

For Research Use Only

# 4EBP1 Monoclonal antibody

Catalog Number: 60246-1-Ig

Featured Product

62 Publications



## Basic Information

<b>Catalog Number:</b> 60246-1-Ig	<b>GenBank Accession Number:</b> BC004459	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 150ul, Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1978	<b>CloneNo.:</b> 2C3F3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q13541	<b>Recommended Dilutions:</b> WB 1:1000-1:4000 IHC 1:1000-1:4000 IF/ICC 1:20-1:200
<b>Isotype:</b> IgG2b	<b>Full Name:</b> eukaryotic translation initiation factor 4E binding protein 1	
<b>Immunogen Catalog Number:</b> AG18985	<b>Calculated MW:</b> 118 aa, 12 kDa	
	<b>Observed MW:</b> 15-24 kDa	

## Applications

**Tested Applications:**  
WB, IHC, IF/ICC, ELISA

**Cited Applications:**  
WB, IHC, IF

**Species Specificity:**  
human, pig

**Cited Species:**  
human, chicken

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

WB : K-562 cells, HCT 116 cells, K562, NCI-H1299 cells

IHC : human pancreas cancer tissue, human colon cancer tissue

IF/ICC : HeLa cells,

## Background Information

Eukaryotic translation initiation factor 4E-binding protein 1(4EBP1), is a member of 4EBPs family, which regulate the translation of a subset of mRNA by competing with eIF4G for binding to eIF4E, thus preventing the assembly of the eIF4F complex. The eIF4F facilitates the recruitment of other translation initiation factors to form the complex and then initiates cap-dependent translation. 4EBP1 also mediates the regulation of protein translation by growth factors, hormones and other stimuli that signal through the MAP kinase and mTORC1 pathways. There are three forms of 4EBP1, alpha, beta and gamma. typical pattern seen on Western blots for phosphorylated heat-acid stabled protein 4EBP1 from rat gastrocnemius muscle. Three distinct bands are noted, with the most rapidly migrating band having an apparent molecular mass of ; 20 kDa and the slowest migrating band of; 24 kDa. The 3 bands are designated by convention as alpha, beta and gamma. (PMID: 10913029)

## Notable Publications

Author	Pubmed ID	Journal	Application
Cefan Zhou	32972302	Autophagy	WB
Minfen Zhang	34520393	Aging (Albany NY)	WB
Hai-Feng Wang	30218751	Gene	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

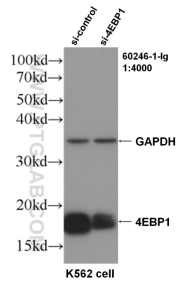
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

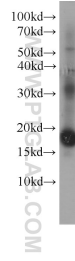
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

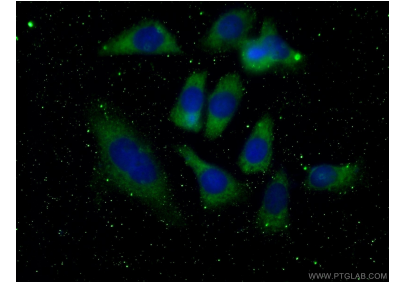
## Selected Validation Data



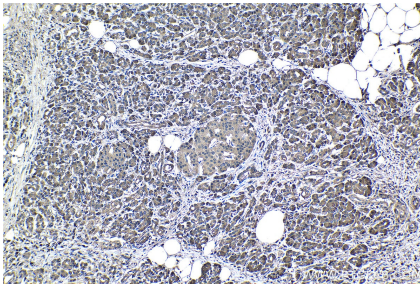
WB result of 4EBP1 antibody (60246-1-Ig, 1:4000) with si-Control and si-4EBP1 transfected K562 cells.



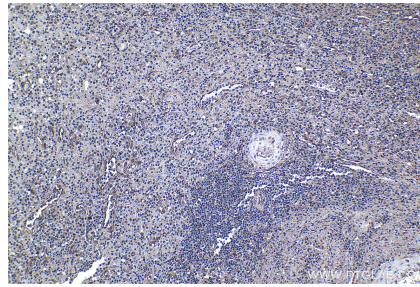
K-562 cells were subjected to SDS PAGE followed by western blot with 60246-1-Ig (4EBP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



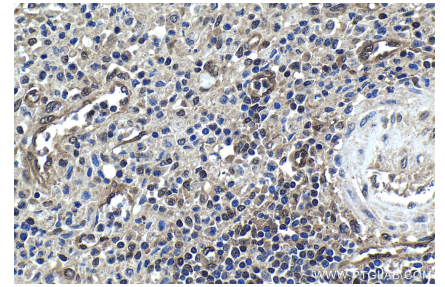
Immunofluorescent analysis of (-20°C Ethanol ) fixed HeLa cells using 60246-1-Ig(4EBP1 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 60246-1-Ig (4EBP1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60246-1-Ig (4EBP1 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60246-1-Ig (4EBP1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).