SANTA CRUZ BIOTECHNOLOGY, INC.

CNOT10 (H-9): sc-514570

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CNOT10 is a subunit of the CCR4-NOT complex which consists of at least five other CNOT subunit proteins and TAB182. The CCR4-NOT complex is an evolutionarily conserved, multi-component complex known to be involved in transcription, as well as in mRNA degradation. Various subunits (e.g. CNOT1, CNOT3) are uniquely involved in influencing nuclear hormone receptor activities. In effect, this complex has an important role as a transcription regulator and repressor of nuclear receptor signaling that is relevant to the molecular pathways involved in cancer. The CCR4-NOT complex is also involved in the regulation of Histone H3 lysine 4 methylation through a ubiquitin-dependent pathway that likely involves the proteasome.

REFERENCES

1. Mulder, K.W., et al. 2005. DNA damage and replication stress induced transcription of RNR genes is dependent on the Ccr4-Not complex. Nucleic Acids Res. 33: 6384-6392.
2. Winkler, G.S., et al. 2006. Human Ccr4-Not complex is a ligand-dependent repressor of nuclear receptor-mediated transcription. EMBO J. 25: 3089-3099.
3. Behm-Ansmant, I., et al. 2006. mRNA degradation by miRNAs and GW182 requires both CCR4:NOT deadenylase and DCP1:DCP2 decapping complexes. Genes Dev. 20: 1885-1898.
4. Lenssen, E., et al. 2007. The Ccr4-not complex regulates Skn7 through Srb10 kinase. Eukaryot. Cell 6: 2251-2259.
5. James, N., et al. 2007. A SAGA-independent function of SPT3 mediates transcriptional deregulation in a mutant of the Ccr4-not complex in *Saccharomyces cerevisiae*. Genetics 177: 123-135.
6. Wagner, E., et al. 2007. An unconventional human Ccr4-Caf1 deadenylase complex in nuclear cajal bodies. Mol. Cell. Biol. 27: 1686-1695.

CHROMOSOMAL LOCATION

Genetic locus: CNOT10 (human) mapping to 3p22.3; Cnot10 (mouse) mapping to 9 F3.

SOURCE

CNOT10 (H-9) is a mouse monoclonal antibody raised against amino acids 302-468 mapping within an internal region of CNOT10 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.

CNOT10 (H-9) is available conjugated to agarose (sc-514570 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514570 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514570 PE), fluorescein (sc-514570 FITC), Alexa Fluor® 488 (sc-514570 AF488), Alexa Fluor® 546 (sc-514570 AF546), Alexa Fluor® 594 (sc-514570 AF594) or Alexa Fluor® 647 (sc-514570 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514570 AF680) or Alexa Fluor® 790 (sc-514570 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CNOT10 (H-9) is recommended for detection of CNOT10 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 CNOT10 siRNA (h): sc-78124, CNOT10 siRNA (m): sc-142437, CNOT10 shRNA Plasmid (h): sc-78124-SH, CNOT10 shRNA Plasmid (m): sc-142437-SH, CNOT10 shRNA (h) Lentiviral Particles: sc-78124-V and CNOT10 shRNA (m) Lentiviral Particles: sc-142437-V.

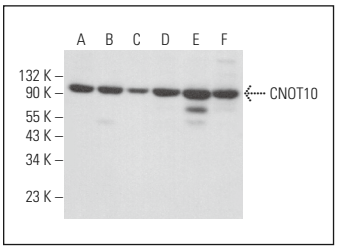
Molecular Weight of CNOT10: 83 kDa.

Positive Controls: SK-MEL-28 cell lysate: sc-2236, PANC-1 whole cell lysate: sc-364380 or HeLa whole cell lysate: sc-2200.

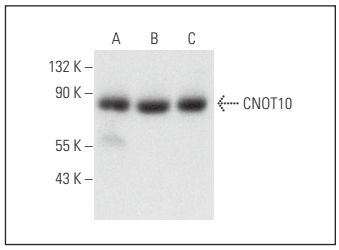
RECOMMENDED SUPPORT REAGENTS

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



CNOT10 (H-9): sc-514570. Western blot analysis of CNOT10 expression in SK-MEL-24 (**A**), K-562 (**B**), WI-38 (**C**), Neuro-2A (**D**), F9 (**E**) and C6 (**F**) whole cell lysates.



CNOT10 (H-9): sc-514570. Western blot analysis of CNOT10 expression in HeLa (**A**), SK-MEL-28 (**B**) and PANC-1 (**C**) whole cell lysates.

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.