

Anti-CPEB1 antibody [EPR11775(2)] ab181051

リコンビナント RabMAb

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製品の概要

製品名	Anti-CPEB1 antibody [EPR11775(2)]
製品の詳細	Rabbit monoclonal [EPR11775(2)] to CPEB1
由来種	Rabbit
アプリケーション	適用あり: ICC/IF, WB, IP
種交差性	交差種: Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as ab197860)
ポジティブ・コントロール	Human fetal brain, fetal heart, HeLa and A549 cell lysates. ICC/IF: HeLa cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR11775(2)
アイソタイプ	IgG

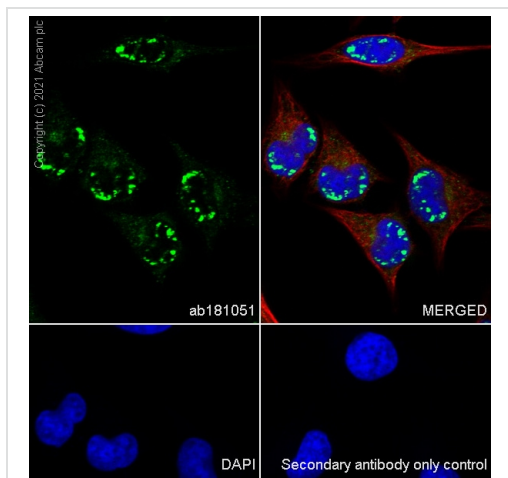
アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab181051の使用に適用されず**
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		1/100.
WB		1/1000 - 1/2000. Detects a band of approximately 70 kDa (predicted molecular weight: 63 kDa). Can be blocked with CPEB1 peptide (ab197860) .
IP		1/60.

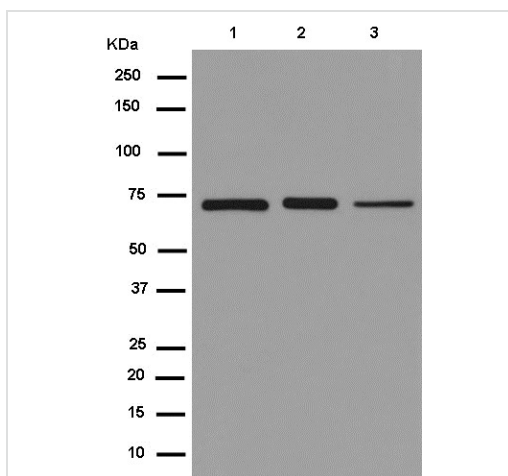
ターゲット情報

機能	Sequence-specific RNA-binding protein that regulates mRNA cytoplasmic polyadenylation and translation initiation during oocyte maturation, early development and at postsynapse sites of neurons. Binds to the cytoplasmic polyadenylation element (CPE), an uridine-rich sequence element (consensus sequence 5'-UUUUUAU-3') within the mRNA 3'-UTR. In absence of phosphorylation and in association with TACC3 is also involved as a repressor of translation of CPE-containing mRNA; a repression that is relieved by phosphorylation or degradation (By similarity). Involved in the transport of CPE-containing mRNA to dendrites; those mRNAs may be transported to dendrites in a translationally dormant form and translationally activated at synapses (By similarity). Its interaction with APLP1 promotes local CPE-containing mRNA polyadenylation and translation activation (By similarity). Induces the assembly of stress granules in the absence of stress.
組織特異性	Isoform 1 is expressed in immature oocytes, ovary, brain and heart. Isoform 2 is expressed in brain and heart. Isoform 3 and isoform 4 are expressed in brain. Expressed in breast tumors and several tumor cell lines.
配列類似性	Belongs to the RRM CPEB family. Contains 2 RRM (RNA recognition motif) domains.
ドメイン	The 2 RRM domains and the C-terminal region mediate interaction with CPE-containing RNA.
翻訳後修飾	Phosphorylated on serine/threonine residues by AURKA/STK6 within positions 166 and 197. Phosphorylation and dephosphorylation on Thr-172 regulates cytoplasmic polyadenylation and translation of CPE-containing mRNAs. Phosphorylation on Thr-172 by AURKA/STK6 and CAMK2A activates CPEB1. Phosphorylation on Thr-172 may be promoted by APLP1. Phosphorylation increases binding to RNA.
細胞内局在	Cytoplasm > P-body. Cytoplasmic granule. Cell junction > synapse. Membrane. Cell junction > synapse > postsynaptic cell membrane > postsynaptic density. Cell projection > dendrite. Also found in stress granules. Recruited to stress granules (SGs) upon arsenite treatment. In dendrites (By similarity). Localizes in synaptosomes at dendritic synapses of neurons (By similarity). Strongly enriched in postsynaptic density (PSD) fractions (By similarity). Transported into dendrites in a microtubule-dependent fashion and colocalizes in mRNA-containing particles with TACC3, dynein and kinesin (By similarity). Membrane-associated (By similarity). Colocalizes at excitatory synapses with members of the polyadenylation and translation complex factors (CPSF, APLP1, TACC3, AURKA/STK6, SYP, etc.) including CPE-containing RNAs.



Immunocytochemistry/ Immunofluorescence - Anti-CPEB1 antibody [EPR11775(2)] (ab181051)

Immunocytochemistry analysis of 100% methanol-fixed 0.1% TritonX-100 permeabilized HeLa cells staining CPEB1 with ab181051 at 1/100 dilution (5.44 µg/mL) and secondary: **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 (2 µg/mL), and counterstained with **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) at 1/200 (2.5 µg/mL) dilution. Nuclear counterstain is DAPI (blue).



Western blot - Anti-CPEB1 antibody [EPR11775(2)] (ab181051)

All lanes : Anti-CPEB1 antibody [EPR11775(2)] (ab181051) at 1/1000 dilution

Lane 1 : Human fetal brain tissue lysate

Lane 2 : Human fetal heart tissue lysate

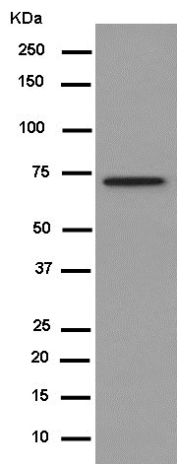
Lane 3 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab136636**) at 1/500 dilution

Predicted band size: 63 kDa



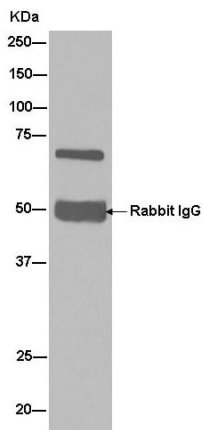
Western blot - Anti-CPEB1 antibody [EPR11775(2)]
(ab181051)

Anti-CPEB1 antibody [EPR11775(2)] (ab181051) at 1/1000
dilution + A549 cell lysate at 10 μ g

Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000
dilution

Predicted band size: 63 kDa



Immunoprecipitation - Anti-CPEB1 antibody
[EPR11775(2)] (ab181051)

Western blot analysis of immunoprecipitation pellet from Human
fetal brain lysate immunoprecipitated using ab181051 at 1/60
dilution.

Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at
1/1000 dilution.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-CPEB1 antibody [EPR11775(2)] (ab181051)

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