

# IRS-1 Polyclonal Antibody

Catalog No: #38112

Package Size: #38112-1 50ul #38112-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

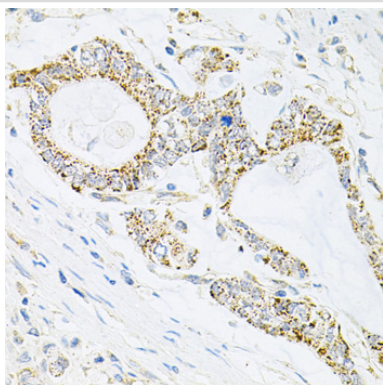
## Description

Product Name	IRS-1 Polyclonal Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB;IHC;IF;ELISA
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total IRS1 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human IRS1.
Conjugates	Unconjugated
Target Name	IRS1
Other Names	IRS1;HIRS-1;
Accession No.	Swiss-Prot#: P35568NCBI Gene ID: 3667
Calculated MW	132kDa
SDS-PAGE MW	180kDa
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

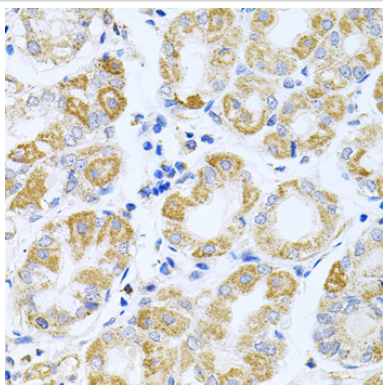
## Application Details

WB 1:500-2000; IHC 1:50-200; IF 1:50-200; ELISA 1:5000-1:20000;

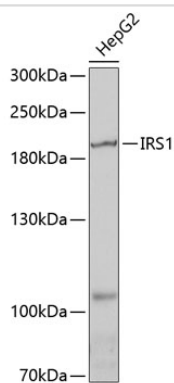
## Images



Immunohistochemistry of paraffin-embedded human gastric cancer using IRS1 antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded human stomach using IRS1 antibody at dilution of 1:100 (40x lens).



Western blot analysis of extracts of HepG2 cells, using IRS1 antibody at 1:1000 dilution.

## Background

Insulin receptor substrate 1 (IRS-1) is one of the major substrates of the insulin receptor kinase (1). IRS-1 contains multiple tyrosine phosphorylation motifs that serve as docking sites for SH2-domain containing proteins that mediate the metabolic and growth-promoting functions of insulin (2-4). IRS-1 also contains over 30 potential serine/threonine phosphorylation sites. Ser307 of IRS-1 is phosphorylated by JNK (5) and IKK (6) while Ser789 is phosphorylated by SIK-2, a member of the AMPK family (7). The PKC and mTOR pathways mediate phosphorylation of IRS-1 at Ser612 and Ser636/639, respectively (8,9). Phosphorylation of IRS-1 at Ser1101 is mediated by PKC $\theta$  and results in an inhibition of insulin signaling in the cell, suggesting a potential mechanism for insulin resistance in some models of obesity (10).

## Published Papers

el at., Effects of periodontitis on aortic insulin resistance in an obese rat model.In Lab Invest on 2010 Mar by Daisuke Ekuni, Takaaki Tomofuji,et al..PMID:20065945, , (2010)

[PMID:20065945](#)

el at., Alleviative effects of  $\alpha$ -lipoic acid on muscle atrophy via the modulation of TNF- $\alpha$ /JNK and PI3K/AKT pathways in high-fat diet and streptozotocin-induced type 2 diabetic ratsInFood Sci NutrOn2023 Jan 12byChih-Yuan Ko 1 2 3, Chi-Hao Wu et al..PMID: 37051351, , (2023)

[PMID:37051351](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.