

CBP80 (H-300): sc-48803

BACKGROUND

In eukaryotes, the majority of mRNAs have an m7G cap, which is added cotranscriptionally and plays a critical role in many aspects of mRNA metabolism. The effect of the cap on translation is mediated by the initiation factor eIF4F, whereas the effect on pre-mRNA splicing involves a nuclear complex (CBC). CBC consists of two cap binding proteins, CBP20 and CBP80, which mediate the stimulatory functions of the cap in pre-mRNA splicing, 3' end formation and U snRNA export. The genes CBC1 and CBC2 encode CBP80 and CBP20, respectively. CBP80 comprises three domains, each containing a MIF4G domain. CBP20 has an RNAP fold and associates with the second and third domains of CBP80. CBP also plays a role in nonsense-mediated decay (NMD), a process which eliminates mRNAs, and prematurely terminates translation. CBP80-bound mRNA undergoes a "pioneer" round of translation before CBP80-CBP20 are replaced by eIF4E, and Upf2 and Upf3 proteins.

CHROMOSOMAL LOCATION

Genetic locus: NCBP1 (human) mapping to 9q22.33; Ncbp1 (mouse) mapping to 4 B1.

SOURCE

CBP80 (H-300) is a rabbit polyclonal antibody raised against amino acids 21-320 mapping at the N-terminus of CBP80 of human origin.

PRODUCT

Each vial contains 200 µg IgG 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-48803 X, 200 µg/0.1 ml.

APPLICATIONS

CBP80 (H-300) is recommended for detection of CBP80 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), 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).

CBP80 (H-300) is also recommended for detection of CBP80 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for CBP80 siRNA (h): sc-43669, CBP80 siRNA (m): sc-60012, CBP80 shRNA Plasmid (h): sc-43669-SH, CBP80 shRNA Plasmid (m): sc-60012-SH, CBP80 shRNA (h) Lentiviral Particles: sc-43669-V and CBP80 shRNA (m) Lentiviral Particles: sc-60012-V.

CBP80 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

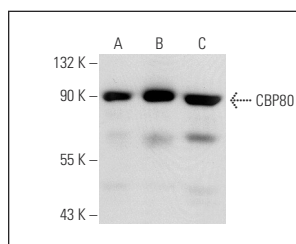
Molecular Weight of CBP80: 80 kDa.

Positive Controls: CBP80 (h): 293T Lysate: sc-175330 or Jurkat whole cell lysate: sc-2204.

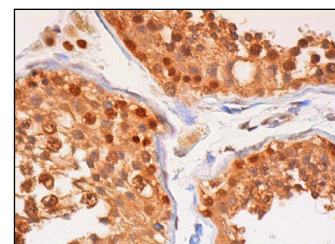
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CBP80 (H-300): sc-48803. Western blot analysis of CBP80 expression in non-transfected 293T: sc-117752 (A), human CBP80 transfected 293T: sc-175330 (B) and Jurkat (C) whole cell lysates.



CBP80 (H-300): sc-48803. 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

1. Lenasi, T., et al. 2011. Cap-binding protein complex links pre-mRNA capping to transcription elongation and alternative splicing through positive transcription elongation factor β (P-TEF β). J. Biol. Chem. 286: 22758-22768.

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.



Try **CBP80 (E-7): sc-271304** or **CBP80 (G-4): sc-271305**, our highly recommended monoclonal alternatives to CBP80 (H-300).