

**Mouse Anti-eIF4E [A10]: MC0415, MC0415RTU7**

**Intended Use:** For Research Use Only

**Description:** Eukaryotic initiation factor 4E (eIF-4E), a 25-kDa cap binding protein, delivers cellular mRNAs to the eIF4F translation initiation complex by binding the 5'-cap structure of these mRNAs. Studies suggested that increased expression and activity of eIF-4E might be one of the key effects on oncogene expression, resulting in neoplastic transformation. eIF-4E is overexpressed in many types of cancers, including carcinoma of the breast, colon, bladder, cervix, lung, and squamous cell carcinoma of the head and neck. Increased expression of eIF-4E has been associated with tumor progression in breast cancer, prostate cancer, and acute myeloid leukemia (AML). High expression of eIF4E is associated with adverse tumor characteristics and predicts poor breast cancer-specific survival.

"

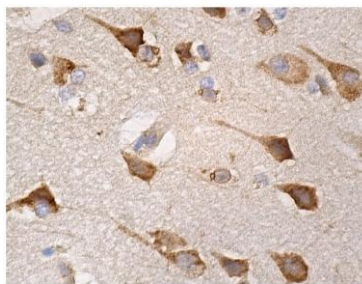
**Specifications:**

Clone: A10  
Source: Mouse  
Isotype: IgG2b/k  
Reactivity: Human, mouse, rat  
Immunogen: human eIF4E aa 1-217  
Localization: Cytoplasm  
Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
Storage: Store at 2°- 8°C  
Applications: IHC, Flow Cyt., ICC/IF, IP, WB  
Package:

Description	Catalog No.	Size
eIF4E Concentrated	MC0415	1 ml
eIF4E Prediluted	MC0415RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Breast cancer  
Concentrated Dilution: 50-200  
Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
Incubation Time and Temp: 30-60 minutes @ RT  
Detection: Refer to the detection system manual  
\* Result should be confirmed by an established diagnostic procedure.



FFPE human brain stained with anti- eIF4E using DAB

**References:**

1. Cap-proximal nucleotides via differential eIF4E binding and alternative promoter usage mediate translational response to energy stress. Tamarkin-Ben-Harush A, et al. Elife 6:N/A, 2017.
2. Phosphorylation of the cap-binding protein eukaryotic translation initiation factor 4E by protein kinase Mnk1 in vivo. A J Waskiewicz, et al. Mol Cell Biol.19(3):1871-80. 1999.