**BACKGROUND**

The Insulin receptor (IR) is a heterodimeric protein complex that has an intracellular β subunit and an extracellular α subunit, which is disulfide-linked to a transmembrane segment. The Insulin ligand binds to the IR and initiates molecular signaling pathways that promote glucose uptake in cells and glycogen synthesis. Insulin binding to IR induces phosphorylation of intracellular tyrosine kinase domains and recruitment of multiple SH2 and SH3 domain-containing intracellular proteins that serve as signaling intermediates for pleiotropic effects of Insulin. The human Insulin receptor gene maps to chromosome 19p13.3-p13.2 and encodes a 1,382 amino acid protein that cleaves to form α and β subunits. Type 1 diabetes is an autoimmune condition of the endocrine pancreas that results in destruction of Insulin secreting cells and a progressive loss in Insulin-sensitive glucose uptake by cells. Type 2 diabetes is a condition where cells become resistant to Insulin action.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: INSR (human) mapping to 19p13.2; Insr (mouse) mapping to 8A1.1.

**SOURCE**

insulin Rα (MA-20) is a mouse monoclonal antibody raised against placental Insulin Rα of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

insulin Rα (MA-20) is recommended for detection of insulin Rα of mouse, rat and human origin by immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)).


Molecular Weight of Insulin Rα: 125 kDa.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecip-itation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**STORAGE**

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

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

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