

Rabbit IRS1 Polyclonal Antibody | anti-IRS1 antibody

Phospho-IRS1 (Tyr896) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31366	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)	Western Blot, Immunohistochemistry, ELISA

PRODUCT SYNONYMS

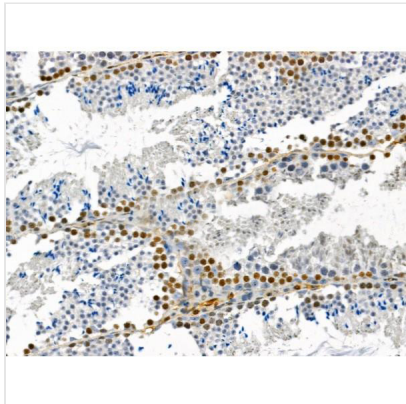
IRS1; Polyclonal Antibody; Phospho-IRS1 (Tyr896) Antibody; HIRS 1; HIRS1; Insulin receptor substrate 1; IRS 1; IRS-1; IRS1_HUMAN; OTTHUMP00000164234; anti-IRS1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-IRS1 (Tyr896) Antibody detects endogenous levels of IRS1 only when phosphorylated at Tyr896.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-IRS1 antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	WB: 1:500-1:2000 IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human IRS1 around the phosphorylation site of Tyr896.
Conjugation	Unconjugated
Fragment	Fab fragment
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. Phosphorylated on tyrosine residues in response to insulin. In skeletal muscles, dephosphorylated on Tyr-612 by TNS2 under anabolic conditions; dephosphorylation results in the proteasomal 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).

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 pHdomain) 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). Interacts with GKAP1 (By similarity). Interacts with DGKZ in the absence of insulin; insulin stimulation decreases this interaction (By similarity). Found in a ternary complex with DGKZ and PIP5K1A in the absence of insulin stimulation (By similarity).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

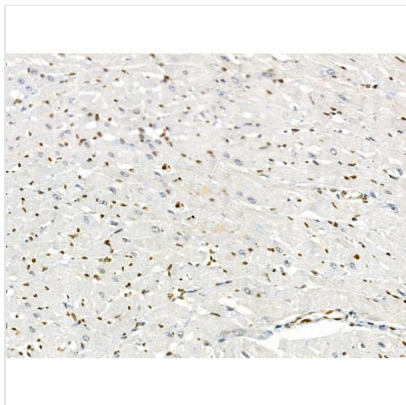
IMAGES



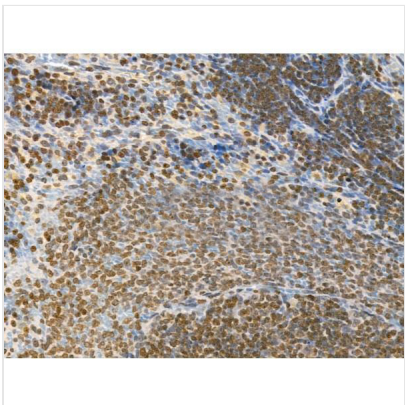
IHC (Immunohistochemistry)
At 1/100 staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)
At 1/100 staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

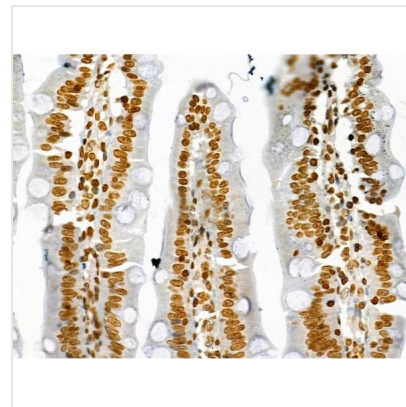


IHC (Immunohistochemistry)
At 1/100 staining Rat spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat stomach tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Rat colorectal tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-IRS1 antibody

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).

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	131,591 Da
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; IRS-1
UniProt Protein Name	Insulin receptor substrate 1
UniProt Gene Name	IRS1
UniProt Synonym Gene Names	IRS-1
UniProt Entry Name	IRS1_HUMAN

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/irs1-antibody-western-blot-immunohistochemistry-peptide-elisa-elisa/31366>