insulin Rα (MA-20): sc-57344

**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 glycolysis. 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 19p13.2 and encodes a 1,382 amino acid protein that cleaves to form α and β subunits. Type 1 diabetes is an auto-immune 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 8 A1.1.

**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, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

insulin Rα (MA-20) is available conjugated to agarose (sc-57344 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-57344 HRP), 200 µg/ml, for WB, IHQ/P and ELISA; to either phycoerythrin (sc-57344 PE), fluorescein (sc-57344 FITC), Alexa Fluor® 488 (sc-57344 AF488), Alexa Fluor® 546 (sc-57344 AF546), Alexa Fluor® 594 (sc-57344 AF594) or Alexa Fluor® 647 (sc-57344 AF647), 200 µg/ml, for WB (RGB), IF, IHQ/P and FCM; and to either Alexa Fluor® 680 (sc-57344 AF680) or Alexa Fluor® 790 (sc-57344 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**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 R precursor: 200 kDa.

**RECOMMENDED SUPPORT REAGENTS**

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

1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

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