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IRS-1 Antibody (S636)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AE1018a

Specification

IRS-1 Antibody (S636) - Product Information

Application	**WB, IHC, IF**
Primary Accession	P35568
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Concentration	**1mg/ml**
Isotype	**Rabbit IgG**
Calculated MW	**131591**

IRS-1 Antibody (S636) - Additional Information

Gene ID 3667

Other Names
Insulin receptor substrate 1, IRS-1, IRS1

Target/Specificity
The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Dilution
WB~~1:500~1:1000
IHC~~1:50~1:100
IF~~1:100~200

Format
affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
IRS-1 Antibody (S636) is for research use only and not for use in diagnostic or therapeutic procedures.

IRS-1 Antibody (S636) - 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.

IRS-1 Antibody (S636) - 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

IRS-1 Antibody (S636) - Images

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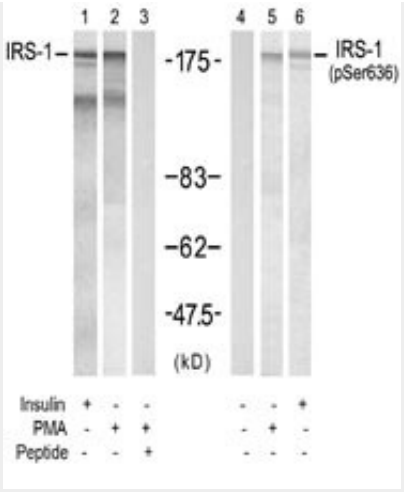
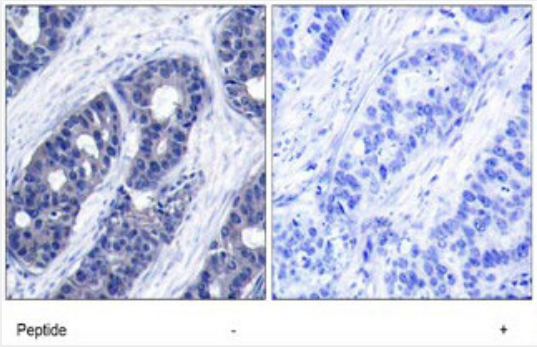
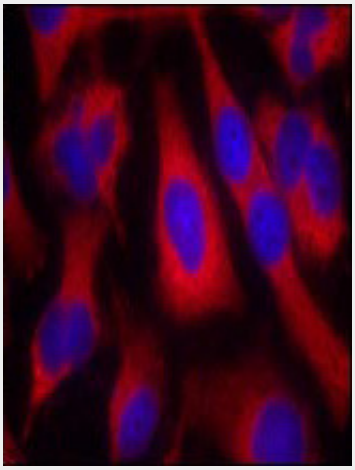


Western blot analysis of extracts from 293 cells treated with insulin(100nM, 30min) or PMA (0.2?M, 15min) using IRS-1 Antibody (S636) (#AE1018a, Lane 1, 2 and 3) and Phospho-IRS-1-S636 Antibody (#AE1018c, Lane 4, 5 and 6).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using IRS-1 Antibody (S636) (#AE1018a).



Immunofluorescence staining of methanol-fixed HeLa cells using IRS-1 Antibody (S636) (#AE1018a,Red).

IRS-1 Antibody (S636) - Background

This gene encodes a protein which is phosphorylated by insulin receptor tyrosine kinase. Mutations in this gene are associated with type II diabetes and susceptibility to insulin resistance.

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IRS-1 Antibody (S636) - References

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Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Rua□o G, et al. Pharmacogenomics, 2010 Jul. PMID 20602615.