SANTA CRUZ BIOTECHNOLOGY, INC.

FBL18 (LL-3): sc-100738

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FBL18 (F-box and leucine-rich repeat protein 18), also known as FBXL18, is an 805 amino acid protein that contains an F-box near its N-terminus, followed by several leucine-rich repeats and a transmembrane domain at the C-terminus. F-box proteins are critical components of the SCF (Skp1-CUL-1-F-box protein) type E3 ubiquitin ligase complex and are involved in substrate recognition and recruitment for ubiquitination. They are members of a larger family of proteins that are involved in the regulation of a wide variety of cellular processes (including the cell cycle, immune response, signaling cascades and developmental processes) through the targeting of proteins, such as cyclins and cyclin-dependent kinase inhibitors (CDKNs), for degradation by the proteasome after ubiquitination. FBL18 directly interacts with Skp1A p19 and CUL-1, forming a substrate-recognition component of the SCF-type E3 ubiquitin ligase complex. Four isoforms of FBL18 exist due to alternative splicing.

REFERENCES

1. Winston, J.T., et al. 1999. A family of mammalian F-box proteins. Curr. Biol. 9: 1180-1182.
2. Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. Curr. Biol. 9: 1177-1179.
3. Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. Genes Dev. 18: 2573-2580.
4. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 609084. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Yoshida, Y. 2007. F-box proteins that contain sugar-binding domains. Biosci. Biotechnol. Biochem. 71: 2623-2631.
6. Cooke, P.S., et al. 2007. The F-box protein S phase kinase-associated protein 2 regulates adipose mass and adipocyte number *in vivo*. Obesity 15: 1400-1408.
7. Bernis, C., et al. 2007. Pin1 stabilizes Emi1 during G_2 phase by preventing its association with SCF(β-TrCP). EMBO Rep. 8: 91-98.
8. SWISS-PROT/TrEMBL (Q96ME1). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

CHROMOSOMAL LOCATION

Genetic locus: FBXL18 (human) mapping to 7p22.1.

SOURCE

FBL18 (LL-3) is a mouse monoclonal antibody raised against recombinant FBL18 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

FBL18 (LL-3) is recommended for detection of FBL18 of 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).

Suitable for use as control antibody for FBL18 siRNA (h): sc-89395, FBL18 shRNA Plasmid (h): sc-89395-SH and FBL18 shRNA (h) Lentiviral Particles: sc-89395-V.

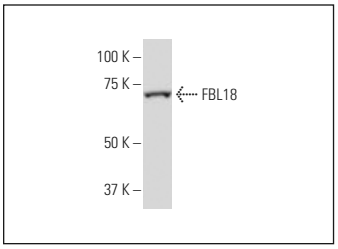
Molecular Weight of FBL18: 88 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

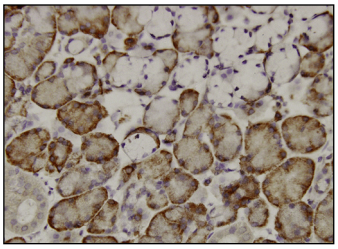
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FBL18 (LL-3): sc-100738. Western blot analysis of FBL18 expression in A-431 whole cell lysate.



FBL18 (LL-3): sc-100738. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic localization.

STORAGE

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

PROTOCOLS

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