

# IGFBP7 (K-18): sc-34794

## BACKGROUND

The Insulin-like growth factor-binding proteins (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 been described, each differing in their tissue distribution, half-lives and modulation of IGF interactions with their receptors. IGFBP-7 is a secreted protein that 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 IGFBP1 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.
4. Baxter, R.C. 1995. Insulin-like growth factor-binding proteins as gluco-regulators. *Metab. Clin. Exp.* 44: 12-17.
5. Kelley, K.M., et al. 1996. Insulin-like growth factor-binding proteins (IGFBPs) and their regulatory dynamics. *Int. J. Biochem. Cell Biol.* 28: 619-637.
6. Hathaway, C.L., et al. 1996. Differential expression of IGFBPs by normal and hypertrophic scar fibroblasts. *J. Surg. Res.* 60: 156-162.
7. Oh, Y., et al. 1996. Synthesis and characterization of Insulin-like growth factor-binding protein IGFBP7. Recombinant human mac25 protein specifically binds IGF-I and -II. *J. Biol. Chem.* 271: 30322-30325.

## CHROMOSOMAL LOCATION

Genetic locus: IGFBP7 (human) mapping to 4q12; Igfbp7 (mouse) mapping to 5 C3.3.

## SOURCE

IGFBP7 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IGFBP7 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-34794 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

IGFBP7 (K-18) is recommended for detection of precursor and mature IGFBP7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IGFBP7 (K-18) is also recommended for detection of precursor and mature IGFBP7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for IGFBP7 siRNA (h): sc-39593, IGFBP7 siRNA (m): sc-39594, IGFBP7 shRNA Plasmid (h): sc-39593-SH, IGFBP7 shRNA Plasmid (m): sc-39594-SH, IGFBP7 shRNA (h) Lentiviral Particles: sc-39593-V and IGFBP7 shRNA (m) Lentiviral Particles: sc-39594-V.

Molecular Weight of IGFBP7: 29 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, rat kidney extract: sc-2394 or mouse kidney extract: sc-2255.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **IGFBP7 (H-3): sc-365293**, our highly recommended monoclonal alternative to IGFBP7 (K-18).