

Datasheet for ABIN500072
anti-IRS1 antibody (Center)



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2 Images

Overview

Quantity:	0.1 mg
Target:	IRS1
Binding Specificity:	Center
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This IRS1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Enzyme Immunoassay (EIA)

Product Details

Immunogen:	IRS-1 antibody was raised against a 16 amino acid peptide from near the center of human IRS-1.
Isotype:	IgG
Specificity:	This antibody detects IRS-1.
Cross-Reactivity (Details):	Species reactivity (tested): Human, mouse
Purification:	Peptide affinity chromatography

Target Details

Target:	IRS1
Alternative Name:	IRS1 (IRS1 Products)

Target Details

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: IRS-1, Insulin receptor substrate 1

Gene ID: 3667

UniProt: [P35568](#)

Pathways: [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Positive Regulation of Peptide Hormone Secretion](#), [Hormone Transport](#), [Negative Regulation of Hormone Secretion](#), [Response to Growth Hormone Stimulus](#), [Carbohydrate Homeostasis](#), [Regulation of Carbohydrate Metabolic Process](#)

Application Details

Application Notes: ELISA. Western blot: 1 - 2 μ g/mL. Immunocytochemistry.
Other applications not tested.
Optimal dilutions are dependent on conditions and should be determined by the user.

Restrictions: For Research Use only

Handling

Buffer: PBS containing 0.02 % sodium azide

Preservative: Sodium azide

Precaution of Use: This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

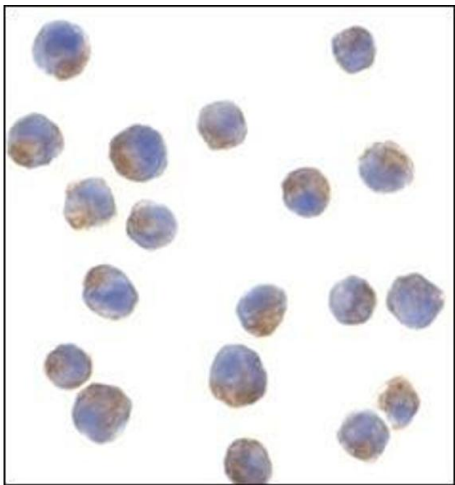
Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Handling

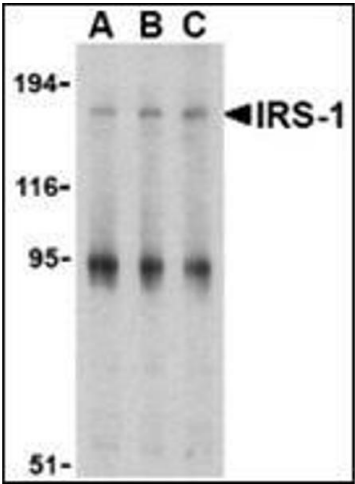
Storage Comment: Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer.

Images



Immunofluorescence

Image 1. Immunocytochemistry of IRS-1 in P815 cells with this product at 2 µg/ml.



Western Blotting

Image 2. Western blot analysis of IRS-1 in PC-3 cell lysate with this product at (A) 1, (B) 2 and (C) 4 µg/ml.