

Product Data Sheet: Phospho-EIF4EBP1 (T37/46)

Cat. No: MAB-94214

Conjugate: Unconjugated

Size: 100 ug Clone: 236B4 **Concentration:** 1mg/ml Host: Rb

Isotype:

Background:

Reactivity: Hu, Ms, Rt WB 1:1000 **Applications: Molecular Weight:** 15-20 kDa

IgG

: Monoclonal antibody is produced by immunizing animals with a synthetic **Purification:**

phosphopeptide corresponding to residues surrounding Thr37 and Thr46 of

mouse 4E-BP1 protein.

Translation repressor protein 4E-BP1 (also known as PHAS-1) inhibits capdependent 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 (Thr37/46) (236B4) Rabbit mAb detects endogenous levels of 4E-BP1 only when

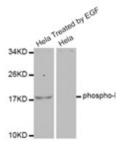
phosphorylated at Thr37 and/or Thr46. This antibody may cross-react with 4E-BP2 and 4E-BP3 when phosphorylated at equivalent sites. Non-specific staining has

been observed in mitotic cells by immunofluorescence.

Form: liquid

Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Store at -20°C. Avoid freeze / thaw cycles. **Storage:**



Western blot analysis on Hela cells using Phospho-4E-BP1 (Thr37/46) (236B4) monoclonal antibody



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References

(1) Pause, A. et al. (1994) Nature 371, 762-7. (2) Brunn, G.J. et al. (1997) Science 277, 99-101. (3) Gingras, A.C. et al. (1998) Genes Dev 12, 502-13. (4) Fadden, P. et al. (1997) J Biol Chem 272, 10240-7. (5) Gingras, A.C. et al. (1999) Genes Dev 13, 1422-37..

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