

Store at  
4°C

# 4E-BP1 (53H11) Rabbit mAb (PE Conjugate)

#34470

Cell Signaling  
TECHNOLOGY®Support: +1-978-867-2388 (U.S.)  
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orders@cellsignal.comEntrez-Gene ID #1978  
UniProt ID #Q13541

New 02/16

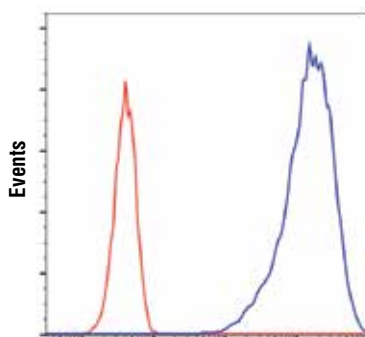
**For Research Use Only. Not For Use In Diagnostic Procedures.****Applications**  
F  
Endogenous**Species Cross-Reactivity\***  
H, M, R, Mk**Isotype**  
Rabbit IgG

**Description:** This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated 4E-BP1 (53H11) Rabbit mAb #9644.

**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).

**Specificity/Sensitivity:** 4E-BP1 (53H11) Rabbit mAb (PE Conjugate) detects endogenous levels of total 4E-BP1 protein.

**Source/Purification:** 4E-BP1 (53H11) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to residues surrounding Ser112 of human 4E-BP1.



Flow cytometric analysis of 293T cells using 4E-BP1 (53H11) Rabbit mAb (PE Conjugate) (blue) compared to concentration-matched Rabbit (DA1E) mAb IgG XP® Isotype Control (PE Conjugate) #5742 (red).

**Storage:** Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. *Do not freeze.*

**\*Species cross-reactivity is determined by western blot using the unconjugated antibody.**

**Recommended Antibody Dilutions:**

Flow Cytometry

1:50

**For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com)**

**Background 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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**Applications:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected \*Species enclosed in parentheses are predicted to react based on 100% homology.