SANTA CRUZ BIOTECHNOLOGY, INC.

FBXO44 (C-10): sc-398020

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. 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. FBXO44 (F-box only protein 44), also known as FBG3, FBX30, FBX44, FBX6A or FBXO6A, is a 255 amino acid protein that contains one F-box domain and one FBA domain and functions as a component of the SCF complex. Expressed abundantly in kidney and brain and at lower levels in liver, heart and spleen, FBXO44 exists as multiple alternatively spliced isoforms and is thought to be involved in E3 ubiquitin ligase-related events throughout the cell.

REFERENCES

1. Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. Curr. Biol. 9: 1177-1179.
2. Winston, J.T., et al. 1999. A family of mammalian F-box proteins. Curr. Biol. 9: 1180-1182.
3. Ilyin, G.P., et al. 2000. cDNA cloning and expression analysis of new members of the mammalian F-box protein family. Genomics 67: 40-47.
4. Ilyin, G.P., et al. 2002. A new subfamily of structurally related human F-box proteins. Gene 296: 11-20.
5. Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. Genes Dev. 18: 2573-2580.
6. Cardozo, T., et al. 2004. The SCF ubiquitin ligase: insights into a molecular machine. Nat. Rev. Mol. Cell Biol. 5: 739-751.

CHROMOSOMAL LOCATION

Genetic locus: FBXO44 (human) mapping to 1p36.22; Fbxo44 (mouse) mapping to 4 E2.

SOURCE

FBXO44 (C-10) is a mouse monoclonal antibody raised against amino acids 86-125 mapping within an internal region of FBXO44 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.

FBXO44 (C-10) is available conjugated to agarose (sc-398020 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398020 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398020 PE), fluorescein (sc-398020 FITC), Alexa Fluor® 488 (sc-398020 AF488), Alexa Fluor® 546 (sc-398020 AF546), Alexa Fluor® 594 (sc-398020 AF594) or Alexa Fluor® 647 (sc-398020 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398020 AF680) or Alexa Fluor® 790 (sc-398020 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

FBXO44 (C-10) is recommended for detection of FBXO44 of mouse, rat and 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).

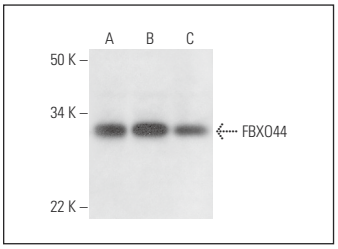
FBXO44 (C-10) is also recommended for detection of FBXO44 in additional species, including porcine.

Suitable for use as control antibody for FBXO44 siRNA (h): sc-78647, FBXO44 siRNA (m): sc-145128, FBXO44 shRNA Plasmid (h): sc-78647-SH, FBXO44 shRNA Plasmid (m): sc-145128-SH, FBXO44 shRNA (h) Lentiviral Particles: sc-78647-V and FBXO44 shRNA (m) Lentiviral Particles: sc-145128-V.

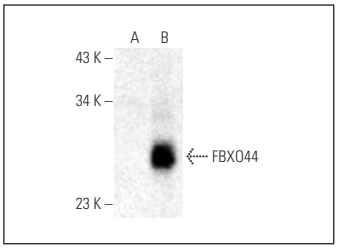
Molecular Weight of FBXO44: 30 kDa.

Positive Controls: T98G cell lysate: sc-2294, Caki-1 cell lysate: sc-2224 or FBXO44 (m): 293T Lysate: sc-125332.

DATA



FBXO44 (C-10): sc-398020. Western blot analysis of FBXO44 expression in T98G (**A**), Caki-1 (**B**) and A549 (**C**) whole cell lysates.



FBXO44 (C-10): sc-398020. Western blot analysis of FBXO44 expression in non-transfected: sc-117752 (**A**) and transfected: sc-125332 (**B**) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. McNabb, H.J., et al. 2020. N-terminal targeting of regulator of G protein signaling protein 2 for F-box only protein 44-mediated proteasomal degradation. Mol. Pharmacol. 98: 677-685.
2. Shen, J.Z., et al. 2021. FBXO44 promotes DNA replication-coupled repetitive element silencing in cancer cells. Cell 184: 352-369.e23.

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.