PRODUCT INFORMATION

Product name：STAT5A antibody

Product type： Primary antibodies

Description： Mouse monoclonal to STAT5A

Immunogen：1 synthetic peptide (human) conjugated to KLH

Reacts with： Hu, Ms

Tested applications：ELISA, WB & IF

GENE INFORMATION

Gene Symbol：STAT5A

Gene Name：signal transducer and activator of transcription 5A

Ensembl ID：ENSG00000126561

Entrez GeneID：6776

GenBank Accession number：U43185

Swiss-Prot：P42229

Molecular weight：90.6kDa

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.

Expected subcellular localization：Cytoplasm. Nucleus. Note: Translocated into the nucleus in response to phosphorylation.

Summary：The protein encoded by this gene 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 gene is found to induce the expression of BCL2L1/BCL-X(L), which suggests the antiapoptotic function of this gene in cells. [provided by RefSeq, Jul 2008]

APPLICATION NOTE

Recommended dilution：

- **ELISA: Antibody specificity was verified by direct ELISA against the 1 immunogen peptide. A titer of 36000 has been determined. Appropriate specificity controls were run.**
- **WB: Dilution 1/1000**
- **IF: Dilution 1/100**

Optimal dilutions/concentration should be determined by the end user.

Raised in：Mouse

Clonality：Monoclonal

Isotype：IgG

Purity：Purified Antibody

Storage buffer： Containing a final concentration of PBS/glycerol (V/V), 0.1% BSA and 0.01% Thimerosal.

Form：Liquid

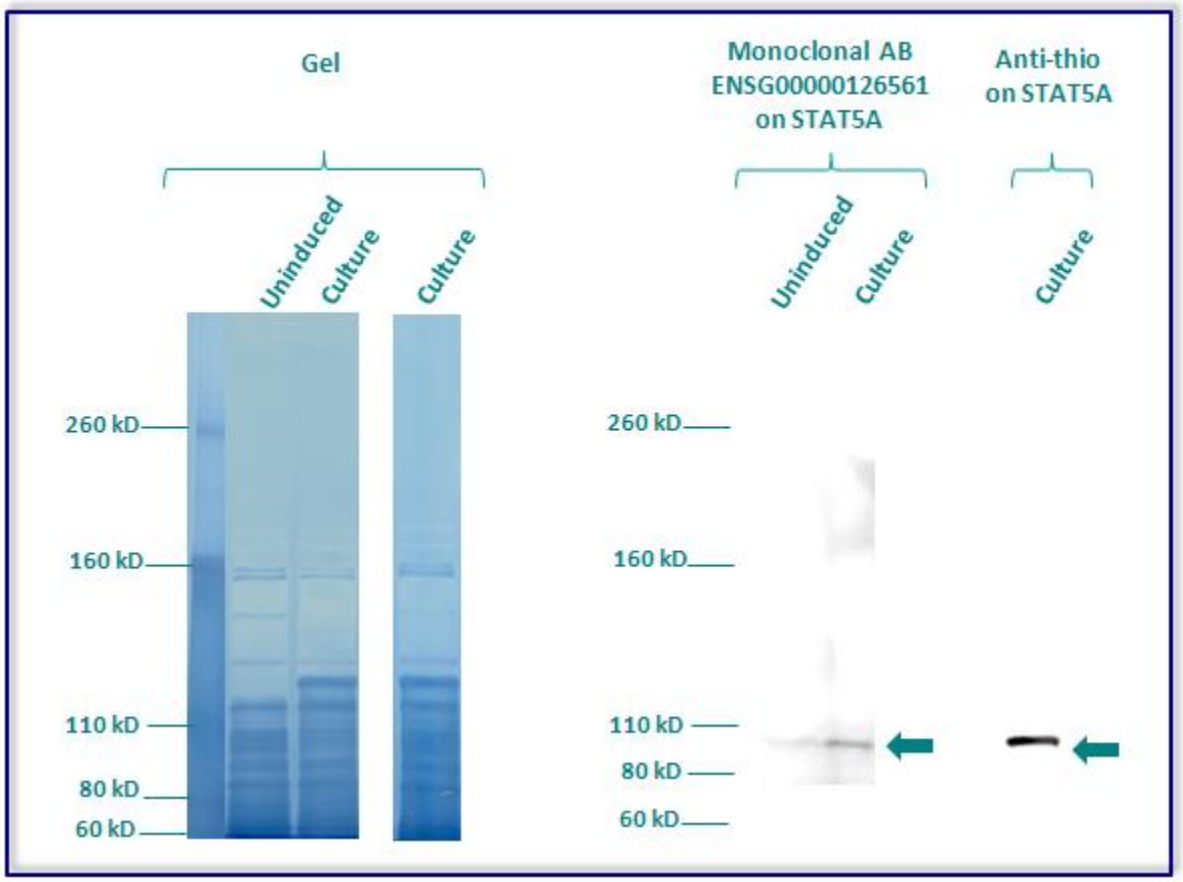
Storage instruction：Store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

WESTERN BLOT ON RECOMBINANT PROTEIN

The monoclonal purified antibody ENSG00000126561 has tested at 1/1000 on uninduced (negative control) and induced culture of E.coli (one shot Top10 competent cells).

An anti-thio has been tested at 1/5000 on induced culture of E.coli (one shot Top10 competent cells) as a positive control.

Clone : 7H11D6H8, Isotype : G1; kappa
Plasmid name : pBAD-DEST49.
Molecular weight of STAT5A : 104.6kDa (90.6kDa + another 14kDa for the tag).



Gel concentration: 5%

Blocking: in 5% non-fat milk-PBST solution
1st Antibody: The antibodies are diluted in blocking buffer.

- **Dilute the purified antibody ENSG00000126561 at 1:1000**
- **Dilute the anti-thio at 1:5000**

60 minutes of incubation
2nd Antibody: The antibody is diluted in blocking buffer.

- **Dilute the anti-Mouse IgG HRP conjugated at 1/10000**

60 minutes of incubation

IMMUNOFLUORESCENCE ANALYSIS

Immunofluorescence analysis of Signal transducer and activator of transcription 5A (STAT5A) expression in 6 cells lines (HELA, 293T/17, Capan-2, SAOS-2, SH-SY5Y, Skin 3,44). The monoclonal antibody ENSG00000126561 has been tested at 1/100.

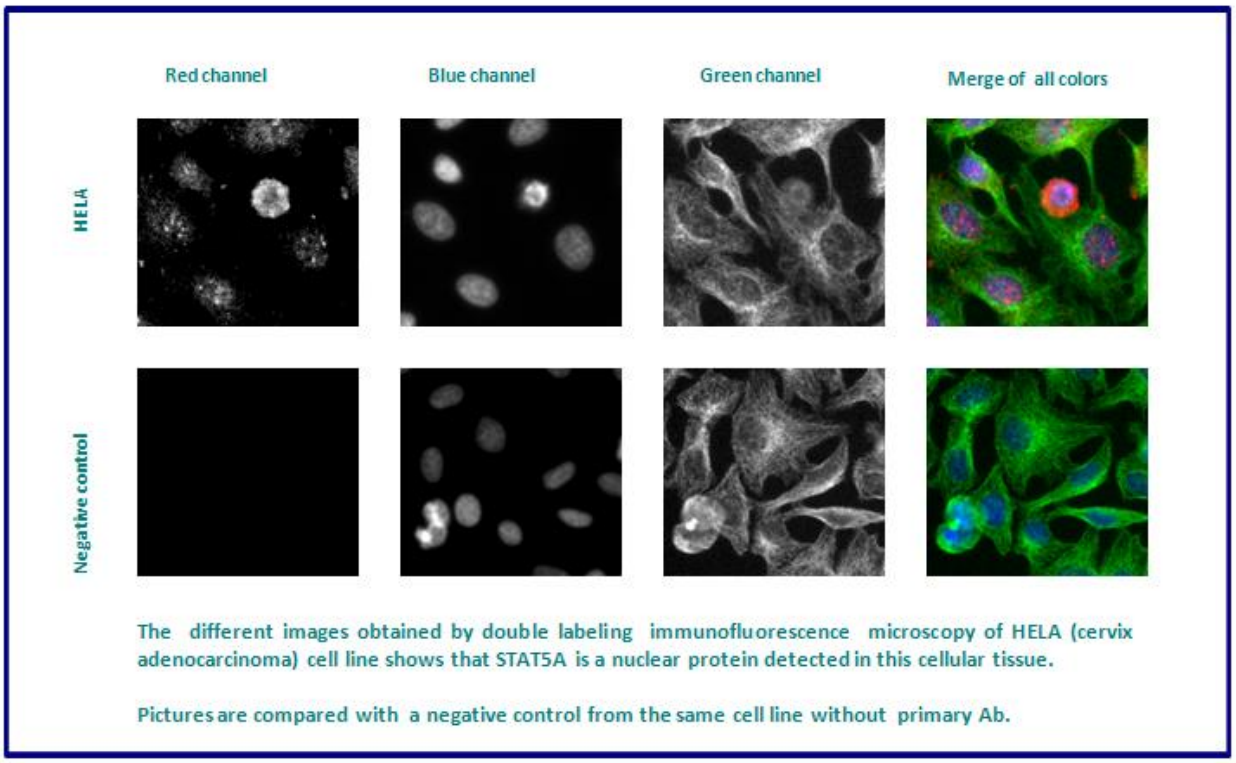
Green staining : cytoskeleton (microtubules/α-tubuline)

Blue staining : nucleus (Hoechst)

Red staining : anti- STAT5A antibody (purified)

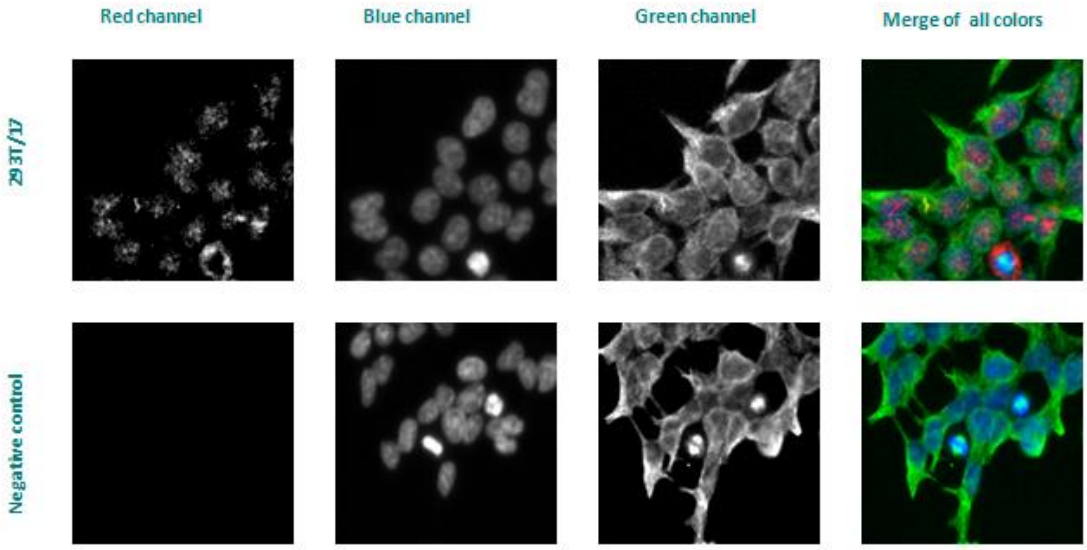
Expected subcellular location : Cytoplasm. Nucleus

Note: Translocated into the nucleus in response to phosphorylation



The different images obtained by double labeling immunofluorescence microscopy of HELA (cervix adenocarcinoma) cell line shows that STAT5A is a nuclear protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.



The different images obtained by double labeling immunofluorescence microscopy of 293T/17 (kidney embrionic) cell line shows that STAT5A is a nuclear protein detected in this cellular tissue.

Pictures are compared with a negative control from the same cell line without primary Ab.

Remaining cell lines tested gave a positive result with a nuclear distribution.