SANTA CRUZ BIOTECHNOLOGY, INC.

CNOT11 (C-6): sc-377068



BACKGROUND

The CCR4-NOT complex is an evolutionarily conserved, multi-component complex known to be involved in transcription as well as mRNA degradation. Various subunits within the complex 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. CNOT11 (CCR4-NOT transcription complex, subunit 11), also known as C40, is a 510 amino acid protein that belongs to the CNOT11 family. CNOT10 and CNOT11 form a subcomplex docked to the CNOT1 scaffold. CNOT11 is encoded by a gene that maps to human chromosome 2q11.2. As the second largest human chromosome, chromosome 2 makes up approximately 8% of the human genome and contains 237 million bases encoding over 1,400 genes.

REFERENCES

- Bogdan, J.A., et al. 1998. Human carbon catabolite repressor protein (CCR4)associative factor 1: cloning, expression and characterization of its interaction with the B-cell translocation protein BTG1. Biochem. J. 336: 471-481.
- 2. Fidler, C., et al. 1999. The human POP2 gene: identification, sequencing, and mapping to the critical region of the 5q-syndrome. Genomics 56: 134-136.
- Albert, T.K., et al. 2000. Isolation and characterization of human orthologs of yeast CCR4-NOT complex subunits. Nucleic Acids Res. 28: 809-817.
- 4. Prévôt, D., et al. 2001. Relationships of the antiproliferative proteins BTG1 and BTG2 with CAF1, the human homolog of a component of the yeast CCR4 transcriptional complex: involvement in estrogen receptor α signaling pathway. J. Biol. Chem. 276: 9640-9648.

CHROMOSOMAL LOCATION

Genetic locus: CNOT11 (human) mapping to 2q11.2; Cnot11 (mouse) mapping to 1 B.

SOURCE

CNOT11 (C-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 227-261 within an internal region of C2orf29 of human origin.

PRODUCT

Each vial contains 200 μg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CNOT11 (C-6) is available conjugated to agarose (sc-377068 AC), 500 μg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377068 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377068 PE), fluorescein (sc-377068 FITC), Alexa Fluor[®] 488 (sc-377068 AF488), Alexa Fluor[®] 546 (sc-377068 AF546), Alexa Fluor[®] 594 (sc-377068 AF594) or Alexa Fluor[®] 647 (sc-377068 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377068 AF680) or Alexa Fluor[®] 790 (sc-377068 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377068 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CNOT11 (C-6) is recommended for detection of CNOT11 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CNOT11 (C-6) is also recommended for detection of CNOT11 in additional species, including canine, porcine and avian.

Suitable for use as control antibody for CNOT11 siRNA (h): sc-94334, CNOT11 siRNA (m): sc-142800, CNOT11 shRNA Plasmid (h): sc-94334-SH, CNOT11 shRNA Plasmid (m): sc-142800-SH, CNOT11 shRNA (h) Lentiviral Particles: sc-94334-V and CNOT11 shRNA (m) Lentiviral Particles: sc-142800-V.

Molecular Weight of CNOT11: 55 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Hep G2 cell lysate: sc-2227 or 3T3-L1 cell lysate: sc-2243.

DATA





CNOT11 (C-6): sc-377068. Western blot analysis of CNOT11 expression in MCF7 $({\bm A}),$ Hep G2 $({\bm B})$ and 3T3-L1 $({\bm C})$ whole cell lysates.

CNOT11 (C-6): sc-377068. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

- Yamaji, M., et al. 2017. DND1 maintains germline stem cells via recruitment of the CCR4-NOT complex to target mRNAs. Nature 543: 568-572.
- Höpfler, M., et al. 2023. Mechanism of ribosome-associated mRNA degradation during tubulin autoregulation. Mol. Cell 83: 2290-2302.e13.
- Absmeier, E., et al. 2023. Specific recognition and ubiquitination of translating ribosomes by mammalian CCR4-NOT. Nat. Struct. Mol. Biol. 30: 1314-1322.

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.

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