



## Mouse anti 4E-BP1 Monoclonal Antibody

Alternative Name(s): nan

### Order Information

- **Description:** 4E-BP1
- **Catalogue:** 604-010
- **Lot:** See label
- **Size:** 100ug/200ul
- **Host:** Mouse
- **Clone:** 554R16
- **Application:** IHC(P), WB
- **Reactivity:** Hu, Ms

### **ANTIGEN PREPARATION**

A recombinant protein of full length human 4E-BP1

### **BACKGROUND**

4E-BP1 eukaryotic initiation factor 4E binding protein 1 is a member of a family of translation repressor proteins. It inhibits cap-dependent translation by binding to the translation initiation factor eIF4E. In the unphosphorylated form, it suppresses the translation initiation of capped mRNAs, whereas in phosphorylated form, it increases translation initiation. Several kinases phosphorylate 4E-BP1 dependent or independent of mTOR, indicating that mTOR may not be the only kinase that phosphorylates 4E-BP1. It is a multi-functional protein, in addition to translation repression, under certain cellular conditions it may also play a role as a tumor promoter. The protein is involved in tumorigenesis and is overexpressed in various carcinomas.

### **PURIFICATION**

The mouse IgG is purified by Protein A-Affinity Chromatography according to Isotyping

### **FORMULATION**

This affinity purified antibody is supplied in sterile Phosphatebuffered saline (pH7.2) containing antibody stabilizer

### **SPECIFICITY**

This antibody recognizes human 4E-BP1 protein. The other species are not tested.

### **STORAGE**

The antibodies are stable for 24 months from date of receipt when stored at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . The antibodies can be stored at  $2^{\circ}\text{C}$ - $8^{\circ}\text{C}$  for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

### **APPLICATIONS/SUGGESTED WORKING DILUTIONS\***

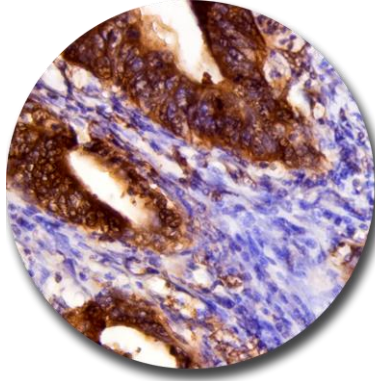
- Western Blot: 0.1-1  $\mu\text{g/ml}$
- ELISA: 0.01-0.1  $\mu\text{g/ml}$
- Immunoprecipitation: 2-5  $\mu\text{g/ml}$
- IHC: 2-10  $\mu\text{g/ml}$
- Flow cytometry: Not tested
- Molecular Weight: 13.0
- Positive Control: Kidney Tissue
- Cellular Location: Cell Membrane

\*Optimal dilutions should be determined by researchers for the specific applications.

### **FOR RESEARCH USE ONLY.**

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**DATA ATTACHMENTS**



Immunohistochemistry: Human colon carcinoma (FFPE) stained with Mouse anti-4EBP1 (Cat# 604-010) at 1:200 for 10 min @ RT. Staining of formalin-fixed tissue requires boiling tissue sections in 10 mM Citrate Buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min.

**REFERENCES**

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