

# IGF-I (H-70): sc-9013

## BACKGROUND

Insulin-like growth factor I, or IGF-I, is an ubiquitous peptide that acts in both an autocrine and paracrine fashion to stimulate the growth of vascular smooth muscle cells. In addition, IGF-I regulates renal function, growth and repair, is critically involved in bone formation and resorption and has been implicated in mediating aspects of the immune response. IGF function is modulated by at least six circulating IGF-binding proteins, designated IGFBP1-6, which associate with the soluble growth factor. While the function of IGF-II is less well understood, overexpression of the protein in mice suggests that IGF-II may play a regulatory role in Insulin sensitivity and glucose uptake. Both IGF-I and IGF-II exert their biological effects through a common receptor, designated IGF-IR. Like the Insulin receptor, IGF-IR is composed of two extracellular  $\alpha$  chains and two signal transducing  $\beta$  chains cross-linked by disulfide bonds.

## CHROMOSOMAL LOCATION

Genetic locus: IGF1 (human) mapping to 12q23.2; Igf1 (mouse) mapping to 10 C1.

## SOURCE

IGF-I (H-70) is a rabbit polyclonal antibody raised against amino acids 49-118 of IGF-I 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-I (H-70) is recommended for detection of IGF-IA and IGF-IB 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).

IGF-I (H-70) is also recommended for detection of IGF-IA and IGF-IB in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for IGF-I siRNA (h): sc-37193, IGF-I siRNA (m): sc-37194, IGF-I shRNA Plasmid (h): sc-37193-SH, IGF-I shRNA Plasmid (m): sc-37194-SH, IGF-I shRNA (h) Lentiviral Particles: sc-37193-V and IGF-I shRNA (m) Lentiviral Particles: sc-37194-V.

Molecular Weight of IGF-IA isoform: 22 kDa.

Molecular Weight of IGF-IB isoform: 17 kDa.

Molecular Weight of IGF-3 isoform: 15 kDa.

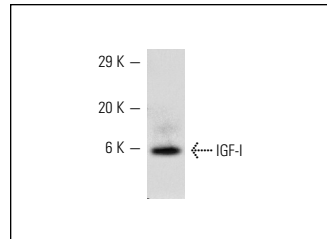
## STORAGE

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

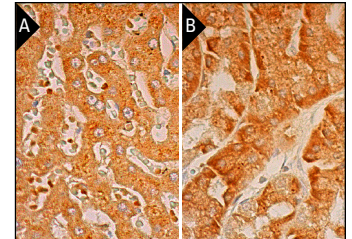
## RESEARCH USE

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

## DATA



IGF-I (H-70): sc-9013. Western blot analysis of human recombinant IGF-I.



IGF-I (H-70): sc-9013. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

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- Honda, H., et al. 2010. Expression of HGF and IGF-1 during regeneration of masseter muscle in mdx mice. *J. Muscle Res. Cell Motil.* 31: 71-77.
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- Vieira, R.P., et al. 2011. Airway epithelium mediates the anti-inflammatory effects of exercise on asthma. *Respir. Physiol. Neurobiol.* 175: 383-389.
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Try **IGF-I (W18): sc-74116**, our highly recommended monoclonal alternative to IGF-I (H-70).