


Product datasheet

Anti-CBP80 antibody ab154532

3 Images

Overview

Product name	Anti-CBP80 antibody
Description	Rabbit polyclonal to CBP80
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Chicken 
Immunogen	Synthetic peptide corresponding to Human CBP80 aa 132-223 (N terminal). Database link: Q09161
Positive control	293T, A431, H1299, HeLaS3, HepG2, Molt4 and Raji cell lysates; OVCA xenograft tissues; HeLa cells.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab154532** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 92 kDa.

Application	Abreviews	Notes
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol using 10mM Citrate buffer (pH6.0) or Tris-EDTA buffer (pH8.0).
ICC/IF		1/100 - 1/1000.

Target

Function

Component of the cap-binding complex (CBC), which binds co-transcriptionally to the 5' cap of pre-mRNAs and is involved in various processes such as pre-mRNA splicing, translation regulation, nonsense-mediated mRNA decay, RNA-mediated gene silencing (RNAi) by microRNAs (miRNAs) and mRNA export. The CBC complex is involved in mRNA export from the nucleus via its interaction with THOC4/ALY, leading to the recruitment of the mRNA export machinery to the 5' end of mRNA and to mRNA export in a 5' to 3' direction through the nuclear pore. The CBC complex is also involved in mediating U snRNA and intronless mRNAs export from the nucleus. The CBC complex is essential for a pioneer round of mRNA translation, before steady state translation when the CBC complex is replaced by cytoplasmic cap-binding protein eIF4E. The pioneer round of mRNA translation mediated by the CBC complex plays a central role in nonsense-mediated mRNA decay (NMD), NMD only taking place in mRNAs bound to the CBC complex, but not on eIF4E-bound mRNAs. The CBC complex enhances NMD in mRNAs containing at least one exon-junction complex (EJC) via its interaction with UPF1, promoting the interaction between UPF1 and UPF2. The CBC complex is also involved in 'failsafe' NMD, which is independent of the EJC complex, while it does not participate in Staufen-mediated mRNA decay (SMD). During cell proliferation, the CBC complex is also involved in microRNAs (miRNAs) biogenesis via its interaction with SRRT/ARS2 and is required for miRNA-mediated RNA interference. The CBC complex also acts as a negative regulator of PARN, thereby acting as an inhibitor of mRNA deadenylation. In the CBC complex, NCBP1/CBP80 does not bind directly capped RNAs (m7GpppG-capped RNA) but is required to stabilize the movement of the N-terminal loop of NCBP2/CBP20 and lock the CBC into a high affinity cap-binding state with the cap structure.

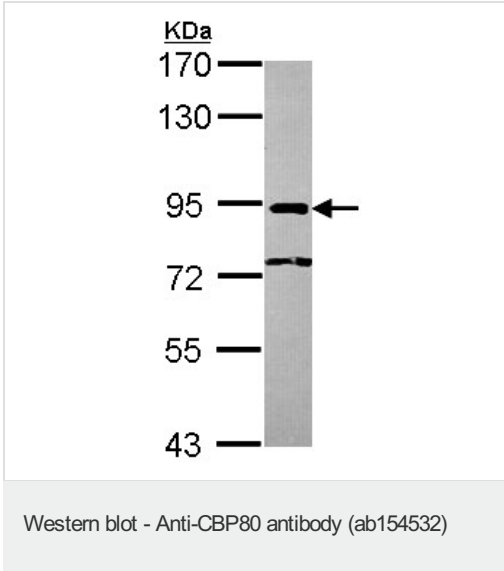
Sequence similarities

Belongs to the NCBP1 family.
Contains 1 MIF4G domain.

Cellular localization

Nucleus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

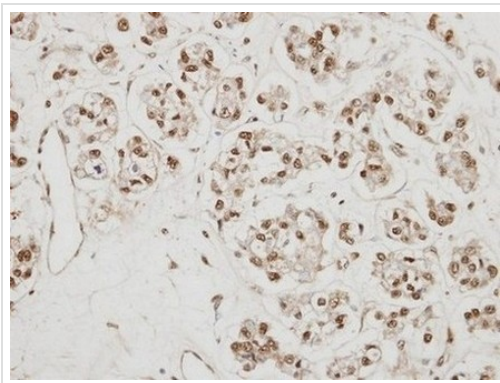
Images



Anti-CBP80 antibody (ab154532) at 1/2000 dilution + A431 whole cell lysate at 30 μ g

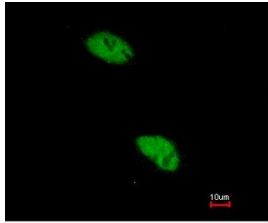
Predicted band size: 92 kDa

7.5% SDS PAGE

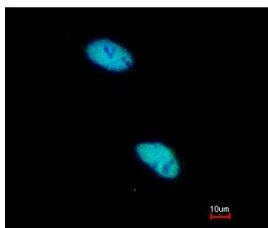


Immunohistochemical analysis of paraffin-embedded OVCA xenograft tissue labeling CBP80 with ab154532 at 1/500 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CBP80 antibody (ab154532)



Immunofluorescent analysis of paraformaldehyde-fixed HeLa cells labeling CBP80 with ab154532 at 1/200 dilution. Lower panel merged with DNA probe.



Immunocytochemistry/ Immunofluorescence - Anti-CBP80 antibody (ab154532)

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