**BACKGROUND**

The insulin receptor (insulin R) 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 insulin R and initiates molecular signaling pathways that promote glucose uptake in cells and, ultimately, glycogen synthesis. Insulin binding to insulin R induces phosphorylation of intracellular tyrosine kinase domains and recruitment of multiple SH2 and SH3 domain-containing intracellular proteins that serve as signaling intermediates for the pleiotropic effects of insulin. The human Insulin R gene encodes a 1,382 amino acid protein that cleaves apart to form α and β subunits. Human insulin R may be phosphorylated on specific amino acid residues, such as Tyr1322.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

p-insulin Rβ (10C3) is a mouse monoclonal antibody raised against a phosphopeptide corresponding to amino acid residues surrounding Tyr1150/1151 of insulin R of human origin.

**PRODUCT**

Each vial contains 50 µg IgG1 in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

**APPLICATIONS**

p-insulin Rβ (10C3) is recommended for detection of Tyr1150 and Tyr1151 dually phosphorylated insulin Rβ and IGF1 receptor of mouse, rat and human origin by Western Blotting (starting dilution:1:200, dilution range: 1:100-1:1000) and immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)).

Molecular Weight of insulin R precursor: 200 kDa.
Molecular Weight of mature insulin Rβ chain: 95 kDa.

**RESEARCH USE**

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

**STORAGE**

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

**DATA**

![Western blot analysis of insulin R phosphorylation in non-stimulated (A) and insulin stimulated (B) MDA-MB-231 whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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