

For Research Use Only

# 4EBP1 Monoclonal antibody

Catalog Number: 60246-1-Ig

Featured Product

62 Publications



## Basic Information

Catalog Number:

60246-1-Ig

Concentration:

1000 ug/ml

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG18985

GenBank Accession Number:

BC004459

GeneID (NCBI):

1978

UNIPROT ID:

Q13541

Full Name:

eukaryotic translation initiation factor 4E binding protein 1

Calculated MW:

118 aa, 12 kDa

Observed MW:

15-24 kDa

Purification Method:

Protein A purification

CloneNo.:

2C3F3

Recommended Dilutions:

WB 1:1000-1:4000

IHC 1:1000-1:4000

IF/ICC 1:20-1:200

## 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

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

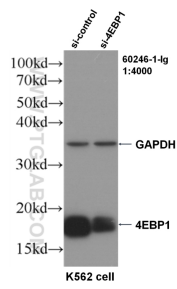
T: 4006900926

E: Proteintech-CN@ptglab.com

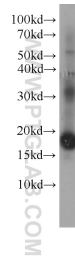
W: ptgcn.com

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

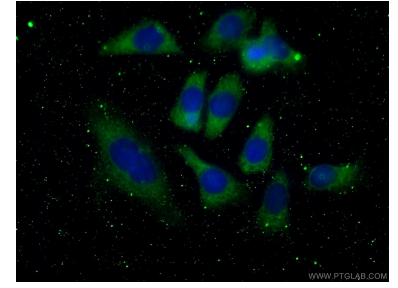
## Selected Validation Data



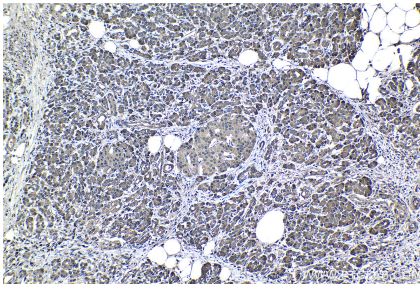
WB result of 4EBP1 antibody (60246-1-Ig, 1:4000) with si-Control and si-4EBP1 transfected K562 cells.



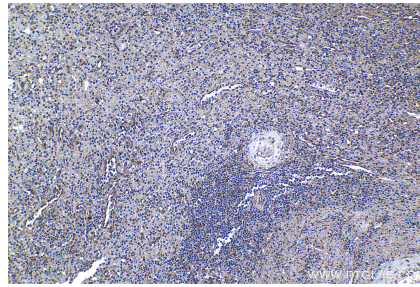
K-562 cells were subjected to SDS PAGE followed by western blot with 60246-1-Ig (4EBP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



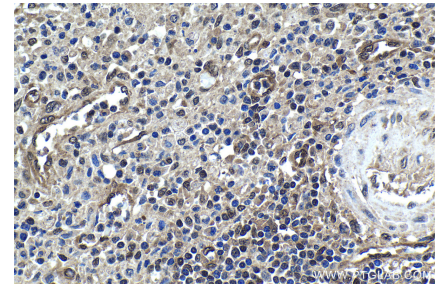
Immunofluorescent analysis of (-20°C Ethanol ) fixed HeLa cells using 60246-1-Ig(4EBP1 antibody) at dilution of 1:100 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



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).