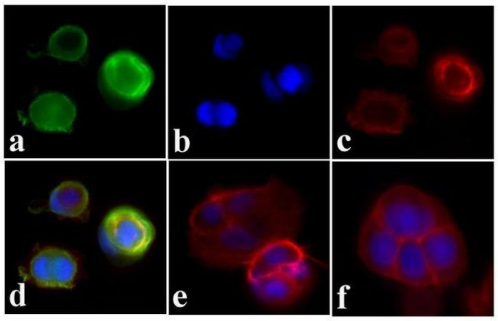
Phospho-INSR (Tyr972) Polyclonal Antibody

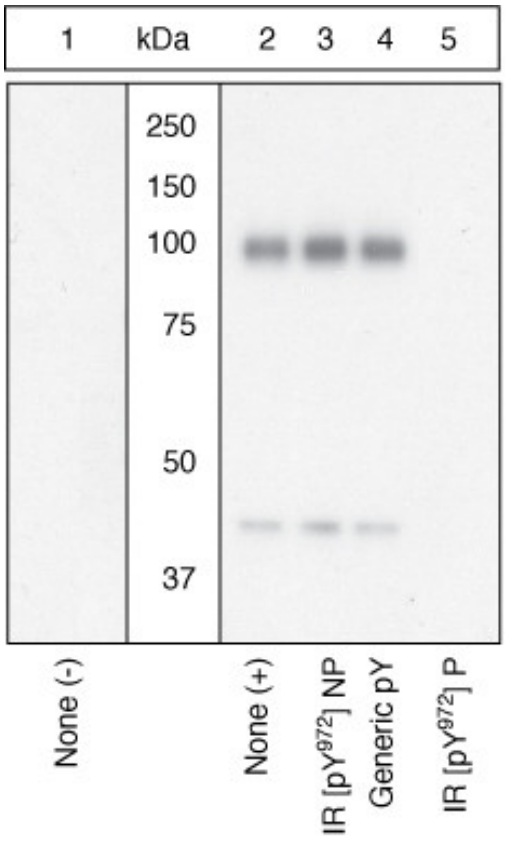
Product Details	
Size	100 µL
Species Reactivity	Human, Mouse
Published Species	Rat, Human, Mouse
Host/Isotype	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Conjugate	Unconjugated
Immunogen	The antiserum was produced against a chemically synthesized phosphopeptide derived from the region of the human insulin receptor that contains tyrosine 972, as numbered according to Ebina, et al. (tyrosine 960 according to Ullrich, et al.). The sequence is conserved in mouse and rat.
Form	Liquid
Purification	Antigen affinity chromatography
Storage buffer	Dulbecco's PBS, pH 7.3, with 1mg/mL BSA
Contains	0.05% sodium azide
Storage conditions	-20°C
RRID	AB_2533760

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	11 Publications
Immunocytochemistry (ICC/IF)	1:100-1:500	-
Functional Assay (FN)	-	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

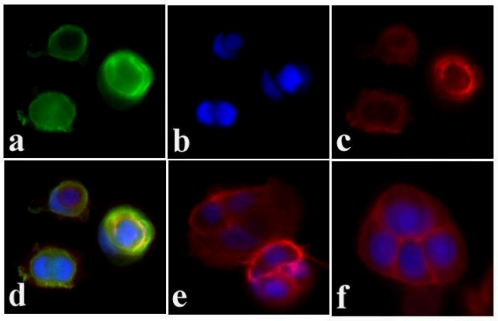
Product Images For Phospho-INSR (Tyr972) Polyclonal Antibody



Phospho-INSR (Tyr972) Antibody (44-800G)
Modulation of target protein phosphorylation by cell treatment demonstrates antibody specificity. Immunofluorescence analysis of IR/IGF1R pY972 using IR /IGF1R (pY972) polyclonal antibody (Product # 44-800G) shows induced expression of IR/IGF1R (pY972) in the membrane of MCF7 cells treated with insulin. {TM}



Phospho-INSR (Tyr972) Antibody (44-800G) in WB
Up-regulation and Antibody-Peptide Competition. Upregulation and Antibody-Peptide Competition. Extracts of CHO-T cells transfected with an insulin receptor-containing vector and left unstimulated (1) or stimulated with 50 nM insulin for 5 minutes (2-5) were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to PVDF. The membrane was blocked with a 5% BSA-TBST buffer for one hour at room temperature, then incubated with the IR (pY972) antibody for two hours at room temperature in a 3% BSA-TBST buffer, following prior incubation with: no peptide (1, 2), the non-phosphorylated peptide corresponding to the phosphopeptide immunogen (3), a generic phosphotyrosine-containing peptide (4), or the phosphopeptide immunogen (5). After washing, the membrane was incubated with goat F (ab')2 anti-rabbit IgG HRP conjugate (Product # ALI4404) and signals were detected using the Pierce SuperSignal™ method. The data show that only the phosphopeptide corresponding to IR (pY972) completely blocks the antibody signal, demonstrating the specificity of the antibody. The data also show up-regulation of the signal upon stimulation with insulin in this cell system.



Phospho-INSR (Tyr972) Antibody (44-800G) in ICC/IF
Immunofluorescence analysis of INSR (pY972) was done on 70% confluent log phase MCF7 cells with insulin treatment (100nM for 5 min). 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 INSR (pY972) Rabbit polyclonal Antibody (Product # 44-800G) at 2 µg/mL in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor 488 Goat Anti-Rabbit IgG Secondary Antibody (Product # A-11008) at a dilution of 1:400 for 30 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is a merged image showing membrane localization. Panel e is untreated MCF7 cells. Panel f shows no primary antibody control. The images were captured at 20X magnification.

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13 References

Western Blot (11)

The Journal of clinical investigation

Lysophospholipid acylation modulates plasma membrane lipid organization and insulin sensitivity in skeletal muscle.

"44-800G was used in Western Blot to conclude that obesity accelerates the skeletal muscle Lands cycle, whose consequence might induce the disruption of plasma membrane organization that suppresses muscle insulin action."

Authors: Ferrara PJ,Rong X,Maschek JA,Verkerke AR,Siripoksup P,Song H,Green TD,Krishnan KC,Johnson JM,Turk J, Houmard JA,Lusis AJ,Drummond MJ,McClung JM,Cox JE,Shaikh SR,Tontonoz P,Holland WL,Funai K

Year 2021

Species Human

FEBS open bio

Coenzyme Q10 protects against burn-induced mitochondrial dysfunction and impaired insulin signaling in mouse skeletal muscle.

"44-800G was used in Western Blotting to study the protective effects of coenzyme Q10 against burn-induced mitochondrial dysfunction and impaired insulin signalling in mouse skeletal muscle."

Authors: Nakazawa H,Ikeda K,Shinozaki S,Yasuhara S,Yu YM,Martyn JAJ,Tompkins RG,Yorozu T,Inoue S,Kaneki M

Year 2019

Species Mouse

View more WB references on thermofisher.com

Functional Assay (1)

Diabetes

JMJD8 is a Novel Molecular Nexus Between Adipocyte-Intrinsic Inflammation and Insulin Resistance.

"44-800G was used in Functional Assay to study Jumonji C Domain Containing Protein 8 (JMJD8) as a driver of adipocyte inflammation in conjunction with insulin sensitivity."

Authors: You D,Chul Jung B,Villivalam SD,Lim HW,Kang S

Year 2021

Species Mouse

Miscellaneous PubMed (1)

Cellular signalling

Novel method demonstrates differential ligand activation and phosphatase-mediated deactivation of insulin receptor tyrosine-specific phosphorylation.

"44-800G was used to research a novel method of differential ligand activation and phosphatase-mediated deactivation of insulin receptor tyrosine-specific phosphorylation"

Authors: Cieniewicz AM,Cooper PR,McGehee J,Lingham RB,Kihm AJ

Year 2016

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