Anti-STAT2 pY690 (RABBIT) Antibody - 600-401-A93S

Code: 600-401-A93S **Size:** 25 µL

Product Description: Anti-STAT2 pY690 (RABBIT) Antibody - 600-401-A93S

Concentration: 1.15 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	STAT2
Species Reactivity	human, chimpanzee, macaque, Vervet monkey, rat, dog, pig, horse, mouse, bovine
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	interferon alpha induced transcriptional activator antibody, ISGF3 antibody, MGC59816 antibody, P113 antibody, signal transducer and activator of transcription 2 113kD antibody, STAT113 antibody
Application Note	This affinity purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 113 kDa in size corresponding to STAT2 pY690 protein by western blotting in the appropriate cell lysate or extract.
Background	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. STAT2 is a member of the STAT family of transcription factors. Unlike other STATs, STAT2 is unique as it can only be activated by interferons (IFNs). STAT2 is a critical component in mediating many IFN-stimulated biological activities including antiproliferation and antiviral responses. Upon IFN treatment, STAT1 and STAT2 become tyrosine phosphorylated, assemble as heterodimers that bind IRF9 to form the ISGF3 complex. This complex translocates to the nucleus, binds to promoters of IFN-stimulated genes and mediates gene transcription. Consequently, mutations in STAT2 or loss of STAT2 expression leads to impairment in IFN signal transduction and gene activation. IFN-alpha is an approved drug for the treatment of several forms of cancer. Yet only a subset of patients who receive IFN-alpha therapy benefit from the treatment. Given that STAT2 is activated by IFNs, it is important to define if the reduced or lack of antitumor effects seen in cancer patients on IFN therapy is due to in defects in STAT2 function. Our goal is to identify regions/motifs within the structural domains of STAT2 that not only are essential for the tyrosine phosphorylation of STAT2, but also regulate the antitumor effects of IFN-alpha. Collectively, the results of our studies will emphasize the physiological role of STAT2 in cancer. From a clinical viewpoint, cancer patients who may benefit the most from receiving IFN-alpha therapy can be selected based on their STAT2 function.
Purity And Specificity	This affinity purified antibody is directed against human STAT2 pY690 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with STAT2 pY690 protein from human, rat (73%) and mouse (76%), sources based on homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Assay Dilutions	User Optimized
ELISA	1:85,000
WESTERN BLOT	1:500 – 1:1000
OTHER ASSAYS	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a region near the N-terminus of human STAT2 protein.
General Reference	Li,X., Leung,S., Kerr,I.M. and Stark,G.R. (1997) Functional subdomains of STAT2 required for preassociation with the alpha interferon receptor and for signaling. Mol. Cell. Biol. 17 (4), 2048-2056.
Related Products	

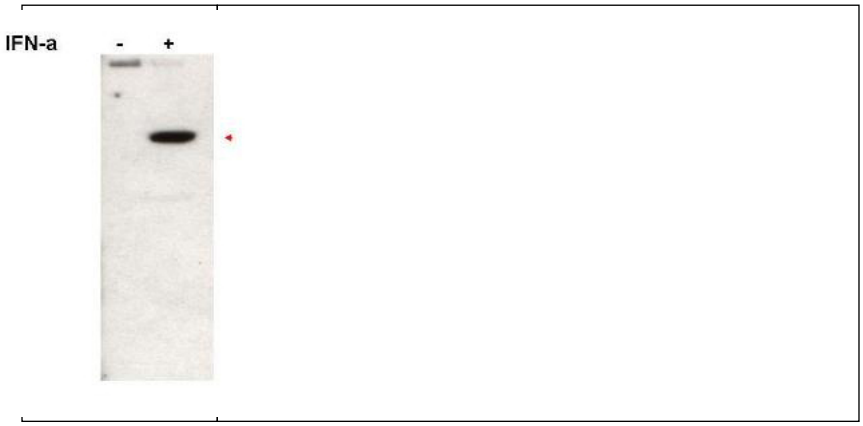
100-401-861	Anti-STAT4 (RABBIT) Antibody - 100-401-861
200-301-A45	Anti-STAT5 pY694 (MOUSE) Monoclonal Antibody - 200-301-A45
200-401-A43	Anti-STAT1 pY701 (RABBIT) Antibody - 200-401-A43
600-401-A45	Anti-STAT5 pY694 (RABBIT) Antibody - 600-401-A45

Related Links

UniProtKB - P52630	http://www.uniprot.org/uniprot/P52630
NCBI - 4885615	http://www.ncbi.nlm.nih.gov/protein/4885615
GeneID - 6773	http://www.ncbi.nlm.nih.gov/gene/6773

Images

1 Western blot using Rockland's affinity purified anti-Stat2pY690 antibody shows detection of Stat2pY690 protein (arrowhead) in Jurkat cells without (left lane) and with (right lane) 1000U/mL of IFN-a for 15 min at 37oC. Primary antibody was used at 1:1,000. Personal Communication, A.Gamero, NCI, Bethesda, MD.



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