

FBL4 (A-7): sc-376102

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, $\text{I}\kappa\text{B}\alpha$ and β -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., et al. 1999. The SCF^{TrCP}-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in $\text{I}\kappa\text{B}\alpha$ and β -catenin and stimulates $\text{I}\kappa\text{B}\alpha$ ubiquitination *in vitro*. *Genes Dev.* 13: 270-283.
2. Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. *Curr. Biol.* 9: 1177-1179.
3. Winston, J.T., et al. 1999. A family of mammalian F-box proteins. *Curr. Biol.* 9: 1180-1182.
4. Craig, K.L., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: FBXL4 (human) mapping to 6q16.1; Fbxl4 (mouse) mapping to 4 A3.

SOURCE

FBL4 (A-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 551-587 near the C-terminus of FBL4 of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FBL4 (A-7) is available conjugated to agarose (sc-376102 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-376102 HRP), 200 $\mu\text{g}/\text{ml}$, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376102 PE), fluorescein (sc-376102 FITC), Alexa Fluor[®] 488 (sc-376102 AF488), Alexa Fluor[®] 546 (sc-376102 AF546), Alexa Fluor[®] 594 (sc-376102 AF594) or Alexa Fluor[®] 647 (sc-376102 AF647), 200 $\mu\text{g}/\text{ml}$, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-376102 AF680) or Alexa Fluor[®] 790 (sc-376102 AF790), 200 $\mu\text{g}/\text{ml}$, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376102 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

FBL4 (A-7) is recommended for detection of FBL4 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 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.

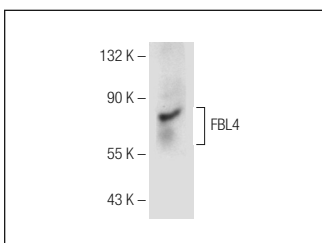
Molecular Weight of FBL4: 70 kDa.

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

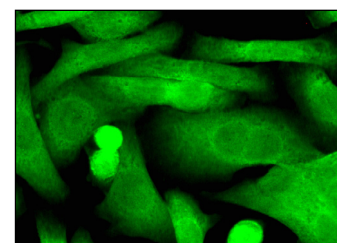
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



FBL4 (A-7): sc-376102. Western blot analysis of FBL4 expression in Hep G2 whole cell lysate.



FBL4 (A-7): sc-376102. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and nuclear localization.

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.

PROTOCOLS

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