

FBL3B (4A1): sc-517115

BACKGROUND

FBL3B is a 434 amino acid protein encoded by the human gene FBXL21. FBL3B contains one 40 amino acid F-box region, making it a member of the F-box family. FBL3B also contains three 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. FBL3B is a substrate-recognition component of the SCF complex that interacts with Skp1 p19 and CUL-1. FBL3B is also associated with expression and regulation of circadian and cryptochrome proteins.

REFERENCES

1. Winston, J.T., et al. 1999. The SCF β -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. Ilyin, G.P., et al. 2000. cDNA cloning and expression analysis of new members of the mammalian F-box protein family. *Genomics* 67: 40-47.
5. Ilyin, G.P., et al. 2002. A new subfamily of structurally related human F-box proteins. *Gene* 296: 11-20.
6. Siepka, S.M., et al. 2007. Circadian mutant overtime reveals F-box protein FBXL3 regulation of cryptochrome and period gene expression. *Cell* 129: 1011-1023.
7. Busino, L., et al. 2007. SCFFbxl3 controls the oscillation of the circadian clock by directing the degradation of cryptochrome proteins. *Science* 316: 900-904.

CHROMOSOMAL LOCATION

Genetic locus: FBXL21 (human) mapping to 5q31.1.

SOURCE

FBL3B (4A1) is a mouse monoclonal antibody raised against amino acids 167-276 representing partial length FBL3B of human origin.

PRODUCT

Each vial contains 100 μg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

FBL3B (4A1) is recommended for detection of FBL3B 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

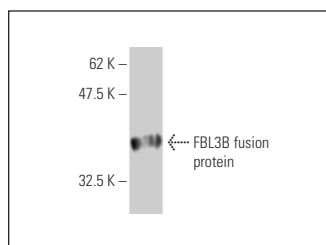
Suitable for use as control antibody for FBL3B siRNA (h): sc-62298, FBL3B shRNA Plasmid (h): sc-62298-SH and FBL3B shRNA (h) Lentiviral Particles: sc-62298-V.

Molecular Weight of FBL3B: 49 kDa.

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, 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).

DATA



FBL3B (4A1): sc-517115. Western blot analysis of human recombinant FBL3B fusion protein.

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.