

IGFBP6 (H-70): sc-13094

BACKGROUND

The insulin-like growth factor-binding proteins, or IGFBPs, are a family of homologous proteins that have co-evolved with the IGFs. They serve not only as shuttle molecules for the soluble IGFs, but also confer a level of regulation to the IGF signaling system. Physical association of the IGFBPs with IGF influences the bio-availability of the growth factors, as well as their concentration and distribution in the extracellular environment. In addition, the IGFBPs appear to have biological activity independent of the IGFs. Seven IGFBPs have thus far been described, each differing in their tissue distribution, half-lives and modulation of IGF interactions with their receptors. For instance, IGFBP-1 is negatively regulated by insulin production. The IGFBP-1 gene is expressed at a high level during fetal liver development and in response to nutritional changes and diabetes. It has been suggested to function as chaperone, escorting IGFs to their target tissues. It is expressed in several human tissues including fetal eye and fetal brain. IGFBP-3 is the most abundant IGFBP and is complexed with roughly 80% of the serum IGFs. Both IGFBP-3 and IGFBP-4 are released by dermal fibroblasts in response to incision injury. IGFBP-5 is secreted by myoblasts and may play a key role in muscle differentiation. IGFBP-6 differs from other IGFBPs in having the highest affinity for IGF-II. Glycosylated human IGFBP-6 is expressed in Chinese hamster ovary (CHO) cells, whereas nonglycosylated recombinant human IGFBP-6 is expressed in *E.coli*. IGFBP-7 is a secreted protein and binds both IGF-I and IGF-II with a relatively low affinity. It stimulates prostacyclin production and may also function as a growth-suppressing factor.

REFERENCES

1. Lee, J., et al. 1994. Structure and localization of the IGFBP-1 gene and its expression during liver regeneration. *Hepatology* 19: 656-665.
2. Schmid, C. 1995. Insulin-like growth factors. *Cell Biol. Int.* 19: 445-457.
3. Binoux, M. 1995. The IGF system in metabolism regulation. *Diabetes Metab.* 21: 330-337.

CHROMOSOMAL LOCATION

Genetic locus: IGFBP6 (human) mapping to 12q13.13; Igfbp6 (mouse) mapping to 15 F3.

SOURCE

IGFBP6 (H-70) is a rabbit polyclonal antibody raised against amino acids 171-240 of IGFBP6 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.

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.

APPLICATIONS

IGFBP6 (H-70) is recommended for detection of precursor and mature IGFBP6 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), 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).

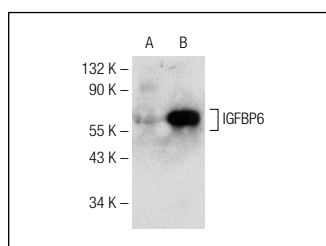
IGFBP6 (H-70) is also recommended for detection of precursor and mature IGFBP6 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for IGFBP6 siRNA (h): sc-37231, IGFBP6 siRNA (m): sc-37232, IGFBP6 shRNA Plasmid (h): sc-37231-SH, IGFBP6 shRNA Plasmid (m): sc-37232-SH, IGFBP6 shRNA (h) Lentiviral Particles: sc-37231-V and IGFBP6 shRNA (m) Lentiviral Particles: sc-37232-V.

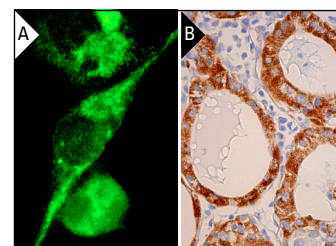
Molecular Weight of IGFBP6: 29 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285 or IGFBP6 (m): 293T Lysate: sc-120969.

DATA



IGFBP6 (H-70): sc-13094. Western blot analysis of IGFBP6 expression in non-transfected: sc-117752 (A) and mouse IGFBP6 transfected: sc-120969 (B) 293T whole cell lysates.



IGFBP6 (H-70): sc-13094. Immunofluorescence staining of methanol-fixed MIA PaCa-2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Hammarberg, H., et al. 1998. Expression of insulin-like growth factors and corresponding binding proteins (IGFBP 1-6) in rat spinal cord and peripheral nerve after axonal injuries. *J. Comp. Neurol.* 400: 57-72.
2. Liu, H. and Shubayev, V.I. 2011. Matrix metalloproteinase-9 controls proliferation of NG2⁺ progenitor cells immediately after spinal cord injury. *Exp. Neurol.* 231: 236-246.
3. Pocsfalvi, G., et al. 2011. Analysis of secretome changes uncovers an autocrine/paracrine component in the modulation of cell proliferation and motility by c-Myc. *J. Proteome Res.* 10: 5326-5337.

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Try **IGFBP6 (1A8): sc-293295**, our highly recommended monoclonal alternative to IGFBP6 (H-70).