

FBL5 (G-11): sc-390102

BACKGROUND

FBL5 is a 691 amino acid protein encoded by the human gene FBXL5. FBL5 contains one 40 amino acid F-box region, making it a member of the F-box family. FBL5 also contains four 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, signalling cascades and developmental programs by targeting proteins, such as cyclins, cyclin-dependent kinase inhibitors, κ B- α and β -catenin, for degradation by the proteasome after ubiquitination. Localized near the nucleus in the cytoplasm, FBL5 is ubiquitously expressed and believed to recognize and bind to phosphorylated proteins to promote their ubiquitination and degradation.

CHROMOSOMAL LOCATION

Genetic locus: FBXL5 (human) mapping to 4p15.32; Fbxl5 (mouse) mapping to 5 B3.

SOURCE

FBL5 (G-11) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of FBL5 of human 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.

FBL5 (G-11) is available conjugated to agarose (sc-390102 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390102 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390102 PE), fluorescein (sc-390102 FITC), Alexa Fluor® 488 (sc-390102 AF488), Alexa Fluor® 546 (sc-390102 AF546), Alexa Fluor® 594 (sc-390102 AF594) or Alexa Fluor® 647 (sc-390102 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390102 AF680) or Alexa Fluor® 790 (sc-390102 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FBL5 (G-11) is recommended for detection of FBL5 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), immunohistochemistry (including paraffin-embedded sections) (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 FBL5 siRNA (h): sc-62302, FBL5 siRNA (m): sc-62303, FBL5 shRNA Plasmid (h): sc-62302-SH, FBL5 shRNA Plasmid (m): sc-62303-SH, FBL5 shRNA (h) Lentiviral Particles: sc-62302-V and FBL5 shRNA (m) Lentiviral Particles: sc-62303-V.

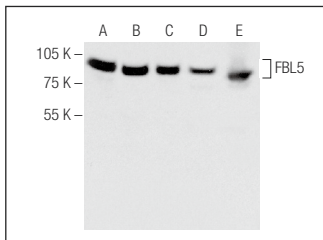
Molecular Weight of FBL5: 79 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182, J774.A1 cell lysate: sc-3802 or RAW 264.7 whole cell lysate: sc-2211.

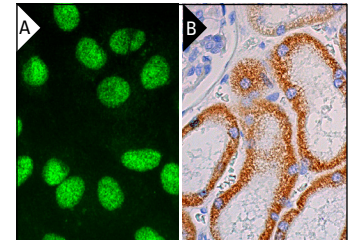
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FBL5 (G-11): sc-390102. Western blot analysis of FBL5 expression in HL-60 (A), AML-193 (B), RAW 264.7 (C), J774.A1 (D) and WEHI-3 (E) whole cell lysates.



FBL5 (G-11): sc-390102. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

- Kuno, S. and Iwai, K. 2023. Oxygen modulates iron homeostasis by switching iron sensing of NCOA4. *J. Biol. Chem.* 299: 104701.
- Wang, S., et al. 2023. Role of FBXL5 in redox homeostasis and spindle assembly during oocyte maturation in mice. *FASEB J.* 37: e23080.
- Fujita, H., et al. 2024. PRDX6 augments selenium utilization to limit iron toxicity and ferroptosis. *Nat. Struct. Mol. Biol.* 31: 1277-1285.

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.