

IRR (I-63): sc-100303

BACKGROUND

The Insulin receptor-related receptor (IRR) is a member of the Insulin receptor tyrosine kinase family, whose ligand, gene regulation and biological function have not been elucidated. IRR shares significant homology with the Insulin and Insulin-like growth factor-1 (IGF-I) receptors, but does not bind to any of their known ligands. IRR is synthesized as a single polypeptide precursor that undergoes proteolytic cleavage and glycosylation to produce α and β subunits. IRR α and IRR β form a heterotetramer. The two IRR α subunits form the ligand-binding domain, while the two IRR β subunits contain the kinase domain. IRR is expressed in brain, stomach, pancreas and heart with the highest level of expression in kidney. However, the expression of IRR is selectively distributed within each tissue. The gene encoding IRR maps to human chromosome 1q23.1, a region linked with type-2 diabetes mellitus, which suggests a role for IRR in Insulin regulation.

REFERENCES

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- Ozaki, K., et al. 1997. Localization of Insulin receptor-related receptor in the rat kidney. *Kidney Int.* 52: 694-698.
- Chrysis, D., et al. 1998. Effect of fasting on Insulin receptor-related receptor messenger ribonucleic acid in rat kidney. *J. Endocrinol.* 159: 9-12.
- Ozaki, K. 1998. Insulin receptor-related receptor in rat islets of Langerhans. *Eur. J. Endocrinol.* 139: 244-247.
- Kitamura, T., et al. 2001. Preserved pancreatic β -cell development and function in mice lacking the Insulin receptor-related receptor. *Mol. Cell. Biol.* 21: 5624-5630.
- Wolford, J.K., et al. 2001. Polymorphism screening of the Insulin receptor-related receptor gene (INSRR) on 1q in Pima Indians. *Mol. Cell. Probes* 15: 223-227.

CHROMOSOMAL LOCATION

Genetic locus: INSRR (human) mapping to 1q23.1.

SOURCE

IRR (I-63) is a mouse monoclonal antibody raised against recombinant IRR of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

IRR (I-63) is recommended for detection of IRR of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IRR α / β siRNA (h): sc-40081, IRR α / β shRNA Plasmid (h): sc-40081-SH and IRR α / β shRNA (h) Lentiviral Particles: sc-40081-V.

Molecular Weight of IRR precursor: 162 kDa.

Molecular Weight of IRR α : 108 kDa.

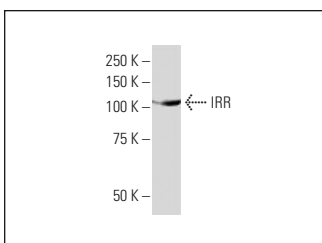
Molecular Weight of IRR β : 66 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, T98G cell lysate: sc-2294 or HeLa whole cell lysate: sc-2200.

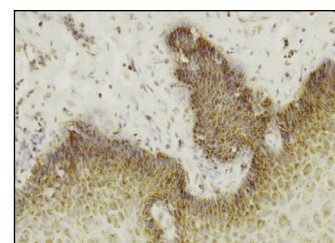
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



IRR (I-63): sc-100303. Western blot analysis of IRR expression in HeLa whole cell lysate.



IRR (I-63): sc-100303. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human esophagus tissue showing membrane localization.

RESEARCH USE

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

PROTOCOLS

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