



4E-BP1 Rabbit mAb

Catalog No	YP-rAb-17737
Isotype	IgG
Reactivity	Human,Mouse,Rat,Sheep
Applications	WB,IHC,IF,IP,ELISA
Gene Name	EIF4EBP1
Protein Name	Eukaryotic translation initiation factor 4E-binding protein 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	4E-BP1;Eukaryotic translation initiation factor 4E-binding protein 1;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;EIF4EBP1
Observed Band	15-20kD
Calculated Molecular Weight	13kD
Cell Pathway	Nucleus
Tissue Specificity	Colon,Epithelium,Lung,Placenta,Platelet,
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

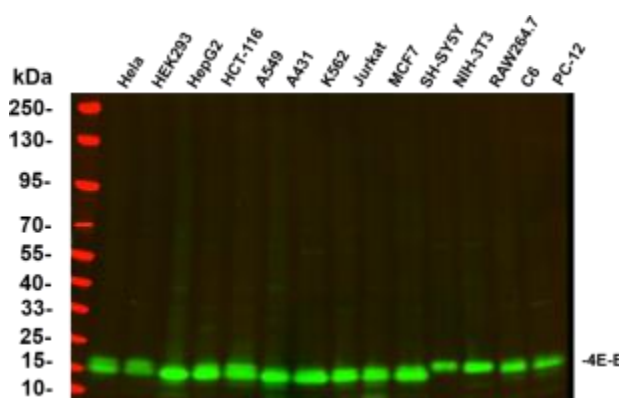
This gene encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor 4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this 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

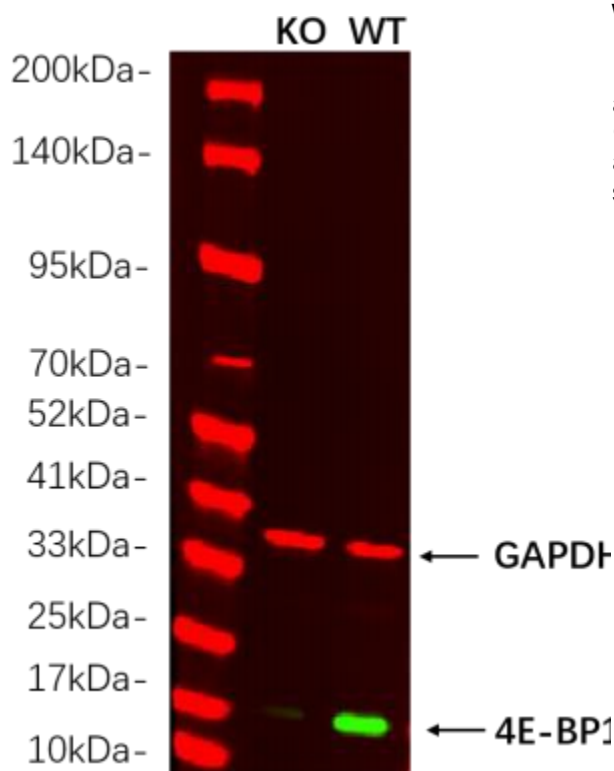
Avoid repeated freezing and thawing!

Usage suggestions

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

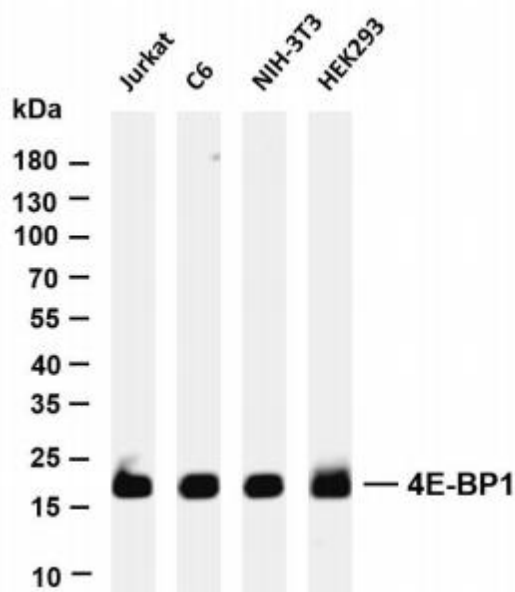


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody

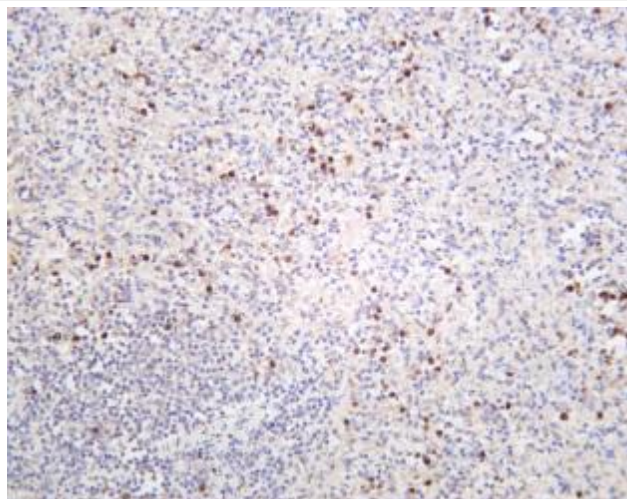


Western blot analysis of lysates from HAP1 WT and knockout cell. (Green) primary antibody was diluted at 1:5000, 4 ° over night, Dylight 800 secondary antibody was diluted at 1:10000, 37 ° 1hour. (Red) GAPDH Monoclonal Antibody(5B7) antibody was diluted at 1:5000 as loading control, 4 ° over night, Dylight 680 secondary antibody was diluted at 1:10000, 37 ° 1hour.





Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-4E-BP1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Jurkat Lane 2: C6 Lane 3: NIH-3T3 Lane 4: HEK293 Predicted band size: 13kDa Observed band size: 17kDa



Human spleen was stained with anti-4E-BP1 rabbit antibody





Western blot analysis of lysates from Jurkat cells, treated with Insulin 0.01U/ml 15', using 4E-BP1 Antibody. The lane on the right is blocked with the synthesized peptide.

4E-BP1--



-- 117

-- 85

-- 48

-- 34

-- 26

-- 19

(kD)

