Phospho-STAT1 (Tyr701) Monoclonal Antibody (ST1P-11A5)

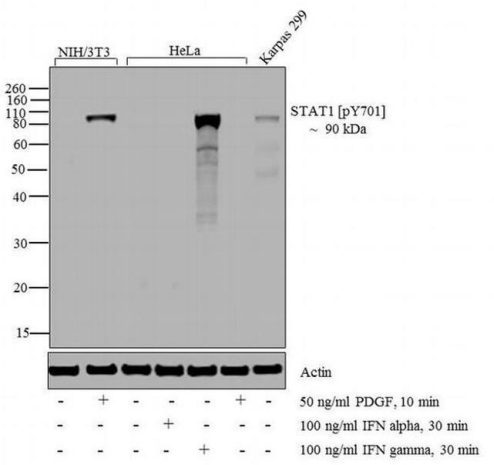
Product Details	
Size	50 µg
Species Reactivity	Human, Mouse
Published Species	Human, Mouse, Rhesus monkey
Host/Isotype	Mouse / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	ST1P-11A5
Conjugate	Unconjugated
Immunogen	Synthetic phospho peptide encompassing the conserved C-terminal site (Y701) of murine STAT1 protein
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2533113

Applications	Tested Dilution	Publications
Western Blot (WB)	0.5-2 µg/mL	18 Publications
Immunohistochemistry (IHC)	-	2 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:100	-
Immunocytochemistry (ICC/IF)	-	2 Publications
ELISA (ELISA)	0.1-1.0 µg/mL	-
ChIP assay (ChIP)	5 µg	1 Publication
Miscellaneous PubMed (Misc)	-	2 Publications

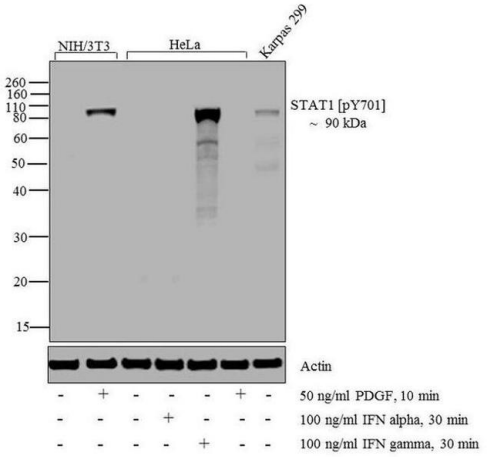
Product Specific Information

This antibody reacts specifically with the tyrosine-701 phosphorylated form of STAT1 and does not exhibit appreciable cross-reactivity with corresponding tyrosine phosphorylated forms of other STAT proteins or with other endogenous phosphotyrosine-containing proteins. To confirm the exclusive recognition of tyrosine phosphorylated STAT1, Western blots were carried out on lysates of 293 cells transfected with a STAT1 expression vector together with a wild type or kinase “dead” JAK1 expression vector. In addition, recognition of endogenous tyrosine phosphorylated STAT1 was confirmed on Western blots with cell lysates derived from serum starved or EGF-stimulated A431 cells and on Western blots with IFNa-stimulated mouse embryo fibroblast lysates.

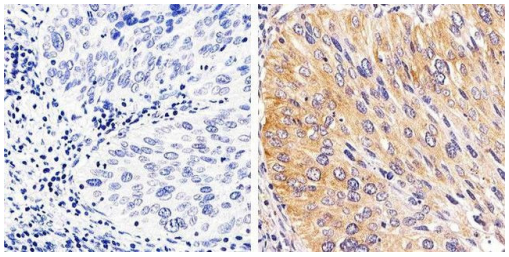
Product Images For Phospho-STAT1 (Tyr701) Monoclonal Antibody (ST1P-11A5)



Phospho-STAT1 (Tyr701) Antibody (33-3400)
Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot analysis of STAT1 (pT701) using STAT1 (pT701) Mouse Monoclonal Antibody (Product # 33-3400) shows induction of STAT1 (pT701) in NIH/3T3 cells treated with PDGF, and HeLa cells treated with IFN gamma. {TM}



Phospho-STAT1 (Tyr701) Antibody (33-3400) in WB
Western blot analysis of STAT1 (pT701) was performed by loading 20 µg of NIH /3T3 (lane1), NIH/3T3 treated for 10 minutes with 50 ng/mL of PDGF (lane2), HeLa (lane3), HeLa treated for 30 minutes with 100 ng/mL of IFN alpha (lane4), HeLa treated for 30 minutes with 100 ng/mL of IFN gamma (lane5), HeLa treated for 10 minutes with 50 ng/mL of PDGF (lane6) and Karpas 299 (lane7) cell lysate using Novex®NuPAGE® 10 % Bis-Tris gel (Product # NP0302BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (LC5800), and iBlot® Dry Blotting System (IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5% skim milk at 4°C overnight. STAT1 (pT701) was detected at ~ 90 kDa using STAT1 (pT701) Mouse Monoclonal Antibody (Product # 33-3400) at 0.5-1 µg/mL in 5% skim milk for 3 hour at room temperature on a rocking platform. Goat Anti-Mouse - HRP Secondary Antibody (Product # 62-6520) at 1:4000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



Phospho-STAT1 (Tyr701) Antibody (33-3400) in IHC (P)
Immunohistochemistry analysis of Phospho-STAT1 (pTyr701) showing staining in the nucleus and cytoplasm of paraffin-embedded human cervical carcinoma tissue (right) compared to a negative control without primary antibody (left). To expose target proteins, antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H2O2-methanol for 15 min at room temperature, washed with ddH2O and PBS, and then probed with a Phospho-STAT1 pTyr701monoclonal antibody (Product # 33-3400) diluted in 3% BSA-PBS at a dilution of 1:20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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25 References

Western Blot (18)

Reproduction, fertility, and development

Signal transducer and activator of transcription (STAT) 1 and STAT3 are expressed in the human ovary and have Janus kinase 1-independent functions in the COV434 human granulosa cell line.

"33-3400 was used in Western Blotting to implicate a conserved role for JAK/STAT signalling in human ovary development, warranting further investigation of this pathway in human granulosa cell function."

Authors: Frost ER,Ford EA,Peters AE,Reed NL,McLaughlin EA,Baker MA,Lovell-Badge R,Sutherland JM

Year 2020

Species Human

Dilution 1:1000

Nature communications

PBRM1 loss defines a nonimmunogenic tumor phenotype associated with checkpoint inhibitor resistance in renal carcinoma.

"33-3400 was used in Western Blotting to investigate if PBRM1/Pbrm1 deficiency can reduce the binding of brahma-related gene 1 (BRG1) to the IFN receptor 2 (Ifngr2) promoter, thus decreasing STAT1 phosphorylation and the subsequent expression of IFN target genes."

Authors: Liu XD,Kong W,Peterson CB,McGrail DJ,Hoang A,Zhang X,Lam T,Pilie PG,Zhu H,Beckermann KE,Haake SM,Isgandrova S,Martinez-Moczygemba M,Sahni N,Tannir NM,Lin SY,Rathmell WK,Jonasch E

Year 2020

Species Human

View more WB references on thermofisher.com

Immunohistochemistry (2)

Scientific reports

TWEAK blockade decreases atherosclerotic lesion size and progression through suppression of STAT1 signaling in diabetic mice.

"33-3400 was used in Western Blotting to demonstrate that TWEAK blockade delay plaque progression and alter plaque composition in diabetic atherosclerotic mice."

Authors: Fernández-Laso V,Sastre C,Méndez-Barbero N,Egido J,Martín-Ventura JL,Gómez-Guerrero C,Blanco-Colio LM

Year 2017

Species Mouse

PLoS pathogens

Functional genomics highlights differential induction of antiviral pathways in the lungs of SARS-CoV-infected macaques.

"33-3400 was used in immunocytochemistry and immunohistochemistry - paraffin section propose that induction of early IFN signaling may confer protection against severe acute respiratory syndrome coronavirus infection"

Authors: de Lang A,Baas T,Teal T,Leijten LM,Rain B,Osterhaus AD,Haagmans BL,Katze MG

Year 2007

Species Rhesus monkey

More applications with references on thermofisher.com

ICC/IF (2) **ChIP (1)** **Misc (2)**