

Rabbit anti-Human, Mouse CBP20 Polyclonal Antibody | anti-NCBP2 antibody

CBP20 Antibody

CATALOG # AAA290550	HOST Rabbit	REACTIVITY Human, Mouse	APPLICATIONS Western Blot
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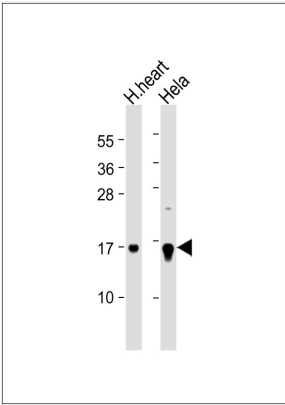
PRODUCT SYNONYMS

CBP20; Polyclonal Antibody; CBP20 Antibody; Purified Rabbit Polyclonal Antibody (Pab); Nuclear cap-binding protein subunit 2; 20 kDa nuclear cap-binding protein; Cell proliferation-inducing gene 55 protein; NCBP 20 kDa subunit; NCBP-interacting protein 1; NIP1; NCBP2; anti-NCBP2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Form/Format	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Sequence Length	103
Applicable Applications for anti-NCBP2 antibody	WB (Western Blot)
Antigen Source	Human
Antigen Type	A Synthesized Peptide
Antigen Region	1-50
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 ALYREF/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, thereby being 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, NCBP2/CBP20 recognizes and binds capped RNAs (m7GpppG-capped RNA) but requires NCBP1/CBP80 to stabilize the movement of its N-terminal loop and lock the CBC into a high affinity cap-binding state with the cap structure. The conventional cap-binding complex with NCBP2 binds both small nuclear RNA (snRNA) and messenger (mRNA) and is involved in their export from the nucleus (PubMed:26382858).
Cellular Location	Nucleus. Cytoplasm
Preparation and Storage	Store at -20 °C .Stable for 12 months from date of receipt

IMAGES



WB (Western Blot)
All lanes : Anti-CBP20 Antibody at 1:1000 dilution
Lane 1: human heart lysate
Lane 2: Hela whole cell lysate
Lysates/proteins at 20 ug per lane.
Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.
Predicted band size : 18 kDa
Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

Related Product Information for anti-NCBP2 antibody	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 ALYREF/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, thereby being 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, NCBP2/CBP20 recognizes and binds capped RNAs (m7GpppG-capped RNA) but requires NCBP1/CBP80 to stabilize the movement of its N-terminal loop and lock the CBC into a high affinity cap-binding state with the cap structure.
References	Izaurralde E.,et al.Nature 376:709-712(1995). Kataoka N.,et al.Nucleic Acids Res. 23:3638-3641(1995). Ota T.,et al.Nat. Genet. 36:40-45(2004). Kim J.W.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases. Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.

NCBI AND UNIPROT INFORMATION

NCBI GI #	110349727
NCBI GeneID	22916
NCBI Accession #	NP_001036005.1
NCBI GenBank Nucleotide #	NM_001042540.1
UniProt Accession #	P52298; Q14924; Q2TS50; B2RE91; B4DMK7; E9PAR5
Molecular Weight	Calculated MW: 18 KDa
NCBI Official Full Name	nuclear cap-binding protein subunit 2 isoform 2
NCBI Official Synonym Full Names	nuclear cap binding protein subunit 2

NCBI Official Symbol	NCBP2
NCBI Official Synonym Symbols	CBC2; NIP1; CBP20; PIG55
NCBI Protein Information	nuclear cap-binding protein subunit 2
UniProt Protein Name	Nuclear cap-binding protein subunit 2
UniProt Gene Name	NCBP2
UniProt Synonym Gene Names	CBP20; CBP20; NIP1
UniProt Entry Name	NCBP2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/cbp20-antibody-western-blot-elisa/290550>