

AP20251PU-N**Polyclonal Antibody to ACO1 / IREB1 - Aff - Purified****Alternate names:**

Aconitase, Citrate hydro-lyase, Cytoplasmic aconitase hydratase, Ferritin repressor protein, IRP1, Iron regulatory protein 1, Iron-responsive element-binding protein 1

Quantity:

0.1 mg

Concentration:

1.0 mg/ml

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.

Uniprot ID:

[P21399](#)

NCBI:

[NP_002188](#)

GeneID:

[48](#)

Host:

Rabbit

Format:

State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).

Purification: Affinity Chromatography using epitope-specific immunogen.

Buffer System: Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative.

Applications:

Immunofluorescence: 1/50-1/200.

Immunohistochemistry on Paraffin Sections: 1/50-1/200.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:

~ 98 kDa

Specificity:

This antibody detects endogenous levels of IRP-1 protein.

Species Reactivity:

Tested: Human.

Expected from sequence similarity: Mouse and Rat.

Storage:

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: One year from despatch.

Pictures:

Immunohistochemistry analyzes of IRP-1 antibody in Paraffin-Embedded Human colon carcinoma tissue.

