**BACKGROUND**

The Insulin receptor substrate (IRS) proteins are key components in signaling from the Insulin receptor. IRS-4 is the most recently characterized member of the IRS family and has an undefined in vivo function. Phosphorylated IRS-4 associates with phosphatidylinositol 3-kinase (PI3-kinase), involved in Insulin-stimulated DNA synthesis, GH-induced tyrosine phosphorylation of IRS-4 and nuclear translocation of Stat5. IRS-4 also associates with IRAS which, when overexpressed, enhances IRS-4 dependent Insulin stimulation of PI3-kinase. The IRS-4 protein exhibits a limited fiber type specific expression in heart and skeletal muscle tissue and has not yet been detected in any mouse or primary human tissue. The absence of IRS-4 in mice causes mild defects in growth, reproduction and glucose homeostasis, while overexpression of IRS-4 increases basal PI3-kinase activity and Akt phosphorylation. Defects in IRS-4-null mice may result from a lower overall blood glucose concentration.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: IRS4 (human) mapping to Xq22.3; IRS4 (mouse) mapping to X F2.

**SOURCE**

IRS-4 (H-300) is a rabbit polyclonal antibody raised against amino acids 958-1257 mapping at the C-terminus of IRS-4 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

IRS-4 (H-300) is recommended for detection of IRS-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50:1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30:1:3000).

Suitable for use as control antibody for IRS-4 siRNA (h): sc-35715, IRS-4 siRNA (m): sc-35716, IRS-4 shRNA Plasmid (h): sc-35715-SH, IRS-4 shRNA Plasmid (m): sc-35716-SH, IRS-4 shRNA (h) Lentiviral Particles: sc-35715-V and IRS-4 shRNA (m) Lentiviral Particles: sc-35716-V.

Molecular Weight of IRS-4: 160 kDa.

Positive Controls: HEK 293 whole cell lysate.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended:


**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Try IRS-4 (C-1): sc-373778 or IRS-4 (C-4): sc-393207, our highly recommended monoclonal alternatives to IRS-4 (H-300).