

Product datasheet for **TA306222**

EIF4EBP1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 2.5 - 10 ug/mL, ICC: 2 ug/mL
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	4E-BP1 antibody was raised against a 14 amino acid peptide from near the carboxy-terminus of human 4E-BP1.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	eukaryotic translation initiation factor 4E binding protein 1
Database Link:	NP_004086 Entrez Gene 13685 Mouse Entrez Gene 1978 Human Q13541



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Background:

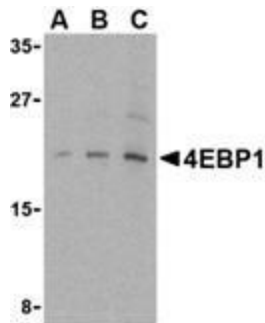
The translation of mRNA in eukaryotic cells is regulated by the presence of amino acids through multiple mechanisms (reviewed in 1). One such mechanism involves the evolutionarily conserved serine/threonine kinase TOR (Target of rapamycin, also known as mTOR), which regulates cell growth and cell cycle through its ability to integrate signals from nutrient levels and growth factors (reviewed in 2). One downstream target of TOR is the eukaryotic initiation factor 4E binding protein 1 (4E-BP1) whose phosphorylation prevents its association with eIF4E, preferentially stimulating translation of mRNAs containing long, highly structured 5'-UTRs (1). Rapamycin inhibits TOR resulting in reduced cell growth and reduced rates of cell cycle and cell proliferation (reviewed in 3), at least in part by inhibiting the activity of TOR towards 4E-BP1.

Synonyms:

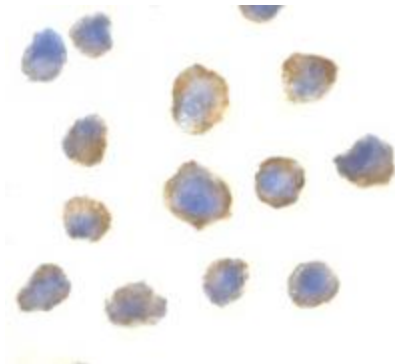
4E-BP1; 4EBP1; BP-1; PHAS-I

Protein Pathways:

Acute myeloid leukemia, ErbB signaling pathway, Insulin signaling pathway, mTOR signaling pathway

Product images:

Western blot analysis of 4E-BP1 in 3T3 cell lysate with 4E-BP1 antibody at (A) 2.5, (B) 5 and (C) 10 ug/mL.



Immunocytochemistry of 4E-BP1 in 3T3 cells with 4E-BP1 antibody at 2 ug/mL.