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 α chains and two signal transducing β chains cross-linked by disulfide bonds.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: IGF1 (human) mapping to 12q23.2.

SOURCE

IGF-I (W18) is a mouse monoclonal antibody raised against recombinant protein corresponding to amino acids 49-118 of IGF-I of human origin.

PRODUCT

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and protein stabilizer.

APPLICATIONS

IGF-I (W18) is recommended for detection of IGF-I of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg 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); non-cross-reactive with mouse IGF-I or mouse or human IGF-II.

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

Molecular Weight of IGF-1A/IGF-1B isoform: 22/17 kDa.

Molecular Weight of IGF-3 isoform: 15 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-249822 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA

![Western blot analysis of human recombinant IGF-I fusion protein.](image)

SELECT PRODUCT CITATIONS


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.

PROTOCOLS

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