

# CNOT2 (2191C2a): sc-81229

## BACKGROUND

CNOT2 (CCR4-NOT transcription complex subunit 2) is a ubiquitous protein encoded by the human gene CNOT2. CNOT2 belongs to the CNOT2/3/5 family and is part of the CCR4-NOT 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, CNOT2) 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. Increased expression of the CNOT2 subunit acts to strongly repress transcription by RNA polymerase II. This repressive effect is mediated by a conserved NOT-Box, which is located at the C-terminus of CNOT2 proteins. Repression by the NOT-Box is sensitive to treatment with the histone deacetylase (HDAC) inhibitor trichostatin A.

## REFERENCES

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- Zwartjes, C.G., et al. 2004. Repression of promoter activity by CNOT2, a subunit of the transcription regulatory Ccr4-NOT complex. *J. Biol. Chem.* 279: 10848-10854.
- Lenssen, E., et al. 2004. The Ccr4-NOT complex independently controls both Msn2-dependent transcriptional activation—via a newly identified Glc7/Bud14 type I protein phosphatase module—and TFIID promoter distribution. *Mol. Cell. Biol.* 25: 488-498.
- Shi, J. and Nelson, M.A. 2005. The cyclin-dependent kinase 11 interacts with NOT2. *Biochem. Biophys. Res. Commun.* 334: 1310-1316.
- 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.
- Jayne, S., et al. 2006. Involvement of the SMRT/NCoR-HDAC3 complex in transcriptional repression by the CNOT2 subunit of the human Ccr4-NOT complex. *Biochem. J.* 398: 461-467.
- 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.
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## CHROMOSOMAL LOCATION

Genetic locus: CNOT2 (human) mapping to 12q15.

## SOURCE

CNOT2 (2191C2a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of CNOT2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% gelatin.

## APPLICATIONS

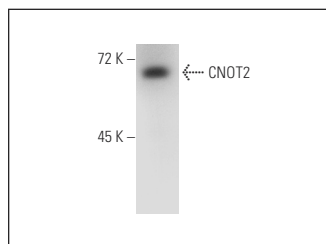
CNOT2 (2191C2a) is recommended for detection of CNOT2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for CNOT2 siRNA (h): sc-72937, CNOT2 shRNA Plasmid (h): sc-72937-SH and CNOT2 shRNA (h) Lentiviral Particles: sc-72937-V.

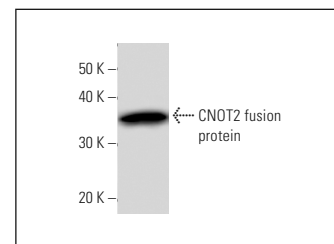
Molecular Weight of CNOT2 isoforms 1/2/3/4/5: 60/41/22/52/54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## DATA



CNOT2 (2191C2a): sc-81229. Western blot analysis of CNOT2 expression in HeLa whole cell lysate.



CNOT2 (2191C2a): sc-81229. Western Blot analysis of human recombinant CNOT2 fusion protein.

## SELECT PRODUCT CITATIONS

- Rambout, X., et al. 2016. The transcription factor ERG recruits CCR4-NOT to control mRNA decay and mitotic progression. *Nat. Struct. Mol. Biol.* 23: 663-672.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.