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IRS1 Antibody
Rabbit mAb
Catalog # AP90830

Specification

IRS1 Antibody - Product Information

Application	**WB, IHC, ICC**
Primary Accession	P35568
Clonality	**Monoclonal**
Other Names	
HIRS1; Insulin receptor substrate 1; IRS 1; IRS1;	
Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**131591 Da**

IRS1 Antibody - Additional Information

Dilution	**WB~~1:1000 IHC~~1:100~500 ICC~~N/A**
Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human IRS1**
Description	**IRS1 is one of the major substrates of the insulin receptor kinase. May mediate the control of various cellular processes by insulin. When phosphorylated by the insulin receptor binds specifically to various cellular proteins containing SH2 domains such as phosphatidylinositol 3-kinase p85 subunit or GRB2.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

IRS1 Antibody - Protein Information

Name IRS1

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:7541045, PubMed:33991522, PubMed:38625937). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid

metabolism (PubMed:19639489). 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:11171109, PubMed:8265614). 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 (By similarity). 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. Acts a positive regulator of the Wnt/beta-catenin signaling pathway through suppression of DVL2 autophagy-mediated degradation leading to cell proliferation (PubMed:24616100).

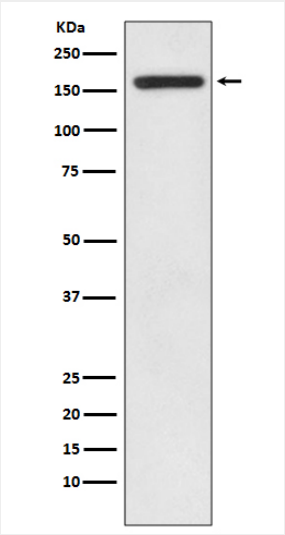
Cellular Location
Cytoplasm. Nucleus. Note=Nuclear or cytoplasmic localization of IRS1 correlates with the transition from proliferation to chondrogenic differentiation.

IRS1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IRS1 Antibody - Images



Western blot analysis of IRS1 expression in HEK293 cell lysate.