

# MOX-1 (M-15): sc-10185

## 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 Pax1, whereas MOX-2 preferentially associates with Pax3. 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 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., et al. 1996. Differential localization of Mox-1 and Mox-2 proteins indicates distinct roles during development. *Int. J. Dev. Biol.* 40: 1179-1184.

## CHROMOSOMAL LOCATION

Genetic locus: Meox1 (mouse) mapping to 11 D.

## SOURCE

MOX-1 (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MOX-1 of mouse 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-10185 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MOX-1 (M-15) is recommended for detection of MOX-1 of mouse and rat 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)], 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 (m): sc-149519, MOX-1 shRNA Plasmid (m): sc-149519-SH and MOX-1 shRNA (m) Lentiviral Particles: sc-149519-V.

MOX-1 (M-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

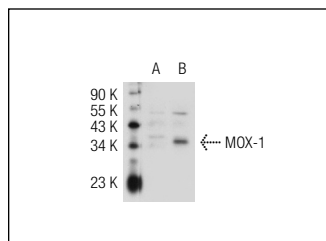
Molecular Weight of MOX-1: 38 kDa.

Positive Controls: MOX-1 (m): 293T Lysate: sc-125630.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



MOX-1 (M-15): sc-10185. 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.

## SELECT PRODUCT CITATIONS

1. Ryan, T., et al. 2011. Retinoic acid enhances skeletal myogenesis in human embryonic stem cells by expanding the premyogenic progenitor population. *Stem Cell Rev.* 8: 482-493.
2. El Hasnaoui-Saadani, R., et al. 2013. Epo deficiency alters cardiac adaptation to chronic hypoxia. *Respir. Physiol. Neurobiol.* 186: 146-154.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **MOX-1 (B-5): sc-398845**, our highly recommended monoclonal alternative to MOX-1 (M-15).