10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

STAT3 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS16582

Specification

STAT3 Antibody (C-Terminus) - Product Information

Application	**IHC**
Primary Accession	P40763
Other Accession	6774
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**88068**

STAT3 Antibody (C-Terminus) - Additional Information

Gene ID 6774

Other Names
STAT3, Acute-phase response factor, APRF, DNA-binding protein APRF, HIES

Target/Specificity
STAT3 p92 of mouse, rat, and human origin

Reconstitution & Storage
PBS, 0.1% sodium azide, 0.2% gelatin. Store at +4°C. DO NOT FREEZE.

Precautions
STAT3 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

STAT3 Antibody (C-Terminus) - Protein Information

Name STAT3 (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:17344214, PubMed:18242580, PubMed:22306293, PubMed:23084476, PubMed:32929201). Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target

gene (PubMed:17344214, 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): deacetylation and oxidation of lysine residues by LOXL3, leads to disrupt STAT3 dimerization and inhibit its transcription activity (PubMed:28065600). 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 transctivating 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).

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. 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 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)

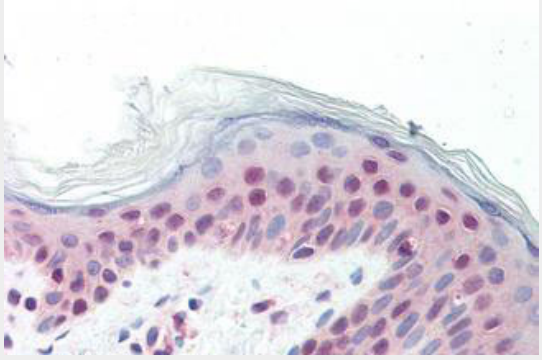
STAT3 Antibody (C-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

STAT3 Antibody (C-Terminus) - Images

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Anti-STAT3 antibody IHC staining of human skin.

STAT3 Antibody (C-Terminus) - 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. Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity. Plays an important role in host defense in methicillin-resistant S.aureus lung infection by regulating the expression of the antimicrobial lectin REG3G (By similarity).

STAT3 Antibody (C-Terminus) - References

Akira S.,et al.Cell 77:63-71(1994).
Della Pietra L.,et al.Gene 213:119-124(1998).
Feinstein E.,et al.Patent number EP2440214, 18-APR-2012.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:1045-1049(2006).