

**IRS-1 Antibody (S639)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AE1018b****Specification**

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**IRS-1 Antibody (S639) - Product Information**

Application	WB, IF
Primary Accession	<a href="#">P35568</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Concentration	1mg/ml
Isotype	Rabbit IgG
Calculated MW	131591

**IRS-1 Antibody (S639) - 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

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 (S639) is for research use only and not for use in diagnostic or therapeutic procedures.

**IRS-1 Antibody (S639) - 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="http://www.uniprot.org/citations/7541045" target="\_blank">7541045</a>, PubMed:<a href="http://www.uniprot.org/citations/33991522" target="\_blank">33991522</a>, PubMed:<a href="http://www.uniprot.org/citations/38625937" target="\_blank">38625937</a>). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism (PubMed:<a href="http://www.uniprot.org/citations/19639489" target="\_blank">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="http://www.uniprot.org/citations/11171109" target="\_blank">11171109</a>, PubMed:<a href="http://www.uniprot.org/citations/8265614" target="\_blank">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:<a href="http://www.uniprot.org/citations/24616100" target="\_blank">24616100</a>).

### Cellular Location

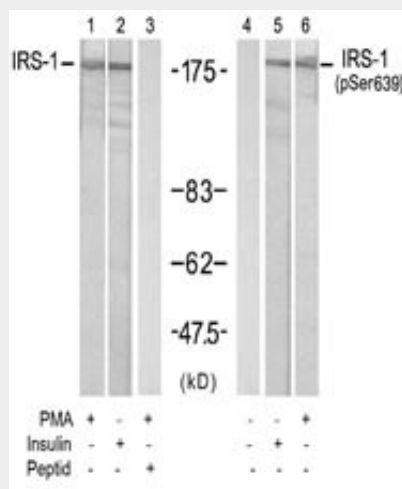
Cytoplasm. Nucleus. Note=Nuclear or cytoplasmic localization of IRS1 correlates with the transition from proliferation to chondrogenic differentiation.

### IRS-1 Antibody (S639) - Protocols

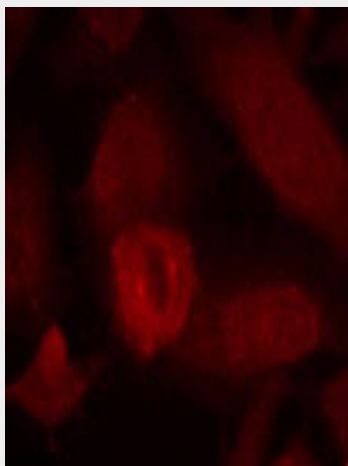
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### IRS-1 Antibody (S639) - Images



Western blot analysis of extracts from 293 cells treated with PMA (100nM, 15min) or insulin(100nM, 30min) using IRS-1 Antibody (S639) (#AE1018b, Lane 1, 2 and 3) and Phospho-IRS-1-S639 Antibody (#AE1018d, Lane 4, 5 and 6).



Immunofluorescence staining of methanol-fixed HeLa cells using IRS-1 Antibody (S639) (#AE1018b, Red).

#### **IRS-1 Antibody (S639) - 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.

#### **IRS-1 Antibody (S639) - References**

COMMON VARIANTS IN 40 GENES ASSESSED FOR DIABETES INCIDENCE AND RESPONSE TO METFORMIN AND LIFESTYLE INTERVENTIONS IN THE DIABETES PREVENTION PROGRAM. Jablonski KA, et al. Diabetes, 2010 Aug 3. PMID 20682687.

A genetic association study of maternal and fetal candidate genes that predispose to preterm prelabor rupture of membranes (PROM). Romero R, et al. Am J Obstet Gynecol, 2010 Jul 29. PMID 20673868.

Comprehensive analysis of common genetic variation in 61 genes related to steroid hormone and insulin-like growth factor-I metabolism and breast cancer risk in the NCI breast and prostate cancer cohort consortium. Canzian F, et al. Hum Mol Genet, 2010 Oct 1. PMID 20634197.

Variation at the NFATC2 Locus Increases the Risk of Thiazolidinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

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