

Med15 (D-20): sc-86728

BACKGROUND

In mammalian cells, transcription is regulated in part by high molecular weight coactivating complexes that mediate signals between transcriptional activators and RNA polymerase II (Pol II). The mediator complex is one such multiprotein structure that functions as a bridge between regulatory proteins and Pol II, thereby regulating Pol II-dependent transcription. Med15 (mediator of RNA polymerase II transcription subunit 15), also known as ARC105, CTG7A, PCQAP, TIG1 or TNRC7, is a 788 amino acid subunit of the mediator complex that localizes to both the nucleus and the cytoplasm. Expressed ubiquitously with highest expression in placenta and blood, Med15 participates in the regulation of Pol II-mediated gene expression and is thought to play a key role in the control of lipid homeostasis. The gene encoding Med15 is located in a region on chromosome 22 that is deleted in DiGeorge syndrome, suggesting that the loss of Med15 may be associated with this rare congenital disease. Due to alternative splicing events, Med15 is expressed as two isoforms.

REFERENCES

1. Näär, A.M., et al. 1999. Composite co-activator ARC mediates chromatin-directed transcriptional activation. *Nature* 398: 828-832.
2. Abraham, S. and Solomon, W.B. 2000. A novel glutamine-rich putative transcriptional adaptor protein (TIG-1), preferentially expressed in placental and bone-marrow tissues. *Gene* 255: 389-400.
3. Berti, L., et al. 2001. Isolation and characterization of a novel gene from the DiGeorge chromosomal region that encodes for a mediator subunit. *Genomics* 74: 320-332.
4. Kato, Y., et al. 2002. A component of the ARC/Mediator complex required for TGF β /Nodal signalling. *Nature* 418: 641-646.
5. Sandhu, H.K., et al. 2004. An association study of PCQAP polymorphisms and schizophrenia. *Psychiatr. Genet.* 14: 169-172
6. Zhang, J., et al. 2004. Methylation of the retinoid response gene TIG1 in prostate cancer correlates with methylation of the retinoic acid receptor beta gene. *Oncogene* 23: 2241-2249.
7. Kwong, J., et al. 2005. Silencing of the retinoid response gene TIG1 by promoter hypermethylation in nasopharyngeal carcinoma. *Int. J. Cancer* 113: 386-392.
8. Ishikawa, H., et al. 2006. TRIM11 binds to and destabilizes a key component of the activator-mediated cofactor complex (ARC105) through the ubiquitin-proteasome system. *FEBS Lett.* 580: 4784-4792.
9. Yang, F., et al. 2006. An Arc/Mediator subunit required for SREBP control of cholesterol and lipid homeostasis. *Nature* 442: 700-704.

CHROMOSOMAL LOCATION

Genetic locus: MED15 (human) mapping to 22q11.21; Med15 (mouse) mapping to 16 A3.

SOURCE

Med15 (D-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Med15 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86728 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Med15 (D-20) is recommended for detection of Med15 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); non cross-reactive with other Med family members.

Med15 (D-20) is also recommended for detection of Med15 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Med15 siRNA (h): sc-75767, Med15 siRNA (m): sc-149348, Med15 shRNA Plasmid (h): sc-75767-SH, Med15 shRNA Plasmid (m): sc-149348-SH, Med15 shRNA (h) Lentiviral Particles: sc-75767-V and Med15 shRNA (m) Lentiviral Particles: sc-149348-V.

Molecular Weight of Med15: 101 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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 **Med15 (KJ-2): sc-101185**, our highly recommended monoclonal alternative to Med15 (D-20).