SANTA CRUZ BIOTECHNOLOGY, INC.

IGFBP7 (C-16): sc-6064

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

IGFBP7 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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-6064 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IGFBP7 (C-16) is recommended for detection of precursor and mature IGFBP7 of human and, to a lesser extent, mouse and rat 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).

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: THP-1 cell lysate: sc-2238 or MIA PaCa-2 cell lysate: sc-2285.

RESEARCH USE

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

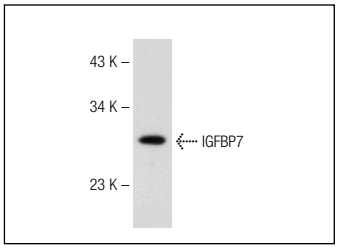
PROTOCOLS

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

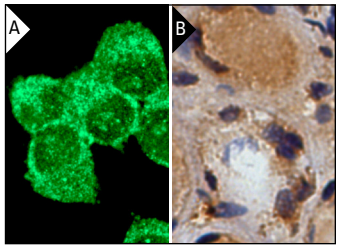
STORAGE

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

DATA



IGFBP7 (C-16): sc-6064. Western blot analysis of IGFBP7 expression in THP-1 whole cell lysate.



IGFBP7 (C-16): sc-6064. Immunofluorescence staining of methanol-fixed MIA PaCa-2 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing cytoplasmic localization (**B**).

SELECT PRODUCT CITATIONS

1. Hoek, K., et al. 2004. Expression profiling reveals novel pathways in the transformation of melanocytes to melanomas. Cancer Res. 15: 5270-5282.
2. Shao, L., et al. 2004. Detection of the differentially expressed gene IGF-binding protein-related protein-1 and analysis of its relationship to fasting glucose in Chinese colorectal cancer patients. Endocr. Relat. Cancer 11: 141-148.
3. Hochberg, M., et al. 2007. Genomic-scale analysis of psoriatic skin reveals differentially expressed Insulin-like growth factor-binding protein-7 after phototherapy. Br. J. Dermatol. 156: 289-300.
4. Csöregh, L., et al. 2009. Transcriptional analysis of estrogen effects in human embryonic neurons and glial cells. Neuroendocrinology 89: 171-186.
5. Nguyen, L.P., et al. 2010. BRAF V600E mutation and the tumour suppressor IGFBP7 in atypical genital naevi. Br. J. Dermatol. 162: 677-680.
6. Emley, A., et al. 2010. Oncogenic BRAF and the tumor suppressor IGFBP7 in the genesis of atypical spitzoid nevomelanocytic proliferations. J. Cutan. Pathol. 37: 344-349.
7. Decarlo, K., et al. 2010. Oncogenic BRAF-positive dysplastic nevi and the tumor suppressor IGFBP7—challenging the concept of dysplastic nevi as precursor lesions? Hum. Pathol. 41: 886-894.
8. Sakurai, N., et al. 2011. Insulin-like growth factor binding protein-related protein 1 is expressed in rheumatoid synovium and regulates synovial fibroblast proliferation. Mod. Rheumatol. 21: 63-72.