

p-insulin R β (10C3): sc-81500

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 Tyr 1322.

REFERENCES

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2. Whitehead, J.P., et al. 2000. Signalling through the Insulin receptor. *Curr. Opin. Cell Biol.* 12: 222-228.
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CHROMOSOMAL LOCATION

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

SOURCE

p-insulin R β (10C3) is a mouse monoclonal antibody raised against a phosphopeptide corresponding to amino acid residues surrounding Tyr 1150/1151 of Insulin R of human origin.

PRODUCT

Each vial contains 50 μ g IgG $_1$ kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

APPLICATIONS

p-insulin R β (10C3) is recommended for detection of Tyr 1150 and Tyr 1151 dually phosphorylated Insulin R β 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Molecular Weight of Insulin R precursor: 200 kDa.

Molecular Weight of mature Insulin R β chain: 95 kDa.

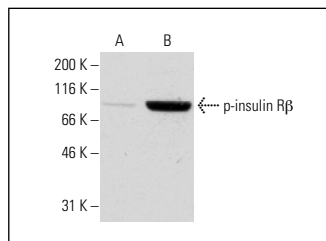
RESEARCH USE

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



p-insulin R β (10C3) (phospho-Tyr 1150/1151): sc-81500.
Western blot analysis of insulin R phosphorylation in non-stimulated (A) and insulin stimulated (B) MDA-MB-231 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Viscarra, J.A., et al. 2011. Glut4 is upregulated despite decreased Insulin signaling during prolonged fasting in northern elephant seal pups. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 300: R150-R154.
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5. Yoo, J.Y., et al. 2016. Role of Mig-6 in hepatic glucose metabolism. *J. Diabetes* 8: 86-97.
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PROTOCOLS

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