

Med10 (E-13): sc-104988

BACKGROUND

The mediator complex is a multiprotein coactivator that is involved in the regulated transcription of Pol II-dependent genes. Functioning as a bridge to convey information from gene-specific regulatory proteins to the basal Pol II transcription machinery, the mediator complex is recruited to promoter regions by directly interacting with regulatory proteins. The mediator complex also serves as a scaffold for the assembly of a functional pre-initiation complex with Pol II and other general transcription factors. Med10 (mediator of RNA polymerase II transcription subunit 10), also designated transformation-related gene 17 protein, is a 135 amino acid nuclear protein that is a middle domain component of the mediator complex. Reduction of Med10 protein levels within cells leads to an enhancement of Wnt and Nodal signaling pathways. Also, in yeast, mutation the gene encoding Med10, as well as other middle domain mediator components, leads to enhanced transcription wild-type heat-shock genes.

REFERENCES

- 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.
- Malik, S., Gu, W., Wu, W., Qin, J. and Roeder, R.G. 2000. The USA-derived transcriptional coactivator PC2 is a submodule of TRAP/SMCC and acts synergistically with other PCs. *Mol. Cell* 5: 753-760.
- Akoulitchev, S., Chuikov, S. and Reinberg, D. 2000. TFIIF is negatively regulated by Cdk8-containing mediator complexes. *Nature* 407: 102-106.
- Sato, S., Tomomori-Sato, C., Parmely, T.J., Florens, L., Zybaylov, B., Swanson, S.K., Banks, C.A., Jin, J., Cai, Y., Washburn, M.P., Conaway, J.W. and Conaway, R.C. 2004. A set of consensus mammalian mediator subunits identified by multidimensional protein identification technology. *Mol. Cell* 14: 685-691.
- Petroziello, J., Yamane, A., Westendorf, L., Thompson, M., McDonagh, C., Cerveny, C., Law, C.L., Wahl, A. and Carter, P. 2004. Suppression subtractive hybridization and expression profiling identifies a unique set of genes overexpressed in non-small-cell lung cancer. *Oncogene* 23: 7734-7745.
- Zhang, X., Krutchinsky, A., Fukuda, A., Chen, W., Yamamura, S., Chait, B.T. and Roeder, R.G. 2005. Med1/TRAP220 exists predominantly in a TRAP/Mediator subpopulation enriched in RNA polymerase II and is required for ER-mediated transcription. *Mol. Cell* 19: 89-100.
- Singh, H., Erkin, A.M., Kremer, S.B., Duttweiler, H.M., Davis, D.A., Iqbal, J., Gross, R.R. and Gross, D.S. 2006. A functional module of yeast mediator that governs the dynamic range of heat-shock gene expression. *Genetics* 172: 2169-2184.

CHROMOSOMAL LOCATION

Genetic locus: MED10 (human) mapping to 5p15.31; Med10 (mouse) mapping to 13 C1.

SOURCE

Med10 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Med10 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-104988 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Med10 (E-13) is recommended for detection of Med10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Med10 (E-13) is also recommended for detection of Med10 in additional species, including canine, porcine and avian.

Suitable for use as control antibody for Med10 siRNA (h): sc-91760, Med10 siRNA (m): sc-149346, Med10 shRNA Plasmid (h): sc-91760-SH, Med10 shRNA Plasmid (m): sc-149346-SH, Med10 shRNA (h) Lentiviral Particles: sc-91760-V and Med10 shRNA (m) Lentiviral Particles: sc-149346-V.

Molecular Weight of Med10: 16 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.



Try **Med10 (C-2): sc-393450**, our highly recommended monoclonal alternative to Med10 (E-13).