

Product datasheet for **AP22919PU-N**

EIF4EBP2 (99-120) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Immunohistochemistry on Paraffin Sections: 10 µg/ml. Western Blot: 4 µg/ml.
Reactivity:	Human, Bovine, Canine, Mouse, Porcine, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	EIF4EBP2 antibody was raised against human PHAS-II synthetic peptide (residues 99-120) was synthesized and the peptide coupled to KLH.
Specificity:	Detects 17 and 20 kD proteins, corresponding to the apparent molecular mass of PHAS-II and its phosphorylated state on SDS-PAGE immunoblots.
Formulation:	BBS, pH 8.4 (25 mM sodium borate, 100 mM boric acid, 75 mM sodium chloride, 5 mM EDTA) State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
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.
Stability:	Shelf life: one year from despatch.
Gene Name:	eukaryotic translation initiation factor 4E binding protein 2
Database Link:	<u>Entrez Gene 13688 Mouse</u> <u>Entrez Gene 361845 Rat</u> <u>Entrez Gene 1979 Human Q13542</u>



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Background:

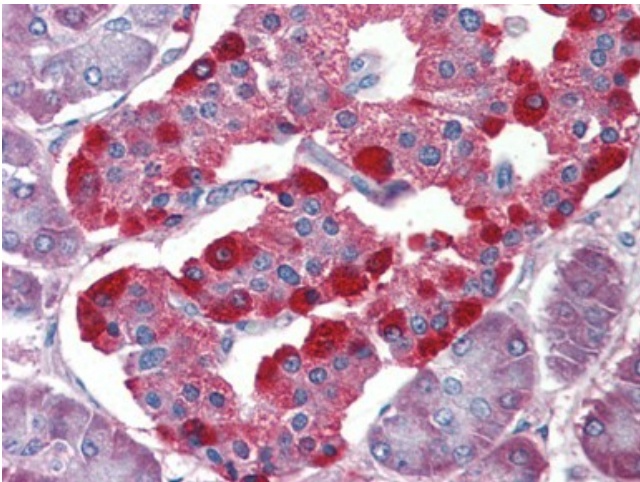
PHAS-II, also known as eIF4E-binding protein II (eIF4E-BPII), is a member of a family of proteins which regulate initiation. PHAS-I and -II were found to have overlapping but different patterns of expression in tissues. PHAS-II shows the highest expression in liver and kidney where very little PHAS-I 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.

Synonyms:

EIF4EBP2, eIF4E-binding protein 2

Protein Families:

Transcription Factors

Product images:

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