SANTA CRUZ BIOTECHNOLOGY, INC.

Mex3c (D-10): sc-398440

The Power to Question

BACKGROUND

Mex-3 (muscle excess protein-3) is a translational regulator in *Caenorhabditis elegans* that participates in maintaining the germline totipotency and specifies the 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 post-transcriptional events. Mex3c, also known as RING finger and KH domain-containing protein 2, is a 659 amino acid RNA-binding protein that is expressed at highest levels in fetal brain and testis. Genetic variations in the gene encoding Mex3c may be associated with an increased risk for essential hypertension type 8.

REFERENCES

1. Kolmerer, B., et al. 1996. Genomic organization of M line Titin and its tissue-specific expression in two distinct isoforms. J. Mol. Biol. 256: 556-563.
2. Rutherford, S., et al. 2004. Sibpair studies implicate chromosome 18 in essential hypertension. Am. J. Med. Genet. A 126A: 241-247.
3. Tenlen, J.R., et al. 2006. Reduced dosage of pos-1 suppresses Mex mutants and reveals complex interactions among CCCH zinc-finger proteins during *Caenorhabditis elegans* embryogenesis. Genetics 174: 1933-1945.

CHROMOSOMAL LOCATION

Genetic locus: MEX3C (human) mapping to 18q21.2; Mex3c (mouse) mapping to 18 E2.

SOURCE

Mex3c (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 581-598 within an internal region of Mex3c of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Mex3c (D-10) is available conjugated to agarose (sc-398440 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398440 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398440 PE), fluorescein (sc-398440 FITC), Alexa Fluor® 488 (sc-398440 AF488), Alexa Fluor® 546 (sc-398440 AF546), Alexa Fluor® 594 (sc-398440 AF594) or Alexa Fluor® 647 (sc-398440 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398440 AF680) or Alexa Fluor® 790 (sc-398440 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398440 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Mex3c (D-10) is recommended for detection of Mex3c 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).

Mex3c (D-10) is also recommended for detection of Mex3c in additional species, including equine, canine, bovine and porcine.

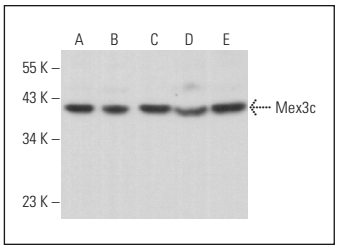
Suitable for use as control antibody for Mex3c siRNA (h): sc-75778, Mex3c siRNA (m): sc-149397, Mex3c shRNA Plasmid (h): sc-75778-SH, Mex3c shRNA Plasmid (m): sc-149397-SH, Mex3c shRNA (h) Lentiviral Particles: sc-75778-V and Mex3c shRNA (m) Lentiviral Particles: sc-149397-V.

Molecular Weight (predicted) of Mex3c: 69 kDa.

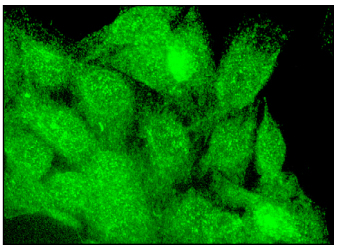
Molecular Weight (observed) of Mex3c: 41 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, U-698-M whole cell lysate: sc-364799 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Mex3c (D-10): sc-398440. Western blot analysis of Mex3c expression in MCF7 (**A**), U-698-M (**B**), NIH/3T3 (**C**), c4 (**D**) and C6 (**E**) whole cell lysates.



Mex3c (D-10): sc-398440. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2019. PTEN-induced partial epithelial-mesenchymal transition drives diabetic kidney disease. J. Clin. Invest. 129: 1129-1151.
2. Wong, L.L., et al. 2019. MicroRNA Let-7d-3p contributes to cardiac protection via targeting HMGA2. Int. J. Mol. Sci. 20: 1522.

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 for detailed protocols and support products.