

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

Specification

Anti-4EBP1 Antibody - Product Information

Application	WB, IF
Primary Accession	O13541
Other Accession	Q60876
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~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)

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

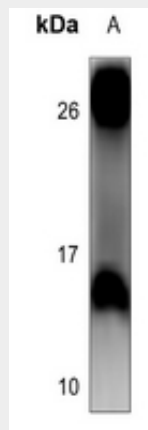
Cytoplasm. Nucleus. Note=Localization to the nucleus is unaffected by phosphorylation status.
{ECO:0000250|UniProtKB:Q60876}

Anti-4EBP1 Antibody - Protocols

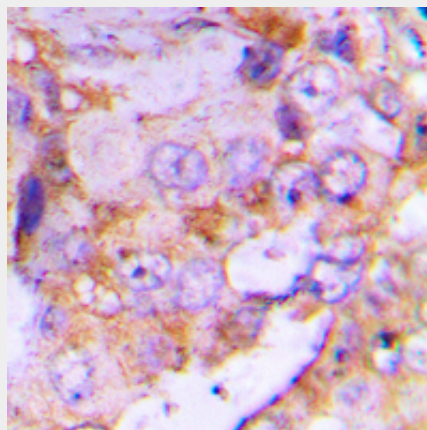
Provided below are standard protocols that you may find useful for product applications.

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

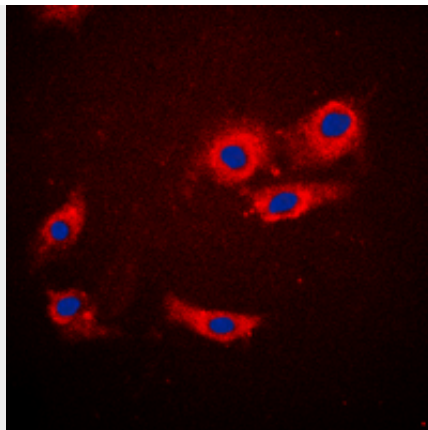
Anti-4EBP1 Antibody - Images



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.