

Med4 (D-7): sc-398180

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.
- Tomomori-Sato, C., et al. 2004. A mammalian mediator subunit that shares properties with *Saccharomyces cerevisiae* mediator subunit Cse2. J. Biol. Chem. 279: 5846-5851.
- Sato, S., et al. 2004. A set of consensus mammalian mediator subunits identified by multidimensional protein identification technology. Mol. Cell 14: 685-691.
- Conaway, J.W., et al. 2005. The mammalian mediator complex. FEBS Lett. 579: 904-908.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 605718. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

SOURCE

Med4 (D-7) is a mouse monoclonal antibody raised against amino acids 1-270 representing full length Med4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Med4 (D-7) 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.

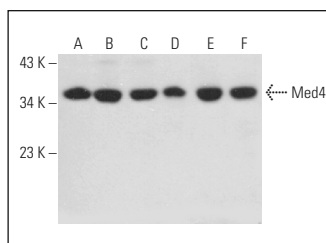
Molecular Weight of Med4: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

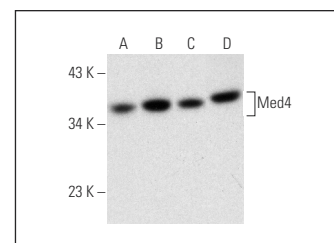
RECOMMENDED SUPPORT REAGENTS

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-7): sc-398180. Western blot analysis of Med4 expression in Hep G2 (A), HEL 92.1.7 (B), CCRF-CEM (C), BYDP (D), TK-1 (E) and C6 (F) whole cell lysates.



Med4 (D-7): sc-398180. Western blot analysis of Med4 expression in NTERA-2 cl.D1 (A), Jurkat (B), Hep G2 (C) and K-562 (D) whole cell lysates.

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.