

# IRS-1 (phospho Ser307) Polyclonal Antibody

Catalog # AP67078

## Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	<a href="#">P35568</a>
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	131591

## Additional Information

Gene ID	3667
Other Names	IRS1; Insulin receptor substrate 1; IRS-1
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## 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: <a href="#">7541045</a> , PubMed: <a href="#">33991522</a> , PubMed: <a href="#">38625937</a> ). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism (PubMed: <a href="#">19639489</a> ). 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: <a href="#">11171109</a> , PubMed: <a href="#">8265614</a> ). 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](#)).

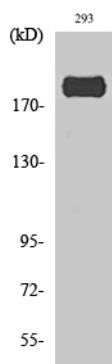
## Cellular Location

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

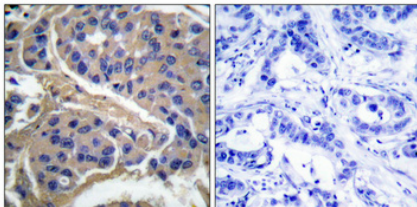
## Background

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. Activates phosphatidylinositol 3-kinase when bound to the regulatory p85 subunit (By similarity).

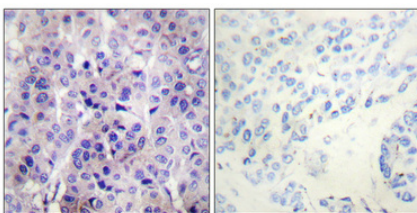
## Images



Western Blot analysis of various cells using Phospho-IRS-1 (S307) Polyclonal Antibody diluted at 1 : 1000



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.

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