

IGFBPL1 (C-5): sc-398875

BACKGROUND

IGFBPL1 (Insulin-like growth factor-binding protein-like 1) is a secreted IGF (Insulin-like growth factor) binding protein that is known to contain an Ig-like C2-type (immunoglobulin-like) domain, an IGFBP N-terminal domain and a Kazal-like domain. IGF-binding proteins characteristically act to extend the half-life of IGFs and may influence the growth promoting effects of the IGFs. The interaction of IGFBPs with IGFs can affect cell surface receptors, specifically, IGFBPs may enhance or decrease a cell's Insulin sensitivity. IGFBPL1 has been found to be down-regulated in multiple tumors and thus may be a likely tumor suppressor candidate. Highly expressed in both brain and testis, IGFBPL1 is found at lower levels in the prostate, bladder and lung.

REFERENCES

1. Dupont, J. and Holzenberger, M. 2003. Biology of Insulin-like growth factors in development. *Birth Defects Res. C Embryo Today* 69: 257-271.
2. Cai, Z., et al. 2005. Identification of a novel Insulin-like growth factor binding protein gene homologue with tumor suppressor like properties. *Biochem. Biophys. Res. Commun.* 331: 261-266.
3. Siwanowicz, I., et al. 2005. Structural basis for the regulation of Insulin-like growth factors by IGF binding proteins. *Structure* 13: 155-167.
4. Smith, P., et al. 2007. Epigenetic inactivation implies independent functions for Insulin-like growth factor binding protein (IGFBP)-related protein 1 and the related IGFBPL1 in inhibiting breast cancer phenotypes. *Clin. Cancer Res.* 13: 4061-4068.
5. Bradley, L.M., et al. 2008. Role of the Insulin-like growth factor system on an estrogen-dependent cancer phenotype in the MCF-7 human breast cancer cell line. *J. Steroid Biochem. Mol. Biol.* 109: 185-196.
6. Verheus, M., et al. 2010. IGF1, IGFBP1, and IGFBP3 genes and mammographic density: the Multiethnic Cohort. *Int. J. Cancer* 127: 1115-1123.
7. Taverne, C.W., et al. 2010. Common genetic variation of Insulin-like growth factor-binding protein 1 (IGFBP-1), IGFBP-3, and acid labile subunit in relation to serum IGF-I levels and mammographic density. *Breast Cancer Res. Treat.* 123: 843-855.

CHROMOSOMAL LOCATION

Genetic locus: IGFBPL1 (human) mapping to 9p13.1; Igfbpl1 (mouse) mapping to 4 B1.

SOURCE

IGFBPL1 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 45-61 near the N-terminus of IGFBPL1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398875 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IGFBPL1 (C-5) is recommended for detection of IGFBPL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 IGFBPL1 siRNA (h): sc-92508, IGFBPL1 siRNA (m): sc-146181, IGFBPL1 shRNA Plasmid (h): sc-92508-SH, IGFBPL1 shRNA Plasmid (m): sc-146181-SH, IGFBPL1 shRNA (h) Lentiviral Particles: sc-92508-V and IGFBPL1 shRNA (m) Lentiviral Particles: sc-146181-V.

Molecular Weight of IGFBPL1: 29 kDa.

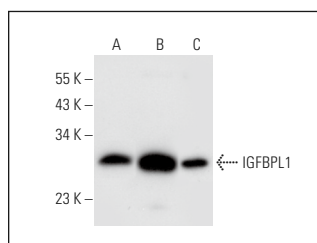
Positive Controls: mouse testis extract: sc-2405, BC₃H1 cell lysate: sc-2299 or F9 cell lysate: sc-2245.

RECOMMENDED SUPPORT REAGENTS

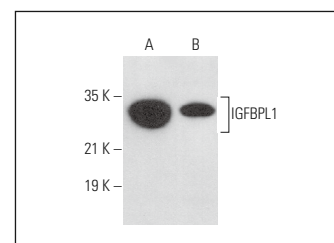
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



IGFBPL1 (C-5): sc-398875. Western blot analysis of IGFBPL1 expression in F9 (A) and BC₃H1 (B) whole cell lysates and mouse testis tissue extract (C).



IGFBPL1 (C-5): sc-398875. Western blot analysis of IGFBPL1 expression in SH-SY5Y (A) and C2C12 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Butti, E., et al. 2022. Neural precursor cells tune striatal connectivity through the release of IGFBPL1. *Nat. Commun.* 13: 7579.

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.