SANTA CRUZ BIOTECHNOLOGY, INC.

FBL20 (D-4): sc-515274

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FBL20 (F-box/LRR-repeat protein 20) is a 436 amino acid protein encoded by the human gene FBXL20. FBL20 contains one 40 amino acid F-box region, making it a member of the F-box family. FBL20 also contains 12 LRR (leucine-rich 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, IκB-α and β-catenin, for degradation by the proteasome after ubiquitination. FBL20 exists as two isoforms as a result of alternative splicing events.

REFERENCES

1. Winston, J.T., et al. 1999. The $SCF^{\beta\text{-}TrCP}$-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., 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.

CHROMOSOMAL LOCATION

Genetic locus: FBXL20 (human) mapping to 17q12; Fbxl20 (mouse) mapping to 11 D.

SOURCE

FBL20 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 66-81 within an internal region of FBL20 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

FBL20 (D-4) is available conjugated to agarose (sc-515274 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515274 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515274 PE), fluorescein (sc-515274 FITC), Alexa Fluor® 488 (sc-515274 AF488), Alexa Fluor® 546 (sc-515274 AF546), Alexa Fluor® 594 (sc-515274 AF594) or Alexa Fluor® 647 (sc-515274 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515274 AF680) or Alexa Fluor® 790 (sc-515274 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515274 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

FBL20 (D-4) is recommended for detection of FBL20 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).

Suitable for use as control antibody for FBL20 siRNA (h): sc-94158, FBL20 siRNA (m): sc-145093, FBL20 shRNA Plasmid (h): sc-94158-SH, FBL20 shRNA Plasmid (m): sc-145093-SH, FBL20 shRNA (h) Lentiviral Particles: sc-94158-V and FBL20 shRNA (m) Lentiviral Particles: sc-145093-V.

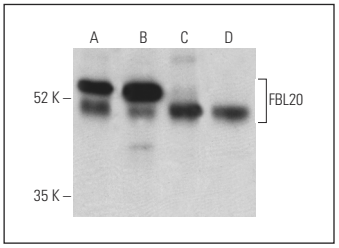
Molecular Weight of FBL20 isoforms: 48/45 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, COLO 205 whole cell lysate: sc-364177 or NIH/3T3 whole cell lysate: sc-2210.

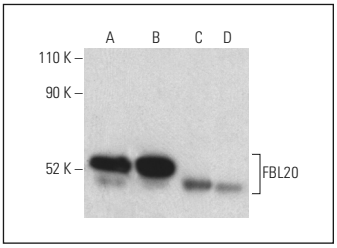
RECOMMENDED SUPPORT REAGENTS

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



FBL20 (D-4): sc-515274. Western blot analysis of FBL20 expression in SH-SY5Y (**A**), COLO 205 (**B**), NIH/3T3 (**C**) and RPE-J (**D**) whole cell lysates. Detection reagent used: m-IgG_{2b} BP-HRP: sc-542741.



FBL20 (D-4): sc-515274. Western blot analysis of FBL20 expression in SH-SY5Y (**A**), COLO 205 (**B**), NIH/3T3 (**C**) and RPE-J (**D**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Madduri, L.S.V., et al. 2021. p53/FBXL20 axis negatively regulates the protein stability of PR55α, a regulatory subunit of PP2A Ser/Thr phosphatase. Neoplasia 23: 1192-1203.

RESEARCH USE

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