SANTA CRUZ BIOTECHNOLOGY, INC.

MOV10L1 (K-16): sc-86744



BACKGROUND

MOV10 is a RNA helicase that is required for RNA-mediated gene silencing by RISC (RNA-induced silencing complex). Significantly, MOV10 is also required for the transcription and replication of the human hepatitis delta virus, also known as hepatitis D. Belonging to the same family as MOV10, MOV10L1 (moloney leukemia virus 10-like protein 1) is a 1,211 amino acid RNA helicase that is expressed as 3 isoforms. Interestingly, isoform 1 is expressed exclusively in testis and isoform 2 is specifically expressed in cardiac myo-cytes. Isoform 1 may play a role in male germ cell development, whereas isoform 2 has been shown to potentiate phenylephrine-induced hypertrophic response in cardiomyocytes. Each isoform contains a RNA interaction motif, ATP binding site and helicase motif through which it carries out its function.

REFERENCES

- Liu, Z.P., Nakagawa, O., Nakagawa, M., Yanagisawa, H., Passier, R., Richardson, J.A., Srivastava, D. and Olson, E.N. 2001. CHAMP, a novel cardiac-specific helicase regulated by MEF2C. Dev. Biol. 234: 497-509.
- Wang, P.J., McCarrey, J.R., Yang, F. and Page, D.C. 2001. An abundance of X-linked genes expressed in spermatogonia. Nat. Genet. 27: 422-426.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605794. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Liu, Z.P. and Olson, E.N. 2002. Suppression of proliferation and cardiomyocyte hypertrophy by CHAMP, a cardiac-specific RNA helicase. Proc. Natl. Acad. Sci. USA 99: 2043-2048.
- Ueyama, T., Kasahara, H., Ishiwata, T., Yamasaki, N. and Izumo, S. 2003. Csm, a cardiac-specific isoform of the RNA helicase MOV10L1, is regulated by Nkx2.5 in embryonic heart. J. Biol. Chem. 278: 28750-28757.
- Baird, D., Feng, Q. and Cerione, R.A. 2005. The Cool-2/α-Pix protein mediates a Cdc42-Rac signaling cascade. Curr. Biol. 15: 1-10.
- Meister, G., Landthaler, M., Peters, L., Chen, P.Y., Urlaub, H., Lührmann, R. and Tuschl, T. 2005. Identification of novel argonaute-associated proteins. Curr. Biol. 15: 2149-2155.
- Chendrimada, T.P., Finn, K.J., Ji, X., Baillat, D., Gregory, R.I., Liebhaber, S.A., Pasquinelli, A.E. and Shiekhattar, R. 2007. Micro RNA silencing through RISC recruitment of eIF6. Nature 447: 823-828.
- Haussecker, D., Cao, D., Huang, Y., Parameswaran, P., Fire, A.Z. and Kay, M.A. 2008. Capped small RNAs and MOV10 in human hepatitis delta virus replication. Nat. Struct. Mol. Biol. 15: 714-721.

CHROMOSOMAL LOCATION

Genetic locus: MOV10L1 (human) mapping to 22q13.33.

SOURCE

MOV10L1 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MOV10L1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86744 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MOV10L1 (K-16) is recommended for detection of MOV10L1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

MOV10L1 (K-16) is also recommended for detection of MOV10L1 in additional species, including equine and bovine.

Suitable for use as control antibody for MOV10L1 siRNA (h): sc-75816, MOV10L1 shRNA Plasmid (h): sc-75816-SH and MOV10L1 shRNA (h) Lentiviral Particles: sc-75816-V.

Molecular Weight of MOV10L1: 135/38 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **D0 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 or our catalog for detailed protocols and support products.