

Rabbit IRS-1 Polyclonal Antibody | anti-IRS-1 antibody

Phospho-IRS-1 (Ser307) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321599	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

IRS-1; Polyclonal Antibody; Phospho-IRS-1 (Ser307) Antibody; HIRS 1; HIRS1; Insulin receptor substrate 1; IRS 1; IRS1; IRS1_HUMAN; OTTHUMP00000164234; anti-IRS-1 antibody

PRODUCT SPECIFICATIONS

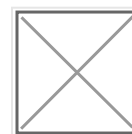
Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-IRS-1 (Ser307) antibody detects endogenous levels of IRS-1 only when phosphorylated at Serine 307
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1242
Applicable Applications for anti-IRS-1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human IRS-1 around the phosphorylation site of Serine 307
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Zebrafish (82%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Epitope	Phospho Ser307
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA321599 staining MCF-7 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.



WB (Western Blot)

Western blot analysis of IRS-1 phosphorylation expression in K562 whole cell lysates. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA321599 staining COS7 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 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

AAA321599 at 1/200 staining human liver cancer 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 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-IRS-1 antibody	<p>Description: IRS-1 is an adaptor protein that is one of the major substrates of the insulin receptor kinase. Contains multiple tyrosine phosphorylation motifs that serve as docking sites for SH2-domain-containing proteins including phosphatidylinositol 3-kinase p85 subunit and GRB-2.</p> <p>Function: May mediate the control of various cellular processes by insulin. When phosphorylated by the insulin receptor binds specifically to various cellular proteins containing SH2 domains such as phosphatidylinositol 3-kinase p85 subunit or GRB2. Activates phosphatidylinositol 3-kinase when bound to the regulatory p85 subunit (By similarity).</p> <p>Subunit Structure: Interacts with UBTF and PIK3CA (By similarity). Interacts (via phosphorylated YXXM motifs) with PIK3R1 (By similarity). Interacts with ROCK1 and FER (By similarity). Interacts (via PH domain) with PHIP (By similarity). Interacts with GRB2 (By similarity). Interacts with SOCS7. Interacts (via IRS-type PTB domain) with IGF1R and INSR (via the tyrosine-phosphorylated NPXY motif). Interacts with ALK. Interacts with EIF2AK2/PKR (By similarity).</p> <p>Post-translational Modifications: Serine phosphorylation of IRS1 is a mechanism for insulin resistance. Ser-312 phosphorylation inhibits insulin action through disruption of IRS1 interaction with the insulin receptor (By similarity). Phosphorylation of Tyr-896 is required for GRB2-binding (By similarity). Phosphorylated by ALK. Phosphorylated at Ser-270, Ser-307, Ser-636 and Ser-1101 by RPS6KB1; phosphorylation induces accelerated degradation of IRS1. Ubiquitinated by the Cul7-RING(FBXW8) complex in a mTOR-dependent manner, leading to its degradation: the Cul7-RING(FBXW8) complex recognizes and binds IRS1 previously phosphorylated by S6 kinase (RPS6KB1 or RPS6KB2).</p>
References	<p>Geng S, Zhu W, Wang S, Xie C, Li X, Wu J, Li Y, Chen Y, Wang X, Meng Y, Zhang Q, Chen J, Zhong C; Journal: Biochem Biophys Res Commun. P53 modulates hepatic insulin sensitivity through NF-kB and p38/ERK MAPK pathways. Geng S, Wang S, Zhu W, Xie C, Li X, Wu J, Zhu J, Jiang Y, Yang X, Li Y, Chen Y, Wang X, Meng Y, Zhong C; Journal: Biomed Pharmacother. Curcumin suppresses JNK pathway to attenuate BPA-induced insulin resistance in LO2 cells. Geng S, Wang S, Zhu W, Xie C, Li X, Wu J, Zhu J, Jiang Y, Yang X, Li Y, Chen Y, Wang X, Meng Y, Zhu M, Wu R, Huang C, Zhong C; Journal: Toxicol Lett. Curcumin attenuates BPA-induced insulin resistance in HepG2 cells through suppression of JNK/p38 pathways.</p>

NCBI AND UNIPROT INFORMATION

NCBI GI #	5031805
NCBI GeneID	3667
NCBI Accession #	NP_005535.1
NCBI GenBank Nucleotide #	NM_005544.2
UniProt Accession #	P35568
Molecular Weight	Observed: 180 kDa Predicted: 132 kDa
NCBI Official Full Name	insulin receptor substrate 1
NCBI Official Synonym Full Names	insulin receptor substrate 1
NCBI Official Symbol	IRS1
NCBI Official Synonym Symbols	HIRS-1
NCBI Protein Information	insulin receptor substrate 1

UniProt Protein Name	Insulin receptor substrate 1
UniProt Gene Name	IRS1
UniProt Synonym Gene Names	IRS-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/irs-1-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321599>