

FBL2 (I-14): sc-54360

BACKGROUND

FBL2 is a 423 amino acid protein encoded by the human gene FBXL2. Similar to Skp2 p45, this protein interacts with Skp1 p19, and deletion of the FBL2 F-box will inhibit this association. However, in contrast to Skp2 p45, FBL2 can be detected in non-proliferating hepatocytes and its expression is increased in growth-arrested liver epithelial cells. In addition, FBL2 is localized primarily in the cytoplasm and is mostly concentrated around the nucleus. Overall, although FBL2 shares strong structural homology with Skp2 p45 as well as having a similar ability to associate with Skp1 p19, these proteins likely play distinct roles and target different substrates to the SCF ubiquitin-protein ligase (SKP1-CUL1-F-box protein) complex. F-box proteins are critical components of the SCF complex and are involved in substrate recognition and recruitment for ubiquitination and consequent degradation by the proteasome. The human FBL2 gene is a highly interrupted gene of at least 126.6 kb located on chromosome 17 in close proximity to the TRAP220 gene in a head-to-tail orientation. The FBL2 protein contains an F-box and six perfect C-terminal leucine-rich repeats.

REFERENCES

- Ilyin, G.P., Rialland, M., Glaise, D. and Guguen-Guillouzo, C. 1999. Identification of a novel Skp2-like mammalian protein containing F-box and leucine-rich repeats. *FEBS Lett.* 459: 75-79.
- 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.
- 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.
- Wang, C., Keller, B.C., Huang, H., Brown, M.S., Goldstein, J.L. and Ye, J. 2005. Identification of FBL2 as a geranylgeranylated cellular protein required for hepatitis C virus RNA replication. *Mol. Cell* 18: 425-434.
- Watashi, K. 2007. Regulation mechanism of hepatitis C virus replication. *Tanpakushitsu Kakusan Koso* 52: 1139-1143.
- Malard, V., Berenguer, F., Prat, O., Ruat, S., Steinmetz, G. and Quemeneur, E. 2007. Global gene expression profiling in human lung cells exposed to cobalt. *BMC Genomics* 8: 147-147.

CHROMOSOMAL LOCATION

Genetic locus: FBXL2 (human) mapping to 3p22.3; Fbxl2 (mouse) mapping to 9 F3.

SOURCE

FBL2 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FBL2 of human origin.

STORAGE

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

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-54360 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FBL2 (I-14) is recommended for detection of FBL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FBL2 (I-14) is also recommended for detection of FBL2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FBL2 siRNA (h): sc-62294, FBL2 siRNA (m): sc-62295, FBL2 shRNA Plasmid (h): sc-62294-SH, FBL2 shRNA Plasmid (m): sc-62295-SH, FBL2 shRNA (h) Lentiviral Particles: sc-62294-V and FBL2 shRNA (m) Lentiviral Particles: sc-62295-V.

Molecular Weight of FBL2: 47 kDa.

Positive Controls: mouse heart extract: sc-2254 or rat liver tissue extract: sc-2395.

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) 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.

RESEARCH USE

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

PROTOCOLS

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