

**Anti-4EBP1 Antibody**  
**Rabbit polyclonal antibody to 4EBP1**  
**Catalog # AP60276****Specification**

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**Anti-4EBP1 Antibody - Product Information**

Application	WB, IF/IC, IHC
Primary Accession	<a href="#">Q13541</a>
Other Accession	<a href="#">Q60876</a>
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	12580

**Anti-4EBP1 Antibody - Additional Information****Gene ID** 1978**Other Names**

Eukaryotic translation initiation factor 4E-binding protein 1; 4E-BP1; eIF4E-binding protein 1;  
Phosphorylated heat- and acid-stable protein regulated by insulin 1; PHAS-I

**Target/Specificity**

Recognizes endogenous levels of 4EBP1 protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

IF/IC~~N/A

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-4EBP1 Antibody - Protein Information****Name** EIF4EBP1**Function**

Repressor of translation initiation that regulates EIF4E activity by preventing its assembly into the eIF4F complex: hypophosphorylated form competes with EIF4G1/EIF4G3 and strongly binds to EIF4E, leading to repress translation. In contrast, hyperphosphorylated form dissociates from EIF4E, allowing interaction between EIF4G1/EIF4G3 and EIF4E, leading to initiation of translation. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase and mTORC1 pathways.

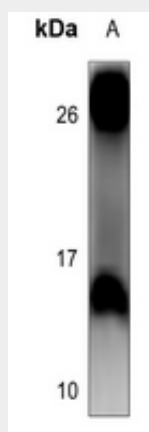
**Cellular Location**

Cytoplasm. Nucleus. Note=Localization to the nucleus is unaffected by phosphorylation status.  
{ECO:0000250|UniProtKB:Q60876}

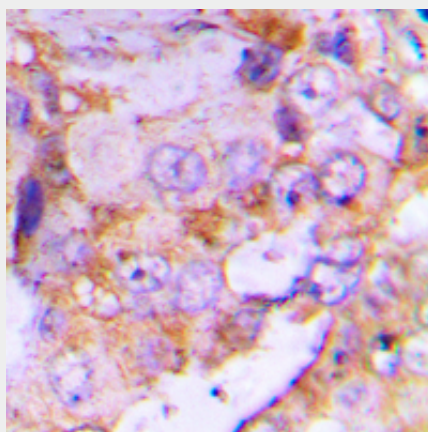
**Anti-4EBP1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

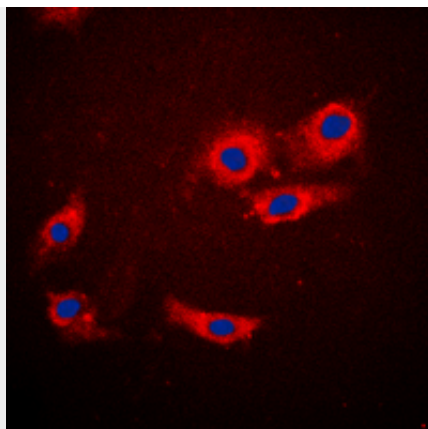
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-4EBP1 Antibody - Images**

Western blot analysis of 4EBP1 expression in HEK293T (A) whole cell lysates.



Immunohistochemical analysis of 4EBP1 staining in human lung cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of 4EBP1 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

#### **Anti-4EBP1 Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human 4EBP1. The exact sequence is proprietary.