

Med7 (m): 293T Lysate: sc-125595

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. 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 Pol II (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 co-activator 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 Pol II activity.

REFERENCES

1. Jiang, Y.W., Veschambre, P., Erdjument-Bromage, H., Tempst, P., Conaway, J.W., Conaway, R.C. and Kornberg, R.D. 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.
2. Malik, S., Guermah, M., Roeder, R.G. 1998. A dynamic model for PC4 coactivator function in RNA polymerase II transcription. *Proc. Natl. Acad. Sci. USA* 95: 2192-2197.
3. Gu, W., Malik, S., Ito, M., Yuan, C.X., Fondell, J.D., Zhang, X., Martinez, E., Qin, J. and Roeder, R.G. 1999. A novel human SRB/MED-containing cofactor complex, SMCC, involved in transcription regulation. *Mol. Cell* 3: 97-108.
4. Xiao, H., Tao, Y. and Roeder, R.G. 1999. The human homologue of *Drosophila* TRF-proximal protein is associated with an RNA polymerase II-SRB complex. *J. Biol. Chem.* 274: 3937-3940.
5. Ito, M., Yuan, C.X., Malik, S., Gu, W., Fondell, J.D., Yamamura, S., Fu, Z.Y., Zhang, X., Qin, J. and Roeder, R.G. 1999. Identity between TRAP and SMCC complexes indicates novel pathways for the function of nuclear receptors and diverse mammalian activators. *Mol. Cell* 3: 361-370.
6. Rachez, C., Lemon, B.D., Suldan, Z., Bromleigh, V., Gamble, M., Naar, A.M., Erdjument-Bromage, H., Tempst, P. and Freedman, L.P. 1999. Ligand-dependent transcription activation by nuclear receptors requires the DRIP complex. *Nature* 398: 824-828.

CHROMOSOMAL LOCATION

Genetic locus: Crsp9 (mouse) mapping to 11 B1.2.

PRODUCT

Med7 (m): 293T Lysate represents a lysate of mouse Med7 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Med7 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Med7 antibodies. Recommended use: 10-20 µl per lane.

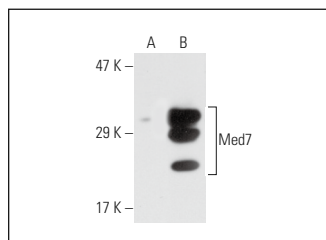
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Med7 (E-7): sc-101188 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Med7 expression in Med7 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Med7 (E-7): sc-101188. Western blot analysis of Med7 expression in non-transfected: sc-117752 (A) and mouse Med7 transfected: sc-125595 (B) 293T whole cell lysates.

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.