

## Product datasheet for **AP20709PU-M**

### IRS1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC
Recommended Dilution:	<b>Immunohistochemistry on paraffin sections</b> 1/50-1/200. <b>Immunofluorescence:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of IRS-1 protein (region surrounding Gly630).
Formulation:	Phosphate buffered saline (PBS), pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% Sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography using epitope-specific immunogen (> 95% pure by SDS-PAGE).
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~132, 180 kDa
Gene Name:	insulin receptor substrate 1
Database Link:	<a href="#">Entrez Gene 16367 Mouse</a> <a href="#">Entrez Gene 25467 Rat</a> <a href="#">Entrez Gene 3667 Human</a> <a href="#">P35568</a>



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**Background:**

The insulin receptor substrate-1 (IRS-1), a major substrate of the insulin receptor, is phosphorylated in response to stimulation of cells by insulin, insulin-like growth factor 1 (IGF-1) and interleukin 4 (IL-4). IRS-1 is phosphorylated on serine, threonine and tyrosine residues in a variety of tissues. An insulin-sensitive serine/threonine kinase casein kinase II mediates a portion of the insulin-stimulated serine/threonine phosphorylation of overexpressed IRS-1 in vivo. Thr 502 is identified as the major casein kinase II-catalyzed phosphorylation site in rat IRS-1, and Ser 99 is an additional phosphorylation site catalyzed by casein kinase II. Thus, casein kinase II-catalyzed phosphorylation of IRS-1 may be a component of the intracellular insulin signaling cascade. IRS-1 contains three putative binding sites for 14-3-3 (Ser 270, Ser 374 and Ser 641) and the motif around Ser 270 is located in the phosphotyrosine binding domain of IRS-1, which is responsible for the interaction with the insulin receptor. The association of 14-3-3 with IRS-1 increases significantly upon treatment with okadaic acid, a potent serine/ threonine phosphatase inhibitor. Therefore, the association of 14-3-3 protein may play a role in the regulation of insulin sensitivity by interrupting the association between the insulin receptor and IRS-1.

**Synonyms:**

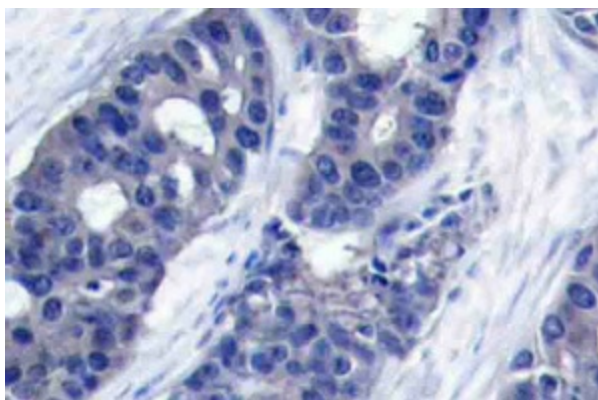
Insulin receptor substrate 1, IRS-1

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Adipocytokine signaling pathway, Insulin signaling pathway, Neurotrophin signaling pathway, Type II diabetes mellitus

**Product images:**


Immunohistochemistry analysis of human breast carcinoma tissue (Formalin-fixed, Paraffin-embedded) using IRS1 antibody (Cat.-No. [AP20709PU-N]).