

MOX-1 (B-5): sc-398845

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 MOX1 gene maps to chromosome 17q21.31 and encodes the MOX-1 protein.

REFERENCES

1. Candia, A.F., et al. 1992. MOX-1 and MOX-2 define a novel homeobox gene subfamily and are differentially expressed during early mesodermal patterning in mouse embryos. *Development* 116: 1123-1136.
2. Candia, A.F. and Wright, C.V. 1996. Differential localization of MOX-1 and MOX-2 proteins indicates distinct roles during development. *Int. J. Dev. Biol.* 40: 1179-1184.
3. Stelnicki, E.J., et al. 1997. The human homeobox genes MSX-1, MSX-2, and MOX-1 are differentially expressed in the dermis and epidermis in fetal and adult skin. *Differentiation* 62: 33-41.
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/>

CHROMOSOMAL LOCATION

Genetic locus: MEOX1 (human) mapping to 17q21.31; Meox1 (mouse) mapping to 11 D.

SOURCE

MOX-1 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 67-81 within an internal region of MOX-1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-398845 X, 200 µg/0.1 ml.

MOX-1 (B-5) is available conjugated to agarose (sc-398845 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398845 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398845 PE), fluorescein (sc-398845 FITC), Alexa Fluor® 488 (sc-398845 AF488), Alexa Fluor® 546 (sc-398845 AF546), Alexa Fluor® 594 (sc-398845 AF594) or Alexa Fluor® 647 (sc-398845 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398845 AF680) or Alexa Fluor® 790 (sc-398845 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MOX-1 (B-5) is recommended for detection of MOX-1 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 MOX-1 siRNA (h): sc-43938, MOX-1 siRNA (m): sc-149519, MOX-1 shRNA Plasmid (h): sc-43938-SH, MOX-1 shRNA Plasmid (m): sc-149519-SH, MOX-1 shRNA (h) Lentiviral Particles: sc-43938-V and MOX-1 shRNA (m) Lentiviral Particles: sc-149519-V.

MOX-1 (B-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

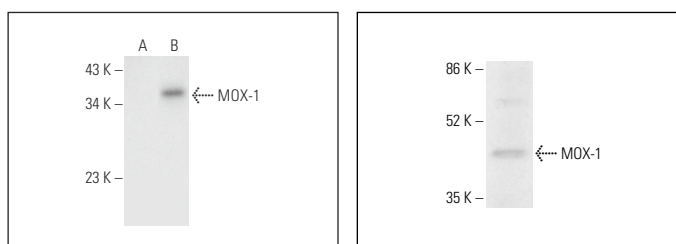
Molecular Weight of MOX-1: 38 kDa.

Positive Controls: MOX-1 (m): 293T Lysate: sc-125630 or K-562 whole cell lysate: sc-2203.

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). 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



MOX-1 (B-5): sc-398845. Western blot analysis of MOX-1 expression in non-transfected: sc-117752 (A) and mouse MOX-1 transfected: sc-125630 (B) 293T whole cell lysates.

MOX-1 (B-5): sc-398845. Western blot analysis of MOX-1 expression in K-562 whole cell lysate. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA