SANTA CRUZ BIOTECHNOLOGY, INC.

FBXW2 (L-14): sc-160326

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The Power to Question

BACKGROUND

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 processes (including the cell cycle, immune responses, signaling cascades and developmental events) through the targeting of proteins, such as cyclins, cyclin-dependent kinase inhibitors, IκB-α and β-catenin, for proteasomal degradation. FBXW2 (F-box and WD repeat domain containing 2), also known as protein MD6 or FWD2, is a 454 amino acid protein that contains one F-box domain and 4 WD repeats. Existing as two alternatively spliced isoforms, FBXW2 interacts with CUL-1 and Skp1 p19 and is a component of the SCF type E3 ubiquitin ligase complex.

REFERENCES

1. Patton, E.E., et al. 1998. Combinatorial control in ubiquitin-dependent proteolysis: don't Skp the F-box hypothesis. Trends Genet. 14: 236-243.
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. Chiaur, D.S., et al. 2000. Five human genes encoding F-box proteins: chromosome mapping and analysis in human tumors. Cytogenet. Cell Genet. 88: 255-258.
5. Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. Genes Dev. 18: 2573-2580.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 609071. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Yang, C.S., et al. 2005. FBW2 targets GCMa to the ubiquitin-proteasome degradation system. J. Biol. Chem. 280: 10083-10090.

CHROMOSOMAL LOCATION

Genetic locus: FBXW2 (human) mapping to 9q33.2; Fbxw2 (mouse) mapping to 2 B.

SOURCE

FBXW2 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FBXW2 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-160326 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FBXW2 (L-14) is recommended for detection of FBXW2 of mouse, rat and 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)], 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 FBXW family members.

FBXW2 (L-14) is also recommended for detection of FBXW2 in additional species, including porcine.

Suitable for use as control antibody for FBXW2 siRNA (h): sc-92515, FBXW2 siRNA (m): sc-145142, FBXW2 shRNA Plasmid (h): sc-92515-SH, FBXW2 shRNA Plasmid (m): sc-145142-SH, FBXW2 shRNA (h) Lentiviral Particles: sc-92515-V and FBXW2 shRNA (m) Lentiviral Particles: sc-145142-V.

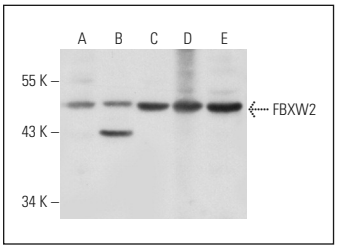
Molecular Weight of FBXW2: 52 kDa.

Positive Controls: mouse brain extract: sc-2253, U-937 cell lysate: sc-2239 or MCF7 whole cell lysate: sc-2206.

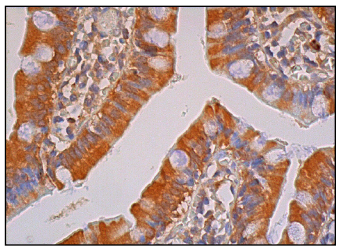
RECOMMENDED SECONDARY REAGENTS

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) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



FBXW2 (L-14): sc-160326. Western blot analysis of FBXW2 expression in Jurkat (**A**), MCF7 (**B**) and U-937 (**C**) whole cell lysates and mouse embryo (**D**) and mouse brain (**E**) tissue extracts.



FBXW2 (L-14): sc-160326. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

STORAGE

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