

**Product Name: Phospho-STAT3 (Y705) (13H8) Rabbit
Monoclonal Antibody
Catalog #: AMRe06021**



Summary

Production Name	Phospho-STAT3 (Y705) (13H8) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	STAT3
Alternative Names	APRF; Stat3; HIES; Acute-phase response factor;
Gene ID	6774.0
SwissProt ID	P40763.

Application

Dilution Ratio	WB 1:5000-1:10000
Molecular Weight	88kDa

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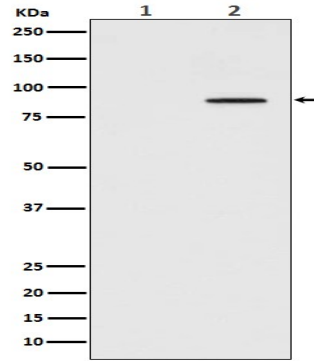
Background

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. Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors (PubMed: [10688651](http://www.uniprot.org/citations/10688651)), PubMed: [12359225](http://www.uniprot.org/citations/12359225), PubMed: [12873986](http://www.uniprot.org/citations/12873986), PubMed: [15194700](http://www.uniprot.org/citations/15194700), PubMed: [17344214](http://www.uniprot.org/citations/17344214), PubMed: [18242580](http://www.uniprot.org/citations/18242580), PubMed: [23084476](http://www.uniprot.org/citations/23084476)). Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed: [17344214](http://www.uniprot.org/citations/17344214)). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed: [12873986](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/12359225)). Activated by IL31 through IL31RA (PubMed: [15194700](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18242580)). Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity (PubMed: [23084476](http://www.uniprot.org/citations/23084476)). Plays a crucial role in basal beta cell functions, such as regulation of insulin secretion (By similarity).

Research Area

Image Data

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Western blot analysis of Phospho-STAT3 (Tyr705) expression in (1) HeLa cell lysate; (2) HeLa cell lysate treated with IFN-a.

Note

For research use only.