FBXO29 (S-14): sc-167863



The Power to Question

BACKGROUND

FBX029 (F-box only protein 29), also designated F-box/WD repeat-containing protein 8 (FBXW8), is a 598 amino acid protein that contains one 40 amino acid F-box region, making it a member of the F-box family. FBX029 also contains five WD 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, $l\kappa B-\alpha$ and β -catenin, for degradation by the proteasome after ubiquitination. Functioning as a component of the SCF complex, FBX029 is thought to recognize and bind to select phosphoryl-ated proteins, thereby promoting their ubiquitination and subsequent degradation. FBX029 exists as two isoforms as a result of alternative splicing events.

REFERENCES

- 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 IκB-α and β-catenin and stimulates IκB-α ubiquitination in vitro. Genes Dev. 13: 270-283.
- 2. 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.
- 3. 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.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: FBXW8 (human) mapping to 12q24.22; Fbxw8 (mouse) mapping to 5 F.

SOURCE

FBXO29 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FBXO29 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167863 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FBX029 (S-14) is recommended for detection of FBX029 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); non cross-reactive with other FBX0 family members.

FBX029 (S-14) is also recommended for detection of FBX029 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FBX029 siRNA (h): sc-95763, FBX029 siRNA (m): sc-145115, FBX029 shRNA Plasmid (h): sc-95763-SH, FBX029 shRNA Plasmid (m): sc-145115-SH, FBX029 shRNA (h) Lentiviral Particles: sc-95763-V and FBX029 shRNA (m) Lentiviral Particles: sc-145115-V.

Molecular Weight of FBX029 isoforms: 67/61 kDa.

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.

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.

PROTOCOLS

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



Try **FBX029 (D-7):** sc-514385, our highly recommended monoclonal alternative to FBX029 (S-14).

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