SANTA CRUZ BIOTECHNOLOGY, INC.

MondoA (5F3): sc-293403

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 MondonA 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.

REFERENCES

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4. Bornhauser, B.C., et al. 2003. MSAP is a novel MIR-interacting protein that enhances neurite outgrowth and increases myosin regulatory light chain. J. Biol. Chem. 278: 35412-35420.
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7. Stoltzman, C.A., et al. 2008. Glucose sensing by MondoA:Mlx complexes: a role for hexokinases and direct regulation of thioredoxin-interacting protein expression. Proc. Natl. Acad. Sci. USA 105: 6912-6917.

CHROMOSOMAL LOCATION

Genetic locus: MLXIP (human) mapping to 12q24.31.

SOURCE

MondoA (5F3) is a mouse monoclonal antibody raised against amino acids 481-577 of MondoA 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

MondoA (5F3) is recommended for detection of MondoA 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).

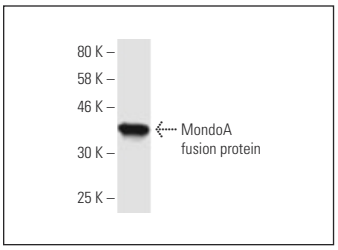
Suitable for use as control antibody for MondoA siRNA (h): sc-95771, MondoA shRNA Plasmid (h): sc-95771-SH and MondoA shRNA (h) Lentiviral Particles: sc-95771-V.

Molecular Weight of MondoA: 101 kDa.

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



MondoA (5F3): sc-293403. Western blot analysis of human recombinant MondoA fusion protein.

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.