abcam

Product datasheet

Anti-NCBP1 antibody ab42389

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概述

产品名称	Anti-NCBP1抗体
描述	兔多克隆抗体to NCBP1
宿主	Rabbit
经测试应用	**适用于:** WB, ICC/IF, IP
种属反应性	**与反应:** Human **预测可用于:** Mouse, Rat, Chicken, Xenopus laevis, Cynomolgus monkey
免疫原	Synthetic peptide conjugated to KLH derived from within residues 150 - 250 of Human NCBP1. 参阅Abcam的专有抗源政策(Peptide available as ab42388.)
阳性对照	ab42389 gave a positive result in the following whole cell lysates: HeLa (Human epithelial carcinoma cell line) Jurkat (Human T cell lymphoblast-like cell line) HepG2 (Human hepatocellular liver carcinoma cell line) A431 (Human epithelial carcinoma cell line) ab42389 gave a positive result in the following nuclear lysates: HeLa (Human epithelial carcinoma cell line) Jurkat (Human T cell lymphoblast-like cell line) HepG2 (Human hepatocellular liver carcinoma cell line)

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
纯度	Immunogen affinity purified
克隆	多克隆
同种型	IgG

应用

Our Abpromise guarantee covers the use of **ab42389** in the following tested applications.

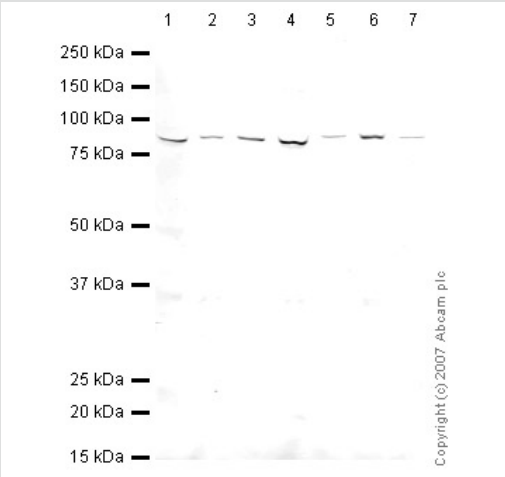
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 80 kDa (predicted molecular weight: 92 kDa).
ICC/IF		Use a concentration of 5 µg/ml.
IP		Use a concentration of 5 µg/ml.

靶标

功能	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.
序列相似性	Belongs to the NCBP1 family. Contains 1 MIF4G domain.
细胞定位	Nucleus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

图片



Western blot - Anti-NCBP1 antibody (ab42389)

All lanes : Anti-NCBP1 antibody (ab42389) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate
Lane 3 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 4 : Jurkat nuclear extract lysate (ab14844)
Lane 5 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 6 : HepG2 nuclear extract lysate (ab14660)
Lane 7 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

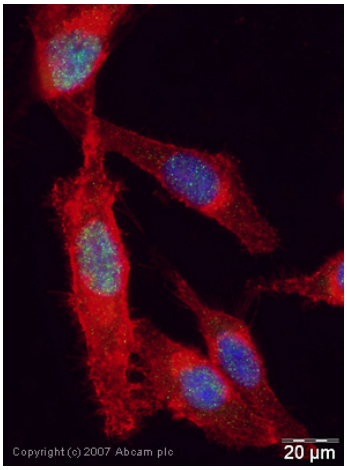
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

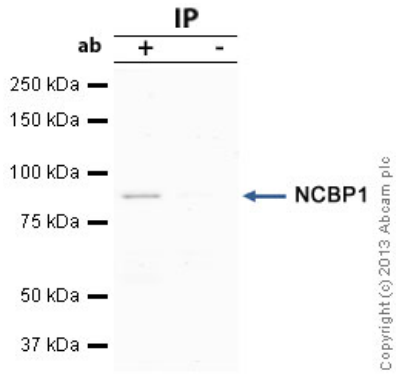
Predicted band size: 92 kDa
Observed band size: 80 kDa

ab42389 detects a band at 80 kDa which corresponds to the NCBP 80 kDa subunit.



Immunocytochemistry/ Immunofluorescence - Anti-NCBP1 antibody (ab42389)

ICC/IF image of ab42389 stained human HeLa cells. The cells were PFA fixed (10 min), permabilised in TBS-T (20 min) and incubated with the antibody (ab42389, 5µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



Immunoprecipitation - Anti-NCBP1 antibody (ab42389)

NCBP1 was immunoprecipitated using 0.5mg Jurkat whole cell extract, 5µg of Rabbit polyclonal to NCBP1 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, Jurkat whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab42389.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (ab99697).
Band: 80kDa; NCBP1

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