

**Anti-IRS1 (pS307) Antibody**  
**Rabbit polyclonal antibody to IRS1 (pS307)**  
**Catalog # AP60471****Specification**

---

**Anti-IRS1 (pS307) Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">P35568</a>
Other Accession	<a href="#">P35569</a>
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	131591

**Anti-IRS1 (pS307) Antibody - Additional Information****Gene ID** 3667**Other Names**

Insulin receptor substrate 1; IRS-1

**Target/Specificity**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human IRS1 (pS307). The exact sequence is proprietary.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-IRS1 (pS307) 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:<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

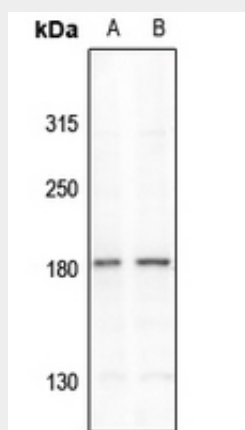
Cytoplasm. Nucleus. Note=Nuclear or cytoplasmic localization of IRS1 correlates with the transition from proliferation to chondrogenic differentiation.

#### Anti-IRS1 (pS307) Antibody - Protocols

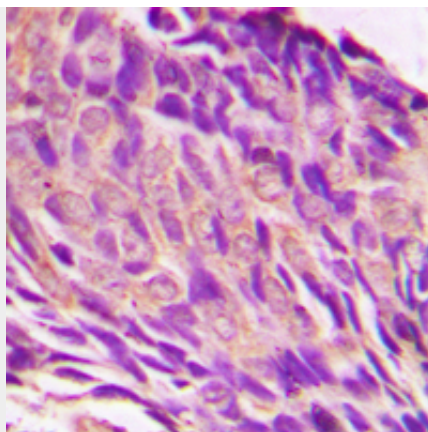
Provided below are standard protocols that you may find useful for product applications.

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

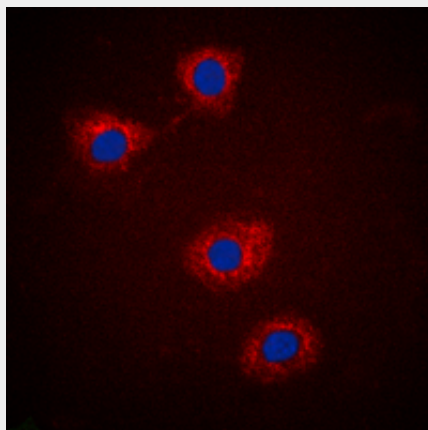
#### Anti-IRS1 (pS307) Antibody - Images



Western blot analysis of IRS1 (pS307) expression in HEK293T (A), A375 (B) whole cell lysates.



Immunohistochemical analysis of IRS1 (pS307) staining in human prostate cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of IRS1 (pS307) staining in HEK293T cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-IRS1 (pS307) Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human IRS1 (pS307). The exact sequence is proprietary.