MOX-1 (3-RE14): sc-134389

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BACKGROUND

Closely related homeobox proteins, MOX-1 and MOX-2, belong to a family of nonclustered, diverged homeobox genes that are expressed in overlapping patterns in the paraxial mesoderm and its derivatives. MOX-1 and MOX-2 function transiently in the formation of mesodermal and mesenchymal derivatives. Specifically, MOX-1 and MOX-2 are implicated in the early steps of mesoderm formation during gastrulation and are also involved in somatic differentiation. Significantly, MOX-1 associates more strongly with Pax-1, whereas MOX-2 preferentially associates with Pax-3. Expression of MOX-1, also known as Mesenchyme homeobox 1 and MFOX1, was first detected in the newly formed mesoderm of primitive streak stage mouse embryos. MOX-1 has been shown to be critical in axial skeleton development. The human MEOX1 gene maps to chromosome 17q21.31 and encodes the MOX-1 protein.

REFERENCES

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4. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 600147. World Wide Web URL: http://www.ncbi.nlm. nih.gov/omim/

5. Mankoo, B.S., Collins, N.S., Ashby, P., Grigorieva, E., Pevny, L.H., Candia, A., Wright, C.V., Rigby, P.W. and Pachnis, V. 1999. MOX-2 is a component of the genetic hierarchy controlling limb muscle development. Nature 400: 69-73.

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CHROMOSOMAL LOCATION

Genetic locus: MEOX1 (human) mapping to 17q21.31.

SOURCE

MOX-1 (3-RE14) is a mouse monoclonal antibody raised against recombinant MOX-1 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG$_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

MOX-1 (3-RE14) is recommended for detection of MOX-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MOX-1 siRNA (h): sc-43938, MOX-1 shRNA Plasmid (h): sc-43938-SH and MOX-1 shRNA (h) Lentiviral Particles: sc-43938-V.

Molecular Weight of MOX-1: 38 kDa.

Positive Controls: human MOX-1 transfected 293T whole cell lysate.

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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA
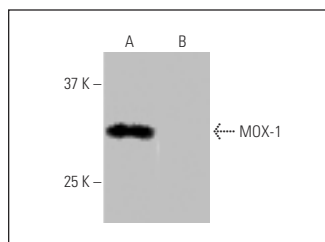
MOX-1 (3-RE14): sc-134389. Western blot analysis of MOX-1 expression in human MOX-1 transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.

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.