

Datasheet for ABIN3135112  
**NCBP1 Protein (AA 1-790) (His tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	NCBP1
Protein Characteristics:	AA 1-790
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NCBP1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

## Product Details

Sequence:	MSRRRHSYEN DGGQPHKRRK TSDANETEDH LESLICKVGE KSACSLESNL EGLAGVLEAD LPNYKSKILR LLCTVARLLP EKLTIYTTLV GLLNARNYNF GGEFVEAMIR QLKESLKANN YNEAVYLVRF LSDLVNCHVI AAPSMVAMFE NFVSVTQEED VPQVRRDWYV YAFLLSSLPWV GKELYEKKDA EMDRIFSTTE SYLKRRQKTH VPMLQVWTAD KPHPQEEYLD CLWAQIQKLK KDRWQERHIL RPYLAFDSIL CEALQHNLPP FTPPPHTEDS VYPMPRVIFR MFDYTDDPEG PVMPGSHSVE RFVIEENLHC IISYWKERK TCAAQLVSY GKNKIPLNYH IVEVIFAELF QLPAPPHIDV MYTTLLIELC KLQPGSLPQV LAQATEMLYM RLDTMSTTCV DRFINWFSSH LSNFQFRWSW EDWSDCLTQD LESPKPKFVR EVLEKCMRLS YHQHILDIVP PTFSALCPAN PTCIYKYGDE SSNSLPGHVS ALCLSVAFKS KATNDEIFSI LKDVNPNPQV DDDDEGFRFN PLKIEVFVQT LLHLAASFS HSFSALAKFH EVFKTLAESD KGKLHVLRVM FEVWRNHPQM IAVLVDKMIR TQIVDCAAVA NWIFSSLSR DFTRLFVWEI LHSTIRKMNK HVLKIQKELE EAKEKLARQH KRRSDDDDRS SDRKDGAL EE QIERLQEKVE AAQSEQKNLF LVIFQRFIMI
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LTEHLVRCET DGTSILTPWY KNCIERLQQI FLQHHQTIQQ YMVTLENLLF TAEIDPHILA  
VFQQFCALQA

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Ncbp1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

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Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Sterility:

0.22 µm filtered

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Endotoxin Level:

Protein is endotoxin free.

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## Product Details

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Grade: Crystallography grade

## Target Details

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Target: NCBP1

Alternative Name: Ncbp1 ([NCBP1 Products](#))

Background: Component of the cap-binding complex (CBC), which binds cotranscriptionally 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 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. Associates with NCBP3 to form an alternative cap-binding complex (CBC) which plays a key role in mRNA export and is particularly important in cellular stress situations such as virus infections. The conventional CBC with NCBP2 binds both small nuclear RNA (snRNA) and messenger (mRNA) and is involved in their export from the nucleus whereas the alternative CBC with NCBP3 does not bind snRNA and associates only with mRNA thereby playing a role only in mRNA export. NCBP1/CBP80 is required for cell growth and viability (By similarity). {ECO:0000250|UniProtKB:Q09161, ECO:0000269|PubMed:19632182}.

## Target Details

Molecular Weight:	92.9 kDa Including tag.
UniProt:	<a href="#">Q3UYV9</a>
Pathways:	<a href="#">Ribonucleoprotein Complex Subunit Organization</a> , <a href="#">Photoperiodism</a> , <a href="#">Methionine Biosynthetic Process</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process