

MOV10 (B-3): sc-515722

BACKGROUND

MOV10 (moloney leukemia virus 10), also known as putative helicase MOV-10, gb110 or fSAP113, is a 1,003 amino acid novel telomerase-associated protein that belongs to the DNA2/NAM7 helicase family and SDE3 subfamily. Localizing to mRNA-degrading cytoplasmic P bodies, MOV10 may function as a RNA helicase that is required to mediate miRNA-guided mRNA cleavage and RNA-mediated gene silencing by the RISC (RNA-induced silencing) complex. Highly expressed in ovary and testis, MOV10 is involved in hepatitis δ virus (HDV) transcription and replication, and is known to interact with eIF2C1, eIF2C2, eIF6, Dicer and TRBP2. MOV10 exists as three alternatively spliced isoforms that are encoded by a gene located on human chromosome 1 and mouse chromosome 3. Following translation, MOV10 may become phosphorylated upon DNA damage by either ATM or ATR.

REFERENCES

- Baird, D., et al. 2005. The Cool-2/ α -Pix protein mediates a Cdc42-Rac signaling cascade. *Curr. Biol.* 15: 1-10.
- Chendrimada, T.P., et al. 2007. MicroRNA silencing through RISC recruitment of eIF6. *Nature* 447: 823-828.
- Matsuoka, S., et al. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. *Science* 316: 1160-1166.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610742. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Haussecker, D., et al. 2008. Capped small RNAs and MOV10 in human hepatitis δ virus replication. *Nat. Struct. Mol. Biol.* 15: 714-721.
- Nakano, M., et al. 2009. MOV10 as a novel telomerase-associated protein. *Biochem. Biophys. Res. Commun.* 388: 328-332.

CHROMOSOMAL LOCATION

Genetic locus: MOV10 (human) mapping to 1p13.2; Mov10 (mouse) mapping to 3 F2.2.

SOURCE

MOV10 (B-3) is a mouse monoclonal antibody raised against amino acids 1-57 mapping at the N-terminus of MOV10 of human origin.

PRODUCT

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

MOV10 (B-3) is available conjugated to agarose (sc-515722 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515722 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515722 PE), fluorescein (sc-515722 FITC), Alexa Fluor® 488 (sc-515722 AF488), Alexa Fluor® 546 (sc-515722 AF546), Alexa Fluor® 594 (sc-515722 AF594) or Alexa Fluor® 647 (sc-515722 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515722 AF680) or Alexa Fluor® 790 (sc-515722 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MOV10 (B-3) is recommended for detection of MOV10 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MOV10 siRNA (h): sc-88358, MOV10 siRNA (m): sc-149516, MOV10 shRNA Plasmid (h): sc-88358-SH, MOV10 shRNA Plasmid (m): sc-149516-SH, MOV10 shRNA (h) Lentiviral Particles: sc-88358-V and MOV10 shRNA (m) Lentiviral Particles: sc-149516-V.

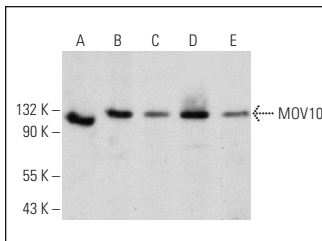
Molecular Weight of MOV10: 110 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

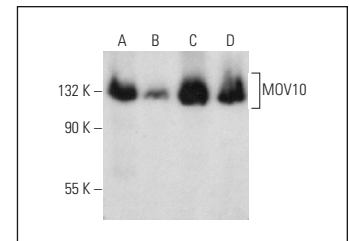
RECOMMENDED SUPPORT REAGENTS

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.

DATA



MOV10 (B-3): sc-515722. Western blot analysis of MOV10 expression in HeLa (A), Hep G2 (B), A-431 (C), Jurkat (D) and NCI-H292 (E) whole cell lysates.



MOV10 (B-3): sc-515722. Western blot analysis of MOV10 expression in c4 (A), NIH/3T3 (B), JC (C) and NBT-II (D) whole cell lysates.

SELECT PRODUCT CITATIONS

- Schöbel, A., et al. 2021. Hepatitis C virus infection restricts human LINE-1 retrotransposition in hepatoma cells. *PLoS Pathog.* 17: e1009496.

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.