SANTA CRUZ BIOTECHNOLOGY, INC.

Med15 (E-8): sc-518192

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 homeostatsis. 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.

CHROMOSOMAL LOCATION

Genetic locus: MED15 (human) mapping to 22q11.21.

SOURCE

Med15 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 544-566 of Med15 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Med15 (E-8) is available conjugated to agarose (sc-518192 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518192 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518192 PE), fluorescein (sc-518192 FITC), Alexa Fluor® 488 (sc-518192 AF488), Alexa Fluor® 546 (sc-518192 AF546), Alexa Fluor® 594 (sc-518192 AF594) or Alexa Fluor® 647 (sc-518192 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518192 AF680) or Alexa Fluor® 790 (sc-518192 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Med15 (E-8) is recommended for detection of Med15 of 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 Med15 siRNA (h): sc-75767, Med15 shRNA Plasmid (h): sc-75767-SH and Med15 shRNA (h) Lentiviral Particles: sc-75767-V.

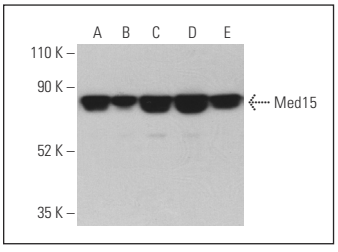
Molecular Weight of Med15: 101 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

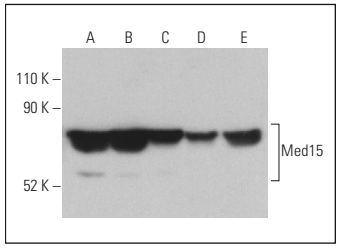
RECOMMENDED SUPPORT REAGENTS

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



Med15 (E-8): sc-518192. Western blot analysis of Med15 expression in U-87 MG (**A**), HeLa (**B**), K-562 (**C**), Jurkat (**D**) and MCF7 (**E**) whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



Med15 (E-8): sc-518192. Western blot analysis of Med15 expression in K-562 (**A**), Jurkat (**B**), MCF7 (**C**), NIH/3T3 (**D**) and PC-12 (**E**) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.

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.