

## Rabbit CPEB1 Polyclonal Antibody | anti-CPEB1 antibody

CPEB1 Antibody (C-term)

| CATALOG # | HOST   | REACTIVITY                                                   | APPLICATIONS        |
|-----------|--------|--------------------------------------------------------------|---------------------|
| AAA289532 | Rabbit | Human (Predicted Reactivity: Xenopus, Zebrafish, Mouse, Rat) | ELISA, Western Blot |

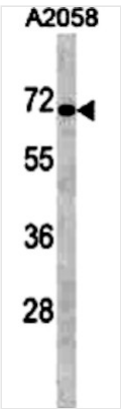
### PRODUCT SYNONYMS

CPEB1; Polyclonal Antibody; CPEB1 Antibody (C-term); Cytoplasmic polyadenylation element-binding protein 1; CPE-BP1; CPE-binding protein 1; h-CEBP; hCPEB-1; CPEB; anti-CPEB1 antibody

### PRODUCT SPECIFICATIONS

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|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reactivity                                      | Human (Predicted Reactivity: Xenopus, Zebrafish, Mouse, Rat)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Isotype                                         | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Specificity                                     | This CPEB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 447-475 amino acids from the C-terminal region of human CPEB1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Purity/Purification                             | This antibody is purified through a protein A column, followed by peptide affinity purification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Form/Format                                     | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Sequence Positions                              | 447-475                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Applicable Applications for anti-CPEB1 antibody | ELISA, WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Function                                        | 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'-UUUUUUAU- 3') within the mRNA 3'-UTR. RNA binding results in a clear conformational change analogous to the Venus fly trap mechanism (PubMed: ). 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. Required for cell cycle progression, specifically for prophase entry (PubMed: ). |
| Cellular Location                               | Cytoplasm. Nucleus. Cytoplasm, P-body. Cytoplasmic granule. Cell junction, synapse. Membrane. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density Cell projection, dendrite. Note=Continuously shuttling between nucleus and cytoplasm (PubMed:18923137). 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, SYP, etc.) including CPE-containing RNAs (By similarity). {ECO:0000250, ECO:0000269 PubMed:18923137}                                                                                                                                                                       |
| Tissue Location                                 | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Preparation and Storage                         | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

IMAGES



**WB (Western Blot)**  
Anti-CPEB1 Antibody (C-term) at 1:1000 dilution + A2058 whole cell lysate Lysates/proteins at 20 ug per lane.Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution.Predicted band size : 63 kDaBlocking/Dilution buffer: 5% NFD/MTBST.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-CPEB1 antibody | This gene encodes a member of the cytoplasmic polyadenylation element (CPE) binding protein family. This highly conserved protein binds to a specific RNA sequence called the CPE found in the 3' UTR of some mRNAs. Similar proteins in Xenopus and mouse function to induce cytoplasmic polyadenylation of dormant mRNAs with short polyA tails, resulting in their translation. Members of this protein family regulate translation of cyclin B1 during embryonic cell divisions. Multiple transcript variants encoding different isoforms have been found for this gene. |
| Product Categories/Family for anti-CPEB1 antibody   | Neuroscience                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| References                                          | Glahder, J.A., et al. Virus Res. 149(2):217-223(2010)<br>Crowther-Swanepoel, D., et al. Nat. Genet. 42(2):132-136(2010)<br>Hansen, C.N., et al. APMIS 117(1):53-59(2009)<br>Ernoul-Lange, M., et al. Mol. Biol. Cell 20(1):176-187(2009)<br>Burns, D.M., et al. Genes Dev. 22(24):3449-3460(2008)                                                                                                                                                                                                                                                                            |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| NCBI GI #                        | 119395718                                                       |
| NCBI GeneID                      | 64506                                                           |
| NCBI Accession #                 | NP_001073001.1; NP_001073002.1; NP_001073003.1; NP_085097.3     |
| NCBI GenBank Nucleotide #        | NM_001079533.1                                                  |
| UniProt Accession #              | Q9BZB8; Q86W46; Q8IV41; Q9BZB7; Q9H8V5; B7Z6C6                  |
| Molecular Weight                 | 62595                                                           |
| NCBI Official Full Name          | cytoplasmic polyadenylation element-binding protein 1 isoform 2 |
| NCBI Official Synonym Full Names | cytoplasmic polyadenylation element binding protein 1           |
| NCBI Official Symbol             | CPEB1                                                           |
| NCBI Official Synonym Symbols    | CPEB; CPEB-1; h-CPEB; CPE-BP1; hCPEB-1                          |
| NCBI Protein Information         | cytoplasmic polyadenylation element-binding protein 1           |
| UniProt Protein Name             | Cytoplasmic polyadenylation element-binding protein 1           |
| UniProt Gene Name                | CPEB1                                                           |

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| UniProt Synonym Gene Names | CPEB; CPE-BP1; CPE-binding protein 1; h-CPEB; hCPEB-1 |
| UniProt Entry Name         | CPEB1_HUMAN                                           |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/cpeb1-antibody-western-blot-elisa/289532>