FBXO16 (D-21): sc-133576



The Power to Question

BACKGROUND

Belonging to the F-box family of proteins, FBX016 (F-box only protein 16), also known as FBX16, is a 292 amino acid protein that contains one C-terminal F-box domain. 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. They are members of a larger family of proteins that are involved in the regulation of a wide variety of cellular mechanisms, including the cell cycle, the immune response, signaling cascades and developmental processes. They function by targeting proteins, such as cyclins, cyclin-dependent kinase inhibitors, $l_{\rm K}B$ - α and β -catenin, for degradation by the proteasome after ubiquitination. Via its F-box domain, FBX016 can directly interact with Skp1 p19 and CUL-1. FBX016 is expressed in heart, spleen and colon.

REFERENCES

- 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.
- 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.
- 3. 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 lkB-α and β-catenin and stimulates lkB-α ubiquitination *in vitro*. Genes Dev. 13: 270-283.
- 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.
- Schulman, B.A., Carrano, A.C., Jeffrey, P.D., Bowen, Z., Kinnucan, E.R., Finnin, M.S., Elledge, S.J., Harper, J.W., Pagano, M. and Pavletich, N.P. 2000. Insights into SCF ubiquitin ligases from the structure of the Skp1-Skp2 complex. Nature 408: 381-386.
- 7. Ilyin, G.P., Serandour, A.L., Pigeon, C., Rialland, M., Glaise, D. and Guguen-Guillouzo, C. 2002. A new subfamily of structurally related human F-box proteins. Gene 296: 11-20.
- 8. Jin, J., Cardozo, T., Lovering, R.C., Elledge, S.J., Pagano, M. and Harper, J.W. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. Genes Dev. 18: 2573-2580.
- Okita, K., Ichisaka, T. and Yamanaka, S. 2007. Generation of germlinecompetent induced pluripotent stem cells. Nature 448: 313-317.

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.

CHROMOSOMAL LOCATION

Genetic locus: FBX016 (human) mapping to 8p21.1; Fbxo16 (mouse) mapping to 14 D1.

SOURCE

FBX016 (D-21) is an affinity purified rabbit polyclonal antibody raised against synthetic FBX016 peptide of human origin.

PRODUCT

Each vial contains 50 μ g lgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

FBX016 (D-21) is recommended for detection of FBX016 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

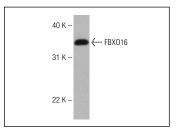
Suitable for use as control antibody for FBX016 siRNA (h): sc-77769, FBX016 siRNA (m): sc-145106, FBX016 shRNA Plasmid (h): sc-77769-SH, FBX016 shRNA Plasmid (m): sc-145106-SH, FBX016 shRNA (h) Lentiviral Particles: sc-77769-V and FBX016 shRNA (m) Lentiviral Particles: sc-145106-V.

Molecular Weight of FBX016: 35 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



FBX016 (D-21): sc-133576. Western blot analysis of FBX016 expression in human fetal brain tissue extract.

PROTOCOLS

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