

# IGF-IIR (H-300): sc-25462

## BACKGROUND

The mannose 6-phosphate/insulin-like growth factor II receptor, IGF-IIR (also designated M6P/IGF2R), is an ubiquitously expressed integral glycoprotein. By binding glycoproteins through two of its extracytoplasmic domains, IGF-IIR mediates the activation of TGF $\beta$ 1 (a growth inhibitor), the degradation of IGF-II and the transport of lysosomal enzymes. Subsequently, IGF-IIR can form oligomeric complexes, which increase the affinity of IGF-IIR for lysosomal enzymes. Unlike IGF-IR, IGF-IIR does not potentiate the signaling of IGF-I or IGF-II, which have mitogenic, cell survival and Insulin-like effects. Therefore, IGF-IIR is characterized as a tumor suppressor. Furthermore, the IGF-IIR gene is located on chromosome 6q25.3, which is commonly mutated or deleted in several human cancers.

## CHROMOSOMAL LOCATION

Genetic locus: IGF2R (human) mapping to 6q25.3; Igf2r (mouse) mapping to 17 A1.

## SOURCE

IGF-IIR (H-300) is a rabbit polyclonal antibody raised against amino acids 2192-2491 of IGF-IIR of human origin.

## PRODUCT

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

## APPLICATIONS

IGF-IIR (H-300) is recommended for detection of IGF-IIR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 IGF-IIR siRNA (h): sc-37118, IGF-IIR siRNA (m): sc-37117, IGF-IIR shRNA Plasmid (h): sc-37118-SH, IGF-IIR shRNA Plasmid (m): sc-37117-SH, IGF-IIR shRNA (h) Lentiviral Particles: sc-37118-V and IGF-IIR shRNA (m) Lentiviral Particles: sc-37117-V.

Molecular Weight of IGF-IIR: 300 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## RESEARCH USE

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

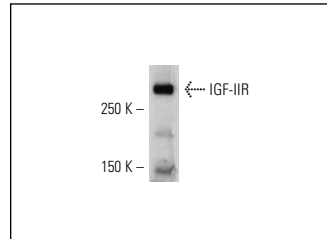
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

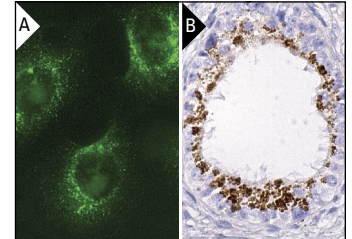
## STORAGE

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

## DATA



IGF-IIR (H-300): sc-25462. Western blot analysis of IGF-IIR expression in HeLa whole cell lysate.



IGF-IIR (H-300): sc-25462. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of Leydig cells (B).

## SELECT PRODUCT CITATIONS

- Lee, S.D., et al. 2006. Roles of Insulin-like growth factor II in cardiomyoblast apoptosis and in hypertensive rat heart with abdominal aorta ligation. *Am. J. Physiol. Endocrinol. Metab.* 291: E306-E314.
- Tkachuk, N., et al. 2008. Urokinase induces survival or pro-apoptotic signals in human mesangial cells depending on the apoptotic stimulus. *Biochem. J.* 415: 265-273.
- Chu, C.H., et al. 2009. Activation of Insulin-like growth factor II receptor induces mitochondrial-dependent apoptosis through G $\alpha_q$  and downstream calcineurin signaling in myocardial cells. *Endocrinology* 150: 2723-2731.
- Chu, C.H., et al. 2009. Enhancement of AG1024-induced H9c2 cardiomyoblast cell apoptosis via the interaction of IGF2R with G $\alpha_q$  proteins and its downstream PKA and PLC- $\beta$  modulators by IGF-II. *Chin. J. Physiol.* 52: 31-37.
- Ruttenstock, E., et al. 2010. Insulinlike growth factor receptor type 1 and type 2 are downregulated in the nitrofen-induced hypoplastic lung. *J. Pediatr. Surg.* 45: 1349-1353.
- Chu, C.H., et al. 2011. Histone acetylation is essential for ANG-II-induced IGF-IIR gene expression in H9c2 cardiomyoblast cells and pathologically hypertensive rat heart. *J. Cell. Physiol.* 227: 259-268.
- Bidosee, M., et al. 2011. Growth hormone affects gene expression and proliferation in human prostate cancer cells. *Int. J. Androl.* 34: 124-137.
- Maris, C., et al. 2015. IGF-IR: a new prognostic biomarker for human glioblastoma. *Br. J. Cancer* 113: 729-737.


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