



4E-BP1 Monoclonal Antibody

Catalog No	YP-Ab-03378
Isotype	IgG
Reactivity	Human
Applications	WB;IHC;IF;ELISA
Gene Name	EIF4EBP1
Protein Name	Eukaryotic translation initiation factor 4E-binding protein 1
Immunogen	Purified recombinant fragment of 4E-BP1 expressed in E. Coli.
Specificity	4E-BP1 Monoclonal Antibody detects endogenous levels of 4E-BP1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	WB: 1/500 - 1/2000. IHC: 1/200 - 1/1000. ELISA: 1/10000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EIF4EBP1; 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
Observed Band	
Cell Pathway	nucleoplasm,cytoplasm,cytosol,protein complex,
Tissue Specificity	Colon,Epithelium,Lung,Placenta,Platelet,
Function	function:Regulates eIF4E activity by preventing its assembly into the eIF4F complex. Mediates the regulation of protein translation by hormones, growth factors and other stimuli that signal through the MAP kinase pathway.,PTM:Phosphorylated on serine and threonine residues in response to insulin, EGF and PDGF. Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the eIF4E-binding protein family.,subunit:Nonphosphorylated EIF4EBP1 competes with EIF4G1/EIF4G3 to interact with EIF4E; insulin stimulated MAP-kinase (MAPK1 and MAPK3) phosphorylation of EIF4EBP1 causes dissociation of the complex allowing EIF4G1/EIF4G3 to bind and consequent initiation of translation. Rapamycin can attenuate insulin stimulation, mediated by FKBP.,
Background	eukaryotic translation initiation factor 4E binding protein 1(EIF4EBP1) Homo sapiens This gene encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor



4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this protein with eIF4E inhibits complex assembly and represses translation. This protein is phosphorylated in response to various signals including UV irradiation and insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation. [provided by RefSeq, Jul 2008],

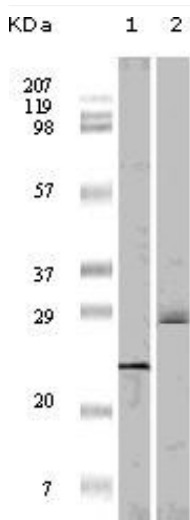
matters needing attention

Avoid repeated freezing and thawing!

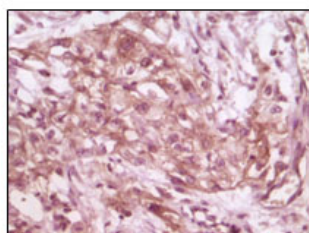
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

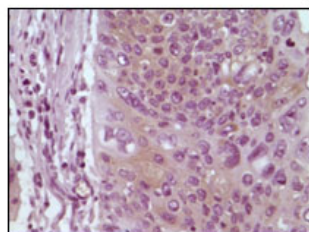
Products Images



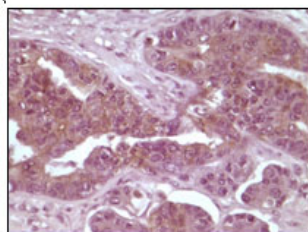
Western Blot analysis using 4E-BP1 Monoclonal Antibody against truncated 4E-BP1 recombinant protein (1) and A431 cell lysate (2).



A



B



C

Immunohistochemistry analysis of paraffin-embedded human pancreas carcinoma (A), esophagus carcinoma tissue (B) and ovary tumor tissue (C), showing cytoplasmic and membrane localization with DAB staining using 4E-BP1 Monoclonal Antibody.