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Phospho-STAT5a(Y694) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3268a

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	P42229
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	90647

Additional Information

Gene ID	6776
Other Names	Signal transducer and activator of transcription 5A, STAT5A, STAT5
Target/Specificity	This STAT5a Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y694 of human STAT5a.
Dilution	WB~~1:1000 IF~~1:200 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. 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-STAT5a(Y694) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	STAT5A
Synonyms	STAT5
Function	Carries out a dual function: signal transduction and activation of transcription. Mediates cellular responses to the cytokine KITLG/SCF and other growth factors. Mediates cellular responses to ERBB4. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. Binds to the GAS element and activates PRL- induced transcription. Regulates the

	expression of milk proteins during lactation.
Cellular Location	Cytoplasm. Nucleus. Note=Translocated into the nucleus in response to phosphorylation

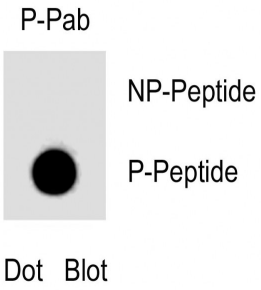
Background

STAT5a is a member of the STAT family of transcription factors. 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 by, and mediates the responses of many cell ligands, such as IL2, IL3, IL7 GM-CSF, erythropoietin, thrombopoietin, and different growth hormones. Activation of this protein in myeloma and lymphoma associated with a TEL/JAK2 gene fusion is independent of cell stimulus and has been shown to be essential for the tumorigenesis. The mouse counterpart of this protein is found to induce the expression of BCL2L1/BCL-X(L), which suggests the antiapoptotic function of this protein in cells.

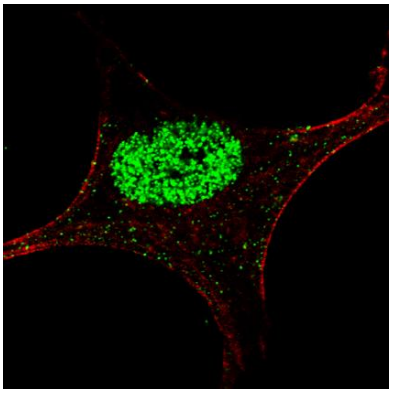
References

Martens, N., et al., J. Biol. Chem. 280(14):13817-13823 (2005).
Defilippi, P., et al., J. Cell Biol. 168(7):1099-1108 (2005).
Sekine, Y., et al., J. Biol. Chem. 280(9):8188-8196 (2005).
Sultan, A.S., et al., Oncogene 24(5):746-760 (2005).
Moriggl, R., et al., Cancer Cell 7(1):87-99 (2005).

Images

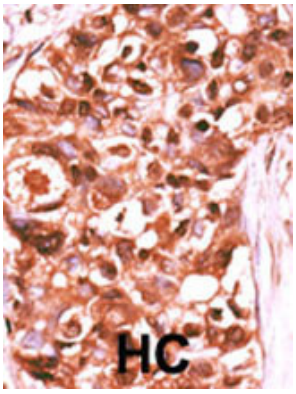


Dot blot analysis of Phospho-STAT5a(Y694) Phospho-specific Pab on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antobodies working concentration was 0. 5ug per ml.



Fluorescent confocal image of an SY5Y cell stained with AP3268a Phospho-STAT5a antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with AP3268a Phospho-STAT5a primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25 µM, 25 min). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 3 min)(not shown). Phospho-STAT5a immunoreactivity is localized exclusively to the nucleus.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use



of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- O-GlcNAcylation disrupts STRA6-retinol signals in kidneys of diabetes.
- Tissue proteomics of the human mammary gland: towards an abridged definition of the molecular phenotypes underlying epithelial normalcy.