Phospho-STAT3(Y705) Antibody
Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3261a

Specification

Phospho-STAT3(Y705) Antibody - Product Information

Application WB, E
Primary Accession P40763
Other Accession P52631, Q19550, P42227, P61635
Reactivity Predicted Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit Ig

Phospho-STAT3(Y705) Antibody - 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 phosphopeptide corresponding to amino acid residues surrounding Y705 of human STAT3.

Dilution WB ~ 1:500

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 Phospho-STAT3(Y705) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-STAT3(Y705) Antibody - Background

STAT3 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.

Phospho-STAT3(Y705) Antibody - Protein Information

Western blot analysis of extracts from Jurkat and Hela cells, untreated or treated with IFN-α(100ng/ml), using Phospho-STAT3-pY705 Antibody.
Name STAT3 (HGNC:11364)

Function
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

Phospho-STAT3(Y705) Antibody - 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

Phospho-STAT3(Y705) Antibody - Citations
- SOCS3 overexpression inhibits advanced glycation end product-induced EMT in proximal tubule epithelial cells.
- Evodiamine Induces Apoptosis and Inhibits Migration of HCT-116 Human Colorectal Cancer Cells.
- Reg3g Promotes Pancreatic Carcinogenesis in a Murine Model of Chronic Pancreatitis.
- Expression of signal transducer and activator of transcription 3 and its phosphorylated form is significantly upregulated in patients with papillary thyroid cancer.
- Effect of suppressor of cytokine signaling on hepcidin production in hepatitis C virus replicon cells.
- Cooperation between integrin alpha5 and tetraspan TM4SF5 regulates VEGF-mediated angiogenic activity.