

IGFBP2 (M-18): sc-6002

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, IGFBP1 is negatively regulated by Insulin production. The IGFBP1 gene is expressed at a high level during fetal liver development and in response to nutritional changes and diabetes. It has been suggested that IGFBP2 functions as chaperone, escorting IGFs to their target tissues. It is expressed in several human tissues including fetal eye and fetal brain. IGFBP3 is the most abundant IGFBP and is complexed with roughly 80% of the serum IGFs. Both IGFBP3 and IGFBP4 are released by dermal fibroblasts in response to incision injury. IGFBP5 is secreted by myoblasts and may play a key role in muscle differentiation. IGFBP6 differs from other IGFBPs in having the highest affinity for IGF-II. Glycosylated human IGFBP6 is expressed in Chinese hamster ovary (CHO) cells, whereas nonglycosylated recombinant human IGFBP6 is expressed in *E. coli*. IGFBP7 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.

CHROMOSOMAL LOCATION

Genetic locus: IGFBP2 (human) mapping to 2q35; Igfbp2 (mouse) mapping to 1 C3.

SOURCE

IGFBP2 (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IGFBP2 of mouse 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-6002 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IGFBP2 (M-18) is recommended for detection of precursor and mature IGFBP2 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).

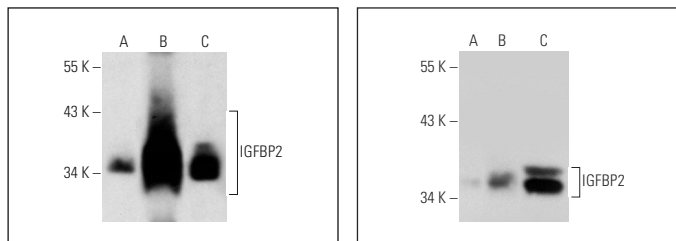
Suitable for use as control antibody for IGFBP2 siRNA (h): sc-37195, IGFBP2 siRNA (m): sc-39586, IGFBP2 shRNA Plasmid (h): sc-37195-SH, IGFBP2 shRNA Plasmid (m): sc-39586-SH, IGFBP2 shRNA (h) Lentiviral Particles: sc-37195-V and IGFBP2 shRNA (m) Lentiviral Particles: sc-39586-V.

Molecular Weight of IGFBP2: 36 kDa.

STORAGE

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

DATA



IGFBP2 (M-18): sc-6002. Western blot analysis of IGFBP2 expression in non-transfected 293T: sc-117752 (A), mouse IGFBP2 transfected 293T: sc-120966 (B) and T98G (C) whole cell lysates.

IGFBP2 (M-18): sc-6002. Western blot analysis of IGFBP2 expression in non-transfected 293T: sc-117752 (A), mouse IGFBP2 transfected 293T: sc-120966 (B) and T98G (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Mishra, S., et al. 2003. Phosphorylation of Insulin-like growth factor (IGF) binding protein-3 by breast cancer cell membranes enhances IGF-I binding. *Endocrinology* 144: 4042-4050.
- La, P., et al. 2006. Tumor suppressor Menin: the essential role of nuclear localization signal domains in coordinating gene expression. *Oncogene* 25: 3537-3546.
- Masnikosa, R., et al. 2010. Detection of Insulin-like growth factor binding proteins (IGFBPs) in porcine serum. *Acta Veterinaria* 60: 327-337.
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- Nedic, O., et al. 2013. Detection and identification of oxidized Insulin-like growth factor-binding proteins and receptors in patients with colorectal carcinoma. *Free Radic. Biol. Med.* 65C: 1195-1200.
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- Sunderic, M., et al. 2014. Protein molecular forms of Insulin-like growth factor binding protein-2 change with aging. *Exp. Gerontol.* 58C: 154-158.

RESEARCH USE

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

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Try **IGFBP2 (C-10): sc-25285** or **IGFBP2 (G-4): sc-515134**, our highly recommended monoclonal alternatives to IGFBP2 (M-18).