

IGF-IR α (H-78): sc-7952

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-IIR 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

IGF-IR α (H-78) is a rabbit polyclonal antibody raised against amino acids 123-200 of IGF-IR α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

IGF-IR α (H-78) is recommended for detection of IGF-IR α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IGF-IR α (H-78) is also recommended for detection of IGF-IR α in additional species, including equine, canine, bovine and porcine.

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.

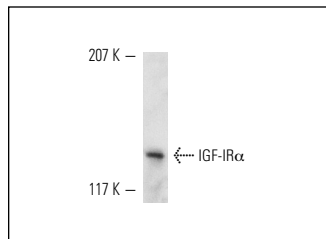
Molecular Weight of IGF-IR α : 130 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or rat placenta extract: sc-364808.

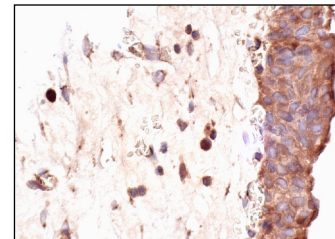
STORAGE

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

DATA



IGF-IR α (H-78): sc-7952. Western blot analysis of IGF-IR α expression in HeLa whole cell lysate.



IGF-IR α (H-78): sc-7952. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells.

SELECT PRODUCT CITATIONS

1. Camarero, G., et al. 2003. Insulin-like growth factor I is required for survival of transit-amplifying neuroblasts and differentiation of otic neurons. *Dev. Biol.* 262: 242-253.
2. Suzuki, R., et al. 2007. Diet supplemented with citrus unshiu segment membrane suppresses chemically induced colonic preneoplastic lesions and fatty liver in male db/db mice. *Int. J. Cancer* 120: 252-258.
3. Kothmaier, H., et al. 2008. EGFR and PDGFR differentially promote growth in malignant epithelioid mesothelioma of short and long term survivors. *Thorax* 63: 345-351.
4. Huang, Y.H., et al. 2009. Pluripotency of mouse spermatogonial stem cells maintained by IGF-1 dependent pathway. *FASEB J.* 23: 2076-2087.
5. Kuo, W.W., et al. 2009. Attenuated cardiac mitochondrial-dependent apoptotic effects by li-fu formula in hamsters fed with a hypercholesterol diet. *Evid. Based Complement. Alternat. Med.* 2011: 530345.
6. Cheng, Y.C., et al. 2013. Garlic oil attenuates the cardiac apoptosis in hamster-fed with hypercholesterol diet. *Food Chem.* 136: 1296-302.
7. Chiang, W.D., et al. 2014. Lipolysis-stimulating peptide-VHVV ameliorates high fat diet induced hepatocyte apoptosis and fibrosis. *J. Funct. Foods* 11: 482-492.

RESEARCH USE

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



Try **IGF-IR α (G-5): sc-271606** or **IGF-IR α (2C8): sc-463**, our highly recommended monoclonal alternatives to IGF-IR α (H-78). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IGF-IR α (G-5): sc-271606**.