

**Stat3 Antibody (C-term Tyr705)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP20324b**

## Specification

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### Stat3 Antibody (C-term Tyr705) - Product Information

Application	WB,E
Primary Accession	<a href="#">P40763</a>
Other Accession	<a href="#">P52631</a> , <a href="#">Q19S50</a> , <a href="#">P42227</a> , <a href="#">P61635</a>
Reactivity	Human
Predicted	Bovine, Mouse, Pig, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	88068
Antigen Region	683-709

### Stat3 Antibody (C-term Tyr705) - Additional Information

**Gene ID** 6774

#### Other Names

Signal transducer and activator of transcription 3, Acute-phase response factor, STAT3, APRF

#### Target/Specificity

This Stat3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 683-709 amino acids from the C-terminal region of human Stat3.

#### Dilution

WB~~1:1000

#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Stat3 Antibody (C-term Tyr705) is for research use only and not for use in diagnostic or therapeutic procedures.

### Stat3 Antibody (C-term Tyr705) - Protein Information

**Name** STAT3 {ECO:0000303|PubMed:9630560, ECO:0000312|HGNC:HGNC:11364}

**Function** Signal transducer and transcription activator that mediates cellular responses to

interleukins, KITLG/SCF, LEP and other growth factors (PubMed:[10688651](#), PubMed:[12359225](#), PubMed:[12873986](#), PubMed:[15194700](#), PubMed:[15653507](#), PubMed:[16285960](#), PubMed:[17344214](#), PubMed:[18242580](#), PubMed:[18782771](#), PubMed:[22306293](#), PubMed:[23084476](#), PubMed:[28262505](#), PubMed:[32929201](#)). Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed:[15653507](#), PubMed:[16285960](#), PubMed:[17344214](#), PubMed:[18782771](#), PubMed:[28262505](#), PubMed:[32929201](#)). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed:[12873986](#)). Upon activation of IL6ST/gp130 signaling by interleukin-6 (IL6), binds to the IL6-responsive elements identified in the promoters of various acute-phase protein genes (PubMed:[12359225](#)). Activated by IL31 through IL31RA (PubMed:[15194700](#)). Acts as a regulator of inflammatory response by regulating differentiation of naive CD4(+) T-cells into T-helper Th17 or regulatory T-cells (Treg): acetylation promotes its transcription activity and cell differentiation while deacetylation and oxidation of lysine residues by LOXL3 inhibits differentiation (PubMed:[28065600](#), PubMed:[28262505](#)). Involved in cell cycle regulation by inducing the expression of key genes for the progression from G1 to S phase, such as CCND1 (PubMed:[17344214](#)). 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:[23084476](#)). Plays a crucial role in basal beta cell functions, such as regulation of insulin secretion (By similarity). Following JAK/STAT signaling activation and as part of a complex with NFATC3 and NFATC4, binds to the alpha-beta E4 promoter region of CRYAB and activates transcription in cardiomyocytes (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 (PubMed:[15653507](#), PubMed:[16285960](#)). 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. Translocates to the nucleus in the presence of EDN1 (By similarity). {ECO:0000250|UniProtKB:P52631, ECO:0000269|PubMed:15653507, ECO:0000269|PubMed:16285960}

#### Tissue Location

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](#))

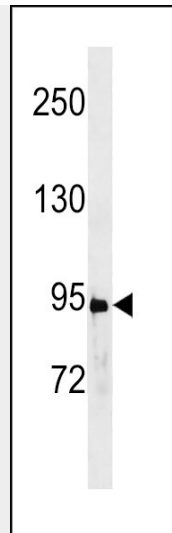
#### Stat3 Antibody (C-term Tyr705) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Stat3 Antibody (C-term Tyr705) - Images





Stat3 (C-term Tyr705) Antibody (Cat. #AP20324b) western blot analysis in A431 cell line lysates (35ug/lane). This demonstrates the Stat3 (Tyr705) antibody detected the Stat3 (Tyr705) protein (arrow).

#### **Stat3 Antibody (C-term Tyr705) - Background**

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.