

CNOT6 (N-17): sc-82831



The Power to Question

BACKGROUND

CNOT6 is a widely expressed subunit of the CCR4-NOT transcription complex. The CCR4-NOT complex is an evolutionarily conserved, multi-component complex known to be involved in transcription as well as mRNA degradation. Various subunits (e.g. CNOT1, CNOT3) are involved in influencing nuclear hormone receptor activities. 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. CNOT6 belongs to the CCR4/nocturin family and contains three LRR (leucine-rich) repeats. In the cytoplasm, CNOT6 acts as a poly(A) nuclease involved in mRNA decay mediated by the major-protein-coding determinant of instability (mCRD) of the Fos gene.

REFERENCES

1. Albert, T.K., et al. 2000. Isolation and characterization of human orthologs of yeast CCR4-NOT complex subunits. *Nucleic Acids Res.* 28: 809-817.
2. Chen, J., et al. 2002. CCR4, a 3'-5' poly(A) RNA and ssDNA exonuclease, is the catalytic component of the cytoplasmic deadenylase. *EMBO J.* 21: 1414-1426.
3. Dupressoir, A., et al. 2003. Identification of four families of γ CCR4- and Mg²⁺-dependent endonuclease-related proteins in higher eukaryotes, and characterization of orthologs of γ CCR4 with a conserved leucine-rich repeat essential for hCAF1/hPOP2 binding. *BMC Genomics* 2: 9.
4. Semotok, J.L., et al. 2005. Smaug recruits the CCR4/POP2/NOT deadenylase complex to trigger maternal transcript localization in the early *Drosophila* embryo. *Curr. Biol.* 15: 284-294.
5. Oh, J.H., et al. 2005. Transcriptome analysis of human gastric cancer. *Mamm. Genome* 16: 942-954.
6. 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.
7. Fujitani, S., et al. 2007. Increased number of CCR4-positive cells in the duodenum of ovalbumin-induced food allergy model Nc/jic mice and antiallergic activity of fructooligosaccharides. 56: 131-138.
8. Larabee, R.N., et al. 2007. CCR4/NOT complex associates with the proteasome and regulates histone methylation. *Proc. Natl. Acad. Sci. USA* 104: 5836-5841.
9. Garapaty, S.R., et al. 2008. Components of the CCR4-not complex function as nuclear hormone receptor coactivators via association with the NRC interacting factor, NIF-1. *J. Biol. Chem.* 283: 6806-6816.

CHROMOSOMAL LOCATION

Genetic locus: CNOT6 (human) mapping to 5q35.3 ; Cnot6 (mouse) mapping to 11 B1.2.

SOURCE

CNOT6 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CNOT6 of human origin.

PRODUCT

Each vial contains 200 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-82831 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-82831 X, 200 μ g/0.1 ml.

APPLICATIONS

CNOT6 (N-17) is recommended for detection of CNOT6 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 CNOT family members.

CNOT6 (N-17) is also recommended for detection of CNOT6 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CNOT6 siRNA (h): sc-72944, CNOT6 siRNA (m): sc-72945, CNOT6 shRNA Plasmid (h): sc-72944-SH, CNOT6 shRNA Plasmid (m): sc-72945-SH, CNOT6 shRNA (h) Lentiviral Particles: sc-72944-V and CNOT6 shRNA (m) Lentiviral Particles: sc-72945-V.

CNOT6 (N-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CNOT6: 63 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.