

<b>Cat. No:</b>	ABP-0031
<b>Conjugate:</b>	Unconjugated
<b>Size:</b>	100 ug
<b>Clone:</b>	Poly
<b>Concentration:</b>	1mg/ml
<b>Host:</b>	Rb
<b>Isotype:</b>	IgG
<b>Reactivity:</b>	Hu, Ms, Rt
<b>Applications:</b>	WB: 1:1000
<b>Molecular Weight:</b>	15-20 kDa

**Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to the sequence of rat 4E-BP1. Antibodies are purified by protein A and peptide affinity chromatography.

**Background:** Translation repressor protein 4E-BP1 (also known as PHAS-1) inhibits cap-dependent translation by binding to the translation initiation factor eIF4E. Hyperphosphorylation of 4E-BP1 disrupts this interaction and results in activation of cap-dependent translation (1). Both the PI3 kinase/Akt pathway and FRAP/mTOR kinase regulate 4E-BP1 activity (2,3). Multiple 4E-BP1 residues are phosphorylated in vivo (4). While phosphorylation by FRAP/mTOR at Thr37 and Thr46 does not prevent the binding of 4E-BP1 to eIF4E, it is thought to prime 4E-BP1 for subsequent phosphorylation at Ser65 and Thr70 (5). Phospho-4E-BP1 (Thr70) Antibody detects endogenous levels of 4E-BP1 only when phosphorylated at threonine 70. This antibody does not detect 4E-BP1 phosphorylated at other sites.

<b>Form:</b>	liquid
<b>Buffer:</b>	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
<b>Storage:</b>	Store at -20°C. Avoid freeze / thaw cycles.

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