

CNBP (H-7): sc-515387

BACKGROUND

Cellular nucleic acid binding protein (CNBP) is a highly conserved RNA-binding protein that plays a fundamental biological role in eukaryotic cells by increasing heterologous protein production. CNBP localizes to the nucleus of cells and functions in the brain, specifically in the anterior visceral endoderm and, subsequently, in the anterior definitive endoderm, anterior neuroectoderm, anterior mesendoderm, headfolds and forebrain. CNBP is necessary for the forebrain induction and specification, and mutations in the CNBP gene lead to severe forebrain truncation as well as various craniofacial defects due to a lack of proper morphogenetic movements of the anterior visceral endoderm during the pre-gastrulation stage. Overexpression of CNBP activates cell proliferation and stimulates the activity of the c-Myc promoter.

CHROMOSOMAL LOCATION

Genetic locus: CNBP (human) mapping to 3q21.3; Cnbp (mouse) mapping to 6 D1.

SOURCE

CNBP (H-7) is a mouse monoclonal antibody raised against amino acids 17-56 mapping near the N-terminus of CNBP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515387 X, 200 µg/0.1 ml.

CNBP (H-7) is available conjugated to agarose (sc-515387 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515387 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515387 PE), fluorescein (sc-515387 FITC), Alexa Fluor® 488 (sc-515387 AF488), Alexa Fluor® 546 (sc-515387 AF546), Alexa Fluor® 594 (sc-515387 AF594) or Alexa Fluor® 647 (sc-515387 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515387 AF680) or Alexa Fluor® 790 (sc-515387 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CNBP (H-7) is recommended for detection of CNBP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CNBP siRNA (h): sc-60419, CNBP siRNA (m): sc-60420, CNBP shRNA Plasmid (h): sc-60419-SH, CNBP shRNA Plasmid (m): sc-60420-SH, CNBP shRNA (h) Lentiviral Particles: sc-60419-V and CNBP shRNA (m) Lentiviral Particles: sc-60420-V.

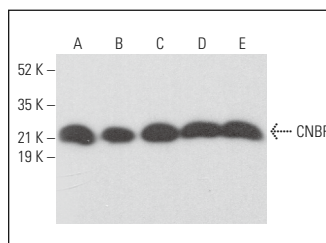
CNBP (H-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: MCF7 whole cell lysate: sc-2206, Neuro-2A whole cell lysate: sc-364185 or HL-60 whole cell lysate: sc-2209.

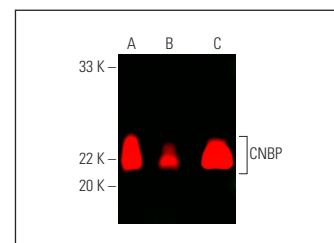
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CNBP (H-7): sc-515387. Western blot analysis of CNBP expression in Neuro-2A (A), PC-12 (B), MCF7 (C), HL-60 (D) and SJRH30 (E) whole cell lysates.



CNBP (H-7) Alexa Fluor® 790: sc-515387 AF790. Direct near-infrared western blot analysis of CNBP expression in Neuro-2A (A), PC-12 (B) and SK-N-MC (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Lee, E., et al. 2017. CNBP acts as a key transcriptional regulator of sustained expression of interleukin-6. *Nucleic Acids Res.* 45: 3280-3296.
- Lee, E., et al. 2019. CNBP controls tumor cell biology by regulating tumor-promoting gene expression. *Mol. Carcinog.* 58: 1492-1501.
- Canesin, G., et al. 2020. Scavenging of labile heme by hemopexin is a key checkpoint in cancer growth and metastases. *Cell Rep.* 32: 108181.
- Hu, A., et al. 2023. Therapeutic targeting of CNBP phase separation inhibits ribosome biogenesis and neuroblastoma progression via modulating SWI/SNF complex activity. *Clin. Transl. Med.* 13: e1235.

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 for detailed protocols and support products.