

AP22919PU-N

Polyclonal Antibody to 4E-BP2 (99-120) - Purified

Alternate names:	EIF4EBP2, Eukaryotic translation initiation factor 4E-binding protein 2, eIF4E-binding protein 2
Quantity:	50 µg
Concentration:	1 mg/ml
Background:	PHAS-II, also known as eIF4E-binding protein II (eIF4E-BPII), is a member of a family of proteins which regulate initiation. PHAS-I and -II were found to have overlapping but different patterns of expression in tissues. PHAS-II shows the highest expression in liver and kidney where very little PHAS-I is found. The PHAS proteins regulate translation initiation by binding to the inhibitory protein eIF- 4E and blocking translation by preventing access of eIF-4G to the 5' cap of the mRNA. Both PHAS proteins are phosphorylated in response to insulin or growth factors such as EGF, PDGF and IGF-1. Phosphorylation in the appropriate site(s) promotes dissociation of PHAS/eIF-4E complexes which allows eIF-4E to bind eIF-4G(p220), thereby increasing the amount of eIF-4F complex and the rate of translation initiation. Regulation of the two protein differ because PHAS-II, unlike PHAS-I is readily phosphorylated by PKA in vitro. However increasing cAMP in cells promotes dephosphorylation of both PHAS-I and PHAS-II. Pharmacological and genetic evidence indicates that the mTOR/p70S6K pathway is involved in the control of PHAS-I and -II suggesting that these proteins may be mediators of the effects of this pathway on protein synthesis and cell proliferation.
Uniprot ID:	Q13542
NCBI:	NP_004087
GeneID:	1979
Host:	Rabbit
Immunogen:	EIF4EBP2 antibody was raised against human PHAS-II synthetic peptide (residues 99-120) was synthesized and the peptide coupled to KLH. Remarks: This sequence is 96% homologous to mouse PHAS-11 over these residues
Format:	State: Liquid purified Ig fraction Purification: Immunoaffinity Chromatography Buffer System: BBS, pH 8.4 (25 mM sodium borate, 100 mM boric acid, 75 mM sodium chloride, 5 mM EDTA)
Applications:	Immunohistochemistry on Paraffin Sections: 10 µg/ml. Western Blot: 4 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	Detects 17 and 20 kD proteins, corresponding to the apparent molecular mass of PHAS-II and its phosphorylated state on SDS-PAGE immunoblots.
Species Reactivity:	Tested: Human. Expected from sequence similarity: Bovine, Canine, Porcine, Mouse and Rat.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Pictures: Pancreas, Human: Formalin-Fixed, Paraffin-Embedded (FFPE)

