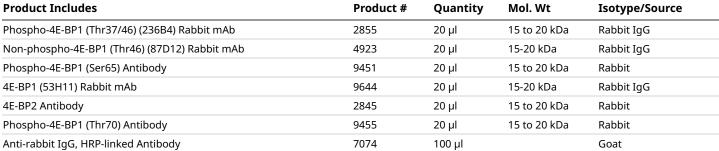
Revision			
4E-BP Antibody Sampler Kit			Orde
1 Kit (6 x 20 microliters)			Supp Web:
For Research Use Only. Not for Use in Diagnostic Procedures.		3 Trask Lane	e   Danvers
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Product Includes	Product #	Quantity	Mol. Wt
Phospho-4E-BP1 (Thr37/46) (236B4) Rabbit mAb	2855	20 µl	15 to 20



Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description	The 4E-BP Antibody Sampler Kit provides an economical means to investigate regulation of cap- dependent translation within the cell. The kit contains primary and secondary antibodies to perform two Western blots with each antibody.
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.
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 <i>in vivo</i> (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). 4E-BP2 and 4E-BP3 share high sequence homology with 4E-BP1, including conservation of the major FRAP/mTOR-dependent phosphorylation sites. Preliminary data suggests that phosphorylation of 4E-BP2 is regulated in a similar manner to that of 4E-BP1, although phosphorylation of this protein has not been as extensively studied (6).
Background References	1. Pause, A. et al. (1994) <i>Nature</i> 371, 762-7. 2. Brunn, G.J. et al. (1997) <i>Science</i> 277, 99-101. 3. Gingras, A.C. et al. (1998) <i>Genes Dev</i> 12, 502-13. 4. Fadden, P. et al. (1997) <i>J Biol Chem</i> 272, 10240-7. 5. Gingras, A.C. et al. (1999) <i>Genes Dev</i> 13, 1422-37. 6. Lin, T.A. and Lawrence, J.C. (1996) <i>J. Biol. Chem.</i> 271, 30199-30204.
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