SANTA CRUZ BIOTECHNOLOGY, INC.

IGF-I (C-20): sc-7144

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Insulin-like growth factor I, or IGF-I, is a 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 a chains and two signal transducing β 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 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IGF-I of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7144 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IGF-I (C-20) is recommended for detection of IGF-I of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

IGF-I (C-20) is also recommended for detection of IGF-I 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-1A/IGF-1B/3 isoforms: 22/17/15 kDa.

STORAGE

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

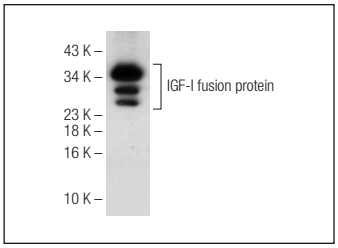
PROTOCOLS

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

RESEARCH USE

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

DATA



IGF-I (C-20): sc-7144. Western blot analysis of human recombinant IGF-I fusion protein.

SELECT PRODUCT CITATIONS

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3. Piro, S., et al. 2010. Palmitate affects Insulin receptor phosphorylation and intracellular Insulin signal in a pancreatic α-cell line. Endocrinology 151: 4197-4206.
4. Kiryakova, S., et al. 2010. Recovery of whisking function promoted by manual stimulation of the vibrissal muscles after facial nerve injury requires Insulin-like growth factor 1 (IGF-1). Exp. Neurol. 222: 226-234.
5. Yoon, M.J., et al. 2011. Localization of Insulin-like growth factor-I (IGF-I) and IGF-I receptor (IGF-IR) in equine testes. Reprod. Domest. Anim. 46: 221-228.
6. Kaltsas, G.A., et al. 2011. Expression of connective tissue growth factor and IGF1 in normal and neoplastic gastrointestinal neuroendocrine cells and their clinico-pathological significance. Endocr. Relat. Cancer 18: 61-71.
7. Breinig, M., et al. 2011. Heat shock protein 90-sheltered overexpression of Insulin-like growth factor 1 receptor contributes to malignancy of thymic epithelial tumors. Clin. Cancer Res. 17: 2237-2249.
8. Liu, X., 2014. Inactivation of RARβ inhibits Wnt1-induced mammary tumorigenesis by suppressing epithelial-mesenchymal transitions. Nucl. Recept. Signal. 12: e004.

MONOS Satisfaction Guaranteed

Try **IGF-I (W18): sc-74116**, our highly recommended monoclonal alternative to IGF-I (C-20).