

Phospho-eEF2k (Ser366) Antibody

✓ 100 µl
(10 western blots)

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rev. 03/18/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #29904
Swiss-Prot Acc. #O00418

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, R, Mk	105 kDa	Rabbit**

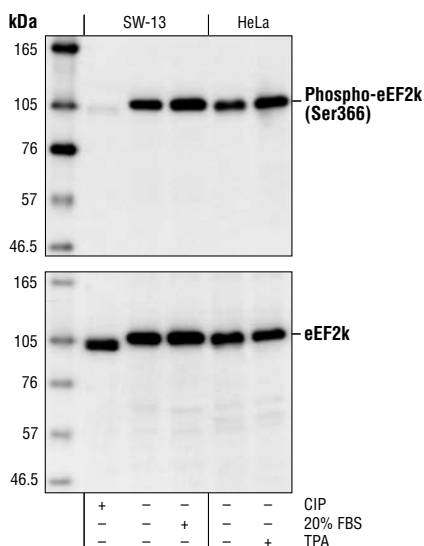
Background: Eukaryotic elongation factor 2 kinase (eEF2k) phosphorylates and inactivates eEF2, resulting in the inhibition of peptide-chain elongation (1). eEF2k is normally dependent on Ca²⁺ ions and calmodulin (2,3). It can be activated by PKA in response to elevated cAMP levels (4-6), which are generally increased in stress- or starvation-related conditions. eEF2k can also be regulated in response to a wide range of stimuli that promote cell growth and protein synthesis. This involves the phosphorylation of eEF2k by p90RSK and p70 S6 kinase at Ser366 or by SAPK4/p38δ at Ser359, leading to the inactivation of eEF2k (7,8), which facilitates the dephosphorylation of eEF2, and thus promotes translation.

Specificity/Sensitivity: Phospho-eEF2k (Ser366) Antibody detects endogenous levels of eEF2k only when phosphorylated at Ser366.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser366 of human eEF2k. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Ryazanov, A.G. et al. (1997) *Proc. Natl. Acad. Sci. USA* 94, 4884-4889.
- Nairn, A.C. et al. (1985) *Proc. Natl. Acad. Sci. USA* 82, 7839-7943.
- Palfrey, H.C. et al. (1987) *J. Biol. Chem.* 262, 9785-9792.
- Redpath, N.T. et al. (1993) *Biochem. J.* 293, 31-34.
- Diggle, T.A. et al. (1998) *Biochem. J.* 336, 525-529.
- Hovland, R. et al. (1999) *FEBS Lett.* 444, 97-101.
- Wang, X. et al. (2001) *EMBO J.* 20, 4370-4379.
- Knebel, A. et al. (2001) *EMBO J.* 20, 4360-4369.



Western blot analysis of extracts from SW-13 cells (starved for 18 hours) treated with calf intestinal alkaline phosphatase (CIP) or 20% fetal bovine serum for 30 minutes, and extracts from HeLa cells (starved for 18 hours) treated with 200 nM TPA for 30 minutes, using Phospho-eEF2k (Ser366) Antibody (upper) or eEF2k Antibody #3692 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

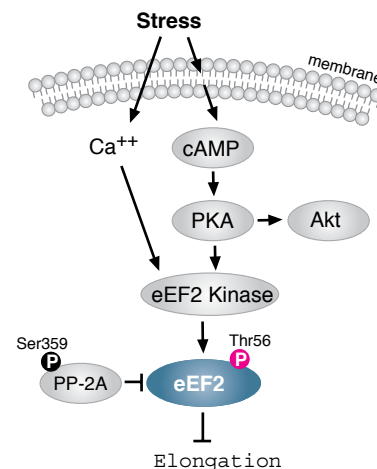
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting 1:1000
Immunoprecipitation 1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.



IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.