



**Rabbit (polyclonal)
Anti-IRS-1
Unconjugated**

PRODUCT ANALYSIS SHEET

Catalog Number:	AHO1222
Lot Number:	See product label
Quantity/Volume:	100 µg/200 µL
Isotype:	Rabbit Ig
Form of Antibody:	Purified immunoglobulin in phosphate buffered saline containing 1% BSA.
Preservative:	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
Purification:	Purified by Protein A/G affinity chromatography.
Immunogen:	Recombinant protein, corresponding to a fragment of human IRS-1, expressed in <i>E. coli</i> .
Description:	Insulin Receptor Substrate-1 (IRS-1) is a 165 kDa multi-phosphorylated cytoplasmic docking protein involved in metabolic and proliferative signaling by insulin, IL-4, and other cytokines. IRS-1 functions to enhance growth hormone-induced proliferative signaling. The activated insulin receptor phosphorylates IRS proteins on multiple tyrosine residues that serve as docking sites for downstream mediators of metabolic actions such as phosphatidylinositol-3 kinase. IRS proteins also undergo serine phosphorylation, which regulates its function. Phosphorylation of human IRS-1 at serines, such as 312 and 616 (serines 307 and 612 in mouse), results in the impairment of metabolic insulin signaling pathways. This antibody recognizes IRS-1 protein. The reactivity with other isoforms of IRS has not been tested.
Species Reactivity:	Human, mouse and rat. Other species were not tested.
Applications:	The antibody has been used for Western blotting applications.
Suggested Working Dilutions:	For Western blotting applications, we recommend using the antibody at 0.1-1.0 µg/mL. The optimal antibody concentration should be determined empirically for each specific application.
Storage:	Store at 2-8°C for up to one month. For long term storage, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.
Recommended Positive Controls:	Human MCF-7, mouse L929 cells.

This product is for research use only. Not for use in diagnostic procedures.

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(Rev 10/08) DCC-08-1089

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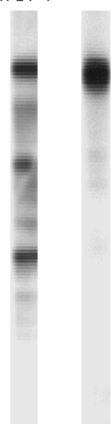
References:

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- Hers, I., et al. (2002) Reciprocal feedback regulation of insulin receptor and insulin receptor substrate tyrosine phosphorylation by phosphoinositide 3-kinase in primary adipocytes. *Biochem. J.* 368(Pt. 3):875-884.
- Fujioka, T., et al. (2001) Further evidence for the involvement of insulin receptor substrates in epidermal growth factor-induced activation of phosphatidylinositol 3-kinase. *Eur. J. Biochem.* 268(15):4158-4168.
- Aguirre, V., et al. (2002) Phosphorylation of Ser307 in IRS-1 blocks interactions with the insulin receptor and inhibits insulin action. *J. Biol. Chem.* 277(2):1531-1537.
- Reiss, K., et al. (2001) Mechanisms of regulation of cell adhesion and motility by insulin receptor substrate-1 in prostate cancer cells. *Oncogene* 20:490-500.
- Ravichandran, L.V., et al. (2001) Protein kinase C-zeta phosphorylates insulin receptor substrate-1 and impairs its ability to activate phosphatidylinositol 3-kinase in response to insulin. *J. Biol. Chem.* 276(5):3543-3549.
- Li, J., et al. (1999) Modulation of insulin receptor substrate-1 tyrosine phosphorylation by an Akt/phosphatidylinositol 3-kinase pathway. *J. Biol. Chem.* 274(14):9351-9356.

Related Products:

AKT Pathway Phospho 7-Plex Antibody Bead Kit	Cat. #	LHO0001
AKT Pathway Total 7-Plex Antibody Bead Kit	Cat. #	LHO0002
IRS-1 [pY612] Phosphospecific Antibody	Cat. #	44-816G
IRS-1 [pS616] Phosphospecific Antibody	Cat. #	44-550G
IRS-1 [pY896] Phosphospecific Antibody	Cat. #	44-818G
IRS-1 [pY941] Phosphospecific Antibody	Cat. #	44-820
IRS-1 [pY1179] Phosphospecific Antibody	Cat. #	44-822
IRS-1 [pY1229] Phosphospecific Antibody	Cat. #	44-824
IR [pY972] Phosphospecific Antibody	Cat. #	44-800G
IR/IGF1R [pY1158] Phosphospecific Antibody	Cat. #	44-802
IR/IGF1R [pYpY1162/1163] Phosphospecific Antibody	Cat. #	44-804
IR/IGF1R [pYpYpY1158/1162/1163] Phosphospecific Antibody	Cat. #	44-806G

MCF7 L929



IRS-1 (~165 kDa)

Extracts prepared from human MCF-7 cells or mouse L929 cells were resolved by SDS-PAGE on a 4-20% polyacrylamide gel and transferred to PVDF. The membranes were blocked with a 5% milk-TBST buffer and then incubated with this rabbit polyclonal antibody at 0.50 µg/mL for two hours at room temperature in a 5% milk-TBST buffer. After washing, the membranes were incubated with goat F(ab')₂ anti-rabbit IgG alkaline phosphatase (Cat. # ALI4405) and signals were detected using the Tropix WesternStar™ method.

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