

Product datasheet for **TA306226**

IRS1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1 - 4 ug/mL, ICC: 2 ug/mL, IF: 2 ug/mL
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	IRS-1 antibody was raised against a 16 amino acid peptide from near the center of human IRS-1.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	insulin receptor substrate 1
Database Link:	NP_005535 Entrez Gene 16367 Mouse Entrez Gene 3667 Human P35568



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Background:

Following tyrosine phosphorylation, the insulin receptor substrate 1 and 2 (IRS-1 and IRS-2) can form a protein scaffolding for the assembly of a host of Src homology 2 (SH2) domain-containing proteins (1). IRS-1 tyrosine phosphorylation can occur through the activity of several cytokine and growth factor receptors such as interleukin (IL)-4, IL-9, interferon- γ , in addition to the insulin and insulin-like growth factor 1 receptors (2). The scaffolding provided by IRS-1 and IRS-2 is necessary for insulin signal transduction across the cell membrane. IRS-1 tyrosine phosphorylation, and thus formation of the IRS scaffolding is inhibited by tumor necrosis factor (TNF), and this inhibition can itself be blocked by rapamycin, an inhibitor of the mammalian target of rapamycin (TOR) (3,4). TNF activity could also be blocked by inhibition of the Akt kinase and the PTEN tumor suppressor, suggesting that TNF impairs insulin signaling through IRS-1 by activation of the TOR signaling pathway (3).

Synonyms:

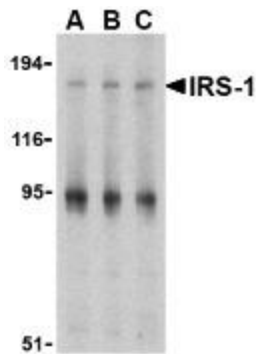
HIRS-1

Protein Families:

Druggable Genome

Protein Pathways:

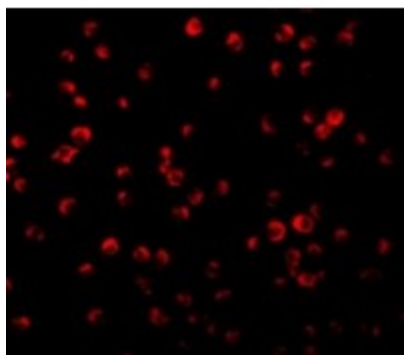
Adipocytokine signaling pathway, Insulin signaling pathway, Neurotrophin signaling pathway, Type II diabetes mellitus

Product images:

Western blot analysis of IRS-1 in PC-3 cell lysate with IRS-1 antibody at (A) 1, (B) 2 and (C) 4 $\mu\text{g}/\text{mL}$.



Immunocytochemistry of IRS-1 in P815 cells with IRS-1 antibody at 2 $\mu\text{g}/\text{mL}$.



Immunofluorescence of IRS-1 in P815 cells with IRS-1 antibody at 2 ug/mL.