SANTA CRUZ BIOTECHNOLOGY, INC.

FBXO16 (N-18): sc-87121



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, $\mathbf{I}\kappa\mathbf{B}$ - 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

- 1. 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.
- 2. 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 SCF^{β -TRCP}-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in I κ B- α and β -catenin and stimulates I κ B- 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.
- 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: FBX016 (human) mapping to 8p21.1; Fbx016 (mouse) mapping to 14 D1.

SOURCE

FBX016 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FBX016 of human origin.

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-87121 P, (100 μ 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

FBX016 (N-18) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other FBX0 family members.

FBX016 (N-18) is also recommended for detection of FBX016 in additional species, including equine, canine, bovine and porcine.

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.

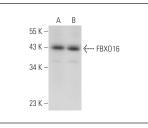
Molecular Weight of FBX016: 35 kDa.

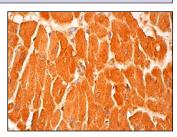
Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or SW480 cell lysate: sc-2219.

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. 4) Immuno-histochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA





FBX016 (N-18): sc-87121. Western blot analysis of FBX016 expression in SW480 $({\rm A})$ and HeLa $({\rm B})$ whole cell lysates.

FBX016 (N-18): sc-87121. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

RESEARCH USE

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