10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

STAT2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1532a

Product Information

Application	IHC-P, WB, E
Primary Accession	P52630
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0311
Calculated MW	97916
Antigen Region	820-851

Additional Information

Gene ID	6773
Other Names	Signal transducer and activator of transcription 2, p113, STAT2
Target/Specificity	This STAT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 820-851 amino acids from the C-terminal region of human STAT2.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	STAT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	STAT2
Function	Signal transducer and activator of transcription that mediates signaling by type I interferons (IFN-alpha and IFN-beta). Following type I IFN binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with IRF9/ISGF3G to form a complex termed ISGF3

transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of interferon stimulated genes, which drive the cell in an antiviral state (PubMed:23391734, PubMed:9020188). In addition, also has a negative feedback regulatory role in the type I interferon signaling by recruiting USP18 to the type I IFN receptor subunit IFNAR2 thereby mitigating the response to type I IFNs (PubMed:28165510). Acts as a regulator of mitochondrial fission by modulating the phosphorylation of DNM1L at 'Ser-616' and 'Ser-637' which activate and inactivate the GTPase activity of DNM1L respectively (PubMed:23391734, PubMed:26122121, PubMed:9020188).

Cellular Location Cytoplasm. Nucleus Note=Translocated into the nucleus upon activation by IFN-alpha/beta

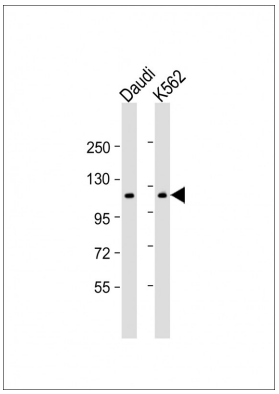
Background

STAT2 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. In response to interferon (IFN), this protein forms a complex with STAT1 and IFN regulatory factor family protein p48 (ISGF3G), in which this protein acts as a transactivator, but lacks the ability to bind DNA directly. Transcription adaptor P300/CBP (EP300/CREBBP) has been shown to interact specifically with this protein, which is thought to be involved in the process of blocking IFN-alpha response by adenovirus.

References

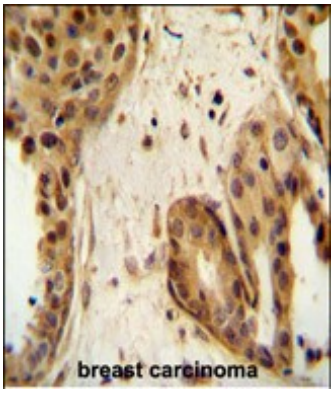
Rodriguez, J.J., et al., J. Virol. 77(21):11842-11845 (2003).
Gotoh, B., et al., J. Virol. 77(6):3360-3370 (2003).
Saleh, A.Z., et al., Biochemistry 41(37):11261-11268 (2002).
Rodriguez, J.J., et al., J. Virol. 76(22):11476-11483 (2002).
Stewart, M.D., et al., Biol. Reprod. 66(2):393-400 (2002).

Images



All lanes : Anti-STAT2 Antibody (S853) at 1:1000 dilution Lane 1: Daudi whole cell lysate Lane 2: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 98 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

STAT2 Antibody (C-term) (Cat.#AP1532a) immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the STAT2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.