adenovirus. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2010].

## **Function:**

Signal transducer and activator of transcription that mediates signaling by type I IFNs (IFN-alpha and IFN-beta). Following type I IFN binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of interferon stimulated genes, which drive the cell in an antiviral state.

#### Subunit:

Interacts with ISGF3G/IRF-9 in the cytoplasm. Heterodimer with STAT1 upon IFN-alpha/beta induced phosphorylation. Interacts with CRSP2 and CRSP6. Interacts with Simian virus 5 protein V and rabies virus phosphoprotein (By similarity). Can form a homodimer upon IFN-alpha induced phosphorylation. Interacts with IFNAR1; the interaction requires the phosphorylation of IFNAR1 at 'Tyr-466'. Interacts with IFNAR2. Interacts with dengue virus NS5; this interaction inhibits the phosphorylation of STAT2, and, when all viral proteins are present (polyprotein), targets STAT2 for degradation. Interacts with human cytomegalovirus/HHV-5 protein UL123; this interaction promotes viral growth.

## **Subcellular Location:**

Cytoplasm. Nucleus. Note=Translocated into the nucleus upon activation by IFN-alpha/beta.

## Post-translational modifications:

Tyrosine phosphorylated in response to IFN-alpha.

## Similarity:

Belongs to the transcription factor STAT family. Contains 1 SH2 domain.

#### **SWISS:**

P52630

#### Gene ID:

6773

## Database links:

Entrez Gene: 6773Human

Entrez Gene: 20847 Mouse

Entrez Gene: 288774Rat

Omim: 600556Human

SwissProt: P52630Human

SwissProt: Q9WVL2Mouse

Unigene: 530595Human

Unigene: 293120 Mouse

Unigene: 471333 Mouse

Unigene: 24237Rat

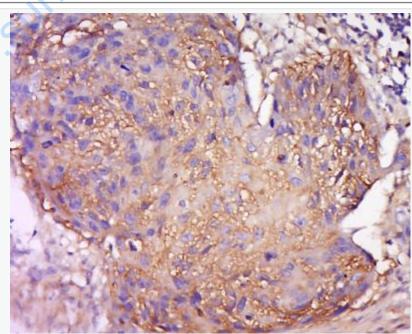
## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

transcriptional regulatory factor (Transcriptin Regulators)

STAT-Signal

transduction和转录激活因子蛋白家族是近年来发现的一类转录因子.通过JAK-STAT途径介导许多由cell factor诱导的反应,参与细胞的Signal transduction和转录。

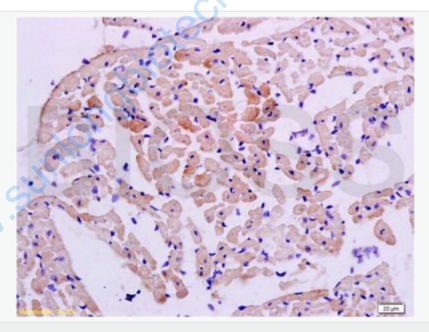


## Picture:

Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

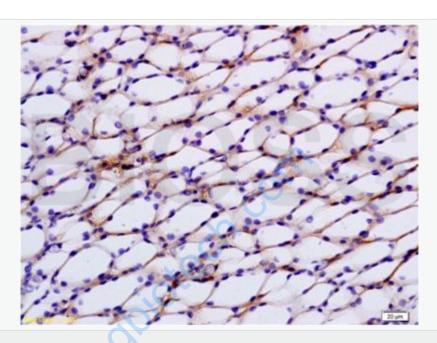
Incubation: Anti-STAT2 Polyclonal Antibody, Unconjugated(SL1140R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat heart tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-STAT2 Polyclonal Antibody, Unconjugated(SL1140R) 1:200,

overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-STAT2 Polyclonal Antibody, Unconjugated(SL1140R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining