SANTA CRUZ BIOTECHNOLOGY, INC.

Mex3d (H-3): sc-514739

BACKGROUND

Mex-3 (muscle excess protein-3) is a translational regulator in *Caenorhabditis elegans* that participates in maintaining the germline totipotency and in specification of posterior blastomeres in early embryos. In humans, four evolutionarily conserved Mex-3 homologs exist, namely Mex3a, Mex3b, Mex3c and Mex3d. These proteins comprise a family of RNA binding phosphoproteins which each contain two tandemly repeated KH (nuclear ribonucleoprotein K homology) domains and one C-terminal RING finger motif. In addition, the Mex-3 homolog family of proteins shuttle between the nucleus and the cytoplasm through the CRM1-dependent export pathway and may play a role regulating posttranscriptional events. Mex3d (Mex-3 homolog d), also known as MEX3, TINO, RKHD1 (RING finger and KH domain-containing protein 1) or RNF193 (RING finger protein 193), is a ubiquitously expressed protein. Due to alternative splicing events truncating the N-terminus, a variant form of Mex3d exists, which is known as TINO.

REFERENCES

1. Draper, B.W., et al. 1996. Mex-3 is a KH domain protein that regulates blastomere identity in early *C. elegans* embryos. Cell 87: 205-216.
2. Buckanovich, R.J. and Darnell, R.B. 1997. The neuronal RNA binding protein Nova-1 recognizes specific RNA targets *in vitro* and *in vivo*. Mol. Cell. Biol. 17: 3194-3201.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611009. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Donnini, M., et al. 2004. Identification of TINO: a new evolutionarily conserved Bcl-2 AU-rich element RNA-binding protein. J. Biol. Chem. 279: 20154-20166.
5. Buchet-Poyau, K., et al. 2007. Identification and characterization of human Mex-3 proteins, a novel family of evolutionarily conserved RNA-binding proteins differentially localized to processing bodies. Nucleic Acids Res. 35: 1289-1300.

CHROMOSOMAL LOCATION

Genetic locus: MEX3D (human) mapping to 19p13.3; Mex3d (mouse) mapping to 10 C1.

SOURCE

Mex3d (H-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 475-491 within an internal region of Mex3d of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514739 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-514739 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Mex3d (H-3) is recommended for detection of Mex3d 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mex3d siRNA (h): sc-97604, Mex3d siRNA (m): sc-149398, Mex3d shRNA Plasmid (h): sc-97604-SH, Mex3d shRNA Plasmid (m): sc-149398-SH, Mex3d shRNA (h) Lentiviral Particles: sc-97604-V and Mex3d shRNA (m) Lentiviral Particles: sc-149398-V.

Mex3d (H-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

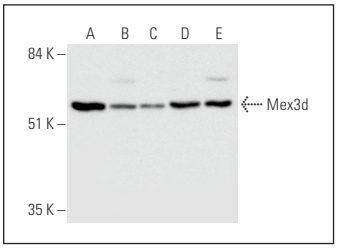
Molecular Weight of Mex3d: 65 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, Hep G2 cell lysate: sc-2227 or Jurkat whole cell lysate: sc-2204.

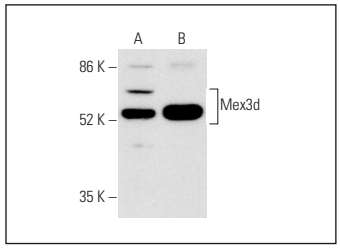
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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 L-Agarose: sc-2336 (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.

DATA



Mex3d (H-3): sc-514739. Western blot analysis of Mex3d expression in MDA-MB-231 (**A**), Hep G2 (**B**), JAR (**C**), HeLa (**D**) and Jurkat (**E**) whole cell lysates.



Mex3d (H-3): sc-514739. Western blot analysis of Mex3d expression in IMR-32 whole cell lysate (**A**) and mouse brain tissue extract (**B**).

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.