

4E-BP1 Monoclonal Antibody

Catalog No :	YM0002
Reactivity :	Human
Applications :	WB;IHC;IF;ELISA
Target :	4E-BP1
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>ErbB signaling pathway;>>HIF-1 signaling pathway;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Cellular senescence;>>Insulin signaling pathway;>>Human cytomegalovirus infection;>>Human papillomavirus infection;>>Herpes simplex virus 1 infection;>>Chemical carcinogenesis - receptor activation;>>Acute myeloid leukemia;>>Choline metabolism in cancer
Gene Name :	EIF4EBP1
Protein Name :	Eukaryotic translation initiation factor 4E-binding protein 1
Human Gene Id :	1978
Human Swiss Prot No :	Q13541
Mouse Swiss Prot No :	Q60876
Immunogen :	Purified recombinant fragment of 4E-BP1 expressed in E. Coli.
Specificity :	4E-BP1 Monoclonal Antibody detects endogenous levels of 4E-BP1 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. ELISA: 1:10000.. IF 1:50-200
Purification :	Affinity purification

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 13kD

Cell Pathway : Regulates Angiogenesis; Insulin Receptor; mTOR; ErbB/HER; PI3K/Akt; AMPK

P References : 1. Pause, A. et al. 1994.Nature. 371:762–767.
2. Fadden, P. et al. 1997. J. Biol. Chem. 272:10240–10247.

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],

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.,

Subcellular Location : nucleoplasm,cytoplasm,cytosol,protein complex,

Expression : Colon,Epithelium,Lung,Placenta,Platelet,

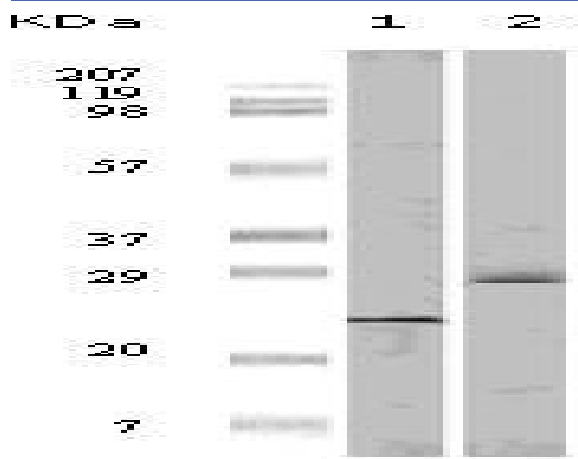
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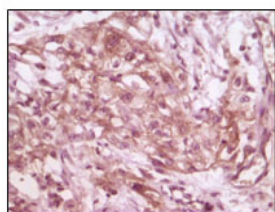
Host : Mouse

Modifications : Unmodified

Products Images



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



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.

