

Med4 (D-6): sc-398179

BACKGROUND

In mammalian cells, transcription is regulated in part by high molecular weight co-activating complexes that mediate signals between transcriptional activators and RNA polymerase II (Pol II). The mediator complex is one such multi-protein structure that functions as a bridge between regulatory proteins and Pol II, thereby regulating Pol II-dependent transcription. Med4 (mediator complex subunit 4), also known as ARC36, DRIP36 or VDRIP, is a 270 amino acid protein that localizes to the nucleus and exists as a component of the mediator complex. Working in tandem with several other proteins, including Med8 and Med25, Med4 serves as a scaffold for the assembly of a functional preinitiation complex with Pol II and general transcription factors, thereby activating the transcription of Pol II-dependent genes.

REFERENCES

- Jiang, Y.W., et al. 1998. Mammalian mediator of transcriptional regulation and its possible role as an end-point of signal transduction pathways. Proc. Natl. Acad. Sci. USA 95: 8538-8543.
- Rachez, C., et al. 1999. Ligand-dependent transcription activation by nuclear receptors requires the DRIP complex. Nature 398: 824-828.
- Sato, S., et al. 2003. Identification of mammalian mediator subunits with similarities to yeast mediator subunits Srb5, Srb6, Med11, and Rox3. J. Biol. Chem. 278: 15123-15127.
- Sato, S., et al. 2003. A mammalian homolog of *Drosophila melanogaster* transcriptional coactivator intersex is a subunit of the mammalian mediator complex. J. Biol. Chem. 278: 49671-49674.

CHROMOSOMAL LOCATION

Genetic locus: MED4 (human) mapping to 13q14.2; Med4 (mouse) mapping to 14 D3.

SOURCE

Med4 (D-6) is a mouse monoclonal antibody raised against amino acids 1-270 representing full length Med4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Med4 (D-6) is available conjugated to agarose (sc-398179 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398179 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398179 PE), fluorescein (sc-398179 FITC), Alexa Fluor® 488 (sc-398179 AF488), Alexa Fluor® 546 (sc-398179 AF546), Alexa Fluor® 594 (sc-398179 AF594) or Alexa Fluor® 647 (sc-398179 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398179 AF680) or Alexa Fluor® 790 (sc-398179 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Med4 (D-6) is recommended for detection of Med4 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 Med4 siRNA (h): sc-106214, Med4 siRNA (m): sc-149357, Med4 shRNA Plasmid (h): sc-106214-SH, Med4 shRNA Plasmid (m): sc-149357-SH, Med4 shRNA (h) Lentiviral Particles: sc-106214-V and Med4 shRNA (m) Lentiviral Particles: sc-149357-V.

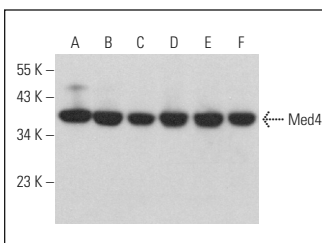
Molecular Weight of Med4: 30 kDa.

Positive Controls: A549 cell lysate: sc-2413, A-10 cell lysate: sc-3806 or K-562 whole cell lysate: sc-2203.

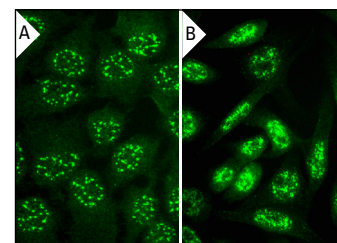
RECOMMENDED SUPPORT REAGENTS

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



Med4 (D-6): sc-398179. Western blot analysis of Med4 expression in K-562 (A), A549 (B), PC-3 (C), 3T3-L1 (D), NIH/3T3 (E) and A-10 (F) whole cell lysates.



Med4 (D-6): sc-398179. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Terabayashi, T. and Hashimoto, S. 2021. Increased unfolded protein responses caused by Med17 mutations. Neurogenetics 22: 353-357.
- Kawachi, T., et al. 2021. Regulated splicing of large exons is linked to phase-separation of vertebrate transcription factors. EMBO J. 40: e107485.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.