

## FBL4 (C-17): sc-54491

### BACKGROUND

FBL4 is a 621 amino acid protein encoded by the human gene FBXL4. FBL4 contains one 40 amino acid F-box region, making it a member of the F-box family. FBL4 also contains eight 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, I $\kappa$ B- $\alpha$  and  $\beta$ -catenin, for degradation by the proteasome after ubiquitination. Localized near the nucleus in the cytoplasm, FBL4 is expressed in heart, kidney, liver, lung, pancreas and placenta; however, it is not found in skeletal muscle.

### REFERENCES

1. Winston, J.T., Strack, P., Beer-Romero, P., Chu, C.Y., Elledge, S.J. and Harper, J.W. 1999. The SCF  $\beta$ -TrCP-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in I $\kappa$ B- $\alpha$  and  $\beta$ -catenin and stimulates I $\kappa$ B- $\alpha$  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., Koepf, 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: FBXL4 (human) mapping to 6q16.1; Fbxl4 (mouse) mapping to 4 A3.

### SOURCE

FBL4 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FBL4 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54491 P, (100  $\mu$ g 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

FBL4 (C-17) is recommended for detection of FBL4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

FBL4 (C-17) is also recommended for detection of FBL4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FBL4 siRNA (h): sc-62300, FBL4 siRNA (m): sc-62301, FBL4 shRNA Plasmid (h): sc-62300-SH, FBL4 shRNA Plasmid (m): sc-62301-SH, FBL4 shRNA (h) Lentiviral Particles: sc-62300-V and FBL4 shRNA (m) Lentiviral Particles: sc-62301-V.

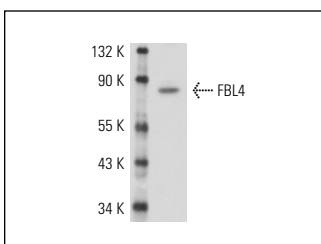
Molecular Weight of FBL4: 70 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

### 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



FBL4 (C-17): sc-54491. Western blot analysis of FBL4 expression in Hep G2 whole cell lysate.

### RESEARCH USE

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

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Try **FBL4 (A-7): sc-376102** or **FBL4 (D-9): sc-393772**, our highly recommended monoclonal alternatives to FBL4 (C-17).