# IRS-1 Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

**Applications:** WB, IP

**Reactivity:** H M R

**Sensitivity:** Endogenous

**MW (kDa):** 180

**Source:** Rabbit

**UniProt ID:** #P35568

**Entrez-Gene Id:** 3667

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<th>Product Usage Information</th>
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<td>Western Blotting</td>
<td>1:1000</td>
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<tr>
<td>Immunoprecipitation</td>
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**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

IRS-1 Antibody detects endogenous levels of total IRS-1. It does not cross-react with IRS-2, -3 or -4.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal sequence of human IRS-1. Antibodies are purified by protein A and peptide affinity chromatography.

**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 PKCθ and results in an inhibition of insulin signaling in the cell, suggesting a potential mechanism for insulin resistance in some models of obesity (10).

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

WB: Western Blotting  IP: Immunoprecipitation

**Cross-Reactivity Key**


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