

p-IGF-IR (Tyr 1165/1166): sc-101704

BACKGROUND

Receptor tyrosine kinases (RTKs) are transmembrane molecular scaffolds that influence cellular processes including the cell cycle, cell migration, cell metabolism, cell survival, proliferation and differentiation. Insulin-like growth factor-I receptor (IGF-IR) is an RTK that stimulates growth in many different cell types, blocks apoptosis, acts as an intermediate of many growth hormone responses and may stimulate the growth of some types of cancer. The IGF-IR cognate ligand Insulin-like growth factor-I (IGF-I) promotes association of IGF-IR with Shc, GRB2 and Sos 1, which initiates Ras and ERK kinase cascades, thereby modifying transcription factor activity, such as activation of the Elk transcription factors. The modular phosphotyrosine binding (PTB) domains of Insulin receptor substrate (IRS)-1 and -2 can associate with active IGF-IR and initiate phosphatidylinositol 3-kinase-dependent downstream signals. The human IGF-IR gene maps to chromosome 15q26.3 and encodes a 1,376 amino acid precursor protein that cleaves into α and β subunits. The human IGF-IR gene maps to chromosome 6q26 and encodes a 2,491 amino acid transmembrane protein.

CHROMOSOMAL LOCATION

Genetic locus: IGF1R (human) mapping to 15q26.3; Igf1r (mouse) mapping to 7 D1.

SOURCE

p-IGF-IR (Tyr 1165/1166) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 1165/1166 phosphorylated IGF-IR of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-IGF-IR (Tyr 1165/1166) is recommended for detection of Tyr 1165 and Tyr 1166 dually phosphorylated IGF-IR of human origin, correspondingly dually phosphorylated Tyr 1167 and Tyr 1168 of mouse origin and correspondingly dually phosphorylated Tyr 1166 and Tyr 1167 of rat 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)].

Suitable for use as control antibody for IGF-IR α / β siRNA (h): sc-29358, IGF-IR α / β siRNA (m): sc-35638, IGF-IR α / β shRNA Plasmid (h): sc-29358-SH, IGF-IR α / β shRNA Plasmid (m): sc-35638-SH, IGF-IR α / β shRNA (h) Lentiviral Particles: sc-29358-V and IGF-IR α / β shRNA (m) Lentiviral Particles: sc-35638-V.

Molecular Weight of pro-IGF-IR: 200 kDa.

Molecular Weight of IGF-IR α subunit: 130 kDa.

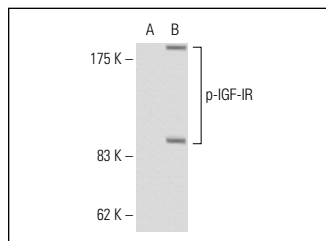
Molecular Weight of IGF-IR β subunit: 97 kDa.

Positive Controls: insulin-stimulated 293 whole cell lysate.

STORAGE

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

DATA



p-IGF-IR (Tyr 1165/1166): sc-101704. Western blot analysis of phosphorylated IGF-IR expression in untreated (A) and insulin-treated (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Miranda, S., et al. 2012. Beneficial effects of fenofibrate in retinal pigment epithelium by the modulation of stress and survival signaling under diabetic conditions. *J. Cell. Physiol.* 227: 2352-2362.
2. Mobasher, M.A., et al. 2013. Protein tyrosine phosphatase 1B modulates GSK3 β /Nrf2 and IGFR signaling pathways in acetaminophen-induced hepatotoxicity. *Cell Death Dis.* 4: e626.
3. Gonzalez-Rodriguez, A., et al. 2014. *In vivo* siRNA delivery of Keap1 modulates death and survival signaling pathways and attenuates concanavalin-A-induced acute liver injury in mice. *Dis. Model. Mech.* 7: 1093-1100.
4. Ilatovskaya, D.V., et al. 2015. Crosstalk between Insulin and IGF-1 receptors in the cortical collecting duct principal cells: implication for ENaC-mediated sodium reabsorption. *Am. J. Physiol. Renal. Physiol.* 308: F713-F719.

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.

MONOS
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Try **p-IGF-IR (50.Y1165/1166): sc-135767** or **p-IGF-IR (95.Y1165/1166): sc-135766**, our highly recommended monoclonal alternatives to p-IGF-IR (Tyr 1165/1166).