

CNOT3 (D-20): sc-82821

BACKGROUND

CNOT3 is a widely expressed subunit of the CCR4-NOT transcription complex and belongs to the CNOT2/3/5 family. 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. Similar to CNOT2, CNOT3 contains the specialized protein motif NOT-Box. This conserved motif confers a transcription repression function to CNOT3. Repression by the NOT-Box is sensitive to treatment with the histone deacetylase (HDAC) inhibitor trichostatin A.

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. Wende, H., et al. 2000. Extensive gene duplications and a large inversion characterize the human leukocyte receptor cluster. *Immunogenetics* 51: 703-713.
3. Aoki, T., et al. 2002. TBP-interacting protein 120B, which is induced in relation to myogenesis, binds to NOT3. *Biochem. Biophys. Res. Commun.* 296: 1097-1103.
4. Yin, X., et al. 2005. Identification of novel CBP interacting proteins in embryonic orofacial tissue. *Biochem. Biophys. Res. Commun.* 329: 1010-1017.
5. Laribee, R.N., et al. 2007. CCR4/NOT complex associates with the proteasome and regulates histone methylation. *Proc. Natl. Acad. Sci. USA* 104: 5836-5841.
6. 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: CNOT3 (human) mapping to 19q13.42; Cnot3 (mouse) mapping to 7 A1.

SOURCE

CNOT3 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CNOT3 of human origin.

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.

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-82821 P, (100 µg 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-82821 X, 200 µg/0.1 ml.

APPLICATIONS

CNOT3 (D-20) is recommended for detection of CNOT3 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.

CNOT3 (D-20) is also recommended for detection of CNOT3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CNOT3 siRNA (h): sc-72939, CNOT3 siRNA (m): sc-72940, CNOT3 shRNA Plasmid (h): sc-72939-SH, CNOT3 shRNA Plasmid (m): sc-72940-SH, CNOT3 shRNA (h) Lentiviral Particles: sc-72939-V and CNOT3 shRNA (m) Lentiviral Particles: sc-72940-V.

CNOT3 (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CNOT3 isoforms: 59/64/82/116 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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.