SANTA CRUZ BIOTECHNOLOGY, INC.

FBL7 (K-20): sc-54366

BACKGROUND

FBL7 is a 491 amino acid protein encoded by the human gene FBXL7. FBL7 contains one 40 amino acid F-box region making it a member of the F-box family. FBL7 also contains ten LRR (leucine-rich) repeats. 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. F-box proteins are members of a large family that regulates cell cycle, immune response, signaling cascades and developmental programs by targeting proteins, such as cyclins, cyclin-dependent kinase inhibitors, IκB-α and β-catenin, for degradation by the proteasome after ubiquitination. Localized near the nucleus in the cytoplasm, FBL7 is ubiquitously expressed and believed to recognize and bind to phosphorylated proteins to promote their ubiquitination and degradation.

REFERENCES

1. Winston, J.T., Strack, P., Beer-Romero, P., Chu, C.Y., Elledge, S.J. and Harper, J.W. 1999. The SCFβ-TrCP-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in IκB-α and β-catenin and stimulates IκB-α ubiquitination *in vitro*. Genes Dev. 13: 270-283.
2. Cenciarelli, C., Chiaur, D.S., Guardavaccaro, D., Parks, W., Vidal, M. and Pagano, M. 1999. Identification of a family of human F-box proteins. Curr. Biol. 9: 1177-1179.
3. Winston, J.T., Koepp, D.M., Zhu, C., Elledge, S.J. and Harper, J.W. 1999. A family of mammalian F-box proteins. Curr. Biol. 9: 1180-1182.
4. Craig, K.L. and Tyers, M. 1999. The F-box: a new motif for ubiquitin dependent proteolysis in cell cycle regulation and signal transduction. Prog. Biophys. Mol. Biol. 72: 299-328.
5. Ilyin, G.P., Rialland, M., Pigeon, C. and Guguen-Guillouzo, C. 2000. cDNA cloning and expression analysis of new members of the mammalian F-box protein family. Genomics 67: 40-47.

CHROMOSOMAL LOCATION

Genetic locus: FBXL7 (human) mapping to 5p15.1; Fbxl7 (mouse) mapping to 15 B1.

SOURCE

FBL7 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FBL7 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-54366 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

FBL7 (K-20) is recommended for detection of FBL7 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).

FBL7 (K-20) is also recommended for detection of FBL7 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for FBL7 siRNA (h): sc-62306, FBL7 siRNA (m): sc-62307, FBL7 shRNA Plasmid (h): sc-62306-SH, FBL7 shRNA Plasmid (m): sc-62307-SH, FBL7 shRNA (h) Lentiviral Particles: sc-62306-V and FBL7 shRNA (m) Lentiviral Particles: sc-62307-V.

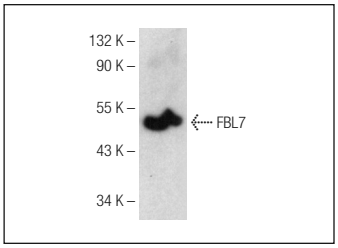
Molecular Weight of FBL7: 55 kDa.

Positive Controls: mouse heart extract: sc-2254.

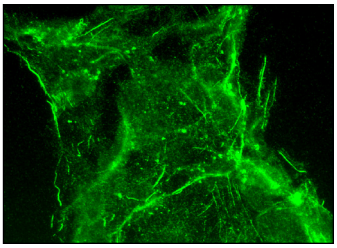
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



FBL7 (K-20): sc-54366. Western blot analysis of FBL7 expression in mouse heart tissue extract.



FBL7 (K-20): sc-54366. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoskeletal localization.

RESEARCH USE

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