

FBXO29 (D-7): sc-514385



The Power to Question

BACKGROUND

FBXO29 (F-box only protein 29), also designated F-box/WD repeat-containing protein 8 (FBXW8), is a 598 amino acid protein that contains one forty amino acid F-box region, making it a member of the F-box family. FBXO29 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, I κ B- α and β -catenin, for degradation by the proteasome after ubiquitination. Functioning as a component of the SCF complex, FBXO29 is thought to recognize and bind to select phosphorylated proteins, thereby promoting their ubiquitination and subsequent degradation. FBXO29 exists as two isoforms as a result of alternative splicing events.

REFERENCES

- Winston, J.T., et al. 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.
- Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. *Curr. Biol.* 9: 1177-1179.

CHROMOSOMAL LOCATION

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

SOURCE

FBXO29 (D-7) is a mouse monoclonal antibody raised against amino acids 284-403 mapping within an internal region of FBXO29 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FBXO29 (D-7) is available conjugated to agarose (sc-514385 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514385 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514385 PE), fluorescein (sc-514385 FITC), Alexa Fluor[®] 488 (sc-514385 AF488), Alexa Fluor[®] 546 (sc-514385 AF546), Alexa Fluor[®] 594 (sc-514385 AF594) or Alexa Fluor[®] 647 (sc-514385 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514385 AF680) or Alexa Fluor[®] 790 (sc-514385 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

FBXO29 (D-7) is recommended for detection of FBXO29 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FBXO29 siRNA (h): sc-95763, FBXO29 siRNA (m): sc-145115, FBXO29 shRNA Plasmid (h): sc-95763-SH, FBXO29 shRNA Plasmid (m): sc-145115-SH, FBXO29 shRNA (h) Lentiviral Particles: sc-95763-V and FBXO29 shRNA (m) Lentiviral Particles: sc-145115-V.

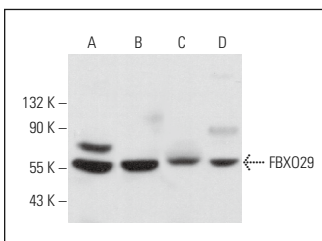
Molecular Weight of FBXO29 isoforms: 67/61 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357, Neuro-2A whole cell lysate: sc-364185 or rat brain extract: sc-2392.

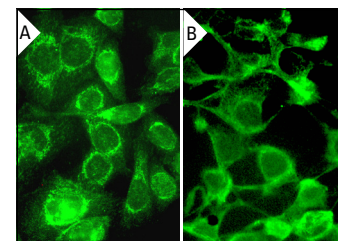
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



FBXO29 (D-7): sc-514385. Western blot analysis of FBXO29 expression in Neuro-2A (A) and ARPE-19 (B) whole cell lysates and rat skeletal muscle (C) and rat brain (D) tissue extracts.



FBXO29 (D-7): sc-514385. Immunofluorescence staining of formalin-fixed SW480 cells showing perinuclear and cytoplasmic localization (A). Immunofluorescence staining of formalin-fixed NIH/3T3 cells showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Zheng, Z., et al. 2021. uc-77- downregulation promotes colorectal cancer cell proliferation by inhibiting FBXW8-mediated CDK4 protein degradation. *Front. Oncol.* 11: 673223.
- Chen, C., et al. 2022. Cullin neddylation inhibitor attenuates hyperglycemia by enhancing hepatic Insulin signaling through Insulin receptor substrate stabilization. *Proc. Natl. Acad. Sci. USA* 119: e2111737119.

RESEARCH USE

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