Datasheet for ABIN6255991

anti-STAT1 antibody (pTyr701)

3 Images | 2 Publications

Go to Product page

Overview

Quantity:	100 µL
Target:	STAT1
Binding Specificity:	pTyr701
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This STAT1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human STAT1 around the phosphorylation site of Tyr701.
Isotype:	IgG
Specificity:	Phospho-STAT1 (Tyr701) Antibody detects endogenous levels of STAT1 only when phosphorylated at Tyrosine 701.
Predicted Reactivity:	Pig,Bovine,Horse,Rabbit,Dog,Chicken,Xenopus
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	STAT1

Target Details

Alternative Name:	STAT1 (STAT1 Products)
Background:	Description: Signal transducer and transcription activator that mediates cellular responses to interferons (IFNs), cytokine KITLG/SCF and other cytokines and other growth factors. Following type I IFN (IFN-alpha and IFN-beta) binding to cell surface receptors, signaling via protein kinases leads to activation of Jak kinases (TYK2 and JAK1) and to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize and associate with ISGF3G/IRF-9 to form a complex termed ISGF3 transcription factor, that enters the nucleus (PubMed:28753426). ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of IFN-stimulated genes (ISG), which drive the cell in an antiviral state. In response to type II IFN (IFN-gamma), STAT1 is tyrosine- and serine-phosphorylated (PubMed:26479788). It then forms a homodimer termed IFN-gamma-activated factor (GAF), migrates into the nucleus and binds to the IFN gamma activated sequence (GAS) to drive the expression of the target genes, inducing a cellular antiviral state. Becomes activated in response to KITLG/SCF and KIT signaling. May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4. Gene: STAT1
Molecular Weight:	84kDa
Gene ID:	6772
UniProt:	P42224
Pathways:	JAK-STAT Signaling, RTK Signaling, Interferon-gamma Pathway, Response to Growth Hormone Stimulus, Cellular Response to Molecule of Bacterial Origin, Positive Regulation of Endopeptidase Activity, Hepatitis C, CXCR4-mediated Signaling Events

Application Details

Application Notes:	WB 1:500-1:2000, IHC 1:50-1:200, IP, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

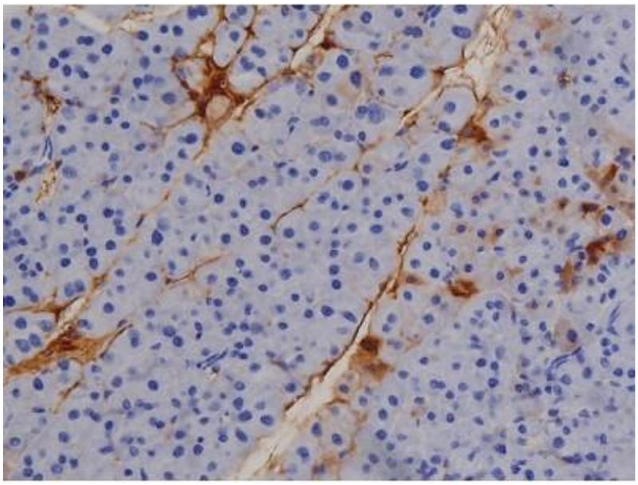
Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Publications

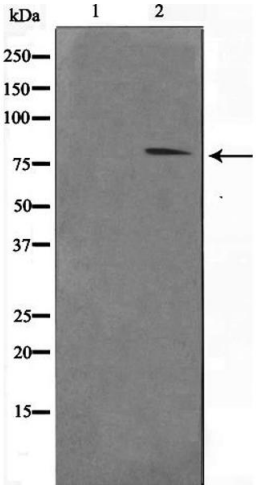
Product cited in:	Grundmann, Schutkowski, Schreier, Rabe, König, Gekle, Stangl: "Vitamin D Receptor Deficiency Does Not Affect Blood Pressure and Heart Function." in: **Frontiers in physiology**, Vol. 10, pp. 1118, (2019) (PubMed). Galan, Lozano, Piñeiro, Martinez-Salas: "G3BP1 interacts directly with the FMDV IRES and negatively regulates translation." in: **The FEBS journal**, Vol. 284, Issue 19, pp. 3202-3217, (2017) (PubMed).

Images



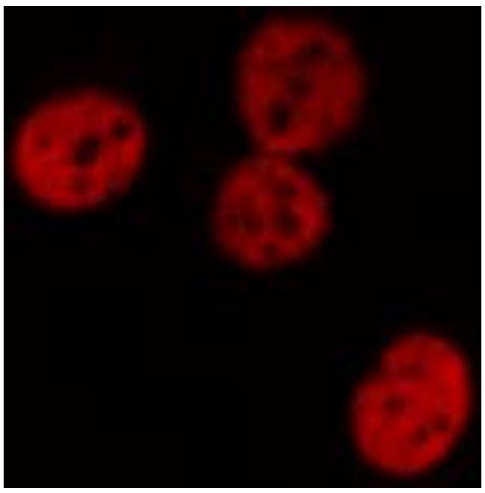
Immunohistochemistry

Image 1. ABIN6267509 at 1/200 staining Mouse pancreas tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Western Blotting

Image 2. Western blot analysis of STAT1 phosphorylation expression in MCF7 whole cell lysates,The lane on the left is treated with the antigen-specific peptide.



Immunofluorescence (fixed cells)

Image 3. ABIN6267509 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

