

# MondoA (P-14): sc-133397

## BACKGROUND

MondoA, also known as MLXIP (MLX interacting protein), KIAA0867 or MIR, is a 919 amino acid protein that localizes to the nucleus and the cytoplasm, as well as to the outer mitochondrial membrane, and contains one bHLH domain. Expressed in a variety of tissues with highest expression in skeletal muscle, MondoA functions as a dimeric structure that binds DNA at the canonical E box sequence 5'-CACGTG-3' and is involved in transcriptional activation and glucose-responsive gene regulation. Multiple isoforms of MondoA exist due to alternative splicing events. The gene encoding MondoA maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

## CHROMOSOMAL LOCATION

Genetic locus: MLXIP (human) mapping to 12q24.31; Mlxip (mouse) mapping to 5 F.

## SOURCE

MondoA (P-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of MondoA of human origin.

## PRODUCT

Each vial contains 100 µg IgG 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-133397 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-133397 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MondoA (P-14) is recommended for detection of MondoA isoforms 1-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MondoA siRNA (h): sc-95771, MondoA siRNA (m): sc-149500, MondoA shRNA Plasmid (h): sc-95771-SH, MondoA shRNA Plasmid (m): sc-149500-SH, MondoA shRNA (h) Lentiviral Particles: sc-95771-V and MondoA shRNA (m) Lentiviral Particles: sc-149500-V.

MondoA (P-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

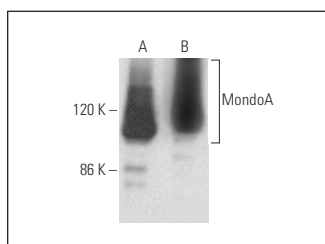
Molecular Weight of MondoA: 101 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810 or mouse skeletal muscle extract: sc-364250.

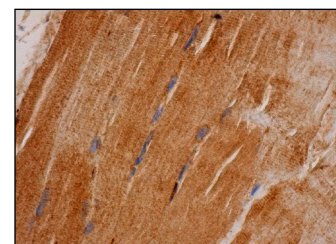
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



MondoA (P-14): sc-133397. Western blot analysis of MondoA expression in rat skeletal muscle (A) and mouse skeletal muscle (B) tissue extracts.



MondoA (P-14): sc-133397. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

## SELECT PRODUCT CITATIONS

1. Yu, F. and Luo, Y. 2009. Tandem ChoRE and CCAAT motifs and associated factors regulate Txnip expression in response to glucose or adenosine-containing Molecules. *PLoS ONE* 4: e8397.
2. Kanari, Y., et al. 2013. Thioredoxin-interacting protein gene expression via MondoA is rapidly and transiently suppressed during inflammatory responses. *PLoS ONE* 8: e59026.

## 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.



Try **MondoA (5F3): sc-293403**, our highly recommended monoclonal alternative to MondoA (P-14).