

Elongin B (D-5): sc-133090

BACKGROUND

Individuals harboring germline mutations in the tumor suppressor gene von Hippel-Lindau (VHL) exhibit an increased susceptibility to a variety of tumors including renal carcinoma, hemangio-blastoma of the central nervous system and pheochromocytoma. The Elongin (SIII) complex has been identified as the functional target of the VHL protein. Elongin (SIII) is a heterotrimer composed of a transcriptional active subunit designated Elongin A and two regulatory subunits designated Elongin B and Elongin C. VHL functions by binding to the Elongin B and C subunits, inhibiting the transcriptional efficacy of the Elongin (SIII) complex.

CHROMOSOMAL LOCATION

Genetic locus: TCEB2 (human) mapping to 16p13.3; Tceb2 (mouse) mapping to 17 A3.3.

SOURCE

Elongin B (D-5) is a mouse monoclonal antibody raised against amino acids 1-118 representing full length Elongin B 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.

Elongin B (D-5) is available conjugated to agarose (sc-133090 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133090 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133090 PE), fluorescein (sc-133090 FITC), Alexa Fluor® 488 (sc-133090 AF488), Alexa Fluor® 546 (sc-133090 AF546), Alexa Fluor® 594 (sc-133090 AF594) or Alexa Fluor® 647 (sc-133090 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133090 AF680) or Alexa Fluor® 790 (sc-133090 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Elongin B (D-5) is recommended for detection of Elongin B 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), 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 Elongin B siRNA (h): sc-35294, Elongin B siRNA (m): sc-35295, Elongin B shRNA Plasmid (h): sc-35294-SH, Elongin B shRNA Plasmid (m): sc-35295-SH, Elongin B shRNA (h) Lentiviral Particles: sc-35294-V and Elongin B shRNA (m) Lentiviral Particles: sc-35295-V.

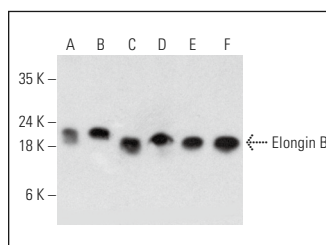
Molecular Weight of Elongin B: 18 kDa.

Positive Controls: A-431 nuclear extract: sc-2122, HEL 92.1.7 cell lysate: sc-2270 or 3T3-L1 cell lysate: sc-2243.

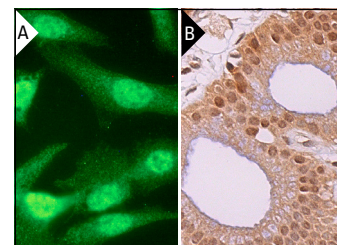
RECOMMENDED SUPPORT REAGENTS

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. 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



Elongin B (D-5): sc-133090. Western blot analysis of Elongin B expression in A-431 nuclear extract (A) and HEL 92.1.7 (B), 3T3-L1 (C), Neuro-2A (D), NRK (E) and RPE-J (F) whole cell lysates.



Elongin B (D-5): sc-133090. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear and cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

1. Uchida, T., et al. 2016. CUL2-mediated clearance of misfolded TDP-43 is paradoxically affected by VHL in oligodendrocytes in ALS. *Sci. Rep.* 6: 19118.
2. Hsieh, W.C., et al. 2018. IL-6 receptor blockade corrects defects of XIAP-deficient regulatory T cells. *Nat. Commun.* 9: 463.
3. Mena, E.L., et al. 2021. ORF10-Cullin-2-ZYG11B complex is not required for SARS-CoV-2 infection. *Proc. Natl. Acad. Sci. USA* 118: e2023157118.
4. Mathó, C., et al. 2022. VHL-P138R and VHL-L163R novel variants: mechanisms of VHL pathogenicity involving HIF-dependent and HIF-independent actions. *Front. Endocrinol.* 13: 854365.
5. Lockwood, K.C., et al. 2023. KIAA0317 regulates SOCS1 stability to ameliorate colonic inflammation. *FEBS J.* 290: 3802-3811.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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