

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

**重组** RabMAb

[1 Abreviews](#) [2 References](#) [5 图像](#)

#### 概述

产品名称	Anti-CPEB1抗体[EPR11775(2)]
描述	兔单克隆抗体[EPR11775(2)] to CPEB1
宿主	Rabbit
经测试应用	<b>适用于:</b> ICC/IF, WB, IP
种属反应性	<b>与反应:</b> Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. (Peptide available as <b>ab197860</b> )
阳性对照	Human fetal brain, fetal heart, HeLa and A549 cell lysates. ICC/IF: HeLa cells
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### 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 long term. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR11775(2)
同种型	IgG

## 应用

### The Abpromise guarantee

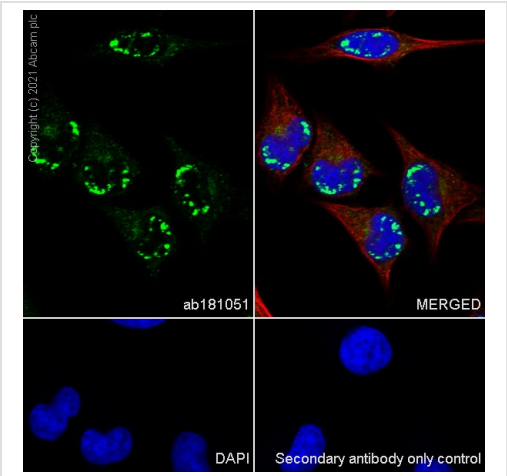
**Abpromise™** 承诺保证使用 ab181051 于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

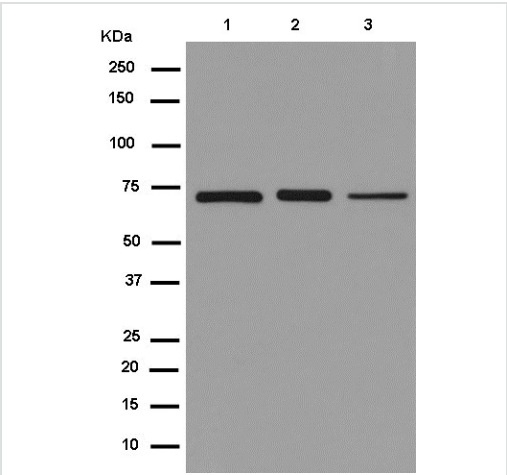
应用	Ab 评论	说明
ICC/IF		1/100.
WB		1/1000 - 1/2000. Detects a band of approximately 70 kDa (predicted molecular weight: 63 kDa). Can be blocked with <b>CPEB1 peptide (ab197860)</b> .
IP		1/60.

## 靶标

功能	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.
组织特异性	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.
序列相似性	Belongs to the RRM CPEB family. Contains 2 RRM (RNA recognition motif) domains.
结构域	The 2 RRM domains and the C-terminal region mediate interaction with CPE-containing RNA.
翻译后修饰	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.
细胞定位	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)



Western blot - 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).

**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

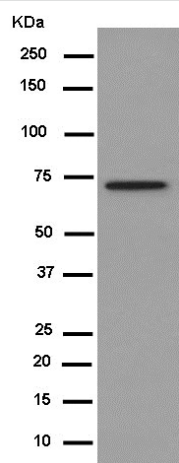
**Lane 3** : HeLa cell lysate

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



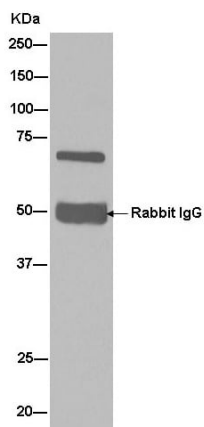
Western blot - Anti-CPEB1 antibody [EPR11775(2)] (ab181051)

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

### 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)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.cn/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors