

## FBL10 (5G1): sc-293279

### BACKGROUND

FBXL10 (F-box and leucine-rich repeat protein 10), also known as Fbl10, CXXC2 (CXXC-type zinc finger protein 2), PCCX2, KDM2B, JEMMA (jumonji domain, EMSY-interactor, methyltransferase motif protein) or JHDM1B (jumonji C domain-containing histone demethylase 1B), is a nuclear protein that contains one F-box domain, a CXXC-type zinc finger, one JMJC domain, four leucine-rich repeats and one PHD-type zinc finger. FBXL10 belongs to the Fbls class of F-box proteins that contain leucine-rich repeats in addition to their F-box motif. 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. In addition to its role in substrate recognition as a component of the E3 complex, FBXL10 functions as a dimethylation-specific demethylase, binding iron as a cofactor and demethylating lysine-36 of Histone H3. This suggests that FBXL10 plays a central role in the histone code.

### REFERENCES

1. Winston, J.T., et al. 1999. A family of mammalian F-box proteins. *Curr. Biol.* 9: 1180-1182.
2. Fujino, T., et al. 2000. PCCX1, a novel DNA-binding protein with PHD finger and CXXC domain, is regulated by proteolysis. *Biochem. Biophys. Res. Commun.* 271: 305-310.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609078. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

### CHROMOSOMAL LOCATION

Genetic locus: KDM2B (human) mapping to 12q24.31.

### SOURCE

FBL10 (5G1) is a mouse monoclonal antibody raised against amino acids 457-555 of FBL10 of human origin.

### PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

FBL10 (5G1) is recommended for detection of FBL10 of human origin by Western Blotting (starting dilution 1:200, 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), 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).

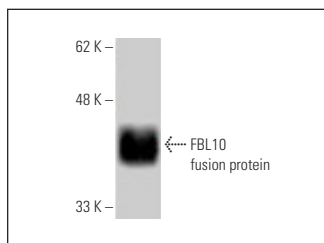
Suitable for use as control antibody for FBL10 siRNA (h): sc-75005, FBL10 shRNA Plasmid (h): sc-75005-SH and FBL10 shRNA (h) Lentiviral Particles: sc-75005-V.

Molecular Weight of FBL10: 153 kDa.

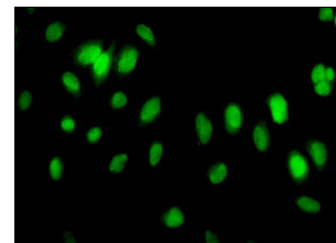
### RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

### DATA



FBL10 (5G1): sc-293279. Western blot analysis of human recombinant FBL10 fusion protein.



FBL10 (5G1): sc-293279. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

### SELECT PRODUCT CITATIONS

1. Gulay, K.C.M., et al. 2021. KDM2B promotes cell viability by enhancing DNA damage response in canine hemangiosarcoma. *J. Genet. Genomics* 48: 618-630.
2. Gulay, K.C.M., et al. 2022. Hemangiosarcoma cells induce M2 polarization and PD-L1 expression in macrophages. *Sci. Rep.* 12: 2124.
3. Hussain, M., et al. 2022. A small-molecule Skp1 inhibitor elicits cell death by p53-dependent mechanism. *iScience* 25: 104591.
4. Gulay, K.C.M., et al. 2022. The expression of histone lysine demethylase 2B in canine hemangiosarcoma is associated with disease progression. *Vet. Comp. Oncol.* 20: 529-534.

### 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](http://www.scbt.com) for detailed protocols and support products.