Datasheet for ABIN7184484

# anti-NCBP1 antibody (N-Term)

Go to Product page

## 1 Image

## Overview

| | |
|---|---|
| Quantity: | 100 µL |
| Target: | NCBP1 |
| Binding Specificity: | N-Term |
| Reactivity: | Human |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This NCBP1 antibody is un-conjugated |
| Application: | Western Blotting (WB), ELISA |

## Product Details

| | |
|---|---|
| Immunogen: | Synthesized peptide derived from N-terminal of Human NCBP1. |
| Isotype: | IgG |
| Cross-Reactivity: | Human, Mouse, Rat |
| Purification: | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |

## Target Details

| | |
|---|---|
| Target: | NCBP1 |
| Alternative Name: | NCBP1 (NCBP1 Products) |
| Background: | Background: Component of the cap-binding complex (CBC), which binds cotranscriptionally to |

## Target Details

| | |
|---|---|
| | 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 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.<br><br>Izaurralde E., Cell 78:657-668(1994).<br>Kataoka N., Nucleic Acids Res. 22:3861-3865(1994).<br>Humphray S.J., Nature 429:369-374(2004).<br>Aliases: 80 kDa nuclear cap-binding protein antibody, CBP80 antibody, MGC2087 antibody, NCBP 80 kDa subunit antibody, NCBP antibody, ncbp1 antibody, NCBP1_HUMAN antibody, nuclear cap binding protein subunit 1 antibody, nuclear cap binding protein subunit 1, 80 kDa antibody, Nuclear cap-binding protein subunit 1 antibody, Sto1 antibody |
| UniProt: | Q09161 |
| Pathways: | Ribonucleoprotein Complex Subunit Organization, Photoperiodism, Methionine Biosynthetic Process |

## Application Details

| | |
|---|---|
| Application Notes: | WB:1:500-1:3000, |

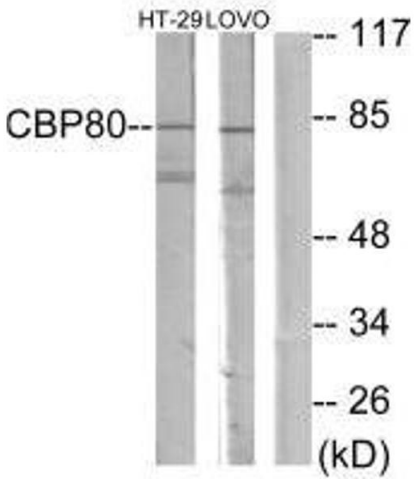
## Application Details

| | |
|---|---|
| Restrictions: | For Research Use only |

## Handling

| | |
|---|---|
| Format: | Liquid |
| Buffer: | Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C,-80 °C |
| Storage Comment: | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |

## Images




**Western Blotting**

**Image 1.** Western blot analysis of extracts from HT-29 cells and LOVO cells, using NCBP1 antibody.