

CNOT10 (Y-15): sc-102453

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

- 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.
- 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.
- 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.
- Lenssen, E., et al. 2007. The Ccr4-not complex regulates Skn7 through Srb10 kinase. *Eukaryotic Cell* 6: 2251-2259.
- 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.
- 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 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CNOT10 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-102453 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CNOT10 (Y-15) is recommended for detection of CNOT10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other CNOT family members.

CNOT10 (Y-15) is also recommended for detection of CNOT10 in additional species, including equine, canine, bovine, porcine and avian.

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.

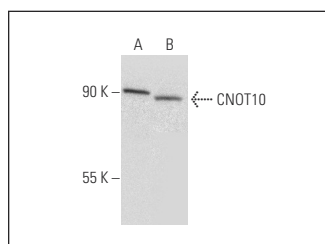
Molecular Weight of CNOT10: 83 kDa.

Positive Controls: CNOT10 (h4): 293T Lysate: sc-177070, LADMAC whole cell lysate: sc-364189 or mouse thymus extract: sc-2406.

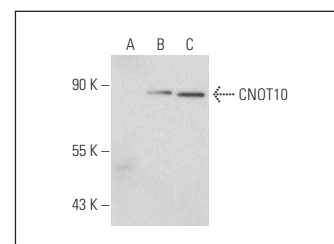
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CNOT10 (Y-15): sc-102453. Western blot analysis of CNOT10 expression in LADMAC whole cell lysate (A) and mouse thymus tissue extract (B).



CNOT10 (Y-15): sc-102453. Western blot analysis of CNOT10 expression in non-transfected 293T: sc-117752 (A), human CNOT10 transfected 293T: sc-177070 (B) and LADMAC (C) whole cell lysates.

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.