

Med7 (E-4): sc-393210

BACKGROUND

In mammalian cells, transcription is regulated in part by high molecular weight coactivating complexes that mediate signals between transcriptional activators and RNA polymerase. These complexes include the SMCC (SRB and MED protein cofactor complex), which consists of various subunits that share homology with several components of the yeast transcriptional mediator complexes, and including the human proteins Srb7, Med6 (also designated DRIP33) and Med7 (also designated DRIP34). SMCC associates with the RNAPII (RNA polymerase II) holoenzyme through Srb7 and, in turn, enhances gene-specific activation or repression induced by DNA-binding transcription factors. Med6 and Med7, as well as other components of SMCC, associate with coactivator proteins from the TRAP (thyroid hormone receptor-activating protein) complex and DRIP (for vitamin D receptor interacting protein) complex to facilitate steroid receptor dependent transcriptional activation. Additionally, SMCC associates with PC4 (positive cofactor 4) to repress basal transcription independent of RNAPII activity.

REFERENCES

1. Malik, S., et al. 1998. A dynamic model for PC4 coactivator function in RNA polymerase II transcription. *Proc. Natl. Acad. Sci. USA* 95: 2192-2197.
2. 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.
3. Gu, W., et al. 1999. A novel human SRB/MED-containing cofactor complex, SMCC, involved in transcription regulation. *Mol. Cell* 3: 97-108.
4. Xiao, H., et al. 1999. The human homologue of *Drosophila* TRF-proximal protein is associated with an RNA polymerase II-SRB complex. *J. Biol. Chem.* 274: 3937-3940.

CHROMOSOMAL LOCATION

Genetic locus: MED7 (human) mapping to 5q33.3; Med7 (mouse) mapping to 11 B1.1.

SOURCE

Med7 (E-4) is a mouse monoclonal antibody raised against amino acids 38-233 mapping at the C-terminus of Med7 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.

Med7 (E-4) is available conjugated to agarose (sc-393210 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393210 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393210 PE), fluorescein (sc-393210 FITC), Alexa Fluor® 488 (sc-393210 AF488), Alexa Fluor® 546 (sc-393210 AF546), Alexa Fluor® 594 (sc-393210 AF594) or Alexa Fluor® 647 (sc-393210 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393210 AF680) or Alexa Fluor® 790 (sc-393210 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Med7 (E-4) is recommended for detection of Med7 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 Med7 siRNA (h): sc-38581, Med7 siRNA (m): sc-38582, Med7 shRNA Plasmid (h): sc-38581-SH, Med7 shRNA Plasmid (m): sc-38582-SH, Med7 shRNA (h) Lentiviral Particles: sc-38581-V and Med7 shRNA (m) Lentiviral Particles: sc-38582-V.

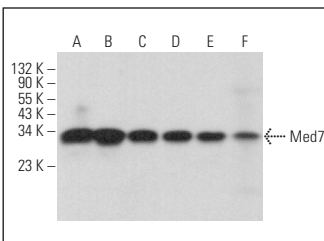
Molecular Weight of Med7: 27 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, A-673 nuclear extract: sc-2128 or Jurkat nuclear extract: sc-2132.

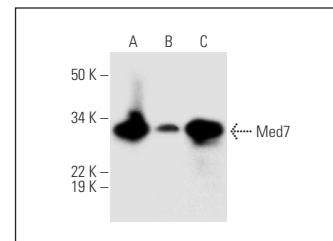
RECOMMENDED SUPPORT REAGENTS

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



Med7 (E-4): sc-393210. Western blot analysis of Med7 expression in NIH/3T3 (A), 3T3-L1 (B), PC-3 (C), DU 145 (D) and NCI-H1299 (E) whole cell lysates and mouse testis tissue extract (F).



Med7 (E-4): sc-393210. Western blot analysis of Med7 expression in HeLa (A), A-673 (B) and Jurkat (C) nuclear 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.