

Basic Information

Product Name	Anti-4EBP1/EIF4EBP1 Antibody
Gene Name	EIF4EBP1
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human EIF4EBP1, which shares 75% and 81.2% amino acid (aa) sequence identity with mouse and rat EIF4EBP1, respectively.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	17 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200

Storage

12 months from date of receipt, -20°C as supplied.

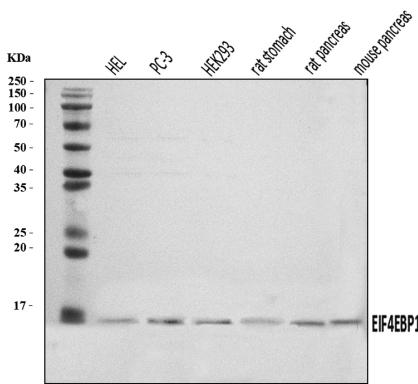
Background Information

Eukaryotic translation initiation factor 4E-binding protein 1 (also known as 4E-BP1) is a protein that in humans is encoded by the EIF4EBP1 gene. 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.

Reference

Anti-4EBP1/EIF4EBP1 Antibody被引用在4文献中。

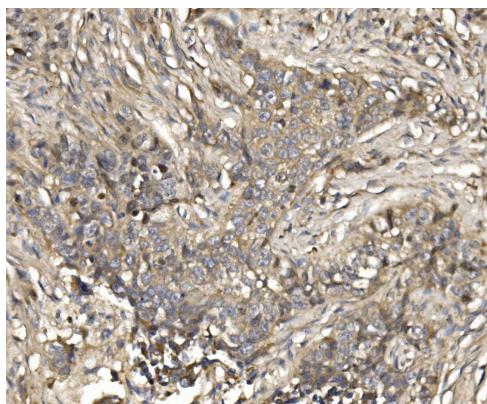
Selected Validation Data



Western blot analysis of 4EBP1/EIF4EBP1 using anti-4EBP1/EIF4EBP1 antibody (A00968-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

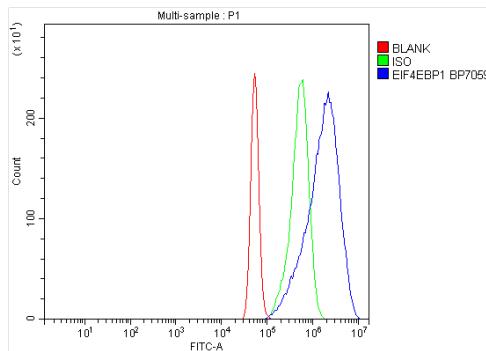
Lane 1: HEL whole cell lysates,
Lane 2: PC-3 whole cell lysates,
Lane 3: HEK293 whole cell lysates,
Lane 4: rat stomach tissue lysates,
Lane 5: rat pancreas tissue lysates,
Lane 6: mouse pancreas tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-4EBP1/EIF4EBP1 antigen affinity purified polyclonal antibody (A00968-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for 4EBP1/EIF4EBP1 at approximately 17 kDa. The expected band size for 4EBP1/EIF4EBP1 is at 13 kDa.



IHC analysis of 4EBP1/EIF4EBP1 using anti-4EBP1/EIF4EBP1 antibody (A00968-1).

4EBP1/EIF4EBP1 was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-4EBP1/EIF4EBP1 Antibody (A00968-1) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of A431 cells using anti-4EBP1/EIF4EBP1 antibody (A00968-1).

Overlay histogram showing A431 cells stained with A00968-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-4EBP1/EIF4EBP1 Antibody (A00968-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.