

IRS1 Rabbit pAb

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Catalog # AP93941

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P35570
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	131178
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from rat IRS-1
Epitope Specificity	1101-1200/1242
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	IRS1 is predominantly found in the cytoplasm. Nuclear localization may occur in some cell types and under specific stimuli.
DISEASE	Polymorphisms in IRS1 may be involved in the etiology of non-insulin-dependent diabetes mellitus (NIDDM)
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Insulin receptor substrates (IRS) are responsible for several insulin related activities, such as glucose homeostasis, cell growth, cell transformation, apoptosis and insulin signal transduction. Serine/threonine phosphorylation of IRS1 has been demonstrated to be a negative regulator of insulin signaling and is responsible for its degradation, although IRS1 degradation pathways are not well understood. IRS1 has also been shown to be constitutively activated in cancers such as breast cancer, Wilm's tumors, and adrenal cortical carcinomas, thus making IRS1 phosphorylation and subsequent degradation an attractive therapeutic target. To date there have been four subtypes identified: IRS1, 2, 3 and 4, with IRS1 being widely expressed.

Additional Information

Gene ID	25467
Other Names	Insulin receptor substrate 1, IRS-1, pp185, Irs1, Irs-1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-300
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name Irs1

Synonyms Irs-1

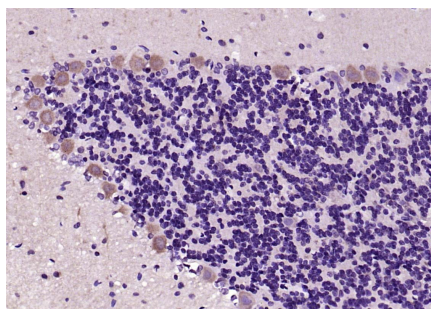
Function Signaling adapter protein that participates in the signal transduction from two prominent receptor tyrosine kinases, insulin receptor/INSR and insulin-like growth factor I receptor/IGF1R (PubMed:[12399410](#)). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism. Upon phosphorylation by the insulin receptor, functions as a signaling scaffold that propagates insulin action through binding to SH2 domain- containing proteins including the p85 regulatory subunit of PI3K, NCK1, NCK2, GRB2 or SHP2 (PubMed:[1380456](#)). Recruitment of GRB2 leads to the activation of the guanine nucleotide exchange factor SOS1 which in turn triggers the Ras/Raf/MEK/MAPK signaling cascade (PubMed:[8491186](#)). Activation of the PI3K/AKT pathway is responsible for most of insulin metabolic effects in the cell, and the Ras/Raf/MEK/MAPK is involved in the regulation of gene expression and in cooperation with the PI3K pathway regulates cell growth and differentiation (By similarity). Acts a positive regulator of the Wnt/beta-catenin signaling pathway through suppression of DVL2 autophagy-mediated degradation leading to cell proliferation (By similarity).

Cellular Location Cytoplasm {ECO:0000250|UniProtKB:P35568}. Nucleus {ECO:0000250|UniProtKB:P35568}. Note=Nuclear or cytoplasmic localization of IRS1 correlates with the transition from proliferation to chondrogenic differentiation. {ECO:0000250|UniProtKB:P35568}

Background

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Images



Paraformaldehyde-fixed, paraffin embedded Rat Cerebellum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with IRS1 Polyclonal Antibody, Unconjugated (AP93941) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.

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