SANTA CRUZ BIOTECHNOLOGY, INC.

FBXO4 (D-9): sc-376372

SANTA CRUZ BIOTECHNOLOGY

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. F-box proteins are members of a large family that regulates cell cycle, immune response, signalling cascades and developmental programs by targeting proteins, such as cyclins, cyclin-dependent kinase inhibitors, IκB-α and β-catenin, for degradation by the proteasome after ubiquitination. F-box only protein 4 (FBXO4) is a substrate recognition component of the SCF-type E3 ubiquitin ligase complex, possibly involved in the recognition and binding to phosphorylated target proteins. FBXO4 directly interacts with Skp1 p19 and CUL-1 within the SCF-type E3 complex and has been found to recognize TRF1 and promote its ubiquitination. FBXO4 is expressed as two isoforms produced by alternative splicing.

CHROMOSOMAL LOCATION

Genetic locus: FBXO4 (human) mapping to 5p13.1.

SOURCE

FBXO4 (D-9) is a mouse monoclonal antibody raised against amino acids 59-358 mapping within an internal region of FBXO4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FBXO4 (D-9) is available conjugated to agarose (sc-376372 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376372 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376372 PE), fluorescein (sc-376372 FITC), Alexa Fluor® 488 (sc-376372 AF488), Alexa Fluor® 546 (sc-376372 AF546), Alexa Fluor® 594 (sc-376372 AF594) or Alexa Fluor® 647 (sc-376372 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376372 AF680) or Alexa Fluor® 790 (sc-376372 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FBXO4 (D-9) is recommended for detection of FBXO4 of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FBXO4 siRNA (h): sc-91910, FBXO4 shRNA Plasmid (h): sc-91910-SH and FBXO4 shRNA (h) Lentiviral Particles: sc-91910-V.

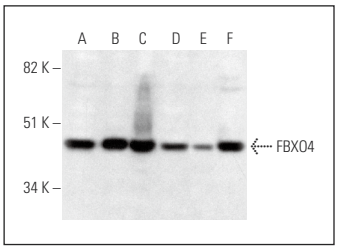
Molecular Weight of FBXO4: 44 kDa.

Positive Controls: Y79 cell lysate: sc-2240, HL-60 whole cell lysate: sc-2209 or Jurkat whole cell lysate: sc-2204.

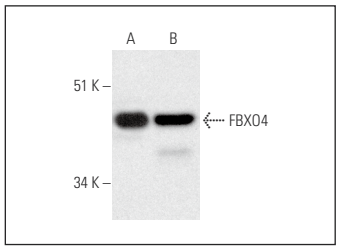
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



FBXO4 (D-9): sc-376372. Western blot analysis of FBXO4 expression in HeLa (**A**), Jurkat (**B**), MIA PaCa-2 (**C**), U-2 OS (**D**), OV-90 (**E**) and A-431 (**F**) whole cell lysates.



FBXO4 (D-9): sc-376372. Western blot analysis of FBXO4 expression in Y79 (**A**) and HL-60 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. An, H.K., et al. 2020. CASP9 (caspase 9) is essential for autophagosome maturation through regulation of mitochondrial homeostasis. Autophagy 16: 1598-1617.
2. Simoneschi, D., et al. 2021. $CRL4^{AMBRA1}$ is a master regulator of D-type cyclins. Nature 592: 789-793.
3. Wang, H., et al. 2023. NMT1 sustains ICAM-1 to modulate adhesion and migration of tumor cells. Cell. Signal. 109: 110739.

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 for detailed protocols and support products.