

MESP2 (V-14): sc-164989

BACKGROUND

MESP2 (mesoderm posterior 2 homolog), also known as SCDO2 or bHLHc6 (class C basic helix-loop-helix protein 6), is a 397 amino acid protein that contains one basic helix-loop-helix (bHLH) domain, a motif that mediates protein dimerization and can bind to the E-box sequence of DNA. Localized to the nucleus, MESP2 functions as a transcription factor that, via its bHLH domain, participates in the epithelialization and the development of the cardiac and somitic mesoderm. MESP2 is involved in somitogenesis and Notch pathways and is encoded by a gene that maps to human chromosome 15q26.1. Defects in the MESP2 gene are the cause of an autosomal recessive disorder known as spondylocostal dysostosis type 2 (SCDO2).

REFERENCES

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2. Takahashi, Y., et al. 2000. *Mesp2* initiates somite segmentation through the Notch signalling pathway. *Nat. Genet.* 25: 390-396.
3. Whittock, N.V., et al. 2004. Mutated MESP2 causes spondylocostal dysostosis in humans. *Am. J. Hum. Genet.* 74: 1249-1254.
4. Morimoto, M., et al. 2005. The *Mesp2* transcription factor establishes segmental borders by suppressing Notch activity. *Nature* 435: 354-359.
5. Yasuhiko, Y., et al. 2006. *Tbx6*-mediated Notch signaling controls somite-specific *Mesp2* expression. *Proc. Natl. Acad. Sci. USA* 103: 3651-3656.
6. Cornier, A.S., et al. 2008. Mutations in the MESP2 gene cause spondylothoracic dysostosis/Jarcho-Levin syndrome. *Am. J. Hum. Genet.* 82: 1334-1341.
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CHROMOSOMAL LOCATION

Genetic locus: MESP2 (human) mapping to 15q26.1; *Mesp2* (mouse) mapping to 7 D3.

SOURCE

MESP2 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MESP2 of human 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-164989 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-164989 X, 200 µg/0.1 ml.

APPLICATIONS

MESP2 (V-14) is recommended for detection of MESP2 of mouse, rat and 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)], 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); non cross-reactive with MESP1.

Suitable for use as control antibody for MESP2 siRNA (h): sc-90260, MESP2 siRNA (m): sc-149374, MESP2 shRNA Plasmid (h): sc-90260-SH, MESP2 shRNA Plasmid (m): sc-149374-SH, MESP2 shRNA (h) Lentiviral Particles: sc-90260-V and MESP2 shRNA (m) Lentiviral Particles: sc-149374-V.

MESP2 (V-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

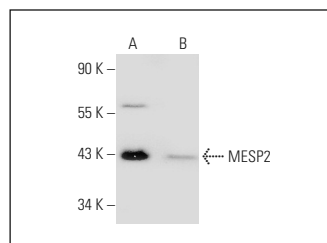
Molecular Weight of MESP2: 42 kDa.

Positive Controls: mouse brain extract: sc-2253 or mouse liver extract: sc-2256.

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



MESP2 (V-14): sc-164989. Western blot analysis of MESP2 expression in mouse brain (A) and mouse liver (B) tissue extracts.

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.