Phospho-IRS1 (Ser307) Polyclonal Antibody

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Mouse, Human
Host/Isotype	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	Synthetic phosphopeptide corresponding to residues E(301) S I T A T (pS) P A S M V G G K(315) of human IRS-1.
Form	Liquid
Concentration	1 mg/mL
Purification	Antigen affinity chromatography
Storage buffer	PBS with 1mg/mL BSA
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_325022

Applications	Tested Dilution	Publications
Western Blot (WB)	1-3 µg/mL	3 Publications
Immunocytochemistry (ICC/IF)	1-2 µg/mL	-
Flow Cytometry (Flow)	-	1 Publication

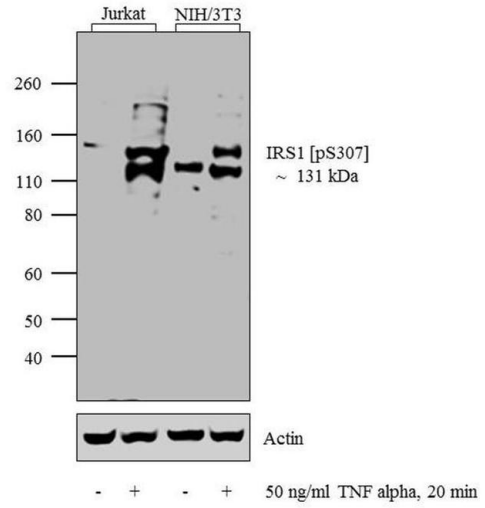
Product Specific Information

PA1-1054 detects phosphorylated IRS-1 (Ser307) in mouse and human cells.

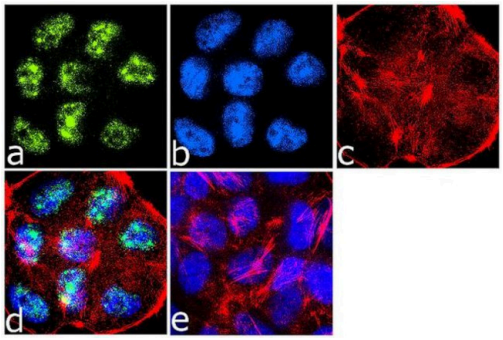
PA1-1054 has been successfully used in Western Blot procedures. By WB, this antibody detects an ~170 kDa protein representing phospho-IRS-1 (Ser307) from 3T3 L1 cells treated with insulin for 10 minutes.

The PA1-1054 immunogen is a synthetic phosphopeptide corresponding to residues E(301) S I T A T (pS) P A S M V G G K (315) of human IRS-1. This peptide is 100% conserved in rats and mice. This peptide (Cat. #PEP-184) is available for use in neutralization and control experiments.

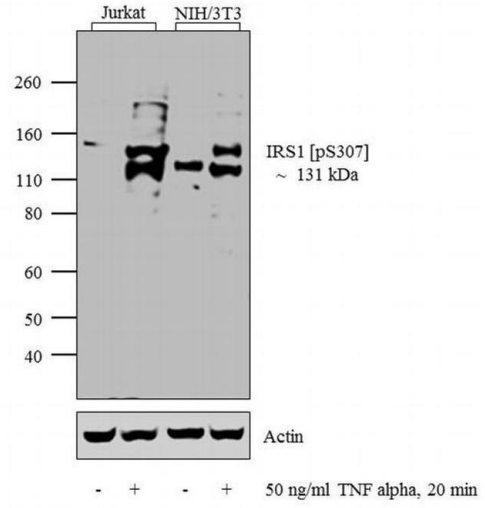
Product Images For Phospho-IRS1 (Ser307) Polyclonal Antibody



Phospho-IRS1 (Ser307) Antibody (PA1-1054)
Modulation of expression of target protein by cell treatment to demonstrate antibody specificity. Western blot analysis of Phospho-IRS1 (Ser307) using Phospho-IRS1 (Ser307) Polyclonal Antibody (Product # PA1-1054) shows induction of Phospho-IRS1 (Ser307) expression in Jurkat and NIH/3T3 cells upon treatment with TNF-alpha, as compared to untreated cells. {TM}



Phospho-IRS1 (Ser307) Antibody (PA1-1054) in ICC/IF
Immunofluorescence analysis of Phospho-IRS1 pSer307 was done on 70% confluent log phase T-47D cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with Phospho-IRS1 pSer307 Rabbit Polyclonal Antibody (Product # PA1-1054) at 1 µg /mL in 1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin (Product # R415, 1:300). Panel d is a merged image showing Nuclear localization. Panel e is a no primary antibody control. The images were captured at 60X magnification.



Phospho-IRS1 (Ser307) Antibody (PA1-1054) in WB
Western blot analysis was performed on whole cell extracts (30 µg lysate) of Jurkat (Lane 1), Jurkat treated for 20 minutes with 50 ng/mL of TNF alpha (Lane 2), NIH/3T3 (Lane 3) and NIH/3T3 treated for 20 minutes with 50 ng/mL of TNF alpha (lane 4). The blots were probed with Anti-IRS1 (pS307) Rabbit Polyclonal Antibody (Product # PA1-1054, 1-3 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.4 µg/mL, 1:2500 dilution). A 131 kDa band corresponding to IRS1 (pS307) was observed in TNF alpha treated cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 12 % Bis-Tris gel (Product # NP0342BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).

View more figures on thermofisher.cn

4 References

Western Blot (3)

Nature communications

The E3 ubiquitin-protein ligase Trim31 alleviates non-alcoholic fatty liver disease by targeting Rhbdf2 in mouse hepatocytes.

"PA1-1054 was used in Western Blot to suggest that Trim31 is an endogenous inhibitor of Rhbdf2 and downstream cascades in the pathogenic process of steatohepatitis and that it may serve as a feasible therapeutical target for the treatment of NAFLD/NASH and associated metabolic disorders."

Authors: Xu M,Tan J,Dong W,Zou B,Teng X,Zhu L,Ge C,Dai X,Kuang Q,Zhong S,Lai L,Yi C,Tang T,Zhao J,Wang L,Liu J,Wei H,Sun Y,Yang Q,Li Q,Lou D,Hu L,Liu X,Kuang G,Luo J,Xiong M,Feng J,Zhang C,Wang B

Year
2022

Species
Mouse

Dilution
1:1000

PloS one

Enhanced gastrointestinal expression of cytosolic malic enzyme (ME1) induces intestinal and liver lipogenic gene expression and intestinal cell proliferation in mice.

"PA1-1054 was used in western blot to identify the role of intestinal cytosolic malic enzyme 1"

Authors: Al-Dwairi A,Brown AR,Pabona JM,Van TH,Hamdan H,Mercado CP,Quick CM,Wight PA,Simmen RC,Simmen FA

Year
2016

Species
Mouse

Dilution
1:500

View more WB references on thermofisher.cn

Flow Cytometry (1)

Chronic diseases and translational medicine

Mesenchymal stem cell conditioned medium ameliorates diabetic serum-induced insulin resistance in 3T3-L1 cells.

"PA1-1054 was used in Flow Cytometry to examine the ability of diabetic serum (DS) to induce IR and investigate whether adipose-derived mesenchymal stem cell conditioned medium (ADMSC-CM) reverses DS-induced IR."

Authors: Sanap A,Bhonde R,Joshi K

Year
2021

Species
Human