

Mex3a (G-13): sc-165004

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 post-transcriptional events. Mex3a is a 520 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one RING-type zinc finger and 2 KH domains through which it functions as an RNA-binding protein.

REFERENCES

1. Fillman, C. and Lykke-Andersen, J. 2005. RNA decapping inside and outside of processing bodies. *Curr. Opin. Cell Biol.* 17: 326-331.
2. Buchet-Poyau, K., Courchet, J., Le Hir, H., Séraphin, B., Scoazec, J.Y., Duret, L., Domon-Dell, C., Freund, J.N. and Billaud, M. 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.
3. Courchet, J., Buchet-Poyau, K., Potemski, A., Brès, A., Jariel-Encontre, I. and Billaud, M. 2008. Interaction with 14-3-3 adaptors regulates the sorting of hMex3b RNA-binding protein to distinct classes of RNA granules. *J. Biol. Chem.* 283: 32131-32142.
4. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 611007. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: MEX3A (human) mapping to 1q22; Mex3a (mouse) mapping to 3 F1.

SOURCE

Mex3a (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Mex3a of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-165004 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-165004 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

Mex3a (G-13) is recommended for detection of Mex3a of mouse, rat and 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); non cross-reactive with other Mex3 family members.

Mex3a (G-13) is also recommended for detection of Mex3a in additional species, including bovine.

Suitable for use as control antibody for Mex3a siRNA (h): sc-88413, Mex3a siRNA (m): sc-149395, Mex3a shRNA Plasmid (h): sc-88413-SH, Mex3a shRNA Plasmid (m): sc-149395-SH, Mex3a shRNA (h) Lentiviral Particles: sc-88413-V and Mex3a shRNA (m) Lentiviral Particles: sc-149395-V.

Mex3a (G-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Mex3a: 54 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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.